

# ***Tamgas* and *tamga*-like signs from Tanais**

## **1 Greeks and Sarmatians in the Northeastern Azov Sea Region**

The site of Tanais is located on the high main bank of the river Mervyy Donets, 30 kilometers west of the modern city of Rostov-on-Don (Map 1). In antiquity, it lay on the main arm of the modern river Don (ancient Tanais), near the influx of the river into the Azov Sea (ancient Maeotis). The ancient city of Tanais was one of the most distant points of Greek colonization in the northeast and probably one of the latest settlements established by the Greeks in this region (Map 2). It was founded in the first quarter of the third century BCE and completely abandoned in the middle of the fifth to the beginning of the sixth centuries CE.

Written sources and archaeological finds, the earliest of which date to the seventh century BCE, indicate that the Greeks were familiar with the territories adjacent to the Azov Sea. A preserved fragment from Pliny the Elder, which, according to Mikhail Rostovtsev, included information going back to Ionian authors, mentions different stages in the colonization of the area around the mouth of the river Tanais:<sup>1</sup> “There is a city also at the mouth of the Tanais. The neighboring country was inhabited first by the Carians, then by the Clazomenii and Maeones, and after them by the Panticapenses” (*Historia Naturalis* 6.7).<sup>2</sup> Look-out points of the Clazomenians, situated on the sea coast, are also mentioned in Strabo’s *Geographica* (11.2.4).

Archaeological material too confirms the presence of early Greek settlers in this area. The excavations on the shores of the Taganrog Bay and in the Don delta revealed a series of important ancient sites—settlements and necropoleis. On the basis of the discovered archaeological material, three distinct periods can be identified in the presence of the Greek settlers in the Northeastern Azov Sea region. The first period, from the last decades of the seventh to the third quarter of the sixth centuries BCE, is associated with the Taganrog Settlement, located in the area of the modern beach near the Kamennaya Lestnitsa in Taganrog (Map 2). Presently, the site is submerged, so that its exact localization and size, as well as the characteristics of the cultural layers, are not known. However, archaeological investigations undertaken in the area led archaeologists to the conclusion that a Greek settlement (an emporion?) must have existed here.<sup>3</sup>

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1 Rostovtsev 1925, 58; Kopylov 2011, 225.

2 Bostock/Riley 1855.

3 Kopylov 2011, 227–32.

The second period is associated with the site of Elizavetovskoe. Scholars agree that the Scythian settlement that existed at this site in the sixth and fifth centuries BCE had continuous trade contacts with Greek merchants. Moreover, starting from the middle of the fourth century BCE, Elizavetovskoe must have been the largest barbarian settlement of an urban type in the steppe zone of the Northern Black Sea region. It was well-fortified and included a Greek quarter.<sup>4</sup> In the first half to the middle of the fourth century BCE, about thirty other barbarian settlements existed in the lower reaches of the Don. At the very end of the fourth century BCE or right at the beginning of the third century BCE, the Elizavetovskoe settlement and the settlements in its immediate surroundings were abandoned by their inhabitants.

At the same time, about the end of the fourth century BCE, the Elizavetovskoe emporion was established in place of the abandoned settlement and continued to trade with the nomads. It soon became the main economic center of the region, having taken over this role from the earlier Scythian settlement. Based on the presently available archaeological data, it must have occupied a rather large territory, which was densely covered by above-ground structures.<sup>5</sup>

The types of imports of the first quarter of the third century BCE discovered in the kurgans of the burial complexes in the steppes east of the Don correspond to the ceramic finds from the Elizavetovskoe emporion.<sup>6</sup> However, according to Iosif B. Brashinskiy, the transit trade via the emporion was relatively low at that time and involved mainly the settlements in the vicinity.<sup>7</sup> This may have been the result of the disappearance in the third century BCE of many of the settlements in the delta and in the area around the mouth of the Don that had existed there in the fourth century BCE.<sup>8</sup> Thus, the Elizavetovskoe emporion must have traded primarily with the Bosphorus,<sup>9</sup> until it ceased to exist about the 280s or 270s BCE, along with many other Greek and barbarian settlements in the Northern Black Sea region.<sup>10</sup>

The third period of the Greek presence in the Northeastern Azov Sea region is associated with the foundation of the settlement of Tanais on the western bank of the Don in the first quarter of the third century BCE. According to Strabo, Tanais “was founded by the Greeks who held the Bosphorus” (Strabo, *Geographica* 11.2.3).<sup>11</sup> For many decades, it remained the only settlement in the Lower Don area. It is likely that about the same time the situation in the steppe was changing as well—the nomadic

<sup>4</sup> Brashinskiy/Marchenko 1980, 212.

<sup>5</sup> Marčenko/Žitnikov/Kopylov 2000, 62–68.

<sup>6</sup> Golovkova/Luk'yashko 1980, 22–23.

<sup>7</sup> Brashinskiy 1980, 8, 48.

<sup>8</sup> At the same time, a few settlements in the lower reaches of the Don still continued to exist in the beginning of the third century BCE (Kopylov/Kovalenko 2013, 253–254).

<sup>9</sup> Knipovich 1949, 9; Zeest 1951, 119; Fedoseev 1999, 21.

<sup>10</sup> Marčenko/Žitnikov/Kopylov 2000, 258; Vinogradov/Marchenko 2014, 147.

<sup>11</sup> Strabo 1924.



population of the Northern Black Sea region and the adjacent territories in the east decreased abruptly or possibly even disappeared altogether.<sup>12</sup> There is still no agreement among scholars on the exact scenario of these events, but the role of early Tanais as an emporion is rather questionable, in any case. During that period, most of the imported products must have been intended for the inhabitants of the city. The trade and the contacts with the steppe population were only revived, to some extent, in the beginning or in the middle of the second century BCE.

The monuments of the so-called Early Sarmatian Culture emerged in the Lower Don area about the beginning of the second century BCE.<sup>13</sup> This date is indirectly confirmed by the construction of the citadel in Tanais—thick walls with towers forming a square. It is noteworthy that twenty percent of the burial complexes of the second and first centuries BCE so far excavated at Tanais revealed weapons.<sup>14</sup> To this period also belongs the first mentioning of the Sarmatian presence in these territories, i.e., an agreement between the Pontic king Pharnaces I and some polities in Asia Minor, dated to 179 BCE (Polybios, *Historiae* 25.2).

At the same time, Tanais grew both in terms of its territory and the size of its population. Life in the steppe revived as well, but there is still no evidence of continuous stable contacts with the nomads, despite the possible emergence of “barbarian” quarters in the city during that time. The presence of imports in the steppe is very low: thus, for example, the ceramic finds in the Lower Don region include two intact Rhodian amphorae, fragments of amphora bodies discovered in the remains of funerary feasts in a few Early Sarmatian complexes, and about a dozen pieces of imported fine ware of the second and first centuries BCE.<sup>15</sup> This is obviously not enough to prove the existence of regular and long-term trade contacts between Tanais and the steppe population. In contrast with the consistent presence of imported ceramic vessels in the layers and complexes of the settlement of Tanais and in the burials of its necropolis dating to the same period, the low numbers of such finds in the steppe indicate that the surroundings of Tanais were not Hellenized to any substantial extent. The situation with other imports is rather similar. In exchange for slaves, hides, and other articles that are hard to trace archaeologically, nomads may have received jewelry, weapons, and “other things that belong to civilized life” (Strabo, *Geographica* 11.2.3).<sup>16</sup> However, while these items are regularly found in the necropolis of Tanais, in the steppe such finds are very infrequent.<sup>17</sup> This too probably indicates that Tanais was the only Greek settlement in the area, with no evidence of the presence of the barbarians among the

<sup>12</sup> Polin 1992, 111; Simonenko 1994, 34–35; Glebov 2002, 194; Glebov 2009a, 10; Vinogradov/Marchenko 2014, 143.

<sup>13</sup> Marčenko/Žitnikov/Kopylov 2000, 62–68.

<sup>14</sup> Glebov/Ilyashenko/Tolochko 2005, 58.

<sup>15</sup> Glebov 2009b, 53–59.

<sup>16</sup> Strabo 1924.

<sup>17</sup> Shelov 1970, 176.

inhabitants of the city. Thus, the Bosporan Greeks must have had a goal other than trade when they established a colony in this place, where “the nomads, being disinclined to intercourse with any other people and being superior both in numbers and in might, have blocked off whatever parts of the country are passable, or whatever parts of the river happen to be navigable” (Strabo, *Geographica* 11.2.2).<sup>18</sup>

The situation changed considerably at the end of the first century BCE or the beginning of the first century CE, while the Early Sarmatian Culture was probably replaced by the Middle Sarmatian Culture slightly before that.<sup>19</sup> Written sources and archaeological evidence indicate that the bearers of the Early Sarmatian Culture were partly forced to move westwards and partly stayed behind and were gradually assimilating into the Middle Sarmatian Culture. In addition, the Maeotian settlements of Krepostnoe and Podazovskoe emerged in the Don delta about that time as well.<sup>20</sup> The Maeotian tribes occupied the territory of the Kuban region from the eighth century BCE to the third century CE. About the end of the first century BCE or slightly earlier, one of these tribes may have migrated to the Don area.<sup>21</sup> Strabo relates that the Maeotae live on the east coast of the Maeotis and “though farmers, they are no less warlike than the nomads. They are divided into several tribes, those who live near the Tanais being rather ferocious, but those whose territory borders on the Bosporus being more tractable” (Strabo, *Geographica* 11.2.4).<sup>22</sup> It is possible that further Hellenization of the Lower Don area can be associated with the arrival of the Maeotians, the sedentary people with a long agricultural tradition and a history of continuous interactions with the Greeks. And Tanais must have played an important role in this process.

By the end of the first century BCE, Tanais was probably already functioning primarily as an emporion, although the number of the settlements around it was still relatively low. A significant increase in imports and their distribution in the surroundings of the city confirm this assumption. After having become a large trading center, Tanais may have gained a certain economic independence, which was possible because of the overall situation in the region and the general political instability in the Bosporus, most likely caused by the Mithridatic Wars. This development could have resulted in the “disobedience” for which the city was later sacked by King Polemon (Strabo, *Geographica* 11.2.3). After that, Tanais once again fell under the control of the centralized power of the Bosporan Kingdom.

However, the barbarian presence in the city is not very noticeable until the middle of the second century CE. The burials of the first to the first half of the second centuries CE in the necropolis of Tanais do not have any traits characteristic of the Middle Sarmatian burial customs. They also do not contain much of Central Caucasian grey-

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<sup>18</sup> Strabo 1924.

<sup>19</sup> Glebov 2004, 127–133.

<sup>20</sup> Gorbenko/Kosyanenko 2011, 17–19, 34, 151–153.

<sup>21</sup> Kamenetskiy 2011, 335.

<sup>22</sup> Strabo 1924.

clay ware, the presence of which in Tanais is usually associated with the influx of Sarmatians.<sup>23</sup> In the settlement, we also hardly see these ceramics in the cultural layers dating before the middle of the second century CE. In addition, the inscriptions from that period feature relatively few Iranian names,<sup>24</sup> but their numbers increase considerably in the lists of the *thiasoi*, starting with an inscription from 155 CE (*CIRB* 1260). New Iranian names are then attested for Tanais in an inscription from 188 CE (*CIRB* 1242). The epigraphic documents from the second half of the second to the first half of the third centuries CE about the construction or restoration of various buildings in the city at the expense of individuals from Tanais include many Iranian or mixed Greco-Iranian names (*CIRB* 1242, 1243, 1245, 1248, 1250). Based on the onomastic material, Dmitriy B. Shelov concluded that Tanais experienced gradual “sarmatization” during the second and third centuries CE.<sup>25</sup> He explained this development by the increase of the population of the city, which took place no later than in the third quarter of the second century CE and was caused by the influx of Iranian-speaking newcomers.<sup>26</sup>

Recently, a new destruction layer has been identified at the site of Tanais, dating to the middle of the second century CE. Scholars have convincingly argued that it should be associated with the destruction of the emporion by the Late Sarmatian nomads, who were at that time migrating to the territories west of the Volga and farther to the Bosphorus and to the boundaries of the Roman Empire.<sup>27</sup> Archaeologically, the arrival of this people is attested by the emergence of sites that demonstrate new burial customs and other elements of the material culture that came from the east. In Tanais, we find traces of these newcomers in the settlement and its necropolis, as well as in the kurgans around the city. The new features in the material culture and funerary rites that can be viewed as evidence of the “sarmatization” of Tanais include kurgans with burials oriented in northern direction, niche-graves with the chamber dug into the western wall, narrow ditches around the kurgans with an opening in the southern section, inhumation graves oriented to the north in the necropolis of Tanais, and handmade incense burners found both in the necropolis and in the settlement.<sup>28</sup> In addition, typical Sarmatian costume items have been preserved in the burial complexes and in the settlement, such as red shoes, high boots, and beads used for the decoration of clothes and shoes.<sup>29</sup>

Anthropological data confirms the conclusions made on the basis of archaeological material. One of the signs of the Sarmatian presence in the settlements of the Lower Don area are the finds of skulls with traces of artificial deformation. Such defor-

<sup>23</sup> Guguev 1993, 124–125.

<sup>24</sup> Dan'shin 1990, 52–53.

<sup>25</sup> Shelov 1972, 248.

<sup>26</sup> Shelov 1974, 80.

<sup>27</sup> Bezuglov 2001, 108–119; Zavoykina 2004; Vnukov 2007.

<sup>28</sup> Guguev/Ilyashenko/Kazakova 2007, 433.

<sup>29</sup> Yatsenko 2006, 133–168.

mation was characteristic of the Late Sarmatian burials, and from the second century CE onwards, this tradition can be attested not only in the burials at Tanais, but also in those at the Maeotian settlements in the Lower Don area.<sup>30</sup> In Tanais, a high concentration of kurgan burials with Sarmatian traits has been revealed northwest of the main citadel. Another feature indicating the presence of the Sarmatians in the city are the so-called *tamgas*—mostly, linear signs found on a variety of objects and surfaces. It should be right away noted that in this context “tamga” is used as a conventional term, usually referring, in a very general sense, to the marks left behind (or, in some regions, still used today) by nomadic peoples of Eastern Europe and Asia. It is, admittedly, a very broad definition, but, taking into account the vast territories over which such signs have been found and the length of the period during which they were used, a more precise and formal definition may not be possible.<sup>31</sup> Some scholars maintain that the term “tamga” should not be applied to the marks used by Iranian-speaking peoples and suggest a more specific terminology instead,<sup>32</sup> but, for the purposes of our study, “tamga” is acceptable, as it has been traditionally employed in interdisciplinary literature on the subject.

## 2 *Tamgas* and *tamga*-like signs in the Northern Black Sea Region

In the Northern Black Sea region, the finds of *tamgas* and *tamga*-like signs from the period in question are associated with the Sarmatians and, therefore, are sometimes referred to as “Sarmatian signs.” Since the Sarmatians were nomadic people, most archaeological traces of their presence are found in mortuary complexes. However, the majority of objects with *tamga*-like marks in the North Pontic region come not from the burial sites in the steppe, but from the Greek cities and from the settlements and necropoleis located in the boundary zone between the territories of these cities and those of the nomads.<sup>33</sup> This phenomenon, well known also outside the Black Sea region, may be explained by a number of factors, the most important one probably being the nature of the objects on which such marks were displayed. In tribal communities, *tamgas* were most often branded on animals and depicted on highly perishable materials, such as carpets and felts; ordinary *tamga*-bearing objects of everyday use had a little chance to survive unless they were deposited into a burial as accompanying grave goods or left behind as part of a funerary ritual. In the sedentary context, on the contrary, such artifacts were more likely to stay preserved. Moreover, in the urban

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<sup>30</sup> Batieva 2006, 57–61.

<sup>31</sup> Perrin 2010, 24.

<sup>32</sup> Yatsenko 2009; Yatsenko 2010a; Manassero 2013, 60.

<sup>33</sup> Yatsenko 2010a, 140.

milieu, *tamgas* and *tamga*-like signs were also often displayed on a different category of objects – the ones that had to do with authority and administration.<sup>34</sup>

Despite the rather extensive specialized literature on the subject and various attempts to systemize and correlate the available data, many questions concerning ancient *tamga*-like signs, in general, and those from the Northern Black Sea region, in particular, remain open.<sup>35</sup> This is why any new (or newly published) finds, added to the growing body of evidence, often lead to re-examination of previously known cases and prompt scholars to review the existing hypotheses. The present article discusses some of the *tamga*-bearing artifacts from Tanais that have been published before, along with those that are not yet known to the broad audience.<sup>36</sup>

### 3 *Tamga*-Bearing Artifacts from Tanais and its Surroundings

The settlement and the necropolis of Tanais, as well as the other settlements and burial sites in the vicinity, revealed a considerable number of objects with *tamgas* and *tamga*-like marks. They include ceramic finds, both wheel- and handmade, with the signs either scratched on the surface or made out of clay and attached to the surface of the vessel. It appears that on most ceramic pieces the *tamgas* were depicted prior to firing (with the exception of imported ware, naturally), while the position and size of the marks varied. In some cases, *tamgas* were carefully executed and conspicuously displayed on the visible parts of the vessel, as, for example, on the shoulder of a wheel-made jug from Tanais (Fig. 1.1).<sup>37</sup> In other instances, they were smaller in size and not scratched deeply into the surface. Often they were depicted on the outer side of the bottom of the vessel—as, for example, on a red-glazed plate found in the necropolis of Tanais (Fig. 1.2).<sup>38</sup> Most of these finds have been dated to the period from the first century BCE to the first half of the second century CE (i.e., the so-called Middle Sarmatian period), but some other individual fragments have no context and could not be securely dated.

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<sup>34</sup> Manassero 2013, 62.

<sup>35</sup> For an overview of scholarly publications on the subject and associated methodological and other problems, see Yatsenko 2001, 6–10; Yatsenko 2009, 539; Yatsenko 2010b.

<sup>36</sup> The present article features some objects from the catalogue prepared as part of the research project 01 (a1) - 12-31-01054 “Sarmatian *Tamgas* from Tanais and its Surroundings: Historical Interpretations”, supported by a grant from the Russian Academic Fund for Humanities.

<sup>37</sup> Arsenyeva 1995, 41–42, fig. 122.

<sup>38</sup> Solomonik 1959, 163 no. 152; Shelov 1972, 240.

In addition, there is a copper overlay of a wooden vessel from Tanais, with a *tamga* composed of many small holes pierced through the copper sheet (Fig. 1.3).<sup>39</sup> Less ordinary vessels include a silver *kantharos* with several graffiti scratched on the bottom from a burial discovered at the modern village of Nedvigovka near the site of Tanais<sup>40</sup> and a gilded silver *phiale* with two *tamga*-signs scratched on its inner surface (Fig. 1.4). The *phiale* comes from a set of silver ware found at the necropolis of Novo-Aleksandrovka, which dates to the first century CE.<sup>41</sup>

Whetstones form another group of artifacts with *tamgas*. Among them, there are specimens with two distinctively different marks, depicted either on the same side or on both sides of the artifact, as, for example, on the whetstones from the necropolis of Zaymo-Obryv I (Fig. 2.1)<sup>42</sup> and the Temernitskoe settlement (Fig. 2.2), respectively. The latter was found in a complex dating from the first half to the middle of the second century CE.<sup>43</sup> Other whetstones with marks either have no reliable date or have been dated to the second century CE or later, i.e., to the so-called Late Sarmatian period (the second half of the second to the second half of the third centuries CE). To this later period also dates a lead weight decorated with a *tamga* made out of copper wire, discovered in a cellar in the settlement of Tanais (Fig. 2.3).<sup>44</sup>

Another category of *tamga*-bearing objects are Sarmatian cauldrons. There, *tamgas* are usually depicted on the upper part of the body, under the rim, as, for example, on a cauldron unearthed during construction works at the western boundary of the city of Rostov-on-Don (Fig. 3.1) or the one discovered at the modern village of Oktyabr'skoe in the Novocherkassk district (Fig. 3.2).<sup>45</sup> Two more fragments with *tamgas* come from modern village of Mokryy Chaltyr', where they were found by chance in a plowed field (Fig. 3.3-4).<sup>46</sup> Unlike previously mentioned items, cauldrons have often been found in Sarmatian kurgans, among other remains associated with funerary feast. In such cases, the accompanying grave goods and specific features of the burial rites may provide a date for the cauldrons as well. Thus, the two fragments from Mokryy Chaltyr' belong to cauldrons of the same type, dating from the first century BCE to the first century CE.<sup>47</sup>

<sup>39</sup> Solomonik 1962, 164–165 no. 15.

<sup>40</sup> Bezuglov/Zakharov 1988, 46, figs. 1.3, 3a; 4.4.

<sup>41</sup> Zasetskaya 2008, no. 47.

<sup>42</sup> Voronyatov 2012, 54, with the reference to the original publication and the 1988 excavation report by I.V. Belinskiy.

<sup>43</sup> S.M. Ilyashenko, *Report about the archaeological rescue excavation of the part of the Temernitskoe settlement located in the area of the construction of a residential apartment building*, 16-7. Archive of the Archaeological Museum and Preserve Tanais.

<sup>44</sup> Solomonik 1962, 165, no. 16.

<sup>45</sup> Solomonik 1962, 164, no. 14; Maksimov 1966, 56.

<sup>46</sup> Kosyanenko/Flerov 1978, 199; Yatsenko 2009, 548.

<sup>47</sup> Type IV after the classification of Kosyanenko/Flerov 1978, 197–199, 205.

Cauldrons of this type are frequently decorated by relief ornaments placed under the handles (and sometimes also under the small loop-handles), as, for example, on an item from the kurgan Sadovyy near the city of Novocherkassk (Fig. 3.5-6).<sup>48</sup> It has been noted that such decorations often resemble *tamgas*, although *tamga*-signs are usually more complex in appearance.<sup>49</sup> Such resemblance is hardly surprising since *tamgas* are mostly composed of straight lines and curvilinear motifs, which sometimes form various geometric shapes, and these are exactly the elements that are used in the decoration of the cauldrons. Does this mean then that in some cases *tamgas* themselves could have served as ornaments as well? Such suggestions have been made, especially in relation to the Sarmatian bronze mirrors, which will be discussed below, but there are several other objects—or, rather, categories of objects—for which this possibility should also be considered.

The most obvious case is that of ceremonial horse harnesses, various parts of which were often decorated. Thus, a silver bridle set discovered at the necropolis of Tanais, in a catacomb-type burial dating from the second half of the second to the beginning of the third centuries CE, consists of two *phalerae* and a buckle, each cut out in a shape of a *tamga*-like sign (Fig. 4).<sup>50</sup> The two silver *phalerae* are identical, the center of each is further embellished by a medallion made out of an almandine garnet set into a gold bezel; the bronze nails on the buckle are covered with gold foil. Other finds from the environs of Tanais include a silver *phalera* with an engraved *tamga*-like sign from burial 1 in kurgan 25 at the Valovyy I burial ground (Fig. 5.3)<sup>51</sup> and a diamond-shaped silver piece, possibly a cheek-flap, with a *tamga*-like sign engraved on its surface and gold foil hammered over it, from burial 8 of kurgan 16 at the Tsentral'nyy VI burial ground (Fig. 5.4).<sup>52</sup> In addition, there are two pieces of gold foil with imprinted *tamgas* (Fig. 5.1), discovered in kurgan 10 at the burial site of Kobayakovskoe, in a burial dating from the end of the first to the beginning of the second centuries CE.<sup>53</sup> The pieces must have adorned some part of the harness; the depicted *tamgas* are symmetrical, and one is a mirror image of the other, which adds to their decorative aspect. The fact that the two pieces were made out of gold foil and therefore could not have been securely attached to the harness gave scholars a reason to think that they were used to decorate a ceremonial harness rather than a truly functional one.<sup>54</sup> In general, in all these cases, the size of the marks, their placement, and the methods of execution suggest that whatever other function(s) these *tamgas* may have had, they also must have contributed to the embellishment of the objects on which they were

<sup>48</sup> Kosyanenko/Flerov 1978, 198

<sup>49</sup> Kosyanenko/Flerov 1978, 203, with the reference to Solomonik 1959, 156.

<sup>50</sup> Ilyashenko 2010, 135–143; Arsenyeva/Ilyashenko/Naumenko 2010, fig. 12.

<sup>51</sup> Zasetskaya 2008, no. 67a.

<sup>52</sup> Bezuglov 1988, 108, 110.

<sup>53</sup> Guguev 1992, 102, 107.

<sup>54</sup> Guguev 1992, 109.

depicted. The same can probably be said about belt buckles,<sup>55</sup> such as a bronze one from Tanais (Fig. 5.2). Although this artifact is an individual stray find from the site, belt buckles of this type are well known from other places in the region.<sup>56</sup>

In any case, it is clear that decoration could hardly have been the primary function of *tamgas*. Thus, for example, the *tamga* on the lead weight described above may have served as a sign of a person of authority, such as a magistrate, verifying the authenticity of the weight and its conformance to the standard.<sup>57</sup> Belt buckles have been interpreted as a kind of military awards, on account of the assumption that some of the *tamgas* featured on them were associated with the Bosporan rulers.<sup>58</sup> And for the signs embellishing various parts of ceremonial horse harnesses, it has been proposed that “they could have imitated (or duplicated) the real brand marks on horses.”<sup>59</sup> The last two suggestions might be plausible, but they still leave some questions to be answered and, so far, remain hypothetical.<sup>60</sup>

In general, the question of the meaning(s) and function(s) of *tamga*-signs is central to this field of studies. Scholars who have been working on ‘Sarmatian signs’ agree that, similarly to the *tamgas* from other regions, they have to be associated primarily with notions of collective and/or personal identity, ownership, and presence. At the same time, most of these scholars emphasize that these signs must have been multifunctional and polysemantic, stating that *tamgas* were not only routinely used for a variety of purposes, but that one and the same mark could have served several purposes at the same time, that in different societies such marks may have had different functions, and that these functions and the meanings of the marks themselves must have evolved over time, as changes occurred in the societies in which they circulated.<sup>61</sup>

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<sup>55</sup> Drachuk 1975, 75–76.

<sup>56</sup> The belt buckle from Tanais features the *tamga* of type IV after the classification of Treister 2011, 315.

<sup>57</sup> Solomonik 1962, 165.

<sup>58</sup> Treister 2011.

<sup>59</sup> Yatsenko 2001, 15. The idea is further developed in Voronyatov 2013.

<sup>60</sup> Thus, for example, one type of *tamga* depicted on belt buckles – type VI after the classification of Treister – has not been found on any other objects (Treister 2011, 315), so that we cannot be absolutely sure whether it has any relation to the Bosporan rulers. It is, however, clear that the *tamga*-images decorating belt buckles cannot be interpreted as signs of ownership: although a rather large number of such buckles are known, they all feature the same few types of *tamga*-signs. As to the argument in support of the hypothesis that *tamgas* depicted on various parts of horse harnesses imitated the marks that were branded on horses, it is based on the claim that only one object in a pair of such decorative elements featured a *tamga*, while the other was left without decoration, just as a real brand mark would have been put, for example, only on one cheek of a horse (Voronyatov 2013, 297). However, in the pair of silver *phalerae* from Tanais discussed above, both pieces are embellished with a *tamga*.

<sup>61</sup> Solomonik 1959, 16; Dračuk 1972, 193–194; Drachuk 1975, 108; Ol'khovskiy 2001; Yatsenko 2001, 15; Yatsenko 2010a.



*Tamgas* depicted on the artifacts discovered in Tanais and its surroundings allow for a variety of interpretations. And while some of the signs on the finds described above may have been used as property marks referring to the identity of the owner, others, as we have seen, can hardly be interpreted in such a way. The most numerous category of *tamga*-bearing objects from the area in question are stone slabs, and the marks depicted on them cannot be associated with property and ownership. In fact, the assemblage of slabs with *tamgas* from Tanais, dating to the early centuries CE, is one of the largest in the entire Northern Black Sea region, comparable only to that from Pantikapaion, the capital of the Bosporan Kingdom.<sup>62</sup> This is hardly surprising in view of the fact that Tanais was the farthest northeastern Greek settlement in the North Pontic region. Strabo described it as “a common mart, partly of the Asiatic and the European nomads, and partly of those who navigated the lake from the Bosphorus” (Strabo, *Geographica* XI.2.3) and mentioned that next to Pantikapaion, it was “the largest mart of the barbarians” (VII.4.5).<sup>63</sup>

## 4 Representations of *Tamgas* and *Tamga*-Like Signs on Stone Slabs

Over forty stone slabs with *tamgas* and *tamga*-like signs are known from Tanais. Most of these slabs are fragmented, so that it is not always possible to draw any conclusions about the overall position or the number of signs on each slab; some small individual fragments feature only one or two signs (Fig. 6.1-2).<sup>64</sup> Apart from these, there are slabs that have *tamgas*, more than one, positioned in what does not seem to be an orderly fashion. Some of them must have been put on the surface at different times by different people, judging by the discrepancies in the style of their execution and by the fact that signs were overlapping. In some cases, *tamgas* were scratched over a Greek inscription (Fig. 6.3).<sup>65</sup> Then, there are also slabs with *tamgas* that, although still rather different from one another in terms of execution, are arranged in what may be a specific order (Fig. 7).<sup>66</sup> Both these groups of slabs with accumulations of *tamgas* and *tamga*-like signs have been interpreted as some kind of ‘official documentation’ of collective actions undertaken by the local population and/or visitors. Such actions may have included the signing of treaties, public feasts, sending and receiving of envoys, and other events and required the presence and participation of the rep-

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<sup>62</sup> Yatsenko 2010a, 141.

<sup>63</sup> Strabo 1924.

<sup>64</sup> Arsenyeva/Böttger 1993, 12.

<sup>65</sup> Arsenyeva/Böttger 1993, 12.

<sup>66</sup> Solomonik 1962, 159 no. 2.

representatives of several Sarmatian clans or families, all of whom cut their *tamgas* on a stone slab.<sup>67</sup>

Many of these events must have had political significance for the Bosporan state. Due to its extreme location on the northeastern boundary of the kingdom, Tanais was the main mediator between the Bosphorus and the Sarmatians, and this may explain why so many stone slabs with accumulations of *tamga*-signs have been found at the site. This can probably also explain the presence of a relatively high number of stone slabs with carefully executed 'royal' *tamgas* – the signs associated by most scholars with the Bosporan rulers. Four of such signs have been identified as the 'royal' *tamgas* of specific Bosporan kings – Tiberius Iulius Eupator, Sauromates II, Rheskouporis III, and Ininthimaios. The identifications were made on the basis of seven stone slabs, six of which come from Tanais (and one, from Hermonassa). All these stone slabs feature a 'royal' *tamga* along with a Greek inscription that mentions the name of a certain ruler and/or a date that falls within the reign of a certain ruler.<sup>68</sup>

The earliest of these inscriptions dates to 163 CE and contains the name of Tiberius Iulius Eupator (*CIRB* 1241) (Fig. 8.1);<sup>69</sup> the latest ones are from the reign of Ininthimaios (*CIRB* 1249, 1250, 1251) – two date to 236 CE and one has no date preserved, but the name of the king appears in all three.<sup>70</sup> These four inscriptions inform the reader about some building and/or restoration activities undertaken by prominent inhabitants of Tanais and feature the name of the Bosporan ruler in the introductory formulaic phrase. In addition, there is a dedicatory inscription (*CIRB* 1237), which lists some important political events that took place in the kingdom and dates to 193 CE, i.e., to the reign of Sauromates II. Here, the *tamga* is smaller and placed in the lower right corner, while on the other slabs it is prominently positioned in the center of the upper part. In this inscription, which is not entirely preserved, the name of the ruler is missing, so that it is not clear whether it was there originally.<sup>71</sup> The second inscription dating to the reign of Sauromates II, found in Hermonassa (*CIRB* 1053),<sup>72</sup> also does not contain the name of the king, which prompted scholars to suggest that the *tamga* depicted above the inscription replaced the formulaic introductory phrase.<sup>73</sup> The question then is why such a replacement would be needed. The first four inscriptions feature both the name of the ruler and a *tamga*, so that there is a possibility that they were aimed at two different audiences – the one that could read and comprehend the Greek text on the slab and the other that could not; in this case, the image of

<sup>67</sup> Yatsenko 2001, 80.

<sup>68</sup> Solomonik 1959, 49–50, 57–64; Shelov 1966, 269–270; Drachuk 1975, 61–74 (all with further references).

<sup>69</sup> Solomonik 1959, 49–50 no. 1.

<sup>70</sup> Solomonik 1959, 61–64 nos. 14, 15, 16.

<sup>71</sup> Kuznetsov 2007, 228.

<sup>72</sup> Solomonik 1959, 57–58 no. 11.

<sup>73</sup> Shkorpil 1911, 113; Shelov 1966, 269.

the *tamga* must have been intended primarily for the latter. The same can probably be said about the two inscriptions from the time of Sauromates II, regardless of the fact that the name of the king was not mentioned in the Greek text. And if we accept this, then we could also assume that the presence of a *tamga* on such slabs may have been, at least to a certain extent, optional. This would explain why many other Bosporan inscriptions with the names of the very same rulers do not contain any *tamgas*. This hypothesis is indirectly supported by the find of two identical inscriptions in two different parts of Tanais, dating to the reign of Rheskouporis III, with the name of the king mentioned and the date not preserved. One, discovered in the northern part of the city, near the north gate, was made out of marble and featured a *tamga* incorporated into the central upper part of the inscription (*CIRB* 1248).<sup>74</sup> The other, found near the south gate of the city, was made out of limestone and did not have a *tamga* (*CIRB* 1246).<sup>75</sup> This indicates that the presence or absence of a *tamga* in a Greek inscription may have been determined by various reasons, and not necessarily by the text of the inscription itself. In this particular case, the first inscription has been considered the original because it was carved on a marble slab and had a ‘royal’ *tamga* sign. If this interpretation is correct, then the *tamga* may be absent on the second inscription precisely because it is just a copy.<sup>76</sup> Alternatively, the discrepancy between the two versions of the same inscription may be explained by the difference in the intended location of the slabs: the one with the *tamga* was placed at the north gate, through which visitors from the steppe came, who were clearly able to recognize this sign; the one without the *tamga* was displayed at the south gate and could have been aimed at those who arrived at the harbor of Tanais in the Lower City and entered the citadel from the south – most of these people probably could read Greek, but they were not necessarily expected to be familiar with *tamgas*.

Many questions connected with the general interpretation of the ‘royal’ *tamgas* and the identification of the individual signs from this category are still unanswered. An opinion has also been voiced that such *tamgas* should not be attributed to the Bosporan rulers at all.<sup>77</sup> In any case, there is no doubt that these signs had to be immediately recognizable to various groups of the multi-ethnic and multi-cultural population of the Bosporan Kingdom, which, along with other peoples, included nomads, who did not use writing. Whenever ‘royal’ *tamgas* were incorporated into the official inscriptions, they had to refer, in some way, to the information featured in the text and must have been intended for those members of the communities who could not read Greek.<sup>78</sup> But in the case of unepigraphic signs depicted in relief on stone slabs,

<sup>74</sup> Solomonik 1959, 59–61 no. 13; Shelov 1972, 40.

<sup>75</sup> Shelov 1972, 47–48.

<sup>76</sup> See the comments to *CIRB* 1048 (Struve 1965, 739).

<sup>77</sup> Zavoykina 2004, 171–175.

<sup>78</sup> Solomonik 1959, 23.

such as the ones found in Tanais (Fig. 8.2)<sup>79</sup> and Phanagoreia,<sup>80</sup> it was the Greek part of the population that was expected to (and, clearly, did) recognize the *tamga*. Moreover, in Tanais, such depictions were probably very much in agreement with the local pictorial tradition – or, rather, with the lack thereof. In contrast to the other Bosporan cities, hardly any terracotta figurines or grave stelae with relief scenes typical for Greek art have been found in the excavated parts of the city and the necropolis, and the decoration of artifacts, in general, demonstrates a clear preference for ornamental patterns over pictorial images.<sup>81</sup>

In addition, some Bosporan stelae display *tamgas* in an even more meaningful setting: two slabs, discovered on the Taman Peninsula, show ‘royal’ *tamga*-signs – two in one case and one, in the other – as being ‘crowned’ by the figures of two Nikai/Victories. Here, the *tamgas* are actually being used in place of ‘royal portraits’,<sup>82</sup> and, as one shrewd observer remarked, “it would not be surprising if these individual royal *tamgas* were even more recognizable than the actual portraits of the rulers”.<sup>83</sup>

In any case, while the *tamgas* depicted on stone slabs could have served various purposes, they still communicated information pertaining to identity, just as they did when they were used as property marks, the only difference being that here the emphasis was on authority and/or presence, rather than on ownership.<sup>84</sup> There is, however, another category of *tamga*-bearing objects, featuring signs that cannot be easily interpreted in this way. The most numerous group of such artifacts are bronze mirrors with a side loop, many of which have been found in Tanais and its surroundings.

## 5 Mirrors

Mirrors made out of metal (most frequently, bronze) are standard items discovered in Sarmatian burials, both ordinary and elite ones.<sup>85</sup> Various types of such mirrors are known for the region in question, and they can be further subdivided on the basis of certain characteristics. As a result, a number of classifications and chronologies have been offered for this material, which are still being modified as new evidence comes to light.<sup>86</sup>

<sup>79</sup> Shelov 1966.

<sup>80</sup> Kuznetsov 2007.

<sup>81</sup> Shelov 1965b, 234.

<sup>82</sup> Solomonik 1959, 51–53 nos. 3, 4.

<sup>83</sup> Muratov 2017, 311 n. 129.

<sup>84</sup> Drachuk 1975, 108.

<sup>85</sup> Khazanov 1964, 89.

<sup>86</sup> Khazanov 1963; Skripkin 1990, 88–97; for other classifications and their general overview, see Vagner 2012.

The types of bronze mirrors found in Tanais and its vicinities include unornamented disks, such as a mirror from the necropolis of the Kobyakovskoe settlement, dated to the first century CE.<sup>87</sup> Mirrors of the early centuries CE commonly discovered in burials in the Black Sea region are most often decorated, and the most typical among them are small disks with a side loop. Several dozens of them come from Tanais and its environs.<sup>88</sup> The relief ornaments on the back of these mirrors range from simple geometric figures and compositions of lines, radial lines, and concentric circles to more elaborate designs of curvilinear motifs, rosettes, and other elements. It is also not unusual for such mirrors to be decorated with various *tamga*-like signs: sometimes, it is the only image depicted on the backside of the mirror, such as, for example, on a find from Tanais (Fig.9.2);<sup>89</sup> in other cases, they are a part of a composition. Scholars who studied these objects specifically emphasized that quite often *tamgas* seem to have been used as recurring elements in such ornamental patterns and cannot be easily separated from them.<sup>90</sup> At the same time, many point out that these signs must have preserved some of their meaning, rather than just having become purely decorative elements.<sup>91</sup>

Mirrors, in general, are considered to be objects of sacral character in Sarmatian culture, and their presence in burials is believed to be of a ritual significance.<sup>92</sup> Small decorated disks with a side loop, in particular, have been interpreted as amulets.<sup>93</sup> In view of this, it has been suggested that the ornaments on the backside of the mirrors did not only serve decorative purposes, but were also meant to increase the apotropaic properties of the mirrors.<sup>94</sup> This hypothesis is indirectly supported by the find of seven clay stamps in a cellar in Tanais. The context of this find indicates its ritual character, and the stamps are thought to have been used for making impressions on cultic loaves.<sup>95</sup> The designs featured on them are very similar to those often found on the mirrors under discussion. Thus, for example, the ornamental element usually referred to as ‘bird’s foot,’ carved onto the surface of several stamps, can also be seen on a mirror from a second-century-CE burial in the necropolis of Tanais (Fig. 9.3)<sup>96</sup> and on a mirror from a burial destroyed during construction works in the terri-

<sup>87</sup> Kosyanenko 2008, 108 fig. 15.1.

<sup>88</sup> Over thirty such mirrors have been found in the necropolis of the Kobyakovo settlement alone; Kosyanenko 2008, 108–123; Larenok 2013, 12.

<sup>89</sup> Solomonik 1959, 141 no. 97.

<sup>90</sup> Solomonik 1959, 36; Drachuk 1975, 76–77.

<sup>91</sup> Solomonik 1959, 36.

<sup>92</sup> Khazanov 1964; Skripkin 1990, 90; Korobkova 2003; Kosyanenko 2008, 119.

<sup>93</sup> Solomonik 1959, 38.

<sup>94</sup> Khazanov 1964, 95.

<sup>95</sup> Shelov 1961, 120–121, fig. 10; Shelov 1965a, 100, fig. 40. More stamps of a similar kind, but with different designs, have been found in other parts of Tanais and at the site of the Kobyakovo settlement. Shelov 1965b; Arsenyeva/Bezuglov/Tolochko 2001, 98 no. 72, fig. 17.255.

<sup>96</sup> Ilyashenko 2014, fig. 197.6.

tory of the city of Rostov-on-Don.<sup>97</sup> The presence of the same motif on the stamps and on the backside of the mirrors prompted scholars to assume, on the one hand, that the mirrors, similarly to stamps, had a ritual significance,<sup>98</sup> and, on the other hand, that some of the elements of the patterns depicted on them may have had a special meaning beyond the decorative. The latter sounds even more plausible in view of the fact that certain designs continued to show during the later period on the reverse of mirrors of a completely different morphological type, with a loop in the center of the backside, which are found in Tanais and in the area around it in the complexes dating from the first half of the third century CE<sup>99</sup> to the fifth century CE (Fig. 9.6).<sup>100</sup> Mirrors of this type must have been produced locally, since stone casting forms for the production of such mirrors have been found in Tanais (Fig. 9.1).<sup>101</sup>

All these considerations led to the conclusion that *tamga*-like signs, frequently featured on the backside of mirrors with a side loop instead of other ornamentation or as a part of it, should not be viewed as property or authority marks, i.e., marks associated with identity,<sup>102</sup> but rather as magic symbols with a special meaning.<sup>103</sup> In this respect, two specimens, retrieved from the burial sites of Nizhne-Gnilovskoe (Fig. 9.4) and Kobayakovskoe (Fig. 9.5), dating from the second half of the first to the beginning of the second centuries CE, call for special attention.<sup>104</sup> In terms of shape, these mirrors are of the same type as the others – small disks with side loops –, but the decoration on the reverse is copied from Chinese mirrors of the Han period. About a dozen of such Chinese mirrors, all bearing inscriptions, have been found in Sarmatian burial complexes of the early centuries CE located on the Taman Peninsula and in the region between the Volga and the Don.<sup>105</sup> These finds include a mirror from burial 1 of kurgan 10 at Tanais and two more from kurgans 1 and 10 of the burial ground at Kobayakovskoe.<sup>106</sup> During the Han period, mirrors were often ascribed talismanic powers, and the inscriptions commonly featured on them were meant to ward off evil and attract good luck.<sup>107</sup> The four Sarmatian replicas found in the Black Sea region imitated not only the ornamental pattern of the Chinese mirrors, but also the writing, although the signs on the replicas are unintelligible. The question, therefore, is: were

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<sup>97</sup> Kosyanenko 1990, fig. 1.7.

<sup>98</sup> Solomonik 1959, 38; Kosyanenko 1990, 122.

<sup>99</sup> Kosyanenko 1993, 77.

<sup>100</sup> Arsenyeva/Ilyashenko/Bespalyy 2009, 47.

<sup>101</sup> Arsenyeva 1984.

<sup>102</sup> Solomonik 1959, 38; Drachuk 1975, 77.

<sup>103</sup> Ol'khovskiy 2001, 108.

<sup>104</sup> Guguev/Treister 1995, 150. (Two more mirrors of the same kind come from the burials on the Taman Peninsula and in the Kuban region).

<sup>105</sup> Skripkin 1990, 154–155; Guguev/Treister 1995, 143–150.

<sup>106</sup> Guguev/Treister 1995, 143–147.

<sup>107</sup> Juliano 1985, 36.

the Chinese characters copied only as pictorial images within the overall decorative scheme or did the symbols also have some special meaning for the Sarmatians?

It has been suggested that the Sarmatians may have perceived Chinese hieroglyphs as something akin to their own *tamga* signs.<sup>108</sup> In fact, the tradition of adopting letters from foreign scripts (especially, from the ones that used ideographs) as *tamgas* is well documented for other nomadic cultures.<sup>109</sup> There is not enough evidence to assume that such a practice also existed among the Sarmatians. However, since the Sarmatians, like other ancient nomadic peoples, were illiterate, they must have recognized Chinese hieroglyphs on Han mirrors not as elements of writing, but rather as some kind of special signs with magic powers, and that it was for this reason that they transferred those foreign signs to their own mirrors and possibly even assigned a new meaning to them. And if this, indeed, was the case, it would also indicate that Sarmatian *tamgas* could have functioned as some kind of magic symbols.

Mirrors were not the only objects featuring the marks that may have been used in this capacity. Thus, a number of astragals found in Tanais, including those retrieved from the cellar of the first century CE (Fig. 10.1-2), probably also belong to this category.<sup>110</sup> In addition, two jaws of a pig with incised *tamga*-like signs were discovered in the paved area south of the south gate of the city, dated to the first half of the third century CE (Fig. 10.3-4).<sup>111</sup> Moreover, it has been also suggested that some of the *tamga*-bearing vessels were of a ritual character and the marks on them had some sacral meaning.<sup>112</sup>

In view of all this and returning to the question of polysemanticity and multifunctionality of Sarmatian *tamgas*, we should probably also consider the possibility that a magic/apotropaic component was often, if not always, present in them. From the studies of other nomadic cultures, we know that several kinds of signs could have been used as *tamgas*, religious and astrological symbols being among the most suitable ones. And while most of the population of a certain area did not have to be necessarily familiar with their precise meaning, people still had to know that these symbols were sacred or auspicious.<sup>113</sup> If such signs were adopted as *tamgas*, they preserved this notion, even when they were used as identity marks. And as the latter had to be clearly identifiable and recognizable to everyone, so also the general sacral significance of the signs – or of their elements – must have always remained detectable, even when the *tamgas* were used for other purposes.

<sup>108</sup> Guguev/Treister 1995, 151.

<sup>109</sup> Humphrey Waddington 1974, 474; Vaynberg/Novgorodova 1976, 66.

<sup>110</sup> Arsenyeva 2002, 2–4.

<sup>111</sup> Arsenyeva/Ilyashenko 2011, 18–20.

<sup>112</sup> Voronyatov 2009.

<sup>113</sup> Humphrey Waddington 1974, 474.

## Bibliography

- Arsenyeva, Tatyana M. (1984), "Liteynye formy dlya otlivki zerkal iz Tanaisa," in: Anna I. Melyukova/Marina G. Moshkova/Vladimira G. Petrenko, *Drevnosti Evrazii v skifo-sarmatskoe vremya*, Moscow, 20–23.
- Arsenyeva, Tatyana M. (1995), *Report about the archaeological investigations at the site of the settlement of Tanais in 1995* (Archive of the Archaeological Museum and Preserve Tanais), Tanais.
- Arsenyeva, Tatyana M. (2002), *Report about the archaeological investigations at the site of the settlement of Tanais in 2002* (Archive of the Archaeological Museum and Preserve Tanais), Tanais.
- Arsenyeva, Tatyana M./Bezuglov, Sergey I./Tolochko, Irina V. (2001), *Nekropol' Tanaisa. Raskopki 1981–1995 gg.*, Moscow.
- Arsenyeva, Tatyana M./Böttger, Burkhard (1993), *Report about the results of the investigations of the joint Russian-German archaeological expedition in Tanais in 1993* (Archive of the Archaeological Museum and Preserve Tanais), Tanais.
- Arsenyeva, Tatyana M./Ilyashenko, Sergey M. (2011), *Report about the archaeological investigations at the site of the settlement of Tanais in 2011* (Archive of the Archaeological Museum and Preserve Tanais), Tanais.
- Arsenyeva, Tatyana M./Ilyashenko, Sergey M./Bespalyy, G. E. (2009), *Report about the archaeological rescue excavation of the western part of the necropolis of Tanais in 2009* (Archive of the Archaeological Museum and Preserve Tanais), Tanais.
- Arsenyeva, Tatyana M./Ilyashenko, Sergey M./Naumenko, Svetlana A. (2010), "Arkheologicheskie issledovaniya i otkrytiya o khronologii drevnego Tanaisa", in: *ΣΥΜΒΟΛΑ. Antichnyy mir Severnogo Prichernomor'ya. Noveyshie nakhodki i otkrytiya* 1, Moscow, 11–21.
- Batieva, Elena F. (2006), "Iskusstvenno deformirovannye cherepa v pogrebeniyakh nizhnedonskikh mogil'nikov (pervye veka nashey ery)", in: Mariya B. Mednikova (ed.), *Iskusstvennaya deformatsiya golovy cheloveka v proshlom Evrazii*, Moscow, 53–72.
- Bezuglov, Sergey I. (1988), "Pozdnesarmatskoe pogrebenie znatnogo voina v stepnom Podon'e", in: *Sovetskaya arkheologiya* 4, 103–15.
- Bezuglov, Sergey I. (2001), *Denezhnoe obrashchenie Tanaisa, III v. do n.e. – V v. n.e.* (Diss., Moscow).
- Bezuglov, Sergey I./Zakharov, Aleksandr V. (1988), "Bogatoe pogrebenie rimskogo vremeni bliz Tanaisa", in: *Izvestiya Rostovskogo oblastnogo muzeya kraevedeniya* 5, 42–66.
- Bostock, John/Riley, Henry T. (Hgg.) (1855), *The Natural History of Pliny*, London/New York.
- Brashinskiy, Iosif B. (1980), *Grecheskiy keramicheskiy import na Nizhnem Donu v V-III vv. do n.e.*, Leningrad.
- Brashinskiy, Iosif B./Marchenko, Konstantin K. (1980), "Elizavetovskoe gorodishche na Donu – poselenie gorodskogo tipa", in: *Sovetskaya arkheologiya* 1, 211–218.
- Dan'shin, Dmitriy I. (1990), "Tanais i tanaistsy vo II-III vv. n.e.", in: *Kratkie soobshcheniya Instituta arkheologii* 197, 51–56.
- Dračuk, Viktor S. (1972), "Untersuchungen zu den tamgaartigen Zeichen aus dem nordpontischen Randgebiet der Antiken Welt", in: *ZPE* 6, 190–227.
- Drachuk, Viktor S. (1975), *Sistemy znakov Severnogo Prichernomor'ya*, Kiev.
- Fedoseev, Nikolay F. (1999), "Elizavetovskoe gorodishche – Psoya – Tanais", in: *Donskaya arkheologiya* 3–4, 14–24.
- Glebov, Vyacheslav P. (2002), "Eshche raz o probleme III v. do n.e.", in: Vadim Yu. Zuev (ed.), *Bosporskiy fenomen: pogrebal'nye pamyatniki i svyatilishcha. Part 2*, St. Petersburg, 186–197.
- Glebov, Vyacheslav P. (2004), "Khronologiya rannesarmatskoy i srednesarmatskoy kul'tur Nizhnego Podon'ya", in: *Sarmatskie kul'tury Evrazii: problemy regional'noy khronologii*. (Papers



- presented at the fifth international conference “Problemy sarmatskoy arkheologii i istorii”), Krasnodar, 127–133.
- Glebov, Vyacheslav P. (2009a), *Rannesarmatskaya kul'tura Nizhnego Podon'ya II-I vv. do n.e.* (Abstract of diss., Moscow).
- Glebov, Vyacheslav P. (2009b), *Rannesarmatskaya kul'tura Nizhnego Podon'ya II-I vv. do n.e.* (Diss., Moscow).
- Glebov, Vyacheslav P./Ilyashenko, Sergey M./Tolochko, Irina V. (2005), “Pogrebeniya s oruzhiem ellinisticheskogo vremeni iz nekropol'ya Tanaisa”, in: *Drevnosti Bospora* 8, 52–97.
- Golovkina, Natalya N./Lukyashko, Sergey I. (1980), “Novye dannye o khersonesskom importe na Nizhnem Donu”, in: Konstantin F. Smirnov (ed.), *Ocherki drevney etnicheskoy i ekonomicheskoy istorii Nizhnego Dona*, Rostov-on-Don, 15–34.
- Gorbenko, Anatoliy A./Kosyanenko, Viktoriya M. (2011), *Nekropol' Paniardisa (krepostnogo gorodishcha)*, Azov.
- Guguev, Vladimir K. (1992), “Paradnyy konskiy ubor iz kurgana 10 Kobayakovskogo mogil'nika”, in: *Donskie drevnosti* 1, 101–114.
- Guguev, Vladimir K./Treister, Mikhail Yu. (1995), “Khan'skie zerkala i podrazhaniya im na territorii yuga Vostochnoy Evropy”, in: *Rossiyskaya arkheologiya* 3, 143–156.
- Guguev, Yuriy K. (1993), “Tsentral'no-kavkazskaya keramika v Tanais v II – pervoy polovine III v. n.e. (k postanovke problemy)”, in: *Vestnik Tanaisa* 1, 114–140.
- Guguev, Yuriy K./Ilyashenko, Sergey M./Kazakova, Lyudmila M. (2007), “O vozmozhnosti etnicheskoy i sotsial'noy identifikatsii vladel'tsa usad'by serediny III v. n.e. v Tanais”, in: Valentina I. Kozenkova and Vladimir Yu. Malashev (eds.), *Severniy Kavkaz i mir kochevnikov v rannem zheleznom veke. Sbornik pamyati M.P. Abramovoy*, 432–57, Moscow.
- Humphrey Waddington, Caroline (1974), “Horse Brands of the Mongolians: A System of Signs in a Nomadic Culture”, in: *American Ethnologist* 1, 471–488.
- Ilyashenko, Sergey M. (2010), “Report about the archaeological work in the territory of the necropolis of the settlement of Tanais at the modern village of Nedvigovka in 2008 (excavation square XVIII)”, in: *Archive of the Archaeological Museum and Preserve Tanais* 1, 135–143.
- Ilyashenko, Sergey M. (2014), *Report about the archaeological investigations at the site of the settlement of Tanais in 2014* (Archive of the Archaeological Museum and Preserve Tanais. Field report no. 258, Tanais-2014-XXXIII, pl. 2, vol. 3.), Tanais.
- Juliano, Annette (1985), “Possible Origins of the Chinese Mirrors”, in: *Source. Notes on the History of Art* 4 (2/3), 36–45.
- Kamenetskiy, Igor' S. (2011), *Istoriya izucheniya meotov*, Moscow.
- Khazanov, Anatoliy M. (1963), “Genezis sarmatskikh bronzovykh zerkal”, in: *Sovetskaya arkheologiya* 3, 58–71.
- Khazanov, Anatoliy M. (1964), “Religiozno-magicheskoe ponimanie zerkal u sarmatov”, in: *Sovetskaya etnografiya* 3, 89–96.
- Knipovich, Tatyana N. (1949), *Tanais*, Moscow and Leningrad.
- Kopylov, Viktor P. (2011), “Taganrogskoe poselenie - gavan' Kremny? (pis'mennye i arkheologicheskie realii)”, in: *Antichnyy mir i arkheologiya* 15, 223–239.
- Kopylov, Viktor P./Kovalenko, Aleksandr N. (2013), “Dva Tanaisa – mif ili real'nost'? (Antichnaya pis'mennaya traditsiya i arkheologicheskie realii)”, in: *Prichernomor'e v antichnoe i sredne-vekovoe vremya. Sbornik nauchnykh trudov, posvyashennyy 65-letiyu professora V.P. Kopylova*, Rostov-on-Don, 242–57.
- Korobkova, Elena A. (2003), “O semanticheskoy znachenii zerkal v sarmatskoy kul'ture”, in: *Nizhne-volzhskiy arkheologicheskiy vestnik* 6, 103–107.

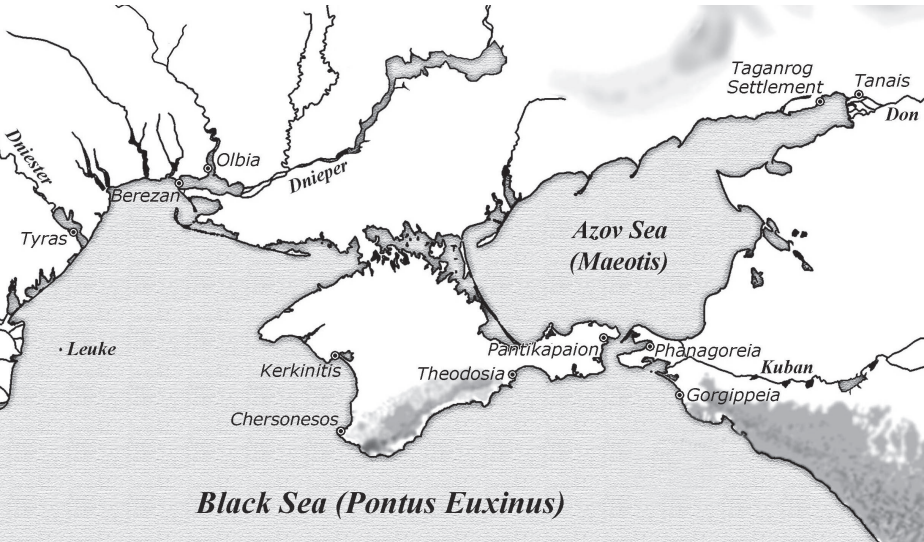
- Kosyanenko, Viktoriya M. (1990), "Kompleks nakhodok iz razrushennogo pogrebeniya v gorode Rostove-na-Donu", in: *Istoriko-arkheologicheskie issledovaniya v Azove i na Nizhnem Donu v 1989 g.*, no. 9, 61–63.
- Kosyanenko, Viktoriya M. (2008), *Nekropol' Kobyakova gorodishcha (po materialam raskopok 1956–1962 gg.)*, Azov.
- Kosyanenko, Viktoriya M./Flerov, Valeriy S. (1978), "Bronzovye litye kotly Nizhnego Podon'ya", in: *Sovetskaya arkheologiya* 1, 192–205.
- Kuznetsov, Vladimir D. (2007), "Tamga Savromata II iz Fanagorii", in: *Drevnosti Bospora* 11, 225–233.
- Larenok, Vera A. (2013), *Meotskie drevnosti. Katalog pogrebal'nykh kompleksov Kobyakova gorodishcha iz raskopok 1999–2000 gg.* Part 1, Rostov-on-Don.
- Maksimov, Evgeniy K. (1966), "Sarmatskie kotly i ikh izgotovlenie", in: *Sovetskaya arkheologiya* 1, 51–60.
- Manassero, Niccolò (2013), "Tamgas, a Code of the Steppes. Identity Marks and Writing among the Ancient Iranians", in: *The Silk Road* 11, 60–69.
- Marčenko, Konstantin K./Žitnikov, Victor G./Kopylov, Victor P. (2000), *Die Siedlung Elizavetovka am Don* (Pontus Septentrionalis 2. Tanais 2), Moscow/Berlin.
- Muratov, Maya (2017) "The 'Language of the Images' in the Visual Arts of the Bosporan Kingdom", in Valeriya Kozlovskaya (ed.), *The Northern Black Sea in Antiquity. Networks, Connectivity, and Cultural Interactions*, Cambridge, 169–191, 307–311.
- Ol'khovskiy, Valeriy S. (2001), "Tamga (k funktsii znaka)", in: *Istoriko-arkheologicheskii al'manakh* 7, 100–109.
- Perrin, Oliver T. (2010), "Mark Studies", in: Oliver T. Perrin/Joám Evans Pim/Sergey A. Yatsenko (eds.), *Traditional Marking Systems. A Preliminary Survey*, London/Dover, 7–21.
- Polin, Sergey V. (1992), *Ot Skifii k Sarmatii*, Kiev.
- Rostovtsev, Mikhail I. (1925), *Skifiya i Bospor*, St. Petersburg.
- Shelov, Dmitriy B. (1965a), "Raskopki severo-vostochnogo uchastka Tanaisa (1955–1957)", in: Dmitriy B. Shelov (ed.), *Drevnosti Nizhnego Dona*, Moscow, 56–129.
- Shelov, Dmitriy B. (1965b), "Glinyanye shtampy iz Tanaisa", in: Evgeniy I. Krupnov (ed.), *Novoe v sovetskoy arkheologii*, Moscow, 229–234.
- Shelov, Dmitriy B. (1966), "Tamga Rimitalka", in: Anna I. Boltunova (ed.), *Kul'tura antichnogo mira*, Moscow, 268–277.
- Shelov, Dmitriy B. (1970), *Tanais i Nizhniy Don v III-I vv. do n.e.*, Moscow.
- Shelov, Dmitriy B. (1972), *Tanais i Nizhniy Don v pervye veka nashey ery*, Moscow.
- Shelov, Dmitriy B. (1974), "Nekotorye voprosy etnicheskoy istorii Priazov'ya II–III vv. n.e. po dannym tanaisskoy onomastiki", in: *Vestnik drevney istorii* 1, 80–93.
- Shkorpil, Viktor V. (1911), "Bosporskie nadpisi, naydennye v 1910 godu", in: *Izvestiya Imperatorskoy Arkheologicheskoy Komissii* 40, 92–114.
- Simonenko, Olexsandr V. (1994), "Rann'osarmat'skyy period u Pivnichnomu Prychornomor'i", in: *Arkheolohiya* 1, 32–48.
- Skripkin, Anatoliy S. (1990), *Aziatskaya Sarmatiya. Problemy khronologii i ee istoricheskii aspekt*, Saratov.
- Solomonik, Ella I. (1959), *Sarmatskie znaki Severnogo Prichornomor'ya*, Kiev.
- Solomonik, Ella I. (1962), "Novi pam'yatky z sarmats'kymy znakamy", in: *Arkheolohichni pam'yatky URSR* 11, 158–168.
- Strabo (1924), *Geography. Volume V. Books 10–12*, trans. by Horace Leonard Jones, Cambridge (Mass.)
- Struve, Vasilii V. (1965), *Corpus inscriptionum regni Bosporani* (CIRB), Moscow/Leningrad.
- Treister, Mikhail Yu. (2011), "Bronzovye i zolotye pryazhki i nakonechniki poyasov s tamgoobraznymi znakami – fenomen bosporskoy kul'tury II v. n.e.", in: *Drevnosti Bospora* 15, 303–341.

- Vagner, Evgeniy V. (2012), "Istoriya izucheniya sarmatskikh bronzovykh zerkal," in: *Vesti Volgogradskogo gosudarstvennogo universiteta* (Series 4), 1 (21), 168–176.
- Vaynberg, Bella I./Novgorodova, Eleonora A. (1976), "Zametki o znakakh Mongolii", in: Bobodzhan G. Gafurov and Boris A. Litvinskiy (eds.), *Istoriya i kul'tura narodov Sredney Azii: drevnost' i srednie veka*, Moscow, 66–74, 176–179.
- Vdovchenkov, Evgeniy V./Ilyashenko, Sergey M. (2013), "Tamgi Tanaisa – etnokul'turnyi kontekst yavleniya", in: Marina Yu. Vakhtina et al. (eds.), *Bosporskiy fenomen: greki i varvary na evraziyskom perekrestke*, St. Petersburg, 292–296.
- Vinogradov, Yuriy A./Marchenko, Konstantin K. (2014), "Severnoe Prichernomor'e v III v. do n.e. (vzglyad iz grecheskikh gosudarstv)", in: *Arkheologicheskie vesti* 20, 143–164.
- Vnukov, Sergey Yu. (2007), "Vremya i politicheskie posledstviya poyavleniya plemyon pozdnesarmatskoy kul'tury v Prichernomor'e", in: *Vestnik drevney istorii* 4, 163–177.
- Voronyatov, Sergey V. (2009), "O funktsii sarmatskikh tamg na sosudakh", in: Aleksey G. Furasyev (ed.), *Gunny, goty i sarmaty mezhdru Volgoy i Dunaem*, St. Petersburg, 80–98.
- Voronyatov, Sergey V. (2012), "Oselki s sarmatskimi tamgami", in: *Kul'tury stepnoy Evrazii i ikh vzaimodeystvie s drevnimi tsivilizatsiyami. Vol. 1*, St. Petersburg, 54–58.
- Voronyatov, Sergey V. (2013), "O naznachanii sarmatskikh tamg v tseremonial'nom konskom snaryazhenii", Marina Vakhtina et al. (eds.), *Bosporskiy fenomen: greki i varvary na evraziyskom perekrestke*, St. Petersburg, 296–302.
- Yatsenko, Sergey A. (2001), *Znaki-tamgi iranoyazychnykh narodov drevnosti i rannego srednevekov'ya*, Moscow.
- Yatsenko, Sergey A. (2006), *Kostyum drevney Evrazii (iranoyazychnye narody)*, Moscow.
- Yatsenko, Sergey A. (2009), "Znaki sobstvennosti sarmatskogo oblika (*gakk/nishan*) v sel'skikh rayonakh Bosporskogo tsarstva I–III vv. n.e.", in: *Drevnosti Bospora* 13, 539–552.
- Yatsenko, Sergey A. (2010a), "Marks of the Ancient and Early Medieval Iranian-Speaking Peoples of Iran, Eastern Europe, Transoxiana and South Siberia", in: Oliver T. Perrin/Joām Evans Pim/Sergey A. Yatsenko (eds.), *Traditional Marking Systems. A Preliminary Survey*, London/Dover, 131–152.
- Yatsenko, Sergey A. (2010b), "Problems and Study Methods of the Ancient and Early Medieval Iranian-Speaking Peoples' Nishan-Signs", in: Oliver T. Perrin/Joām Evans Pim/Sergey A. Yatsenko (eds.), *Traditional Marking Systems. A Preliminary Survey*, London/Dover, 109–129.
- Zasetskaya, Irina P. (ed.) (2008), *Sokrovishcha sarmatov* (Catalogue of the Exhibition at the State Hermitage Museum in St. Petersburg, February 14 – May 18, 2008), Azov/St. Petersburg.
- Zavoykina, Natalya V. (2004), "Ταμᾶιται v istorii Bosporskogo zarstva", in: *Drevnosti Bospora* 7, 163–198.
- Zeest, Iraida B. (1951), "Keramicheskaya tara Elisavetovskogo gorodishcha i ego kurgannogo nekropol'ya", in: *Materialy i issledovaniya po arkheologii SSSR* 19, 119–124.

# Maps

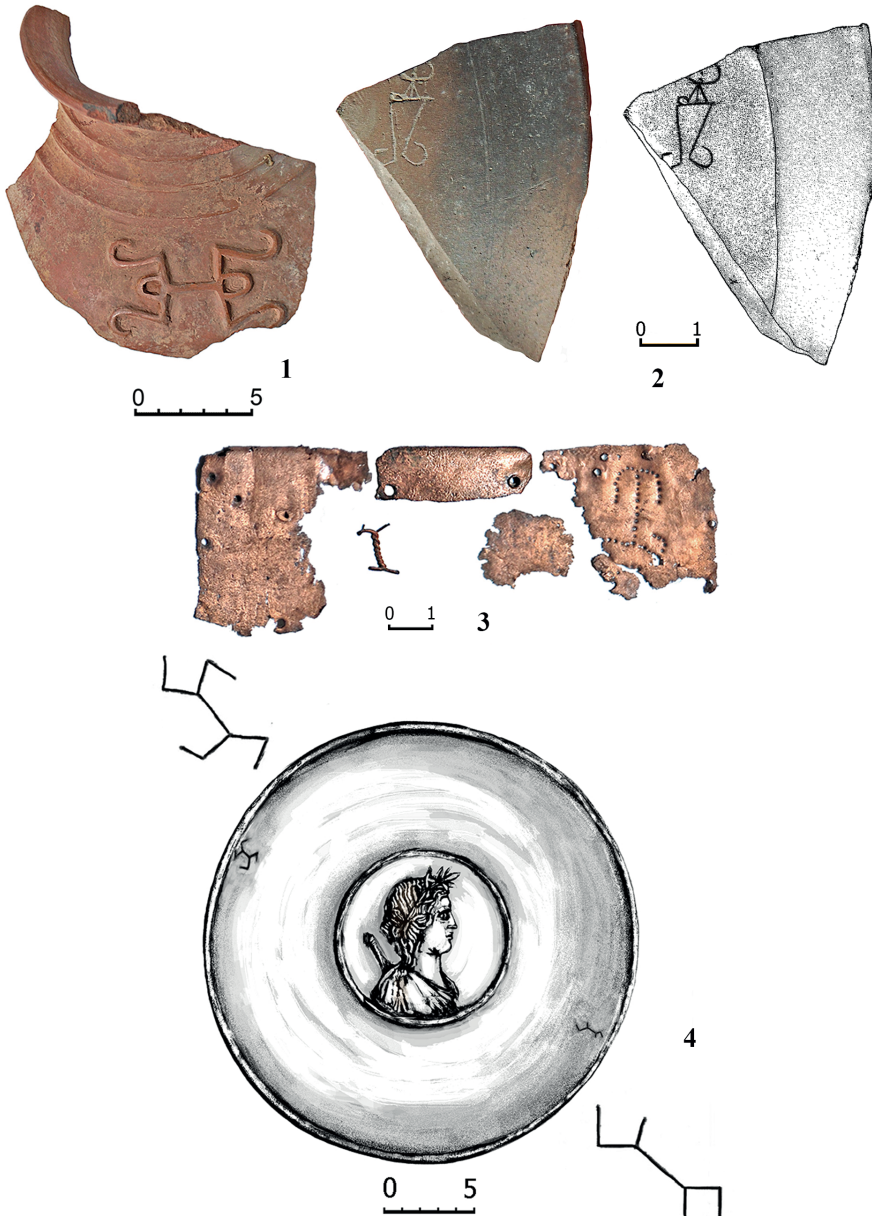


Map 1: The Lower Don area.



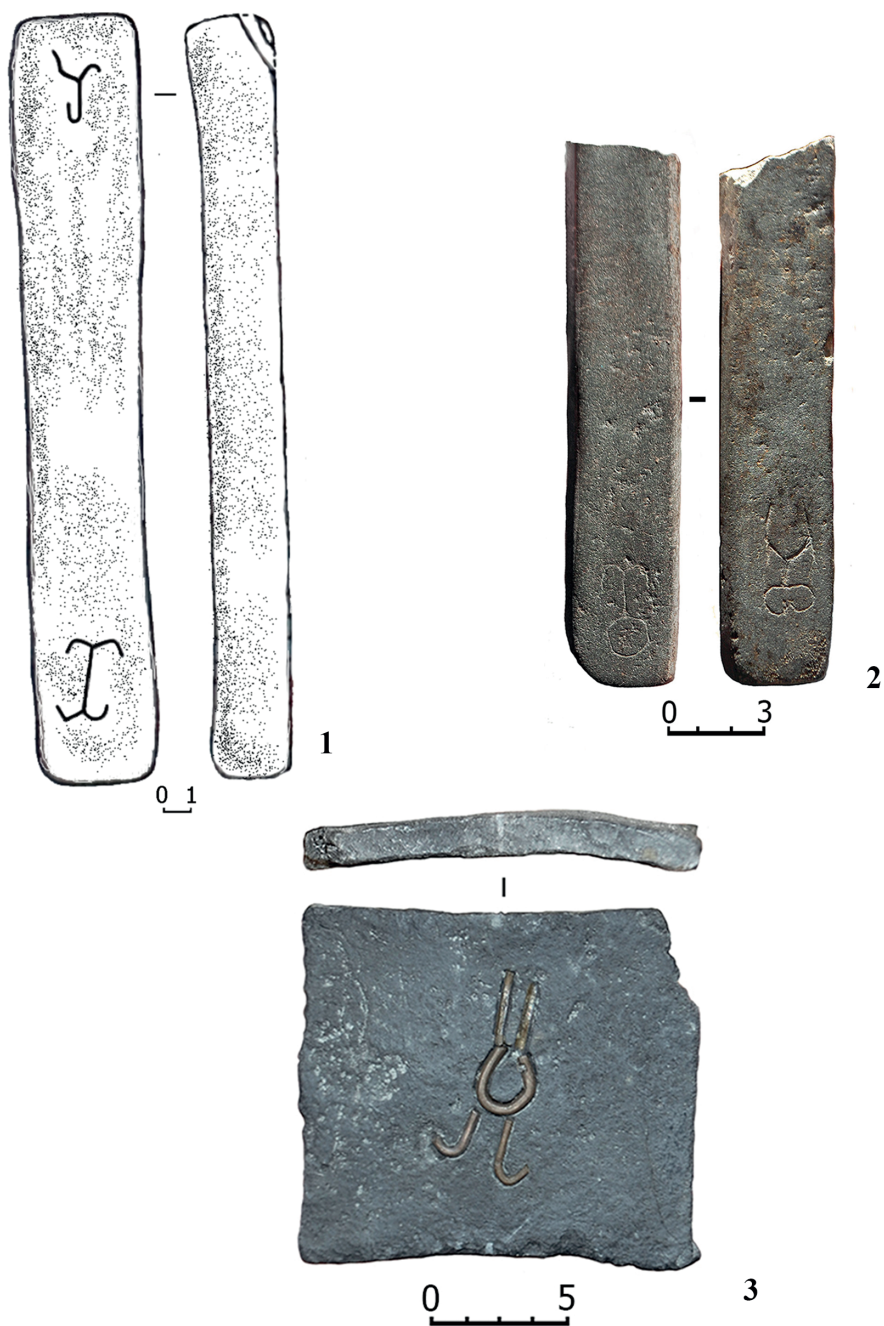
Map 2: The Northern Black Sea region.

## Figures

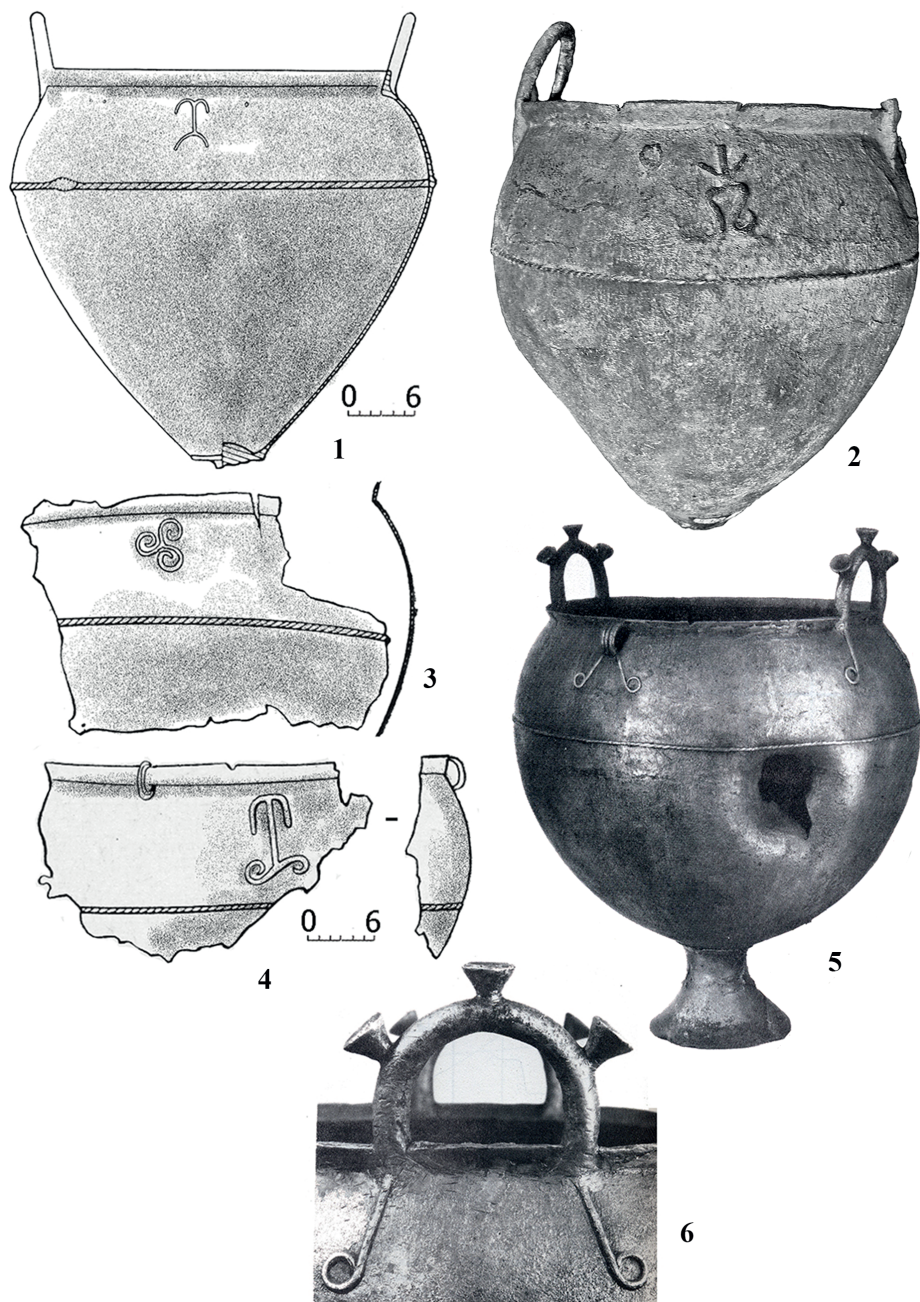


**Fig. 1:** 1-2 - ceramic fragments from Tanais; 3 - copper overlay of wooden vessel from Tanais; 4 - gilded silver *phiale* from Novo-Aleksandrovka (drawing by Vladimir Guguev).





**Fig. 2:** 1 - whetstone from Zaymo-Obryv I (drawing by Vladimir Guguev); 2 - whetstone from Temernitskoe; 3 - lead weight from Tanais.



**Fig. 3:** 1 - cauldron from Rostov-on-Don (drawing by Vladimir Guguev); 2 - cauldron from Oktyabr'skoe; 3-4 - cauldron fragments from Mokryy Chaltyr' (drawing by Vladimir Guguev); 5-6 - cauldron from Sadovyy.



Fig. 4: Silver bridle set from Tanais: 1 - buckle; 2-3 - *phalerae*.



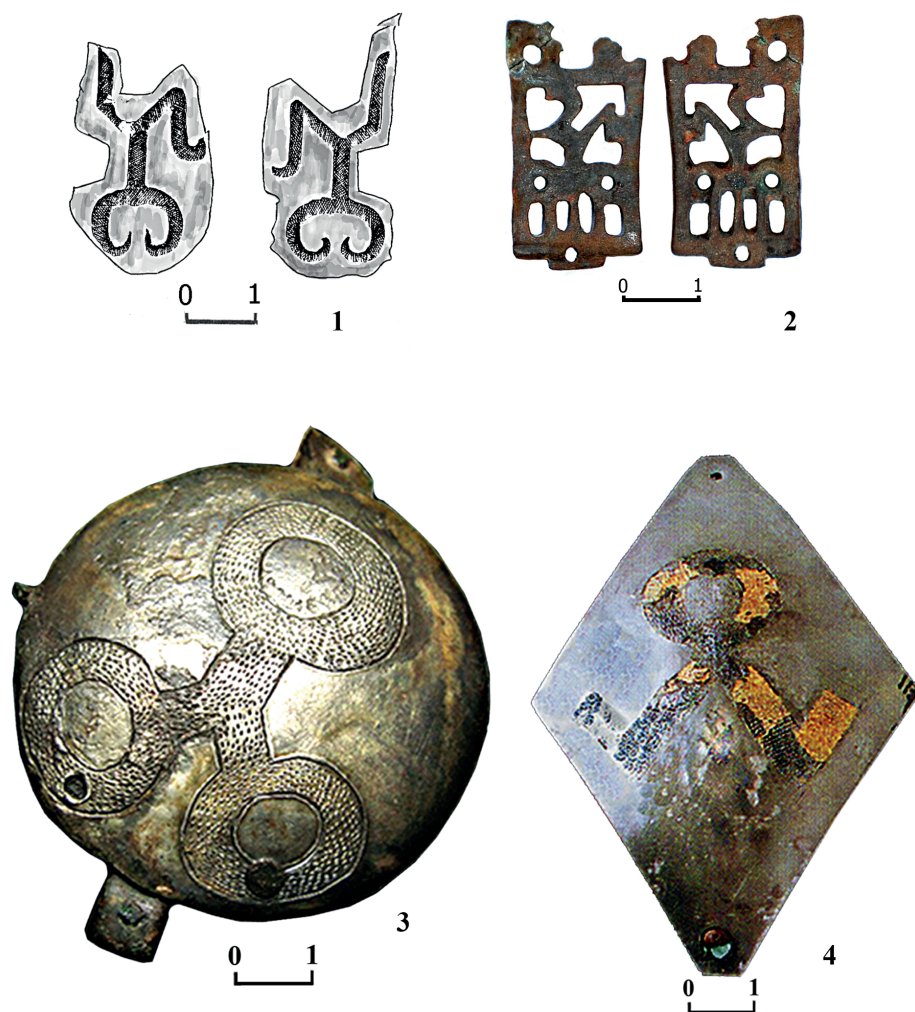


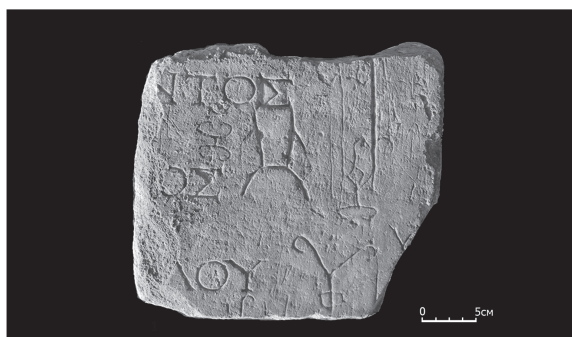
Fig. 5: 1 - horse-harness ornaments from Kobayakovskoe (drawing by Vladimir Guguev); 2 - bronze belt buckle from Tanais; 3 - silver *phalera* from Valovyy I; 4 - bridle-decoration piece from Tsentral'nyy VI.



1



2



3



**Figs. 6-7:** Fragments of slabs with *tamgas* and *tamga*-like sings from Tanais.



1



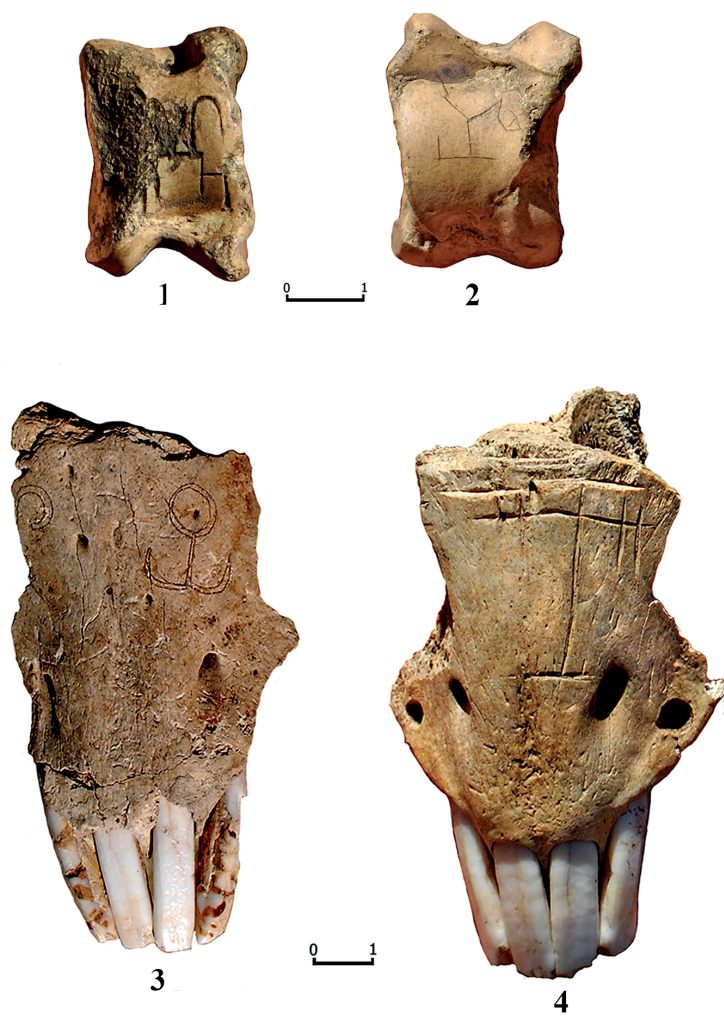
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Fig. 8: 1 - slab with *tamga*-sign and inscription featuring the name of Tiberius Iulius Eupator from Tanais (CIRB 1241); 2 - slab with unepigraphic sign from Tanais.





**Fig. 9:** 1 - stone casting form for the production of mirrors from Tanais; 2 - mirror with side loop from Tanais; 3 - mirror with "bird's foot" decoration from Tanais (drawing by Vladimir Guguev); 4-5 - mirrors from Nizhne-Gnilovskoe and Kobyakovskoe with decoration copied from Chinese mirrors of the Han period (drawing by Vladimir Guguev); 6 - mirror with loop in the center of the backside from Tanais (drawing by Vladimir Guguev).



**Fig. 10:** 1-2 - astragals from Tanais; 3-4 - pig jaws from Tanais.

