## A FEW NOTES ON THE TAMGAS FROM THE GOLDEN PLAQUE IN THE SARMATIAN GRAVE AT **DUNAHARASZTI (HUNGARY)**

Abstract: We examine herein the golden plaque identified in the looted Sarmatian grave identified at Dunaharaszti. On its surface are rendered three wolves (?) running left and a tamga, all in relief. The tamga is in the shape of two adjoining volutes. The loops are waving inward on the first, and outward on the second. The symbol is believed similar to that ascribed to king Farzoios for whom Olbia struck golden coin grosso modo by the end of AD the 50'ies - end of the 70'ies. Tamga symbols of king Farzoios are mainly known from coins and are in the shape of two half-circles set by the extremities and joined by a vertical line.

Upon the examination of the symbol on the plaque from Dunaharaszti it was noted that parallels mentioned for it differ much, while its' ascribing to king Farzoios farfetched. The author agrees that tamgas with certain deviations from those on the coins for Farzoios had belonged to other individuals, likely, from amongst the group led by this king or from within a group of Sarmatians under the control of the kingdom of Farzoios.

The author mentions for the tamga on this plaque a few analogies identical or similar from the north-Pontic area, arguing that some are specific to the region on the right bank of the Dniper. In terms of dating, it is noted they are specific mainly to the period comprised between mid 1st century AD and mid 2nd century AD. It is further mentioned that in the north-Pontic area tamgas with parts similar with that from Dunaharaszti are numerous (in particular, the volutes with loops waving inwards), yet, these are not parallels with the tamga discussed here, according to the author.

Last but not least it was noted that the tamga on the plaque at Dunaharaszti is practically the single authentic symbol on a valuable object from the Sarmatian lazyges environment of the Great Hungarian Plain. Another observation is related to the fact that the tamgas in the Sarmatian Iazyges environment of the Great Hungarian Plain come from a series of finds that span over a period of ca. three centuries, while their number is insignificant. The small number of the tamgas in the Sarmatian Iazyges environment confirms they were used by a restricted number of Sarmatian tribes, the Iazyges from the Great Hungarian Plain not included. This furt

her underlines also that tamgas in the Germanic environment were not adopted from the Iazyges, but reached the Germanic peoples upon contacts and military conflicts with the Sarmatian world from the north-west Pontic

The plaque at Dunaharaszti dates most likely to the second half of the 1st century AD and reached the Great Hungarian Plain sometime towards the end of the 1st century AD (AD 80'ies) when very likely another Sarmatian migration occurred in the area. The tamga on the plaque evidences, according to the author, the presence in this area of the elites and is evidence, given the approximate period of Farzoios's rule, that not those Sarmatians in the first wave carried the plaque to the Great Hungarian Plain. This confirms, together with other finds, that the Sarmatians entered this area in a few waves over the second half of the 1st century AD, possibly even by its end. Also, it is concluded that part of those migrating to the area were connected or even formed part

## Vitalie Bârcă

Institute of Archaeology and Art History of Cluj-Napoca vitalie\_barca@yahoo.com

DOI: 10.14795/j.v5i4.354 ISSN 2360 - 266X ISSN-L 2360 - 266X

for a short while from the Sarmatian group led by Farzoios and Inismeos. Lastly, it is not excluded that the plaque from Dunaharaszti indicates, beside a series of artefacts and elements from several archaeological finds, the presence within the wave of Sarmatians that entered the Great Hungarian Plain of individuals from the elites of the Sarmatians (Alani/Aorsi) who settled the north-west Pontic area starting with mid 1st century AD. This is possible, according to the author, should one keep in mind also that such elite might have been involved in the Iayzgian aristocracy from the north-west Pontic area. Regardless the facts, it is very likely that its representatives played an important role within this wave.

Keywords: the Sarmatians, the Iazyges, the Alani, the Aorsi, tamgas, Farzoios, the Great Hungarian Plain, the north and north-west Pontic space

he research carried out over the time resulted in several studies discussing various aspects related to the Sarmatian inhabitancy of the Great Hungarian Plain in the course of four centuries. Nevertheless, currently, even though it seems odd, there is no consensus over the start period of the entry and effective settlement of the Sarmatians in this geographical area<sup>1</sup>. Also, views as regards how and when the Sarmatian Iazyges reached the Great Hungarian Plain are also incongruent<sup>2</sup>. The analysis of the ancient literary sources shows that the view according to which the Sarmatian Iazyges settled the Great Hungarian Plain around AD 20 is not supported by the accounts of the classical authors of the first half of the 1st century AD3, even though some specialists still argue that the ancient written sources record the emergence and presence of the Sarmatian Iazyges in the northern part of the area between the Danube and the Tisza4.

Archaeological finds also evidence that the Iazygian remains of the Great Hungarian Plain are no older than the second half of the 1st century AD and that finds including objects with more accurate dating belong to the end of the 1st century AD, and in some cases even the end of the 1st century AD and early 2nd century AD5, as confirmed in fact, by more recent archaeological finds<sup>6</sup>. Furthermore, the artefacts in these finds evidence they formed part of female graves from the wealthy class of the Sarmatian society part of the group of Sarmatians arriving in the Great Hungarian Plain from the north-west Pontic territories sometime in the second half of the 1st century AD, likely, its end.

These archaeological facts, confirmed by the ancient written sources, evidence that the first Iazyges emerged in the northern part of the territory between the Danube and Tisza likely around AD 50, if not precisely in AD 50, during the events from regnum Vannianum.

The arrival of the first group of Sarmatians in the Great Hungarian Plain, who played a secondary role in the area, was most likely followed, until the end of the 70'ies - early 80'ies of the 1st century AD by other few entry waves of the Sarmatians in the area between the Danube and Tisza. The movement of the "main" Iazygian tribe in the northern part of the Tisza-Danube interfluve occurred most likely as a result of the pressure of the new Sarmatian tribes (Aorsi, Alani) arriving from the east in the north and north-west Pontic area starting with mid 1st century AD7. A secondary cause with a small contribution in the departure of the main Iazygian tribe from the north-west Pontic area might have been the tense political and military circumstances in this region and the new border policy by the Lower Danube of emperor Vespasian, resulted in the setting up of a more clear division line on the Danube, between Moesia and the Barbaricum, which led to enhanced control of the north-Danubian "security space". Also, it may not be excluded that in the "complete" displacement of the Iagyges in the Tisza-Danube interfluve a secondary role was played by the Romans, who, given the Vannius episode and the increased power of the Dacians, had encouraged from political and military reasons the settlement of the Iazyges in the area between the Danube and Tisza<sup>8</sup>. It is certain that in a first stage, they settled mainly

For all views and discussions over time see BÂRCĂ 2014, 35-38 with complete bibliography.

In the Hungarian specialty literature, the view that the mention of the Sarmatian Iayzges in the area between the Danube and the Tisza in the ancient literary sources dates to an earlier period than the related archaeological remains is predominant.

For the accounts of the ancient written sources referencing the location of the Sarmatian tribes by the end of the 1st century BC - early 2nd century AD see BÂRCĂ 2006, 243-262; BÂRCĂ 2013; BÂRCĂ 2014, 50-52; BÂRCĂ/ SYMONENKO 2009, 344-364. See the information from the decree honouring Mokaporis, son to Auluporis, strategos of king Rhoemetalces I (12 BC - CE 12), discovered following the excavations in the temple of the Pontic Mother of Gods at Dionysopolis, mentioning a military campaign to the left of the Danube directed against the Iayzges (LAZARENKO/ MIRCHEVA/ENCHEVA/SHARANKOV 2010, 36; MATEI-POPESCU 2014, 176). Although the Romans are not referred to by name in connection to this military campaign, it may be in fact, as well noted by F. Matei-Popescu (MATEI-POPESCU 2014, 176), that campaign carried out by Cnaeus Cornelius Lentulus against the Sarmatians recorded by Florus. F. Matei-Popescu's argument is that a military campaign past the Danube under Augustus was impossible without Roman involvement. It is though certain that the information in the inscription at Dionysopolis further confirms that the Lower Danube region was in Lentulus's action range (MATEI-POPESCU 2014, 176), but also that the Sarmatian Iayzges inhabited the territories north the Danube mouths, as confirmed by both ancient written sources and arcaheological finds.

Cf. ISHTVANOVICH/KUL'CHAR 2000, 208; ISHTVANOVICH/ KUL'CHAR 2005, 335; ISTVÁNOVITS/KULCSÁR 2006, 203-210; ISTVÁNOVITS/KULCSÁR 2017, 183-191. Among the invoked arguments, counts the report of Aurelius Victor, a late Roman date author, who in a passage (II, 9) from Libellus de vita et moribus imperatorum mentions that: "...Moesia was pillaged by the Dacians, and Pannonia by the Sarmatians" ("... Moesia a Dacis, Pannonia a Sarmatis, ....direptae sunt") (FHDP II, 26-27). Alas, no other ancient source mentions the supposed battles under Tiberius.

For the analysis of the early Sarmatian remains and their dating see KŐHEGYI 1984; SHCHUKIN 1989, 76-77; VADAY/ISTVÁNOVITS/ KULCSÁR 1989; SHCHUKIN 1994, 223-224; ISHTVANOVICH/KUL'CHAR 2005; ISTVÁNOVITS/KULCSÁR 2006, 210-225; ISTVÁNOVITS/KULCSÁR 2013; ISTVÁNOVITS/KULCSÁR 2017, 191-214; BÂRCĂ 2014, 38-50, 52-64 with complete bibliography.

KULCSÁR/KOROM 2017, 89 sqq.

See BÂRCĂ 2013; BÂRCĂ 2014a; BÂRCĂ 2015; BÂRCĂ/SYMONENKO 2009 with complete bibliography and views.

BÂRCĂ 2013 106; BÂRCĂ 2014, 52.

the northern part of the region between the Danube and Tisza, as evidenced by the archaeological finds ascribed to the Sarmatian Iayzges, which cluster in said territory, yet also by the classical sources which record them in the period in the mentioned area or in connection with the northern border populaces.

The settlement of the Sarmatians in the Great Hungarian Plain occurred in several waves over the second half of the 1st century AD, as shown by a series of artefacts and elements of the archaeological finds9, only after the contacts with the new Sarmatian tribes (Aorsi, Siraces, Alani) arrived in the north and north-west Pontic space starting with mid 1st century AD. We believe that the said are confirmed by the golden plaque identified in a looted grave at Dunaharaszti<sup>10</sup>. The plaque is sized 16.6 x 1.5-1.7 cm and has the surface decorated with three wolves (?) running left and a tamga, all in relief (Fig. 1/5; 2/1). In the north and north-west Pontic area, the tamgas were carried by this wave of Sarmatians arriving from the east<sup>11</sup>, they also being the ones to mostly contribute to their diffusion in the steppes of Eastern Europe<sup>12</sup>.

The tamga on this golden plaque is in shape of two adjoining volutes13. The first has loops waving inward and the second outward. The sign is identified as similar with the pattern of the tamgas ascribed to king Farzoios<sup>14</sup> for whom Olbia struck golden coin grosso modo by the end of the 50'ies - end of the 70'ies AD15. The tamgas of king Farzoios are mainly known from coins and are shaped as two half-circles set by the extremities and joined by a vertical line (Cf. Fig. 3/1-2; 4/1-2; 5/1-3). By the end of the 70'ies - early 80'ies AD, at Olbia were minted also silver coins with tamgas for the Sarmatian king Inismeos as well<sup>16</sup>. The tamgas of this king are similar to those of king Farzoios, differentiating only by the circle added in the central part of the line joining the two half-circles by the extremities (Cf. Fig. 3/3-4; 4/3; 5/4-7; 6/1).

Views concerning the origin of the two kings to a specific Sarmatian groups are divided, they being believed by the scholars as Aorsi<sup>17</sup>, Siraces<sup>18</sup>, Alani<sup>19</sup> or that they might have also been both Alani and Aorsi or Siraces<sup>20</sup>. Based on the diffusion area of these coins, it was concluded that Farzoios and Inismeos were the leaders of a Sarmatian group from the north-west Pontic area21 whose borders lay between the Dnieper and the Dniester<sup>22</sup>, very likely even the Prut<sup>23</sup>. Based on the resemblances between the tamgas on the coins for Farzoios and Inismeos, and the fact they were struck for both kings by the mint of Olbia<sup>24</sup>, it may be concluded with caution they were relayted, Inismeos being likely the successor of Farzoios<sup>25</sup>.

Given the archaeological facts and the accounts of the ancient authors26 evidencing that starting with mid 1st century AD, in the north and north-west Pontic area emerge new Sarmatian tribes, it may be noted that the Sarmatian groups moving westwards (Aorsii, Siraces and Alani<sup>27</sup>) lay in the find area of the coins for Farzoios and Inismeos<sup>28</sup> as well as the

- SIMONENKO/LOBAJ 1991, 74, 75; SIMONENKO 1992, 158 sqq.; KRAPIVINA 1993, 146-147; VINOGRADOV 1994, 167-169; ZUBAR' 1994, 218-222; YATSENKO 2001, 48-49.
- RUSYAEVA 1989, 192-193; RUSYAEVA 1995, 24-36.
- SKRIPKIN 1996, 160-168; DZIGOVSKIJ 2003, 93-101; ISHTVANOVICH/ KUL'CHAR 1998 11, 14; ISHTVANOVICH/KUL'CHAR 2010, 155; ISTVÁNOVITS/KULCSÁR 2006a 178, 186; VORONYATOV 2013, 155-156; VORONYATOV 2015, 33, 37. With the Alanic origin also agrees A. V. Simonenko (SIMONENKO 2010, 394-399).
- SHCHUKIN 1992, 120-121; SHCHUKIN 1995, 177; BÂRCĂ 1997, 974; SIMONENKO 1999a, 316; BÂRCĂ/SYMONENKO 2009, 352.
- $^{21}\;\;$  Cf. KARYSHKOVSKIJ 1982, 76, 79; KARYSHKOVSKIJ 1988, 108-115; see also SIMONENKO/LOBAJ 1991, 70-75.
- SIMONENKO/LOBAJ 1991, 70-75; SIMONENKO 1992, 151 sqq.; VINOGRADOV 1994, 168, note 98; BÂRCĂ 1997, 966 sqq.; BÂRCĂ 2006, 258 sqq.; BÂRCĂ 2013.
- VORONYATOV 2013, 151 sqq., Fig. 1. Given the historical and archaeological facts in this region, it is very likely that kings Farzoios and Inismeos did not rule over the entire north-west Pontic territory between the Dnieper and the Prut, nor they controlled and entirely subdue the Sarmatian groups or indigenous populations in said area. Very likely, as argued recently, the nature of the dependence of these groups and populations to the kingdom of Farzoios was different (VORONYATOV 2013, 151).
- $^{24}$  For a complex analysis of all aspects related to Farzoios and Inismeos and the expressed views over time see BÂRCĂ 2013; BÂRCĂ 2014a.
- <sup>25</sup> Cf. KARYSHKOVS'KYJ 1971, 83; ANOKHIN 1989, 70; SIMONENKO/ LOBAJ 1991, 68-69. A. V. Simonenko does not exclude that Inismeos had even been the son of Farzoios, yet doubted by S. A. Yatsenko (YATSENKO 2001, 49-50).
- <sup>26</sup> For the arrival and settling of new Sarmatian tribes in the north-west of the Black Sea, notable in the ancient literary and epigraphic sources see BÂRCĂ 2006, 244-262; BÂRCĂ 2013; BÂRCĂ/SYMONENKO 2009, 348-364.
- We wish to mention, as elsewhere (Cf. BÂRCĂ/SYMONENKO 2009; BÂRCĂ 2006; BÂRCĂ 2013; BÂRCĂ 2015), that in the current state of knowledge, the graves with obvious eastern features from the north and north-west Pontic area dating between mid 1st century AD - early 2nd century AD are mostly Alanic. Even more, it is most certain that Chinese (SIMONENKO 2003, 45-65) and central-Asian origin pieces (YATSENKO 1993, 60-72) emerged with the Sarmatians, those in the north and northwest Pontic area included, once with the arrival of the Alani who used these artefacts a long time ago prior reaching these territories.
- For the graves of the early Alanic aristocracy in the north-west Pontic area like those at Kovalevka (Sokolova Mogila), Troyany, Gordeevka, Severinovka, Pisarevka, Porogi, Kozyrka, Vesnyanoe, Cazaclia (T 10 G 1), Olănești (T 4 G 4), Hruşca, Mocra (T 2 G 2), Mikhajlovka (T 3 G 3) etc. see KOVPANENKO 1986, 66-72, 127, Fig. 70-73; GROSU 1986; GROSU 1990, 53, 92, Fig. 16D; SUBBOTIN/DZIGOVSKIJ 1990, 19-21, Fig. 15/10-16, 16/1-9; SIMONENKO/ LOBAJ 1991; SIMONENKO 1997, 389-407; SIMONENKO 2008, 71, 73-76, 78-79, Pl. 85-87, 100-111, 118-119, 126-129, 131-133; SIMONENKO/ MEL'NIK 2004, 269-280, KASHUBA/KURCHATOV/SHCHERBAKOVA 2001-2002, 200-213, 226-242, Fig. 8-9, 11-17; AGULNICOV/BUBULICI

Cf. BÂRCĂ 2014, 38-50, 52-64; ISTVÁNOVITS/KULCSÁR 2017, 191-214. VADAY 1989a, 129, Fig. I/5; ISHTVANOVICH/KUL'CHAR 1998, 11, Fig. 10/2; ISTVÁNOVITS/KULCSÁR 1997, 161, Pl. XX/1; ISTVÁNOVITS/ KULCSÁR 2006a, 176, Fig. 1; ISTVÁNOVITS/KULCSÁR 2017, 243, Fig. 190. For the elements, features and funerary furniture specific to the newcomers in the north and north-west of the Black Sea see SIMONENKO/ LOBAJ 1991; SIMONENKO 2000; SIMONENKO 2003; YATSENKO 1993; BÂRCĂ/SYMONENKO 2009; BÂRCĂ 2006; BÂRCĂ 2012; BÂRCĂ 2013 with complete bibliography).

 $<sup>^{\</sup>rm 12}~$  For the origin of the tamgas, their chronology, emergence and distribution in the Sarmatian environment see YATSENKO 2001, 27-30, 31-44.

For main and secondary functions of the tamgas see OL'KHOVSKIJ 2001; YATSENKO 2001, 14-15; VORONYATOV 2009.

ISHTVANOVICH/KUL'CHAR 1998, 11, 14; ISTVÁNOVITS/ KULCSÁR 2006a, 177-178, 186; ISTVÁNOVITS/KULCSÁR 2014, 222-223; ISTVÁNOVITS/KULCSÁR 2017, 244-246.

On the obverse of the golden coins appears the face of Farzoios and inscription  $BA\Sigma I\Lambda E\Omega\Sigma$   $\Phi APZOIOY$ , and on the reverse the eagle with a tamga in the claws and letters OA, to which adds the monogram of the archontes (Cf. KARYSHKOVS'KYJ 1971, 79-84; KARYSHKOVSKIJ 1982, 66-82; KARYSHKOVSKIJ 1982a, 6-28; KARYSHKOVSKIJ 1988, 108-115, 119; ANOKHIN 1989, 64-70; ANOKHIN 2011, 94-97, cat. no. 585-594). For the analysis of the tamgas ascribed to Farzoios and their diffusion see YATSENKO 2001, 48-49.

The silver coins minted for Inismeos had on the obverse the king's face, the tamga symbol and inscription  $BA\Sigma I\Lambda E\Omega\Sigma$  INEN $\Sigma IME\Omega\Sigma$  or **ΒΑΣΙΛΕΩΣ INICMEΩΣ**, and on the reverse the head of Apollo or the city goddess, bow, dolphin, the monogram of the archontes and the circular inscription **ΟΛΒΙΟΠΟΛΕΙΤΕΩΝ** (Cf. KARYSHKOVSKIJ 1982, 66-82; KARYSHKOVSKIJ 1982a, 6-28; ANOKHIN 1989, 70; ANOKHIN 2011, 96-97, cat. no. 595-596). For the analysis of the tamgas for Inismeos see YATSENKO 2001, 49-50.

objects with tamgas specific to these kings<sup>29</sup>. In fact, in the current state of knowledge, there is insufficient information to accurately establish the origin to a specific Sarmatian tribe of Farzoios and Inismeos, however, it is very possible they were the leaders of a heterogeneous Sarmatian group from the north-west Pontic area in which an important role was played by the Alanii<sup>30</sup>. Regardless the constituents of this group, it is certain that Farzoios and Inismeos played an important role in the history of this town in the second half of the 1st century AD.

Returning to the symbol on the plaque from Dunaharaszti, it is identified in older or more recent publications with the tamga ascribed to king Farzoios<sup>31</sup> (Cf. Fig. 3/1-2; 5/1-3). A series of parallels are mentioned for the tamga at Dunaharaszti32 like those on the belt fittings, sword scabbard and silver pot from grave (T 2 G 1) at Porogi<sup>33</sup> (Cf. Fig. 5/17-22) (left to Mid Dniester) or the golden leaf in the richly furnished barrow grave (T10 G 1) in the cemetery at Kobyakovo<sup>34</sup> (Cf. Fig. 5/23) (left the Lower Don). The grave at Porogi dates to the second half/last quarter of the 1st century AD and that at Kobyakovo sometime in the second half/end of the 1st century - early 2nd century AD. Another analogy invoked by E. Istvánovits and V. Kulcsár is that on the coins of chiefs from the Kushan empire<sup>35</sup> (Cf. Fig. 8). Upon a careful analysis of said parallels, one may note they differ much from the symbol on the plaque at Dunaharaszti (Fig. 1/5; 2/1; 5/8; 9/3). In the case of the tamgas from Porogi, invoked by E. Istvánovits and V. Kulcsár as analogies, it must be mentioned they are not of the type ascribed to king Farzoios (see Fig. 3/1-2; 5/1-3), but are similar to those on the silver coins struck by Olbia for Inismeos<sup>36</sup> (Fig. 3/3-4; 4/3; 5/4-7; 6/1). The tamgas of this king are in the shape of two 1999; KURCHATOV/BUBULICI 2003; DZYGOVS'KYJ 1993, 74-75, 201, Fig. 33, 36/4-5, 37/2, 6, 8, 38, 43/1-6; BÂRCĂ 2006, 300-302, 319-320, 329-330, 331-334, 348-353, Fig. 41-43, 65, 75-77, 79-81, 97-111; BÂRCĂ/ SYMONENKO 2009. S. V. Voronyatov believes that the group of graves in the Bug-Dniester interfluve represent an unusual cemetery o the Alanic clan (VORONYATOV 2013, 156).

- Cf. SHCHUKIN 1982, 36; SHCHUKIN 1989a, 43; KARYSHKOVSKIJ 1982; GROSU 1986; SIMONENKO/LOBAJ 1991, 62-75; SIMONENKO 1992,
- <sup>30</sup> BÂRCĂ 2014, 66. Given the ancient authors' reports and the archaeological facts, one may assume with certainty that the Alani who reached the territories north and north-west Potnic after mid 1st century AD were a very strong military group. Also, it is very likely that this group of Alani had imposed in a very short time the political control over other Sarmatians in the region.
- ISHTVANOVICH/KUL'CHAR 1998, 11, 14; ISHTVANOVICH/ KUĽCHAR 2010, 155; ISTVÁNOVITS/KULCSÁR 2006a, 177-178; ISTVÁNOVITS/KULCSÁR 2014, 222-223; ISTVÁNOVITS/KULCSÁR 2017, 245-246
- 32 ISTVÁNOVITS/KULCSÁR 1997, 161; ISTVÁNOVITS/KULCSÁR 2006a, 177; ISTVÁNOVITS/KULCSÁR 2014, 222; ISTVÁNOVITS/KULCSÁR 2017,
- $SIMONENKO/LOBAJ\ 1991, 62-66, Fig.\ 4/10, 10/1-4, 11/4, 16/2, Photo\ 37.$
- PROKHOROVA/GUGUEV 1992, 154, Fig. 12/9.
- 35 Cf. TOLSTOV 1948, 149, Fig. 35; ALRAM 1996, Fig. 115. For the coins of king Vima Kadphises (kingdom of Kushan) with the tamga symbol believed similar with that at Dunaharaszti see

https://en.numista.com/catalogue/pieces129710.html https://www.cngcoins.com/Coin.aspx?CoinID=96881

https://www.cngcoins.com/Coin.aspx?CoinID=334237

https://www.vcoins.com/en/stores/coinindia/36/product/india\_kushan\_ vima kadphises gold dinar scarce and choice/844620/Default.aspx http://www.columbia.edu/itc/mealac/pritchett/00routesdata/0001\_0099/ kushancoins/kushancoins.html

Cf. KARYSHKOVSKIJ 1982, 66-82; KARYSHKOVSKIJ 1982a, 6-28; ANOKHIN 1989, 70; ANOKHIN 2011, 96-97, cat. no. 595-596.

half-circles placed by extremities and joined by a vertical line with a circle in the central part $^{37}$ . The tamgas on the golden leaf from T 10 G 1 at Kobyakovo have nothing in common with the symbol from Dunaharaszti (Fig. 5/23). They have by one extremity a volute and by the other end a symbol in the shape of running legs, the two being joined by a vertical line. Ascribing the symbol on the plaque from Dunaharaszti to king Farzoios seems farfetched since it has the shape of two adjoining volutes, the first with loops waving inwards and the second outwards. In the monograph dedicated to the tamgas from 2001, S. A. Yatsenko indicated clearly the tamgas which belong to kings Farzoios and Inismeos, those related included<sup>38</sup>. The same author explains also the main patterns for the creation of new tamgas<sup>39</sup>. Last but not least, one should mention that the tamgas with certain deviations from those on the coins of Farzoios are believed to belong most likely to other individuals<sup>40</sup>, from the group lead by this king or from a group of Sarmatins under the control of the kingdom of Farzoios.

The tamga on the golden plaque from Dunaharaszti has an identical parallel among the tamgas from the study of N. Moroşan<sup>41</sup> (Fig. 9/1). Accordingly, the symbol is rendered on a Byzantine funerary stone<sup>42</sup>. It is also found in the book dedicated to the tamgas from the north of the Black Sea of V. S. Drachuk, who however mentions the findspot of the piece depicting the symbol is unknown<sup>43</sup> (Fig. 9/2). Other few tamgas slightly different from that at Dunaharaszti are found on the marble lion no.2 from Olbia<sup>44</sup> (Fig. 9/4; 10), the limestone stela from Krivoj Rog<sup>45</sup> (Fig. 11), wooden harp from a Sarmatian grave from Kozyrka<sup>46</sup> (Fig. 12/25; 13/1-36), the limestone plaque from Panticapaeum<sup>47</sup> (Fig. 14/1-2) and the golden bracelet from Olbia<sup>48</sup> (Fig. 14/3). Given their appearance it is likley the symbol from Dunaharaszti to derives from these tamgas. Some of these symbols are specific, as well noted by S. A. Yatsenko<sup>49</sup>, to the region right the Dnieper. In terms of their dating, it may be noted they are mainly specific to the period comprised between mid 1st century AD - mid 2nd century AD. Last but not least, in the north-Pontic area tamgas with parts similar with that at Dunaharaszti are many (in particular the volutes with

Compared to the tamgas ascribed to king Farzoios, those of king Inismeos are much more numerous, being found on several artefact classes, including in the Geto-Dacian environment (BABEŞ 1999, 223, 225, Fig. 1).

YATSENKO 2001, 48-50.

YATSENKO 2001, 25-26

RAEV/SIMONENKO 2009, 77.

MOROŞAN 1938, 42, Fig. 2/39.

MOROŞAN 1938, 43.

DRACHUK 1975, 119, nr.365, Pl. VI/365.

Cf. DRACHUK 1975, Pl. L/15; YATSENKO 2001, 67, Fig. 11.

Cf. SOLOMONIK 1959, 98, 168, nr. 70; YATSENKO 2001, 68-69, Fig. 12. SYMONENKO 1999, 111-114, Fig. 7/13; SIMONENKO 2004a, 209-221; Fig. 15/13; YATSENKO 2001, 77-78, Fig. 25/25. The grave at Kozyrka dated to the end of the 1st century AD. (SIMONENKO 2004a, 221). It must be noted that some tamgas on the harp from Kozyrka are renderd in the book of S. A. Yatsenko slightly different that in the study of A. V. Simonenko.

SOLOMONIK 1959, 103, 168, no. 56, 65; DRACHUK 1975, Pl. XXXV-XXXVI; YATSENKO 2001, 66.

SOLOMONIK 1959, 131, no. 70; YATSENKO 2001, 85, Fig. 5/83; MORDVINTSEVA/TREJSTER 2007, I, 146, II, 146 cat. no. B/1.13, III, Pl. 6/ B/1.13, 61/ B/1.13; FLESS/TREISTER 2007, 176, Fig. 7/3. A tamga similar with those mentioned previously is indicated as originating in the mountain populace from west Caucasus (DRACHUK 1975, Pl. XXIII//14).

YATSENKO 2001, 78.

loops waving inwards), yet these, as shown above, cannot be deemed analogies.

At a careful examination of the tamgas from the Sarmatian environment of the Great Hungarian Plain it may be noted that the one from the plaque on Dunaharaszti is practically the single authentic symbol on a valuable piece from this area. Furthermore, it is noted that the tamgas from the Sarmatian Iazyges environment of the Great Hungarian Plain come from a series of finds spanning a period of ca. three centuries, while their number is insignificant. They are found on the single weights from Csongrád-Határút, G 1150 (Fig. 2/4; 5/9-12) and Nagyszénás-Vaskapu<sup>51</sup> (Fig. 2/6; 5/14-15), on a small rectangular vessel from Gyula-Szeregyháza<sup>52</sup> (Fig. 2/5; 5/13), on an astragal from Pit 23 (Site 133) at Gyoma-Ailer téglagyá $r^{53}$ , on a disc mirror with a rectangular side pierced handle from Dunaújváros/Dunapentele<sup>54</sup> (Fig. 2/2) and a disc mirror with pierced edge<sup>55</sup> (Fig.2/3; 5/16) with unknown findspot to which adds that on a wheelthrown cup of grey fabric from Arad-Fabrica Teba<sup>56</sup>. To these objects with tamgas add the small rectangular pottery PÁRDUCZ 1944, 20, 56, Pl. XXXII/1a-c; VADAY/MEDGYESI 1993, 63, Fig. 15/1a-e; ISTVÁNOVITS/KULCSÁR 2006a, 176, Fig. 2/4; ISTVÁNOVITS/ KULCSÁR 2017, 243, Fig. 191/3.

- <sup>51</sup> HAVASSY 1998, 162, cat. no. 108; ISTVÁNOVITS/KULCSÁR 2006a, 176, Fig. 2/5; ISTVÁNOVITS/KULCSÁR 2017, 244, Fig. 191/5.
- VADAY/MEDGYESI 1993, 88, Fig. 2/1, 4/4; HAVASSY 1998, 164, cat. nr. 122; ISTVÁNOVITS/KULCSÁR 2006a, 176, Fig. 2/2; ISTVÁNOVITS/ KULCSÁR 2017, 244, Fig. 191/4.
- VADAY 1996, 158-159, CHOYKE 1996, 310, Fig. 5; ISTVÁNOVITS/ KULCSÁR 2006a, 176, Fig. 2/3; ISTVÁNOVITS/KULCSÁR 2017, 243-244.
- ISTVÁNOVITS/KULCSÁR 2003, 75-78; ISTVÁNOVITS/KULCSÁR 2006a, 176, Fig. 2/6; ISTVÁNOVITS/KULCSÁR 2017, 243, Fig. 191/1. It belongs to disc mirror types with thickened rim and side handle, rectangular and pierced. The outer part of these mirrors is decorated in relief with the representation of various patterns; most often, solar symbols or tamgas. The symbols in relief on the mirrors of the type are, according to the scholars, both ownership symbols, decorations, but especially religious symbols, while the mirrors themselves with tamgas fulfilled beside their primary function also a magical-apotropaic role. In the Sarmatian environment of the north-Pontic area, the great majority of the mirrors of the type come from graves that date to the second half of the 2nd - first half of the 3rd century AD (SIMONENKO 2004, 152; BÂRCĂ/SYMONENKO 2009, 246-249; BÂRCĂ 2015, 47 with complete bibliography). Some mirrors of the type are rarely found also in graves that date by mid and second half of the 3rd century AD (SIMONENKO 2004, 152; BÂRCĂ/SYMONENKO 2009, 247).

ISTVÁNOVITS/KULCSÁR 2006a, 176, Fig. 2/1; ISTVÁNOVITS/ KULCSÁR 2017, 244, Fig. 191/2. The early specimens of these mirrors were produced in workshops from northern Italy over the 1st century AD being very popular over the course of the entire century. It is not known for certain when their production ceased, yet there are cases when such mirrors were found also in 2nd century AD features (Cf. LLOYD-MORGAN 1980, 104, no. 7; LLOYD-MORGAN 1981, X, 49 sqq.; SHILOV 1972; TREJSTER 1991, 94). In the north of the Black Sea, mirrors of the type emerge in the second half of the 1st century AD, the majority being discovered on the territory of the Bosporan Kingdom (TREJSTER 1991, 94, 97, 102, Fig. 4). A few mirrors of the type come from Sarmatian graves from the Volga and Don area (SHILOV 1972, 261-264, Fig. 1-2; TREJSTER 1991, 94, 97, 102, Fig. 4; SKRIPKIN 1990, 97, Fig. 36/27) but also the late Scythian environment on the territory of Crimea (PUZDROVSKIJ 2007, 154, Fig. 127/10). The graves from the north-Pontic area where such mirrors were identified date mainly to the chronological time frame between the second half of the 1st century and first half of the 2nd century AD. In the Sarmatian environment of the Great Hungarian Plain, such mirrors were found in several graves (VADAY 1989, 126, Pl. 9/1, 10/1, 113/7; ISTVÁNOVITS/KULCSÁR 1993, 13-14, type 3, Pl. I/3-4, Fig. 1/C), part dating to the 2nd century AD. These facts indicate that in the Sarmatian environment artefacts of the type were still used for a long period after their production cease.

BUDIHALĂ 2012, 95, Pl. XVI/15. The cup was discovered together with other few complete and fragmentary vessels in a waste pit, investigated when a ditch was excavated in 1955 (Cf. DÖRNER 1968, 26).

vessels from Timișoara-Cioreni<sup>57</sup> (Fig. 7/3), Sarkad-Kőrös-hát<sup>58</sup> and Kovačika<sup>59</sup>. Their surface is decorated with a series of geometric, vegetal, anthropomorphic, zoomorphic patterns, tamgas which may be interpreted as tamga type, all incised  $^{60}$ . The small number of tamgas from the Iazygian environment further confirms they were used by a restricted circle of Sarmaian tribes, the Iazygians from the Great Hungarian Plain excluded<sup>61</sup>. Even more, the objects that exhibit these tamags from the Great Hungarian Plain evidence their use by women and that similarly in the environment of sedentary populaces, they are related to female subculture<sup>62</sup>.

The circumstances in the Sarmatian environment of the Great Hungarian Plain furthermore evidence that the tamgas from the Germanic environment<sup>63</sup> (Fig. 15) were not adopted from the Iazyges, but reached the Germanic area subsequent to contacts and military conflicts with the Sarmatian world from the north-west Pontic region<sup>64</sup>. Incidentally, compared to the Sarmatian environment of the Great Hungarian Plain, the number of tamgas is significantly higher including in the pre-Roman Dacian environmennt<sup>65</sup>, where tamgas similar to those ascribed to kings Farzoios and Inismeos are present (Cf. Fig. 6/5, 7a-b). The presence of a significant number of tamgas in the pre-Roman Dacian environment, especially on locally made products, evidence the relations between the Geto-Dacians and the Sarmatians and their cohabiting in the same space in the second half o the 1st century AD<sup>66</sup>. Tamga finds are much more numerous including on the territory of Moldavia and Wallachia over the 2nd - 3rd century AD<sup>67</sup>.

BENEA 1995-1996, 370-371, Fig. 1a-b; MUSCALU/MUSCALU 2016, 54-55 and drawing on page 57; MUSCALU/MUSCALU 2018, 36, Pl. I/1-2; ISTVÁNOVITS/KULCSÁR 2017, 244, 245, Fig. 191/2.

VADAY/MEDGYESI 1993, 87, Fig. 3, 4/1-3; ISTVÁNOVITS/KULCSÁR 2017, 244.

<sup>&</sup>lt;sup>59</sup> VADAY/MEDGYESI 1993, 87, Fig. 15/2a-c; ISTVÁNOVITS/KULCSÁR

The symbols on the pottery vessels and spindle weights were made prior

Cf. YATSENKO 2001.

See VORONYATOV 2014, 69 sqq.

See DOBRZAŃSKA 2001, 101-115; YATSENKO/DOBZHAN'SKA 2012,

Cf. VORONYATOV 2015 with all views and bibliography. For the conditions underlying the use of the tamgas of a clan by the representatives of other populaces see YATSENKO 2001, 22; YATSENKO/DOBZHAN'SKA 2012, 504).

For all tamgas in the pre-Roman Dacian environment see BELDIMAN 1990, 139-151; BABEŞ 1999, 223 sqq.; BABEŞ 2005; BÂRCĂ 2002, 115-117, Fig. 15-16; BÂRCĂ 2002a, 70-80, Fig. 15-16; BERZOVAN/PĂDUREANU 2010, 57-66. A wheel-thrown cup of fine fabric, reddish-brown, with tamga symbols on the belly comes from the 1898 excavtiosn at Pecica-Şanţul Mare (BUDIHALĂ 2012, 93, Pl. XIII/6). The vessel is unpublished and is housed in the collection of the Arad Museum Complex.

The settlement of the Sarmatians in the eastern-Carpathian area inhabited by the Geto-Dacian resulted in their cohabiting, and establishment of relations both economic and political-military, which led to alliances between the Geto-Dacians and the Sarmatians, recorded both by the written sources and Trajan's Column and the Trophy from Adamclisi. Evidently, neither the written sources not the archaeological finds suggest the massive and violent entry of the Sarmatians in the Geto-Dacian territory, but rather of groups of persons, subsequent to trading exchanges or mixed marriages, or of smaller or larger groups settled among the local communities. For further details on the relations between th Geto-Dacians and the Sarmarians over the 1st century AD see BÂRCĂ 2002; BÂRCĂ 2002a.

Cf. BELDIMAN 1990, Fig. 5. The presence of the tamgas in the environment of sedentary populaces outside the basic area of their use is evidence for the contacts between the representatives of the nomad and sedentary populations,

We believe that the plaque at Dunaharaszti dates most likely to the second half of the 1st century AD, and it reached, the Great Hungarian Plain, as mentioned68, sometime towards the end of the 1st century AD (AD 80'ies) when there very likely occurred another Sarmatian migration in the region. The tamga on it evidences the presence in this area of the elites<sup>69</sup> and is, given the approximate reign period of king Farzoios, evidence that not those in the first wave had carried the plaque at Dunaharaszti to the Great Hungarian Plain<sup>70</sup>. Also, it confirms that the Sarmatians entered the area in a few waves over the second half of the 1st century AD, likely even its end. Based on the data supplied by the ancient written sources, which record for the period only the certain presence of the Iazyges in the Great Hungarian Plain, we may assume that part of those migrating there had connections or formed part for a short while of the Sarmatian group led by Farzoios and Inismeos<sup>71</sup>, especially since we consider it is possible they were the leaders of a heterogeneous Sarmatian group.

Also, it is not excluded that the plaque with the tamga symbol from Dunaharaszti indicates, beside a series of artefacts and elements from within several archaeological finds<sup>72</sup>, the presence in the wave of Sarmatians entering the Great Hungarian Plain of individuals from the Sarmatian elites (Alani/Aorsi) settling the north-west Pontic area starting with mid 1st century AD<sup>73</sup>. Even though the ancient sources make no mention on the presence during the period referenced here of the Alani or Aorsi in the Great Hungarian Plain, this is possible, should we consider the likelihood of a mix of this elite with the Iazygian aristocracy from the northwest Pontic region. Regardless the reality, it is very likely, should we agree with this hypothesis, that the representatives of this elite played an important role in this wave, including militarily. The question rises in relation to the duration and influence of such elite. In the case of the tamgas, in the current state of research, it is known they do not continue on various objects also in the first half of the 2nd century AD. The same may be noted also in the case of other artefact classes from the finds ascribed to the so-called "golden horizon" 74, carried and used in this space by the newcomers.

while their high number further evidence of systematic contacts between the nomads and sedentary peoples (for ampler analysis see VORONYATOV

- <sup>68</sup> BÂRCĂ 2014, 66. This view was also expressed by E. Istvánovits and V. Kulcsár (ISTVÁNOVITS/KULCSÁR 2014, 222; ISTVÁNOVITS/KULCSÁR 2017, 246).
- 69 The fact we are dealing with an individual from amongst the elites is supported by the fact that in the eastern Sarmatian environment objects with rendered tamgas come mainly from aristocratic graves and those of the wealthy individuals in the Sarmatian society.
- BÂRCĂ 2014, 66.
- Cf. BÂRCĂ 2014, 66. See also ISTVÁNOVITS/KULCSÁR 2006a, 178, 186; ISTVÁNOVITS/KULCSÁR 2014, 222; ISTVÁNOVITS/KULCSÁR 2017, 246. 72 Cf. BÂRCĂ 2014, 38-50, 52-64; ISTVÁNOVITS/KULCSÁR 2017, 191-214.
- $^{73}\,\,$  Based on this plaque, E. Istvánovits and V. Kulcsár maintain a political or ethnic presence of the Aorsi or Alani in the Carpathian Basin, choosing eventually that of the Alani (Cf. ISHTVANOVICH/KUL'CHAR 1998, 14; ISHTVANOVICH/KUL'CHAR 2010, 155; ISTVÁNOVITS/KULCSÁR 2006a, 178, 186; ISTVÁNOVITS/KULCSÁR 2014, 222; ISTVÁNOVITS/KULCSÁR 2017, 246).
- <sup>74</sup> For types of objects within the finds ascribed to this horizon see KŐNEGYI 1984; VADAY 1984; VADAY/ISTVÁNOVITS/KULCSÁR 1989, 110-111; FARKAS 2000; ISHTVANOVICH/KUL'CHAR 2005; ISTVÁNOVITS/ KULCSÁR 2006; ISTVÁNOVITS/KULCSÁR 2013; ISTVÁNOVITS/ KULCSÁR 2017, 183-214; BÂRCĂ 2014, 38-64).

#### REFERENCES

#### AGULNICOV/BUBULICI 1999

Agulnicov, S./Bubulici, V., Tumulul sarmatic din sec. I p. Chr. de lângă satul Cazaclia, *Thraco-Dacica* XX/1-2, 287-307. ALRAM 1996

Alram, M., Die Geschichte Ostirans von den Griechenkönigen in Baktrien und Indien bis zu den iranischen Hunnen (250 v. Chr.-700 n. Chr.). In: Wilfried, S. (ed.), Weihrauch und Seide. Alte Kulturen an der Seidenstraße, Katalog zur Ausstellung des Kunsthistorischen Museums in Zusammenarbeit mit der Staatlichen Eremitage in St. Petersburg vom 21. Jänner bis 14. April 1996, (Milano: Skira; Wien: Kunsthistorisches Museum), 119-140.

#### **ANOKHIN 1989**

Anokhin, V. A., Monety antichnykh gorodov Severo-Zapodnogo Prichernomor'ya (Kiev: Naukova dumka).

#### **ANOKHIN 1989**

Anokhin, V. A., Antichnye monety Severnogo Prichernomor'ya. Katalog (Kiev: Stilos).

## BABE\$ 1999

Babeş, M., Ein tamga-zeichen aus der Dakischen siedlung von Ocnița (Buridava). In: Boroffka, N., Soroceanu, T. (eds.), Transilvanica, Archäologische Untersuchungen zur Ältern Geschichte der südöstlichen Mitteleuropa. Gedenkschrift für Kurt Horedt. Internationale Archäologie. Studia honoraria - Band 7 (Rahden: Leidorf), 223-239.

#### **BABEŞ 2005**

Babeş, M., Tamga iz dakijskogo poseleniya v Oknitse (Buridava). Stratum plus 4 (2003-2004), 467-479.

#### BÂRCĂ 1997

Bârcă, V., Considerations Concerning the Political History of Sarmatians in the North-West of Black Sea in the First century A.D. / Considerații privind istoria politică a sarmaților din nord-vestul Mării Negre în secolul I d. Ch. In: Gudea, N. (ed.), Römer und Barbaren an den Grenzen des römischen Daciens (Acta Musei Porolissensis XXI) (Zalău: Muzeul Județean de Istorie și Artă), 935-979.

## BÂRCĂ 2002

Bârcă, V., Das Eindringen der Sarmaten an der unteren und mittleren Donau und ihre Beziehungen zu den Geto-Daker (1. Jh. v. Chr. - 1. Jh. n. Chr.). In: Rustoiu, A., Ursuțiu, A. (eds.), Interregionale und kulturelle Beziehungen im Karpatenraum (2. Jahrtausend v. Chr. - 1. Jahrtausend n. Chr.) (Cluj-Napoca: Nereamia Napocae), 103-150.

## BÂRCĂ 2002a

Bârcă, V., Pătrunderea sarmaților la Dunărea de Jos și de Mijloc și relațiile cu geto-dacii (sec. I a. Chr. - sec. I p. Chr.), Ephemeris Napocensis XII, 45-97.

## BÂRCĂ 2006

Bârcă, V., Istorie și civilizație. Sarmații în spațiul est-carpatic (sec. I a. Chr. - începutul sec. II p. Chr.) (Cluj-Napoca: Argonaut).

## BÂRCĂ 2006a

Bârcă, V., Nomazi ai stepelor. Sarmații timpurii în spațiul nordpontic (sec. II-I a. Chr.) (Cluj-Napoca: Argonaut).

## BÂRCĂ 2012

Bârcă, V., Some Remarks on Metal Cups with Zoomorphic Handles in the Sarmatian Environment, Ephemeris Napocensis XXII, 185-209.

Bârcă, V., Nomads of the steppes by the Danube frontier of the Roman Empire in the 1st C CE. Historical sketch and chronological remarks, Dacia N. S. LVII, 99-125.

## BÂRCĂ 2014

Bârcă, V., Sarmatian vestiges discovered south of the Lower

Mures River. The graves from Hunedoara Timişană and Arad (Cluj-Napoca: Mega).

#### BÂRCĂ 2014a

V. BÂRCĂ, Olbia, Tyras, the Roman Empire and the Sarmatians in the Second Half of the first - early second Century CE. In: Sîrbu, V., Croitoru, C. (eds.), Ancient Linear Fortifications on the Lower Danube, Proceedings of the National Colloquium "Ancient Linear Fortifications on the Left Bank of the Lower Danube", Brăila, 14-16 June 2013 (Cluj-Napoca: Mega), 167-189.

#### BÂRCĂ 2015

Bârcă, V., The reinterpretation of the Sarmatian finds from the Romanian Plain (I), Journal of Ancient History and Archaeology 2/1, 35-71. http://www.jaha.org.ro/index. php/JAHA/article/view/105/85

(DOI: http://dx.doi.org/10.14795/j.v2i1.105).

## BÂRCĂ/SYMONENKO 2009

Bârcă, V./Symonenko, O., Călăreții stepelor. Sarmații în spațiul nord-pontic (Cluj-Napoca: Mega).

#### BELDIMAN 1990

Beldiman, C., Semne de tip tamga din Dacia preromană, Thraco-Dacica XI, 139-151.

## BENEA 1995-1996

Benea, D., Interferențe spirituale în așezările daco-romane din sud-vestul Daciei în secolele III-IV, Sargetia XXVI/1, 369-383.

#### BERZOVAN/PĂDUREANU 2010

Berzovvan, A./Pădureanu, E., A clay pot with tamga signs discovered at Şiria (Arad county), Annales d'Université Valahia Targoviste, Section d'Archéologie et d'Histoire, XII/2, 57-66.

#### **BUDIHALĂ 2012**

Budihală, D., Influențe romane pe Valea Mureșului Inferior (sec. II-IV p. Chr.). PhD thesis manuscript (Cluj-Napoca).

## **CHOYKE 1996**

Choyke, Al., Worked Animal Bone at the Sarmatian Site Gyoma 133. In: Bökönyi, S. (ed.), Cultural and Landscape Changes in South-East Hungary II. Prehistoric, Roman Barbarian and Late Avar Settlement at Gyoma 133 (Békés County Microregion), Archaeolingua 5 (Budapest: Archaeolingua Alapítvány), 307-322.

## DOBRZAŃSKA 2001

Dobrzańska, H., Contacts between Sarmatians and the Przeworsk Culture community. In: Istvánovits, E., Kulcsár, V. (eds.), International Connections of the Barbarians of the Carpathian Basin in the 1-5 centuries A.D. Proceedings of the international conference held in 1999 in Aszód -Nyiregyháza (Aszód-Nyiregyháza: Jósa András Museum and Osváth Gedeon Museum Foundation), 101-115.

## DÖRNER 1968

Dörner, E., Urme ale culturii materiale dacice pe teritoriul Arădean (Arad).

## DRACHUK 1975

Drachuk, V. S., Sistemy znakov Severnogo Prichernovor'ya. Tamgoobraznye znaki severopontiiskoj periferii antichnogo mira pervykh vekov nashei ery (Kiev: Naukova dumka).

## DZYGOVS'KYJ 1993

Dzygovs'kyj, O. M., Sarmaty na zahodi stepovogo Prychornomor'ya naprykintsi I st. do n. e. - pershij polovyni IV st. n. e. (Kyiv: Institut Arkheolgii NAN Ukrainy).

Dzigovskij, A. M., Ocherki istorii sarmatov v Karpato-Dneprovskikh zemel' (Odessa: Germes).

## FARKAS 2000

Farkas, C., Kora szarmata sírok Füzesabony határában (Füzesabony-Kastély dűlő I). In: Petercsák, T., Váradi, A. (eds.), Heves Megyei Régészeti Közlemények 2. A népvándorláskor kutatóinak kilencedik konferenciája, Eger 1998, szeptember 18-20 (Eger: Heves Megyei Múzeumi Szervezet), 15-50.

#### FHDP II

Fontes ad historiam Dacoromaniae pertinentes / Izvoare privind Istoria României II (București: Editura Academiei RSR).

## FLESS/TREISTER 2007

Fless, Fr./Treister, M., Der polychrome Stil der Schmuckproduktion. Zu Typologie und Entwicklung einer Schmuckform im nördlichen Schwarzmeergebiet vom 1. Jh. a. C. bis ins frühe 2. Jh. p. C. In: Bresson, A., Ivantchik, A., Ferrary, J.-L. (eds.), Une koinè pontique. Cités grecques, sociétés indigènes et empires mondiaux sur le littoral nord de la Mer Noire (VIIes. a. C. - IIIes. p. C.) [Ausonius Éditions, Mémoires 18] (Bordeaux: Ausonius), 165-187.

#### GONTHIER/KOSTOV/STRACK 2014

Gonthier, É./Kostov, R. I./Strack, E., A Han-dated 'hydra'type nephrite scabbard slide found in Chatalka (Bulgaria): the earliest and most distant example of Chinese nephrite distribution in Europe, Ark'eolog 65, April, 5-12.

## **GROSU 1986**

Grosu, V. I., Sarmatskoe pogrebenie v Podnestrov'e, Sovetskaya Arkheologiya 1, 258-261.

#### **GROSU 1990**

Grosu, V. I., Khronologiya pamyatnikov sarmatskoj kul'tury Dnestrovsko-Prutskogo mezhdurech'ya (Kishinev: Ştiinţa).

#### HAVASSY 1998

Havassy, P., Katalógus. In: Havassy, P. (ed.), Jazigok, roxolánok, alánok. Szarmaták az Alföldön. Gyulai katalógusok 6 (Gyula: Erkel Ferenc Múzeum), 145-174.

## ISHTVANOVICH/KUL'CHAR 2000

Istvánovits, E./Kul'char, V., Problematika "pervogo pokoleniya" v izuchenii sarmatov Karpatskogo Bassejna. In: Rannesarmatskaya kul'tura: formirovanie, razvitie, khronologiya. Materialy IV mezhdunarodnoj konferentsii "Problemy sarmatskoj arkheologii i istorii" 2 (Samara: Sarmatskij nauchnj tsentr RAN), 205-209.

## ISHTVANOVICH/KUL'CHAR 2005

Istvánovits, E./Kul'char, V., Severoprichernomorskie (?) zolotye yuvelirnye izdeliya v kul'ture sarmatov Karpatskogo bassejna. In: Zuev, V. Yu. (ed.), Bosporskij fenomen: problemy sootnosheniya pis'menykh i arkeologicheskikh istochnikov (Sankt-Peterburg: Izdateľstvo Gusudarstvennogo Ermitazha), 335-342.

## ISHTVANOVICH/KUL'CHAR 2010

Ishtvanovich, E./Kul'char, V., Alany v Karpatskom bassejne. In: Problemy khronologii i periodizatsii arkheologicheskikh pamyatnikov i kul'tur Severnogo Kavkaza. XXVI "Krupnovskie chteniya" po arkheologii Severnogo Kavkaza, Maras, 26-30 aprelya 2010 goda. Tezisy dokladov Mezhdunarodnoj nauchnoj konferentsii (Maras: Arkheologicheskij tsentr imeni E. I. Krupnova), 155.

## ISTVÁNOVITS/KULCSÁR 1993

Istvánovits, E./Kulcsár, V., Tükrök a császárkori és a kora népvándorlás kori barbár népeknél a Kárpát-medencében, A Herman Ottó Muzeum Évkönyve XXX-XXXI, 2, 9-58.

## ISTVÁNOVITS/KULCSÁR 1997

Istvánovits, E./Kulcsár, V., Adatok az alföldi szarmaták vallásához és törzsi hovatartozásához, Jósa András Múzeum Évkönyve XXXVII–XXXVIII, 1995-1996 (1997), 153-188.

## ISTVÁNOVITS/KULCSÁR 2003

Istvánovits, E./Kulcsár, V., Szarmata tükörcsüngő a Nemzeti Múzeum gyűjteményéből. In: Barbarikumi Szemle I (Szeged: Barbarikumi Régészeti Társaság), 75-78.

## ISTVÁNOVITS/KULCSÁR 2006

Istvánovits, E./Kulcsár, V., Az első szarmaták az Alföldön (Gondolatok a Kárpát-medencei jazig foglalásról), A nyíregyházi Jósa András Múzeum Évkönyve XLVIII, 203-

## ISTVÁNOVITS/KULCSÁR 2006A

Istvánovits, E./Kulcsár, V., Szarmata nemzetségjelek a Kárpát-medencében, Arrabona 44/1, 175-186.

## ISTVÁNOVITS/KULCSÁR 2013

Istvánovits, E./Kulcsár, V., The "upper class" of Sarmatian society in the Carpathian Basin. In: Hardt, M., Heinrich-Tamáska, O. (eds.), Macht des Goldes, Gold der Macht. Herrschafts- und Jenseitsrepräsentation zwischen Antike und Frühmittelalter im mittleren Donauraum. Akten des 23. Internationalen Symposiums der Grundprobleme der Frühgeschichtlichen Entwicklung im Mittleren Donauraum, Tengelic, 16 - 19.11.2011 (Weinstadt: Greiner), 195-209.

#### ISTVÁNOVITS/KULCSÁR 2014

Istvánovits, E./Kulcsár, Sarmații și organizarea provinciei Dacia (în oglinda descoperirilor arheologic). Satu Mare-Studii și Comunicări XXX/1, 217-226.

## ISTVÁNOVITS/KULCSÁR 2017

Istvánovits, E./Kulcsár, V., Sarmatians – History and Archaeology of the Forgotten People (Mainz: Römisch-Germanischen Zentralmuseums).

#### KARYSHKOVSKIJ 1982

Karyshkovskij, P. O., O monetakh tsarya Farzoya. In: Dzis-Rajko, G. A. (ed.), Arkheologicheskie pamyatniki Severo-Zapadnogo Prichernomor'ya (Kiev: Naukova dumka).

#### KARYSHKOVSKIJ 1982a

Karyshkovskij, P. O., Ol'viya i Rim. In: Gudkova, A. V. (ed.), Pamyatniki rimskogo i srednevekovogo vremeni v Severo-Zapadnom Prichernomor'e (Kiev: Naukova dumka), 6-28.

## KARYSHKOVSKIJ 1988

Karyshkovskij, P. O., Monety Ol'vii (Kiev: Naukova dumka). KARYSHKOVS'KYJ 1971

> Karyshkovs'kyj, P. J., Sribni monety pislyagets'koj Ol'vii, Arkheologiya (Kyiv) 4, 1971, 79-84.

#### KASHUBA/KURCHATOV/SHCHERBAKOVA 2001-2002

Kashuba, M. T./Kurchatov, S. I./Shcherbakova, T. A., Kochevniki na zapodnoj granitse Velikoj stepi (po materialam kurganov u s. Mokra), Stratum plus 4, 180–252.

## **KOVPANENKO 1986**

Kovpanenko, G. T., Sarmatskoe pogrebenie I v. n. e. na Yuzhnom Buge (Kiev: Naukova dumka).

#### KŐHEGYI 1984

Kőhegyi, M., Kora szarmata aranyleletes női sírok az Alföldön, Debreceni Déei Múzeum Évkönyve 1982 (1984), 267-355.

#### KRAPIVINA 1993

Krapivina, V. V., Ol'viya. Material'naya kul'tura I-IV vv. n. e. (Kiev: Naukova dumka).

#### KULCSÁR/KOROM 2017

Kulcsár, V./Korom, A., Dunakeszi a római császárok idején. In: Kerekes, D. (ed.), Dunakeszi története I. A kezdetektől 1910-ig (Dunakeszi: Dunakeszi Város Önkormányzata), 87-100.

## KURCHATOV/BUBULICI 2003

Kurchatov, S./Bubulici, V., Sarmatskoe pogrebenie iz kurgana u s. Oloneshty – 40 let spustya. In: E. Sava (ed.) Interferențe cultural-cronologice în spațiul nord-pontic (Chişinău: Institutul de Arheologie și Etnografie), 285-312.

## LAZARENKO/MIRCHEVA/ENCHEVA/SHARANKOV 2010

Lazarenko, E./Mircheva, I./Encheva, R./Sharankov, N., The Temple of the Pontic Mother of Gods in Dionysopolis. In: Petropoulos, E. K., Maslennikov, A. A. (eds.), Ancient Sacral

Monuments in the Black Sea (Thessaloniki: Kyriakidis Brodhers), 13-62.

## LLOYD-MORGAN 1980

Lloyd-Morgan, G., Roman Mirrors and Pictish Symbol. In: W. S. Hanson/L. J. F. Keppie (ed.), A note on Trade and Contact. Roman Frontier Studies 1979. Papers presented of the 12th International Congress of Roman Frontier Studies, British Archaeological Reports, International Series 71 (I) (Oxford: Archaeopress), 97-106.

#### LLOYD-MORGAN 1981

Lloyd-Morgan, G., The Mirrors: Description of the Collections in the Rijksmuseum G. M. Kam at Nijmegen IX (Nijmegen: Ministry of Culture, Recreation and Social Welfare).

## MATEI-POPESCU 2014

Matei-Popescu, F., The Western Pontic Greek Cities and the Roman Army. In: Cojocaru, V., Schuler, Ch., Die Außenbeziehungen pontischer und kleinasiatischer Städte in hellenistischer und römischer Zeit. Akten einer deutschrumänischen Tagung in Constanta, 20.-24. September 2010 (Stuttgart: Franz Steiner Verlag), 173-208.

#### MORDVINTSEVA/TREJSTER 2007

Mordvintseva, V./Trejster, M., Proizvedeniya torevtiki i yuvelirnogo iskusstva v Severnom Prichernomor'e 2 v. do n. e. -2 v . n. e., I–III (Simferopol'-Bonn: Tarpan).

#### MOROŞAN 1938

Moroşan, N., Semne ieroglifice dintr'un kurgan din Basarabia, Buletinul muzeului regional al Basarabiei din Chişinău 8,1937 (1938), 36-46.

#### MUSCALU/MUSCALU 2016

Muscalu, B./Muscalu, M., Noi considerații cu privire la vasul rectangular descoperit în situl de la Timișoara - Cioreni, Acta Centri Lucusiensis 4B, 54-58.

#### MUSCALU/MUSCALU 2016

Muscalu, B./Muscalu, M., Vase rectangulare descoperite în mediul sarmatic iazig, Acta Centri Lucusiensis 6A, 35-41.

## OL'KHOVSKIJ 2001

OL'KHOVSKIJ. V. S., Tamga (k funktsii znaka). Istorikoarkheologicheskij al'manakh 7, 75-86

#### PÁRDUCZ 1944

Párducz, M., A szarmatakor emlékei Magyarországon II / Denkmäler der Sarmatenzeit Ungarns II (Archaeologia Hungarica XXVIII) (Budapest: Akadémiai Kiado).

#### PROKHOROVA/GUGUEV 1992

Prokhorova, T. A./Guguev, V. K., Bogatoe sarmatskoe pogrebenie v kurgane 10 Kobyakovskogo mogil'nika, Sovetskaya Arkheologiya 1, 142-161.

## PUZDROVSKIJ 2007

Puzdrovskij, A. E., Krymskaya Skifiya II v. do n. e. – III v. n. e. Pogrebal'nye pamyatniki (Simferopol': Biznes-Inform).

#### **RAEV/SIMONENKO 2009**

Raev, B. A./Simonenko, A. V., "Falar" iz "Davydovskogo klada". In: A. Furas'ev (ed.), Gunny, goty i sarmaty mezhdu Volgoi i Dunaem (Sankt-Peterburg: Fakul'tet filologii i iskusstv SPbGU), 65-79.

## RUSYAEVA 1989

Rusyaeva, A. S., Do istorii vzaimovidnosyn Ol'vii z sarmatamy. In: Tolochko, P. P (ed.), Problemy istorii ta arkheologii davn'ogo naselennya Ukrains'koi RSR (Kyiv: Naukova dumka), 192-193.

#### **RUSYAEVA 1995**

Rusyaeva, A. S., Ol'vijsko-sarmats'ki vidnosyny u drugij polovyni I st. n. e., Arkheologiya (Kiyv) 4, 24-36.

## SHCHUKIN 1982

Shchukin, M. B., Tsarstvo Farzoya. Epizod iz Severnogo Prichernomor'ya, Soobshcheniya Gosudarstvennogo Ermitazha XLVII, 35-38.

### SHCHUKIN 1989

Shchukin, M. B., Sarmaty na zemlyakh k zapodu ot Dnepra i nekotorye sobytiya I v. v tsentral'noj i vostochnoj Evrope, Sovetskaya Arkheologiya 1, 70-84.

## SHCHUKIN 1989a

Shchukin, M. B., Na zapadnykh granitsakh Sarmatii. In: Raev, B. A. (ed.), Kochenviki evrazijskikh stepej i antichnyj mir (Novocherkassk: Muzej istorii donskogo kazachestva), 31-55.

#### SHCHUKIN 1992

Shchukin, M. B., Nekotorye zamechaniya k voprosu o khronologii Zubovsko-Vizdvizhenskoj grupy i problemy rannikh alan. In: Raev, B. A. (ed.), Antichnaya tsivilizatsiya i varvarskij mir I (Novocherkassk: Muzej istorii donskogo kazachestva), 103-124.

#### SHCHUKIN 1994

Shchukin, M. B., Na rubezhe er (Sankt-Peterburg: Farn).

#### SHCHUKIN 1995

Shchukin, M. B., Dve repliki: O Farzoe i nadpisi iz Mangupa, o tsarstve Artavasde i pogrebenii v Kosike, Vestnik Drevnej Istorii 4, 175-179.

#### SHILOV 1972

Shilov, V. P., Yuzhnoitaliiskie zerkala v volgo-donskikh stepyakh, Sovetskaya Arkheologiya 1, 261-264.

#### SIMONENKO 1992

Simonenko, A. V., Farzoj i Inismej – Aorsy ili alany, Vestnik Drevnej Istorii 3, 148-162.

#### SIMONENKO 1997

Simonenko, A. V., Eine sarmatische Bestattung vom Südlichen Bug, Eurasia Antiqua 3, 389-407.

#### SIMONENKO 2000

Simonenko, A. V., Mogilnik Dneprozavodstroj i sarmatskie pamyatniki "vostochnoj volny" v Severnom Prichernomor'e, Nizhnevolzhskij arkheologicheskij vestnik 3, 133-144.

#### SIMONENKO 2003

Simonenko, A. V., Kitajskie i tsentral'noaziatskie elementy v sarmatskoj kul'ture Severnogo Prichernomor'ya, Nizhnevolzhskij arkheologicheskij vestnik 6, 45-65.

#### SIMONENKO 2004

Simonenko, A. V., Khronologiya i periodizatsiya sarmatskih pamyatnikov Severnogo Prichernomor'ya. In: Raev, B. A. (ed.), Sarmatskie kul'tury Evrazii: problemy regional'noj khronologii. Doklady k 5-j mezhdunarodnoj konferentsii "Problemy sarmatskoj arkheologii i istorii" (Krasnodar), 134-173.

#### SIMONENKO 2004a

Simonenko, A. V., Eine sarmatische Bestattung mit Tamga-Zeichen im Gebiet Olbias, Eurasia Antiqua 10, 199-227.

## SIMONENKO 2008

Simonenko, A. V., Römische Importe in sarmatischen Denkmälern des nördlichen Schwarzmeergebietes, 1-94, pl. 1-168. In: A. Simonenko, I. I. Marčenko, Natal'ja Ju. Limberis, Römishe Importe in sarmatischen und maiotischen Gräbern zwischen Unterer Donau und Kuban (Mainz: Philipp von Zabern).

## SIMONENKO 2010

Simonenko, A. V., "Gunno-sarmaty" (k postanovke problemy). Nizhnevolzhskij arkheologicheskij vestnik 11, 394-399.

## SIMONENKO/LOBAJ 1991

Simonenko, A. V./Lobaj, B. I., Sarmaty Severo-Zapodnogo Prichernomor'ya v I v. n. e. (pogrebenie znati u s. Porogi) (Kiev: Naukova dumka).

## SIMONENKO/MEL'NIK 2004

Simonenko, A. V./Mel'nik, A. A., Eine sarmatische Bestattung im Kurgan Kamova Mogila, Krivoj Rog, Eurasia Antiqua 10, 269-280.

## SKRIPKIN 1990

Skripkin, A. S., Aziatskaya Sarmatiya. Problemy khronologii i eĕ istoricheskij aspekt (Saratov: Izdatel'stvo Saratovskogo universiteta).

#### SKRIPKIN 1996

Skripkin, A. S., K voprosu etnicheskoj istorii sarmatov pervyh vekov nashej ery, Vestnik Drevnej Istorii 1, 160-168.

## **SOLOMONIK 1959**

Solomonik, E. I., Sarmatskie znaki Severnogo Prichernomor'ya (Kiev: Naukova dumka).

## SUBBOTIN/DZIGOVSKIJ 1990

Subbotin, L. V./Dzigovskij, A. N., Sarmatskie drevnosti Dnestro-Dunajskogo mezhdurech'ya II. Kurgannye mogil'niki Divizijskij i Belolesskij (Kiev: Institut Arkheologii).

## SYMONENKO 1999

Symonenko, O. V., Sarmats'ke pokhovannya na terrytorii Ol'vijs'koj derzhavy, Arkheologiya (Kyiv)1, 106-118.

#### TOLSTOV 1948

Tolstov, S. P., Po sledam drevnekhorezmijskoj tsivilizatsii (Moskva-Leningrad: Izdatel'stvo Akademii Nauk SSSR).

#### TREJSTER 1991

Trejster, M. Yu., Italijskie i provintsial'no-rimskie zerkala v Vostochnoj Evrope, Sovetskaya Arheologiya 1, 90-103.

#### **VADAY 1989**

Vaday, A. H., Die sarmatischen Denkmäler des Komitats Szolnok (Antaeus 17-18, 1988-1989) (Budapest: Archäologisches Inst. der UAW).

#### VADAY 1989a

A. VADAY, Sarmatisches Männergrab mit Goldfund aus Dunaharaszti, Folia Archaeologica XL, 1, 129-136.

#### **VADAY 1996**

Vaday, A., Roman Period Barbarian Settlement at the Site of Gyoma 133. In: Bökönyi, S. (ed.), Cultural and Landscape Changes in South-East Hungary II. Prehistoric, Roman Barbarian and Late Avar Settlement at Gyoma 133 (Békés County Microregion), Archaeolingua 5 (Budapest: Archaeolingua Alapítvány), 51-305.

## VADAY/ISTVÁNOVITS/KULCSÁR 1989

Vaday, A./Istvánovits, E./Kulcsár, V., Sarmatian costume in the Carpathian Basin, Klio~71/1, 107-114.

## VINOGRADOV 1994

Vinogradov, Yu. G., Ocherki voenno-politicheskoj istorii sarmatov v I v. n. e., Vestnik Drevnej Istorii 2, 151-170.

## VORONYATOV 2013

Voronyatov, S. V., O funktsii sarmatskikh tamg na sosudakh. In: Furas'ev, A. (ed.), Gunny, goty i sarmaty mezhdu Volgoi i Dunaem (Sankt-Peterburg: Fakul'tet filologii i iskusstv SPbGU), 80-98.

## VORONYATOV 2013

Voronyatov, S. V., Lokalizatsiya bastarnov i nekotorye drugie problemy elogiya Plavtiya Sil'vana Eliana, Arkheologicheskij sbornik Gosudarstvennogo Ermitazha 39, 2013, 148-161.

## VORONYATOV 2014

Voronyatov, S. V., Formy vzaimootnosheniy kochevnikov s vneshnim mirom v otrazhenii arealov sarmatskikh znakovtamg. In: Yablonskij, L. T., Saveliev, N. S. (eds.), Sarmaty i vneshniy mir. Materialy VIII Vserossijskoj nauchnoj konferentsii "Problemy sarmatskoy arkheologii i istorii", Ufa, 12-15 maya 2014 g., (Ufimskij Arkheologicheskij Vestnik 14) (Ufa: Vintazh), 66-76.

## VORONYATOV 2015

Voronyatov, S. V., O territorii srazheniya gotov si spalami v "Getica" Iordana. In: Luk'yashko (ed.), Voina i voennoe delo v skifo-sarmatskom mire. Materialy Mezhdunarodnoj nauchnoj konferentsii, posvyashchennoj pamyati A. I. Melyukovoj (Kagal'nik, 26-29 aprelya 2014 g.) (Rostov-na-

Donu: Izdatel'stvoYuTS RAN), 32-39.

## **WERNER 1994**

Werner, J., Chinesischer Schwerttragbügel der Han-Zeit aus einem thrakischen Häuptlingsgrab von Čatalka (Bulgarien), Germania 72/1, 269-282.

## YATSENKO 1993

Yatsenko, S. A., Alanskaya problema i tsentral'noaziatskie elementy v kul'ture kochevnikov Sarmatii rubezha I-II vv. n. e., Peterburgskij arkheologicheskij vestnik 3, 60-72.

#### YATSENKO 2001

Yatsenko, S. A., Znaki – tamgi iranoyazychnyh narodov drevnosti i rannego srednevekov'ya (Moskva: Vostochnaya literatura RAN).

## YATSENKO/DOBZHAN'SKA 2012

Yatsenko, S. A., Dobzhan'ska, G., Germanskie paradnye  $kop'ya\ II-III\ vv.\ n.\ e.\ s\ sarmatskimi\ znakami.\ In:\ Zhuravlev,\ D.$ V., Firsov, K. B. (eds.), Evraziya v skifo-sarmatskoe vremya. Pamyati Iriny Ivanovny Gushchinoj (Trudy Gosudarstvenogo istoricheskogo muzeya 191) (Moskva: Gosudarstvennyj Istoricheskij muzei), 494-509.

## ZUBAR' 1994

Zubar', V. M., Ol'viya, sarmaty i Rim vo vtoroj polovine I v.,

Vestnik Drevnej Istorii 3, 218-222.

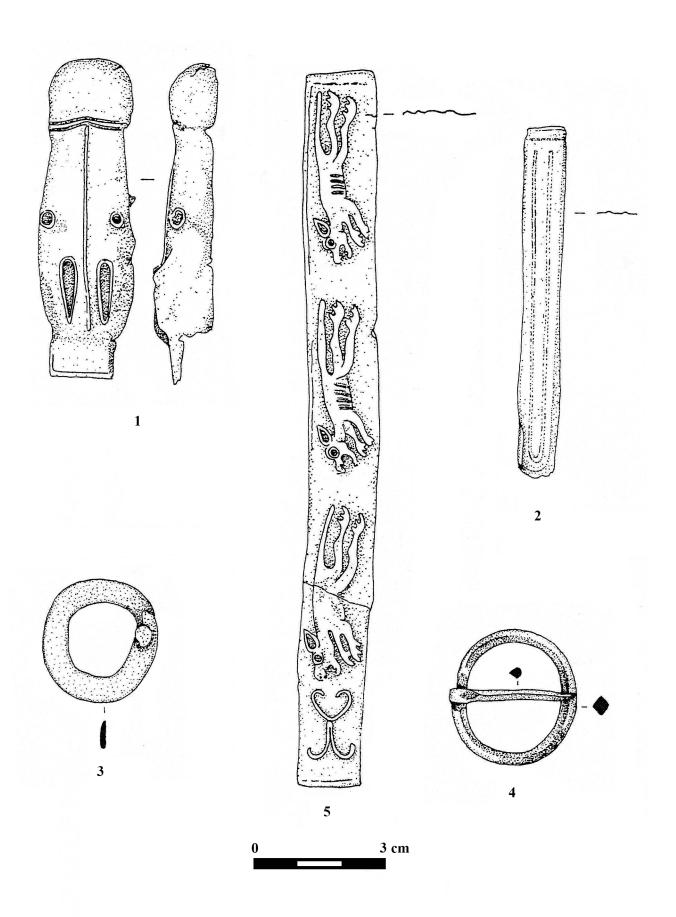


Fig. 1. Objects from the grave goods at Dunaharaszti (after VADAY 1989).

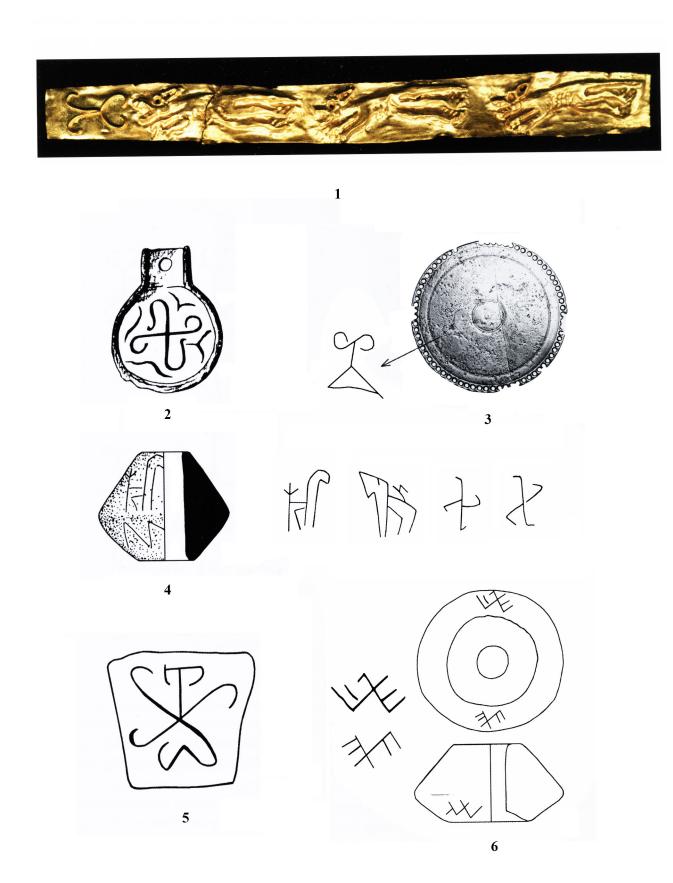


Fig. 2. Pieces with tamgas from the Sarmatian environment of the Great Hungarian Plain. 1. Dunaharaszti; 2. Dunaújváros/Dunapentele; 3. Viski Károly Muzeum, Kalocsa; 4. Csongrád-Határút, G 11; 5. Gyula-Szeregyháza; 6. Nagyszénás-Vaskapu (after ISTVÁNOVITS/KULCSÁR 2017). Without



Fig. 3. Golden coins with tamgas of king Farzoios (1-2) and silver coins with tamgas of king Inismeos (3-4) (after ANOKHIN 2011). Without scale



**Fig. 4.** Golden coins with tamgas of king Farzoios **(1-2)** and silver coin with tamga of king Inismeos **(3) (1-2.** After http://www.alv.me/rasskazo-tsare-farzoe-chast-2-numizmaticheskaya/; **3.** After http://museum.com.ua/odessacollector/images/2017/01/16/130/denarij-inismeja\_1.jpg). Without scale.

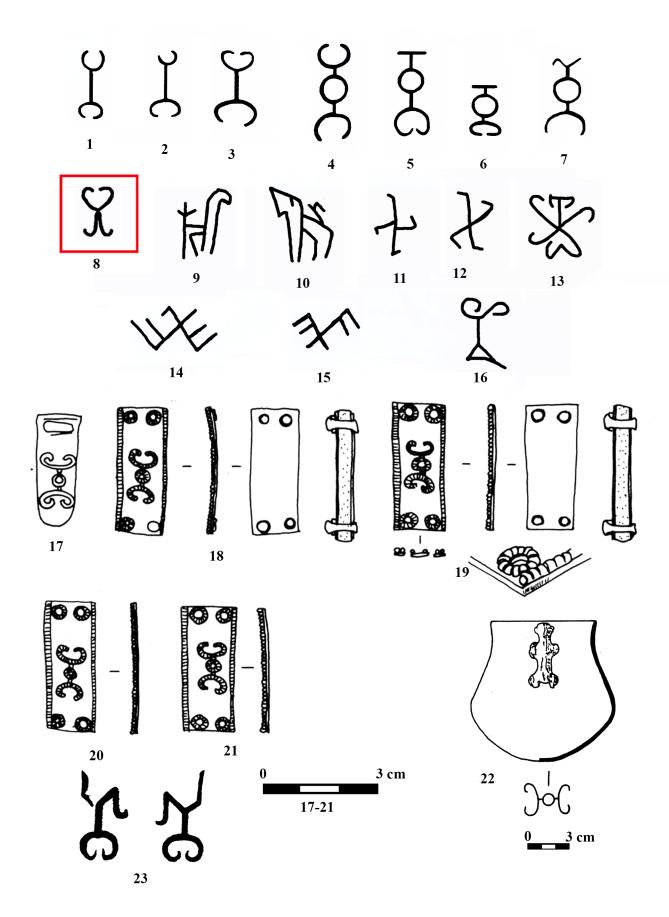


Fig. 5. 1-3. Tamgas of king Farzoios; 4-7. Tamgas ascribed to king Inismeos (after SIMONENKO/LOBAJ 1991); 8. Symbol on the plaque at Dunaharaszti; 9-12. Tamgas on the spindle weight at Csongrád-Határút, G 11; 13. The tamga on a rectangular vessel from Gyula-Szeregyháza; 14-15. Tamgas on the spindle weight from Nagyszénás-Vaskapu; 16. Tamga on the mirror at Viski Károly Muzeum (after ISTVÁNOVITS/KULCSÁR 2017); 17-22. Tamga on the belt fittings and silver vessel from T 2 G 1 at Porogi (after SIMONENKO/LOBAJ 1991); 23. Tamga on the golden sheet from T 10 G 1 at Kobyakovo (after PROKHOROVA/GUGUEV 1992). 1-6, 23 Without scale

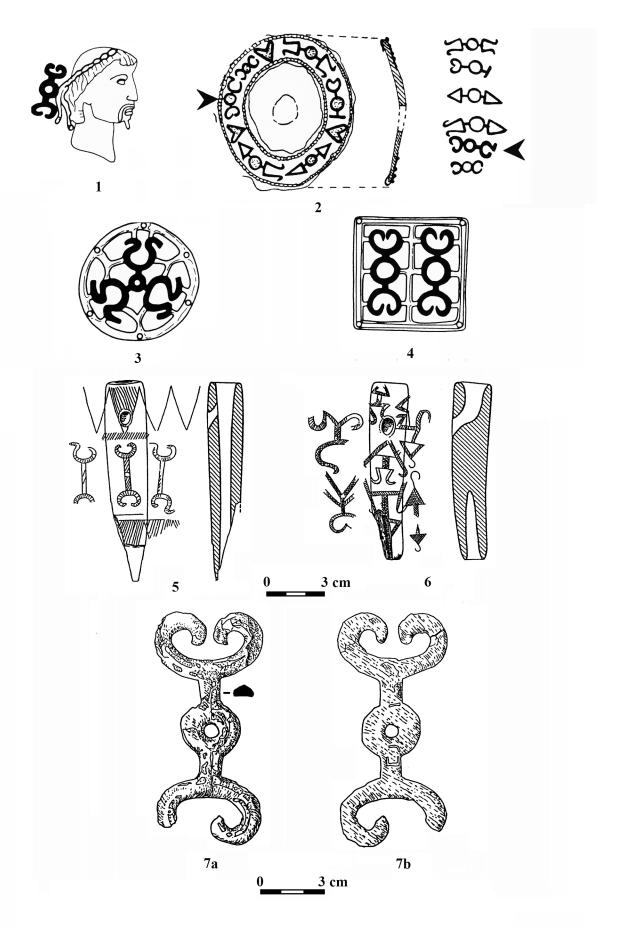


Fig. 6.1. Tamga on the coins for king Inismeos; 2. Golden extremity of the sword grip in G 2 in the barrow "Roshova Dragana"; 3-4. Bronze appliques whose decoration is composed on tamga symbols (after WERNER 1994); **5-6.** Bone pieces with tamga type symbols from the settlement at Poiana (after BABEŞ 1999); 7a-b. Iron piece (hackamore) covered with golden sheet in the shape of a tamga from Ocniţa (after BABEŞ 1999). 1-4. Without scale.





1 2



3

**Fig.7. 1-2.** Golden extremity of the sword grip in G 2 from the barrow "Roshova Dragana" (after GONTHIER/KOSTOV/STRACK 2014); **3.** Marks on the small rectangular vessel from Timişoara-Cioreni (after ISTVÁNOVITS/KULCSÁR 2017). **1-3.** Without scale.



Fig. 8. Coins with tamgas of king Vima Kadphises (Kushan kingdom).

- 1. (after https://en.numista.com/catalogue/pieces129710.html);
- 2. (after https://www.cngcoins.com/Coin.aspx?CoinID=334237);
- 3.(after http://www.columbia.edu/itc/mealac/pritchett/00routesdata/0001\_0099/kushancoins/kushancoins.html
- (after https://www.vcoins.com/en/stores/coinindia/36/product/india\_kushan\_vima\_kadphises\_gold\_dinar\_scarce\_and\_choice/844620/ Default.aspx. Without scale.

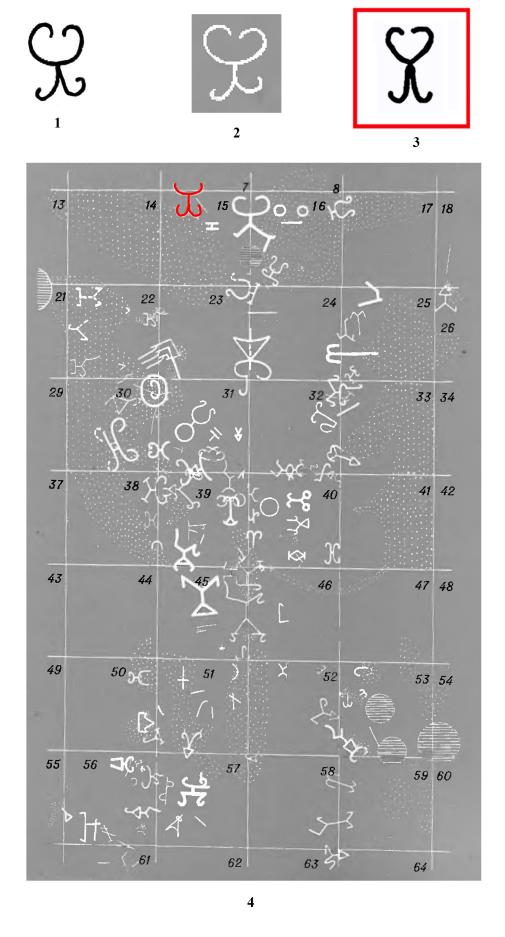


Fig. 9.1-2. Tamga symbol on a funerary stone (after MOROŞAN 1938 (1), DRACHUK 1975 (2); 3. Tamga symbol on the plaque at Dunaharaszti (after ISTVÁNOVITS/KULCSÁR 2017); 4. Tamga representations on the marble lion no.2 from Olbia (after DRACHUK1975). Without scale.

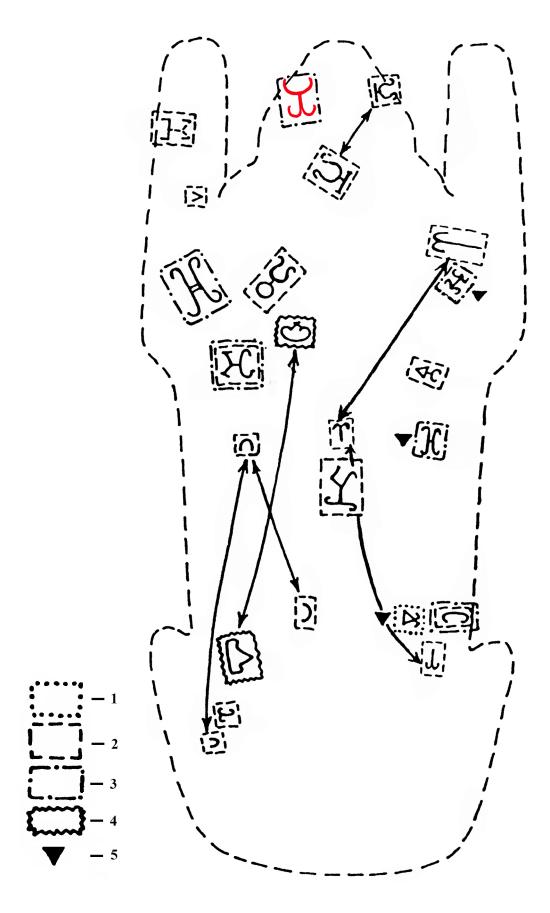


Fig. 10. Tamgas specific to some areas on the marble lion no.2 from Olbia. 1. Tamgas of the 1st century BC – first half of the 1st century AD; 2. Tamgas from the second half of the 1st century AD – first half of the 2nd century AD; 3. S Tamgas from the second half of the 2nd century AD – first half of the 3rd century AD; 4. Tamgas from the second half of the 3rd century AD – first half of the 4th century AD; 5. King marks (after YATSENKO 2001). Without scale.

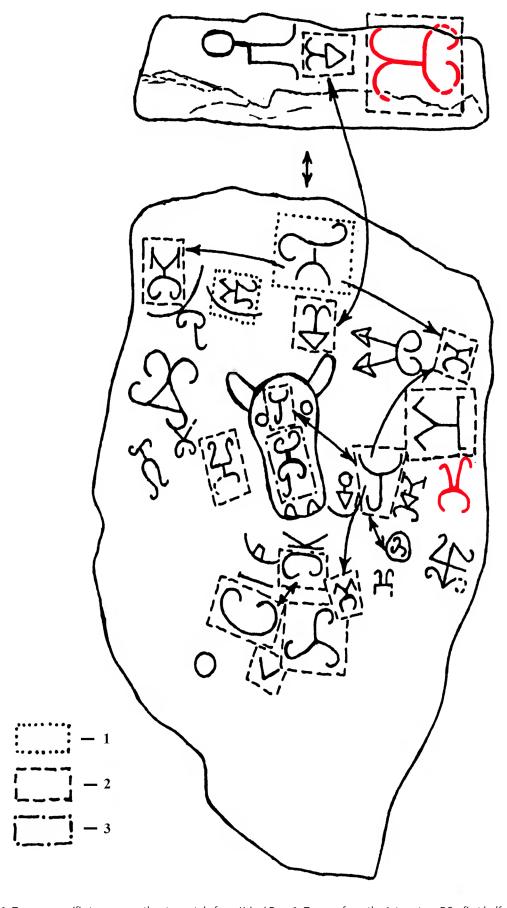


Fig. 11. Tamgas specific to areas on the stone stela from Krivoj Rog. 1. Tamgas from the 1st century BC – first half of the 1st century AD; 2. Tamgas from the second half of the 1st century AD – first half of the 2nd century AD; 3. Tamgas from the second half of the 2nd century AD – first half of the 3rd century AD (after YATSENKO 2001). Without scale.

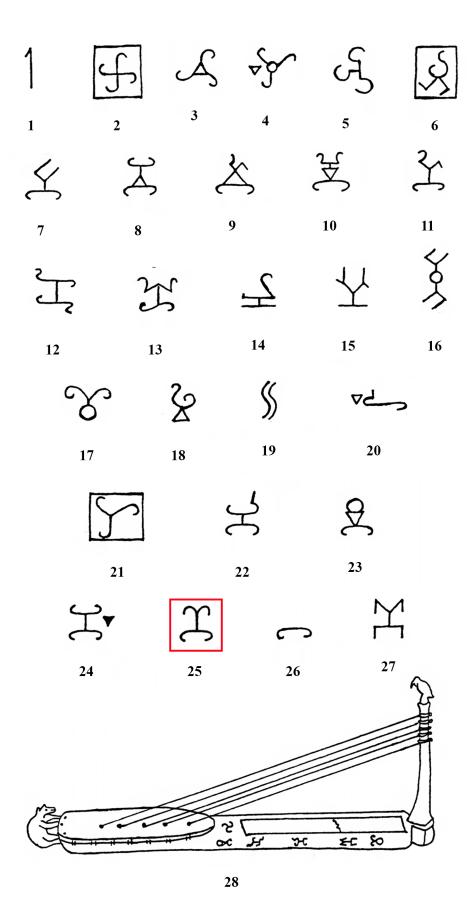


Fig. 12. 1-27. Tamgas on the wooden harp from the grave at Kozyrka; 28. Reconstruction of the original appearance of the harp. 1-20. Unique marks possibly local in origin; **21-23.** Marks that come from the Lower Don area; **24-27.** Marks specific to the region right of the Dnieper (after YATSENKO 2001). Without scale.

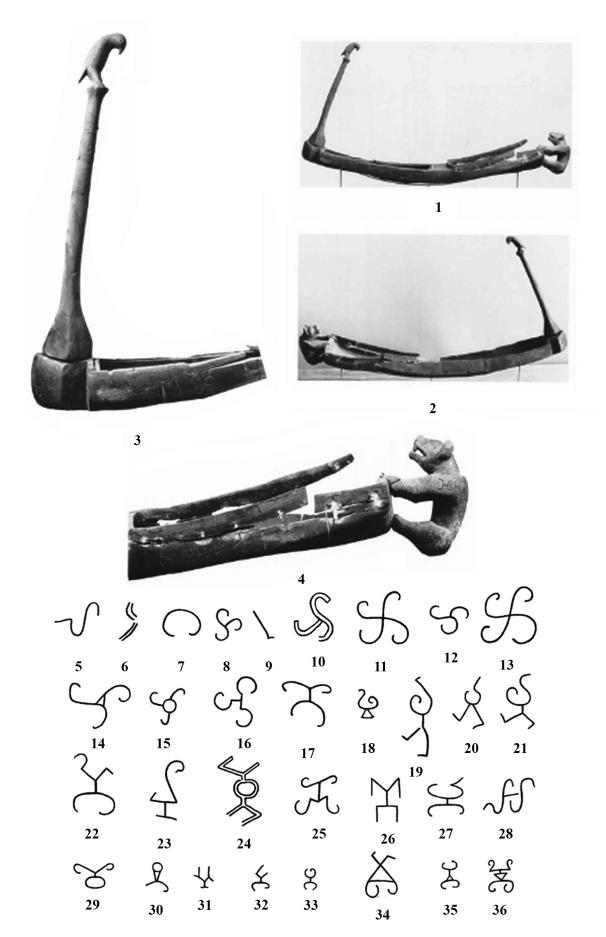
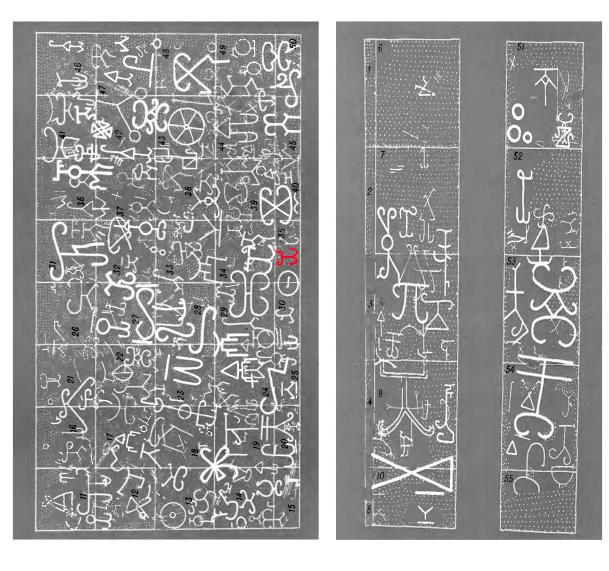


Fig. 13. 1-4. Wooden harp in the grave at Kozyrka; 5-36. Tamgas on the wooden harp and the zoomorphic handle (after SIMONENKO 2004). Without scale.





**Fig. 14. 1-2.** Limestone plaque with tamgas from Panticapaeum (after DRACHUK1975); **3.** Golden bracelet with tamga from Olbia (after SOLOMONIK 1959). Without scale.

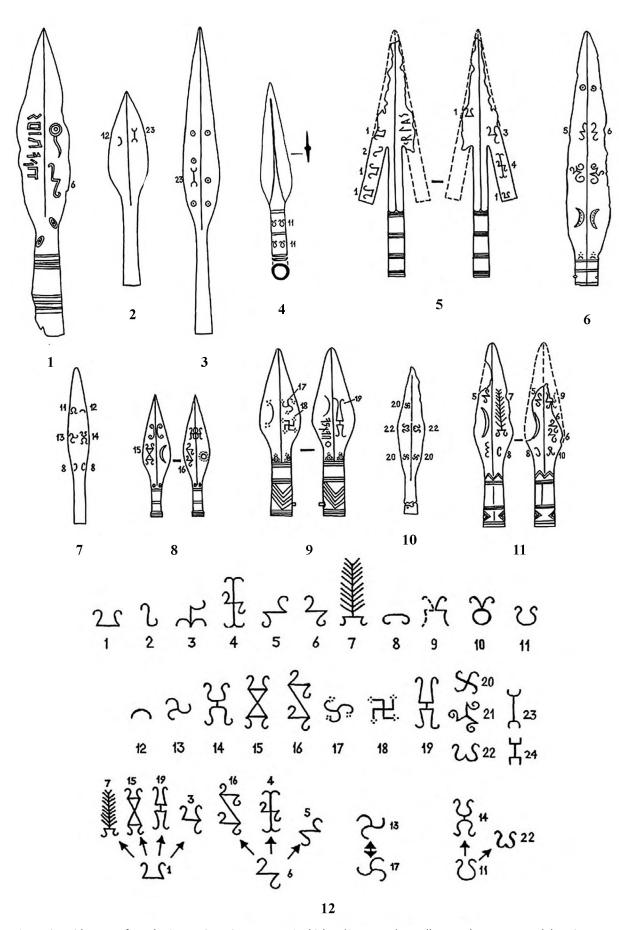


Fig. 15. Spear tips with tamgas from the Germanic environment. 1. Sushichno (Suszyczno); 2. Valle; 3. Bodzanowo; 4. Nedoboevitsy; 5. Rozwadów; 6. Strycowice; 7. Jankowo; 8. Wześnia; 9. Münchenberg-Dahmsdorf; 10. Medow; 11. Zadovice; 12. Tamgas on spear tips (after YATSENKO/ DOBZHAN'SKA 2012). Without scale.