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Swords from Sauromato–Sarmatian Burial Mounds of Western Kazakhstan Analyzed

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Abstract. *Introduction*. In Eurasia's history and archeology, the issues of origins, inhabited territories, and political history of Sauromato-Sarmatian tribes remain understudied. Archaeological data are supplemented with messages on Sauromato-Sarmatian tribes contained in works of ancient writers, since no written sources have been found in monuments of those tribes proper. *Goals*. The study aims to analyze historical sources and archaeological data, examine the history of origins of Sauromato-Sarmatian tribes to have inhabited the Southern Uralsin the Iron Age,and focuses on swords from Sauromato-Sarmatian monuments of Western Kazakhstan. *Materials*. Swords and daggers that constitute the bulk of finds from burials provide valuable information for determining chronologies of burial grounds or certain burials and identifying areas once inhabitedby the nomadic tribes,with regional features of those tribes be duly distinguished. A. Melyukova, K. Smirnov, A. Khazanov, E. Chernenko, A. Simonenko, P. Shulga, V. Kocheev and other researchers have developed a chronological typology for swords and daggers from monuments of nomadic tribes of the Northern Black Sea, the North Caucasus, and other regions. However, Sauromato-Sarmatian weapons from Western Kazakhstan have remained unstudied without any chronological typology developed. So, the work employs experiences of the above-mentioned researchers and systematizes the available and newly-obtained data to develop a typological classification and chronology of swords from Sauromato-Sarmatian burial grounds excavated in the territory of Western Kazakhstan. *Results*. The paper notes that the Sauromato-Sarmatians descend from Bronze Age populations to have created the Andronovo and Srubnaya cultures, and had a close relationship with the Saka tribes. It is deemed that Sarmatian tribes

were formed on the basis of Sauromatians, i.e. those had had common roots. Furthermore, insights into archaeological data conclude the tribes had lived in the territory of Western Kazakhstan, yield a typological classification of swords discovered in mounds across the region, and result in a scientific analysis. The work attempts a statistical analysis of swords and daggers from Sauromato-Sarmatian mounds of Western Kazakhstan, provides scientific conclusions as to predominant types of weapons and manufacturing technologies. The article also highlights some specific features of sword types identified, areas of distribution, and performs a comparative analysis.
Keywords: Sauromatians, Sarmatians, nomadic tribes, Southern Urals, Western Kazakhstan, weapons, swords, daggers.
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Анализ мечей, найденных в савромато-сарматских курганах Западного Казахстана

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Аннотация. *Введение.* В истории и археологии Евразии вопросы происхождения, территории расселения, политической истории савромато-сарматских племен недостаточно хорошо изучены. В памятниках этих народов письменных источников не обнаружено, и сведения о савромато-сарматских племенах, наряду с археологическими данными, мы находим в работах античных писателей. *Целью* исследования является анализ исторических источников и археологических данных, исследование истории происхождения савромато-сарматских племен, обитавших в железном веке в Южно-Уральском регионе, и мечей из памятников савромато-сарматов из Западного Казахстана. *Материалы.* Мечи и кинжалы, составляющие основную часть находок из погребений, дают ценные сведения для определения хронологии могильников или погребений, определения зон обитания кочевых племен и региональных особенностей кочевых племен. А. И. Мелюковой, К. Ф. Смирновым, А. М. Хазановым, Е. В. Черненко, А.В. Симоненко, П. И. Шульга, В. А. Кочеевым и другими учеными была разработана хронологическая типология мечей и кинжалов из памятников кочевых племен Северного Причерноморья, Северного Кавказа и других регионов. Оружие же савромато-сарматских племен из Западного Казахстана до настоящего времени не изучено, не разработана их хронологическая типология. Поэтому, основываясь на опыте вышеупомянутых исследователей, систематизировав имеющиеся сведения и полученные в ходе исследований новые данные, авторами разработана типологическая класификация и хронология мечей из могильников племен савромато-сарматов, населявших территорию Западного Казахстана. *Результаты.* Отмечено, что савромато-сарматы — это потомки племен, живших в эпоху бронзы — создателей андроновской и срубной культур, они имели близкое родство с сакскими племенами. Установлено, что на основе савроматов сформировались сарматские племена, т. е. они имеют общие корни. Кроме того, на основе археологических данных было установлено, что эти племена обитали

на территории Западного Казахстана, проведена типологическая класификация найденных в кургане мечей региона, проведен научный анализ. Проведен статистический анализ мечей и кинжалов из савромато-сарматских курганов Западного Казахстана, сделаны научные выводы о преобладающем типе оружия, технологии его изготовления. В статье выделены специфические особенности типов мечей, ареал распространения и проведен сравнительный анализ.
Ключевые слова: савроматы, сарматы, кочевые племена, Южный Урал, Западный Казахстан, оружие, меч, кинжал
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Introduction

Western Kazakhstan is a region where one can find earliest traces of nomadic tribes. This region is also an important part of Asia characterized by continental climate, and serves a crossroad for Europe and Asia. Thus, theterritory witnessed many important historical events [Baypakov, Tanabayeva, Sdykov 2001]. Consequently many nomadic tribes migrated through this region starting from the dawn of civilization up to the Middle Ages. These movements created many new cultures. The Sauromato–Sarmatian culture is one of them.

Archeological studies since the beginning of 20thcentury have proved from 6th century BC to 4th century AD the Sauromato–Sarmatian tribes hadinhabited awide geographical area that spans from the Caspian Sea in the east to the Danube River in the west [Brzezinski, Mielczarek 2002: 3; Gursoy 2019: 137–167; Gursoy, Akylbek, Jetibaev 2020: 412–419]. Written sources and archeological findings suggest that the Sauromatians had first appeared in the Southern Ural region to be later named Sarmatians. Therefore, scientists believe that the Sauromatian culture is the basis of the Sarmatian culture [Smirnov 1976: 18; Durmuş 2007: 55]. This cultural continuity can be traced from 6th century BC to the 4th century AD, and is confirmed by weapon finds from tumuli.

Swords and daggers hold an important place among the findings obtained from excavated mounds. They provide important information about the age of tumuli or findings. Therefore, scientists, such as A. Melyukova [Melyukova 1964: 46–64], K. Smirnov [Smirnov 1961: 9–31], A. Khazanov [Khazanov 1971: 5–27], V. Vasilyev [Vasilyev 2001], A. Simonenko [Simonenko 2009: 13–69] and others, provided a typology for swords and daggers belonging to Scythians and Sauromato-Sarmatians. The weapon typology developed by these scientists covers swords and daggers found inside Scythian and Sauromato-Sarmatian tumuli in the Northern Black Sea region, the North Caucasus, and other regions. Yet, there is no typology for similar weapons found inside tumuli across West Kazakhstan. Therefore, this study suggests a typology for the swords found inside the Sauromato-Sarmatian mounds of West Kazakhstan. This typology is created based on the experiences of previous researchers.

Origins of Sauromato–Sarmatian Tribes

There are very few studies that investigate the history of West Kazakhstan during the Iron Age. Therefore, there is no consensus among researchers about the origins of Sauromato-Sarmatian tribes, their lands, and their culture. This still remains an essential matter of contemporary debate.

Written sources use the name ‘Sauromat’to denote a tribe that had lived to the east of the Danube River. The name ‘Sarmat’ appears later in written sources, and is used to denote tribes that inhabited a vast territory [Durmuş 2007: 55].

Sauromatians are mentioned by many ancient authors, such as Herodotus, Hippocrates, Pseudo-Scylax, Ephorus, and Diodorus. The mythological origin of Sauromatians is related by Herodotus who claims that they were offsprings of the Amazons and Scythian men [Davis-Kimball 2013]. Hippocrates [Hippocrates 1881] describes Sauromatians as a member alliance of the Scythians. Diodorus [Diodorus 1933] claims Sauromatians and Sarmatians share the same genealogy. German scientist

J. Marquart suggests that the name 'Sairima' found in the Avesta, the holy book of Zoroastrianism, is actually 'Sauromat' [Marquart 1901: 155; Sizdikov 2019: 1–19].

Archeological studies have found traces of the Sauromatian culture to the east of the Danube River and in the Southern Ural region during the Early Iron Age. The difference between this culture and other Bronze Age cultures can be clearly seen in their burial traditions and archeological findings. Therefore, we can be sure that a new nomadic culture did exist in the Southern Ural region — more specifically in West Kazakhstan — during the 7th–6th centuries BC.

Russian archeologists suggested two theories regarding the origin of Sauromatians. According to the first theory, the Sauromatian tribe descended from the Andronovo and Srubnaya cultures that had lived east of the Danube River and in the Southern Ural region during the Bronze Age. Thus, they may have a direct connection with the Bronze Age tribes [Smirnov 1964: 182–188]. However, the second theory claims that Sauromatians emerged during a process when new nomadic tribes were assimilated by Scythian ones. Thus, they were descendants of Scythian and Saka tribes [Grakov 1954: 14; Mishchenko 1882: 477; Rostovtsev 1918: 33–34].

This study concludes that these tribes were closely connected with Scythian tribes. We reached this conclusion by evaluating original findings unearthed from various tumuli, such as Lebedevka, Besaba, Sintas, Kirik Oba, Selinni, Kara Oba, etc. All these tumuli belong to the Sauromatian era and are located in the steppes of West Kazakhstan.

The majority of scientists believe that the Sarmatian culture was the product of a process in which the Sauromatian culture had mixed with the culture of nomadic tribes from the east. M. Rostovsev is a Russian archeologist who spent all of his life researching these tribes. He claims that Sauromatian and Sarmatian tribes were genealogically related since both of them were matriarchal tribes with female warriors [Smirnov 1964: 4]. A. Pshenishnyuk and K. Smirnov underline that the Aral Sea tribes were powerful in the Southern Ural region during the 4th century BC. Thus, they claim Sarmatian tribes must have descended from Sauromatianones and other nomadic groups in the region [Pshenichnyuk 1983: 128–130; Smirnov 1964: 286].

Archeological explorations of the 4th century BC Southern Ural region show that this region was experiencing a transition from the Sauromatian culture to the Sarmatianone. A change in the burial rituals can be clearly seen. These changes include a new tumulus type with stone platings, use of catacombs, dromos and padboi type graves, and extensive wood usage in the tumuli [Gutsalov 2004: 14–15]. In the previous eras, corpses had been placed in graves with their heads facing usually west, but in this era they would place corpses with their heads to face south. Swords with mushroom- and T-shaped pommels, and with butterfly- and kidney-shaped guards were replaced by swords and daggers with crescent-shaped pommels and straight guards [Moshkova 1963: 6]. A new bronze arrow type with three wings and secret fletching also appeared [Pshenichnyuk 1983: 109]. Ceramics with round bases were replaced by ceramics with a rectangular base. We also see talc became a component of the ceramic clay [Moshkova 1963: 6]. These prove that Sarmatians which were a federation of nomadic tribes started to become influential in the Southern Ural region during the 4th century BC.

So, we see that Sauromatian and Sarmatian tribes were connected with each other in terms of genealogy, ethnicity, and culture. This is supported by the burial practices. Many unearthed Sauromatian graves contained corpses belonging to Sarmatian tribes. This proves that they shared their religions, cultures, and practices. Therefore, we can easily conclude that these tribes share common origins. Also literature describes the early era [6th–4th centuries BC] as the Sauromatian age, and the middle and late ones [4th century BC and 4th century AD] as that of Sarmatians.

Sauromato-Sarmatian Swords Found in West Kazakhstan

When it comes to investigate written sources, illustrated books and archeological findings, we see that these tribes used daggers and swords extensively both in battles and in their daily lives.

The ancient author Tacitus claims that Sarmatians used swords and daggers in battles better than Scythians [Tacitus 1992: 66]. Strabo states that even Sarmatian children could use daggers and swords: 'Sarmatians teach their

boys how to ride and wield swords when they are just little children' [Strabo 1969]. Ammianus [Ammianus 1935–1939] and Dio [Chrysostom 1993] mention nomadic tribes that had lived in the Northern Black Sea region. They inform us that the tribes used those weapons both in battles and in their daily lives: '... every boy carries a sword and a dagger on his belt as is dictated by their tradition'.

Another source that provides information regarding swords and daggers are illustrated books. The Solokha kurgan demostrates a battle scene depicted in the pommel of a comb found in the tumulus. This work depicts a foot soldier holding a dagger [Melyukova 1964: 46–64]. The swords and daggers found in the Solokha tumulus are exhibited in the Hermitage Museum and their sheaths depict a battle scene with a warrior holding a sword [Brashinsky 1979]. Grave steles found in Kuban, Kalinovka, Terenovka [Melyukova 1964: 46–64] and Ustyurt [Samashev et al. 2007: 213–264] also include sword and dagger illustrations.

Another source which informs us about swords and daggers is archaeology. Archeological excavations in Sauromato-Sarmatian tumuli have unearthed many weapons. These swords and daggers had been produced from bronze or iron. Swords and daggers comprise three parts: a pommel, a guard, and a blade (Fig. 1). The pommel is the upper part of the hilt and has a different style in every age. A guard protects the wielder's hand against blows, and the blade has one or two cutting edges.

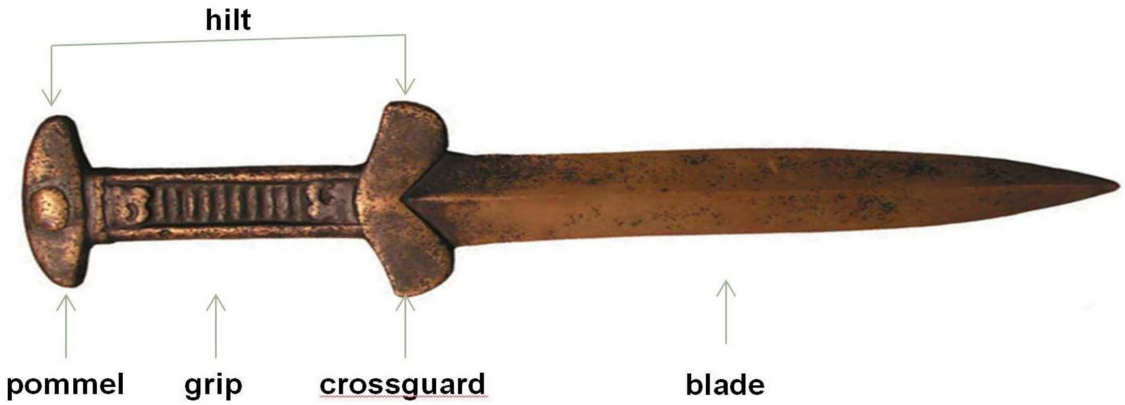

Fig. 1. Parts of swords and daggers

Swords and daggers found in tumuli excavations provide important information about the age of the tumuli or findings, the geographic dispersion of nomadic tribes, the ethnic identity of these tribes, and local differences. A. Melyukova [Melyukova 1964: 46–64] and K. Smirnov [Smirnov 1961: 9–31] suggested a chronological typology for swords and daggers belonging to the Scythian, Sauromatian, and early Sarmatian eras. But at that time Sarmatian swords and daggers were not analyzed enough compared to Scythian and Sauromatianones. Those studies which analyze swords and daggers of the above-mentioned tribes includeworks performed by well-known scientists, such as A. Khazanov [Khazanov 1971: 5–27], V. Vasilyev [Vasilyev 2001: 98–99], and A. Simonenko [Simonenko 2009: 13–69]. The typology developed by these scientists covers swords and daggers found inside Scythian and Sauromato-Sarmatian tumuli in the Northern Black Sea region, the North Caucasus, and other regions. Yet, there is no typology for the similar weapons found inside tumuli of West Kazakhstan. Therefore, this study suggests a typology for the swords found inside the Sauromato-Sarmatian tumuli across West Kazakhstan. This typology is created based on the experiences of previous researchers.

Sword Typology

Moorey classifies piercing weapons longer than 36 centimeters as swords, and shorter than that as daggers. Moorey also classifies piercing weapons longer than 36 centimeters but shorter than 50 centimeters as short swords (dirk), and longer than 50 centimeters as long swords

(sword proper) [Moorey 1971: 66]. Our study also classifies swords longer than 50 centimeters as long swords in accordance with this typology.

Table 1. Average of sword and dagger

Weapon	Type									Total
	I	II	III	IV	V	VI	VII	VIII	IX	
Long Sword	9	6	2	17	9	15	9	1	2	70
Short Sword	5	7	4	14	8	3			1	42
Dagger	3	2	2	13	8	11	1	1	4	45
Total	17	15	8	44	25	29	10	2	7	157

201 swords and daggers have been unearthed during archeological excavations in West Kazakhstan. 157 of the former were identified as swords and daggers proper. The remaining 44 weapons were fragmentary and it was hard to determine whether they were swords or daggers. Therefore, only the 157 better-preserved weapons were analyzed (Table 1). We classified 112 of them (71%) as swords, i. e. those are longer than 36 centimeters. Considering all this information, we conclude that Sauromato–Sarmatian tribes that had lived in this region used swords extensively for defense and to attack enemy tribes. 42 of those 112 swords are short swords, whereas 70 of them are long ones. Therefore, long swords tend to form the largest group.

Our study classifies Sauromato-Sarmatian long swords found in West Kazakhstan into nine types with regard to their pommels.

Type I. Long Swords with T-shaped Pommel

The swords of this type have a T-shaped pommel and a butterfly- or kidney-shaped guard. This type of sword is usually found in Scythian tumuli in Central Asia and Eastern Europe. Therefore, they are known as a Scythian sword. This type of sword was found in tumulus no. 3 of Onaibulak graveyard [Bisembayev et al. 2009], tumulus no. 1 and 2 of Mortik graveyard [Smailov et al. 2005: 4–75], tumulus no. 1 of Araltobe graveyard [Samashev 2000: 4–24]. All these tumuli belong to Sauromatians who had lived in the same era as Scythians in West Kazakhstan.

Swords similar to this type were found in the Esik tumulus of the Zhetysu region [Kozybayev 2010: 171–172], tumulus no. 13 of Filipovka graveyard in the Southern Ural region [Yablonsky 2008: 171], tumulus no. 1 of Lapasina graveyard [Chlenova 1993: 65], tumulus no. 4 of Novoorsky 2 graveyard [Vasilyev 2001: 30–31], and tumulus no. 8 of Meshet-Say graveyard [Smirnov 1975: 131]. The swords of this type were also found in the Pontic steppe, in tumulus no. 504 of Bravarka graveyard [Ilyinskaya 1957: 237], tumulus no. 2 of Raigograt graveyard [Melyukova 1964: 47], Yarymbov graveyard [Demidova 1964: 202], and Karmir-Blur city located in the Southern Caucasus [Chlenova 1993: 66]. K. Akishev states that this sword type was being used by Scythian tribes that lived in Tuva, Siberia, Altai, Central Kazakhstan, and Zhetysu regions during the 7th–4th centuries BC [Akishev 1973: 48–49]. K. Smirnov [Smirnov 1961: 9–11], A. Melyukova [Melyukova 1964: 47] and V. Vasilyev [Vasilyev 2001: 30–31] also dated swords of this type found in the Southern Urals, the North Caucasus, and Northern Black Sea region to the 7th–4th centuries BC. The swords of this type found in West Kazakhstan are also dated to the 6th–4th centuries BC.

Type II. Long Swords with Mushroom-Shaped Pommel

The swords of this type have a mushroom-shaped pommel and a butterfly- or kidney-shaped guard. These swords are found in Scythian tumuli in Central Asia and Eastern Europe. Therefore, they are also known as Scythian swords. The swords of this type were found in tumulus no. 1 of Guryuldek graveyard [Izbasarov et al. 2007: 6], tumulus no. 1 of Araltobe graveyard [Samashev 2000: 4–24], and tumulus no. 29 of Lebedevka graveyard [Moshkova, Zhelezchikov, Kriger 1978: 14–133]. All

these tumuli belong to the Sauromatians who had lived in the same era as Scythians in West Kazakhstan.

The swords of this type were found in tumulus no. 53 of South Tugusken graveyard located to the southeast of the Aral Sea [Itina, Yablonsky 1997: 21–22], tumulus no. 2 of Alebastrovo Gora graveyard located in the Southern Ural region, tumulus no. 6 of Bashkirskovo Stoilo graveyard, Nikopolsk tumulus located in North Caucasus [Smirnov 1961: 24], Kumbulta village tumulus [Terenozhkin 1976: 28–29], tumulus no. 425 of Kuleshovka graveyard located in the Northern Black Sea region [Melyukova 1964: 49], Shertomlik tumulus [Smirnov 1961: 24], and tumulus no. 7 of Borispol graveyard [Melyukova 1964: 52]. M. Itina and L. Yablonsky state that this sword type was being used by the nomadic tribes which lived in the Aral Sea basin during the 6th–5th centuries BC [Itina, Yablonsky 1997: 70]. K. Smirnov states that this sword type was also being used by Sauromato-Sarmatian tribes which lived in the Southern Ural region during the 5th–4th centuries BC [Smirnov 1961: 24]. A. Melyukova dates the swords of this type found in the North Caucasus and the Northern Black Sea region to the 4th–3rd centuries BC [Melyukova 1964: 52]. The swords of this type found in West Kazakhstan are dated to the 6th–4th centuries BC.

Type III. Long Swords with Volute-Shaped Pommel

The swords of this type have a volute-shaped pommel and a butterfly- or kidney-shaped guard. These swords had been produced from iron and were found in tumulus no. 8 of Besoba graveyard [Kadyrbayev, Kurmankulov 1976: 2–18] and tumulus no. 5 of Novopavlovka graveyard [Zhelezchikov, Kriger 1976: 5–75].

The swords of this type were found in tumulus no. 53 of the Southern Tugusken graveyard located in the southeast of the Aral Sea [Itina, Yablonsky 1997: 22], tumulus no. 12 of Aksenovka graveyard located in the Southern Ural region [Shilov, Ochir-Goryaeva 1997: 136–137], tumulus no. 25 of Sineglazova village [Smirnov 1961: 25], tumulus no. 4 of Almukhametova graveyard [Vasilyev 2001: 41–42], Nesterovsky tumulus located in the North Caucasus [Krupnov 1960: 280–281], a tumulus in Aksutintes village [Grakov 2006: 183], a tumulus in Marisin village located in the Northern Black Sea region [Melyukova 1964: 53–55], a tumulus in Grishensa village [Troitskaya, Novikov 2007: 51], a tumulus in Yurovka village, and tumulus no. 3 in Popovka village [Melyukova 1964: 53–55]. We cannot find this sword type in Southern Siberia and the Altai region. M. Itina and L. Yablonsky dated a sword with a volute-shaped pommel found in the Southern Tugusken graveyard to the 6th–5th centuries BC [Itina, Yablonsky 1997: 70]. A. Melyukova also dated swords of this type found in the North Caucasus and the Northern Black Sea region to the 6th–4th centuries BC [Melyukova 1964: 54–55]. K. Smirnov [Smirnov 1961: 24] and V. Vasilyev [Vasilyev 2001: 41–42] date the swords of this type found in the Southern Ural region to the 5th–4th centuries BC. Swords with volute-shaped pommels found in West Kazakhstan are also dated to the 6th–4th centuries BC.

Type IV. Long Swords with Crescent-Shaped Pommel

The swords of this type have a crescent-shaped pommel and a straight guard. Early examples of the swords of this type were found in Sarmatian tumuli. Therefore, they are known as Sarmatian swords. The swords of this type were found in tumulus no. 1 of Oblovka graveyard located in West Kazakhstan [Sdykov et al. 2005: 4–18], tumuli no. 2 and 3 of Ulguli graveyard [Bisembayev et al. 2005: 2–39], and tumuli no. 1 and 8 of Solyanka 2 graveyard [Kushaev 1983: 6–40].

Many the swords of this type were found in Sarmatian tumuli across the Southern Ural region. In contrast, very few were found in the Altai, Khwarazm, and the North Caucasus. They were also found in Gorkovsky and Klyushi villages located in Altai Krai [Solovyov 2003: 68], tumulus no. 10 of Agaliksay graveyard located in Khorezm Region [Obelchenko 1972: 56–72], tumulus no. 4 of Akzhartepe graveyard [Obelchenko 1978: 115–127], tumulus no. 2 of Uvak graveyard located in the Southern Ural region [Smirnov 1975: 56–60], tumuli no. 1 and 2 of Prokhorovka graveyard [Yablonsky 2010: 38–42], and tumuli no. 14 and 15 of Starye Kishki graveyard [Klepikov 2007: 54–57]. A. Simonenko states that long swords of this type cannot be found in Sarmatian tumuli in the Northern Black Sea region,

whereas short swords of this type can be found in such tumuli [Simonenko 2009: 13–25]. Yu. Kiryushin, G. Ivanov, and V. Borodaev date swords found in Gorkovsky village of Altai Krai to the 6th–5th centuries BC, whereas A. Solovyov dates swords found in Klyushi village to the 4th–3rd centuries BC [Solovyov 2003: 68]. V. Vasilyev [Vasilyev 2001: 45–46] and K. Smirnov [Smirnov 1961: 26–27] state that swords found in the Southern Ural region were being used by Sarmatian tribes during the 4th–3rd centuries BC, and that the the swords of this type were characteristic to the Prokhorovka culture of Sarmatians. O. Obelchenko also dates the swords of this type found in Khorezm Region to the 4th–3rd centuries BC [Obelchenko 1972: 66]. L. Yablonsky dates swords of this type found in Pokrovka graveyard located in the Southern Ural region to the 4th–2nd centuries BC [Yablonsky et al. 1996: 10]. The swords of this type were found in West Kazakhstan and are dated to the 4th–2nd centuries BC.

V. Vasilyev states that as this sword type appeared in Sarmatian tribes across the Southern Ural region, the length of swords started to increase. The average length of swords found inside tumuli of this region is 80 centimeters. Thus, cavalry gained an important place in the Sarmatian battle tactics, and cavalry used these long swords to attack their enemies. But Sarmatian swords become smaller during the 3rd–2nd centuries BC, and their average length dropped down to 52.9 centimeters [Vasilyev 2001: 52–53].

Type V. Long Swords with Ring-Shaped Pommel

The swords of this type have a ring-shaped pommel and a straight guard. This sword type was first seen in Sarmatian tumuli of the late 3rd– early 2nd centuries BC, that is why they are known as Sarmatian swords. The swords of this type had been produced from iron and to be found in tumulus no. 1 of Algabas graveyard [Mergaliev, Orynbasarov, Utepbayev 2010: 9–16], tumuli no. 4 and 6 of Sapibulak graveyard [Samashev et al. 2010: 2–41], tumulus no. 12 of Karasu 1 graveyard [Kushaev, Zhelezchikov 1976: 12–81] and tumulus no. 4 of Barbastau 3 graveyard [Kushaev, Zhelezchikov 1973: 21–31].

Many swords of this type were found in Sarmatian tumuli in the Southern Urals, North Caucasus, and Northern Black Sea region, whereas very few were found in other territories. The swords of this type were found in Sopka tumulus located in Siberia [Solovyov 2003: 87], Lyavandak graveyard located in Khorezm [Obelchenko 1961: 100–103], tumulus no. 4 of Novotroisk 2 graveyard located in the Southern Ural region [Vasilyev 2001: 51–52], tumulus no. 10 of Pokrovka 7 graveyard [Yablonsky et al. 1996: 7–48], tumulus no. 19 of Kalinovka graveyard [Klepikov 2007: 54–57], tumulus no. 138 of Bestamak graveyard [Seitov 2011: 258], tumulus no. 3 of Novofilipovka graveyard located in the Northern Black Sea region [Simonenko 1984: 137] and tumulus no. 5 of Akkermen 2 graveyard [Simonenko 2009: 39–40].

A. Simonenko [Simonenko 2009: 40–43] and A. Skripkin [Skripkin 2010: 213–214] state that this sword type was being used in East Turkestan, Tuva, Siberia, the Altai and Minusinsk Region during the Late Bronze and Early Iron Ages. They also note that this sword type had first appeared among Sarmatian tribes in the Southern Ural region during the 2nd–1st centuries BC.

V. Molodina dates the swords of this type found in Sopka tumulus located in Siberia to the 6th–5th centuries BC [Solovyov 2003: 87]. V. Vasilev states that this sword type had been first used by nomadic tribes which lived in the Southern Ural region during the 3rd–2nd centuries BC [Vasilyev 2001: 51–52]. A. Skripkin [Skripkin 2010: 349–351] and O. Obelchenko [Obelchenko 1961: 163–164] state that this sword type was being used by nomadic tribes which lived in Khorezm, the Southern Urals, and the Northern Black Sea region during the 2nd–1st centuries BC, whereas A. Simonenko [Simonenko 2009: 32] and V. Klepikov [Klepikov 2007: 57] state that they were being used in the 2ndcentury BC to 2nd century AD. The swords found in tumuli located in West Kazakhstan are dated to the 3rd–2nd centuries BC.

Type VI. Long Swords with Unpreserved Pommel

The pommels of this sword type are not preserved, so their pommels are like a nail and their guards are straight. Sincehilts of these swords had been made of bone or wood, they were never preserved. The swords of this type were found in tumulus no. 2 of Oblovka graveyard located in West Kazakhstan [Mergaliev, Dzhubanov, Diyarov 2011: 8–10], tumulus no.

1 of Zhusandyoi graveyard [Mergaliev, Orynbasarov, Utepbayev 2010: 16–20], tumulus no. 2 of Dostyk graveyard [Sdykov et al. 2006: 2–16], and tumulus no. 5 of İlekshar 1 graveyard [Bisembayev et al. 2005: 8–39]. These tumuli belong to the Late Sarmatian era.

Many swords of this type were found in tumuli belonging to the Late Sarmatian era in Khorezm, the Southern Urals, North Caucasus, and Northern Black Sea region. The swords of this type were found in tumulus no. 2 in Sarkara Pass located in Southern Siberia [Khabdulina 1994: 57], tumuli no. 1 and 2 of Telketau graveyard located in Khorezm Region [Manylov 1992: 60–61], tumuli no. 1 and 2 of Lyavandak graveyard [Obelchenko 1961: 210–214], tumulus no. 2 of Kurpe-Bai graveyard [Skripkin 2010: 99–119], tumuli no. 9 and 15 of Staraye Kishki graveyard located in the Southern Ural region [Vasilyev 2001: 48–50], tumulus no. 16 of Pokrovka graveyard [Vasilyev 2005: 98–99], tumulus no. 27 of Yutovo graveyard located in the North Caucasus, tumulus no. 7 of Novyi Rogashik graveyard [Klepikov 2007: 56–57], tumulus no. 7 of Kovalevka graveyard located in the Northern Black Sea region [Krivosheev, Dyachenko 2014: 42–49], and tumuli no. 12 and 19 of Slatkovsky graveyard [Skripkin 2010: 195–232].

Yu. Manylov [Manylov 1992: 61–63] and O. Obelchenko [Obelchenko 1956: 220] date swords found in Khorezm Region to the 2nd century BC – 2nd century AD. M. Khabdulina dates swords found in tumulus no. 3 in Sarkara Pass located in Southern Siberia to the 2nd century BC – 1st century AD [Khabdulina 1994: 56–57]. A. Khazanov and M. Krivosheev [Krivosheev 2007: 65] date swords found in the Southern Urals, North Caucasus, and Northern Black Sea region to the Late Samatianera, namely the 2nd–4th centuries BC [Khazanov 1971: 20–24]. A. Simonenko states that this sword type was being used in the Northern Black Sea region up to the 6th century AD [Simonenko 2009: 61]. The swords found in tumuli located in West Kazakhstan are dated to the 2nd century BC – 4th century AD.

Type VII. Long Swords with Circle- or Oval-Shaped Pommel

The swords of this type have a rounded pommel and a straight guard. Hilts of the majority had been made of wood, whereas their pommels made of either chalcedony or glass. The swords of this type were found in tumulus no. 4 of Volodarka 1 graveyard [Kushaev 1981: 5–43], tumulus no. 11 of Selini 1 graveyard [Gutsalov, Tkachev 1990: 7–39] and tumuli no. 13, 24 and 37 of Lebedevka 6 graveyard [Zhelezchikov, Kriger 1979: 4–102]. These tumuli belong to the Sarmatian era.

Many swords of this type were found in tumulus no. 23 of Ust–Edigan graveyard located in the Altai [Khudyakov 1997: 57], Novoobishka village [Solovyov 2003: 68], tumulus no. 489 of Makeevka graveyard located in the Northern Black Sea region [Troiskaya, Novikov 2007: 51], tumulus no. 7 of Borispol graveyard [Melyukova 1964: 51–52], Tolstoi tumulus [Chernenko 1975: 157–164], tumulus no. 7 of Kolb graveyard [Savchenko 2004: 97–98], and tumulus no. 9 of Durovka graveyard [Puzikova 2001: 189–190].

V. Mogilnikov dates a sword found in Novoobishka village from the Altai to the 6th–5th centuries BC [Solovyov 2003: 68]. E. Chernenko dates a sword found in the Northern Black Sea to the 5th–4th centuries BC [Chernenko 1975: 161–164], whereas A. Melyukova [Melyukova 1964: 52], A. Puzikova [Puzikova 2001: 189–190], T. Troiskaya and A. Novikov [Troitskaya, Novikov 2007: 51] date this sword to the 4th–3rd centuries BC. The swords found in West Kazakhstan are dated to the 4th century BC – 4th century AD.

Type VIII. Long Swords with Hoof-Shaped Pommel

The swords of this type have a hoof-shaped pommel and a butterfly shaped guard. This sword type is commonly found in Scythian tumuli, whereas few have been found in Sauromato–Sarmatianones.

One sword of this type was found in tumulus no. 16 of Lebedevka 7 graveyard located in West Kazakhstan [Moshkova, Zhelezchikov, Kriger 1980: 10–104]. The swords of this type were found in ArgayashskyDistrict of Chelyabinsk Oblast in the Southern Urals [Tairov, Ulyanov 1996: 141–142], tumulus no. 15 of Filippovka 1 graveyard [Yablonsky 2008: 175], Pilyugino tumulus, Shnyaevo tumulus [Morzherin 2004: 186], tumulus no. 2 of Aksyutin graveyard located in the Northern Black Sea region, tumuli no. 6, 10 and 34 of Yelizavetinskaya graveyard [Melyukova 1964: 58], tumulus

no. 2 of Volkovtsy graveyard [Troiskaya, Novikov 2007: 51], and tumulus no. 2 of Petrovka graveyard located in the North Caucasus [Bratchenko, Shvetsov, Dubovskaya 1989: 171].

A. Melyukova dates the sword found in the Northern Black Sea region to the 5th–4th centuries BC [Melyukova 1964: 58]. A. Tairov and I. Ulyanov date swords found in the Southern Urals to the 5th–4th centuries BC [Tairov, Ulyanov 1996: 141], whereas T. Troiskaya and A. Novikov date these swords to the 4th–3rd centuries BC [Troiskaya, Novikov 2007: 51]. The swords found in tumulus no. 16 of Lebedevka 7 graveyard located in West Kazakhstan [Moshkova, Zhelezchikov, Kriger 1980: 10–104] are dated to the 5th century BC.

Type IX. Long Swords with Double Griffon-Shaped Pommel

The swords of this type have a double griffon-shaped pommel and a butterfly-shaped guard, and are usually found in Scythian royal tumuli, whereas few have been found in Sauromato-Sarmatianones. The swords of this type had been made of iron and found in tumulus no. 18 of Kirik-Oba 2 graveyard [Sdykov, Bisembayev, Gutsalov 2002: 7–10] and tumulus no. 1 of Besoba graveyard [Kadyrbayev, Kurmankulov 1973: 2–17].

Swords similar to this type were found in tumulus no. 401 of Yurovka graveyard located in the Northern Black Sea region. A. Melyukova dates these swords to the 5th century BC [Melyukova 1964: 55]. The swords of this type found in tumuli located in West Kazakhstan are dated to the 7th–5th centuries BC.

Our study shows that the swords of this type are found only in the Southern Urals and Northern Black Sea region. But daggers of this type were used extensively by nomadic tribes who lived in the Altai and Siberia.

Quantitative Evaluation

The study examines a total of 157 swords and daggers. The number of weapons longer than 36 cm defined as swords is 112 and has a share of 72 %. (Fig. 2). So, we can deduce that the main weapon of Sauromato-Sarmatian tribes to have lived in West Kazakhstan was sword. The latter include 42 short swords and 70 long ones. So, the share of long swords is 62 %. (Fig. 3).

The number of swords with a T-shaped pommel (Type I) is 9, and the share is 13 %; the number of swords with a mushroom-shaped pommel (Type II) is 6, and the share is 9 %; and the number of swords with a volute-shaped pommel (Type III) is 2, and the share is 3 %. The number of swords with a crescent-shaped pommel (Type IV) is 17, and they constitute the largest group with a share of 24 %. The number of swords with a ring-shaped pommel (Type V) is 9, and the share is 13 %; and the number of swords with an unpreserved pommel (Type VI) is 15, the sharebeing 21 %. The number of swords with round and oval-shaped pommels (Type VII) is 9, and their share is 13 %. Only 1 sword with a hoof-shaped pommel (Type VIII) and 2 swords with two opposing griffin heads (Type IX) were found. The total share of these two types is 4 % (Fig. 4).

The quantitative evaluation shows that the weapon commonly used by the Sauromato-Sarmatian tribes to have inhabited West Kazakhstan was the sword with a crescent-shaped pommel. That is why these types of swords are referred to as Sarmatian type swords, or Prokhorovka-era swords (Fig. 5)

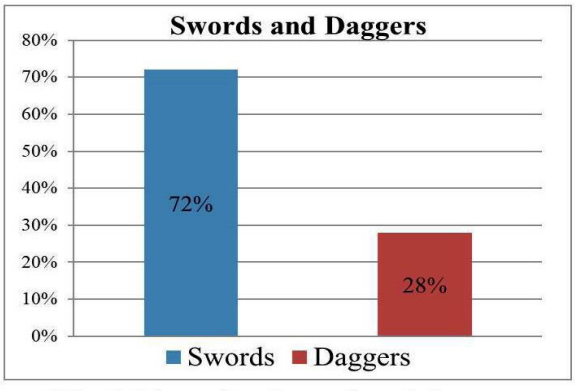

Fig. 2. The ratio of swords and daggers

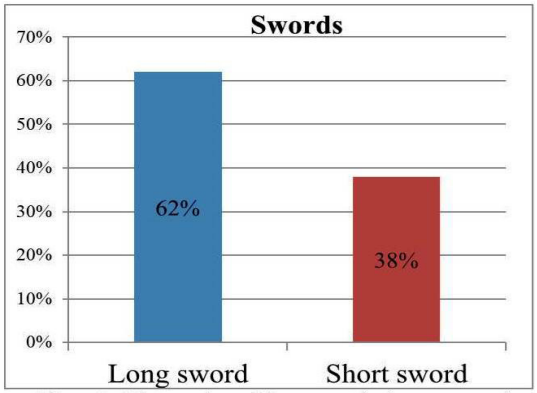

Fig. 3. The ratio of long and short swords

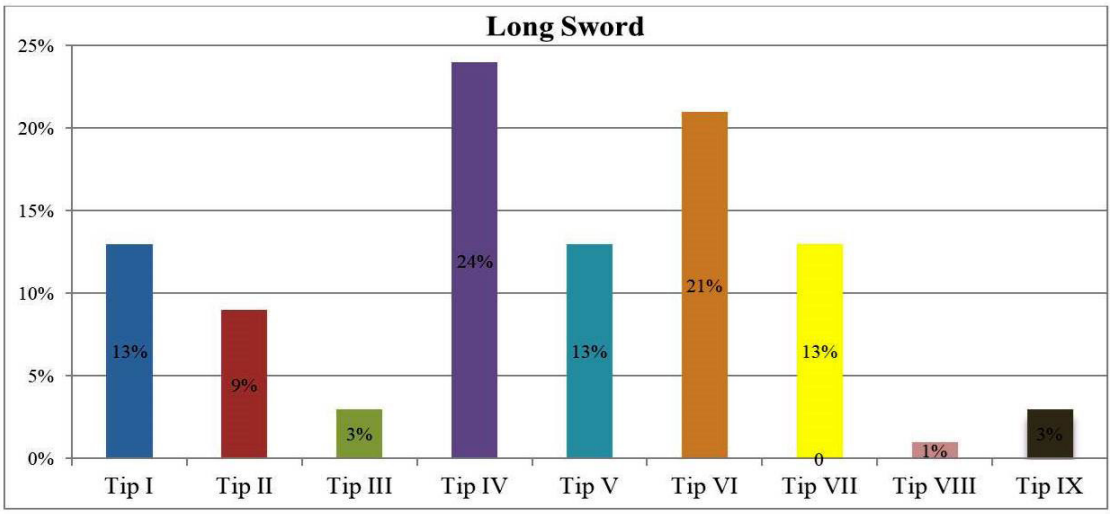

Fig. 4. The ratio of long swords by types

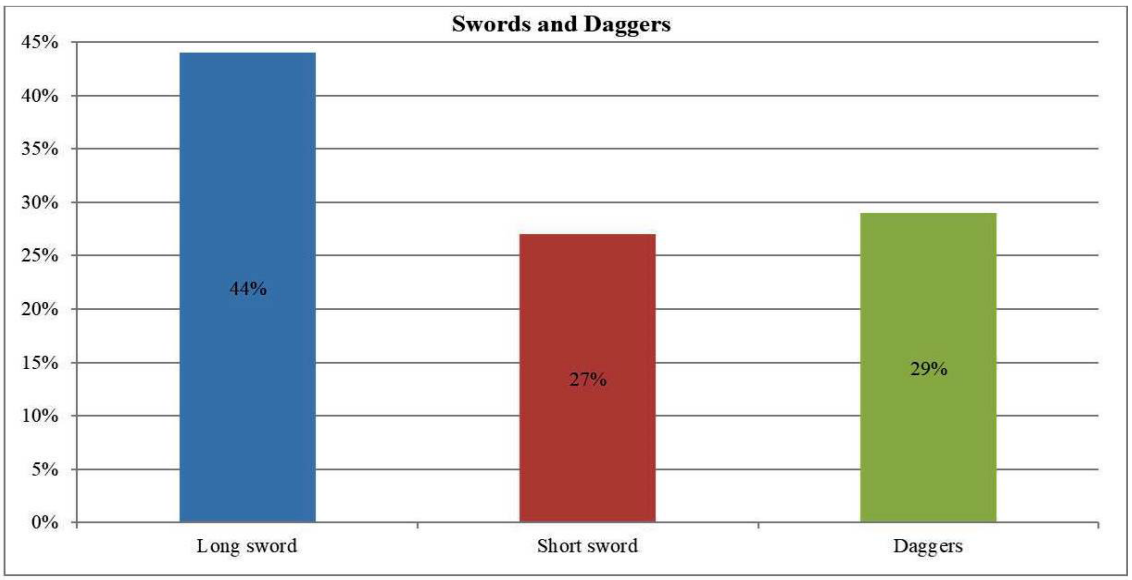

Fig. 5. The ratio of long sword and daggers

Production Technology

All swords found in Sauromato-Sarmatian tumuli across West Kazakhstan are made of iron. The swords had been manufactured with casting and forging techniques. The forging technique can be used to shape the grip and blade but it is not possible to produce volute- or griffon-shaped pommels using this technique. Therefore, we can say that pommels of some of the Sarmatian swords were cast, while grips and blade parts were forged.

Above, we mentioned that swords consist of three parts: hilt, cross-guard, and blade. Therefore, in this study, we examine the sword manufacturing technique in three parts.

The hilt ensures that the sword does not come out of the user's hand. Using a sword without a hilt is very difficult. Swords found in Sauromato-Sarmatian tumuli in West Kazakhstan had hilts made of iron, glass, brownstone, wood, or bone. For example, sword hilts in the form of T, mushroom, volute, crescent, ring, hoof, and two opposing griffin heads are made of iron, while the round-shaped or unpreserved (nail-shaped) hilts are made of wood, bone, glass, or brownstone. The pommels are fixed to the hilt with the aid of rivets or clamps. Iron hilts were cast and then shaped by forging. Special attention was paid to the shape of the hilt in each period. Therefore, we can guess which period the sword belongs to just by examining at the hilt.

The cross-guard is the part that protects the hand of the person using the sword against impacts. The cross-guard of swords with T, mushroom, volute, crescent, ring, round, hoof, and two opposing griffin heads shaped pommels found in Sauromato-Sarmatian tumuli in West Kazakhstan are made of iron, while the cross-guard of swords with unpreserved (nail-shaped) pommels are made of wood or bone. The iron cross-guards are first cast, then shaped by forging. The cross-guards of swords with an unpreserved pommel (nail-shaped) are made of wood or bone, inserted into the grip, and fixed with the aid of rivets or clamps.

The blade is the lethal part of a sword and is either single or double-edged. The blades of swords found in Sauromato-Sarmatian tumuli in West Kazakhstan are made of iron. After the blade was shaped with forging techniques, its edges were sharpened with a whetstone. The cross-section of the blade of a Sarmatian sword shows a diamond shape. This ensures the durability of the sword. The greater the thickness of the blade, the greater the durability of the sword.

Conclusion

As a result, we can say that nomadic tribes known as Sauromato-Sarmatianshad emerged in the Southern Ural region of Eurasia during the Early Iron Age. Also, we would like to state that the tribes in question were the same, that they were recorded as Sauromatians in the Early Iron Age, and since the Middle Iron Age, the tribes to have inhabited the region began to be recorded as Sarmatians. The facts that the name 'Sauromat[ian]'had been first encountered in written sources and was used to denote a tribe to have livedto the east of the Don River, but that the name 'Sarmat[ian]' appeared later and was used to denote a few tribes that would spread over wide territories support our view.

In this study, 157 weapons are examined, 112 of which are swords. Of these swords, 70 are classified as long swords, and the remaining 42 as short swords. Among the long swords, the largest group consists of swords with crescent-shaped pommels which we defined as Type IV. We show that this type began to appear in the Southern Ural region during the Prokhorovka culture period, that is, in the late 5th– early 4th centuries BC, and became the characteristic weapon of the Sarmatians (Table 1). Besides, very few swords with hoof-shaped (Type IX) and two opposing griffon-shaped pommels (Type VIII) were excavated from Sauromato-Sarmatian tumuli. Therefore, we can say that this type had been ceremonial and carried only by the important people and leaders of society.

All swords found in Sauromato-Sarmatian tumuli across West Kazakhstan are made of iron, and casting, forging, and clamping techniques had been used in their manufacture. We can say that the hilt of some of the Sarmatian swords was cast, the grip and blade parts were forged, and the pommel was fixed to the hilt with the aid of rivets or clamps.

References

Akishev 1973 — Akishev K. A. The Saka of Asia and the Scythians of Europe: Common and distinguishing features in culture analyzed. In: Archaeological Studies in Kazakhstan. Alma-Ata: Nauka, 1973. Pp. 43–58. (In Russ.)

Ammianus 1935–1939 — Ammianus M. History. In 3 vols. J. C. Rolfe (transl.). Loeb Classical Library (300, 315, 331). Cambridge, MA: Harvard University Press, 1935–1939. Pp. (In Lat. and Eng.)

Baypakov, Tanabayeva, Sdykov 2001 — Baypakov K. M., Tanabayeva S. I., Sdykov M. N. Ancient Treasures of West Kazakhstan. Alma-Ata: Credo, 2001. 160 p. (In Russ.)

Bisembayev et al. 2005 — Bisembayev A. A., Gutsalov S. Yu., Maryksin D. V., Tulegenova N. I. Archaeological Excavations of Kurgan Burials near Ulguli Village: 2004 Activity Report. Aktobe, 2005. 271 p. At: Margulan Institute of Archaeology, Archive. File no. 2665. (In Russ.)

Bisembayev et al. 2009 — Bisembayev A. A., Bidagulov N. T., Dulya V. I., Mamedov A. M., Ismagulov U. Sh., Duisengali M. N. Archaeological Excavations in Aktobe Region: 2008 Activity Report. Aktobe, 2009. 91 p. At: Margulan Institute of Archaeology, Archive. File-no. 2863. (In Russ.)

Brashinsky 1979 — Brashinsky I. B. In Search of Scythian Treasures. Leningrad: Nauka, 1979. 144 p. (In Russ.)

Bratchenko, Shvetsov, Dubovskaya1989 — Bratchenko S. N., Shvetsov M. L., Dubovskaya O. R. One 6th century BC kurgan in the Seversky Donets river basin investigated. *Sovetskaya arkheologiya*. 1989. No. 1. Pp. 170–177. (In Russ.)

Brzezinski R., Mielczarek 2002 — Brzezinski R., Mielczarek M. The Sarmatians: 600 BC – AD 450. M. Windrow (ed.). Oxford: Osprey Publishing, 2002. 48 p. (In Eng.)

Chernenko 1975 — Chernenko E. V. Weapons from Tolstaya Mogila. In: The Scythian World. Kiev: Naukova Dumka, 1975. Pp. 152–173. (In Russ.)

Chlenova 1993 — Chlenova N. L. Revisiting a terminus ante quem for Karasuk bronze artifacts from Mongolia, Gornyi Altai, Transbaikalia, and Ordos. *Peterburgskiy arkheologicheskiy vestnik*. 1993. No. 4. Pp. 31–69. (In Russ.)

Chrysostom 1993 — Chrysostom D. Discourses. J. W. Cohoon (transl.). Loeb Classical Library. Cambridge, MA: Harvard University Press, 1993. P. 2500. (In Greek and Eng.)

Davis-Kimball 2013 — Davis-Kimball J. Warrior Women. S. Yeşiltuna. Istanbul: İleri Yayınları, 2013. 336 p. (In Turk.)

Demidova 1964 — Demidova A. S. A Dagger from Monastyrshchenki village of Voronezh Oblast reviewed. *Sovetskaya arkheologiya.* 1964. No. 2. Pp. 202–203. (In Russ.)

Diodorus 1933 — Diodorus S. Diodorus of Sicily. C. H. Oldfather (transl.). London: William Heinemann Ltd., 1933. 566 p. (In Eng.)

Durmuş 2007 — Durmuş İ. Sarmatlar. Istanbul: Akchağ Yayinlari, 2007. 160 p. (In Turk.)

Grakov 1954 — Grakov B. N. Kamenskoe Hillfort on the Dnieper. Moscow: USSR Academy of Sciences, 1954. 238 p. (In Russ.)

Grakov 2006 — Grakov B. N. İskitler. D. A. Batur (transl.). Istanbul: Selenge Yayinlari, 2006. 372 p. (In Turk.)

Gursoy 2019 — Gursoy M. Batı Kazakistan'da Sarmat Mezar Tipleri. *Bilig – Turk Dunyası Sosyal Bilimler Dergisi*. 2019. No. 88. Pp. 137–167. DOI: 10.12995/bilig.526793 (In Turk.)

Gursoy, Akylbek, Jetibaev 2020 — Gursoy M., Akylbek S., Jetibaev K. The Sarmatian 'horseback-riding' burial tradition. Examples from West Kazakhstan. *Documenta Praehistorica*. 2020. Vol. 47. Pp. 412–419. DOI: 10.12995/bilig.526793 (In Eng.)

Gutsalov 2004 — Gutsalov S. Yu. Ancient Nomads of the Southern Cisurals. Uralsk: West Kazakhstan Center for Archeology, 2004. 136 p. (In Russ.)

Gutsalov, Tkachev 1990 — Gutsalov S. Yu., Tkachev V. V. Archaeological Excavations in Aktobe Region: 1989 Activity Report. Aktobe, 1990. 205 p. At: Margulan Institute of Archaeology, Archive. File no. n/d. (In Russ.)

Hippocrates 1881 — Hippocrates. On Airs, Waters and Palaces. London: Wyman & Sons, 1881. (In Greek, Latin, French and Eng.)

Ilyinskaya 1957 — Ilyinskaya V. A. Scythian-era sites in the Psel river basin reviewed. *Sovetskaya arkheologiya*. 1957. Vol. XXVII. Pp. 232–249. (In Russ.)

Itina, Yablonsky 1997 — Itina M. A., Yablonsky L. T. Saka Tribes of the Lower Syr Darya: Materials from Yuzhnyi Tagisken Burial Site Analyzed. Moscow: ROSSPEN, 1997. 187 p. (In Russ.)

Izbasarov et al. 2007 — Izbasarov G. B., Duisengali M. N., Bisembaev A. A., Urazov A. A., Dulya V. I., Bidagulov N. T. Archaeological Excavations of Gyuruldek Burial Site (Velikhovka, Kargaly District, Aktobe Region, Republic of Kazakhstan): Activity Report. Aktobe, 2007. 70 p. At: Margulan Institute of Archaeology, Archive. File no. 2772. (In Russ.)

Kadyrbayev, Kurmankulov 1973 — Kadyrbayev M. K., Kurmankulov Zh. K. Aktobe [Archaeological] Crew: Report of the Aktobe detachment for 1973 // Arhiv Sentralni Muzey Aktobe. Delo № ne Pokazano. Aktobe: 1973. P. 17. (In Russ.)

Kadyrbayev, Kurmankulov 1976 — Kadyrbayev M. K., Kurmankulov Zh. K. Burials of Sarmatian-era warriors from the left bank of the Ilek. In: Akishev K. A. (ed.) Past of Kazakhstan: Archaeological Evidence Reviewed. Alma-Ata: Nauka, 1976. Pp. 137–156. (In Russ.)

Khabdulina 1994 — Khabdulina M. K. The Early Iron Age in Steppe Valleys of the Ishim River. Almaty: Rakurs, 1994. 170 p. (In Russ.)

Khazanov 1971 — Khazanov A. M. Essays on Sarmatian Military Science. Moscow: Nauka, 1971. 172 p. (In Russ.)

Khudyakov 1997 — Khudyakov Yu. S. Weapons of Xiongnu-era nomads from the Gornyi Altai: Materials from Ust-Edigan burial site analyzed. *Izvestiya laboratorii arkheologii*. 1997. No. 2. Pp. 49–59. (In Russ.)

Klepikov 2007 — Klepikov V. M. Early Sarmatian swords in the Lower Volga. In: Yablonsky L. T., Tairov A. D. (eds.) Sarmatian Weaponry: Regional Typology and Chronology Attempted. Issues of Sarmatian Archaeology and History. Conference reports. Chelyabinsk: South Ural State University, 2007. Pp. 51–58. (In Russ.)

Kozybayev 2010 — Kozybayev M. K. (ed.) History of Kazakhstan: From Earliest Times to Present Days. Vol. 1. Almaty: Atamura, 2010. 548 p. (In Russ.)

Krivosheev 2007 — Krivosheev M. V. Arming of the Late Sarmatian time in the Lower Volga region. In: Yablonsky L. T., Tairov A. D. (eds.) Sarmatian Weaponry: Regional Typology and

Chronology Attempted. Issues of Sarmatian Archaeology and History. Conference reports. Chelyabinsk: South Ural State University, 2007. Pp. 65–70. (In Russ.)

Krivosheev, Dyachenko 2014 — Krivosheev M. V., Dyachenko A. N. The burial of the warrior of the Late Sarmatian time in the Volga-Don interfluve. In: Sidorov S. G. et al. (eds.) Military History of Russia: Problems, Searches, Solutions. Jubilee conference proceedings (Volgograd, 26–27 September 2014). Volgograd: Volgograd State University, 2014. Pp. 42–49. (In Russ.)

Krupnov 1960 — Krupnov E. I. Ancient History of the North Caucasus. Moscow: USSR Academy of Sciences, 1960. 520 p. (In Russ.)

Kushaev 1981 — Kushaev G. A. Archaeological Excavations by Uralsk Pedagogical Institute: 1981 Progress Report. Uralsk, 1981. 43 p. At: Margulan Institute of Archaeology, Archive. File no. 1898. (In Russ.)

Kushaev 1983 — Kushaev G. A. Rescue Archaeological Surveys in Uralsk Oblast: 1982 Progress Report. Uralsk, 1983. 40 p. At: Margulan Institute of Archaeology, Archive. File no. n/d. (In Russ.)

Kushaev, Zhelezchikov 1973 — Kushaev G. A, Zhelezchikov B. F. Archaeological Excavations in Uralsk Oblast: 1972 Activity Report. Uralsk, 1973. 45 p. At: Margulan Institute of Archaeology, Archive. File no. 1290. (In Russ.)

Kushaev, Zhelezchikov 1976 — Kushaev G. A., Zhelezchikov B. F. Archaeological Excavations by Uralsk Pedagogical Institute: 1975 Progress Report. Uralsk, 1976. 81 p. At: Margulan Institute of Archaeology, Archive. File no. 1467. (In Russ.)

Manylov 1992 — Manylov Yu. P. Kurgans of Kokpatas. *Istoriya material'noy kul'tury Uzbekistana*. 1992. No. 26. Pp. 59–89. (In Russ.)

Marquart 1901 — Marquart J. Ērānšahr nach der Geographie des Ps. Moses Xorenaci. Berlin: Weidmann, 1901. 358 p. (In Germ.)

Melyukova 1964 — Melyukova A. I. Weaponry of Scythians. Moscow: Nauka, 1964. 114 p. (In Russ.)

Mergaliev, Dzhubanov, Diyarov 2011 — Mergaliev R. S., Dzhubanov A. A., Diyarov T. A. Excavations of Oblovka Kurgan Site: 2010 Progress Report. Uralsk, 2011. 25 p. At: Margulan Institute of Archaeology, Archive. File no. 2982. (In Russ.)

Mergaliev, Orynbasarov, Utepbayev 2010 — Mergaliev R. S., Orynbasarov E. E., Utepbayev U. A. Excavations of Novopavloka, Utvinka, Algabas, Yusandioi, and Yanukonis Kurgan Sites: 2009 Progress Report. Uralsk, 2010. 223 p. At: Margulan Institute of Archaeology, Archive. File no. 2938. (In Russ.)

Mishchenko 1882 — Mishchenko F. G. Ethnography and geography of Scythia described by Herodotus revisited. *Universitetskie izvestiya* (Kiev). 1882. No. 11. P. 477. (In Russ.)

Moorey 1971 — Moorey P. R. S. Catalogue of the Ancient Persian Bronzes in the Ashmolean Museum. Oxford: Clarendon Press, 1971. 341 p. (In Eng.)

Morzherin 2004 — Morzherin K. Yu. New data on Sarmatian-era weapon finds from the Saratov Volga region. In: Issues of Lower Volga Archaeology. Conference proceedings. Volgograd, 2004. Pp. 182–186. (In Russ.)

Moshkova 1963 — Moshkova M. G. Monuments of the Prokhorovka Culture. Moscow: USSR Academy of Sciences, 1963. 88 p. (In Russ.)

Moshkova, Zhelezchikov, Kriger 1978 — Moshkova M. G., Zhelezchikov B. F., Kriger V. A. Archaeological Excavations in Uralsk Oblast: 1978 Activity Report. Uralsk, 1978. 133 p. At: Margulan Institute of Archaeology, Archive. File no. 341. (In Russ.)

Moshkova, Zhelezchikov, Kriger 1980 — Moshkova M. G., Zhelezchikov B. F., Kriger V. A. Archaeological Excavations in Uralsk Oblast: 1980 Activity Report. Uralsk, 1980. 104 p. At: Margulan Institute of Archaeology, Archive. File no. 1838. (In Russ.)

Obelchenko 1956 — Obelchenko O. V. Kuyu-Mazar burial ground. *Trudy instituta istorii i arkheologii i etnografii*. 1956. No. 2. Pp. 205–227. (In Russ.)

Obelchenko 1961 — Obelchenko O. V. Lyavandak burial ground. *Istoriya material'noy kul'tury Uzbekistana*. 1961. No. 2. Pp. 97–176. (In Russ.)

Obelchenko 1972 — Obelchenko O. V. Agalyksay kurgans. *Istoriya material'noy kul'tury Uzbekistana*. 1972. No. 9. Pp. 56–72. (In Russ.)

Obelchenko 1978 — Obelchenko O. V. Swords and daggers from kurgans of Sogdia. *Sovetskaya arkheologiya*. 1978. No. 4. Pp. 115–127. (In Russ.)

Pshenichnyuk 1983 — Pshenichnyuk A. Kh. Culture of Early Nomads in the Southern Urals. Moscow: Nauka, 1983. 203 p. (In Russ.)

Puzikova 2001 — Puzikova A. I. Scythian-Era Kurgan Burial Grounds of the Middle Don. Moscow: Indrik, 2001. 272 p. (In Russ.)

Rostovtsev 1918 — Rostovtsev M. I. Hellenism and Persianism in South Russia: A General Essay. Petrograd: Ogni, 1918. 190 p. (In Russ.)

Samashev 2000 — Samashev Z. Sh. Surveys by West Kazakhstan Expedition in Atyrau Region (Kazakhstan): 1999 Activity Report. Almaty,

2000. 51 p. At: Margulan Institute of Archaeology, Archive. File no. 2522. (In Russ.)

Samashev et al. 2007 — Samashev Z., Kusherbayev K., Amanshaev E., Astafyev A. Treasures of the Ustyurt and Mangystau. Almaty: Arkheologiya, 2007. 400 p. (In Russ.)

Samashev et al. 2010 — Samashev Z. Sh., Bisembayev A. A., Duisengali M. N., Mamedov A. M., Dulya V. I., Nagler A. O. Archaeological Excavations in Aktobe Region: 2009 Activity Report. Aktobe, 2010. 41 p. At: Margulan Institute of Archaeology, Archive. File no. 2915. (In Russ.)

Savchenko 2004 — Savchenko E. I. Ternovoe I – Kolbino I burial ground in the Middle Don. In: Scythian-Era Archaeology of the Middle Don. Moscow: Institute of Archaeology (RAS), 2004. Pp. 53–143. (In Russ.)

Sdykov et al. 2005 — Sdykov M. N., Bisembayev A. A., Gutsalov S. Yu., Mergaliev R. S., Maryksin D. V., Lukpanova Ya. A. Archaeological Excavations of Oblovka and Bylkyldak Kurgan Burial Sites (Surveys near Novaya Kazanka Village): Progress Report. Uralsk, 2005. 238 p. At: Margulan Institute of Archaeology, Archive. File no. 2723. (In Russ.)

Sdykov et al. 2006 — Sdykov M. N., Mergaliev R. S., Maryksin D. V., Lukpanova Ya. A., Dzhubanov A. A. Archaeological Excavations in Burlinsky, Akzhaik, Zelenov Districts (Kurgan Burial Sites of Aksay III, Dostyk, Karaul-Tobe): Progress Report. Uralsk, 2006. 172 p. At: Margulan Institute of Archaeology, Archive. File no. 2794. (In Russ.)

Sdykov, Bisembayev, Gutsalov 2002 — Sdykov M. N., Bisembayev A. A., Gutsalov S. Yu. Excavations of Kyrykoba II Burial Ground. Uralsk, 2002. 186 p. At: Margulan Institute of Archaeology, Archive. File no. 2598. (In Russ.)

Seitov 2011 — Seitov A. M. Swords and daggers of Early Iron Age Torgai nomads. *Voprosy istorii i arkheologii Zapadnogo Kazakhstana*. 2011. No. 14. Pp. 251–265. (In Russ.)

Shilov, Ochir-Goryaeva 1997 — Shilov V. P., Ochir-Goryaeva M. A. Scythian-era kurgans from Aksenovsky-I and II burial grounds. *Materialy i issledovaniya po arkheologii Rossii*. 1997. No. 1. Pp. 127–151. (In Russ.)

Simonenko 1984 — Simonenko A. V. Sarmatian swords and daggers from the Northern Black Sea. In: Weapons of Scythians and Sarmatians. Kiev: Naukova Dumka, 1984. Pp. 129–147. (In Russ.)

Simonenko 2009 — Simonenko A. V. Sarmatian Horsemen of the Northern Black Sea. St. Petersburg: St. Petersburg State University, 2009. 328 p. (In Russ.)

Sizdikov 2019 — Sizdikov B. M.Ö. 1. Binde Avrasya bozkırlarında yaşayan atlı göçebe kavimlerin zırhları. *Bilig – Türk Dünyası Sosyal Bilimler Dergisi*. 2019. No. 90. Pp. 1–19. DOI: 10.12995/bilig.9001 (In Turk.)

Skripkin 2010 — Skripkin A. S. The Sarmatians and the East. Volgograd: Volgograd State University, 2010. 370 p. (In Russ.)

Smailov et al. 2005 — Smailov Zh. E., Knesarin B. A., Khasen B. M., Ganieva A. S. Aktobemunaygaz Initial Pump Station (Mugalzhar District, Aktobe Region): Archaeological Survey Report. Almaty, 2005. 75 p. At: Margulan Institute of Archaeology, Archive. File no. 2680. (In Russ.)

Smirnov 1961 — Smirnov K. F. Weaponry of Sauromatians. Moscow: USSR Academy of Sciences, 1961. 162 p. (In Russ.)

Smirnov 1964 — Smirnov K. F. The Sauromatians. Moscow: Nauka, 1964. 381 p. (In Russ.)

Smirnov 1975 — Smirnov K. F. Sarmatians on the Ilek. Moscow: Nauka, 1975. 176 p. (In Russ.)

Smirnov 1976 — Smirnov K. F. 'Sauromatians' and 'Sarmatians'. In: Smirnov K. F. (ed.) Iron Age Ethnocultural Contacts between the Urals, Volga, Siberia, Central Asia, and Kazakhstan. Ufa: USSR Academy of Sciences (Bashkiria Branch), 1976. Pp. 17–19. (In Russ.)

Solovyov 2003 — Solovyov A. I. Weapons and Armour. Siberian Weaponry: From Stone Age to Medieval Period. Novosibirsk: INFOLIO, 2003. 224 p. (In Russ.)

Strabo 1969 — Strabo. Geography. H. L. Jones (transl.). Loeb Classical Library. Cambridge, MA: Harvard University Press, 1969. (In Eng.)

Tacitus 1992 — Tacitus. Histories. C. H. Moore (transl.). Loeb Classical Library. Cambridge, MA: Harvard University Press, 1992. (In Eng.)

Tairov, Ulyanov 1996 — Tairov A. D., Ulyanov I. V. Archaeological Research Laboratory (Chelyabinsk State University): Chance finds of melee weapons reviewed. In: Materials in the Archaeology and Ethnography of the Southern Urals. Chelyabinsk: Arkaim Researve Museum, 1996. Pp. 139–147. (In Russ.)

Terenozhkin 1976 — Terenozhkin A. I. The Cimmerians. Moscow: Naukova Dumka, 1976. 224 p. (In Russ.)

Troitskaya, Novikov 2007 — Troitskaya T. N., Novikov A. V. The Scytho-Siberian World. Novosibirsk: Geo, 2007. 142 p. (In Russ.)

Vasilyev 2001 — Vasilyev V. N. Weaponry and Military Science of South Ural Nomads, 6th– 2nd Centuries BCE. Ufa: Gilem, 2001. 153 p. (In Russ.)

Vasilyev 2005 — Vasilyev V. N. One rare sword type from the Southern and Southwestern Urals revisited. In: Izbasarov G. B. (ed.) West Kazakhstan: Issues of Archaeology. Aktobe: K. Zhubanov Aktobe Regional University, 2005. Vol. 2. Pp. 98–99. (In Russ.)

Yablonsky 2008 — Yablonsky L. T. Early nomads of the Volga-Urals. In: Yablonsky L. T. (ed.) Early Nomads of the Southern Urals: A Perspective from Latest Archaeological Discoveries. Orenburg: Orenburg State Pedagogical University, 2008. Pp. 171–175. (In Russ.)

Yablonsky 2010 — Yablonsky L. T. Prokhorovka: At the Beginnings of Sarmatian Archaeology. Moscow: Taus, 2010. 384 p. (In Russ.)

Yablonsky et al. 1996 — Yablonsky L.T., Davis-Kimball J., Demidenko Yu. V., Malashev V. Yu. 1995 Excavations of Pokrovka 1, 2, 7, and 10 burial sites. In: Left-Bank Ilek Kurgans. 1996. Vol. 4. Pp. 7–48. (In Russ.)

Zhelezchikov, Kriger 1976 — Zhelezchikov B. F. Kriger V. A. Archaeological Surveys in Uralsk Oblast: 1976 Activity Report. Uralsk, 1976. 75 p. At: Margulan Institute of Archaeology, Archive. File no. 1534. (In Russ.)

Zhelezchikov, Kriger 1979 — Zhelezchikov B. F., Kriger V. A. Archaeological Surveys in Uralsk Oblast: 1979 Activity Report. Uralsk, 1979. 102 p. At: Margulan Institute of Archaeology, Archive. File no. 1759. (In Russ.)