The arms terminology of the Sarmatian army in the written sources*

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The Sarmatians lived on the Eastern European steppe from the fourth century B.C. till the fourth century A.D. To be able to uphold their rule for several hundred years in opposition to other peoples and empires, it was crucial that they have not only a properly-organized army and good military tactics, but also armaments which met the standards of the day. This period was exceptional from the point of view of the weaponry of the nomadic people, since heavy cavalry became prevalent on the steppe during their rule, as never before. Several studies and essays have been published on the tactics and weaponry of the Sarmatians, amongst which the work of Khazanov is one of the most significant. He collected the archaeological materials and the most important written documents and described their tactics on the basis of these data. However, the collection and the evaluation of terminology used for Sarmatian weapons in the written materials have not been studied in detail. This paper focuses on these technical terms, comparing the aforementioned data with the archaeological and pictorial sources.

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¹ А. М. Хазанов, "Катафрактарии и их поль в истории военного искуства," Вестник древней истории 103 (1968), 180–191; А. М. Хазанов, Очерки военного дела сарматов, Москва 1971; М. Mielczarek, Cataphracti and clibanarii studies on the heavy armoured cavalry of the ancient world. Łódź 1993; Т. М. Кармов, "Погребения военной знати Западного Предкавказья и проблема происхождениия конници катафрактов у сарматов," іп Централная Азия от Ахеменидов до тимуридов. Археология, история, этнология, культура, ред. В. П. Никоноров, Санкт-Петербург 2005, 104–108.

² Mielczarek mentioned some of the military terms in his work, however, he had not collected and evaluated all of the sources (Mielczarek, *Cataphracti and clibanarii*, 95–102).

³ Since the Carpathian Basin and the South-Russian steppe is quite much different from the point of view of military material of finds I will indicate which one of the archeological sites is under discussion in each case whenever I refer to an archeological material. Concerning the differences between the military material finds of the Carpathian

As for the study of the various types of weapons, the contemporary written sources provide the most useful data, especially the strategic books and the sources that mention the weapons in use during battles and wars. The Greek and Latin authors used terms to name the weapons of the Sarmatians which were also widespread in their own armies. Thus, it is presumable that the Greek and Latin designations concerning the nomadic armament were used to describe weapons which served the same purposes and had similar forms as those used by the Roman army. The Romans often used several terms in general, even if these had specific meanings, a fact that must be taken into consideration in the case of the Sarmatians.

There are seventeen major contemporary sources which contain expressions related to weapons in connection with the Sarmatian army. The most reliable data are provided by historians and geographers such as Strabo, Tacitus, Arrianus, Ammianus Marcellinus and Pausanias. Poems are also valuable sources, but they only mention weapons in general, without specification concerning their types. In particular, the poets Ovid, Silicus Italicus, Valerius Flaccus, Statius, Claudius Claudianus, Valerius Martialis and Blossius Aemilius Dracus mention Sarmatian weapons in their works.

Data concerning Sarmatian stabbing weaponry can be found in the works of Greek and Latin authors under six names: contus, 4 hasta, 5 abies 6 κ οντος, 7 δ ορυ, 8 λ ογχη. 9 It turns out, when examining the lance terminology of the Sarmatian army, that the then-contemporary authors mostly use the terms contus and

Basin and those of the South-Russian steppe, as well as their chronological order, see: Хазанов, Очерки военного дела сарматов; G. Vörös, "Fegyveres sírok az Alföldön a 4. század második fele és az 5. század közepe között," [Warriors' graves on the Great Plain between the second half of the fourth and the mid-fifth century] A Móra Ferenc Múzeum Évkönyve 1988:1 (1989), 41–58; A. Vaday, Die sarmatischen Denkmäler des Komitats, Anteus 17–18 (1988–1989), 109–117, 109; I. A. Vaday–L. Domboróczky, "Mezőszemere–Kismarifenék. Spätkaiser-frühvölkerwanderungszeitliches Gräberfeldsdetail," Agria 37 (2001), 1–82.

- ⁴ Die Annalen des Tacitus, ed. A. Draeger, Leipzig 1873, VI. 35; Cornelii Taciti, Historiarum libri qui supersun, ed. C. Heraeus, Leipzig-Berlin 1904, I. 79; Silicus Italicus, Punica II. ed. J. D. Duff, D. Litt, The Loeb Classical Library, London 1950, XV. 683; Papiani Stati, Achilleis, rec. A. Mastoni, Bibliotheca Scriptorum Graecorum et Romanorum Teubneriana, Leipzig 1974, II. 132; Claudius Claudianus XXI, 109-111, in A. Alemany, Sources on the Alans, A Critical Compilation. Handbook of Oriental Studies. Sect. 8. Central Asia, ed. D. Sinor-N. Cosmo, Leiden-Boston-Köln 2000, 46.
- ⁵ Ammiani Marcellini, Rerum Gestarum libri I. ed. W. Seyfarth, Leipzig 1978, XVII. 12, 2.
- ⁶ C. Valeri Flacci, *Argonauticum*, rec. E. Courtney, Bibliotheca Scriptorum Graecorum et Romanorum Teubneriana, Leipzig 1970, VI. 235.
- ⁷ Flavii Arriani, *Qua Exstant Omnia II*. ed. A. G. Ross, Scripta Minora et Fragmenta, Lipsiae 1968, 31; Flavii Arriani, *Qua Exstant Omnia II*. ed. A. G. Ross, Scripta Minora et Fragmenta, Lipsiae 1968, 4, 3; 4, 7.
- ⁸ Arrianus, *Tact.* 3, 13; 4, 9; Pausaniae, *Graeciae descriptio I.* ed. M. H. Rocha-Pereira, Bibliotheca Scriptorum Graecorum et Romanorum Teubneriana, Leipzig 1973, I. 21, 5.
- 9 Strabonis, Geographica I. ed. A. Meineke Lipsiae 1866.

κόντοσ. These expressions in the sources usually refer to the armour-piercing lance of the heavy cavalry. 10 This, however, is not only revealed from the technical terms but also from the way in which the writers discuss the use of these weapons. Tacitus mentions in both of his works that their main tactic was close combat, in which they attacked in closed ranks using lance (contus) or sword.11 Silicus Italicus writes about a Roman soldier in the Punic wars who attacked the enemy with his heavy Sarmatian lance (contus) rested on his knee. 12 We find similar description given by Valerius Flaccus, who tells us that the Sarmatians carried out their attacks by placing their enormous lances on their knees. 13 In the same passage, the author does not employ the term contus but rather the expression abies, which refers to the throwing spear. 14 Nevertheless, it is obvious from the previous description that what is under discussion is the armour-piercing lance. This is what seems to be verified by the work of Arrianus, which twice compares the lance-using tactics of the Alans and the Sarmatians (using the terms κόντος and δόρυ) with the spear-throwing tactics of the Parthians. 15 The term hasta, 16 mentioned by Ammianus Marcellinus, appears as a cavalry armour-piercing lance in the source. In spite of this, it is highly unlikely that it would be the heavy cavalry in question, since he writes about the Sarmatian army which, on the basis of its tactics, avoided pitched battle and attacked by utilizing shock action.¹⁷ The expression δόρυ, used by Pausanias, does not refer to a concrete type of stabbing weapon. 18 The author also describes the material of the lance-heads, presuming that these were made of bone. 19 As the author primarily gained information only about Hellas, his data concerning Sarmatian stabbing weaponry cannot be taken for granted. Based on use of the term λόγχη²⁰ in Strabo, it is not evident which

¹⁰ T. Kolias, Byzantinische Waffen, Wien 1988, 191.

Tacitus, Historia I. 79, cf. I. Borzsák, tr. Tacitus összes művei. [Collected works of Tacit] Budapest 20013, 86. Tacitus, Annales VI. 35, cf. Borzsák, Tacitus összes művei, 298.

¹² Silicus Italicus XV. 683-685 cf. Duff-Litt, Silicus Italicus, 375.

¹³ Valerius Flaccus VI. 235.

H. Finály, A latin nyelv szótára a kútfőkből. A legjobb és legújabb szakirodalomra támaszkodva. [A dictionary of the Latin language] Budapest 1884, 6; P. G. W. Glare, ed. Oxford Latin Dictionary, Oxford 2000, 7.

¹⁵ Arrianus, Tact. 4, 3; 4, 7, cf. Alemany, Sources on the Alans, 81.

The expression hasta was originally applied by the contemporary authors to the stabbing lance of the Roman infantry (Kolias, Byzantinische Waffen, 191), but it was also used as a spear (Glare, Oxford Latin Dictionary, 787). Moreover, it had a general meaning with reference to singular weapons. (Finály, A latin nyelv szótára, 887).

¹⁷ Ammianus Marcellinius XVII. 12, cf. Gy. Szepesy, tr. Ammianus Marcellinus. Róma története. [Ammianus Marcellinus. A history of Rome] Budapest 1993, 142.

¹⁸ This expression does not signify a concrete type of weapon; it can refer to a throwing spear as well as to an armor-piercing lance (Kolias, *Byzantinische Waffen*, 192).

Pausanias I. 21, 5 cf. Gy. Muraközi, tr. Pauszaniasz. Görögország leírása. [Pausanias, A description of Greece] Budapest 2000, 34.

²⁰ Similarly to the term δόρυ, this expression does not signify a concrete type of weapon either; it can refer to a throwing spear or to an armor-piercing lance (Kolias, *Byzantinische Waffen*, 192).

type of stabbing weapon is referred to here.²¹ The use of the armour-piercing lance as the typical weapon of the heavy cavalry can be found in the written sources. However, it is hard to differentiate it from the stabbing weapons in the archaeological material. According to Khazanov, the solid-bladed, long wide lances with ring and socket at the top might correspond to this type in the middle Sarmatian period on the Eastern European steppe.²² Amongst the pictorial representations, the Tryphon gravestone in Tanais, the tombstones of Panticapaeum and Kerch all depict the armour-piercing lance of the Sarmatians and all provide important data on this weapon.²³

Considering the side-arms of the Sarmatians, three different expressions are used in four sources: *gladius*,²⁴ *culter*,²⁵ ξίφος²⁶ The term ξίφος mentioned by Strabo, usually denotes a single or double-edged sword which was generally 85-115 cm long²⁷ These weapons appear in the early Sarmatian period in the archaeological materials,²⁸ but they become widespread only in the late Sarmatian period.²⁹ The expression *gladius*, recorded by Tacitus, signifies short (40–70 cm) side-arms without a cross-bar, used for cutting and stabbing.³⁰ In his work entitled *Annales*, Tacitus mentions in connection with Sarmatian tactics that, besides

²¹ Strabon VII. 3, 7 cf. J. Földi, tr. Strabón. Geographika, Budapest 1977, 323.

²² Хазанов, Очерки военного дела сарматов, 47, 49.

²³ It is very difficult, if not impossible, to discern the shape of the heads of the stabbing weapons on the basis of the representations. It is typical of all the representations that the weapon is not shown as a throwing spear but in the function of an armor-piercing lance. That is, the warrior holds the shaft of the lance in both hands by placing it on his knee. In some cases, the lances were depicted very long in the pictures. In the frescoes in Kerch, the length of the lances can be estimated somewhere between 4.5 and 6 metres; the lance of Tryphon is approximately 3 metres, while the stabbing weapon in the representation of Panticapaeum could be several metres long also. (Хазанов, Очерки военного дела сарматов 49; О. J. Maenchen-Helfen, Die Welt der Hunnen, Wiesbaden 1997, 175; E. Istvánovits-V. Kulcsár, "Sarmatians through the eyes of strangers. The Sarmatian warrior," in International connections of the Barbarians of the Carpathian Basin in the 1st-5th centuries, ed. V. Kulcsár, E. Istvánovits, Nyíregyháza-Aszód 2001, 139-158, 155; Mielczarek, Cataphracti and clibanarii fig. 21-24; В. А. Горончаровский, Между империей и варварии: военное дело Боспора Римского времени, Санкт-Петербург 2003, fig. 6-7, 28.). It is interesting to note that the Sarmatian lances are not to be found in the Roman depictions (e.g. a Trajan's Column).

²⁴ Tacitus, Annales VI. 35; Tacitus, Historia I. 79.

²⁵ Publii Ovidii Nasonis Opera II. Vindobonae 1803, Tristia V. 7, 19.

²⁶ Strabon VII. 3, 17.

²⁷ Kolias, Byzantinische Waffen, 136.

²⁸ According to Khazanov, the use of these kinds of swords was widespread at this time (Хазанов, Очерки военного дела сарматов 20). Zaceszkaja agrees that during this period the double-edged swords were present, but he assumes that their use was not prevalent (И. П. Засецкая, Культура кочевников южнорусских степей в гуннского эоху (конец IV- V. вв.) Санкт-Петербург 1994, 26).

²⁹ Хазанов, Очерки военного дела сарматов, 15-17.

³⁰ Kolias, Byzantinische Waffen, 136.

the lance, it was the sword which was the decisive weapon in battle.³¹ Tacitus' description contradicts the general meaning of the technical term, which depicts it as a long, double-handed sword; that is, his description leads us to the conclusion that it was a long, heavy, double-edged sword.³² Andrea Vaday drew attention to the archaeological equivalent of this double-handed sword mentioned by Tacitus in relation to a weapon excavated in Törökszentmiklós (Carpathian-Basin), the hilt of which was 21 cm long.³³ In addition, Ovid also relates that the *culter* was a general and common weapon among the Sarmatians,³⁴ primarily designating a knife or a short dagger,³⁵ although it can also refer to a short-bladed, short cross-barred and ring-hilted sword, which appeared at the end of the early Sarmatian period, corresponding to the era when Ovid lived.

There is only one source which mention the use of the lasso by the Sarmatian army: Pausanias calls it σειρὰ.³⁶. The meaning of these terms generally refers to the word "rope."³⁷ Among the pictorial representations, lasso can be found only once, on the base of Trajan's Column; the weapon is made of woven rope.³⁸ In spite of the fact that this type of weapon cannot be found in any other written or pictorial material and cannot be traced in the archaeological material finds of the given period either (since it is made from organic matter), it still would have been significant when capturing the enemy,³⁹ as Pausanias emphasizes in the case of the Sarmatians.⁴⁰

We can encounter the Sarmatian use of the bow in six sources, which call these weapons by various terms: arcus, 41 $\tau\dot{o}\xi$ ov. 42 The authors of the given period generally use both expressions to refer to the bow, 43 so we cannot draw conclu-

³¹ Tacitus, Annales VI. 35, cf. Borzsák, Tacitus összes művei, 298.

³² Tacitus, Historia I. 79, cf. Borzsák, Tacitus összes művei, 86.

³³ A. Vaday, "Sarmatisches Gräberfeld in Törökszentmiklós-Surján-Újtelep," Acta Archaeologica Academaiae Scientinarum Hungaricae 37 (1985), 345–390.

³⁴ Ovidius, Tristia V. 7, 19 cf. Gy. Csorba, tr. Publius Ovidius Naso. Tristia, ed. P. Teravagimov, Budapest 2002, 117.

³⁵ Finaly, A latin nyelv szótára, 524.

³⁶ Pausanias I. 21, 8.

³⁷ A. Györkösy – I. Kapitánffy – I. Tegyey, Ógörög-magyar szótár. [Ancient Greek-Hungarian dictionary] Budapest 1990, 952.

³⁸ O. Gamber, Dakische und sarmatische Waffen auf den Reliefs der Traianssäule, Jahrbuch der Kunsthistorischen Sammlungen in Wien 60 (1964), 11.

³⁹ It was Peter Golden who emphasized the significance of the use of lasso as part of the weaponry of the nomadic people. It was especially important when capturing the enemy warriors, who were either ransomed or sold on the slave market. (P. B. Golden, "War and warfare in the Pre-Činggisid western steppes of Eurasia," in *Warfare in inner Asian history*, ed. N. D. Cosmo, Boston-Leiden 2002, 105–171).

⁴⁰ Pausanias I. 21, 5, cf. Muraközi, Pauszaniasz, 34.

⁴¹ Publii Ovidii Nasonis Opera I. Vindobonae 1803, Ex Ponto I. 2, 21; I. 5, 49; Ovidius, Tristia V. 7, 5; IV. 1, 77; Publii Ovidii Nasonis Opera III. Vindobonae 1803, Ibis 135; Tacitus, Annales VI. 35.

⁴² Pausanias I. 21, 5; Strabon VII. 3, 17.

⁴³ Kolias, Byzantinische Waffen, 214-215, Glare, Oxford Latin Dictionary, 164.

sions concerning concrete types on the basis of the written materials. In the Sarmatian period, both the Scythian and the Hun types of bows were used. The Hun type of bow, strengthened by bone brackets in the middle and at the two ends, appears in the archaeological finds in the first and second centuries A.D. on the Eastern European steppe. 44 The scarce data from pictorial representations also reinforce the existence of these two types of bow: the small, Scythian-type reflex bow of the Roxolans can be seen on Trajan's Column; the ends of the bow arms are curved or curled. The Hun-type of bow can be found on the fresco of Panticapaeum. 45 Ovid mentions the drawing of the bow, presuming that the bowstring is made from horse intestine. 46 Pausanias stresses, in connection with the making of bows, that their material is dogwood, 47 data which must be approached with extreme caution. 48 The then-contemporary authors judge the role of the bow among the weapons of distant combat differently. While Ovid emphasizes the role of the bow and considers it an everyday and common weapon of the Sarmatian army, 49 Tacitus claims exactly the opposite and presumes that the Sarmatians rarely used this weapon in battle.⁵⁰ The contradiction between the various sources points to differences in tactics and to chronological shifts; Ovid wrote his works at the beginning of the first century A. D., while Tacitus lived in the second half of that century.

Besides the use of the bow, the sources also mention the Sarmatian arrow under two expressions: *sagitta*⁵¹, *calamis*⁵² and 'οιστος.⁵³ These expressions, however,

⁴⁴ А. В. Симоненко – Б. И. Лобай, Сарматы северо-западного причерноморья в І. в. н. э., Киев 1991, 43-44.

⁴⁵ Istvánovits-Kulcsár, Sarmatians through the eyes of strangers 153; Gamber, Dakische und sarmatische Waffen, fig. 32; Горончаровский, Между империей и варварии, fig. 24.

⁴⁶ Ovidius, Ex ponto I. 2, 15 cf. Zs. Kartal, tr. Publius Ovidius Naso. Levelek Pontusból. [Publius Ovidius Naso. Letters from Pontus] Budapest 1991, 10. Although not in the case of the Sarmatians, we have data from the later period that the bowstrings could have been made from intestine. (K. U. Kőhalmi, A steppék nomádjai, lóháton, fegyverben. [The nomads of the steppes on horse and armed] Kőrösi Csoma Kiskönyvtár 12. Budapest 1972, 155).

⁴⁷ Pausanias I. 21, 5 cf. Muraközy, Pauszanisz, 34.

⁴⁸ The wooden material of the complex reflex bows was durable, flexible and not very hard; the most suitable wood for this was maple or grey willow (Gy. Fábián, "Újabb adatok a honfoglalás kori íjászat kérdésköréhez," [New data concerning the archery int he period of the Conquest] A Móra Ferenc Múzeum Évkönyve 81:1 (1980), 63-76), birch or yew (Kőhalmi, A steppék nomádjai, lóháton, fegyverben, 34). The technical literature does not mention that bows were made of dogwood. This type of tree (and also the wood), contrary to the ones mentioned above, is extremely tough and solid. It is evident from the works of Homer that, due to its solidity, dogwood was used for making the shaft of lances and spears. (Sz. Priszter, A húsos som. [The European Cornel (cornus mas)] Magyarország kultúrflórája 4. Budapest 1990, 82-83.)

⁴⁹ Ovidius, Tristia V. 7, 15-20 cf. Csorba, Tristia, 117.

⁵⁰ Tacitus, Annales VI. 35 cf. Borzsák, Tacitus összes művei, 298.

Ovidius, Tristia III. 10, 53; Ovidius, Ex Ponto I. 2, 45; I. 2, 27; I. 2, 23; I. 2, 47; Ovidius, ibid. 637; Valerii Martialis, Epigrammata VII. 2," in Az ókori Pannonia történek forrásai

do not signify particular types of arrows; in general, they just mean "arrow." However, our archaeological materials provide abundant data of different types of arrow-heads: tanged, two-, three- or four-edged, leaf-shaped, etc.⁵⁴ The arrow-heads of these weapons are made of iron, their blades made of various shapes.⁵⁵ According to Pausanias, the arrow-heads of the Sarmatians were made of bone.⁵⁶ As a rule, this is rather doubtful, although there are a few samples made of bone from the late Sarmatian period.⁵⁷

There are several sources which refer to the armour of the Sarmatian army, called by various expressions: θωραξ, ⁵⁸ lorica catena, ⁵⁹ lorica, ⁶⁰ cataphractes and tegimen, ⁶¹ γυμνοι and καταφρακτω θωρακι. ⁶² Tacitus, in his work entitled Historia, mentions a term cataphractes, a reference to the scale armour of the Sarmatians. ⁶³ Later, the author describes it precisely; this armour was made of iron sheets (ferreis lamminis) or solid pieces of leather. ⁶⁴ The term θωραξ, used by Pausanias, refers to all types of armour (wire, plate, combined), but it is evident from the description that he compares the Sarmatian scale armour to the structure of the pine cone. In his opinion, due to the lack of iron, the Sarmatians made their armour from the hoofs of horses. ⁶⁵ Although his utterance cannot be regarded as totally authentic, he must have heard something about the scale armour of the Sarmatians and amplified it in his imagination. Scale armour is a typical find from the early Sarmatian period in the archaeological material on the Eastern European steppe. ⁶⁶ The pictorial representations also back up this type of

II. Pannonia története Kr. u. 54-től a markomann háború kitöréséig (166), ed. P. Kovács-B. Fehér, Budapest 2003, 64.

⁵² Historie Naturelle de Pline, ed. Ajasson de Grandsagne, Paris 1831, Tome 10. XVI. 65.

⁵³ Pausanias I. 21, 5.

⁵⁴ Kolias, Byzantinische Waffen, 214-215; Glare, Oxford Latin Dictionary, 164.

⁵⁵ Concerning the South-Russian types of arrow-heads, see Хазанов, Очерки военного дела сарматов, 35–41; Симоненко-Лобай, Сарматы северо-западного причерноморья в І. в. н. э. 45–46; Concerning the material finds in the Carpathian Basin, see E. Istvánovits-V. Kulcsár, "Szálfegyverek és íjak a Dunától keletre eső Kárpát-medencei Barbarikumban," [Polearms and arches in the barbaricum of the Carpathian Basin east of the Danube] in A népvándorláskor fiatal kutatóinak IV. összejövetele. Altum Castrum IV, Visegrád 1995, 9–12.

⁵⁶ Pausanias I. 21, 5.

⁵⁷ Хазанов, Очерки военного дела сарматов, 40-41.

⁵⁸ Pausanias I. 21, 5; Strabon VII. 3, 17.

⁵⁹ Valerius Flaccus VI. 231.

⁶⁰ Ammianus Marcellinus XVII. 12, 2-3.

⁶¹ Tacitus, Historia I. 79.

⁶² Arrianus, Ect. 31, 17.

⁶³ Finaly, A latin nyelv szótára, 319.

⁶⁴ Tacitus, Historia I. 79, cf. Borzsák, Tacitus összes művei, 86.

⁶⁵ Pausanias I. 21, 5, cf. Muraközy, Pauszanisz, 34.

⁶⁶ Scale armour found since the early Sarmatian period was usually made from iron; the upper part was four-sided, the lower part round-cornered, and the size somewhere between 2.2×1.5 and 6×5cm. The pieces of the armour were fastened to leather or felt in-

armour. The Sarmatian warriors are clad in "scale-overalls" in a rather exaggerated manner on Trajan's Column. On the contrary, the Arch of Galerius in Thessaloniki, the Tryphon gravestone and the fresco of Kerch all provide more authentic representations of the Sarmatians. Accordingly, the Sarmatian scale armour was knee-length and sleeveless or covering only the upper part of the arm.67 The existence of chain mail armour is supported only by Valerius Flaccus' work, which mentions it as lorica catena;68 however, this source is an epic poem with little documentary value. Nevertheless, chain mail armour can be found in the archaeological finds from the middle Sarmatian period.⁶⁹ The joining of the metal rings in the chain mail armour is clearly visible on the pedestal of Trajan's Column. 70 In Arrianus' work, the expression youvor, meaning "unprotected, unarmed, armour-less,"71 might refer to light cavalry. However, the author writes about the Alans' armour (καταφρακτω θωρακι)⁷² in another passage. According to Bosworth, Arrianus talks about the heavy cavalry in this passage, but the Alans' legs and abdomen were not protected, so these parts were armour-less.73 The terms θωραζ used by Strabo and *tegimen* employed by Tacitus do not refer to concrete types of armour, since they signify all types of armour. Thus, they could refer to scale, chain mail or plate armour.74 These sources do not give specific information about the different types of armour. Nevertheless, apart from scale and chain mail armour, plate armour can also be found from the early Sarmatian period in the archaeological material on the Eastern European steppe. 75 A type of lamellar (lamellate) armour can also be seen on the pedestal of Trajan's Column.⁷⁶

lets and arranged in horizontal lines, so that the upper line partly covered the lower one (Хазанов, Очерки военного дела сарматов, 51–52). As opposed to the South-Russian steppe, in the Carpathian Basin it is very rare to find remains of armour. See for example Farmos–Kásadűlő (P. Havassy, Katalógus, [Catalogue] in Jazigok, roxolánok, alánok. Szarmaták az Alföldön, ed. P. Havassy, Gyulai Katalógusok 6, Gyula 1998, 157).

- ⁶⁷ Хазанов, Очерки военного дела сарматов, 59; Istvánovits-Kulcsár, Sarmatians through the eyes of strangers 157; Gamber, Dakische und sarmatische Waffen, 24; Mielczarek, Cataphracti and clibanarii, fig. 21, 25.
- 68 Finaly, A latin nyelv szótára, 1156, 320.
- 69 Хазанов, Очерки военного дела сарматов, 59-60.
- 70 Gamber, Dakische und sarmatische Waffen, 21-22.
- 71 Györkösy-Kapitánffy-Tegyey, Ógörög-magyar szótár, 214; A Greek-English lexicon, ed. H. G. Liddel, R. Scott, S. H. Jones, R. McKenzie, Cambridge 1958, 362.
- 72 The term καταφρακτω θωρακι is a complex expression, both parts of which separately also mean amour. The term θωραξ generally means amour, but it is not possible to separate a particular type from it (Kolias, Byzantinische Waffen, 37), the καταφρακτω also generally refers to a type of armour, but it is primarily used to describe totally armed soldiers (A Greek-English Lexicon, 920).
- A. B. Bosworth, "Arrian and the Alani," Harvard Studies in Classical Philology 81 (1977), 235-236.
- 74 Kolias, Byzantinische Waffen, 37; Finály, A latin nyelv szótára 1959; Glare, Oxford Latin Dictionary, 1910.
- 75 Хазанов, Очерки военного дела сарматов 51-52, 59-60.
- ⁷⁶ Gamber, Dakische und sarmatische Waffen, 21-22.

It is solely Strabo who discusses the Sarmatian use of the helmet, employing the term κράνος, and emphasizing that the helmets were made from the leather of cattle (ωμοβοίνοις). The term κράνος does not allow us to draw conclusions concerning concrete types, since it refers to the helmet in general and there is little archaeological data about this protective equipment. However, the visual representations in Trajan's Column, the frescoes of Kerch, the Arch of Galerius in Thessaloniki and the Tryphon gravestone provide reliable data on the helmets, showing that they are conical, built up from straps lengthwise and strengthened by cross straps horizontally. The same straps lengthwise and strengthened by cross straps horizontally.

Two sources refer to the use of shields, using two different terms: θυρεός⁸⁰ and γέρρον.⁸¹ We cannot draw conclusions concerning a concrete type of shield on the basis of the term θυρεός, mentioned by Arrianus, which was generally used by authors at this time to refer to a shield.⁸² However, the term γέρρον in Strabo's work is an obvious reference to light cavalry. It alludes to a wickerwoven shield or one covered with oblong cattle leather.⁸³ Tacitus, on the contrary, emphasizes that the shield was not typical in the Sarmatian army.⁸⁴ Sarmatian shields can be found in the archaeological material of both the Carpathian Basin and the South-Russian steppe.⁸⁵

It is Valerius Flaccus who refers to the horse armour of the Sarmatians by using the terms *lorica catena* and *tegimen* and Arrianus uses the expression γυμνός. 86 The term *lorica catena* mentioned by Valerius Flaccus, similarly to the Sarmatian soldiers' aforementioned armour, cannot really help us in drawing the conclusion that it was chain mail armour, since the source is a poem. Thus, on the basis of this source, we can only say that it is quite plausible that the Sarmatian horses had armour, but there are no archaeological materials available in relation to horse armour. Among the visual sources, it is only Trajan's Column which provides data, though it gives a strongly exaggerated picture. The horses are clad in "overalls" made of scale armour which covers their whole body. 87 However, Ar-

⁷⁷ Strabon VII. 3, 17.

⁷⁸ Kolias, Byzantinische Waffen, 75.

⁷⁹ Istvánovits-Kulcsár, Sarmatians through the eyes of strangers, 157; Gamber, Dakische und sarmatische Waffen, 24; Mielczarek, Cataphracti and clibanarii, fig. 21–22, 24, 25.

⁸⁰ Arrianos, Ect. 17.

⁸¹ Strabon VII. 3, 17.

⁸² Kolias, Byzantinische Waffen, 89.

⁸³ Györkösy-Kapitánffy-Tegyey, Ógörög-magyar szótár, 204; A Greek-English Lexicon, 346.

⁸⁴ The shield is called scutum (Tacitus, Historia I. 79).

⁸⁵ E. Istvánovits – V. Kulcsár, "Pajzsos temetkezések a Dunától keletre eső Kárpát-medencei barbarikumban," [Burial with shield in the barbaricum of the Carpathian Basin east of the Danube] A Nyíregyházi Jósa András Múzeum Évkönyve 30–32 (1987–1989 [1992]), 48–81; Vaday-Domboróczky, Mezőszemere-Kismarifenék, 100–104.

⁸⁶ Arrianos, Ect. 31.

⁸⁷ Gamber, Dakische und sarmatische Waffen, 24.

rianus mentions the term γυμνός, thus depicting the Sarmatian horses without armour.88

Concerning Sarmatian weaponry, three expressions emerge, none of which help in determining a concrete type of weapon. In Ovid's work the term *ferrum* appears in connection with the Sarmatians,⁸⁹ a term which in fact did not have a concrete meaning, referring to the word *weapon* in general. Thus, it could mean a sword, a spear or a dagger.⁹⁰ The expression *telum*⁹¹ was primarily used to signify weapons of distant combat, whether arrows or throwing spears.⁹² The other term found in Ovid's writing, *spiculum*,⁹³ similarly to *pilum*, initially meant a throwing spear in the living sources, but apart from this, it was also used as a reference to the arrow.⁹⁴ It is clear from Ovid's work that these weapons were dipped in poison.⁹⁵

In conclusion, the data obtained from the written sources are mostly in accordance with those of the archaeological finds and the visual representations. The existence of the armour-piercing lance, the typical weapon of the heavy cavalry, can be proved from the terms and the descriptions of these weapons in the written sources. It is supported by the archaeological data and the visual representations as well. By comparing the relevant sources, it can be stated that the two side-arms used in the Sarmatian army were the long, single and/or doubleedged sword and the double-handed sword depicted by Tacitus, also backed up by archaeological material. The use of the lasso is mentioned in a written source, which is corroborated by two pictorial representations. The sources allude to the bow and arrow, but their concrete types are not discussed. As for the arrow, the archaeological finds are abundant. There are several sources available for description of the armour of the Sarmatian army. Based on the written sources and archaeological data, it can be concluded that two types were widespread: scale armour and chain mail armour. The sources also mention the helmet, the shield and the horse armour of the Sarmatians.

⁸⁸ Györkösy-Kapitánffy-Tegyey, Ógörög-magyar szótár, 214; A Greek-English Lexicon, 362.

⁸⁹ Ovidius, Ex Ponto IV. 7, 11.

⁹⁰ Finály, A latin nyelvszótára, 788; Glare, Oxford Latin Dictionary, 691.

⁹¹ Ovidius, *Tristia* IV. 1, 77; IV. 1, 87; Ovidius, *Ex Ponto* IV. 70, 12; Blossimus Aemeilius Dracontius 5, 33–37 in A. Alemany, *Sources on the Alans*, 51.

⁹² Finály, A latin nyelv szótára 521; Glare, Oxford Latin Dictionary 691.

⁹³ Ovidius, Ex Ponto I. 3, 59; I. 2, 18.

⁹⁴ Kolias, Byzantinische Waffen, 186; Glare, Oxford Latin Dictionary, 1804-1805.

⁹⁵ veneno (Ovidius, Ex Ponto IV. 1, 77), virus (Ovidius, Ex Ponto IV. 1, 87); toxica (Ovidius, Ex Ponto IV. 7, 11); vipereo (Ovidius, Ex Ponto I. 2, 18).