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Ram horns as sacral royal regalia of Šāpūr II

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Роги барана, як сакральна королівська регалія Шапура ІІ

Проаналізовано працю Амміана Марцелліна "Діяння", що містить цінну інформацію про стародавній Іран. Амміан Марцеллін описує прибуття шахиншаха (царя царів) Шапура ІІ (що правив у 309–379) під стіни міста Аміда, яке тримали в облозі іранці. Він повідомляє, що іранський король носив специфічну корону/шолом, прикрашений рогами барана і робить висновок, що шолом сасанідського монарха перегукується із особою Александра Македонського. Аналізується зображення Александра Великого в літературі написаною системою письма пахлаві, яка хронологічно ближча до часів правління Шапура ІІ. Досліджється уявлення іранських царів про роги барана. Зроблено висновок, що своєрідне оформлення корони/шолому Шапура ІІ, описане Амміаном Марцелліном, жодним чином не може бути пов'язане з особою Александра Македонського, і є результатом іранського світосприйняття та розуміння королівської влади.

Ключові слова: Іран, Сасаніди, шоломи, роги барана, Александр Македонський, література системою письма пахлаві

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Ram's horns as sacral royal regalia of Šāpūr II

The work of Ammianus Marcellinus "Res gestae", which preserved valuable information about ancient Iran, is analyzed. Ammianus Marcellinus describes the arrival of $\S \bar{a}h\bar{a}n\S \bar{a}h$ $\S \bar{a}p\bar{u}r$ II (r. 309–379) under the walls of Amida, besieged by the Iranians. He is informing that the king of Iran wore specific crown/helmet decorated with the ram's horns and concludes that the helmet of the Sasanian monarch was associated with the person of Alexander of Macedon. Therefore, the picture of Alexander the Great in Pahlavi literature, chronologically closer to the

reign of Šāpūr II, is analyzed. The subject of research are also believes of Iranian kings about the ram's horns.

It is concluded that the specific decoration of the helmet of Šāpūr II, described by Ammianus Marcelinus, couldn't be associated with the person of Alexander but it is the result of Iranian ideology of royal power.

Keywords: Iran, Sasanids, helmets, ram's horns, Alexander of Macedon, Pahlavi literature

The work of Ammianus Marcellinus preserved valuable information on ancient Iran especially with regard to years 353-363 A.D. [1] The value of Ammianus' work is emphasized by the fact that the Author personally participated in Roman campaign in the East, [2; 3; 4] being, among the others, the eyewitness to the siege of fortress Amida by the Sasanian armies, which lasted between July and October 359. [5; 6; 7] Below considerations regard the fragment in which Ammianus describes the arrival of šāhānšāh Šāpūr II (r. 309–379) under the walls of Amida, besieged by the Iranians. The sentence informing that the king of Iran wore specific crown/helmet decorated with the ram's horn "Insidens autem equo ante alios celsior ipse praeibat agminibus cunctis, aureum capitis arietini figmentum interstinctum lapillis pro diademate gestans, multiplici vertice dignitatum et gentium diversarum comitatu sublimis" (The king himself, mounted upon a charger and overtopping the others, rode before the whole army, wearing in place of a diadem a golden image of a ram's head set with precious stones, distinguished too by a great retinue of men of the highest rank and of various nations) [1].

The issue of this particular headgear of Šāpūr II ("This ram's horns headdress may have been a 'war helmet' rather than Shapur's actual crown" [8]) has been researched several times already, recently in the article published in 2017 by Vladimir Dmitriev. According to his interpretation placing of the ram's horns on the helmet of the Sasanian monarch is associated with the person of Alexander of Macedon and at the same time revives this symbol in



Il 1. Images of Alexander of Macedon, British Museum inv. no. 1919, 0820.1, © The Trustees of the British Museum



II. 2. Images of Alexander of Macedon or Seleukos I Nikator?British Museum inv. no. BNK, G.810,© The Trustees of the British Museum

new religious and ideological context of Iran in 4th century A.D. [9]. It should be considered if this type of headgear decoration can be associated, as suggests Dmitriev, with iconography of Alexander. On the coins of Lysimachus (r. 324–281) the image of Alexander of Macedon was decorated with ram's horns, an attribute of Zeus-Ammon (il. 1). Then, during the reign of Seleucids and Arsacids, the ram's horns as a sacral attribute of king's power was displaced by bull horns (il. 2), and in Sasanian period it returned to the ram's horns. According to Dmitriev the new Persian dynasty of the Sasaninds was ideologically separating themselves from their direct predecessors on Iranian throne, namely the Arsacids, and searched for their Iranian identity in the pre-Arsacid epoch [9]. As long as the attempt of introducing new ideology of royal power cannot raise any doubts [10; 11; 12], the attempt to include Alexander in the new line seems problematic.

In Iranian tradition the heroic picture of Alexander is based on the so-called Alexander Romance, a Greek story written by Pseudo-Callisthenes [13]. The Shāhnāmeh contains some episodes concerning Alexander, like the version on Alexander's birth. According to Ferdowsī, Dārā son of Dārāb (in the Pahlavi texts Dārā ī Dārāyān) was pictured as the last sovereign of the Kayāniān dynasty [14]. Alexander is linked to this dynasty by making him the son of Dārā. Ṭabarī gives the fullest summary of the tale of Alexander, in which Alexander and Dārā are half-brothers [15]. This connection bestows on him the legitimacy of Iranian kingship. It must be mentioned here also about Dhu'l-Qarnayn 'The Two-Horned One', identified by the Arabian-Islamic sources with the figure of Iskandar (Alexander of Macedon) [16]. In Islamic literature the image of 'horned Alexander' is very common, it is present in Surahs of the Quran, however in none of the numerous Islamic illustrations he was ever depicted with two horns in mentioned context [17].

It must be noted here that with all probability the Alexander chapter, especially Alexander's birth, was included in Xwadāy-nāmag in the very late Sasanian period [18] or even later (10/11th century) [19]. Also, the Syriac legend of Alexander of Macedon was written in the 6th century A.D. or in the first half of the 7th century A.D.

All mentioned above textual sources are later than the events described by Ammianus. In Pahlavi literature, chronologically closer to the reign of Šāpūr II, Alexander is depicted in radically different manner.

The Zoroastrian tradition describes Alexander as *guzastag* ('accursed'– a title which is usually reserved only for devils and demons) [20, 21]. "ēdōn gōbend kū: ēv-bār ī zardušt dēn pedīrift ud andar gēhān ravāg bē kird dā bavandagīh ī si-sad sāl dēn andar abēzagīh, ud mardōm andar abēgumānīh būd hend. pas guzastag gennāg mēnōg ī durvand gumān kirdan ī mardōmān ped ēn dēn rāy ōy guzastag aleksander ī hrōmāyīg ī muzrāyīg-mānišn viyābānēnīd ī ped grān sizd ud nibard ud višēg ō ērānšahr āmad, u-š ōy ēran dahyubed ōzad, ud dar ud xvadāyīh višuft ud avīrān kird" (They say thus: Once the truthful Zaraθuštra accepted the religion and propagated it in the world and till the end of 300 years the religion was in purity and men were free from doubt. Afterwards the accursed Aŋra Mainyu ('Evil Spirit'), possessed by Lie, to cause doubt of this religion among men deluded the accursed

Alexander the Greek, who dwelt in Egypt, who came with grievous violence, quarrel, and terror to the Aryan Land (Persia). He slew the ruler (Av. dahu.paiti- 'lord of land') of the Aryans, and destroyed the palaces and Kingdom and laid (the Aryan Land) waste) [22]. And the Avesta tradition numbers him among Iran's greatest enemies [23; 24], accusing him with the destruction of the *Avesta* [25]. "andar vizendī az mar ī dušfarr aleksander ō ērān šahr dēn ud xvadāyīh madn, hān ī ped dizī nibišt ō sōzišn, hān ī ped ganzī šasabīgān dastī hrōmīgān madan, u-š ō-z yōnāyīg uzvān vizārdan, ped āgāhīh ī pēšēnīgān peyvastag" (During the harm which came upon the religion and kingdom of the Aryan Land (Persia) from the bad man, of evil Fortune, Alexander, (the copy of the Avesta) in the Record Fortress was burnt, and (the original text) in the Royal Treasury – connected with the Knowledge left from the Ancients – came into the hands of the 'Greeks' who translated it into the Greek language) [26].

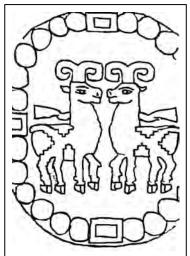
In 4th century A.D. Zoroastrianism was already firmly established as the Iranian religion [27]. What is more, Šāpūr II decided to consolidate mazdaism by ordering Ādurbād and Mahrspandān, final redaction of the Avesta [28; 29]. It is possible that the first Sasanian version of the Avesta could have been written down already in the 4th [30]. "Šābuhr šāhān šāh ī hormizdān hamāg kišwarīgān pad paykārišn yazdān āhang kard ud hamāg gōwišn ō uskār ud wizōyišn āwurd pas az bōxtan ī ādūrbād pad gōwišn ī passāxt abāg hamāg ōyšān jud-sardagān ud nask-ōšmurdān-iz ī jud-ristagān ēn-iz guft kū nūn ka-mān dēn pad stī dēn dīd kas-iz agdēnīh bē nē hilēm wēš abar tuxšāg tuxšēm ud ham gōnag kard" (Šāpūr, the king of kings, son of Hormizd, induced all countrymen to orient themselves to god by disputation, and put forth all oral traditions for consideration and examination. After the triumph of Ādurbād, through his declaration put to trial by ordeal (in disputation) with all those sectaries and heretics who recognized (studied) the Nasks, he made the following statement: 'Now that we have gained an insight into the Religion in the worldly existence, we shall not tolerate anyone of false religion, and we shall be more zealous) [31].

It also seems that the position of Zoroastrian clergy on the court of Šāpūr II was in that period undisputable. Therefore, it would be strange to associate in such a situation the ideology of the šāhānšāh with Alexander of Macedon.

The negative attitude of the Iranians towards Alexander can be observed not only in religious literature. This sovereign was mentioned in Kārnāmag ī Ardaxšēr ī Pābagān, the Pahlavi text that appears to be a late sixth or seventh century compilation [32]. "az tōhmag ī dārāy ī dārāyān būd (ud) andar duš-xwadāyīh ī aleksandar ō wirēg ud nihān-rawišnīh ēstād ud abāg kurdān šubānān raft pābag nē dānist kū sāsān az tōhmag ī dārāy ī dārāyān zād ēstēd" (Sāsān was from the lineage of Dārā, son of Dārā and during the evil-rule of Alexander he escaped and went about in the manner of concealment, and lived with the Kurdish shepherds. Pābag did not know that Sāsān was born from the lineage of Dārā, son of Dārā) [33].

Šāpur II began a campaign in the West against the Romans to retune what belonged to his ancestor "Anno secuto ingredi terras hostiles pari alacritate conatus fusius Danubii gurgitibus vagatis inpeditus mansit immobilis prope Carporum vicum stativis castris ad usque autumnum locatis emensum, unde quia nihil agi potuit dirimente magnitudine fluentorum, Marcianopolim ad hiberna discessit" (That my forefathers' empire reached as far as the river Strymon and the boundaries of Macedonia even your own ancient records bear witness; these lands it is fitting that I should demand, since (and may what I say not seem arrogant) I surpass the kings of old in magnificence and array of conspicuous virtues. But at all times right reason is dear to me, and trained in it from my earliest youth, I have never allowed myself to do anything for which I had cause to repent) [1].

It remains unclear whom Šāpūr II recognized as his ancestors, were that the Achaemenids or the mythical Kayāniān dynasty [34], however it is doubtless that information about the ancestral Iranian empire, expressed by Šāpūr, was spreading up to the boundaries of



Il. 3. Sasanian silk textile fragment, circa 4th century A.D. (private collection; after: A. Soudavar. http://www.iranicaonline.org/articles/farr-ii-iconography#fig. 10, drawing by the author)



Il. 4. 'A royal banquet' the silver plate probably 6th-7th century A.D. (the Walters Art Gallery; after: Splendeur des Sassanides. L'empire Perse entre Rome et la Chine [224–642]. Catalogue of an exhibition held at the Musées royaux d'Art et d'Histoire, Brussels, 12 Feb.-25Apr. 1993. Brussel. no.650, drawing by the autor)

Macedonia, therefore excluding this country, does not include the heritage of Alexander.

From the reign of Šāpūr II the royal ideology reoriented towards Kayāniāns, and was deriving the origin of the Sasanians from the Avestan dynasties [35; 36; 37; 38]. According to the Sasanian concept [39; 40; 41; 42] the foundation of the reign of the first monarch of the new dynasty Ardašīr I (r. 224–242) was farrah, given to him by the god Ohrmazd [33]. Farrah (x^varənah – shine, glory) was in avestan ideology understood as divine, mystic power or energy, a condition of gaining the power [43; 44]. "Ardaxšīr xwarrah ī kayān awiš rasīd" (the Kayānid glory has reached Ardašīr) [33].

Farrah was depicted in various graphic forms (sunflower, lotus, perl, a winged sphere, a pair of wings) [41; 45; 46]. Especially interesting in



Il. 5. The seal of a wife of Šāpūr III, r. 383–388, (National Library of France, Paris, after: R. Gyselen. L'art sigillaire: camées, sceaux et bulles, in Les Perses sassanides. Fastes d'un empire oublié (224–642), Paris 2006, cat. n. 156, drawing by the autor



Il. 6. Dish 'Boar Hunt of Kušānšāh Bahrām II', late 4th-early 5th centuries A.D., (Hermitage Museum, St. Petersburg inv. no. S–24, drawing by the autor)

the context of current considerations is the fragment of the Kārnāmag ī Ardaxšēr ī Pābagān, in which farrah is taking a form of the ram (Pahlavi warrag) [33]. Soudavar points out the Sasanian silk textile from circa 4th century, which is decorated with the motif of the combination of the ram, ribbons, and a pearl necklace (il. 3). It seems therefore that the reasons of placing the ram horns on the helmet of Šāpūr II should be rather searched for in Iranian tradition. Lerner suggests however that these could be the ram's horns of Vərə θ rayna [8], the god of victory [47; 48], however this interpretation should be refused because of the depictions of the females with this attribute (il. 4). Especially the seal of a wife of Šāpūr III (r. 383–388) (il. 5) supports the idea that the depictions of the ram's horns must have refer to Farrah.



Il. 7. A Sasanian silver-gilt royal plate, circa 4th-5th century A.D. (UK private collection, Bonhams no. 22837, drawing by the author)



Il. 8. Gold denar of Bahrām (?) issued under the authority of "Kidarite Pērōz" (after: K. Rezakhani. Saansaan Pirosen: Ammianus Marcellinus and the Kidarites // Dabir.Samuel Jordan Center for Persian Studies and Culture. 2017. № 1.3. P. 48, drawing by the autor)

Another research problem associated with the interpretation of the discussed fragment of the text of Ammianus is the fact that the said sentence does not mention the name of Šāpūr. What is more, the headgear of some of the Kušānšāhs' is decorated with ram horns in the manner described by Ammianus. (il. 6, 7) [17; 49]. Based on this Bivar has doubted the identification of this king with Šāpūr II, suggesting that the person in question might be Kušānšāh Bahrām II [50]. On the other hand, Rezakhani believes that the ruler mentioned by Ammianus was Kidarite king Pērōz, who had possibly become an ally of Iranian army in siege of Amida [51]. The idea is found in the study of the Eastern coinage (il. 8). It seems, however, that above speculations are denied by the published coin of Šāpūr II (dated to

about 320), on which $\bar{s}\bar{a}h\bar{a}n\bar{s}\bar{a}h$ is shown wearing a crown embellished with ram's horns as well [52].

Resuming the above considerations it must be accepted that the specific decoration of the helmet of Šāpūr II, described by Ammianus Marcelinus, cannot be anyhow associated with the person of Alexander but results from Iranian ideology of royal power.

- 1. Ammianus Marcellinus XIX 1. 3; XVII 5. 5.
- 2. Chaumont M. L. Ammianus Marcellinus // Encyclopaedia Iranica. 1989. № 1.9. P. 977–979.
- 3. Barnes T. D. Ammianus Marcellinus and the Representation of Historical Reality. London, 1998. Pp. xiv + 290.
- 4. Kelly G. Ammianus Marcellinus: The Allusive Historian. Cambridge, 2008. Pp. xii + 378.
- 5. Lightfoot C. S. Sapor before the walls of Amida. in: The Eastern frontier of the Roman Empire: proceedings of a colloquium held at Ankara in September 1988, T. 1 /ed. by D. H. French, C. S. Lightfoot. Oxford, 1989. P. 285–294.
- 6. Farrokh K., Karamian G., Maksymiuk K. A Synopsis of Sasanian Military Organization and Combat Units. Siedlee-Tehran, 2018. P. 36–37, 50, 63–65.
- 7. Farrokh K. Sánchez-Gracia J. Sassanian siege warfare and the siege of Amida (359 CE) // Historia i Świat. 2018. № 7 (forthcoming). Pp. 20.
- 8. Lerner J. A. Animal Headdress on the Sealings of the Bactrian Documents. in: Exegisti Monumenta. Festschrift in Honour of Nicholas Sims-Williams. /ed. by W. Sundermann, A. Hintze, F. De Blois. Wiesbaden, 2009. P. 215–226.
- 9. Dmitriev V. Ram's Horns as a Religious Element of Sasanian Kings' Military Equipment (notes to Amm. Marc. XIX.1.3). in: Crowns, hats, turbans and helmets. The headgear in Iranian history, vol. I: Pre-Islamic Period. /ed. by K. Maksymiuk, G. Karamian. Siedlee-Tehran, 2017. P. 113–120.
- 10. Daryaee T. The Ideal King in the Sasanian World. Ardaxšīr ī Pābagān or Xusrō Anōšag-ruwān? // Nāme-ye Irān-e Bāstān. 2003. № 3.1. P. 33–45.
- 11. Daryaee T. Kingship in Early Sasanian Iran. in: The Idea of Iran, 3 (The Sasanian Era). / ed. by V. S. Curtis, S. Stewart. London-New York, 2008. P. 60–70.

1.1. Джерела до історії релігій з найдавніших часів...

- 12. Daryaee T. Ardaxšīr and the Sasanian's Rise to Power // Anabasis. Studia Classica et Orientalia. 2010. № 1. P. 237–256.
- 13. Maciuszak K. Aleksander Wielki w oczach Persów // Nowy Filomata. 1999. № 4. P. 301–310.
 - 14. Shāhnāmeh. Moscow. VI. P. 375.
 - 15. Ţabarī I. P. 692–704.
- 16. Ionescu D-T. Alexander the Great in the Persian Legends: From Alexander of Macedon to Sikandar. The Circulation of Mythical Topoi between the Greek Alexander Romance and Firdousi's Shah-Nameh // Chaos e Kosmos. 2013. № 14. P. 1–22.
- 17. Compareti M. A Short Note on a So-Called Iskandar Dhu'l-Qarnayn in a Bactrian Painting // Parthica. 2010. № 12. P. 95–106.
- 18. Manteghi H. Alexander the Great in the Shāhnāmeh of Ferdowsī. in: The Alexander Romance in Persia and the East /ed. by R. Stoneman, K. Erickson, I. Netton. Groningen, 2012. P. 161–174.
- 19. Asirvatham S. Alexander the Philosopher in the Greco-Roman, Persian and Arabic Traditions. in: The Alexander Romance in Persia and the East / ed. by R. Stoneman, K. Erickson, I. Netton. Groningen, 2012. P. 311–326.
 - 20. Šahrestānīhā ī Ērānšahr 12.
- 21. Boyce M. Zoroastrians: Their Religious Beliefs and Practices. London, 2001. P. 78.
 - 22. Ardā Vīrāz Nāmag 1.1-4.
- 23. Olbrycht M. Alexander the Great versus the Iranians an Alternative Perspective // Folia Orientalia. 2006/2007. № 42/43. P. 159–172.
- 24. Olbrycht M. Postać Aleksandra Wielkiego w dziejach Iranu // Antiquitas. 2007. № 29. P. 157–173.
- 25. Shaki M. The Dēnkard Account of the History of the Zoroastrian Scriptures // Archív Orientalní. 1981. № 49. P. 114–125.
 - 26. Dēnkird III, M 405–406.
- 27. Maksymiuk K. Zaratusztrianizm w okresie sasanidzkim. Zarys problematyki. in: Istoriâ relìgìj v Ukraïnì : naukovij šoričnik. /ed. by O. Kiričuk, M. Omel'čuk. L'vìv, 2016. P. 15–24.
- 28. Pourshariati P. Decline and Fall of the Sasanian Empire. London-New York, 2008. P. 334.
- 29. Daryaee T. Sasanian Persia. The Rise and Fall of an Empire. London-New York, 2009. P. 84–86.

Історія релігій в Україні: Науковий щорічник 2018. Вип. 28. Частина І

- 30. Hoffmann K. Zum Zeicheninventar der Avesta-Schrift. in: Festgabe deutscher Iranisten zur 2500 Jahrfeier Irans /ed. by W. Eilers. Wiesbaden, 1975. P. 316–325.
 - 31. Dēnkird IV, M 321-322.
 - 32. Grenet F. La Geste d'Ardashir Fils de Pabag. Paris, 2003. P. 29.
- 33. Kārnāmag ī Ardaxšēr ī Pābagān I 6-7; IV 15; IV 11; IV 22-23; IV 24.
- 34. Daryaee T. Memory and History: The Construction of the Past in Late Antique Persia // Nāme-ye Irān-e Bāstan. 2001. № 1.2. P. 1–14.
- 35. Shahbazi Sh. Early Sasanians' Claim to Achaemenid Heritage // Nāme-ye Irān-e Bāstan. 2001. № 1.1. P. 61–74.
- 36. Canepa M. Technologies of Memory in Early Sasanian Iran: Achaemenid Sites and Sasanian Identity // American Journal of Archaeology. 2010. № 114. P. 563–596.
- 37. Canepa M. Building a New Vision of the Past in the Sasanian Empire: The Sanctuaries of Kayānsīh and the Great Fires of Iran // Journal of Persianate Studies. 2013. № 6. P. 64–90.
- 38. Daryaee T. The Idea of Ērānšahr: Jewish, Christian and Manichaean Views in Late Antiquity. in: Iranian identity in the Course of History. / ed. by Cereti. Rome, 2010. P. 91–108.
- 39. Choksy J. Sacral Kingship in Sasanian Iran // Bulletin of the Asia Institute. 1988. № 2. P. 35–52.
- 40. Gnoli G. The Idea of Iran. An essay on its origin. Rome, 1989. Pp. 216.
 - 41. Soudavar A. The Aura of Kings. Costa Mesa, 2003. Pp. xiv + 178
- 42. Huff D. Formation and Ideology of the Sasanian State in the Context of Archaeological Evidence. in: The Sasanian Era /ed. by V. S. Curtis, S. Stewart. London-New York, 2008. P. 31–59.
- 43. Lubotsky A. Avestan xvarənah-: the etymology and koncept. in: Sprache und Kultur. Akten der X. Fachtagung der Indogermanischen Gesellschaft Innsbruck, 22–28. September 1996 /ed. by W. Meid. Innsbruck, 1998. P. 479–488.
 - 44. Gnoli G. Farr(ah) // Encyclopaedia Iranica. 1999. № 9. P. 312–319.
- 45. Soudavar A. Farr(ah) ii. Iconography of Farr(ah)/x arənah. URL: http://www.iranicaonline.org/articles/farr-ii-iconography (access date: 17.01.2018).
- 46. Shenkar M. On the Iconography of x^varənah and its Role in the Ideology of Ancient Iranians (in Russian). in: The last Encyclopedist. The Issue in

1.1. Джерела до історії релігій з найдавніших часів...

- Honor of the 90-Anniversary of Boris Litvinsky /ed. by G.YU. Kolganov, A. A. Petrov, S.V Kulland. Moscow, 2013. P. 427–451.
- 47. Gnoli G. Jamzadeh P. Bahrām (Vərəθraγna) // Encyclopaedia Iranica. 1988. № 3.5. P. 510–514.
- 48. Shenkar M. Intangible Spirits and Graven Images: The Iconography of Deities in the Pre-Islamic Iranian World. Leiden-Boston, 2015. P. 159–162.
- 49. Tanabe K. A Discussion on the Kushano-Sasanian Silver Plate and Relation to Gandharan Art // Orient. 1989. № 25. P. 51–80.
- 50. Bivar A. D. H. The Absolute Chronology of the Kushano-Sasanian Governors in Central Asia. in: Prolegomena to the Sources on the History of Pre-Islamic Central Asia /ed. by J. Harmatta. Budapest, 1979. P. 317–332.
- 51. Rezakhani K. Saansaan Pirosen: Ammianus Marcellinus and the Kidarites // Dabir.Samuel Jordan Center for Persian Studies and Culture. 2017. № 1.3. P. 44–50.
- 52. type IV/2a "Western" mint, and fig. A (Gyselen R. New Evidence for Sasanian Numismatics: The Collection of Ahmad Saeedi // Res Orientales. 2004. № 16. P. 49–140.