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THE ORIGINS AND DEVELOPMENT
OF SASSANIAN HEAVY CAVALRY

The Sassanian heavy cavalry was a direct continuation and development of a similar formation from the times of the Arsacids, known to the ancient world as "equites cataphracti" or "cataphractarii" (Greek κατάφρακτος "covered, shut up" from καταφράσσω "fortify, protect")¹. Relations of ancient sources concerning the Romans' military operations in the East - first against the allied forces of the sovereign of Pontus, Mithradates VI Eupator, and the king of Armenia, Tigranes II, in 69 B. C., and then against the Parthians in the battle of Carrhae in 53 B. C. - yield certain details of the armament of contemporary cataphractarii. According to Plutarch the Parthian horsemen of Carrhae wore iron helmets and armours made of iron or untanned leather. Their horses were protected by bronze or iron coverings. The only weapon was a long spear (κοντός). Talking of the heavy-armed soldiers of Tigranes, Plutarch adds that their legs were the only exposed parts of the body². Most probably it was connected with keeping position on horseback and riding horse without a saddle and stirrups.

Dio Cassius generally defines the Parthian horsemen as mounted archers and spearmen, usually armoured (τὰ πολλὰ κατάφρακτοι). He also stresses the lack of shields³. Brief informations in Justin's Epitome and in fragments of Sallust's Histories supplement Plutarch's and Dio Cassius're-

lations with a very important detail - they speak there about scale armours which cover the rider and his horse from top to bottom⁴. In Suidas' lexicon we find a fragment (which is frequently attributed to Arrian) relating to the late Arsacid period, with a detailed description of an armour shielding the whole body, arms, legs and the head of the horseman. A covering for the horse is also mentioned⁵. The above data permit to assume that the Parthian cataphracts represented a type very close to the early Sassanian cavarlyman known from detailed accounts.

It is difficult to state unequivocally from where the Parthians adopted the idea of using heavy cavalry on a large scale. Traditionally the Parthians relied on their swift light cavalry with bow as the main weapon. The battle of Carrhae is the first case, as far as we know from the sources, that they employed the cataphractarii units.

The tactics of the heavy cavalry attack in close order were probably known and used in ancient Chorasmia. As the Soviet scholar Tolstov suggests⁶, the background against which these tactics were elaborated, was the permanent contact of the settled Massageto-Chorasmian inhabitants with the nomads who constantly invaded the agricultural areas of the Chorasmian oasis. The local heavy cavalry was in fact to be a counterpart of the classical infantry phalanx, created under special circumstances - in the face of the necessity of fighting against light and agile cavalry in steppes. The horse and horseman's armour had to compensate for the tactical superiority of the nomad bowmen who used to fight on horseback.

However, the scantiness of information in our sources does not allow to reconstruct the armament and tactics of the Chorasmian cavalry - among the details interesting to us, Herodotus mentions armours (χαλκεοι θώρηκες) covering the Massagetan horses' breasts, and Strabo describes the cuirass (θώραξ) as one of the elements of the armour which wore the Massagetan foot and horse soldiers⁷. Nevertheless, it is known that it was just from Central Asia, that heavy-armoured cavalry spread further to the East, replacing in China, at the beginning of the Han epoch (206 B. C. - 221 A. D.), previous infantry units and chariots. At the same time it was adopted, probably directly from the Massagets, by some Sarmatian tribes, particularly the Roxolans, in the steppes of south - eastern Europe. The typical Sar-

matian equipment was a scale armour in the shape of a short-sleeved tunic reaching down to the knees, a conical helmet of iron and a long heavy spear. In hand-to-hand fighting they used long swords with sharp points. The part played by bow and arrows was quite secondary⁸. Did the Parthians also undergo the influences from Central Asia and adopt a ready pattern of armouring and elaborated tactics, as Tolstov suggests?⁹ One should allow for such a possibility. There are however some facts that speak for another eventuality.

In Western Asia the heavily armed cavalry was used for the first time by the Assyrians, later it appeared in the Achaemenian army, though in any case it did not constitute the main striking force. In spite of only casual references concerning the Massagetan cavalry, we are provided with quite accurate sources about the Persian horsemen. Xenophon mentions such elements of their equipment as red-bronze corselets, helmets and thigh-pieces, short swords and spears (παλτά). Horses also had bronze armours consisting of three parts: frontlet (προμετωπίδιον), breast-piece (προσπερνίδιος) and thigh-pieces (παραμηρίδια)¹⁰. As far as scale armours - so characteristic for later cataphractarii - are concerned, Curtius Rufus speaks about them quite clearly¹¹.

Similar units originating probably from Achaemenian tradition existed in the Seleucid army - it is probable that they had been recruited from among the Iranians. Livy mentions the heavy cavalry units (loricatos quos cataphractus vocant) in the armies put in the field against the Romans by Antiochus III. Polibius speaks about heavy cavalrymen (ἡ κατάφρακτος ἵππος) on armoured horses in Antiochus IV Epiphanes' army¹². It is here where we should look for the prototype of the Arsacid cataphractarii, who appeared after the Parthians had captured the Seleucid properties in the East in the second half of the 2nd century B. C. - Western Iran and Mesopotamia. The same Hellenistic tradition was continued by the heavy-armed cavalry in the army of Mithradates VI and a mentioned above similar formation in Tigranes forces¹³. The early cataphractus worked out on the ground of this tradition represented a type related to the mounted hoplite, protected with a sleeveless scale armour reaching down to the waist, combined with separate elements shielding legs and arms. Further development was directed to com-

pleting and improving the armour so that it would cover the horseman's whole body like a metal overall, without limiting his freedom of movement, just as it is described by Arrian.

In the early Sassanian period there were no considerable changes in armours and fighting methods of the heavy cavalry. However, the most numerous and detailed informations date from the 3rd and 4th centuries A. D., that is from the early period of the Sassanian rule in Iran. The way of presenting the Sassanian heavy-armed cavalry by the ancient authors as a kind of military curiosum, gives the impression of something quite new. This can be explained both by the intensification of the struggles of the Romans against their eastern neighbour since the time when the new dynasty had taken over rule in Iran, and by the introduction of heavy cavalry units into the Roman army following the example of the East ¹⁴. It was not until then that the Romans met directly and on a larger scale what was known to them only from relations of events taking place at the far ends of the empire. At the same time in fourth century sources appears a new term for the heavy cavalry and namely "clibanarii". Its etymology is usually derived from Latin "clibanus" meaning "bread oven" then also "armour" ¹⁵. The word "tanūr(ā)" found in Syrian sources had similar meanings, namely - "1. furnus 2. lychnus II lorica" ¹⁶. Latin "clibanarius" in the meaning of heavy armoured horseman was to be a loan translation from the supposed Middle Iranian "tanūrīg", deriving from "tanūr" - Iranian counterpart of Syrian "tannūr(ā)" ¹⁷.

However, as F. Rundgren proved, Latin "clibanarius" and Greek "κλιβανάριος" should be differentiated from "clibanus/", "κλίβανος" - "bread oven". In fact the term for armour was spelled "clibanum", "κλίβανον (κλιβάνιον)" and only later its meaning was to be attributed to "clibanus", "κλίβανος". The very word "clibanum"; "κλίβανον" is treated by Rundgren as an adaptation of Middle Iranian "grīvpān, grīvp ān" - "Halsberge" > "Körperschutz, Lebenschutz". So "clibanarius" was built by adding Latin "-arius" to "grīvpān" < "grīvpān (grīvp ān)" or it is on the whole a borrowing of Iranian "grīvp ān - var" with Latin "-ius" only added. On the other hand Syrian "tannūr(ā)" in the meaning of "lorica" is derived by Rundgren from Iranian "tan-vār" - "Körperschutz" ¹⁸.

This simple and reliable explanation allows to avoid rather queer argumentations such as: "the "clibanarius", completely encased in scale or chain armour and riding to battle on the hot plains of Persia might well be termed a mounted oven" ¹⁹.

In the ancient sources dating from the 4th century, beside the term new "clibanarii" the old one "equites cataphracti" or "cataphractarii" is still used. As Rostovtzeff states ²⁰ the term "clibanarii" "was adopted by the official language and the writers of the late Roman Empire... to distinguish the "cataphractarii" of the Roman auxiliary forces from the real "clibanarii" of the Persian and later Roman army... the "cataphractarii" wearing no helmets and using horses not protected by armour as a rule". And then: "... though in general the later "clibanarii" repeated the type of the earlier "cataphractarii" of Surenas, some progress was made in their equipment: combination of helmet and mask, skilful use of various types of metal work for making an invulnerable cuirass, protection of the horse by a heavy coat of mail" ²¹.

As to the term "clibanarius", first it must have existed in the soldiers' jargon and from there it was adopted by the official language. The differentiation suggested by Rostovtzeff does not find reflexion in the Roman historiography and it was never used in a consistent way.

But the official document, Notitia Dignitatum, separates explicitly "equites cataphractarii" from "equites clibanarii" ²². The existence of those two separate formations is characteristic for the Late Empire and is a consequence of the Roman experiments with introducing various kinds of cavalry. There is no reason however to differentiate two individual types of the heavy cavalry in the Sassanian army - completely armoured "clibanarii" and "cataphractarii" "wearing no helmets and using horses not protected by armour as a rule". The Persian cavalry of that period was in fact a continuation of the Parthian "cataphractarii" and there were no significant innovations in tactics and equipment. All the more, the scale armours for horses cannot be considered as a novelty characteristic only for the Sassanian cavalry (see above). So the terms "cataphractarii" and "clibanarii" used in sources referring to the Sassanian army, should be treated as synonyms - after all in this case we can rely on the explicit statements of ancient authors ²³.

We can find the most detailed descriptions of the Sassanian "clibanarius" in Ammianus Marcellinus' work, in Julian's *Orations* and in Heliodorus' *Aethiopica*. The latter account is the most thorough one and it is perfectly illustrated by the famous graffito of a charging "clibanarius" from Dura Europos²⁴.

The armour protecting the whole body from head to foot was made up of differently sized and shaped metal lamellas connected with one another and attached to a leather tunic (*lorica plumata*). Among the finds from Dura Europos there are bronze and iron scales of different size and shape, most probably belonging to one cuirass - the large iron scales used for exposed, vulnerable parts of the body, the smaller bronze plates in those places where freedom of movement was necessary. Also a whole cuisse made of metal lamellas fastened to one another with a leather band, was discovered²⁵. Some parts of the armour were made of other elements - metal rings sewn onto a piece of leather forming a kind of ring armour (*lorica hamata*) or metal circles attached close one to another (*lorica segmentata*). Metal protections of this kind are shown on the early Sassanian reliefs and the picture of *clibanarius* from Dura Europos²⁶. According to Heliodorus the only unprotected parts of the body were the insides of the thighs clinging to the horse's back. The whole was completed by a helmet with a cover for the face in the form of a stiff metal "mask" (*τὰ προδωπεῖα*) with holes for mouth, nose and eyes²⁷. A horseman armoured in this way gave the impression of a "living statue" - the term frequently used by ancient authors. And here is one of the characteristic fragments from Ammianus' *Res Gestae*: "... cataphractarii equites quos *clibanarios* dictitant, (personati) thoracum muniti tegminibus et limbis ferreis cincti, ut Praxitelis manu polita crederes simulacra, non viros: quos lamminarum circuli tenues apti corporis flexibus ambiebant per omnia membra diducti, ut quocumque artus necessitas commovisset, vestitus congrueret iunctura cohaerenter aptata²⁸.

Of course, the horse was also protected by a special armour. Three such coverings (two of them very well preserved) were discovered in the course of the excavations at Dura Europos. On the ground of this find, ancient authors' relations and iconography a complete horse armour from the 3rd century can be reconstructed. Its main part was a housing of scale ar-

mour or mail (*δκέπαδμασιδηρόπλοκον*) for the horse's body with an oval hole at the place where the horseman was seated. There was also a covering for the neck, a frontlet (*θηρομετωπίδιον*) of iron or cuir-bouilli for the head and greaves (*κνημίδες*) for the horse's legs²⁹.

The main weapon of a Sassanian *clibanarius* was a long spear (*κοντός*), he also used a sword or axe (*κοπίς*). According to Heliodorus, both ends of the spear were fastened to the horse's neck and back in order to keep the balance of the long shaft. On one of the housings found at Dura Europos a very interesting detail was preserved - a combination of leather bands and a wooden ring attached to the back part of the housing behind the horseman. Perhaps this element was the mentioned by Heliodorus *βρόχος* used to fasten the back end of the spear³⁰. With one hand the rider seized the spear while with the other he held the reins³¹. As in the times of the Arsacids, there were no shields in the equipment of the Sassanian cavalry, which is a fact often stressed by some authors as characteristic for this type of cavalry³².

The ancient authors assure that armour made properly in no way limited the rider's freedom of movement, but they stress its weight which, according to Heliodorus, was so great that it did not allow the horseman to mount the horse by himself. In addition to that there was no solid saddle and no stirrups - accessories unknown to the ancient world. In this situation keeping balance called for a great effort on the part of the horseman, though a well-trained rider could in some degree compensate for the lack of a stiff saddle by pressing his thighs to the horse's back in a proper way. Probably the mane of the horse was used as an additional support, held with the hand seizing the reins³³. It should be remembered that this method of mounting a horse had a long tradition and during the ages various ways and habits, absolutely unknown to the modern cavalryman were invented. Therefore it is difficult to estimate objectively the skills of the ancient horseman, who used quite different technics. We may guess however that because of the greater effort (in comparison with the light cavalry) necessary to stick on the horse, the freedom of handling the arms and possibilities of manoeuvre were limited. Hence the ideal method of fighting and the trump of that cavalry were the "charge à fond" tactics aimed to break the enemy's line.

The impetus of the blow of the close order bristling with long spears was guaranteed by the force of inertia multiplied by the weight of the armours of running cavalry. So it was a highly specialized kind of armed forces, destined to one purpose and not always working. The spacious plains of Mesopotamia were an ideal field for its activities.

Fighting in the ranks of the Persian heavy cavalry was a privilege of the nobles, therefore its number was relatively small. Many authors however state that the attack of the cavalry was supposed to be decisive in the battle ³⁴.

The direct reinforcement of the *clibanarii* units were mounted bowmen, infantry and sometimes fighting elephants. In the early Sassanian army, just like earlier in Parthian forces, the main and most numerous part of the army was the cavalry, explicitly divided into light - and heavy-armed. The infantry was recruited from serf peasants and according to Ammianus' account was used as an additional support and servants because of its mediocre value. Just this triple structure of the Sassanian army Ammianus means when he writes that "*rex Persarum gentis Sapor... erupturos in nostra cataphractos et sagittarios et conductam misit plebem*" ³⁵.

Two centuries later Procopius of Caesarea who, like Ammianus, wrote about events contemporary to him shows the Persian army in a quite different way. The author does not give many details about the equipment of the Persian cavalry and, what is worth noticing, never mentions special units of "*cataphractarii*" or "*clibanarii*", which were described by Ammianus several times. Certainly it was not caused by Procopius' incompetence and his lack of knowledge or experience as he fought against the Persians by Belisarius' side. It seems that the author saw no necessity to provide his readers with such details and this was caused among others by the evolution that the Roman army underwent since the times of Ammianus.

In the first half of the 4th century the main force of the Roman army was still laid on the infantry, though new kinds of cavalry were being introduced constantly, including the "*cataphractarii*" and "*clibanarii*". The difference between the Persian and Roman army resulting from it was well understood by Ammianus who composed his narration in such a way that the difference was emphasized ³⁶.

During the next two centuries the character of Roman army was completely changed, mainly because of constant struggles with enemies who mostly used cavalry - the Huns, the Goths and, of course, the Persians. In the times of emperor Justinian the basic force was already cavalry. At the same time the differences between various kinds of weapon known to the ancient world - between light - and heavy-armed infantry, light and heavy cavalry, bowmen and spearmen - were diminished. Almost every soldier, both foot and mounted, was protected by a cuirass and almost each had a bow, the weapon that started to play a more and more significant role in battle. Even the distinction between cavalry, being the most numerous and decisive formation, and infantry ceased to function the way it did before. Depending on the circumstances, the horsemen fought on foot and the foot soldiers mounted horses to fight on them ³⁷. At the very beginning of the "History of Wars" Procopius stresses the difference between the army of the old type and the Justinian's army contemporary to him, describing the outfit and the skills of Byzantine soldiers in the following way: "But the bowmen of the present time go into battle wearing corselets and fitted out with greaves which extend up to the knee. From the right side hang their arrows, from the other the sword. And there are some who have a spear (*δόρυ*) also attached to them and, at the shoulders, a sort of small shield without a grip, such as to cover the region of the face and neck. They are expert horseman, and are able without difficulty to direct their bows to either side while riding at full speed, and to shoot an opponent whether in pursuit or in flight" ³⁸.

Horsemen of this kind were capable of fighting both at close quarters and from distance, they were excellent horse-riders and they used the bow perfectly (the famous "Parthian shot"!). They constituted a swift and at the same time, well-armed force, successful in attack and defence.

Did then the Persian army undergo any considerable changes between the 4th and 6th century, too? Seemingly not, since the cavalry constituted the greatest part of the army, and Procopius, like Ammianus before, speaks scornfully about the Persian infantry ³⁹. In fact there were significant changes in the armament and tactics of the Sassanian cavalry, similar to those that took place in the Roman army. And so the difference between the

light - and heavy-armed cavalry disappeared. A new, universal type of heavy cavalry, similar to the Byzantine one, was created. The late Sassanian cavalryman's equipment, as described by Tabari, included a helmet, a coat of mail, greaves, also a sword, spear, shield, a mace attached to the belt, an axe, a quiver with 30 arrows, and two spare strings rolled up and fastened to the back of the helmet⁴⁰. A statue of a horseman in full outfit, preserved in Tāq-e Bostān, standing in a niche of a huge cave, attributed to Peroz (457-487) or Chosroes II (590-628) illustrates Tabari's description very well. The fine coat of mail delicately carved in stone fits close to the upper part of the body and hangs loosely from the waist down forming a kind of skirt. The head is protected by a helmet with a piece of thin coat of mail covering the face. On the horseman's right side there is a quiver full of arrows. The spear rests on the right arm, and a small round shield is attached to the left forearm - it hides the hand holding the reins. The horse also has an armour, made probably of metal lamellas, but it is only partial and covers the head and front part of the body. There can be seen a stiff saddle and, though the lower part of the statue is damaged, we may guess that there were stirrups. It is indicated by the firm settling in saddle and the position of the legs, which are moved slightly forward and not hanging loosely down⁴¹. We can find similarly armoured horsemen besieging a fortress on a silver vase from the early Sassanian period (Sarre) or from the 6th-8th century (Tolstov)⁴². All riders have long armours reaching down below the knees, similar to this of the Tāq-e Bostān statue. They carry swords, bows, and shields. Among the six horses there is only one protected by an armour. The type of the armours speaks for dating the vase later. Analogies can be found in eastern parts of Iranian territories, in Central Asia - many of the 7th-8th century pictures found in Panjikent are battle scenes. The images of heavy-armed cavalrymen with swords, spears and bows prevail. Here also the lower part of the armour is in form of a long, loose skirt reaching down below the knees⁴³. This type of armour, considerably different from the previous one, characteristic for the early Sassanian "clibanarii", reached Iran from Central Asia and it might have originated in Massageto-Chorasmian tradition. Besides, the technics of making armours was improved - beside scale armour and ordina-

ry ring armour made up of rings fastened to some backing of leather or cloth, used for a long time, in the late Sassanian period chain mail made up of rings themselves forming a complete corselet appeared. Some remnants of a construction made up of metal rings, dating back to the 3rd century A. D. were discovered at Dura Europos. If they are a fragment of chain mail (which is probable) they could be the earliest example of using armour of this kind. It can be also seen on the Tāq-e Bostān statue. In comparison with scale - and ring-armours this new type of armour was lighter and at the same time stronger and more durable⁴⁴. Another significant innovation of the end of the Sassanian period in Iran, was the introduction of saddle and stirrups which guaranteed the horseman more stability and consequently allowed him to handle his weapons, especially bow, spear and shield, easier and more efficiently⁴⁵.

In the late Sassanian period the social structure of Persian army changed, too. Fighting in the ranks of the heavy-armed cavalry ceased to be the duty and privilege of the Persian "nobilitas" who fought using their own equipment and at their own charge. The base and the most numerous part of army was the heavy cavalry recruited from among small land owners - the "dēhkāns" - who, at least since the tax and military reforms carried out by Chosroes I (531-579), get financial support for the war equipment from the king's treasury⁴⁶. Thus the social basis of heavy cavalry became wider as well as its number increased while ousting previous light cavalry units.

Generally speaking if we follow the development of the Persian heavy-armed cavalry in the Sassanian times, we should distinguish two main stages: the period of continuation the tradition of the Parthian "cataphractarii" when the heavy cavalry was a specialized formation in the Sassanian army, and the second stage, in the late Sassanian period when the previous separate "cataphractarii" and "sagittarii" units were replaced by swift and universally armed heavy cavalry, intended for numerous tasks, wide spread in Iran as well as in Central Asia. Anyway the armours show signs of Central Asian influence - perhaps the result of frequent struggles with the Hephthalites throughout the 5th century A. D. As at the same time the "barbarization" of armament and tactics of the Roman army was taking place, in ef-

fect the differences between the two armies, so explicit in the 4th century, practically ceased to exist. Both armies, similiary armed, used similar tactics - fighting from a distance using a bow played a more and more significant part ⁴⁷.

Notes

- ¹ H. G. Lidell, R. Scott, A Greek-English Lexicon, Oxford 1958 (9th ed.).
- ² Plutarch, Luc. 28, 3-4; Crass. 24, 1-6; 25, 7-9.
- ³ Dio Cassius 40, 15, 2.
- ⁴ Justin 41, 2, 10: "Munimentum ipsis equisque loricae plumatae sunt, quae utrumque toto corpore tegunt"; cf. Sallust, Hist. IV frs 16-17 (Kritz).
- ⁵ Suidas, ὀῤῥαξ II 724 n. 439 (Adler) = Arrianus, Parth., fr. 20.
- ⁶ S. P. Tolstov, Drevnij Chorezm, Moskva 1948, p. 225; cf. B. Rubin, Kataphraktenreiterei im Lichte der chorezmischen Ausgrabungen, "Historia" IV (1955), pp. 264-283.
- ⁷ Herodotus 1, 215; Strabo 11, 8, 6.
- ⁸ E. H. Minns, Scythians and Greeks, Cambridge 1913, fig. 218, p. 304; fig. 223, p. 313; fig. 224, p. 314; fig. 230, p. 319; M. Rostovtzeff, Iranians and Greeks in South Russia, Oxford 1922, pp. 121, 129, 143, 169; T. Sulimirski, The Sarmatians, London 1970, pp. 31-32, fig. 30, p. 30; S. P. Tolstov, op. cit., p. 215; cf. Tacitus, Historiae 1, 79.
- ⁹ S. P. Tolstov, op. cit., pp. 211-213.
- ¹⁰ Xenophon, Cyrop. 7, 1, 2; Anab. 1, 8, 6-7.
- ¹¹ Curtius Rufus, 3, 11, 15: "Equi pariter equitesque Persarum serie lamnarum obsiti"; 4, 9, 3: "equitibus equisque tegumenta erant ex ferreis lamminis serie inter se connexis"; cf. Herodotus 7, 61, 84.
- ¹² Livy 35, 48, 3; cf. 37, 40, 5; Polybius 30, 25, 9 (31, 3, 9).
- ¹³ Posidonius, fr. 41 (Müller); Sallust, Hist. II, fr. 56 (Kritz); the Armenian "cataphractarii": Plutarch, Luc. 28, 3-4.
- ¹⁴ Cf. J. W. Eadie, The Development of Roman Mailed Cavalry, "Journal of Roman Studies" 57 (1967), pp. 161-173.
- ¹⁵ H. Frisk, Griechisches etymologisches Wörterbuch, Bd 1, Heidelberg 1960; Thesaurus Graecae Linguae ab H. Stephano constructus, vol. 4, Parisiis 1841; Thesaurus Linguae Latinae, vol 3, Lipsiae 1906-1912; A. Walde, Latinitisches etymologisches Wörterbuch, Bd 1, Heidelberg 1938 (3. Aufl.).

- ¹⁶ C. Brockelmann, Lexicon Syriacum, Halis Saxonum 1928 (2 ed.), p. 829.
- ¹⁷ Th. Nöldeke, Geschichte der Perser und Araber zur Zeit der Sasaniden. Aus der arabischen Chronik des Tabari..., Leiden 1879, p. 164, n. 5; cf. Fiebigler, art. "clibanarii" [in:] Pauly-Wissowa-Kroll, Realencyklopädie der classischen Altertumswissenschaft, Bd 4, Stuttgart 1900, col. 22.
- ¹⁸ F. Rundgren, Über einige iranische Lehnwörter im Lateinischen und Griechischen, "Orientalia Suecana" 6 (1957), pp. 49-51.
- ¹⁹ J. W. Eadie, op. cit., p. 169.
- ²⁰ The Excavations at Dura Europos. Preliminary Report of Fourth Season of Work, New Haven 1933, pp. 217-218.
- ²¹ Ibid., p. 221.
- ²² "Equites cataphractarii": Or. 5, 34; 6, 35; 6, 36; 8, 29; 31, 52; 39, 16; Occ. 7, 200; 40, 21; "equites clibanarii": Or. 5, 40; 6, 32; 6, 40; 7, 31; 7, 32; 7, 34; 11, 8; Occ. 6, 67; 7, 185.
- ²³ Amm. Marc. 16, 10, 8: "cataphracti equites, quos clibanarios dicitant"; S. H. A., vita Alexandri Severi 56, 5: "centum et viginti milia equitum eorum (scil. Persarum) fudimus, cataphractarios, quos illi clibanarios vocant".
- ²⁴ Amm. Marc. 16, 10, 8; 24, 6, 8; 25, 1, 12; Heliodorus 9, 15; Julian, Or. I, 37 D; II, 57 C; The Excavations at Dura Europos, Fourth Season, pl. XXII, 2; cf. R. Ghirshman, Iran. Parthians and Sassanians, Thames and Hudson, London 1962, pl. 63.
- ²⁵ The Excavations at Dura Europos. Preliminary Report of Second Season of Work, New Haven 1931, p. 73 (C. Hopkins); Preliminary Report of Sixth Season of Work, New Haven 1936, p. 451 (C. Hopkins).
- ²⁶ R. Ghirshman, op. cit., pls 63, 163-166, 178.
- ²⁷ Amm. Marc. 16, 10, 8; 25, 1, 12; Heliodorus 9, 15; Julian, Or. I, 37 D.
- ²⁸ Amm. Marc. 16, 10, 8; cf. Julian, Or. II, 57 C; I 37 D; ἄπειρον γὰρ ἦτες ἱππέων πληθους καθάπερ ἀνδριάντας ἐπὶ τῶν ἱππῶν ὀχουμένους
- ²⁹ The Excavations at Dura Europos. Preliminary Report of Fourth Season of Work, New Haven 1936, p. 446 (C. Hopkins), pls XXI, XXII.
- ³⁰ Ibid., p. 449; Heliodorus 9, 15.
- ³¹ Heliodorus 9, 15.
- ³² Julian, Or. II, 57 C: οὐδὲν ἀσπίδος δεόμενον; Heliodorus 9, 15 in his detailed account does not mention shields; cf. Dio Cassius 40, 15, 2.
- ³³ G. Widengren, Iranisch-semitische Kulturbegegnung in partischer Zeit, Köln und Opladen 1960, p. 109.
- ³⁴ Amm. Marc. 20, 7, 2; 23, 6, 83; Heliodorus 9, 15; cf. Justin 41, 2, 5-6; Plutarch, Crass. 21, 7.

³⁵ Amm. Marc. 29, 1, 1; on infantry 23, 6, 83: "pedites enim in speciem mirmillonum contacti iussa faciunt ut calones. sequiturque semper haec turba tamquam addicta perenni servitio nec stipendiis aliquando fulta nec donis"; cf. 24, 6, 8; 8, 1; Dio Cassius 40, 15, 2.

³⁶ G. A. Crump, Ammianus Marcellinus as a Military Historian, Wiesbaden 1975, [Historia. Zeitschrift für alte Geschichte. Einzelschriften, Heft 27] pp. 39-40.

³⁷ H. Delbrück, Geschichte der Kriegskunst im Rahmen der politischen Geschichte, Berlin 1920-21, Bd 2, pp. 369-370.

³⁸ Procopius, Bell. Pers. I, 1, 12. English translation by H. B. Dering (Loeb 1954).

³⁹ Ibid., I, 14, 25-26.

⁴⁰ Th. Nöldeke, op. cit., pp. 248-249.

⁴¹ R. Ghirshman, op. cit., pp. 192-193, pl. 235; F. Sarre, Die Kunst des alten Persien, Berlin 1922, pl. 85.

⁴² F. Sarre, op. cit., p. 50, pl. 105; S. P. Tolstov, op. cit., p. 218.

⁴³ A. I. Jakubovskij (and others), Živopis' drevnego Pangikenta, Moskva 1954, pls V, XXV, XXXI, XXXV; figs 23-25, p. 159; fig. 29, p. 156.

⁴⁴ The Excavations at Dura Europos. Preliminary Report of Third Season of Work, New Haven 1932, pp. 79-82 (C. Hopkins), pl. XI, 1.

⁴⁵ Stirrups of the first century A. D. in Southern Russia: E. H. Minns, Scythians and Greeks, Cambridge 1913, p. 250 ff.; M. Rostovtzeff, Iranians and Greeks in South Russia, Oxford 1922, pp. 121, 130; saddle and stirrups in Western Asia in the 7th century A. D.: A. Constantini, D'Hannibal à Gengis Khan: vers la suprématie de la cavalerie (216 av. J.-C. - 1281), "Revue Internationale d'Histoire Militaire" 49 (1980), p. 24; J. Berenger, L'influence des peuples de la Steppes (Huns, Mongols, Tatares) sur la conception européenne de la guerre de mouvement et l'emploi de la cavalerie (Ve-XVIIe siècle), in the same issue of the "R.I.H.M."; cf. iconographical representations of saddle and stirrups of the 7th and 8th centuries: A. I. Jakubovskij, op. cit., pls V, XXXI; F. Sarre, op. cit., pls 87, 108, 112.

⁴⁶ F. Altheim, R. Stiehl, Finanzgeschichte der Spätantike, Frankfurt am Main 1957, pp. 57-69; A. Christensen, L'Iran sous les Sassanides, Copenhagen 1936, p. 362; Th. Nöldeke, op. cit., p. 164.

⁴⁷ H. Köchly, W. Rüstow, Griechische Kriegsschriftsteller, griechisch und deutsch mit kritischen und erklärenden Anmerkungen, 2. Teil, 2. Abteilung, Des byzantiner Anonymus Kriegswissenschaft, Leipzig 1855, pp. 198-209 (περὶ τοξέας); Procopius, Bell. Pers. I, 1, 12-15; 18, 31-34; K. A. Inostrancev, Sasanidskie etjudy, St. Petersburg 1909, pp. 65, 78.

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LES LIMITES COGNITIVE DE NUMISMATIQUE

Les thèmes cultuo-religieux sur les monnaies de l'Alexandrie
d'Egypte I au III siècle de notre ère

Le sujet du présent article est formé par les thèmes cultuo-religieux, qui apparaissent sur les monnaies de l'Alexandrie d'Egypte à la période romaine, et qui expriment les essences profondes de la tradition égypto-grecque, très vive encore à cette époque.

Les sources numismatiques de la période romaine ont pour cette problématique une importance d'autant plus grande, que, à l'inverse des monnaies ptolémaïques et d'une minime partie d'autres témoignages aussi bien écrits que matériels, elles éclairent certains aspects de la vie religieuse de l'Alexandrie antique, aujourd'hui encore insuffisamment étudiées, d'une lumière un peu plus vive. La littérature du sujet se rapportant aux problèmes religieux de la métropole égyptienne, excessivement pauvre, contient de nombreux moments discutables résultants le plus souvent de la manière de traiter sur un même plan les cultes alexandrins et ceux de la Chora égyptienne. L'un de ses postulats les plus importants est également l'élargissement très sensible des études sur la période romaine¹.

Les cultes alexandrins de cette époque se reliaient, il est vrai, aux pratiques ptolémaïques, y trouvant de nettes analogies, mais ils subissaient peu