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THE GRAFFITO FROM DURA-EUROPOS: HYBRID ARMOR IN PARTHIAN-SASANIAN IRAN•

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Dura-Europos, a Seleukid foundation, had an exceptionally turbulent history. Set up in about 303 B.C. by Nikanor, a general under Seleukos I Nikator, it was captured by the Parthians (ca. 113 B.C.); subsequent to A.D. 165 it became part of the Roman Empire. Despite its exceptionally strong defense walls, it was captured after a siege of several months carried out by the Sasanian king Shapur I (A.D. 240–272) in A.D. 256.[1]

Initial archaeological excavations were conducted there as early as in 1920–1922, but it was the excavation works carried out in 1929–1937 under the auspices of Yale University and Académie des Inscriptions et Belles-Lettres in Paris that yielded sensational discoveries and made the ancient city famous. One of the most well-known discoveries was a graffito depicting a heavily armored horseman, equipped after an Iranian fashion, sitting on an armored horse and holding a long spear along the horse's side. On his back one can see the hilt of a sword (see Figure 1–2).[2] Initially, the graffito was dated to the late Parthian period (from the second century to the early third century A.D.).[3] Nowadays, however, the prevailing opinion is that it dates back to the early Sasanian period and was

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[1] Leriche, MacKenzie 1996.

[2] Brown 1936, 444–445; Rostovtzeff 1933, 216–217; Pl. XXII.2; James 2004, 113, fig. 23.

[3] In older studies, the object was commonly dated to the late Parthian period (Allan 1986; Brown 1936, 195; Colledge 1977, 117, fig. 44 B; Rostovtzeff 1933, 207–209; Robinson 1975, 186; Shahbazi 1986). Nowadays, some scholars date the graffito to the second century A.D. (Symonenko 2009, 119), or the second to third century A.D. (Mielczarek 1993, 36).

executed between A.D. 232 /233 and A.D. 256.[4] Stylistically, the graffito belong to the iconographic tradition of the late Parthian or early Sasanian periods.[5] It is worth mentioning here that in Dura-Europos there exist other images of horsemen in an Iranian-like outfit,[6] including the image of an iron-clad mounted bowman.[7] These depictions are valuable sources for reconstructing the armor and weaponry used by Iranian cavalry in the third century A.D.

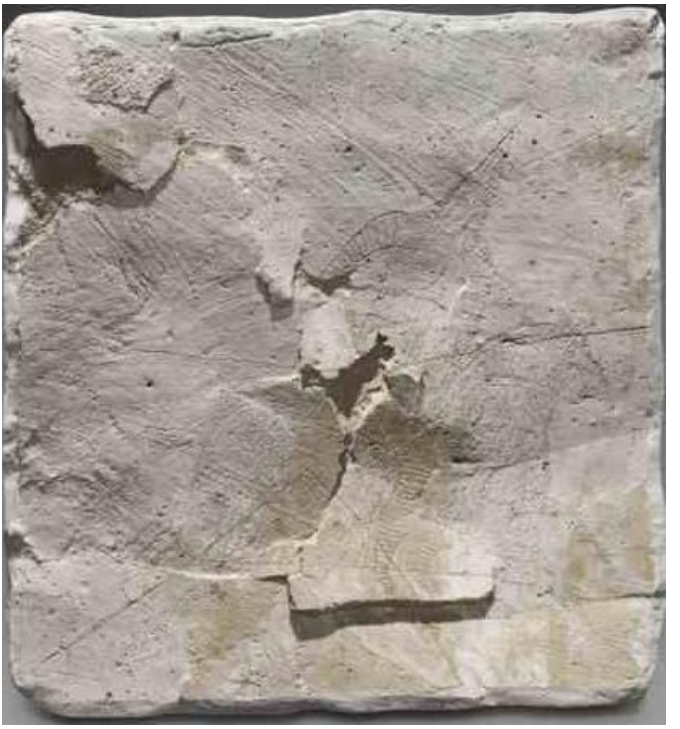

Fig. 1. Graffito of a Sasanian fully armored horseman from Dura-Europos
(http://ecatalogue.art.yale.edu/detail.htm?objectId=5206)

[4] Concerning the dating of the image of the horseman V. P. Nikonorov pays attention to the fact that the image was put on the wall of a house built in A.D. 232/233, that is after the fall of the Arsacid dynasty in Iran (Nikonorov 2005, note 12).

[5] Analyzing the murals of the late stage of Mithraeum in Dura-Europos (which show Mithras as a mounted bowman wearing Iranian clothes), F. Cumont and M. I. Rostovzeff concluded that it represents a late Parthian or early Sasanian style. The same conclusion may be drawn about a number of other images of infantrymen and horsemen wearing Iranian-style clothes, discovered in Dura-Europos. On the murals and graffito see Cumont, Rostovzeff 1939; Rostovtzeff 1931; Rostovtzeff 1933.

[6] Cumont, Rostovzeff 1939, Pl. XIV-XV; Hopkins 1934, 91–92, Pl. XXXV, 3–4; Little 1933, fig. 16; Rostovtzeff 1931, PL. XLI, 2; Rostovtzeff 1933, PL. XXI, 1–2.

[7] Rostovtzeff 1933, PL. XXI, 3.

The horseman shown in the Dura-Europos graffito has a high helmet, typical of a cavalryman and most likely consisting of several separate elements, which may suggest that it is a ridge helmet. The horseman's hands and legs are protected by segment-like, laminar, curved and elongated metal plates, arranged horizontally. His cuirass seems to be made of mail armor or small scales, whereas his lower abdomen is guarded by two rows of metal lames, vertically arranged. The horse is guarded by scale armor covering the trunk and the head.[8]

Fig. 2. Graffito from Dura-Europos (drawing after Rostovtzeff 1933, Pl. XXII.2)

One should pose the question: To what extent may the image of the horseman from Dura-Europos, simplified and schematic as it is, be treated as a reliable source for research in armor? A comparison of the graffito depiction with the archaeological artifacts, including helmets and parts of armor, demonstrates that the image is in fact a valuable piece of evidence. A number of Iranian sites have yielded the so-called ridge helmets, whose calottes were made of a few pieces attached to an iron frame.[9] During the excavation works in Dura-Europos itself,

[8] Rostovtzeff 1933, PL. XXII, 2.

[9] Ridge helmets, which were exceptionally sturdy but whose structure was quite simple, became very popular, and soon they were adopted by peoples and countries neighboring Iran. They were also used in the Later Roman Empire by the Sarmatians as well as by some Germanic peoples (Grancsay 1963, 258; James 1986, 117, 119, 126). Most scholars believe they have Parthian origins

an Iranian helmet dating back to the time of Shapur I, whose bell was made of two parts, was found under the debris of Tower 19.[10] Images of segmented, laminar guards for hands and legs are often featured in the monumental art of the Sasanians, as exemplified by the relief of Ardashir I in Tang-i Ab,[11] on which the attendants of Ardavan IV are clad in such a way, or by the reliefs in Naqsh-i Rustam[12] showing horse-mounted duels. That such armor sets were available at the time of Shapur I is indicated by the famous cameo depicting the Iranian monarch capturing Emperor Valerian. The Sasanian king wears a partial laminar leg armor, covering only the upper legs.[13] Also, two sets of horse armor, made of metal scales and resembling that in the famous graffito, were found at Dura-Europos.[14] These examples indicate that the armor shown in the Dura-Europos graffito reflects genuine defensive weapons used at that time and prove the graffito's exceptional value as a source for researching the issue of military equipment carried by the Iranian heavy cavalry in the third century A.D.

The only element of the Dura-Europos horseman that neither finds its counterpart in the armor of the Parthian or Sasanian periods nor in Iranian and Roman iconography is the cuirass. As it combines two types of defensive armor, that is, most likely mail and lamellar armor, it should be treated as an example of hybrid armor. The latter stands for a set of defensive armor of a mixed structure consisting of the elements of more than one armor type.

The two variants of body armor, i.e., scale armor[15] and lamellar armor,[16] were known in Iran as early as at the times of the Achaemenids.[17] Both were

(Alföldi 1934, 121–122; Grancsay 1948–49, 273–275; 1963, 255, 258; Overlaet 1982, 190–191; Werner 1949–50, 183–193).

[10] Du Mensil du Buison 1936, 192; James 1986, 107, 120, 123, fig. 15–17; Khorasani 2006, 278; Overleat 1982, 192; Russel 1967, 18.

[11] von Gall 1990, Abb. 3.

[12] Hermann 1977, 6–8; Hinz 1969, 206–209; Schmidt 1970, 122, 136–137; Vanden Berghe 1966, 24.

[13] von Gall 1990, 56; Ghirshman 1962, fig. 195.

[14] James 2004, 113–114, 129–131, fig. 74–76, 78–79; Rostovtzeff 1936, 440–441, PL. XXI-XXII.

[15] The scale armor was known as early as in the second millennium B.C. (Robinson 1975, 153; Russell 1962, 1–7). The simplicity of its design − the scales were attached to a fabric or leather backing, combined with its effectiveness in battlefield – made it widely adopted in many different cultures. Eventually, it was known in Egypt, the Levant, the Near East, the Middle East, and in the Black Sea steppes (Symonenko 2009, 108–109).

[16] Lamellar armor was used as early as in the seventh century B.C. It was worn by armies of the Near East, the Great Steppe, and China (von Gall 1990, 41–42, 64–66; Robinson 1975, 153, 162; Russell 1962, 7–10).

[17] Scale armor worn by the Achaemenid armies under Xerxes I is explicitly mentioned by Herodotus (7.61.1; 9.22.2). In Iran the lamellar armor was already known in the fifth century B.C., as indicated by the findings of bronze and iron plates in Persepolis (Schmidt 1956, 100).

popular under the Arsacids[18] and the Sasanians.[19] Mail armor[20] became popular in Iran in the late Parthian period[21] and it gained even greater popularity under the Sasanians,[22] but it never made the earlier type of body armor completely obsolete.[23] Scale and lamellar armor were very effective against bladed and blunt weapons, as well as arrows. Their relatively compact structure, especially in the

[18] von Gall 1990, 61–62. Here one can mention images of a heavily armored horseman at Tang-i Sarvak III (Vanden Berghe, Schippmann 1985, fig. 12, Pl. 46–47) and the one shown on a small, stucco plate, at present kept at the British Museum (von Gall 1990, 61–62; Granscay 1948–49, 278–279; 1963, 258, fig. 11, 12; Overlaet 1982, 191). Both horsemen wear sets of lamellar armor.

[19] Despite the fact that there are no surviving samples of scale and lamellar armor of the Sasanian period from Iran proper, the scale armor is depicted on a series of reliefs in Naqsh-i Rustam, which present cavalry duels (von Gall 1990, Abb. 4.1–4). Fragments of scale armor of the Persian type are likely to be shown also on the Arch of Galerius in Thessaloniki (Pond Rothman 1977, Fig. 18), as suggested by the similarity of the scales' sizes and types shown there and those from Naqsh-i Rustam. Lamellar armor is shown on a relief from Tang-i Ab (von Gall 1990, Abb. 3). Images of such armor are also known in the Kushan Empire, neighboring with Iran in the east (Nikonorov 1997b, Fig. 26 a, c-d, Fig. 28 a-c, Fig. 30 b, e, g, Fig. 31 a-b, d, Fig. 39 c, Fig. 40, Fig. 43 a-b). Lamellar armor made of relatively large lames was found under the debris of Tower 19 at Dura-Europos (Robinson 1975, 162, Pl. 457–458). Ammianus Marcellinus explicitly mentions lamellar armor as used by the Iranian cavalry in the fourth century A.D. (Amm. 24.2.10, 4.15, 6.8, 7.8, 25. 1.12).

[20] Fragments of mail rings, dated to the fifth century B.C. and undoubtedly related to the nomads of the steppes, were first found at the archeological site in Zarovka in Ukraine (Bivar 1975, 276; Piggott 1965, 240; Robinson 1975, 164). This definitely refutes the widespread assumption that mail armor is of Celtic origin (Rusu 1971, 276–278, Taf. 143–146). The Romans adopted mail from the Celts, erroneously thinking that it was the Celtic innovation (Var. *De Lingua Latina* 5.166).

[21] Mail armor shown in the relief of Ardashir I at Tang-i Ab (von Gall 1990, Abb. 3) has an elaborated form known as the mail tunic with long sleeves and it does not have any counterparts in Celtic or Roman mail sets. Most likely, the Parthians borrowed mail armor from the steppe tribes (Robinson 1975, 164, Pl. 459; Symonenko 2009, 127, fig. 97), though it is possible that at first it did not enjoy popularity. Considering the weaponry and combat techniques of the times, the older type of a body armor played the role well, so there was no need to replace it with anything new. That the mail armor was known in the Parthian period may be indicated by the evidence of a wall painting from a synagogue at Dura-Europos, dated to the beginning of the third century A.D. The warriors shown in the painting have mail armor with long sleeves (Nicolle 1996, note 7), which corresponds well with the mail armor from the relief of Tang-i Ab (von Gall 1990, Abb. 3).

[22] Despite the lack of other images of the mail armor, the reliefs of Tang-i Ab, dated to about A.D. 225/226. (Allan 1986; von Gall 1990, 66; Abb. 3; Nicolle 1996, 27; Shahbazi 1986) and of Taq-i Bostan, dated to the sixth century A.D. (Allan 1986, fig. 17), suggest that this type of body armor was used throughout the times of the Sasanians. Fragments of Persian mail armor were also found at Dura-Europos and they are believed to come from the times of the siege laid to the city by Shapur I in A.D. 256 (Hopkins 1936, 188–198, 204–205, 439–466; James 1986, 120).

[23] The image of two heavily armed, fighting knights wearing lamellar armor with long flaps, shown on a silver plate from Koulaguīche (Perm, Russia), dated to the seventh/eighth centuries A.D. (Korbeli, Trever 1936, Pl. 21.), suggests that this kind of armor was used throughout the times of the Sasanians and later on.

case of the lamellar armor, was also an effective defense against the stroke of a long spear used by the Iranian cavalry, which was the basic offensive weapon of a heavily armored horseman in the Parthian-Sasanian period,[24] which is also documented by the graffito from Dura-Europos, where this kind of weaponry is given prominence.[25] In the Dura-Europos House Church there was also a mural showing the combat of lightly armored horsemen wearing Iranian attires and tilting each other with long spears.[26] Mail armor was an effective protection against bladed weapons, but in comparison with scale and lamellar armor it was less effective as a protection against arrows and blunt weapons, especially horsemen's picks, which could rip it. For the same reason mail armor did not provide an effective defense against pole weapons, especially the long spear used by the Iranian cavalry. Among its undisputed advantages were flexibility and airiness. However, because mail armor was inferior protection from pole weapons and arrows, i.e., the most widespread offensive arms in the Iranian cavalry, it took a long time to spread in the Middle East. It gained more popularity as late as in the fourth century A.D.[27]

The aforementioned fact helps better understand the reason for the appearance of hybrid cuirass, as shown in the Dura-Europos graffito. The mail itself was effective enough as a protection from bladed and blunt weapons. In the case of a mounted fight, most attacks were directed at the head, the hand holding the weapon, or the upper torso of a horseman. Speed and mobility were essential in a mounted fight; a horseman charging at his enemy was probably only able to exchange a few strokes before moving beyond the enemy's reach and recharging. Also, bow shots fired at mobile cavalry troops must have had limited effectiveness. Thus, the mail was in many cases sufficient protection on the battlefield.

A long spear was introduced by Philip II of Macedon[28] as an item of equipment carried by the Macedonian cavalry, a novelty that revolutionized horse combat techniques and enabled an effective fight against infantry. The long spear was then adopted by the Iranians during Alexander the Great's invasion of the Achaemenid Empire, as well as by the tribes of the Great Steppe.[29] It became a

[24] Dio Cass. 40.22; Heliod. 9.15.1; Hdn. 4.30; Plut. *Lucull*. 28.3; *Crass*. 24.3; 25.8; 27.1; *Anton*. 45. 3.

[25] von Gall 1990, Abb. 10; James 2004, fig. 23; Rostovtzeff 1930–31, 216, fig. 22; 1933, PL. XXII, 2.

[26] Goldbaum, Little 1980, 293; James 2004, 42–43, fig. 22.

[27] The belief that mail armor is superior to older types of body armor (scale and lamellar armor), often quoted in the works of modern authors (Bivar 1972, 278; Nicolle 1997, 27; Taffozzoli 1993/1994, 194, Żygulski 1982, 74), does not find any corroboration in the available sources. Its speculative character was pointed out by P. Skupniewicz (2006, 160).

[28] Heckel, Jones 2006, 13–14; Olbrycht 2004, 96; Sekunda 1995, 16–17.

[29] Diodorus clearly writes that while preparing his troops for a new scuffle with the Macedonians, King Darius III ordered that swords and spears be lengthened (Diod. 17.53.1. See Nikonorov 1997, 22; Nefedkin 2006, 15; Sekunda 1992, 92). The first known image of a horseman wielding a

common weapon used by the Iranian heavy cavalry under the Parthians[30] and the Sasanians.[31] During mounted combat, the spears were wielded in both hands[32] because of their length. As shown in the reliefs from Tang-i Ab[33] and Naqsh-i Rustam,[34] which present mounted combat, horsemen strove to hit the enemy's torso, especially the lower part. If successful and in view of the lack of stirrups, the enemy would be literally catapulted from the saddle, which is vividly shown in the reliefs mentioned above. Heliodorus (9.15.16.) also mentions the horse's torso and neck as the targets of the spear attack, as they were the easiest to hit.

Mail could not sustain a hit delivered by a long, heavy spear. The latter's force of attack would increase with the speed and weight of the horse, as well as with the weight of the horseman. It was only scale and especially lamellar armor that, due to the rigid way they were fixed, could somehow minimize the injuries sustained during the spear attack.

Certain analogies, which can shed some light on the structure of the cuirass from Dura-Europos, can be found in Sarmatian military equipment. Fragments of fine scales of different shapes and larger lames, which most likely were fixed to a leather or cloth backing, were found in Russia: in the North Caucasus area, in the Kuban River basin, at the excavation sites "Zolotoe Kladbishche" (Golden Cemetery) in Ladozhskaīa, as well as Nekrasovskaīa.[35] Fragments of large, slightly curved lamellas were found in the area between Kazanskaīa and Tiflisskaīa. They would be fixed horizontally and were additionally covered with fine scales at the top. Basically, all these finds are dated to the first or second century A.D.[36] In Ladozhskaīa scattered scales, larger lamellas, and even pieces of mail were found. In the first case, the finds would suggest that they comprised a combined set of armor, being a combination of small scales and larger, oblong

long spear comes from Koi Krylgan Kala (Khwarezm) and dates to the fourth or the beginning of the third century B.C. (Olbrycht 2004, 146).

[30] Plutarch mentions Parthian spears several times as an important piece of weaponry carried by the Parthian armored cavalry (Plut. *Lucull*. 28.3; *Crass*. 25.8; 27.1; *Anton*. 45. 3).

[31] Long spears are well known from the royal reliefs at Tang-i Ab (von Gall 1990, Abb. 3) and Naqsh-i Rustam (von Gall 1990, Abb. 4.1–4). Tabari (5.964) wrote about their use by the cavalry of Husrav I (A.D. 531–579).

[32] Heliodorus (9.15) mentions the fact that the spears used by the Iranian cavalry were wielded in both hands. This technique of handling the spear finds confirmation in iconographic sources, such as the reliefs from Tang-i Sarvak III (Vanden Berghe, Schippmann 1985, fig. 12, Pl. 46–47), Tang-i Ab (von Gall 1990, Abb. 3) and Naqsh-i Rustam (von Gall 1990, Abb. 4.1–4), as well as in the images from Dura-Europos, such as the painting from the House of Frescos (Goldbaum, Little 1980, 293; James 2004, 42–43, fig. 17 H, 22) and the image of an unarmored horseman (James 2004, fig. 17 H, 22).

[33] von Gall 1990, Abb. 3.

[34] von Gall 1990, Abb. 4.1–4.

[35] Symonenko 2009, 116, 119.

[36] Symonenko 2009, 113, 119, fig. 81–84, 86.

lamellas. Finds from Ladozhskaīa suggest that fine scales could be used to strengthen mail, a practice that was followed by the Sarmatians.[37] There are no extant images from the first or second century A.D. that would show Sarmatian horsemen carrying such sets of armor. Undoubtedly, however, if anyone made a rough and schematic sketch of how they appeared, the effect would be similar to that present in the Dura-Europos graffito. Possibly, then, it is not mail but scales which are depicted in the upper part of the cuirass from Dura-Europos. This has been suggested by some scholars including V. A. Symonenko[38] and M. V. Gorelik[39] (see Figure 3). What is problematic is the difference in depicting scale and mail armor, which are often sketched almost exactly in the same way, which makes proper identification very difficult.[40]

However, there are a few arguments that could be quoted to prove that it is instead mail. There are no sources coming from Parthian-Sasanian Iran that would suggest the presence of fine scales, analogous to the Sarmatian ones. The reliefs from Naqsh-i Rustam[41] suggest that the scales used in Iran were relatively large, with a fishbone in the middle and a spun top, which can be especially well seen in the Naqsh-i Rustam relief.[42] The images of similar scales are also known from the Roman Empire: from Pallazzo Ducale (Mantua),[43] from the tombstone of the centurion Q. Sertorius Festus (at present in a museum in Verona),[44] and from the armor of a Roman soldier depicted on Trajan's Column.[45] This type of scale armor is also attested to archaeologically.[46] Most likely, scale armor was already an archaic weapon in Iran in the third century A.D., but it was still used by the heavy cavalry.[47] It is also possible that

[37] Symonenko 2009, 119, fig. 85.

[38] Symonenko 2009, 119–120.

[39] Gorelik 1995, 9, Pl. 3B.

[40] The image of a mounted bowman having armor, whose horse is partially armored, was found at Dura-Europos. We cannot be sure, though, whether the armor shown is scale or a mail (Rostovtzeff 1933, 215–216, PL. XXI, 3). The image is unusual, and it may shed new light on what we know about the Iranian cavalry in the third century A.D. We do not know, however, if it is the image of a mounted bowman coming from petty nobility, who could nevertheless afford an armor, or rather that of a heavily armored horseman, who would use a bow. According to iconographic sources, the bow was used by both types of cavalry, which is shown in the Parthian and Sasanian reliefs from Tang-i Sarvak III (Vanden Berghe, Schippmann 1985, fig. 12, Pl. 46–47), Tang-i Ab (von Gall 1990, Abb. 3), and Taq-i Bostan (Allan 1986, fig. 17).

[41] von Gall 1990, Abb. 4.1–4.

[42] Herrmann 1977, taf. 1–7.

[43] Robinson 1975, Pl. 450–451.

[44] Robinson 1975, Pl. 442–443.

[45] Symonenko 2009, fig. 77.

[46] Robinson 1975, 173; Symonenko 2009, 112.

[47] Romans used scale armor as late as in the fourth century A.D. (Coulston 1990: 142–143, 147, Fig. 4; MacDowell 1995, picture on page 56).

it was shown at Naqsh-i Rustam[48] due to its symbolic rather than military significance. The apparent symbolism may be due to the fact that scales resembled the feathers of legendary animals known in Iranian mythology: a griffin (Waranga/Warang) or a phoenix (Simurgh).[49] The resemblance is mentioned by Ammianus Marcellinus (24.4.5.). The Iranians would embellish their weapons with a motif of feathers in the late Sasanian period as well.[50]

Fig. 3. Reconstruction of Sarmatian combined armor of the 1st–2nd century AD, consisting of scale and lames, worn over the mail (after Symonenko 2009, fig. 88)

[48] von Gall 1990, Abb. 4.1–4.
[49] Skupniewicz 2006, 153.
[50] Nicolle 1997, 27; James 1986, 117.

Fig. 4. Turkish armor that combines Ottoman features (mail with metal plates strengthening the guard of the lower abdomen) with Mameluk ones (the so called turban helmet), 16th century AD (drawing by R. S. Wójcikowski after Turnbull 2005)

The symbolic, decorative role of scale armor may be indicated by the Tang-i Ab relief,[51] in which the combat equipment of the fighting soldiers is shown in careful detail. The Iranians depicted there have mail and lamellar armor rather than scale armor. Also, the relief of Tang-i Sarvak III, dated to the late Parthian period, shows a heavily armored horseman wearing full and uniform protective gear consisting of a lamellar cuirass, lamellar guards for arms and legs, as well as a set of horse armor.[52] Lamellar armor, consisting of square, relatively large lames, similar to those known from Tang-i Ab, was depicted on a plate that bears the image of a Parthian horseman.[53] Lamellar armor was widely used in Central Asia and in the Far East long after the fall of the Sasanian Empire.[54] Such a long

[51] von Gall 1990, Abb. 3

[52] Vanden Berghe, Schippmann 1985, fig. 12, Pl. 46–47.

[53] Granscay 1963, fig. 11, 12 (the plate is kept at the British Museum).

[54] The images of lamellar armor, dated to the seventh and eighth centuries A.D., are known from the mural in the palace of Panjakent (Transoxiana, at present at the Hermitage Museum). The mural shows square lamellas, similar to those shown in the Tang-i Ab relief (Nicolle 1995, 45, ill. A). The images of lamellar armor, depicted on a silver dish from Malo-Amkovkaīa in Transoxiana (at present at the Hermitage Museum), prove that this type of defensive armor was popular among nomads in the 9th and 10th centuries A.D. (Nicolle, 1995, ill. on page 27). This type of an armor

period of use implies not so much that the Asians were conservative but that such type of body armor provided an effective defense.

As late as in the 16th and 17th centuries the heavily armored Turkish cavalry (*sipahis*) wore body armor which consisted not only of cuirasses but also of guards for arms and legs, made of mail, strengthened at certain fragments, especially at the breast and the lower torso by large or small metal lames (see Figure 4).[55] The outstanding examples of this armor show some affinity with those depicted in the graffito of Dura-Europos. The affinity is warranted, as the fall of the Sasanian Empire and the conquest of Iran by the Muslims did not mean the end of the influence exerted by the Iranian military culture on neighboring countries and peoples, which would then conquer Iran at later dates. The Iranian art of war was so attractive that Sasanian inspiration can be traced in armor and weaponry used by various armies of Islamic countries, which extended their rule to the Eranshahr empire and those countries which were under its more or less direct influence. A Turkish helmet of the 16th century (see Figure 4) clearly bears some affinity to the helmet shown in the relief of Taq-i Bostan, dated to the sixth century A.D.[56] By no means is the affinity accidental.[57]

The above examples clearly justify the presence of mail in the reconstruction of the cuirass from Dura-Europos. At the time, though, both types – mail and scale armor – most likely existed side by side. As indicated by the Sarmatian relics described above, the second type can be related to the steppe culture. Considering the long tradition of metallurgy in Iran, Iranian armor sets must have had excellent quality. It was likely that Iranian mail was made more carefully and the wire used had a better quality. Thus, they were more durable, which in turn made them more popular among the Iranians rather than among the Sarmatians. Implicitly, this can be illustrated by examples of Turkish armor, which must have been dependent on the Parthian-Sasanian tradition, still very much alive. Despite the fact that fragments of mail have been found at Sarmatian burial sites, iconographic sources, including the famous Trajan's Column and the images of the Sarmatians from Panticapaeum (the Crimea, modern Ukraine),[58] invariably show them in scale or lamellar armor, which proves that they were more popular. The question arises about the origins of hybrid cuirass: it is not clear whether it took its origin in the steppes or rather in Iran. It is worth stressing that

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was also used by the heavy Mongolian cavalry (Turnbull 1996, picture on page 26; Turnbull 2003, photo on page 10). An example of lamellar armor, dated to the 17th century A.D. and preserved in a excellent condition, comes from Tibet (Turnbull 2003, photo on pages 13–14).

[55] Nicolle 1995, ill. A-C on page 10, photo on page 12; Turnbull 2005, 18, photos on pages 15, 73.

[56] Allan 1986, fig. 17.

[57] Żygulski 1982, 132.

[58] Negin 1998, Fig. 1–3, Pl. 1.

in view of the scarce and fragmentary evidence, possible answers will be purely speculative and necessarily cannot be fully vindicated.

The steppe theory may be corroborated by the surviving fragments of body armor, which in their structure combine fine scales and larger lamellas ones, such as the ones discovered in Kazanskaīa and Tiflisskaīa,[59] as well as in Ladozhskaīa and Nekrasovskaīa.[60] One cannot underestimate the impact of the warfare practiced by the nomads on Arsacid and Sasanian Iran.[61] Thus, it cannot be ruled out that also in this case the Iranians adopted the Sarmatian cuirass. This could be the result of various, long-standing contacts between the Iranians and the peoples of the Great Steppe, inevitable owing to their immediate geographical proximity. However, it is also possible that it was the Iranians themselves who invented the cuirass under the Arsacids, and the appearance of the scale cuirass should be related to the process of gradual adaptation of mail armor for use by heavy cavalry. This is suggested by a few details. In the third century A.D. it was still lamellar and scale armor that dominated in the Parthian cavalry. Iconographic (Tang-i Ab)[62] and archeological (a fragment of an Iranian mail from Dura-Europos)[63] sources indicate that an extended version of mail armor, consisting of a tunic with long sleeves, was still known in the third century A.D. What is more, it is an original Iranian version of mail, different from its Roman or Celtic counterparts.[64] This may imply that in the period between the first century B.C. and the first century A.D. mail armor was gradually adopted. This must have been related to the appearance of interim versions, combining the elements of mail armor and lamellar or scale armor, which had been used thus far. The cuirass from Dura-Europos could have been such an interim version, effective enough to stay on even after the appearance of full mail armor.

This assumption is quite consistent with the date of the Sarmatian finds; they all come from the first and second centuries A.D. Assuming further that the hybrid cuirass is of Parthian origin, one can speculate that its Sarmatian counterparts might have been imports or imitations of Iranian objects. This may be suggested by the presence of characteristic, curved metal fragments among Sarmatian relics, which are interpreted as underarm framings,[65] similar to those present in the Roman scale armor found in Lake Trasimeno and dated to the fourth cen-

[59] Symonenko 2009, 119, fig. 81–84, 86.

[60] Symonenko 2009, 116, 119.

[61] The significance of the influence of steppe motifs on the Parthian warfare is stressed by V. P. Nikonorov (Nikonorov 2005, 141–142; Nikonorov 2010, 43–44), M. Mielczarek (Mielczarek 1993, 58), and M. J. Olbrycht (Olbrycht 2001; Olbrycht 2003; Olbrycht 2010).

[62] von Gall 1990, Abb. 3.

[63] James 1986, 120.

[64] Robinson 1975, 164, Pl. 459; Symonenko 2009, 127, fig. 97.

[65] Symonenko 2009, 119.

tury A.D.[66] In the Parthian case, this part of the armor served to attach laminar brassards,[67] widely used in Iran, which were adopted by the Romans under Emperor Trajan,[68] but which seem to have been unknown among the Sarmatians. In the case of Sarmatian body armor, the curved metal fragments did not play any combat role. They were purely decorative, as they did not improve armor's defensive features. This may indicate that the armor type originated outside the Sarmatian environment. In possibly following the Parthians, the Sarmatians created their own model by replacing mail with scales and sometimes attaching scales to mail. Although it could strengthen the armor in its own right,[69] it is equally possible that it was done chiefly to decorate the cuirass. The combination was not very effective in combat, which may be proven by the fact that contrary to the combination of mail and lamellas it never gained any popularity. Among the Sarmatians this kind of cuirass could have a connotation of prestige, emphasizing the social rank of the wealthiest warriors. It was definitely not used on a mass scale.

The hybrid armor of the type shown in the graffito from Dura-Europos, i.e., armor that shared flexibility and airiness of mail and durability of lamellar armor, must have enjoyed widespread popularity among the Iranian troops. This is also suggested by the graffito itself, which most likely presents typical body armor worn by the Iranian cavalry or an artistic version of such armor. The appearance of a new type of cuirass in about the first century A.D. is probably related to the fact that the Parthians developed their own type of mail armor. Thanks to its considerable combat effectiveness, it became quite popular and was also used under the Sasanians. While describing Persian body armor, Julian the Apostate (Jul. *Orat*. 1.30.15–28) and Libanius (Lib. *Orat.* 59.70) pay attention to its flexibility and its structure, which was a combination of a bronze lames and steel mail. As the descriptions are not specific enough, they can apply to more or less all types of armor used in Iran at the time. In Ottoman Turkey and in other Muslim countries, the heavily armored cavalry used hybrid armor as late as in the 16th and 17th centuries. Possibly, the new type of cuirass was adopted by the Sarmatians at some point still in the late Parthian period, but it seems that it never became popular there.

The role of the cuirass from Dura-Europos raises questions about the origin of such protective equipment such as the *yushman*, consisting of horizontal lames guarding the breast, embedded in mail, and the *bekhter,* made of small,

[66] Robinson 1975, Pl. 434–435.

[67] Robinson 1975, Pl. 434–435.

[68] Roman soldiers wearing scale armor and laminar brassards are shown in Tropaeum Traiani at Adamklissi (modern Romania) (Robinson 1975, Pl. 446–447).

[69] Symonenko 2009, 119.

elongated lames composing a cuirass, joined by mail rings.[70] They came into use because there was a need to strengthen mail, vulnerable to attacks by means of blunt weapons and various types of spears, and to make armor flexible and stiff. Most likely their origins go back much further than has thus far been assumed. One should also reconsider the role of Iran under the Parthians and the Sasanians, who developed a very attractive military culture exerting influence – often underestimated and passed over in silence in modern studies – on the art of war of other peoples and countries coming into direct or indirect contact with the civilization.

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[70] Żygulski 1982, 133.

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Abstract

The graffito from Dura-Europos depicting a heavily armored cavalryman is one of the most important sources used to reconstruct the armament of Iranian cavalry units seen in the middle of the third century A.D. The graffito presents a hybrid cuirass that is composed of mail and lamellas. It was probably originally an Iranian construction. The use of hybrid armor should be connected with the process of the adaptation of mail in the Parthian empire and then adjusting this new type of body armor to the realities of cavalry combat. The new hybrid cuirass served its purpose well. It not only survived the Parthian era but also the Arabic conquest of Sasanian Iran in the middle of the seventh century A.D., which is evidently demonstrated by the fact that it was present in the military equipment of Muslim armies in the 16th and 17th centuries A.D.