

A Roman box-shaped chape from Jadowniki Mokre (Lesser Poland) and similar finds from the Roman Empire and European Barbaricum

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Introduction

In the Younger and Late Roman Periods (c. AD 160–350 / 375), military equipment of the Barbaricum population included numerous Roman types of sword¹. Roman artefacts are frequent among the weaponry of the Przeworsk culture population, occupying what is now central and southern Poland. The *spatha* is the most characteristic Roman sword type² of this time period. *Spathas* became widespread in the Roman Empire after the army reforms introduced by Emperor Gallienus³. In the graves of Przeworsk culture warriors, these swords are only sporadically accompanied by metal scabbard elements, such as chapes, suspension loops or throats, which were also sometimes Roman imports. Among these rare finds are Roman box-shaped chapes, which have previously only been found in the cemetery at Opatów, Śląskie province, site 1, grave 1186⁴.

The purpose of this paper is to present another example of this highly interesting type of military object discovered in a Przeworsk Culture necropolis at Jadowniki Mokre, Małopolskie province. The classification of these box-shaped chapes will also be described, whose many variants were produced by Roman and barbarian craftsmen and were sometimes extremely decorative. In the context of these finds, the crucial problem of Roman weaponry importation to the Barbaricum will be discussed. This is of significance for the debate on both the Romano-Barbarian relationship across the border and the socio-political organisation of barbarian tribes.

The chape from Jadowniki Mokre

Among several cremations excavated from Jadowniki Mokre, site 1⁵, pit grave 9, where the above-mentioned chape was found, deserves particular attention. The analysis of tiny,

¹ SCHULZE-DÖRLAMM 1985; v. CARNAP-BORNHEIM 1991; GODŁOWSKI 1992; ID. 1994a; KACZANOWSKI 1992; ID. 1994; BEMMANN / HAHNE 1994; v. CARNAP-BORNHEIM / ILKJAER 2000; BIBORSKI / KACZANOWSKI 2001; BEMMANN 2003a; ID. 2007; BIBORSKI 2004; BIBORSKI / ILKJAER 2006a; v. CARNAP-BORNHEIM / MATEŠIĆ 2007; MIKS 2007; BIBORSKI / KOLENDO 2010; RAU 2012.

² BIBORSKI 1978; GODŁOWSKI 1992; ID. 1994a; KACZANOWSKI 1992; BIBORSKI / KACZANOWSKI 2005.

³ E. g. v. DOMASZEWSKI 1908; GROSSE 1920; OLDENSTEIN 1977, 122 ff.; MARTIN-KILCHER 1985, 158.

⁴ GODŁOWSKI / MADYDA 1976, 37 fig. 1,e; GODŁOWSKI 1979; KACZANOWSKI 1992, 47 f. fig. 12,1; MADYDA-LEGUTKO et al. 2011a, 237 f.; 2011b, plate CCCLXVI,2.

⁵ The site was excavated by the expedition from the Institute of Archaeology of the Jagiellonian University (JU) in the years 2006–2008.

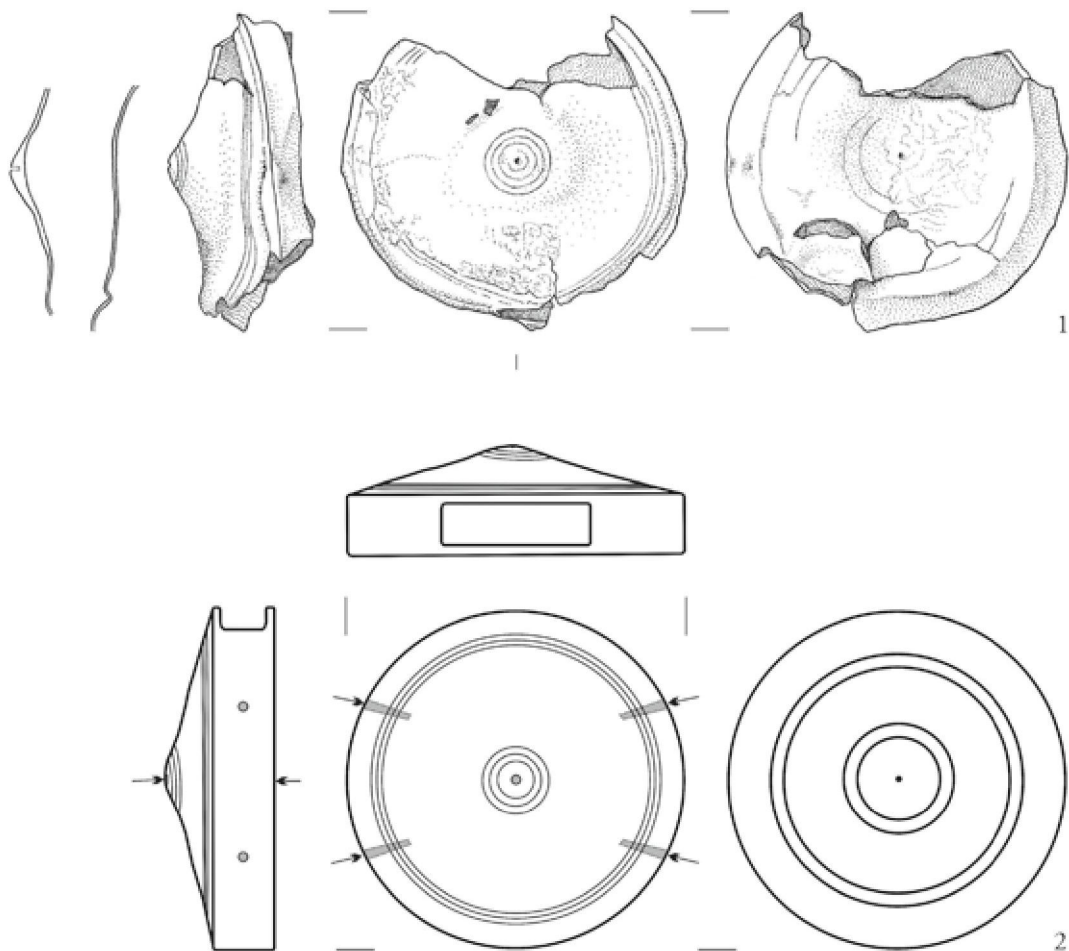


Fig. 1. Jadowniki Mokre (PL), grave 9. 1 bronze box-shaped chape;
2 reconstruction. – Scale 1 : 2 (drawing M. Grygiel).

badly burned human bones from this grave revealed that they belonged to a child aged *infans* II⁶. Moreover, the presence of a few burned animal bones was recorded, including a fragment belonging to a pig⁷.

Nearly all the grave offerings from grave 9 bear traces of ritual destruction and exposure to fire. Apart from the box-shaped chape (*figs* 1; 2), they include four fragments of an iron shield boss with a hemispherical bowl (*fig.* 3), which refers to J. Ilkjaer's type 6a or 6c⁸; two iron spurs (*fig.* 4, 1.2) with slender, faceted spikes, similar to J. Ginalski's type G1⁹; an iron fire striker (*fig.* 4, 3); a deformed glass bead of dark blue colour perhaps similar to the

⁶ The osteological analysis was performed by Anita Szczepanek from the Collegium Medicum, JU.

⁷ The archaeozoological analysis was performed by Danuta Makowicz-Poliszot from the Institute of

Archaeology and Ethnology of the Kraków branch of the Polish Academy of Sciences.

⁸ ILKJAER 1990, 330.

⁹ GINALSKI 1991, 67–70.

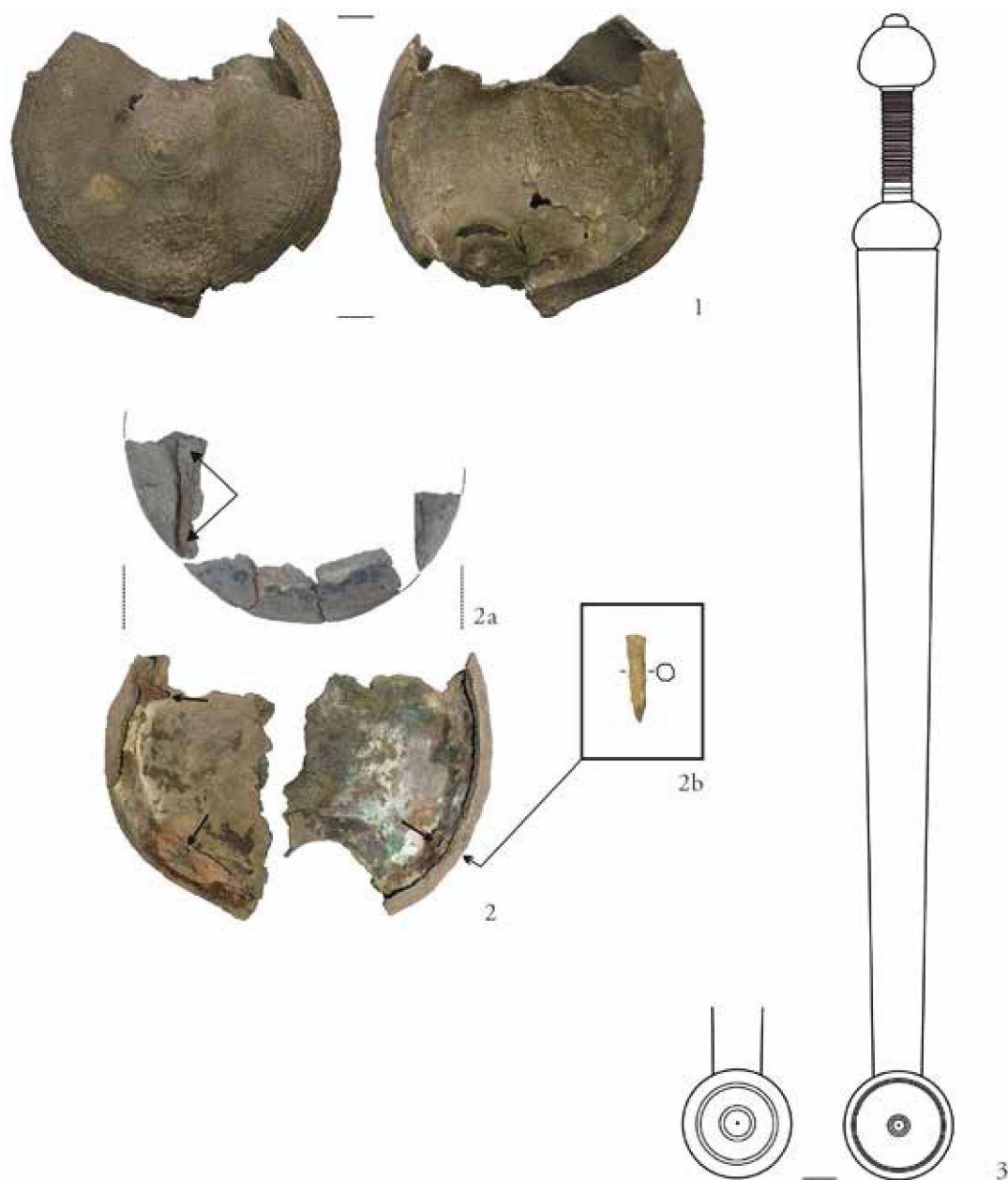


Fig. 2. Jadowniki Mokre (PL), grave 9. 1 bronze box-shaped chape (after conservation); 2 the inside of the chape, before conservation: a clay filling; b iron nail stabilising the filling; 3 reconstruction of a scabbard crowned with a box-shaped chape. – 1–2a Scale 1 : 2; 2b Scale 1 : 1; 3 Scale 1 : 6 (drawing and photos M. Grygiel).

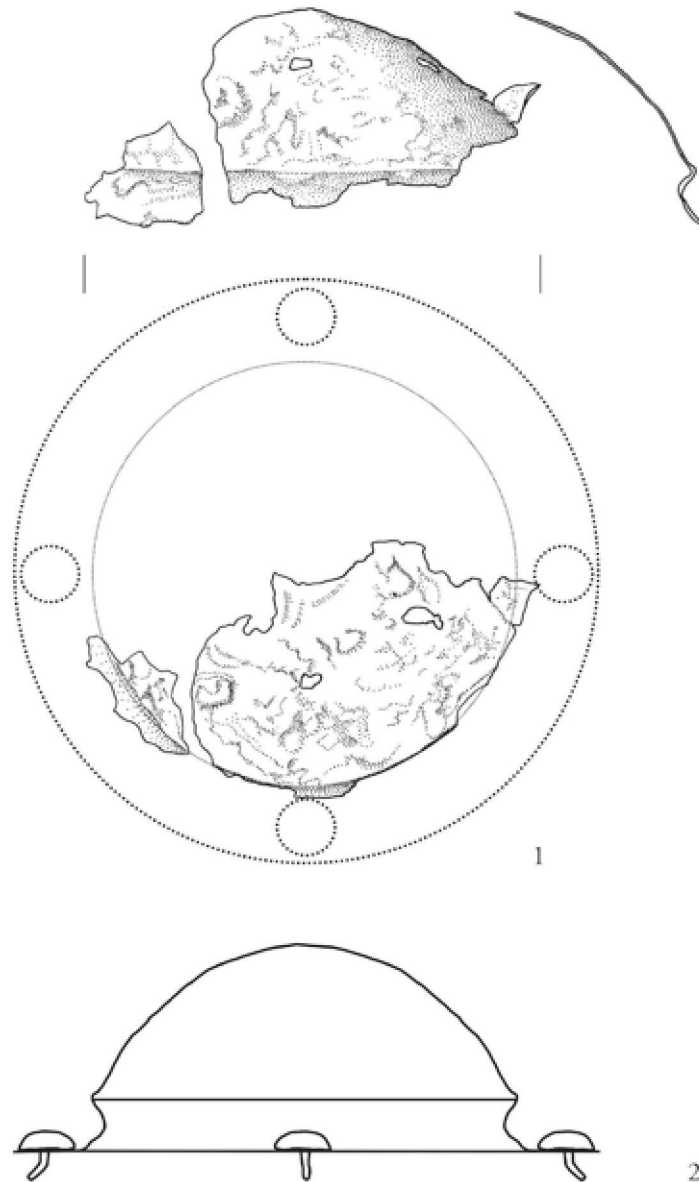


Fig. 3. Jadowniki Mokre (PL), grave 9. 1 iron shield boss; 2 reconstruction. – Scale 1 : 2 (drawing M. Grygiel).

specimens representing group XV, type 135, in the classification of M. Tempelmann-Mączyńska¹⁰ (*fig. 4,4*); an iron rivet with a round head, probably belonging to the boss (*fig. 4,5*); as well as fragments of a carefully manufactured handmade vase with a handle, decorated with two cordons in the upper part (*fig. 4,6*), and several other, uncharacteristic fragments of handmade vessels.

¹⁰ TEMPELMANN-MĄCZYŃSKA 1985, 38 f.

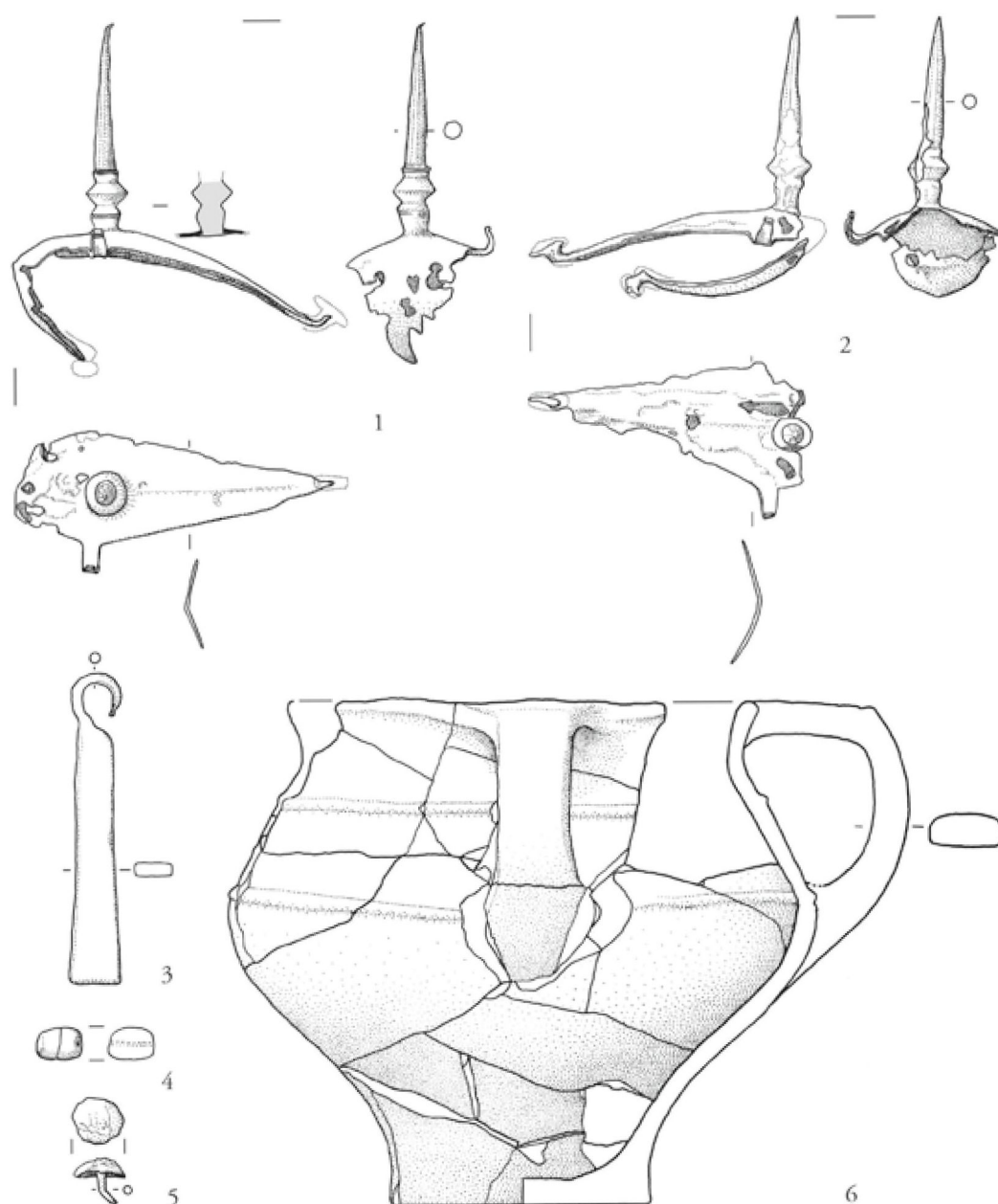


Fig. 4. Jadowniki Mokre (PL), grave 9. Further grave inventory. 1–3, 5 iron; 4 glass; 6 pottery. – Scale 1 : 2 (drawing M. Grygiel).

The chape from grave 9 was made from bronze¹¹, probably using the lost wax technique, and finished on a turning lathe, as is shown by traces of ideally concentric circles on the front (convex) part of the chape and a number of rounded marks left by the lathe on the rear (flat) side. Traces of a centre hole can be seen on both sides of the chape¹². The artefact is slightly deformed and partially melted. Significant fragments are missing, which may be due to its ritual destruction and burning on a pyre (*figs 1,1; 2,1*).

The chape is 92 mm in diameter. It is 12 mm thick at the edges and 20 mm in the thickest place. The present weight of the artefact is 97.25 g, but it may have originally weighed between 110 g and 120 g. Its walls are approximately 1.2 mm thick. In the middle of the front part of the aforementioned hollow, a trace of a centre hole can be seen, as well as two groups of incised concentric circles. In the damaged part of the chape, there was originally an aperture, perhaps rectangular, which served for attaching the chape to the scabbard. Four iron nails, each approximately 1 cm long, were driven into the chape (*fig. 2,2b*). Some of them were lodged in a mass of hard, fired clay that filled the inner lower portion of the chape. The remains of an unidentified organic substance, perhaps a kind of glue, and a clearly visible imprint of a wooden scabbard were recorded on the clay's surface (*fig. 2,2a*).

Roman box-shaped chapes

Roman cast bronze box-shaped chapes are extremely rare artefacts. Much more common are similar specimens forged from iron, silver chapes and those carved from animal bone; ivory chapes in particular were highly valued by the Romans¹³.

The best analogy for the chape from Jadowniki Mokre is the chape discovered in the former Roman province *Britannia Superior*, at the Roman camp in Pevensey (*Anderitum*) in East Sussex, UK (*fig. 5*)¹⁴. It was discovered accidentally during drainage work in 1940, together with a sword of the 'Ringknaufschwert' type and *denarii* of Emperor Commodus. However, it seems unlikely that this assemblage was chronologically homogenous, given the accidental discovery and complicated further history of the artefacts, which have only recently been bought by the British Museum¹⁵. The one-piece chape from Pevensey, 74 mm in diameter, was cast in bronze in a manner similar to the chape from Jadowniki Mokre. It has similar thick walls, with a layer of tin visible on the lightly domed front side. The rear flat side and the edge are strongly worn out. On both sides of the chape there are groups of perfectly concentric circles made during lathe turning. There is an aperture in the central part, most likely for a rivet attaching the chape to the

¹¹ The analysis of the chemical composition has revealed the presence of the following elements in the raw material from which the chape was manufactured: Cu 84,78 %; Sn 6,94 %; Pb 6,26 %; Zn 1 %; Fe 0,32 %; Mo 0,3 %; Sb 0,18 %; Ag 0,13 %. Other elements were present only in trace amounts (less than one-hundredth percent). This shows that the chape was made from tin-lead bronze to which lead was intentionally added to improve the metal's running quality and structure. The analysis was performed by Marcin Biborski in the Laboratory of Research on Ancient Metallurgy of the Institute of Archaeology, JU (sample no 1/14).

¹² Traces of a centre hole in the form of a shallow cavity in the central part of an object can always be seen in objects worked using swivel devices such as a lathe or spinning-spoon.

¹³ MIKS 2007, 345–367.

¹⁴ The authors would like to thank Ralph Jackson, Curator of Romano-British Collections Department of Prehistory and Europe at the British Museum for making the Pevensey chape available for publication.

¹⁵ JACKSON 2004a; ID. 2004b; MIKS 2007, 587 plate 44,A191; 253,A191; ID. 2009, 155 fig. 14,61; LANG / JACKSON 2015, fig. 2.

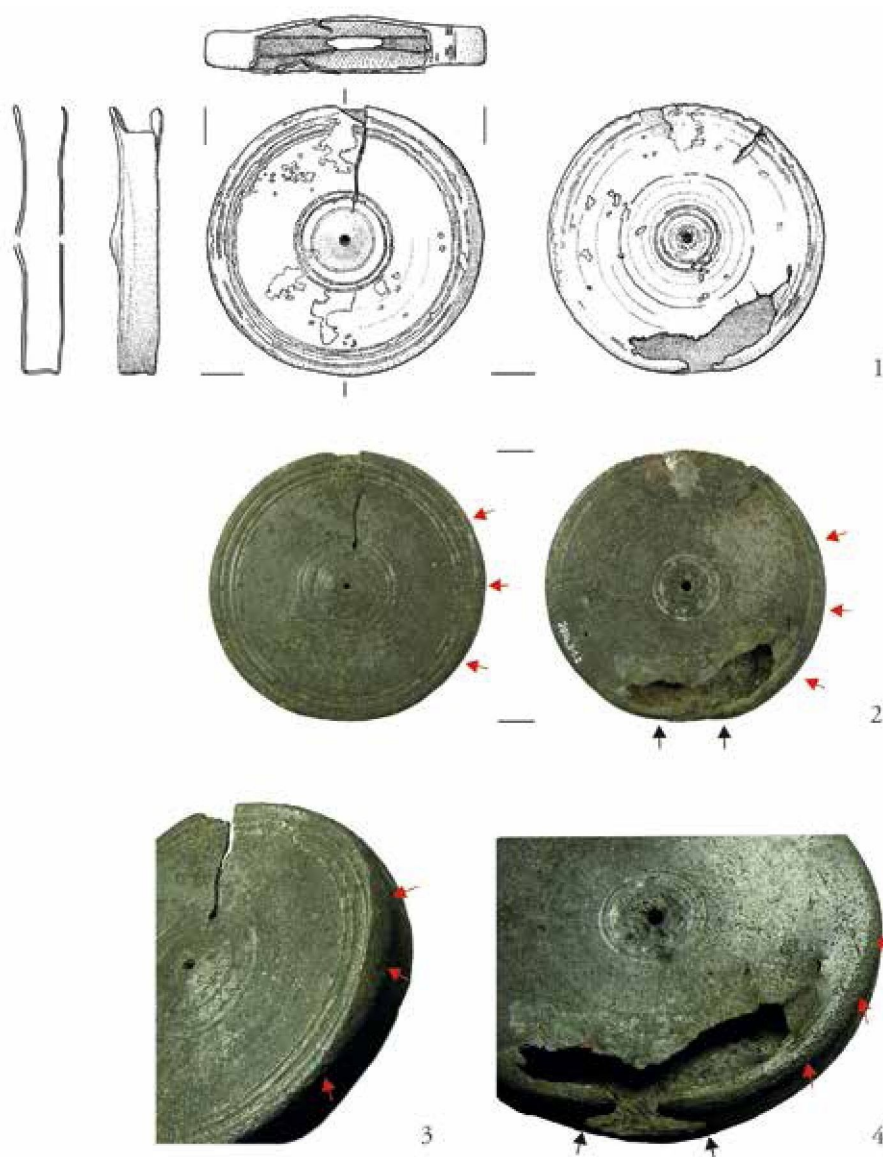


Fig. 5. Pevensey (GB). Bronze box-shaped chape (drawing and photo M. Grygiel). – 1–2 Scale 1 : 2; 3–4 no scale.

wooden body of a scabbard. In the upper part of the chape, there is a deformed, originally rectangular mouth for a scabbard, 4 cm x 0,8 cm wide. Particular attention should be paid to the traces of wear that are visible in two places at the edge of the chape, and two perforations with rounded edges in the lower part of the artefact, also resulting from wear (*fig. 5.3.4*). This kind of damage, also known from other Roman chapes¹⁶, can be

¹⁶ E. g. RADDATZ 1987, plate 13,5.8.14; BEMMANN / BEMMANN 1998b, plate 68,664; 69,671; BI-

BORSKI / ILKJAER 2006b, 274 fig. ABCO2; 275 fig. WUQ, ZFH; ORTISI 2008, fig. 1.

interpreted as evidence of long-term use, resulting from dragging the scabbard on the ground or its wearing off during horse riding. The significant wearing of the surfaces of the Pevensey chape indicates long-term and intensive use. The small scabbard aperture would fit a sword with a relatively narrow blade and narrow point of a sword type different from the sturdy 'Ringknaufschwert' type discovered at Pevensey. It seems much more likely that the Pevensey chape belonged to a scabbard for a *spatha* with a slender, tapering blade, tipped with a short, arched point, perhaps representing the Woerden-Bjärs or Vimose-Ilkerup type¹⁷.

Roman box-shaped chapes differ not only in material, but also in their size, the shape of their walls, their technique of manufacture and their decoration. The latter can sometimes be quite complex and impressive and recall the decoration known from other Roman metal objects of that period: silver vessels, belt fittings or knobs used as baldric fasteners, for example¹⁸. There are no two chapes with identical decoration and specimens with very similar ornamentation are extremely rare (e. g. Pevensey – Jadowniki Mokre). The ornamental motifs decorating two sides of a single chape are also usually different. This may, on one hand, indicate a producer's freedom in manufacturing this type of object but, on the other, may mirror the individual tastes of purchasers, who are commonly believed to have been Roman soldiers.

These differences allow us to distinguish three basic types of chapes on the basis of material: those made of non-ferrous metals (Type A), those made of iron (Type B) and those made of animal bone (Type C). Within these types, further variants can be distinguished that differ in the technique of manufacture and decoration.

Type A – chapes made from non-ferrous metals¹⁹:

A1 – silver, niello or niello and gold plating.

A2 – bronze, plating and inlay.

A3 – bronze, with relief ornamentation.

A4 – bronze, with punched and incised ornamentation.

A5 – bronze, undecorated or with incised circles.

Type B – iron chapes:

B1 – inlaid with non-ferrous metals.

B2 – plating and inlay.

Type C – chapes made from animal bone:

C1 – made from ivory.

C2 – made from bone or horn.

Among the most diverse chapes of type A, large, silver chapes of the A1 variant deserve particular attention. They consist of a round rear plate hammered together with an edge, to which a lid (cover) is soldered, or they are made of three parts soldered to each other – a front plate, a back plate and a ribbon that forms the edge. The entire chape was covered by

¹⁷ BIBORSKI / ILKJAER 2006a, 206–236.

¹⁸ Cf. MARTIN-KILCHER 1985, 164–174; ID. 1999; BIBORSKI 1997; BIBORSKI / QUAST 2006; MIKS 2007, 345–364.

¹⁹ Chapes of type A, conventionally described as bronze, may also include those made from other types of copper alloys, e. g. brass. The only way they can be distinguished is on the basis of specialist analyses.

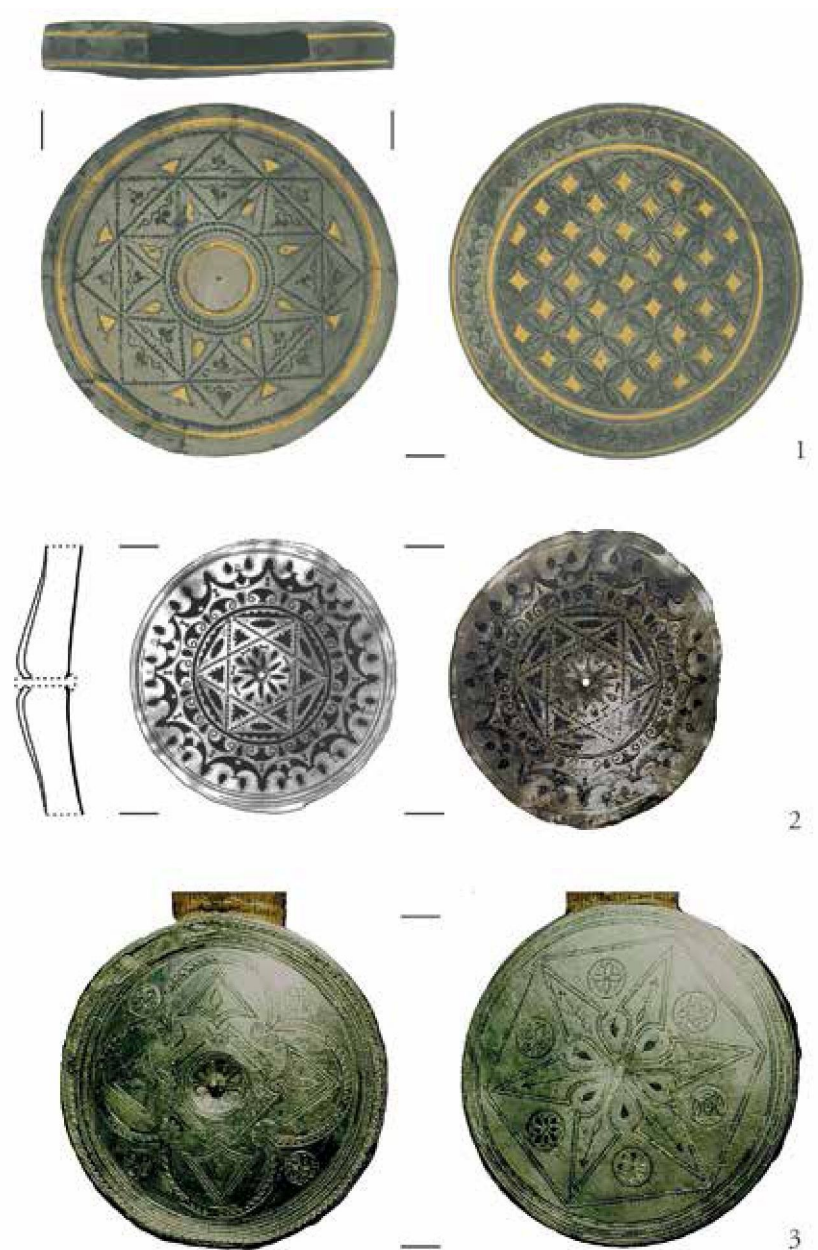


Fig. 6. Roman box-shaped chapes of variant A1. 1 Cologne-Severinstor (D), grave (after LINDENSCHMIT 1900); 2 Augst (CH), *insula* 29 (after MARTIN-KILCHER 1985); 3 Silistra (BG), grave from 1968 (DUMANOV 2013). – Scale 1 : 2,5.

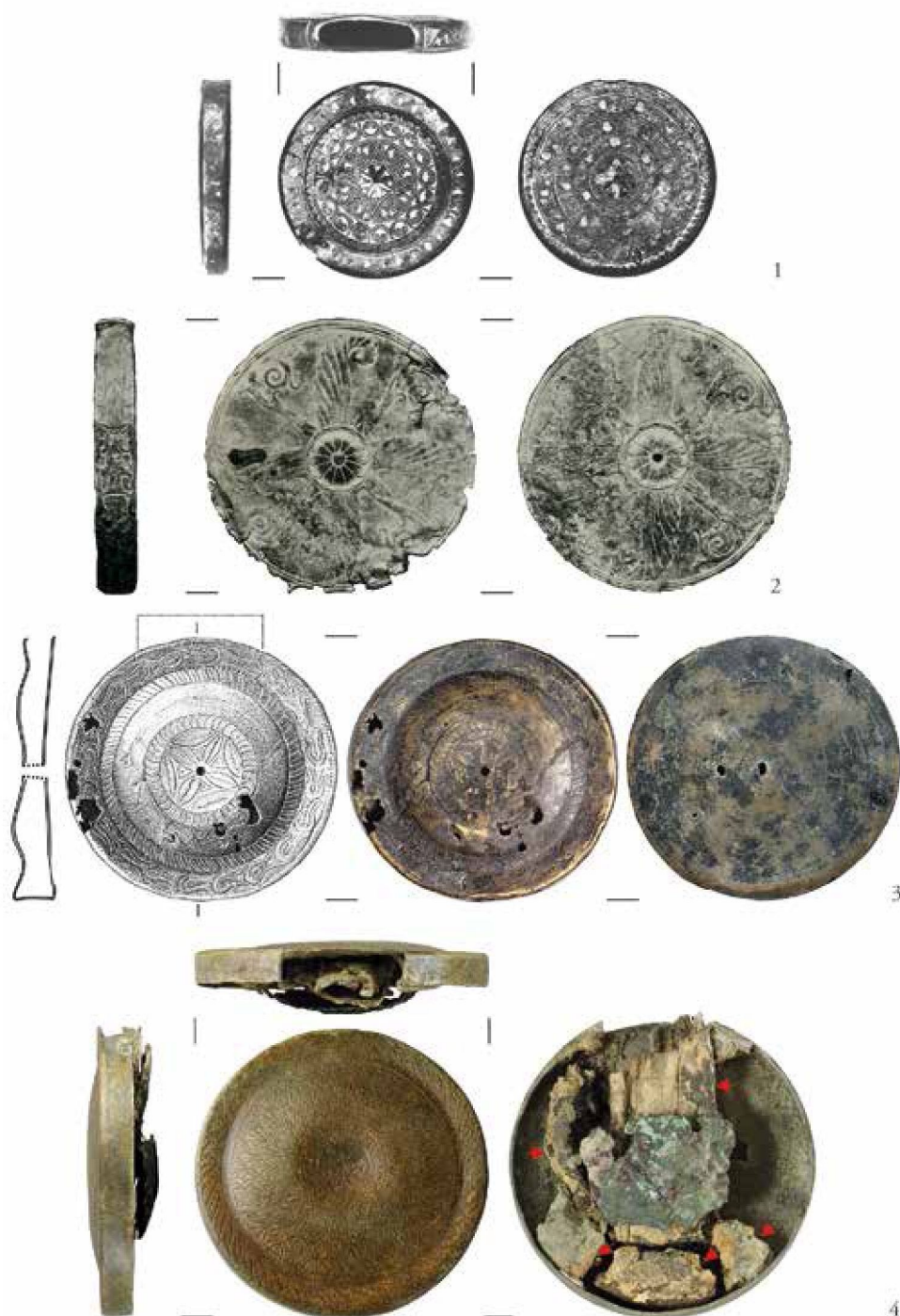


Fig. 7. Roman box-shaped chapes of variants A2 (1), A3 (2), A4 (3,4). 1 Willanzheim-Hüttenheim (D) (after MARTIN-KILCHER 1999); 2 Cologne-Bayenthal (D) (after STJERNQUIST 1955); 3 Rimburg (D) (drawing A. Smadi, photo Ph. Gross); 4 Nijmegen (?) (NL), Museum Het Valkhof in Nijmegen (photo Th. van de Ven).
– Scale 1 : 2,5.

lavish geometric and vegetal decoration. While such chapes are rare, a very well-preserved chape was found in the grave of a barbarian officer serving in the Roman army²⁰, in Cologne-Severinstor (*Colonia Claudia Ara Agrippinensium*), Germany. The chape is decorated with geometric and floral motifs executed in the niello technique and is partially gold-plated, with a heart-shaped pattern on the edge²¹ (*fig. 6,1*). The chape in question is one of the largest and most impressive that has been found to date, exceeding 110 mm in diameter. Fragments of an only slightly smaller chape of the A1 variant, made of high quality silver, were found at Augst, Kanton Basel-Landschaft (*Augusta Raurica*), Switzerland, within *insula* 29. The front plate, decorated with geometric-floral niello motifs, has an aperture in the middle for a rivet that attached it to the backing of the scabbard²² (*fig. 6,2*). A chape of the same type was discovered at Silistra (*Durostorum*), north-eastern Bulgaria, in a rich grave of a Roman army officer, who probably had the rank of *ingentia auxilia Germanorum*. As in the Augst chape, this chape was attached to a wooden scabbard with a centrally placed rivet. The chape's convex plates are covered with geometric and vegetal motifs in niello. The same technique was also applied to decorate the chape's edge with a fanciful ornament featuring pelta-shaped motifs²³ (*fig. 6,3*).

The A2 variant is represented by a one-piece cast bronze chape from Willanzheim-Hüttenheim, Kr. Kitzingen (Germany), richly decorated with gold and silver inlays and floral and geometric appliqué²⁴ (*fig. 7,1*). The appliqué were attached to the chape's walls using a technique similar to plating, which has also been recorded on some of the iron box-shaped chapes²⁵ (specimens of variant B2 – further description below).

A unique richly-decorated bronze tripartite example of the A3 variant was found in Cologne-Bayenthal (Germany). Its plates and ribbon are covered with fanciful convex ornamentation featuring vegetal and geometric motifs²⁶ (*fig. 7,2*). The patterns decorating the plates are identical, which suggests it might have been executed by means of casting.

A silver- or tin-plated bronze chape from Rimburg, Kr. Heinsberg (Germany), of the A4 variant, is a particularly rare find²⁷. It consists of a flat plate with a rim and a concave-convex cover soldered to it. The cover is decorated with incised and punched vegetal-geometric motifs, rendered with tiny punctures and strokes. The execution of the ornamentation recalls some of the *punctum* inscriptions and figural representations of Roman gods known from other elements of weaponry, such as armour, helmets, shield bosses and swords²⁸. In the central part of the cover, there is an aperture for a rivet attaching the chape to the scabbard (*fig. 7,3*)²⁹.

²⁰ BEHRENS 1919, 1 f. fig. 1; BÖHNER 1965, 144 fig. 2; OLDENSTEIN 1977, 110 f.; MARTIN-KILCHER 1993.

²¹ LINDENSCHMIT 1900, plate 57; MARTIN-KILCHER 1985, 154 ff. fig. 6; ID. 1993, fig. 1,2.

²² MARTIN-KILCHER 1985, 150–154 fig. 3; 4.

²³ VASILEV / MITANOV 1974, 41 f. fig. 11,22,23; DUMANOV / BACHVAROV 2010, plate I; II. The authors would like to thank Boyan Dumanov from the New Bulgarian University for good quality photos of chapes from Silistra.

²⁴ PESCHECK 1977, fig. 24; MARTIN-KILCHER 1999, fig. 11,2; BIBORSKI / QUAST 2006, 569 no 30 fig. 5,2.

²⁵ BIBORSKI / QUAST 2006, 564.

²⁶ STJERNQUIST 1955, 115, plate 41,1; MIKS 2007, 829 plate 253,B146.22.

²⁷ HUNDT 1953, 71; MIKS 2007, 884 plate 253,B293.2; ORTISI 2008.

²⁸ KLUMBACH 1961; 1966, fig. 5; THOMAS 1970; UNZ / DESCHLER-ERB 1997, 27 plate 26; BIBORSKI / GRYGIEL 2014.

²⁹ The authors would like to thank Salvatore Ortisi from the University of Cologne for good quality drawings and photos of the chape from Rimburg.



Another richly-decorated bronze chape of the A4 variant, of unknown provenance (perhaps Nijmegen), is kept in the collection of the Museum Het Valkhof in Nijmegen, Prov. Gelderland (Netherlands) (inv. no 1.3.27)³⁰. Its flat-convex cover was cast together with the rim and bears engraved and stamped ornamentation of vegetal-geometric motifs³¹. The back plate, of which only a small fragment was preserved, was soldered to the edge of the chape. The surface of the artifact shows clear traces of wear with remnants of glossy metal – probably tin or silver (*fig. 7,4*).

The last variant of chapes made from non-ferrous metals is the A5 variant, which were made of one piece of cast bronze. They are undecorated or only decorated with concentric incised circles, probably the result of lathe working. To this variant belong, among others, the chapes from Jadowniki Mokre and Pevensey, which were presented in detail above, chapes from Dura Europos (Syria)³² and Banasa Valentia (Sidi-Ali-Bou Djenoun) (Morocco)³³, as well as a chape of unknown provenance kept in the private collection of H. von Grawert in London (UK)³⁴. One more bronze chape, most likely of the A5 variant, was recently accidentally discovered at the outskirts of Peterborough, Cambridgeshire (UK), near the well-known archaeological site Flag Fen³⁵.

Most commonly, Roman box-shaped chapes were made of iron and thus belong to type B. These are usually tripartite and decorated on both sides. As noted above, chapes bearing inlaid decoration of non-ferrous metals, which contrasted with the background of iron, have been distinguished as variant B1 (*fig. 8*). The inlay was usually made by hammering thin threads of metal foil (such as silver, copper, bronze or brass) into the previously engraved or etched design. On the engraved pattern, as well as on inlaid material, small densely-spaced “teeth” for attaching the inlays and giving them a more varied appearance are sometimes visible³⁶ (*fig. 8,1.2*). In some cases, engravings could be inlaid with silver paste. This kind of decoration was probably used to finish specimens with relatively small diameter, covered with dense and complex “tooth”-free engraving. Type B1 chapes vary in diameter, with both sides flat or convex, or with a combination of flat back plate and domed or concave-convex front plate. The surfaces are decorated with geometric-floral motifs and the patterns on the chape’s front and back are different. Ornamentation referring to that on the plates often is visible on the ribbons that join the two plates and form the edge. Numerous B1 type chapes are known from both the Roman Empire and from European Barbaricum. Among the lat-

³⁰ The chape was bought by the Museum from an antiques tradesman in 1927. The authors would like to thank Louis Swinkels, Curator of Archaeology, Museum Het Valkhof, for the permission to publish new photographs of this artefact.

³¹ STJERNQUIST 1955, 113 plate 41,2; SCHULZE-DÖRLAMM 1985, 561; MIKS 2007, 815 plate 253,B100.71.

³² JAMES 2004, 156 no 571 fig. 91.

³³ BOUBE-PICCOT 1994, 163 no 335 plate 37.

³⁴ MIKS 2007, 815 plate 253,B100.72.

³⁵ The information about this unpublished discovery we owe to Helen Fowler (Portable Antiquities Scheme Finds Liaison Officer – Cambridgeshire). Another one or two box-shaped chapes possibly of A5 variant are kept in private collections (FISCHER 2012a, 189 fig. 261,2.3).

³⁶ HUNDT 1953, 69; GALL 2006, 271.

← Fig. 8. Roman box-shaped chapes of variant B1. 1 Illerup Ådal (DK) (after BIBORSKI / ILKJAER 2006); 2 Vodic pri Kalcah (SLO) (after PFLAUM 2007); 3 Opatów (PL), grave 1186 (drawing after MADYDA-LEGUTKO et al. 2011, photo before conservation); 4 Palmyra (SYR) (after PLOYER 2010); 5 Skedemosse (S), Statens historiska museum (photo John Ljungkvist); 6 Grabice (PL), grave 1, Mus. Vor- u. Frühgesch., Staatl. Museen zu Berlin – Preuß. Kulturbesitz (drawing after HUNDT 1953, photo C. Plamp). – Scale 1 : 2,5.

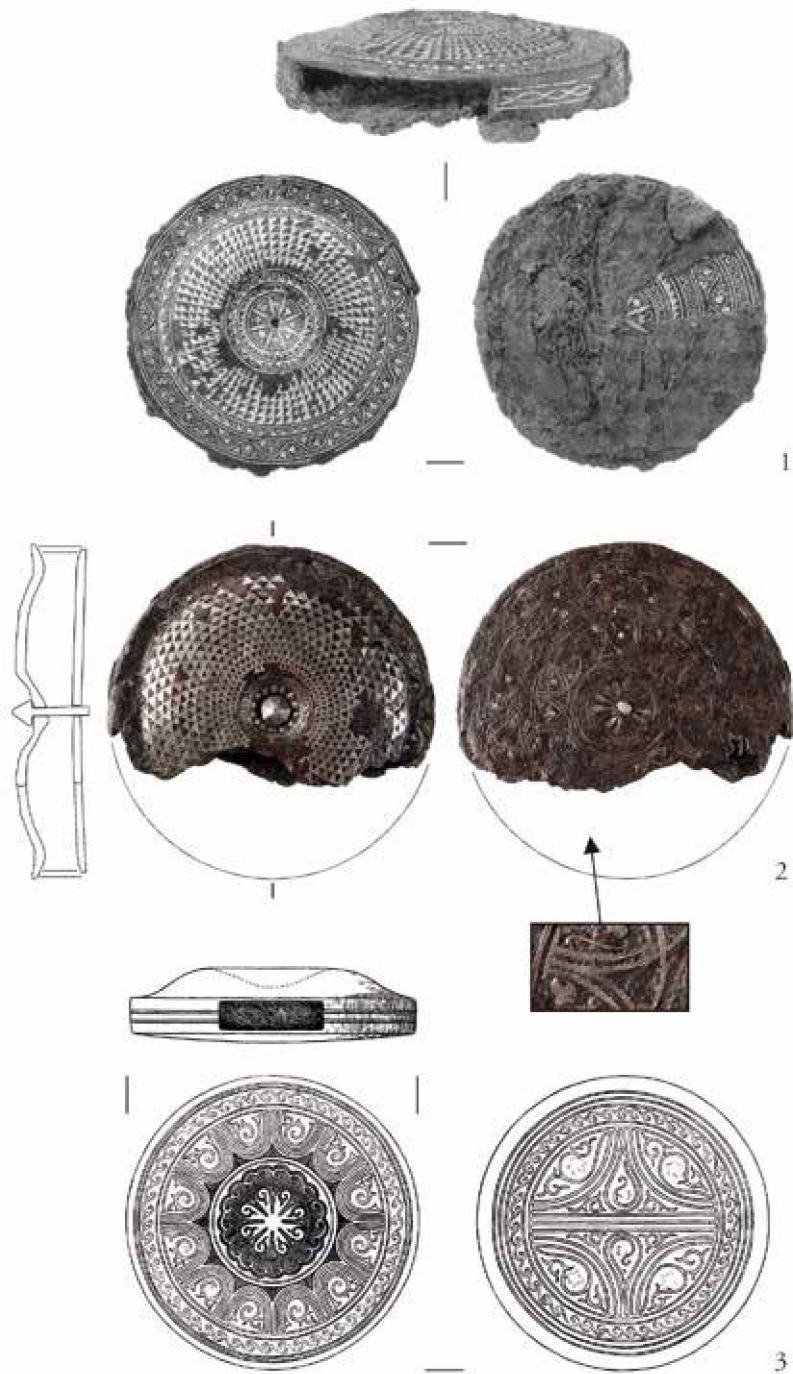


Fig. 9. Roman box-shaped chapes of variant B2. 1 unknown locality (Liebmann's collection) (after BIBORSKI / QUAST 2006); 2 Razgrad (BG) (Archive of Regional History Museum in Razgrad); 3 Nebra (D), grave 1 (after HUNDT 1953). – Scale 1 : 2,5.

ter, particularly interesting examples include the chape from Illerup, Skanderup Sogn (Denmark), covered with a copper inlay³⁷ (*fig. 8,1*), and the chape from grave 1 at Grabice (Poland), lavishly decorated with silver inlay³⁸ (*fig. 8,6*).

Much less common than the above-described B1 variant are large iron chapes representing variant B2, with flat or convex back plates and concave-convex front plates, decorated with inlays with a technique similar to plating (*fig. 9*). This technique consisted of covering the previously prepared surface of the plate with a black mass, probably a wood tar or mineral pitch, and subsequently attaching decorative appliqués made from non-ferrous metals³⁹. Such decoration can be seen, e. g., on a large chape (99 mm in diameter) from the Liebmann private collection, acquired from a looted grave⁴⁰, and on a similarly-sized chape (diameter of 104 mm) originating from the vicinity of the ancient *Abritus* (obl. Razgrad) in north-eastern Bulgaria⁴¹ (*fig. 9,1.2*). A distinct similarity between the above artefacts, noticeable in the use of silver cube-shaped appliqués, as well as in the presence of floral decoration in the chapes' centres and borders, allows for the assumption that both specimens might have been produced in the same workshop. Exquisitely decorated chapes of the B2 variant were similar in appearance to silver A1 chapes with niello decoration, although in the latter the dark decoration contrasted with the background of light colour, rather than the opposite, as found in the B2 type. Some affinity with the B2 variant is shown by a chape from grave 74 in the cemetery at Ichstedt, Lkr. Kyffhäuserkreis (Germany), whose front plate was prepared in a manner typical of the inlaid chapes, i. e. decorated with a floral-geometric engraving, then covered with copper foil⁴².

Roman box-shaped chapes of type C, made from animal bone, are also rare finds. They were most often attached to scabbards with a single, centrally placed rivet. Front and back plates could both be flat or the front plate could be slightly raised or cone-shaped, as with metal chapes. The C1 chapes were made from ivory⁴³ and were carved out of a single fragment of tusk, analogous to some of the hilts of double-edged swords⁴⁴ (*fig. 10,1–5*). C1 type chapes have been found in Roman sites in Cologne⁴⁵; Bonn (*Bonna*) (Germany)⁴⁶; Frankfurt-Heddernheim (*Nida*) (Germany)⁴⁷; Mainz (*Mogontiacum*) (Germany)⁴⁸; Rainau-Buch, Ostalbkreis (Germany)⁴⁹; *Carnuntum* (Austria)⁵⁰; Komárom-Szőny (*Brigetio*) (Hungary)⁵¹; Augst (*insula 5*) (Switzerland)⁵²; and from the cemetery at Khisfine in Syria⁵³, among other places. The chape from Rainau-Buch bears interesting traces of repair of its inner wall, a broken fragment of which was replaced with a bronze plate attached

³⁷ BIBORSKI / ILKJAER 2006b, 273 fig. VQL.

³⁸ JENTSCH 1889, 343, 659 fig. 1–2; ID. 1895, fig. 45; HUNDT 1953, 66 fig. 3,1; BIBORSKI / QUAST 2006, 565 fig. 5,3; MIKS 2007, 597 plate 254,A238. The authors would like to thank Heino Neumayer, Curator of Roman Period, Museum of Prehistory and Early History Berlin, for the permission to publish new photographs of this artefact.

³⁹ BIBORSKI / QUAST 2006, 564 f.

⁴⁰ JAHRB. RGZM 2005, 635 f.; BIBORSKI / QUAST 2006.

⁴¹ RADOSLAVOVA et al. 2011, 44, 45 cat. no 41.

⁴² BECKER 1999, 60–64 fig. 19; 20 plate 44.

⁴³ Chapes described as ivory specimens may include those made from the tusks of narwhal or walrus. The morphological similarity of these materials is so great that it is impossible to distinguish them without specialist analyses.

⁴⁴ OBMANN 1997, 54; BIBORSKI 2011, 109 f.

⁴⁵ MIKS 2007, 828 plate 260,B146.23.

⁴⁶ KOMP 2012, 89 fig. 4.

⁴⁷ OBMANN 1997, 93 plate 2,16; 3,17.20.

⁴⁸ LINDENSCHMIT 1904, 361 plate 3,1; BEHRENS 1918, fig. 32,11; MIKLER 1997, 120 plate 4,10; MIKS 2007, 842 plate 260,B178.31.

⁴⁹ GREINER 2008, 102 f. fig. 138–140.

⁵⁰ V. GROLLER 1907, 48 fig. 26,5.

⁵¹ BIRÓ 1987, 157 fig. 1,2.

⁵² MARTIN-KILCHER 1985, 184 fig. 28,2–5; DESCHLER-ERB 1998, 329 plate 43; MIKS 2007, 777 f. plate 259,B13.56.

⁵³ TROUSDALE 1975, 236 plate 18–19; BISHOP / COULSTON 1993, fig. 86,4; GOGRAËFE / CHEHADÉ 1999, 74 fig. 2–5; MIKS 2007, 632 f. plate 84,A349; 259,A349.

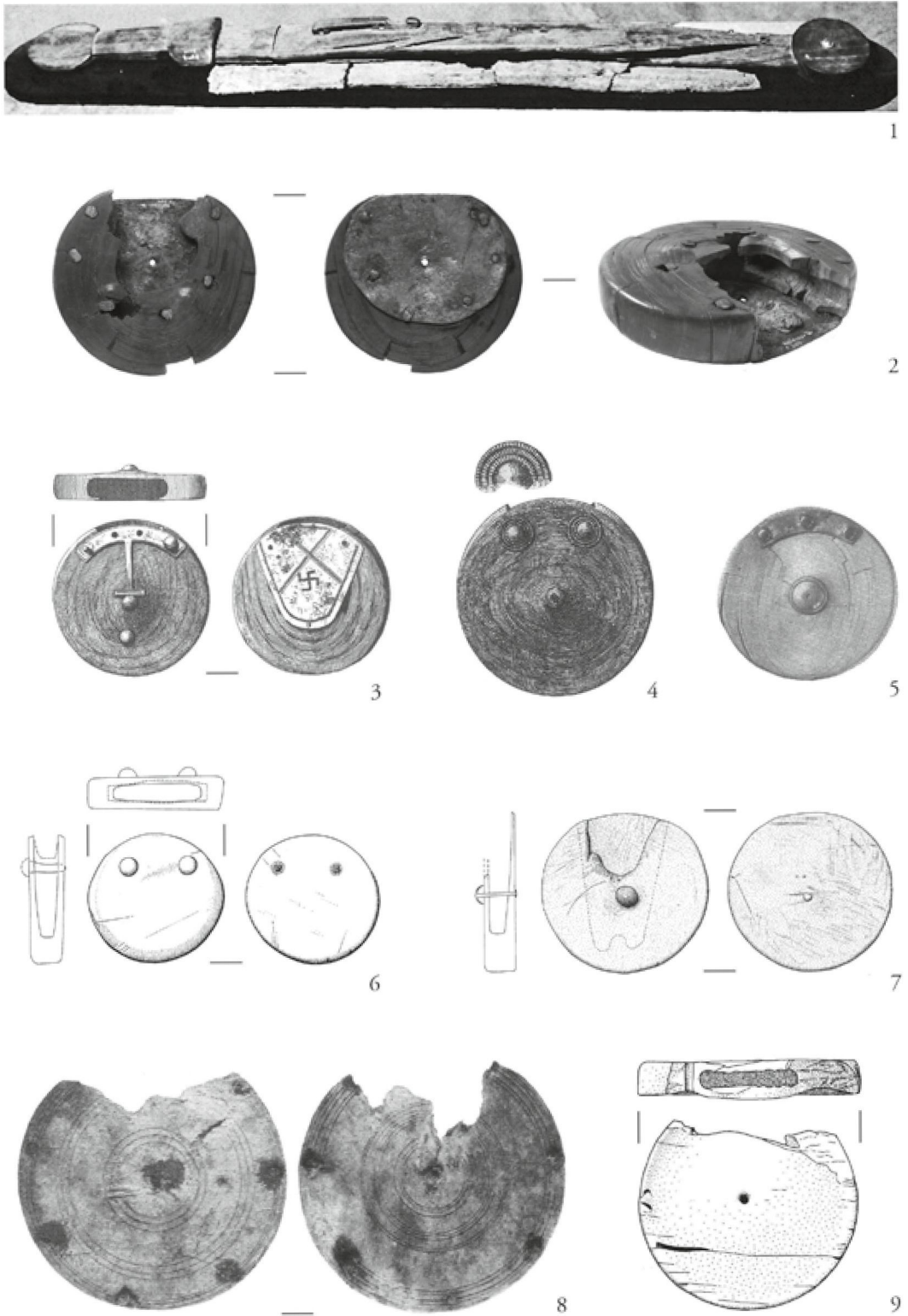


Fig. 10. Box-shaped chapes made of bone. 1–5 ivory; 6–9 animal bone. 1 Khisfine (SYR), grave (after TROUSDALE 1975); 2 Rainau-Buch (D) (after GREINER 2008); 3–5 Vimose (DK) (after ENGELHARDT 1869, FABECH 1996); 6, 7 Illerup Ådal (DK) (after BIBORSKI / ILKJAER 2006); 8 Føre (N) (after SJØVOLD 1962); 9 Dura Europos (SYR) (after JAMES 2004). – 1 No Scale; 2–9 scale 1 : 2,5.

with a few bronze rivets⁵⁴ (*fig. 10,2*). Few chapes of the C1 variant were also discovered in the bog site at Vimose, Allese sogn (Denmark). Some of them have decorative brass plates, most likely reinforcing the wall structure and one of these is decorated with silver rivets framed with beaded wire in the barbarian style⁵⁵ (*fig. 10,3–5*).

Included in the C2 variant are chapes made from the bone or horn of large herbivorous mammals, such as bison, aurochs or domesticated cattle (*fig. 10,6–9*). These chapes are usually narrower than the bulky ivory chapes and spongiosa can sometimes be seen on their outer surfaces. Well-preserved examples of such chapes are known from, among other places, Illerup (Denmark)⁵⁶ (*fig. 10,7*), Frankfurt-Heddernheim (Germany)⁵⁷, Dura Europos (Syria)⁵⁸ (*fig. 10,9*) and probably from Hauran (Syria)⁵⁹.

The construction of box-shaped chapes

The wide range of construction techniques of Roman box-shaped chapes is noteworthy. Most of them are tripartite artefacts, consisting of two plates joined by soldering a ribbon of metal between the plates, forming the edge. This construction was used in iron chapes, some of the bronze chapes and a few of the silver ones. Depending on the material used for their manufacture, elements were joined together using soft solders such as silver, copper alloys or tin-lead alloys⁶⁰. The atypical alteration of the tripartite chape from Stappenbeck, Altmarkkreis Salzwedel (Germany), is particularly interesting, in which the ends of the ribbon forming the edge were rolled into small loops, perhaps to reinforce the place where the scabbard joins the chape⁶¹.

Much less common are chapes consisting of two parts, belonging mostly to type A. They are built from a plate, which has either been hammered to form a rim or cast with a rim, and the soldered cover (e. g. the chapes from Cologne-Severinstor, Rimbürg and Nijmegen). A unique solution was recorded in the two-part B1 variant chape from Palmyra (Syria), which is made of two overlapping rimmed plates that were hammered together⁶² (*fig. 8,4*).

Among Roman box-shaped chapes, one can also distinguish a group of artefacts made of a single piece of material. The chapes of the A2 and A5 variants belong to this group, cast from bronze in the lost wax technique, as do type C chapes, carved out of the bones and tusks of large mammals. The surfaces of bronze chapes were usually worked by lathe, as shown by regular, rounded lines or central hole marks that have survived on some artefacts. When manufacturing chapes of bone, discs of appropriate size were first prepared using a range of methods; next, they were smoothed and polished and an aperture was drilled for the sword's point⁶³. In the chape from a *vicus* in Rainau-Buch the aperture for the sword was made by drilling five adjacent holes with a drill and next cutting the ridges left on the inner wall with a sharp tool⁶⁴ (*fig. 10,2*).

Many of the Roman box-shaped chapes were attached to the body of the scabbard by means of a single, centrally-placed rivet made of iron, bronze, silver or even gold (as is the case with the Khisfine chape)⁶⁵. In a few cases the ornamented, profiled heads of these

⁵⁴ GREINER 2008, 103.

⁵⁵ ENGELHARDT 1869, 35 plate 9,82–85; MIKS 2007, plate 261,B308.215.216.

⁵⁶ BIBORSKI / ILKJAER 2006b, 253 f.

⁵⁷ OBMANN 1997, 93 plate 2.

⁵⁸ JAMES 2004, 156 no 572 fig. 91.

⁵⁹ BISHOP / COULSTON 2006, 161 footnote 19.

⁶⁰ HUNDT 1955, 67–69; KELLNER 1966, 201; BIBORSKI / QUAST 2006, 564; GALL 2006, 269.

⁶¹ GALL 2006, 269 fig. 3.

⁶² PLOYER 2010, fig. 4.

⁶³ OBMANN 1997, 54.

⁶⁴ GREINER 2008, 103.

⁶⁵ GOGRAËFE / CHEHADÉ 1999, 74 fig. 2–5.

rivets located on the front of the chapes, survived (e. g. Razgrad, Silistra) (*fig. 6,3; 9,2*). On the scabbard from Khisfne (Syria), which was preserved in one piece, a decorative rivet head of a C1 variant plain chape is on the same side as a slide⁶⁶ (*fig. 10,1*). This demonstrates that slides were intended to be displayed on scabbards crowned with box-chapes, just as they are depicted on Roman gravestones (e. g. *fig. 13,4*).

The central-rivet construction, particularly in the case of scabbards mounted with massive chapes of large diameter, were likely vulnerable to damage. Traces of damage are visible on the large B1 variant chape from Grabice (Poland), which, after the central rivet was broken, was attached to the scabbard by two more rivets fixed in small holes pierced through the lower part of the chape's plates⁶⁷ (*fig. 8,6*). A slightly different method was probably used in the B1 variant chape from Opatów (Poland), which had apertures for rivets or nails in its plates near the mouth⁶⁸ (*fig. 8,3*). Similar attachment sites were observed on one of the B1 variant Roman chapes from the bog site at Illerup (Denmark)⁶⁹. This kind of attachment, so far unknown from Roman specimens, refers to the barbarian construction of sword scabbards, which mostly occurred in the North European Barbaricum⁷⁰.

Some of the Roman box-shaped chapes were intentionally filled with various organic and mineral materials. The purpose of such fillings probably was to strengthen and waterproof these delicate fittings and to provide additional stabilisation on the scabbard. In this way, the end of the scabbard was heavier and more stable, which was particularly important for the long *spathas* used in cavalry units. Some kinds of fillings may also have been used as glue to attach the chape to a scabbard. Presumably, in chapes where the filling was used as glue, no additional rivets⁷¹ were present. The adhesive could be glutin glues produced from animal bones (including fish glue), casein glues produced from milk, or various kinds of resins, e. g. rosin or pitch made from wood. The presence of such a mass, most likely of resin, was found in a chape from Dietikon, Kanton Zürich (Switzerland)⁷². An unidentified mass also filled one of the chapes from Augst (found in *insula 5*)⁷³ as well as chapes from Cologne-Severinstor and Mainz (from the Rhine)⁷⁴. Inside the chape kept in the Museum Het Valkhof at Nijmegen, apart from the remains of a wooden scabbard, a filling of compact clay was recorded (*fig. 7,4*).

A similar filling, probably attached with an organic glue, was used in the chape from Jadowniki. The filling was additionally stabilised by four iron nails driven into the chape (*fig. 1,2; 2,2*). The application of nails to affix the box-shaped chape, unknown from Roman examples, may be regarded as a barbarian solution aimed at repairing the damaged construction of an imported scabbard or reattaching the chape to a new scabbard. This solution fits very well with the local traditions of Przeworsk culture craftsmen, who often used iron nails and rivets to attach metal fittings. The unusual methods of attachment described above from Grabice, Opatów and Illerup should probably also be considered as barbarian modifications.

Some type A bronze chapes were additionally covered with a thin layer of tin or silver. Apart from protecting a chape's surface from darkening, this coating also supported its

⁶⁶ TROUSDALE 1975, 236 plate 19b; BISHOP / COULSTON 1993, fig. 86,4; GOGRAË / CHEHADÉ 1999, 74 fig. 2–5.

⁶⁷ In one of the pierced holes, the rest of a copper alloy rivet is preserved.

⁶⁸ GODŁOWSKI 1979, fig. 2.

⁶⁹ BIBORSKI / ILKJAER 2006b, 272 fig. PLA.

⁷⁰ e. g. BEMMANN / BEMMANN 1998b, plate 65.

⁷¹ MARTIN-KILCHER 1985, 153 f.

⁷² EBNÖTHER 1995, 81 plate 27 fig. 195; MIKS 2007, 799 plate 254, B73.

⁷³ MARTIN-KILCHER 1985, 154, 184 fig. 27,5a.

⁷⁴ LINDENSCHMIT 1900, plate 57, 1e.

appearance. It should be mentioned that the technique of tin-coating or silver-coating bronze objects was common in the Roman Empire and was also applied on brooches and wine ladles. This kind of coating was recorded on the chapes from Pevensey and Rimbürg and likely on the specimen from the Museum Het Valkhof Nijmegen. It cannot be ruled out that the chape from Jadowniki Mokre was originally covered with tin or silver⁷⁵ as well; however, exposure to high temperatures during cremation damaged this coating.

The easily corroding iron chapes of type B were certainly additionally protected. The effects of corrosion could be stopped by using the simple traditional method of hot bluing, which involves burning the iron object after its immersion in easily accessible linseed oil. The blued chapes were likely a matte dark colour, providing a better contrast to incrustations made of clear, glossy materials⁷⁶. An anti-corrosion effect also resulted from applying additional thin coats on iron specimens of the B2 variant.

The barbarian imitations

Numerous and diverse box-shaped chapes which imitated Roman products were produced in the Barbaricum⁷⁷. They include chapes made from brass, bronze or, exceptionally, silver, with parallel or slightly tapering walls (trapezoidal in profile)⁷⁸ (*fig. 11*). Bronze chapes plated with silver foil existed but were rare⁷⁹. Analogous to many Roman chapes, barbarian examples usually consist of three parts – front and rear plates and a ribbon of metal forming the edge. The edge is often U-shaped in cross-section and is inserted between the plates to facilitate their connection (*fig. 11,3*). Sporadically chapes have been found where the border is pulled over the edges of the plates⁸⁰ (*fig. 11,4*). The elements were attached to each other using soft tin-lead solder or with rivets, which at the same time attached the chape to the scabbard. Rivets, the number of which range from two to more than forty, occur in a variety of configurations, but were most often spaced out along the perimeter along the chape's border or in pairs near the aperture for the scabbard. Barbarian chapes were usually decorated only on the front plate, which, unlike some Roman chapes, was always flat and without the characteristic bulge. Apart from the numerous rivets, which also played a decorative role, chapes were covered with incised ornamentation. These were most often circles imitating the concentric marks left by lathe work which occurs on bronze Roman chapes (*fig. 11,1–3*). Symbolic marks also occur; for example, swastika motifs and stamped ornamentation as well as embossed gold foils⁸¹, filigree wires or granulation⁸².

Workshops in the Barbaricum also produced chapes made from animal bone, including walrus and whale bone, which resembled Roman type C chapes. One-piece chapes were attached to the scabbard with a pair of rivets near the aperture⁸³ (*fig. 10,6*), i. e. in a manner typical of barbarian metal chapes described above; as such, this attachment method should undoubtedly be regarded as a local form. From Føre, Nordland province (Norway),

⁷⁵ The presence of a silver coating is suggested by the results of the chemical composition analyses – small amounts of silver were detected in the walls of the Jadowniki chape (see footnote 11).

⁷⁶ GALL 2006, 271 f.

⁷⁷ ILKJAER / LØNSTRUP 1974, 46 f.; KACZANOWSKI 1992, 48; BEMMANN / HAHNE 1994, 395 ff.; BEMMANN / BEMMANN 1998a, 167–169; BIBORSKI / ILKJAER 2006b, 251–270.

⁷⁸ e. g. MIKS 2007, plate 251, B285.83.

⁷⁹ BIBORSKI / ILKJAER 2006b, 252 fig. BDH1.

⁸⁰ e. g. MIKS 2007, plate 258, A664.

⁸¹ v. CARNAP-BORNHEIM / ILKJAER 1996b, plate 10, MAL.

⁸² ENGELHARDT 1869, plate 10 fig. 101; STRAUME 1961, 55 fig. 2.

⁸³ e. g. MIKS 2007, plate 260, B308, 214.

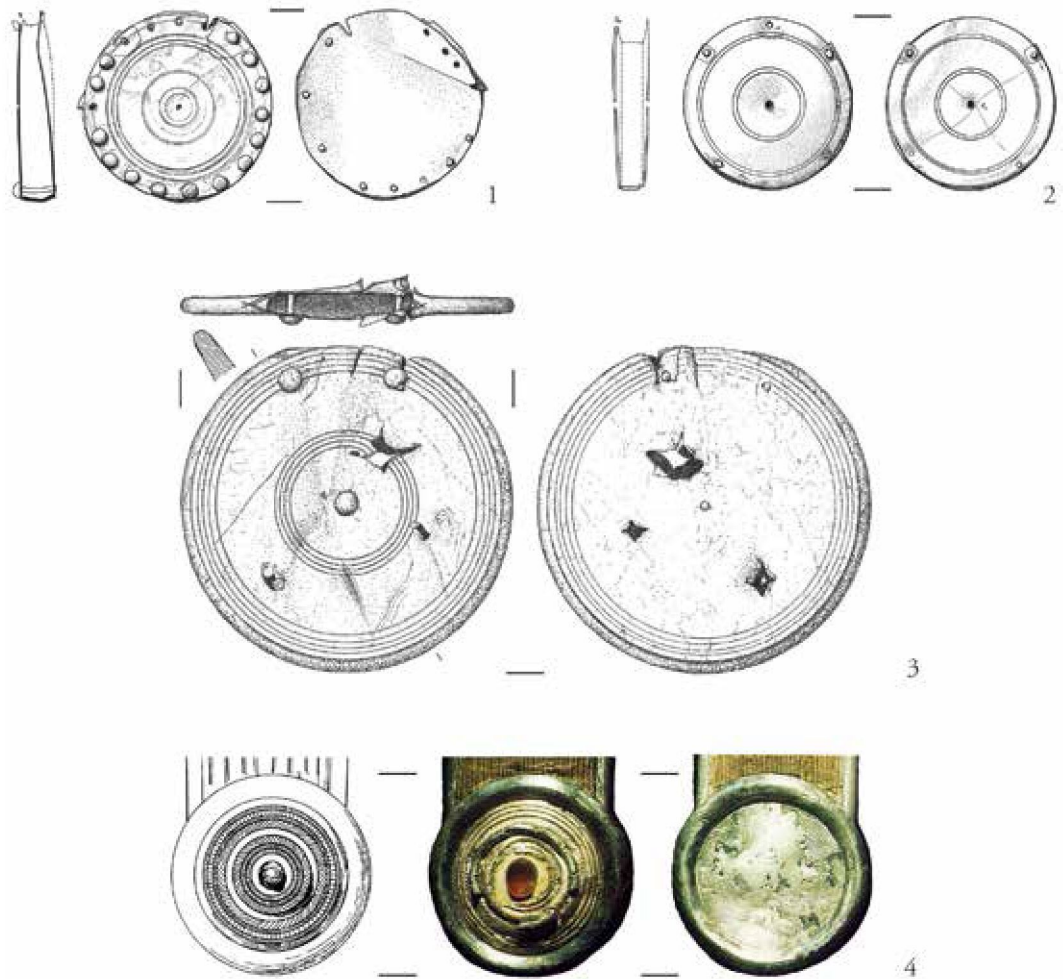


Fig. 11. Barbarian box-shaped chapes. 1–3 bronze; 4 silver. 1, 2 Illerup Ådal (DK) (after BIBORSKI / ILKJAER 2006); 3 Nydam (DK) (after BEMMANN / BEMMANN 1998b); 4 Silistra (BG), grave from 1968 (after DUMANOV 2005; ID. 2013). – Scale 1 : 2,5.

comes an obviously barbarian bone chape consisting of two plates joined by a centrally placed rivet and several other rivets along the edge⁸⁴ (*fig. 10,8*). Another example of barbarian production is the chape made from deer antler discovered at Lepesovka, Volins'ka Oblast, in a settlement linked with the Wielbark and Chernyakhov cultures⁸⁵.

Numerous barbarian box-shaped chapes were discovered in Scandinavia, mostly in bog sites at Nydam, Sottrup Sogn (Denmark)⁸⁶, and Illerup (Denmark)⁸⁷. They also occur in burial assemblages. For example, bronze chapes have been recovered from graves at Hor-

⁸⁴ SJØVOLD 1962, plate 15,c–d; MIKS 2007, 809 plate 259,B98.1.

⁸⁵ TIHANOVA 1969, fig. 5.

⁸⁶ ENGELHARDT 1865, plate IX fig. 45–47; BEMMANN / BEMMANN 1998b, plate 65–67.

⁸⁷ BIBORSKI / ILKJAER 2006b, 254–266.

sta, Timrå kom. (Sweden)⁸⁸, and Simris (Sweden)⁸⁹; chapes made of silver elements were found in the grave at Skuttunge Kirke (Sweden)⁹⁰ and in the Sarmatian burial at Geszteréd, meg. Szabolcs-Szatmár-Bereg (Hungary)⁹¹. The chape discovered in the latter grave differs considerably in its form and decoration from the box-shaped chapes known from Northern Europe⁹². A silver, ornamental box-shaped chape of barbarian origin discovered at Silistra is another unique find. It was found in the grave of a Roman army officer⁹³, the same grave that yielded the previously discussed Roman chape of the A1 variant. Its front plate is covered with embossed gold foil that was decorated with concentric circles imitating rolled beaded wire and with a centrally placed semiprecious stone set using the *cabochon* technique (fig. 11,4). This decoration is very similar to the decoration of other metal barbarian military equipment, including sword scabbards, which are known mainly from Scandinavia⁹⁴.

The above remarks clearly show that differences between Roman box-shaped chapes and barbarian imitations, which were mostly made of copper, bronze and animal bone and only sporadically of other materials, are clearly visible. One of the rarest finds comprises silver barbarian chapes that represent visibly smaller forms than similarly-styled chapes of Roman origin. In the Barbaricum, box-shaped fittings were not made of iron and ivory, which were, by contrast, popular in the Roman Empire.

Barbarian and Roman metal chapes are made of three elements in most cases – front and rear plates and a ribbon forming the edge. Other, rarely found forms are one- or two-piece Roman chapes. Respective parts of barbarian chapes were formed using the cold-forge technique and joined together with varying numbers of rivets. Definitely less frequent connections were made using the soldering technique, which was commonly used for the production of chapes by the Romans. In barbarian workshops the cast technique, which was commonly used in the Roman Empire, whereby the specimen was produced from one piece of bronze using the lost wax technique (used for some forms of the A5 variant), was not used.

Further important differences can be seen in the shape of the lid and the edge. Barbarian-produced chapes almost exclusively have flat lids and inserted edge made from a curved ribbon of metal. Among the Roman chapes, except for a few flat-fronted examples, convex or concave-convex front plates predominate, with a simple edge made of a narrow ribbon of metal or, less commonly, formed together with one of the plates.

So far, there are no extensive, detailed specialist studies which would allow the comparison of manufacturing techniques of one-piece chapes made of bone and other organic materials. Based on general observations, it may be assumed that processing must have been based on essentially similar steps, from the formation of a disc phase when the chosen material played a major role, to the final stage, which included polishing and decoration of the surface. Evidence suggests that Romans and barbarians used metal elements to reinforce or repair damaged sides of chapes. In the case of some Roman examples, it has been observed that a drill may have been used to make the aperture for the sword.

It is also worth emphasising the differences in the decoration of chapes. These differences can not be assessed in detail due to the poor state of preservation of some Roman

⁸⁸ SLOMANN 1950, 12 fig. 2.

⁸⁹ STJERNQUIST 1955, plate XXII.

⁹⁰ ARBMAN 1932, fig. 69–75.

⁹¹ RÓMER 1878, fig. 55–73.

⁹² BÓNA 1993; v.CARNAP-BORNHEIM 2001.

⁹³ VASILEV / MITANOV 1974, fig. 16; DUMANOV 2005, plate IV.

⁹⁴ STRAUME 1961, 55 fig. 2; MARTIN-KILCHER 1993, 301 fig. 13-14; v.CARNAP-BORNHEIM / ILKJAER 1996a, 395–470; DUMANOV 2005, 312 f.

chapes made of iron. However, when analysing even a fragment of a source database, it seems that ornamentation of Roman chapes was richer and more varied than the decoration of barbarian forms. The latter were decorated mostly on both plates, using a relatively narrow range of ornamental techniques, essentially limited to engraving and stamping, though the numerous rivet heads that joined the plates could have had a decorative function. The most representative, unique barbarian chapes are covered with filigree, granulation, semiprecious stones and embossed silver or gold foil (Pressblech). On richly decorated Roman chapes, decoration was placed in every accessible space, not only on the plates but also on the edge part of the chape. Engraving was often used for decorative purposes. It was, however, frequently only the “sketch” surface, which was later filled with diverse, background-contrasting inlays made of glossy non-ferrous metals. Contrast was also achieved by using a technique similar to plating, where silver was applied onto a layer of black mass. The inverse visual effect is represented by a limited number of silver chapes, decorated using the niello technique.

The relatively simple decoration of barbarian chapes is mostly based on concentric circles, though some less commonly observed motifs include crosses, triskeles, triangles, zig-zags and circles with a midpoint. Such decoration does not significantly differ from the style of decoration of other metal and bone objects from the younger and late Roman period in the Barbaricum. The more schematic barbarian ornamentation can be contrasted to the far more diverse ornamentation of Roman chapes, showing a number of individual characteristics. Dominant motifs include floral designs, as well as often complex geometric ornamentation that is specific to Roman art; for example, highly stylised motifs of grapevines, flower chalices, rosettes or elaborate arabesques composed of rhombs, triangles, cubes and the often-used motif of the so-called “running dog” (laufender Hund).

The differences in the methods used in the Roman Empire and the Barbaricum of fastening chapes to scabbards should also be discussed briefly. The barbarian craftsmen used varying numbers of rivets that passed through the walls of the chape and the body of the scabbard to attach them together. The mounting of the chape using rivets arranged near the edges of its plates or using a pair of rivets placed in the vicinity of the scabbard aperture was popular. Roman chapes were most often attached by a single rivet, placed centrally on the plate. Another Roman solution was to glue a metal chape to the body of the scabbard. Glues used were organic and / or mineral masses, which filled the inside of the chape. Numerous examples of repair of damaged Roman chape fasteners may be evidence of the imperfection of these solutions.

The distribution of metal box-shaped chapes

Roman metal box-shaped chapes are known mainly from the *castella* and settlements situated along the *Limes Germanicus* (fig. 12; List). Single finds also come from other provinces of the Roman Empire – *Moesia Inferior* (Razgrad, Silistra [List no. 37, 38, 40]), *Gallia Lugdunensis* (Génainville [List no. 16]), *Noricum* (Enns-Lorch [List no. 14]), *Vallis Poenina* (Martigny [List no. 27a]), *Pannonia* (Pilismarót-Szobi, Vodice [List no. 36, 44]), *Britannia Superior* (Peterborough, Pevensey [List no. 34, 35]), *Mauretania Tingitana* (Banasa Valentia [List no. 5]) and from the Middle Eastern Hellenistic towns at Palmyra and Dura Europos (List no. 9–11, 33). Several specimens have been discovered in the territory of the Barbaricum as well, in its Central European zone (in graves at Ichstedt, Liebersee and Nebra [Germany] and Grabice, Jadowniki Mokre and Opatów [Poland] [List no. 17, 21, 23, 26, 28, 32]; within settlements in Frienstedt and Stappenbeck [Germany] [List no. 15, 42]; other: Willanzheim-Hüttenheim [Germany] [List no. 45]), as well as further to the north, in

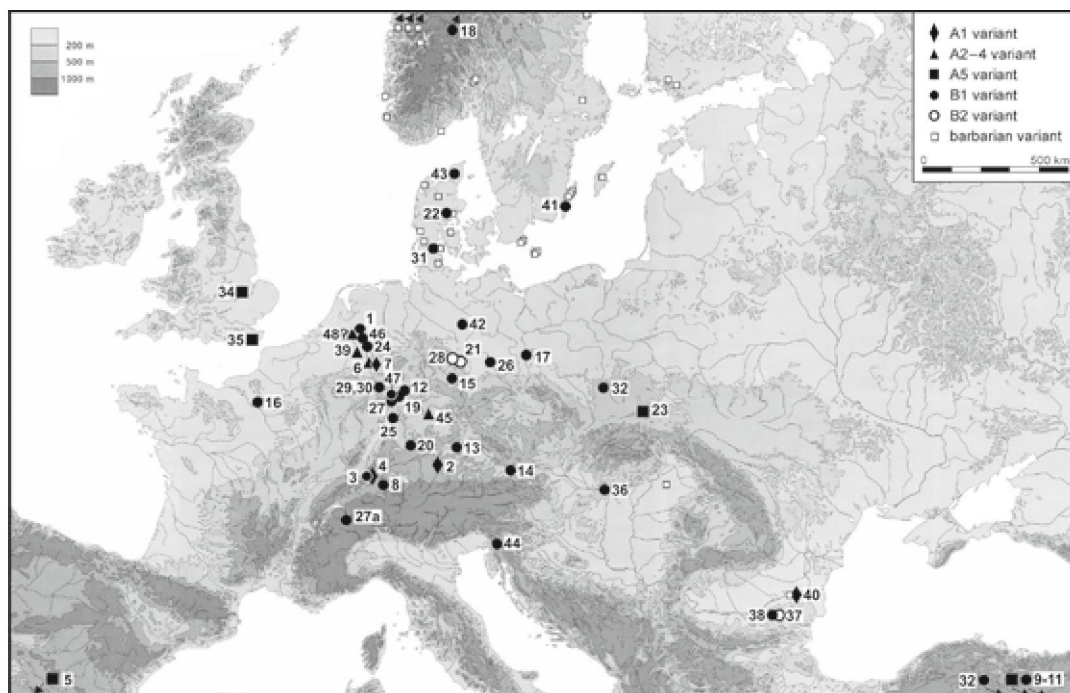


Fig. 12. Roman and barbarian metal box-shaped chapes – distribution of finds (site numbers as in the List of chapes).

Scandinavia (bog finds: Illerup and Nydam [Denmark] and Skedemosse [Sweden] [List no. 22, 31, 41]; in graves: Hammer [Norway] and Svennum [Denmark] [List no. 18, 43]).

The existence of a specific fashion for crowning the scabbards with box-shaped chapes in the Roman army is suggested by numerous reliefs that decorate stelae, sarcophagi and burial monuments of Roman soldiers, most of which are known either from Rome or from provinces on the Danube and in the Balkans⁹⁵ (*fig. 13; 14.1*). Representations of scabbards mounted with fittings of this type also appear on a few Roman military statues⁹⁶ (*fig. 14.2.3*) as well as on the Sasanian-era Triumph Rock Reliefs of Shapur I from Naqsh-e Rostam and Bishapur in Iran⁹⁷. A box-shaped chape representation is also known from a mosaic in Palmyra⁹⁸.

The chronology of box-shaped chapes

Most of the finds of box-shaped chapes from the territory of the Roman Empire cannot be precisely dated. Furthermore, their representations in Roman art are usually of little help in establishing a precise chronology. Based on these relatively modest data, the time period of

⁹⁵ COULSTON 1987; BIBORSKI / QUAIST 2006, 567; BISHOP / COULSTON 2006, 161; MIKS 2007, 366; UBL 2013, 163–174.

⁹⁶ e. g. KOLŠEK 1994, 33 fig. 6; VIŠOČNIK 2008, 335 no 23 fig. 19; CIUGUDEAN 2011, plate V; FISCHER 2012a, 101 fig. 96.

⁹⁷ HERRMANN / HOWELL 1980, plate 41–45; HERRMANN / MACKENZIE 1989, plate 2; MIKS 2007, 366 plate 337,D–G; 338,A,B.

⁹⁸ COLLEDGE 1976, plate 140; BISHOP / COULSTON 2006, 161 footnote 20.

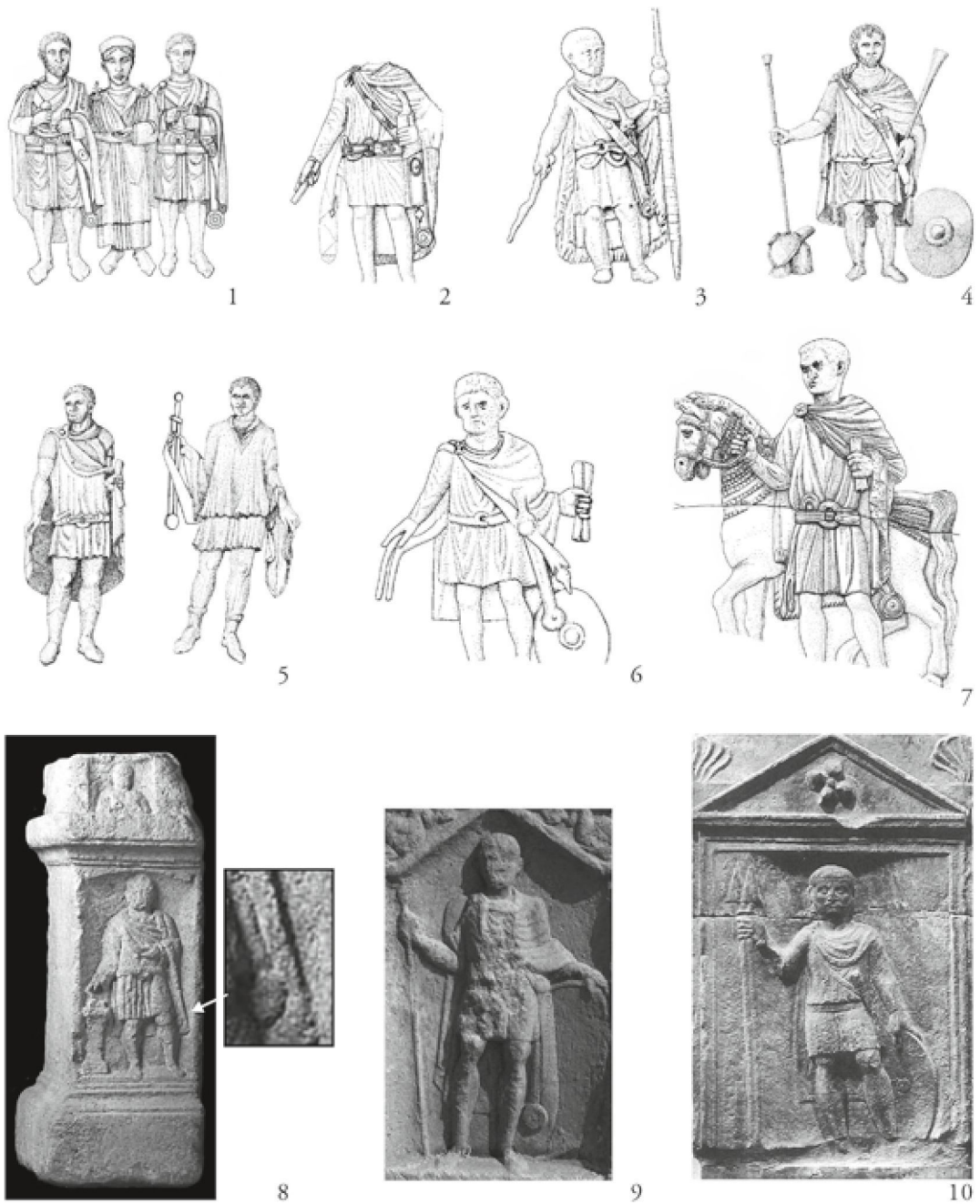
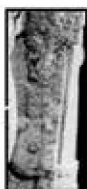


Fig. 13. Representations of scabbards with box-shaped chapes in Roman art. 1–7, 9, 10 grave stelae (drawn reconstructions after BISHOP / COULSTON 1993, JAMES 2004, the remaining after REBECCHI 1976, PFLAUM 2007); 8 votive altar from *Vindobona* (AT) (after ALFÖLDI 2011).



2



3

Fig. 14. Representations of scabbards with box-shaped chapes in Roman art. 1 Ludovisi Battle Sarcophagus (detail, photo M. Grygiel); 2 statue of "Norican Soldier" from Celje (SLO) (after VIŠOČNIK 2008); 3 statue of Roman soldier from *Apulum* (RO) (after CIUGUDEAN 2011).

the production and use of box-shaped chapes is usually identified as the 3rd century, particularly from the second quarter until the end of that century⁹⁹. It has been proposed that iron chapes of the B1 variant, relatively small (diameters of 60–70 mm) and decorated with inlays in axial symmetry (e. g. the specimens from Frankfurt-Heddernheim, Neuwied-Niederbieber, or Augst *insula* 5 [List no. 3, 19, 29]) might have appeared and became popular slightly earlier, before the middle of the 3rd century¹⁰⁰. Scabbards crowned with such chapes could belong to swords of the Woerden-Bjärs or Vimose-Illerup type, which were widely used in the same period¹⁰¹. Large chapes of types A and B (with diameters exceeding 80 mm) covered with complex decoration in radial arrangement (often executed with the use of compasses; e. g. the chapes from graves at Cologne-Severinstor and Silistra, chapes from Augst *insula* 29, Cologne-Bayenthal, Razgrad and Rimbürg or the specimen from Liebmann's collection [List no. 4, 6, 7, 37, 40, 52]) are generally regarded as later forms, typical of the second half of the 3rd century¹⁰². Such fittings might have been attached to scabbards in which long swords of the Nydam-Kragehul type, with narrow and short points, were carried¹⁰³, as suggested by the discovery of such an assemblage of artefacts in the grave of a Roman army officer in the Roman colony of Cologne-Severinstor¹⁰⁴. The large decorative chape of the B2 variant and a sword of the Vimose-Illerup type, both in the Liebmann collection, can perhaps be regarded as an analogous assemblage, as they were most likely recovered from the same grave¹⁰⁵. Moreover, we cannot exclude the possible connection between a sword of the Vimose-Illerup type and a large silver chape of the A1 variant, which were discovered close to each other in the same layer of destruction at Augst (*insula* 29)¹⁰⁶.

Some authors believe that box-shaped chapes might first have appeared in the Roman Empire as early as in the second half of the 2nd century. According to L. Borhy, a large chape of the B1 variant belonging to this period was discovered in the moat surrounding a Roman watchtower at Pilismarót-Szobi (Hungary) (List no. 36) on the Danubian Limes¹⁰⁷. However, such an early chronology of this find has been widely criticised¹⁰⁸. The chape from Pevensey (List no. 35), allegedly accompanied by unidentified coins of Emperor Commodus (180–192), could hypothetically also be regarded as an early find, although it is rather unlikely that these accidentally discovered artefacts truly belonged to one assemblage (see above). From the second decade of the 3rd century comes a Roman funerary stela kept in the museum at Fiesole, prov. Firenze (Italy), with a representation of a Roman officer with his sword in a scabbard ending with a box-shaped chape¹⁰⁹. The stela of centurion *Marcus Cocceius Superianus* and praetorian *Valerius Lucilianus*, discovered in Lobos (Croatia), on which images of box-shaped fittings are visible, are dated, according to the youngest findings, to AD 220–250, can be a little bit younger¹¹⁰. From Aswan (Egypt) a Roman grave statue was found, showing an armoured heavy horse rider (*equites*

⁹⁹ OLDENSTEIN 1977, 122 f.; GODŁOWSKI 1979, 149; ID. 1988, 34; MARTIN-KILCHER 1985, 158 f.; KACZANOWSKI 1992; BIBORSKI / QUAST 2006; MIKS 2007, 364–367; PLOYER 2010, 188–190.

¹⁰⁰ MARTIN-KILCHER 1985, fig. 8,1–4; 28,1.

¹⁰¹ BIBORSKI / ILKJAER 2006a, 206–236.

¹⁰² STJERNQUIST 1955, plate 41,1; MARTIN-KILCHER 1985, 159 fig. 3; 4; 12; BIBORSKI / ILKJAER 2006a, 163 fig. 113; BIBORSKI / QUAST 2006; MIKS 2007, 366; ORTISI 2008; RADOSLAVOVA et al. 2011, 44 f. cat. no 41; DUMANOV / BACHVAROV 2010, plate I; II; PLOYER 2010, 189 f.

¹⁰³ BIBORSKI / ILKJAER 2006a, 246 f.

¹⁰⁴ MARTIN-KILCHER 1985, 154–157 fig. 6; ID. 1993; BIBORSKI / ILKJAER 2006a, 254 fig. 150,1; MIKS 2007, plate 84, A357.

¹⁰⁵ BIBORSKI / QUAST 2006; MIKS 2007, plate 68,A204.

¹⁰⁶ MARTIN-KILCHER 1985, 150–174; MIKS 2007, 536 f. plate 64,A22.

¹⁰⁷ BORHY 1989.

¹⁰⁸ GODŁOWSKI 1994b, 118; MIKS 2007, 354.

¹⁰⁹ SPEIDEL / SCARDIGILI 1990, 201–203 plate 22.

¹¹⁰ MIGOTTI 2009.

cataphraktarii) with *spatha* sword and box-shaped chape hung on a *balteus*. The sculpture is dated to 230–260¹¹¹. The discovery of several box-shaped chapes in the vicinity of Razgrad (List no. 37, 38) is sometimes related to the battle of *Abritus*, known also as the battle of *Forum Thembonium* (Dexippos, *Chronike Hist.*), which was fought there during the struggle between the Romans and the Goths in 251¹¹². However, the circumstances of the chapes' deposition are not definite, given the intensive activity of Roman troops in the region throughout the entire 3rd and 4th centuries. A chape that should be dated to the mid-3rd century comes from a Roman villa at Dietikon (Switzerland) (List no. 8)¹¹³. Also, the famous Ludovisi Battle Sarcophagus, of which the relief on the narrower side depicts, *inter alia*, a horse rider equipped with a scabbard with box-shaped fitting¹¹⁴ (fig. 14,1), can be dated to the period shortly after the mid-3rd century.

The chronological framework for the deposition of the chapes discovered at Dura Europos (List no. 9–11), sometimes referred to as 'the Pompeii of the East' or 'the Pompeii of the Syrian Desert', is limited by the destruction of the city after the siege by the army of the Persian ruler Shapur I between 255 and 257¹¹⁵. With the period of his rule, which is between AD 240 / 1 and 272, one can also connect the previously mentioned Sassanian rock carvings from Naqsh-e Rostam and Bishapur in Iran, where Roman soldiers are represented with swords in scabbards ending with the discussed chapes¹¹⁶. It cannot be ruled out that the deposition of the box-shaped chape from Palmyra (List no. 33) occurred during the period shortly after the death of Shapur I and might have found its way to Palmyra as a result of a campaign that was undertaken by Emperor Aurelian against Zenobia, the ruler of the Palmyrene Empire in Syria¹¹⁷.

The chronology of the majority of chapes discovered in *Germania Superior* and *Raetia* is most likely limited by the devastating raids of Germanic tribes on the provinces on the Rhine during the third quarter of the 3rd century. The finds of type B chapes from Roman *castella* and settlements along the *Limes Germanicus* should be mentioned here; these date to the period before this line of defence collapsed during the reign of emperors Valerian I and Gallienus due to the raids of 254 and 259 / 260 (e. g. Echzell, Geislingen-Hofstett, Frankfurt-Heddernheim, Ladenburg [*Lopodunum*], Neuwied-Niederbieber and Zugmantel [Germany] [see List])¹¹⁸. Box-shaped chapes were also discovered in the Roman town of *Augusta Raurica* (Augst, *insulae* 5 and 29 [List no. 3, 4]), in destruction layers most likely connected with Germanic raids that took place in the years 275–276 after the fall of the *Imperium Galliarum* and the death of Emperor Aurelian¹¹⁹.

The invasion of the Franks in roughly the same period could have been the reason for the deposition of several chapes, including the variant B1 chape discovered in the Roman sanctuary at Génainville in north-eastern France (List no. 16), iron specimens from the

¹¹¹ FISCHER 2012a, 101 fig. 96.

¹¹² RADOSLAVOVA et al. 2011.

¹¹³ MIKS 2007, 354 f.

¹¹⁴ ANDREAE 1968, 639; 1969; FITTSCHEN 1979, 581–584; KOCH / SICHTERMANN 1982, 92; PALMA / DE LACHENAL 1983, 56 ff. cat. no. 26; KÜNZL 2010, 95 f.

¹¹⁵ JAMES 2004, 22 ff.; MIKS 2007, 354.

¹¹⁶ VANDEN BERGHE 1984, 68–74; MIKS 2007, 366; PLOYER 2010, 189.

¹¹⁷ PLOYER 2010, 192.

¹¹⁸ No clear connection to the events of 254 and

259 / 260 can be established for the chape of the A2 variant from Willanzheim-Hüttenheim, discovered without clear context on the approaches to *Agri Decumates* (MIKS 2007, 905, no B327). It cannot be ruled out that this specimen, with decoration in radial arrangement resembling the ornamentation of younger forms of chapes (types A and B) typical of the second half of the 3rd century, could have been deposited later, in the period after the collapse of the *Limes Germanicus*.

¹¹⁹ MARTIN-KILCHER 1985, 194 f.; MIKS 2007, 354 f., 361; REUTER 2007; SOMMER 2012.

Roman town / camp at Xanten (Germany) (*Colonia Ulpia Traiana / Castra Vetera*) on the lower Rhine (List no. 46) and from the *castellum* at Krefeld-Gellep (*Gelduba*) (Germany) (List no. 24) and perhaps also the bronze chape of the A3 variant from Cologne-Bayenthal (List no. 6) discovered in the area of the northern ramparts of the Roman naval base at Cologne-Marienburg, which was probably abandoned in the 270s¹²⁰.

A stone votive altar from *Vindobona* (Vienna [Austria]) was created in the year 268. It features, among other decorations, a male figure in relief, perhaps a *praepositus* of *Legio VIII Augusta*, with a sheathed sword, the scabbard of which ended with a box-shaped chape¹²¹ (*fig. 13,8*). A bronze chape uncovered in Banasa Valentia (List no. 5) must have been deposited before the Romans abandoned the city in 285 after the administrative reform of the province *Mauretania Tingitana*¹²². It cannot be excluded that the find of the A4 variant chape from Rimbürg (Germany) (List no. 39) dates to the last quarter of the 3rd century, if we accept that it comes from the same period as the bronze artefacts and coins discovered with this chape near a ford on the Wurm river¹²³. The stelae of Roman soldiers with depictions of box-shaped chapes from the Capitoline Museums are associated with roughly the same period¹²⁴. The previously mentioned burial of a Roman officer from *Durosturum* (Silistra) (List no. 40) should be dated to the late 3rd or early 4th century at the latest and contained, among other objects, the decorative chape of the A1 variant and an unidentified coin of Emperor Probus (AD 276–282)¹²⁵.

The youngest chape from the territory of the Roman Empire is believed to be the A1 variant from the burial of a Roman officer at Cologne-Severinstor (List no. 7), which has most recently been dated to the transition of the 3rd / 4th centuries or the very beginning of the 4th century¹²⁶. Further evidence of the use of scabbards with box-shaped chapes by the late Roman army is provided by representations of such fittings on stone sculptures, e. g. on the funerary stela of a Roman soldier from Aquileia¹²⁷ (*fig. 13,10*) and the military statue of the “Norican Soldier”¹²⁸ (*fig. 14,2*).

There are fewer data concerning the chronology of Roman box-shaped chapes in the Barbaricum, which are represented mainly by specimens of the B1 variant. The only reliably dated chape from Poland, discovered in the Opatów cemetery (List no. 32), dates, with all probability, to phase C2 of the Roman Period, which spans much of the second half of the 3rd century¹²⁹. The grave from the cemetery at Liebersee (Germany) (List no. 26) belongs to the same phase and yielded, among other objects, a box-shaped chape¹³⁰. The grave discovered in the cemetery at Ichstedt (Germany) (List no. 21) contained a chape resembling the B2 variant; this chape is slightly older than the examples discussed above, dating to phase C1b, perhaps its terminal segment, or early phase C2, which correlates approximately with the middle of the 3rd century¹³¹. The grave from Nebra (Germany) (List no. 28), which, apart from a chape most likely representing the

¹²⁰ MIKS 2007, 350.

¹²¹ ALFÖLDI 2011, 100–104 fig. 5.

¹²² MIKS 2007, 350.

¹²³ ORTISI 2008, 696.

¹²⁴ FITTSCHEN / ZANKER 2014, 132–134 plate 138,142; 139,144.

¹²⁵ ATANASOV 2001, 130; DUMANOV 2005, 313; BIBORSKI / QUAST 2006, 564 footnote 22; MIKS 2007, 362.

¹²⁶ MARTIN-KILCHER 1985, 155; 299–302; MIKS 2007, 362; PLOYER 2010, 190.

¹²⁷ REBECCHI 1976, 105–108 fig. 22; MARTIN-KILCHER 1985, 158 footnote 19 fig. 7; MIKS 2007, 366 plate 339,C–D.

¹²⁸ VIŠOČNIK 2008, 335 no 23.

¹²⁹ GODŁOWSKI 1979; KACZANOWSKI 1992, 47 f.; MARYDA-LEGUTKO et al. 2011a, 237 f.

¹³⁰ KROITZSCH 1988, 241; LASER / SCHULZE 1995, 40; BEMMANN 2003b, 171.

¹³¹ BECKER 1999, 62–64; MIKS 2007, 354.

B2 variant¹³² (*fig. 9,3*), contained only a wheel-thrown vessel in the developed Late Roman style and a baldric fastener typical of phases C1b–C2, can be broadly dated to the 3rd century¹³³. Two chapes probably of B1 variant from Friestedt (Germany) (List no. 15) were discovered in the fill of settlement pits. Only one of them was dated more precisely based on pottery discovered in the same pit; these artefacts were linked with the phases C1 to C3, i. e. the second half of the 2nd century to the second or third quarter of the 4th century¹³⁴. Attempts at establishing the chronology of the chape from Grabice (Poland) (List no. 17) have met with difficulties. The artefact was originally published by H. Jentsch without providing detailed information on provenance, alongside descriptions of other objects most likely originating from two burials of the Luboszyce culture – one male and one female¹³⁵. The most likely hypothesis posits that the chape originally belonged to the grave inventory of another male burial and thus should be dated to phase C1b of the Roman Period, i. e. to the first half of the 3rd century¹³⁶.

From phases C1b–C2 of the Roman Period come the finds of Roman box-shaped chapes from the North European Barbaricum. In terms of chronology, the chapes discovered in parts A and B of the bog site at Illerup (Denmark) (List no. 22) are the earliest finds; they were deposited during phase C1b, perhaps in its older segment, which spans the early 3rd century. Younger finds are known from Nydam and Svennum (Denmark), Skedemosse (Sweden) (*fig. 8,5*) and Hammer (Norway) (List no. 18, 31, 41, 43), which date to around the middle of the 3rd century and to its second half¹³⁷.

The latest Roman box-shaped chape discovered thus far in the Barbaricum is from the settlement of Stappenbeck (Germany) (List no. 42). This B1 variant chape was found in the deposit filling a well, whose wooden casing was preserved. Dendrochronological analysis showed the casing was built of oak that had been cut down in AD 308¹³⁸. The chape probably found its way into the well later, when the well ceased to be used (the timing of which is difficult to determine), sometime during the 4th century¹³⁹. However, one cannot rule out that it is a much older Roman artefact as suggested by its small size and the axial symmetry of its inlaid decoration, typical of the earliest specimens of the B1 variant; that is, potentially, before the middle of the 3rd century.

These chronological data concerning the occurrence of Roman box-shaped chapes are complemented by the find from Jadowniki Mokre. The chape discovered there was found in a grave furnished with a pair of spurs resembling Ginalski's type G1, which were used by warriors from the Przeworsk culture area in phases C1b and C2¹⁴⁰. The same grave also yielded a shield boss with hemispherical bowl, characteristic of group 7 of grave inventories with weapons in the Przeworsk culture from Godłowski's classification scheme. Group 7 dates broadly to the period spanning the end of phase C1b, through phase C2 and to the beginning of phase C3, which in terms of absolute chronology corresponds with quite a long period of time: from the end of the first half of the 3rd century until the first decades of the 4th century AD¹⁴¹. The burial in question likely comes from the termi-

¹³² SCHULZ 1939, 182 fig. 232.

¹³³ KACZANOWSKI 1992, 47.

¹³⁴ Information courtesy of Ch. Schmidt from Centre for Baltic and Scandinavian Archaeology (ZBSA), Schleswig.

¹³⁵ JENTSCH 1889.

¹³⁶ GODŁOWSKI 1979, 150 f.; KACZANOWSKI 1992, 47 f.

¹³⁷ BEMMANN / HAHNE 1994, 399, 553 no 393; BRORSKI / ILKJAER 2006, 349–356; MIKS 2007, 355; RAU / v. CARNAP-BORNHEIM 2012, 531.

¹³⁸ GALL 2006.

¹³⁹ ID. 2006, 276.

¹⁴⁰ GINALSKI 1991, 67–70 fig. 19.

¹⁴¹ GODŁOWSKI 1992; 1994a.

nal segment of phase C1b or early phase C2 at the latest as is suggested by its location within the cemetery zone, where numerous fragments of terra sigillata vessels were also recovered. These vessels were the product of the Pfaffenhofen workshops (Germany, Bayern) from the years 230–260¹⁴².

The dating of the A5 variant chape from Jadowniki Mokre indicates that such fittings were already beginning to be manufactured around the mid-3rd century. This observation is supported by the dating of the chape of the same variant discovered at Dura Europos¹⁴³, which must have been deposited at the latest by time of the city's destruction between AD 245 and 257¹⁴⁴. If we accept, and this seems very likely, that the specimens of the A5 variant could have been used as a model for numerous barbarian box-shaped chapes covered with groups of concentric incised circles and dated to phases C1b–C2¹⁴⁵, then A5 chapes most likely began to be produced in Roman workshops somewhere in the first half of the 3rd century, perhaps even in its beginning. It is possible (though as yet difficult to demonstrate) that, as in the case of richly decorated Roman chapes, small specimens (less than 80 mm in diameter) of the A5 variant appeared first (such as the chape from Pevensey) and were only later followed by larger chapes; for example, the specimen discovered at Jadowniki Mokre, whose production dates approximately to the mid-3rd century.

Soldiers and warriors

A number of the above-mentioned examples of Roman art indicate an affinity of the scabbards fitted with box-shaped chapes to the personal equipment of Roman soldiers in the 3rd century AD. According to custom, swords were carried on the left side, strapped on wide *baltei* (belts that hung from the shoulder to the side of the body; *fig. 15a*)¹⁴⁶.

The frequency of representation of this part of the soldiers' armour in sculpture in the late principate period, observed also in depictions of highly-ranked officers of the army, indicates that the chapes played not only a decorative role but may also have been an important element signifying the rank of the soldier. Glamorous chapes made of silver and examples covered with inlay and with silver or gold plating were most probably part of the equipment of senior officers. This hypothesis is supported by the discovery of two silver chapes of variant A1 from tombs of Roman officers from Cologne and Silistra (List no. 7, 40). Soldiers of a lower rank might have mainly used scabbards that were fitted by less representative forms of the chapes.

Chapes found at Roman military sites (see List), which, as elements of a soldier's equipment, were either deposited or lost at the sites, may also be linked with a lot of confidence with the military milieu. Generally, these are finds without context or old finds with insufficient documentation to develop conclusions concerning their origin, owner or connection with specific historical events.

Most of the chapes from Roman civil settlements are able to provide at least some useful information. Their presence suggests either temporary residence of the war troops or is related to ongoing intense military activity. Weaponry and artefacts related to weaponry,

¹⁴² The analysis of terra sigillata vessels from Jadowniki Mokre was performed by Andrzej Przychodni from the Wojewódzki Urząd Ochrony Zabytków (Provincial Heritage Protection Office) in Kielce.

¹⁴³ JAMES 2004, 156 no 571 fig. 91.

¹⁴⁴ ID. 2004, 22 ff.; MIKS 2007, 350.

¹⁴⁵ ILKJAER / LØNSTRUP 1974; KACZANOWSKI 1992, 48; MIKS 2007, 349 f.

¹⁴⁶ COULSTON 1987; UBL 2013, 293 fig. 295.

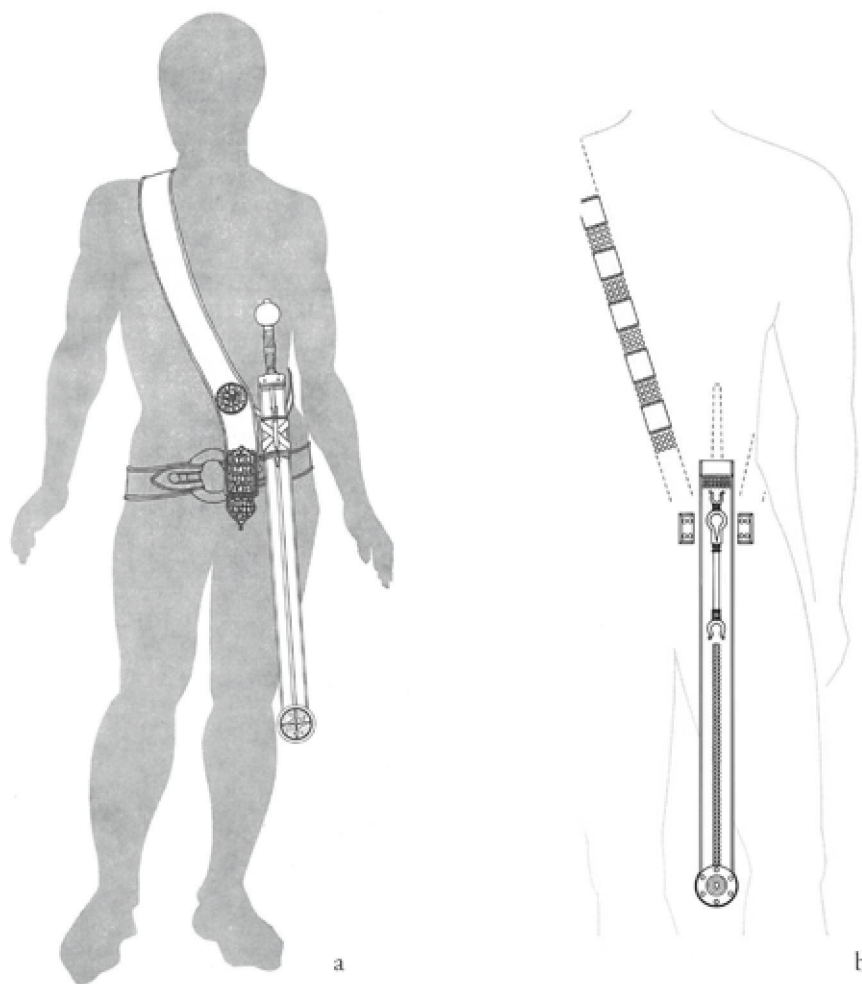


Fig. 15. Reconstructions of Roman (a) and barbarian (b) sword belts (after OLDENSTEIN 1977 and v. CAR-NAP-BORNHEIM / ILKJAER 1996 [modified]).

including box-shaped chapes, discovered in urban centres such as Augst, Dura Europos or Palmyra, can be linked to the occurrence of warfare. On a number of other Roman settlement sites where military equipment was found, however, the occurrence of warfare cannot be suggested with confidence. G. Lenz-Bernhardt, discussing the box-shaped chape found in the *villa rustica* in Ladenburg (Germany), noticed that military equipment discovered in civilian settlements can be combined with the presence of members of the Roman military police, the so-called *beneficarii*, whose equipment probably didn't differ significantly from that of the soldiers¹⁴⁷. Military veterans, however, could have also retained their weapons in the civilian sphere, as those with "honourable" discharge (*missio honesta*) had the right to keep personal military equipment. An exempted weapon was either still in use or it was deposited as a sacrificial offering. The possibility of box-shaped

¹⁴⁷ LENZ-BERNHARDT 1986.

chapes found in aquatic environments (e. g. Angeren, Mainz) being sacrificial offerings should be considered.

Another option that should be examined is the existence of weapon circulation in non-military contexts in the Roman Empire before the reign of Diocletian, who restricted the manufacturing of weapons to *fabricae* that were controlled by the state administration¹⁴⁸. Access to military equipment, the high value of which is confirmed by numerous written sources, existed primarily for wealthy Roman citizens. During periods of external threat or in periods of increasing crisis in state power, these wealthy Romans with potential access to weapons may then have attempted to mobilise armed forces¹⁴⁹. Various types of weapon were also used for hunting¹⁵⁰. It remains unclear, however, whether the private purchase of weapons was motivated by practical reasons only or whether scabbards fitted with box-shaped chapes, for example, were purchased as decorative elements. The connection of some weapon finds in civilian zones with metal production workshops is also likely. Both unfinished products and recyclable materials, such as parts of disused military equipment retrieved from abandoned military facilities, might be found in civilian metal workshops. This “recycling” process should be considered as a possibility particularly in the *Limes* zone during the period of crisis in the 3rd century, when many garrisons were relocated and there was a shortage of materials¹⁵¹.

Interesting patterns can be discerned in the presence locations of box-shaped chape finds in the Barbaricum. Box-shaped chape finds from Northern and Central Europe are mostly associated with military contexts. Some also provide evidence of the symbolic role of these scabbard fittings among the barbarian community. A number of Germanic burials from the Middle Elbe area (graves from Nebra, Liebersee and Ichsted [List no. 21, 26, 28]) and a grave of the Przeworsk culture in Opatów (List no. 32), where the chape was particularly distinctive or was the only important part of equipment of the deceased, suggest the significance of these military items to the buried individuals. Swords, however, were not discovered in these graves, which seems to emphasise the importance of the scabbard or even the chape itself as part of the warrior’s equipment. Adoption of certain elements of Roman military symbolism alongside the use of the items themselves, in which box-shaped chapes probably had an outstanding meaning, could have influenced the barbarians’ perception of chapes by the barbarians. It is possible that this symbolism was spread by Germanic warriors, originating partly from tribes living in the Middle Elbe basin, who served in *auxilia* of the army of the *Imperium Galliarum* shortly after the mid-3rd century (*ingentia auxilia Germanorum [Scriptores Historiae Augustae, Gallieni duo 7. 1, Triginti Tyranni 6. 2]*)¹⁵².

References to Roman military symbolism can also be found in the military equipment of hierarchical barbarian “armies”, reconstructed on the basis of rich bog finds from Northern Europe (e. g. Illerup or Thorsberg [Denmark]). A possible identifier of a warrior’s rank in such units might have been the various forms of the scabbards with barbarian

¹⁴⁸ BREEZE 1976; JAMES 1988; FISCHER 1990, 81; ID. 2012a, 82–95; PFAHL / REUTER 1996; BURMEISTER 1998, 105; v. DEAL 1999; NICOLAY 2001; BISHOP / COULSTON 2006: 233–240, 262–266.

¹⁴⁹ Information about war-time mobilisation of Roman civilians is particularly relevant to the 3rd century. A good example is the inscription from a famous Augsburg altar that relates to fights with

Juthunghs in A.D. 260, in which in addition to the military forces, Roman *populares* took part, interpreted in this case as a kind of militia from the province *Raetia* (BIRLEY 1988; PFAHL / REUTER 1996, 138–140; BAKKER 1993, 377).

¹⁵⁰ PFAHL / REUTER 1996, 136–138.

¹⁵¹ EAD. 1996, 127, 141.

¹⁵² WERNER 1973.

box-shaped chapes, which were most likely strapped on in the same manner as Roman specimens with the suspension loop facing the front (*fig. 15b*). The most glamorous of these scabbards, ending in representative chapes, are connected with a small, elite group of warrior leaders¹⁵³.

The above considerations should be supplemented by individual examples of chapes found on Germanic settlements sites, which apparently were no longer in military use (Frienstedt, Stappenbeck [List no. 15, 42]). However, it is possible that such chapes were either lost or deposited elements of damaged scabbards.

Importation of Roman military equipment to the Barbaricum

The concentration of box-shaped chapes along the Rhine and the upper Danube suggests that such fittings were manufactured in this zone by highly specialised workshops to meet the demand from Roman troops garrisoned along the *Limes Germanicus*. Iron specimens of type B, dating to the 2nd and 3rd centuries AD, are characteristic for finds along the Rhine and the upper Danube, like many other Roman scabbard fittings made of iron (*fig. 16*). Another production area may have been located in the province of *Britannia*, where a large number of varied bronze fittings were found. Cast, one-piece chapes of *Novaesium* type that represent forms, which are very similar to and are probably prototypes for box-shaped A5 variant chapes (*fig. 17*), are popular in this area.

Among the many factors that probably affected the inflow of box-shaped chapes to other parts of the Empire and the Barbaricum, one of the most important seems to be the movements of military units stationed along the *Limes* in the 3rd century, known from historical as well as archaeological sources. These movements were partly connected with far-reaching war expeditions against external enemies, for which Rhine troops were deployed. Associated with these campaigns is the presence of representations of chapes in the Sassanid rock art as well as at least some of the finds of box-shaped chapes in the Middle East. The army guarding the *Limes* also fought in many internal conflicts, for which detachments (*vexillationes*) were frequently sent to the most endangered places in the Empire's northern provinces¹⁵⁴.

The possibility that many of the box-shaped chapes discovered in the Barbaricum could have originated from one of the Roman provinces on the Rhine should also be considered. To trace the path of box-shaped chapes to the Barbaricum, we have to consider multiple causes and ways of import of Roman military equipment. According to the most popular hypothesis, the barbarians could receive weapons either via exchange or as Roman gifts. Occasional gifts (especially for rulers called *rex et amicus populous Romanorum*) or subsidies of military equipment could have been the deliberate result of Roman foreign policies, consciously aimed at arming some of the barbarian tribes.

Moreover, Roman military equipment could have passed into the possession of barbarians as war booty. Elements of military equipment could also have been imported by barbarian soldiers coming back to their homeland after finishing military service in the Roman army. It has been pointed out that weapons could have moved outside the *Limes* border as

¹⁵³ V. CARNAP-BORNHEIM 1992; ID. / ILKJAER 1996; ILKJAER 1997; 2001a; 2001b; ID. / BIRCH IVERSEN 2009; RAU / V. CARNAP-BORNHEIM 2012. ¹⁵⁴ KOTULA 1992.

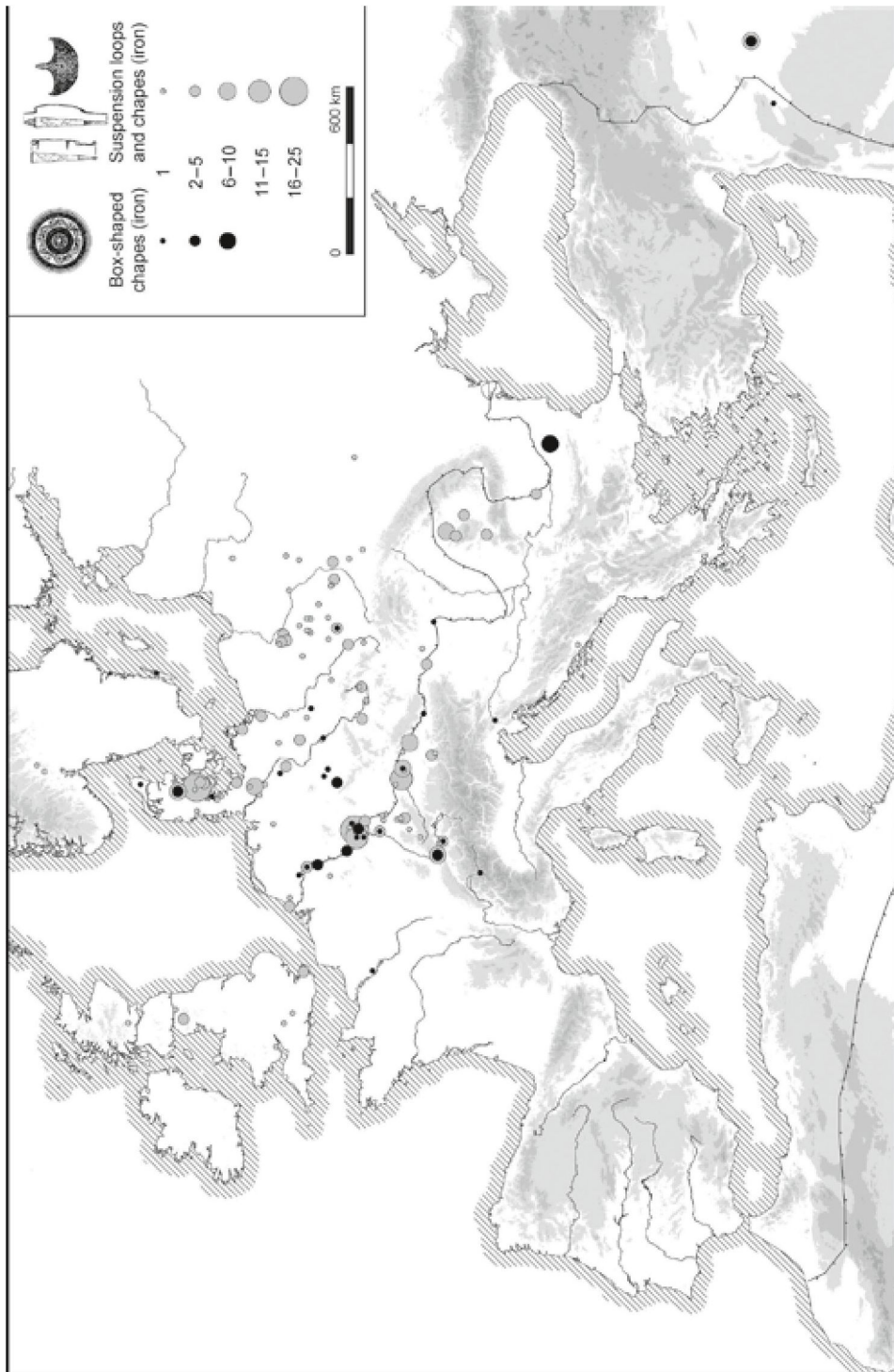


Fig. 16. Distribution of 2nd and 3rd century iron scabbard-fittings finds of Roman provenance (chapes: pelta-shaped chapes [type Hamfelde-Vimose, type Caerleon-Lyon], box-shaped chapes, volute-shaped chapes, case-shaped chapes; slides: type ID, IIB, IIIA,B,D [v. CARNAP-BORNHEIM 1991]) (according to MIKS 2007, completed; drawing M. Kasiński).

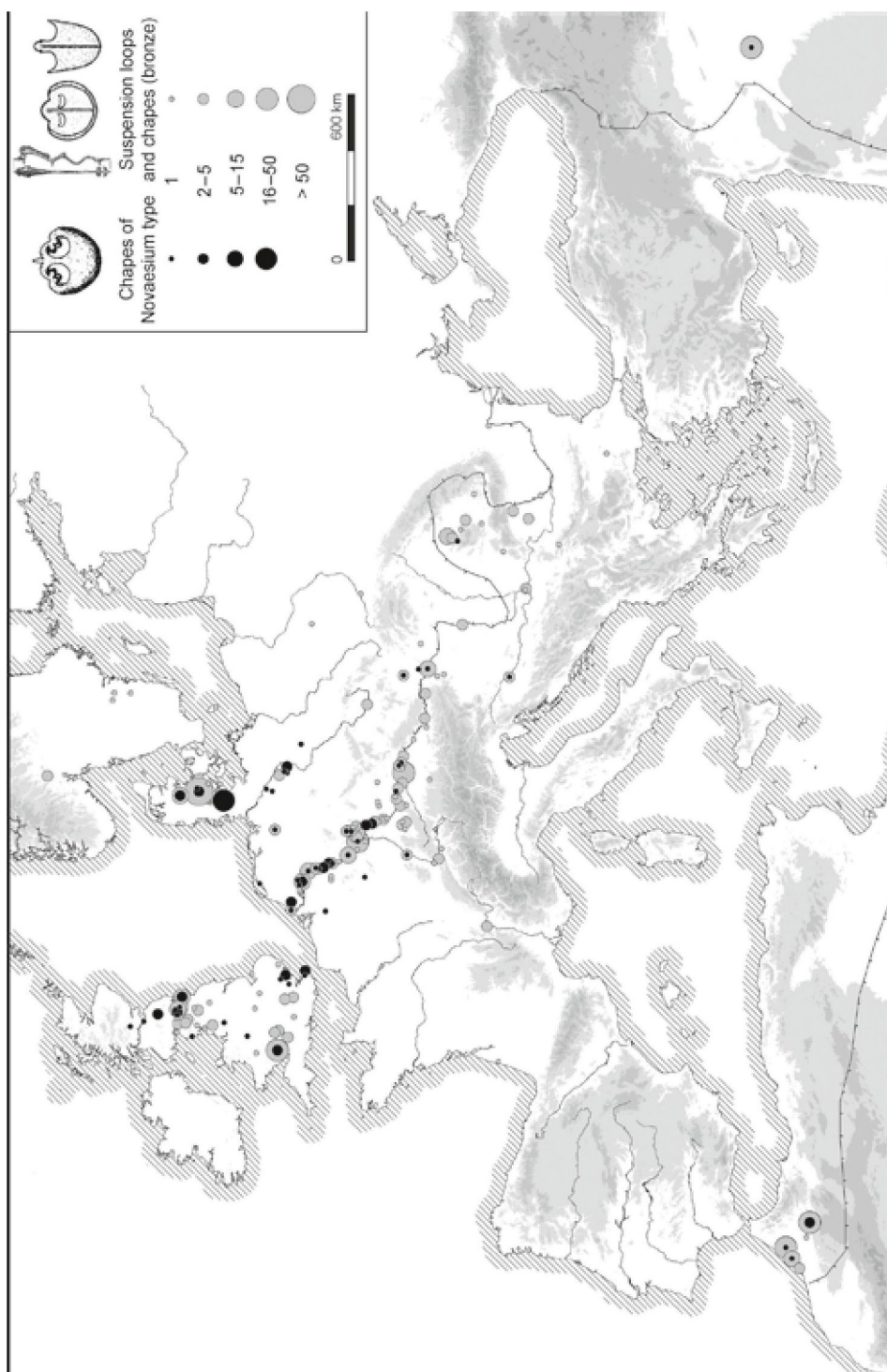


Fig. 17. Distribution of 2nd and 3rd century bronze scabbard-fittings of Roman provenance (chapes: type Nijmegen-Doncaster, pelta-shaped chapes [type Hamfelde-Vimose, type Caerleon-Lyon, type Volubillis], volute-shaped chapes [type Novaesium, type Zugmantel], box-shaped chapes, case-shaped chapes; slides: type ID, IIB, IIIA,C,D [v. CARNAP-BORNHEIM 1991]) (according to MIKS 2007, completed; drawing M. Kasiński).

a result of contact between barbarian groups settled on the border of the Roman Empire (*foederati, laeti, gentiles, dedititti, socii*) and compatriots living in the Barbaricum¹⁵⁵.

It is hard to establish a general hierarchy of the aforementioned causes of weapon importation. Rather, we need to assume that these factors often worked in parallel and depended on the local demand outside the *Limes*. For some periods, however, in specific historical contexts, some regularities can be noted, particularly in the 3rd century, to which box-shaped chapes generally date. This period is regarded as full of both internal fights in the *Imperium Romanum* and numerous, sometimes extremely devastating, barbarian raids on the northern *Limes*. It was also a period of intensive barbarian pirate expeditions on the North Sea, which probably gave rise to the establishment of the Saxon Shore (*Litus Saxonicum*) on both sides of the English Channel.

The weakness of the Roman army was one of many negative phenomena accompanying these events. Despite the deep reforms of Gallienus and Diocletian, the army began gradually losing its former fighting capability. Auxiliary troops consisting of warriors living in the Barbaricum were used increasingly often to complement the army due to declining numbers of recruits, resulting from, among other factors, the demographic crisis in the provinces¹⁵⁶. Longtime service in Roman army became attractive for barbarians especially after declaration of the *Constitutio Antoniniana* issued in AD 212 by the Emperor Caracalla, giving large numbers of free-born noncitizens (*peregrini*) access to Roman citizenship. Roman citizenship generally improved career and income opportunities during the military service¹⁵⁷.

There was a distinct increase in the inflow of Roman swords to the Barbaricum, especially to its northern part, in Scandinavia, during the unsettled 3rd century. Other categories of Roman military equipment are fairly unrepresented in terms of archaeological finds from this time period. Though several hundred swords are known, these likely represent only a small part of the actual number of swords imported beyond the *Limes*. Thanks to finds of well-preserved weapons from south Scandinavian bog sites (e. g. in Illerup, Vimose, Nydam, Hedelisker, Ejsbøl and Kragehul [Denmark]), we may assume that the northern barbarians purchased not only complete Roman specimens but also a great number of blades. The blades were fitted with hilts and scabbards designed in the local style in local workshops but were clearly influenced by Roman patterns. Scabbard elements are the most numerous. These include chapes above all, which are represented by the barbarian box-shaped forms described above, among other types, but also other elements such as suspension loops and throats. In some cases, the Roman originals were customised to suit the taste of their barbarian recipients¹⁵⁸.

The mass import of Roman weapons, almost exclusively swords, to the northern zone of the Barbaricum, hundreds of kilometres beyond imperial boundaries, provide the basis

¹⁵⁵ See RADDATZ 1961; DĄBROWSKI / KOLENDO 1967; ID. 1972; WERNER 1973; BÖHME 1974; WENSKUS 1976; GODŁOWSKI 1985; KUNOW 1986; LØNSTRUP 1986; DRINKWATER 1987; LUND HANSEN 1987; v. CARNAP-BORNHEIM 1992; 2004; KACZANOWSKI 1992; 1994; BARNES 1994; ERDRICH 1994; ID. 2001; MUSIL 1994; STEUER 1998; WELLS 1999; v. CARNAP-BORNHEIM / ILKJAER 2000; HARDT 2004; GRANE 2007a; RAU 2012; ID. / v. CARNAP-BORNHEIM 2012.

¹⁵⁶ See GROSSE 1920; ALFÖLDI 1967; JOHNSON 1976; OKAMURA 1984; DRINKWATER 1987; HAYWOOD 1991; KOTULA 1992; BARNES 1994; WILLIAMS 1997; LE BOHEC 2002; BISHOP / COULSTON 2006; FISCHER 2012a; ID. 2012b.

¹⁵⁷ BEMMANN 2003a, 67; MATEŠIĆ 2008, 102.

¹⁵⁸ See v. CARNAP-BORNHEIM 1992; ID. 2004; ID. 2014; ID. / ILKJAER 1996; BEMMANN / BEMMANN 1998a; v. CARNAP-BORNHEIM / ILKJAER 2000; ILKJAER 2001a; BIBORSKI / ILKJAER 2006; RAU 2012; ID. / v. CARNAP-BORNHEIM 2012.

for further questions about the provenance of imports. Some of this military equipment could certainly have been acquired as spoils of war, for example, as the result of barbarian piracy on the North Sea, in which northern barbarian tribes participated; another possibility is the transportation of weapons to the north as the personal equipment of barbarian mercenaries serving in the Roman army. However, the large number of Roman swords, including numerous blades, deep in the Barbaricum lends credibility to the claim that some kind of exchange played the most important role. Trade could have been organised by barbarian *principes*, who at that time kept wide-ranging contacts within the Roman Empire¹⁵⁹. What we have to bear in mind is that aristocrats could easily get permission to acquire large quantities of weapons from state sources and to transport them abroad. They were also in possession of funds which ensured fulfillment of the sometimes very expensive transactions. Roman private traders – *negotiatores* – from Gallia and the Rhine provinces could mediate these transactions and, if necessary, grant loans for the purchase of weapons or simplify interaction with the state administration. A number of historical documents, starting from the 2nd century, report the activity of *negotiatores* in Gallia and the Rhine provinces, including at the mouth of the river, and note the shipping of Roman wares¹⁶⁰. Particularly crucial in this context is information about the presence of a veteran called *negotiator gladiarius*¹⁶¹ in *Mogontiacum* (Mainz, Germany) on the *Limes Germanicus*, who may well have been involved in cross-border arms trading with barbarians.

This view is contrary to previously criticised opinions of some authors, who suggested the existence of bans that were strictly followed in the Roman Empire on the delivery of weapons to barbarians¹⁶². If such bans ever existed, they must have been imposed temporarily and did not concern the entire population of the Barbaricum. Weapons trade, profitable to provincial administrations, was most probably economically motivated rather than part of a deliberate, wide-ranging Roman foreign policy (*hostium discordia*) due to the turbulent internal situation in the Roman Empire during the 3rd century and the crisis of the permanently destabilised central state power. Besides, Scandinavia – distant and rather poorly-known to Romans – could not have played an important role in these politics¹⁶³. The import of Roman weapons initiated by barbarian *principes* should be considered as one of the phenomena associated with a clear increase of self-awareness and political organisation within the barbarian tribes in late antiquity.

In the continental zone of the Barbaricum, close to the *Limes*, where tribes were directly involved in military conflicts with Rome and with Roman internal politics, the inflow of weapon imports, mainly swords, may have been determined by different factors from those in the north. An important role might have been played by different forms of exchange, war booty and the personal activities of barbarian mercenaries. The latter possibility is taken into consideration to explain the presence of numerous Roman elements in the younger Roman period on the Middle Elbe¹⁶⁴. Mercenaries may have been responsible for the movement of large type B box-shaped chapes to this part of the Barbaricum, of which a few were discovered in central Germany. A concentration of large chapes has also been found in the northern Rhine part of the *Limes* that was least affected by destructive Germanic invasions in the 50s and 60s of the 3rd century (*fig. 18*), where Roman

¹⁵⁹ see v. CARNAP-BORNHEIM / ILKJAER 2000; BILBORSKI / ILKJAER 2006; MATEŠIĆ 2008; RAU 2012; ID. / v. CARNAP-BORNHEIM 2012.

¹⁶⁰ KUNOW 1980.

¹⁶¹ CIL XIII 6677

¹⁶² DĄBROWSKI / KOLENDO 1967; ID. 1972; RANKOV 1999.

¹⁶³ GRANE 2007b.

¹⁶⁴ WERNER 1973; BEMMANN 2003a; SCHMIDT 2012; 2013, 63 f.

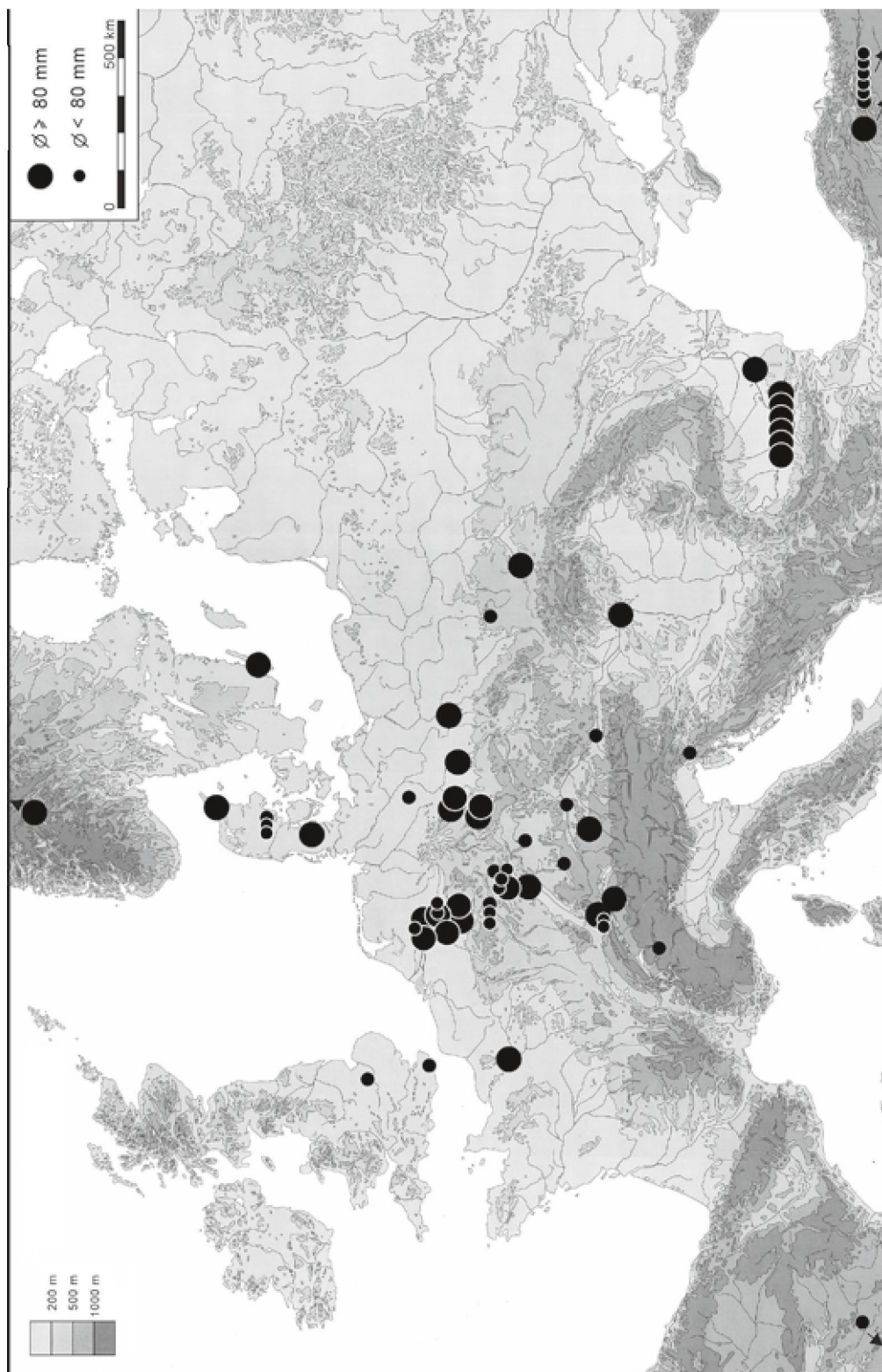


Fig. 18. Distribution of Roman box-shaped chapes of different sizes.

troops controlled by rulers of the *Imperium Galliarum* were probably stationed. Among their ranks, as has already been mentioned, was the presence of auxiliary troops composed of Germanic warriors, originating probably from the central part of Germany.

Conclusion

In the case of the Roman chape from Jadowniki Mokre, introduced to the Central European Barbaricum, all discussed ways of import or inflow seem to be possible. However, this find, dated to the middle of the 3rd century, seems more likely to be war loot, taking into account the extremely turbulent political situation at this time on the not-so-distant northern frontier of the Roman Empire: the *Abritus* defeat (AD 251), the fall of the *Limes Germanicus* (AD 254 / 259 / 260) and the rise of the *Imperium Galliarum* (AD 260–274). The loot might have fallen into the hands of the barbarians during one of the numerous Germanic raids into the *Limes Germanicus* in the 3rd century, in which warriors from the Przeworsk culture area in southern Poland also took part¹⁶⁵. The modestly decorated chape from Jadowniki could have belonged to one of the lower-ranking Roman soldiers, who were usually equipped with less elaborate sword scabbards. This soldier could have served in a Roman unit located originally in the province *Britannia*, where chapes of the same type as the specimen from Jadowniki Mokre were used and probably also manufactured as suggested by finds from Pevensey and Peterborough. This seemingly quite unlikely hypothesis is not completely groundless, because of the presence of British detachments (*vexillationes*) on the Rhine, which is recorded in the 50s of the 3rd century during Gallienus' offensive against Germanic tribes (*Mogontiacum*, AD 255)¹⁶⁶.

The possibility that the Jadowniki Mokre chape belonged to the equipment of a barbarian serving in a Roman auxiliary force around the middle of the 3rd century (*ingenia auxilia Germanorum*) should also be considered. For the barbarians, the discussed chape must have been an object of considerable value, given the evidence of repairing, either by adjusting its attachment to the original Roman scabbard or fixing it on a new barbarian scabbard.

The grave from Jadowniki where the chape was discovered did not contain a sword or any other metal scabbard elements. The absence of these elements may result from the disturbance of the upper part of the pit grave by deep ploughing and gravel quarrying since the 19th century, which considerably damaged a large part of the necropolis. However, it is also possible that this was the original composition of the grave inventory, resulting from certain cultural circumstances. In this case, the presence of the chape in the grave could contribute to the high social status of the deceased by reference to Roman military symbolism as is the case in barbaric graves with chapes, but no swords, from the central part of Germany and in the grave from Opatów.

What is interesting is that the box-shaped chapes from Opatów and Jadowniki Mokre were deposited in the graves of children. Other characteristic elements of adult warriors' equipment, such as a shield boss and large spurs, were also found in the Jadowniki child's grave. This interesting practice of furnishing the graves of children with weapons is known from other barbarian cemeteries and perhaps was meant to emphasise the high social posi-

¹⁶⁵ GODŁOWSKI 1979, 152.

¹⁶⁶ CIL XIII 6780; BIRLEY 1965, 31 f.; KOTULA 1992, 26; DE GREEF 2002, 55; DAVIES 2004, 103; STROBEL 2009, 916 footnote 16.

tion of the family of the deceased child¹⁶⁷. Next to the grave of the child was the grave of another individual (grave 16), who may have belonged to the same family, probably the representative of local elites, and whose rich burial is dated to phase C1b (the first half of the 3rd century). The burial was furnished with, among other objects, a rare type of battle-axe, a spur and a terra sigillata vessel of Pfaffenhofen provenance and possibly gold adornments. Loose fragments of these gold adornments, including a necklace with a pear-shaped clasp¹⁶⁸, were found in the layer over the grave. Regardless of the fact that the above discussion is hypothetical to some extent, the conclusions nevertheless offer an interesting contribution to the studies of the customs and long-ranging contacts of the Przeworsk culture elites in the 3rd century AD.

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¹⁶⁷ GODLEWSKI 1979, 152–153.

¹⁶⁸ ANDRZEJOWSKI 2014.

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No.	Site	Country	Context	Finds	Variant	References
1	Angeren (Gelderland)	NL	“Loowaard / Kandia”, stray find from the Rhine	iron chape (damaged)	B1	MIKS 2007, 923 plate 257,B344.3; NICOLAY 2007, 29 plate 24,13.7
2	Augsburg <i>Augusta</i> <i>Vindelicorum</i>	D	„Am Pfärrle / Lueg- inslandgäfschen”, <i>castellum</i> , stray find	silver plate with rich niello deco- ration – possibly partly preserved chape	A1 (?)	BAKKER 1985, 277, fig. 227; MARTIN-KILCHER 1985, 167 f. fig. 16; MIKS 2007, 774 plate 258,B12.15
3	Augst <i>Augusta</i> <i>Rauricorum</i> (Basel-Landschaft)	CH	Roman town, <i>insula</i> 5, stray finds	2 iron chapes	B1	MARTIN-KILCHER 1985, 184 f. fig. 27,5; 28,1; MIKS 2007, 777 plate 254,B13.51.52
4	Augst	CH	Roman town, <i>insula</i> 29, stray find	silver chape (damaged) with rich niello decoration	A1	<i>Fig. 6,2</i> MARTIN-KILCHER 1985, 150 f. fig. 3–4; MIKS 2007, 536 f. plate 258,A22
5	Banasa Valentia <i>Colonia Iulia</i> <i>Valentia Banasa /</i> <i>Colonia Aurelia</i> (Sidi-Ali-Bou Djenoun)	MAR	colonia, stray find	cast bronze chape	A5	BOUBE-PICOT 1994, 163 no 335 plate 337; MIKS 2007, 782 plate 253,B20.23
6	Cologne- Bayenthal <i>Colonia Claudia</i> <i>Ara Agrippinensium</i>	D	“Alteburg” area of the northern ramparts of the Roman naval base in Cologne-Marienburg, stray find	bronze chape	A3	<i>Fig. 7,2</i> STJERNQUIST 1955, 113 plate 41,1; MIKS 2007, 829 plate 253,B146.22
7	Cologne- Severinstor	D	inhumation grave	silver chape	A1	<i>Fig. 6,1</i> LINDENSCHMIT 1900, plate 57,1; MARTIN-KILCHER 1985, 154 ff. fig. 6; 1993; MIKS 2007, 634 f. plate 258,A357; HÖPKEN / LIESEN 2013, 388 f. fig. 6
8	Dietikon (Zürich)	CH	<i>villa rustica</i> , stray find	iron chape	B1	EBNÖTHER 1995, 81 ff. no 463 plate 27,195.196; MIKS 2007, 799 plate 254,B73.1
9	Dura-Europos	SYR	Hellenistic town, stray find	iron chape	B1	JAMES 2004, 154 no 566 fig. 90; MIKS 2007, 803 plate 254.B81,48
10	Dura-Europos	SYR	Hellenistic town, stray finds (one possibly from Tower 19 countermine [?])	4 iron chapes	B1 (?)	JAMES 2004, 254, 156 no 567–570 fig. 90; MIKS 2007, 803 plate B81.46.47.49.50
11	Dura-Europos	SYR	Hellenistic town, stray find	cast bronze chape	A5	JAMES 2004, 156 no 571 fig. 91; MIKS 2007, 803 plate 253,B81.45
12	Echzell (Wetteraukreis)	D	<i>castellum</i> and <i>vicus</i> , stray find	iron chape	B1	HEINECK 1975, 556 fig. 59,3; MIKS 2007, 803 plate 255,B82.2
13	Eining <i>Abusina</i> (Kelheim)	D	<i>vicus</i> , stray find	iron chape (damaged)	B1	KELLNER 1966, 200 f. fig. 3 plate 17; OLDENSTEIN 1977, 244 no 138 plate 22,138; MARTIN-KILCHER 1985, 161 fig. 9,5; MIKS 2007, 806 plate 255,B87.32
14	Enns-Lorch <i>Lauriacum</i> (Linz-Land)	A	<i>canabae legionis</i> , stray find	iron chape (damaged)	B1 (?)	UBL 1997, 52 no I/C fig. 6; MIKS 2007, 808 plate 255,B92.14
15	Frienstedt (Erfurt)	D	settlement, from two household pits	2 iron chapes (one damaged)	B1 (?)	SCHMIDT 2012, fig. 7; personal comm. Ch. Schmidt

No.	Site	Country	Context	Finds	Variant	References
16	Génainville (Val-d'Oise)	F	„Vaux-de-la-Celle“, Roman temple, stray find	iron chape	B1	MITARD 1993, 390 ff. no 68 fig. 2; MIKS 2007, 817 plate 255,B103.2
17	Grabice [f. Reichersdorf] (Lubuskie)	PL	grave 17	iron chape	B1	<i>Fig. 8,6</i> JENTSCH 1889, 343 ff. fig. 1; 1895, 110 ff. fig. 45; LINDENSCHMIT 1900, plate 38,3; HUNDT 1953, 66 fig. 3,1; DOMAŃSKI 1979, 50 fig. 11,r; MARTIN-KILCHER 1985, 163 fig. 11,4; BORHY 1989, 134 fig. 5; MIKS 2007, 597 plate 72,A238
18	Hammer (Stjørdal, Nord-Trøndelag)	N	from grave?	iron chape	B1 (?)	RYGH 1903, 11 f. no 40d; ILKJAER 1990, no 247; BEMMANN /HAHNE 1994, 399; 553 no 393; v. CARNAP-BORNHEIM /ILKJAER 2000, footnote 15
19	Heddernheim <i>Nida</i> (Frankfurt)	D	“Hadrianstraße / In der Römerstadt”, “Gärtnerei Hissenauer”, <i>vicus</i> , stray find and find from basement no. 16 of civil building	2 iron chapes	B1	HUNDT 1955, 53 fig. 2; OLDENSTEIN 1977, 244 no 142 plate 23,142; MARTIN-KILCHER 1985, 160 fig. 8,1,2; MIKS 2007, 810 plate 255,B99.27.28
20	Hofstett (Geislingen a. d. Steige, Göppingen)	D	“Hochsträßshau”, <i>vicus</i> , „Gebäude B“	iron chape	B1	PARET 1932, 320 f. fig 127; HUNDT 1953, 67 fig. 1,1; OLDENSTEIN 1977, 244 no 139, plate 22,139; MARTIN-KILCHER 1985, 161 f. fig. 9,4; 10,3; MIKS 2007, 816 plate 255,B102.1
21	Ichstedt (Kyffhäuserkreis)	D	“Am Günthersberg”, grave 74	iron chape	B2 (?)	BECKER 1999, 60–62 fig. 19; 20 plate 44; MIKS 2007, 924 f. plate 257,B352.2
22	Illerup Ådal (Skanderborg, Jutland)	DK	bog site, deposit A/B	3 iron chapes	B1	<i>Fig. 8,1</i> BIBORSKI /ILKJAER 2006b, 271–273 fig. BLV; PLA; VQL
23	Jadowniki Mokre (Małopolskie)	PL	site 1, grave 9	cast bronze chape (damaged)	A5	<i>Figs 1; 2</i> Unpublished
24	Krefeld-Gellep <i>Gelduba</i> (Nordrhein- Westfalen)	D	<i>castellum</i> , stray finds	3 iron chapes (damaged)	B1 (?)	MIKS 2007, 831 f. plate 255,B151.16–18
25	Ladenburg <i>Lopodunum</i> (Rhein-Neckar- Kreis)	D	<i>villa rustica</i> , stray find	iron chape (damaged)	B1	LENZ-BERNHARD 1986, 32 ff.; MIKS 2007, 834 plate 256,B155.2
26	Liebersee (Torgau-Oschatz)	D	grave 1393	iron chape	B1	BEMMANN 2003b, 171 f. plate 93,3; MIKS 2007, 836 plate 256,B163.1
27	Mainz <i>Mogontiacum</i>	D	causal find from Rhine by Mainz	iron chape	B1 (or B2?)	HUNDT 1953, 66 fig. 3,2,; 1955, 53 f. fig. 3; MIKS 2007, 842 plate 256,B178.30
27a	Martigny <i>Forum Claudii Vallensium</i> (Wallis)	CH	Roman town, stray find?	iron chape	B1	DESCHLER-ERB 2010, fig. 4.6
28	Nebra (Burgenlandkreis)	D	“Auf der Altenburg”, grave 1	iron chape	B2 (?)	<i>Fig. 9,3</i> SCHULZ 1939, 182 fig. 232;

No.	Site	Country	Context	Finds	Variant	References
29	Niederbieber (Neuwied)	D	<i>castellum</i> or <i>vicus</i> , stray finds	2 iron chapes (one damaged)	B1	HUNDT 1953, 66 fig. 2; MILDENBERGER 1970, 138 f. plate 37,1b; MARTIN-KILCHER 1985, 161 f. fig. 9,2; 10,4; MIKS 2007, 846 plate 256,B196.1
30	Niederbieber	D	<i>castellum</i> , stray find	iron chape	B1	HUNDT 1953, 67 fig. 6,3; 1955, 54 fig. 1; OLDENSTEIN 1977, 244 no 140 plate 22,140 (see also no 146); MARTIN-KILCHER 1985, 160 f. fig. 8,5; 9,6; MIKS 2007, 849 plate 256,B200.30
31	Nydam Mose (Sønderborg, Jutland)	DK	bog site, deposit I	iron chape	B1	HUNDT 1953, 66 fig. 1,3; MARTIN-KILCHER 1985, 161 f. fig. 9,1; 11,3; BEMMANN / BEMMANN 1998a, 167 f.; 1998b, 76 no 656 plate 67,656; MIKS 2007, 855 plate 257,B208.29
32	Opatów (Śląskie)	PL	site 1, grave 1186	iron chape	B1	<i>Fig. 8,3</i> GODŁOWSKI / MADYDA 1976, 37 fig. 1,f; GODŁOWSKI 1979; KACZANOWSKI 1992, 47 f. fig. 12,1; MIKS 2007, 857 plate 257,B216.1; MADYDA-LEGUTKO ET AL. 2011a, 237 f.; 2011b, plate CCCLXVI,2
33	Palmyra	SYR	“south of Wadi al-Qubur”, Hellenistic town, test trench I, stray find	iron chape	B1	<i>Fig. 8,4</i> PLOYER 2010, 186–190 fig. 2–5
34	Peterborough (Cambridgeshire)	UK	“Flag-Fan”, stray find	cast bronze chape	A5	Unpublished; personal comm. H. Fowler
35	Pevensey <i>Anderitum</i> (East Sussex)	UK	stray find(?)	cast bronze chape	A5	<i>Fig. 5</i> JACKSON 2004a; 2004b; MIKS 2007, 587 plate 253,A191; LANG / JACKSON 2015, fig. 2
36	Pilismarót- Szobi (Komárom- Esztergom)	H	Roman watchtower (<i>specula / vigilarium</i>), find from a ditch	iron chape	B1	BORHY 1989, 129 ff. fig. 1–3; MIKS 2007, 860 plate 257,B225.1
37	Razgrad <i>Abritus</i>	BG	west of Ostrovche, “Yuk ekinli”, settlement, stray find	iron chape (damaged)	B2	<i>Fig. 9,2</i> ABRITUS 2002; BIBORSKI / QUAST 2006, 563 f. fig. 4,1; MIKS 2007, 863 plate 257,B238.1; RADOSLAVOVA ET AL. 2011, 44; 45 no 41

No.	Site	Country	Context	Finds	Variant	References
38	Razgrad	BG	west of Ostrovche, "Yuk ekinli", settlement, stray finds	5 iron chapes	B1	RADOSLAVOVA ET AL. 2011, 44; 45 no 42–46
39	Rimburg (Übach-Palenberg-Rimburg) (Heinsberg)	D	find from the Wurm river crossing	bronze chape	A4	<i>Fig. 7,3</i> HUNDT 1953, 71; MIKS 2007, 884 plate 253,B293.2; ORTISI 2008
40	Silistra <i>Durostorum</i>	BG	grave discovered in 1968	silver chape with rich niello decoration	A1	<i>Fig. 6,3</i> VASILEV / MITANOV 1974, 41 f. fig. 11; 22; 23; MIKS 2007, 722 plate 258,A655.1; DUMANOV / BACHVAROV 2010, plate I; II; DUMANOV 2013, fig. 44, 45
41	Skedemosse (Gårdlösa, Öland)	S	bog site, part 15C	iron chape (damaged)	B1	<i>Fig. 8,5</i> HAGBERG 1967, 40 fig. 35 plate 11; MIKS 2007, 871 plate 257,B263.10
42	Stappenbeck (Altmarkkreis Salzwedel)	D	site 13, settlement, feature 85 (well)	iron chape	B1	GALL 2006; 2012, 92–96 plate 61,4
43	Svennum (Hjørring, Jutland)	DK	chambered burial	iron chape (damaged)	B1 (?)	ILKJAER / LØNSTRUP 1974, 40; BEMMANN / HAHNE 1994, 399; MIKS 2007, 737 plate 254,A709
44	Vodice pri Kalcah (Ajdovščina, Primorska)	SLO	hoard (?)	iron chape	B1	<i>Fig. 8,2</i> PFLAUM 2007, 287 no 2 fig. 3,2; 4; 5
45	Willanzheim-Hüttenheim (Kitzingen)	D	stray find from settlement or grave	cast bronze chape	A2	<i>Fig. 7,1</i> PESCHECK 1977, fig. 24; MARTIN-KILCHER 1999, fig. 11,2; HOFFMANN 2004, plate 43,18; BIBORSKI / QUAST 2006, 569 no 30 fig. 5,2; MIKS 2007, 905 plate 253,B327.1
46	Xanten <i>Colonia Ulpia Traiana / Castra Vetera</i> (Wesel)	D	Roman town or <i>castrum</i> , stray find	iron chape	B1	HUNDT 1953, 66 fig. 6; MARTIN-KILCHER 1985, 163 fig. 11,2.5 (from Cologne); BORHY 1989, 135 fig. 7 (probably from Cologne); MIKS 2007, 919 plate 257,B335.44
47	Zugmantel (Rheingau-Taunus-Kreis)	D	<i>castellum</i> or <i>vicus</i> , stray find	iron chape	B1	HUNDT 1953, 66 fig. 1,2; 4; OLDENSTEIN 1977, 244 no 143 plate 23,143; MARTIN-KILCHER 1985, 160 f. fig. 8,6; 9,3; MIKS 2007, 922 plate 257,B340.65
48	Unknown location (Nijmegen?)	NL?	Museum Het Valkhof, Nijmegen	bronze chape	A4	<i>Fig. 7, 4</i> STJERNQUIST 1955, 113 plate 41.2; MIKS 2007, 815 plate 253.B100,71
49	Unknown location	–	Rheinisches Landesmuseum Bonn	iron chape	B2	HUNDT 1953, 67 fig. 5,2; MARTIN-KILCHER 1985, 162 f. fig. 10,1; 11,1; BORHY 1989, 134 fig. 6; BIBORSKI / QUAST 2006, 568 no 20 (from Xanten); MIKS 2007, 815 plate 255,B100.73
50	Unknown location	–	von Grawert's collection	cast bronze chape	A5	MIKS 2007, 815 plate 253,B100.72

No.	Site	Country	Context	Finds	Variant	References
51	Unknown location	–	von Grawert's collection	iron chape	B1	MİKS 2007, 815 plate 255, B100.74
52	Unknown location	–	Liebmann's collection, possibly from grave	iron chape	B2	<i>Fig. 9,1</i> BIBORSKI / QUAST 2006; MİKS 2007, 589 plate 254, A204
53	Unknown location	–	–	1–2 cast bronze (?) chapes	A5 (?)	FISCHER 2012a, 189 fig. 261, 2.3

Appendix: List of chapes

Zusammenfassung: Ein römisches Dosenortband aus Jadowniki Mokre (Kleinpolen) und vergleichbare Funde aus dem Römischen Reich und dem Europäischen Barbaricum

Im Gräberfeld der Przeworsk Kultur von Jadowniki Mokre in Kleinpolen wurde ein einzigartiges römisches Dosenortband in einem reich ausgestatteten Kindergrab der Altersklasse *infans* II gefunden. Dosenortbänder gehören zu den charakteristischsten Bestandteilen von Schwertscheiden von Spathas, eines weitverbreiteten Schwerttyps, der in der römischen Armee im 3. Jahrhundert n. Chr. in Gebrauch war. Es lassen sich mehrere Typen von Dosenortbändern unterscheiden, die aus Silber, Bronze, Eisen, Knochen und Elfenbein hergestellt worden waren. Das Exemplar aus Jadowniki Mokre besteht aus Bronze und wurde wahrscheinlich in verlorener Form hergestellt und auf einer Drehbank nachbearbeitet. Einige vergleichbare Ortbänder sind aus den ehemaligen römischen Provinzen *Britannia*, *Mauretania Tingitana* und aus dem nahöstlichen Zentrum Dura Europos bekannt. Dieser Beitrag diskutiert die Dosenortbänder im Barbaricum als Zeichen nicht nur für Konflikt, sondern auch für Austausch und Imitation.

Abstract: A Roman box-shaped chape from Jadowniki Mokre (Lesser Poland) and similar finds from the Roman Empire and European Barbaricum

In the cemetery of the Przeworsk culture at Jadowniki Mokre in Małopolska (PL) a unique Roman box-shaped chape was found in a rich grave of a child, aged *infans* II. Box-shaped chapes are one of the most characteristic fitting types and belonged to scabbards of widespread spatha swords, used in the Roman army in the 3rd century AD. There are several types of box-shaped chapes made from silver, bronze, iron, bone and ivory. The specimen from Jadowniki Mokre was made from bronze, probably using the lost wax technique, and finished on a turning lathe. A few analogous chapes were found in the former Roman provinces *Britannia*, *Mauretania Tingitana* and in the Middle Eastern centre Dura Europos. This paper discusses the box-shaped chapes in the Barbaricum as signs not only of conflict, but also of exchange and imitation.

Résumé : Une bouterolle « en boîtier » de Jadowniki Mokre (Petite Pologne) et des objets comparables de l'Empire romain et du monde barbare européen

Une riche tombe d'enfant de la classe d'âge *infans* II de la culture de Przeworsk, appartenant à la nécropole de Jadowniki Mokre (Petite Pologne), a livré une bouterolle « en boîtier » romaine exceptionnelle. Ces bouterolles comptent parmi les éléments les plus caractéristiques des fourreaux de spatha, un type d'épée répandu et utilisé dans l'armée romaine au 3^e siècle ap. J.-C. On distingue plusieurs types de bouterolles « en boîtier » fabriquées en argent, bronze, fer, os et ivoire. L'exemplaire de Jadowniki Mokre est en bronze et fut vraisemblablement coulé à la cire perdue et achevé au tour. Des pièces comparables sont connues des provinces romaines de Bretagne et Maurétanie Tingitane, ainsi que du centre proche-oriental de Dura Europos. Cet article examine les bouterolles « en boîtier » du monde barbare en tant que témoins, non seulement de conflits, mais aussi d'échanges et d'imitation.

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References of figures:

Figs 1, 3–4: Drawing M. Grygiel. – *Figs 2, 5:* Drawing and photo M. Grygiel. – *Fig. 6:* LINDENSCHMIT 1900 pl. 57; MARTIN-KILCHER 1985; personal archive of Boyan Dumanov; author Lyudmil Getov 1985. – *Fig. 7:* MARTIN-KILCHER 1999; STJERNQUIST 1955; A. Smadi; Ph. Gross; Th. van de Ven. – *Fig. 8:* BIBORSKI / ILKJAER 2006; PFLAUM 2007; MADYDA-LEGUTKO et al. 2011; PLOYER 2010; J. Ljungkvist; HUNDT 1953. – *Fig. 9:* BIBORSKI / QUAST 2006; G. Radoslavova; HUNDT 1953. – *Fig. 10:* TROUSDALE 1975; GREINER 2008; ENGELHARDT 1896; FABECH 1996; BIBORSKI / ILKJAER 2006; SJØVOLD 1962; JAMES 2004. – *Fig. 11:* BIBORSKI / ILKJAER 2006; BEMMANN / BEMMANN 1998b; DUMANOV 2005; personal archive of Boyan Dumanov; author Lyudmil Getov 1985. – *Fig. 12:* Authors. – *Fig. 13:* Authors after BISHOP / COULSTON 1993; JAMES 2004; REBECCHI 1976; PFLAUM 2007; ALFÖLDI 2011. – *Fig. 14:* Photo M. Grygiel; VIŠOČNIK 2008; CIUGUDEAN 2011. – *Fig. 15:* OLDENSTEIN 1977; v. CARNAP-BORNHEIM / ILKJAER 1996. – *Figs 16–17:* M. Kasiński. – *Fig. 18:* Authors.

