

HORSE AND ITS USE IN THE PRZEWORSK CULTURE IN THE LIGHT OF ARCHAEOLOGICAL EVIDENCE

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Abstract

As refers to the first article (the one concerning the Przeworsk Culture), the abstract is as follows: The author tries to reconstruct the role of the horse in the Przeworsk Culture basing on the extremely rare horse graves, remains of horses' bones in human graves (generally edible parts of skeletons), unique images of horsemen and horses of clay vessels (urns) and pieces of horse harness as well as spurs found in weapon graves. Results of archaeological researches are also taken into consideration.

Key words: horse, spur, the Przeworsk Culture, archaeozoology.

In memory of Maria Agnieszka Bajkowska

The Przeworsk Culture is one of the most lasting and essential cultural units in proto-historical Europe. Additionally, it had a clearly military character, which was manifested in the presence of weapons among grave goods. For that reason it seems obvious that the use of the horse (war-horse) should also find reflection in materials attributed to this culture. The problem is however more complicated.

Animal remains in graves

Tacitus remarks that the Germans „constructing the pyre, they do not accumulate on him garments, neither the redolency; they put his own weapon to every to the fire, they also add the horse to some” (Tacitus, *Germ.* 27.2). It is assumed that this statement is not consistent with the reality confirmed by archaeological methods although it refers aptly to the presence of horses in graves of Baltic peoples (e.g. Garbacz 2000, p.158; Kolendo 2008, p.136). One should however notice that Tacitus' words indicate that horses were burnt on the pyre together with the gear. Thus one should look for horse remains among burnt animal bones. Unfortunately, inasmuch as investigations of human bones are part of the research standard, animal remnants are analysed quite rarely. Generally, it is stated (Błażejowski 1998, p.167) that sheep / goats, cattle, pigs (among the Indo-European nations these animals were the most often given as offerings to various, mostly chthonic, deities) as well as birds, probably goose or hens, are the predominant species among the identified burnt bones. Bones of these species are considered as consumption remains, which confirms the special selection of animals used at wakes and triznas. Horses and dogs are represented very seldom (Węgrzynowicz 1982, pp.224-230; Błażejowski 1998, p.167). On the basis of a significant sample from the cemetery at Kamieńczyk, Wyszaków district, it was possible to establish that animal bones were more frequent in human graves in the

Roman Period than in the Late Pre-Roman Period, and the phenomenon was the most predominant in Phase B₂ (Dąbrowska 1997, p.113). It should be remarked that bones of animals and birds are not closely correlated with any type of grave goods sets or the gender of the deceased (Czarnecka 1990, p.40)¹.

The results of general studies were confirmed by materials from large and well analysed necropolises of the Przeworsk culture². At the burial ground from Chmielów Piaskowy, Ostrowiec Świętokrzyski district, horse bones were discovered only in one grave, No 18S (Godłowski, Wichman 1998, table 6). In Kamieńczyk fragments of horse's skeletons were found only in five cases (per 180 burials with animal bones): in graves 46, 209, 232, 249, 271? (Dąbrowska 1997, p.112ff table 3). Horse bones were not found at the necropolis in Krupice, Siemiatycze district (Jaskanis 2005, table 6). As refers to Nadkole, Węgorów district, they appeared only in grave 44B (Andrzejowski 1998, table 15), and maybe also 108 and 119A (uncertain determination). They also appeared exceptionally at the burial ground

¹ Results of the analysis of the bones from the cemetery at Kamieńczyk confirm this observation with respect to bones of small ruminants (sheep, goat) and pigs, but cattle and bird bones were much rarer in children's burials than in those of the adults (Dąbrowska 1997, p.114).

² Materials from the cemetery in Niedanowo, Kozłowo district, have not been taken into consideration as the bone material was mentioned sporadically and without determination as to the species (Ziemlińska-Odojowa 1999, p.127).

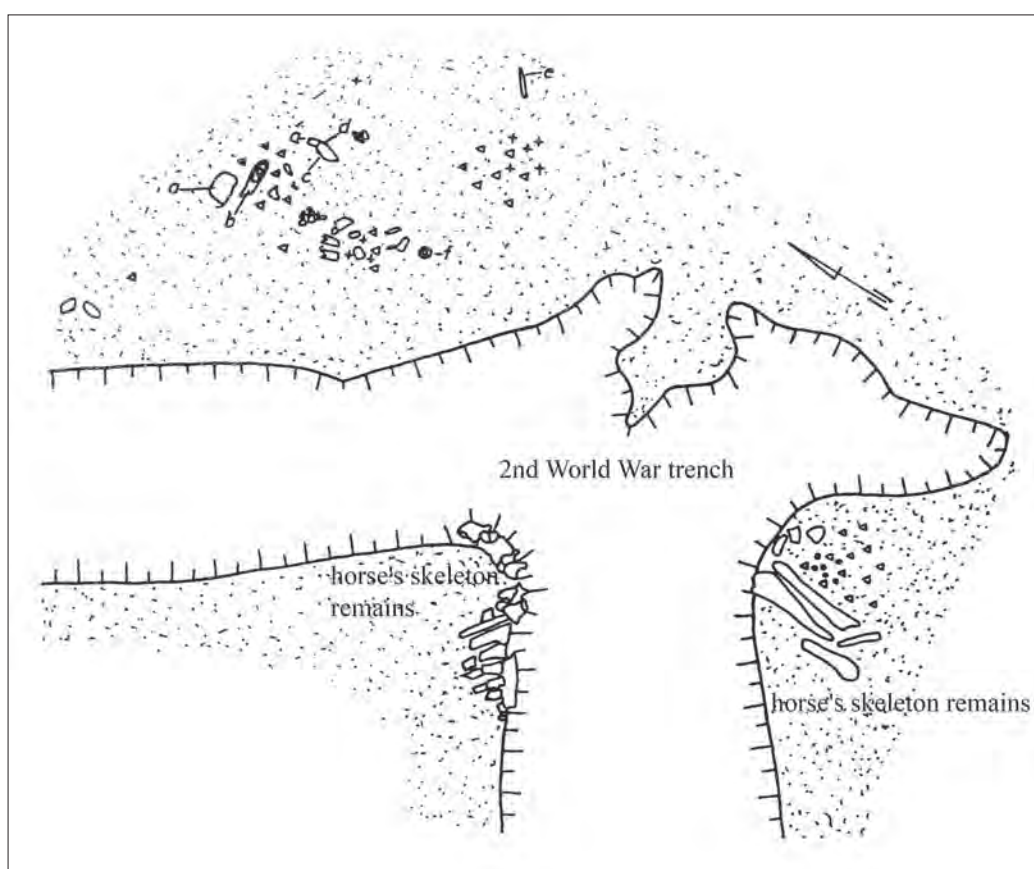


Fig. 1. Plan of the grave 22 from Grzybów; a-f grave goods (after Garbarcz 2000, plate XXXIII).

in Oblin, Garwolin district: the horse remains from graves 46, 47 and 272 (Czarnecka 2007, pp. 22 and 62) were considered to be pieces of the skeleton equivalent to the parts of the animal body which were used of consumption (Czarnecka 2007, p.111), and thus grave goods made of food or remains of meet consumed during the funeral ceremonies; other researchers of significant necropolises also accepted this explanation (Andrzejowski 1998, p.104; Godłowski, Wichman 1998, p.80). It is, however, worth to note that in some cases at the burial ground in Oblin (graves 45a and 47) the presence of small bones from parts of the body not meant for consumption (*metapodia*, digits) were discovered. That is why some undefined symbolic meaning is assigned to them; in grave 128a, in turn, a fragment of a horse mandible was found, serving probably as tool (*spatula*) (Czarnecka 2007, pp.38 and 111)³.

³ Horse bones were found in grave 25 (with weapons and a horse-bit) from Kalinowo, Strzelce Opolskie district, dated on the basis of pottery to Phase B₂. The horse-bit indicates that a warrior with his mount were burnt at the pyre (Szydłowski 1959, p.173ff plate VII). Unfortunately, there is no precise data about the animal remains.

Horse graves

Materials from the main burial grounds of the Przeworsk Culture, published in the series "Monumenta Archaeologica Barbarica" do not allow to indicate the relation between sex and age of the deceased and the presence of horse bones in the grave⁴. The sporadic

⁴ Chmielów Piaskowy: grave 18S – *adultus*, grave with weapons (Godłowski, Wichman 1998, p.23); Kamieńczyk: grave 46 – 45-55 year old woman, grave with no weapons (Dąbrowska 1997, p.19), grave 209 – more than 50 year old woman, grave with no weapons (Dąbrowska 1997, p.49), grave 232 – 45-55 year old woman?, grave with weapons (Dąbrowska 1997, p.52), grave 249 – *juvencis*, grave with no weapons (Dąbrowska 1997, p.55), grave 271 – 25-35 year old woman, grave with no weapons (Dąbrowska 1997, p. 58); Nadkole: grave 108 – 50-60 year old man?, grave with weapons (Andrzejowski 1998, p.41), grave 44B – 17-25 woman, grave with no weapons (Andrzejowski 1998, p.27), grave 119A – *infans I*, grave with no weapons (Andrzejowski 1998, p.44); Oblin: grave 45a – *infans II/iuvenis-maturus*, grave with weapons (Czarnecka 2007, p.21), grave 46 – human bones, grave with weapons (Czarnecka 2007, p.22), grave 47 – human bones, grave with no weapons (Czarnecka 2007, p.22), grave 128a – *adultus*, grave with weapons (Czarnecka 2007, p.38), grave 272 – *iuvenis?*, grave with no weapons (Czarnecka 2007, p.62).

III

HORSES,
HORSEMEN,
AND EQUES-
TRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

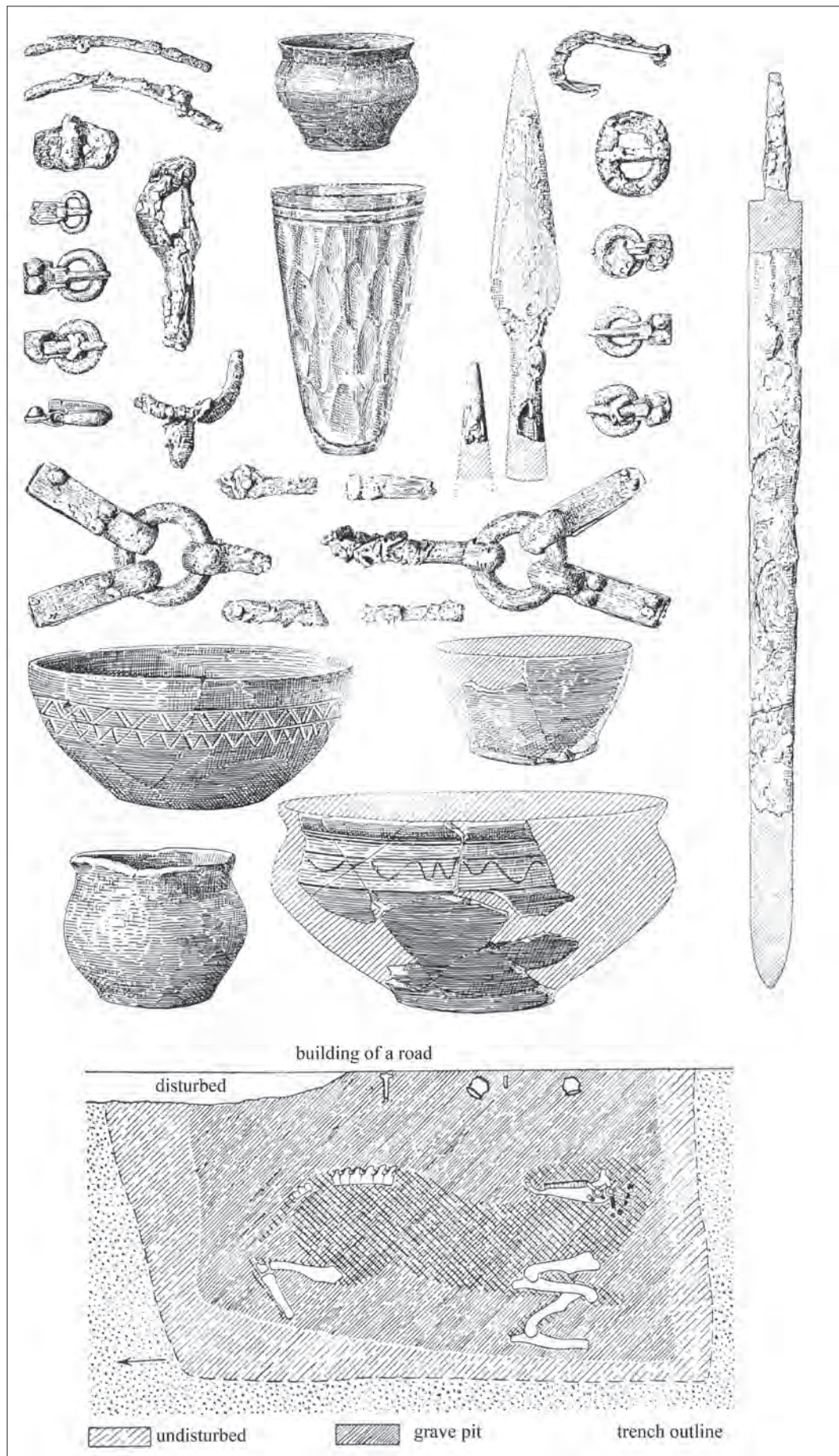


Fig. 2. Furnishing and cross section of the horse and human grave from Ługi (after Petersen 1932, figs.11-13).

presence of burnt horse bones at burial grounds of the Przeworsk Culture is not compensated by horse skeleton burials. From the area of that culture only three graves of that kind are known.

The first one is from Grzybów, Staszów district (Fig. 1), where in grave 22, disturbed by trenches dug during the 2nd World War, a horse skeleton was found (Garbaczowie 1990; Garbacz 1992; 2000, pp.47, 51, 144 and 158 with fig. XXXIII-XXXVII). It was partly preserved: some vertebrae and bones of hind legs were undisturbed whereas the skull was damaged and partly moved. The observation was made difficult by the fact that the outline of the burial pit was not visible. A complete animal had been originally deposited in the grave. It lied on its left side along the SW-NE axis. Fragments of the skull and teeth were preserved in the NE part of the skeleton. At the moment of its death the horse was more than 5 years old (unfortunately, there is no metric data or information about the horse's sex). Near the head and hind legs of the animal burnt pieces of grave goods typical of the Przeworsk Culture were found, which allowed to date the burial to the late stage of Phase B₂: i.a., fragments of a shield boss Type 7a after M. Jahn (1916) and a fragment of a brooch determined as Almgren V, series 8 (Almgren 1923). No burnt human remains were preserved in the burial, which is explained by the fact that the feature was disturbed; the author of the publication assumed that it was an animal-human burial (Garbacz 2000, p.158). The presence the horse in the above-mentioned grave is explained by Sarmatian influences, confirmed also by finds of Sarmatian arrowheads from the burial ground at Grzybów (Dobrzańska 1999, pp.83 and 85)⁵.

The next, considerably later, discovery from Ługi, Góra district (Petersen 1932), comes from Phase D₁ of the Migrations Period (Tejral 1992, p.242 fig.9.14-23; Mączyńska 1999, footnote 4). Discovered in 1926 during roadworks which strongly disturbed its structure, it contained unburnt skeletons of a horse and a man, and rich grave goods, i.a., a sword Type XI after M. Biborski (1978), a head of a shafted weapon, a spur, a horse-bit, a glass cup similar to Type IV after E. Straume (1987, p.34), buckles from horse gear with an oval, thickened frame, a brooch and wheel-made ceramic vessels (Fig. 2). In a pit of a shape similar to a rectangle a horse lying on its side on the N-S axis, with the head pointing to S and the back, to E was depos-

⁵ It should be remarked that after K. Garbacz these were Roman arrowheads which arrived in connection with the Marcomannic Wars (Garbacz 1995). This concept, however, seems to be less convincing because Roman arrowheads are not known from the areas far from the Roman Limes (see Kaczanowski 1992) and, furthermore, we have to do with a stray find, thus the connection in time with the Marcomannic wars is not confirmed.

ited. The horse's head was twisted to the back towards N. The human bones were found outside the grave (thrown out by workers), which made it impossible to make a reliable reconstruction of the deceased's location. By his right side there was a sword, and by his left side, a shafted weapon. The exceptional character of the grave allowed J. Tejral (2000, pp.6 and 12) to associate it with the so-called post-Chernyakhov horizon (phenomenon manifesting itself in the existence in central Europe of numerous groups of regional character, revealing the influences of the Chernyakhov Culture as well as Sarmatian and Germanic impacts, which existed in Phase D₁). The closest analogy to it is supposed to be the identically dated grave from Újhartyán in Hungary, in which an unburnt skeleton of a warrior with a sword and a shield was accompanied by a horse skeleton with a horse-bit (Bóna 1961). A. Błaziejewski (1998, p.135) treats the burial from Ługi as a result of Sarmatian influences, whereas A. Kokowski, linking the presence of the horse with the "nomadisation" of the local elite, perceives in it the Hun's influence (1998, p.135). The last suggestion seems hardly probable, due to the relatively large at that time (Phase D₁) distance from the area settled by the Huns (Pannonia was to fall under the Hun's rule as late as in the 430s) and the lack of other premises suggesting the proposed ethnic connotations. It is more probable that we have to do with general nomadic influences, in my opinion convincingly explained by Tejral's interpretation.

Evident features of the Hunnish culture are, however, represented in the inhumation grave from Jakuszowice, Kazimierza Wielka district (Fig. 3), in which a man and a horse together with a horse gear were deposited (Nosek 1959; cf. Godłowski 1995; Wichman 2004). The feature was discovered accidentally and there is no information about the arrangement of the skeletons. The discoverers took some of the discovered artefacts, but the majority ultimately was sent to Cracow where, since 1938, they have been part of the collection of the Archaeological Museum. The bones are, unfortunately, lost and the records in the museum archives indicate only that, according to the determination made by professor J. Talko-Hryniewicz, they were of a young man. The Huns' elements include an iron sword with a cross-shaped cross-guard, an amber large sword bead decorated with an almandine set in gold, but first and foremost gold plates covering the limbs of a reflective bow. The last-mentioned one was kept always in a drawn position and could not have been used in combat due to its morphological features (László 1951a, p.92ff): the plates cover the whole length of the limbs, so making a shoot would cause their lasting damage; moreover, the plates were not flexible enough to follow the vibration; additionally, the construction would make it very dif-

III

HORSES,
HORSEMEN,
AND EQUES-
TRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

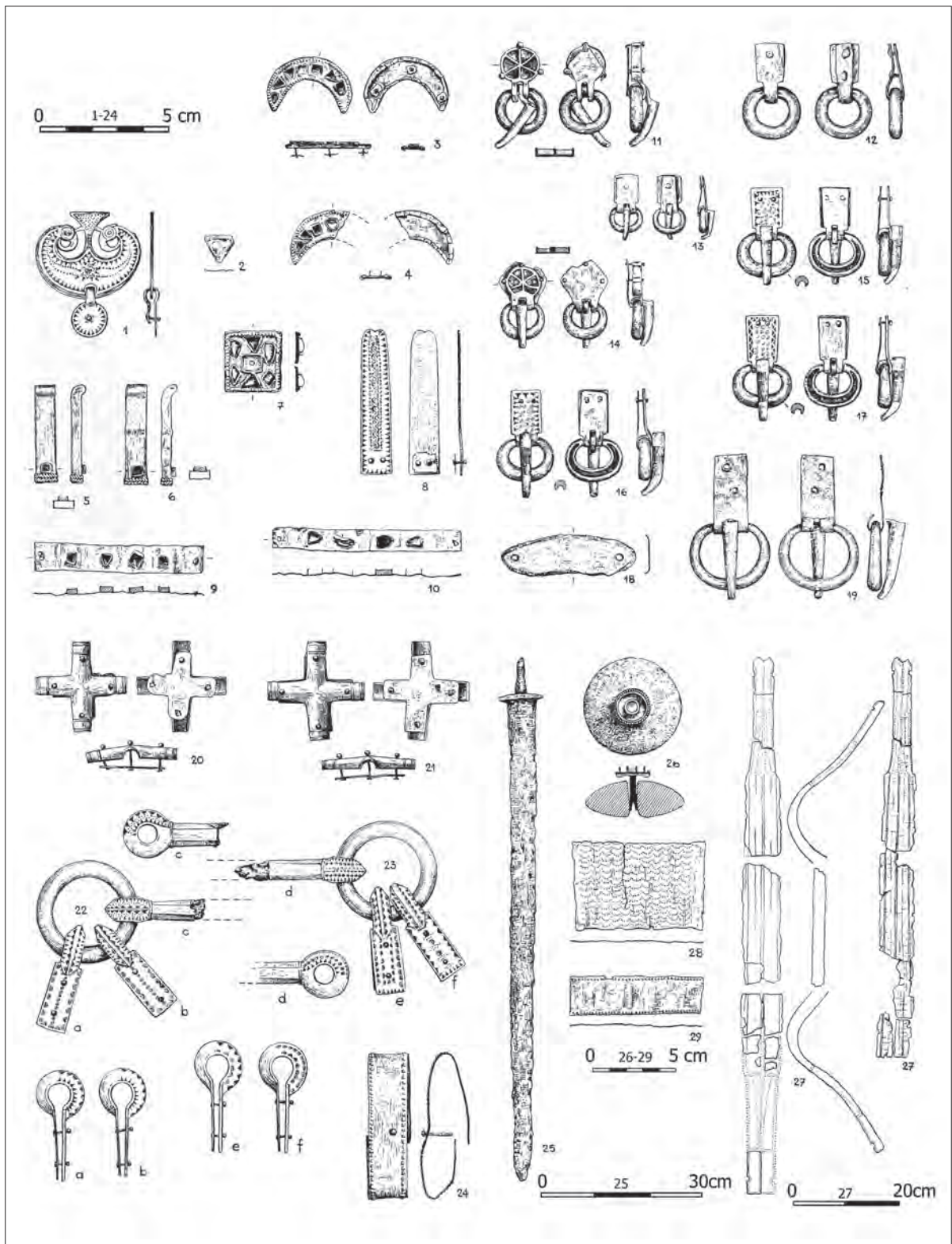


Fig. 3. Furnishing of the princely grave from Jakuszowice (after Nosek 1959, plate 15.1-4).

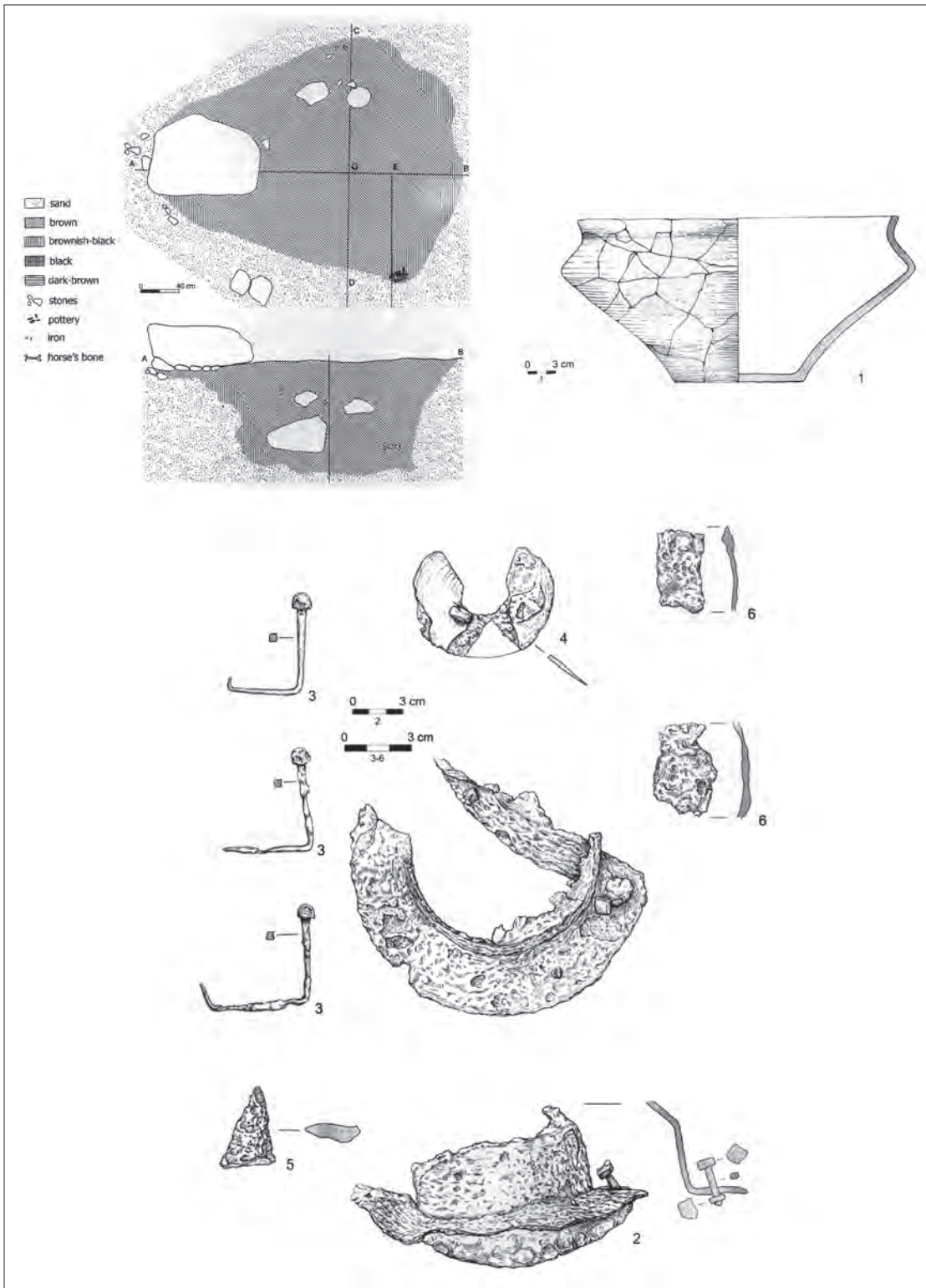


Fig. 4. Plan, cross section and furnishing of grave 27a from Dzierzgowo (after Szela 2006, figs.4-7).

III
HORSES,
HORSEMEN,
AND EQUES-
TRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

difficult to dismantle the bow string; finally the bow is too small (approx. 80 cm) for Hunnish combat bows⁶. The burial is dated to Phase D₂ (Godłowski 1995, p.156) and has been considered to be a grave of a representative of the local elites (Godłowski 1995, p.162), for in the neighbourhood there is a large settlement of the Przeworsk Culture, and the horse gear is typical of the Germanic world (J. Werner 1956, p.85). He was, however, under a strong influence of the Huns' culture or even held power owing to the Huns (Godłowski 1995, p.162), which is suggested by the "golden bow" i.e. an insignia – a symbol of power (László 1951b; cf. J. Werner 1956, p.50).

It is worth to remind here one more interesting discovery, namely, that from the burial ground in Dzierzgowo, Mława district, at N–E edge of the Przeworsk Culture (Fig. 4). In one of the features (grave 27a) a horse tibial bone was found (Szela 2006, p.228 figs.4-7). It was a cremation burial deposited in a 3.0 x 2.4 m pit of 1.2 m thickness. In its E part the feature was covered by a large stone placed on a pavement of small stones. The assemblage contained i.a., an iron shield boss Type 7a after Jahn (1916) variant 1 after T. Liana (1970), which dates it to the late stage of Phase B₂ (Godłowski 1992). The horse bone was at the depth of 0.9 m, in its original location, for the grave was not disturbed. Interestingly, the bone was not burnt and came from a non-consumable part of the animal body. It seems highly probable that this was an intentional, maybe symbolic, act. There are no analogies for this kind of behaviour at the area of the Przeworsk Culture, but one can refer to similar acts in the area of Lithuania. During the Early Roman Period and in the early stage of the Younger Roman Period (Phases B₂ and B₂/C₁), in the West Lithuanian Stone Circle Grave culture and in the other regions of Lithuania (e.g. the area of the Lower Nemunas Culture), parts of the horse were used in the ritual; they were found in or close to burials of armed men. Usually the horse's head was buried, less frequently its head together with legs or just head or legs and parts of its spine and ribs, rarely also teeth (Bliujienė, Butkus 2007). On the one hand, such feature seems similar but on the other one there are certain differences, e.g. in Lithuania inhumation graves of men were typical while the Przeworsk Culture ones were characterized by cremation. The influences from the area of Lithuania (a considerable distance) should be considered only tentatively, yet they are quite probable, for at burial grounds in the N–E edge of the zone occupied by the Przeworsk culture in the Early Roman Period there are perceptible influences of the Wielbark but also Balts' cultures, which may have been con-

⁶ They are 140-160 cm long (J. Werner 1956, p.47) or slightly less (Bóna 1991, p.167ff).

nected with the penetration of the Przeworsk Culture population to the north (Szela 2006, p.230). Besides, one can not exclude the influences from the Elbe region, where single horse bones have been found in some Early Roman Period burials (Bliujienė, Butkus 2007, p.95, with further literature) what, however, is less probable because of the considerable distance.

Although the above-mentioned examples are highly interesting, they do not change the fact that the horse played a very small part in the Przeworsk Culture burial rite and the few exceptions to that rule should be treated as a result of external influences.

Riding equipment

Contrary to the above, parts of a riding equipment appeared in the Przeworsk culture graves quite frequently. One may consider here almost exclusively spurs, as fragments of bits appeared only sporadically. Bow spurs clearly predominated in the Przeworsk Culture; different variants were used (Fig. 5). Initially (in the Late Pre-Roman Period) they were symmetrical, large, with a prominent prick, then more strongly arched with a smaller prick, in the late part of Phase B₂ and in Phase C_{1a} squat specimens with a massive prick, and in the Early Roman Period usually asymmetrical, with an additional, third fastening in form of a hook (Ginalski 1991). The X-shaped spurs, so frequent in the Early Roman Period in the Elbe circle, the Wielbark Culture or Scandinavia, represent a small percentage here. For the latest phases of the Przeworsk Culture single, iron riveted spurs are known. It is worth to mention also the unique discovery from Pełczyńska, Pińczów district: the first example of an imported Roman spur in the Przeworsk culture (Fig. 6). A loose fragment of a bronze, fixed with rivets to the boot, spur, probably from the fourth century AD, was found there. The closest analogies can be found in the Roman part of Britain, at sites of military designation (i.a., legionary camps). Thus we have to do with both a rare and mysterious artefact. How did it get to this part of Europe? We can only speculate, but it seems the most probable that it first travelled with the Roman army to the middle Danube basin and then it was brought to the area of today's Pełczyńska by one of the many Germanic warriors maintaining extensive contacts with the Roman army (Kontny, Rudnicki 2006).

Let me follow the changes in the frequencies of burials with horse-harness (Fig. 7)⁷, which are represented al-

⁷ The analyses presented here are based on the materials collected for my doctoral dissertation: Kontny 2001a (see also Kontny 2001c; Kontny, forthcoming). The Catalogue of that work contains 1357 Przeworsk culture weapon graves from the Roman Period. Before the analysis a selection

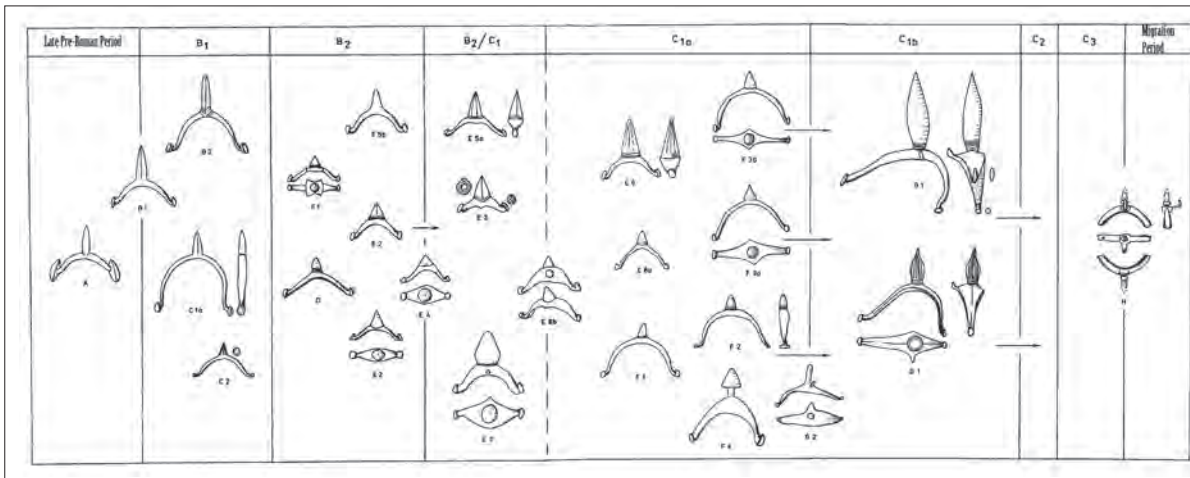


Fig. 5. Shapes and chronology of bow spurs from the Przeworsk Culture (after Ginalski 1991, fig.19).

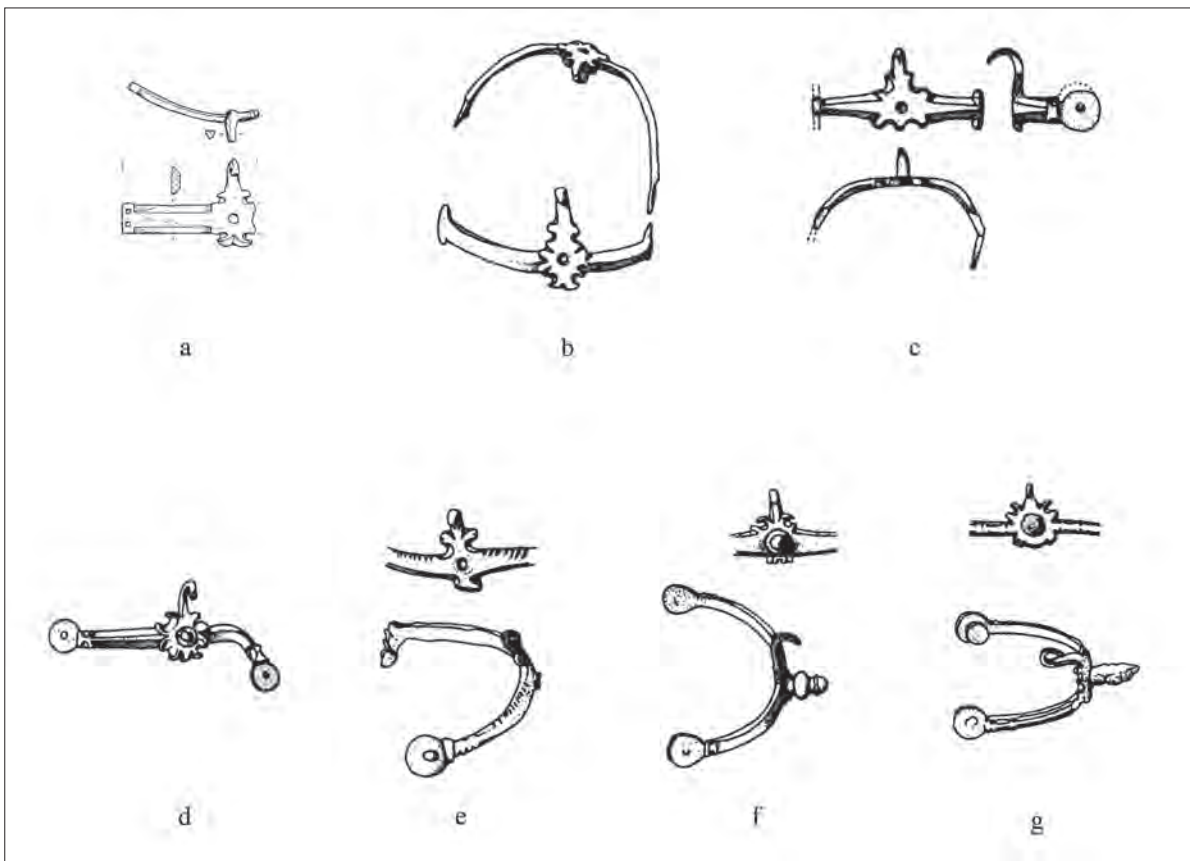


Fig. 6. Spur from Pełczyńska (a) and its analogies (b-g): b Corbridge, Northumberland (Great Britain); c Bitternee, Southampton (Great Britain); d Celje (Slovenia); e-f Chedworth, Gloucester (Great Britain); g Woodeaton, Oxford (Great Britain) (after Kontny, Rudnicki 2006, fig.4, with further literature).

III
HORSES,
HORSEMEN,
AND EQUES-
TRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

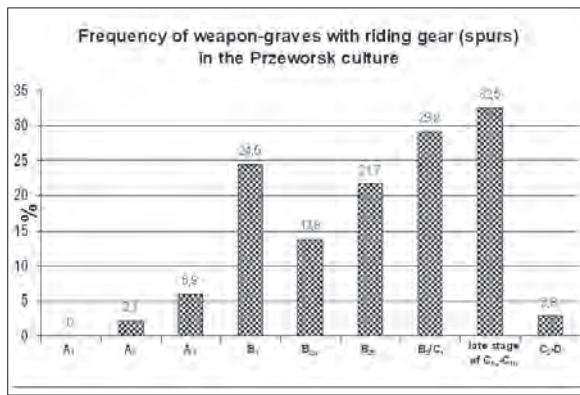


Fig. 7. Frequency of weapon-graves with riding gear (spurs) in the Przeworsk Culture.

most exclusively by spurs. The first burials with horse harness appeared in Phase A₂ (which should be linked with the appearance of spurs in the Przeworsk culture). They appeared sporadically, and slightly increased in importance in Phase A₃. A significant increase took place in Phase B₁, when almost every fourth burial contained parts of riding equipment. This result may be to some extent explained by the fact that this paper takes into account i.a. materials from the north-eastern zone of the Przeworsk culture. At this area, especially in the co-called Nidzica group from Phase B₁ weapons in burials appeared only exceptionally. Only the spurs remained a common element of grave goods⁸. As this area was taken into account there appeared a certain overrepresentation of spurs in contrast to other categories of military equipment. This concerns several burials out of the 151 analysed ones so it does not seem that the distortion should be considerable. Thus we have to do with a more frequent than previously custom of equipping the deceased with spurs. In Phase B_{2a} burials with spurs were less numerous which to some (although, as it seems not decisive) extent may be due

was made in order to exclude burial assemblages the structure of which was disturbed or where no suitable observations as to their context were made, e.g., they were the result of accidental discoveries or unprofessional excavations. As a result 894 burial assemblages were used in the statistical part of the paper. The chronological divisions are made following K. Godłowski who distinguished the groups of weapon-graves: Godłowski 1992; 1994; Phase B₁ equals groups 1-2, Phase B_{2a} – group 3, B_{2b} – group 4, B_{2/C1} – group 5, late stage of Phase C_{1a} and Phase C_{1b} – group 6, Phases C₂–D – groups 7a, 7b and 8. It should be noted that not all the analysed phases had similar numbers of burials with weapons (respectively: 151, 65, 203, 106, 77, and 72). The remaining burials are not precisely dated. Thus the obtained results reflect the burial rites the least precisely for Phases C₂–D (a long period of time with a small number of burials with weapons), and also for Phase B_{2a} (in comparison to the number of burials dated precisely for that phase, a large number of burials is dated broadly to longer periods, embracing Phase B_{2a}).

⁸ Okulicz 1970, p.426.

to the small number of burials⁹. This does not have to mean that spurs were no longer used but might have been a result of an inexplicable tendency to put spurs in burials more rarely. In the consecutive phases the proportion of burials with riding equipment increased until Phase B_{2/C1} and the period equivalent to the late stage of Phase C_{1a} and Phase C_{1b}, when spurs could be found almost in every third burial with military equipment¹⁰. This seems to reflect the more frequent use of horse by the warriors. In Phases C₂–D the spurs disappeared from grave assemblages¹¹, which certainly did not mean that horses were no longer used but it was rather a result of changes (decline) of the burial rite. It is even assumed that the horse was used in battle to a greater extent in this period; the importance of the horse was to be expressed in the use of longer two-edged swords equivalent to the Roman cavalry *spatha*¹² and a clear increase of the frequency of such swords in burials¹³. K. Godłowski accepted the possibility that the almost complete lack of spurs in burials was connected with changes in horse riding style¹⁴. However, in the light of the bog deposits from Scandinavia from the Early and Late Roman Period as well as the Early Migration Period¹⁵ it seems obvious that spurs were still used at the end of the Roman Period and during the Migration Period¹⁶.

⁹ The reason of this phenomenon may be the fact that the assemblages broadly dated to Phase B₂ were not taken into account for the number of assemblages with spurs is too small for that period to change the results significantly (5 cases out of 64). As among the assemblages dated broadly Phase B₂ and Phases B₁–B_{2a} spurs are quite rare, the frequency for the Phases B₁ and B_{2a} was in fact probably slightly lower.

¹⁰ This observation is reliable for among the burials dated to Phases B_{2b}–C_{1a} and B_{2/C1}–C_{1a} a similar proportion contained spurs (16 burials – 28.1% and 6 burials – 33.3%, respectively).

¹¹ Ginalski 1991, p.74.

¹² Cf. M. Biborski's findings on the evolution of sword forms in the Przeworsk culture (1978, p.104ff).

¹³ Godłowski 1992, p.84ff; Kontny 2001c, diagram 11.

¹⁴ Godłowski 1992, p.85.

¹⁵ It is assumed that with respect to riding equipment they are in many respects a better source of knowledge about weapons than the grave goods: Ilkjær 1997, p.57ff; von Carnap-Bornheim 1992, p.46ff and footnote 6; von Carnap-Bornheim 2000, p.52.

¹⁶ This is indicated by the finds from the Ejsbøl North Deposit (dated to late stage of Phase C₂ or slightly later), where among the ritually deposited weapons belonging to ca 200 warriors, nine pairs of spurs, nine horse trappings with chain reins, and fittings for nine saddles were discovered: Ørsnes 1988, p.24. Although at Skedemosse (Oland), only fragments of more than a dozen horse trappings not matching the spurs were found (Hagberg 1967, pp.33 and 73-75), and a small deposit from Kragehul did not yield any elements of riding equipment (Engelhardt 1867, Table II), at Vimose 24 spurs (including mainly ones dated to the Early and Younger Roman Period) together with fragments of a

There are no premises to assume that the Przeworsk Culture population had any centrally commanded troops using another style of fighting than brave but uncoordinated attacks typical for the majority of the Germans¹⁷. As refers to the military use of a horse it seems that these animals determined the high rank of the warrior and also were a means of transport to the battle, an element facilitating chasing the enemy or, in case of defeat, escape from the battlefield. The combat potential of the horse could have been exploited rarely in “normal” battles but more significantly during short-term military incentives e.g., during looting forays of the retinue (*comitatus*), see: Kontny 2003a¹⁸, although as these expeditions were probably off-handed it is hard to assume that horses were used as a part of tactical units. They helped to move faster (greater surprise value, effectiveness of the attack, chasing the defeated, escape in case of defeat or for fear of revenge, etc.) which does not, however, exclude, plundering forays made by warriors on foot. The aim was rather to use the speed offered by these animals. One should assume that they might have served as means of transport not only for mounted warriors but also their foot brothers-in-arms. Horseback without a saddle left enough room for two persons and the horse might have carried two warriors, especially for a short distance. It was probably very important for methods of fighting used by the retinue that consisted of mounted warriors as well as foot ones¹⁹. We may draw a conclusion that warriors

bit were unearthed (Engelhardt 1869, pp.24-25 plate 15.7-16; see Pauli Jensen 2003, pp.228-229 and 231-232) and at Nydam one spur and pricks of over a dozen other ones as well as numerous bits were found (Engelhardt 1865, pp.33-34 plate XIV.5; Bemmann, Bemmann 1998, p.196ff plate 212), whereas at Thorsberg one spur (its remaining part was made of bronze and the iron spike has not been preserved; probably more iron spurs were deposited at the site which were not preserved due to unfavourable environment) and fittings of horse trappings were discovered (Engelhardt 1863, p.52ff plate 15.32; 1866, p.61; Raddatz 1987, plates 39-47 and 100-106). Naturally, spurs and horse harness elements were found also in Illerup (von Carnap-Bornheim, Ilkjær 1996, pp.247-277).

¹⁷ See Perl 1990, p.151; Pohl 1994a, p.62.

¹⁸ The retinue is usually defined on the basis of Tacitus' writings (Tacitus, *Germ.* 13, 2-3; 14, 1-3) as a voluntary, sworn union of warriors (free men) and the leader, where the warriors are obliged to give advice and provide military service to the chief, and he should return them in protection and generosity. The more detailed aspect of how the retinue functioned are subject to debate. For the definition and kinds of German retinues see Schlesinger 1953, p.235; Kuhn 1956, p.12; Wenskus 1961, pp.346-374; Hess 1977; Steuer 1982, p.54ff; Kristensen 1983; Bazelmans 1991; von Carnap-Bornheim 1992; Wolfram 1996, p.70ff. On Celtic retinues: Birkhan 1993, p.1037ff. Prospects of tracing the retinue basing on the archaeological material are rather poor (Kontny 2003a).

¹⁹ For collaboration of Germanic foot warriors and riders cf. Tacitus, *Germ.* 6.3. Similar information concerning Ger-

possessing horses on their own were possibly located higher in the hierarchy of retinue than foot warriors, collected from inexperienced youngsters²⁰. Therefore it doesn't sound astounding that horse is presented by Tacitus as one of the most desired war booties, together with bloodstained *framea*²¹. The latter seems to be a metaphor but obtainment of a war horse actually elevated warriors to a higher position²².

As it was shown above according to the frequency of spurs in grave furnishing, horse was probably quite popular among warriors of the Przeworsk culture, especially in the Early Roman Period (the greatest number of spurs was found in burials from Phase C₁). Comparing it with the Ancient descriptions (e.g., of the battle of Argentoratum²³ by Ammianus Marcellinus

mans is given by Julius Caesar – Caes., *Bell. Gall.* I, 48.5-7: “There were 6,000 horse, and as many very active and courageous foot, one of whom each of the horse selected out of the whole army for his own protection. By these [foot] they were constantly accompanied in their engagements; to these the horse retired; these on any emergency rushed forward; if any one, upon receiving a very severe wound, had fallen from his horse, they stood around him: if it was necessary to advance further than usual, or to retreat more rapidly, so great, from practice, was their swiftness, that, supported by the manes of the horses, they could keep pace with their speed.”; “*equitum milia erant VI, totidem numero pedites velocissimi ac fortissimi, quos ex omni copia singuli singulos suae salutis causa delegerant: cum his in proeliis versabantur, ad eos se equites recipiebant; hi, si quid erat durius, concurrebant, si qui graviore vulnere accepto equo deciderat, circumstitebant; si quo erat longius prodeundum aut celerius recipiendum, tanta erat horum exercitatione celeritas ut iubis sublevati equorum cursum adaequarent*”.

²⁰ Tacitus, *Germ.* 6. 3: “On the whole, one would say that their chief strength is in their infantry, which fights along with the cavalry; admirably adapted to the action of the latter is the swiftness of certain foot-soldiers, who are picked from the entire youth of their country, and stationed in front of the line”; “*In universum aestimanti plus penes peditem roboris; eoque mixti proeliantur, apta et congruente ad equestrem pugnam velocitate peditem, quos ex omni iuventute delectos ante aciem locant*”.

²¹ Tacitus, *Germ.* 14.2: “Indeed, men look to the liberality of their chief for their war-horse and their bloodstained and victorious *framea*”; “*exigunt enim principis sui liberalitate illum bellatorem equum, illam cruentam victricemque frameam*”.

²² See Kristensen 1983, pp.44 and 50.

²³ According to Ammianus Marcellinus (Amm. 16, 12, 34), at a certain moment among the masses of foot German warriors there were heard voices calling the few riders belonging to the tribal aristocracy (the king's sons) to dismount, for it was feared that if the Romans were to start winning, they would use their horses to escape from the battlefield. Obeying these voices they dismounted and fought on foot: Pohl 1994b, p.164. This indicates that the horse was treated mainly as a means of transport to the battlefield (evacuation from the battlefield, chasing the defeated enemy) and a sign of the warrior's high rank, and not as a tool used extensively in the battle.

III

HORSES,
HORSEMEN,
AND EQUESTRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

and information by Tacitus concerning the Venethi²⁴) as well as the representations of the Germans in Roman iconography (reliefs on the column of Marcus Aurelius and the Portonaccio Sarcophagus²⁵) we obtain the different image: these sources seem to indicate that only a small number of Germanic warriors fought on horseback in the Roman Period (also in the late stage of it). The fact that warrior groups did not necessarily have to be composed mainly of riders is also indicated by the bog finds from the Early and Late Roman Periods. As they were composed of weapons won in the battle from the defeated aggressors, they represent the weapons used in practice, not 'filtered' through the burial rites. The analysis of the military equipment found there allows to conclude that only a small part of warriors had horses; they represented the highest ranks, who also possessed elements of costume and ornaments, as well as shield fittings, made of precious raw materials and richly decorated²⁶. This picture may be determined to some extent by the character of the supposed attacks: the invaders most probably got to the area of Jutland Peninsula by boat. The vessels discovered at bog sites from the Roman Period (above all Nydam boats A, B and C (Shetelig 1930; Rieck 2003), could not be used to transport large animals (see Crumlin-Pedersen 1987, pp.101 and 103). From the other side there are many premises (analyses of horse skeletons put in bogs as offerings, the stylistics of riding gear, etc.) to assume that the invaders did bring the horses or at least horse harnesses (von Carnap-Bornheim 1998). Thus the problems of transport did not ultimately preclude using the horses, the more so as there could have been other transporting units (Crumlin-Pedersen 1987, p.103).

²⁴ The Venethi are described by Tacitus (the Roman historian was not certain whether they should be counted as Germans): in their plundering forays they covered large distances on foot and they differed from the Sarmatians in their fondness for walking and speed (Tacitus, *Germ.*, 46. 2). This description may be interpreted as a confirmation that pillaging attacks organised without the use of horses were also effective.

²⁵ At the column representations a clear domination of Germanic foot warriors over the equestrians can be seen despite the fact that the presented warriors are generally identified on the basis of their garments as members of the elite warrior group (*nobiles*), who could probably afford to keep a horse (see Schymalla 1987, p.50).

²⁶ Illerup Place A: 5-7 warriors of highest rank with silver shield fittings, swords richly decorated according to local demands, horses, and other military equipment; more than 30 warriors of medium rank with bronze shield fittings, swords and shields with Roman bronze fittings etc.; almost 300 warriors of lower rank with iron shield fittings and pairs of shafted weapon heads (Ilkjær 1997, p.56ff; see Ilkjær 1994, Table 1). Ejsbøl Nord: 12-14 "officers," at least nine of whom on horseback, at least 60 middle rank warriors with swords and one hundred and several ten warriors of the lowest rank (Ørsnes 1988, p.25; see Bemann, Bemann 1998, p.357ff).

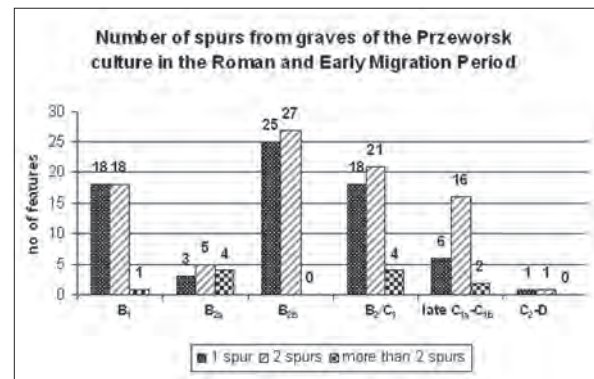


Fig. 8. Number of spurs from graves of the Przeworsk culture in the Roman and Early Migration Period.

Nevertheless in my opinion the above circumstances certainly limited these possibilities: we do not know finds of boats big enough to transport horses although horse harness was surely taken by invaders (see: von Carnap-Bornheim, Ilkjær 1996, pp.260-265). Let me assume that they counted on horses robbed on site, after reaching the land to be plundered. How then to explain the certain popularity of spurs in the Przeworsk culture graves? Probably it proves that war horses were used but not in direct encounters but in looting forays of retinues. It is possible that the increase of the proportion of burials with spurs among the weapon-graves of the Przeworsk Culture might have been connected with more frequent war expeditions, including, perhaps the Marcomannic Wars. There are no premises, however, to assume that the possible increased use of horses resulted in creating regular cavalry troops following the Roman model.

As spurs are the most frequent element of a rider's gear found in graves, it is worth to consider how numerous they are in respective burials (Fig. 8). In order to do that the numbers the of occurrences of one, two and more than two spurs for the respective phases of the Roman Period (taking into account the data from the Late Pre-Roman Period was pointless due to the very low number of spurs) are presented in Diagram 1. It turns out that for most of the phases the number of cases where grave goods included one or two spurs is very similar. Only in Phases B_{2b}, B_{2/C1} there are more pairs of spurs, although this observation does not reflect the actual tendency: as in graves broadly dated to Phases B_{2b}-C_{1a} single spurs are predominant, also in this case it is possible to accept that spurs occurred singly or in pairs with the same intensity²⁷. This difference is clearer only for the late part of Phase C_{1a} and Phase C_{1b}, although also in this case one should remember that some of the graves in which single spurs are predominant are dated less precisely. The cases where grave

²⁷ In other, broadly dated, burials single spurs and their pairs occur in similar numbers.

goods included a larger number of spurs are extremely rare. One may thus assume that basically either one or two spurs were added to the grave goods. It seems that this phenomenon can be explained by the fact that the then riders actually used one or two spurs.

The fact of using single spurs in the Antiquity was mentioned, i.a., by A. Nadolski (1954, p.80). Analogies from various cultural circles and epochs (e.g.: single spurs placed on the left leg in Thuringian graves from the Migrations Period) indicate that a single spur was worn on the left leg (Żak 1959, p.62ff; Żak, Maćkowiak-Kotkowska 1988, p.271; see Bochnak 2004, p.28). The cases of adding to burials of single asymmetrical spurs with a third fastening variant G after J. Ginalski (1991), well-known from the Przeworsk culture, indicate the fact of using the spurs also in this case on the left leg. In spurs of this type the shorter bent heel arm was fixed the internal part of the foot, and the longer, straight one, to the external part, whereas the third fastening – the hook – should have been in this case pointing upwards (Jahn 1921, p.59; Ginalski 1991, p.68; Żak 1959, p.63)²⁸. It is thus possible to say, basing on the form of the spur, on which foot it was worn. The analysis of the artefacts of this kind from the area of the Przeworsk Culture allows to support the conception that single spurs were worn on the left foot; single spurs from grave 7 from Chmielów Piaskowy (Godłowski, Wichman 1998, p.17ff plate VIII.7, IX.7, XC.1) and grave 67 in Stare Babice, Warsaw West district (unpublished materials, in collection of the Museum of Ancient Iron Smelting in Pruszków)²⁹ and from the disturbed grave from Dębowiec, Krotoszyn district (Piaszykowska 1956, p.191; collection of the Archaeological Museum in Poznań), indicate that spurs were fixed on the left foot. Other known to me finds of single spurs, variant G can not be assessed: these spurs were atypically devoid of the third hook or were too damaged to specify on which leg they were worn³⁰. J. Żak also draws attention to the way of mounting the horse

when saddles without stirrups were used (stirrups were not known in the Roman Period), which was executed by vaulting the horse right leg first. If the spur were in this case on the rider's right leg it would wound the horse (Żak 1959, p.64).

The discussed problem has been recently taken up by R. Gawroński (1998) who looked for reasons why the single spur was used³¹. In his opinion, the use of the left spur could result in bending the mount to left, which was to increase the strength of the hit thanks to the additional use of the weight of the animal's body. Moreover, the spur may have been meant to facilitate the right turn, described by Tacitus as the manoeuvre characteristic for the Germans (Tacitus, *Germ.* 6). Another benefit of hitting the mount's left flank with a spur was to be turning its head, which enlarged the warrior's striking field and gave more possibilities to operate with heavy weapons (e.g., the sword) from the horseback. Taking a sceptical attitude to some of the above explanations although not denying them I would like to mention a possibility of a considerably simpler solution of the question why the deceased were provided with only one spur. As a result of discussions I had with M. Eng. Grzegorz Mikuła, a many years' standing and still active jockey, there appeared the following possibility: if one spur were used during the fight then it would be useful on the left leg; it would serve to steer the horse to the right (avoiding a painful prick from the left the horse moves to the right). As warriors' left hand was occupied by the shield (or the reins) they kept the offensive weapon in the right one, the horse's movement increased the strength with which the horse-rider setup pressed against the opponent³². Moreover, a strong stimulus from the left side prevented the horse from panicking; a panic reaction could have been triggered in the horse during the fight, which would result in a desire to escape from the source of danger being on the right side. The use of the spur placed on the left leg held such impulses in check.

It is also worth to consider how the occurrence of more than two spurs in grave goods can be explained (I do not take into account here the cases when a larger number of spurs was found in double graves, i.e., ones where other elements of grave goods are evidently doubled). As it was said above, such cases are very rare, yet pro-

²⁸ J. Żak erroneously presents a reverse configuration of the discussed elements (1959, p.63). The above described style of wearing spurs are also confirmed by the finds of spurs variant G after J. Ginalski from inhumation graves of the Sudovian culture in Szwałcaria, Suwałki district, barrow 2 and 50 (Antoniewicz *et. al.*, 1958, pp.23-27 plates I, V.11-12; Antoniewicz 1961, p.14ff fig.10 plate VI.24-25).

²⁹ I would like hereby to express my gratitude to the Directors of the Museums in Poznań and Pruszków for granting me the access to their collections.

³⁰ One can find in the literature an attempt at determining on which leg a minimally asymmetrical spur was worn (sub-group E2 after Ginalski) from grave 2 at Kocierzew Południowy, Łowicz district. The conclusion that it was worn on the left leg (Skowron 1998, p.84) does not seem, however, reliable as the asymmetry was only slight and could have been caused by, e.g., deformations due to the heat on the pyre (the spur is made of bronze).

³¹ T. Bochnak considered if it is possible to explain the appearance of single spurs in graves from the Late Pre-Roman Period at the area of Central Europe by the phenomenon of monosandalism, i.e., going to fight with only one foot shod, which is confirmed for the Ancient world. However, he ultimately came to the conclusion that this phenomenon does not apply to the Central European *barbaricum* (Bochnak 2004, p.27).

³² J. Żak says that a horse spurred in its left flank turns to the right even when it is galloping (1959, p.63).

III

HORSES,
HORSEMEN,
AND EQUES-
TRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

portionally significantly more frequent in Phase B_{2a}³³. Such cases were interpreted e.g.: as manufacturers' graves (Żak 1959, footnote 38). It seems however that the explanation of this phenomenon is simpler. It should be noted that the cases when many spurs were found are mostly confirmed for richly equipped graves (i.e., with swords – Cieblowice Duże, Kolonia Rychłocice, Lizawice, Lachmirowice, Sandomierz-Krakówka), and even in princely graves, e.g., the grave from Sandomierz-Krakówka. The richest grave from *barbaricum* is the famous discovery from Mušov in Moravia, where as many as 17 spurs were discovered (Tejral 2002; see Kontny 2003b, p.141 with footnote 139). It thus seems that 'additional' spurs indicated an extraordinary status of the deceased, connected with the possession of, e.g., a large number of horses. To explain this phenomenon, analogies from the Elbe circle may be helpful. In rich (inhumation) graves No II and III from Marwedel, Kr. Lüchow-Dannenberg, additional pairs of spurs were found, situated far from the legs: behind the head. Taking into account their careful arrangement, they are interpreted as a proof that the deceased was equipped with a pair of riding boots with permanently fixed (riveted) X-shaped spurs. This interpretation is extended to discoveries of more than one pair of spurs in cremation burials (Bischof 2006, p.108ff fig. 0). Taking into account the similar chronology and form of (X-shaped) spurs, an identical interpretation should be adopted with respect to graves from Phase B_{2a} from Sandomierz-Krakówka, Kolonia Rychłocice, Lizawice or Kamieńczyk. Adherence to this custom clearly had a supracultural character and was an element of the ritual practised by Germanic elites. It is probable that in a

³³ The diagram includes the following assemblages (double burials were not taken into account): B₁ – Niedanowo, grave 247: 4 spurs (Ziemińska-Odojowa 1999, p.48ff plate LXXVI: 247.3-6); B_{2a} – Kamieńczyk, grave 60: 3 spurs (Dąbrowska 1997, pp.21-22 plate XXVIII.60, XXIX.60), Kolonia Rychłocice, Wieluń district., grave 6: 5 spurs (Jazdzewska 2004, pp.292-297 plate I-IV), Lizawice, Oława district, disturbed grave: 4 spurs (Hendel, Moździoch 1981), Sandomierz-Krakówka, Sandomierz district – 9 spurs (Wilkoński 1938, p.118ff; Kokowski, Ścibior 1990, plate 385. 1-12; remarks concerning spurs see Kontny 2003b, footnote 139); B₂/C₁ – Bratove, rayon Vinogradov, grave 3: 4 spurs (Kobal' 1997, p.38 fig.6), Cieblowice Duże, Tomaszów Mazowiecki district, grave 61: 4 spurs (Biborski 2000, pp.54-55 fig. 9.6-9), Lachmirowice, Inowrocław district, grave XVII: 3 spurs (Zielonka 1953, pp.370-371 fig. 13), Opatów, Kłobuck district, grave 745: 3 spurs (unpublished, in collection of the Institute of Archaeology, Jagiellonian University; I would like to thank professor P. Kaczanowski for granting me the access to these materials); C₁ (late stage of Phase C_{1a} and C_{1b}) – Rzeszów-Zalesie, Rzeszów district: 3 spurs (Czopek 1998, p.125 fig.81; Gruszczynska 1999, p.286), Terebovlja (ex-Trembowla), rayon Ternopol': 3 spurs (Kropotkin 1977, p.182 with footnote 17 fig.11.7-9).

similar way slightly earlier and later assemblages with bow spurs should be explained, although in these cases the inference can be only indirect.

From the area of the Przeworsk Culture (rare) finds of also other parts of the bridle are known. The most spectacular group of artefacts are chain reins (Fig. 9). Finds from the area of Barbarian Europe were first collected by T. Baranowski (1973), and they were also taken into account in S. Wilbers-Rost's study (1994), or, incompletely, in M. Ørnsnes' (1993) one. From the area of the Przeworsk Culture only several of them are known³⁴. There is no certainty as to where the bridle with chain reins was invented. S. Wilbers-Rost showed prototypes for respective components in various regions of Europe: the cheeks had Balkan roots, mouthpieces, Italian or Celtic, chain reins, Celtic, whereas nose-band fittings, Celtic or Roman (1994, p.99ff). The bridle in the final form could have appeared at the turn between Phases B₁/B₂ in Sambian Peninsula which was within reach of Barbarian and Noricum-Pannonian influences and from which comes the most numerous collection of early bridles (Wilbers-Rost 1994, p.101ff). This is where from, through exchange, as gifts, or in connection with amber trade, they could have found their way to the area of the Przeworsk Culture; a considerable similarity of the elements known from Sambia and Polish lands can be seen (Wilbers-Rost 1994, p.105ff). Though this conception seems probable, the collection of the artefacts is too small to exclude the opposite direction, i.e., the inflow of Przeworsk Culture bridles with chain reins to Sambian Peninsula (Wilbers-Rost 1994, p.106)³⁵. Unfortunately, it is not known how

³⁴ Czekanów, Ostrów Wielkopolski district, stray find (Kostrzewski 1923, p.257 fig.769; Baranowski 1973, p.410 fig.6), find from the Bug river in the vicinity of Kamieńczyk (Baranowski 1973, p.419 fig. 8; Wilbers-Rost 1994, p.189), Ostrówek, Inowrocław district, discovery from a destroyed cemetery – together with a mouthpiece type Ka1 after S. Wilbers-Rost (Kostrzewski 1923, p.183 fig.664; Zielonka 1970, p.166, plate 4.24; Baranowski 1973, pp.419 and 430, fig.17; Wilbers-Rost 1995, p.190), Ścinawa-Jezów, Lubin district, from a destroyed cemetery (Kontny 2001b, p.86ff fig.13, with further literature) and Żłaków Kościelny, Łowicz district, grave (Wawrzyniecki 1912, p.55 plate XXVIII; Baranowski 1973, p.419 fig.19; Wilbers-Rost 1994, p.193). The recent years have not yielded any new discoveries from the area of the Przeworsk culture. Although it was initially suggested that chain reins were part of the assemblage from grave 22 at Grzybów (Garbaczowie 1990, p.276ff), the idea was justly abandoned and the chain links were determined as parts of a drinking horn (Garbacz 1992, p.181 figs.1-2).

³⁵ W. Nowakowski treats it as a local form, characteristic of the Dollkeim-Kovrovo culture, developing here starting from Phase B₂ (1996, p.56ff). There are no grounds to acknowledge the concept by V. Kulakov, who considered Sambian bridles with chain reins as Roman imports. In his opinion they appeared in Sambian Peninsula owing to the

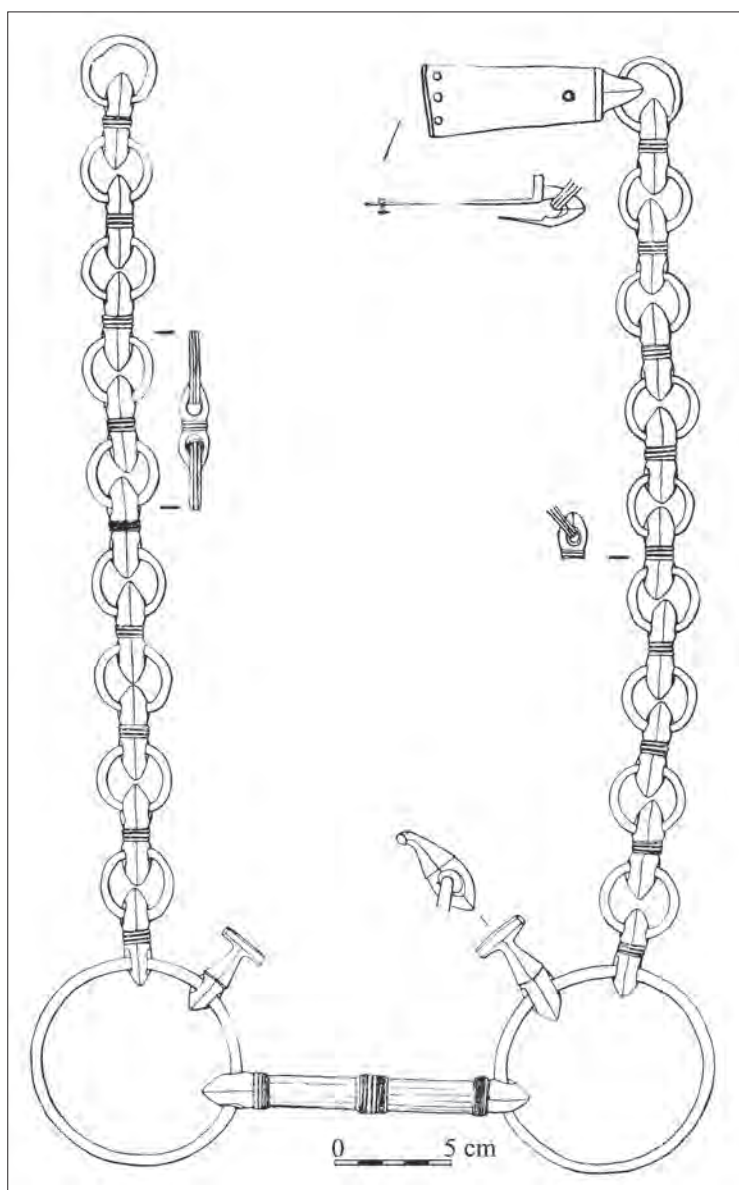


Fig. 9. Bridle with chain reins from Kamięczyk, loose find (drawn by J. Okulicz; after Baranowski 1973, fig.18).

popular such solutions were in the Przeworsk Culture, for they appeared among grave goods only exceptionally, unlike in Sambia.

Also pieces of horse-bits and other metal parts of the horse gear are quite rare. The earliest example of the bit (Fig. 10) is the find of a curb bit from the grave in the settlement of Malkowice, Proszowice district (Jamka 1947), dated to the Early Roman Period Phase B₁ (although the coherence of the assemblage is uncertain) and considered as an import from Thrace (Baranowski 1973, pp.454 and 461 fig. 30) or generally the Balkans (Łuczkiwicz 2000, footnote 171). Such forms of horse-

Roman Army horsemen (see Kulakov 2005, p.45), what seems utmostly improbable taking into account their relatively great number.

bit, described as „Thracian” type, i.e. type II after Z. Woźniak (1974, p.112ff) or XVI after W.M. Werner (1988), are typical of the Padea-Panagjurski Kolonii group (Sirbu, Rustoiu 1999, p.81 figs.6-7; Rustoiu 2005, p.109), located in modern Romania (the region of Oltenia) and Bulgaria (the area around Vratsa as well as the tableland around Sofia and to the south of the Balkan Mountains). The group was ethnically heterogeneous, including Thracian, Celtic and Dacian elements. Horse-bits of the “Thracian” type are dated to Phases LTC₂ and LTD₁ (Rustoiu 2005, fig. 10). Apart from the Padea-Pangjurski Kolonii group they appeared also in the Celtic territory but it seems to be secondary (Woźniak 1974, p.112ff). The type in question was then used in the Thracian lands during the Roman Period (Woźniak 1974, p.113 with footnote 175). They are extremely rare outside the Padea-Panagjurski Kolonii group area, appearing uniquely in the tribal territory of Scordisci, in Italy and Western Hungary and among the Dacians in Romania what is treated as a prove of contacts with middle Moesia and North-Western Thracia (Woźniak 1974, pp.113 and 116). Z. Woźniak connects the find from Malkowice with this group of findings (1974, p.113 with footnote 179).

Apart from this exceptional find, the snaffle bits started to appear in the Przeworsk culture in the Early Roman Period. One may enumerate here e.g. the fragment of a specimen from Pełczyska, Pińczów district (Nosek 1947, p.147ff

figs.46-47) from late stage of Phase B₁ (i.a. bronze vessels Type 133 and 18-21 after H.J. Eggers 1951, a shield boss Type Jahn 6), find from Kalinów, Strzelce Opolskie district, grave 25³⁶ (Szydłowski 1959, p.173ff plate VII), dated to Phase B₂ by pottery findings, another specimen from Bodzanowo, Radziejów district, grave 27, dated by fibulae of group V series 8 after O. Almgren (1923) to Phases B_{2b}-B₂/C₁ (Zielonka 1961, p.192 fig.6). There are also Early or Late Roman Period items of that type although not all of them are surely determined: fragment of a bridle (?) from Rostki, Ostrołęka district, grave 1 (Kempisty, Okulicz 1965, plate 88.1-2) dated to B₂/C₁-C_{1a} (i.a. a belt-buckle Type G 46 after

³⁶ Remains of a horse were found there (Szydłowski 1959, p.174).

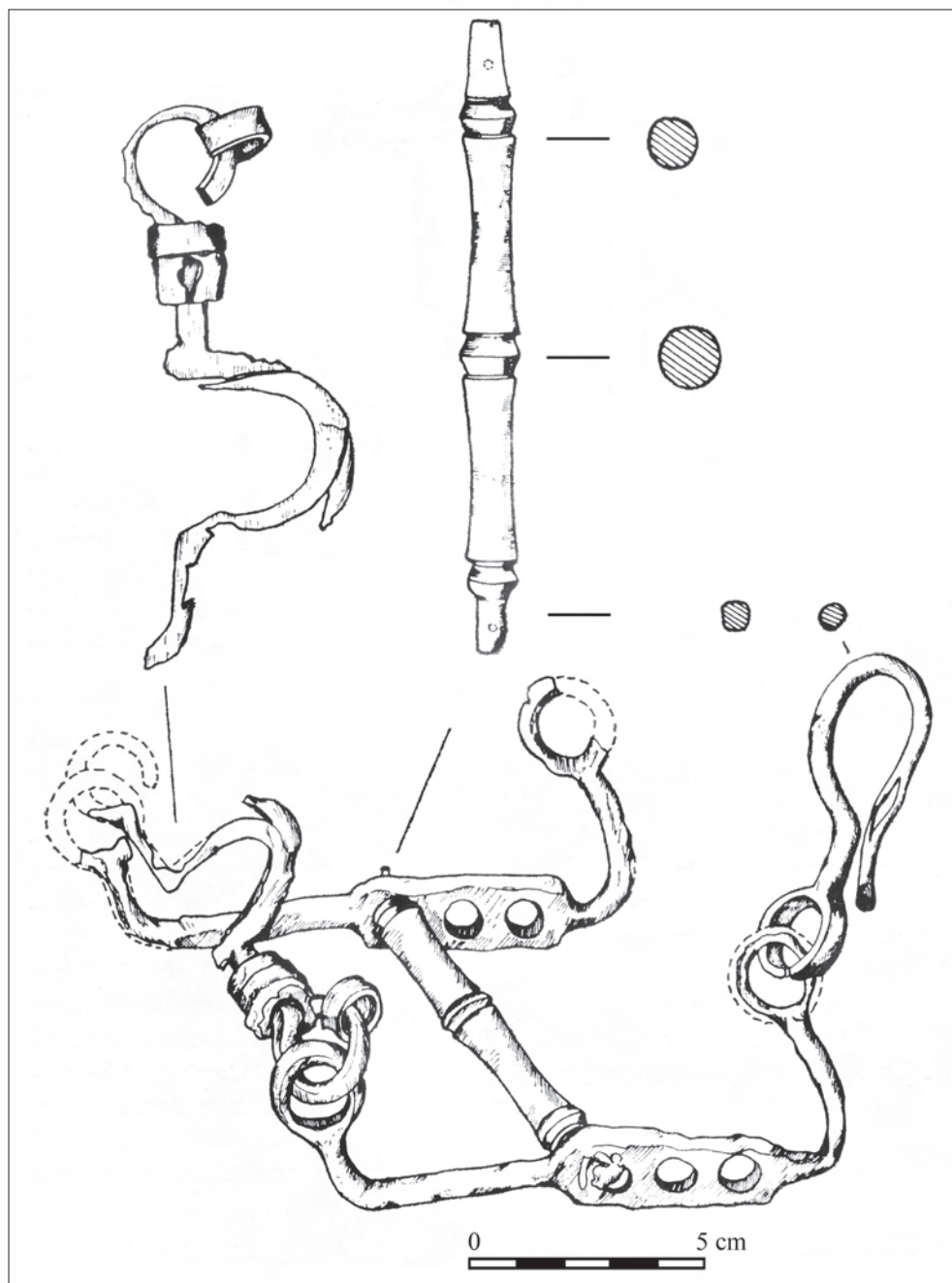


Fig. 10. Curv bit from Malkowice, grave find (drawn by J. Okulicz; after Baranowski 1973, fig.30).

R. Madyda-Legutko 1986, a shield boss Type 7a after Jahn 1916, a fibula of group VI series 2 after O. Almgren 1923), find from Roszkowice, Kluczbork district dated to Phase C₁ (Raschke 1940, p.142; Szydlowski 1964, p.174; see Błażejowski 1998, p.190), fragment of a bridle from Opatów, Kłobuck district, grave 714 (unpublished materials from the collection of the Institute of Archaeology, Jagiellonian University; dating after *terra sigillata* pieces and a fibula group VI after O. Almgren to Phase C_{1a}), fragment of a bridle (?) from Piaski, Piotrków Trybunalski district, grave 170 (Skowron 1997, p.51ff plate VIII. G.170) from Phases C₂-C₃ (i.a. lancehead Type XXII after P. Kaczanowski 1995); one should remind also a find of an Early Roman

Period iron bridle and rein-fastener of type that cannot be described aptly from Sadowie, Ostrów Wielkopolski district, grave dug in a barrow from the Bronze Age (Jasnosz 1955, p.142 fig.3)³⁷. The latest bridles proved for the Przeworsk culture come from princely graves at Ługi (phase D₁) and Jakuszowice (phase D₂) and were mentioned above. There were also different types of bridles in use, probably curb bits, what is confirmed by a find of a mouthpiece type Ka1 after S. Wilbers-Rost from Sokółówek, Wołomin district, grave 1, dated to phase B_{2b} (Liana 1960, pp.375-376 fig. 1; Baranowski

³⁷ Elements of this kind are highly varied, hence many of these finds are determined only in a general way (Wilbers-Rost 1994, p.70).

1973, fig. 7. 5; Wilbers-Rost 1994, p.191). Additionally we know a loose find of a bronze strap-end type Rh 2a after S. Wilbers-Rost, probably from leather reins, found in Sikucin, Zduńska Wola district (Baranowski 1973, fig.20; Wilbers-Rost 1994, p.191).

So far there are no reasons to believe that the Przeworsk Culture population could use the saddles.

Archaeozoological data

There still remains the question of the finds of horse remains from the settlements of the Przeworsk culture. Although the state research on the settlements is far from being satisfactory, the obtained bone remains allow to formulate certain general conclusions. The results of archaeozoological analyses concerning the horse in the Przeworsk Culture have been collected by M.A. Bajkowska (1999). The results of her investigations show that the percentage of horse bones of among the totality of animal remains in settlements usually did not exceed 6% and was never higher than 10% (cattle remains decidedly predominated). It was slightly smaller in settlements from the area of Greater and Lesser Poland than from Mazovia and Podlasie. Bajkowska observed a regularity that the larger proportion of horse bones was accompanied by a higher frequency of wild animal bones, yet she considered that it was impossible to decide whether this should be interpreted as a sign that wild horses were hunted or not (see Krysiak 1956, pp.97-102; 1958, p.140; Godynicki 1973, p.33). Another important result of Bajkowska's study is establishing the sizes of horses from the area of the Przeworsk Culture. The most numerous were individuals of an average size with rather thin limbs. In the investigated by her assemblage the heights at the withers ranged from 100 to 145 the cm and the largest concentration of measurements was in the brackets of 125 and 140 cm (average 131.7 cm). These were animals similar to the so-called Polish horse: with a forehead of average width, elongated eyes and wide face. The author of the study explained the existence of individuals decidedly going beyond the average in two ways. On the one hand, she drew attention to the fact that castration was applied, which in the case of individuals subjected to it before reaching the second year of age could have increased their height at withers by about 4-6 cm (Kobryń 1984, p.50). On the other hand, she allowed, following other researchers (Lasota-Moskalewska, Kobryń 1998, p.9), for occasional imports of large individuals from the Roman Empire (Roman provinces Noricum and Pannonia were famous from the horse farming – see Bökönyi 1968; 1974) or the area of the Chernyakhov Culture where large horses were also known (Tsalkin 1966, p.40ff;

Rajewski 1994, p.212). M.A. Bajkowska considered local selection leading to production of tall individuals as hardly probable, due to the lack of individuals of intermediate heights between the large ones and the predominant average-sized horses. She linked the existence of particularly rare, small individuals with the trade in the individuals of short breeds, similar to today Shetland ponies or with incorrect determination of donkey bones, erroneously classified as horse bones (horse and donkey skeleton differs in the skull but the other parts are very similar). Donkeys could have got to the area of the Przeworsk Culture by way of trade. Bajkowska also established that post-consumption traces on horse bones were found very seldom and the bones were usually not broken up. Fragments coming from well muscled parts of the body were also rarely found among waste from the settlements. Moreover, an over-representation of the head bones and under-representation of trunk bones (always by more than 10% and at some sites even above 40%) can be noticed. Finds of limb bones were close to the model percentage distribution. All this leads to the conclusion that basically horse meat not was consumed, and consumption could have taken place only in exceptional situations, like famine, offering of a horse, or the animal's inability to work. It should be stressed here that in settlements a low percentage of young animals was found (0.38%-6.6% at a site). At some sites, however, remains of old horses were discovered, which suggests high longevity of these animals.

Sacral context

Exceptionally, horses could have been used at settlements for sacral purposes. This is supported by the discovery from Biskupice, Pruszków district, at the area of West Mazovian metallurgical centre (Fig. 11). At the area occupied by a field of smelting kilns, an empty space was found, circular in shape. In the centre a complete horse skeleton was uncovered (Woyda 1978, p.100; Makiewicz 1993, p.72). The animal had been hit over the head with a piece of slag and killed (the piece of slag was stuck in the horse's head), having its legs bound. The grave may have been originally covered by a barrow (Woyda 2002, p.125 with footnote 41 fig.10; 2004, pp.141-142 fig.10). Another ritual horse burial, also surrounded by smelting kilns was discovered in a nearby settlement in Pruszków-Reguły, Pruszków district (Woyda 2002, p.125; 2004 fig.9).

Iconography

Theoretically the importance of the horse may have been testified by the presence of this animal at icono-

III

HORSES,
HORSEMEN,
AND EQUESTRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

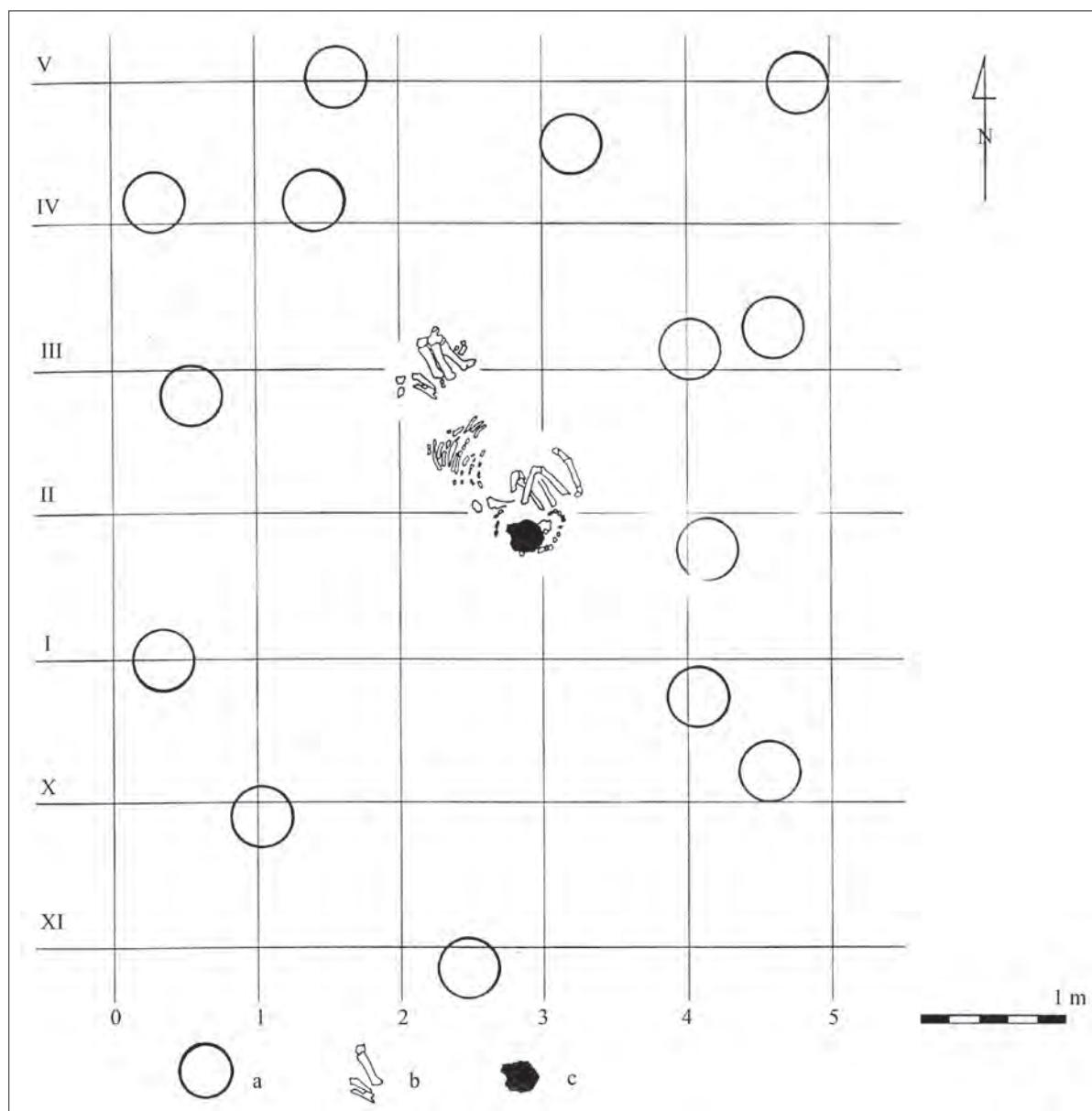
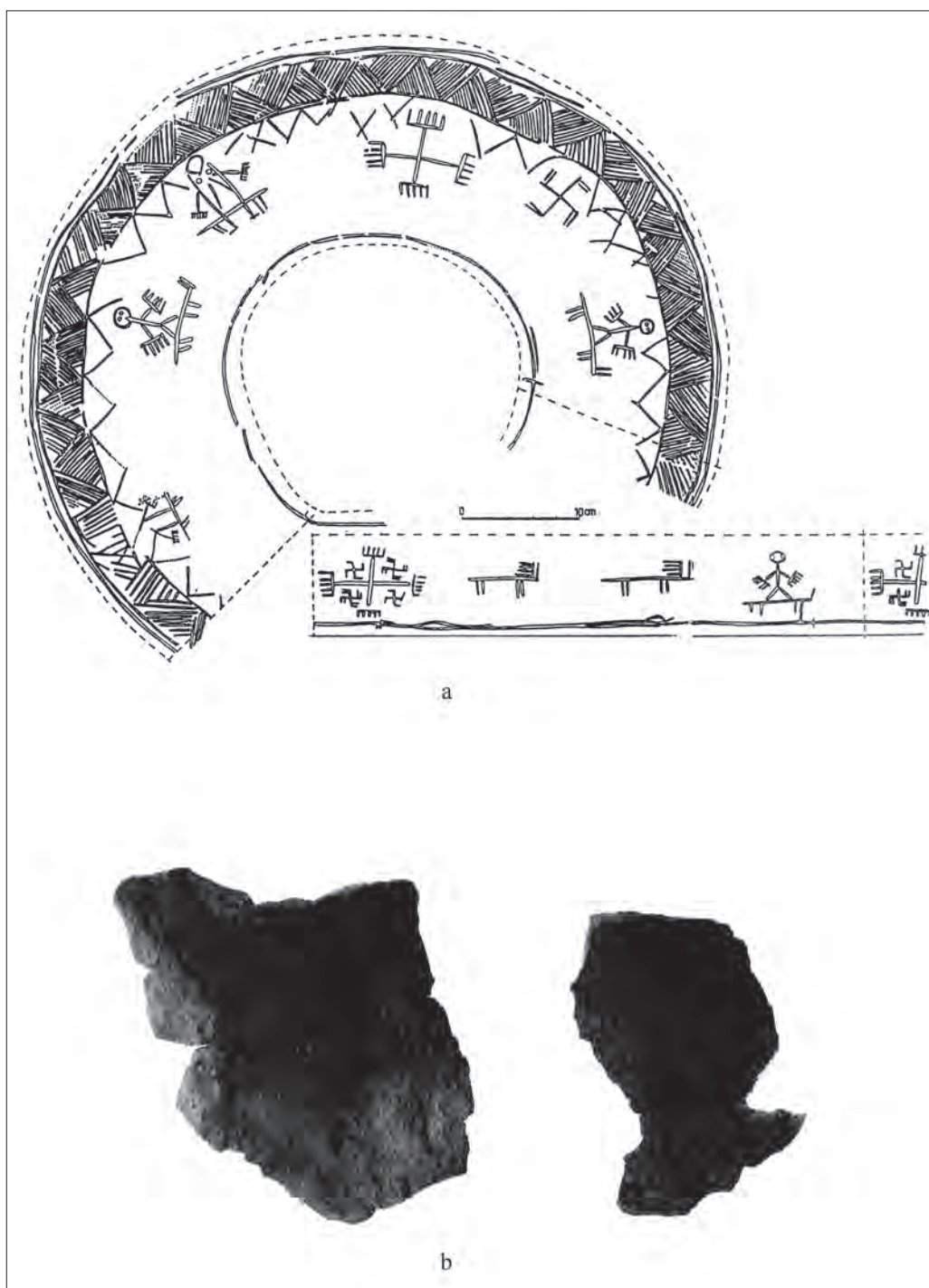


Fig. 11. Horse burial in the smelting field from Biskupice: a assumed location of smelting kilns; b skeleton of a horse; c piece of slag on the horse's skull (after Woyda 2004, fig.10).

graphic representations. Unfortunately, representations of animals are very rare in the Przeworsk Culture (Fig. 12). Exceptionally one can find them on weapons (see Kaczanowski 1988) and on pottery. Within the first group so far no representations of the horse have been found, whereas pottery from burials has yielded two examples of horse images. The first one comes from an urn grave of a woman (grave 30) at the burial ground in Biała, Łódź district, dated to Phase C_{1a}. On this urn, besides other figural representations, four schematic figures of riders were engraved (Makiewicz 1970, pp.188-189 plate XII. 8-15, XIII. 1; Bugaj 1999, plates 22-24). They may be part of a narration, depicting deities or a procession (Bugaj 1999, p.187, with further literature). The other representations come from Łączany, Radom district. On fragments of an urn

from grave 15 there preserved engraved images of orants and riders, less schematic than in the case of the find from Biała (Bujakowska 2004, p.315). This was a grave with weapons, including i.a., a shield boss Type 7a after Jahn (1916), a shield grip Type 9 after the same author, with fan-shaped, distinct rivet plates, and a pair of heads of a shafted weapon, dated to the late stage of Phase B₂ (Bujakowska 2003). The unique character of the above mentioned representations does not depart from the Barbarian standard, for horse pictures appeared uniquely in Barbarian Europe, if all the vessels are to be taken into consideration (see Bugaj 1999, p.162ff). In the interpretation of these representations attention is drawn to the military and sacrificial importance of the horse as well as its connection with the fertility symbolism of German mythology (besides the



III
HORSES,
HORSEMEN,
AND EQUES-
TRIAN
EQUIPMENT:
PREPARED
FOR WAR,
BURIALS, AND
OFFERINGS

Fig. 12. Images of horses on the Przeworsk Culture pottery: a Biała, grave 30 (after Bugaj 1999, fig. 23); b Łączany, grave 15 (after Bujakowska 2004).

wild boar, the horse was the animal of Freya, a fertility goddess). Also its function as the mount of deities: Odin or the valkyrie (Bugaj 1999, p.222), is stressed.

Conclusions

Summing up it should be underlined that although in principle absent in accessible to us manifestations of burial rites, the horse played a significant part in the Przeworsk Culture society. Consumption is not an is-

sue here (horse bone remains from the settlements seem to exclude such a possibility) and we deal rather with the military and, in part, symbolic importance. Judging from the frequency of graves with spurs, the horse's significance reached its peak at the beginning of the Early Roman Period. Taking into account the knowledge about the Germans' military technique, one may suppose that the horse was first of all used for harassing the enemy, making up part of the activity of military retinues. Using it in regular combat required

well-thought-out tactics, yet no trace of it can be found in the case of the Przeworsk Culture. Undoubtedly, the possession of a horse also stressed its owner's status, which is indicated by Tacitus' words mentioned above and the fact that the rider's importance was so eagerly manifested by putting spurs in graves.

Translated by Sylwia Twardo

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ARCHEOLOGINIAI DUOMENYS APIE ŽIRGĄ IR JO PASKIRTĮ PŠEVORSKO KULTŪROJE

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Santrauka

Pabrėžtina, kad nepaisant to, jog iš esmės žirgo apraiškų beveik nerandame mums prieinamuose laidojimo apėigų šaltiniuose, Pševorsko (Przeworsk) kultūros visuomenėi žirgas buvo svarbi gyvenimo dalis (1–12 pav.). Maistui jis nebuvo vartojamas (arklių kaulų liekanos gyvenvietėse liudija prieš tokią galimybę). Taigi mes greičiau susiduriame su karine ir iš dalies simboline žirgo svarba. Sprendžiant pagal kapų su pentiniais pasitaikymo dažnį, žirgo reikšmė pasiekė aukščiausią tašką ankstyvojo romėniškojo laikotarpio pradžioje. Turint omenyje žinias apie germanų karybos ypatumus, galima manyti, kad žirgas visų pirma buvo naudotas priešams sutrikdyti, dalyvaujant karinei palydai. Žirgai nuolatos buvo pasitelkiami kautynėse, ir tai reikalavo gerai apmąstyti taktiką. Tačiau iki šiol nėra ženklų, kad taip buvo daroma Pševorsko kultūroje. Neabejotinai žirgas pabrėžė jo savininko statusą. Tacitas rašė: „Germanai neturi tokio papročio, kaip mes, apjodinėti žirgą ratu: žirgus veja tiesiai arba pasuka tik į dešinę (turima omenyje pentinu) ...“³⁸ Taigi raitelio svarba buvo pabrėžiama, dedant į kapus pentinus (5 pav.).

Vertė Rasa Banytė-Rowell

³⁸ Lietuviška citata iš: Publijus Kornelijus Tacitas, „Germanija“. Vilnius, 1972, In: *Rinkiniai raštai* § 6 (vertė J. Mažiulienė), (tomo red. nuoroda).