ARCHAEOLOGICAL INVESTIGATIONS AT TUMIANY, NEAR OLSZTYN

The territory of Olsztyn, well known thanks to its charming landscape, beautiful lakes and vast forest assemblages, is moreover a true treasury of prehistorical relics. Archaeological investigations had been carried out here already in the 19th cent. and their subsequent stage is research undertaken in many sites by the Institute of History of Material Culture, Polish Academy of Sciences, in 1969.

Fig. 1. Situation of the cemetery at Tumiany, Olsztyn distr. (No. 63), against the background of cemeteries, where human graves containing also horses had been discovered. (After J. Jasieńska)
One of the sites subjected to excavation works is the ancient cemetery at Tumiany, Olsztyn distr. dated to the 5th–8th centuries. It was placed in an exceptionally picturesque countryside, on the top of a small, sandy eminence, situated at the meeting point of two lakes: Pisa and Tumiany. The site has been lately much destroyed, owing to building necessities, that drew sand from the spot. The first investigator, at the end of the 19th century was here J. Heydeck,¹ and L. Fromm² continued salvage work in this place in the years 1930–1932. Abundant materials obtained by these two investigators underwent destruction due to World War II. The Museum of Olsztyn managed to keep only a handful of objects from that cemetery. But the territory — still promising findings — was thoroughly investigated again in the years 1969–1971.³ As many as 74 crema-

Fig. 2. Plan of the cemetery at Tumiany presenting the results of research in the years 1969–1971
1: pit graves; 2: ash graves; 3: destroyed graves; 4: horses' graves; 5: concentrations of horses' bones; 6: surface destroyed by extracting sand and gravel
tion graves were uncovered, out of which 10 are ash-urn graves, 54 pit-graves and 10 items were too badly destroyed to allow any determination of their character. The graves were lying mostly shallow, from 10 to 30 cm under the surface, therefore permanent soil cultivation and climatic conditions were causes of a nearly total destruction of the majority of discovered graves. In the lowest parts of ancient grave pits, now filled with earth, fragments of pottery, remains of crushed and charred human bones, small iron and silver objects and glass beads were found. Many things of that kind were also contained in the layer of humus covering the weak outlines of grave pits, shifted there owing to soil cultivation, that had destroyed the upper parts of graves.

Most of the findings were concentrated in the southern part of the cemetery, forming a belt 30 m long and 12 m wide. The northern zone had only rare graves, which might suggest their earlier investigation. Cremation graves had very differentiated equipment. Ash-urn grave 35 contained an only very slightly injured vessel hiding the bones of a woman about 30 years old. The ash-urn had a square opening drilled in the belly. Grave 26, containing the remains of a child of infans II age, was equipped with two bronze fibulae of probably the same form. It was the only grave containing two fibulae, discovered towards the end of our research. The richest among the investigated graves contained ornamented bronze fibulae, clasps, buckles, bronze and silver fittings to horse's bridles, glass beads, small household implements, such as iron knives, spindle whorls and pottery.

The anthropological analysis of bone remains found in the graves has brought interesting information to studies on the demographic relations, existing in this territory in the 5th–8th centuries. Out of the total amount of 75 graves, 59 contained osteological material possible to be qualified. 49 were single graves and 10 double ones. In the single graves 13 men had been buried alone; 17 women and 11 children, moreover two individuals impossible to determine, had also single graves. 4 graves kept the remains of a woman with child, 2 of a man with child, the bones of a man and a woman were found in 3 graves, in one rested a woman with child of infans II or iuvenis age. Our investigations evidence the population's death rate by following figures drawn from single and double graves: children of the age infans I — 7 individuals; above infans I — 2 individuals; infans II — 10 ind., above infans II — 1; infans II or iuvenis — 4; iuvenis — 6, above iuvenis — 4; adultus — 14, above adultus — 1; adultus or maturus — 5; maturus — 14; senilis — 1. We have for the moment no comparative data that would allow a more exact estimation of events observed in the cemetery of Tumiany. It should also be remembered that the picture presented in not full, as previous investigations had earlier
excavated here some 250–300 graves, the content of which had not been subjected to anthropological analysis.

17 graves of the Tumiany cemetery contained horses' skeletons. They occurred at a depth of 12 to 150 cm below the surface. 8 graves hid the skeletons of one horse, 6 of two horses, 2 of 3 animals, one of four. The divergence of the horses' age was between one and over 14 years. Out of the whole number of 31 identified and investigated horses' skeletons, 18 were those of stallions, aged from 5 to 14 years, 6 of young horses of one to 3 and a half years old, and the remaining 6 probably also stallions, were above 3 years old.

The horses' skeletons were laid with their heads turned to the southeast, some of them had iron bits in their teeth. Next to the skeletons lay a number of iron and bronze clasps, mostly by their skulls and sometimes along the ribs. The latter might indicate that the horses used to be buried under the cover of a rug, held by a leather girth. A characteristic element

Fig. 3. Fragments of vessels from grave 34, in situ. (Photo by K. Dąbrowski)
Fig. 4. Vessel from ash-urn grave 35. (Photo by S. Biniewski)

Fig. 5. Vessel from pit grave 68. (Photo by S. Biniewski)
of horses' equipment were bing combs made in horn, finely ornamented, sometimes hidden in cases, moreover pairs of large iron shears. Combs with shears were found with 5 horse's remains, shears themselves — with two. Particular relics were leather bridles found in the horses' graves, they were richly ornamented with bronze and silver fittings. Some remains of bridles had been found also by earlier research. This is what W. La Baume who had published the relation of two reconstructions and fragments of ornamented bridles from Tumiany, wrote in 1944 about the conditions in which he found those artefacts: — „Auf dem der späten Völkerwanderungszeit (7/8 Jahrh.) angehörigen Gräberfeld bei Tumiany, Kr. Olsztyn, sind zahlreiche Zaumzeuge im Zusammenhang mit Pferdebestattungen gefunden worden. Einige kamen bei der Kiesentnahme zutage, wobei die Lage der einzelnen Zaumzeugteile nicht festgestellt worden ist [...].” Also L. Fromm informs us about the results of research carried out in the cemetery of Tumiany in 1932: “Der Kopf von Pferd 1 befindet sich unter dem Rumpfe von Pferd 2. Das Zaumzeug hat sich bereits beim Hineinlegen vom Kopfe gelöst. Die Lage der Riemenbeschläge ist daher nicht mehr feststellbar. Der Kopf von Pferd 2 und die Zaumzeuge von Pferd 1 und 3 lagen ziemlich dicht beieinander, so das nicht alle Beschläge auseinander zu halten waren.”
Fig. 7. Miniature silver spurs with iron goads from grave 19. (Photo by S. Biniewski)

Fig. 8. Bronze clasps from grave 19. (Photo by S. Biniewski)

Fig. 9. Bronze fibula from grave 19. (Photo by S. Biniewski)
In the light of these descriptions and of the fact that bridles of Tumiany type have their acknowledged position in archaeological literature, the discovery in the years 1969–1971 of three new complete bridles in situ, has important meaning for studies on horses' harness.

Grave V sized 230×150 cm contained the skeletons of 3 stallions. The one lying on top may have been 9 years old, two others were buried underneath. On the head of a 10 years old stallion, buried at a depth of 150 cm, a complete leather bridle had persisted. It was made out of straps 2.5 and 3 cm wide, ornamented with bronze engraved spangles, of 18×5 mm size, studded at a distance of 8 mm between each other. The spangles were fixed to the leather straps by bronze rivets. The bridle reins were joined by rosettes or wider bronze, also ornamented, spangles. Some loose straps hanging from the bridle were ornamented by elongated bronze endings, fixed by rivets. An iron broken bit stuck in the animal's mouth, joined by an iron ring with the bridle's leather reins. The first, 9 years old stallion, had also an iron bit in its teeth and remains of a partly whole leather bridle on its head. On the western side of the thorax bones a horn comb and iron shears have been found. There were also iron clasps by this skeleton. The horse lying at the bottom of the pit had no equipment at all.

Another horse's grave XVI disclosed at a depth of 80 cm, with dimensions 270×130 cm and a pit 90 cm deep, was hiding the skeletons of two stallions. The one lying on top, 8 or 9 years old, was laid on its belly,

Fig. 10. Bronze strap endings of bridles from grave 19. (Photo by S. Biniewski)
with legs gathered up and head turned westward. Its skeleton was badly kept. Its teeth held an iron bit and on the head there were fragments of a leather bridle with straps joined by bronze rosettes, evidently owing to three specimens lying nearby. The reins were fastened together by bronze and iron clasps. The stallion buried below, 9–10 years old, was also laid on its belly with legs gathered up; its head was turned to the south-west. The tripartite bit in its mouth was made of iron rings kept in fragments. Its head was dressed by a nearly complete bridle, made out of leather straps 1.5 cm wide, ornamented by thickly studded engraved bronze spangles, fixed by rivets with bulging heads. The spangles were sized $13 \times 6$ mm. Bronze elongated strap endings were ornamented by crosswise fixed silver spangles, 6 mm wide. The straps were clipped together by bronze spangles 1.5 mm wide, in the form of crosses and by ornamented silver bosses. Near the animal’s ribs, on the eastern side, there lay a much corroded pair of iron shears. Small fragments of hand—made earthenware could also be found in the grave pit.

The stallion from grave XVII was 9 years old. It was discovered at a depth of only 45 cm in an irregular pit, the dimensions of which amounted to $115 \times 55$ cm. The skeleton’s head was turned south-eastward, the body lay on its left side with legs gathered up. The vertebra of loins and lower ribs were laid higher than the forelegs and shoulder blades. The horse's
head was turned lower jaw upwards, but the mouth directed to the neck's vertebra between the forelegs. The skeleton was badly kept. Iron shears lay above it in the western side of the pit. A complete bridle had been dressing the animal's head, with iron bit in the mouth, bronze rosettes and spangles with rivets ornamenting the leather straps, two bronze clasps and two elongated bronze strap endings. An iron clasp was found by the animal's right side. Small pottery fragments were stuck in the earth, filling the pit.

Besides the three complete bridles described above, recent research in Tumiany revealed a considerable number of bronze and silver fittings, strap endings and clasps, all these had belonged to bridles that underwent destruction. They were found loose or else in human graves. It is evident that selected horses used to be buried in richly ornamented dress. Obser-
vations on the position of horses' skeletons in their pits and on their rich equipment suggest that the animals were sacrificed as offerings following a determined rite. The horses must have been led into the pit with fettered legs and bound muzzle, and killed inside. No so far acquired data allow to conclude that the horses should have been buried together with human graves, which would mean post-mortem joining the rider with his favourite charger. In a few cases cremation graves could be found exactly

![Fig. 14. Position of skeletons of horses in grave XV. (Photo by K. Dąbrowski)](image)

or partly over the outlines of pits hiding the skeletons of horses, but the circumstance proved to be only a chronological differentiation, as the horses' graves were much older than the superposed human graves. No stratigraphic connections were evident between particular objects. The outlines of pits that were horses' graves lay 20–30 cm below the cremation graves, separated from them by a layer of barren sand.

The only example of joint appearance of a cremation grave with a horse's skeleton, lying directly beneath, had been discovered by L. Fromm. The equipment of this grave contained the following iron objects: spur and strap ending and several lumps of molten bronze. The fact that only stallions and young colts used to be killed and buried with care, indicates the ritual character of those offerings. Livestock breeding and particularly
rearing horses, had been an important branch of agriculture economy among inhabitants of the Olsztyn region in those remote times. Killing some of the old stallions may have been a selective breeding measure, prompted moreover by general difficulties of keeping animals throughout the severe winter periods. The lack of mares' bones in the discovered material of horses' skeletons indicates that for breeding reasons the mares were excluded from offerings.

Fig. 15. Bridle from horse's grave V. (Drawn by K. Milewski)

The latest discoveries at Tumiany encourage discussion with J. Jaskanis, who forwards the opinion that horses' burials were only quite sporadic cases in the Mazurian region, which might be proof that local traditions dominated in the keeping of funeral rites. The investigations carried out in the Tumiany cemetery in the years 1969–1971 present a very different picture. An undeniable fact is that the Tumiany cemetery contained a
considerable number of horses’ burials. It would seem that part of them may have escaped the attention of former investigators of this site, as excavation works were then conducted along shallow soundage ditches. Also part of this site had been later destroyed. An important achievement is the discovery of a settlement, the inhabitants of which had laid and used the cemetery. The settlement was situated on the highest space of a sandy eminence of the territory, about 300 m north from the cemetery. Subsequent soil cultivation has totally destroyed all traces of the settlement objects and layers, leaving only a quantity of pottery fragments on the surface. On the western slope of the eminence, near the area of a fisherman’s homestead “Rybaczówka”, a culture layer 20–30 cm thick has persisted and below it, in sandy virgin soil, ancient household pits of diverse forms and dimensions can be discerned. The pits contained many pottery fragments, animal’s bones, fishes’ scales. Such artefacts as a bronze clasp, a many-coloured, ornamented glass bead and characteristic forms of vessels indicate that the settlement was contemporary to the cemetery, therefore both should be dated to the period of the 5–8th centuries. The settlement has been till now investigated only by test trenching that does

Fig. 16. Horse’s grave X. (Photo by K. Dąbrowski)
not allow drawing final conclusions, besides the essential statement, that
the settlement's main part lying on top of the eminence has been destroyed
and only its western peripheric part remains to be investigated. It is at
present the third settlement of that period known in the Mazurian region,
therefore further research is expected to provide important observations

Fig. 17. Bridle from horse's grave XVI. (Drawn by K. Mi-
lewski

for the local problem of the Tumiany settlement assemblage, as well as for
wider ones concerning the whole land round Olsztyn.

The results of our research have revealed the high level of non-fer-
rous metallurgy in this territory and some outstanding talents of crafts-
Fig. 18. Horn comb and iron shears from horse's grave IX. (Photo by S. Biniewski)

Fig. 19. Iron bit found by destroyed horse's head. (Drawn by K. Milewski)
Fig. 20. a-b Bridle from horse's grave XVII in situ (Photo by K. Dąbrowski)
Fig. 21. Bridle from horse’s grave XVII. (Drawn by K. Milewski)
men working in this field. Richly ornamented bridles or only their fragments, miniature silver spurs, buckles and fibulae are proof of exquisite art and perfect mastering of the technology of metallurgical processes, that have already an established tradition in the Mazurian region. The artefacts are also no doubt the result of contacts and influences and artistic inspirations coming here from distant countries. Fine specimens of buckles speak of bonds with south-eastern, western and northern Europe. The reason of those bonds will be, as has been recently remarked by J. Okulicz, the role of the Mazurian region treated as transit zone in far reaching exchange relations connected with the shifting of amber trading routes towards the north-east, in the 5th–8th centuries. Also the movements of population groups should be remembered, for, at the decline of the period known by the name of ‘peoples’ migrations,” they had exerted serious influence on the forming of a cultural aspect of this region. Presenting that very complex problem and the diversity of so far published conceptions, would exceed the scope of this article, the purpose of which was to present the results of the final phase of research on the rich cemetery of Tumiany, well known in literature and signalize the important discovery of a settlement contemporary to it.

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