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DE L'UNIVERSITE JAGELLONNE
DE CRACOVIE

RECHERCHES ARCHEOLOGIQUES

NOUVELLE SERIE 3



KRAKÓW 2011

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DE L'UNIVERSITE JAGELLONNE DE CRACOVIE**

**RECHERCHES ARCHEOLOGIQUES
NOUVELLE SERIE 3**

KRAKÓW 2011

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EN COUVERTURE

Les types de statuettes en terre cuite mycéniennes de région au Bas-Danube (les répliques modernes), et la reconstruction du spécimen découvert sur l'hameau fortifié de l'Âge du Bronze à Maszkowice (Carpates occidentales extérieures) (Réalisation et photo par E. Przybyła et M. Przybyła)

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Joanna Zagórska-Telega¹, Jan Bulas, Jacek Pikulski, Anita Szczepanek²

**Excavations of multicultural site 1 at Michałowice,
Czarnocin commune, Świętokrzyskie province,
in the years 2008–2010**

Abstract: The multicultural site 1 at Michałowice has long attracted the attention of archaeologists. Since the 1950's, artefacts attributed to the Przeworsk culture have been discovered from time to time in fields near the administrative border between the Michałowice and Ciuślice villages. This resulted in an initial, small-scale salvage excavation of the site, which revealed skeleton burials of the Lusatian culture, as well as skeleton and cremation burials attributed to the Przeworsk culture. The excavations conducted in 2008–2010 uncovered 53 archaeological features, attributed to the Trzciniec, Lusatian and Przeworsk cultures. Among the most remarkable discoveries were human and horse burials connected with the Trzciniec culture and the Early Roman Period groove-type features from the Przeworsk culture cemetery.

Key words: cemetery, Przeworsk culture, Roman Period, groove-type features.

History of research

Discoveries on archaeological sites located within the limits of Ciuślice and Michałowice villages have been attracting attention of archaeologists for more than 50 years now (Fig. 1). The sites are situated in the central part of the area between the Nida and Nidzica rivers. This area partly belongs to the sub-region called the Proszowice Plateau, which is part of the Nida Basin and the latter is in turn a fragment of the western Little Poland Plateau (Kruk 1997, 14–18, fig. 3). The area is distinguished by

its numerous archaeological sites, often exceptionally large and rich in finds, dated to various chronological periods (for full list of references see Tunia 1997). Moreover, the area lies in the northern borderland of the Tyniec group range, within the still unsatisfactorily studied Przeworsk culture settlement zone (Kaczanowski, Madyda-Legutko 1986, 100).

First archaeological investigations in the area were connected with the activity of the Chair of Archaeology of Poland of the Institute of Material Culture History of the Polish Academy of Sciences in Kraków, which included complex excavations of the early Medieval fortified settlement at Stradów (Zoll-Adamikowa *et al.* 2007; Lityńska-Zajac *et al.*, 2010 and references cited therein). These investigations resulted

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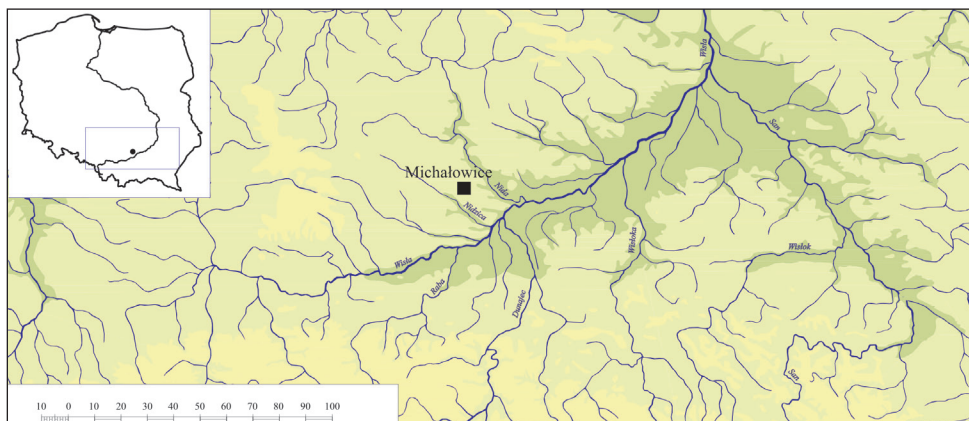


Fig. 1. Michałowice, site 1, commune Czarnocin. Location of the site

in recording numerous archaeological sites, including one in the village of Ciuślice³.

In August 1963, archaeologists investigating the fortified settlement at Stradów were informed about a series of accidental discoveries made by workers constructing the road between Ciuślice and Michałowice. The earthworks reportedly led to the discovery and destruction of skeleton graves. Based on fragmentarily preserved inventory, among other things a small clay vessel, L. Gajewski dated the finds to the Bronze Age and referred it to the Lusatian culture cemetery (Gajewski 1967, 239, fig. 1; 1974, 74). Later and several hundreds meter to the north, the workers came across another skeleton burial, denoted as grave I/63. Its inventory was to include three vessels, of which one was damaged directly on the discovery while the remaining two were taken by one of the workers living in Ciuślice (Gajewski 1974, 75, fig. 4: a, b). The first of the preserved artefacts is a wheel-thrown bowl. The second is a hand-made vessel whose form is typical of group V according to T. Liana (1970, 439). The above

artefacts allow attributing the burial to the Przeworsk culture.

During protection works in the place of the discovery of grave I/63 L. Gajewski made observations which indicated the presence of yet another grave, in the profile of a drainage ditch. Gajewski decided to open a small salvage trench directly over what he believed to be remains of this grave. As a result, he indeed discovered a burial, although this time a cremation one, dug into partially destroyed skeleton grave (the one visible in the ditch profile). Both features were given successive numbers and denoted as II/63 (skeleton burial) and III/63 (cremation burial) (Gajewski 1974).

Grave inventories contained fully preserved wheel-made vessels of the Przeworsk culture and fragments of hand-made vessels, including one rim-and-body shard probably attributable to the Mierzanowice or Trzciniec culture (Gajewski 1974, 83, fig. 7: d). Moreover, the cremation grave (feature III/63) yielded fragments of two *terra sigillata* vessels from Westerndorf and Pfaffenhofen workshops and a fragment of a flint object (Gajewski 1974, 84, fig. 8: f). Recent analysis of *terra sigillata* fragments allows dating the burial to phase C1a of the Roman Period (Kaczanowski, Margos 2002,

³ In August 1958, small-scale salvage excavations were conducted in Ciuślice. They revealed a group of features attributed to the Lusatian culture settlement (Gajewski 1974 and references cited therein).

39, cat. no. 100; Przychodni 2009, Tyszler 2012, 152–163, fig. 36, cat. tab. 33D).

Beginning from the 1950's, accidental discoveries occurred from time to time also at Michałowice, on the fields situated near the administrative border between Michałowice and Ciusłice, close to the graves found earlier (I/63, II/63, III/63)⁴. However, information about the discoveries reached the Institute of Archaeology of the Jagiellonian University only in 1982, when during agricultural works an urn grave was unearthed, lavishly equipped with elements of weaponry (including iron sword) and scissors. This discovery resulted in the first, small scale excavations of the site (Kaczanowski, Madyda-Legutko, Poleski 1984).

Excavations were continued in the early 1990's, although on a very limited scale. They revealed 22 archaeological features, dated mainly to the early Roman Period. Also unearthed were fragments of two particularly interesting structures called groove-type features⁵.

Nearly 20 years later, the authors of this paper inspired by the old field documentation and the data included in L. Gajewski's report undertook a fieldwalking survey and information query in the Michałowice site region⁶.

Fieldwalking of site 1 at Michałowice yielded, among other things, a strongly corroded iron spearhead, similar to type VI, variant 2 in P. Kaczanowski's classification of pole weapons (Kaczanowski 1995, 17–18) (Fig. 2: 1). Two buckles were also discovered. One of them belongs to R. Madyda-Legutko's group A (Fig. 2: 2), while the other represents group C (Madyda-Legutko 1986) (Fig. 2: 3). It is very likely that these buckles were originally the elements of one grave assemblage. Another interesting find is a fragmentarily preserved bronze spur, with a shank decorated with oblique incised lines (Fig. 2: 4). Moreover, the fieldwalking produced an iron fire striker and a small, unidentified iron objects, partially covered with fire patina (Fig. 2: 5, 6). These finds were accompanied by fragments of hand-made Przeworsk culture vessels and isolated, scattered burned human bones. The collected artefacts confirmed dating this part of the site to the early Roman Period, as suggested by previous excavations.

The above facts suggested that the fragmentarily examined cemetery at Michałowice and sepulchral feature from Ciusłice could in fact have been two parts of one large necropolis of the Przeworsk culture. Close vicinity of the two sites, located within a 200 m distance, and small chronological gap between the materials⁷ indirectly point to such possibility. In summer 2008, the excavations

⁴ According to local people, the fields between Ciusłice and Michałowice revealed, among other things, a ritually bent iron spearhead, fragments of an urn and an iron shield boss of undetermined type. All these objects were lost. Furthermore, according to other accounts, a ritually bent iron sword was discovered at Michałowice, which was next unbent on anvil. In mid-1990's it was reportedly offered for sale at the fair at Pińczów, Świętokrzyskie province.

⁵ The research was led by professor P. Kaczanowski on behalf of the Institute of Archaeology of the Jagiellonian University. We kindly thank him for the information about excavations from the years 1990–1991.

⁶ We managed to meet the last living worker of a group that had been constructing the mentioned road in the 1960's. The man provided us with many details concerning the discovery of burials at Ciusłice, consistent with L. Gajewski's relation published in his paper (Gajewski

1974). Moreover, the man furnished some - as yet unverified - information about other archaeological features uncovered by the workers when digging a drainage ditch. Judging from his account, these might have been other cremation burials, so perhaps the cemetery (investigated only partially) was in fact much larger.

⁷ From Ciusłice comes also an accidental discovery of a bronze brooch, similar to type 158 of Almgren's group VI. The specimen is characterised by a massive bow decorated with a wavy line and a foot bearing me-tope ornament. Such brooches are dated to the late or final phases of the Younger Roman Period (Rodzińska-Nowak 1997, 132–133).

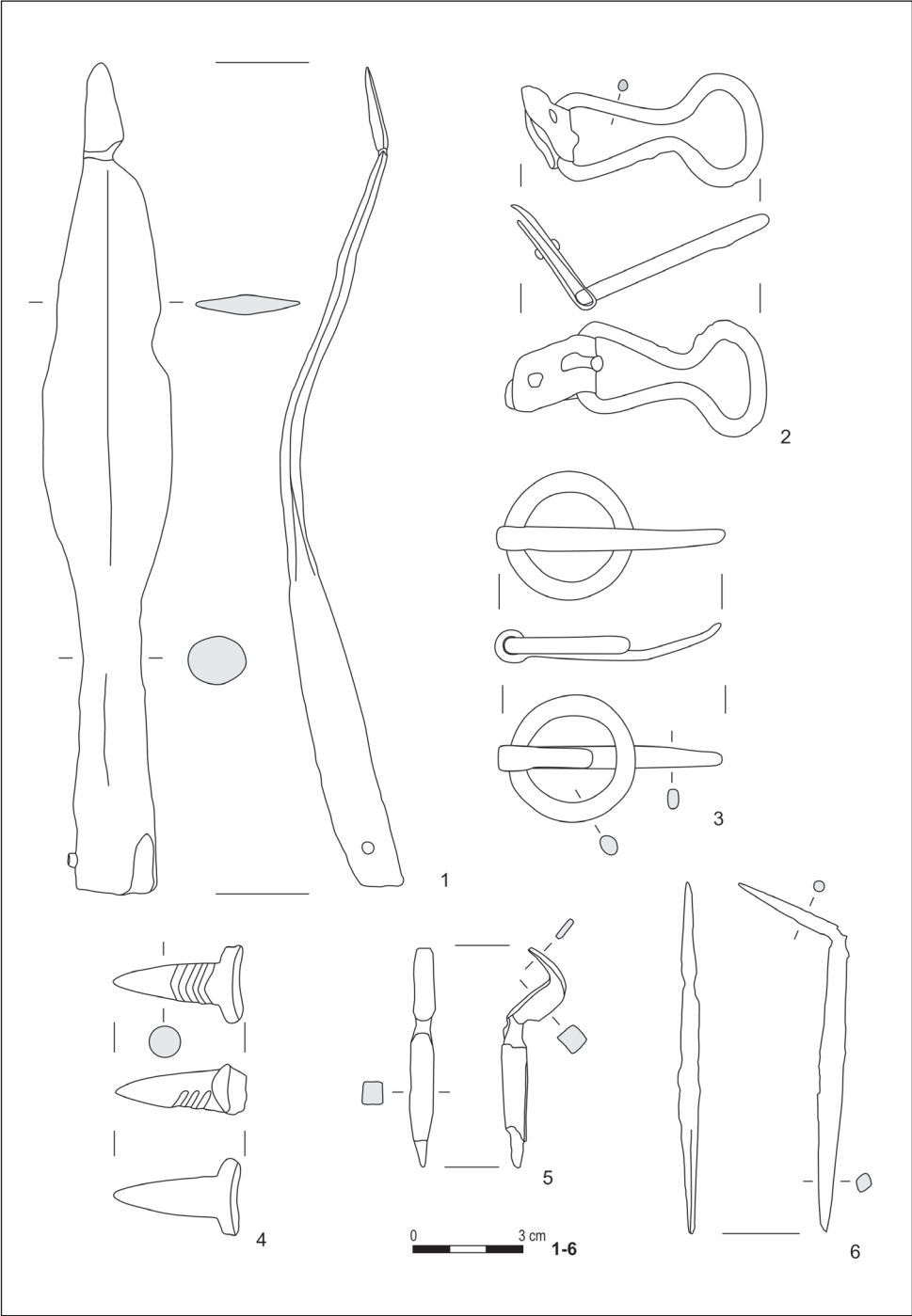


Fig. 2. Michałowice, site 1, commune Czarnocin. Finds from the surface of the site

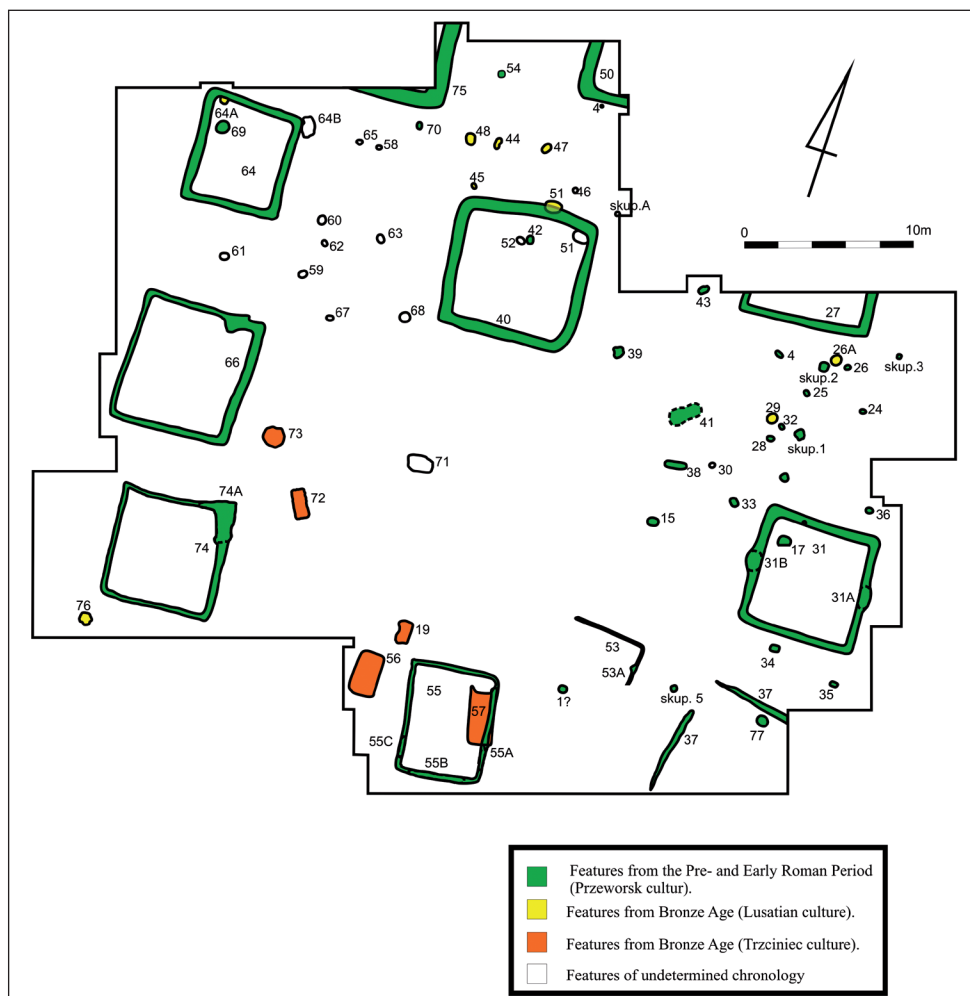


Fig. 3. Michałowice, site 1, commune Czarnocin. Plan of the cemetery

were undertaken in order to verify this hypothesis. They were aimed at protecting and investigating the range of gradually decaying cemetery.

Excavations in the years 2008–2010

In the years 2008–2010, three subsequent research seasons on site 1 at Michałowice produced 53 archaeological features⁸, con-

nected primarily with the Przeworsk culture cemetery. The area excavated so far can be roughly estimated at 1700 m² (Fig. 3). Among the oldest discovered features are human skeleton burials of the Trzciniec culture and burials of horses (discovered in 2009), most likely attributable to the same cultural unit. A few destructed features

⁸ The authors decided to keep a continuous numbering for archaeological features, starting from the first

grave discovered by J. Poleski in 1982 and those excavated in the 1990's by P. Kaczanowski, with no reference to their cultural and chronological attribution.

connected with the Lusatian cultures were also recorded. However, the most numerous group are features linked with the Przeworsk culture cemetery.

So far, the site at Michałowice yielded six features which should probably be ascribed to the Trzciniec culture. They were mainly skeleton burials of humans and horses, and were all clustered in the south-western part

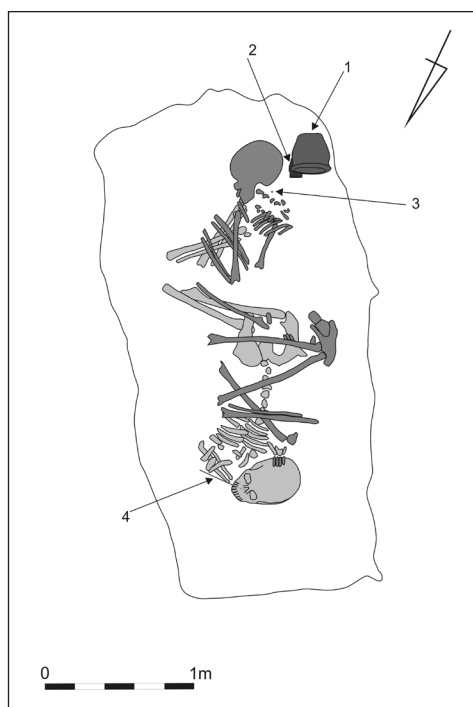


Fig. 4. Michałowice, site 1, commune Czarnocin.
Feature 72

of the investigated area. Undoubtedly the Trzciniec culture attribution can be claimed for double skeleton burial denoted as feature 72. It was first recorded as a regular, rectangular pit 160×70 cm. The exploration revealed two human skeletons placed one above the other. The first skeleton lay in contracted position on its right side, with hands at the level of the skull. It was oriented

along the SE-NW axis, with the head pointing to SE. Behind the head of the deceased (to SW), a small clay vessel was found, typical of the classic phase of the Trzciniec culture. It had a characteristic, bevelled rim and a profiled body in its the upper part (Fig. 4a: 1; 5: 1). Next to the above vessel but slightly deeper, another vessel was found. It was small, cylindrical and in the upper part decorated with horizontal incised lines (Fig. 4: 2; 5: 2). Furthermore, this part of the grave pit yielded a small fragment of bronze wire (perhaps an earring) (Fig. 4: 3). Beneath the feet of the deceased, a skull of another person was discovered. After cleaning the second skeleton, it was found that it was laid the other way round, i.e. in contracted position on its left side, with hands at the level of the face. It was oriented in NW-SE direction, head pointing to NW. On its chest was placed a bronze pin with nail-shaped head with small aperture (Fig. 4: 4; 5: 3). Total depth of the grave pit, from the level of the discovery to the bottom, amounted to 70 cm. Anthropological analysis revealed, that two women, aged *maturus* (skeleton 1) and *adultus* (skeleton 2) were buried in this grave.

A strongly destructed feature, denoted as 71, was discovered at a small distance from the grave mentioned above. It yielded only one fragment of an unburned human rib. Poor state of preservation and lack of any artefacts does not allow this feature to be reliably dated, although it seems likely to be the Trzciniec culture skeleton burial as well.

In 2009, two particularly interesting features (56 and 57) were discovered at Michałowice. Both contained double horse burials in a specific arrangement. In feature 56, two horses were laid with their heads pointing to S, facing one another and with “tangled” limbs (Fig. 6). Feature 57 was destroyed by the Early Roman Period groove-type feature (55), but it seems that original arrangement of the horses was analogous



Fig 5. Michałowice, site 1, commune Czarnocin. (1–3) – feature 72; (4) – feature 48. (1, 2, 4) – clay; (3) – bronze

to that described above. This is shown by the northern, undisturbed part of the feature, containing “tangled” bones of hinder legs of the two horses. Archaeozoological analysis revealed that the remains deposited in each feature belonged to animals of various age and sex. Feature 56 held an almost complete skeleton of a male specimen aged 3.5–4 years (skeleton W) and a probably female specimen aged about 13 years (skeleton E). On the other hand, in feature 57 lay almost complete skeletons of

an adult specimen (skeleton E) and of probably female specimen aged 13 years (part E and W). Very interesting is the lack of radius bones in all skeletons, and in the case of feature 57 the ulnar bone was missing too⁹. This may point to intentional opening of the feature and removal of the lacking bones for

⁹ For the analysis of animal skeletons from features 56 and 57 we are indebted to Danuta Makowicz-Polisztot from the Institute of Archaeology and Ethnology of the Polish Academy of Sciences in Kraków.

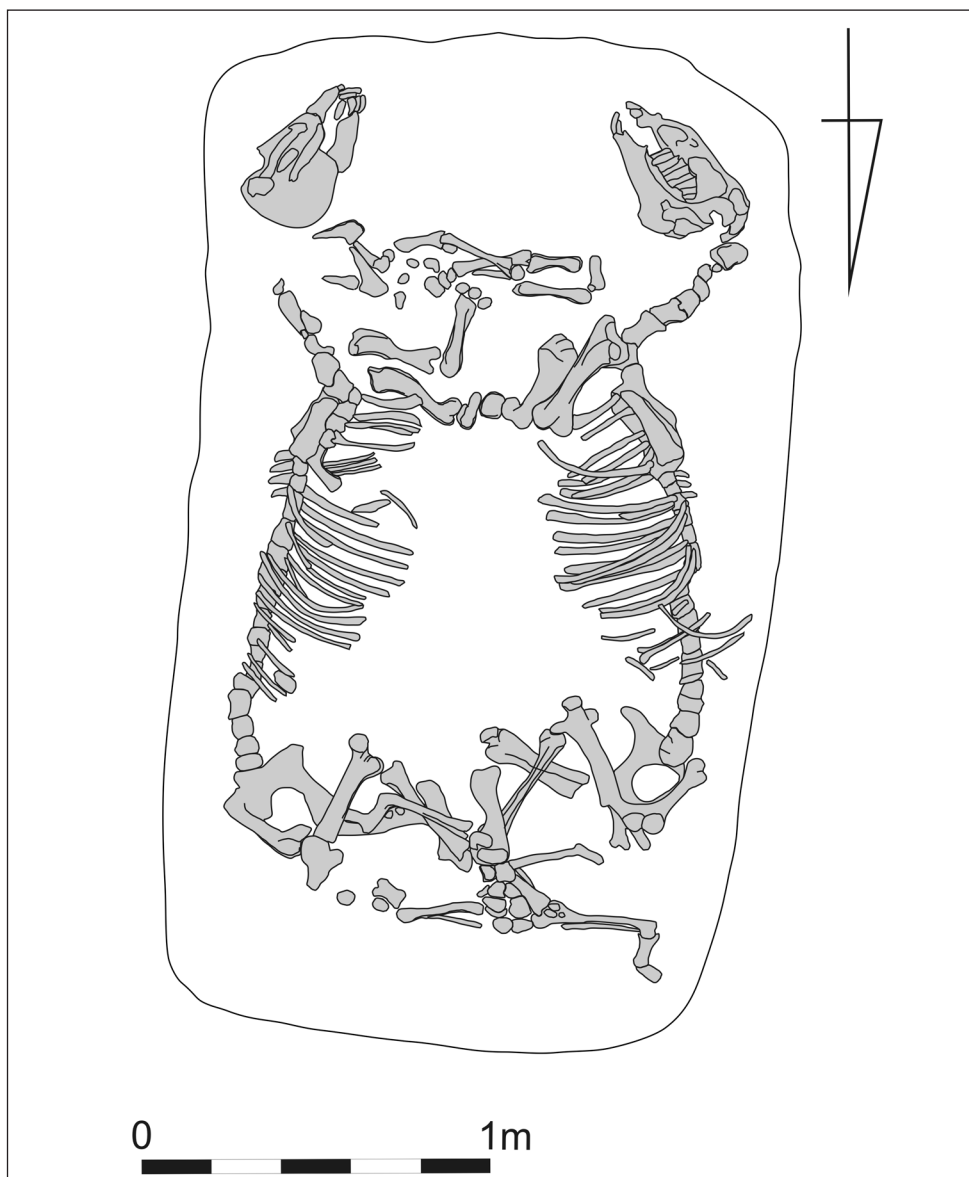


Fig 6. Michałowice, site 1, commune Czarnocin. Feature 56

a closer unidentified ritual purpose. It cannot be excluded that this action also caused the displacement of bones in feature 57. Lack of any equipment renders dating of the skeletons impossible. However, other finds from the site make their attribution to

the Trzciniec culture cemetery very likely (compare Górski 2008).

In season 2010, a shallow feature 73 was also discovered. Its inventory allows dating the feature to the time when the Trzciniec culture cemetery was functioning.

Interestingly enough, the feature seems to be utilitarian in character. Beside sparse fragmented shards typical of the Trzciniec culture, no materials suggesting its sepulchral character were found. Few burned human bones found in the feature come from just beneath the topsoil and should be most likely regarded as a secondary deposit.

Another intriguing problem is the interpretation of two human skeleton graves (feature 19 discovered in 1991 and feature 72 discovered after the excavations were resumed). Perhaps, as is suggested by the orientation of grave pits, they were situated at the edge of a supposed barrow, while the two structures with horse skeletons might probably be sacrificial burials. In this context, the unexplored, southern part of the site seems of particular interest. Feature 73 – a circular, flat bottomed-pit – is also worth noticing. On other sites, such features were sometimes discovered when excavating Eneolithic or Early Bronze Age barrows. This allows assuming that feature 73 should be referred to the time when the alleged barrow was erected at Michałowice.

Among the remarkable results of excavations at Michałowice was the discovery of a series of Lusatian culture features (26A, 29, 44, 45, 47, 48, 51, 76 and probably 64A) and a cluster of Lusatian culture shards. It should be mentioned that they yielded no finds other than ceramics or single burned bones (Fig. 5: 4). The features in question were clustered mainly in the northern part of the explored area, except for feature 76 discovered in its south-western part. This latter feature produced a fragment of a small biconical vessel decorated with incised lines – similarly to vessels from features 47 and 51. Due to significant destruction, the character of the above features remains uncertain. The presence of charred human bones might speak for their sepulchral function. However, bones were very scarce which

may suggest that they were secondarily deposited.

Except for the above mentioned features attributed to the Trzciniec or Lusatian cultures and a few destructed features of undetermined chronology, vast majority of structures discovered at Michałowice should be connected with the Przeworsk culture cemetery. The examined part of the site is considerably damaged by erosion, so the discovered graves were often disturbed in their upper parts. Sometimes, only the bottom parts with single elements of equipment and few charred bones were preserved.

There are no reasons to suggest the presence of the Przeworsk culture skeleton burials in the excavated part of the site. Among the cremations were urn burials, as is indicated by fragments of unburned vessels with smooth black surfaces – most likely the remains of urns. Only in one case (feature 69) was the urn preserved well enough to allow for the reconstruction of its form. Among the remaining graves were also urn burials of other type – i.e. such where the role of urn was played by an organic container. Such interpretation is suggested by the presence of compact, usually small concentrations of charred bones accompanied by other elements of equipment.

The Przeworsk culture graves explored so far were rather poorly equipped. However, very numerous and often impressive artefacts were discovered in the topsoil. They probably come from the upper parts of features discovered during excavations. Undoubtedly, some of them originate from completely destructed burials which did not preserve till today. This assemblage gives us a picture of the necropolis abundant in prestige objects, often imported from the provinces of *Imperium Romanum*. One can mention here metal artefacts, usually dress elements, such as fully or fragmentarily preserved brooches from graves 24, 36 and 41.

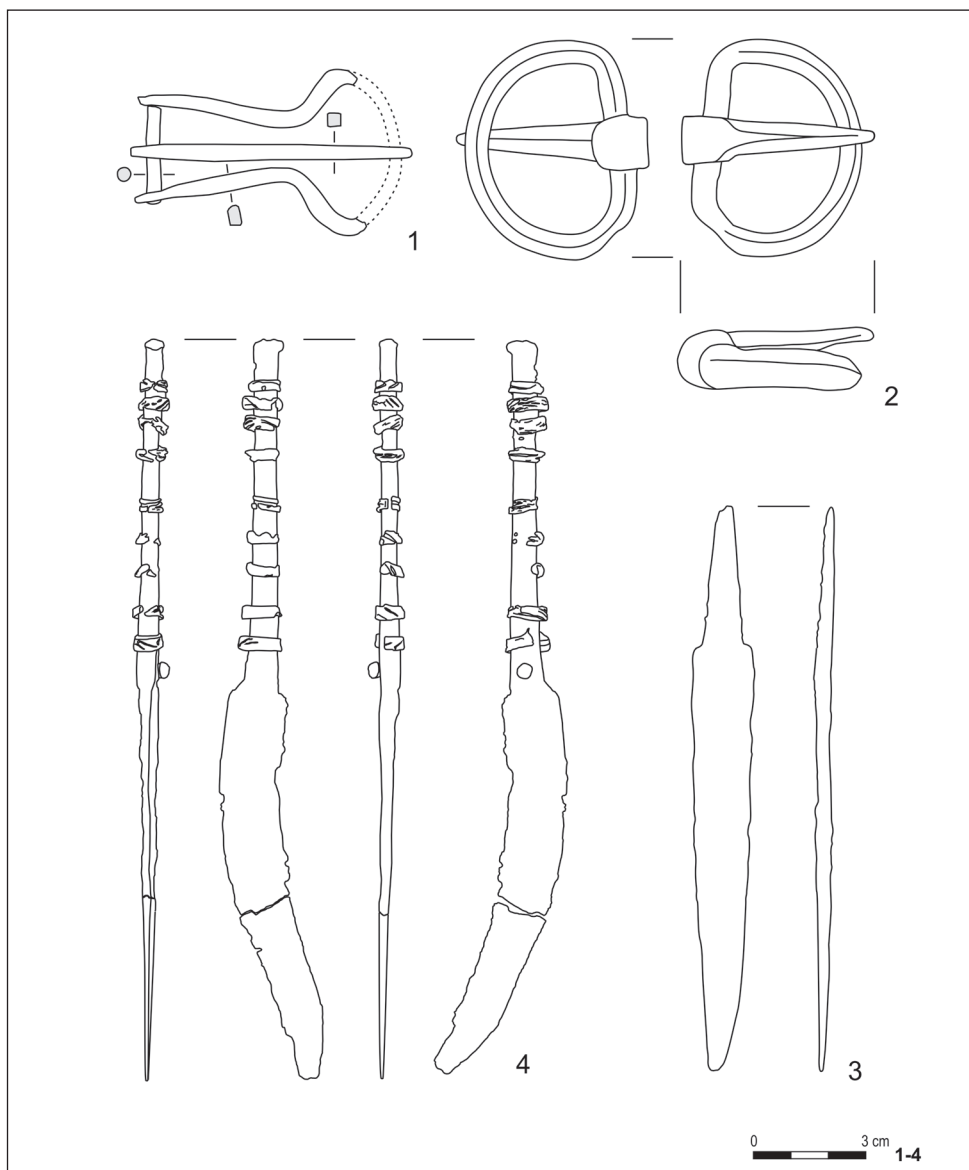


Fig. 7. Michałowice, site 1, commune Czarnocin. (1, 3) – loose finds; (2) – feature 39; (4) feature 24. (1–3) – iron; (4) – iron and bone

The site yielded some buckles (Fig. 7: 1), of which one was found in feature 39 (Fig. 7: 2), and a collection of needles, spindle whorls and knives (Fig. 7: 3), including a very impressive specimen from feature 24,

whose handle was decorated with bone rings (Fig. 7: 4). As attributes of female burial one can regard the elements of caskets with keys (Fig. 8: 1–4), including a particularly interesting bronze specimen (Fig. 8: 5).

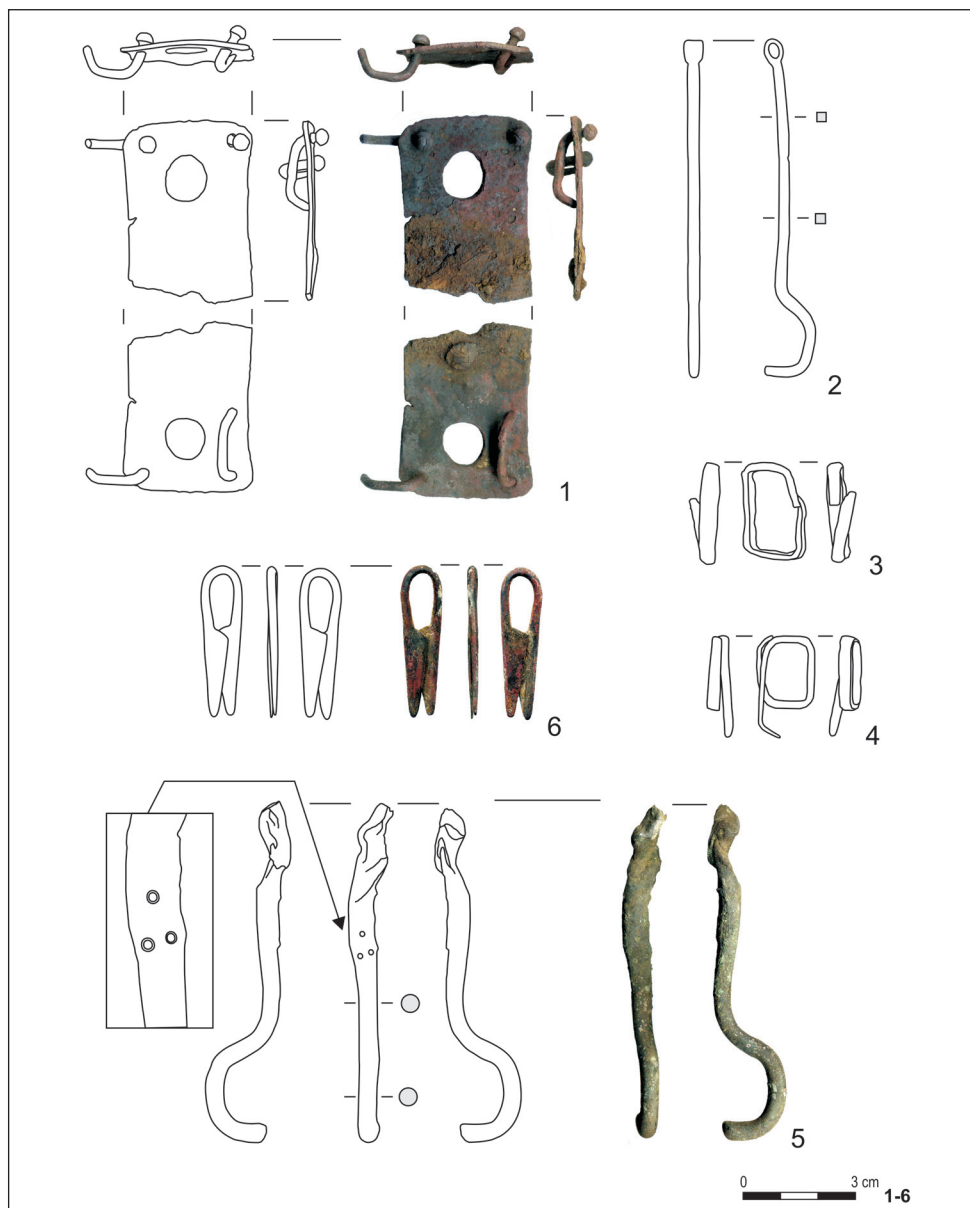


Fig. 8. Michałowice, site 1, commune Czarnocin. (1, 3–5) – loose finds; (2) – feature 41, (6) – feature 55.
(1–4, 6) – iron; (5) – bronze

Among remarkable finds was also a miniature scissor-shaped object. Such artefacts are often found together with other miniature objects, such as weaponry. They are

particularly frequent in female and children burials, where they are considered apotropaic amulets (Fig. 8: 6) (Andrzejowski 2000, 39; Madyda-Legutko, Rodzińska-Nowak,

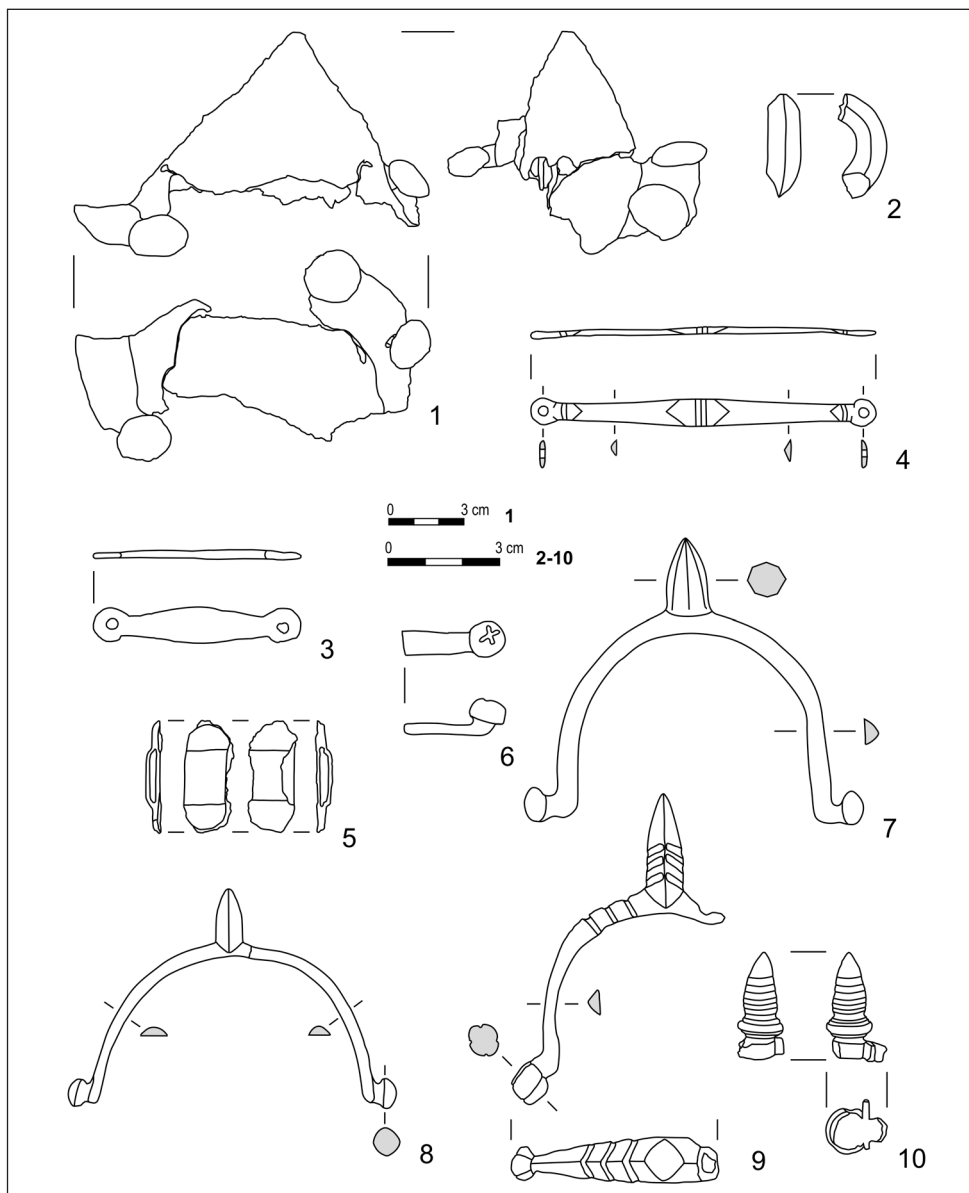


Fig 9. Michałowice, site 1, commune Czarnocin. (1, 2) – feature 38; (3) – feature 58; (4–10) – loose finds. (1, 3–8) – iron; (2, 9) – bronze; (10) – bronze and iron

Zagórska-Telega 2003; 2005). The cemetery at Michałowice yielded also single elements of weaponry – a very poorly preserved shield boss (Fig. 9: 1) and a fragment of iron clasp (Fig. 9: 2) in grave 38, and

shield rivets and a small fitting (probably also from a shield) in grave 58 (Fig. 9: 3). It is worth noticing that an analogous shield fitting was discovered in other part of the site as well, together with other elements

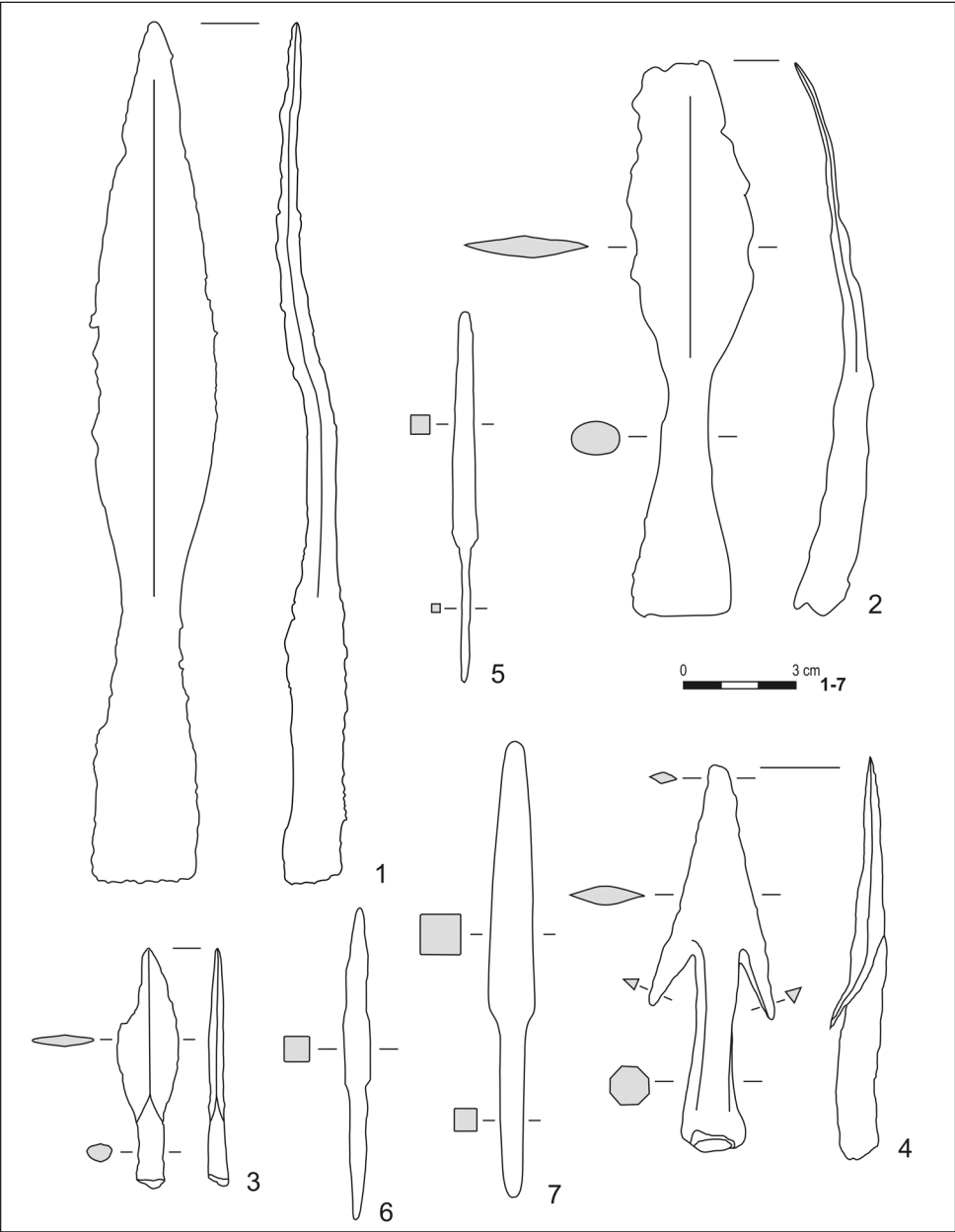


Fig 10. Michałowice, site 1, commune Czarnocin. (1-7) – loose finds. (1-7) – iron

of a shield (Fig. 9: 4). Moreover, from the site surface comes (among other things) a sword scabbard slide (Fig. 9: 5) and a variety of spurs or their fragments (Fig. 9:

6-9), including a particularly interesting bronze specimen (Fig. 9: 10). The latter has a shank decorated in the same manner as the specimen found during fieldwalking. From

Michałowice come also spear-, javelin- and arrowheads (Fig. 10: 1–4). Other attributes of male graves found on the site are iron fire strikers (Fig. 10: 5–7). Unfortunately, burial 69 was the only grave to yield larger number of artefacts. All the remaining graves produced only pottery shards and charred human bones.

The artefacts discovered so far allow dating the excavated part of the site to phase A3 of the Pre-Roman Period and to the Early Roman Period, phase B1 in particular. Such chronology is suggested by brooches of J. Kostrzewski's type M and by a broad spectrum of brooches of Almgren's group IV (Fig. 11: 1–5). Furthermore, to the transition between the Pre-Roman and Early Roman Periods one can attribute the already mentioned feature 38 which produced a badly damaged iron boss with rivets having large, flat heads (most likely representing Bochnak's type 15) (Bochnak 2005, 119) (Fig. 9: 1). From the same grave comes also a fragment of an iron clasp, probably of Kostrzewski's type 49 (Fig. 9: 2). The discovery of a fragmentarily preserved, massive iron brooch of A158 type allows assuming that the site was still used in the Younger, or even the late Roman Period (Fig. 12: 1).

Among the discoveries from site 1 at Michałowice is a unique fragment of a Celtic glass bracelet made of the so-called cobalt glass (Fig. 12: 2). It refers to type 8b according to Th. E. Haevernich (1960)¹⁰ and should be dated to phases C1b–C2 of the La Tène period. Glass bracelets were elements of Celtic female graves equipment. They are also known from settlements, among other places from Małopolska (Karwowski 1997, 33–71 and references cited therein). Unfortunately, the bracelet from

Michałowice comes from the topsoil and cannot be linked with any particular feature. From the topsoil comes also the discovery of at least one fragment of a wheel-made vessel manufactured in technique typical of the so-called Celtic painted pottery (Fig. 12: 3). It is younger than the bracelet and should be dated to phase D of the La Tène period (compare Poleska 2006).

Apart from burials and artefacts presented above, the excavations at Michałowice revealed eleven very interesting structures described as groove-type features. Six of them were fully uncovered and explored (features 31, 40, 55, 64, 66, 74). The rest was only fragmentarily uncovered so far or was destructed to the degree which made the determination of their shapes and dimensions impossible.

Groove-type features from Michałowice were rectangular, with nearly even sides. Only the outline of feature 55 was less regular (Fig. 13). The features in question varied in size from 600×600 cm (feature 64) (Fig. 14) to over 800×800 (feature 40) (Fig. 15). Their fills were non-homogenous: bottom parts were usually brighter, contrary to darker, upper parts. Feature widths varied from several (feature 53) to more than 100 cm (feature 75). However, these differences resulted primarily from various state of preservation of the features. The widest feature (feature 75) was at the same time the least destructed one, with preserved depth reaching 70 cm.

It should be assumed that the arrangement of groove-type features on the Michałowice necropolis was not accidental. All burials were oriented according to the four cardinal directions and placed close one to another, forming distinctly visible rows. The features never cut one another, and in the middle of the investigated area an empty space was recorded, devoid of any archaeological features. This empty space yielded

¹⁰ The authors wish to thank dr Michał Grygiel and dr Przemysław Dulęba, who (independently) determined the typology and chronology of the bracelet.

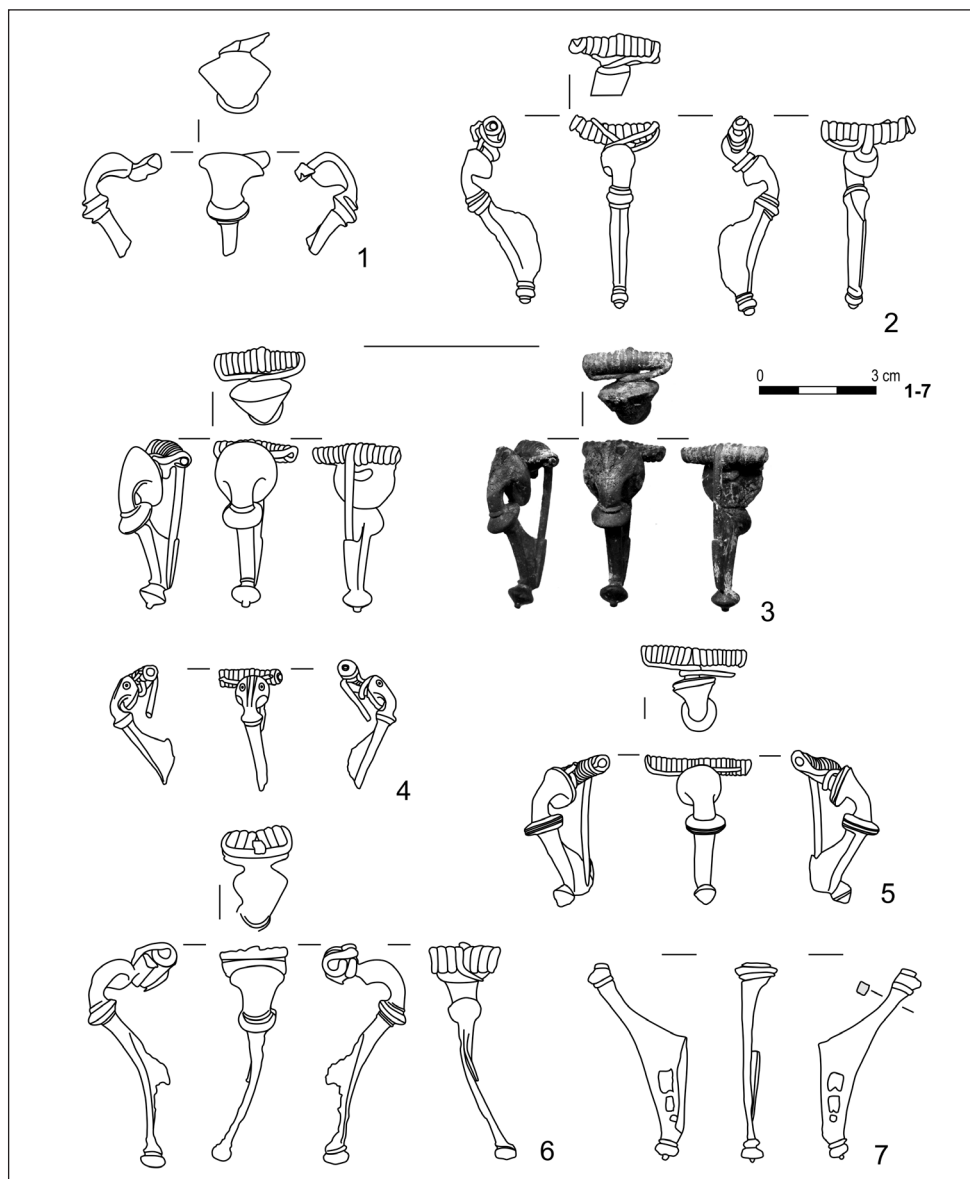


Fig 11. Michałowice, site 1, commune Czarnocin. (1, 2, 7) – loose finds ; (3) – feature 75 ; (4) – feature 36; (5) – feature 15; (6) – feature 31. (1, 2, 4–7) – bronze; (3) – iron.

very few artefacts, too. Perhaps the area was intentionally left empty and was used to perform some cult ceremonies which left no archaeologically detectable traces. However, one cannot exclude that the

empty space is simply the result of greater destruction of this part of the site by agricultural works (Fig. 3). It should be noticed that some of the groove-type features were surrounded by scattered individual graves.

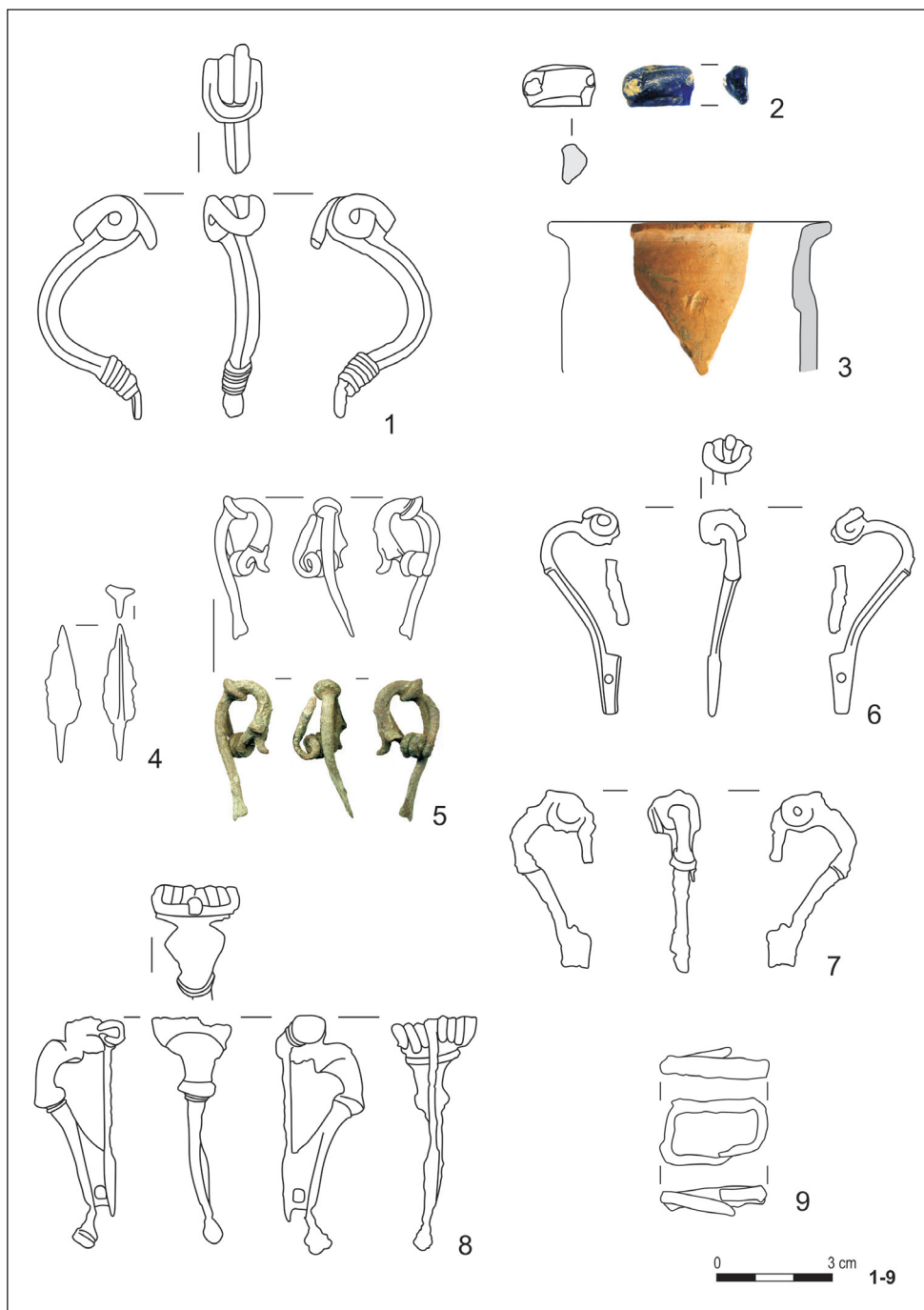


Fig 12. Michałowice, site 1, commune Czarnocin. (1–3) – loose finds ; (4–9) – feature 31. (1, 4, 6, 7, 9) – iron ; (5, 8) – bronze ; (2) – glass ; (3) – clay

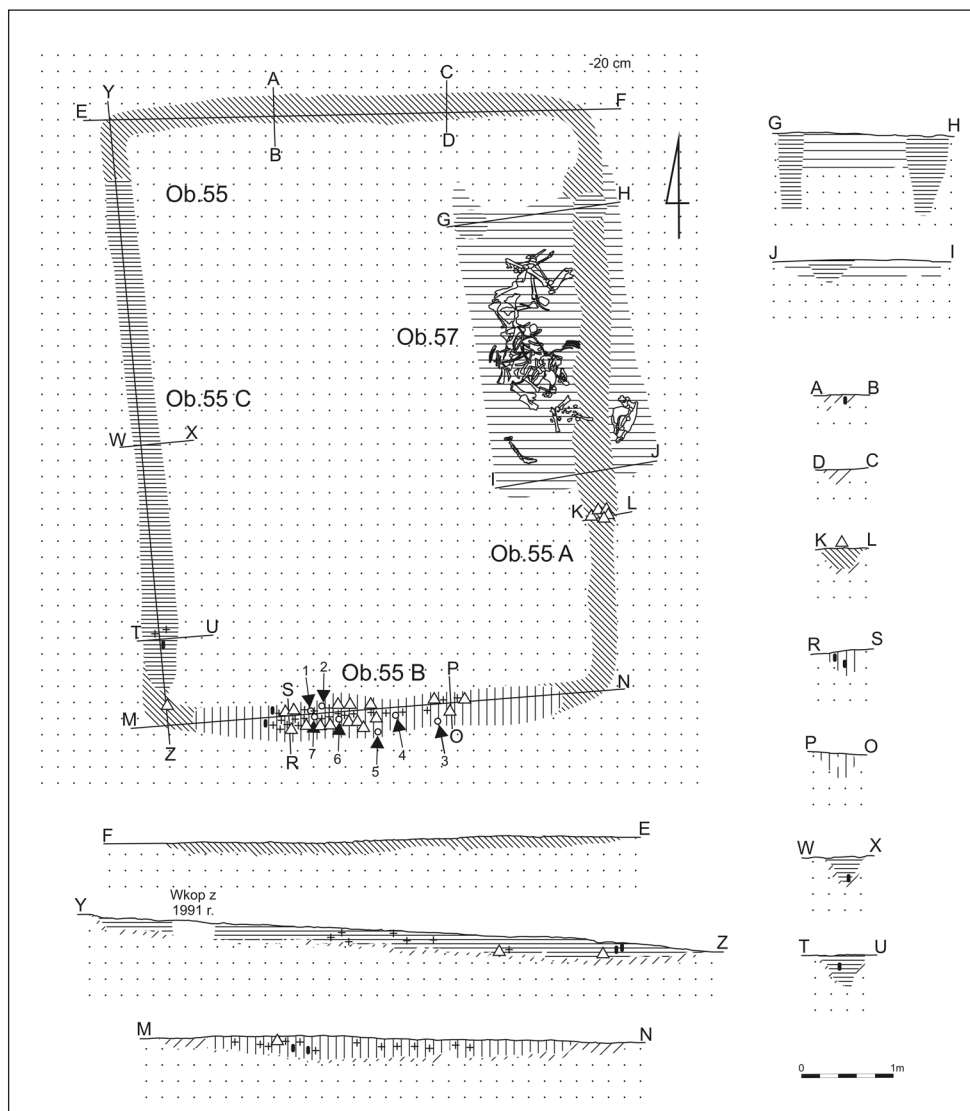


Fig 13. Michałowice, site 1, commune Czarnocin. Features 55 and 57

However, groove-type features were also recorded in the south-western part of the cemetery, where no individual burials were discovered.

Fills of groove-type features yielded few artefacts. These were usually fine pottery fragments, single metal objects and single fragments of charred human bones and

charcoals. They usually did not form any clusters. Artefacts were usually deposited in upper parts of the fill, while lower parts contained no equipment.

However, it should be noted that concentrations of charred human bones, pottery and other artefacts were found in some of the groove-type features (features 31, 53 and

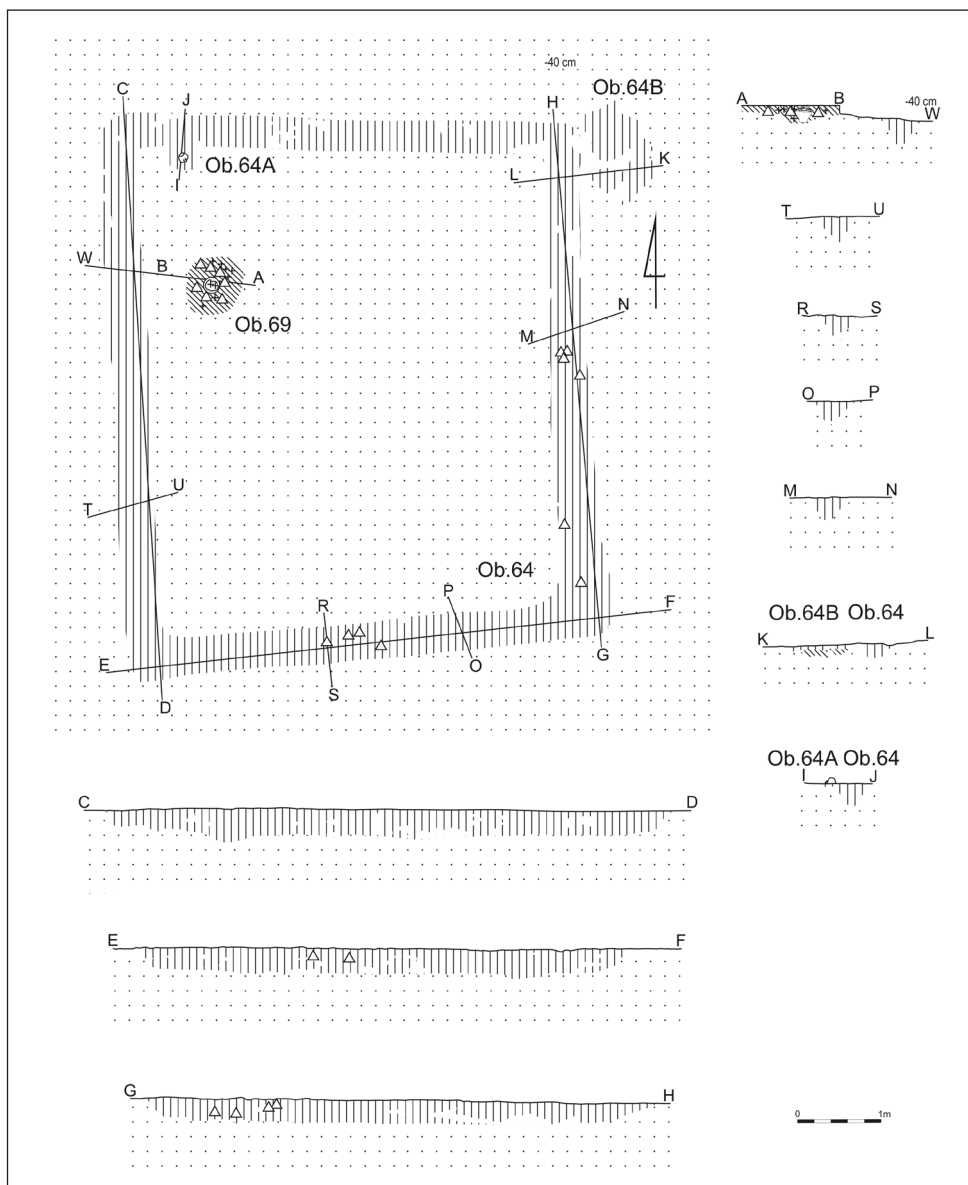


Fig 14. Michałowice, site 1, commune Czarnocin. Features 64 and 69

55). They should be probably interpreted as graves, secondarily dug into groove-type features. Similar observations can be made based on the published plan of groove-type feature 1 from the cemetery at Szarbia, Koniusza commune, Proszowice district,

Małopolska province. Individual burials were situated in the central part of the southern and western arms of the feature (Naglik 2002, 146, fig. 3). At Michałowice, no rules were detected with regard to the location of individual burials within groove-type

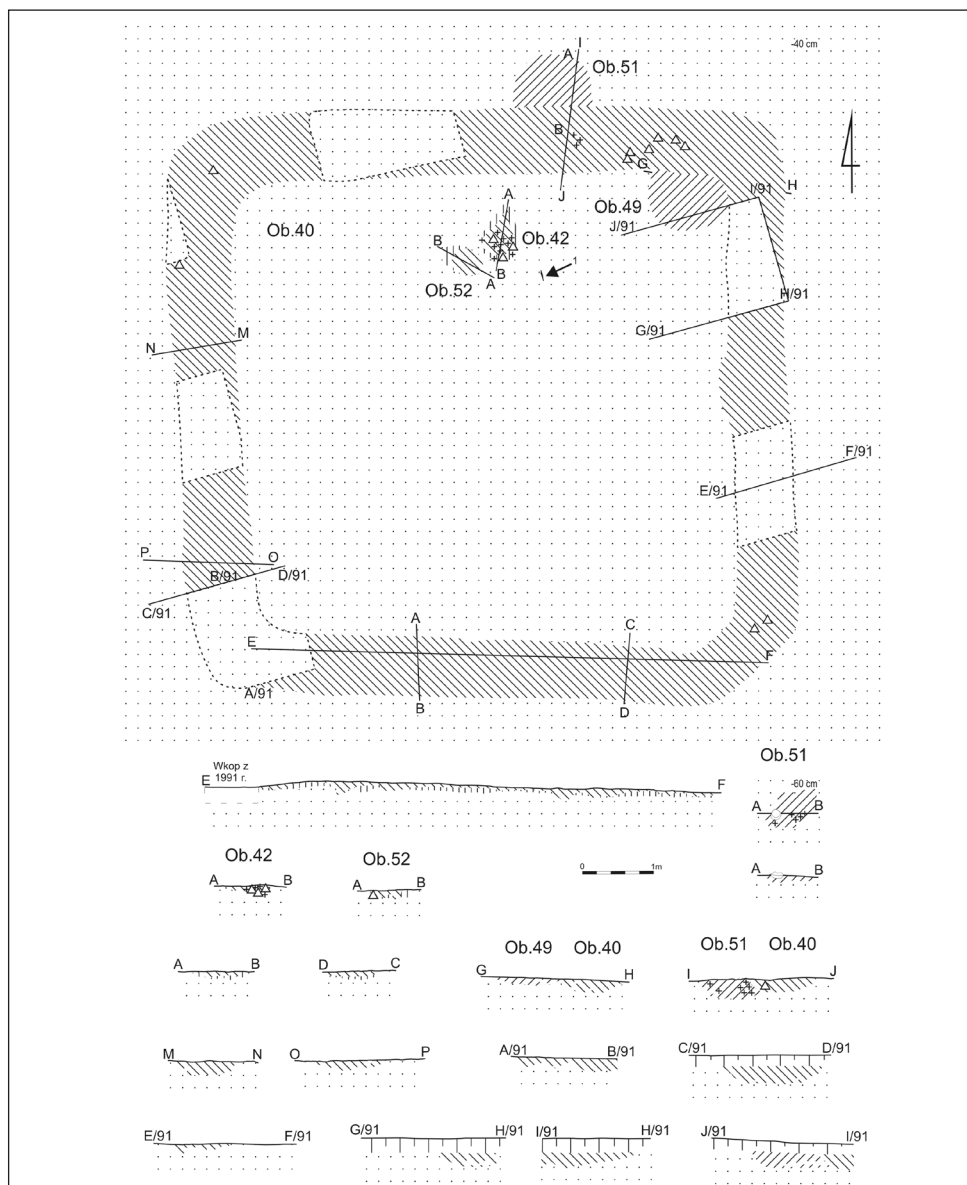


Fig 15. Michałowice, site 1, commune Czarnocin. Features 40, 42, 49, 51 and 52

features. The most easily discernible of such burials were recorded in the central parts of the eastern and western arms of groove-type feature 31 (Fig. 16). Both burials were recorded as distinct oval pits with darker fills, significantly wider than the feature's arm.

Feature 31a, located in the eastern arm, contained large number of charred human bones and fine pottery fragments originating from at least two vessels. Feature 31b, in the western arm, was distinguished by the fill of much darker colour. Its upper part produced

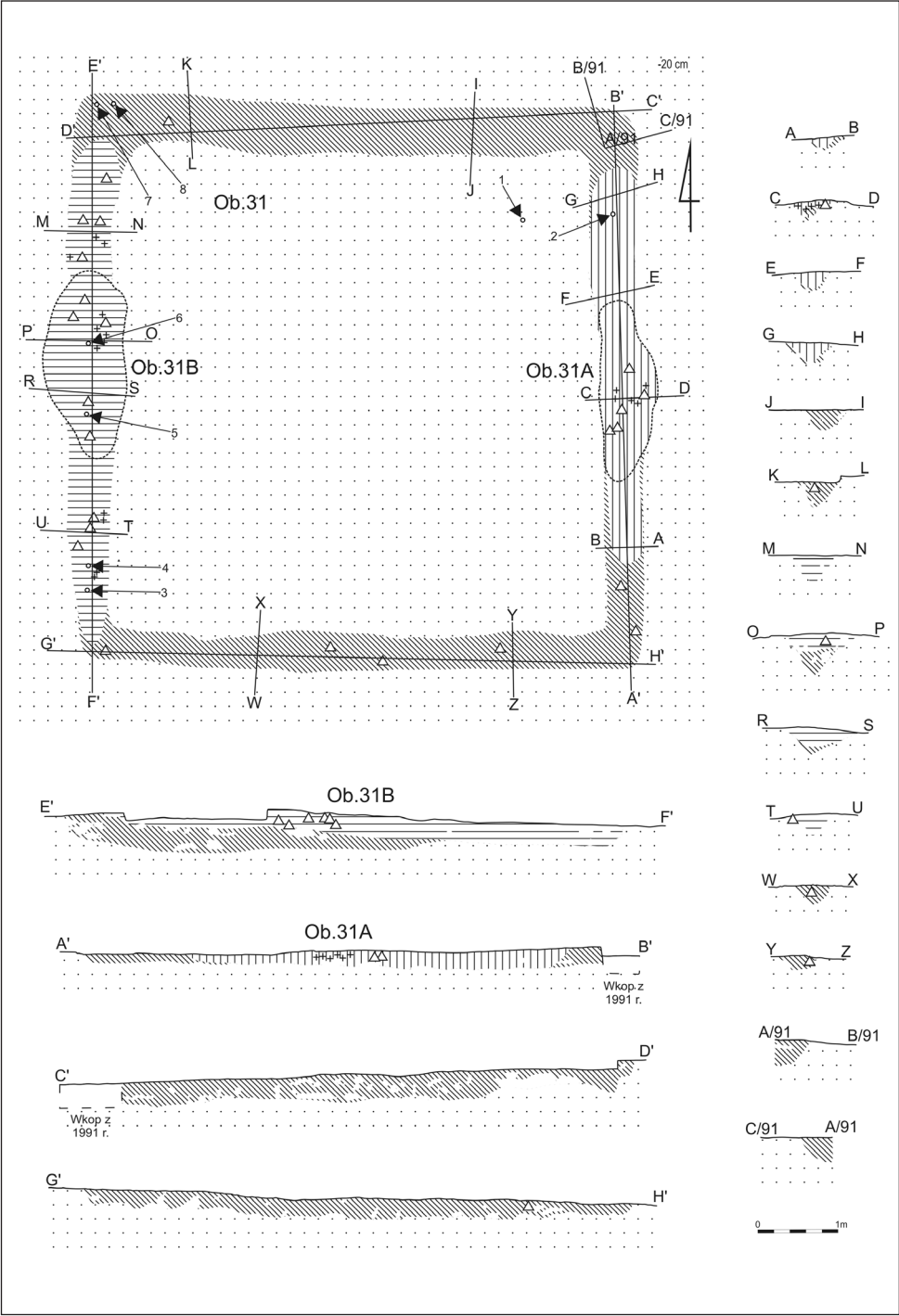


Fig 16. Michałowice, site 1, commune Czarnocin. Feature 31

large number of pottery shards and charred human bones, as well as a small, triangular iron arrowhead with a shank (Fig. 12: 4). It should be mentioned that apart from secondarily dug features 31a and 31b, the upper parts of the fill of feature 31 yielded considerably more metal artefacts than were found in other groove-type features. These artefacts included three brooches of type M (Fig. 11: 6; 12: 6, 7), damaged specimens of A.18 (Fig. 12: 5) and A.67 brooches (Fig. 12: 8) and a small iron ribbon-like fitting (Fig. 12: 9). The materials date to the transition between the Younger Pre-Roman and Early Roman Periods.

Similar concentrations of artefacts were also revealed in groove-type features 53 and 55. In spite of the significant ruination of the former, a 40 cm wide concentration was recorded in its fill, dug into 20 cm wide arm of the feature. The concentration reached a few centimetres deeper than the groove, too, although their fills had only slightly different colour. The concentration, denoted as feature 53a, produced single pottery fragments, few charred bones and fine charcoals.

Three concentrations of artefacts were recorded within feature 55, situated in its eastern, southern and western arms (Fig. 13). No significant differences in fills colours were noticed, and the width of the concentrations did not exceed that of the groove. The concentrations were distinguishable only due to a relatively large number of artefacts within a small segment of the groove. The largest concentration, in the southern arm of feature 55 was denoted 53b and apart from pottery shards and charred human bones yielded also a fragment of a bronze brooch, fragments of other metal objects and a glass bead (Fig. 17: 2). The other two concentrations were much less discernible and produced only single fragments of pottery and bones. In direct vicinity of feature 55 were also found miniature scissors (Fig.

8: 6) and an intricate brooch of A.236 type (Fig. 17: 3). They are probably connected with the feature in question.

Not the least remarkable of the discovered features is groove-type feature 74. Top view revealed a distinctly increased width of its north-eastern corner in which, 40 cm deep, black, smooth-surfaced shards, originating most likely from a single vessel were found in large number (Fig. 17: 1). The broadened part was not distinguished by a different colour and produced no charred bones.

The area surrounded by the arms of groove-type features was usually pure sand. There were only three cases where other archaeological features were found in this area (grave 17 within groove-type feature 31, grave 42 within feature 40 and grave 69 within feature 64) (compare Fig. 14, 15, 16). It is worth noting that all these graves were situated in the northern part of the area surrounded by a groove. Feature 17, discovered in 1991, was considerably destructed. It produced fine charred human bones, pottery shards and a bronze buckle. The other two cases were urn graves. In grave 42, only the bottom part of an urn was found. It contained a large number of charred human bones¹¹, a spring from bronze brooch and a small iron knife. Feature 69 was in much better state of preservation and revealed a substantial number of typical elements of female burial equipment¹², such as iron key (Fig. 17: 5) and spring from the casket lock (Fig. 17: 6), two melted bronze brooches most likely of Almgren group IV (Fig. 18: 1, 2), a small iron knife (Fig. 17: 7), melted bronze and silver objects and numerous melted glass objects and beads, probably

¹¹ Anthropological analysis indicates that the deceased was a male aged *adultus*.

¹² Anthropological analysis revealed remains of two individuals, probably a female aged *adultus* and a child aged *infans*.

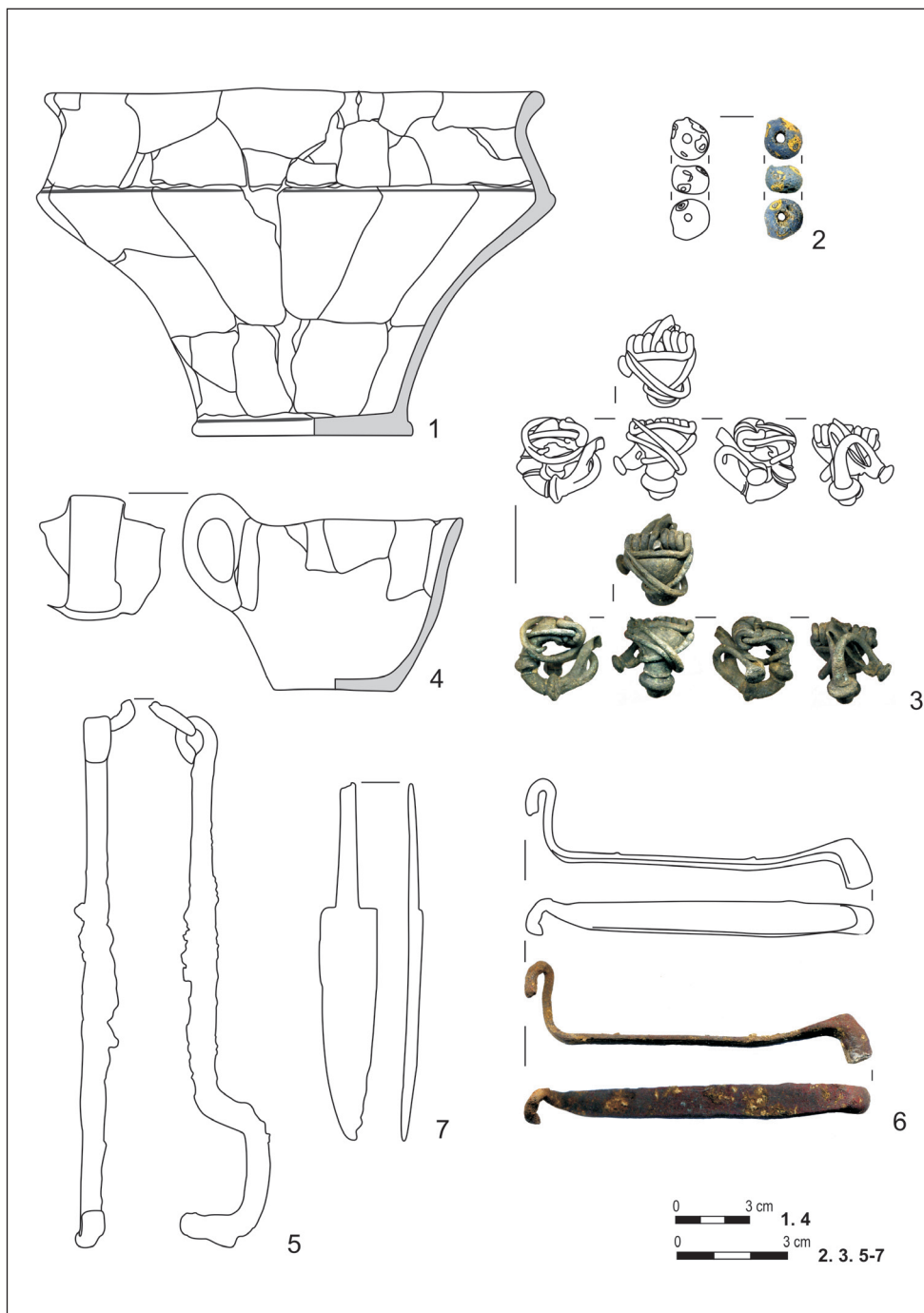


Fig 17. Michałowice, site 1, commune Czarnocin. (1) – feature 74; (2, 3) – feature 55; (4) feature 64a; (5–7) – feature 69. (1, 4) – clay; (2) – glass; (3) – bronze; (5–7) – iron

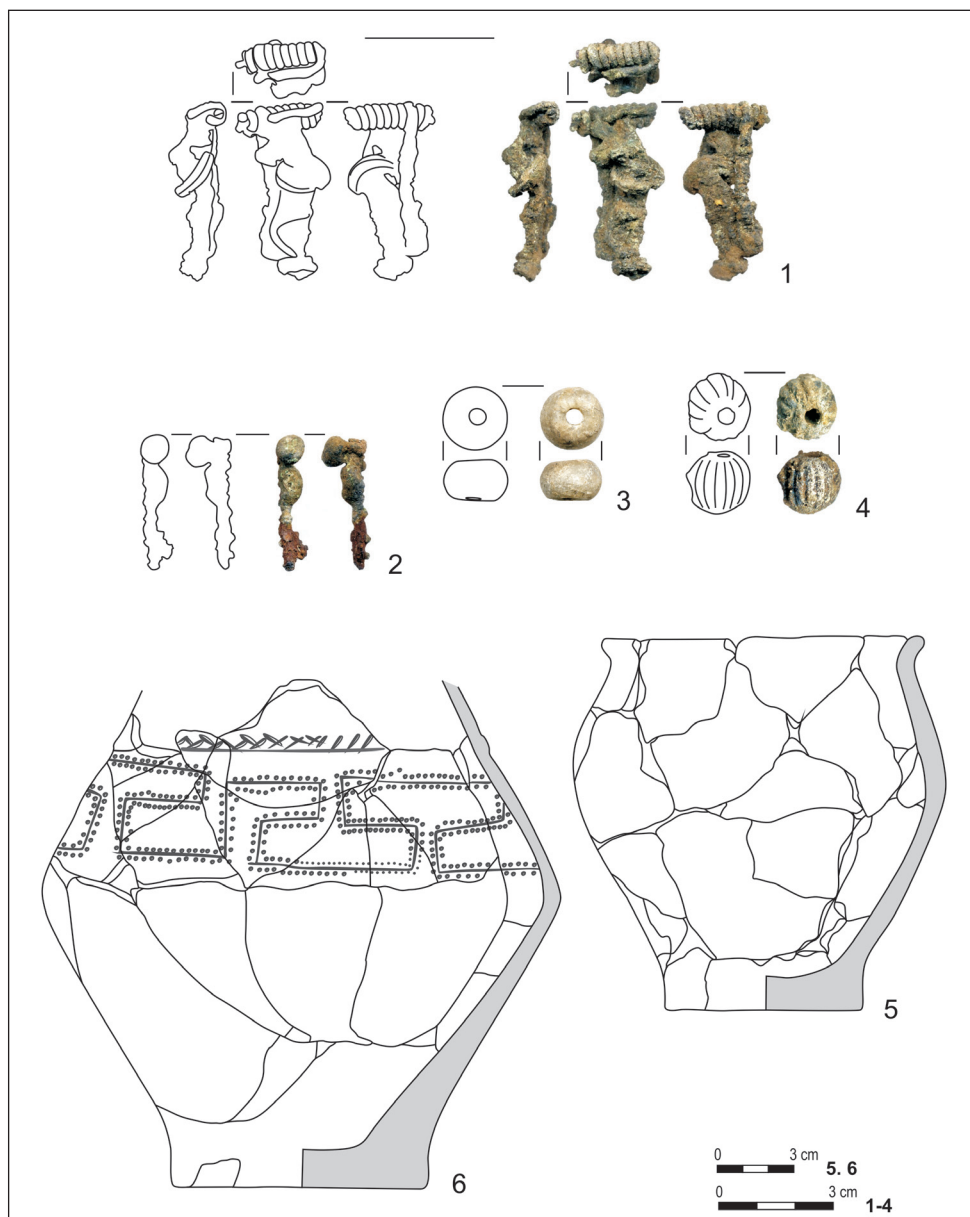


Fig 18. Michałowice, site 1, commune Czarnocin. (1–6) – feature 69. (1, 2) bronze; (3, 4) – glass; (5, 6) – clay

originating from a splendid necklace (Fig. 18: 3, 4). The burial yielded also a very large number of pottery fragments – perhaps from vessels accompanying the well preserved urn (Fig. 18: 5). The urn was a

hand made vessel with black, smooth surfaces. Its form refers to group I according to T. Liana (1970) (Fig. 18: 6).

Due to the limited number of artefacts revealed by groove-type features (except for

the concentrations which most likely were secondarily dug individual graves), their chronology is difficult to establish. Only feature 31 yielded brooches which allow dating it to the beginnings of the Roman Period. One should remember, though, that ar-

within the arms of groove-type features or in the area surrounded by them, the question of their purposeful placement and its possible importance for people attending burial ceremonies remains still open. It seems that at least in the case of graves dug into the

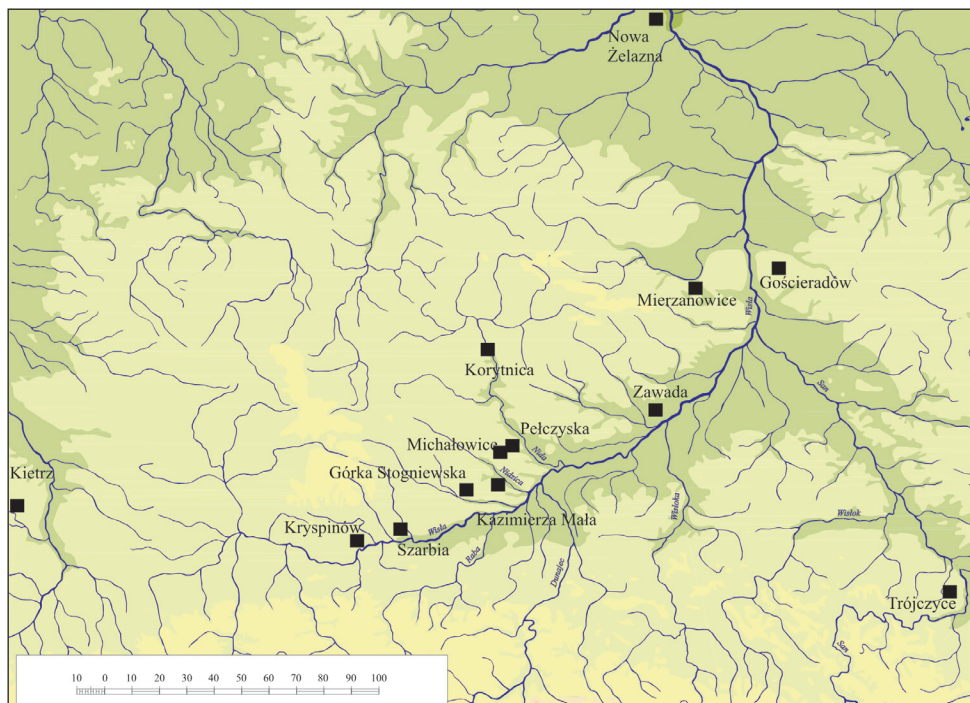


Fig 19. The Przeworsk culture cemeteries where groove-type features were discovered

tefacts from the upper parts of the fill are indicative of the end rather than of the beginning of the feature functioning. Groove-type features from Michałowice seem to have remained open for a long time, as can be evidenced by washed-in layers clearly visible in the fills¹³. As for the graves situated

arms of groove-type features we may assume an intentional action.

In the Przeworsk culture area, 13 sites are known on which Early Roman Period groove-type features were discovered. They concentrate mostly in Małopolska, in the upper Vistula basin (Fig. 19). Most of these cemeteries yielded only single groove-type features, except for Kietrz, Kryspinów and Szarbia where such structures were revealed in larger numbers. They bear a far-going similarity to groove-type features discovered at Michałowice from the point of view

¹³ Similar layers were recorded in groove-type features discovered on the cemetery at Szarbia. Two equally likely interpretations were proposed: either as a trace of gradual washing-in of soil into open features or as a result of water penetration (Naglik 2002, 145).

of shape, fill type and localisation with respect to other features on the site. At the same time, their size varies: there are small structures, with arm length of ca 300 cm (feature from Zawada) and the large ones, reaching 1200 cm (feature from Gościeradów). Their dating is different, too. So far, the genesis and function of groove-type features remain unclear. Their Celtic origin is commonly accepted due to their appearance on the Celtic cemeteries and in the territories previously occupied by the Celts (Godłowski 1981, 112; Gedl 1985; Naglik 2002, 152). Their link, although indefinite, with the domain of funeral practices also seems beyond doubt¹⁴.

The excavations conducted on the cemetery at Michałowice in 2008-2010 produced a lot of new data concerning prehistoric settlement in the region. The finds connected with the Przeworsk culture cemetery, including groove-type features, seem to be of particular importance. Geomagnetic examination showed that the site continues in all directions. As the site is in constant danger of destruction by agriculture works, the continuation of excavations seems necessary.

Anthropological analysis

Anthropological analysis was conducted according to the classical research methodology (Buikstra, Ubelaker 1994), taking into account the recommendations for the evaluation of burned bones (Fairgrieve 2008). Sex and age of the individuals at the time of death were determined according to the anatomical criteria generally accepted in anthropology (White, Folkens 2005).

Table 1 presents the description of preserved bone remains along with a commentary concerning their arrangement.

The Trzciniec culture grave

Feature 72

Skeleton 1

Skull: fragments of secondarily destructed cranial vault of a delicate structure, sagittal suture in course of obliteration, frontal bone with marked frontal eminences, superior nuchal line visible on the squama occipitalis, mastoid processes of the temporal bone small; green tinting from copper compounds visible on the right mastoid process. Preserved fragments of a delicate mandible – molar teeth were lost *in vivo*, dental alveoli in course of obliteration. Preserved teeth:

Maxilla: - - - - P1 - I2 I1 I1 I2 C P1 P2 - - -

Mandible: - - - - P1 C I2 I1 - - - - - - -

Dental calculus present, all teeth of the individual are very abraded – this is partly due to malocclusion (retrognathism); the teeth may have been used as the so called “third hand”.

Postcranial skeleton: fragments of vertebral corpora and arches, ribs, right and left scapula. Sternal and acromial ends of the right and left clavicle are damaged. Diaphyses of both humeri, radii and ulnae are present. Bones of the lower limb are represented by fragments of the right and left pelvic bone, diaphyses of both femurs, tibiae and fibulae as well as the right calcaneus and talus.

Based on anatomical and anthropological observation it can be stated that the remains are those of a woman of *maturus* age.

Skeleton 2

Skull: a delicate cranial vault composed of a frontal bone, parietal bones and occipital bone, all sutures sharp. Based on conducted measurements the skull can be classified as short (measurement results: g-op 165; eu-eu 136; ft-ft 94; width-length index: eu-eu/g-op x 100 = 82.4). Vertical squama frontalis, sharp supraorbital margins, superior nuchal line marked on the squama occipitalis.

¹⁴ Groove-type features from Michałowice and other Przeworsk culture cemeteries are given more detailed discussion in a separate paper (Pikulski, Zagórska-Telega 2011).

A delicate mandible. A complete set of teeth apart from right maxillary incisors:

M3 M2 M1 P2 P1 C - - I1 I2 C P1 P2 M1 M2 M3

M3 M2 M1 P2 P1 C I2 I1 I1 I2 C P1 P2 M1 M2 M3

The teeth are little abraded, the most abraded being the M1.

Postcranial skeleton: fragments of vertebral corpora and arches, ribs, right and left scapula and right clavicle with damaged sternal and acromial ends. The preserved

diaphyses of the right and left humeri display clearly marked deltoid tuberosity. Diaphyses of left ulna and radius are present. Bones of the lower limb are represented by fragments of the right and left pelvic bones with lacunar greater sciatic notches, diaphyses of both femurs, tibiae and fibulae as well as a fragment of a calcaneus.

Based on anatomical and anthropological analysis of preserved bones it can be stated that the remains are those of a woman of adultus age.

Table 1. Anthropological characteristics of bones from selected archaeological features

FEATURE	MATERIAL	AGE	SEX	WEIGHT [g]	NOTES
Trzciniec culture features					
71	Fragment of an unburned rib of the left side	?	?		Feature destroyed
Lużyce culture features					
26a	Heavily burned fragments of bone diaphyses	?	?	14	The bones were probably secondarily deposited in this feature and may have originally belonged to feature 26
29	Heavily burned, small fragments of bones	?	?	2	The bones were probably secondarily deposited in this feature
44	Heavily burned, small fragments of skull bones, including a fragment of the orbit and fragments of long bone diaphyses	<i>infans</i>	?	52	
47	Heavily burned fragments of long bone diaphyses	?	?	7	The bones were probably secondarily deposited in this feature
48	Heavily burned fragment of long bone diaphysis	?	?	1	The bone were probably secondarily deposited in this feature
51	Heavily burned fragments of skull bones, tooth roots and long bone diaphyses	?	?	47	
76	Heavily burned, small fragments of bones	?	?	3	The bones were probably secondarily deposited in this feature
Przeworsk culture features					
24	Heavily burned, small fragments of long bone diaphyses	?	?	5,5	Feature destroyed

36	Heavily burned fragments of the skull, permanent tooth roots and long bone diaphyses	adult	?	171	
38	Heavily burned fragments of the skull and long bone diaphysis	adult?	?	32	
39	Heavily burned fragments of the skull with open sutures, petrous part of the left temporal bone, fragments of mandible and permanent tooth roots; fragments of long bone diaphyses and epiphyses, pelvic bones, fragments of vertebrae	<i>adultus</i>	F	660	
41	Heavily burned fragments of permanent tooth roots and long bone diaphyses	adult?	?	23	
42	Heavily burned fragments of skull with open sutures, petrous part of the left temporal bone, fragments of mandible, permanent tooth roots; fragments of long bone diaphyses and epiphyses, pelvic bones, vertebrae, phalanges, semilunate bone of the wrist	<i>adultus</i>	M	626	
58	Heavily burned fragments of the skull and permanent tooth root; fragments of long bone diaphyses	adult?	?	2	The bones were probably secondarily deposited in this feature
69	<i>adultus</i> : heavily burned fragments of bones of the skull with open sutures, petrous part of the right temporal bone, right zygomatic bone; fragments of long bone diaphyses and epiphyses, scapula, pelvic bones and vertebrae. <i>infans I</i> : heavily burned fragments of a delicate skull, deciduous tooth roots, permanent tooth buds; fragments of long bone diaphyses and open epiphyses	2 individuals: <i>adultus infans I</i>	F? ?		bones from the urn: fragments of the skulls of both individuals were found in the upper and middle parts of the vessel, the bottom part produced only fragments of the postcranial skeleton
groove-type features of the Przeworsk culture					
31	Heavily burned fragments of skull bones, permanent tooth roots and long bone diaphyses	adult	?	138	The bones may originate from clusters 31a or 31b identified within the feature. However, they could be the scattered remains of another individual
31a	Heavily burned fragments of the skull, permanent tooth roots and long bone diaphysis	adult	?	130	

Western arm of the groove and 31b	<i>adultus-maturus</i> : heavily burned fragments of a relatively sturdy skull, sutures in course of obliteration, fragments of the pyramid, fragments of permanent tooth roots; fragments of long bone diaphyses and epiphyses <i>infans</i> : heavily burned fragments of a delicate skull, small fragments of long bone diaphyses	2 individ: <i>adultus-maturus</i> , <i>infans</i>	M? ?	303	
40	Heavily burned fragments of the skull and long bone diaphyses	?	?	42	The bones were probably secondarily deposited in this feature
53	Heavily burned fragments of long bone diaphyses	?	?	3	The bones were probably secondarily deposited in this feature
53a	Heavily burned fragments of the skull, permanent tooth roots and long bone diaphyses	adult	?	58	
55, 55a–c	Heavily burned fragments of the skull, permanent tooth roots and long bone diaphyses	adult	?	121	scattered, burned remains may belong to one individual – the largest cluster of bones was located in the southern arm of the groove – 55b
64	Heavily burned fragments of the skull and long bone diaphyses	?	?	6	The bones were probably secondarily deposited in this feature
66	Small fragments of heavily burned bones	?	?	1	The bones were probably secondarily deposited in this feature
74	Heavily burned fragments of long bone diaphyses	?	?	3	The bones were probably secondarily deposited in this feature
75	Heavily burned fragments of long bone diaphyses			8	The bones were probably secondarily deposited in this feature

Badania na wielokulturowym stanowisku 1 w Michałowicach, gm. Czarnocin, woj. świętokrzyskie, w latach 2008–2010

Od połowy XX wieku na pograniczu wsi Michałowice i Ciuślice, gm. Czarnocin, znajdowane były przypadkowo zabytki oraz obiekty archeologiczne. Przeprowadzono także niewielkie, ratownicze badania wykopaliskowe odkrywając groby szkieletowe związane z kulturą łużycką oraz groby szkieletowe i ciałopalne kultury przeworskiej (Gajewski 1974; Kaczanowski, Madyda-Legutko, Poleski 1984). W latach 2008–2010 na stanowisku 1 w Michałowicach przeprowadzone zostały systematyczne badania wykopaliskowe, w trakcie których odkryto 53 obiekty archeologiczne, w tym pięć obiektów kultury trzcinieckiej, dziewięć obiektów kultury łużyckiej, 39 obiektów związanych z cmentarzyskiem kultury przeworskiej oraz kilkanaście zniszczonych obiektów o nieokreślonej chronologii (Fig. 3). Wśród obiektów kultury trzcinieckiej na szczególną uwagę zasługuje podwójny grób szkieletowy, w którym pochowano dwie kobiety (ob. 72) (Fig. 4; 5). Z tą jednostką kulturową związane są także prawdopodobnie obiekty 56 i 57, zawierające podwójne pochówki koni w układzie

antytetycznym (Fig. 6). Z kulturą łużycką należy wiązać zniszczone w znacznym stopniu obiekty zlokalizowane w północnej części stanowiska. Na obecnym etapie badań trudno stwierdzić z całą pewnością, jaka była ich funkcja. Jednak większość z dotychczas odkrytych obiektów na stanowisku 1 w Michałowicach stanowią założenia związane z ludnością kultury przeworskiej. Są to w znacznym stopniu zniszczone pochówki, zarówno popielnicowe, w tym popielnicowe w opakowaniu organicznym, jak i jamowe. Większość z nich została raczej skromnie wyposażona (Fig. 7–12; 17; 18). Na szczególną uwagę zasługują także tzw. obiekty rowkowe związane z cmentarzyskiem wyżej wspomnianej jednostki kulturowej. W trakcie trzech sezonów badawczych odkryto jedenaście tego typu założeń, z czego sześć zostało całkowicie przebadanych (ob. 31, 40, 55, 64, 66, 74) (Fig. 13–16). Jak dotąd niejasna pozostaje funkcja obiektów rowkowych. Zabytki znalezione na cmentarzysku wskazują, że było ono użytkowane przede wszystkim u schyłku młodszego okresu przedrzymskiego i w wczesnym okresie rzymskim.

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