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Marcin M. Przybyła*

FORTIFIED SETTLEMENTS OF THE FUNNEL BEAKER-BADEN PHASE IN WESTERN LESSER POLAND

ABSTRACT

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At the end of the fourth millennium BC, in the area of western Małopolska, existing Funnel Beaker culture structures south of the Szreniawa River had disintegrated and were replaced by the settlement of the allochthonous Baden culture. North of the river, the development of the FBC still continued, strongly influenced by the Baden culture, leading to the specific form of the syncretic FB-BC. In this period only a few, but very extensive, central settlements surrounded by smaller sites remained active. The most important of them is the settlement at Bronocice, Pińczów district, fortified in the youngest phase of its use. Apart from Bronocice, only a few other sites, surrounded by ditches, belong to this horizon. Three of them are known almost exclusively through non-invasive methods: in Gniazdowice and Muniaczkowice, both in the Proszowice district, and in Marchocice, Miechów district. Another site in the town of Miechów (in the district of the same name) was also excavated.

Keywords: Eneolithic, Funnel Beaker culture, Baden culture, fortified settlement, defensive structures, enclosures, magnetometric investigations
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INTRODUCTION

At the end of the 4th millennium BC, the western part of Lesser Poland witnessed major transformations in the settlement network. The former organisation of structures developed within the Funnel Beaker Culture in the region located to the south of the Szreniawa

* Dolmen Marcin Przybyła, Michał Podsiadło s.c., Serkowskiego sq. 8/3, 30-512 Kraków, Poland; dolmen@onet.pl

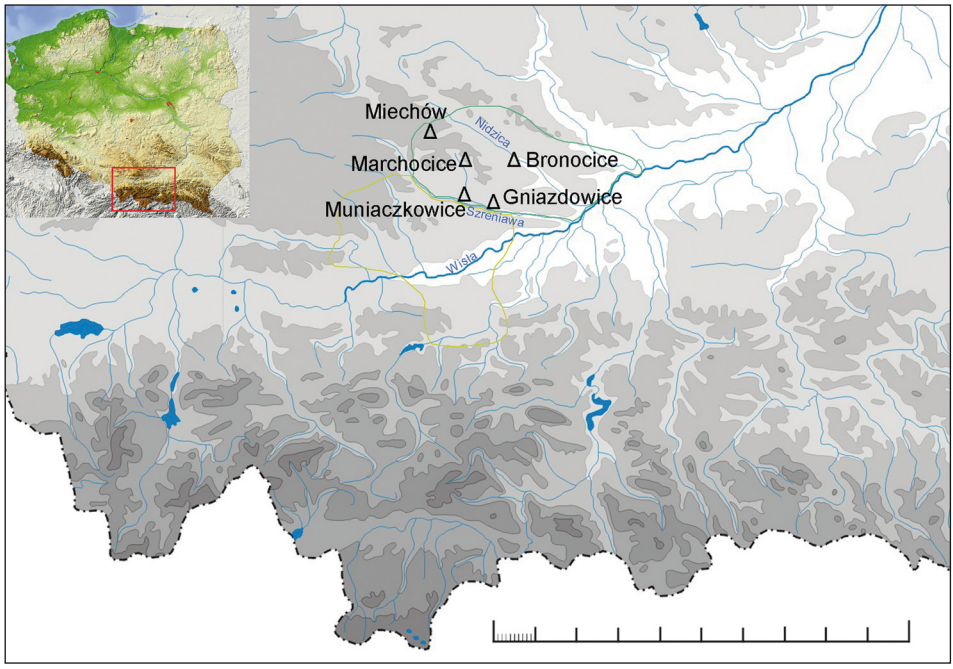

Fig. 1. Location of the sites discussed in this paper. The extent of the Funnel Beaker-Baden settlement is marked in green. The extent of the Baden settlement in western Lesser Poland is marked in yellow. After: Zastawny 2008

River valley collapsed. These were replaced by the settlement of allochthonous communities of the Baden culture. In the territories situated to the north of the Szreniawa, the Funnel Beaker culture (FBC) continued its development, strongly influenced by the Baden environment, which lead to an emergence of a very specific, syncretic cultural unit, namely the Funnel Beaker-Baden group (Zastawny 2008; Kruk and Milisauskas 1999, 174). Within the history of the organisation of the Funnel Beaker settlement network, this stage corresponds with a period of reduction and concentration of its settlement structure. In the preceding stage, associated with the development of the Funnel Beaker classical phase, *i.e.* the period of a "central places", there were numerous, large central settlements surrounded by a network of smaller sites, varied in terms of their function. Later, in the time of settlement network reduction and concentration, the few remaining active dwelling sites were vast central settlements surrounded by smaller sites (Kruk and Milisauskas 1999, 135, 174). They were spread over a considerably small area, embracing roughly the Nidzica River basin. Its southern boundary was marked by the Szreniawa River valley, constituting a borderland between the Baden and the Funnel Beaker-Baden settlements (Zastawny 2008, 177). In the existing literature, only a few sites of the Funnel Beaker-Baden phase

have been reported so far (Zastawny 2008, fig. 2). Amongst those sites, a multi-phase settlement in Bronocice is unquestionably the most important, due to which it has become the reference point for all considerations relating to this period in western Lesser Poland. However, recent years have yielded the discovery of a certain number of new interesting sites sharing one common feature, namely fortification-type structures (Fig. 1).

Bronocice, Pińczów district, site no. 1

The site was located on three flat-topped hills at the ridge of the Nidzica Valley (Fig. 2). This location was not favourable in terms of its defensiveness. The site was investigated by the corporate Polish and American expedition in the years 1974-1977 (Kruk and Milisauskas 1981, 65). The materials recovered from Bronocice provided the grounds for distinguishing successive developmental phases of the FBC on the loess soils of the western Lesser Poland. Its two youngest phases, *i.e.* Bronocice IV and V, belonged to the Funnel

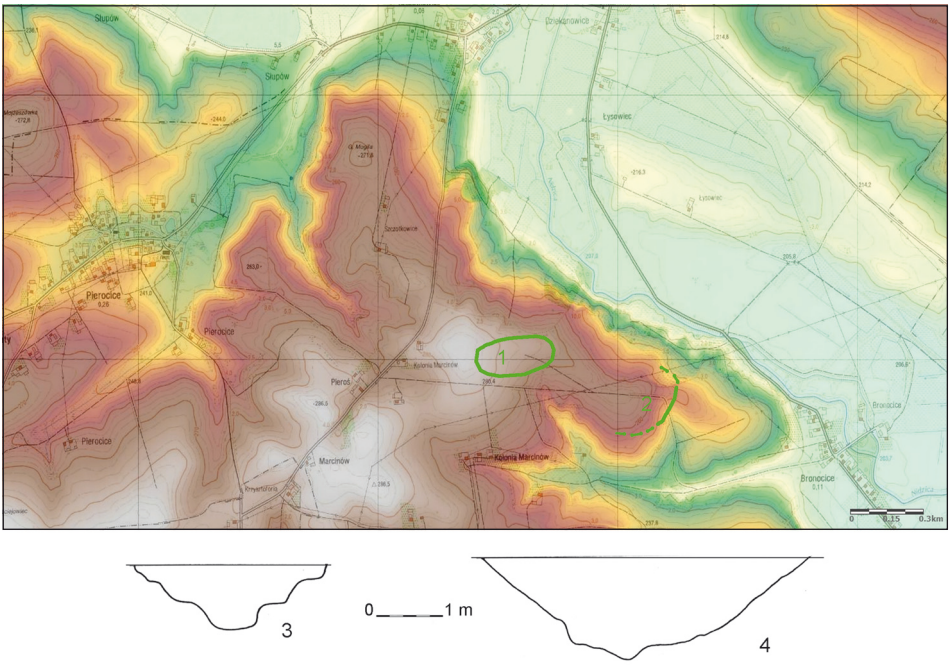

Fig. 2. Bronocice, Pińczów district. 1 – location of the ditch associated with the phase Bronocice IV; 2 – location of the archaeologically recognised portions of ditches associated with the phase Bronocice V; 3 – profile of the ditch from the phase Bronocice IV; 4 – profile of the ditch from the phase Bronocice V. After: Kruk and Milisauskas 1981

Fig. 3. Bronocice, Pińczów district. Selection of pottery. 1-4: phase Bronocice IV; 5-12: phase Bronocice V. After: Kruk and Milisauskas 1983, 1990

Beaker-Baden group (Fig. 3). During phase IV, the settlement reached its maximum size, encompassing an area of *ca*. 26 ha (Kruk and Milisauskas 1999, 175). It included an oval space surrounded by a ditch with dimensions of 340 x 160 m, and an area of *ca*. 4.6 ha. The structure in question was situated on the gently descending, eastern slope of a promontory where the settlement was founded. The ditch was 4 m wide in its upper portion, and reached a depth of 1.5 m. Taking into account the erosion of the terrain, its original depth could be estimated at 2.5 m. The ditch had the shape of an obtuse triangle in its cross-section (Kruk and Milisauskas 1981, 73). The investigators and authors who elaborated the materials from Bronocice tended to interpret the above-mentioned structure as an enclosure for cattle (Kruk and Milisauskas 1999, 175). In the final phase of the settlement (Br V), it covered a slightly smaller area, amounting to 17 ha (Kruk and Milisauskas 1999, 175). Most likely, the settlement had already been completely fortified by that time. It was surrounded by a ditch, the shape of which resembled that of the ditch recorded in the Br IV phase, though it was significantly wider and deeper. Accounting for deformations caused by erosion, its primary width in the upper portion amounted to 8.5 m, and it reached down to a depth of 4 m (Kruk and Milisauskas 1981, 75). The size of the stronghold developed in the Br V phase is difficult to evaluate, though it could have enclosed the entire area of the settlement, namely 17 ha.

Gniazdowice, Proszowice district, site no. 1

The site in Gniazdowice was situated on a loess promontory jutting into the Szreniawa Valley (Fig. 4). Thanks to its location, the site had fine, naturally defensive qualities. To the south, it was surrounded by an extremely steep embankment rising above the river valley. To the north, east and west, the promontory was cut off by a ditch at the base of the slope. The ditch was uncovered in the course of small-scale rescue excavations carried out by Przemysław Wierzbicki (Wierzbicki 2011). Following this discovery, a series of aerial photographs of the site was taken (photographs by P. Wroniecki), and magnetic prospecting was performed over an area of 2.5 ha (Fig. 5: 1). The latter revealed a part of a ditch that was accompanied by a significantly narrower grove, possibly a relic of a palisade, running parallel along the inner edge of the ditch, as well as numerous anomalies associated with archaeological features completely contained within the ditch. A field survey was then conducted, resulting in the recovery of myriad ceramic and flint materials, almost entirely connected with the Funnel Beaker-Baden phase (Fig. 6). The spatial distribution of the materials in question was perfectly enclosed within the boundaries of the ditch. The investigations performed at the site provided strong grounds for linking the fortifications – and the great majority of features encountered there – with the Funnel Beaker-Baden settlement. Moreover, the terrain along the ditch profile was subject to examinations using the method of electrical resistivity tomography 2D to determine its depth and shape in

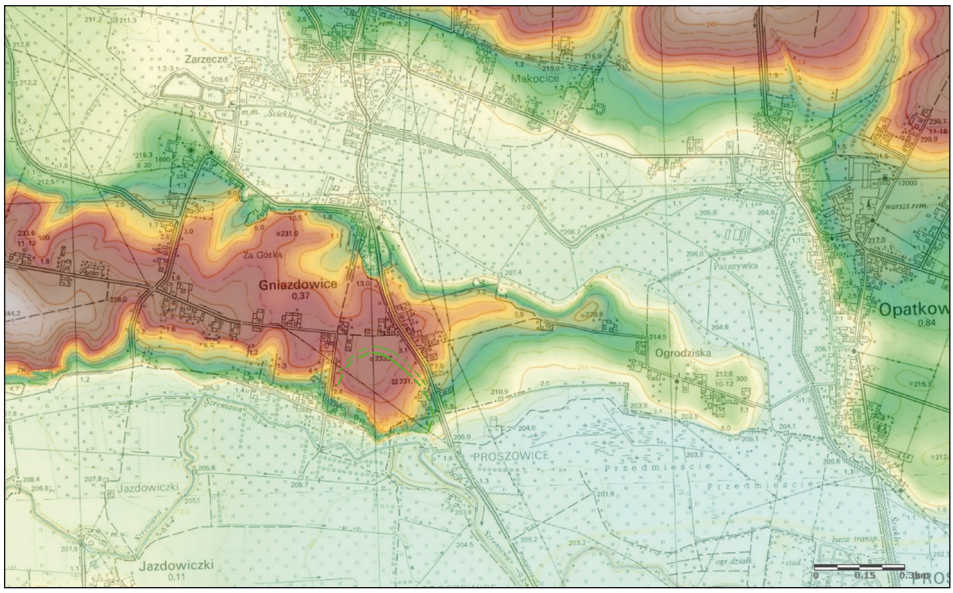

Fig. 4. Gniazdowice, Proszowice district.
The course of fortifications established based on archaeological excavations, magnetic prospecting and analyses of aerial photographs, is marked in green

vertical cross-section (Fig. 5: 2). The non-invasive examinations carried out at the site allowed the investigators to estimate that the ditch had a width of *ca*. 3-4 m in its upper portion, and a maximum depth of 3.5 m. The impact of advanced erosion on the soil cover was clearly visible at the site, which supported the hypothesis that the ditch was originally slightly deeper and wider (Przybyła *et al*. 2015).

Miechów, Miechów district, site no. 3

The site was situated on a gently descending, southern slope of the Miechówka Valley, in a location lacking any traits of natural defensibility (Fig. 7). In 2011, the site was subject to widespread rescue excavations carried out by Kamila Peschel, Grzegorz Pryc and Artur Buszek. In 2018, further excavations were carried out by Kamila Peschel, Igor Pieńkos and Marcin Przybyła. A total of 2.5 hectares of land was exposed. In the course of these investigations, abundant materials were recovered, dating from the Early Neolithic until the Middle Ages. Among many others, a multi-phase settlement of the FBC was recorded there. During the youngest phase of its development, corresponding with the phases Bronocice IV-V, the settlement was fortified with a ditch and possibly a palisade as well.

At the level of its discovery, the ditch had a width of 3-4 m. Its profile was trough-like in shape. Its depth reached 180 cm below the current ground level. However, taking into account the fact that it was uncovered below the humus and cultural layers at a depth of 140 cm, its primary depth must have exceeded 2 m. The portion of the ditch revealed at the site had a length of 105 m (Fig. 8). In its fill, a significant amount of archaeological material was found, linked with the chronological phases Br IV/V (Fig. 9). There was another

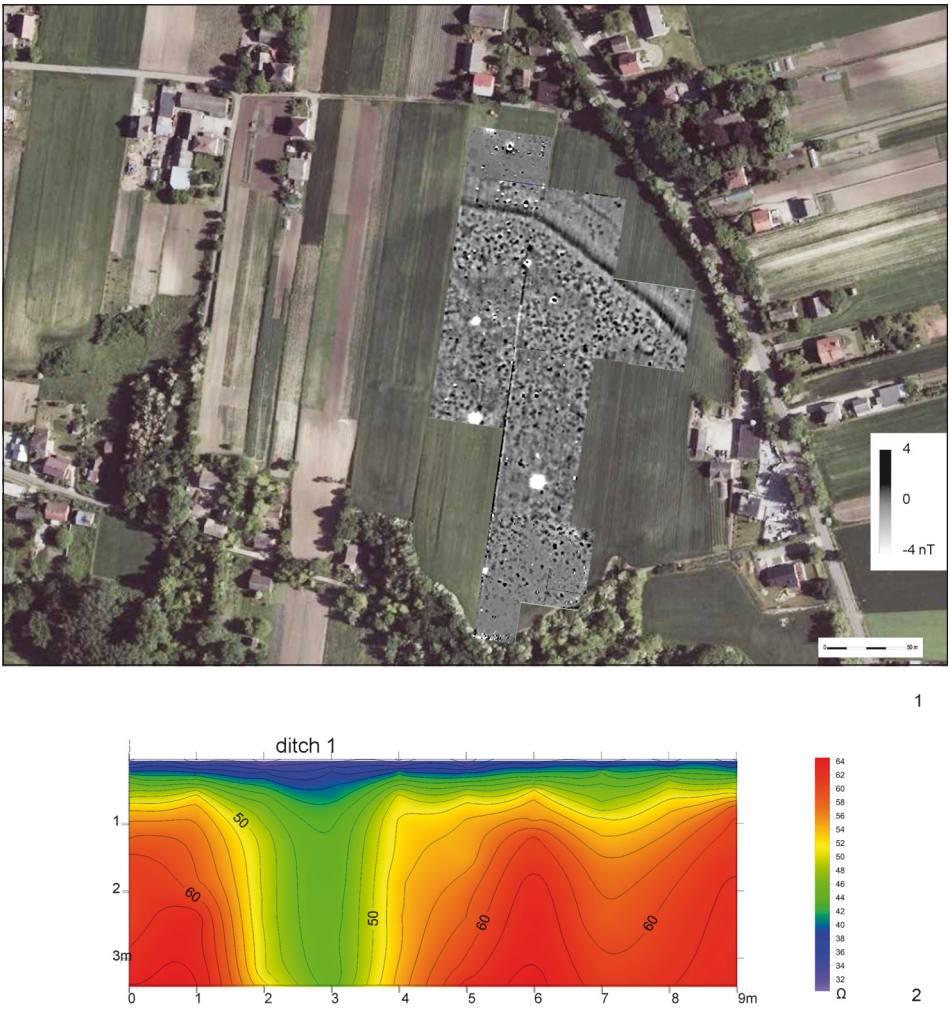

Fig. 5. Gniazdowice, Proszowice district. 1 – magnetic map with legible anomalies associated with the occurrence of the ditch, alleged palisade, and numerous features of a storage-pit type, 2 – map displaying the distribution of apparent electrical resistivity along the ditch profile

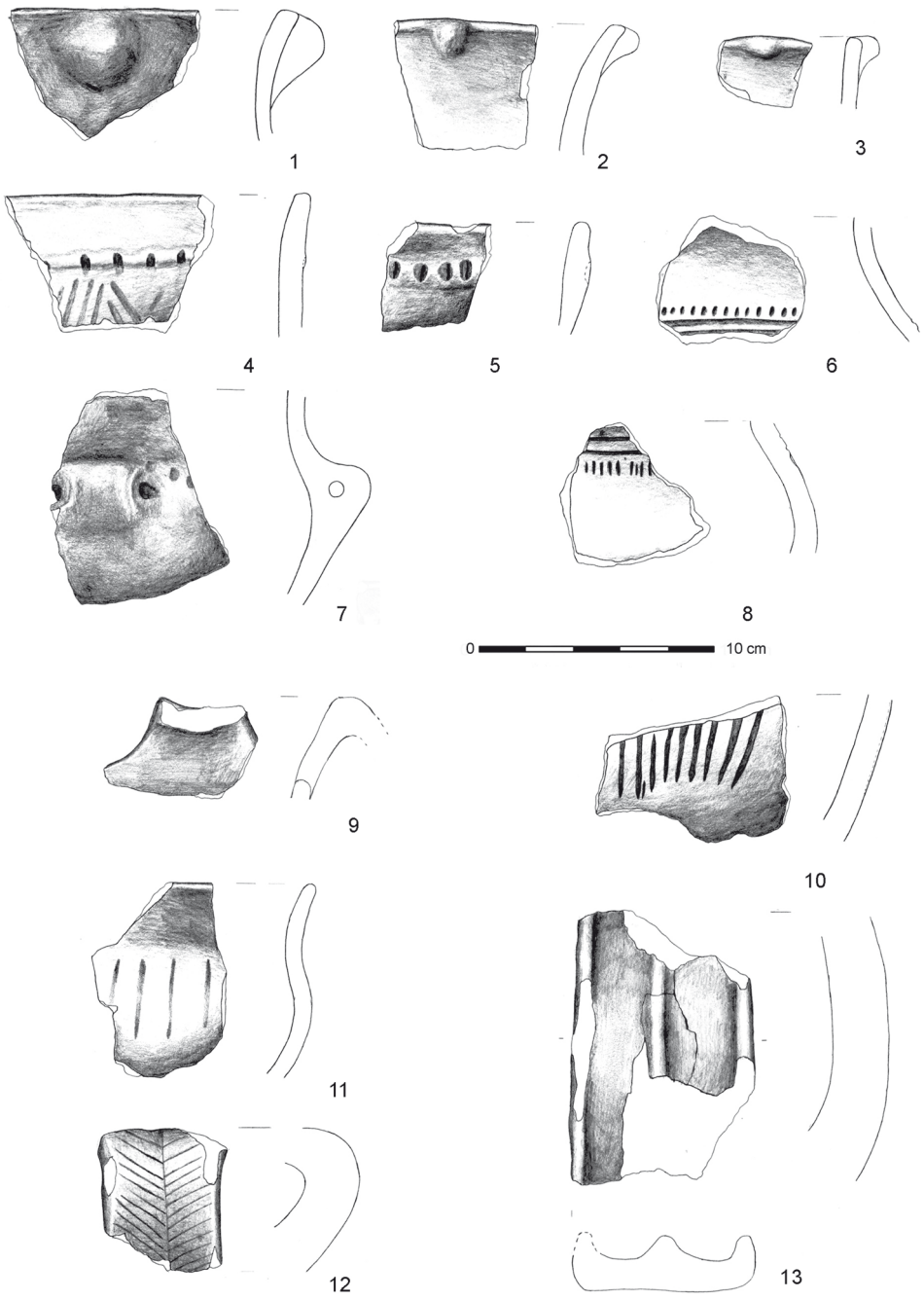

Fig. 6. Gniazdowice, Proszowice district. The Funnel Beaker-Baden pottery collected from the surface of the settlement. Drawn by M. Podsiadło

structure accompanying the ditch, namely a narrow (0.5 m) and shallow (1 m at the level of its discovery) groove running parallel to the former, unfortunately lacking any datable indicators. Its chronological relationship with the ditch is not explicit. Noteworthy is the fact that the groove occurred alternately on the inner, or the outer edge of the ditch. Since the course of the "palisade" groove was basically identical to the course of the ditch conjoining with the oxbow, and both of these systems revealed a clear stratigraphic relationship (intersecting features), it cannot be excluded that it was the very same Funnel Beaker-Baden community that erected a light fortification structure of a palisade type, and then replaced it with a more complex system consisting of a defensive ditch accompanied by an embankment.

The size of the entire defensive construction is difficult to assess. The distance between the oxbow and the ditch (on the N-S axis) amounted to 150 m at maximum. Unfortunately, the length of the settlement on the W-E axis could not be determined precisely. It seems to be similar. The estimated size of the defensive settlement is therefore about 2 hectares. At present, basically the entire area of the site is covered by municipal infrastructure and housing, due to which any further recognition of the site using geophysical methods, for example, is impossible.

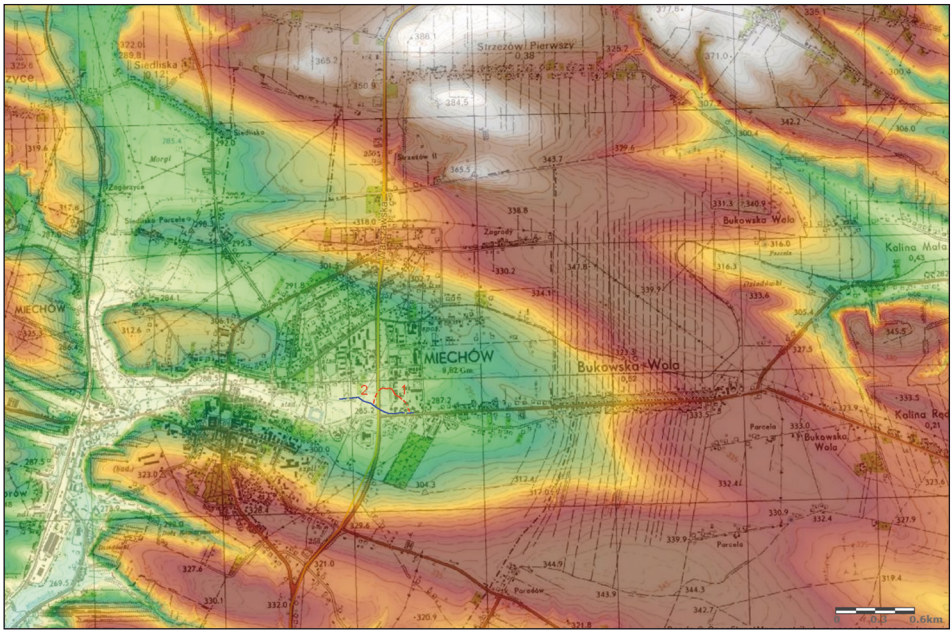

Fig. 7. Miechów, Miechów district.
1 – location of the ditch from the Funnel Beaker-Baden phase is marked in red. 2 – the Miechówka River oxbow is marked in blue

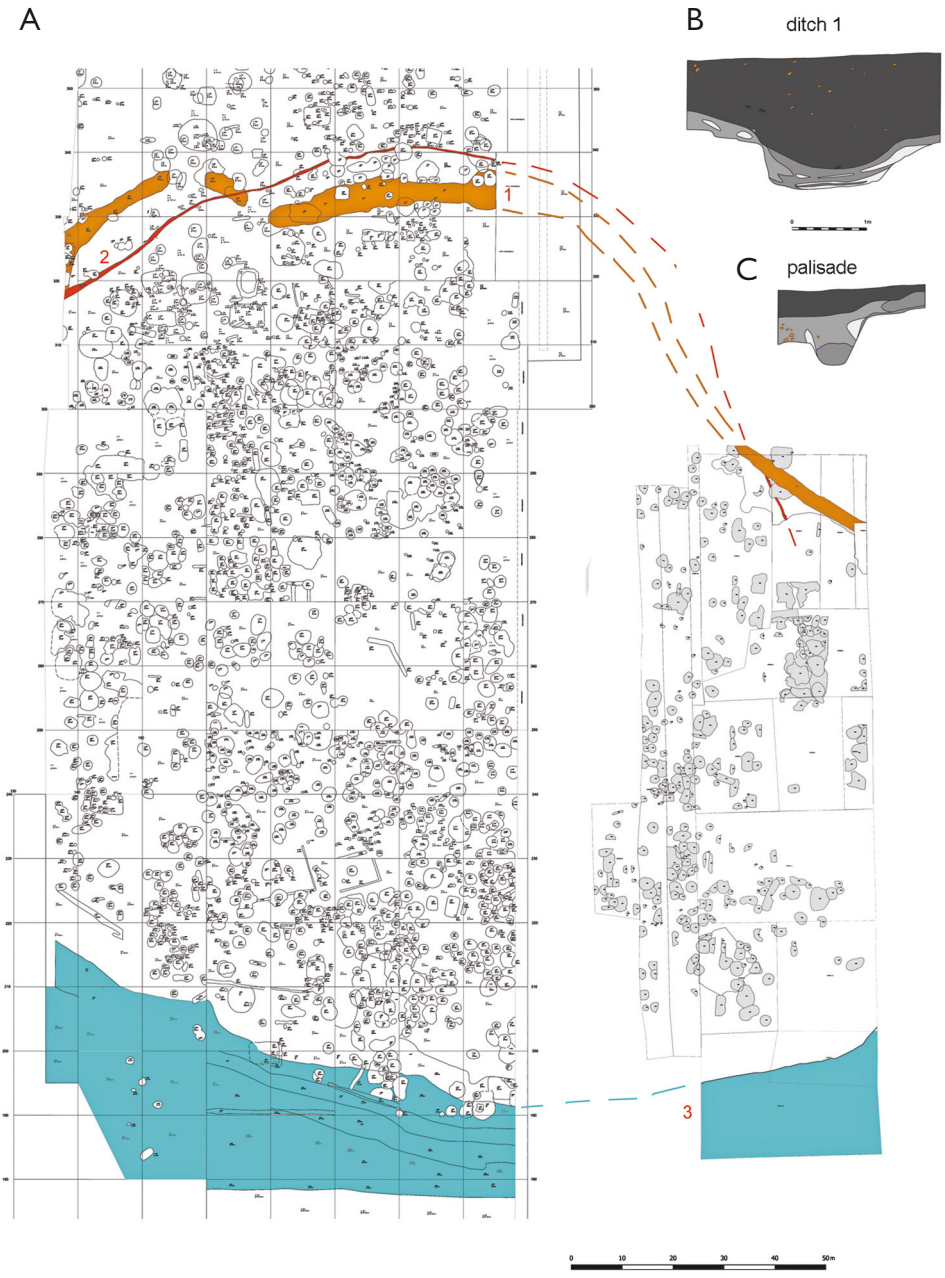

Fig. 8. Miechów, Miechów district. A – plan of the southern part of site no. 3 in Miechów (1 – location of the ditch from the Funnel Beaker-Baden phase; 2 – palisade; 3 – Miechówka River oxbow); B – profile of the ditch from the Funnel Beaker-Baden phase; C – profile of the palisade (based on the documentation by K. Peschel, G. Pryc, A. Buszek and I. Pieńkosi

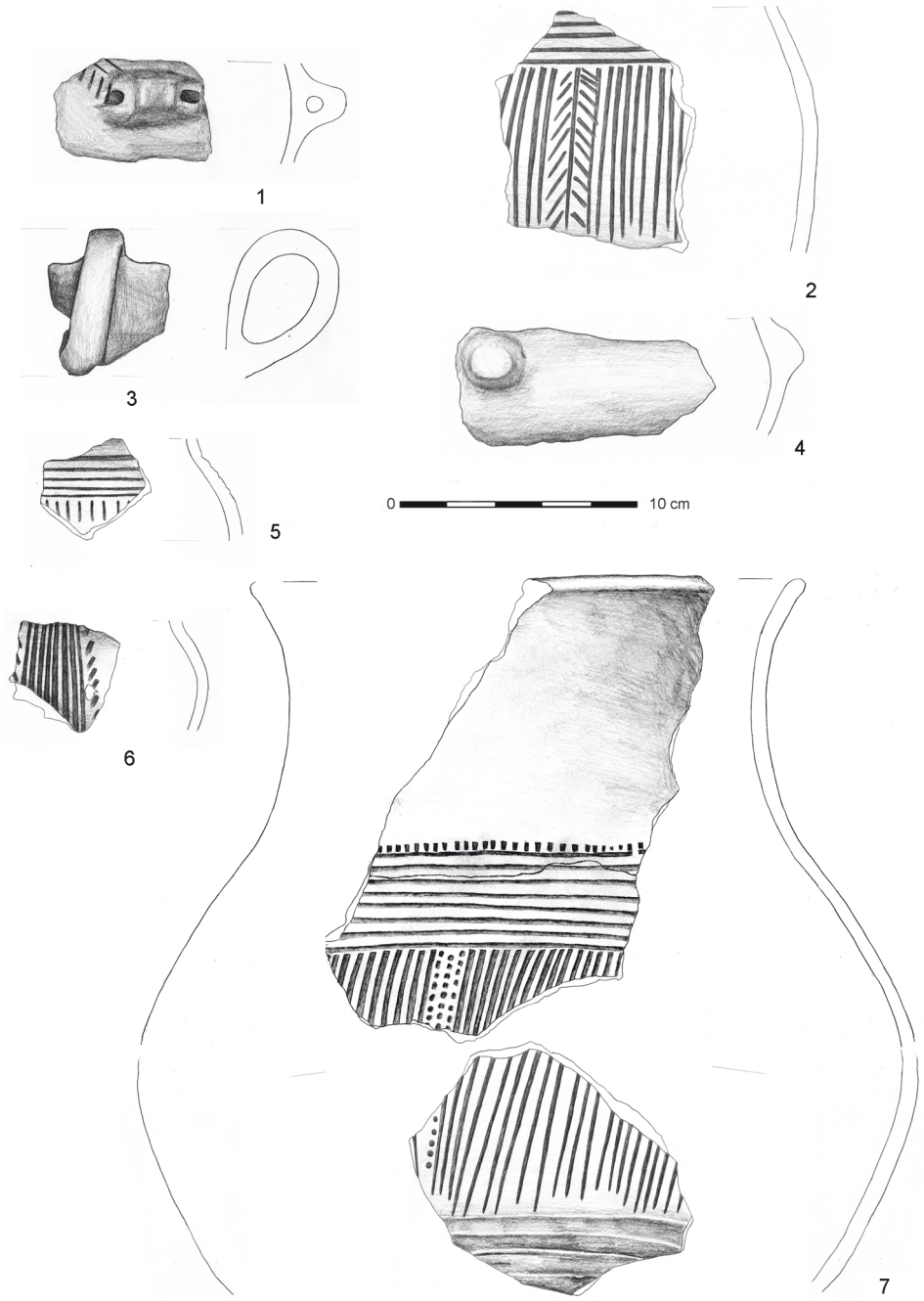

Fig. 9. Miechów, Miechów district. The Funnel Beaker-Baden pottery found in the fill of the ditch. Drawn by M. Podsiadło

Marchocice, Miechów district, site no. 2

The site was located on a conspicuous promontory with a shape resembling an elongated triangle. The promontory jutted out into the valley of a small river named Ścieklec (Fig. 10). Multi-aspect, non-invasive investigations, including aerial imaging, magnetic prospecting and a field survey, were conducted in 2010 and 2011 by a research team headed by Przemysław Dulęba, Piotr Wroniecki and Roman Brejcha (Dulęba *et al.* 2015). The examinations performed at the site revealed the existence of a vast settlement of a stronghold type, fortified with at least six parallel ditches, located in the western part of the promontory (Fig. 11). The above-mentioned ditches varied in terms of their widths. One of these structures was more complex, consisting of a wide ditch accompanied by a narrow groove (a palisade, maybe). Results of the field survey proved that the site was inhabited for a long period of time. The oldest materials encountered there were associated with the Lengyel-Polgar complex. Younger chronological periods recorded at the site were represented by numerous artefacts of the FBC and specimens linked with the Bronze Age. The final phase of occupancy at the site was indicated by the occurrence of artefacts dated to the Late Hallstatt Period. Having analysed the ceramic material presented in the article, the author formulated a hypothesis that some part of the earthenware that had been ascribed to the Lusatian culture from the Bronze Age (Dulęba *et al.* 2015, fig. 10: 4-9, 12, 14) should be actually associated with the Funnel Beaker-Baden group (Fig. 12). The specimens in question were ornamented in a manner typical of the latter taxonomic unit. However, similar, though not identical, motifs can be found on Lusatian pottery as well.

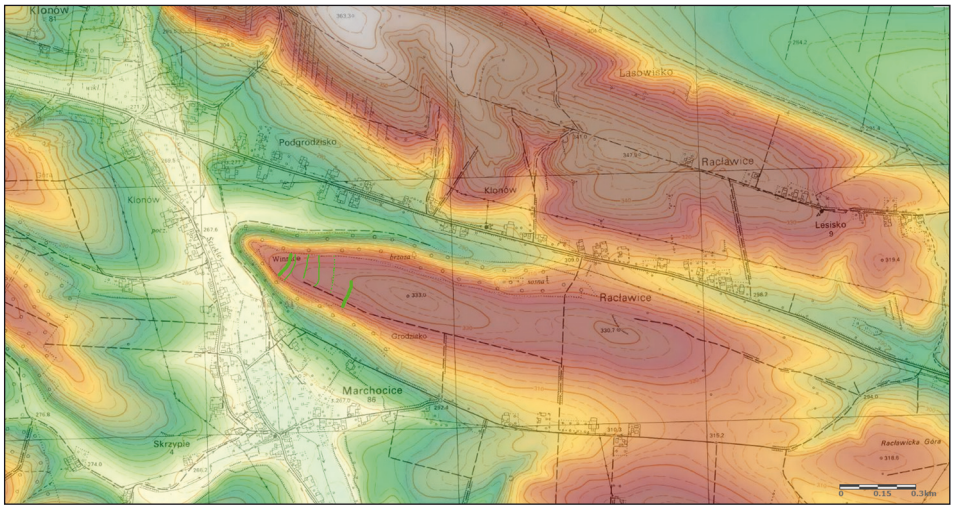

Fig. 10. Marchocice, Miechów district.
Linear features. Based on: Dulęba *et al.* 2015

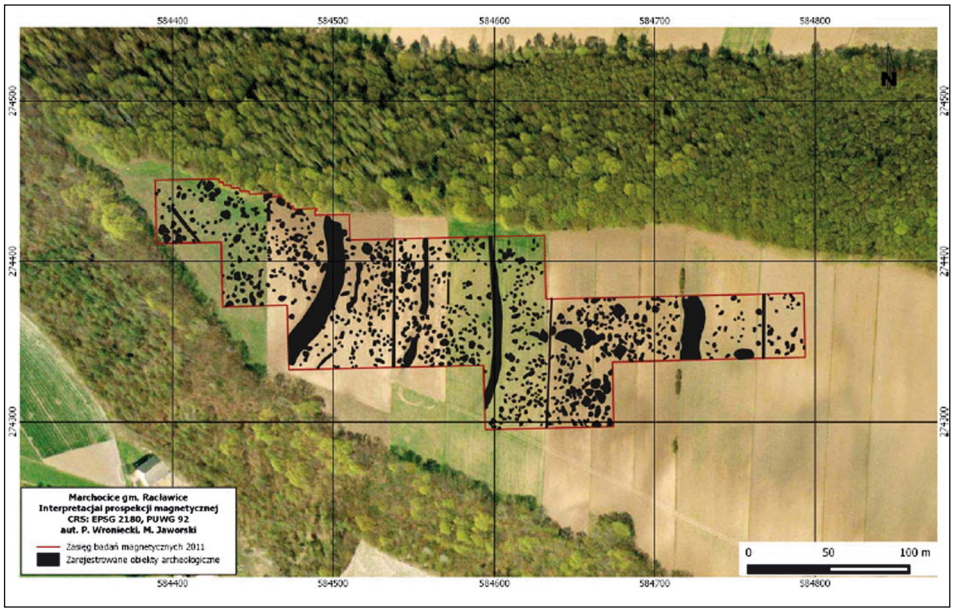

Fig. 11. Marchocice, Miechów district. Interpretation of the results of magnetic prospecting. Legible archaeological features, including ditches. After: Dulęba *et al*. 2015

Taking into account the number of ditches uncovered at the site, they were assumed to be established in different, distant chronological phases. Fortifications of various types, with moats as one of their construction elements, are known from sites of both the Lengyel-Polgár complex (*e.g*. Złota, Sandomierz district – Sałacińska and Zakościelna 2007) and the older developmental phases of the Lusatian culture (*e.g*. Witów, Proszowice district – Bochnak 2004). Nevertheless, it seems that a certain part of the fortifications in question should be linked with the Funnel Beaker-Baden group due to a significant number of representative artefacts found within them.

Muniaczkowice, Proszowice district, site no. 1

The site is located on a highly exposed promontory. Its western part is limited by the Szreniawa valley. The southern and western slopes are relatively steep. The northern one is less inclined. To the east, the promontory connects with the edge of the upland.

The site was discovered during surface research conducted in 1968 by the Department of Archeology of Lesser Poland IHKM PAN (Kruk 1970, 290). In 2018, it was the subject of surface and magnetic research (Przybyła *et al*. 2019, 316-319).

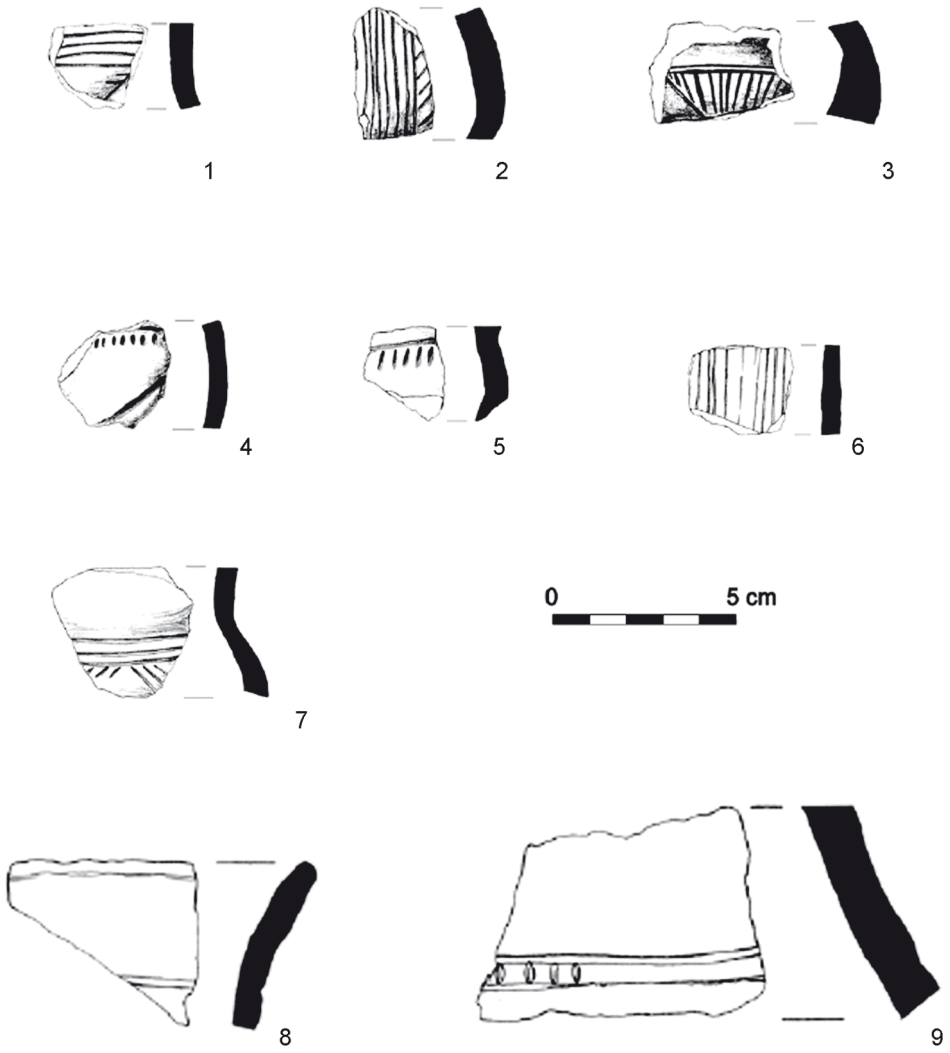

Fig. 12. Marchocice, Miechów district.
Pottery linked with the Funnel Beaker-Baden phase. After: Dulęba *et al*. 2015

During investigation, two independent fortification systems, indicated by positive linear anomalies, were discovered (Fig. 13, 14). The first anomaly is interpreted as a ditch (Fig. 13: feature 1). It cuts off the most exposed part of the promontory (the western settlement) at its narrowest part. It starts from the Szreniawa valley, and then it heads north, surrounding the promontory, before turning east along the northern slope of the hill. The anomaly is not equally clear in all places, as at the culmination it almost disappears. This

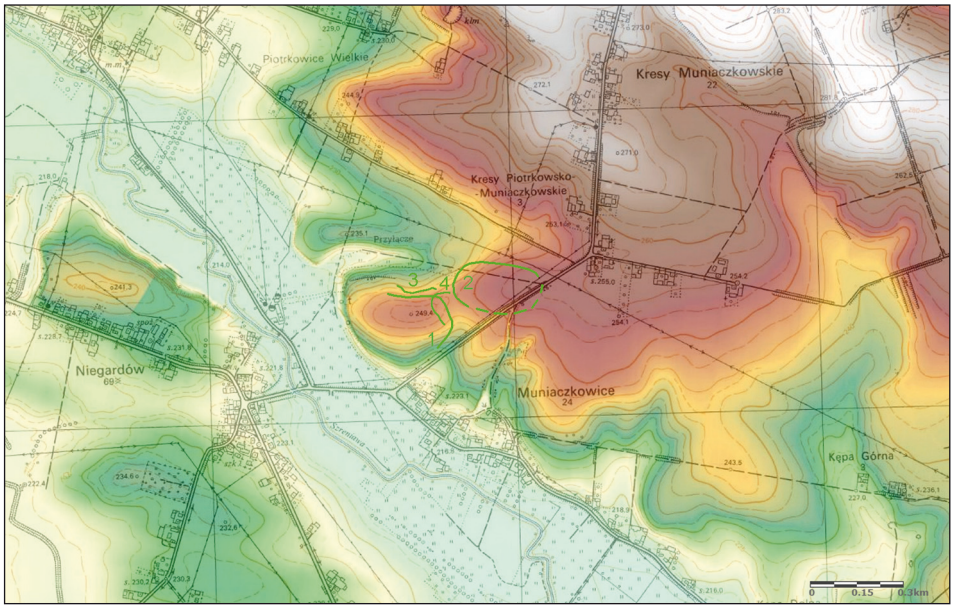

Fig. 13. Muniaczkowice, Proszowice district. The course of fortifications established based on magnetic prospecting, analyses of satellite photographs, and observation of soil markers, is marked in green

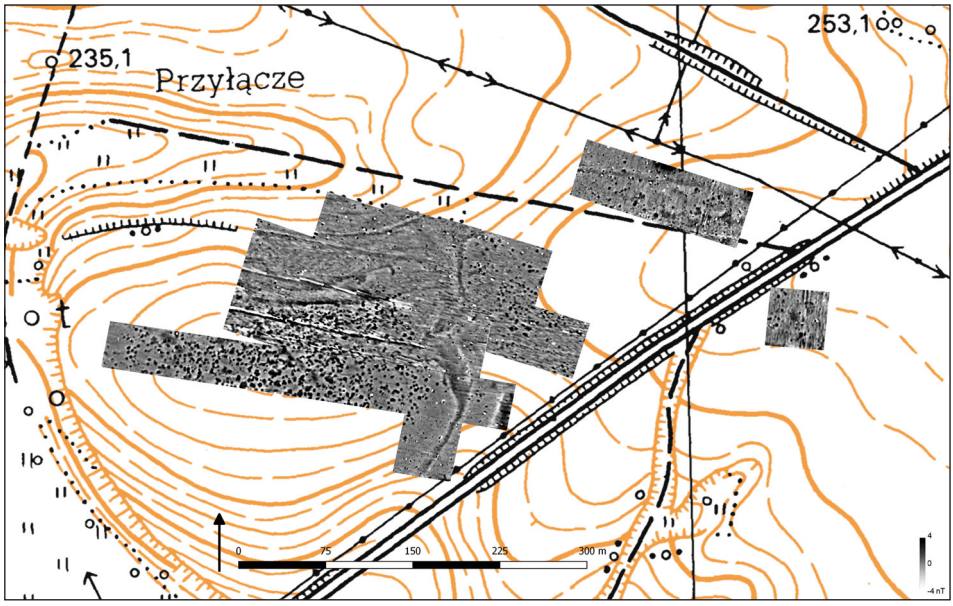

Fig. 14. Muniaczkowice, Proszowice district. Magnetic prospecting-based map with legible anomalies associated with the occurrence of the ditch and numerous features of a storage-pit type

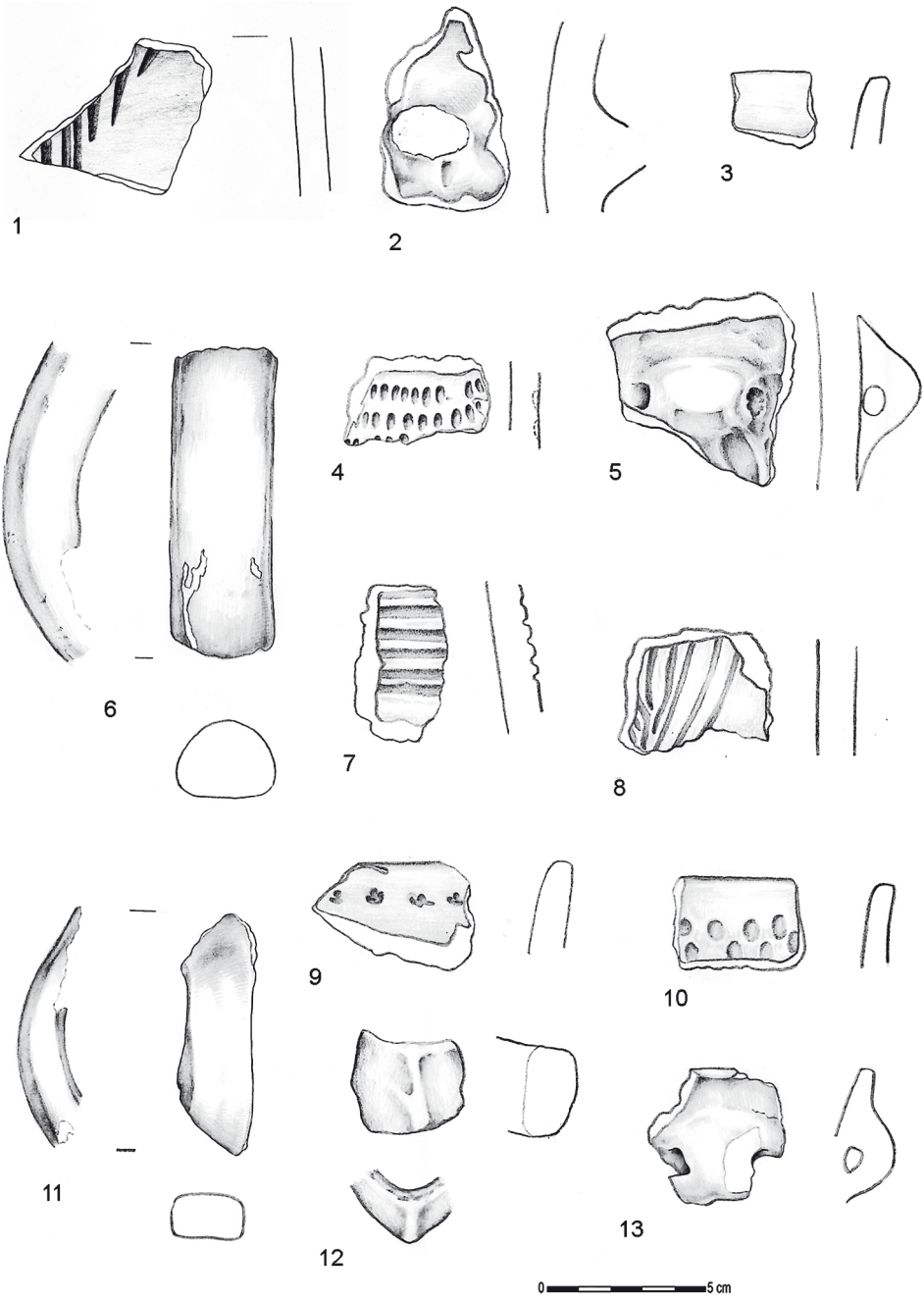

Fig. 15. Muniaczkowice, Proszowice district. The Funnel Beaker-Baden pottery collected from the surface of the settlement. Drawn by M. Podsiadło

is probably due to strong erosion in this location. Another ditch (Fig. 13: feature 3) runs parallel with the northern part of feature 1 and is possibly another element of the same fortification system. The additional fortifications on the northern slope seem justified by the gentle slope, depriving the settlement of its natural defensive qualities. Another ditch (Fig. 13: feature 2) encloses the eastern settlement, which is located on an elevation within the plateau, above the edge of the Szreniawa valley. In contrast to feature 1, it forms an oval structure. Unfortunately, it was not possible to carry out research on the entire course. The portion to the east of the modern road, in particular, was almost completely inaccessible to magnetic investigations. This anomaly was also not equally well readable throughout its course. The values of the anomaly were relatively low, which may indicate a significant degree of damage to the ditch. Another ditch is in the middle part of the site (Fig. 13: feature 4). It has a semi-circular course. Its size is consistent with a palisade groove structure. It crosses feature 1. Its arms are directed towards the eastern settlement. This may mean that both features – 2 and 4 – belong to the same fortification system. Magnetic investigations revealed numerous positive point anomalies. They group very clearly within both foundations. In the case of the western settlement, their spatial distribution is chaotic. In the case of the eastern settlement, they seem to be organized into linear systems, possibly connected with large, post-constructed buildings. The western settlement has an area of 7 ha. It stretches on a W-E axis and measures 360 x 220 m. However, the size of the eastern settlement cannot be accurately estimated due to its incomplete identification. If feature 2 surrounds the culmination similarly as in the western part, the area of the eastern settlement should cover an area of about 8 ha, and should measure 400 x 270 m. If ditch 4 is considered as a part of that settlement, the area could reach 12 ha and could measure 500 x 350 m.

During the field survey, a number of artefacts were collected. In the western settlement artifacts of the Funnel Beaker-Baden phase (Fig. 15) prevailed (59 potsherds and 4 battle-axes). In the eastern settlement artefacts were less numerous, but included potsherds and lithics from the FBC (2 sp.), the Mierzanowice culture (2 sp.) and the Trzciniec Culture (3 sp.). Summing up the results of the investigation, the western settlement should be dated to the Funnel Beaker-Baden phase. The eastern settlement may be dated to the Early Bronze Age. However, its relationship with the FBC cannot be ruled out.

SUMMARY

The emergence of fortified settlements in late phases of the FBC in the northern part of the loess-covered regions of western Lesser Poland could have been stimulated by a specific political and economic situation, provoked by the arrival of the Baden communities to the region near Cracow. This might have resulted from the demographic impact of new human groups migrating from the Transcarpathian regions (Kaczanowski

and Kozłowski 1998, 128). Another factor that could have influenced the formation of these structures was the emergence of the Corded Ware culture in the loess-covered regions of western Lesser Poland (Kruk and Milisauskas 1999, 172), and as recent discoveries show, also of the Globular Amphora culture (Włodarczak and Przybyła 2013). Although the chronology of the phenomena discussed here has not been sufficiently explained (Włodarczak and Przybyła 2013, 238-240), the fact of their partial (at least) contemporaneity should be acknowledged. Migrations of human groups must have caused a certain political pressure that resulted in the concentration of communities of the late FBC phases in less numerous, more defensible, vast settlements. Moreover, it cannot be excluded that the depletion of natural resources due to the escalating economic crisis (Kruk and Milisauskas 1999, 171-172) was the major reason for competition between the Funnel Beaker-Baden communities.

The chronology of the defensive settlements horizon is based only on radiocarbon and stylistic dating of Bronocice. Radiocarbon dates obtained for both Funnel Beaker-Baden phases set the ranges between 3350/3300 – 3200-3100 BC for Br IV and 3150/3100-2900-2800 BC for Br V (Kruk *et al.* 2018, 77). This allows the framing of the entire horizon between 3300-2800 BC.

The enclosures discussed here do not represent one type of fortification. With regard to the site in Bronocice during the older period of the Funnel Beaker-Baden phase (Bronocice IV), the recognition of which is presently the most comprehensive, only a certain part of the entire extent of the settlement was enclosed within a system of fortifications, consisting of a large structure surrounded by a ditch. It is possible that during the development of the settlement, the pressure of any external threat was not strong enough to force its inhabitants to erect cost-intensive fortifications encircling the entire village. The fortifications that were actually built could have played a refugial role. This is supported by the fact that only a few features typical of dwelling sites were encountered within the structure in question (Kruk and Milisauskas 1981, 73). This situation had significantly changed in the younger phase, Bronocice V. The external threat was so severe that it must have encouraged the inhabitants to make an enormous effort to erect a fortification system encircling the entire settlement, taking up an area of 17 ha in that time.

Other sites discussed in this paper were considerably smaller fortified settlements. Due to the fact that elaboration of the materials recovered from Miechów has just begun, and the data collected exclusively in the course of non-invasive investigations are rather fragmentary, development of those sites during the Funnel Beaker-Baden phase cannot be explained in detail at the moment. The fortified settlements in Miechów, Marchocice and Muniaczkowice (western settlement) as well, constituted the final stage of the Funnel Beaker settlement recorded there, which could have been initiated in the classical phase of the FBC (Bronocice I-III?), as was proved for the site in Bronocice.

With regard to the site in Miechów, it cannot be excluded that the fortifications recorded there were erected in two different time periods (stages). In the older stage there

might have been a light, palisade-type construction of more provisional nature. In the younger stage it was replaced by a moat that could have been accompanied by an earthen embankment.

When erecting strongholds the Funnel Beaker-Baden communities preferred naturally defensible places, mainly promontories located near rivers. Such a selection allowed human groups to minimise their efforts and the scope of work required for erecting fortifications. With respect to the sites in Marchocice, Gniazdowice and Muniaczkowice, these works must have been reduced to cutting off only one side of the promontory with a moat, and the system could have been complemented with an earthen embankment and possibly a palisade (Gniazdowice). Another solution was implemented at the sites in Bronocice and Miechów, where other factors beyond defense (maybe economic, social, or prestige-driven), required a much more labour-intensive manner of erecting fortifications around the settlements, which were located in places lacking any naturally defensive qualities.

The fortified settlements under scrutiny seem to share one common feature. They had become production and/or distribution centres where salt was obtained from brine springs. At the settlement in Bronocice numerous fragments of salt vessels were encountered (Fig. 16: 1-4). This type of pottery emerged in the phase Bronocice III, though it was most intensely utilised in the Funnel Beaker-Baden phases, namely Bronocice IV and V (Kruk and Milisauskas 1983, 278, 291-292, 299). An occurrence of salt beakers (*briquetage*) can be associated with an increasing demand for salt, stimulated by the periodic homesteading of large herds of domesticated animals nearby the settlement (Kruk and Milisauskas 1999, 175). However, it seems that there is another explanation that can be proposed for the flourishing of salt production within the Nida Basin in the Funnel Beaker-Baden phase. New settlers of the Baden culture not only deprived the FBC communities of a certain share of lands attractive for agricultural use, situated to the south of the Szreniawa River; they also took over their access to brine springs in the Wieliczka-Bochnia region, which was even more grievous. This resulted in termination of salt production by the FBC societies in the classical phase of this cultural unit. Their place was taken by new manufacturers representing another cultural unit, namely the Baden culture (Przybyła 2015, 168-173). This forced the Funnel Beaker-Baden communities to intensify or even initiate production of salt obtained from local brine springs. The issue of their existence has not been clarified until present, though recent discoveries have shed more light on the local salt production, as evidenced by an increasing number of records. An abundant collection of salt beakers associated with the Funnel Beaker-Baden phase (Fig. 16: 8-11) was encountered in Miechów. Salt vessels of the Lusatian culture were also discovered at this site, and some specimens are likely to represent other chronological periods as well. Fragments of salt pottery were found on the surface of the settlement in Gniazdowice, and within the fill of the investigated portion of the ditch (Fig. 16: 5-7). Salt vessels were also discovered at the settlement in Marchocice (Dulęba *et al*. 2015, fig. 9: 2). Taking into account the importance of salt production to prehistoric societies (Harding 2013, 109-110, 121), one can conclude

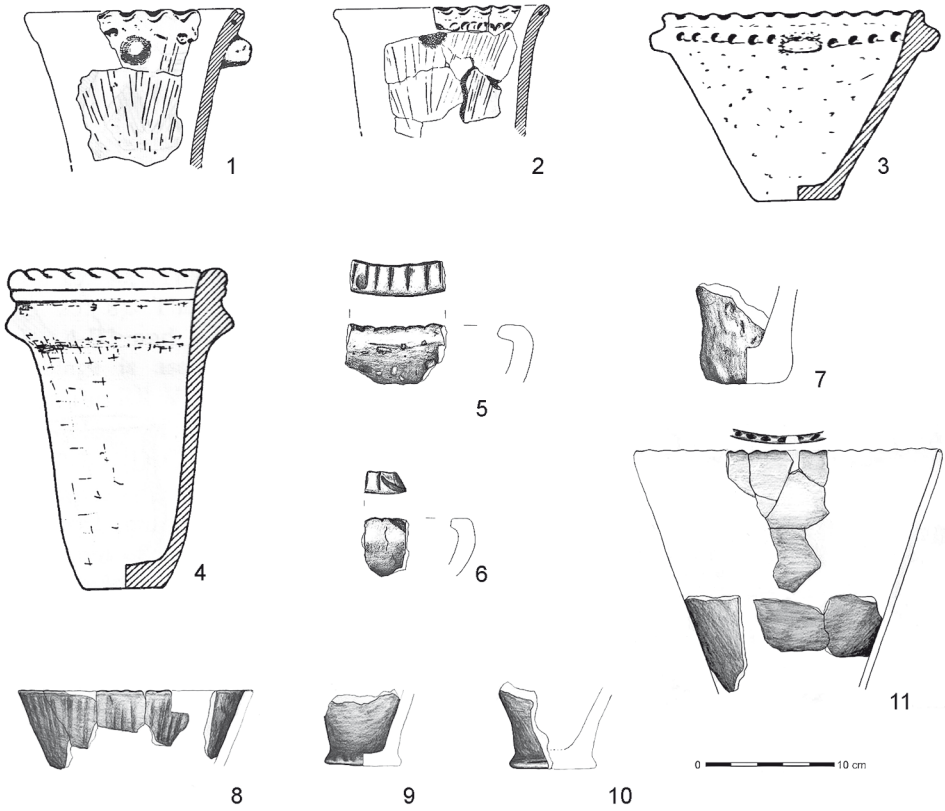

Fig. 16. Salt vessels from the Funnel Beaker-Baden phase.
1-4: Bronocice (acc. to Kruk and Milisauskas 1990); 5-7: Gniazdowice; 8-11: Miechów.
Drawn by M. Podsiadło

that the issue of accessibility to brine springs might have been one of the major factors determining the location of strongholds.

Another question that needs to be answered pertains to the impulse that inspired the erection of structures of this type. In the territories of western Lesser Poland, open settlements clearly prevailed during the older phases of the FBC. Amongst them, a settlement in Stryczowice, Opatów district, has been recognised most comprehensively (Uzarowicz-Chmielewska and Sałacińska 2013), and it is linked with the Br III phase (Włodarczak 2006, 40-42). Fortifying structures are most numerously represented at the FBC sites in the territories of the Czech Republic, *e.g*. in Chleby, Nymburk district (Gojda 2006, fig. 2.4), and Makotřasy, Kladno district (Podborský and Kovárník 2006, fig. 4.4: 8). On the other hand, the emerging Funnel Beaker-Baden fortifications could have been modelled on chronologically closer fortified settlements of the Baden culture in the Transcarpathian

regions. Nevertheless, the latter were structures of a different nature than those known from the loess-covered regions of western Lesser Poland. For instance, there was a small, circular structure (diameter of 40 m) encountered in Bajč-Vlkanovo in Slovakia (Bistákova and Nevizánsky 2015). Another example from the territory of Slovakia is a vast settlement situated on a mountaintop in Zvolen, probably surrounded by an embankment built of stones (Beljak-Pažinova *et al.* 2015). It is also possible that the emergence of large, fortified settlements within the Funnel Beaker-Baden environment could have been of local origins – a kind of adaptive behaviour to changing conditions.

The author of this paper proposed the hypothesis that the type of settlement in question had become predominant at the decline of the development of communities cultivating the traditions of the FBC in western Lesser Poland. The number of prehistoric strongholds discovered throughout the history of Polish archaeology is extremely small when compared with that recorded in the territories of neighbouring countries. Not until recent years have non-invasive methods of investigation developed, represented in particular by aerial imaging and magnetic prospecting, resulting in a rapid increase in the number of archaeologically recognised fortified settlements, in some regions at least. This is well evidenced by integrated research agendas that led to discoveries of numerous fortified settlements of various chronologies in the area of the Dobużek Escarpment (Skarpa Dobużańska) in the western part of Lublin Voivodeship (Chmielewski *et al.* 2015), and within the area of the Nida Basin (Wroniecki 2016). The above-mentioned discoveries bring some hope for revealing new sites belonging to the category of settlement discussed in this paper.

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