

Le Porrey. Still unsolved is the interpretation of linear structures at La Chaume. The magnetic map shows numerous anomalies of various nature, but most notably, a system of lines from 1.5 m to 3 m wide, oriented east–west (four structures) and north–south (one structure). Their length cannot be determined since they continue beyond the prospected area. These structures are interpreted primarily as possible deserted roads. Their dating, however, is unknown. They may have been built in medieval up to early modern times, but their contemporaneousness with the oppidum cannot be excluded.

CONCLUSIONS

Further surveys are planned despite the difficult conditions of prospection, because of the need for long-term research. The evidence from this study has already answered some questions concerning the extent of the settlement area, building density, nature of features in individual parts of the oppidum, and building development structure in individual periods. More detailed information on previous results of the geophysical survey at Bibracte can be found in relevant literature (e.g., Milo 2013; Milo and Goláňová 2012).

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Late Neolithic circular enclosures: never entirely uncovered

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Late Neolithic circular enclosures count among prehistoric structures that have left distinct traces in the landscape. Due to their considerable dimensions and a typical round shape they are easy to identify by aerial survey as well as on orthographic survey images of the landscape (Kuzma 2013). This was also the case with three circular enclosures presented in this paper. These enclosures located in Bíňovce (Slovakia), Milovice and Nové Bránice (Moravia, Czech Republic) are new additions to the list of similar sites in the region already investigated geophysically by other teams (e.g., Melichar and Neubauer 2010). Considering the typical shape of

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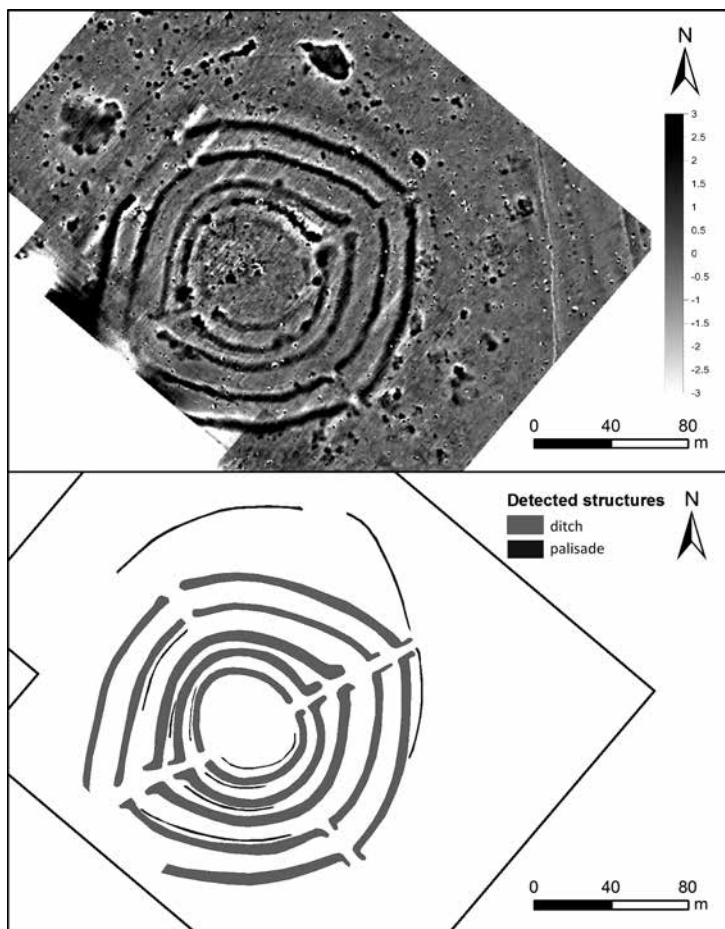


Fig. 1. Bíňovce. Magnetic map and interpretation of archaeological structures

these structures and the potsherds collected from the surface at individual sites, the enclosures under review can be dated without doubt to an early phase of the Lengyel Culture.

BÍŇOVCE

The circular enclosure, irregularly circular in plan, consists of five ditches and several palisade trenches, which in some places are only fragmentarily reflected in the geophysical data (Fig. 1). The western edge of the magnetic map is distinctly disturbed by a gas pipeline, which also partly overlaps with the roundel. However, with respect to the structure as a whole, a detailed picture can be given. The ditches are 4.0 m to 6.7 m wide. The circle inscribed by the internal edge of

the central ditch has a diameter of 49 m to 53 m. The circle inscribed by the external edge of the outermost fifth ditch has a diameter of 167 m to 187 m. Counting from the centre to the outside, ditches 1 to 3 exhibit two gaps each; these are the northeast and the southwest entrances. Ditches 4 and 5 have four entrances each. Besides the northeast and the southwest entrance, which parallel the straight line leading through the entrances from the three internal ditches, there are also two diametrically opposed entrances on the northwest and southeast of the circular enclosure. Palisade trenches can clearly be evidenced on the outside of the first and the second ditch and on the inside of the fourth ditch. To the north and east of the circular enclosure, we can follow the course of a palisade trench, which is also related to the circular enclosure. Its preserved length is about 230 m.

The disproportion in the number of entrances in individual ditches might indicate chronological discontinuity of the structure under review as a whole. Why is it that the external ditches have two additional entrances each when they did not lead to the centre of the roundel? A possible answer is that ditches 4 and 5 represent a second or even third building phase. Chronological differences between the ditches may also be indicated by their magnetic fills, which are entirely different. Ditch 1 exhibits very low magnetic values (0.3 to 2.0 nT). The values with ditches 2 and 3 are higher (mostly 1.5 to 4.0 nT). Ditch 2 shows in some places, mainly in the area of the gates, very high values (25 nT). The highest average data are given by ditches 4 and 5 (2.5 to 5.0 nT). The fills of individual ditches and their magnetic properties are attributable to their backfilling, which often took place very long after the roundels ceased to serve their purpose. Therefore, we suppose that the backfilling process in ditches at Břínovce may have differed in individual cases. Ditch 1, for example, which was only indistinctly visible in the data obtained, may have been filled intentionally by the builders of the roundel. The low-magnetic subsoil material was probably obtained by extending the circular enclosure and digging ditches 2 and 3. More details on this question may come from archaeological excavation.

Many anomalies were detected inside and around the circular enclosure. They can be interpreted as settlement features. Considering the fact that they do not overlap spatially with the roundel, they are most probably contemporaneous with it or a little younger. At least four house plans were identified east of the roundel. The other features can be classified as settlement pits of various nature. The area to the north of the roundel is dominated by two large anomalies (750 m² and 330 m²). The eastern feature is still visible on the surface as a moderate depression.

MILOVICE

The enclosure is nearly circular in shape and consists of an internal palisade trench and two parallel ditches 4 m to 5 m wide (Fig. 2). The distance between ditches is 10 m. The circle of the external ditch has a diameter of about 120 m. The ditches are interrupted at regular distances by four opposite gaps. The entrances are flanked by pairs of shorter connecting ditches about 3 m wide. The palisade trench inside the roundel runs at a distance of 5 m to 8 m from the internal perimeter ditch of the roundel and forms an approximately circular area of 66 m in diameter. The entrances in the palisade are oriented in the same directions as the gaps in perimeter ditches.

The changes in magnetic values in the area inside the palisade are curious compared to the area immediately around the ditches. Higher magnetic values inside the roundel might indicate a preserved occupation layer. The palisade trench forms a distinct border at the perimeter of this

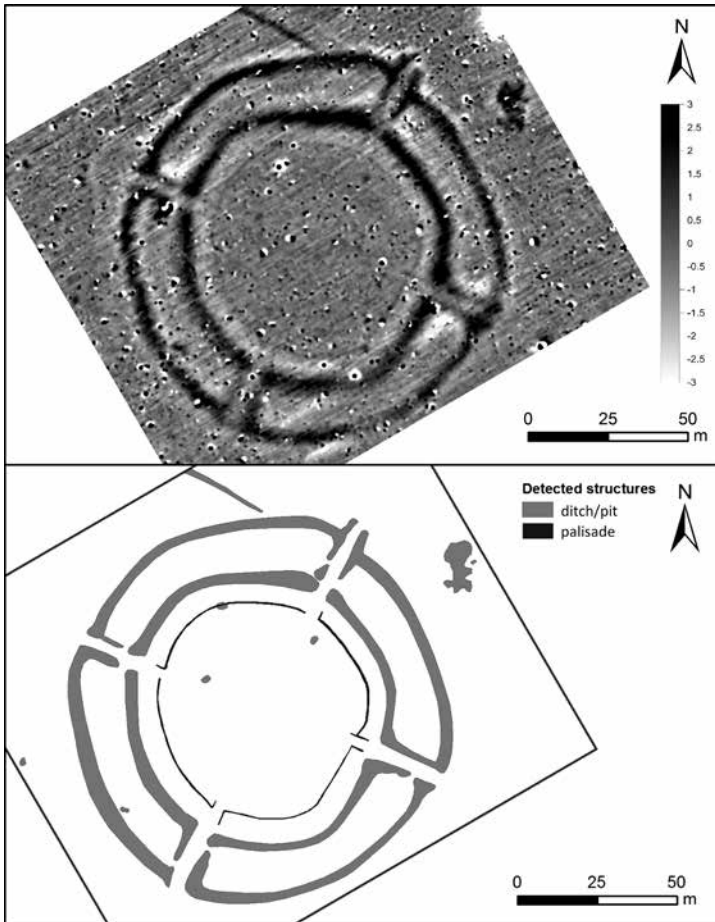


Fig. 2. Milovice. Magnetic map and interpretation of archaeological structures

area. However, it may also be supposed that low magnetic values around the ditches resulted from piled up low-magnetic or non-magnetic subsoil earth, which was obtained by digging the perimeter ditches. If so, then the Milovice roundel can be imagined as a system of not only ditches and palisades, but also massive perimeter ramparts.

NOVÉ BRÁNICE

The irregularly circular linear enclosure consists of two internal palisade trenches, which are only fragmentarily preserved in the geophysical data, and an external ditch (Fig. 3). The circle inscribed by the internal palisade trench has a diameter of roughly 60 m to 70 m. The circle inscribed by a ditch about 2.0 m to 4.0 m wide has a diameter of roughly 108 m. The ditch exhibits

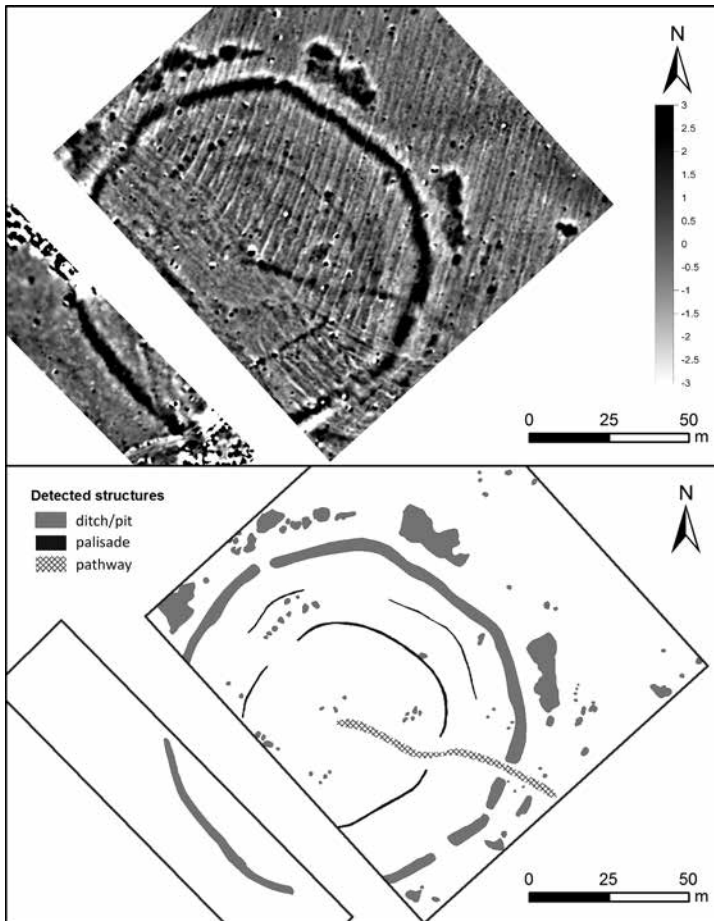


Fig. 3. Nové Bránice. Magnetic map and interpretation of archaeological structures

four gaps, but only the one in the north–northwest part can unequivocally be identified as an entrance. An entrance is also supposed with the easternmost of the three gaps in the southeastern part of the enclosure ditch. Through this gap runs a narrow linear anomaly leading directly to the centre of the enclosure. This feature was most probably connected with the functional purpose of the circular enclosure. It might be a trench-like structure, but also a shallow depression, a pathway, for instance. Neither can a pedological origin of this structure be excluded.

Several extensive anomalies, which are accumulated outside and around the circular enclosure, deserve special attention. These features are situated at regular distances of 5 m or 6 m from the external edge of the circular ditch. The only reason for such arrangement can be an aboveground obstacle, which has not been reflected in the geophysical data. It may have been a light fence or a shallowly sunken palisade. A road running around the roundel is also possible, but the most likely

interpretation is apparently an earthen rampart piled up in these places. The whole archaeological context of the circular enclosure at Nové Bránice, the ditch of which seems to have been enclosed from outside by a rampart, is thus a further valuable contribution to this discussion.

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