CHIEFTAINS' FARMSTEADS FROM THE HALLSTATT C PERIOD IN SILESIA REGION IN POLAND

Tomasz GRALAK
Universitatea din Varşovia

In recent years, in the area of Lower Silesia (Dolny Śląsk) in Poland, several structures dated to the Hallstatt period, called chieftain's farmstead or *Herrenhof* were found.

All of them were recorded on sites in Wrocław district: Wojkowice 15[1], Milejowice 19[2], Stary Śleszów 17[3] and Zabrodzie 8[4]. They were settlements composed of several buildings arranged around an empty square enclosed by a palisade or a ditch. The number of discovered sites suggests that this was a commonly used form of rural space organization.

In the case of sites Wojkowice 15, Milejowice 19 and Stary Śleszów 17 a metrological analysis of buildings remains was undertaken. It allowed to identify the measurement unit used. Based on layout of post-holes it was found that the length measurement unit was approximately 0.785 m (Fig. 1A). It was also noted that in all these settlements buildings were constructed in the same form (Fig. 2, 3). For the layout of the buildings repeating modules were used: squares with sides of 4 × 4 units long and rectangles with sides of 4 × 3 units long [55] (Fig. 1B). The following is a summary of reconstructed measurement data:

1 unit = 0.785 m
1 unit ² = 0.616225 m²

square module:
4 units × 4 units = 3.14 m × 3.14 m,
16 square units = 9.8596 m²

rectangular module:
3 units × 4 units = 2.355 m × 3.14 m,
12 square units = 7.3947 m²

The determined unit -0.785 m, very likely belongs to typical anthropometric units, resulting from dimensions of human body [6]. In this particular case, the unit could be an equivalent of the half-fathom (yard). It should be also noted that almost identical unit of 0.7855 m was recorded in Jutland in the early Bronze Age and in the Roman period [7].

1 Gralak 2010.
2 Bugaj/Kopiasz 2006.
3 Kopiasz 2003.
4 Baron/Golański *et.al.* 2011.
5 Gralak 2010; Gralak 2013.
6 Kula 2004, pp. 34–37.
7 Randsborg 2011, p. 181, Fig. 1.

https://biblioteca-digitala.ro

The entire layouts of these settlements, including chieftains' farmsteads forming parts of them, were analysed. In Wojkowice there were two settlement areas [8]. In the first one it was noted that some of the features were located within a regular rectangle. It was assumed that such a layout resulted from the implementation of a specific plan. The dimensions analysis showed that it was placed within a square with dimensions of 48 × 48 units, which is approximately 37.68 × 37.68 m (Fig. 4A). The area was 2304 square units, which is 1419.7824 m². Taking into account proportions, it appears that to design the enclosure in question was used a square module with sides 12 × 12 units long, that is 9.42 × 9.42 m, which is 144 square units, or 88.7364 m². The most perceptible are two edges of this area: the north and south ones. In the first case ditches, 24 units long, were located exactly in the middle of its course. The second, opposite edge was marked by shorter walls of grouped there buildings' remains. It should be noted that, when the settlement was inhabited, both the line of ditches as well as heaps along them, most likely were clearly visible. Inside of the enclosure was left an empty zone.

A similar concentration of buildings along one wall of the palisade and an empty central zone has been recorded on the settlement Stary Śleszów 17 [9]. Measurement analysis showed that this enclosure was built on the plan of a rectangle consisting of square modules of 12 × 12 units (Fig. 4B). There is perceptible only south side of the enclosure and its reconstructed length is 72 units, i.e. 56.52 m. Assuming that it was originally a regular square with the side of length 72 × 72 units (6 × 6 modules) its area would be 5184 square units. Layout probably began with designation of the centrally located square with the side of length12 × 12 units. Its corners were central points of circles of 60 units in diameter [10]. Their course marked the line of the palisade. Also in this case, as in Wojkowice, the clear boundary (palisade) is perceptible only on some portion. It is probably not due to the state of preservation of the original enclosure but to its builders intention. It seems that the whole thing was a regular square, while the palisade had rounded corners.

In the settlement in Milejowice three clusters of features enclosed by palisades or ditches were recorded (Fig. 5). Outside of them were placed remains of settlement (buildings, storage pits, post-holes) which did not form regular layouts. All enclosures were characterized by empty central squares. In the case of the largest of them, it was established that it was at least twice rebuilt. It is indicated by different courses of palisades and ditches. A measurement analysis showed that the first enclosure was also inscribed in a square consisting of square modules with sides of 12 × 12 units. Its side consisted of nine modules, hence its length was 108 units or 84.78 m and the surface of the complex was 11664 square units, i.e. 7187.6484 m². During first reconstruction the side of the square was shortened by the length of one module, hence it was 96 units, i.e. 75.36 m and the surface was 9216 square units, i.e. 5679.1296 m². During second reconstruction the original regular arrangement was abandoned, as proven by the course of the palisade which do not fit the modular grid (Fig. 6).

The module of 12 × 12 units was probably also used because of the proportions of two right-angled triangles which formed it:

$$c^2 = a^2 + b^2$$
$$c^2 = 12^2 + 12^2$$
$$c^2 = 144 + 144$$
$$c = \sqrt{288}$$

[8] Gralak 2010, pp. 206–208.
[9] Kopiasz 2003, pp. 110–112, Fig. 4.
[10] Gralak 2013, Fig. 5.

https://biblioteca-digitala.ro

$$c = 16.97$$
$$c = 16{,}97$$

It can be assumed, that length of the hypotenuse was treated as an integer number 17, and a slight inaccuracy did not have a major impact on the generated plans. In the context of this module, it seems also likely that the core of the counting system was number 12. This is suggested as well by length of the side of square module used in construction – number 4 is divisor of number 12. Twelve is also the sum of sides of triangle (3 +4 +5) probably used to determine the right angle.

The next settlement where a palisade was recorded is Zabrodzie 8. In plan it had a shape of an irregular oval, but it seems that the whole settlement might have been designed within a rectangle. Inside instead the post house remains have been recorded. Their shorter walls faced inside [11].

Summarizing, the undertaken comparison showed that in the case of row post construction was recorded a repeatability on all of the analysed sites. Moreover, the existence of a layout scheme of settlement has been established. The buildings were built in circle around a central square which they faced by shorter walls. The settlement unit was surrounded by a palisade or a ditch in the shape of a rectangle with rounded corners. On particular sites this plan was implemented to varying degrees, which explains the differences that occur amongst them.

Very similar layout is known from the West Hallstatt culture in Bavaria, where it is called Herrenhof (manor house)[12]. Features of this kind were characterized by rectangular, nearly square shape with rounded corners [13]. Settlements of this type are also referred to as chieftains' farm[14]. It should be also noted that in the case of such a settlement in Kyberg near Munich ditches mark only one side of the palisade or ramparts [15]. Such plans known from the area of the Czech Republic from the Hallstatt period in Opatovice nad Labem [16] and Štítary nad Radbůzou-Hostětice [17] also were rectangular with rounded corners. Hence, we can assume an existence of a transregional rule determining their layout.

It seems that a prototype of such a settlement is described in Homer's Iliad:

But when they were come to the hut of Peleus' son, the lofty hut which the Myrmidons had builded for their king, [450] hewing therefor beams of fir —and they had roofed it over with downy thatch, gathered from the meadows; and round it they reared for him, their king, a great court with thick-set pales; and the door thereof was held by one single bar of fir… [18]

Such a farmstead (*herkos*) inhabited by Achilles, is mentioned also second time [19] – this time in the context of offerings taking place there.

From Greece probably also come the construction modules. Methods of division of a square of side 4 × 4 units are described by Plato in the dialogue 'Meno'[20] (Fig. 7). Proper proportions describe two such figures with the ratio that one side of one of them is a half of a diagonal of

[11] Baron/Golański *et.al.* 2011, pp. 344–345, Figs 3, 4.
[12] Reichenberger 1994, pp. 187–215; Kas/Schußman 1998, pp. 93–106.
[13] Christlein/Braasch 1982, p. 53, Fig. 36; Donat 2006, pp. 110–127, Figs 4, 9, 10, 11.
[14] Kristiansen 1998, pp. 259–260, Fig. 134.
[15] Patzold 1963, pp. 101–103, B. 1; Härke 1979, p. 89, Fig. 23.
[16] Vokolek/Sedláček 2010, pp. 268–276, Figs 3, 10–12.
[17] Chytráček 2006.
[18] Iliad XXIV: 449–454.
[19] Iliad XVI: 234–235.
[20] Meno 82b–85b.

https://biblioteca-digitala.ro

the second one [21]. These relations were used in construction, as well as so-called Pythagorean triangles with sides ratio of 3: 4: 5 [22].

Also geometric decoration, typical for pottery of the Hallstatt circle cultures has its prototypes in decoration typical for Greek Geometric Period [23]. It seems, therefore, that the form of settlement in the type of chieftains' farmsteads is only one of the elements of the cultural package adopted by the inhabitants of Central Europe from the Mediterranean areas.

The main question concerns the purpose of such structures. The terms chieftain's farmstead or *Herrenhof* suggest that they were used by people with higher social status. Archaeological finds from these sites, however, do not confirm it. A good example is the site Wojkowice 15. Both a chieftain's farmstead and an open settlement organized along a communication route were discovered there [24]. No significant difference between finds from the two areas was noted. On the contrary, they were characterized by high similarity. But the question remains why two groups of people living next to each other opted for completely different forms of spatial organization. In terms of forms of features related to production no major discrepancies were noted either. In both cases, there were recorded kilns of unspecified function, storage pits etc. In terms of construction, within a chieftain's farmstead appeared the same types of post buildings as outside of it. Within them there were also recorded the same forms of ritual activity in the form of foundation sacrifices in post-holes [25].

Differences were recorded in the case of the site in Milejowice instead. The analysis of spatial distribution of so-called prestigious pottery (of thin, graphited or painted, walls) indicates that it appeared more frequently within the palisades [26].

Due to the relatively small size of palisades and ditches enclosing chieftains' farmsteads, their defensive function seems rather unlikely. The purely prestigious function cannot be ruled out. Assuming that they played a utilitarian role, they might have been used as cattle kraals. The commonness of these animals husbandry is confirmed by results of the osteological analyses from Wojkowice 15 – the bovine bones were found most frequently [27]. Horses breeding cannot be ruled out either. This is indicated by finds of horse harness parts and moulds used for its production from the chieftain's farmstead from Milejowice 19 [28] (Fig. 8). In this context, it is worth to take into account the aforementioned information contained in Iliad. To such a settlements drove Priam with a cart full of gifts for Achilles [29] in this manner he also took the body of Hector [30]. Taking under consideration peculiar fascination with carts in the Hallstatt culture [31] their widespread use should be considered. In this case an empty square within the farmstead could have been a place of parking and maneuvering them. The palisades and ditches enclosing settlements were impassable barriers for horses.

In Silesia from the Hallstatt C period three main forms of settlement were found: large fortified settlements, open settlements and exactly chieftains' farmsteads. The latter were found only in the region between the Bystrzyca River and the Oława River. During the Hallstatt period it was

[21] Tatarkiewicz 1962, p. 140.
[22] Tatarkiewicz 1962, pp. 63–69, Figs 1–7, Ghyka 2006, p. 91.
[23] Bouzek 1997, 2008, Fig. 12.
[24] Gralak 2010, Fig. 1.
[25] Gralak 2010, p. 209.
[26] Kopiasz 2008, pp. 221–223, Figs 3–8.
[27] Gralak 2010, p. 199, tabl. 2.
[28] Bugaj *et alii.* 2002, Figs 6: 9, 10, 11; Bugaj, Gediga, 2004, Fig. 14: 7; Bugaj, Kopiasz, 2006, p. 189.
[29] Iliad XXIV: 441–460.
[30] Iliad XXIV: 691–703.
[31] Pare 1992.

https://biblioteca-digitala.ro

most densely populated region of Silesia. Absence of fortified settlements in this area is characteristic. They occur only on its borders – to the north two strongholds in Wrocław-Osobowice, to the south in Niemcza and another two in Witostowice [32]. This location clearly indicates defensive function of the strongholds, while this does not apply to chieftains' farmsteads.

It is characteristic that in the area of Southern Germany during the Hallstatt C period also three main forms of settlement were recorded: large fortified settlements, chieftains' farmsteads and open settlements. Also in the case of this region it was found that various forms of settlement do not appear in whole inhabited area but only in selected zones [33]. Thus, it seems that this type of space gradation is a repeating form of its organization in the Hallstatt circle.

References

Baron/Golański *et.al*. 2011 J. Baron, A. Golański, K Schellner, Problems of interpretation of early Iron Age fenced settlements. A case study of site 8 from Zabrodzie, Wrocław district, *Sprawozdania Archeologiczne 63,* 319–356, Ossolineum, 2011.

Bouzek 1997 J. Bouzek, Greece, Anatolia and Europe: cultural interrelations during the Early Iron Age, *Studies in Mediterranean Archaeology CXXII,* Jonsered, 1997.

Bouzek 2008 J. Bouzek, Koine of Early Iron Age Geometric styles, [in] Gediga B., Piotrowski W., (eds) *Sztuka pradziejowa i wczesnośredniowieczna, jako źródło historyczne,* 125–138, Wrocław, Instytut Archeologii i Etnologii PAN; Biskupin, Muzeum Archeologiczne, 2008.

Bugaj/Gediga 2004 E. Bugaj, B. Gediga, Wyniki ratowniczych badań wykopaliskowych przeprowadzonych na stanowisku Milejowice 19, gm. Żurawina, pow. Wrocław, woj. dolnośląskie, [in:] *Raport 2001–2002. Wstępne wyniki konserwatorskich badań archeologicznych w strefie budowy autostrad w Polsce za lata 2001–2002, Zeszyty Ośrodka Ochrony Dziedzictwa Archeologicznego*, 216–233.Ośrodek Ochrony Dziedzictwa Archeologicznego: Wydawnictwo Milart, Warszawa, 2004.

Bugaj/Gediga *et.al*. 2002 E. Bugaj, B. Gediga, A. Kosicki, R. Szwed, L. Żygadło, Badania ratownicze na stanowisku Milejowice, pow. Wrocław w latach 1999–2001, Śląskie Sprawozdania Archeologiczne 44, 235–251.Instytut Archeologii Uniwersytetu Wrocławskiego, Wrocław, 2002.

Bugaj/Kopiasz 2006 E. Bugaj, J. Kopiasz, Próba interpretacji zabudowy osady z wczesnej epoki żelaza na stanowisku Milejowice 19, pow. wrocławski, in B. Gediga, W. Piotrowski (eds), *Architektura i budownictwo epoki brązu i wczesnych okresów epoki żelaza w Europie Środkowej Problemy rekonstrukcji,* 175–207, Wrocław, Instytut Archeologii i Etnologii PAN; Biskupin, Muzeum Archeologiczne, 2006.

Ghyka 2006 M. C. Ghyka, *Złota liczba. Rytuały i rytmy pitagorejskie w rozwoju cywilizacji zachodniej*. Universitas, Kraków, 2006.

Gralak 2010 T. Gralak, Osadnictwo ludności kultury łużyckiej ze stanowiska Wojkowice 15, gm. Żórawina, pow. Wrocław, [in:] B. Gediga (ed.) *Archeologiczne Zeszyty Autostradowe* 10, part VIII, 7–260, Wrocław, Instytut Archeologii i Etnologii PAN, 2010.

Gralack 2013 T. Gralak, Architektur, Masse und Dekore wahrend der Hallstatt-C – Periode in Niederschlesien, *Faszinosum Lausitzer Kultur. Zählen, Zahlen, Zeit und*

[32] Mierzwiński 1989, p. 187, Fig. 1.

[33] Härke 1979, 238–239, Figs 57–58.

https://biblioteca-digitala.ro

Kalendar, Heft 4, 62–72, Schriftenreihe der Spreewälder Kulturstiftung Burg-Müschen, 2013.

Härke 1979 — H. Härke, Settlement types and Patterns in the west Hallstatt province, *BAR, International Series* 57, Oxford, 1979.

Homer 1924 — Homer, *The Iliad with an English Translation by A.T. Murray, Ph.D. in two volumes,* Cambridge, MA., Harvard University Press; London, William Heinemann, Ltd. 1924.

Kopiasz 2003 — J. Kopiasz, Osada kultury łużyckiej na wielokulturowym stanowisku Stary Śleszów 17, powiat Wrocław, [in:] B. Gediga (ed.), *Archeologiczne Zeszyty Autostradowe, 2, Badania na autostradzie A4, part I,* 101–225. Wrocław, Instytut Archeologii i Etnologii PAN, 2003.

Kopiasz 2008 — J. Kopiasz, Ceramika „prestiżowa" jako wyraz struktury społecznej mieszkańców osady z okresu halsztackiego w Milejowicach, pow. Wrocław, [in:] B. Gediga, W. Piotrowski (eds), *Sztuka pradziejowa i wczesnośredniowieczna jako źródło historyczne,* 211–228, Wrocław, Instytut Archeologii i Etnologii PAN; Biskupin, Muzeum Archeologiczne, 2008.

Kula 2004 — W. Kula, *Miary i ludzie,* Książka i Wiedza, Warszawa, 2004.

Mierzwiński 1989 — A. Mierzwiński, Funkcja grodów kultury łużyckiej w świetle badań tych obiektów na Śląsku [in:] B. Gediga (ed.) *Studia nad grodami epoki brązu i wczesnej epoki żelaza w Europie Środkowej,* 185–207. Ossolineum, Wrocław-Warszawa-Kraków-Gdańsk-Łódź, 1989.

Pare 1992 — C. F. E. Pare, *Wagons and Wagon-Graves of the Early Iron Age in Central Europe*, Oxford Committe for Archaeology, Oxford, 1992.

Plato 1903 — Plato, *Meno.* Platonis Opera, ed. John Burnet. Oxford, University Press. 1903.

Randsborg 2011 — K. Randsborg*, Bronze age measures, Aegean, European and Nordic. Acta Archaeologica 82,* 181–202, 2011.

Tatarkiewicz 1962 — W. Tatarkiewicz, *Estetyka Starożytna. Wydanie drugie przejrzane i uzupełnione,* Ossolineum, Wrocław-Warszawa-Kraków, 1962.

CHIEFTAINS' FARMSTEADS FROM THE HALLSTATT C PERIOD IN SILESIA REGION IN POLAND

(Abstract)

In recent years, in the area of Lower Silesia (Dolny Śląsk) in Poland, several structures dated to the Hallstatt period, called chieftain's farmstead or *Herrenhof* were found. They were settlements composed of several buildings arranged around an empty square enclosed by a palisade or a ditch. The number of discovered sites suggests that this was a commonly used form of rural space organization.

The comparative analysis showed that in the case of sites in Lower Silesia these settlements were characterized by repeating structure and layout. A metrological analysis was also undertaken. It was found that a repeating length measurement unit, which was approximately 0.785 m, was applied for both the layout of individual buildings as well as for the arrangement of the whole farmstead area. It was also noted for the layout of the buildings repeating modules were used: a square with side of 4 × 4 units long and a rectangle with sides of 4 × 3 units long. Meanwhile, for determination of the farmstead size only square modules with side of 12 × 12 units were used.

Genetically this type of settlement derived from the Hallstatt culture circle – they are commonly found in the upper Danube River zone. Some further similarities were also noted. Both in the area of Silesia as well as in Southern Germany three main settlement forms were found: large fortified settlements, chieftains' farmsteads and open settlements.

https://biblioteca-digitala.ro

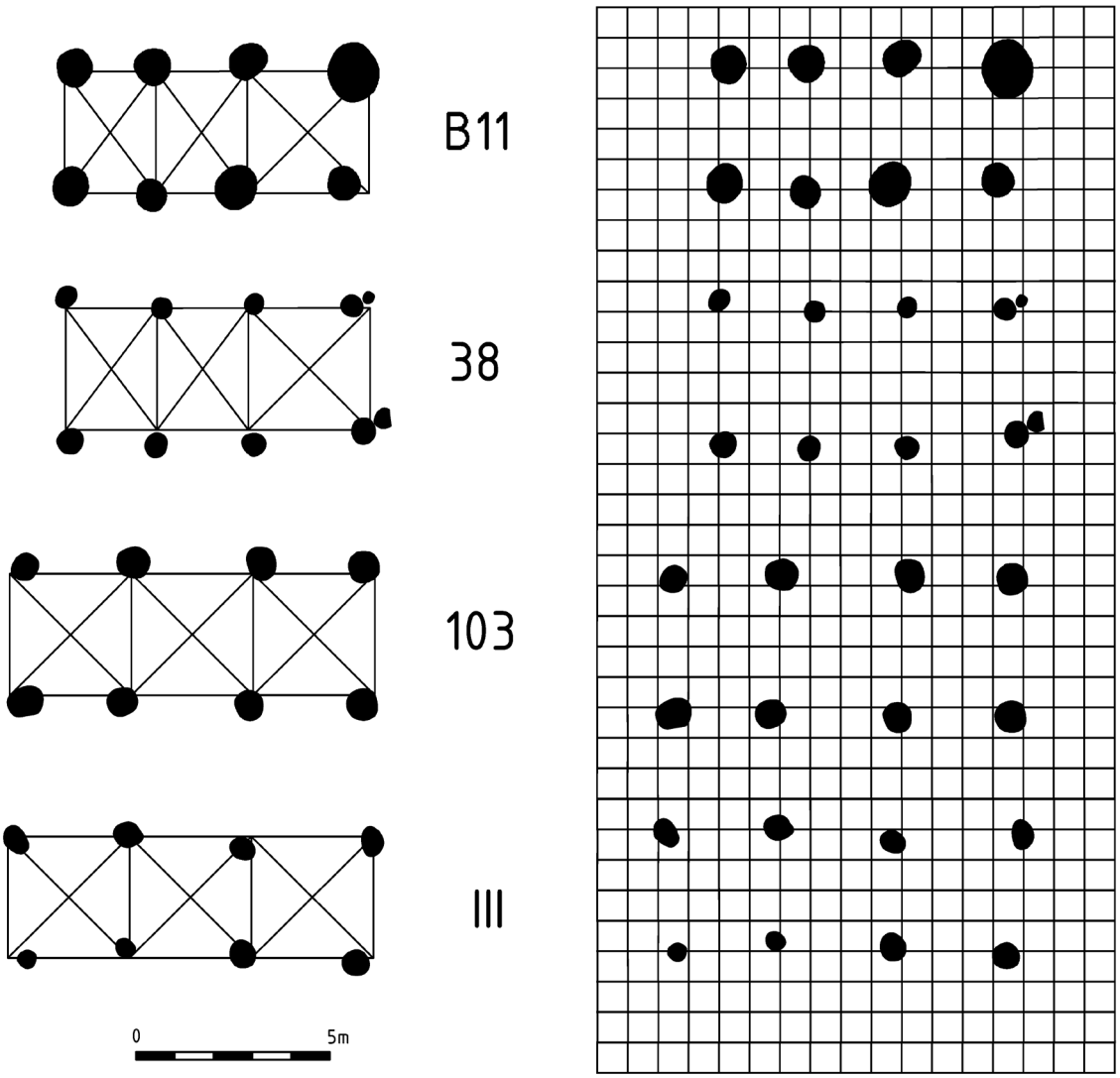

Fig. 1. Wojkowice 15, Wrocław district. A – plans of buildings B48, B8, B7, B9 on the graph with grid of 0.785 m, B construction modules. *After T. Gralak 2010.*

https://biblioteca-digitala.ro

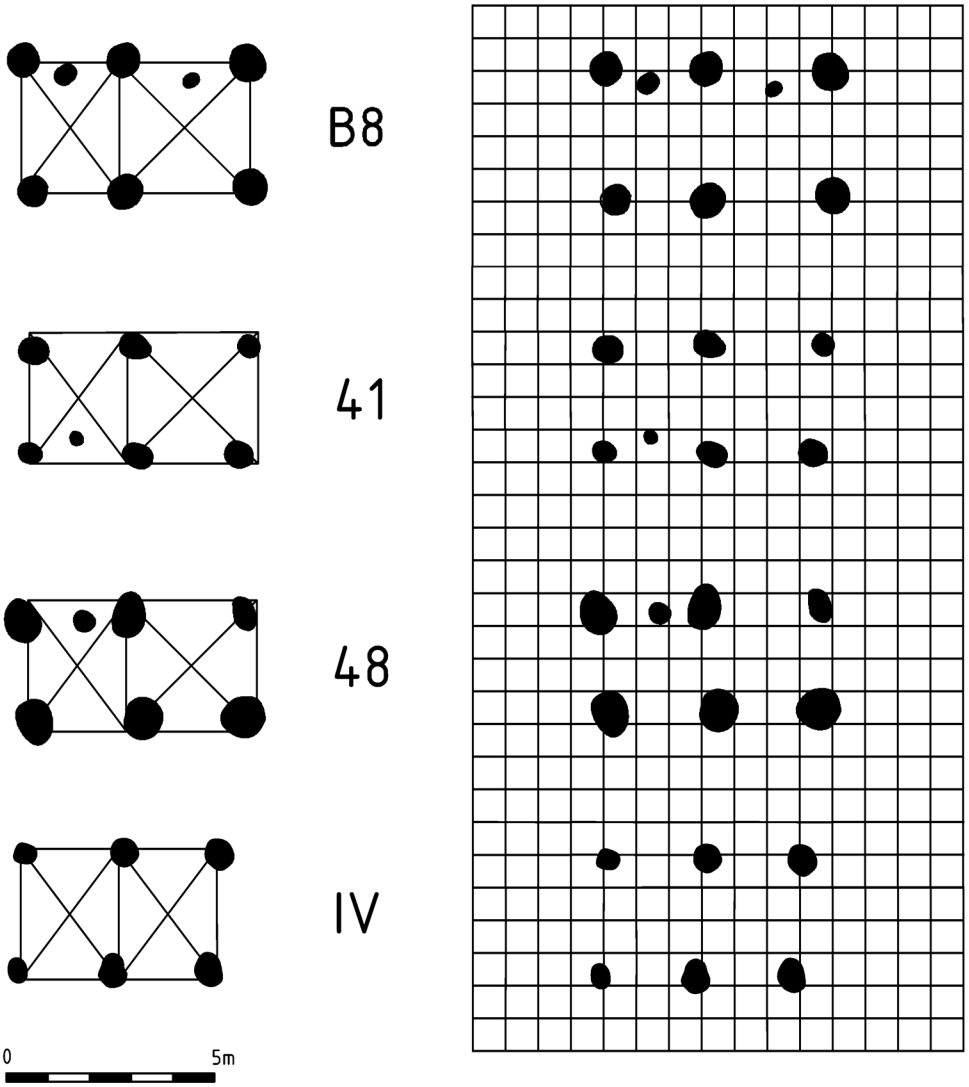

Fig. 2. Plans of row post construction on the graph with grid of 0.785 m and determined construction modules. Wojkowice 15, Wrocław district: building B8; Milejowice 19, Wrocław district: buildings 41, 48; Stary Śleszów 17, Wrocław district: buildings IV,. *After T. Gralak 2013.*

https://biblioteca-digitala.ro

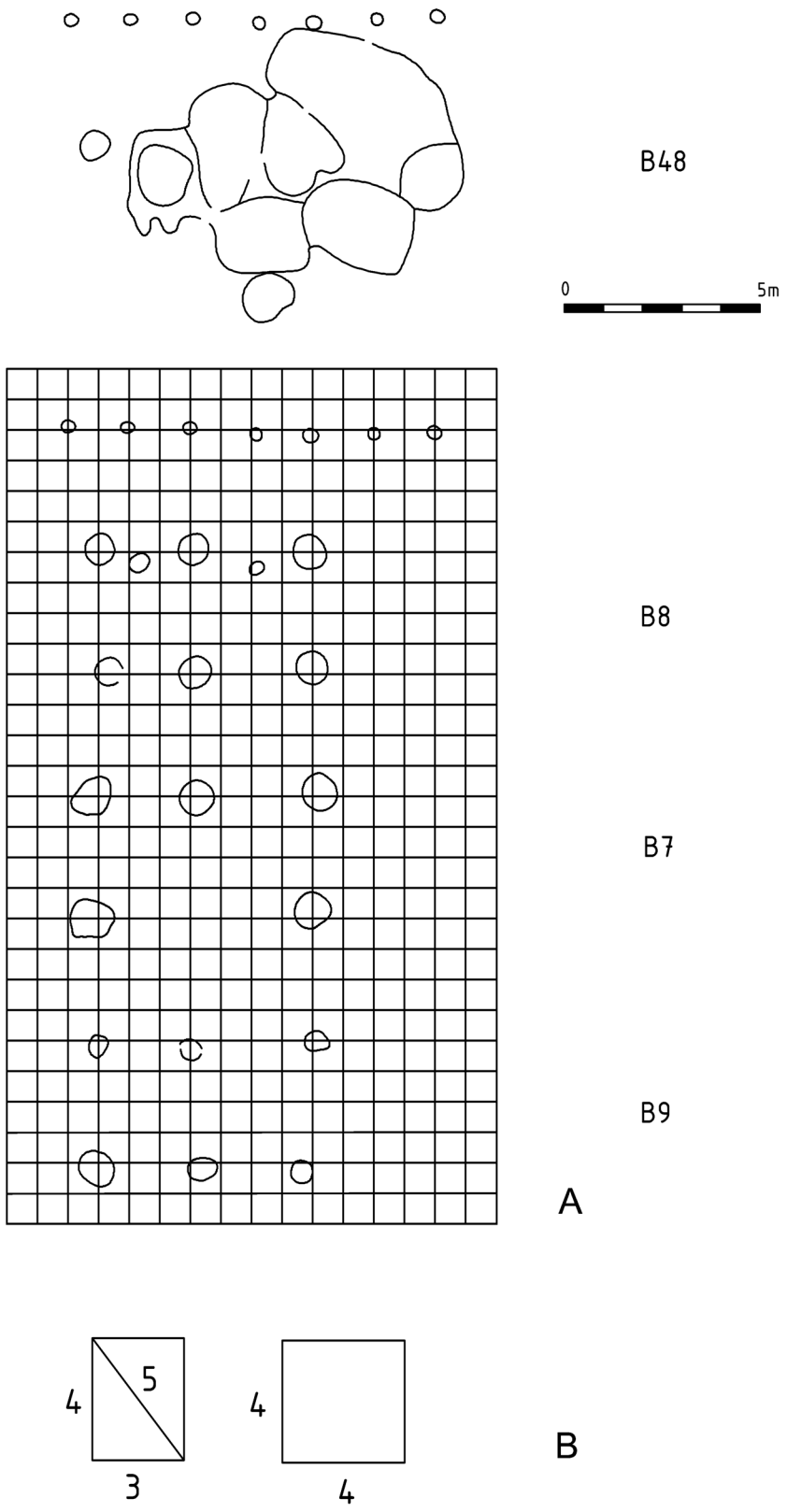

Fig. 3. Plans of row post construction on the graph with grid of 0.785 m and determined construction modules. Wojkowice 15, Wrocław district building B11; Milejowice 19, Wrocław district, buildings 38, 103, Stary Śleszów 17, Wrocław district, building III. *After T. Gralak 2013.*

https://biblioteca-digitala.ro

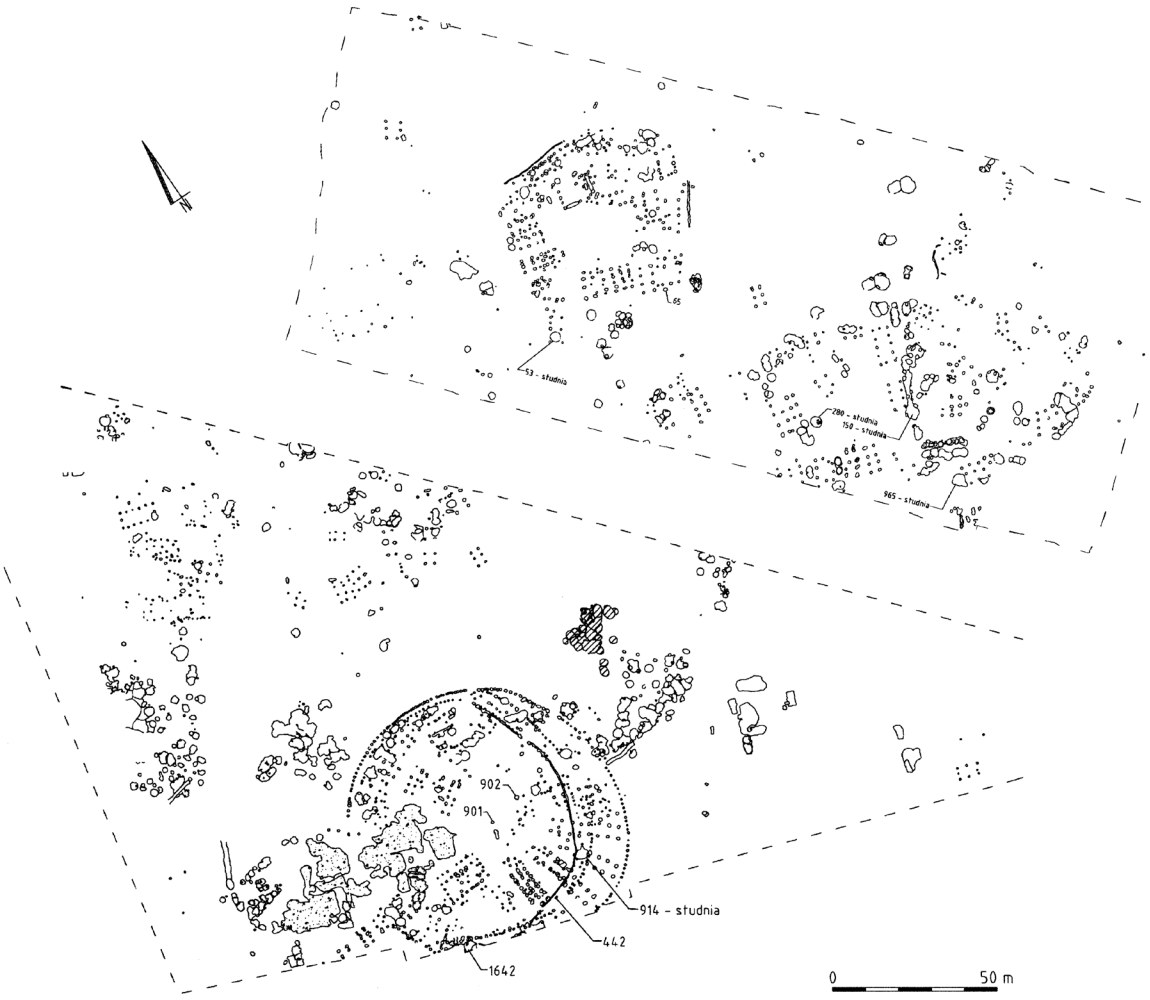

Fig. 4. A – Wojkowice 15, Wrocław district. Layout of the settlement on the graph with grid of 12 × 12 units. B – Stary Śleszów 17, Wrocław district. Layout of the settlement and reconstruction of method of designing the course of palisade on the graph with grid of 24 × 24 units. One grid consists of 4 square modules 12 × 12 units. *After T. Gralak 2010, 2013.*

https://biblioteca-digitala.ro

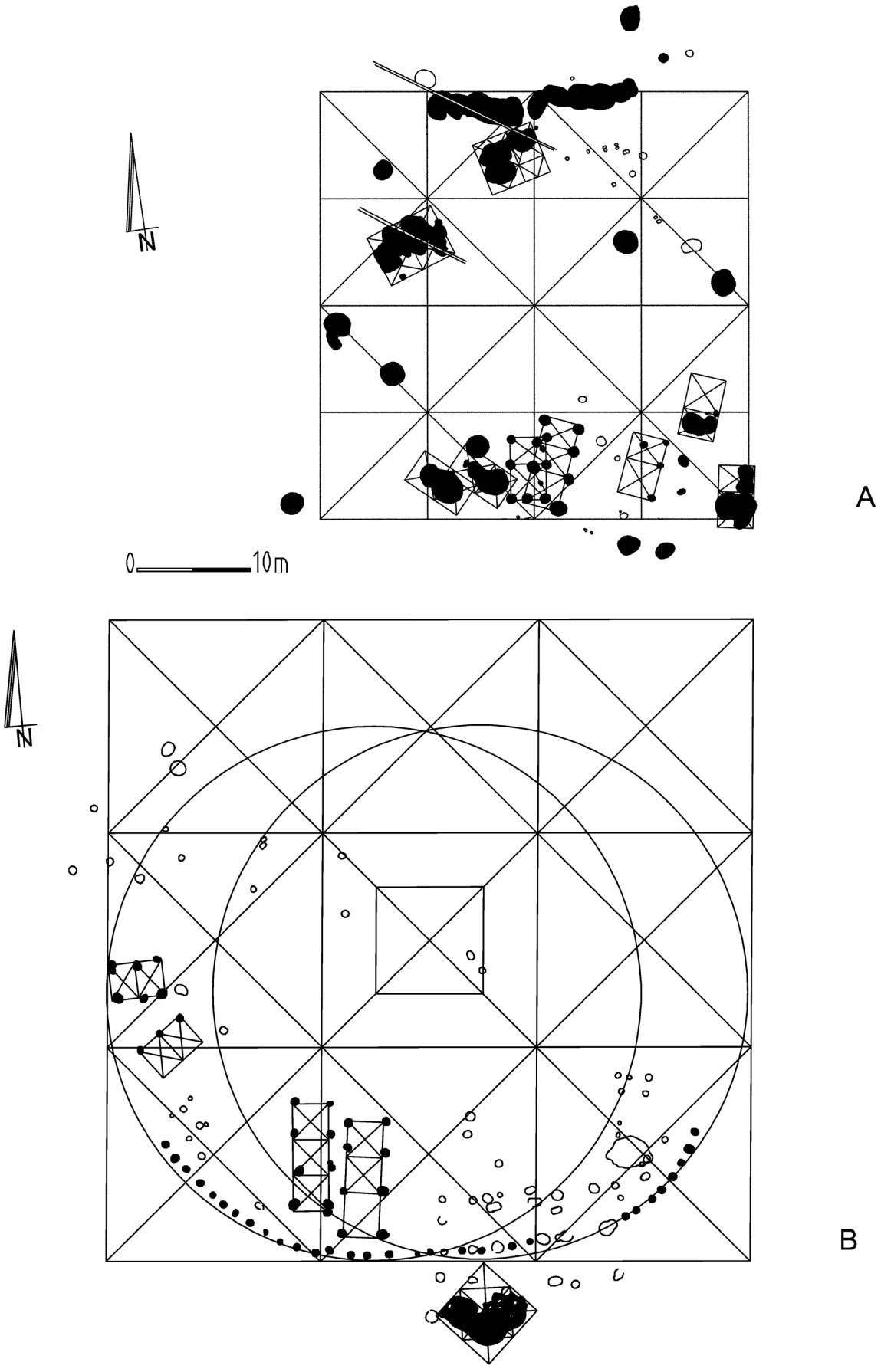

Fig. 5. Milejowice 19, Wrocław district. Plan of the site. *After E. Bugaj, B. Gediga 2004.*

https://biblioteca-digitala.ro

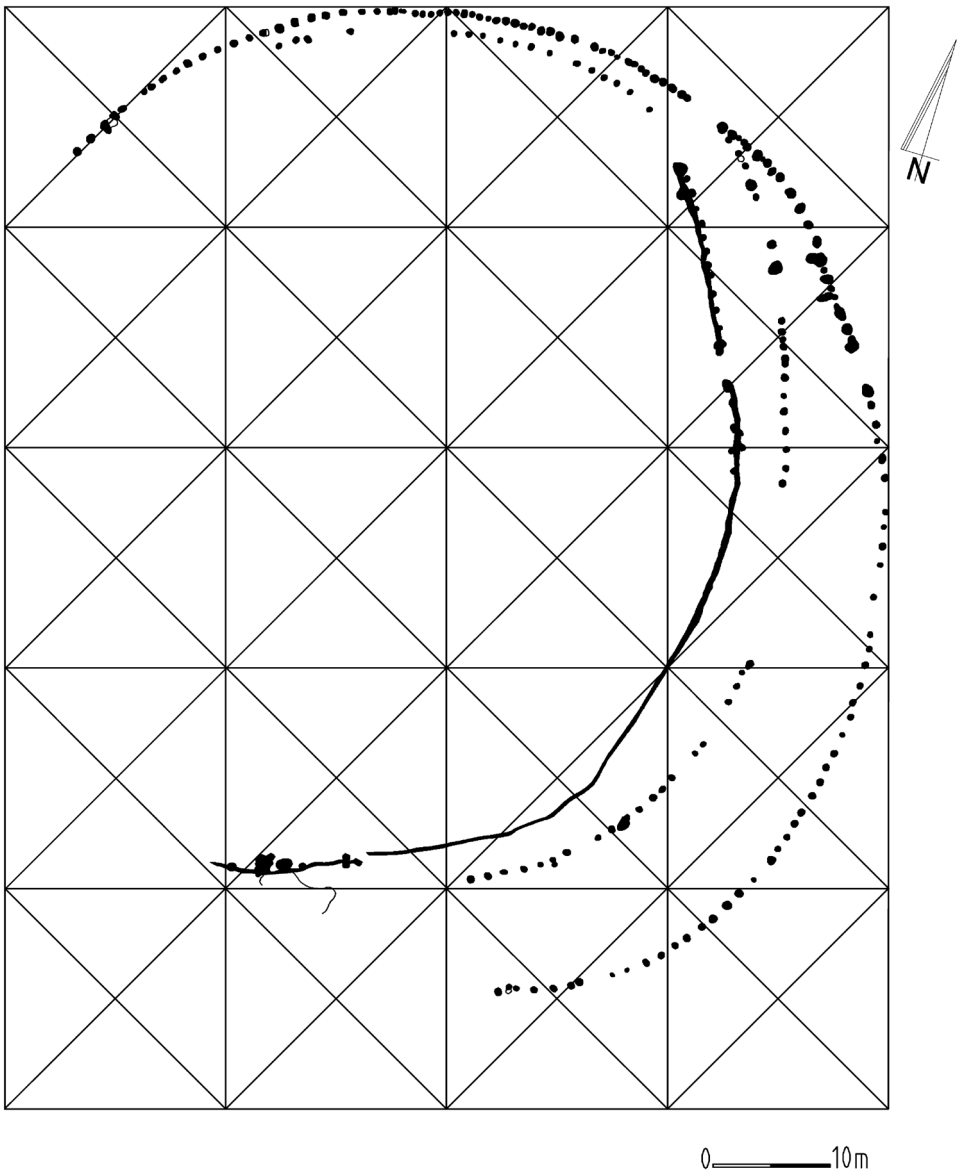

Fig. 6. Milejowice 19, Wrocław district. Layout of the settlement and reconstruction of method of designing the course of palisade on the graph with grid of 24 × 24 units. One grid consists of 4 square modules 12 × 12 units. *After T. Gralak 2013.*

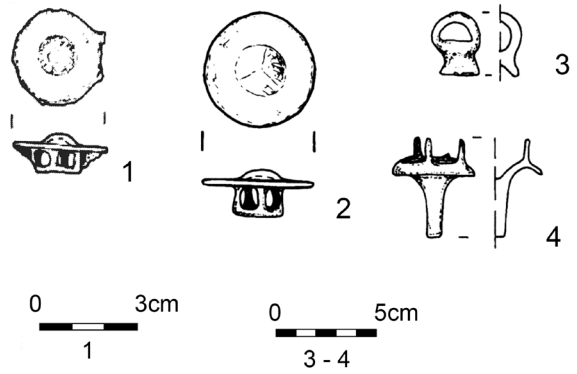

Fig. 7. Division of the square with four feet side after the dialogue 'Meno'(82b–85b).

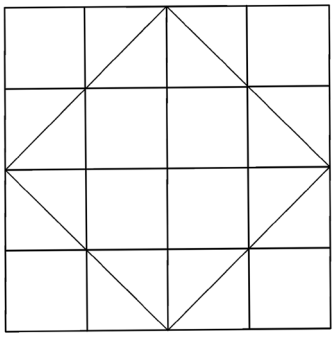

Fig. 8. Milejowice 19, Wrocław district. Elements of the horse gear. *1 after E. Bugaj, B. Gediga 2004, 2 after E. Bugaj et alii 2002.*

https://biblioteca-digitala.ro