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## SPATIAL-FUNCTIONAL ARRANGEMENT OF MAGDALENIAN CAMP AT DZIERŻYŚLAW IN UPPER SILESIA (POLAND)

**ABSTRACT:** *The Moravian Gate is one of the main migration routes of Central Europe. One of the most significant sites dating to the Magdalenian in the Moravian Gate area is Dzierżysław 35 on the Głubczyce Plateau. A seasonal base camp used several times by facies à triangles huntergatherers. Two distinct sections of the camp may be discerned – southern, with a dwelling and concentrations of artefacts, bones and stones, and northern, not as rich, with flint concentrations. Most probably the two sections had been used at different times. Analysis of finds, including use-wear examination, does not reveal major differentiation in function of individual concentrations. Former workshops are the easiest to identify.*

**KEY WORDS:** *Magdalenian – Upper Silesia – Campsite – Spatial arrangement – Function – Settlement stages*

### INTRODUCTION

The Moravian Gate – the gap between the Carpathian and Sudeten Mountains bisected by the Oder River – is one of the main migration routes of Central Europe, connecting the lands to their north and south. During the Pleistocene the Moravian Gate served as a corridor between Silesia in the north and Moravia (and southernmost part of Silesia) in the south.

These connections are visible from the Middle Palaeolithic onward. The areas on the northern side of

the Moravian Gate made the periphery of human settlement whose core lay on the southern side of the mountains. This is very well exemplified by various Middle Palaeolithic and Gravettian sites (Ginter 1966, Bobak, Połtowicz-Bobak 2010, Wiśniewski *et al.* 2015, Wiśniewski, Połtowicz-Bobak 2014). The Głubczyce Plateau and Racibórz Basin were chiefly used for hunting and for procurement of flint. Such visits left behind traces in the form of short-lived camps and as well as rich sites created during multiple stays by the same human groups e.g. the seletian site Lubotyń 11

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(Połtowicz-Bobak *et al.* 2013, Bobak *et al.* 2016) or Dzierżysław 1 (Fajer *et al.* 2005). The best explored workshop was the rich Micoquian site at Pietraszyn 49a (Wiśniewski *et al.* 2019), probably connected to the Pietraszyn 49 site (Fajer *et al.* 2001). Most of the Magdalenian sites in this area identified to date have been identified as being either short-lasting camps or workshops (Ginter 1974, Połtowicz-Bobak 2013).

In this context one should take note of the Magdalenian site Dzierżysław 35 on the Głubczyce Plateau (Figure 1), one of the most significant sites from this cultural complex found in the eastern reaches of Central Europe (Ginter *et al.* 2002, 2005). It is noteworthy for being the first camp which may be considered to be a seasonal base camp. It also is noteworthy for its size and good state of preservation.

This site was discovered in 1996 by M. Gedl from the IA UJ and subsequently explored in 1997–2005 by the authors of this paper. During this time over 400 m<sup>2</sup> (Figure 2) had been explored, uncovering a well

preserved camp with a dwelling as well as over 20 concentrations of artefacts made with the knapping technique.

### The site

The site is located on a terrace above the floor of the – nowadays minor – Morawka River inside one of its paleomeanders. Today its average morphological elevation above the contemporary valley floor is about one metre, while it had been c. 3 metres above it during the Palaeolithic (Ginter *et al.* 2005). The valley floor is filled with alluvial gravel sediment topped with sand and dust sediment deposited on the secondary deposit. These layers are in turn covered by a black organic layer formed in later times, and which in turn is overlain with dust sediment as well as contemporary plough soil (*ibid.*).

When the site was in use its "living floor" had been redeposited loess. The original cultural layer was deposited on top of it and today is overlain with

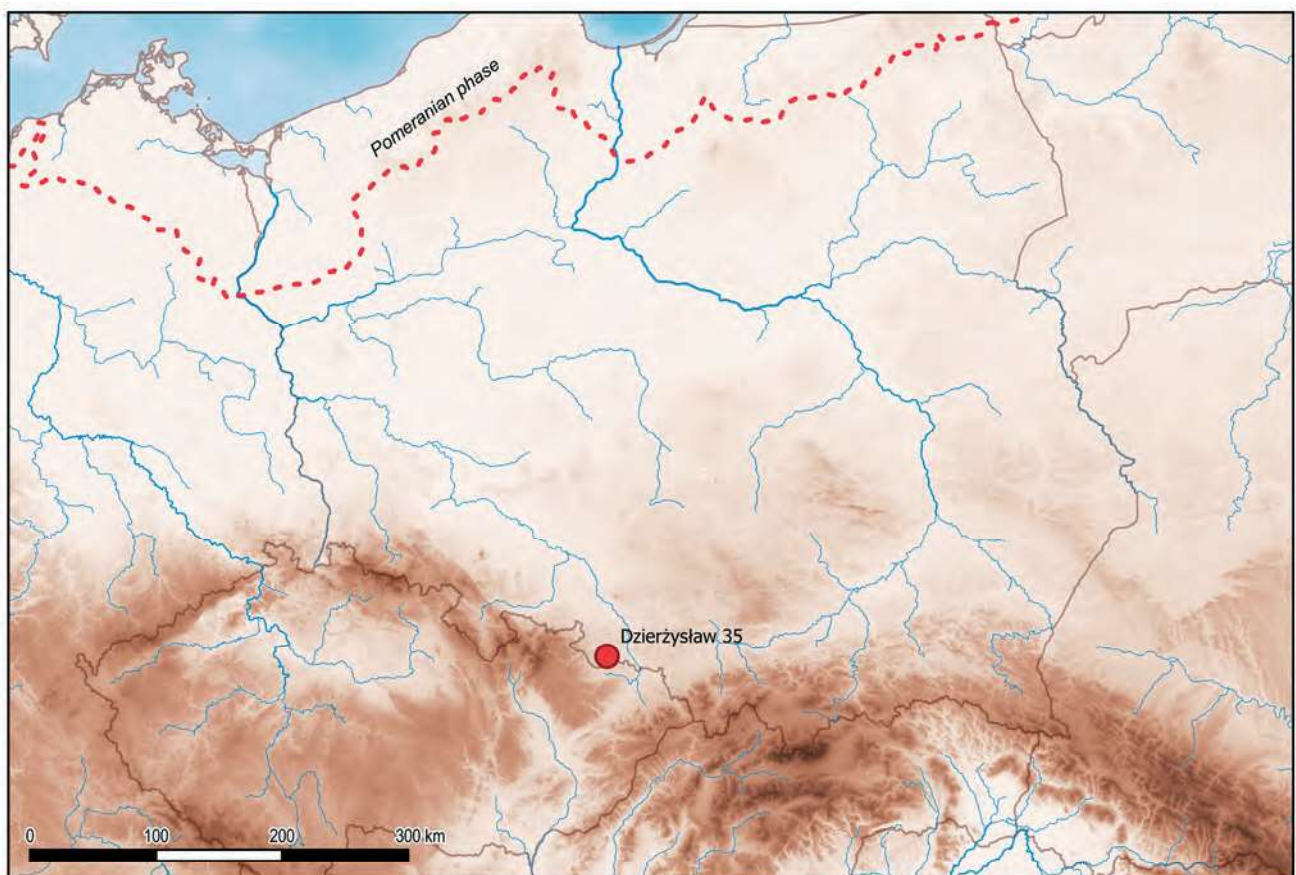


FIGURE 1: Dzierżysław 35. Location of site in Poland (ill. D. Bobak).

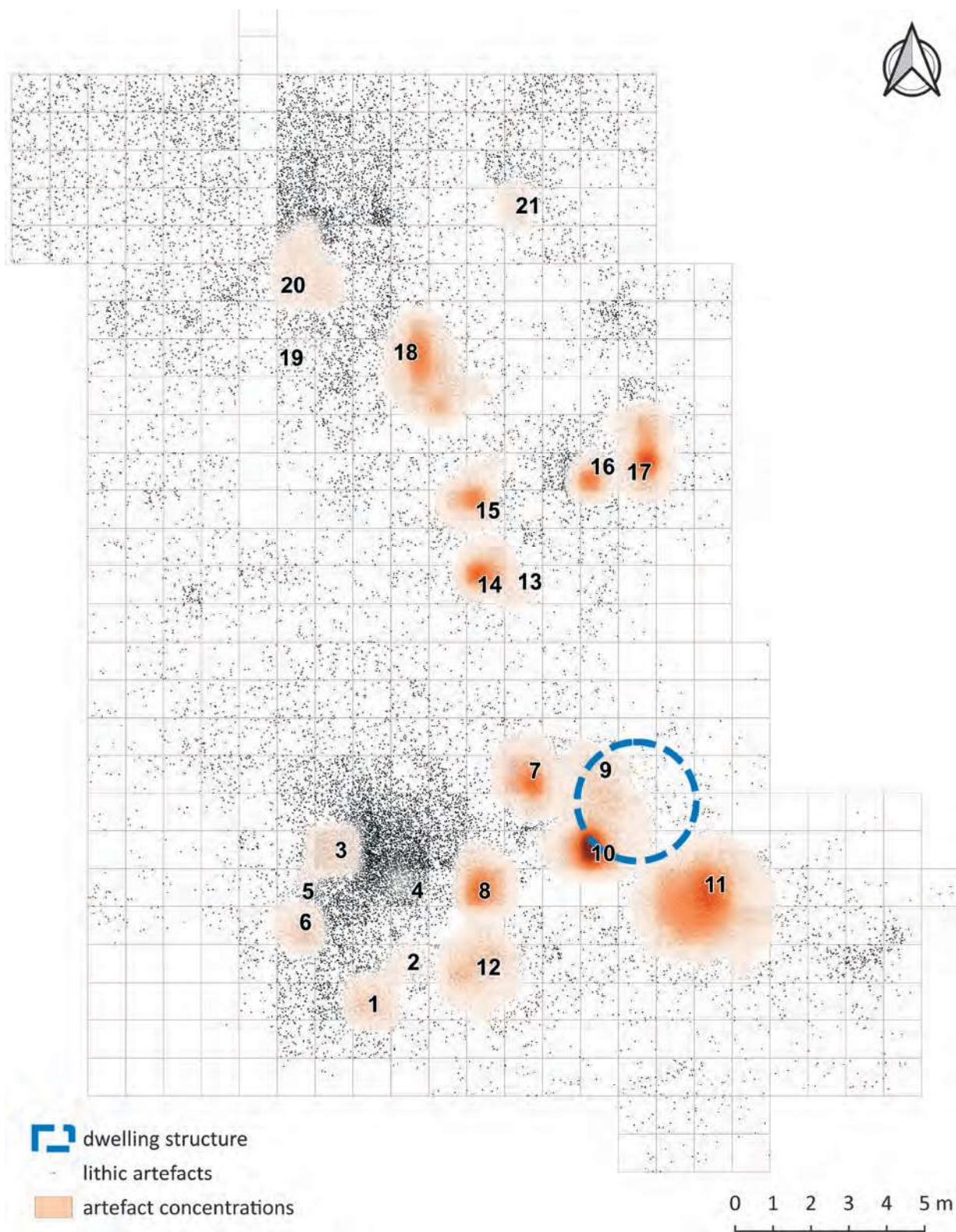


FIGURE 2: Dzierżysław 35. site map (showing the dwelling and concentrations) (ill. D. Bobak).



black bog soil (*Figure 3*). The artefacts discovered on this layer were in situ; those excavated from upper layers had been relocated through post-deposition processes.

#### Arrangement of the site

The organisation of the site is typical of a Magdalenian seasonal camp. The artefact concentrations are separated by spaces containing few, scattered finds. Some of these finds are doubtlessly embedded in the secondary deposits and originally may have made part of the concentrations. The artefact concentrations vary widely in terms of both number of finds and their composition. The largest concentration covered an area of over 8 m<sup>2</sup> and held over 4,000 artefacts, whereas the smallest concentrations contained a mere few score of finds (*Table 1*). The lithic artefacts may be categorised by the incidence of contained cores and various tool types. The observed differences in shares of tool types chiefly concern the

three most numerous groups: microliths, burins and perforators. Besides concentrations exclusively composed of lithic artefacts, we also find concentrations of flint and accompanying stones – pebbles or, less commonly stone tiles and burned bones (e.g. concentration no. 11). Burned bone finds are notable for being limited to a few well defined locations, the same applying to ochre lumps, both being important indicators in analysing what individual parts of the site had been used for.

Not all concentrations and not all sections of the site are easy to unequivocally interpret as to what function they once played. Nevertheless the character and composition of concentrations allows, in some cases at least, for attempts at such, as well as drawing hypothesis as to the spatial arrangement of the camp. Here one should bear in mind that the image projected by the camp is doubtlessly the product of more than a single visit of hunters and gatherers to this site. Such visits took place at intervals which today are impossible



FIGURE 3: Dzierżysław 35. Profile (foto B. Ginter).

	C1	C2	C3	C6	C7	C8	C11	C12	C14	C15	C16	C17	C18	C19	C21
<b>Sum of artefacts</b>	252 (1.58%)	55 (10.9%)	155 (88.38%)	202 (88.11%)	1045 (1.05%)	1133 (0.88%)	4145 (0.82%)	787 (2.79%)	688 (1.01%)	608 (0.49%)	465 (0.43%)	1783 (0.84%)	2172 (0.64%)	34 (11.76%)	88
<b>Cores</b>	197 (78.17%)	39 (70.90%)	137 (88.38%)	178 (88.11%)	946 (90.52%)	1020 (90.02%)	3559 (85.86%)	667 (84.75%)	605 (87.93%)	579 (95.23%)	443 (95.26%)	1674 (93.88%)	2060 (94.84%)	25 (73.52%)	83 (94.31%)
<b>Debitage</b>	41 (16.26%)	7 (12.72%)	15 (9.67%)	20 (9.90%)	75 (7.17%)	65 (30.73%)	380 (9.16%)	73 (9.27%)	53 (7.70%)	26 (4.27%)	13 (2.79%)	95 (5.32%)	99 (4.55%)	5 (14.70%)	5 (5.68%)
<b>Tools</b>	7 (17.07%)	3 (42.85%)	3 (20%)	3 (15%)	12 (16%)	15 (23.07%)	95 (25.0%)	25 (34.24%)	11 (20.75%)	6 (23.07%)	3 (23.07%)	26 (27.36%)	24 (24.24%)	1 (20%)	0
<b>Burins</b>	9 (21.95%), (including triangles)	1 (14.28%)	5 (33.33%), triangles	7 (35%), triangles	29 (38.66%), triangles	13 (20.0%), triangles	69 (18.15%), triangles	15 (20.54%), triangles	9 (16.98%), triangles	7 (26.92%), triangles	1 (7.06%), triangles	11 (11.57%), triangles	32 (32.32%), triangles	4 (80%), triangles	1 (20%), triangles
<b>Perforators</b>	7 (17.07%)	0	0	1 (5.0%)	3 (4.0%)	13 (21.53%)	83 (21.84%)	4 (5.47%)	11 (20.75%)	0	0	16 (16.84%)	13 (13.13%)	0	1 (20%)
<b>Endscrapers</b>	0	0	0	0	0	3 (4.6%)	8 (2.10%)	0	5 (9.43%)	0	0	4 (4.21%)	0	0	0
<b>Others</b>	18 (43.90%), triangles	3 (42.85%)	7 (46.66%)	9 (45.0%)	31 (41.33%)	20 (30.76%)	29 (7.63%)	6 (8.21%)	17 (32.07%)	13 (50%)	9 (69.23%)	38 (40%)	30 (30.30%)	0	3 (60%)
<b>Burins spalls</b>	9 (3.57%)	2 (3.63%)	2 (1.29%)	3 (1.48%)	12 (1.14%)	35 (3.08%)	158 (3.81%)	25 (3.17%)	20 (2.90%)	14 (2.30%)	5 (1.07%)	23 (1.28%)	26 (1.19%)	0	0
<b>Microburins</b>	0	0	0	0	1 (0.09%)	3 (0.26%)	3 (0.07%)	0	3 (0.43%)	0	2 (0.43%)	15 (0.83%)	3 (0.13%)	0	1 (1.13%)

Table 1: Breakdown of concentrations (% next to tool category denotes category's share in total tools).

for us to determine, albeit some, at least, probably occurred relatively close to one another. Asserting whether those hunter bands had been composed by the same individuals or not is more difficult. The hunters did represent the same tradition, i.e. Magdalenian à *triangles scalènes*, hence, even if the hunter groups using the camp site were not made up of the same individuals these still were drawn from the same community. Another question concerns the chronological relationships between various parts of the site – was the whole area of the camp in use at the same time, or is it possible to identify portions which were used in different periods?

### Space and functional organisation

In the eastern part of the camp we found a structure interpreted as a dwelling. The preserved post holes as well as the arrangement of artefacts allows us to forward the hypothesis that these made part of an oval or polygonal structure – possibly akin to a yurt or tepee – with a central pillar. A feature worthy of note is the meticulous arrangement of stones reinforcing the central pillar. At least part of the remaining post holes also were lined with stones. The arrangement of the holes suggests that the shelter was pitched several times, probably in different phases of the site's occupation. The area inside the dwelling was about nine m<sup>2</sup> (Figures 4, 5).

It is possible to analyse the use of space inside the dwelling. The first thing that meets the eye is its division into work and leisure areas. The latter is located in the eastern part of the dwelling, under the "wall", whereas signs of various activities are concentrated in the west, next to the entrance, and then extending deeper inside the shelter. The interior yielded few artefacts however – some tools and debitage. Such a division of the interior, with clearly defined work and leisure areas have been observed at various Magdalenian sites from Central and Western Europe, including such well known sites as the camps at Gönnersdorf in Germany or various sites in the Parisian Basin (Pincevent) (Julien *et al.* 1987, Holzkämper 2006). We wish to bring special attention to a quite unique discovery – in the centre of the dwelling, below the habitation level we excavated two deposits containing mostly raw material and cores

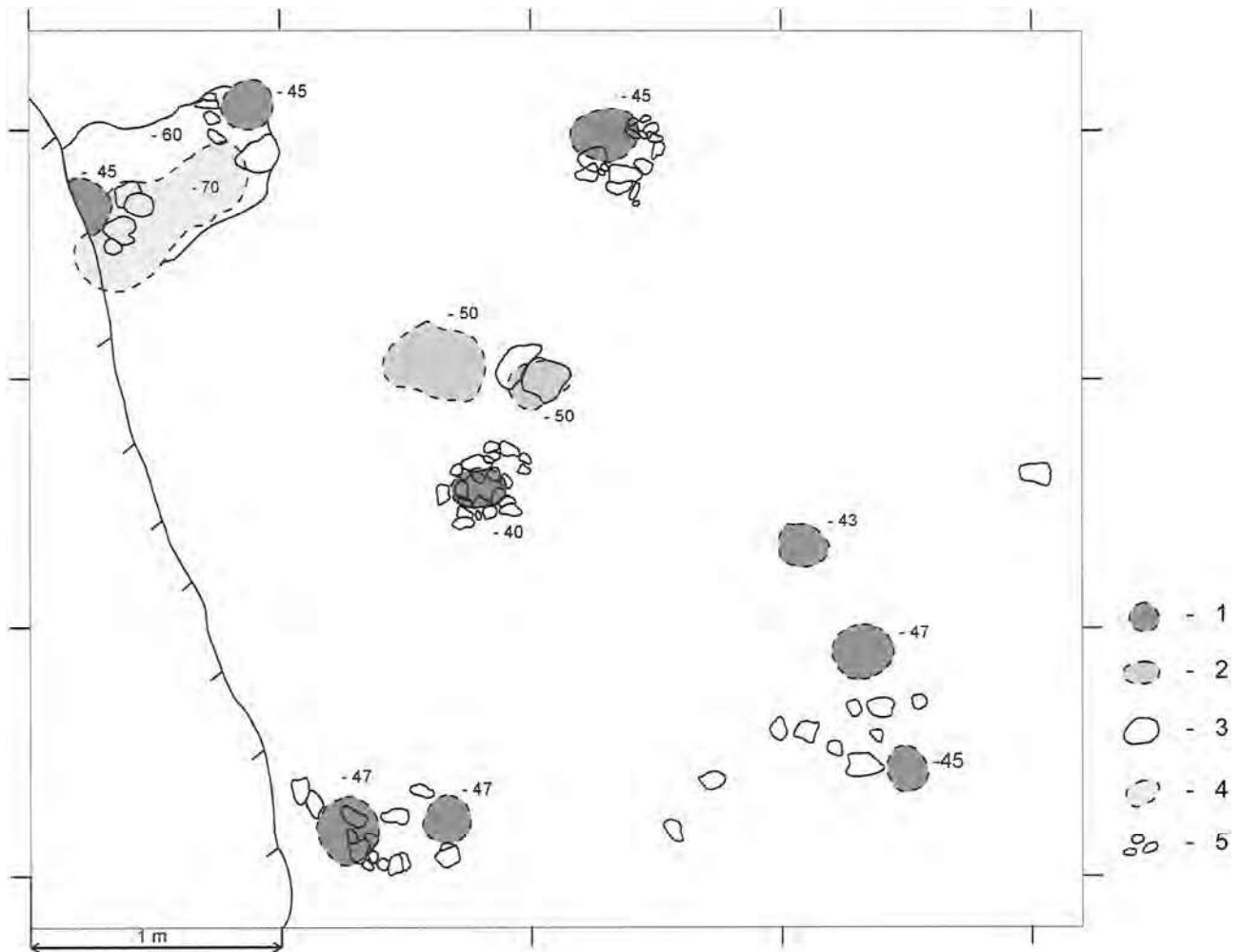


FIGURE 4: Plan of dwelling. 1 – postholes, 2 – hoarts, 3 – pit up to 60 cm depth, 4 – pit up to 70 cm depth, 5 – stones (ill. E. Pohorska-Kleja).

(Ginter, Połtowicz-Bobak 2008). These evidently are stocks of raw materials for the preparation of blanks and tools, thus pointing towards the site being not only occupied for longer periods, but also repeatedly, i.e. evidence for so-called returns of the hunter-gatherers. Interestingly these hoards are composed exclusively of erratics flint, gathered locally at outcrops in the camp's vicinity. Hence this is not an instance of stockpiling valuable imported raw materials, but rocks serving as basis for the lithic industry.

Two particularly significant structures are located directly in front of the dwelling. The first is a fireplace – at the dwelling's entrance – identified from charred bones and stones. The second is a hematite filled pit where – besides a *triangle scalène* made from imported radiolarite – the bones and a tooth of a young

mammoth were found. This pit merits interest for several reasons. It is extremely interesting that the pit is located directly alongside the dwelling's wall, even partly underneath it, and that it had been dug before the shelter had been raised. In this context the nature of the pit's contents become particularly significant – principally bones and hematite dust. It is commonly held that hematite, beside practical uses, also has symbolic relevance – and not only in the Magdalenian culture but earlier as well. The most visible sign of this is the use of hematite in burials. Finding evidence for an analogous, symbolic usage of bones is harder, although the placement of animal bones in graves could be suggestive of such. A distant, yet highly suggestive analogy might be the remains of a child found at Wilczyce. These were uncovered in a frost-





FIGURE 5: Post hole (foto B. Ginter).

wedge pseudomorph, together with animal bones and a – doubtlessly valuable – animal-teeth necklace. The bones of the child and accompanying artefacts were found close together, in a small area, probably originally placed under a dwelling's floor. All these features make it possible to interpret the find as being an example of some ritualistic activity (Irish 2014).

Interpretation of the aforementioned pit from Dzierżysław raises several questions. Its highly specific, evidently pre-selected contents and the fact that the pit had been filled-in before the construction of the shelter leads to the question whether it could be assigned to the category of some sort of "ritual / symbolic behaviour" whose meaning is difficult to grasp today. The finds yielded by the pit might not be as spectacular as those from Wilczyce, but their character and apparent connections support the thesis that this might be an example of something more than just a simple

storage pit. Naturally it cannot be ruled that the pit was indeed used for purely practical ends, and was dug at some earlier stage of the camp's existence, hence pre-dating the dwelling. Interpretation of the find is further muddled by no other residential structure being identified at the Dzierżysław site.

A fireplace was located immediately in front of the dwelling, with ample proof its existence being provided by a collection of small, strongly burned bones. Such placement is significant as it hints at the camp being occupied during the warmer part of the year – spring and summer. This is the sole piece of evidence allowing us to theorise on the possible seasons of the site's use; this was not possible using the most reliable method, i.e. going by specific features of animal remains. A similar relationship between fireplace and dwelling had been observed at Pincevent in the Parisian Basin (Julien 1988). Interestingly, no distinct concentration of finds near the fireplace was noted.

The dwelling was located at the topmost part of a promontory inclined towards the river. Several concentrations of finds of varying size and structure were excavated near the shelter (table 1), with further concentrations being found to its north. The main differences between various concentrations are the shares of cores and the ratios between the three most numerous types of tools: burins, microliths and perforators. The largest concentration, to the east of the fireplace, besides over 4000 artefacts also yielded stones, burned bones as well as ochre stains and clumps. Looking at its composition we note that the share of tools is relatively high – over 9%, while that of cores is 1% – the latter being an incidence typical of this site. Among tools we note a high share of the three most important tool types, with the percentage of microliths being lower (c. 18%) than that of burins (c. 25%) or perforators (c. 21%, including perforators' tips). The fourth most numerous group was that of retouched flakes and blades (c. 25%). Use-wear analysis points to the site of this concentration to have been used chiefly to work hides plus some work on bones and antlers (Ginter *et al.* 2002, 2005). These activities may be related with the presence of hematite stains and heavily ground-down clumps, and probably also with the identified remnants of two fireplaces. Also connected with the aforementioned tasks were the numerous burins and perforators, as well as retouched blades and flakes. The latter were used in identical manner to scrapers, thus possibly explaining the low number of scrapers found at Dzierżysław.

The fireplaces are difficult to reconstruct. It is likely that at least part of the stones scattered loosely across

the concentrations originally had been used in their construction. These features – the numerous charred bones and stones, as well as the co-existing numerous finds of flint artefacts and pigment fragments meet the definition of "dwelling hearth" as coined for Parisian Basin sites by M. Olive and M. Julien (Julien *et al.* 1987, Julien 1988, Olive 1997). Such hearths were not linked with specific tasks but tended to be non-specialised, used for various household activities requiring a fire, such as repairing weapons, working hides, or butchering meat. These hearths are located near the dwelling, to its rear.

The high "ochre" content inside this concentration seems to be due to more than just its use for tanning hides. It is highly likely that at this location the lumps and fragments of hematite were used in the production of artistic items – of ornaments and probably other objects which may be described as "portable art objects". The most important is a figurine interpreted as depicting a woman, as well as fragments of tiles bearing marks of forming or ornamentation. The most spectacular finds were a hematite pendant and a bead fragment. All these finds are damaged.

In the southern section of the site we may identify at least two small workshops – such a purpose being discerned chiefly from a higher than average share of cores. In the case of the richest of the "workshop" concentrations (concentration no. 12) this share reaches almost 3% (while the average does not exceed 1%); it is accompanied by a relatively numerous debitage and relatively few tools, chiefly burins and microliths. The much less numerous concentration no. 2 has a share of cores of almost 11%. One more workshop is located in the camp's northern section (concentration no. 19) at a fair distance from the dwelling.

For most of the concentrations it is difficult to determine what exactly had been their main function. It is possible that the area occupied by a small concentration located in front of the dwelling (concentration no. 7) might had been used for repairing weapons, as suggested by tool finds being dominated by microliths. Such an interpretation is supported by this concentration being located near the dwelling and fireplace, even if not directly around the latter as at e.g. Wierzawice in eastern Poland (Bobak *et al.* 2017). Another major grouping of microliths was discovered in the northern section of the site (concentration no. 18), and which does not include a fireplace.

In most concentrations we noted the parallel presence of three or four basic tool types, occasionally

with a slight numerical superiority of a single type and sharply lowered shares of the remaining types. It is difficult to establish the activities pursued at various parts of the camp while relying solely upon the presence and incidence of tool types. We can only theorise that the tasks involved were related with everyday life. Use-wear analysis identified the main activities to have involved the working of soft- hides, meat, and hard-organic materials – antlers or bone (Ginter *et al.* 2002, 2005). There are no signs of working wood, this being explicable by the climatic conditions of the Oldest Dryas. It is interesting that use-wear analysis of flint artefacts does not reveal any significant differences between activities performed at individual concentrations. Hence we end up gazing at a quite enigmatic image of a camp without defined areas dedicated to specific tasks. This extends to the working of organic materials. Practically the one and only activity that can be assigned to specific concentrations is the working of cores – their preparation and exploitation can be assigned to easily identifiable workshops.

#### Phases of the settlement

An issue worthy of pondering is the camp's spatial arrangement in the context of different stages of its use. It is beyond doubt that the Dzierżysław camp was used many times. However, it is very difficult to establish exactly how many times it had been visited. Finding an answer to this question is greatly helped by the spatial differentiation of the site using refittings (*Figure 6*) as suggested by A. Klimek. Analysis showed that the connections between the artefacts divide the camp in two very well defined sections – north and south. As far as each holds refittings which link the concentrations together, there are no cross-connections between those two sections. In this context we should note that in the northern section, among the generally small concentrations, there is only one which may be interpreted as having been a workshop, the remaining concentrations having less clearly defined functions. Nevertheless one holds a substantial number of microliths.

The two sections also differ significantly in their spatial arrangement. While in the south we have a dwelling, fireplaces and large concentrations, in the north the concentrations are small – or at least smaller – and without any discernible accompanying structures, be these dwellings or fireplaces. Finding explanations for the above is not easy. Nor do we have any absolute dates for this region which would allow us to identify



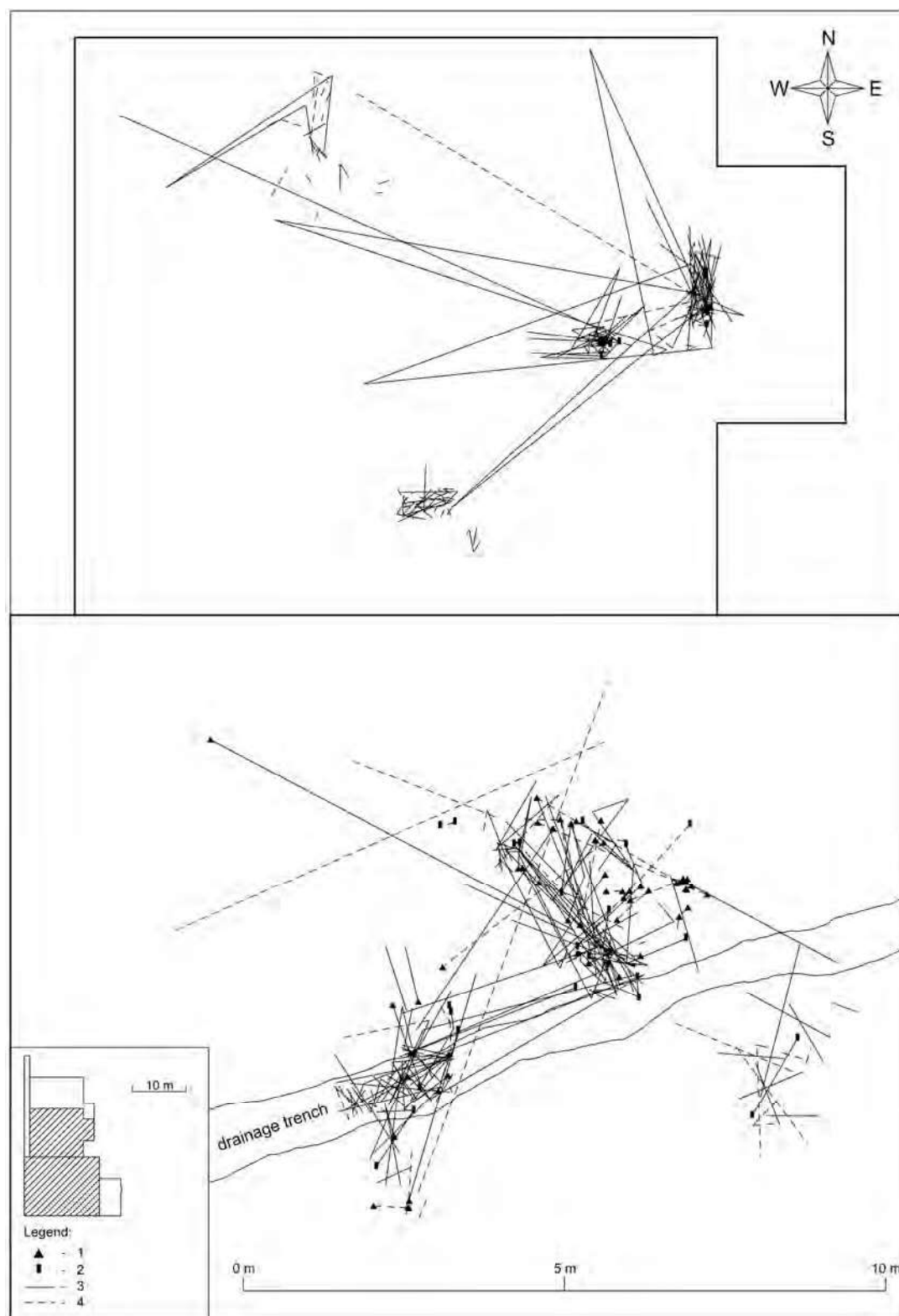


FIGURE 6. Refittings - sections S and N of site. 1 - cores, 2 - tools, 3 - refittings, 4 - conjoinings (ill. A. Klimek).

the period in which the northern section of the camp was used and reveal any possible chronological differences. What is certain is that the whole site should be associated with *Magdalénien à triangles scalènes*, fixing the border dates for the site to the late stages of the Middle Magdalenian (Sécher 2017).

In this context we reach the issue of stages of the camp's occupation. Do we decide that the two sections were used in different seasons and in years distant enough as to make them unrelated, or do we assume that the two sections were used separately, yet with only a short time in between? Or, maybe, does the lack of connection between the two sections stem solely from their different functions? The last theory most probably can be rejected out of hand, however. As outlined above, it is difficult to clearly define areas inside the camp dedicated to specific tasks, this applying to both its "main" and "northern" sections.

It is more probable that at Dzierżysław we are in fact dealing with various stages of settlement, same as e.g. at Gönnersdorf, where no contact between the pairs of concentrations I, II and III, IV (Terberger 1997) had been noted. The character of the inventories of the two sections is sufficiently similar as to support the theory that the site was used by the same community, although possibly by different generations. It is not clear, however, how much time had passed between the two visits, with some evidence pointing to the gap being long enough as to preclude any connection between them. It is impossible to establish whether the users of the "northern" section had used the dwelling in the "southern" segment – this, in turn, leads to the question – where was *their* dwelling located.

Should the northern section of the camp constitute a distinct, integral part, then it may be theorised that this camp was much smaller and likely occupied for a shorter period and by a smaller group. Thus it might be possible that at a certain point of its existence the camp was not a seasonal base, but a temporary hunting camp. Nevertheless there is no differentiation in type of finds which would support such a hypothesis, as the main type of artefacts are microliths, burins and perforators, i.e. the very same types dominating finds from the southern part. The existing difference is of a more qualitative nature, the finds from the northern section – triangles in particular – being made to a lower standard.

Assuming that the hypothesis about the character of the northern part of the camp being different – i.e. ad hoc and temporary – is indeed correct, then maybe the location of the base camp should be sought

elsewhere. In such a case then the foremost candidate would be the rich site at Hranice in Czech Silesia (Neruda, Kostrhun 2002), at the southern edge of the Moravian Gate. Nevertheless, such conjectures are highly tentative, heavily weighted down by the state and scope for research which are closely linked to the possibility of accessing data. Nevertheless unquestionably there existed close contacts between the two sites throughout the camp's existence.

## CONCLUSION

The Dzierżysław site is an important element of the map of Magdalenian settlement around the Moravian Gate. It seems that here we may be dealing with one of the region's central camps used by Magdalenian hunters which we link to one of rarely encountered in Central Europe *facies à triangles scalènes*. Doubtlessly there had been close ties between the Dzierżysław camp and the lands to the south of the Moravian Gate including – probably – the camp in Hranice. The question which remains to be answered concerns the nature of these relations. Did these exist throughout the camp's existence, or only during the phase which we identify with the occupation its northern section? At what times of the year were these camps used? As concerns the main part of the Dzierżysław camp we may assume that this could have been summer, whereas we have nothing to go on for the Hranice site, beyond the fact that it is located to the south of the Sudeten-Carpathian arc. Nevertheless the two sites are highly likely to lie on the route of human movement connecting today's Polish and Czech parts of Silesia – or, to take a broader view, between the lands on both sides of the Moravian Gate. These two camps also seem to set the limits of the area used by a single community of Magdalenian hunters.

The camp in Dzierżysław should be interpreted as an example of the classical base type camp which – using Weniger's classification – belongs in the "large" category (Weniger 1987), and which hosted all everyday life activities. Yet at the same time it is relatively small when compared to the enormous, multiple times populated Gönnersdorf or Pincevent camps. Such large sites have never been found in the eastern reaches of Central Europe, possibly reflecting some general differences in settlement models and manners of land use between core and peripheral areas of this cultural complex. Nevertheless its layout repeats the model observed at other camps of this cultural

complex known from elsewhere in Europe, thus pointing to convergent evolution of models of settlement and – as one might surmise – exploitation of resources regardless of exact location.

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