

Dzierżysław 35 – an open-air Magdalenian site in Upper Silesia (part II)

The location of Dzierżysław 35 site within Głubczyce district has already been described in the previous report (Ginter, Połtowicz 2004). The present report comprises four seasons (1999-2002) during which the area of 246 m² encompassing the central part of the explored settlement was excavated. The research works were financed by the archaeological service of the Voivodeship of Opole, the Institute of Archaeology of the Jagiellonian University, the Institute of Archaeology of Rzeszów University and, since 2001, also owing to the PB 1905 grant of the Committee for the Scientific Research. Apart from the authors of this report, the following representatives of the world of science participated in the implementation of the systematic fieldwork as well as in-door research: Professors Maciej Pawlikowski (Academy of Mining and Metallurgy), Stefan Skiba (Jagiellonian University) and Anna Pazdur (Silesian Technical University), PhDs Joanna Trąbska (Rzeszów University), Agnieszka Wacnik and Piotr Wojtal (Polish Academy of Science) and Małgorzata Winiarska-Kabacińska (Archaeological Museum, Poznań). During the fieldwork the students of archaeology from both the Jagiellonian and Rzeszów Universities took part.

The present report comprises the basic information regarding four, connected with one another, trenches explored during four consecutive seasons (Fig. 1). It is followed by a brief summary of the results obtained at that time.

Trench IV/99

The trench IV/99, covering the area of 48 m², encompassed the territory, which was immediately adjacent to the trenches from the years 1997 and 1998 from the northern and eastern side (Fig. 1). Moreover, a series of geological trenches were conducted, which also served the purpose of pedological and palynological examinations.

The stratigraphic observations in relation to the area of the archaeological trench confirmed the situation from the previous years (Ginter, Połtowicz, 2004), namely the occurrence, immediately below the layer of the contemporary arable land, of the damp *Chernozem* humus (layer 1a), which developed on the top of highly clayey loess of deluvial character (layer 2). The analysis of geological trenches and numerous drills proved that the explored settlement had been located on a plateau of a terrace surrounded on three sides by waters forming, most probably, shallow pools of today's Morawka River. Initially, the lay-out of the pools' contemporary shore line has also been recognised.

In the archaeological trench approximately 7,000 flint artefacts made by the chipping technique as well as numerous stones (including those showing the evidence of treatment or use), lumps of haematite and animal bones have been found. The overwhelming predominance of artefacts have been preserved *in situ* in the layer 1a, also on the border line of the layers 1a and 2 as well as, in considerably smaller quantities, in the top part of the layer 2. A small number of artefacts has been deposited in the arable land layer what indicates the damage of the top part.

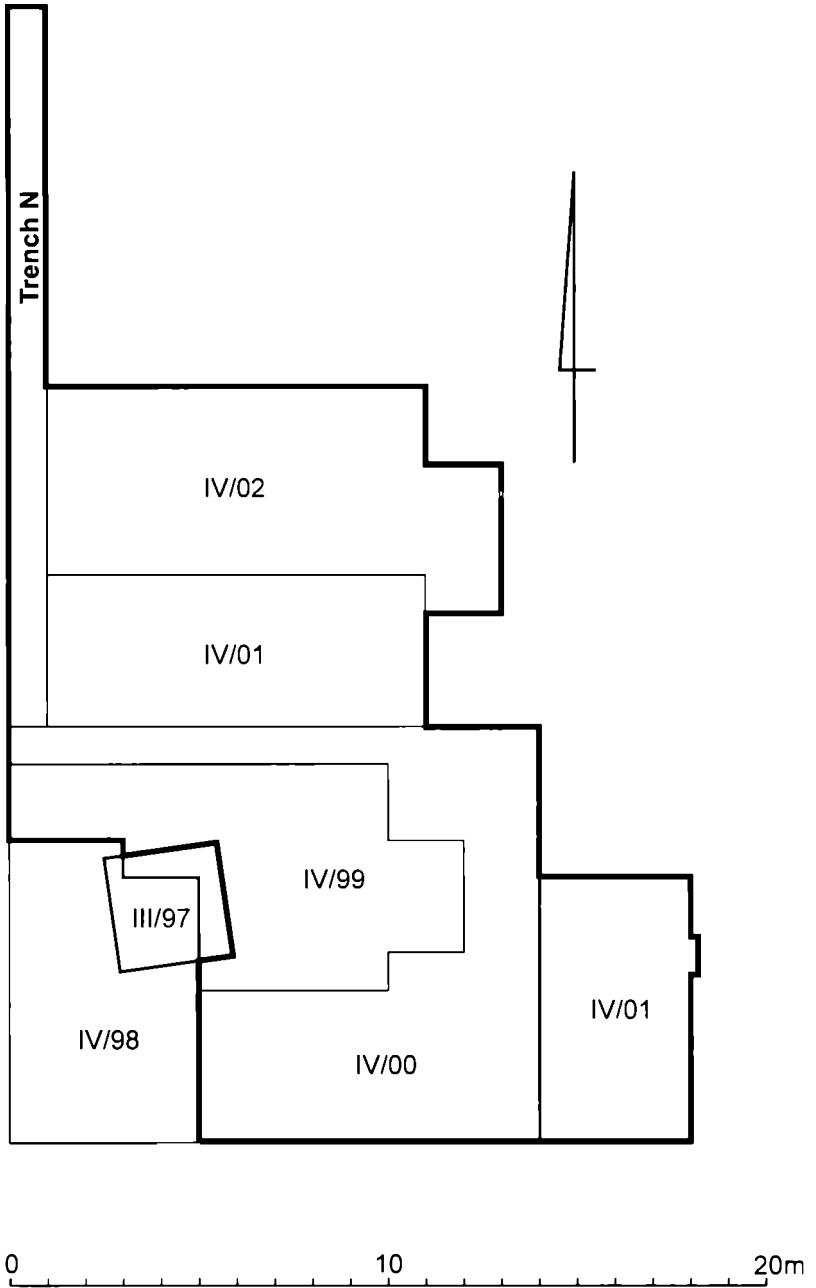


Fig. 1. Dzierżysław 35. Location of the trenches IV/99-IV/02.

Similarly to the previous years, a few concentrations of different size and content of the inventory have been revealed. Concentration 7, immersed in the layer 2, is an inconsiderable waste burrow in character. It contains numerous examples of debitage, single residual cores, plaquettes and many tools. Concentration 8, heavily damaged by the contemporary trench, of a diameter over 1 metre in the top part, distinctly narrows towards the bottom part. It contained numerous tools, debitage and cores, fine, heavily burnt animal bones and lumps of haematite. Concentration 9 is a vestige of a dwelling structure of a tent or yurta type. On the area explored in 1999 there remained traces of three post-holes fixed with stones and cores representing various degree of exploitation. Accumulations of stones indicating the zone of economic activity are situated in the immediate foreland and within the tent. The particular attention should be paid to two depots of raw materials and pre-cores, dug in the bed, discovered in this very zone. One of them was covered with two even stones. What has also been found are a few fragments of stone bowls and numerous lumps of haematite, occasionally with the traces of wearing away.

Concentration 9a in its top part is a typical hearth with a large amount of heavily burnt animal bones and a rich collection of flint artefacts, including tools among which microliths are considerably represented. The mentioned concentration in its bottom part assumes the form of an elongated oval pit immersed in the layer 2; its flat bottom as well as bottom part were filled with the haematite dust. It contains numerous flint artefacts and large fragments of non-burnt animal bones, among which the remains of a mammoth have been identified. In the immediate vicinity of concentrations 9 and 9a a few fine and compact concentrations mainly consisting of flint chips, connected undoubtedly with the workshop activity, have been discovered and marked as concentrations 10a-f.

The large flint inventory comprises over 500 tools, over 130 cores and pre-cores as well as debitage. Moreover, a considerable amount of nodules has been found, occasionally with single negatives, being the evidence of "testing" the raw material.

A thick, white coat of patina, which covers the artefacts, prevents the closer identification of flint raw materials. It is only possible to state that it is mainly (or exclusively) erratic flint. We can clearly distinguish two categories: the first – of a very high quality, even, with homogeneous mass and the second – of poorer quality, rough, with occasional precipitations of "petrosilex".

The most numerous are microliths, with a predominance of triangles, including one made of radiolarite. The remaining microliths are represented by different types of backed bladelets. A part of them was formed with the use of microburins. Burins occur less frequently, a majority of which is dihedral – it is the second tool group as far as the size is concerned. Still less numerous but properly well attested are perforators, including *Zinken* type. A large group is also constituted by blades and retouched flakes. The remaining types of tools are rather poorly represented. Sporadically, there occur splinters, end-scrapers, and slightly more numerous, truncated blades. A considerable part of tools shows traces of repairs or reshaping. Certain tools give the clear evidence of use.

One-platform cores are the predominant type; there is also a number of double-platform cores and cores with changed orientation (90°). The discovered cores show all phases of treatment: from initial forms, cores in full exploitation to residual cores. It is confirmed that accurate preparation and repairs were applied as evidenced by the cores themselves as well as by characteristic technical waste materials. Both hard and soft hammers as well as punch technique were used. Large quantity of cores, representing various phases of treatment, and flint nodules were used for supporting the structure of a dwelling.

The remaining artefacts made by the chipping technique are blades, bladelets, flakes and numerous chips, including chips left from retouching. It is possible to clearly distinguish areas characterized by accumulation of chips marking either the production zone or tools' repair zone. Most probably, a part of cores and pre-cores was delivered as ready products, however, certain part of nodules was shaped at the site. Apart from flint, other raw materials, although for a small scale, were used such as quartzite and quartz. Only flakes, not changed for tools, were detached.

Numerous stones show the evidence of treatment or use; they are represented, among others, by hammers, plaquettes, grinders and retouchers.

Observations concerning spatial arrangement of the artefacts reveal differentiation in terms of intensity of occurrence of various artefacts' categories in various parts of the explored area. For instance, it is worth paying attention to a distinct intensity as far as the occurrence of triangles is concerned in the area of concentration 9a and the southern part of concentration 9 in the vicinity of the hearth discovered there, whereas they are almost lacking within the tent.

Such arrangement confirms a rule, known from other Magdalenian sites, concerning connection between hearths and concentrations of microliths (e.g. Pincevent: Julien 1987).

Trench IV/00

In 2000 the research was continued by means of extension of the trenches in eastern and northern directions. Works covered the area of 68 m². The main level of artefacts' occurrence is connected with damp, *Chernozem* humus, which developed on clayey loess. The obtained inventory includes approximately 6500 artefacts made by the chipping technique as well as numerous stones, frequently with the traces of treatment or use, lumps of haematite and single, non-burnt animal bones. The overwhelming majority of artefacts has been preserved *in situ* in the layer 1a, on the border line of the layers 1a and 2 as well as in the top part of the layer 2.

The exploration of a dwelling discovered in 1999 was finished and the subsequent post-holes constituting its construction's elements were identified. A few post-holes were accompanied by inconsiderable accumulations of stones characterized by disturbed structure. They are arranged in a form of a circumference or a polygon, which has a diameter of 3,6-3,9 m, the south-eastern part of which has been damaged by the contemporary trench. Within the dwelling, which entrance must have been situated in the western wall, it is possible to distinguish two clear-cut zones of usage. The zone adjacent to the entrance, together with the immediate foreland, demarcates the area of economic activity and is characterized by a considerable accumulation of flint articles, stones and burnt animal bones. The area more distant from the entrance is a kind of repose zone and does not contain any artefacts. Of exceptional interest is the location of a hearth outside the dwelling construction (Ginter, Połtowicz 2001; Ginter *et al.* 2002).

In the back room of the dwelling place, the largest of the concentrations known so far has been discovered and marked as concentration 11, which has a diameter of approximately 3 m. This concentration comprised a few thousands of flint artefacts, including over 300 tools and their fragments with a predominance of burins, perforators and microliths. A considerable part of burin spalls as well as other waste materials from tool production and repairs, including perforator tips, allow to assume that this concentration served as tools' workshop. The amount of 31 cores suggests that a part of blades used for tools' production

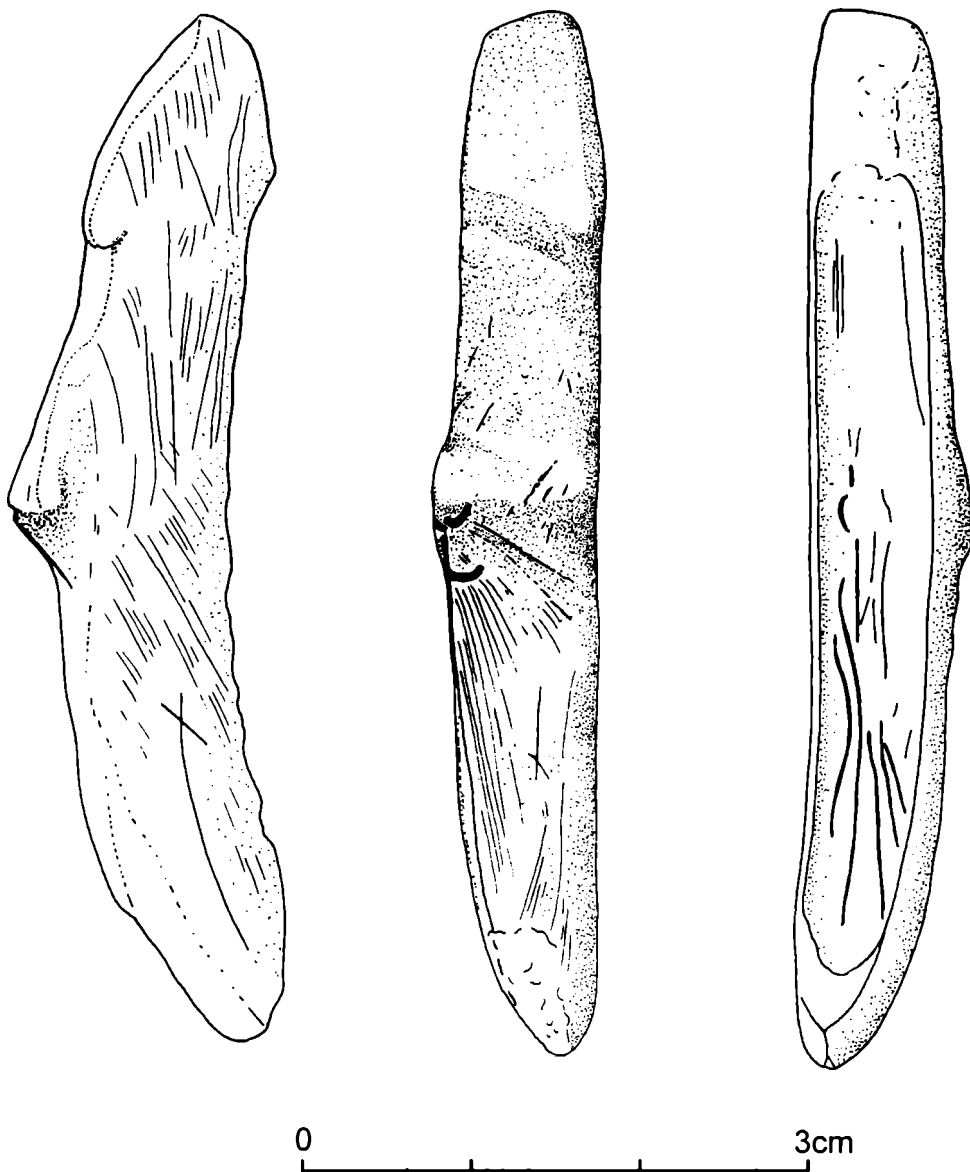


Fig. 2. Dzierzysław 35. Trench IV/01. Female figure (draw. U. Bąk).

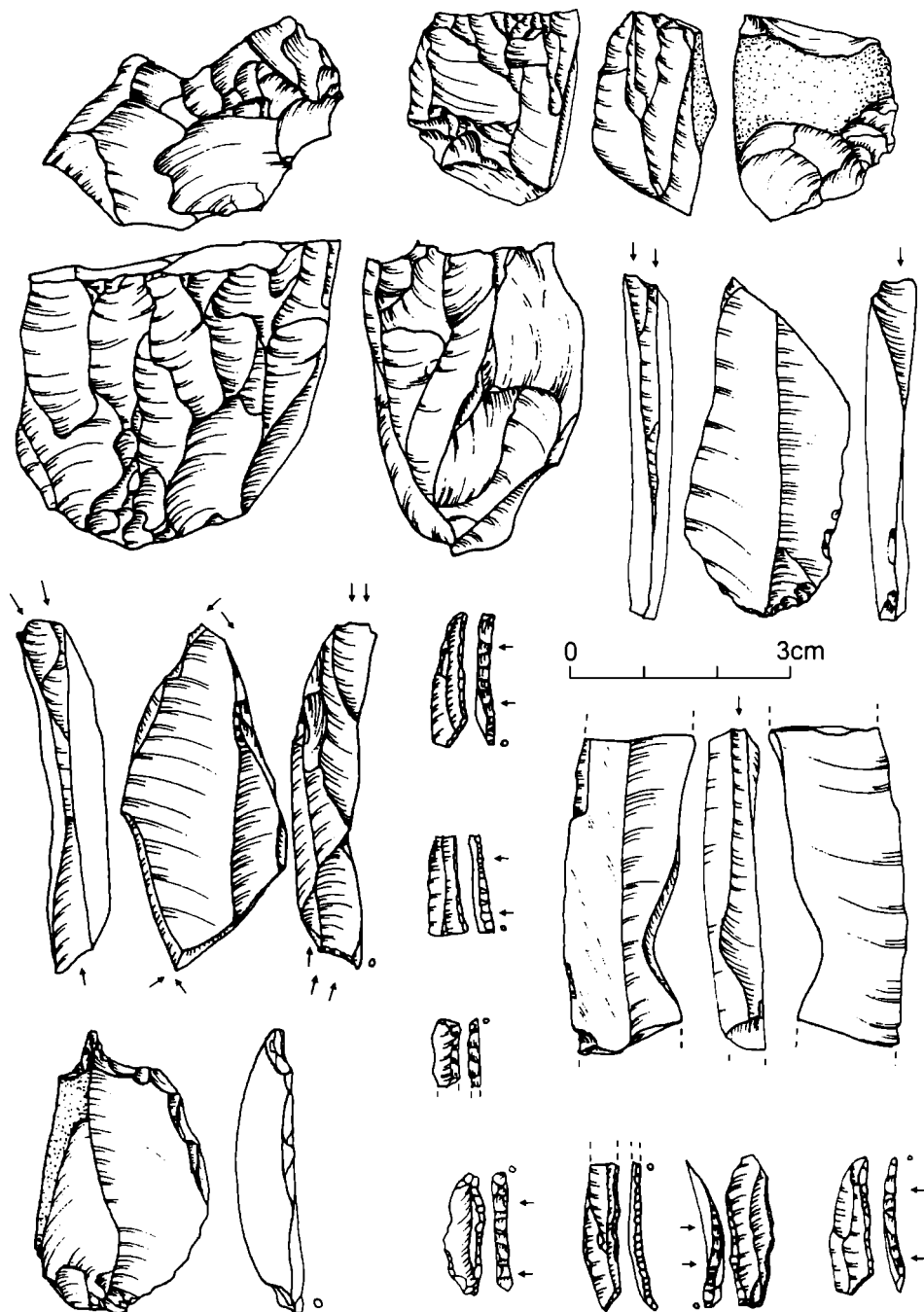


Fig 3 . Dzierżysław 35. Trench IV/00, Concentration 12. Cores and tools (draw. A. Dzedzic).

was detached at the site. Apart from artefacts made by the chipping technique, there occurred numerous stones, including specimens with the traces of smoke blackening or burning as well as frequent, heavily burnt animal bones. Presumably, one part of those stones constituted a bottom and the other part provided fixing for two hearths. What is worth emphasizing is the discovery of many lumps of haematite which differ in terms of size as well as a few bigger fragments of haematite plaques. Some of them show the traces of embellishment in a form of lines or transverse notches. The most spectacular discovery is that of a partly preserved female "Venus" figure (Fig. 2), presented in a decidedly schematic form and being a link in respect of style to figures found in other Magdalenian sites, such as Gönnersdorf, Oelknitz or Nebra (Ginter, Połtowicz 2002). The fact that the concentration is, to a certain extent, scattered may suggest its internal functional differentiation.

The second, oval concentration, marked as concentration 12, has a diameter of approximately 2 m, with a clear accumulation of artefacts in the north-western part. It comprised over 1000 artefacts, including tens of tools with a predominance of burins (Fig. 3). The amount of cores is proportionally larger than in case of concentration 11; stones frequently occurring within its reach do not show any evidence of being burnt. There is the lack of burnt bones, too.

Spaces between the concentrations were almost entirely devoid of artefacts. It refers especially to the southern and south-eastern part of the trench IV/00, which presumably constitute the border of the site's range.

Trench IV/01

The excavations encompassed the area being the extension, towards northern and eastern directions, of the trenches from the previous years. Generally, the area of 72 m² was explored, not counting the trench of 15 per 1 m in size running in the northern direction (the so-called trench N). The purpose of the said trench was to connect the area of the site with the pre-reservoir of water as well as to locate the reservoir's bank. In the profile of the trench N one can notice the gradual and constant increase of thickness of damp *Chernozem* humus (layer 1a), which developed on clayey loess (layer 2). This tendency has already been observed during exploration of the trench IV/00 and IV/01 as their extension in the northern direction progressed. While in the central part of the site (area of the dwelling place) the layer 1a has reached thickness of approximately 15 cm, by the northern border of the trench N its thickness reaches over 70 cm.

In the eastern part of the excavated area, the trench covering the surface of 28 m² has been discovered immediately near concentration 11, which had been explored in 2000. This area comprised only a small amount of flint artefacts, which were much scattered and did not constitute concentrations. Towards the east, their occurrence declines. Owing to this very fact, the eastern border of the site was located. On the eastern edge of the Magdalenian settlement, however, two pits dating from the Roman period and marked as object 1 and 2, have been discovered.

More substantial paleolithic materials were obtained from the northern part of the trench IV/01. An area of 44 m² in total (not counting the trench N) was explored in this part. The following three concentrations, differing in terms of size and composition, have been discovered here and accordingly marked with the numbers 13-15. Concentrations 14 and 15 (Fig. 4) comprise a few hundreds of artefacts, the smallest concentration 13 has revealed tens of articles. The flint artefacts in case of all concentrations are accompanied by stones,

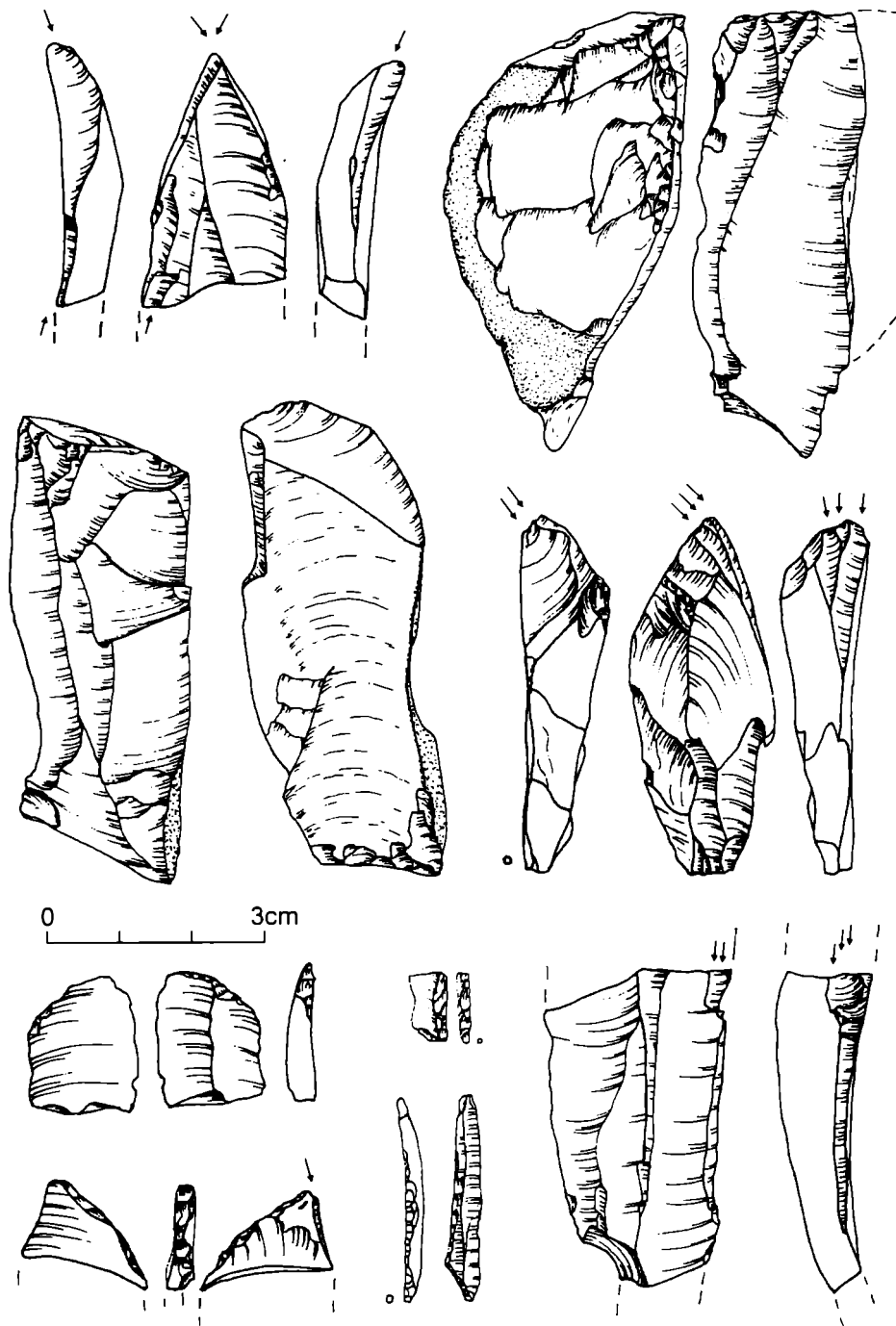


Fig. 4. Dzierżysław 35. Trench IV/01, Concentration 15. Core and tools (draw. A. Dziedzic).

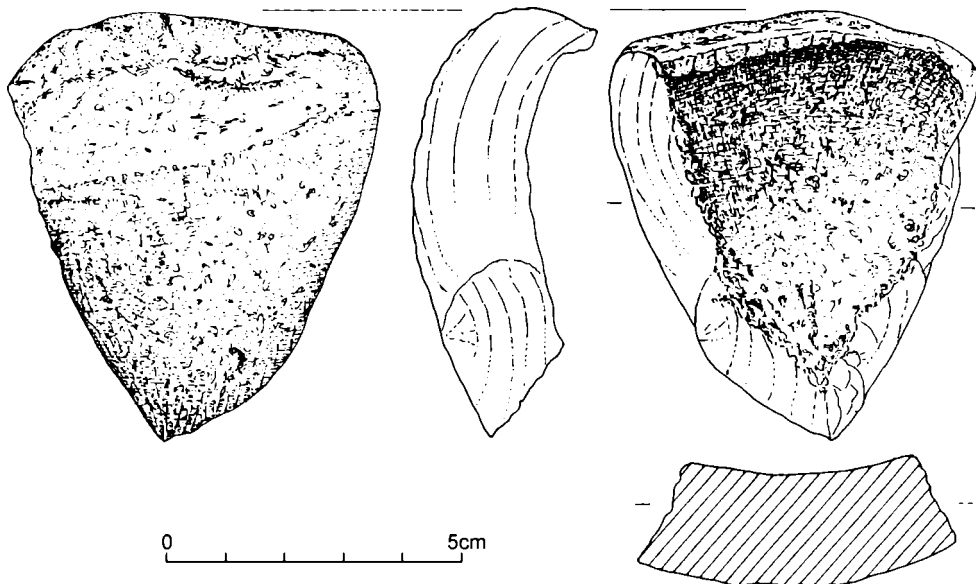


Fig. 5. Dzierżysław 35. Trench IV/01. Fragment of stone „bowl” (draw. U. Bąk).

occasionally with the traces of treatment or use. All the concentrations occupy rather inconsiderable surface (diameter amounting to tens of cm) and can be described as quite compact. In all of them there is a predominance of debitage; there are differences, however, as far as the amount of tools is concerned (which are more numerous in concentration 14 than in the remaining concentrations), the composition of tools' groups and the occurrence of cores. It seems plausible that concentrations 13 and 15 should be initially interpreted as places of cores' treatment (a sort of small, by-dwelling workshops), similar to a few other explored during the previous seasons. Apart from concentrations, there only occur rather rare, scattered artefacts.

Over 3300 artefacts, preserved *in situ*, have been identified in the trench IV/01; among them 223 tools and 38 cores and pre-cores. The largest group is constituted by burins, with the overwhelming predominance of dihedral burins what remains in accordance with the observations from the previous explorations' seasons. The fact worth emphasizing, however, is a relatively smaller quantity of microliths in comparison with burins. Similarly to what has been observed so far, frequently occurring are perforators and their tips whereas end-scrapers are still more frequent.

Other tools' groups are the following: combined tools, truncated blades, notched tools, retouched blades, blades and retouched flakes. Burin spalls are also frequently occurring in the inventory; microburins have been found, too.

Among the cores, one-platform cores are the predominant type, while the numbers of double-platform cores and cores with changed orientation appear less frequently. All phases of treatment are represented but the most predominant are residual cores or those of advanced exploitation phase. Pre-cores occur, too. Cores served the purpose of obtaining proper blades and bladelets.

Apart from the numerous flint inventory, stones, some of which show the evidence of treatment or use, have also been found. Among them the subsequent fragments of stone bowls have been identified (Fig. 5). The majority of stone artefacts comes from concentrations. Moreover, many lumps of haematite differing in terms of size, partly with the traces of use, have been discovered. The majority of them was retrieved from concentrations, too.

Trench IV/02

The research works were conducted on the area of 58 m² constituting extension towards the northern direction of the trenches from previous years. Such location of the trench was determined by, observed in 2001 in the trench N, the occurrence of subsequent flint concentrations.

Stratigraphic measurements of the trench IV/02 tally with the characteristics of profiles described in the previous seasons. The increase of thickness of the layer 1a is visible and so is more and more deeper subsiding of its bottom part towards northern and eastern directions. As a consequence, a tendency towards archaeological materials being deposited at more deeper levels and thus their lay-outs being evident is observed. A part of the site was damaged by another drainage ditch.

In the trench IV/02 over 6400 artefacts, made by the chipping technique, and preserved *in situ* have been found in total. They were chiefly blades, flakes and chips; besides, the other finds were constituted by over 300 tools and approximately 60 cores. The overwhelming majority of artefacts is comprised within a few concentrations. The exploration of concentration 15 has been completed and the subsequent 4 concentrations, of different size, have been discovered, explored and marked accordingly with the numbers 16-19. The northern edge of the abundant concentration 15 provided merely few artefacts – debitage and single tools. Rather inconsiderable surface it occupied as well as a small number of artefacts standing in contrast with the rich selection of artefacts excavated last year distinctly indicate that merely its border was located.

Wider range of implements was obtained from other concentrations, primarily concentrations 16, 17 and 18. They differ quite considerably from one another. Their diameter ranges between tens of centimetres (concentration 16) and approximately 2 metres (concentration 18). Concentration 19 is regarded as a very small one and separated due to the compact arrangement of artefacts.

Concentration 16 is not too far-reaching but compact spatial arrangement. It is possible to distinguish within it a very compact „core” and the zone, where artefacts occur less frequently and more loosely, which has been labelled as „zone of sparseness”. This concentration comprises mainly flakes, blades and numerous fine chips. There is strikingly small quantity of tools, and almost the complete lack of microliths (merely 1 backed bladelet). Cores are also very rare (2 pieces). No traces of structure has been observed. It seems to suggest that this concentration could have been a kind of refuse heap – a place where waste materials from production of blanks and retouching of tools had been disposed of.

Very close to concentration 16, an abundant and large concentration 17 has been discovered. Both concentrations are separated by a narrow but clearly visible zone characterized by considerable sparseness of artefacts' occurrence. The top part of concentration 17 appeared at a lower level (i.e. at a depth of approx. 55-60 cm) than in case of the previous concentration (i.e. at a depth of 48-50 cm). Concentration 17 is substantially elongated and narrow, arranged approximately along the north-south axis. In its top part it measures approx.

135x45 cm. Archaeological finds are very numerous but slightly concentrated. Flints are accompanied by few stones which do not show any lay-outs. Towards the bottom, this concentration becomes smaller in size until, at the bottom, it divides into two, small and separated nets of artefacts. The mentioned concentration comprises, apart from the predominant debitage, numerous tools (Fig. 6), and, above all, burins as well as, not so frequently occurring, perforators. Other types of tools occur in considerably smaller quantities; it also refers to microliths. Of particular interest is the fact that 4 out of 6 end-scrapers obtained during this year have been found within the described concentration. The collection of cores is rich, too (16 pieces). What deserves to be emphasized is the occurrence of a great number of haematite lumps, including fragments showing the clear evidence of treatment or use. There is lack of traces concerning lighting a fire and so what accounts for the occurrence of single, fine fragments of heavily burnt bones here is certainly pure chance; they presumably come from hearths located in some other part of the campsite.

The next concentration explored during this season was marked with number 18. Its top part was recorded at a depth of 60-65 cm. It occupies quite considerable, not very regular area, which has a diameter reaching approximately 2 m, and its range moves inconspicuously towards the north in the bottom part. Its bottom is greatly immersed in the layer 2: artefacts occur here as deep as below 100 cm. At such depth their occurrence is limited to the area which has a diameter of approx. 20-30 cm. Concentration includes an abundant flint inventory comprising mainly debitage and waste materials as well as numerous tools and several cores. Among tools there is a majority of microliths and less frequent burins. Perforators have been identified, too. Other types of tools are rather rare. Flints are accompanied by very few stones. Well-preserved animal teeth are an extremely vital find; they have been identified as once belonging to two reindeers (research by Dr P. Wojtal). Similarly to concentration 17, numerous lumps of haematite of different size have been found here, too. A part of them shows traces of treatment and/or use. Apart from lumps, there also have been found very fine grains. This phenomenon cannot be described, however, as the case of strewing the bottom of a pit with haematite dust. No traces of intentional arrangement have been observed, either.

The smallest of the separated concentrations – concentration 19 is a very particular, compact lay-out of two cores accompanied by two stones, which are, in turn, accompanied by, in a somewhat scatter-pattern, other artefacts. This concentration is located within the zone characterized by certain accumulation of artefacts. The mentioned zone, covering the area of approx. 4 m², is situated within the north-western part of the trench and is presumably connected with one of the concentrations discovered in the trench N in 2001. Artefacts occur in the layer 1a and 1a/2 as deep as even below 70 cm, with the bottom part of the layer 1a reaching here much deeper than in the southern part of the trench.

An accumulation of artefacts but without clear concentrations visible, is also observed in the north-eastern part. Concentration of artefacts in the vicinity of the northern profile distinctly indicates the continuation of the site in this direction, whereas it seems that the eastern border has already been located.

In total, as it has been mentioned before, over 6400 artefacts have been discovered in the trench, including over 300 tools and tens of (approximately 60) cores belonging to the Magdalenian assemblage. Among tools, there is an overwhelming predominance of burins; less frequently occurring are microliths. In the last group, triangles account for merely 50%, what gives the proportion unknown so far. Worth emphasizing is the fact that a large number

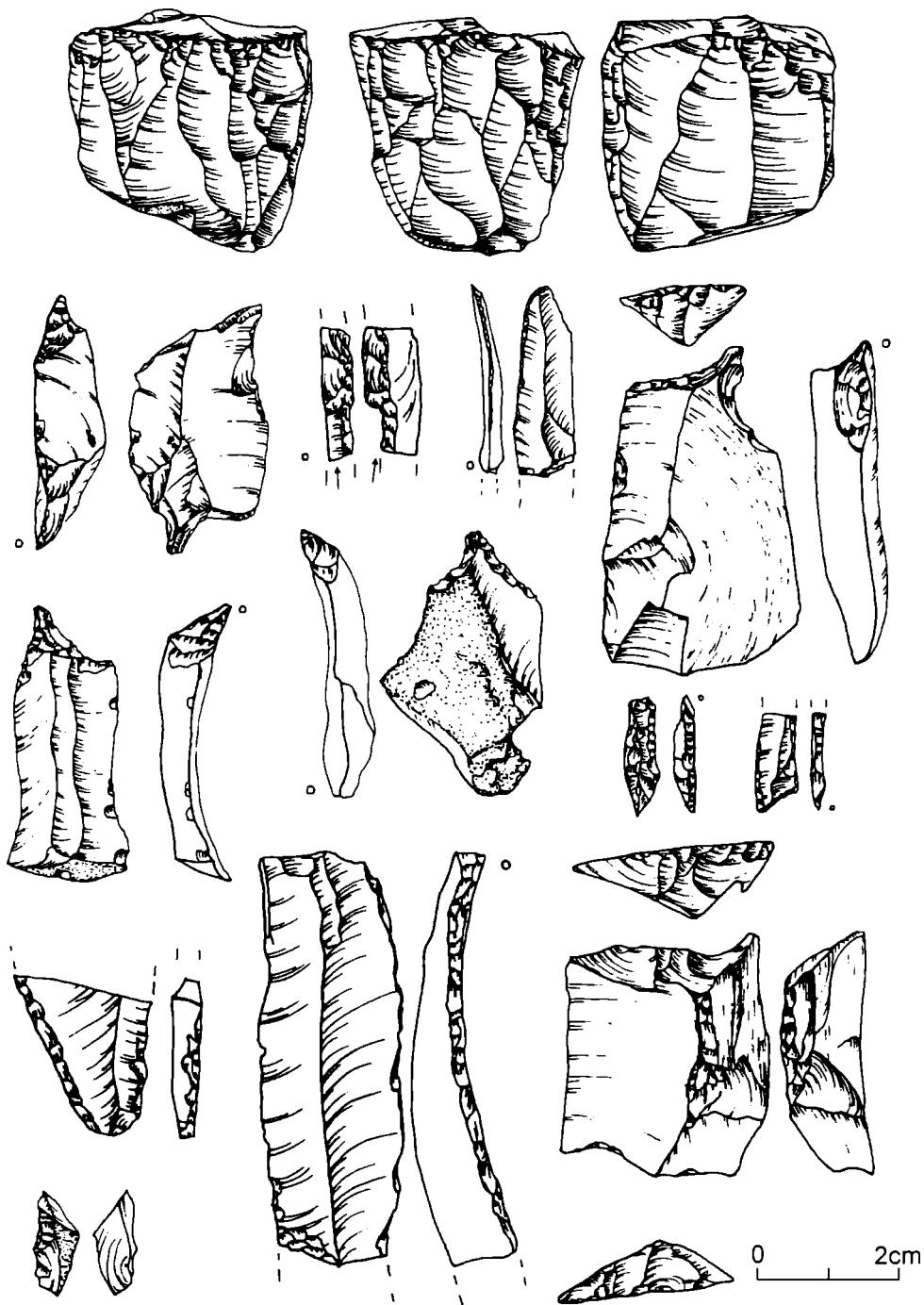


Fig. 6. Dzierżysław 35. Trench IV/02, Concentration 17. Core and tools (draw. A. Dziedzic).

of microliths has been found outside concentrations. The third group in terms of quantity is constituted by perforators. What gives it a special feature is comparatively small amount blades and retouched flakes, which have usually belonged to the largest tools' groups. The remaining types of tools are less frequently occurring and their quantity tally with the proportion observed so far regarding their number in the inventory. One tool in a form of a shoulder point, which has never been identified before on the site's area, may also be considered an interesting find, the analogy to which should be found within an undoubtedly younger, south-German site of Petersfels (Peters, Toepfer 1932; Albrecht 1978). Another unique find is an arched backed blade, the retouch of which is parallel to that of other microliths from Dzierżysław site. Both burin spalls and microburins are numerous. As far as cores are concerned, the same types known from the excavations conducted hitherto are observed. The majority of them is residual or abandoned in full exploitation phase. Both pre-cores (merely few pieces) and initial forms are very rare. In this area of the site bigger nodules, known from other parts of the campsite, do not occur, either.

As it has already been mentioned, in the zone of the site explored in the season of 2002 stones occur sporadically; those, however, which have been discovered do not form any clear spatial lay-outs. They are chiefly of small size. Except for those occurring within concentrations, single scattered stones have also been found in the zone between concentrations. Lack of stones is the feature which distinguishes this zone of the site from areas located closer to the dwelling.

Valuable finds of this season are the subsequent two small stone bowls as well as even plaque with very distinct traces of friction and incisions. This last find is interpreted as a plaque used for polishing of bone tools' tips. The already mentioned numerous lumps and haematite plaques are also regarded as a remarkable find.

Differences in terms of composition and quantity of particular tools' groups, lack of stones and clear structures indicate expressly that the trench IV/02 encompassed the zone of other functional character than those explored before. With reference to the above, it will be undoubtedly possible, after the subsequent phases of the analysis, to better recognise the spatial differentiation of the explored settlement as well as understand how it once functioned.

The area explored between 1999-2002 allowed recognition of cultural links, chronology, character as well as function of the site in question. Thus, raising no doubt, it is possible to state that the site was associated with the Magdalenian techno-complex or more precisely with its triangular facies. One may also assume with a high degree of certainty, that the explored site constitutes a small basic camp, probably single-hut, which had been occupied for a long period of time and presumably for more than one season.

The C14 dating obtained at the laboratories in Gliwice, Poznań, Kiel and Kiev both with the use of conventional method as well as AMS, determined, beyond doubt, a date of the settlement for the period preceding Bölling. Calibration of the obtained dates allows to ascertain that the age of the Magdalenian settlement in Dzierżysław falls for the period between 14350 and 13450 BC. Both palaeobotanical and palaeontological data may confirm the above dating.

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