

A NEW PALAEOLOGIC ASSEMBLAGE FROM THE OBŁAZOWA CAVE IN THE POLISH WESTERN CARPATHIANS

The Obłazowa Cave (N 49° 25'43.27", E 20° 7'32.71") is situated on the border of two larger geographical regions (fig. 1). One of them is mountainous (Pieniny Mountains), while the second one (Podhale) is a large plain surrounded by mountains. This area has recently yielded numerous archaeological finds dating to the Stone Age.

Due to a complex stratigraphy, the rich collection of stone artefacts and the unique discovery of an Upper Palaeolithic boomerang, the oldest example ever found, the site of the Obłazowa Cave (the cave belongs to the village Nowa Biała, Gmina Nowy Targ, site 2, woj. małopolskie) should be mentioned among the most interesting and important archaeological sites in Poland and in the Carpathians.

THE SITE

The cave is located in the southern slope of the Obłazowa Rock, at the height of 7 m above the level of the Białka river valley. The cave by itself is small: 9 m × 5 m, with no entrance terrace. The entrances

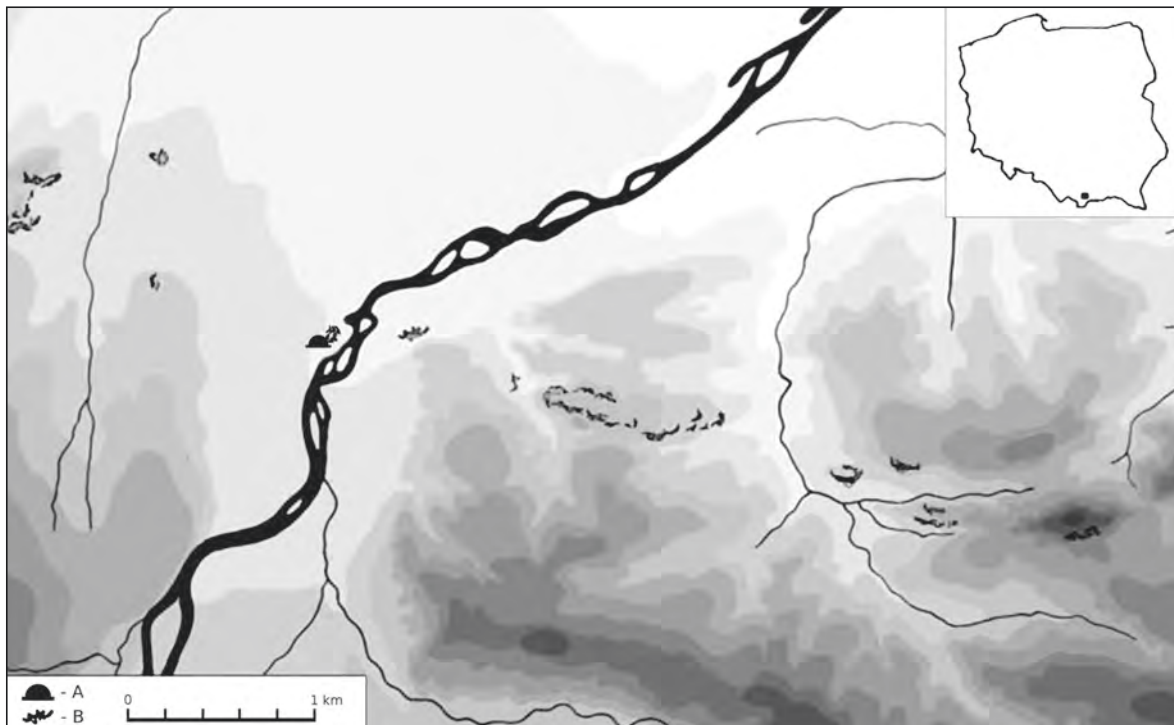


Fig. 1 Location of the Obłazowa Cave in the Białka river valley: **A** Obłazowa Cave. – **B** limestone rocky hills. – (Map P. Valde-Nowak / M. Cieśla).



Fig. 2 Obłazowa Cave. Southern entrance, view from the excavation in 2008. – (Photo P. Valde-Nowak).

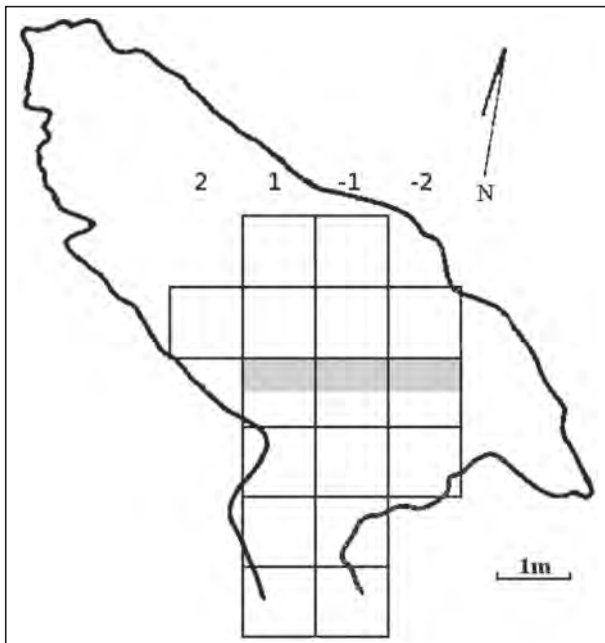


Fig. 3 Obłazowa Cave. Plan of the cave with metre grid of the trench I/85-2012. – (Illustration P. Valde-Nowak / M. Cieśla).

are situated in the southern (**fig. 2**) and probably in the north-western part (yet undiscovered; Valde-Nowak / Nadachowski / Madeyska 2003). The cave was previously examined in seasons 1985-1991 and 1995, but due to the danger of collapse the work could not be continued. New research in 2008 and 2009 led to a further recognition of Upper and Middle Palaeolithic layers. Most finds were attributed to layer XIX, connected with the specific Micro-Mousterian facies (Valde-Nowak 2010).

The research conducted in the Obłazowa Cave in 2012 was a rescue excavation. The aim of this campaign was to stabilise the northern profile of the trench and to protect it from further degradation. An area of 1.5 m² was unearthed, and the thickness of excavated sediment was approx. 1.5 m (**fig. 3**).

This research leads us to the conclusion, that among other Middle Palaeolithic layers, a new one exists, which was so far considered to be an archaeologi-

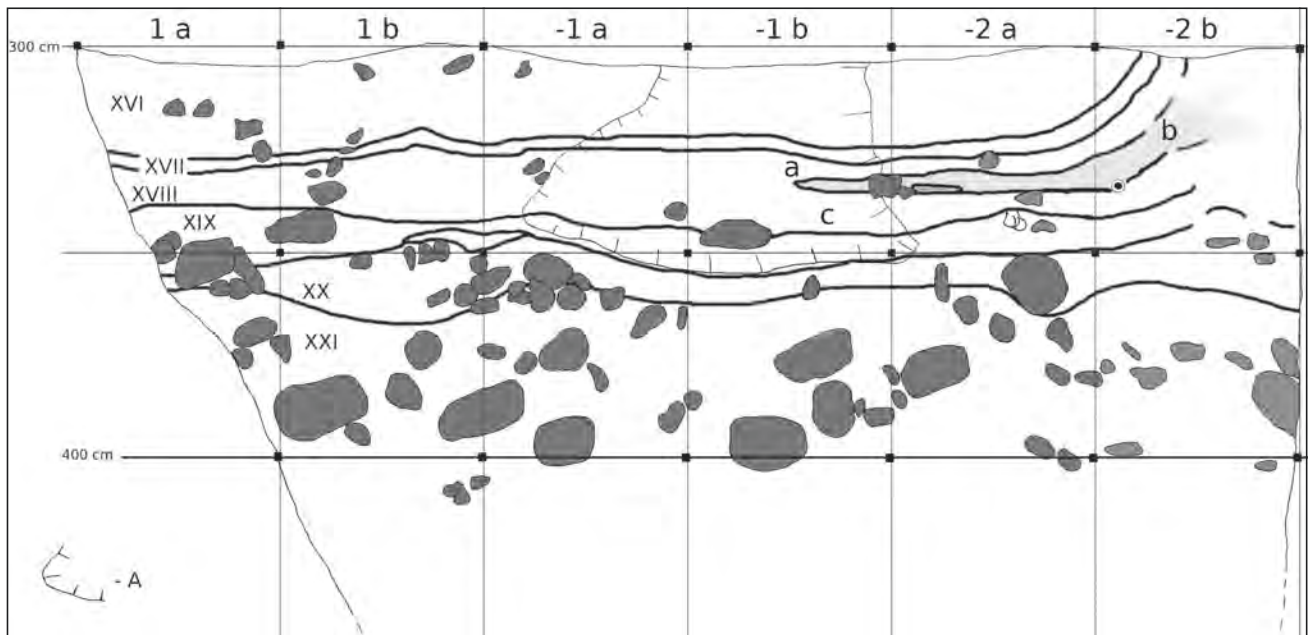


Fig. 4 Obłazowa Cave. Northern profile of the excavation; layer XVIIIb is marked with light grey. – **A** damaged part. – (Illustration P. Valde-Nowak / M. Cieśla).

cally sterile layer. The layer in question, XVIIIb, is formed by darker deposit, surrounded by sediment of yellowish colour, and was not visible in earlier excavations. The layers XVII and XIX, situated above and beneath it, have yielded Middle Palaeolithic inventories recognised as a specific kind of Mousterian with particularly small tools (probably the so-called Taubachian). The assemblage of the layer XVIIIb seems to bear different technological and stylistic traits, and according to the classification of some of the finds, it can be attributed to the *Keilmessergruppen*.

The sequence of Middle Palaeolithic layers in Obłazowa, ended with the Mousterian layer XIII and the Charentian assemblage of layer XVb consists of a series of layers which until the recent excavation were suggested to be culturally homogenous. Inventories in question come from the layers XXb, XIX, XVII and XVI, and have been recognised as the representatives of the so-called Taubachian (fig. 4; Valde-Nowak / Nadaschowski / Madeyska 2003). Until the excavations in 2012, layer XVIIIb was considered to be a part of the archaeologically sterile layer XVIII, situated between the aforementioned layers connected with the Taubachian culture (fig. 4). The latest investigations showed that it might be representative of a new culture at the site. The excavated area, although relatively small, has yielded an assemblage of stone artefacts. In this situation we are dealing with interstratification; Taubachian – *Keilmesser* (Micoquian-Prądnikian) – Taubachian.

MICOQUIAN STONE ARTEFACT ASSEMBLAGE – LAYER XVIIIb

The whole assemblage of layer XVIIIb consists of 95 artefacts, 38 of them are retouched. The most characteristic are two of the specimens. The first object, a hand-axe of red radiolarite (fig. 5), was prepared by a flake with pointed platform, and has developed dorsal retouch (formed with multidirectional lateral percussion) and also partial marginal retouch. The ventral retouch is not so well developed, but forms a pointed ending of a flake. Also the base of the hand-axe is modified with several negatives. The second specimen

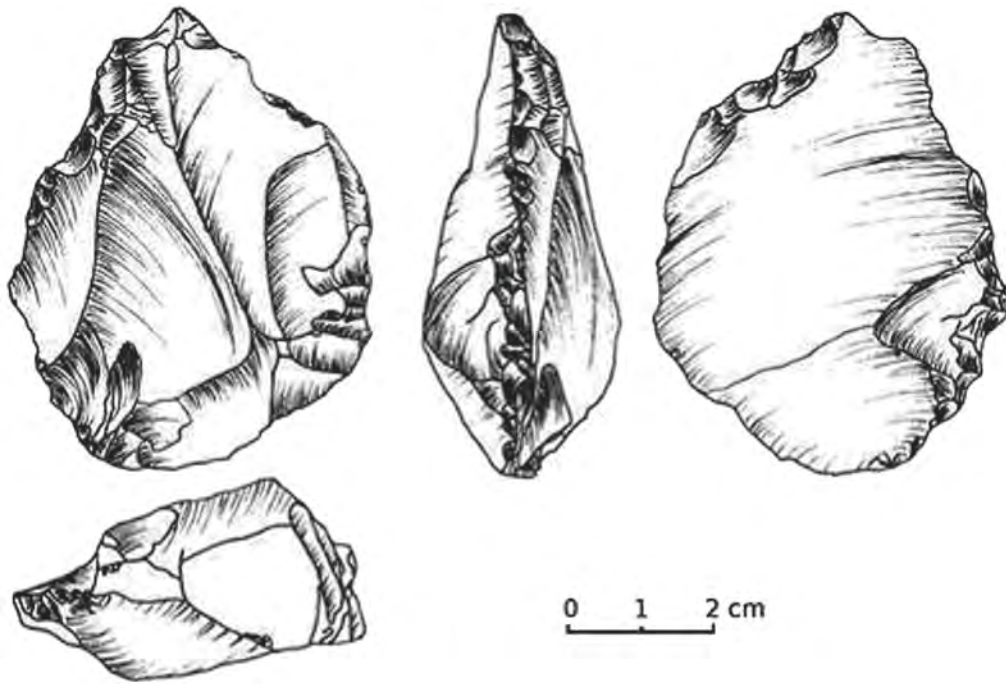


Fig. 5 Oblazowa Cave. Red radiolarite hand-axe. – (Drawing M. Mynarski).

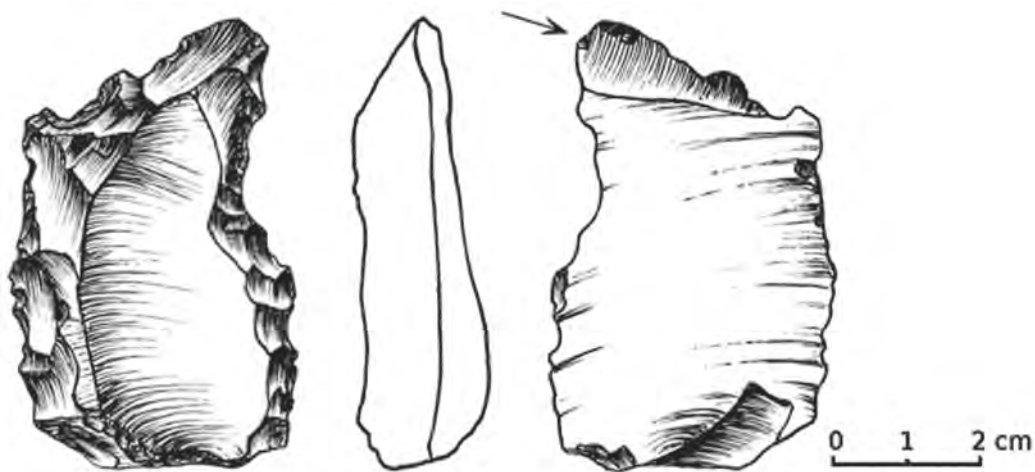


Fig. 6 Oblazowa Cave. Asymmetric knife with a para-burin blow, made of radiolarite. – (Drawing I. Jurkiewicz).

is an asymmetric knife with a para-burin blow on the ventral side of the flake which remembers the use of Prądnik technique (fig. 6; Krukowski 1939-1948). It is made of red-green radiolarite, and its proximal part was thinned with one side blow that removed its platform. The flake sides were prepared by abrupt retouch. The dorsal side indicates the use of the Levallois technique for flake preparation. Other artefacts do not display such characteristic traits. One exemplar was prepared on a core, and may be interpreted as a notched tool with a blunt back and concave working edge with multi-series retouch on its

ventral and dorsal sides. It was made of red radiolarite. Another form with a blunt back was made on a small green radiolarite flake, and has got an alternate surface retouch forming its working edge. Apart from those objects the assemblage consists furthermore of ten retouched flakes, six notched tools, four side-scrapers and eight fragments of tools. Among them two tools of a specific type were found: their retouched edge goes diagonally down and breaks about one third of the height of the tool both showing a partly cortical blunt back. The assemblage consists also of two borers, one of them short, with a wide working tip, the other smaller, and more oblong. Both were made on flakes. Unique is a round side-scraper, a so-called raclette, made of red radiolarite flake showing a flat platform.

Many of the flake platforms are not preserved (23 specimens), but among the preserved exemplars there is an observable majority of prepared platforms (20 specimens). Some of the platform preparations proof a complex knapping process: two show only two negatives, but others are more intense faceted. There are also three flakes with pointed platforms and a noticeable group of flakes with unprepared platforms (7 specimens).

So far, only one core was found made of red radiolarite and technically representing a prepared core of Levallois type with a complex preparation of a striking platform – it was formed by two parallel side strokes while each strike is coming from the opposite side of the specimen (**fig. 7**). Apart from the retouched forms, the assemblage of layer XVIIIb contains also 26 unretouched flakes, 28 chips and 3 chunks.

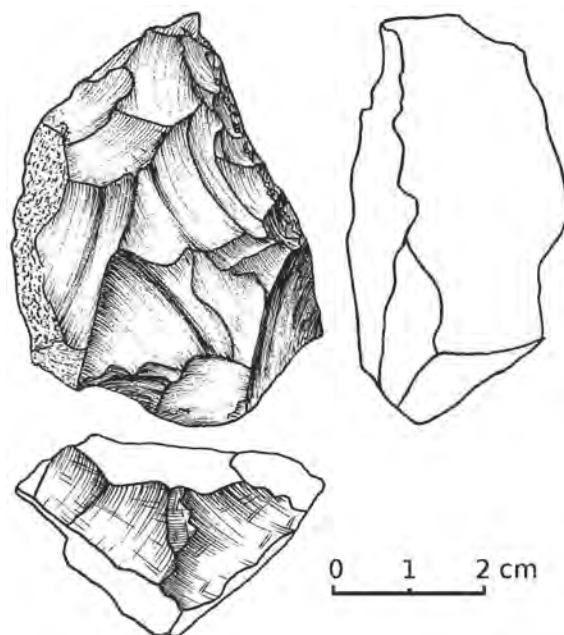


Fig. 7 Oblazowa Cave. Levallois core, red radiolarite. – (Drawing M. Cieřla).

RAW MATERIAL

The Oblazowa Cave, as it was mentioned before, is situated in the westernmost part of the Pieniny Mountains, being a part of the Pieniny Klippen Belt, a geological formation of limestone, naturally rich in radiolarites representing the local siliceous rock. Therefore, the most commonly used raw material on the site was this local radiolarite, predominantly in its red variation. 65 % of the assemblage of layer XVIIIb consist of red radiolarite, 21 % of green radiolarite, 13 % of its steel-grey variant and only one specimen (1 %) was made of another raw material.

Those proportions are also found among the different tool categories (58 % of red radiolarite, 27 % of green radiolarite and 15 % of the steel-grey variant) as among the unretouched forms (69 % of red radiolarite, 19 % of green radiolarite and 8 % of the steel-grey variant). It should be emphasised that there is no observable correlation between the kind of raw material and the type of tool produced. However, the characteristic tools described before (hand-axe and asymmetric knife) are both made on a better quality silica without veins, fractures or a low level of calcification. Just to mention it, there is a fossil inclusion in the distal part of the flake, on which the hand-axe was made, and it is located in the pointed part of the artefact.

ASSEMBLAGE FROM LAYER XVIIIb IN THE WIDER CONTEXT

Two of the specimens from the discussed assemblage in Obłazowa – hand-axe and asymmetric knife with a para-burin blow – enable us to compare them with the proposed classifications of the *Keilmessergruppen* (KMG) (Bosinski 2000-2001; Jöris 2004) for Central Europe, named as Prądnik cycle (Krukowski 1939-1948) or Micoquian-Prądnikian culture (Chmielewski 1969) for the territory of Poland. According to the schema drawn up by J. Richter (2002) on the basis of his research conducted in the Sesselfelsgrotte cave (Lkr. Kelheim) in Bavaria, one of the most important and well-explored sites of this late Middle Palaeolithic techno-complex, the new level in Obłazowa (layer XVIIIb) can be generally associated with his M.M.O.B. stage. The presence of a Levallois core and other Levallois features supports such a conclusion. Also the chronological position of the Micoquian level in Obłazowa is comparable with the age of the Sesselfelsgrotte KMG (Richter 2002, 14 f.).

The materials found in the Obłazowa Cave can hardly be dated in the way proposed by O. Jöris. His thesis says that the Prądnik technique has a chronological value (Jöris 2004, 98. 101 figs 20. 105) and KMG assemblages with regular Prądnik features are limited to OIS 4 (see Cahen / Michel 1986, 93. 99 fig. 7; cf. Jöris 2004, 109 note 369; 2006; Burdukiewicz / Wiśniewski 2004, 137-139; Foltyn et al. 2008; Cyrek 2010; see further Conard / Fischer 2000). On the other hand, in the light of new data, Prądnik levels from other sites – among them the Ciemna Cave (woj. małopolskie/PL) – can now be dated to the very late Middle Palaeolithic, i. e. OIS 3 (see below; Sobczyk / Valde-Nowak 2013; Ginter et al. 2012, 17; Valde-Nowak et al. in print).

Levels containing elements of a flake industry representing the Micro-Mousterian of Taubachian type as in the Obłazowa Cave (layers XXb, XIX and XVII) are also known from other sites, e. g. the Kůlna Cave (okr. Blansko/CZ), where they were found below the Micoquian sequence (Valoch 1984; 1988; 1996).

Layers XXI, XVIII and XVII belong to the lower part of sediment series B as distinguished by T. Madeyska (2003) and were most probably deposited beyond the limits of the radiocarbon dating. This part of the series was so far correlated with the Early Vistulian (Weichselian) climatic ameliorations (OIS 5a-5c) which in the Western Carpathians are represented by speleothems found in Tatra Mountains caves dated between 82 000 and 70 000 BC (Hercman 2000). While absolute dating is still not available for this part of the profile at the Obłazowa Cave one can speculate about the age of layers XIX, XVIII and XVII on the basis of biostratigraphic markers. Here, level XIX shows a thermophile fauna with – among others – vulture and elk (courtesy of prof A. Nadachowski, pers. comm.) preliminarily placed into OIS 3.

The above described new assemblage of the Obłazowa Cave is the first one with Micoquian-Prądnikian features in the Polish Carpathians. In this context the isolated *Keilmesser* site of Zamarovce (okr. Trenčín) in Slovakia with typical Prądnik knives (Bárta 1961) should be mentioned, as well as the problematic surface collection from Plaveč (okr. Stará L'ubovňa/SK; Kaminská 2010), situated close to the state border between Poland and Slovakia in the area of Pieniny Klippen Zone. Also high techno-typological convergences are visible between the asymmetric knife with a para-burin blow from Obłazowa and a similar tool type at »Horky« near Bořitov (okr. Blansko/CZ) in Moravia which cannot be ignored (Oliva 1987, 32 fig. 6, 1). Both tools are made of flakes with a para-burin blow on its ventral side. Proximal parts of the flakes were thinned with blows that removed their platforms. All such and some other new traces from Upper Silesia (Fajer et al. 2001; Foltyn et al. 2008) fill the gap of Micoquian sites between the Vistula and the Oder river basins and the Middle Danube.

CONCLUSION

The new discovery of an interstratification of a Micoquian-Prądnikian industry of level (XVIIIb) in-between the Micro-Mousterian Taubachian series of the Obłazowa Cave recalls some questions concerning the Taubachian records at this site. The appearance of Levallois technique and its expected relatively late chronological context have to be emphasised. The discovery of an assemblage showing Prądnik technology allows us to recognise a new Micoquian facies for the southern zone of its range, where people exploited the local radiolarites.

New research conducted in the Obłazowa Cave confirms its status as one of the most important Palaeolithic sites in Central Europe. The currently explored part of the cave, the well-stratified lower part of the sequences, has provided some new details to the previously collected data. Within the sequence of Taubachian layers, a new level with Micoquian-Prądnikian affinities has been discovered and after some years of exploration the rocky bottom of the cave has now been reached.

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Zusammenfassung / Abstract / Résumé / Streszczenie

Ein neues paläolithisches Fundensemble aus der Oblazowa-Höhle in den polnischen Westkarpaten

In der bekannten Oblazowa-Höhle im südlichen Polen konnte bei notwendig gewordenen neuen Grabungen eine bisher unbekannte spätmittelpaläolithische Fundschicht aus einem Horizont (XVIIIb) angetroffen werden, der bislang als steril galt. Dieses neue, wenn auch kleine Inventar findet sich zwischen Industrien, die als Taubachien klassifiziert wurden. Die Untersuchungen legen nahe, dass es sich bei dem neuen Fundensemble um einen bisher in der Oblazowa-Höhle unbekanntem Technokomplex handelt, der mit den Keilmessergruppen zu verbinden ist. Zugleich konnte damit für das südliche Verbreitungsgebiet dieses spätmittelpaläolithischen Technokomplexes eine Überlieferungslücke geschlossen werden, wo die Menschen den lokalen Radiolarit nutzten.

Übersetzung: M. Baales

A new Palaeolithic assemblage from the Oblazowa Cave in the Polish Western Carpathians

The new cultural layer of the Oblazowa Cave in southern Poland was considered sterile until the excavation in 2012. The stratum is situated between the layers connected with the Taubachian series. Recent excavations not only revealed evidence for human occupation but also ascertain the existence of a new culture at the site. The unearthened area, although relatively small, has yielded series of stone artefacts. The assemblage of this new layer (XVIIIb) seems to bear some unique technological and stylistic traits, and can be attributed, according to our classification of some of the finds, to the *Keilmessergruppen*. The presented discovery helps to document the dynamics of Micoquian-Prądnikian groups in the southern zone of their activity, with special attention to the local radiolarites' exploitation.

Un nouvel inventaire paléolithique de la grotte Oblazowa des Carpates polonaises du sud-ouest

Jusqu'à la fouille programmée de l'année 2012 un des niveaux du site archéologique de la grotte Oblazowa en Pologne du Sud était considéré comme stérile archéologiquement. La couche est située entre d'autres couches caractéristiques de l'industrie du Taubachien. La recherche récente démontre, que non seulement peut-on y observer les traces d'habitation humaine, mais que l'inventaire représente aussi une nouvelle culture sur le site. Bien que la surface de fouille ne soit pas très grande, une série d'artefacts a été découverte. L'inventaire de cette nouvelle couche (XVIIIb) peut être décrite au niveau culturel comme *Keilmesser* (Micoquien). Ces découvertes nous donnent de nouvelles informations sur la dynamique des groupes orientaux du Micoquien-Prądnikien, et surtout sur l'exploitation de radiolarites.

Nowy inwentarz paleolityczny z Jaskini w Obłazowej w polskich Karpatach Zachodnich

Nowa warstwa kulturowa z Jaskini w Obłazowej w Polsce południowej aż do wykopalisk w roku 2012 uznawana była za archeologicznie sterylną. Poziom usytuowany jest pomiędzy warstwami związanymi z serią Taubachianu. Ostatnie badania wykopaliskowe dowiodły, iż warstwa nie tylko zawiera pozostałości osadnictwa, ale również świadczy o pojawieniu się na stanowisku nowej kultury. Przebadany teren, pomimo niewielkiej powierzchni, dostarczył dość pokaźnej serii artefaktów kamiennych. Zespół z nowo wydzielonej warstwy XVIIIb zdaje się posiadać unikalne cechy technologiczne i stylistyczne, które wskazują na powiązania zespołu z *Keilmessergruppen*. Opisywane odkrycie dokumentuje dynamikę grup mikocko-prądnickich w południowym zasięgu ich występowania, a także zwraca uwagę na kwestię eksploatacji złóż miejscowych radiolarytów.

Schlüsselwörter / Keywords / Mots clés / Słowa klucze

Polen / Karpaten / Mittelpaläolithikum / Keilmessergruppen / Radiolarit
Poland / Carpathians / Middle Palaeolithic / Micoquian-Prądnikian / radiolarite
Pologne / Carpates / Paléolithique moyen / Micoquien / radiolarite
Polska / Karpaty / paleolit środkowy / kultura mikocko-prądnicka / radiolaryt

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