INTRODUCTION

The large intermountain basin called Podhale played a crucial role in the initial stage of studies related to the oldest settlement in the Polish Carpathians. The area is known as a very attractive tourist province (e.g. rafting along the Dunajec gorge and Tatra climbing). From the archaeological and geological point of view the mentioned territory is of special significance. Rich beds of radiolarites are situated there, and it is quite certain, that easy access to that material was the main factor stimulating Palaeolithic settlement. On the map the black irregular...
structures encompass the range of the Polish sector of the Pieniny Klippen Belt, rich of radiolarites (Fig. 1). A large number of workshops of this raw material are known, however, up till now no points and forms of its mining exploitation in the Podhale sector of the Pieniny Klippen Belt are recognized. Until 1985, i.e. before the first discoveries in the Oblazowa Cave, all the North-Carpathian Palaeolithic sites were dated to the Late Palaeolithic (Valde-Nowak 1991).

The formerly discovered Palaeolithic artefacts in this part of the Polish Carpathians bear features of all cultural circles existing at that time: Magdalenian, arched back-points and tanged points cultures. No traces of earlier settlements were found. However, the situation changed with the discovery of the abundant Upper and Middle Palaeolithic sequence at the Oblazowa Cave. The doubtlessly spectacular discovery of Upper Palaeolithic shaman assemblage put in shade, to a certain extent, the Mousterian sequences. This explains why this subject has been undertaken during this conference.

OBŁAZOWA CAVE – MIDDLE PALAEOLITHIC ASSEMBLAGES

Studies of the Oblazowa Cave in the village Nowa Biała, Nowy Targ district, started soon after stone artefacts of the Late Palaeolithic Federmesser culture were discovered at the foot of the western wall of the Oblazowa Rock (670 m a. s. l.), about 80 m to the NW from the entrance to the cave.

After eight years of fieldwork the excavations in the cave were discontinued. There were two reasons for it:
– the need of a complex summing up of all numerous results obtained so far;
– continuation of excavations without technical preservation of the rock itself, it means the talus, was impossible, because of life threat.

The Oblazowa Cave is located in the southwest section of Oblazowa Rock at an altitude of approximately 7 m above the Bialka River. Two exposed limestone hills, Oblazowa (670 m) and Kramnica (688 m), lying on opposite bank of the Bialka River, form a nature reserve. The rocks resemble a gateway embracing the picturesque Bialka River valley.

There are two distinct parts in the Oblazowa profile. The lower part is best represented by layers XXI and XX. It consists of well-rounded river gravel with boulders up to 30 cm in diameter. The lower part corresponds to the terrace gravel of the River Bialka dated to the last glaciation (Halicki 1930; Baumgart-Kotarba 1983; Madeyska 2003). The upper part of the profile is mostly made of autochthonous rock rubble mixed with clay and is made up of typical sediment found in a dry cave.

The artefacts characteristic of Mousterian culture were recovered from the following layers: XXb (assemblage with a mammoth’s tooth), XIX, XVII, XVI (collection with a hyena’s lower jaw), XVb and XIII. With regards to great homogeneity of materials from archaeological layers XXb to XVI, they can be collec-
tively characterized. Attention can be drawn to similarity in finishing of some tool forms deriving from two different, neighbouring layers i.e. from layers XXb and XIX. It concerns mainly a characteristically formed distal edge tops which were retouched on their dorsal side (Fig. 2).

In the material from layer XXb worth mentioning is a small backed knife made with the core technique from a nodule of red radiolarite rich in silica. The working edge is concave. It was shaped with a multi-series retouch directed steeply to one side. Several flat and partially flat negatives are found on the other side. This tool somewhat resembles *Schabermesser* of the Tata type, although the steeply retouched working edge does not share the features represented by this
type (cf. Vertes 1964: 160, Fig. 19). It is rather a side scraper of the Tata type (cf. Vertes 1964: 154, Fig. 16).

Among the tools recovered from layer XXb, there is a triangular flake made of red radiolarite, shaped with a multi-series steep and partially steep reverse/inverse retouch. It may be assumed that the tool served as a point. There are two negatives running obliquely downwards and traces of blows directed upwards at the tip side, which suggest that the tip was carefully shaped (Fig. 2: 1).

In layer XIX, 5038 artefacts were recovered within an area of approximately one square metre. There are only four cores in this collection of artefacts. They are rather small. They represent a stage of ultimate use of the form, so it is difficult to identify traces of employing a discoidal core. However, one may assume that these are remains of such cores preserved as small nodules. One hundred and twelve tools were identified in this layer. Irrespective of typological classification, the majority of them represent flakes with alternate edge retouch. Such a retouch did not change the shape of the half-product.

A solid oblique side scraper is the biggest tool in this inventory. It was made partially of a cortex steel-grey radiolarite piece. The positive side is bipartial with an oddly shaped percussion bulb. The retouched edge is slightly denticulated/cogged. It was shaped by irregular chipping, by a single-series retouch. The side opposite to the edge forms an arched back with a cortex surface. There is also an oblique side scraper with the back thinned by several strikes on the upper side, made from the radiolarite flake with a high content of limestone. Slightly denticulated retouch can be seen mainly on the upper section. Another item is an oblique side scraper with a slightly convex edge bearing multi-series retouch made with a partially flat retouch. The opposite edge is partially notched. The tool is made of red radiolarite. A different variety is a side scraper of green radiolarite, lateral on both sides with irregular retouch on the ventral side. The last tool within this group is a converging side scraper made on a red radiolarite flake. Of some importance is the multi-series concave-denticulated retouch mainly on the upper section. Clear retouch on the dorsal side can be seen around the tip (Fig. 2: 2).

CHRONOLOGY AND CULTURAL LINKS

A number of distinct features has been identified with respect to the Mousterian assemblages from the Obłazowa Cave.

In the whole Mousterian sequences from Obłazowa there are no distinct traces of the Levallois technique and the discoidal core technique was employed with the majority of the tools. The cores from the Obłazowa Cave do not fit any of the classical definitions of the Levallois core (e.g. Bordaz 1970: 32–36; Boëda 1994: 16–24; 1995; see also: Bordes 1950; 1960). Only the artefact from the layer XVI bears some resemblance to this core in the unipolar variation (Peresani 2001: 353). There is no preparation around the core, also the pre-striking face was not carefully prepared (Fig. 3: 1). The above observations are also
Mousterian sequences of the Obłazowa Cave

relevant with respect to flakes, none of which display all the Levallois features (Boëda 1995: 45–61; Sellet 1995: 31–33). There are very few faceted or diagonal platforms.

Side scrapers and, to a lesser extent, small backed knives predominate. This is the reason why certain similarities should be sought among the Middle Palaeolithic materials found on the territories of the present Hungary, Czech, Moravia and Slovakia. In particular, the inventory from layer 11 in the Kůlna Cave in Moravia, known as Taubachian (Valoch 1988: 73–80) includes a number of comparable items. Many elements of this inventory bear some resemblance to the assemblage discovered in Bojnice or at Ganovce. Let us also remind about the attempts to promote the concept of the Carpathian facies of the Mousterian culture characterised by a significant miniaturisation of tools (Prošek 1952; Vlček 1969; Bánesz 1969; Bára 1980: 11; Bára and Bánesz 1981).

K. Valoch related the mentioned Slovakian sites, such as Ganovce, Bojnice II (“Hradna priekopa”) Bešenova, “Sobocisko” near Beharovce and Hôrka-Ondrej, to this assemblage (Valoch 1984; 1988: 77; 1996: 50–51), emphasising the miniaturisation of the whole industry, including cores. Many of them are smaller than 3 cm. According to K. Valoch the 11th layer in the Kůlna Cave dates to the late Eemian interglacial. The mentioned sites and others, such as Praha-Ladvi, Ve vratech Cave, Šveduv stul Cave, Pekarna Cave, Šipka Cave, Hranovnica and Gudenus Caves have been classified by J. Svoboda as les industries de petites
Fig. 4. Different scrapers from layer XVb (Charentian); Pieniny radiolarite
dimensions and dated them to the Eemian interglacial or the beginning of the last glaciation (Svoboda 1984: 178).

Based on the recent examinations conducted by L. Kaminská at the Hôrka-Ondrej site, an inventory characteristic of the previously mentioned Taubachien has been found in the 12th layer, in the C1 profile. It has been dated to a phase before the Eemian interglacial (Kaminská 1995: 129; see also Kaminská 1999; 2000; Kovanda et al. 1993). Malacofauna recovered from the 10th layer is also dated to this period (Ložek 1993). The 13th layer from the same profile yielded the date of 145 000 years (Ford 1995).

Tata represents yet another Middle Palaeolithic site (Vertes 1964). The style of this inventory reminds of those recovered from the Mousterian layers at Oblázowa, in particular, those found in layer XVb. The method of retouching, shape and size of the tools are similar. Worth noting is the lack of distinct features of the Levallois technique. Of some interest are knives – side scrapers from Tata, which are the main tools of this inventory (Vertes 1964: 160, Fig. 19). The backed knives identified in the Mousterian assemblages at Oblázowa cannot be directly related to the knives-side scrapers of the Tata type. An artefact recovered from the layer XVb with a cortex back and a pointed tip (Fig. 4: 3) is the closest to this type, although in this case we are rather dealing with a Tata side scraper (Vertes 1964: 154, Fig. 16). Many typological features of Mousterian assemblages appear in the inventory from the Erd site in Hungary (Gabori-Csank 1968), which has to be treated separately due the fact that the Pontignano technique was largely employed in stone shaping. The multitude of side scrapers in this assemblage is impressive. Many concave side scrapers, i.e. “racloir simple concave” (Gabori-Csank 1968, Table XXIX: 7) are similar to the artefacts from the assemblage recovered from the layer XVb at Oblázowa, including a blunt natural back.

When we examine the Mousterian sequence from Oblázowa, we may point to the stylistic similarity between the materials found in the lower layers XXb–XVI, which can be related to the finds of the Taubachian types, as well as to a number of differences observed between the layers XVb and XIII.

It appears that the materials from layer XVb could be dated to the south-east Charentian (Gabori-Csank 1968: 182; Gabori 1976: 77). The preponderance of side scrapers with distinct typological features support this assumption. Some of them were shaped with a multi-series, steep or partially steep gradual retouch (Fig. 4). However, insufficient evidence has been found to confirm that the Levallois technique was employed (Fig. 3:2). The south-east Charentian assemblages are dated to the Brörup or the beginning of the I Pleniglacial (Gabori-Csank 1968: 110; Kozlowski and Kozlowski 1977: 87–93, Map 6), or their age may be even estimated as 50 000 years (Kretzoi and Vertes 1964: 252).

The more numerous inventory recovered from layer XIII is quite unique. It comprises mainly small, often microlithic tools, shaped with denticulate retouch (Fig. 5). For this reason, we would rather classify it to the Mousterian cul-
ture with denticulate tools whose inventories often do not contain either backed points or typical core tools (see Thiébaut 2005). The layer XIII in Obłazowa end the Mousterian sequence in this cave.

CONCLUSION

For the Mousterian sequence at Obłazowa no absolute data is provided. Referring to the recent investigation results on speleothem crystallisation, attention should be drawn to the attempts of synchronization of speleothem crystallisation with the last glacial stages in the Tatras.

The Sucha Woda stadial can correspond to the period between 113–105 kyr BP (III/IV) or between 92–82 kyr BP (IV/V). The Bystra stadial should then be dated ca. 50–42 kyr BP (VI/VII).

T. Madeyska (2003) synchronized these statements with her own results of sedimentological investigations at Obłazowa, considering the stratigraphic position of the Mousterian remains. Among the determined series from A to F, only series A and B refer to the Mousterian period at this site. Series C, representing the archaeologically sterile layer XII, is to correspond just to the Bystra stadial in the L. Lindner’s system (Lindner 1994; Lindner et al. 1993). This phase may be related to the Older Pleniglacial.

Ascribing the Taubachian inventories at Obłazowa to the early Würm, whereas Charentian and younger denticulated assemblages before the Pleniglacial, thus before the interval 50–42 kyr BP, is grounded on the above mentioned facts.
Mousterian sequences of the Obłazowa Cave

Middle Palaeolithic inventories from Obłazowa are another confirmation of a long-lasting Mousterian industry with the so-called Taubachian characteristics, followed by a stylistically clear Charentian and then a complex of denticulated late Mousterian. I would like to stress again that in no part of the excavation trench has a rocky base been reached yet. The recognized sediments date back to the early phase of the Vistulian glaciation. Continuation of excavations in this cave, after a several years break, brings hope to elucidate the whole stratigraphy of this site. It would be very interesting if some knowledge of potential former human being could be provided.

Due to excavations at Obłazowa, there emerges a more and more distinct large cultural and functional province in mountainous territories of Middle Europe. It is characterized by a long tradition of inventories determined by low or minimal presence of Levallois technique, dominated by discoidal core. In such complexes no bigger and typological clear bifacial forms, so characteristic for e.g. the Micoquian occur. I must once more underline strong miniaturization tendency of these industries, connected to still poorly recognized and defined Taubachian.

REFERENCES


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