The Korlát-Ravaszlyuktető workshop site in North-Eastern Hungary (H4)

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Prehistoric finds from the Ravaszlyuktető at Korlát have been known since the first decade of our century. The industrial remains and tools were repeatedly re-evaluated during the last 70 years and attributed to various prehistoric cultures from the Chelléan to the Mesolithic.

The excavations started in 1983 unearthed a prehistoric workshop on about 125 m². The workshop activity was obviously carried out on a much larger surface with distinct accumulations at a few spots and scattered traces all around. Although the culture-bearing layer settled right on top of the limnic quartzite bank, local extraction could not be attested to.

The find material comprised cores, blades and implements in about 10% altogether. The 90% is represented by flakes and waste, most of them from pre-core production. At the present state of analysis, the workshop is attributed to the Upper Palaeolithic, although some features suggest that earlier and later production may be considered.

KEY-WORDS: workshop, blade production, bifacials,

Korlát Ravaszlyuktető (NE-Hungary: 21°15′ long., 48°20′ lat.) is the first hill above the left side Holocene terrace of the Hernád (Hornad) River (Fig. 1). Its highest point is 329 m a.s.l. On the north and the south, it is bordered by the high volcanic hills of the Tokaj-Eperjes Mountains. In east-west direction, it is the second item of a plateau series starting at the edge of the mountain and reaching far into its central part. To the south, the hillside slopes steeply to the valley of the Malom stream which runs westward to the Hernád. On the north, gentle slopes lead to another east-west directed valley.

The area was first mentioned at the end of the last century. Mihalik (1897:7-8) reported that he discovered prehistoric mines in the hillside close to Arka. The next information came from the beginning of our century, when J. Csoma collected finds on and around the Ravaszlyuk hill. The finds were examined by Roska (1914) in the Museum of Košice, and he defined them as Chelléan. After his first publication, Mihalik (1916:41, 44) once more hinted at the existence of mines and attributed them to the Chelléan. Later, Hillebrand (1915) regarded the collection in the Košice

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Museum with more critical eyes and dated the material at first to the Neolithic, then, at
the time of the excavations of the Avas mine, to the Mesolithic (Hillebrand 1928:53, 1936). Others like Kadić (1934:116-8) and Breuil defined them as some Micoquoid
industry. In the thirties, Patay (1937) collected material on the hill and arrived at the
conclusion that the stone pieces were results of natural fracture and suggested erasing the
name from the list of archaeological sites.

After the Second World War, the find material was significantly enriched with
the results of surface collections (Saád 1959). L. Vértes and J. Korek directed
excavations on the Ravaszlyuk-hill in the early 60’s and others excavated at the
southwestern foot of the hill. The latter excavations unearthed finds from the
Neolithic and the Roman Period. Vértes and Korek also found sherds in the humus on
the hill. What was more important, there was another layer they unearthed right
under the humus. This did not contain sherds, only chipped stone material. Based on
the stratigraphy, the excavator attributed the finds to the Mesolithic (Vértes
1965a:220, 1965b) together with the sites at Miskolc-Avas and Eger-Kóporos.
Parallelly to the excavations, he checked Mihalik’s reports and found fantasy in what
he had said (Vértes 1969).

For a few years, theoretical re-evaluations of the finds followed on the occasion of
the analysis of other finds (Ringer 1983; Biró 1984:10). Finally, new excavations were
started on the hill in 1983, which rendered a basically different picture (Simán 1986,

The basic rock of the Ravaszlyuk hill is rhyolite and rhyolite tuff. Similarly to the
other members of the plateau series, it is covered with a limnic quartzite bank, the
result of Pliocene post-volcanic activity. At that time, the area was much lower and
water courses, lakes, probably swamps and forests characterized it. The waters of
thermal springs covered the dead trees, the grass, the reeds and the loam and created
a rather inhomogenous bank of 0.5-1 m thickness. The remains of the one-time
vegetation are still clearly recognizable in the raw material. Since the end of the
Pliocene, the area has been rising. At the time of the workshop activity it must have
occupied a similar position to the present one, although the stratigraphical evidences
attest to a significantly higher relief energy.

Basically, two types of limnic quartzite could be differentiated. One type (the raw
material of the workshop finds) is a thoroughly silicified material with prismatic
fracture when influenced by heat or frost. The phenomenon could be observed both
on the site and in laboratory. The other type is highly weathered, rolled and scarcely
influenced by frost or heat. Many pieces of this latter variant were found in the
archaeological cuts, some of them show traces of treatment under a layer of patina and
weathering. In a few cases some traces suggest that they might have been used as
hammer stones or retouchers.
Both raw material varieties can be observed over a large area (at least 20 to 30 km²) in outcrops. The spot of the excavations was chosen at an area, where there was no outcrop and the naturally fractured pieces were less abundant than elsewhere (Fig. 2).

Fig. 2. H 4 Korlát-Ravaszlyuktető. Site of the excavations on the hill.
In 1992, a detailed stratigraphical analysis was carried out at the site (Simán and Csorba 1993). Soil samples had been collected from cuts I and II (Fig. 3) in 1985. In average, the upper 20 to 30 cm was humus. It was followed by an approximately 30 cm thick yellow, loessy, sandy clay layer. From 60 to 80 cm the clayey layer contained limnic quartzite lumps, blocks, grains and lime detritus. Finally, a brown clayey layer followed with growing lime content. The analysis revealed soil redeposition between 30 to 60 cm in cut I but not in cut II. In cuts II and IV the vertical sections revealed that the small plateau was divided by N-S running ditches, which opened after the cessation of the workshop activity. Especially in the eastern and southern parts of the excavated area ice-wedges created rock accumulations. Cryoturbation effected most clearly the southern part of the excavations, although use-wear analysis (done by E. Bácska and B. Adams) demonstrated its impact in other parts of the area as well.

The cultural layer was found at the bottom of the yellowish brown, sandy, loessy layer. Its thickness was 10–20 cm. In the west, it meant that the cultural layer was right on top of the limnic quartzite bank in a depth of 70 to 90 cm (Fig. 4: cut VI). In the east, where the finds were washed into the ditches, the depth of the culture-bearing layer varied from 60 to 150 cm, and its thickness was naturally also greater (Fig. 4: cut IV). In the northern and southern parts, the layer appeared much higher, between 40 and 60 cm. Cut VI produced a layer series, which is difficult to understand. Under about 30 cm humus, large limnic quartzite blocks came to light (seemingly the bank) with a few sherds (Neolithic and modern) and some artifacts. Below the blocks the yellowish brown layer followed, at the bottom of which, at 70 cm the culture bearing layer appeared with the workshop material. It was once again on top of the real bank (Fig. 4: cut VI). There are two possible explanations. Either there was extraction in prehistoric or modern times at some nearby point which removed the blocks, or they got here as the result of deep ploughing. Anyhow, the upper block layer has nothing to do with the workshop since the latter was about 30 cm deeper with an intact and archaeologically sterile layer in between.

On the approximately 125 m² of the excavated area (Fig. 3), the finds were unevenly distributed. Basically, there were two greater accumulations. One in the west on top of the bank, the other in the NE in cuts II and IV. There were smaller accumulations as well at other spots, which contained less but rather coherent material. The basic raw material varieties were different in the two greater accumulations, the applied technique was the same. It seems that the whole workshop, indifferent of the treated raw material variety, represents one technological concept.

The total find material comprises about 8,000 items. The percentage of the cores and pre-cores is less than 2%, that of the implements is the same. The blades and blade fragments make about 6–7% of the whole material. There were no intact raw material blocks found, or at least they could not be differentiated from the natural bank.
Fig. 3. H 4 Korlát-Ravaszlyuktető. The excavational area with the density of archaeological finds.
Fig. 4: H-14 Korlát-Ravaszlyukető's Northern sections of cut IV, and VI. 1 - Humus; 2 - Yellowish brown clayey layer; 3 - Mixed brown clay with rock detritus and blocks; 4 - Dark brown clay; 5 - Brownish clay with larger lime content; 6 - Limey accumulations; 7 - archaeological finds; 8 - Filled blocks - natural rock blocks.
The cores and the pre-cores attest to a standardized blade production. The pre-cores are usually prismatic blocks where it was either the inhomogeneity, an intrusion or the poor quality of the raw material that hindered further work.

The largest core is about 12 cm long. The cores are usually single platform. When flaking of the narrow side is rendered impossible by some intrusion, it was often attempted to turn the flaking surface by creating a new ridge (Fig. 6). In a few cases the same flaking surface was used from two opposite platforms (Fig. 5:2) There are no cylindrical or conical cores. In the majority of the cases, the back either preserved the original crust (or intrusion) surface or it was simply flattened to a convenient shape. Pseudocylindrical shapes appear on thin raw material blocks or those with laminated texture (Fig. 5:1) The cores were all discarded due to inconvenient holes, intrusions or microfissures. A few cores display traces of burning, they all fell apart to small fragments.

About one quarter of the blades and blade fragments conserved the rib of the pre-core. Many of the blade fragments must have been results of the poor quality of the raw material. The majority of the discarded cores display the negatives of only a few, 2 to 4 blades. The blades have smooth or pointed platforms. On the larger ones there is a small bulb of percussion, while on the smaller ones it is often missing.

Relatively few flakes and waste preserved the outer crust of the raw material block on more than half of the whole surface. At the same time, there are also very few pieces without either crust remains or intrusions. The measurements of the flakes vary between chip-size and 15–20 cm. Many of them came from the reduction of blocks to pre-core size. There is also a considerable amount of flakes rejuvenating the flaking surface or flaking platform.

Sieving of soil samples yielded very few chips from the western side of the excavated area and no chips at all in the eastern side. The waste material contained results of frost cracking or heating in a high percentage.

The chipped implements display a less unified picture. The most characteristic tools are the simple retouched flakes, sometimes small notches. In this case, the retouching is in a single row and it is steep. Sometimes retouching is very fresh or it is covered with thinner patina than the rest of the surface. There are a few end-scrappers on blades (Fig. 10:2–5). There are end-scrappers on flakes and blades with high and narrow scraper edge created with steep retouching (Fig. 10:6–8). The burins are either simple or made on a troncature (Fig. 10:10–12). Retouched blades are rare (Fig. 10:9). There are also very few scrapers (Figs 9:5 and 10:1). There are only a couple of bladelets. Backed, shouldered, denticulated implements and projectile points are totally missing.

An interesting group of the tools is constituted of the bifacial. The first bifacial collected on the surface were attributed to the Acheulean or the Micoquian. Neither
Fig. 9. H.4 Karlát-Ravaszlyukteső. Implements: 1-4 - bifacial fragments; 5 - scraper.
Fig. 10. H.4 Korlát-Ravaszlyuktető. Implements: 1 – scraper with surface retouching; 2–8 – end-scrapers; 9 – retouched blade; 10–12 – burins.
of these industries seem to correspond to the workshop material. All the larger bifacials found either on the surface about 20–30 m from the excavations or in the culture bearing layer are half products. There are two basic types. One is leaf-shaped, biconvex, elongated or triangular (Figs 7 and 9:1). The other type is D-shaped (Fig. 8). There are also fragments of smaller bifacials, which may be half products (Fig. 9:3) or ready made ones (Fig. 9:2,4). Most of them are plano-convex and seem to have been bifacial knives. The bigger bifaces may reach 15 cm length, the smaller ones measure about 4 cm.

A few non-local raw materials may also be mentioned. The obsidian pieces came from the central part of the mountains. Very few pieces were found. There are also sporadic pieces of radiolarite and silex, both with pebble cortex. They were probably collected in the Hernád River. The Szeleta raw material (felsitic porphyry) was transported from the Büké mountains.

Beside the chipped industry, there were some hammerstones made of quartzite. They are all hardly worn or broken. Although the basic rock is rhyolite tuff, there are no outcrops of this material at the site. The few pieces we found might have been retouchers. Two pieces are about 10 cm large, square-shaped, flat fragments with a shallow hollowed surface. They might have served for grinding or milling. Scarce lumps of red, more often yellow ochre were found in the layer.

Owing to the quality of the soil, no bones or other organic remains have survived. There were sporadic, tiny charcoal pieces and sooty patches in the artifact accumulations.

It is a very difficult task to evaluate the finds. Dating is especially problematic since there is nothing to give any relative or absolute chronology. In traditional concept, the bifacials would date the industry to the Middle Palaeolithic. It is, however, highly improbable that either Micoquian or Acheulean would have mastered such a highly developed, standardized blade industry. Disregarding the bifacials, the next suggestion may be the Upper Palaeolithic. This idea was already presented by Červinka (1927:64). There are several arguments to support this solution. Vértés unearthed a workshop from the Upper Palaeolithic and the Late Palaeolithic on the hillside opposite the Ravaszlyuk hill, where similarly to it, the local limnic quartzite was dominant. Some implement types of the Ravaszlyuk-hill workshop (burins, end-scrapers) are among the common types of the Gravettian. Even bifacials are not alien from the Upper Palaeolithic technocomplexes in the Carpathian Basin other than Szeletian or Bohunician (e.g., Korolevo Ia — Gladilin and Demidenko 1989; Szeleta cave — Simán 1990). The sterile layer between the culture-bearing layer and the humus with prehistoric sherds also seem to date the finds to the Palaeolithic. The ice-wedges and cryoturbation both refer to a significant cold period following the abandonment of the workshop.
Bifacials, however, were produced up to the Bronze Age and other chipped implement types also long survived. Collections from the end of the last century (Mihalik 1897) and excavations in the 1960s prove the existence of Neolithic settlements in the nearby and a relatively dense population is justified from various phases of prehistory by field walking in the region. It should also be noted that the scarcely recognizable traces on the rolled pieces suggest a very early treatment of the rock type. The various degrees of patination side by side on a few items convey that they were reshaped in various periods. Considering all the above argumentation I would attribute the workshop as a whole to the Upper Palaeolithic not excluding the possibility of earlier and later activities on the same spot.

As has already been discussed, people were sitting right on top of the raw material. Still, there is not direct evidence that they extracted raw material on this spot. There are outcrops all around the hill and huge blocks can be met in the ravines all over the hill and the facing hillside. Extraction might have been made anywhere in the vicinity. (Mihalik's reference to existing prehistoric mines cannot be accepted at its face value, since there are many collapsed old cellars in the hillsides which may look like entrances to galleries).

Judged from the refitted pieces, the average size of the original blocks did not surpass 30 cm. On one or often two sides, the crust was still present. Quartzite hammerstones were used to remove the crust and reduce the block to the required size. For finer work, they must have used a soft hammer. In a few cases, especially on small blades pressure technique may also be supposed.

There were at least 10 different limnic quartzite varieties beside jasper and wooden opalite. The various accumulations contain primarily one of these, although the others are also present in smaller quantities. It seems that at various spots various blocks were treated, maybe even at the same time. There must have been very little transportation of raw material or half products from one spot to another. Corresponding fragments of refitted pieces come from a relatively small circle, within 2–3 m. There is no pattern in the distribution of the implements except for the bifaces, which were found only to the western side of the excavated area.

It is difficult to judge how many people worked at the same time. It is probable, however, that each accumulation was the product of a single occasion, since there was no overlapping of finds in original position. It means that the workshop was used for a short period or else several sporadic activities can be supposed.

Productivity must also have been rather low. There are many discarded cores in the initial stage of exploitation and the refitting and the measurements of the implements suggest that the blocks must have been suitable for only a few blades before reshaping and starting anew from a new platform on a new surface.

Either short term production or sporadic activity is accepted, a more permanent settlement must have been somewhere in the nearby. From the Upper Palaeolithic,
several settlements were unearthed in the northern foothill region of the Tokaj-Eperjes mountains and along the Hernád River (Hidasnémeti, Barca at Košice, Cejkov, Kašov, Tibava Kechnec etc.). There are two sites where the Korlát raw material occurs. It is represented by a few fragments in Kašov. Besides, there is also a partially bifacial scraper from the Szeleta raw material (felsitic porphyry) in the material (Bánesz 1992; personal observation). At Kechnec there are also a few bifacials from the felsitic porphyry, and a few other implements and flakes seem to have been made on raw material from Korlát (Bánesz 1959; personal observation).

Regarding the Neolithic, there are many sites all around in the region. This raw material, however, was only found in the valleys at the feet of the plateau series. On other sites better quality limnic quartzites and a much greater proportion of northern (C.I.) obsidian represent the chipped industry. There are no bifacials and very few polished limnic quartzite implements described from prehistoric sites in North Hungary.

From the non-local raw materials, obsidian was mentioned several times. Obsidian was popular both in the Upper Palaeolithic and the Neolithic, but both periods preferred the Carpathian I – Slovakian variety, which is not only of much better quality, but occurred in a greater quantity and in larger lumps. The variety we found in the workshop was hardly ever used. Slovakian radiolarite and felsitic porphyry are two other characteristic raw materials of the Palaeolithic, rarely if ever found on Neolithic sites in Hungary.

The indirect proofs seem to suggest that the workshop was used in the Upper Palaeolithic, it had northern contacts, its significance, however was not essential in raw material catering. There is just a single sign, which may show farther. On the terrace of the Ipoly (Ipel) at Hont (North-Hungary), about 150 km west of Korlát, a find group was found on the surface last year. In comprised a few Neolithic sherds (Lengyel Culture) and related stone fragments. A few metres from the Neolithic sherds and chipped pieces, Upper Palaeolithic implements were collected (burin, end-scraper, retouched blade) together with a fragment of a bifacial leaf-shaped implement, flakes and waste. Among the waste material there was a piece, which highly resembles the Korlát type raw material. It cannot, however, be excluded that similar type limnic quartzite exists closer to Hont. To date, the Korlát material is in an early stage of analysis. Its detailed technological analysis and comparison with other sites may uncover further details and perhaps help cultural attribution as well.
REFERENCES


