PROBLEMS OF THE UPPER PALAEOLITHIC
IN THE NORTH-WESTERN PART
OF THE CARPATHIAN BASIN

ABSTRACT — Recently the new investigations in the north-western part of the Carpathian Basin have stimulated further evaluations of the stone industries of the Lower, Middle and Upper Palaeolithic. The multilayered Palaeolithic settlement in Korolevo on the southern bank of the river Tzsa between the Transcarpathian Ukraine and Transylvania has proved not only the oldest settlement, but also the Upper Palaeolithic finds stratified among the uppermost Middle Palaeolithic layers.

The finds in Eastern Slovakia, Northern Romania and the Transcarpathian Ukraine may be considered to be the result of the local development of the Palaeolithic in the upper part of the river Tzsa, where, as opposed to the Horodok group of the earliest Upper Palaeolithic industries (the Aurignacian), it is possible to find the so-called Upper Tzsa Aurignacian probably based on the development of the local late Middle Palaeolithic.

KEY WORDS: Carpathian Basin — Eastern Slovakia — Middle/Upper Palaeolithic — Aurignacian.

The Soviet archaeologists' discoveries in the territory of the Transcarpathian Ukraine during the last decades have contributed, to a considerable degree, to solve the questions of the Palaeolithic settlement in the north-western part of the Carpathian Basin.

In the past the known localities in that region were situated in the territory of Eastern Slovakia and Northern Transylvania in Romania. However, they mostly belonged to the Upper Palaeolithic and their stratigraphic position was known only sporadically (for example Čejkov II, III, Remetea-Șomog I, II, Boiuști, Calinești etc.). Formerly the only proofs of the Lower Palaeolithic were sporadic finds and the Middle Palaeolithic, with the exception of the sites in Spiš and Northern Transylvania, was found very rarely. The continuity of the Middle Palaeolithic industries in the Upper Palaeolithic of this region has been stratigraphically proved only in the territory of Romania.

It is this point of view that accentuates the relevancy of the unique multilayered site so far known in the region of the Upper Tzsa in the Transcarpathian Ukraine, Korolevo I, II where the Soviet Palaeolithic expedition (Gladiulin 1982, p. 96—97, 1982a) discovered a superposition of Lower and Middle Palaeolithic layers. In their upper part covered by the denticulated Monasterian an Upper Palaeolithic layer was intercalated (Korolevo I, layer Ia) and it contained the finds made by prismatic technique and accompanied by the end-scrapers, which could be similar to the finds of the Upper Tzsa Aurignacian group (according to L. Rémesz 1968) and the layer with the industry which is an intermediate link between the Monasterian and Upper Palaeolithic (Korolevo II, layer II). From a geochronological point of view they are dated to the Lower Würm. In Korolevo I they occur under the fossil soil of the Middle Würm, in Korolevo II the industry of transition belongs to the
group of layers between the first and second fossil soil.

The site of Beregovo in the same area is a place of the cultural horizon with Upper Paleolithic finds (the Aurignacian) in the lower part of the group of layers over the second fossil soil, which is identified as Paudorf (1) fossil soil (Giselin 1962, p. 97).

Besides these stratified finds in the Transcarpathian Ukraine a certain possibility of geochronological dating exists in the territory of Eastern Slovakia, where the multilayered Middle Paleolithic occurs in the R—W Interglacial only in Spiss (Gáncovce, Hotka, Beláరovce) without being continued by the early phase of the Upper Paleolithic. In the Spiss localities there were small Mousterian industries till the beginning of the Wurm; some elements (side scrapers with flat retouch) resembling the Jankovician finds in the western part of the Carpathian Basin (Gáncor-Cískal 1986). The traditions of the Spiss "Ganovician" are reflected, in a lesser degree, even in the Lower Aurignacian of the Hornád group in the form of quartz industry, which, together with pointed artefacts and side-scrappers, is represented, to a high degree, in the earliest Aurignacian industries of Eastern Slovakia.

Unfortunately, there are only very fragmentary geochronological data concerning the following period of the beginning of the Upper Paleolithic in Eastern Slovakia. This fact mainly concerns the abundant find-sites of the Aurignacian, which are concentrated in the valley of the Hornád river and were dated by F. Procek (1895) and the author to the Middle Wurm Interglacial (W1—2) and the first half of Wurm 2; the mentioned dating was based on the filling of dwellings in Barca II. The dating of the Aurignacian in the Hornád valley was enabled not only owing to Barca settlement sections, but also owing to some localities, which became a source of important data on the stratigraphic position of the Paleolithic. These sites in the Kolice Basin also include Kehnee and Seka (in the central territory of the village of Brána) (in the frontier of Hungary and Czechoslovakia). Here the Upper Paleolithic finds come both from surface parts of the fossil soil and the overlying loss horizon, which developed over the remains of Interglacial Wurm sediments in two layers divided in the Upper Wurm by solification infiltration or by the interruption of loss sedimentation. From a point of view of the stratigraphy of the Paleolithic settlement of Eastern Slovakia, an interesting situation exists east of the Slanské Hills and Zemplíns Hills, where the environs of Cekjov can be considered the only stratigraphic place. Cekjov I, the most important site, is the place not only of a surface find of the Lower Paleolithic flake split by the Levallois technique, but also of Middle Paleolithic-like finds, which occurred in the greenish-yellow loss in a secondary position after the solification (found in the pit section from the year 1960, the depth of 310—320 cm). The mentioned finds were 5 small obsidian pebbles, an obsidian flake in the form of a semi-finished end-scaper with a retouched arch-shaped front part and edge, a pointed flake with a cortex, 2 core fragments and 2 small flakes (Fig. 1). All these obsidians were covered with very strong patina. As far as other tools are concerned, let us mention a small flint triangular point with flat retouch on its ventral side, 2 obsidian pebbles and 1 quartz pebble and 1 limonite-arzite flake with patina.

The underlayer contains the remains of basal parts of red-brown fossil soil (probably R—W) with considerably developed vertical bands of pseudogley on the Riss layers. Under the surface of these remains it is possible to find strong wedges filled with pseudogley.

In the upper part of the greenish-yellow loss overlying these wedges there was a redeposited soil layer of a strong brown colour, 15—20 cm thick, found in the eastern part of the deep-pit section. This kind of soil was not registered in the other sections. Over this loss there is a complex of humic layers, whose light-brown coloured basal part was decaledified. In this fossil soil complex it was possible to register two layers of shelly obsidian blade-shaped flakes without patina both in the upper part of the upper humic layer in the depth of 163 cm and in the lower humic layer roughly on the level of a fireplace found in this group of layers.

The age of the buried soil horizons of the Upper Wurm has not been determined yet. The dating of the fireplace from this group of layers is based on unambiguous data C, from two independent laboratories (Kén 19 660 ± 360 and Berlin 19 735 ± 240 years). This dating enables to define a time section in the north-eastern part of the Carpathian Basin; this section is the so-called Ceven Interstadial and it is proved by the remains of fossil soil in its losses and it belongs to the Upper Wurm at the turning point of the 20th and 19th millennium B.C. with minimum deviations in absolute dating.

At the same time this mentioned section represents a certain boundary in further development of the Upper or Late Paleolithic, as there are finds here (especially the fireplace remains, which can be found in the uppermost fossil soil), which were found in other sections of the Cévov Interstadial and the loss sediments overlying this Cévov Interstadial. The sediments in the upper part of the locality create a 250 m long, continuous, here and there partially denuded layer of loss sedimented over the uppermost remains of fossil soil.

In the positions of the uppermost loss sediments it is possible to find three other layers of finds, mostly with the obsidian industry; they occur both in the lower part of the youngest loss and in its central parts and in the surface parts immediately under the strongly developed layer of Holocene initial brownsoils.

As far as the lower parts of the Upper Wurm are concerned, it is possible to find the remains of an Upper Paleolithic dwelling. These remains contain an abundant stone industry of a Gravettian type in the upper part of the site (Ráson, Piesta, 1961). It was found as early as in the first phase of the systematic research of this locality; later explorations
revealed traces of fireplaces. The middle phase of settlement in the uppermost layers gave us only discontinuously spread gravettian finds of an obsidian industry together with bone finds and fireplaces traces at the top of the hill. (Excavations 1987). The uppermost layers also contained the deposited obsidian raw material, while of the settled layers under the initial brownwash was a place where an antler artefact and a mammoth tusk of a young animal occurred.

The system of stratigraphic data in the environs of Cějkov was completed by the finds of the Late Paleolithic industry discovered in the locality of Cějkov II in 1987; in the mentioned place the Late-Gravettian industry occurred in the lower part of the postglacial floor. Here there were backed bladelets and a small point of a Váchowie type. These stratigraphic data make us mention the position of the finds in Cějkov I and in the nearby locality found by L. Bánész at Hréc a in the year 1960, where the following research done by L. Ka-

minský also proved the position of the Late Gravettian industry in the lower parts of postglacial sediments contiguous with the uppermost Würm sediments.

The correlation of the finds from the area of Cějkov, Kysta, Velštej, Michalany and Kašov, which are situated in the surface part of loamy sediments immediately under forest humus, as well as the surface finds from the area of the Upper Tisza belong, at present, to the most exciting research programmes of various specialists from Quaternary and Holocene geology and pedology.

At present the stratigraphic position of the Upper Paleolithic finds with flat retouch in Eastern Slovakia is based only on the oldest element of this technique in Barca II in connection with the Lower Aurignacian (in the Middle Würm Interstadial) and on the finds of the same Interstadial in Veľký Šariš. A certain similarity can be seen in case of surface finds from Kochme, Čečovce, Spišské Podhradie and other localities. These finds have leaf-points with a bifacial, unifacial or outlined technique of flat retouch, they occur in Eastern Slovakia in many sites and they belong to the Aurignacian or they are isolated finds.

Besides the Middle Paleolithic finds in Spiš, which occur in a superposition there, there are also numerous Middle Paleolithic finds existing in the rest of the territory of Eastern Slovakia and representing an important component of the oldest Upper Paleolithic industries (the Aurignacian). They suggest a certain possibility of their local origin and certain contacts with the territory of the Transcarpathian Ukraine.

Recently a lot of attention has been also payed to the Middle Paleolithic localities of Northern Hungary, where the finds resemble the Microwein in Moravia and they can be related to the Middle Paleolithic from the region of the Upper Tisza. In this region, in the basin of the lower stream of the river Sačó (Sáčovský Sáz) at the beginning of the Bukk Hills it is possible to consider the so-called "Bábyňová" group, which is, according to Á. Ringer's view (1983), the Middle Paleolithic industry with Microwein elements and an archaic Acheulian component. The stone industry, which has not been dated yet (maybe the beginning of the Lower Würm and W 1), is, from M. Gábor's standpoint (1981), in a similar industry to the Upper Danube Microwein group. The "Bábyňová" inventory contains finds which are different from the Bukk Hills Mousterian: small hand-axe-like forms, side-scrapers and bifacial flat points.

This industry also includes the Korášt finds, which are in the East-Slovakian Museum in Košice (old inventory number 1318—1350) an come from the Baražinka site (Skúth 1938). H. Breuil classes them as the industry ranging from the Upper Acheulian to the Microwein. Such an industry is similar to the South-Polish, Moravian and Austrian finds. The finds coming from the environs of Korášt and mentioned by J. Skútí also can be analogous with the Upper Paleolithic find from the nearby locality of Hornád—Bohrzdúľ (Simán 1986).

The Hungarian inland in the environs of the Bukk Hills and the northern part of the Carpathian Basin are the places of the best stratigraphic example from the beginning of the Upper Paleolithic. These layers occur in the Istváncső cave with Aurignacian finds from the Lower Würm Interstadial and being 36 000 years old, the lower layer containing bone points with a split base (Vértés 1959) and 30 710 ± 600 years old — the upper layer containing bone points with a base of a Mläde type. This dating is probably in harmony with the older Aurignacian in the Hornád valley and maybe with Late Monsterian layers in Transylvania (Kedély). The Aurignacian in the Bukk Hills are not in a direct stratigraphic contact with the Middle Paleolithic; a similar situation exists in Slovakia.

The stratigraphic relation of the Upper Palea-

Ordithic with Middle Paleolithic layers in the northern part of the Carpathian Basin concerns, besides the already mentioned Korósfő finds, the finds in Northern Transylvania in Romania.

There are some Aurignacian industries in a superposition over the Late Monsterian dated back to the Interstadial (Boinesti, Remeteș Şomoa I, Şomoa II). The Aurignacian in Calineşti I represented a layer underlying the Gravettian or it was a single layer (Calineşti II, Birit, 1972).

Besides the stratigraphic position, a certain contact with the Late Monsterian can be also seen in the stone industry, which contained not only Upper Paleolithic artefacts, but also typical blades and cores of an Upper Paleolithic type as well as end-scrappers similar to Aurignacian types.

However, the lower layers of the mentioned sites belong to the very late phases of the Monsterian with the finds of end-scrappers and points together with flat retouched artefacts. The industry seems to be developed and it could form, hand in hand with the finds of the Transcarpathian Ukraine, a real basis for the Upper Tisza group of the Aurigna-

cion (Bán 1986), within the framework of which it is possible to speak about the Upper Paleolithic finds of the Transcarpathian Ukraine together with the Aurignacian in Osáj and in the localities in the territory of Eastern Slovakia east of the Zemplin—Tokaj Hills.

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