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THE EARLY PALAEOLITHIC SETTLEMENT IN THE REGION OF THE MIDDLE COURSE OF THE RIVER MORAVA (CZECHOSLOVAKIA)

ABSTRACT — The recent results of the field research indicate that the first evident traces of the presence of man in the investigated region of the middle course of the river Morava are much older than it had been supposed. There are several pebble stone industry localities situated at the top of the alluvial slopes along the river Morava and elevated about 30–40 m above the fluvial plain. The collected sets of stone artefacts are dated to the early stage of the Middle Pleistocene according to the conditions of their depositing, strong eolian abrasion and other traces of weathering as well as a simple technique of their chipping.

KEY WORDS: River Morava region — Lower and Middle Pleistocene — Early Palaeolithic stone industry — Staré Město locality II.

INTRODUCTION

The region of the middle course of the river Morava extending approximately between the towns Kroměříž and Hodonín belongs, in comparison to the lower courses of the rivers Jihlava and Svatka and the surroundings of Brno, to the least researched regions of the whole territory of Moravia within the framework of Early Palaeolithic research. With the exception of several Late Palaeolithic localities the hitherto oldest evident find from the investigated area was represented by the flat hand-axe from Karolín (the district of Kroměříž) made of radiolarite and belonging to the Late Acheulian together with several other implements (Oliva 1981). The older traces of settlement were lacking completely, although it can be supposed that this region undoubtedly offered suitable conditions for more permanent settlement of Palaeolithic groups owing to the broken character of the surrounding landscape and a relatively favourable climate during the whole Pleistocene;

it is evident that it was also a corridor from the south to the western and northern parts of central Europe.

From a geographical point of view the investigated territory comprises the northern part of the Lower Moravian Basin and the southern part of the Upper Moravian Basin separated by the Napajedla Gate. From the western side the region is lined by the Chřiby Mountains and the "Kyjovská pahorkatina" Hilly Land, the eastern borders are created by the "Vizovická vrchovina" Highland and the ledges of the "Bílé Karpaty" Mountains.

In the course of the year 1987 I succeeded, during my regular field investigations, in recording several localities with the pebble-tool industry which are situated on hills and slopes along either bank of the river. The Staré Město II site was found in autumn of the same year and in the course of the following four months approximately 150 artefacts were collected, a part of them being presented within the framework of this preliminary report.

STARÉ MĚSTO LOCALITY II

The locality itself is situated on the right bank of the river Morava about 1 km west of the town Staré Město/Uherské Hradiště on the alluvial slope separated from the northern side by the valley with the brook Salaška and elevated approximately 35 m above the fluvial plain (i.e. 215 m above the sea level), into which it slants down slowly. The finds have been scattered in the upper part of the highest place its, where the arable soil was partially denudated and where ploughing disturbed upper sandy gravel deposits created by proluvial sediments. However, the stone industry is also unequal, concentrated in the area of 50 by 50 m in the distance of about 200 m from the first place, where the soil directly covers only a very thin fluvial sediment; overlying Neogene silts and gray-greenish clays. The observation about the structure of the upmost layers of the underlying bed to the depth of 1.3 m was obtained according to the profiles of the trench of the gas pipeline, which intersects the whole alluvial slope from the north to the south, its length being several hundreds of metres.

The tools were manufactured only of the local raw material from the surface of proluvial sediments, which probably remained uncovered for a longer period of time after finishing their accumulation and thus accessible to people. They were created by the rocks which were, together with coarse-grained sand, partially dirty with clay, washed down and deposited by water from Paleogene conglomerates of the near by Chřiby Mountains. Besides resedimented fluvial quartz pebbles it is possible to find a great number of hornstones with a black cortex, so typical for Baden weathering, various quartzites, silicites, granitoids, fewer crystalline schists and flysch sandstones. The size of the artefacts ranges from small pieces of 2–3 cm (quartz) to the bigger ones weighing more than one kg (granite, quartzite). The edges and the surfaces of most of the tools are strongly eolized and especially in case of hornstones they are very polished. Slightly abraded pieces occur only scarcely and they prove, as well as the artefacts with unequal weathering of the surface, different conditions of their depositing in the upper layer, which prevent climatic influences in the whole range. This fact indicates that the stone industry underwent only little natural displacement in the course of the time and it remained in its original place. A part of the finds, mostly hornstones and silicites, is irregularly covered with white patina and most artefacts are marked by rust as a consequence of their contact with metal implements used at an intensive agricultural activity.

From a morphological point of view the whole assemblage makes a very primitive impression notwithstanding its shape variety. The chipping of pebbles or small blocks of amorphous rocks consists in the hard hammer technique, which, in spite of its simplicity, explicitly proves the artificial character of most of the collected material. A part of the industry shows an irregular, in most cases secondary, retouch in functional edges, which was

caused by utilizing the tools, and other traces of material stressing in exposed places.

The most frequent tools are simple unifacial choppers of various shapes and sizes usually chipped by one, two or more strokes. On the other hand, more modified pieces — bifacial choppers (chopping-tools), épannelés, polyhedrons and crude protobifaces are less frequent. The edges of a great part of shaped pebbles and small blocks are pointed and according to their functional determination they can be generally classed as pick or crude burins in case of smaller pieces. The same fact, a tendency to pointedness, is proved by some coarse flakes and core rests. A small amount is represented by pebble-slice flakes with a cortex rest on their base (éclat en quartier d'orange), thick irregular flakes with an average size of 3–8 cm and corresponding quadratic cores reaching big dimensions in several cases. At the end of this short survey it is possible to mention several remaining irregular and damaged artefacts, some hammerstones and working unmodified waste.

The dating the stone industry of the mentioned locality is based upon its deposition on the surface of the alluvial plateau created by proluvial sediments. According to the results of the geological research of the northern part of the Lower Moravian Basin

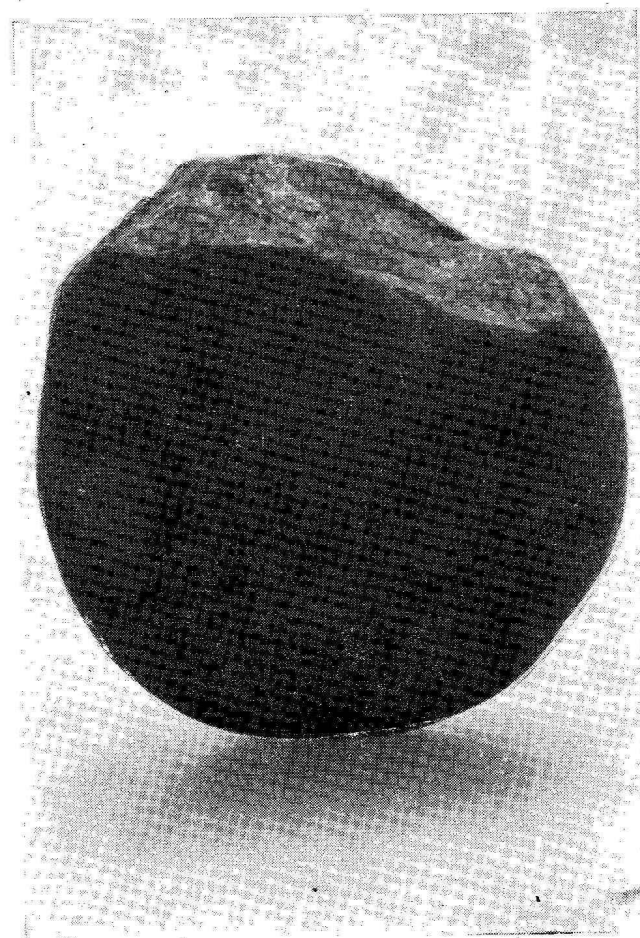


FIGURE 1. Chopper with the distal end modified with five unequal scars, centrically converging in a blunt low point.

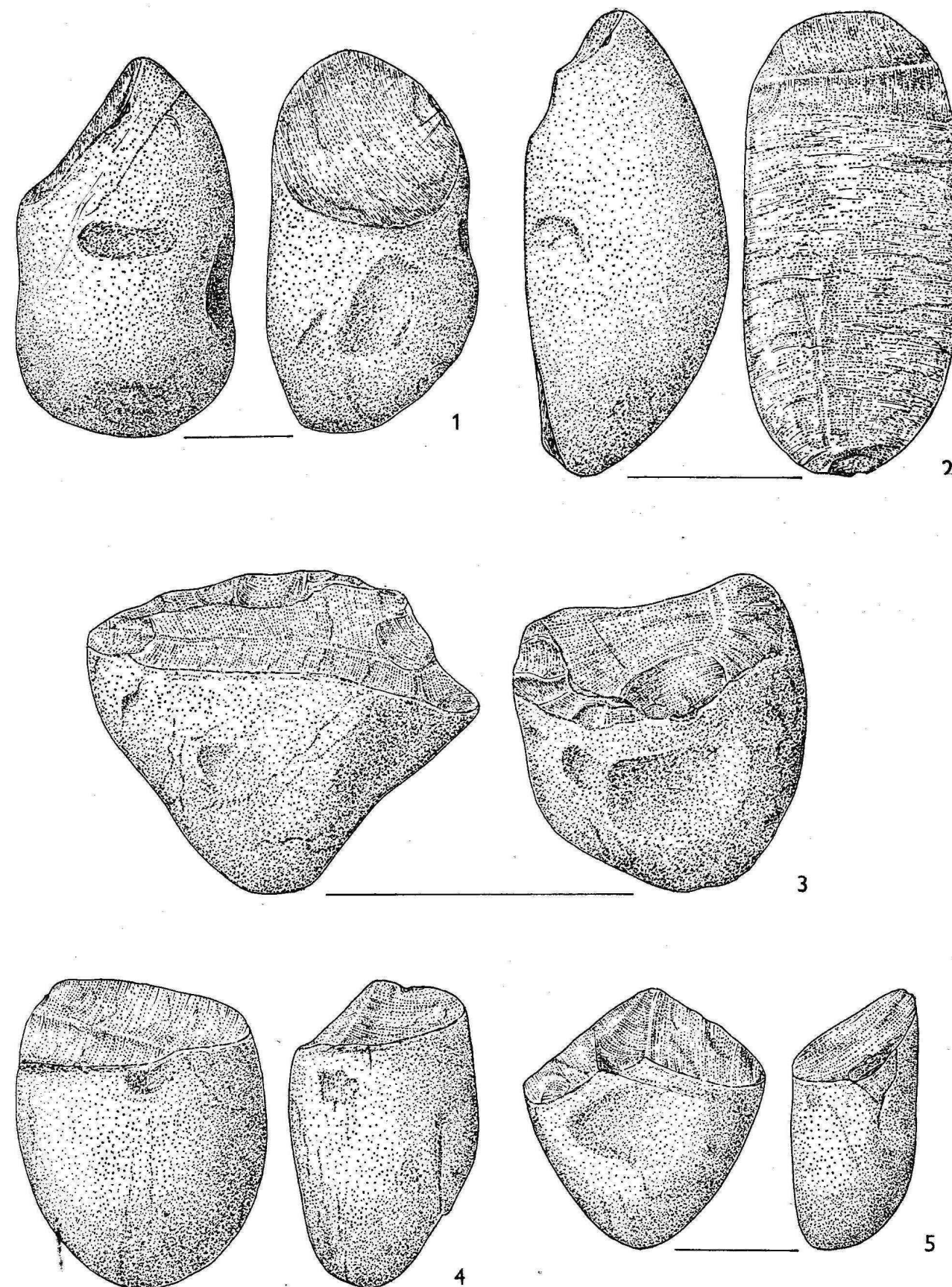


TABLE I/1. Chopper with one regular concave scar. Light-brown quartz, strongly eolized.
2. Chopper of a halved pebble, the distal end of which is modified by several strokes. White quartz, strongly eolized.
3. Chopper with a convex arched face modified by one side stroke. Its edges show an irregular retouch. Light hornstone with white patina on the shaped face, strongly eolized.
4. Chopper with two scars on its distal end. Hornstone from Baden sediments with a black cortex, strongly eolized.
5. Chopper with three converging flake scars creating a low point. Hornstone from Baden sediments with a black cortex, strongly eolized.

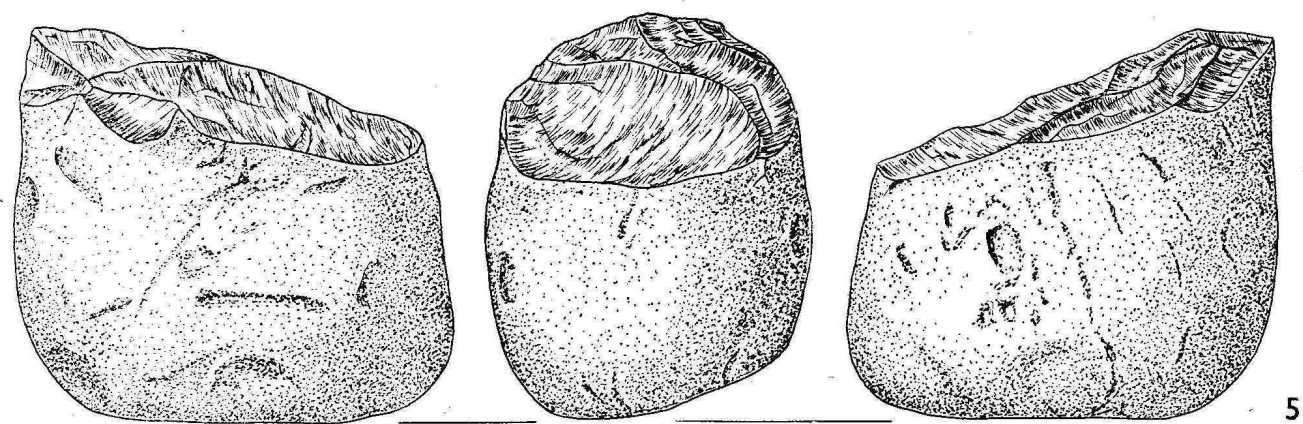
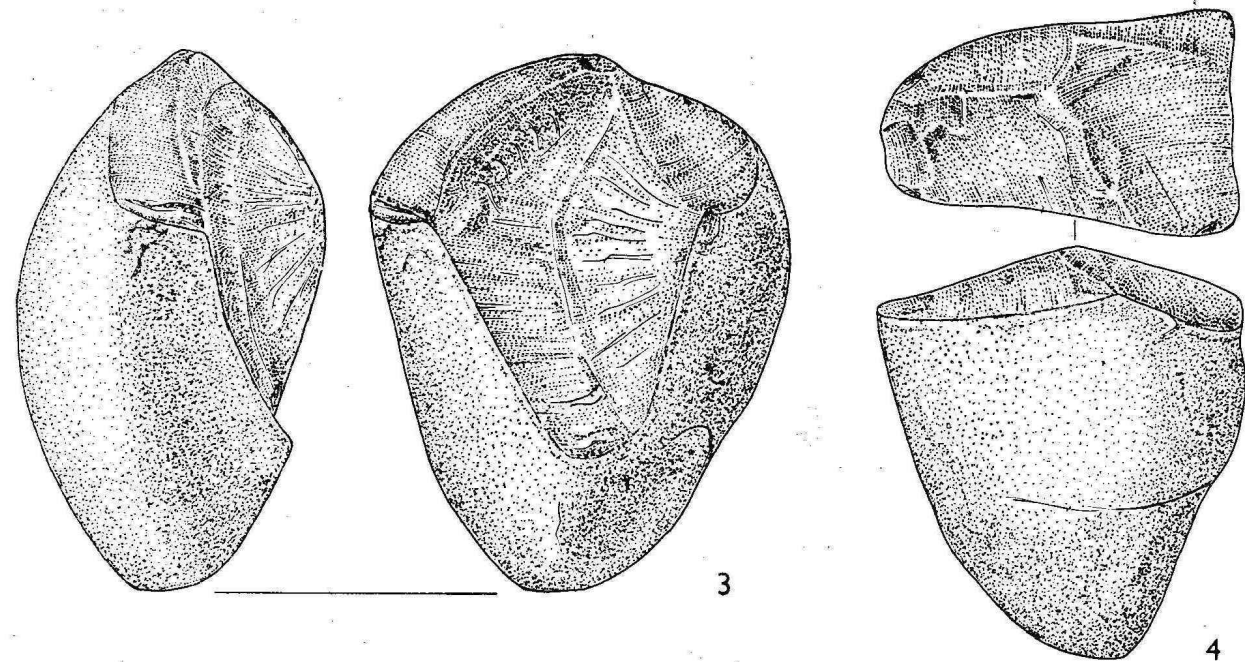
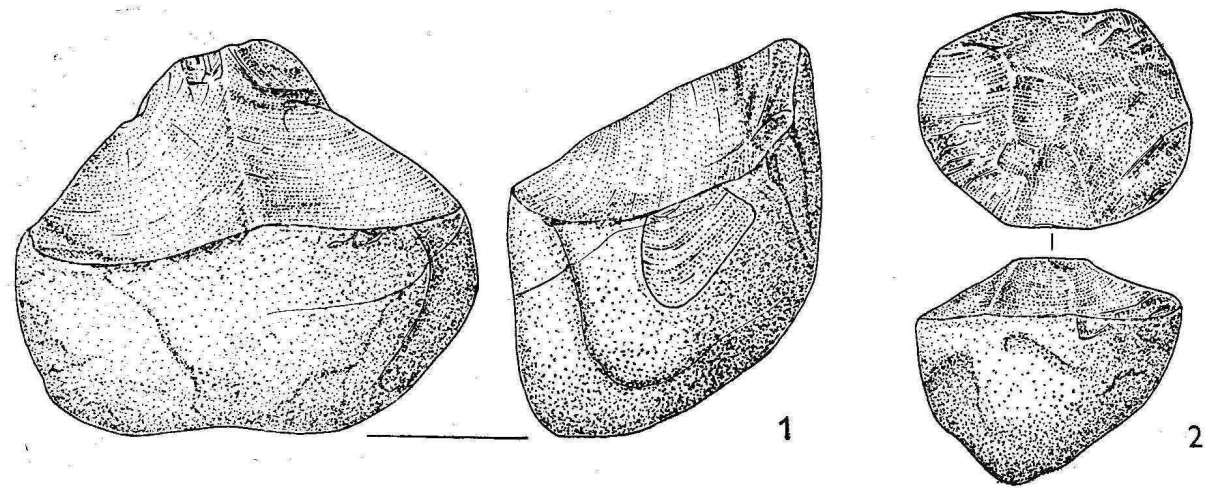


TABLE II/1. Chopper with two converging scars creating a blunt pointed end. Light-brown quartzite, with white patina on the modified face, strongly eolized.
 [2. Epannelé typique with centrically converging scars. Hornstone from Baden sediments with a black cortex, strongly eolized.
 [3. Chopper with the distal end modified with three negative flake scars. Light hornstone with white patina on its chipped face, strongly eolized.
 [4. Chopper made of an irregular pebble with several horizontal scars on its distal end. Hornstone from Baden sediments with a black cortex, strongly eolized.
 [5. Chopper crudely shaped on one of its ends. Brown quartz, slightly eolized.

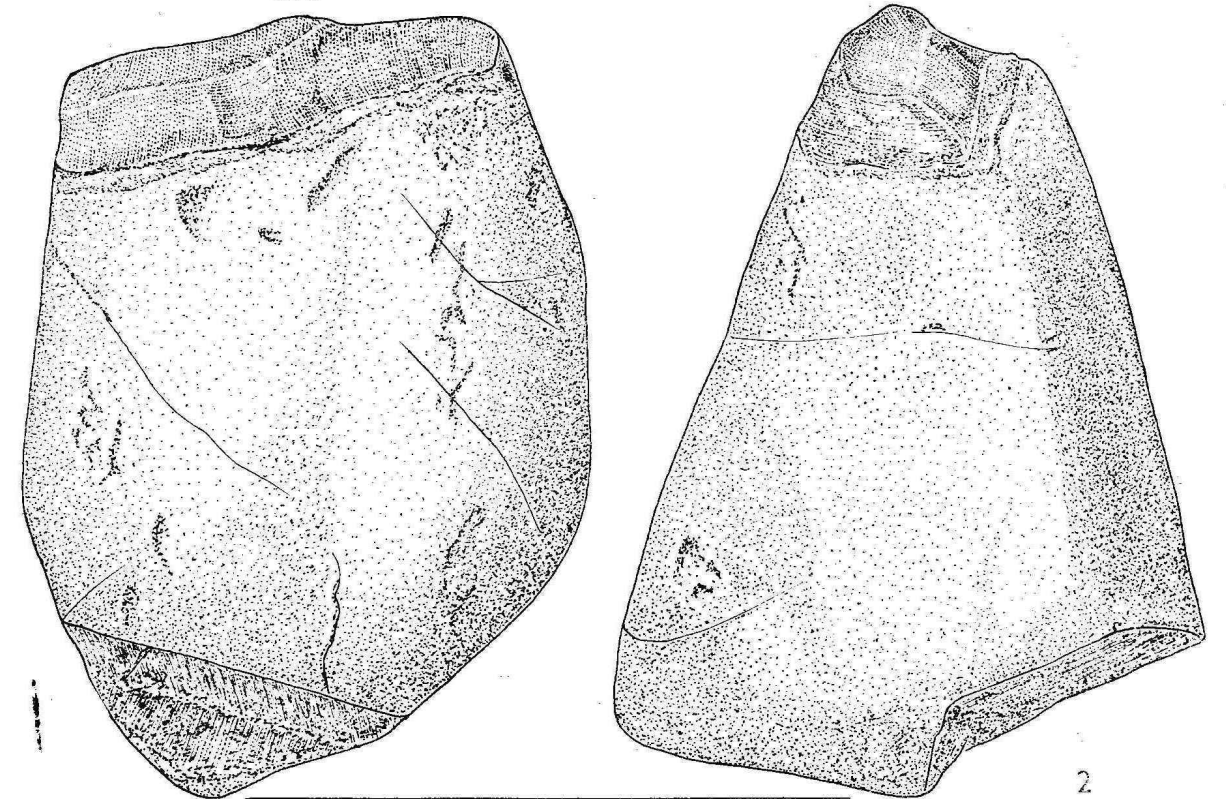
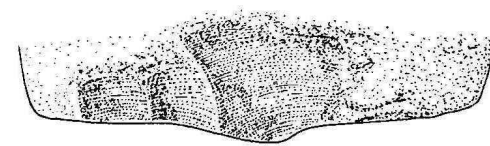


TABLE III/1. Chopper with the distal end modified with five unequal scars, centrically converging in a blunt low point. The artefact can be classified as one of the most impressive tools. Light-brown quartz, the strongly eolized modified surface shows a dark-reddish colouring.
 [2. Massive chopper with a transversal distal edge. Light-brown quartzite with the traces of white patina, strongly eolized.

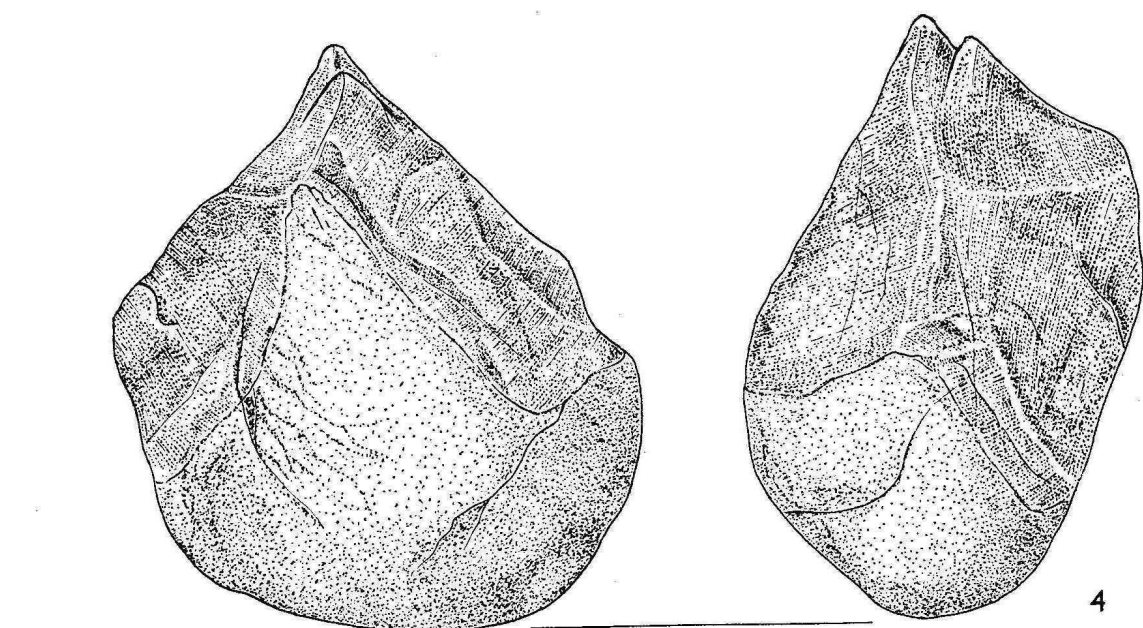
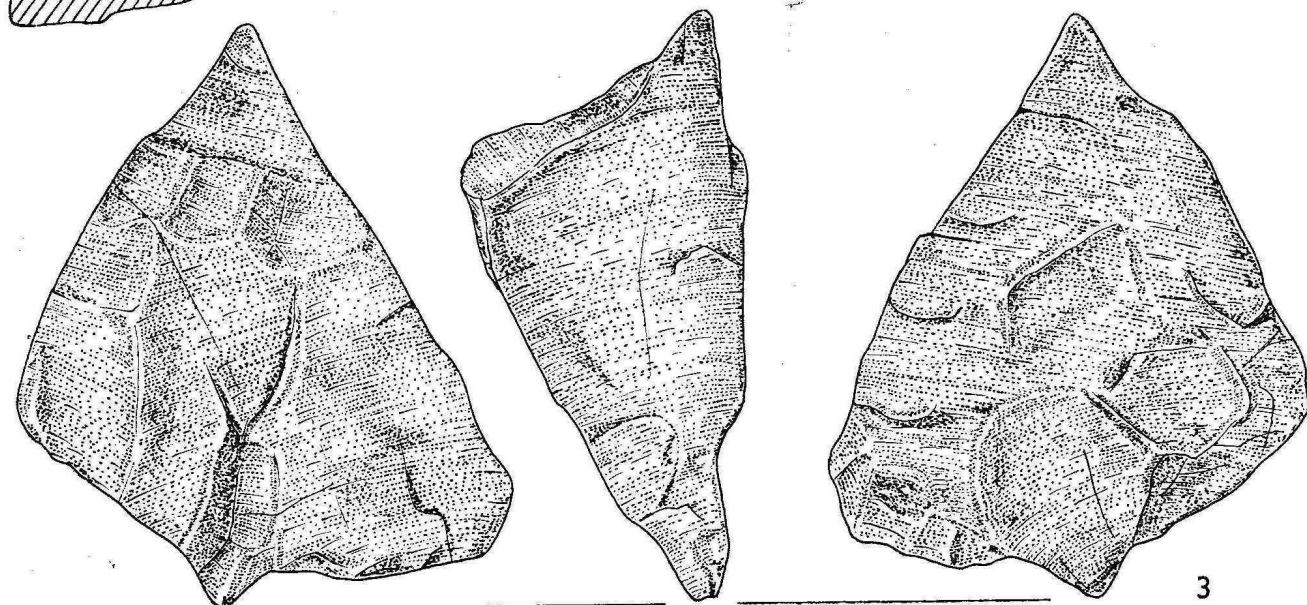
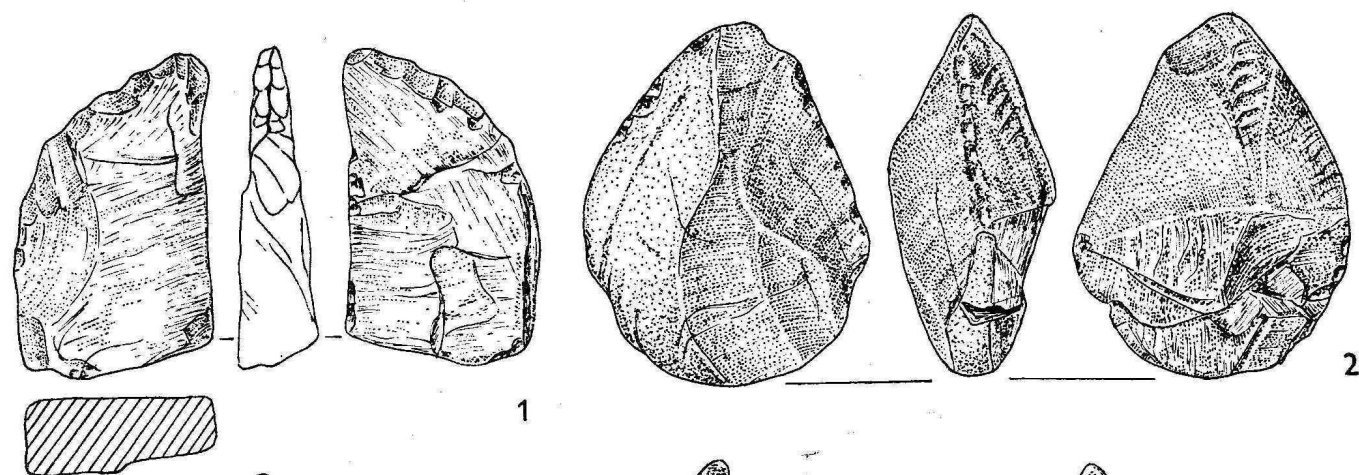


TABLE IV/1. Small flake with an irregular bifacial retouch on its convex edge. Light-brown quartzite, slightly eolized.
 /2. Chopping-tool with several scars on either side and a minute retouch on its edge. Hornstone from Baden sediments with a black cortex, strongly eolized.
 /3. Pick with two opposite, unequally manufactured points on its distal and proximal ends. White quartz, strongly eolized.
 /4. Pick with a point modified in a secondary way. Light-brown quartz, strongly eolized.

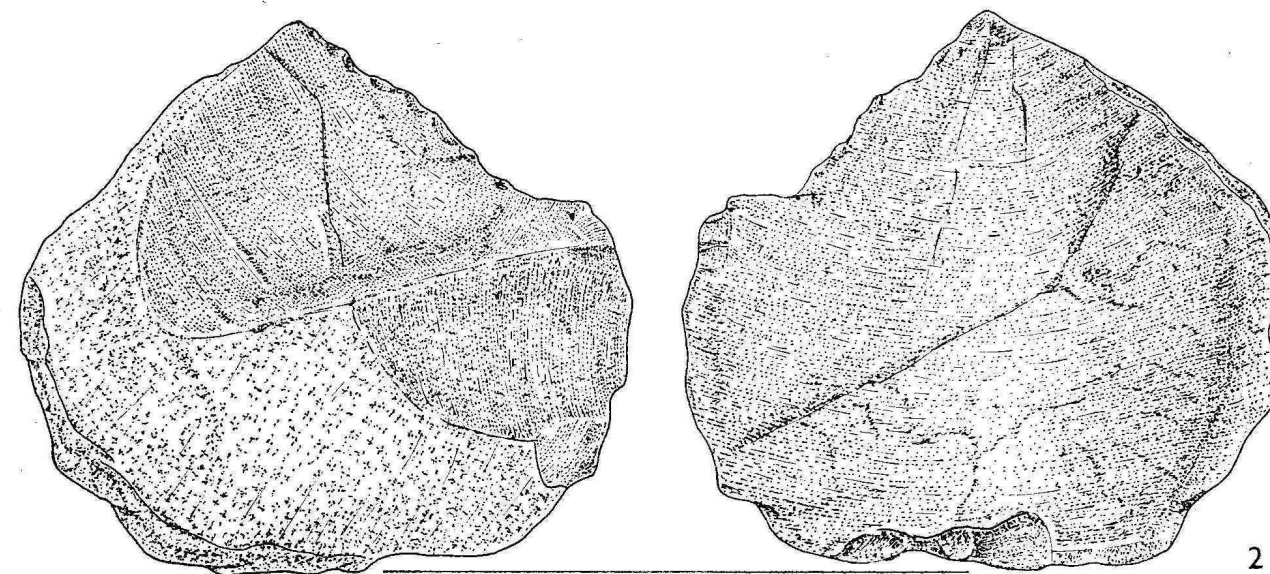
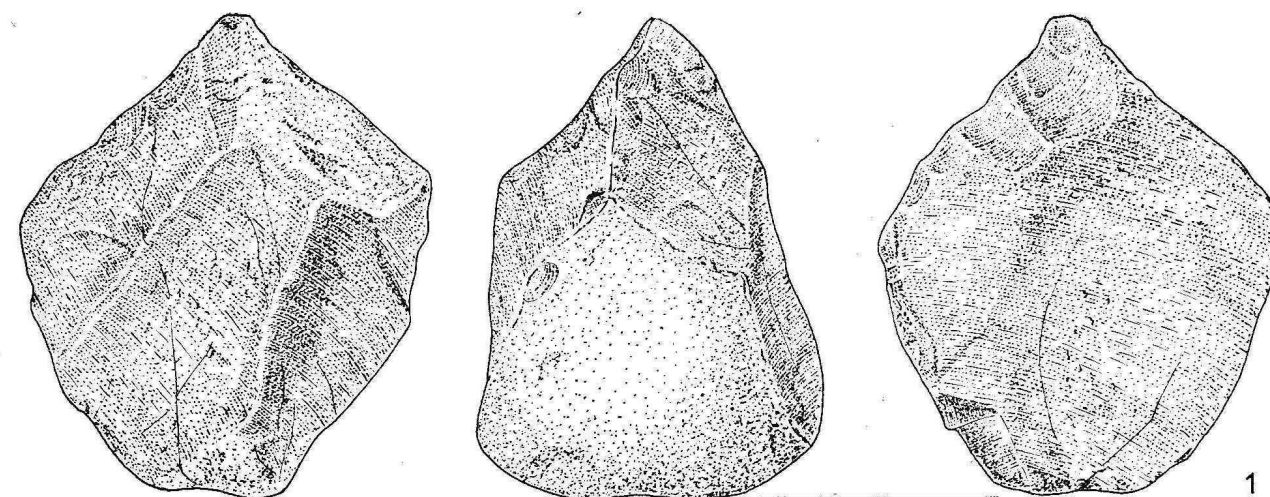


TABLE V/1. Pointed chopping-tool with a cortex rest and a crude retouch on a working edge. Hornstone with white patina on its modified face, strongly eolized.
 /2. Side scraper on a flat flake with a cortex rest on its base, pointed by a stroke from the right side. The obtained edge is slightly retouched. Brown quartzite, strongly eolized.
 /3. Chopper made of a halved irregular pebble with a cortex rest and four parallelly oriented scars on its dorsal side; the edge is marked by a secondary retouch. Brown quartzite, strongly eolized.

carried out by the Central Geological Institute Prague (Havlíček 1980, Minaříková 1982, Zeman et al 1980) the accumulation of these sediments bordering the eastern and south-eastern slopes of the "Kyjovská pahorkatina" Hilly Land and the Chřibý Mountains took place in several phases in the course of the Early and Middle Pleistocene. These sandy-gravel sediments were deposited by local streams either directly on the Neogene underlying formation or in case of younger deposits with the thickness of 1–3 m they overlapped the Rissian Age Main Terrace, its surface being 12 m above the river (Havlíček 1980). The general chronological determination of the highest niveau of this alluvial plateau in the Early Pleistocene consists, besides the position of sediments on Tertiary clays and of a 30–40 m elevation above the recent level of the river Morava, in intensive limonitization and a high degree of rock weathering, as well as in the neighbouring proluvial slope situated 2 km north-west of the town of Staré Město (Havlíček in Zeman et al 1977, Havlíček 1980).

CONCLUSION

According to Dr. K. Valoch's point of view (pers. comm.), with whom I have visited this locality, it is possible to compare the local finds with the pebble stone industries of Přibice in South Moravia (series II, III) dated to the Early Pleistocene and the Mindel Glacial Period as far as morphology is concerned (Valoch et al 1978, Valoch 1982, 1983, 1986). Their depositing, strong eolian abrasion as well as shape simplicity indicate that they should belong to the earlier stage of the Middle Pleistocene, but it is not out of the question that a part of them could be even older due to a striking reddish colouring of chipped faces especially in case of several tools of quartz and quartzite, which characterizes the processes of weathering taking place under the warm subtropical conditions typical for the Early Pleistocene.

The most illustrative example of the mentioned weathering is a chopper with a bluntly and dark red coloured pointed distal end (cf. Table 3.1; Fig. 1). Probably in the same period, at the beginning of the Mindel Glacial Period, after the change of the course of the river Morava through the Napajedla Gate, a system of lakes came into existence

as a consequence of the Neotectonic movement in the northern part of the Lower Moravian Basin. (Zeman et al 1980, Minaříková 1982). There is no doubt that those lakes offered favourable conditions for the settlement of their neighbouring banks. They disappeared at the end of the Mindel and in the course of the following Riss Glacial Stage the fluvial system of the river Morava was formed following its contemporary course.

These observations suggest that this stone industry together with other finds which have not been published yet explicitly prove the oldest hitherto found traces of the presence of man in the river Morava region, which can be regarded owing to its geographical position as one of the most relevant areas for the recognition of the Early Palaeolithic on the territory of Czechoslovakia.

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