

Jan Fridrich - Ivana Fridrichová-Sýkorová - Jaroslav Tyráček

An Upper Acheulian occupation site on a palaeomeander of the River Vltava at Dejvice

ANNOTATION

From prehistoric archaeological view Dejvice Prague quarter belongs to sites, which repeatedly bring new evidence about the life of our earliest ancestors. Archaeological excavations undertaken by the authors on the building site of National technical library found artefacts and other archaeological evidence, which can be dated to the early Middle Palaeolithic at around 250 000 B. P., which is the earliest human evidence in the Dejvice and inner Prague area. Although several stratigraphical separate groups of fi nds belong to a single cultural domain, settlement geographical evaluation of the position of the fi nds enables a very probable case for two settlement phases on the riverside of the Vltava palaeomeander by middle Palaeolithic hunters. Archaeological characteristics of fi nds assemblages and other data are preceded by the fi rst comprehensive evaluation of geological development of the ancient Vltava river Palaeomeander system in Dejvice. Geological, morphological and archaeological data combine in a synthesis shedding light on the genesis of the fi nds and the topographical situation of the settlement in the early Middle Palaeolithic.

SUMMARY

During archaeological excavations undertaken in 2006 at Fleming square in Prague-Dejvice on the building site of National technical library we found artefacts and other archaeological evidence, which can be dated to the beginning of the Middle Palaeolithic, i.e. around 250 000 B.P. This is the earliest human occupation evidence from Dejvice and the inner Prague area (FRIDRICH 1982; 2005; 2007; FRIDRICH – FRIDRICHOVA-SYKOROVA 2009; under preparation). Although the fi nds belong to a single cultural domain, evaluation of the occupation geography of the position of the fi nds enables a very probable case for two occupation phases on the riverside of the ancient Vltava palaeomeander by middle Palaeolithic hunters. This assumption is based on the analysis of artefact typology, which besides Levalloisian stone manufacturing techniques includes a relatively high number of bifaces *s.l.*, with knives prevailing, minimum of scrapers and some polyhedrons *s.l.* (FRIDRICH – SYKOROVA 2005), which are characteristic of this Palaeolithic culture in Central Europe.

Since the fi nds were revealed in the dynamic palaeo course of the river Vltava, it is not surprising, that these artefacts were not found *in situ*, but where they had been redeposited by water action and processes connected with solifl uction and gelifl uction movements of deposits during the Saale and Wurm Ice Age. We presume that the transportation of these artefacts was only over a short distance, possibly within tens or hundreds of metres at a maximum.

The Upper Acheulian site is situated in the middle of large inverse meander of Vltava River. Its width was 1–1,5 km during various phases of its development. This Dejvice meander is a result of water fl owing round the large tongue of Hradčany knoll, a prominent ridge, oriented in W–E, formed by Letna stratigraphy belonging to the Beroun stage of Upper Ordovicium from very erosion resistant layers of quartzite and arkosic wacke. The excavation revealed a part of a section through palaeo Vltava river sediments. Within them a rocky knob was already registered; the excavated area was not too distant from its western edge, however it was quite distant from the cut of the river bank (ca 400 m). During the existence of IIIb terrace the rocky knob was most likely an island in the middle of the meander.

Middle Pleistocene sediments form a complex of two glacial phases at the minimum. One cycle is formed by layers 5–8. Terrace sediments (layers 6–7) probably belong to anaglacial (beginning) phase, while the gelifl uction horizon (layer 5) belongs probably to the cataglacial (end) phase.

The geographic position of the Upper Acheulian occupation fi nds from Prague-Dejvice can be modelled as follows. The Middle Palaeolithic fi nds belonging to layer 5 probably come from very near to the surface or directly from the surface of the rocky quartzite knoll, which was situated approximately in the middle of the ancient Dejvice

palaeomeander of the Vltava River. According to infrequent finds of struck quartzite artefacts and the bone fragments of large mammals, it can not be excluded that a hunters' occupation site dating to earlier phase of the Middle Palaeolithic, of the Upper Acheulian culture, was situated in the south-east, south and eventually, east direction. Its dating can be interpolated for more than 250 000 years. Evidence of the finds position in the area to the south from the rocky knoll is given by finds of large mammoth bone fragments at the building site of the ČVUT students' hall. They were found in the erosion channel on the surface of the IIIb terrace phase, which was also filled by redeposited terrace sediment material.

Hence the occupation was of a short period and of a specialised nature, probably focused on hunting and was similar to the site from the later phase of the Early Palaeolithic at Račíněves. Mammoth bone fragments found on building sites in the neighbourhood may have been connected with these activities.

The middle Palaeolithic finds belonging to the layer 4 are from the plateau, which was formed by the IIIb terrace phase. Since they come from the basis of the loess horizon from cold and arid phase of the next Ice Age or its stage, they represent a second phase of the occupation on this site. Since they belong to Upper Acheulian, they also belong to Saale glacial period. Hence their dating should be less than 250 000 years. The position of Upper Acheulian finds on the surface of terrace sediments in the middle of the Dejvice palaeomeander can be seen again as evidence for a short period of occupation by hunters of a similar character as in the previous case, which was situated on the side of Dejvice stream, which flowed into the IIIc terrace phase. The character of the settlement can be judged from traces of a possible hearth situated nearby and a block of a spiculite, which had been worked as the source for the chipped stone industry and was probably introduced to the site from earlier terrace sediment of the Dejvice stream or from natural outcrops in a radius of ca 3 km.

Fig. 1. A cutout out of the geological map of Prague-north (KRALIK 1983; KRALIK ET AL. 1984). **1:** Proterozoic; **2:** Ordovician; **3:** river terrace – Mindel; **4:** river terrace – earlier Riss (R1); **5:** loess; **6:** Holocene river sediments; **7:** anthropogenic sediments; **8:** area of interest; **9:** border of Dejvice terrace.

Fig. 2. Schematic picture of Dejvice palaeomeander of the Vltava after ZARUBA-PFEFFERMANN 1943, with the position of the excavation at Fleming's square – NTK almost in the middle of the meander III and position of the elementary section on the western side of the excavation. (Adopted from KOVANDA ET AL. 2001, fig. 18/7 and appended).

Fig. 3. Schematic sections through the Dejvice meander after ZARUBA-PFEFFERMANN 1943. **A:** approximately from south to north, section A–A' on the fig. 2 (based on KOVANDA ET AL. 2001, fig. 18/8); **B:** approximately west – east, section B–B' on the fig. 2 (based on KOVANDA ET AL. 2001, fig. 18/9). **1:** bedrock (grey), **2:** rough sandy gravel, **3:** sands and fine sandy gravel, **4:** hillwash, **5:** loess and loess soils, **6:** soil-sandy sediments, **7:** anthropogenic accumulations. Colour codes of the terraces correspond with fig. 2.

Fig. 4. Prague – Dejvice, Fleming's square plot no 591/2 building site of NTK. Schema of the section with layers 1–8, separate Palaeolithic find horizons (group I–VII), elementary levels in the Bpv system. **1:** road metal, asphalt, **2:** redeposited loess, **3:** recent subaquatic soil, **4:** yellow-brown loess soil, **5:** gelification horizon, **6:** yellow brown sand – terrace, **7:** coarse grey brown gravel – terrace, **8:** bedrock (levels in Bpv).

Fig. 5. Chipped stone industry. Cleaver (drawn by I. Fridrichova-Sykorova).

Fig. 6. Chipped stone industry. Hand-axe (drawn by I. Fridrichova-Sykorova).

Fig. 7. Schematic picture of Vltava and Labe terraces in the area around Řip (after: TYRÁČEK 2001b, fig. 2). Colour codes correspond with fig. 2 and 3 of Vltava Dejvice palaeomeander. Arrow points to synchronisation of geology and Palaeolithic finds below NTK. The rocky promontory of Hradčany with the cathedral set at relevant altitudes above sea level is showing the elevation relationship of Hradčany and palaeo Vltava.

English by Linda and Patrick Foster