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Gravettian lithics assemblages from Lubná (Bohemia)

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ABSTRACT

The first excavated Palaeolithic site of Bohemia was Lubná, where J. Kušta in 1890 excavated station I. At least seven other sites (Lubná II to VIII) were discovered in its vicinity over time, making the Lubná area the richest site cluster in Bohemia. It is also the only place in Bohemia where several stations are located in a small area. All sites belong to the Upper Gravettian period, dated to 25 to 21 ka BP.

For comparison of Lubná sites, there are 3646 artefacts from 6 sites in Lubná. The largest assemblage is Lubná III with 1442 artefacts; the second largest is the assemblage of Lubná II with 952 artefacts. Lubná IV has 566 artefacts and Lubná I 460 artefacts. The smallest assemblages come from sites Lubná VI and VIII (162 and 64 artefacts).

Dominant raw materials are silicites of glacial sediments from the north (Silesia and Saxony). There are small amounts of quartzites of northwestern Bohemia and Bavarian plattensilex.

All sites have very low amount of cores, and they show high stages of exploitation. Microchips, flakes and burin spalls demonstrate blade and tool production on sites. Tool composition is typical for the Gravettian with gravettian points and micropoints, domination of burins, and numerous microliths. Kostenki points are absent. Pavlovian microliths, triangles and segments, are present.

1. Introduction

The first excavated Palaeolithic site of Bohemia was Lubná, where J. Kušta excavated site I in 1890. At least seven further sites (Lubná II to VIII) were discovered in its vicinity, making the Lubná area the richest site cluster in Bohemia (Fig. 1). It is also the only place in Bohemia where several stations are located in a small area. Lubná is situated in the western part of central Bohemia, and all the stations were located on a gentle ridge slope facing southeast, protruding northeast from the Na pláni hill (409 m a.s.l.). The adjacent Černý brook supplied water to the sites. Lubná I was located on the site of a brickyard plant, 100 m from the watercourse, at approx. 364 m a.s.l. and currently elevated 2 m above the watercourse (Šída, 2008, 2009a, in press).

Lubná II is 60 m NE of Lubná I. Other parameters are the same as for Lubná I. The site was discovered in a narrow lot along the edge of the Lubná brickworks (Böhm, 1933; Šída, 2009a).

The Lubná III site is located approximately 200 m southwest of Kušta's station Lubná I. It used to be situated in the lower area of the erosion furrow, approximately 150 m from the watercourse of the Černý brook, at the altitude of 368 m a.s.l., with a 6 m elevation above the water level (Vencl, 1966, 2007; Šída, 2009a).

Lubná IV is the most elevated station of all the Lubná sites. It was located approximately 320 m southwest of Kušta's station (Lubná I). The altitude was 375 m a.s.l. The site was found in the central part of the same erosion furrow as Lubná III. The distance from the watercourse is 250 m and the elevation is 9 m above the water level (Vencl, 1966, 2007; Šída, 2009a).

Lubná V is only known from the information of the occurrence of patinated flintstones and has not yet been precisely located. The site is located in the eastern part of the valley (Vencl, 2007; Šída, 2009a).

Lubná VI, was discovered in a road cut about 300 m southwest from site I with the same altitude and distance from watercourse as Lubná I (Šída, 2009a, 2009b). Site VII is designated as findings from the neighbourhood of the brickyard.

Site VIII was identified by an unknown person northeast from site I at the start of the 20th century. Finds are housed in the museum in Rakovník, located near the railway watch house.

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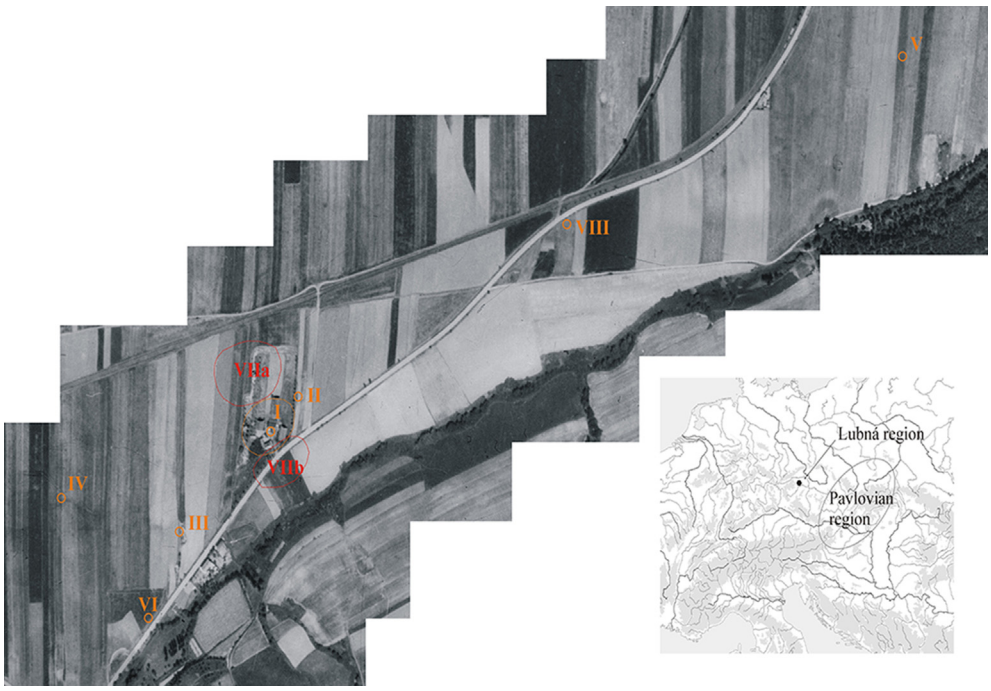

Fig. 1. Lubná. Location of sites I to VIII on orthophotomap from 1950s.

2. History of research

Lubná I was discovered by J. Kušta in 1890 (Kušta, 1891a, 1891b). In 1891 Kušta continued observing the site and excavated more 25 m^2. He obtained 750 pieces of chipped stone industry, brown stone slabs, pebble stones, reindeer antlers, and broken mammal bones (Kušta, 1891b, 169; Želízko, 1900–1901). In 1913, Renner (1934) continued excavating to the south of where J. Kušta's find was made. The site is dated to 21 to 22 ka BP (Verpoorte, 2003, 5).

During 1933, the second site of Lubná was found. Next to the Lubná brickworks there was a long narrow field owned by B. Typolt, who used it as a source of loam for his other fields. B. Typolt Jr. noticed a thin black layer with bones and flintstone tools. He contacted J. Renner in the museum in Rakovník and J. Renner immediately informed the Czechoslovak State Archaeological Institute, and Böhm (1933) undertook the task of excavating the site. The terrain above the layer was cautiously removed, the layer carefully prepared and the finds documented in a detailed plan, which is still preserved.

The next two sites (Lubná III and IV) were excavated during 1961. Excavations on site III involved 40 m^2. A superposition of three layers with industry was identified (Vencl, 1966, 2007). A number of flint artefacts, bones and industry, and a fireplace was found with an ash pit, belonging to the upper horizon. Several other artefacts were identified in the middle layer, while the bottom layer contained only little pieces.

At the same time, station IV was discovered by trenching somewhat farther along the slope. The excavation (approx. 40 m^2) had implied that the finds were located in a soliflucted group of layers of sands. Preserved finds displaced by solifluction were therefore only discovered in the erosion furrow on which the excavation focused (Vencl, 1966, 2007; Šída, 2006).

Important evidence of the density of occupation in Lubná area was provided by Šnajdr (1909, 169), who described two other sites. The find over the brickworks may be identical to that of Lubná IV (same time of find), but the location differs (Lubná VIIa?). The site under the brickworks is unknown and deserves more attention (Lubná VIIb).

No industry has been preserved from Lubná V, and the location is not clear. There is only a description from the start of the 20th century, which describes patinated flint tools located on a narrow strip of land, 600 m in length (Vencl, 2007).

Site VI was discovered in 2006, not far from stations I–IV. The station's section was uncovered in a road cut (Šída, 2009a, 2009b). In 2012, a small trench was excavated. A central fireplace with ash pit, stone industry, and a huge amount of bones was discovered.

Site VIII was identified only by a surface collection of a small industry assemblage. The character of the site is unknown.

3. Raw materials

The composition of raw materials in main Lubná assemblages is listed in Table 1 and Fig. 2. The dominant raw material (more than 95%) in all assemblages is flint from moraines and glacifluvial sediments north from Bohemia (Saxony or Silesia). The distance of transport is 120 km. One piece of stone industry made of Bavarian plattensilex (site Lubná I) comes 220 km from the southwest. The source of sedimentary quartzites is located to the northwest Bohemian basin, 45 km distant (sites I, III, VI, VIII). Both of these raw materials are uncommon. The remainder of the collections is made of burnt silicite (probably flint) and local raw materials (quartz, limnosilicite, slate, lydite, and others).

The main source of raw material is in the north in northern Germany and southern Poland. There is very weak evidence for contacts to the southwest to Bavaria and no evidence for contact to the east, to the Moravian Pavlovian region.

4. Technological composition

For comparison of Lubná sites, there are 3646 artefacts from 6 sites in Lubná (Table 2, Fig. 3). The largest one is Lubná III with 1442 artefacts, and the second largest assemblage is the Lubná II site with 952 artefacts. Lubná IV has 566 artefacts and Lubná I 460 artefacts. The smallest assemblages come from sites Lubná VI and VIII (162 and 64 artefacts).