

SLOVAKIA

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In 2006-2011, several excavations and explorations at Palaeolithic sites were led in Slovakia. In addition to these, finds obtained at earlier recently unpublished excavations were worked on.

The travertine monticule at Gánovce-Hrádok, which is the important Palaeolithic site in Slovakia, has celebrated its 80th anniversary from when a casting of a Neanderthal man's brain cavity was found there (Kaminská, 2007b). An older find of a Prádnik-type knife from the locality at Plaveč, north-eastern Slovakia, was re-evaluated regarding a possible Micoquian influence from southern Poland (Kaminská, 2010b).

The older phase of the upper Palaeolithic in Slovakia includes the Bohunician and Szeletian. Into the Bohunician only one site – Nižný Hrabovec at eastern Slovakia – can be dated (Kaminská, 2010a). In their previous work the authors (Kaminská *et al.*, 2000) typologically distinguished several phases of occupation of this open settlement at the river Ondava bank from the Middle Palaeolithic through the Bohunician, Aurignacian, Gravettian and Late Palaeolithic to the post-Palaeolithic. At present, we have concentrated our attention on the presence of Levallois technology that the most probably relates to the Bohunician occupational episode (Kaminská *et al.*, 2009).

The most significant Szeletian locality in Slovakia is that at Moravany nad Váhom-Dlhá position, which is known from excavations of L. Zotz (1951), K. Absolon (Nerudová & Valoch, 2009) and J. Bárta (1960, 1970). The term Moravany-Dlhá points (triangular ones, shaped by bifacial retouch, with a slightly convex base), *i.e.* poplar-shaped points, was introduced into the literature by L. Zotz (1951, 183). Aimed at verification of the leaf-shaped stratigraphic position, three trenches were dug during the 2008 excavation. These confirmed the previously published stratigraphic observations. The AMS dating of a fragment of *Picea* sp./*Larix* sp. from L. Zotz's investigations gave the date of 33 600 ± 300 BP (Poz-29011) and confirmed the Szeletian age of the locality (Kaminská *et al.*, forthcoming).

Another locality with the Moravany-Dlhá type points is that at Trenčianske Teplice. J. Bárta was interested in this site, but he situated it in the cadastre of Nová Dubnica, part Veľký Kolačín. In 1968 he acquired from a collector several leaf-shaped

radiolarite points of the Moravany-Dlhá type (Bárta, 1974) and an engraving on bone, which has its best analogies in the Gravettian art (Kaminská, 2009). In 2009 we excavated the area of 40 square meters at the site. The original loess was eroded and finds made of radiolarite (leaf point, side scrapers, end scrapers, denticulate artefacts and core) were found in soil sediment that was formed much later. No animal bones were preserved in the decalcified earth. This, at the same time, excludes the possibility that the engraving J. Bárta acquired from a collector originated from the same locality as the Szeletian leaf points (Kaminská, forthcoming).

The most populous Palaeolithic settlement in Slovakia was that of the Late Gravettian, the shouldered point horizon. Having accomplished previous numerous collecting activities at Trenčín surroundings, we realized investigations at Trenčianska Turná, Trenčianske Stankovce and Mníchova Lehota in 2007. The settlement was situated on eroded slopes of the Považský Inovec hills covered with a last loess with OSL dating into 16 700 ± 600 BP. The Gravettian settlement at these and other sites in the Trenčín microregion (*e.g.* Trenčianske Bohuslavice and Zamarovce) is the second significant concentration after that of the Moravany-Banka area. In addition to this, the Middle Palaeolithic settlement – most importantly that of the transition period between the Middle and Upper Palaeolithic with some artefacts belonging to the Epigravettian – are rather frequent in the microregion (Kaminská *et al.*, 2008). Stratigraphic position of sediments and progress of post-depositing changes were published in a special study (Budek *et al.*, 2008). Then geoarchaeological evaluations of the open-air sites in north-western Slovakia (Trenčín basin in the river Váh valley) and in north-eastern Hungary (the Eger basin) were worked out (Budek *et al.*, forthcoming).

In 2008 the investigations were concentrated on the Late Gravettian settlement strategy in the central part of the Váh basin. The aim was to verify and fix Palaeolithic sites in field and maps as well, digitalizing of maps and constructing of 3-D models of the settlements arrangement by using of GIS (Kaminská – Nemergut – Žaár forthcoming).

In 2010 we finished our works on Palaeolithic artefacts found

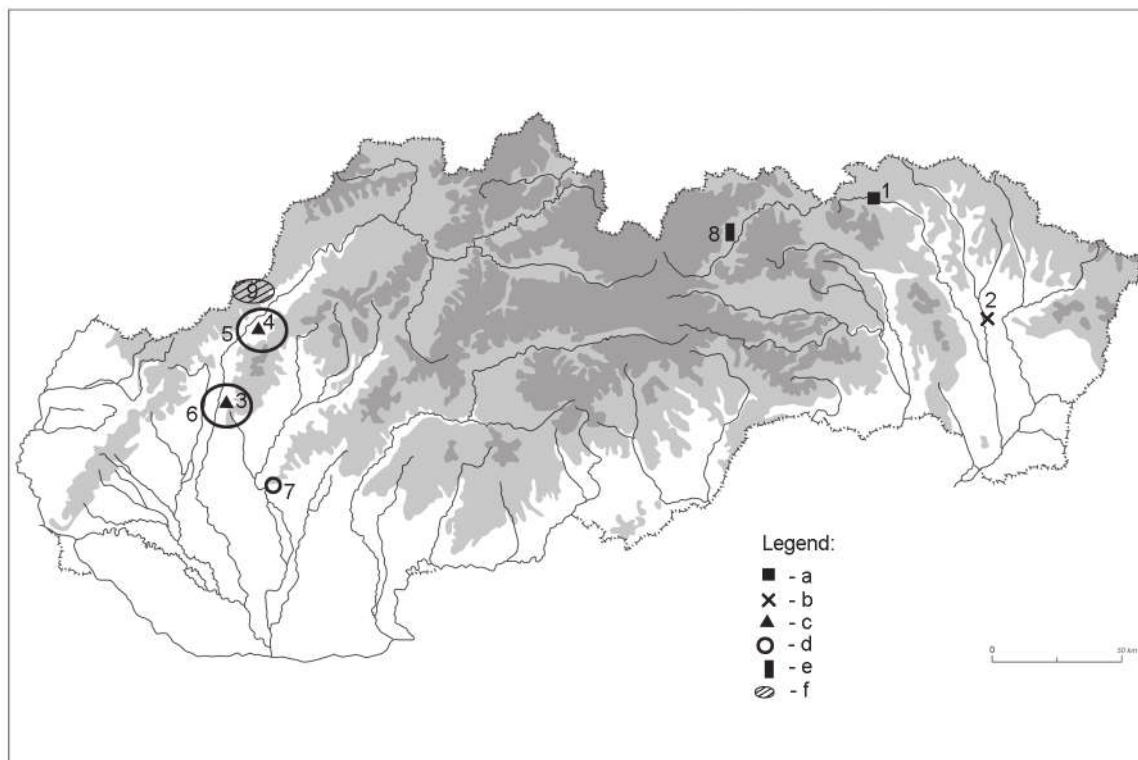


Figure 1 – Map of Slovakia with the localities mentioned in the text. 1–Plaveč, 2–Nižný Hrabovec, 3–Moravany nad Váhom-Dlhá, 4–Trenčianske Teplice, 5–microregion Trenčín, 6–Moravany-Banka area, 7–Nitra, 8–Spišská Belá, 9–Vršatecké Podhradie. Legend : a–Micoquien, b–Bohunician, c–Szeletian, d–Gravettian, e–Mesolithic, f–Radiolarite sources.

at Nitra I-Čermáň. J. Bárta's excavations in 1959-1968 revealed multiplied settlement at the position of Nitra I-Čermáň during the Late Gravettian. The finds were ranked belonging to the shouldered point horizon according to their typological structure, stratigraphy of archaeological finds in loess profiles and dating: ^{14}C – GRN-2449 = 22 860 ± 400 BP – lower part of the last loess, ^{14}C – GRN-2456 = 24 220 ± 640 BP – a humus horizon under loess – “Čermáň oscillation”. The oldest settlement comes back to the humus horizon formation, consequently it is connected to its surface and further two phases were situated in lower part of the last loess. The biggest concentrations of chipped artefacts were found around hearths together with bones of reindeers, horses and mammoths.

The chipped stone artefacts are assemblages, in which burins, backed tools including shouldered points, microliths and retouched blades are prevailing. End-scrapers, transversely retouched artefacts, borers, retouched flakes, tools with denticulated retouch are less numerous. Prevailing raw materials for tools production were radiolarite (63.8%), limnosilicite (21.5%) and erratic silicite (5.1%). In addition to the concentration of sites dated to the shouldered point horizon at the Váh basin, finds from Nitra I-Čermáň are the relevant settlement unit at the river Nitra basin. The connection of the Nitra and Váh basins through the Jastrabské mountain saddle indicates the way of hunters' groups for radiolarite resources to the vicinity of the Vlársky pass and further for erratic silicite to Silesia (Kaminská & Kozłowski, 2011).

The Late Palaeolithic settlement has been documented in the region of Spiš (Kaminská, 2007a) mainly by finds acquired in investigation. In 2007 an excavation within the FEPRE project (The Formation of Europe: Prehistoric Population Dynamics and the Roots of Socio-Cultural Diversity) was realized at two areas of the Spišská Belá locality with the aim to fix the stratigraphy and chronology of stone artefacts. Several artefacts were found at the Vyšná zákruta II position that together with more finds from a preceding investigation (Soják, 2002, 265, obr. 6: 9-13, 15) belong to the Mesolithic. Several tens of artefacts of the Late Mesolithic probably were found at the Hoher Rand position. Similarly sparse Mesolithic camps were excavated on the northern side of the Carpathians (Valde-Nowak, 2009; Valde-Nowak & Soják, 2009; Valde-Nowak & Soják, 2010).

Recently the attention has been paid to stone raw material resources as well. Slovakia has sparse chippable high-quality raw materials for production of Palaeolithic artefacts. Radiolarite is an exception, resources of which are situated in the West Carpathians Klippen Belt. In western Slovakia they occur in the central part of the White Carpathians, between Vršatecké Podhradie and the Vlára River basin. Palaeolithic cultures used radiolarite of limestones in the region, although its mining at Vršatecké Podhradie and Krivoklát was proven as late as in the Neolithic (Cheben & Cheben, 2010).

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