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Gravettian and Epigravettian lithics in Slovakia

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ABSTRACT

The Gravettian is the most widespread Paleolithic culture in Slovakia. The Early Gravettian (30–25/24 ka BP) does not involve any significant network of sites. It represents mainly workshop sites for processing of radiolarite (Nemšová, Zamarovce) or short-term cave camps (the Dzeravá skala cave near Plavecký Mikuláš, the Slaninová cave near the village of Háj). Trenčianske Bohuslavice, dated to 26–25/24 ka BP, is a rather important site. The Late Gravettian (24–20 ka BP) involves a thick network of sites in the Váh and Nitra river regions and in Eastern Slovakia, around the Zemplín Hills. The shouldered points horizon is named after its typical tool. The group of tools comprises frequent retouched blades and retouched pointed blades. Burins usually prevail over end-scrapers. The number of backed tools varies. In the Váh region, larger concentrations of settlement are documented, confirmed also by radiometric dating in the region of Moravany nad Váhom and Trenčín, in the Nitra river region and the town of Nitra, in Cejkov and Kašov in Eastern Slovakia. Smaller groups of Gravettian hunters with high mobility often founded multiple settlements. Imports of Polish raw materials in Slovak sites document the connection of the Váh and Nitra river regions with the territory of the Upper Vistula river. Inventories of individual sites are different in terms of used raw materials and tool typology. Future investigation and new analyses of lithic inventories might confirm the assumption that the Late Gravettian in Slovakia consisted of several independent facies.

The Epigravettian (20–17 ka BP) production used local raw materials: radiolarite in Western Slovakia and obsidian in Eastern Slovakia. End-scrapers on short blades and flakes prevail over burins. Aurignacoidal elements also occur and there are backed tools. The number of microbladelets with microretouch increases.

1. Introduction

The Gravettian is one of the most widespread Paleolithic cultures in Slovakia. Lithic industry of the Gravettian culture comes from numerous sites: only some, however, have been archaeologically investigated. Finds from some of the investigated sites were not published by the authors of the investigations (Bárta, 1970a; Bárta and Bánesz, 1971, 1981): they were presented later (Nitra I-Čermáň, Nitra III, Kašov-the lower layer) or they have been processed only partially up to now (Trenčianske Bohuslavice, Kašov-the upper layer, Cejkov I–V). In Slovak Republic, the Early Gravettian has been recorded only on a few sites near the Váh river and in caves of Western and Eastern Slovakia. The largest settlement in the Late Gravettian is documented mainly near the Váh and Nitra rivers and in East Slovakia (Fig. 1). Various names are used to refer to the industry of the Late Gravettian. Most often, this period is called the shouldered points horizon (Kozłowski, 1996, 2008; Kaminská and Kozłowski, 2002; Kaminská, 2014a) or the older name of the Willendorf-Kostenkian (Svoboda, 1996; Hromada, 1998). The Epigravettian is known from Eastern rather than Western Slovakia.

2. History of research

The first Gravettian sites were discovered in the loess profiles of the brickyards in the Váh region almost 100 years ago. They included Zamarovce (Babor, 1927; Eisner, 1933; Skutil, 1938), Nemšová (Bárta, 1961, 1965), Nové Mesto nad Váhom-Mnešice (Kukla et al., 1961) and Vlčkovce (Bárta, 1962). The Gravettian sites near Moravany nad Váhom and Banka were monitored and studied in detail (Zotz and Vlk, 1939; Zotz, 1942; Prošek, 1950; Ambrož et al., 1951; Prošek and Ložek, 1954; Bárta, 1965, 1970b; Bánesz et al., 1995; Hromada and Kozłowski, 1995; Hromada, 1998, 2000; Kozłowski, 1998, 2000). Nitra I-Čermáň was investigated by Bárta (1960, 1966b) in several seasons (with interruptions between 1959 and 1968). He investigated the site of Nitra III in 1964 (Bárta,

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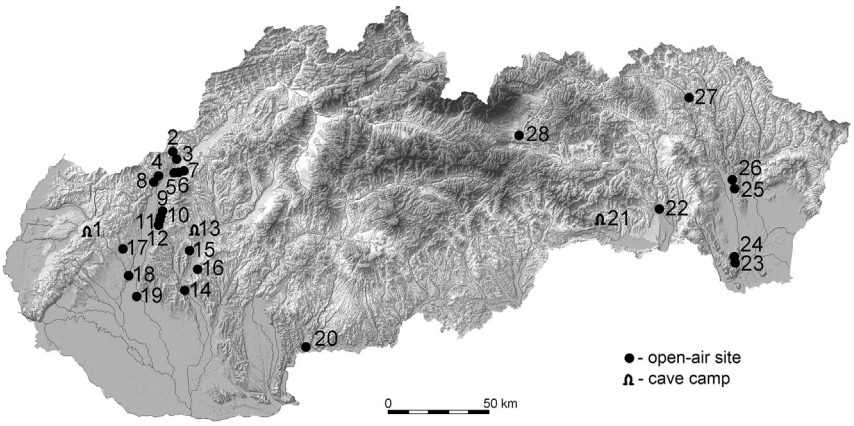

Fig. 1. Map of the Gravettian sites: 1 – Plavecký Mikuláš, Dzeravá skala cave; 2 – Nemšová; 3 – Zamarovce; 4 – Trenčianske Bohuslavice; 5 –Trenčianske Stankovce; 6 – Trenčianska Turná; 7 – Mníchova Lehota; 8 – Nové Mesto nad Váhom-Mnešice; 9 – Hubina; 10 – Moravany nad Váhom; 11 – Banka; 12 – Ratnovce; 13 – Radošina, Čertova pec cave; 14– Nitra; 15 – Horné Otrokovice; 16 – Horné Lefantovce; 17 – Boleráz; 18 – Vlčkovce; 19 – Sereď; 20 – Šahy; 21 – Háj, Slaninová cave; 22 – Košice-Barca; 23 – Cejkov; 24 – Kašov; 25 – Nižný Hrabovec; 26 – Kladzany; 27 – Marhaň; 28 – Gánovce.

1980). Another locality with remarkable concentration of Gravettian sites is situated near Trenčín. Trenčianske Bohuslavice (Bárta, 1988) on the right bank of the Váh is probably the most important site. Later, other sites on the left bank of the Váh were added (Kaminská et al., 2008). In Southern Slovakia, collection was carried out only in the Ipeľ region (Bárta and Petrovský-Šichman, 1962). Numerous sites with obsidian industry in Eastern Slovakia were discovered by Jansák (1935). The investigations in Cejkov and Kašov were led by Bánesz for decades (1961, 1969, 1993, 1996). Hrčeľ was another site investigated in the region of the Zemplín Hills (Kaminská, 1995). Discovery of Gravettian settlement in caves is important: in the Dzeravá skala cave near Plavecký Mikuláš in the Lesser Carpathians (Prošek, 1951; Kaminská et al., 2005), the Čertova pec cave near Radošina (Prošek, 1950; Bárta, 1961) and the Slaninová cave near Háj in Eastern Slovakia (Kaminská, 1993).

3. Settlement strategy

With regard to the geographical conditions in Slovakia, the settlement strategy of the Gravettian was not uniform in all parts of the territory. The settlement was concentrated along large rivers and near sources of raw materials.

Most of the sites are connected with the Váh river valley. The largest concentration can be observed near Moravany nad Váhom, Banka and Ratnovce. In Moravany nad Váhom, the sites are situated within 12 km (Hromada, 1998). They are followed by the sites in Hubina and Modrovka in the north. Southwards, the area is extended by numerous sites within the municipal boundaries of Banka and Ratnovce. The second largest concentration of the Late Gravettian lies in Trenčín. Trenčianske Bohuslavice is the most important site on the right bank of the Váh river. On the left bank, there are several sites within the municipal boundaries of Trenčianske Stankovce, Trenčianska Turná and Mníchova Lehota, with access to the Nitra river valley across the Jastrabské saddle. Mineral springs might have played an important role in the choice of the locality, as they could have created a special climate near Piešťany and Trenčín.

The Gravettian sites in the Váh region were situated on the slopes of the hills facing side valleys, with a view of the Váh, at altitudes of 210–280 m (Kaminská et al., 2008). Near the Zemplín Hills in the east of Slovakia, the settlement situation is similar. However, with regard to the terrain geomorphology, the settlements are found in altitudes of 120–200 m (Kaminská and Kozłowski, 2002). Besides the presence of a large river near the site, an accessible source of a raw material was an important factor. It was radiolarite in Western Slovakia (Bárta, 1961; Mišík, 1969; Cheben et al., 1995), limnosilicite in Central Slovakia (Mišík, 1975), and obsidian in Eastern Slovakia (Kaminská, 1991). On several Gravettian sites, mostly in Eastern Slovakia, settlement after the Last Glacial Maximum (LGM) continued in the Epigravettian.

4. Stratigraphy and radiocarbon dating

According to the analysis of the material from the Dzeravá skala cave, the settlement of the older layers with the Gravettian (layers 4, 5) falls at the end of the Interpleniglacial period (Kaminská et al., 2004), when the creation of loess was interrupted by more humid and probably warmer interstadials (GI 6–GI 3) when weak fossil soils were developed (Haesaerts et al., 2010). For the Early Gravettian (30–25/24 ka BP), dating can be done using the workshop for processing radiolarite in Nemšová and an open site in Trenčianske Bohuslavice (Table 1; Fig. 2). Most of the loess profiles in the former brickyards in the Váh river region do not have precise and dated stratigraphy of individual phases of the Gravettian settlement. Some finds, however, were found in the pseudogley layers (Vlčkovce, Nové Mesto nad Váhom-Mnešice, Zamarovce).

Table 1
Radiocarbon dates from the Gravettian and Epigravettian sites in Slovakia (calibration on the basis of www.calpal-online.de).

Lokality	Lab. Nr.	Radiocarbon date (^{14}C years BP)	Calibrated age (years BP)	Sample	Author
Nemšová	GrN-2470	28,500 ± 1300	33,000 ± 1049	Charcoal	(Bárta, 1965)
Dzeravá skala Cave	GrA-22759	31,770 ± 320	35,721 ± 523	Bone	(Davies and Hedges, 2005)
Dzeravá skala Cave	GrA-22756	25,050 ± 540	29,888 ± 621	Bone	(Davies and Hedges, 2005)
Dzeravá skala Cave	GrA-22758	24,800 ± 130	29,837 ± 312	Bone	(Davies and Hedges, 2005)
Dzeravá skala Cave	OxA-13861	24,760 ± 130	29,809 ± 320	Bone	(Davies and Hedges, 2005)
Slaninová jaskyňa	GrN-14832	27,950 ± 270	32,469 ± 342	Bone	(Davies and Hedges, 2005)
Trenčianske Bohuslavice	Gd-2490	23,700 ± 500	28,570 ± 548	Charcoal	(Bárta, 1988)
Trenčianske Bohuslavice	Gd-4009	22,500 ± 600	27,074 ± 773	Charcoal	(Bárta, 1988)
Trenčianske Bohuslavice	Gd-4010	23,000 ± 1300	27,649 ± 1540	Charcoal	(Bárta, 1988)

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