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LATE PALAEOOLITHIC AND MESOLITHIC IN THE PŘÍBRAM REGION

ABSTRACT: Pre-Neolithic sites in the Příbram region are usually not at the centre of archaeological research. However, the number of sites and findings, namely from the Late Palaeolithic and mainly Mesolithic periods, is increasing. At this moment, we know almost 400 lithic artefacts from 29 locations on 19 sites. Most of them can be possibly classified as Mesolithic. These sites are located in the southern part of the region, mainly along Skalice River, in the area of Březnice town. Here, we can observe a connection with Southern Bohemian Mesolithic (especially with the Písek district). Another cluster is situated at the opposite site of the region – in the vicinity of the Hrazany site. These sites follow the Vltava River, and at the first sight, they seem to proceed into Central Bohemia. However, there have not been Mesolithic sites on the other side of the cadastre borderline yet. Such situation, as well as some "empty" regions inside the Příbram district could be explained by actual archaeological research conditions. In any case, the region was not unsettled during the Mesolithic (or Pre-Neolithic, in general) and has strong bonds with other areas, some of them in a large distance. Thanks to raw materials we can see it. Except of local and Southern Bohemian materials, cherts of the Flintsbach type and the SGS were used for artefacts making.

KEY WORDS: Palaeolithic – Mesolithic – Příbram Region – Lithic artefacts – Settlement

INTRODUCTION

The Příbram region (Central Bohemia, the Czech Republic) is not at the centre of the Pre-Neolithic periods research. Compared with other regions (as the nearest, we can name Southern Bohemia), the number of sites and artefacts is not as high. However, the number of sites is slowly increasing since the last time

they were briefly summarised (Vencl 2011). Because of that, we have decided to revise all known sites and artefacts in the region, mainly from the typological, raw material, and geographical points of view. Because of the character of sites and lithic artefacts from the region, we can describe the Mesolithic period mainly, but we also briefly mention Late Palaeolithic and few earlier findings.

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Regional setting

Firstly, it needs to be noted that we lack direct data on the region's environment during the end of the Pleistocene and the beginning of the Holocene in the region. Another limited factor is the fact that our data and findings do not reflect settlement patterns, but only archaeological activity at the site. However, these microregions (and other single sites) show that natural and environmental conditions of the Příbram region were mostly suitable for the Mesolithic people. Because border sites of Hrazany, Voltýřov and Ostromeč that relate to the Vltava River do not indicate any general data (however, we must say that there has never been an excavation specialized into the Mesolithic period at these sites), the question remains what the conditions in the Sedlčany area were like.

Still, we can, at least in general, describe the environmental conditions in the region – however, strictly for the Mesolithic period, because the Palaeolithic sites are still very questionable. The landscape of the region can be characterized as a hilly area that is surrounded by the highest inland mountains – Brdy Mountains – in the west and by the Vltava River in the east. To the south, the hilly landscape passes into lowlands – the area around the town of Březnice – which is intersected by many tributaries of the Skalice River. It continues into the Southern Bohemia districts that are parts of Šumava Mountains foothills. During the Boreal era (approx. 7000 BC), pine forests along with birches, hazels, spruces and in some areas with various other local trees (e.g., oaks and lindens) have expanded around the Skalice River and possibly even the Vltava River (Pokorný, Horáček 2006: 339). Watercourses and lakes definitely have been convenient biotopes and sources of food for local hunters-gatherers which provided ample fishing and hunting of waterfowl and forest animals and gathering of plants (Pokorný, Horáček 2006: 333).

History of research

The very first Pre-Neolithic finds in the region are known only from literature these days. They were found in 1940s at sites in Vrančice (1941) and Voltýřov (1948). In following years, several findings were added to them, apart from a large assemblage from the La Tène Period oppidum in Hrazany near Radíč. This site was excavated by L. Jansová in 1951–1963. After that, large hiatus follows, mainly due to archaeologists' lack interest in the region.

The situation changed in 1980s with commencement of L. Smejtek as an archaeologist in the Příbram Museum in 1982. During next 10 years, he accomplished small but

important excavations of the Young and Late Bronze Age sites in Vestec, Hřiměždice and Voltýřov. During these excavations, he also found small assemblages of Mesolithic artefacts. Approximately at the same time, J. Fröhlich started his field-walking surveys in the Březnice area. There, he found several lithic artefacts in the vicinity of Přední Poříčí, Nestrásovice, Březnice, and mainly Bor. He summarized his findings in a brief overview of prehistoric settlement along Skalice River (Fröhlich 1993b). In the following years, M. Vávra, A. Debnar, D. Dreslerová, J. Sudík, and more recently, L. Krušinová, J. Šnobl and T. Krofta contributed to the knowledge of the Pre-Neolithic settlement with rare findings, especially around Březnice.

After several decades of research, mainly via field-walking surveys, the time had come for the first overview for the entire region. That was made by S. Vencl (2011) and it was his continuation of his Pre-Neolithic settlement of Southern Bohemia research (Vencl *ed.* 2006). However, he has been able to work only with some of the artefacts known at the time; he did not have access to several assemblages from the Březnice area nor to any assemblages from sites around Vltava River, except for Vestec and Hrazany. Since then, most of these assemblages have become accessible and more suitable in terms of quantity and quality. Because of these factors, a reliable basis for a new summary of the Pre-Neolithic settlement of the Příbram region has been given.

Pre-Neolithic sites and finds in the Příbram region

At this moment, there are 29 locations in 19 cadastres (*Figure 1*) where artefacts from the Palaeolithic or Mesolithic have been found. A list of these sites is given below. If there are more sites at the cadastre, or if one site has been examined several times, these sites and/or research are separated. Former but deep-rooted names of cadastres are used as names of sites. When it is possible, there are coordinates included for each site. No matter their original coordinate system, the coordinates have been converted into the S-JTSK coordinate system, and, for clarity, we included the international WGS84 coordinates in a bracket as well. The coordinates conversions have been done by the Czech Office for Land-surveying and the Cadastre (ČÚZK) convertor. All the altitudes are put into the Baltic system.

Bor

Mesolithic finds from this site were found in a field delimited by the walls of the Hrochův Hrádek stronghold (Fröhlich 1992a, 1993a: 251, 1993b: 35,

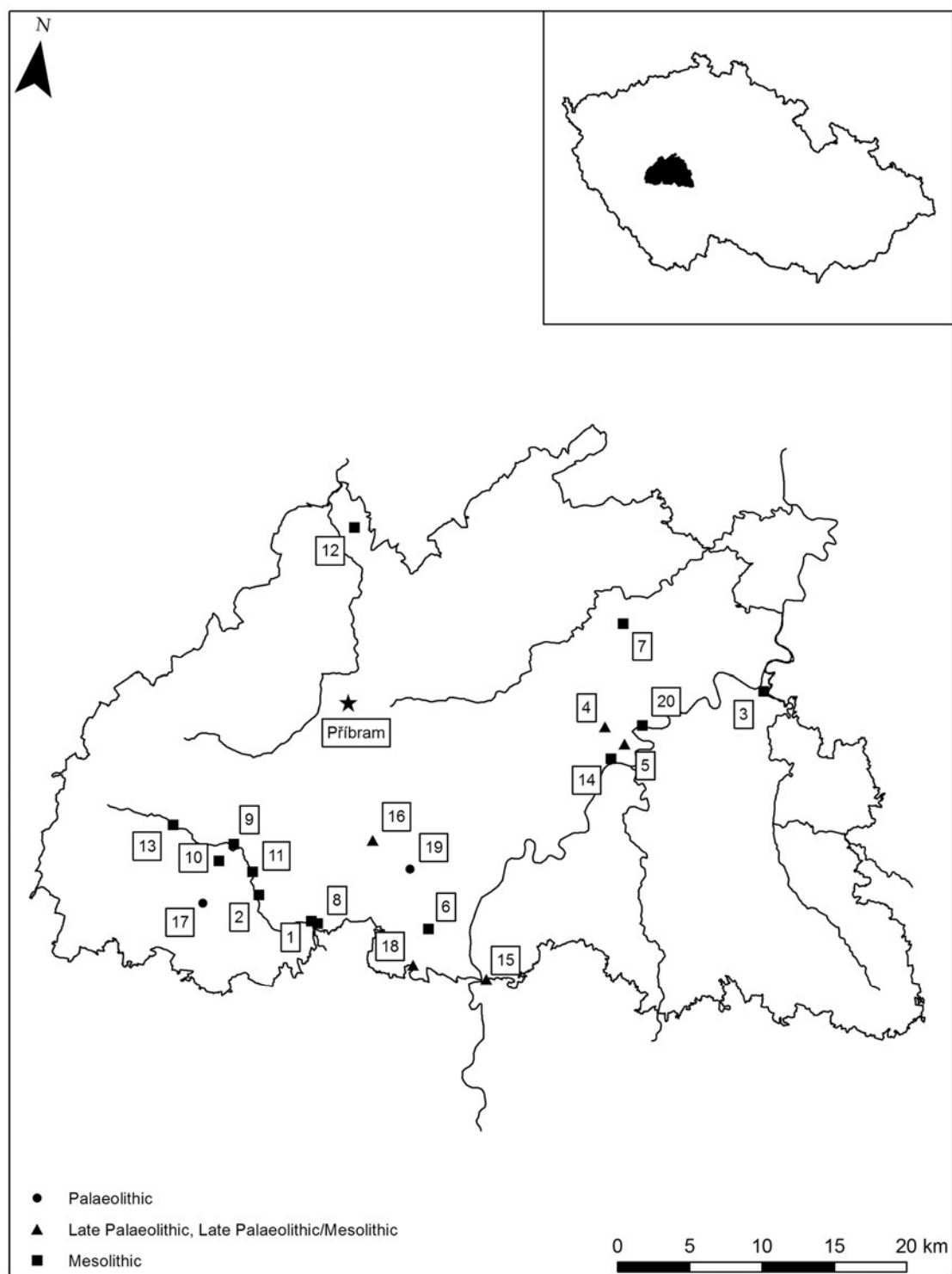


FIGURE 1: Pre-Neolithic sites in the Příbram region. 1, Bor; 2, Březnice; 3, Hrazany; 4, Hřiměždice 2; 5, Hřiměždice 7; 6, Kozárovice; 7, Kozí Hory; 8, Nestrašovice; 9, Oslí; 10, Pňovice; 11, Přední Poříčí; 12, Rejkovice; 13, Rožmitál pod Třemšínem; 14, Vestec; 15, Voltýřov; 16, Vrančice; 17, Vševely; 18, Zalužany; 19, Zbenice; 20, Županovice.

Vencl 2011: 13). The coordinates are 780 603,672; 1 097 464,996 (WGS84 49° 33' 19"N; 14° 0' 23"E) and the altitude is about 458 m a. s. l. (*Figure 2: 1*). The site is situated on a promontory that goes down to the Skalice River on the southeast. Distance between the site and the river is approximately 150 metres. There is another site located not far from this site (Nestrašovice with two Mesolithic artefacts). The site was explored by J. Fröhlich's field-walking in 1988 (Fröhlich 1992a, 1993a) and by A. Debnar from 1994–1996 (Vencl 2011: 14–15).

Field-walking of J. Fröhlich

The assemblage, at this moment deposited in the Pisek Museum, contains 67 lithic artefacts (even though literature states 64 or 65 artefacts, see Fröhlich 1992a, 1993a: 253, 1993b: 35, Vencl 2011: 14) and typologically fits to the Mesolithic period. The most common type of artefact is flakes. There are a total number of 38 including one retouched flake (*Figure 3: 6*). The retouched flake was made from a Flintsbach

chert and its surface is partially covered by cortex. Cortex also covers another 12 flakes. In terms of raw materials, they are the SGS (5 pieces), the Flintsbach chert (same amount) and one piece of Putim chert, and Bohemian Karst chert. The rest of the flakes (those without cortex) were made from the SGS (7 pieces), the Flintsbach chert (5 pieces), Putim chert (3 pieces), Bohemian Karst chert, milky opal and Lipnice quartzite (all of them with 2 pieces), and one piece of quartz and acid subvolcanic. The last two flakes were burnt so it is not possible to macroscopically determine which raw material was used.

There are blades, 10 in total, which is another kind of artefact in the assemblage. Two of them (both made from the SGS) are retouched (*Figure 3: 3–4*), and one is covered by a cortex. The rest of the blades were made from SGS (4 pieces, one with a cortex), Flintsbach chert, Bohemian Karst chert, Putim chert and acid subvolcanic (one artefact per raw material).

Cores (*Figure 3: 7–9*) are represented by seven artefacts. Again, the SGS dominates (3 pieces, two

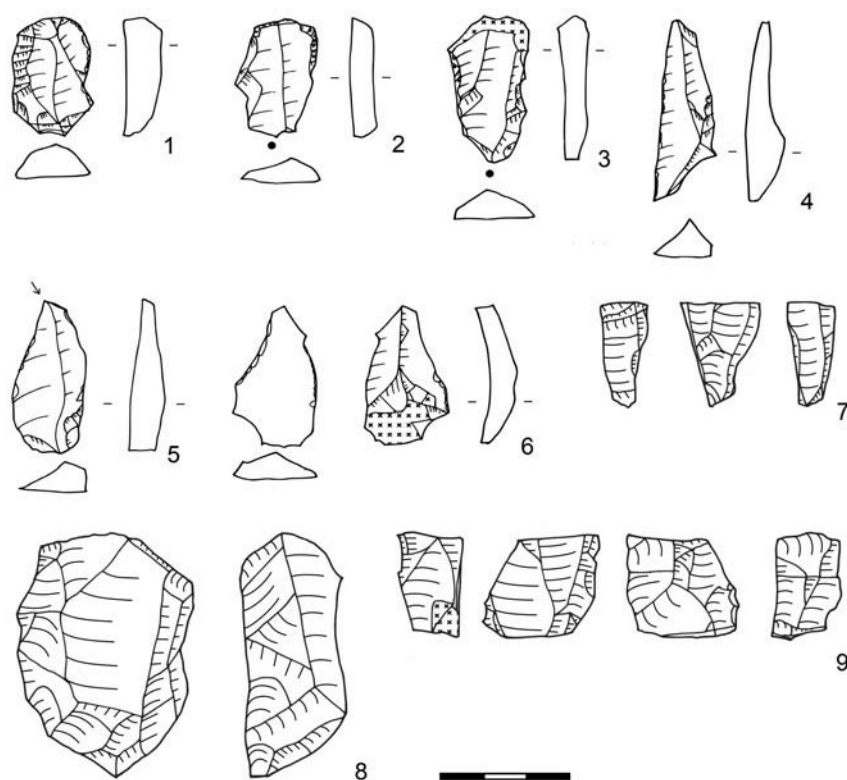


FIGURE 3: Lithic retouched artefacts and selection of cores from the Bor site. 1, 2, end-scrapers; 3, 4, retouched blades; 5, burin; 6, retouched flake; 7–9, cores. Drawing: K. Čecháková.

with a cortex) and after that one brownish opal (with a cortex), the Flintsbach chert and quartzite. The last piece was burnt, but we can carefully determine it as being made of Flintsbach chert.

There are five small chips in the assemblage – three pieces of Flintsbach chert and two of SGS. Amorphous fragments are represented by four artefacts. The raw materials differ for each piece: SGS, Flintsbach chert, quartz (with a cortex) and the last artefact was burnt so we are not able to determine its raw material macroscopically.

Except for two retouched blades and one flake, there are another three retouched tools in the assemblage. These are two end-scrapers (*Figure 3: 1–2*) made from the Flintsbach chert and another macroscopically undetermined burnt material. The last artefact is a burin (*Figure 3: 5*), which was again burnt. Based on their morphology, we can say these artefacts could possibly fit into the Mesolithic period. However, we cannot exclude other periods. S. Vencl (2011: 13) put the whole assemblage into this period, probably due to a variety of raw materials and thanks to the comparison of these artefacts with an assemblage collected by A. Debnar (see below). We were not able to find A. Debnar's collection. However, for the purposes of this paper and our working hypothesis, we labelled them as Mesolithic.

Deposited: Museum of Prácheň in Písek (inventory numbers A19438–A19504).

Field-walking of A. Debnar

A. Debnar supposedly collected another 13 Mesolithic artefacts between 1994–1996. These should be deposited in the Museum of Prácheň in Písek, but we were not able to find them there.

According to the list of S. Vencl (2011: 14–15), the assemblage was composed by a end-scraper (the Flintsbach chert), retouched flake (the SGS), three blades (two from the SGS, one from the Bohemian Karst chert) and eight flakes (four of them from the SGS, the rest from undetermined chert, weathered stone and two burnt undetermined raw materials). In consideration of other findings from this site and determination made by S. Vencl, who saw these artefacts, we can most probably agree with labelling this assemblage as Mesolithic.

Deposited: Unknown.

Březnice

The site is located at the coordinates 784 241,082; 1 095 649,259 (WGS84 49° 34' 1"N; 13° 57' 11"E) at

the altitude of 471 m a. s. l. (*Figure 4: 1*). It is situated on a slope that descends to the southwest to the Skalice River by a distance of approximately 120 metres. In 1988, J. Fröhlich examined this site by a field-walking, and he discovered three lithic artefacts (Fröhlich 1992b, 1993b: 35, Vencl 2011: 15).

A small assemblage is made by the SGS flake and two by the Flintsbach chert cores (*Figure 5: 3*). We can probably label them as Mesolithic, but the assemblage is not large or characteristic enough to be sure.

Deposited: Museum of Prácheň in Písek (inventory numbers A19620–A19623).

Hřiměždice

Site 2, test pit V/1987

The site is situated in an area around the coordinates of 760 288,192; 1 084 022,850 (WGS84 49° 42' 2"N; 14° 15' 31"E) and around 386 m a. s. l. at to the west slowly descending slope (*Figure 6: 1*). Hřiměždický Stream springs is in the vicinity about 250 metres off into the distance (Smejtek 1989a: 59–60).

The site was examined by L. Smejtek in 1987 when he discovered one lithic artefact near the test pit V/1987 by a field-walking (Smejtek 1989a: 59–60). The artefact can be described as a blade fragment made from the SGS. It was fragmented during prehistory, according to the character of its break. In relation to other the artefacts in the area, we cannot exclude from the Late Palaeolithic era.

Deposited: Mining Museum Příbram (access. number 15/1987).

Site 2, test pit VI/1988

This pit was probably situated around the coordinates 760 117,927; 1 084 106,983 (WGS84 49° 42' 0"N; 14° 15' 40"E) at an altitude of 379 m a. s. l. The site lies on a western-facing slope, close to the Hřiměždický Stream approximately 130 metres away (*Figure 6: 2*). The pit is located around 200 metres south-west of the test pit V/1987.

The site was excavated by L. Smejtek in 1988 because of planned soil amelioration. Even though he did not name any lithic artefacts (Smejtek 1992: 47), considering numbering of artefacts and description on paper bags with the test pit number, we can connect them with this excavation. All the artefacts were found in the test pit VI/1988 in a depth of 10–25 (one artefact) and 80–100 centimetres (three artefacts).

There are four artefacts in the assemblage, while three flakes were made from the SGS and they are covered by a cortex. One of these flakes is also covered



FIGURE 4: Březnice (1), Přední Poříčí 1 (2) and Přední Poříčí 2 (3) sites positions in the map (basemap: ČÚZK).

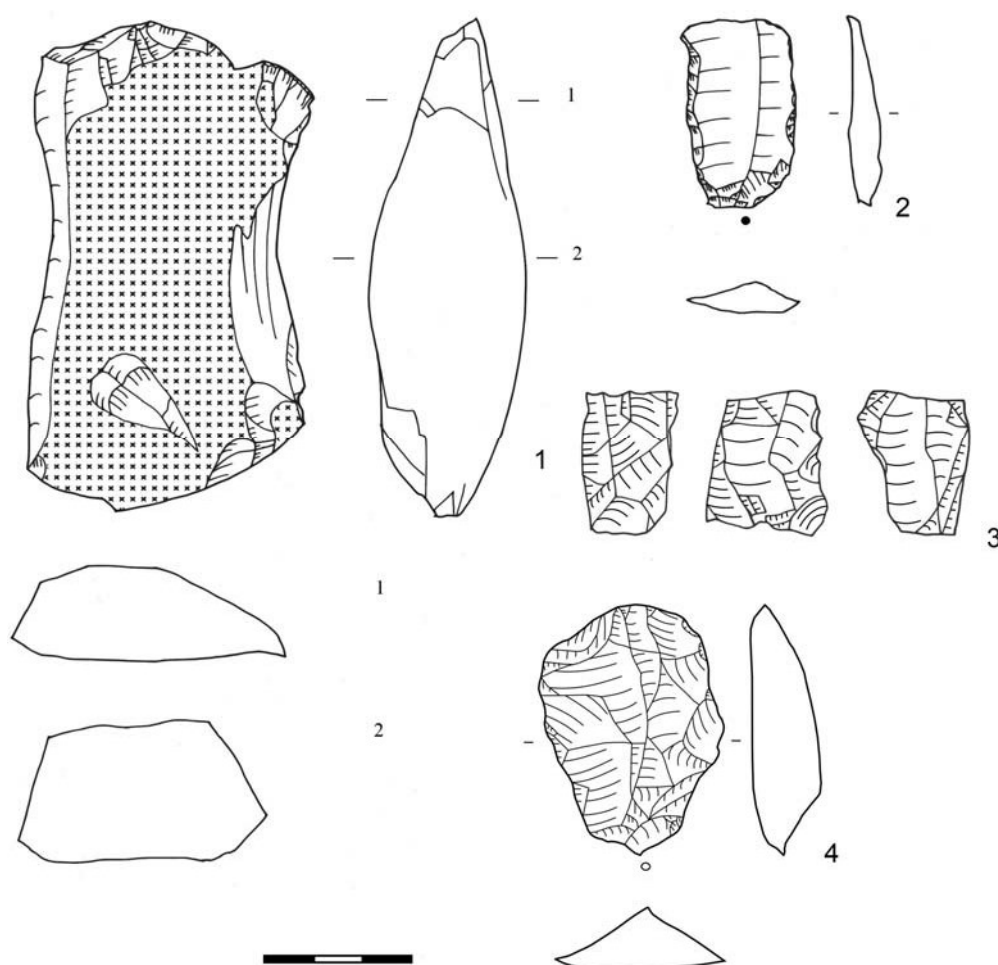


FIGURE 5: Selection of lithic artefacts from Kozi Hory (1, 2), Breznice (3) and Vsevely (4). 1, *Scheibenbeil*; 2, retouched blade; 3, core; 4, flake. Drawing: K. Čecháková.

by a yellow patina. Two other flakes, or, better said, flake fragments, are in fact one flake. The last artefact is a flake made from the Lipnice quartzite and this artefact is also covered by a cortex. The assemblage could fit into the Late Palaeolithic period.

Deposited: Mining Museum Příbram (access. number 11/1988).

Site 7, test pit II/1987

The coordinates for the site are 758 950,280; 1 085 217,503 (WGS84 49° 41' 30"N; 14° 16' 47"E) and the altitude is between 345 and 350 m a. s. l. Nearby is the former Kujalův Quarry (Figure 6: 3). Two artefacts were found by a field-walking of the site 7 in the vicinity of the test pit II/1987 (Smejtek 1989a, 1994: 98 – here, the test pit is wrongly labelled as IV/87).

The first artefact can be described as a flake fragment made from the SGS, slightly covered by a patina of cortex. Another one is a tiny pebble of crystal and its surface is also partly covered by a cortex. The assemblage could be Late Palaeolithic and possibly connected with the site 2, however we cannot be sure by the dating or even the exact position of artefacts.

Deposited: Mining Museum Příbram (access. number 16/1987).

Kozárovce

The site is in the first place connected with the La Tène Period settlement and it is situated at the coordinates 772 508,722; 1 098 017,894 (WGS84 49° 33' 39"N; 14° 7' 6"E) at the altitude of 495 m a. s. l. It is close to the

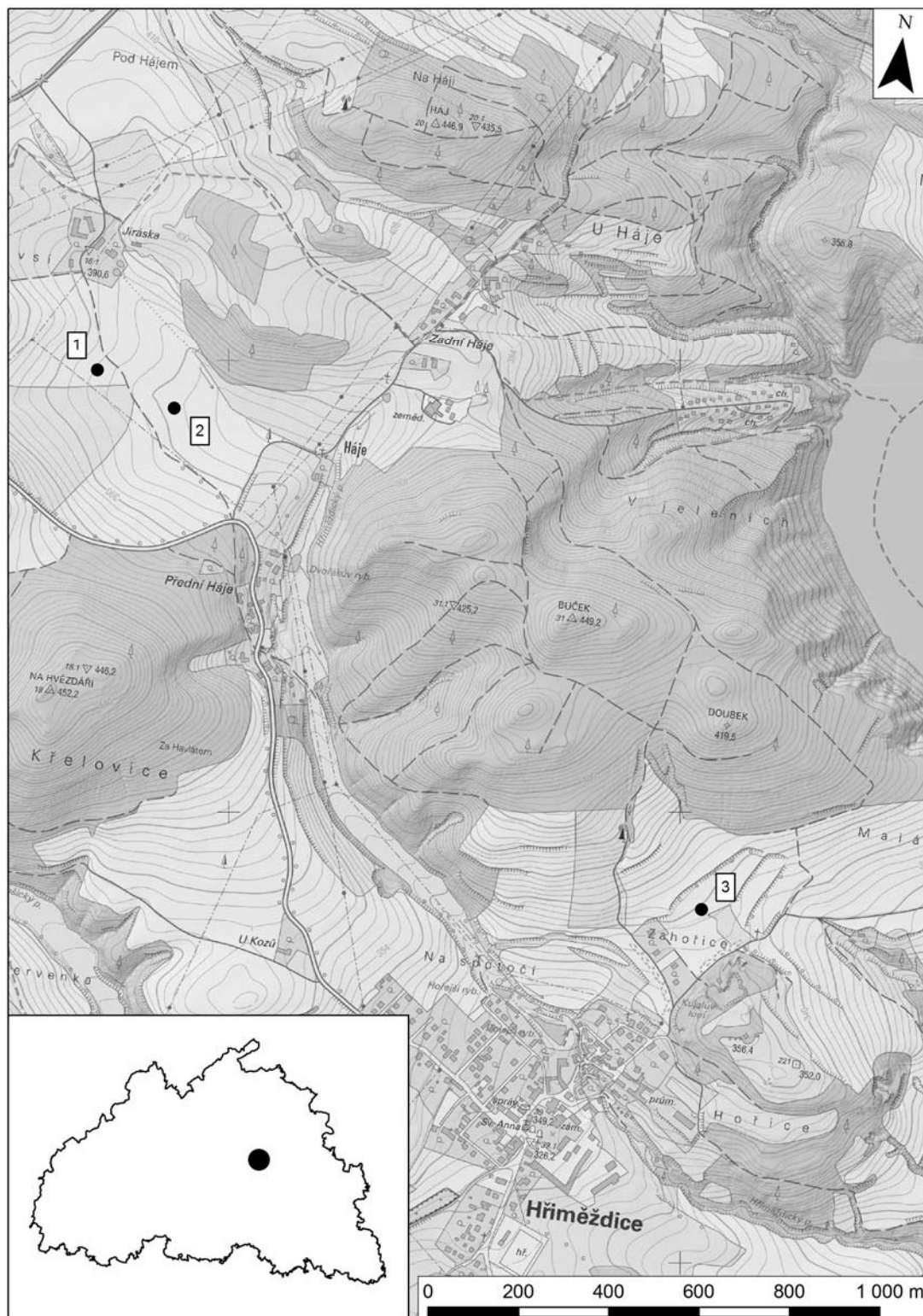


FIGURE 6: Hřiměždice site 2 (1, 1987 excavation; 2, 1988 excavation) and site 7 (3) positions in the map (basemap: ČÚZK).

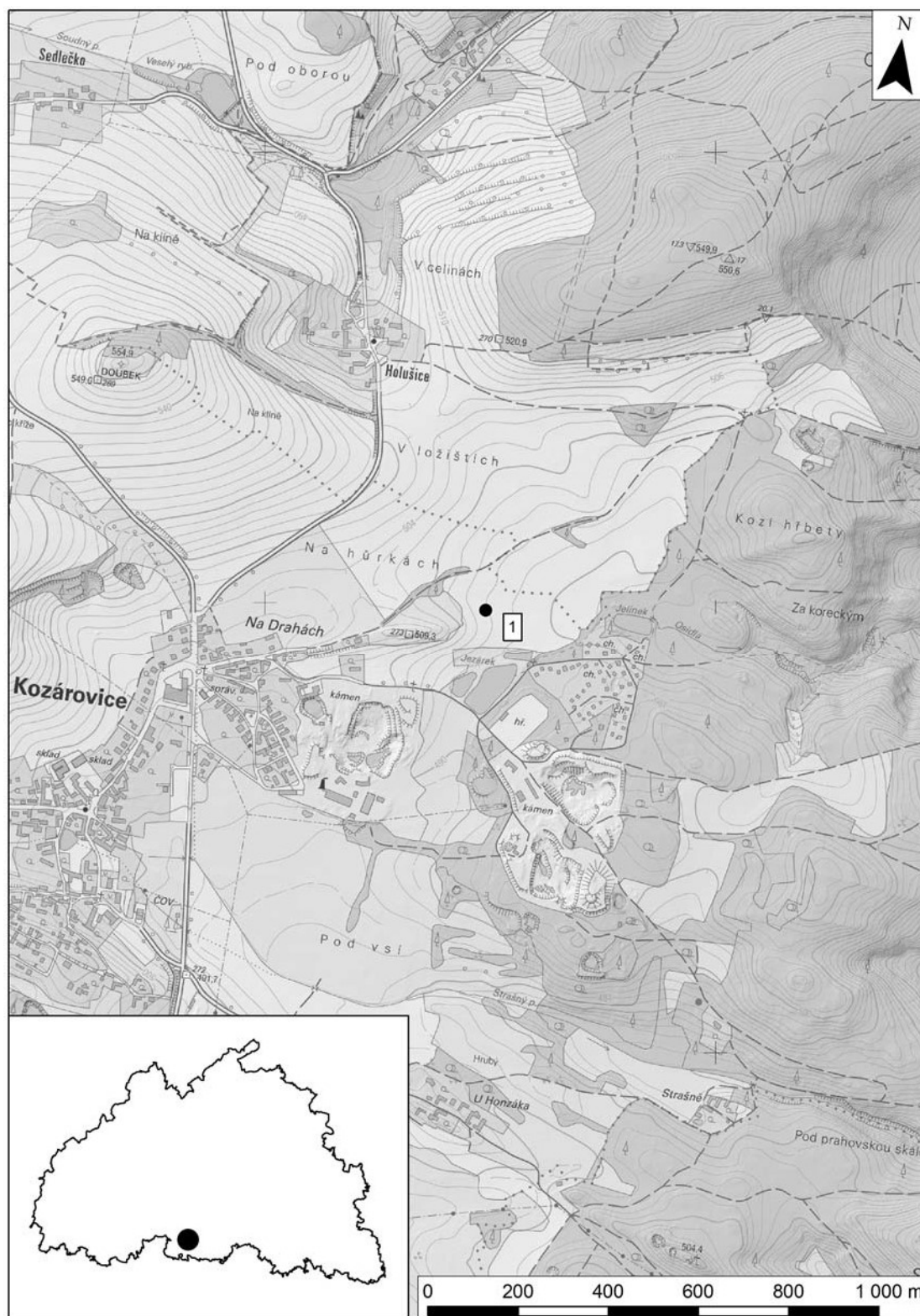


FIGURE 7: The Kozárovce site position in the map (basemap: ČÚZK).

Osidla Stream (which is feeder of Vltava River) which is at distance of approximately 150 metres. A gentle south-facing slope accompanies site (*Figure 7*).

At this site, in 2016, I. Neumannová found one amorphous fragment of SGS, partly covered by a cortex during a metal detector prospection. Artefact could fit into the Mesolithic period, mainly thanks to the comparison to other sites in the vicinity of the site. However, we would need more artefacts from this site to be sure – such an artefact can fit into the Mesolithic, as well as Neolithic or later periods.

Deposited: Mining Museum Příbram (access. number 44/2016).

Kozí Hory

The site lays at the coordinates 759 050,965; 1 076 885,067 (WGS84 49° 45' 57"N; 14° 15' 43"E) and is approximately 490 m a. s. l. in a relatively flat area in a non-exposed position (*Figure 8*). The nearest waterway is an unnamed stream which is 150 metres north of the site's coordinates. Thus, it is possible that at one time the site could have been situated closer to the spring of this stream. The site was randomly discovered by field-walking by a local forester, J. Sudík, in the years of 1999–2000 (Korený, Vencl 2002: 153, Vencl 2011: 15).

Out of the five artefacts discovered here, we certainly can label only one (and another one as possibly) as Mesolithic. Primarily it is a massive, chipped axe (so called *Scheibenbeil*) made from the SGS (*Figure 5: 1*). So far, it is the southernmost occurrence of this type of artefact in Bohemia. In general, these artefacts are linked to a Northern European cultural habitat (Cziesla 2020, Korený, Vencl 2002: 155, Vencl 2007a: 147, 2011: 15).

The second artefact is a fragment of bilaterally retouched blade, also made from the SGS (*Figure 5: 2*). However, this artefact can fit into the wide range possibly from the Late Palaeolithic to the end of the Eneolithic period (Korený, Vencl 2002: 153–154). Due to the presence of another, probably Neolithic, artefacts, we cannot exclude this possibility (for the issue of the Mesolithic and Neolithic at this site, see Šída 2009).

Deposited: Mining Museum Příbram (access. number 31/2003, inventory numbers A22752–A22756).

Nestrašovice

Field-walking of J. Fröhlich

The site is situated at the coordinates 780 457,058; 1 097 570,352 (WGS84 49° 33' 17"N; 14° 0' 31"E) at

approximately 462 m a. s. l. (*Figure 2: 2*). In its vicinity, there is a former mill of J. Skalička (also known as Podhradní mlýn) close to the Hrochův Hrádek stronghold where other Mesolithic findings are also known. The site is located on a southwest-oriented slope and it lays in 100–150 metres from Skalice River. However, the whole area is strongly changed by a railway, nowadays, so we can think about secondary deposition of the artefacts.

J. Fröhlich examined the site by a field-walking in 1988. He discovered two flakes, probably Mesolithic (Fröhlich 1992c, 1993b: 36, Vencl 2011: 17). First one was made from the Flintsbach chert and the other was burnt, but we were able to estimate that the raw material in the Bohemian Karst chert.

Deposited: Museum of Prácheň in Písek (inventory numbers A19964, A19965).

Field-walking of A. Debnar

The site is the same as in the previous case. Except for the assemblage of J. Fröhlich, there was another one artefact discovered in 1999 by A. Debnar. It can be described as a Flintsbach chert flake (Vencl 2011: 17). Unfortunately, we were not able to find this artefact in the Písek Museum where it should be deposited. Considering its location and other findings from this site it possibly could be dated as Mesolithic.

Deposited: Unknown.

Field-walking of L. Krušinová

This field-walking is located at the coordinate of 780 309,310; 1 097 655,727 (WGS84 49° 33' 15"N; 14° 0' 39"E) at the altitude of approximately 461 m a. s. l. (*Figure 2: 3*). The site, discovered in 2017 by L. Krušinová, is situated approximately 170 metres to southeast from the field-walking of J. Fröhlich. Because of that, it is a question if these are two separated locations (or sites) or only one ploughed site.

Two artefacts represent this assemblage. The first one is a small bladelet from the SGS that was recently (probably by ploughing) broken, and its second part was not discovered. Secondly, it is a larger amorphous fragment of crystal, partly covered by a cortex. Assemblage could fit into the Mesolithic.

Deposited: Mining Museum Příbram (18/2019).

Oslí

The coordinates for the site are approximately 785 966,561; 1 092 125,019 (WGS84 49° 35' 46"N; 13° 55' 21"E) in the altitude of around 508 m a. s. l. The site is situated on a promontory above a confluence of



FIGURE 8: The Kozí Hory site position in the map (basemap: ČÚZK).

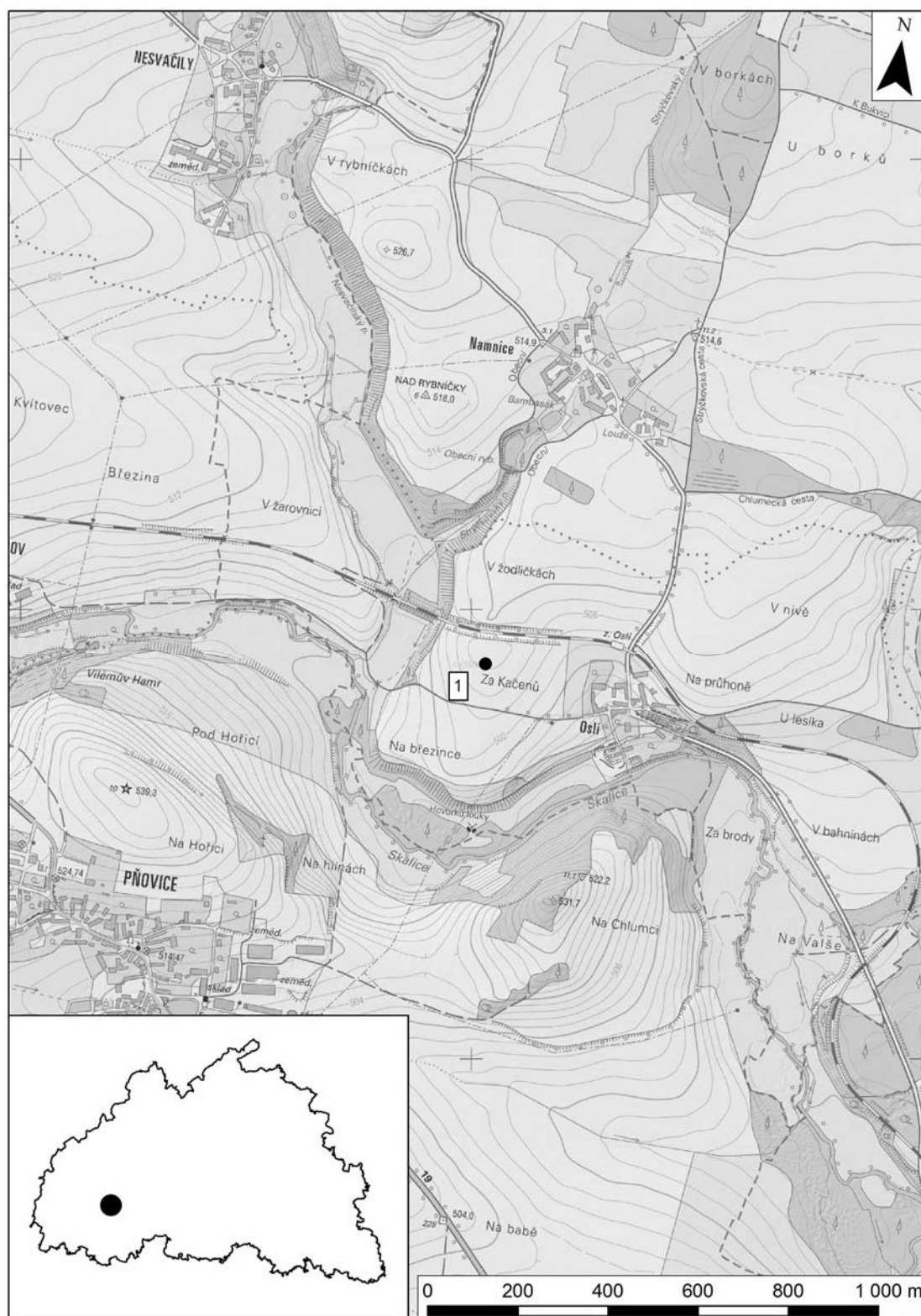


FIGURE 9: The Osli site position in the map (basemap: ČÚZK).

the Skalice River and the Stryčkovský Stream. The latter is closer to the site – it flows approximately 160 metres to the west of the site. The orientation of the site is to the south, but the whole area has been changed by a railway building (*Figure 9*).

The only artefact from this site was discovered by a field-walking. It can be classified as a small flake from unknown, probably a local raw material. The artefact could be roughly labelled as Mesolithic (Šnobl 2014: 74).

Deposited: With a founder.

Pňovice

The exact location of where it was found is unknown, but the site is situated somewhere around the Chochořík Mountain (548 m a. s. l.). Before 1957, most probably in 1950s, J. Bezděka found a single artefact. Later, he sent it to Institute of Archaeology in Prague to L. Jansová and F. Prošek. According to F. Prošek, the artefact is Mesolithic.

The artefact is probably lost, and we can work with only one finding report (2175/57) from May 13th, 1957. Due to the artefact's absence, its position, and other data, we must exclude this site from a later analysis.

Deposited: Unknown, probably lost.

Přední Poříčí, site 1

The site has the coordinates 784 578,950; 1 094 522,308 (WGS84 49° 34' 35"N; 13° 56' 46"E) and an altitude of 477 m a. s. l. It is situated on a mild slope orientated to the west and is located approximately 50 metres to the east from the Skalice River (*Figure 4: 2*). All the artefacts were discovered by a field-walking of J. Fröhlich in 1987 (Fröhlich 1989, 1993b: 36, Vencl 2011: 17).

The assemblage consists of four artefacts, flakes to be more specific. Considering raw materials, there are milky opal, brownish opal and two pieces of the SGS. Except for the milky opal, artefacts are partly covered by a cortex. By their characteristics, the findings probably fit into the Mesolithic.

Deposited: Mining Museum Příbram (16/1988).

Přední Poříčí, site 2

The site, in the literature (Fröhlich 1989, 1993b: 36, Vencl 2011: 17) labelled as site 2, is situated approximately 200 metres to the south-south-east of a former mill of Ignác Hrdina (also known as U Dolejších Šamsů mill). The coordinates are 784 665,499; 1 094 056,043 (WGS84 49° 34' 50"N; 13° 56' 39"E) and the altitude is 479 m a. s. l. It is situated on a slope orientated to the south-west, and

lies roughly 140 metres from Skalice River (*Figure 4: 3*). Compared to the previous site, this one is located about 470 metres to the north.

Likewise, in the previous case, this site was discovered by J. Fröhlich in 1987 (Fröhlich 1989, 1993b: 36, Vencl 2011: 17), but in this case, only one artefact was discovered, to be more specific it can be classified as the SGS flake partly covered by a cortex. It can fit into the Mesolithic, but we cannot exclude different dating.

Deposited: Mining Museum Příbram (15/1988).

Radič, Hrazany hillfort

Site 1A

The site lays approximately at the coordinates 749 349,304; 1 081 589,325 (WGS84 49° 44' 9"N; 14° 24' 16"E) in 335 m a. s. l. (*Figure 10: 1*). The area is well-known as the La Tène Period oppidum Hrazany and it was excavated by L. Jansová in 50s and 60s. In 1957, Karel Žebera discovered a quartzite core at the bottom of a test pit IIA/57 (Vencl 2011: 7–8, 16, fig. 3).

Unfortunately, we were not able to find the artefact, but formerly it was classified as Middle Palaeolithic. Due to its absence, we cannot confirm or refute this statement, but we must point out that there are no other Middle Palaeolithic artefacts in the whole region and this site was even settled during later periods, namely from the Eneolithic to the La Tène Period (Vencl 2011: 8). Considering the presence of this type of artefact in younger prehistoric periods (see Vencl 1976, 2006, Vencl *et al.* 2011: 109–110) we cannot exclude its connection with the Eneolithic period (Jansová 1965: 34–35).

Deposited: Unknown.

Site 1B

The site in the area from the La Tène Period oppidum is situated around the coordinates 749 326,845; 1 081 572,242 (WGS84 49° 44' 10"N; 14° 24' 17"E) at 335 m a. s. l. on a promontory over the modern day regulated Vltava River (*Figure 10: 2*). The distance between the site and the river is approximately 230 metres. In 1951–1962, the La Tène Period site was excavated by L. Jansová and during this excavation, remains of a Mesolithic settlement were also found. There were supposed to be a few hundred lithic artefacts (Vencl 2011: 9), but a significant portion is probably lost. In consideration of the original focus of the excavation and with that connected methodology (there was no using of sieve or flotation), we can rightfully presume that the former and even remaining

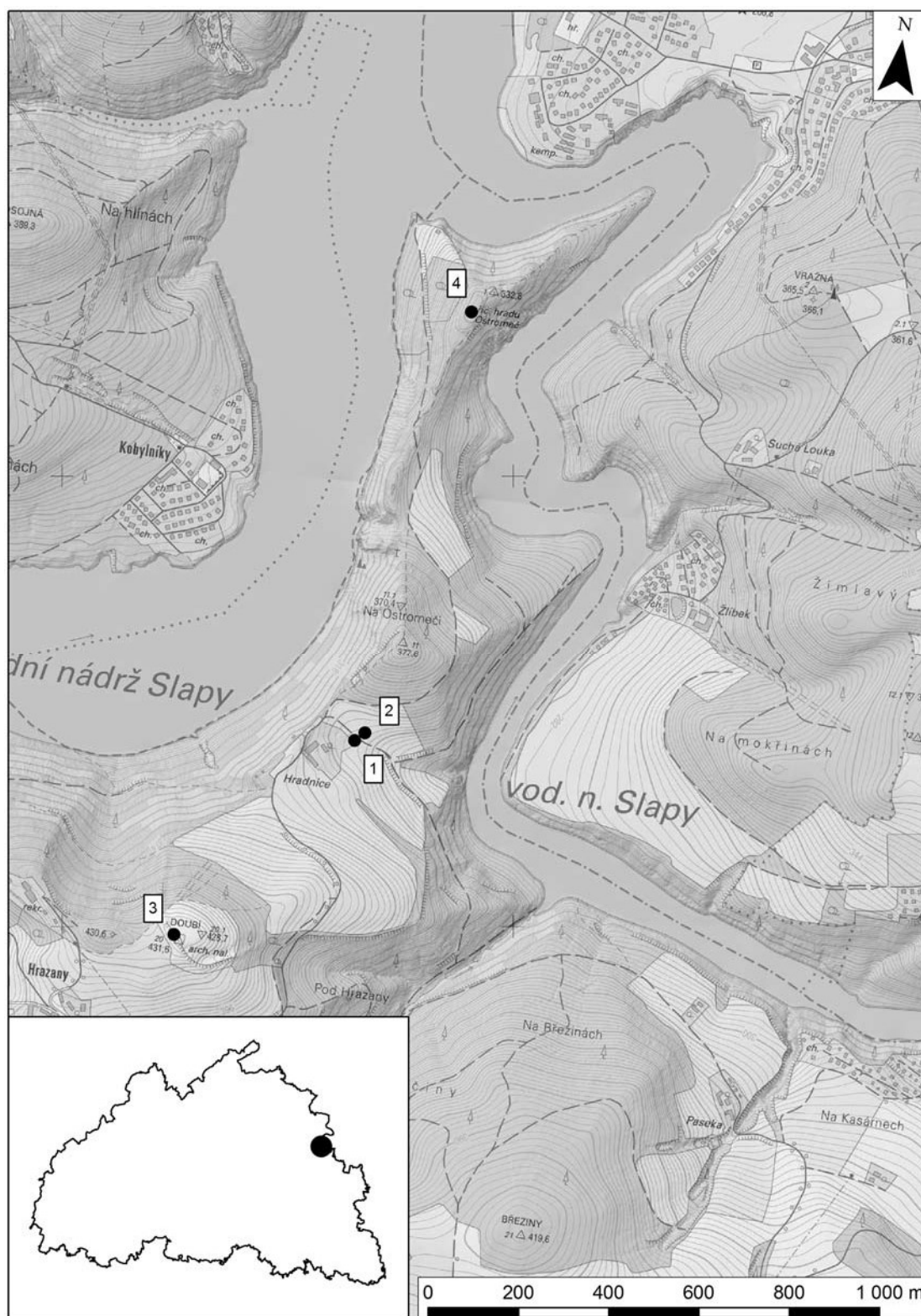


FIGURE 10: Radič-Hrazany 1A (1), 1B (2), 2 (3) and 3 (4) sites positions in the map (basemap: ČÚZK).

assemblage is selective. That means only those lithic artefacts that were obviously distinguished in soil by their size or material were collected. This may be the main reason for the domination of milky opals in the assemblage (Vencl 2011: 10).

Slavomil Vencl (2011: 10–12) mentioned 262 lithic artefacts that he examined. However, in a depositary at the Mining Museum in Příbram, we discovered 272 artefacts. The most frequent type of artefact is flake (120 pieces). The majority of the flakes were made from milky opal (83 artefacts, out them 29 covered by a cortex and two partly burnt). Then, other raw materials include SGS (9 pieces, three with a cortex), Flintsbach chert and Lipnice quartzite (both with 6 artefacts, while one of the Flintsbach chert is covered by a cortex), Putim chert (5 pieces), brownish opal and Bohemian Karst chert (both with 4 artefacts, while two of brownish opals are covered by a cortex) and one piece of plasma. Two of the flakes were burnt, so we cannot determine their raw material source. Part of the SGS flakes, six pieces in total, have their surfaces covered by a patina. The patina is light blue for one flake and for another it is an extraordinarily strong yellow. The rest of the four flakes are covered by an intense strong white patina.

Tiny chips are the second most common artefact. There are 56 of them, and except for one piece so small to determine its raw material (possibly it could be the SGS), their raw material is milky opal. There are 18 chips which all come from the same core that fell apart into these pieces and one large residuum.

By a quite large number (namely 34 pieces), cores (*Figure 11: 8–12*) are presented in the assemblages. Milky opal is the most frequent raw material (27 artefacts, out of them 19 pieces are partly covered by a cortex), while other raw materials appear less often. These are brownish opal (2 artefacts, one of them with cortex) and with a single piece of crystal, the Putim chert and smoky quartz (with a cortex). Due to their burn, two cores' source material (both with cortex) cannot be determined macroscopically. Also, another two cores derived from milky opal were partially burnt.

Amorphous fragments (33 pieces) are another type of artefact discovered at the site. Again, milky opal totally dominates (29 artefacts), the other raw materials are the Flintsbach chert (2 pieces) and brownish opal (one artefact). The last artefact was burnt so we cannot determine its raw material. In addition, this last piece is also partly covered by a cortex that also covers one of the Flintsbach cherts and 16 milky opals.

In a total number of 22 artefacts, there are also blades, bladelets and their fragments. In this category,

the SGS is the most frequent raw material (7 pieces, one of them with a cortex). After that, there are milky opal (5 artefacts, two with cortex), the Flintsbach chert (3 pieces, one with a cortex), the Bohemian Karst chert (2 pieces), the Putim chert (1 piece), brownish opal (covered by a cortex) and Liteň slate. Two artefacts were burnt (and covered by cortex), so we cannot determine their raw material. The surface of two blades is covered by a light white patina.

Retouched tools are represented by only seven pieces. End-scrapers (*Figure 11: 1–4, 7*) are the most frequent among them by a number of five. Two of these end-scrapers were made from the SGS and two were made of milky opals. The last one is undefined quartz. The other two tools are a retouched blade (*Figure 11: 6*) and a retouched flake (*Figure 11: 5*). Both their compositions are of SGS. We can also mention one pebble of milky opal covered by a cortex.

It seems that there are at least two or three chronological components (Vencl 2011: 11–12). Flake covered by a yellow patina could be Upper Palaeolithic, maybe, even from its early phase as it is a massive flake (perhaps mistaken with Site 1C artefact?). Findings with white patina possibly could fit into the Upper or Late Palaeolithic period and this assumption is supported even by their morphology. Most of the assemblage is, by its morphology and raw materials, are Mesolithic. The absence of microliths can be explained by the methodology of the excavation at the time. In consideration of other findings from younger prehistory, we also cannot exclude small intrusive findings from the Eneolithic (Vencl 2011: 12).

Deposited: Mining Museum Příbram (access. number. 6/2003)

Site 1C

The coordinates for this site are unknown, but the rare finding should be located somewhere in the area of the La Tène Period oppidum. The artefact is described as a high end-scraper made from brown flint covered by a patina (Vencl 1977: 36–38, 2011: 13). The artefact was classified as Aurignacian and it should be deposited in the Příbram Museum. However, there is no such artefact to be found. On the other hand, a similar artefact exists among artefacts from Site 1B. Considering this, both sites have almost the same description as in S. Vencl's (2011) article. While there seems to be only one artefact, it is probably a misunderstanding.

Deposited: Unknown, probably one of the artefacts from the site 1B (16/58).

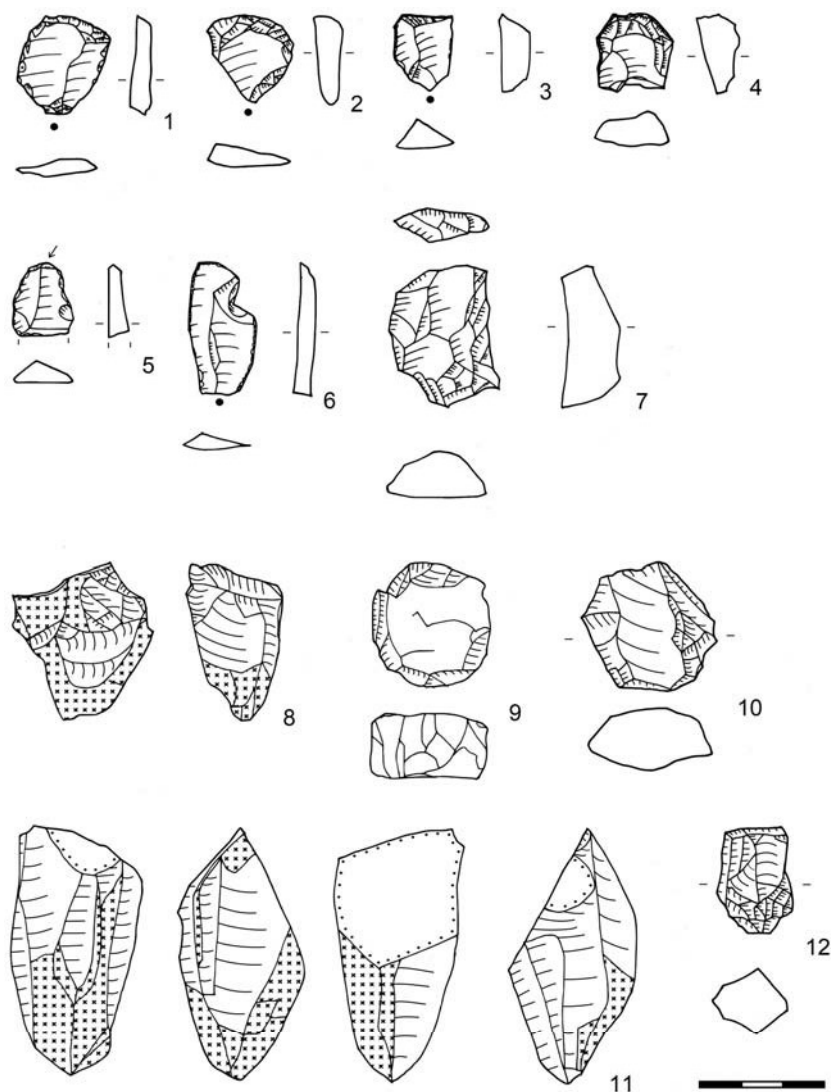


FIGURE 11: Selection of lithic artefacts from Radič-Hrazany 1B site. 1-4, 7, end-scrapers; 5, retouched flake; 6, retouched blade; 8-12, cores. Drawing: K. Čecháková.

Site 2

At the coordinates 749 749,642; 1 082 018,500 (WGS 84 49° 43' 53"N; 14° 23' 59"E) and at approximately 432 m a. s. l. (Figure 10: 3), two fireplaces covered by a loess were discovered (Vencl 2011: 13). By their stratigraphic position, they were considered to be Palaeolithic. However, no other data was given and they were destroyed.

Deposited: Destroyed.

Site 3

The site is situated at the coordinates 749 090,795; 1 080 635,759 (WGS84 49° 44' 41"N; 14° 24' 22"E)

under the Ostromeč castle at the altitude of approximately 333 m a. s. l. (Figure 10: 4). In 1951, J. Hroch found one lithic artefact there (Vencl 2011: 13).

The artefact is classified as a SGS blade fragment with the length of about 4 centimetres (Sklenář 1984: 7, tab. 1). Its dating is impossible because it could fit into the Mesolithic as well as into younger periods.

Deposited: Sedlčany Museum (inventory number 4).

Rejkovice

The site is situated on the Plešivec Mountain at the location of Malá skála (Korený 2000: 226, Vencl 2011:

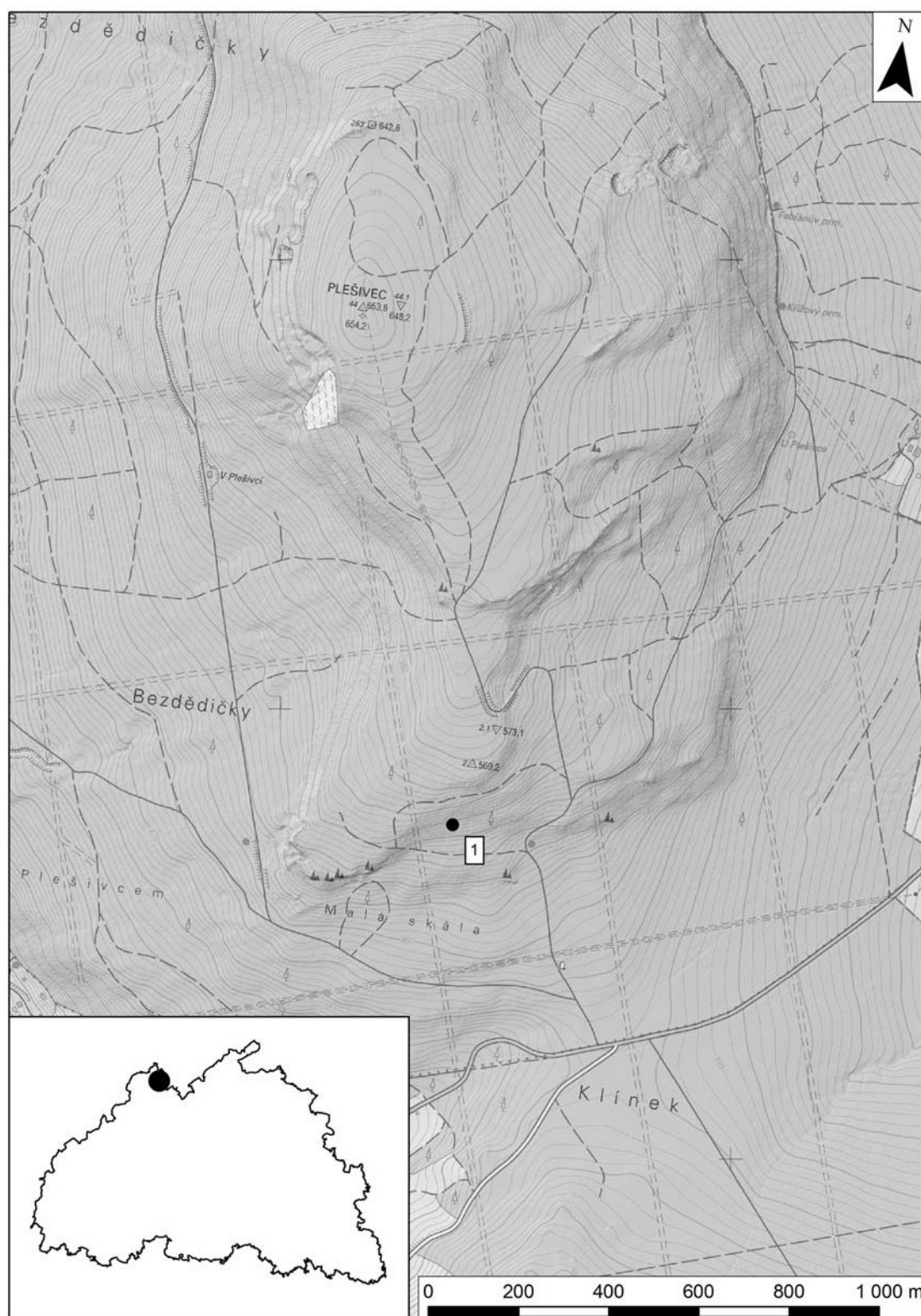


FIGURE 12: The Rejkovice site position in the map (basemap: ČÚZK).

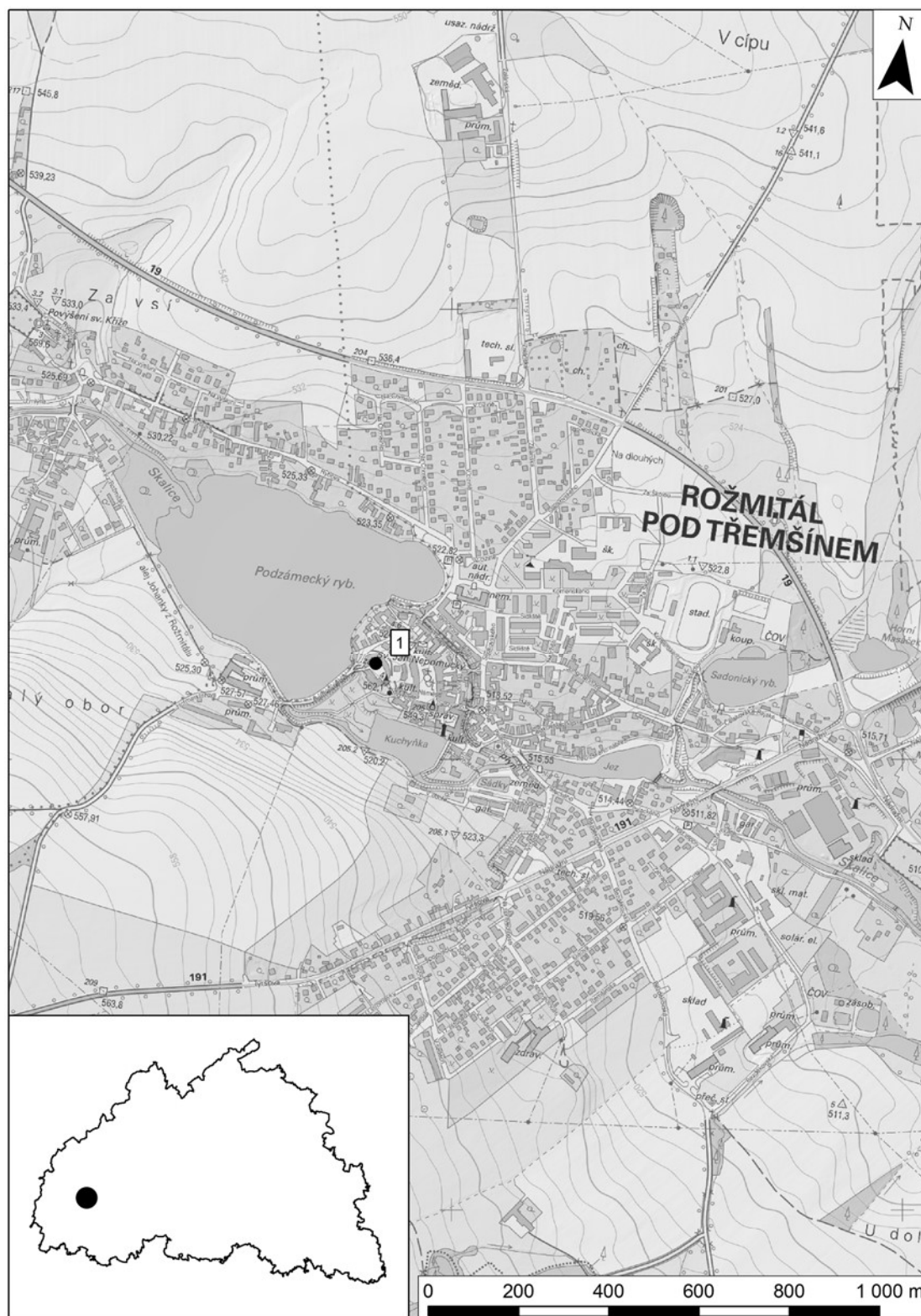


FIGURE 13: The Rožmitál pod Třemšínem site position in the map (basemap: ČÚZK).

17) around the coordinates 777 616,038; 1 070 257,707 (WGS84 49° 48' 5"N; 13° 59' 39"E) at 537 m a. s. l. (*Figure 12*). The whole site lays on the mountainside of Plešivec Mountain that is oriented toward the south. The nearest watercourse is the Litavka Brook, but it flows in the distance of more than 1 100 metres from the site. However, various natural springs and wells in the site's vicinity today could have been used as a source of water for hunters-gatherers. Nowadays, there are at least three such natural wells that are situated 100–300 metres from the site.

An archaeological artefact was discovered in 1986 by M. Knížek (Korený 2000). It is a Bohemian Karst chert flake, and possibly Mesolithic (Vencl 2011: 17).

Deposited: Mining Museum Příbram (access. number 16/2000, inventory number A16401).

Rožmitál pod Třemšínem

Artefacts were discovered on the top of a palace hill. The coordinates are 790 166,744; 1 090 791,143 (WGS84 49° 36' 9"N; 13° 51' 44"E) at approximately 527 m a. s. l. However, today, the whole area has been greatly altered by the palace and castle (*Figure 13*). We can say the same about its river system, but it is quite clear that the site lays close to the Skalice River (Vencl 2011: 18).

During a palace excavation in 1984 that was led by L. Smejtek (1987a), two lithic artefacts were discovered (Fröhlich 1993b: 36) in one of the test pits (III/84). They are classified as milky opal (partly covered by a cortex) and SGS flakes. The origin of opal was formerly determined as coming from Eastern Slovakia (Smejtek, Nováček 1993: 198), but macroscopically the raw material is the same as other Southern Bohemian milky opals from the region. Both artefacts are probably Mesolithic.

Deposited: Mining Museum Příbram (access. number 329/1984).

Vestec

Site 1

The location called "Na hradišti", where the assemblage was found, is situated around the coordinates 759 878,763; 1 086 219,709 (WGS84 49° 40' 54"N; 14° 16' 7"E) at the altitude of 305 m a. s. l. (*Figure 14: 1*). The distance between the site and the Vltava River is less than 170 metres. The site was excavated in 1986 by L. Smejtek (1989b, 2000).

There was a small assemblage of lithic artefacts in a test pit I/86. Artefacts were at a depth of 20 to 50 centimetres; however, most of them were found

between 30–40 centimetres (Smejtek 2000: 36, fig. 6). Even though the lithic artefacts were not given attention then (Smejtek 1989b only briefly mentioned as Eneolithic artefacts), they can be classified as Mesolithic (Vencl 2011: 18–19). The assemblage contains nine artefacts (one of them is missing now, see Smejtek 2000: 38, fig. 6: 11). There are three amorphous fragments (two Flintsbach chert and one SGS, all of them covered by cortex), three flakes (two SGS and one brownish opal) and blades (two SGS, one of them covered by a cortex, and one Flintsbach chert). Also, there is a small chip, probably from the SGS, that is covered by a strong white patina. The assemblage is classified as Mesolithic (Vencl 2011: 18–19) mainly on the basis of the varied number of raw materials (see Vencl 1989: 496–498, 1990) and the size of the artefacts. According to their older description (Smejtek 2000: 37), at least four artefacts were burnt, but we did not find such traces.

Deposited: Mining Museum Příbram (access. number 50/1986, inventory numbers A3612, A3755, A3702, A3764–A3766, A3772).

Site 2

The site is situated in Brtef/Brtev forest around barrow-like structures at approximately 760 379,933; 1 086 120,071 (WGS84 49° 40' 55"N; 14° 15' 41"E) at 347 m a. s. l., that means no further than 520 metres from the site 1 (*Figure 14: 2*). It is oriented to the south and the Vltava River runs approximately 420 metres from the site. The site was discovered in 1986 by a field-walking connected to the excavation of Site 1. During the later excavation of one of the barrow-like structures, L. Smejtek (2000: 39–40) discovered lithic artefacts.

The assemblage is made of two artefacts – milky opal and Flintsbach chert flakes. S. Vencl (2011: 19) classified them, with caution, as Mesolithic artefacts deposited in a secondary position. Considering the closeness of Site 1, their Mesolithic origin is probable, but the assemblage is too small and without any significant artefacts to be totally sure.

Deposited: Mining Museum Příbram (access. number 50/1986, inventory numbers A18354, A18357).

Voltýřov

Field-walking of B. Dubský

During the Second World War, Bedřich Dubský was collecting some lithic artefacts, perhaps, of Late Palaeolithic or Mesolithic origin. The finds should be located in the area under the Žíkovec hillfort (Beneš, Vencl 1966: 69, Vencl 2011: 19), but any more specific

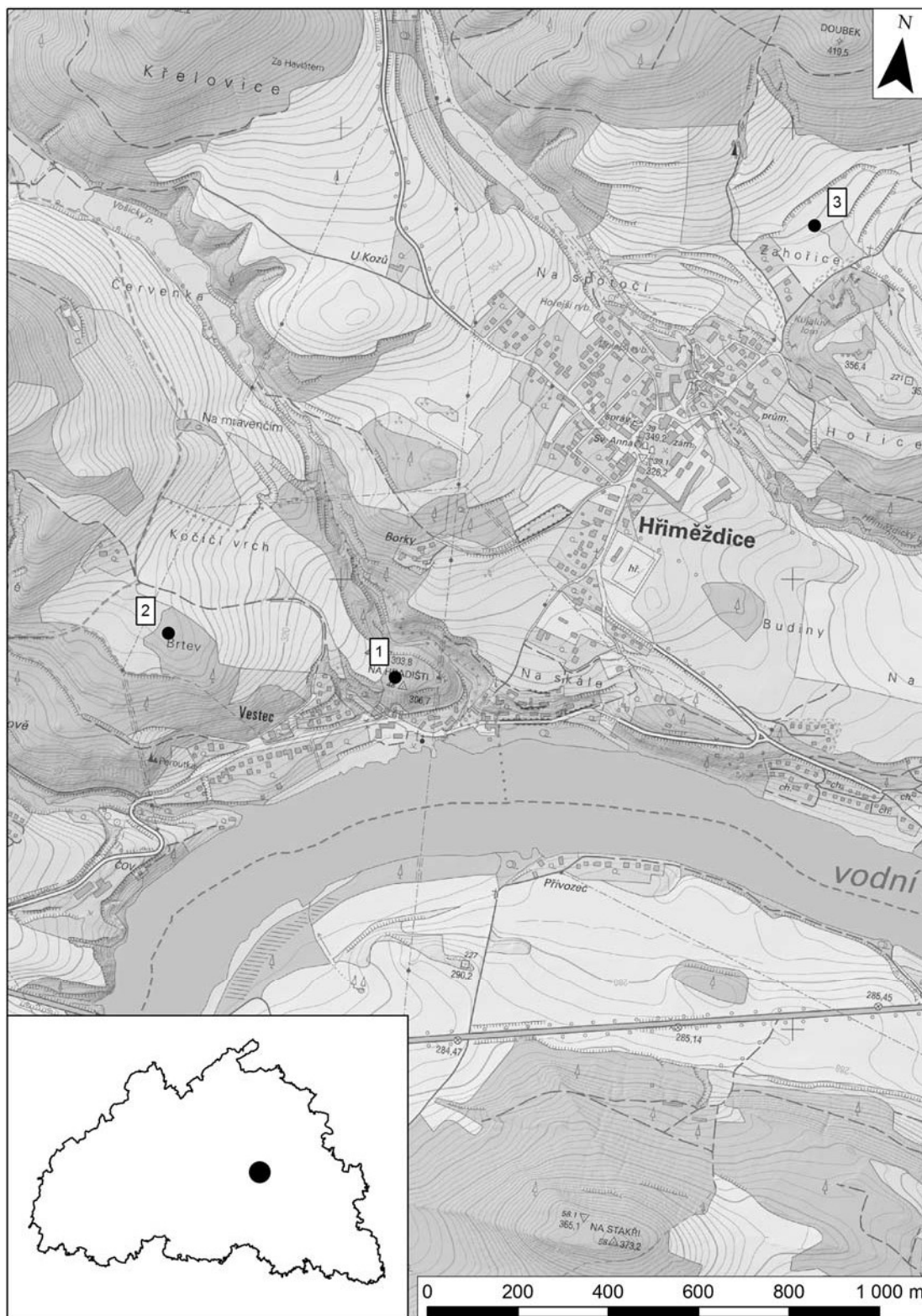


FIGURE 14: Vestec 1 (1), Vestec 2 (2) and Hříměždice 7 (3) sites positions in the map (basemap: ČÚZK).

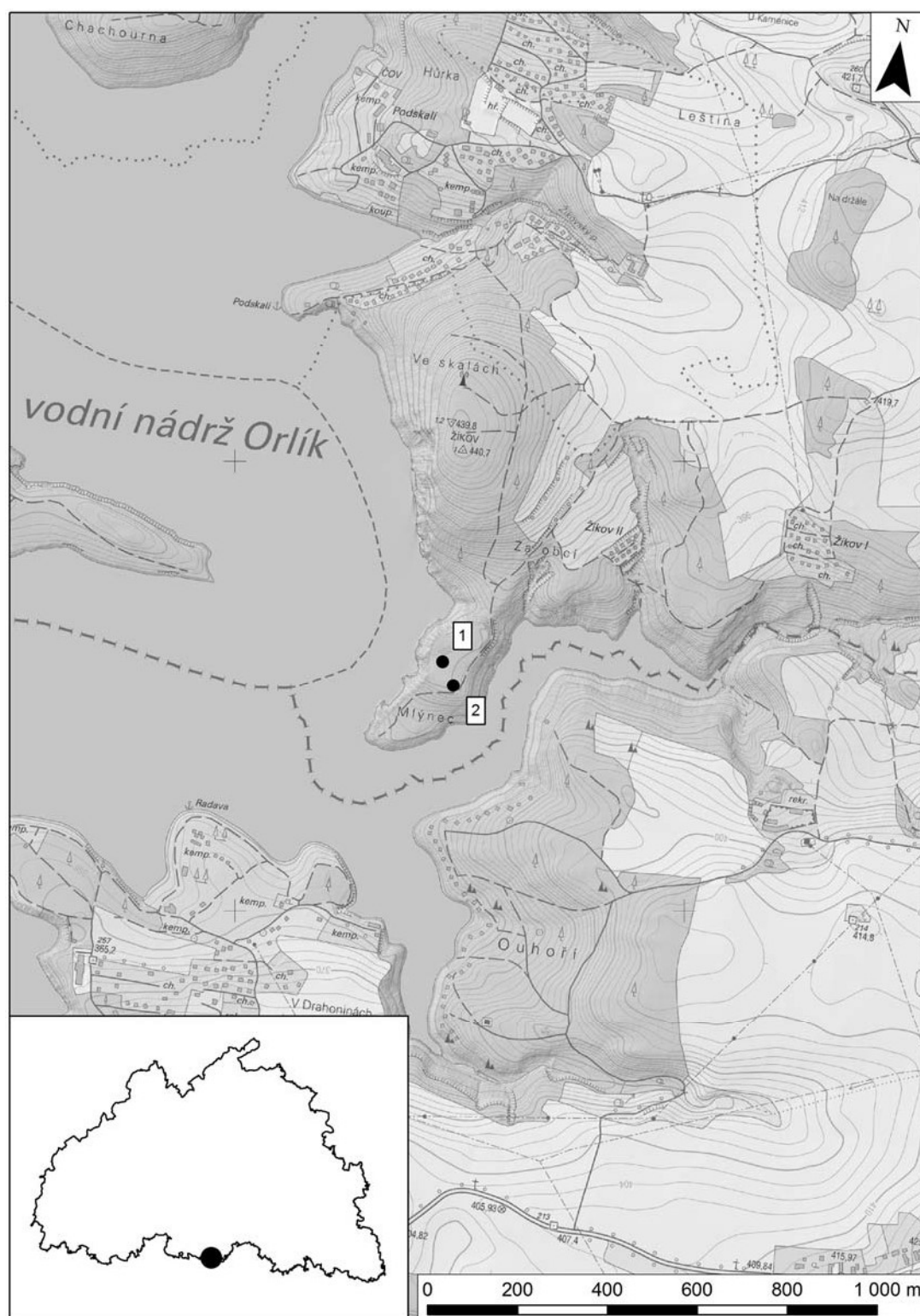


FIGURE 15: The Voltýřov site, excavation of B. Dubský (1) and excavation of L. Smejtek (2) positions in the map (basemap: ČÚZK).

location is unknown. The lithic artefacts were never published and most probably they are lost.

Deposited: Unknown.

Excavation of B. Dubský

The site is situated around the coordinates 768 535,950; 1 101 446,761 (WGS84 49° 32' 7"N; 14° 10' 45"E) at an approximate altitude of 381 m a. s. l. (*Figure 15: 1*). It is in the area of the Štítary culture hillfort Žikovec. Toward the end of September 1948, B. Dubský excavated the Štítary culture dwelling. During that time, he discovered two, probably SGS, artefacts (Dubský 1949: 676, Vencl 2011: 19).

According to a description, there were a pointy flake and a core. Both artefacts were found in light sandy layer under the level of topsoil (Beneš, Vencl 1966: 69, Vencl 2011: 19). The artefacts could be dated as Late Palaeolithic or Mesolithic; however, we were not able to locate them.

Deposited: Unknown.

Excavation of L. Smejtek

The site is situated in the area of the Late Bronze Age hillfort Žikovec at the approximate coordinates 768 512,701; 1 101 500,454 (WGS84 49° 32' 5"N; 14° 10' 47"E) at 380 m a. s. l. It sits on a promontory overlooking the Vltava River (*Figure 15: 2*).

During 1980s, L. Smejtek excavated the area and discovered one artefact in the test pit XV/85 at a depth of 20–30 centimetres together with pottery (Smejtek 1987b do not mention any lithic artefacts; Lutovský, Smejtek 1993: 68, fig. 2 shows a position of all test pits). The artefact is a Putim chert amorphous fragment and its surface is partly covered by a cortex. Regarding raw material and mentioned but not found Late Palaeolithic or Mesolithic artefacts, we may think about the same classification in this case.

Deposited: Mining Museum Příbram (access. number 51/1985).

Vrančice

The position of the site is unknown; we know only the name of the cadastre. In 1941, a residuum of small disk core should have been found here. Firstly, it was classified as the Aurignacian (Skutil 1952: 101), but according to the picture, it does not seem appropriate which already had been pointed out (Vencl 2011: 21). The artefact possibly could fit into the Late Palaeolithic or Mesolithic periods, but unfortunately, it is probably lost so we were not able to classify it.

Deposited: Unknown.

Vševily

The site is situated at the coordinates 788 102,147; 1 096 210,386 (WGS84 49° 33' 25"N; 13° 54' 5"E) at the altitude of 522 m a. s. l., and lies less than 70 metres from the Bubovický Brook (*Figure 16*). The orientation of the site is to the southwest.

By a field-walking, one artefact was discovered there. It is the Tušimice quartzite flake (*Figure 5:4*), preliminary dating place in into the Upper Palaeolithic period (Šnobl 2014: 74). However, we would need more artefacts from the site to determine a more accurate dating.

Deposited: Mining Museum Příbram (without a number).

Zalužany

Site 1A

The site lies around the coordinates 773 573,855; 1 100 537,609 (WGS84 49° 32' 13"N; 14° 6' 31"E) at 458 m a. s. l. (*Figure 17: 1*). It is situated approximately 100 metres to the south of an unnamed tributary of the Trnovecký Brook. The site was researched by Dagmar Dreslerová in 2001–2003 via a field-walking survey. During the field-walking, one SGS flake was discovered (Vencl 2011: 21). The artefact should be located at the Institute of Archaeology in Prague, but we were not able to find it there. Most probably, the artefact has a Late Palaeolithic or Mesolithic origin, however it needs to be verified.

Deposited: Unknown (perhaps Institute of Archaeology in Prague).

Site 1B

This site is located less than 90 metres from Site 1A at the coordinates 773 500,062; 1 100 588,202 (WGS84 49° 32' 12"N; 14° 6' 35"E) at 458 m a. s. l. (*Figure 17:2*). During the same field-walking as in the previous case, D. Dreslerová discovered the SGS retouched bladelet fragment from the Late Palaeolithic or Mesolithic period (Vencl 2011: 21). Unfortunately, not even this artefact was found at the Institute of Archaeology in Prague, so we cannot confirm or refute its dating.

Deposited: Unknown (perhaps Institute of Archaeology in Prague).

Zbenice

The site is located at the coordinates 773 785,114; 1 093 855,577 (WGS84 49° 35' 46"N; 14° 5' 34"E) at 534 m a. s. l. It is situated on a north-western slope (*Figure 18*). The hydrological conditions of the whole area were affected by the construction of several ponds.

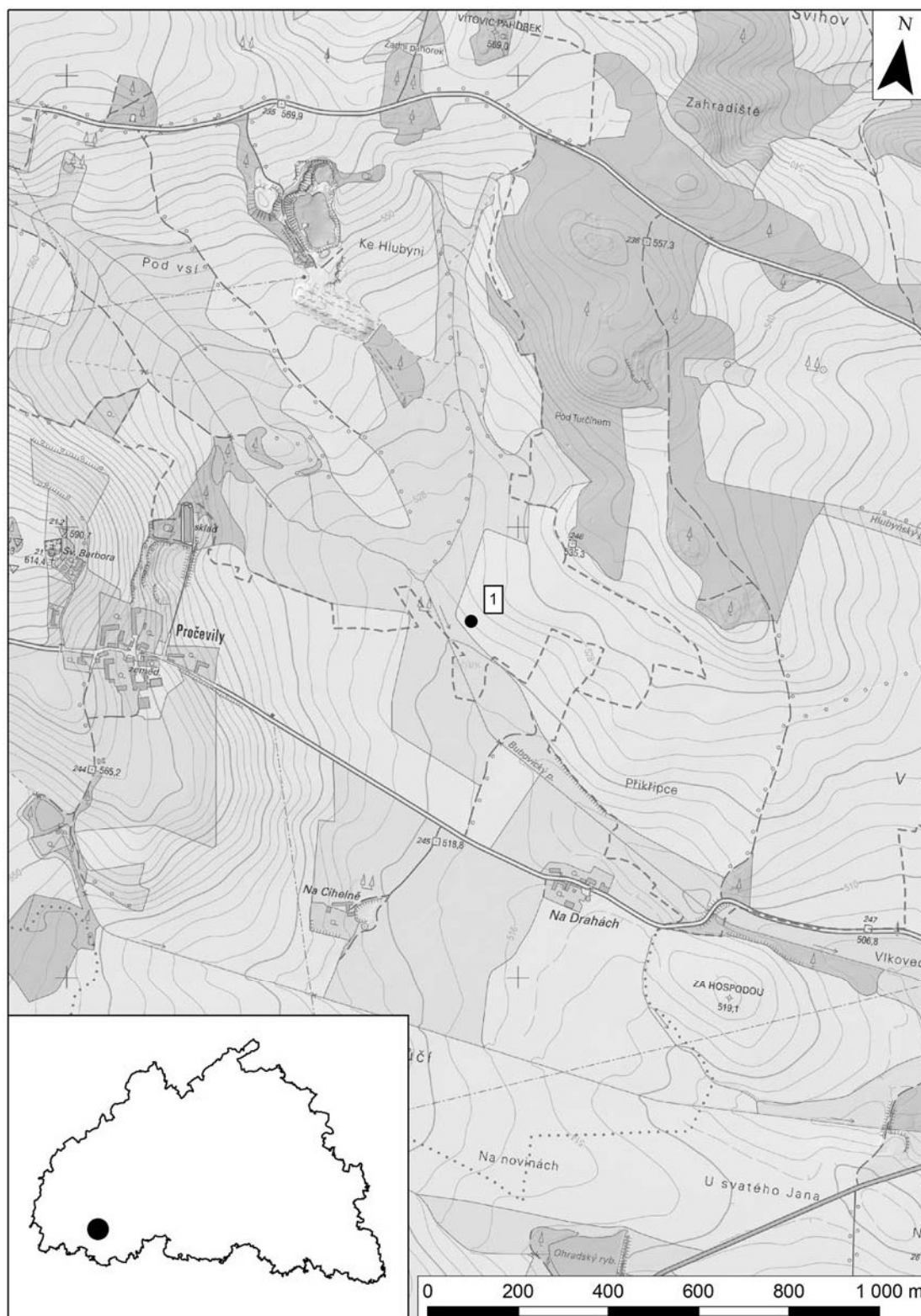


FIGURE 16: The Vševely site position in the map (basemap: ČÚZK).

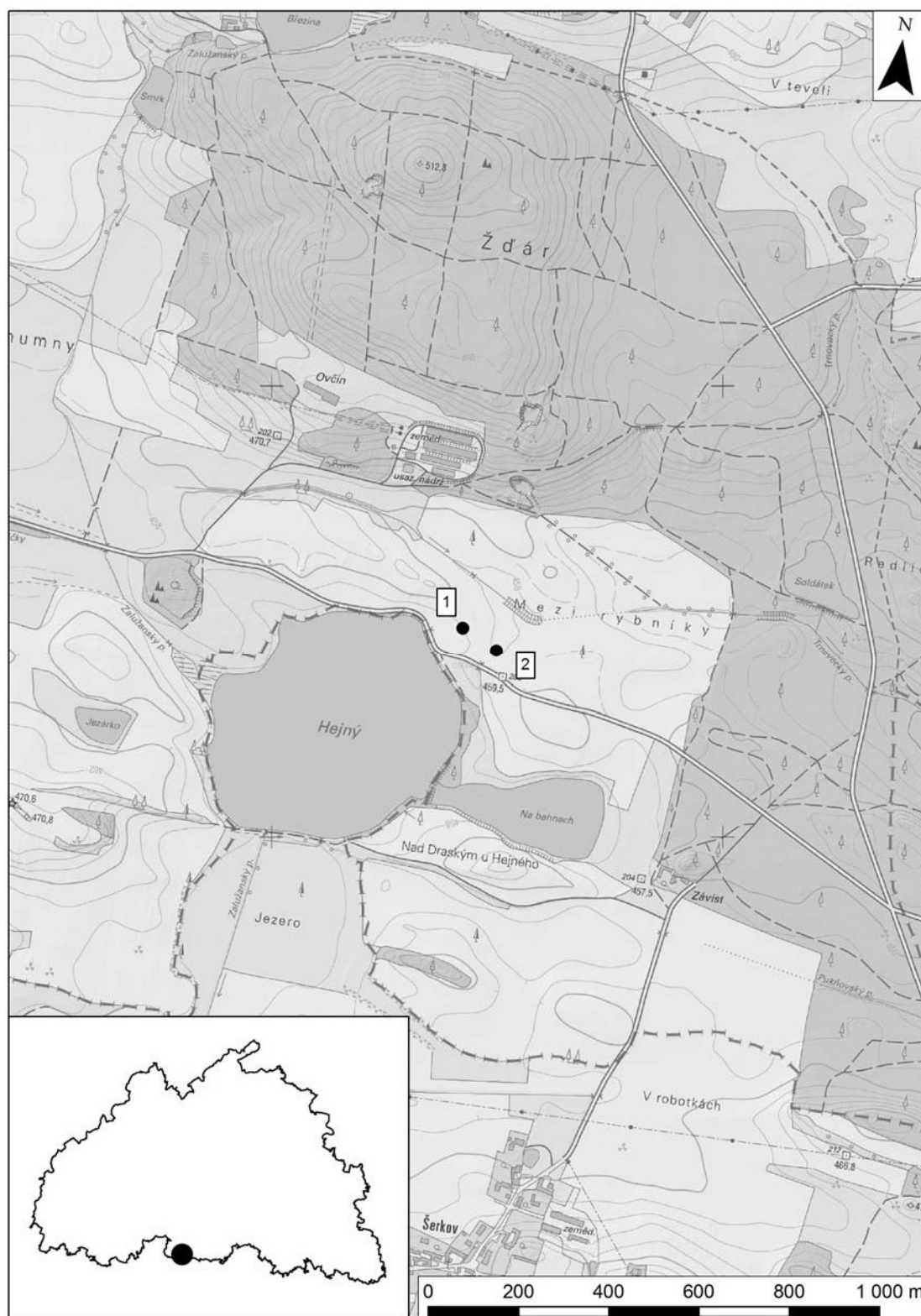


FIGURE 17: Zalužany 1A (1) and 1B (2) sites positions in the map (basemap: ČÚZK).



FIGURE 18: The Zbenice site position in the map (basemap: ČÚZK).

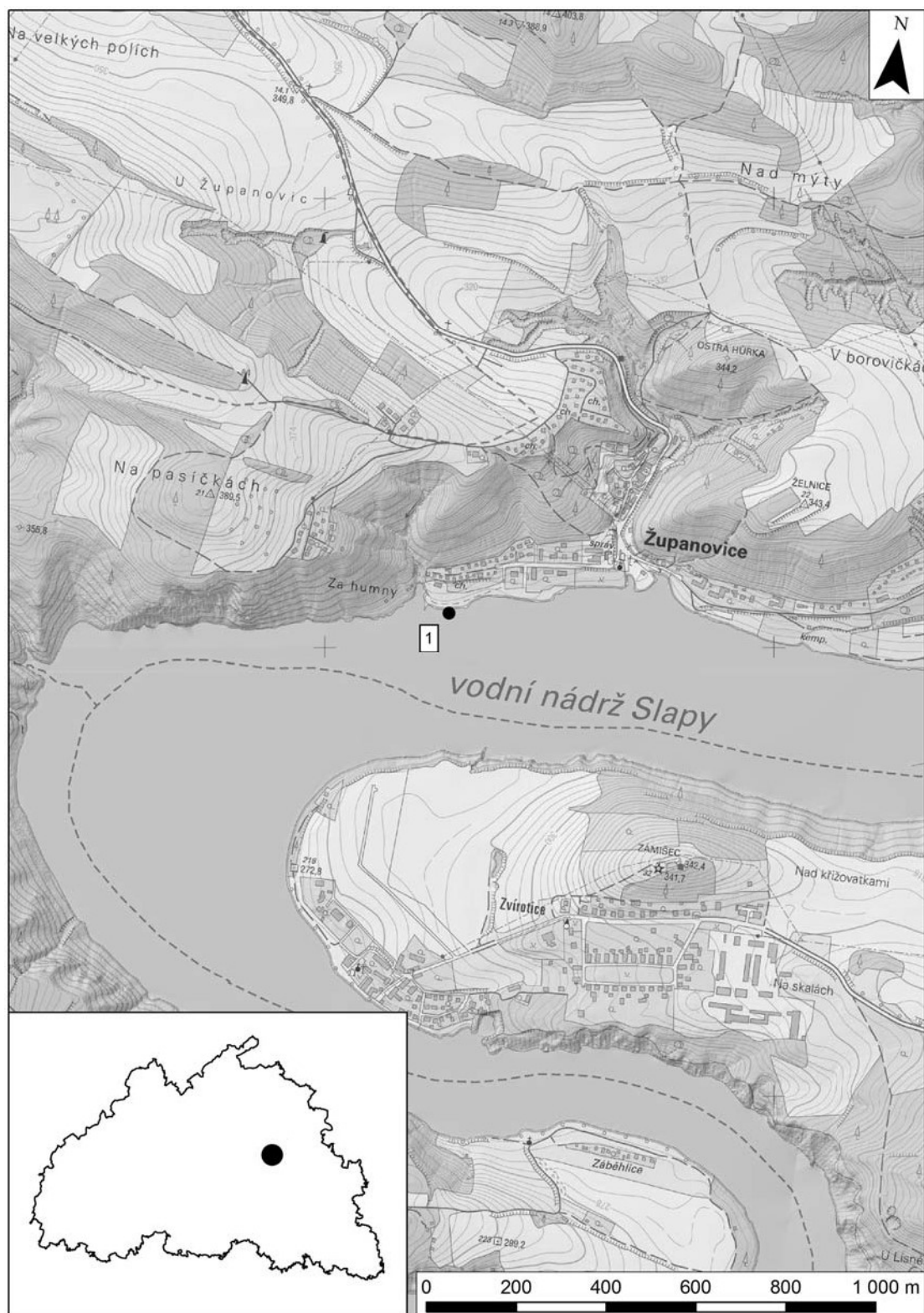


FIGURE 19: The Županovice site position in the map (basemap: ČÚZK).

The site is situated at the border of Bohostický (tributary of Vltava River) and Zbenický (tributary of Skalice River) Brooks basins. The distance between the site and the closest brooklets is about 500 metres.

The site was examined by M. Vávra via field-walking in 1980 (Korený, Nováček 2000: 343, Vávra 1984). He discovered one Flintsbach type chert flake. The flake was classified by J. Fridrich as Palaeolithic (Vávra 1984, Vencel 2011: 21), but we cannot exclude it from a younger dating.

Deposited: Mining Museum Příbram (access. number 60/1999).

Županovice

The finding was discovered at the coordinates 757 721,785; 1 083 923,704 (WGS84 49° 42' 18"N; 14° 17' 38"E) on the left bank of the Vltava River (*Figure 19*) in 1996 by S. Přibyl. The artefact, together with prehistoric and medieval-modern age pottery, was discovered due to the Vltava River's declination. Thus, we cannot exclude the possibility that it was redeposited by the river into a secondary position (Korený 2001: 351–352).

The artefact can be described as a Flintsbach chert blade fragment. Its surface is partly covered by a cortex. Based on a fracture character, it was probably fragmented during prehistory. With caution, we can classify the artefact as Mesolithic.

Deposited: Mining Museum Příbram (access. number 32/1999).

RESULTS

In the Příbram region, a total number of 27 sites have been analysed. At those sites, 403 pieces of lithic artefacts were found (alternatively with another pebble of raw material and retouched blade from Koží Hory site, which connection with Mesolithic axe is uncertain but possible). At this moment, it seems that only one site – Radič-Hrazany – was settled by hunters-gatherers of more cultures during the Upper and Late Palaeolithic and Mesolithic periods. We cannot exclude this possibility for other sites, but so far it has not been proved. However, it is important to keep in mind that most of the collections in the region are too small to make any chronological conclusions. As a working hypothesis, we suggest that a total number of 379 artefacts from 16 sites (including lost Mesolithic artefact from the site Pňovice-Chocholík), i.e., the most from both categories, can be classified as Mesolithic.

14 artefacts from three sites can be included into the Late Palaeolithic period. Another six artefacts from four sites could be Late Palaeolithic as well as Mesolithic. We can also mention five more artefacts from the same number of sites, which could have a Middle or Upper Palaeolithic origin (*Table 1; Table 2*).

Artefacts

Among all of the artefacts, 16 different raw materials could be distinguished, both local and imported. The most frequently observed material is milky opal (207 pieces), but it mostly (202 pieces) comes from the Radič-Hrazany site where this number could have been influenced by its excavation methods. The SGS also appears in quite large numbers (77 pieces), and the Flintsbach chert (41 pieces) is also plentifully presented. By several samples, Putim cherts and Bohemian Karst cherts (both 13 pieces), brownish opals (11 pieces) and the Lipnice quartzite (9 pieces) are presented. Exceedingly rare materials are quartz (4 pieces), crystal (3 pieces), quartzite and acid subvolcanic (both 2 pieces), and by one piece plasma,

TABLE 1: Pre-Neolithic sites in the Příbram region. Number of sites by period (sites Radič-Hrazany 2 and 3 are excluded, all three chronological components of the Radič-Hrazany 1B site are included).

Period	Number of sites
Palaeolithic	5
Late Palaeolithic	3
Late Palaeolithic/Mesolithic	4
Mesolithic	16
Total	28

TABLE 2: Pre-Neolithic sites in the Příbram region. Number of artefacts by period (Radič-Hrazany 3 is excluded).

Period	Number of artefacts
Palaeolithic	5
Late Palaeolithic	14
Late Palaeolithic/Mesolithic	6
Mesolithic	379
Total	404

TABLE 3. Pre-Neolithic sites in the Příbram region. Number of artefacts by raw material. A, Erratic flint (SGS); B, Flintsbach chert; C, Milky opal; D, Ražice chert; E, Bohemian Karst chert; F, Brownish opal; G, Lipnice quartzite; H, Crystal; I, Quartz; J, Quartzite; K, Subvulcanite; L, Liteň slate; M, Plasma; N, Smoky-quartz; O, Weathered stone; P, Flint; Q, Undefined.

Site	Lithic raw material																	Σ
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
Bor	31	20	2	5	5	1	2	×	2	1	2	×	×	×	1	1	7	80
Březnice	1	2	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	3
Hřiměždice 2	4	×	×	×	×	×	1	×	×	×	×	×	×	×	×	×	×	5
Hřiměždice 7	1	×	×	×	×	×	×	1	×	×	×	×	×	×	×	×	×	2
Kozárovice	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Kozí Hory	2	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	2
Nestrašovice (80s and 90s)	×	2	×	×	1	×	×	×	×	×	×	×	×	×	×	×	×	3
Nestrašovice (2017)	1	×	×	×	×	×	×	1	×	×	×	×	×	×	×	×	×	2
Oslí	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1	1
Pňovice	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Přední Poříčí 1	2	×	1	×	×	1	×	×	×	×	×	×	×	×	×	×	×	4
Přední Poříčí 2	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Radič-Hrazany 1A	×	×	×	×	×	×	×	×	1	×	×	×	×	×	×	×	×	1
Radič-Hrazany 1B	20	11	202	7	6	8	6	1	1	×	×	1	1	1	×	×	8	273
Radič-Hrazany 1C	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Radič-Hrazany 3	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Rejkovice	×	×	×	×	1	×	×	×	×	×	×	×	×	×	×	×	×	1
Rožmitál pod Třemšínem	1	×	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	2
Vestec 1	6	3	×	×	×	1	×	×	×	×	×	×	×	×	×	×	×	10
Vestec 2	×	1	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	2
Voltýřov	2	×	×	1	×	×	×	×	×	×	×	×	×	×	×	×	×	3
Vrančice	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1	1
Vševily	×	×	×	×	×	×	×	×	×	1	×	×	×	×	×	×	×	1
Zalužany 1A	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Zalužany 1B	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Zbenice	×	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Županovice	×	1	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	1
Total	78	41	207	13	13	11	9	3	4	2	2	1	1	1	1	1	17	405

smoky quartz, weathered stone, unknown chert and the Lipnice slate. Due to strong burning, the raw material source could not be distinguished in 17 cases (*Table 3*).

If the artefacts are divided according to their cultural affiliation, we can observe few trends in raw

material usage in every period. Middle and Upper Palaeolithic findings are in too small number, so we can conclude only that the SGS, quartz, quartzite (the Tušimice type, if the site Vševily really can be dated into the Upper Palaeolithic) and the Flintsbach chert

were used. In the Late Palaeolithic collections, there is clear dominance of the SGS: out of 14 artefacts, it was used in 12 cases (the rest are crystal and the Lipnice quartzite). Thus, we can see a common preference for this material during the Late Palaeolithic period (Šída *et al.* 2014d: 23–24) holds true for the Příbram region, too. On the other hand, we must admit that the sample of Late Palaeolithic artefacts is not large, so the conclusion could change in the future.

During the Mesolithic period, the use of a large spectrum of raw materials could be clearly seen (Figure 20). The most frequent material is milky opal (207 pieces) from the neighbourhood of Kremže town (Přichystal 2013: 153–154), i.e., which is approximately 75 kilometres from the south border of the Příbram region. However, it already has been pointed out (Vencel

2011: 10) that its selection's total number (especially in the case of Radič-Hrazany 1B site) may be inaccurate. Another 15 raw materials, coming from different distances, are presented besides milky opals. By frequency, we can talk mainly about the SGS (59 pieces). The material origin is derived from the Czech-Polish borderlands (Mateiciucová 2008: 47, Přichystal 2013: 51, Šída *et al.* 2014d: 17) which is over 140 kilometres from the northern border of the Příbram region. Another material comes from an area in the south-east of Bohemia – the Bavarian cherts of the Flintsbach region (40 pieces). Their origin (Přichystal 2013: 98–99) lies approximately 100 kilometres from the Příbram region's southern border. Together with these raw materials, all the other materials documented in the region can be found in Mesolithic collections,

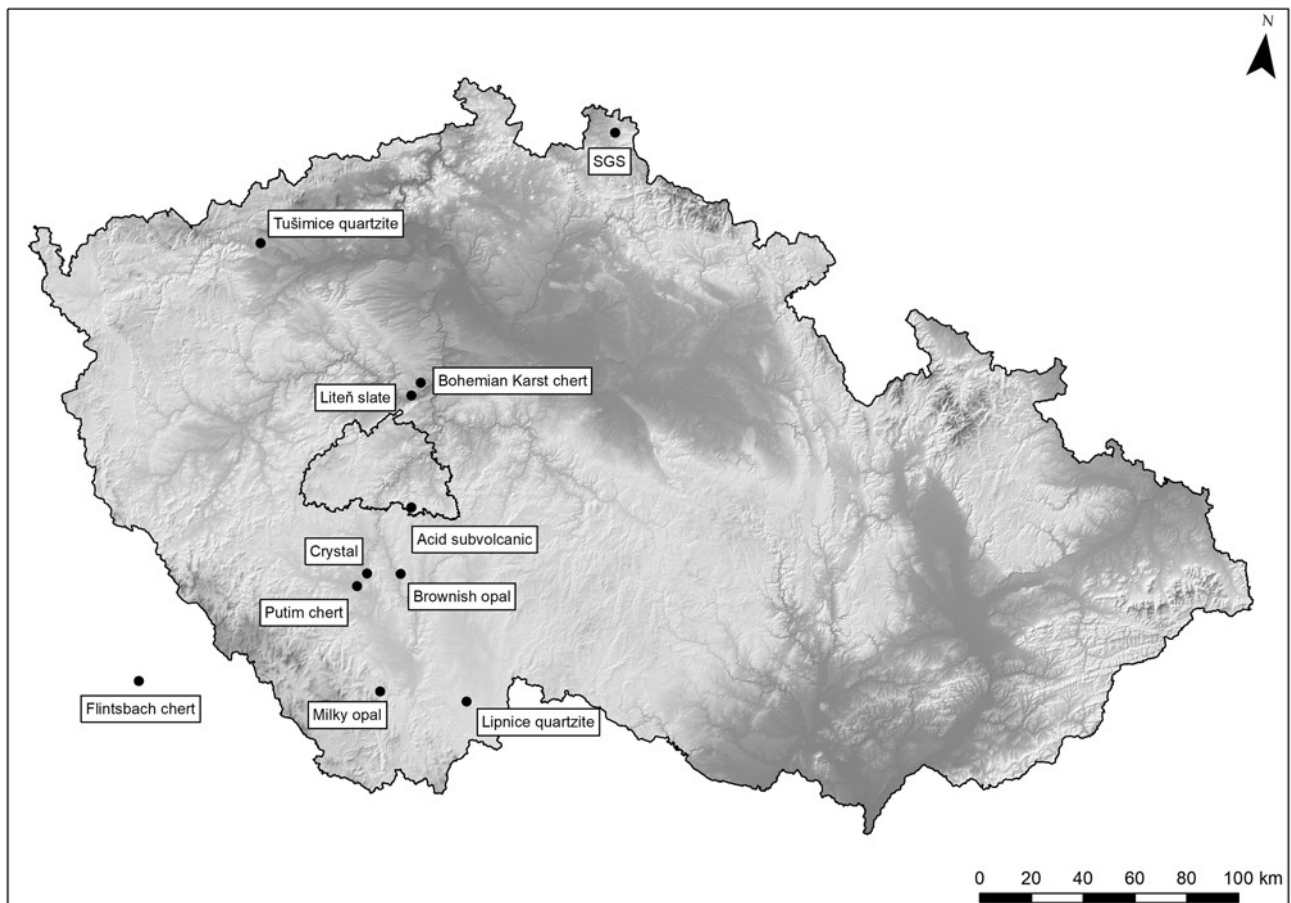


FIGURE 20: Map of the lithic raw materials sources. The exact location of the Putim chert unknown, but A. Přichystal (2013: 65–66) presumes its outcrop in the vicinity of Putim (the point in the map). Milky and brownish opals can be found in several places in Southern Bohemia, the points in the map are placed in their largest and best-known outcrops in Kremže (milky opal) and Písek (brownish opal) areas.

i.e., the Bohemian Karst cherts (13 pieces), the Putim cherts (12 pieces), brownish opals (11 pieces), the Lipnice quartzites (8 pieces), quartzes (3 pieces), crystals (2 pieces) and acid subvolcanics (also 2 pieces). One artefact has quartzite, plasma, smoky quartz, the Liteň slate, weathered stone and one unknown chert (*Table 4*). As a local raw material, we can label only acid subvolcanic of the Permian age (Přichystal 2013: 184) and probably some of the quartz and quartzite stones. From the rest, most of materials come from a distance of less than 50 kilometres to the north (the Liteň slate and the Bohemian Karst chert) and south (crystal, brownish opal, the Putim chert).

Typologically and morphologically, we can say that the most frequent artefacts are flakes (192 pieces) or small chips (62 pieces). Different types of cores (46 pieces), amorphous fragments (43 pieces) and blades, bladelets and their fragments (40 pieces) are also quite common. There are just several retouched artefacts – 18 pieces in total (and another one, probably Upper

Palaeolithic end-scraper). The most common retouched artefacts are end-scrapers (8 pieces) and after that retouched blades (5 pieces) and flakes (3 pieces). In the whole region, there is only one burin documented and one rare finding of the chipped axe, so called *Scheibenbeil* (*Table 5*). However, it is an open question in what extent this is caused by the state of research and/or field research methods. Most of the sites are known only by field-walking, which often found just a few artefacts (for the issue of field-walking on Palaeolithic and Mesolithic sites see Čechák 2019: 27, Kapustka *et al.* 2020: 53, Šída 2012: 127–137, Vencel 1995, 1998).

There are only two sites that provide samples large enough for statistical evaluation: Radič-Hrazany (site 1B) and Bor. In the La Tène period oppidum Hrazany (cadastral area of Radič), a total number of 273 lithic artefacts (272 artefacts and one pebble stone respectively) were found. From Bor, there are 80 artefacts known, but only 67 could be found by the authors of this

TABLE 4. Pre-Neolithic lithic artefacts in the Příbram region. Number of artefacts by raw material and period.

Lithic raw material	Period				
	Palaeolithic	Late Palaeolithic	Late Palaeolithic/Mesolithic	Mesolithic	Total
SGS	2	12	4	59	77
Flintsbach chert	1			40	41
Milky opal				207	207
Ražice chert			1	12	13
Bohemian Karst chert				13	13
Brownish opal				11	11
Lipnice quartzite		1		8	9
Crystal		1		2	3
Quartz	1			3	4
Quartzite	1			1	2
Subvulcanite				2	2
Liteň slate				1	1
Plasm				1	1
Smoky-quartz				1	1
Weathered stone				1	1
Flint				1	1
Undefined			1	16	17
Total	5	14	6	379	404

TABLE 5. Pre-Neolithic lithic artefacts in the Příbram region. Number of artefacts by sites and typology (Site Pňovice is excluded).

Site	Artefact type											Total
	Flakes	Chips	Blades/ bladelets	Cores	Amorphous fragments	Pebbles	End- scrapers	Retouched blades	Retouched flakes	Burins	<i>Scheibenbeil</i>	
Bor	45	5	11	7	4		3	2	2	1		80
Březnice	1			2								3
Hříměždice 2	4		1									5
Hříměždice 7	1					1						2
Kozárovice					1							1
Kozí Hory								1			1	2
Nestrašovice (80s and 90s)	3											3
Nestrašovice (2017)			1		1							2
Oslí	1											1
Přední Poříčí 1	4											4
Přední Poříčí 2	1											1
Radič- Hrazany 1A				1								1
Radič- Hrazany 1B	120	56	22	34	33	1	5	1	1			273
Radič- Hrazany 1C							1					1
Radič- Hrazany 3			1									1
Rejkovice	1											1
Rožmitál pod Třemšínem	2											2
Vestec 1	3	1	3		3							10
Vestec 2	2											2
Voltýřov	1			1	1							3
Vrančice				1								1
Vševily	1											1
Zalužany 1A	1											1
Zalužany 1B								1				1
Zbenice	1											1
Županovice			1									1
Total	192	62	40	46	43	2	9	5	3	1	1	404

paper. The rest (13 artefacts) is known only through literature (Venc 2011: 14–15) which is sufficient for typology and raw material evaluation. Raw materials and typology of artefacts from both sites have been described above. For the evaluation we can repeat that milky opal

is the most commonly found raw material (202 pieces) at the Radič-Hrazany site (*Table 6*). There are only two other materials with more than 10 pieces: the SGS and the Flintsbach chert. Typologically, the most common artefacts are flakes (120 pieces) and among the retouched

TABLE 6. Site Radič-Hrazany 1B. Number of artefacts by raw material and typology.

Lithic raw material	Artefact type									Total
	Flakes	Chips	Blades/bladelets	Cores	Amorphous fragments	Pebbles	End-scrapers	Retouched blades	Retouched flakes	
SGS	9		7				2	1	1	20
Flintsbach chert	6		3		2					11
Milky opal	83	55	5	27	29	1	2			202
Ražice chert	5		1	1						7
Bohemian Karst chert	4		2							6
Brownish opal	4		1	2	1					8
Lipnice quartzite	6									6
Crystal				1						1
Quartz							1			1
Liteň slate			1							1
Plasma	1									1
Smoky-quartz				1						1
Undefined	2	1	2	2	1					8
Total	120	56	22	34	33	1	5	1	1	273

TABLE 7. Site Bor. Number of artefacts by raw material and typology.

Lithic raw material	Artefact type									Total
	Flakes	Chips	Blades/bladelets	Cores	Amorphous fragments	End-scrapers	Retouched blades	Retouched flakes	Burins	
SGS	16	2	6	3	1		2	1		31
Flintsbach chert	10	3	1	2	1	2		1		20
Milky opal	2									2
Ražice chert	4		1							5
Bohemian Karst chert	3		2							5
Brownish opal				1						1
Lipnice quartzite	2									2
Quartz	1				1					2
Quartzite				1						1
Subvulcanite	1		1							2
Weathered stone	1									1
Flint	1									1
Undefined	4				1	1			1	7
Total	45	5	11	7	4	3	2	2	1	80

artefacts, end-scrapers prevail slightly (5 pieces). However, it was said several times that raw material numbers are influenced by the excavation methodology when in a soil very distinguishable milky opals were collected more frequently than other, less visible stones.

At the site of Bor (Table 7), the most of artefacts were made from the SGS (24 pieces from the authors' revision, 31 pieces in total). Only the Flintsbach chert (19 pieces, respectively 20 in total) is presented by more than 10 pieces. For a comparison, milky opal is

present by just two pieces. Again, flakes (37 pieces, respectively 45 in total) are the most common type of artefact and there are mostly end-scrapers among the retouched artefacts (2 pieces, respectively 3 in total) and retouched blades (2 pieces).

For these two sites, we made the exploitation areas lines (according to Šída *et al.* 2014d). In the case of Radič-Hrazany 1B (Figure 21), we can see the 30% raw materials borderline in a distance up to 60 kilometres, then 60% borderline in a distance approximately 90 kilometres and finally 90% borderline reaches the distance of 95 kilometres. The SGS, which is presented by only 20 pieces at this site, lies behind this borderline because it represents just a small percentage of the total raw materials. However, it is a question of how the lines would change without artificial increase of milky opals.

Bor (Figure 22) has completely different outcomes mainly because of the higher amount of the SGS and the Flintsbach chert. The 30% borderline lies in 90 kilometres from the site, the 60% borderline is quite close, approximately 110 kilometres (it is the Flintsbach cherts area) and then the 90% borderline reaches a distance of 175 kilometres (the SGS area).

In both cases, we can observe the effort to use local materials which is typical for Mesolithic Central Europe (Svoboda 2008: 228–229), as well as the Southern Bohemian Mesolithic pattern – where the preference for more distant but better raw materials in Bavaria was common (Vencl 1990: 238) and in this case also supplemented by the SGS. In the case of the Příbram region, it shows strong long-distance connections with the Southern Bohemia region and to Bavaria firstly, and secondly to north into Central Bohemia and then to the Czech-Polish borderland. Considering the relatively large number of this foreign material, it must have been strong connection either into outcrop areas or at least into regions connected to these areas. For the Flintsbach chert, it seems appropriate to consider the region of southern Bohemia because in that part there were other raw materials used in the Příbram region. The question is the SGS – contacts with central Bohemia are supported only for the area on the northern foothills of the Brdy Mountains. After that, there are none until the SGS. The issue of these large-distance raw materials is still open.

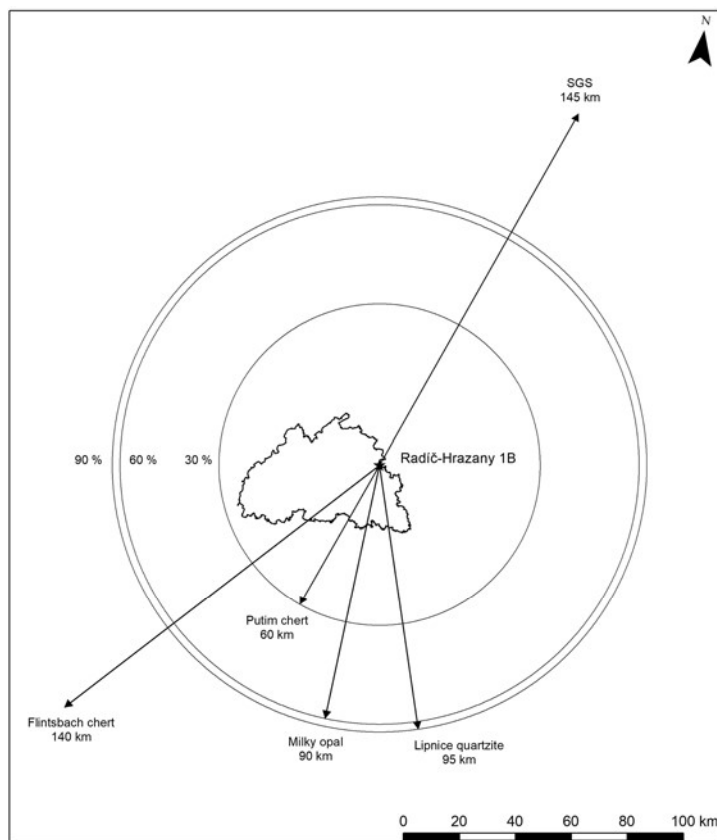


FIGURE 21: Map of the exploitation areas lines for the Radič-Hrazany 1B site.

Geography and Typology of the sites

Based on the spatial distribution of the Pre-Neolithic sites in the Příbram region, it seems more evident that the region was not so uninhabited (especially during the Mesolithic period) as one could say at first sight. Sites make several accumulations and the most noticeable is a region around the town of Březnice following the Skalice River. Moreover, local findings and sites follow in situations on the opposite side of the district's border, i.e., in Písek district. A similar frame of sites is also on the border of the Benešov district; however, there are no sites continuing into the Benešov district. This phenomenon could be caused by a research state in the Benešov district. In any case, for all Pre-Neolithic sites in the Příbram district, we examined and summarized their altitude, slope orientation and (for Mesolithic sites) their typology (*Table 8*).

There are only a few Late Paleolithic sites in the Příbram region (even including those sites, their classification into Late Palaeolithic is uncertain) to make any conclusions about their topographic position. We can only summarize that they are situated

at an elevation of 300–400 m a. s. l. on top of the hills or western, eastern or south-eastern slopes (*Table 9*). However, the sample of sites is too small (there are only four sites) to make any far-reaching conclusions.

The situation is better concerning the Mesolithic sites. With the exception of the Županovice site, which is nowadays situated under the level of Vltava River so we cannot exclude alluvial effect there, sites are located in a wide range of elevations from 300 to 550 m a. s. l. This roughly correlates with the level for the whole Příbram region except for the highest tops of the Brdy Mountains. It is interesting that a large part of the sites (namely nine) is situated in the higher part of that range – at 450–499 m a. s. l. to be more specific. In addition, if we add sites over 500 m a. s. l. to them, we have 12 from the total number of 18 Mesolithic sites (*Table 10*). A well-known fact from other regions is more or less confirmed here – hunter-gatherer settlements are not necessarily limited by altitude (Vokounová Franzeová 2014: 3). At the same time, it is a slightly different situation compared to Southern Bohemia where sites are located in slightly lower altitudes (Vencl *ed.* 2006: 404).

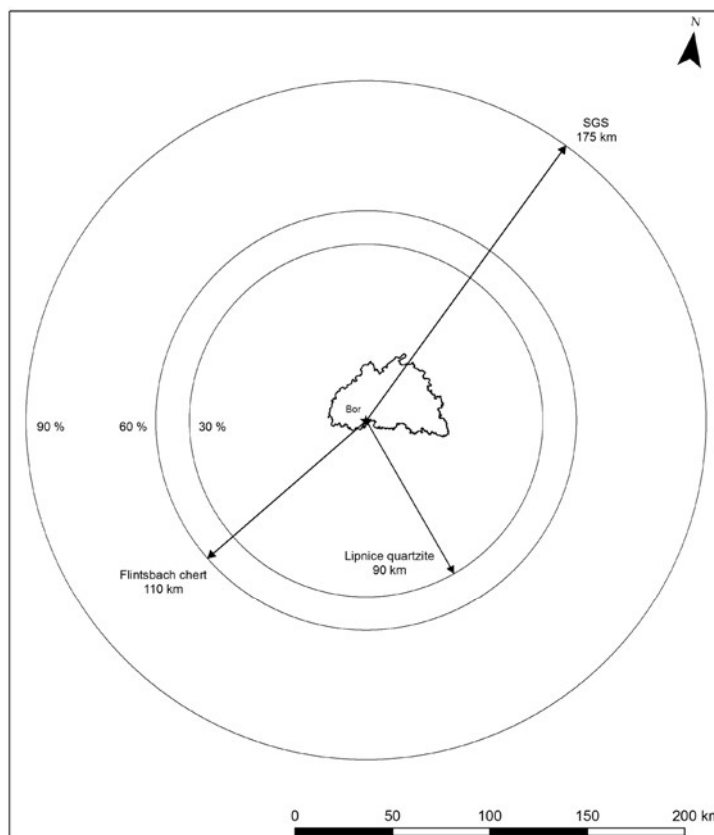


FIGURE 22: Map of the exploitation areas lines for the Bor site.

TABLE 8. Pre-Neolithic sites in the Příbram region. Slope orientation, altitude and (for Mesolithic sites) typology (according to Vencel ed. 2006, 378, fig. VI.6).

Site	Altitude	Slope orientation	Typology (Mesolithic)
Bor	458	SW	3
Březnice	471	SW	5
Hřiměždice 2	380	W	-
Hřiměždice 7	348	SE	-
Kozárovce	395	SE	10
Kozi Hory	490	T	9
Nestrašovice (80s and 90s)	462	SW	9
Nestrašovice (2017)	465	S	9
Oslí	508	S	3
Přovice	?	?	?
Přední Poříčí 1	477	W	5
Přední Poříčí 2	479	SW	5
Radič-Hrazany 1A	335	E	-
Radič-Hrazany 1B	335	E	9
Radič-Hrazany 1C	?	?	-
Radič-Hrazany 3	333	T	-
Rejkovice	537	S	2
Rožmítal pod Třemšínem	527	T	3
Vestec 1	305	T	3
Vestec 2	347	S	9
Voltýřov	380	T	3
Vrančice	?	?	?
Vševily	522	SW	-
Zalužany 1A	458	S	7
Zalužany 1B	458	S	7
Zbenice	534	NW	-
Županovice	?	S	?

For the illustration, we can look at the side orientation of sites. In the Příbram region during the Mesolithic period (Table 10), we can see a clear domination of southern orientation, although there is some overlap into the southeast and southwest. There is no side orientation to the north and only one site on an eastern and western slope. A lower number of sites, namely four, are situated on the tops of hills. These sites are located at various altitudes, but every elevation except for 400–449 m a. s. l. are represented. That could show either different using of sites, or their potential seasonality. However, we must keep in mind that the warming at the beginning of the Holocene period allowed hunters-gatherers to inhabit (albeit seasonally and for a short-term) considerably higher levels in the Šumava Mountains (Beneš, Chvojka 2007: 11, Kapustka *et al.* 2020). Thus, settlements in higher altitudes in the Příbram region did not have to be determined by a climate, but more by other factors.

There is relatively clear and comprehensive link between sites and watercourses (Figure 23; Figure 24). The majority of sites lie near the Vltava or the Skalice Rivers. 17 out of 21 sites are located alongside these rivers. On the other hand, there are also sites close to other minor waterways. And in addition, there are microregions without any Pre-Neolithic sites. The last case is mainly about the south-eastern part of the Příbram region near the Mastník, Sedlecký potok, and Brzina Rivers. While in the southern neighbourhood, i.e., Tábor district, some sites are beginning to be discovered (Chvojka *et al.* 2012, Prokop *et al.* 2010). The eastern area, i.e., Benešov district, is still more or less empty (Davidová *et al.* 2019). The situation in Tábor district is undoubtedly caused by a state of research and it is almost certain that new sites are going to be discovered and with that probably even in the Příbram region, too. Benešov district may be a similar case, but the number of sites in this region is

TABLE 9. Late Palaeolithic sites in the Příbram region. Number of sites by slope orientation and altitude.

Altitude	Slope orientation			Total
	W	SE	E	
300–349		1	1	2
350–399	1			1
Total	1	1	1	3

TABLE 10. Mesolithic sites in the Příbram region. Number of sites by slope orientation and altitude (sites Pňovice and Radič-Hrazany 3 are excluded).

Altitude	Slope orientation						Total
	S	SW	W	SE	E	T	
0	1	-	-	-	-	-	1
300–349	1	-	-	-	1	1	3
350–399	-	-	-	1	-	1	2
400–449	-	-	-	-	-	-	0
450–499	3	4	1	-	-	1	9
500–549	2	-	-	-	-	1	3
Total	7	4	1	1	1	4	18

TABLE 11. Mesolithic sites in the Příbram region. Number of sites by the typology (according to Vencel *ed.* 2006, 378, fig. VI.6, the Pňovice site is excluded).

Typology	Number of sites
2	1
3	5
5	3
7	2
9	5
10	1

still incredibly low. If we look only at Mesolithic sites, the trend is absolutely the same – a clear link with the Vltava and Skalice Rivers and a connection with Písek district's sites in the south.

Mesolithic sites can also be divided, according to S. Vencel (*ed.* 2006: 378, fig. VI.6), into several groups

based on the terrain's positionings. In the Příbram region, we can find six of these groups (*Table 11*). The most common are Type 3 and Type 9. Type 9 (covered position out of valley and high above a river) is also called the Radič type and, except for the eponymous site at La Tène Period oppidum, another four sites fit in here (Vestec 2, both sites in Nestrašovice and Kozi Hory). As Type 3 (dominant position high above a river), we can also classify five sites (Bor, Oslí, Vestec 1, Voltyřov and Rožmitál pod Třemšínem). Another three sites (Březnice, Přední Poříčí 1 and 2) fit into Type 5 (edge of terrace low above a river in wavy terrain). Type 7 (several camps in different levels of sunny slope in tiny stream valley) is represented by two sites (Zalužany 1A and 1B). Only one site is present in Type 2 (lee side on the top of hill, site Rejkovice) and Type 10 (topographically inconspicuous place on gradual slope with a stream aside, Kozárovce site – if the site really is Mesolithic). Other types are not present in the region, but it could be caused by the state of research. The typology of sites, and their other geographic attributes shows the use of different types of landscape. Then, we can conclude that the Příbram region's Mesolithic settlement is not connected with any specific altitude or terrain relief. The reasons can be using of different sites in different seasons and/or for different purposes.

Late Palaeolithic and Mesolithic in the neighbouring areas

To complete the Pre-Neolithic settlement of the Příbram region, we must (at least briefly) look into the surrounding regions and into typologically similar areas. Probably, the most similar (both in geographically and typologically way) area is the Southern Bohemian region are the districts that directly border the Příbram district. South Bohemian sites from the Palaeolithic and Mesolithic period already have been described very well (Šída *et al.* 2011, Vencel *ed.* 2006), but there are still new sites rising. Despite the older finds, we can say that the first permanent settlement of southern Bohemia is documented in the Magdalénian (Beneš, Chvojka 2007: 10). Since in the Příbram region artefacts fit into periods before the Late Palaeolithic period are still in low numbers, we will focus only on the Late Palaeolithic and Mesolithic periods. These periods are represented by high number of sites and artefacts in Southern Bohemia; however, in most cases these findings were obtained by a field-walking (Beneš, Chvojka 2007: 9) – that is another similarity with the

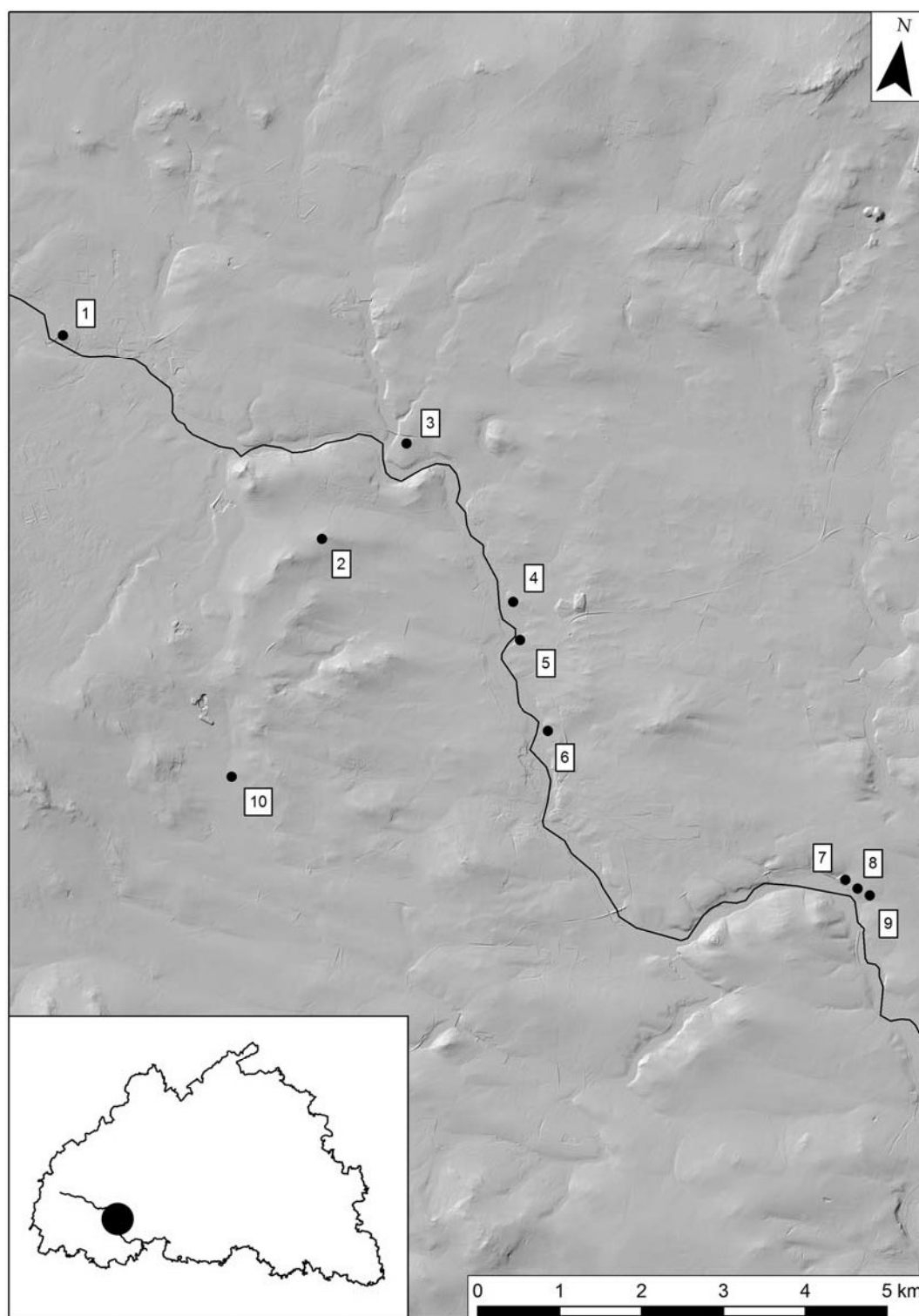


FIGURE 23: The sites alongside the Skalice River. 1, Rožmitál pod Třemšínem; 2, Pňovice; 3, Oslí; 4, Přední Poříčí 2; 5, Přední Poříčí 1; 6, Březnice; 7, Bor; 8, Nestrašovice, field-walking of J. Fröhlich and A. Debnar; 9, Nestrašovice, field-walking of L. Krušinová; 10, Vševely. (basemap: ČÚZK).

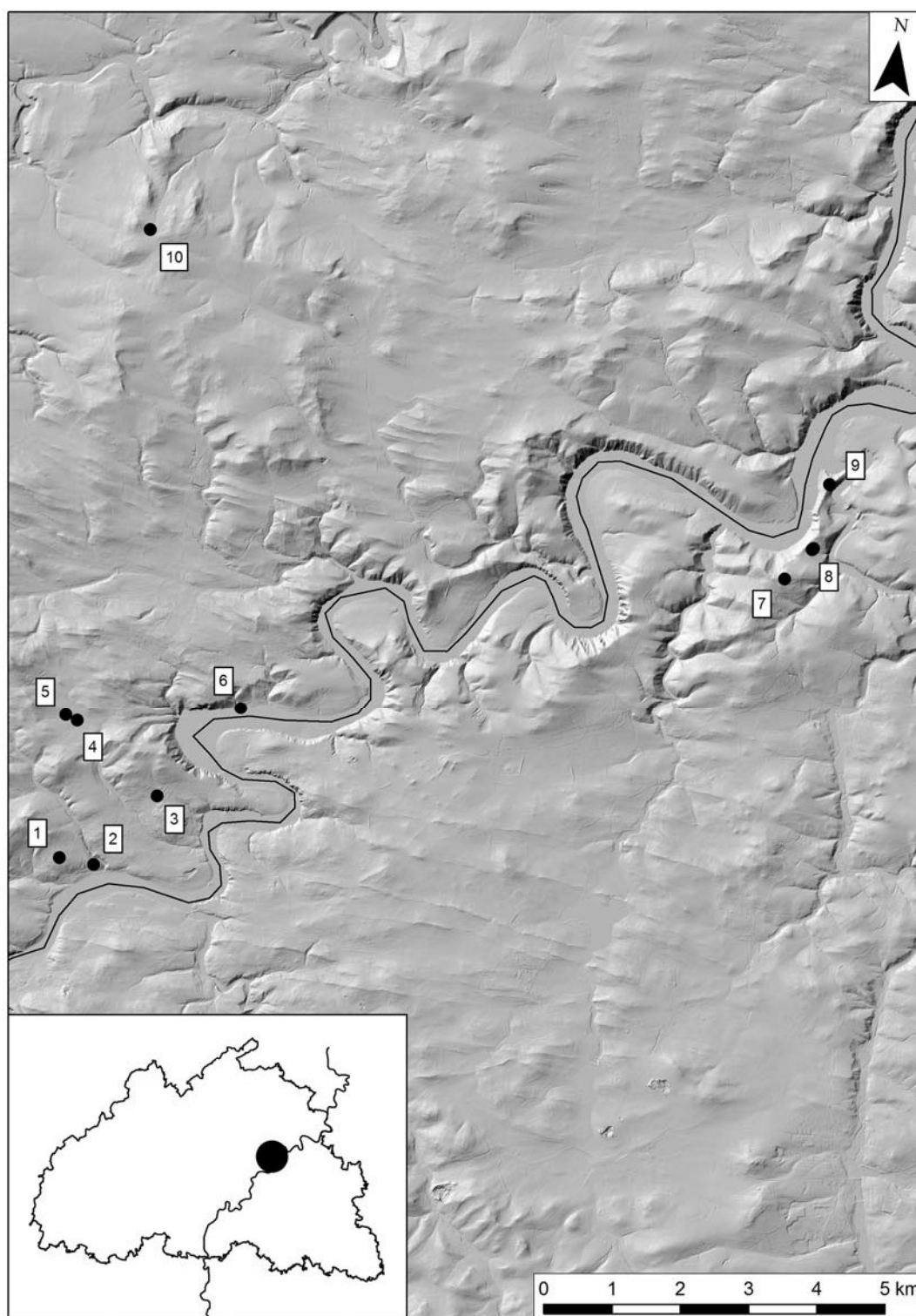


FIGURE 24: The sites alongside the Vltava River in the northern part of the region. 1, Vestec 2; 2, Vestec 1; 3, Hřiměždice 7; 4, Hřiměždice 2, 1988 excavation; 5, Hřiměždice 2, 1987 excavation; 6, Županovice; 7, Radič-Hrazany 2; 8, Radič-Hrazany 1A and 1B; 9, Radič-Hrazany 3; 10, Kozi Hory. (basemap: ČÚZK).

Příbram area. In Southern Bohemia, there are 29 Late Palaeolithic sites but, approximately half of them contain Mesolithic findings. In the districts of Tábor, Písek and Strakonice (i.e., regions in the vicinity of Příbram district), there are 25 of these sites, but only three are near the border of the Příbram region. We also can include rare sites that could be labelled only as "Late Palaeolithic or Mesolithic" – there are 33 of them in Southern Bohemia. In the Tábor, Písek and Strakonice districts there are 23 of them and only eight are situated close to the Příbram region (Vencl *ed.* 2006: 401–404).

The Mesolithic sites are a different situation. Thanks to warming and the spread of forests at the beginning of the Holocene period, the sites began to appear even at the higher altitudes in the Šumava Mountain foothills (Beneš, Chvojka 2007: 11, Kapustka *et al.* 2020). There are 142 Mesolithic sites in Southern Bohemia. 59 of them are located in the Strakonice district, 47 are in the Písek district, and six are in the Tábor district (Vencl *ed.* 2006: 404–407). There are approximately 17 sites in the vicinity of the Příbram district. The most noticeable accumulation of Mesolithic sites in Southern Bohemia is situated in the north-western part of the region – there is a clear relation with Otava, Skalice, Blanice and Lomnice Rivers. About 80 % of the sites are situated at 350–450 m a. s. l. (Vencl *ed.* 2006: 404). The most important are the sites in the Šumava Mountains (see below) and around the now-vanished Schwarzenberg Lake (Pokorný *et al.* 2008). The belief that a lower number of these sites exist in the Tábor region may be misleading. Even though this region is considered to be less inhabited, it becomes apparent that it is due to current research conditions and the region has a large potential as can be seen lately (e.g., Chvojka *et al.* 2012, Prokop *et al.* 2010). In general, we can summarize that Mesolithic sites are presented in higher numbers than earlier periods (Prokop *et al.* 2010: 21).

Findings from the Benešov district, i.e., region to the east of the Příbram district, show just a rare occurrence of settlement (Davidová *et al.* 2019, Vencl 2011: 22–25). Additionally, some settlements are situated on the east end of this region, and out of relation with the Příbram region. On the other hand, it is a question if we are not dealing with a situation of current research condition likewise in the Tábor district. However, at this moment there are no Pre-Neolithic sites near the Příbram borderline.

A similar situation is documented in the northern borderland of the Příbram region in the Beroun

district. Local findings are in connection with the Bohemian Karst which means in longer distance from the Pre-Neolithic sites in the Příbram region (Matoušek 2000, Sakař, Sklenář 1987: 7–8, Vencl 2007a: 134, fig. 65, 2007b: 107, fig. 54). In this region, it also could be due to research state.

In all of Bohemia, the Mesolithic period is the best documented in Bohemian Paradise (e.g., Prostředník, Šída 2010: 34–35, Šída *et al.* 2014c, Šída, Pokorný *eds.* 2020) and in Northern Bohemia (Svoboda *ed.* 2003, Svoboda *ed.* 2017). However, both regions are totally different from the Příbram area. Despite that, we can mention one important issue connecting all of these regions – lithic raw materials. In Bohemian Paradise, majority of raw materials came from a distance of up to 30 kilometres (Šída *et al.* 2014b) and a similar situation where primarily local materials were used can be seen in Northern Bohemia (Novák 2003).

Relatively well mapped, geographically close, and typologically similar (at least for a part of the Příbram district) is the Bohemian-Moravian Highlands region. Similar to the Příbram region, the first set of abundant findings come from the Late Palaeolithic and especially with the Mesolithic periods; whereas, older settlements are sporadic (Eigner *et al.* 2015: 69, Pajerová 2011: 32–33). It can be summarized that most of the sites are situated at 520–540 m a. s. l. on slopes that are slightly south and southeast facing (Eigner *et al.* 2015: 83–85). Among the raw materials, the SGS dominated during the Late Palaeolithic, and in the Mesolithic, there was more variety (Eigner *et al.* 2015: 69–72, Pajerová 2011: 33–34).

In the Late Palaeolithic and Mesolithic periods, we can see the beginning of habitation at higher altitudes which is not exclusive to the Czech Republic. We already have mentioned the Šumava Mountains and the Bohemian-Moravian Highlands, but few sites from the Příbram region can be included as well. Mountains and foothills are generally (and rightfully) considered as regions less settled by prehistoric populations (Čuláková 2014: 7). However, in the Mesolithic period, regions over 500 m a. s. l. and sometimes higher, for instance in the previously mentioned Šumava Mountains, have been settled for the first time (Kapustka *et al.* 2020, Svoboda 2008: 221 and 232). Such situations can be found across the country and this phenomenon was probably caused by the fact that hunters-gatherers were not limited by altitude for their subsistence unlike farmers (Vokounová Franzeová 2014: 3). Out of the Czech Republic, there are recently discovered sites in similar locations in Slovakia (Valde-

Nowak, Soják 2010) and Poland (Masojć 2007, Płonka 2007). We must also mention that these high-altitude sites have been inhabited by hunters-gatherers only seasonally either for hunting or obtaining new raw materials (Vokounová Franzeová 2014: 5).

From this brief comparison with other regions, we can conclude that the settlement of the Příbram region is similar to the one in the Tábor district – i.e., a region formerly considered more likely to be at the edge, which is, however, caused by the current state of research. In both of these regions, and even in the adjacent Strakonice and Písek districts, the Mesolithic period is mostly proved and after that Late Palaeolithic and only by rare findings from earlier periods. This scheme is valid for all of Southern Bohemia. The most interesting are sites in the northern parts of Southern Bohemia because they could have a connection with the southernmost sites in the Příbram district. On the map (Figure 25) we can clearly see a belt of sites

following the Skalice River that begins in the Příbram region and continues to the southeast through the Písek district up to the Vltava River. Other sites are approaching these sites from west (Strakonice district) and east (Tábor district), but at this moment only rarely. Cumulatively they indicate an evident settlement in the area by Mesolithic hunters-gatherers. There is no such continuity on the opposite site of our region, but it is possible due to the current state of research. There may be discovered that sites around the site of Hrazany do not end on the district borderline. Other regions are not examined as much which can be partly said about the Příbram district as well.

We cannot compare the Příbram district and regions in Northern Bohemia and Bohemian Paradise, but there are similar patterns that the sites share such as the use of lithic raw materials. We must add; however, that these patterns are in general valid for all of Mesolithic Central Europe (Svoboda 2008: 228).

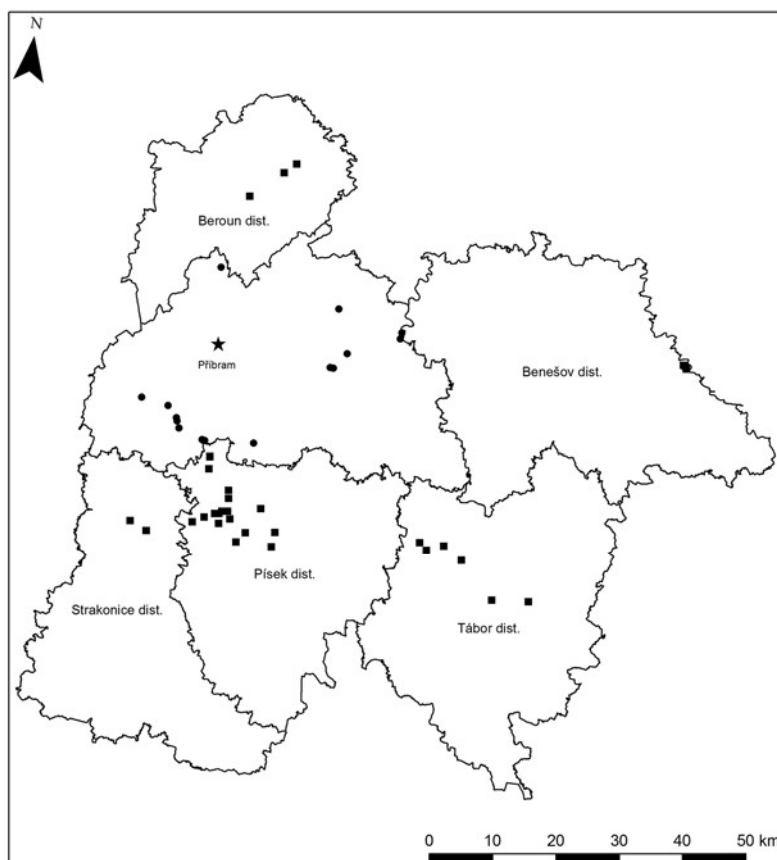


FIGURE 25: Mesolithic sites in the Příbram district (circles) and the neighbouring regions (squares).

The Mesolithic-Neolithic issues

In the archaeological contexts of the Příbram region and even other parts of the Czech Republic, questions about the relationships between Mesolithic hunters-gatherers and the first Neolithic farmers are more and more frequent. This whole issue remains unsolved, so it is a hot topic. In the Příbram region, we can talk mainly about two interesting finds that could suggest contacts between the Mesolithic and Neolithic periods.

The first are curious pottery fragments excavated at La Tène Period oppidum Hrazany. These fragments could be evidence of hunter-gatherer culture's persistence in the area during the Neolithic or Eneolithic periods (Dobeš, Korený 2011). Nevertheless, we cannot exclude different, purely agricultural origin (Svoboda 2017: 82–83). The other artefact is a single piece of polished axe from the Kozí Hory site, where a Mesolithic chipped axe was also found. This situation has been drawn attention as well (Šída 2009). Hypothetically, this could be evidence, not for existence of Mesolithic and Neolithic cultures on the site, but of the Neolithic artefact in a Mesolithic habitat – if we understand the terms of "Mesolithic" and "Neolithic" in technological and not chronological way (in other words, it would be more suitable to speak about agricultural habitat artefact in hunters-gatherers environment). Of course, it needs to be said it is only contemplation right now, which is not proved in any way. However, it is true that this kind of solitary Neolithic artefact (and especially polished axe) on Mesolithic site is not found only in Kozí Hory (for more examples for the Příbram region see Stolz, Korený 2008, for the Tábor region see Chvojka *et al.* 2012, for general overview see Šída 2011: 364, Šída *et al.* 2011: 169).

Generally, it is true that in rare cases and temporally Neolithic settlements are situated at higher altitudes (or in general in areas less suitable for an agriculture), (Beneš, Chvojka 2007: 13). Also, there are rarely sites with both Mesolithic and Neolithic settlements (Vencl 1971: 177–182). That is the case especially in Southern Bohemia where Mesolithic and Neolithic settlements areas avoid each other, so we cannot see any continuity in the settlements (Vencl *ed.* 2006: 411). Here, we cannot exclude lasting of Mesolithic hunters-gatherers population during the Neolithic period (Beneš, Chvojka 2007: 11), even more so South Bohemian Neolithic has the character of periphery area (Vencl *ed.* 2006: 411). The settlement on the bank of the now-vanished Schwarzenberg Lake can be used as an example. On this site, there is (even though indirectly)

documented human presence in the period around 5500–5000 BC; however, this settlement has no evidence of agriculture – such a thing is not documented at this site until the Eneolithic period (Pokorný *et al.* 2008: 170, Šída 2011: 360). Other indirect examples are documented even in more areas, but mostly in Bohemian Paradise. This landscape surely was very unattractive for farmers, but the presence of Mesolithic foragers is quite well documented; whereas evidence of hunting (which does not ultimately mean "Mesolithic"!) there lasts up to the Bronze Age (Šída *et al.* 2014c: 122). Together with that, it is more and more obvious that the Mesolithic settlement in Bohemian Paradise played, in combination with the mining area in Jistebsko (e.g., Šída *et al.* 2014a), an enormous role in the Neolithization of the surrounding regions (Prostředník, Šída 2010: 34–36). The ¹⁴C dating has not provided any noticeable overlap of both cultural complexes in our country yet, but it could be caused by several incidental occurrences (see Šída 2011: 360). In the Northern Bohemia region, where we get most of the ¹⁴C data, it seems there has been a hiatus between the Mesolithic and StK (Stroke-ornamented ware culture), (Svoboda 2017: 81–82).

Naturally, it is a question of how to deal with such interesting findings, because it cannot be said this is compelling evidence for the theory that the Mesolithic persisted into Neolithic surroundings. At the same time, we cannot label solitary Neolithic polished artefacts, even out of Neolithic sites, directly as contacts between hunters-gatherers and Neolithic farmers. On the other hand, it is very tempting to imagine populations still living in a Mesolithic way of life somewhere at the edge of (Early) Neolithic world. The Příbram region (and then Southern Bohemia) could be such a periphery, but we lack, like in almost all of Bohemia, absolute ¹⁴C data. Also, most of the sites here were researched only by field-walking. However, it is true that this region definitely was not a priority for Neolithic farmers, but we cannot say the same about Mesolithic hunters-gatherers. So, we cannot exclude persisting of these populations here, but at this moment we know almost nothing about its length.

CONCLUSIONS

The evidence of Pre-Neolithic hunters-gatherer settlements in the Příbram district comes from approximately 30 locations at 20 sites which brought

about 400 pieces of lithic artefacts. It must be remarked that part of these findings or even whole locations are disputable – mostly they are outcomes of 1940s–1960s activities and they are not completely accessible for examination, so we cannot decide their origin and cultural context.

Except for few possibly Middle (?) and Upper Palaeolithic artefacts, the very first securely documented settlement in the region was during the Late Palaeolithic period. From that period, we have a total number of 14 pieces of lithic artefacts coming from three sites. Then we have another four sites and six artefacts from them that could fit into the Late Palaeolithic as well as into the Mesolithic period. The Mesolithic period is the best represented Pre-Neolithic period in the region: there are 379 artefacts in total discovered at 16 sites. Because of that, the Mesolithic is the only period we can describe in some way. However, it is necessary to keep in mind that it is still an incomplete conclusion which can (and will) change with new sites and artefacts.

Due to the way of Mesolithic sites examination (i.e., mostly field-walking, or random finds re-deposited artefacts in features of younger prehistoric periods), we completely lack microliths at the moment. Thus, we mark artefacts as Mesolithic mostly based on their raw material composition, the site's geographical position, and by their comparison with the abundant assemblages from the adjacent Southern Bohemia. Among the raw materials in the Příbram region which are very various, milky opal from Southern Bohemia totally dominates (207 pieces) here. However, most of it (202 pieces) comes from the Radič-Hrazany 1B site where this number could be strongly overestimated due to the selective sampling of better visible stones during the La Tène Period oppidum excavation. In addition to that, we can observe that milky opals are presented in incredibly low number or not at all at other sites. The two other most numerous materials, the SGS (76 pieces) and the Flintsbach chert (41 pieces), were transported from quite long distances. The closest resource of the SGS is located more than 140 kilometres from the region and in the case of the Flintsbach chert it is over 100 kilometres. The rest of the raw materials, which is represented in much lower numbers, are from up to 50 kilometres from the region or even inside of it. Typologically, the most frequent artefacts are flakes, cores, amorphous fragments, and blades, bladelets and their fragments. Retouched tools are presented in an extremely low amount: 18 pieces in total. The largest assemblage, which means from

Radič-Hrazany 1B, includes seven of these tools which is also the most out of any site.

The region provides interesting data about the geographical character of sites and locations. There is a strong connection with the Skalice and Vltava Rivers; while other watercourses in southeast of the region seem to be "ignored". Based on the data from the adjacent regions, it seems the sites around the Skalice River can be related to the South Bohemian Mesolithic sites in the Písek and Strakonice regions which also follow this river. On the contrary, sites around the Vltava River have no relation to other regions. Probably, it is caused by the current state of research in the neighbouring Benešov region that only few sites are known. In a similar way, we can probably explain the previously mentioned absence of Mesolithic sites in the south-eastern part of the Příbram region. This part is also adjacent to the Benešov and Tábor districts. The later region has been considered unsettled too; however, during last few years, new Pre-Neolithic sites have been discovered. In addition, part of these sites are situated towards the Příbram and Písek regions.

Mesolithic sites are situated in a wide range of positions. Sites can be found in almost whole altitude range of all Příbram region (except tops of Brdy Mountains) which means between 300 and 550 m a. s. l., but most of them (namely 12) are situated in narrower range between 450–550 m a. s. l. This is an interesting difference from Southern Bohemia where Mesolithic sites are (with exception of Šumava Mountains) situated at lower altitudes. There is also a visible trend in slope orientation. Most of them are situated on southern slopes (with slightly deviations to east or west) and on top of hills. Sites on peaks (there are four of them) lie at 300–400 m a. s. l. and then 450–550 m a. s. l. Quite diverse in the typology of these sites as it has been brought by Slavomil Vencl (*ed.* 2006). By more or less the same amount are represented sites in protected positions (Type 9) and the other way around, in dominant positions without protection (Type 3). There are ten of these sites in total. Another three sites are located on edges of terraces at lower altitudes overlooking the river (Type 5). Such differences in altitudes and typology of sites show obvious settlement patterns either for some specific reason or during a specific season.

The district of Příbram is also a region with interesting findings for the discussion about Mesolithic-Neolithic interaction (in this case, we must understand terms "Mesolithic" and "Neolithic" as cultural, not chronological). We can talk mostly about pottery

fragments from Hrazany-Radič (Dobeš, Korený 2011) and polished axe from Koží Hory (Šída 2009). In both cases, it is not striking evidence of both cultures' meetings and interactions or persistence of Mesolithic people during the Neolithic. Due to absence of ^{14}C data, this problem is going to remain unsolved for some time, but the fact is that Neolithic settlement of the Příbram region was not plentiful and we do not know how to label rare and solitary findings of polished artefacts which are time to time found in the region and elsewhere (for the list for the Příbram district see Stolz, Korený 2008).

How can we sum up our knowledge about the Pre-Neolithic period in the Příbram region? Firstly, we have to say the region was obviously settled, especially during the Mesolithic. The relatively low number of sites and artefacts is caused by current research conditions. By site positions and lithic raw materials, the region relates to Southern Bohemia, nevertheless a lot of raw materials were brought from regions to the north of the Příbram district (the SGS and materials from Bohemian Karst). Settlements around the Skalice River evidently follow sites in the Písek and possibly Tábor regions – the second one, however, needs more research. The state of archaeological research is probably also a big reason for the low number of Mesolithic sites in the south-eastern part of the Příbram region. In general, the region faces the absence of data coming from archaeological excavations focused on the Mesolithic (or generally Pre-Neolithic) period, which naturally distorts our knowledge. Definitely, the region was inhabited by Mesolithic (and possible Late Palaeolithic) hunters-gatherers in an extensive way, certainly much more extensively than was earlier thought.

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