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LIFE IN THE BORDER LANDSCAPE: NEOLITHIC AND EARLY AENEOLITHIC ROCKSHELTERS AND SETTLEMENT PATTERNS IN NORTHERN BOHEMIA / SAXONY

ABSTRACT: Sites with pottery dating to the Neolithic and Early Aeneolithic represent the last frontiers of civilization on the edge of unsettled territory stretching hundreds of kilometres from the neolithic landscape. Both in the Mesolithic as well as in the Neolithic – and apparently also in the Proto- to Early Aeneolithic – there existed four types of sites on the border between the settled and unsettled landscape; sandstone rockshelters are the best researched of them. This paper discusses the function of the rockshelters and a colonization of the unsettled areas. The religious model that shrines are places where the new territory has been ritually re-created for human purposes is verified. Subsequently people can begin to make use of it. During this early phase of colonization, distinctive landscape elements such as hills, watercourses, rock formations (perhaps some rockshelters as well) and lookout points that helped people orient themselves in the unfamiliar landscape were probably of significant meaning.

KEY WORDS: Uninhabited landscape – Rockshelters – North Bohemia – Cult places – Cosmology

INTRODUCTION

Lying on the edge of the traditional Neolithic settlement areas of Bohemia and the Dresden Basin in Saxony (e.g., Řídký 2012, Stebner 2012) is a geologically and geographically diverse landscape settled or otherwise used during various periods in prehistory. These sites with pottery dating to the Neolithic and Early Aeneolithic represent the last frontiers of civilization on the edge of

unsettled territory stretching hundreds of kilometres to the northeast (*Figure 1*). What was life like on this "periphery" of civilization, and how did people perceive their remoteness? Might the awareness that tens and hundreds of kilometres of uninhabited landscape stretched out just beyond their Neolithic settlements have influenced the local peoples' life and behaviour (and thus the archaeological traces they left behind)? Did they have a system of defence against the uncivilized landscape

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(social, religious, mental)? These and many other questions come to mind when we look at a map of (Ae)neolithic sites on the Saxon-Bohemian border, but the answers are difficult to find.

EXCAVATIONS AND GEOGRAPHY OF THE REGION

A more intensive study of the area was begun only in the 1990s in connection with the study of the region's abundant settlement during the Mesolithic. A total of 28 rockshelters were subjected to comprehensive study;

another 140 were tested via geological trenches, and around 20 of these were archaeologically positive (Svoboda *Ed.* 2003, Svoboda *et al.* 2007, 2013). Field-surveys of the landscape brought only minor successes (V. Peša and P. Jenč, unpublished). Many sites in Saxony exist on the boundary between the agricultural and forested landscape (Coblentz 1986, Hauswald 1986, Meller 2000), but the only study of sites deeper in the unsettled areas are exploratory tests of rockshelters in the Saxon Switzerland National Park (Peša, Kraft 2007, Kraft, Peša 2008).

Geologically speaking, the territory in question consists of the Bohemian Cretaceous Basin, which contains numerous sandstone regions of varying size and

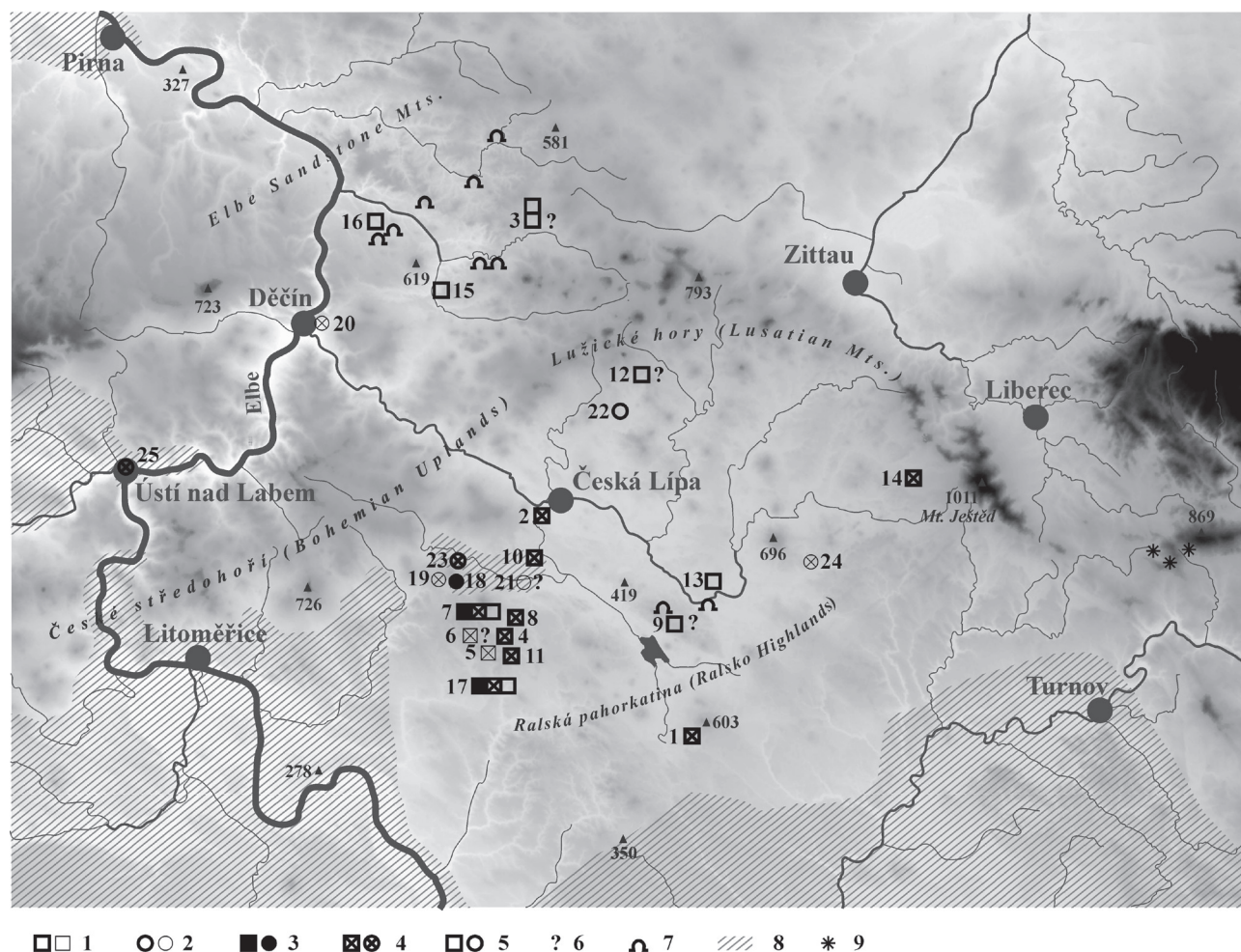


FIGURE 1. The studied region in northern Bohemia, Czech Republic. Legend: 1, rockshelter: excavation / small trench; 2, open-air settlement: excavation / field prospecting; 3, Linearbandkeramik (LBK); 4, Stichbandkeramik (Strked-ornamented ware, SBK); 5, Proto- and Early Aeneolithic (EA); 6, undated Aenolithic; 7, other explored rockshelters without Neolithic or Early Aeneolithic finds; 8, settlement regions LBK, SBK (EA?); 9, amphibolite stone quarries near Jistebsko / Velké Hamry. Source: Map Vladimír Peša, graphic Vojtěch Novák.

elevation (Härtel *et al. Eds.* 2007). The most extensive sandstone landscapes are the Elbe Sandstone Mountains (Labské pískovce/ Elbsandsteingebirge, which include the Bohemian Switzerland National Park and Saxon Switzerland National Park) in the northwest and the Kokořínsko Protected Landscape Area in the south. Tertiary volcanic activity created the Central Bohemian Uplands (České středohoří) and Lusatian Mountains (Lužické hory / Lausitzer Gebirge) on the Czech-German border and the numerous isolated peaks of the Ralsko Highlands (Ralská pahorkatina) around the town Česká Lípa (Figure 2). Outside of the mountainous regions, the prevailing climate is warm to mildly warm, with an average annual temperature of 7–8 °C. The region's loess-clay and brown-earth soils are less fertile than in the traditional settlement areas (Mackovčín *et al. Eds.* 1999).

THE CULTURAL LANDSCAPE AND OLD GROWTH FORESTS

From a contemporary environmental viewpoint, the territory that is the subject of this study is an important region that has been less affected by human activities than other areas. It is part of the Bohemian and Saxon

Switzerland national parks and of the Kokořínsko and Lusatian Mountains protected landscape areas. A reconstruction of the landscape during the Neolithic and Early Aeneolithic is facilitated by the availability of several pollen profiles from the Bohemian Switzerland National Park, and two profiles from the Lusatian Mountains and from near Doksy in the Česká Lípa district (Kuneš *et al.* 2005, Kozáková *et al.* 2015). The findings from these profiles roughly reflect contemporary ideas of changes in vegetation, which was dominated by contiguous forests. In other words, it was a landscape only minimally affected by human activities or entirely untouched by prehistoric people.

Can a resident of central Europe, surrounded by a cultural landscape marked by varying degrees of human intervention, even imagine what such a prehistoric landscape looked like and how it differed from today's? We can find valuable information in 19th-century literature, which describes the local landscape prior to the onslaught of the industrial revolution and the rapidly expanding industrialization of the foothill regions. Even if we assume a natural composition of species in **forests**, their appearance today is the result of several hundred years of forest management, with large expanses of trees of the same age, combined with long-



FIGURE 2. The landscape of Northern Bohemia. The catchment area of the Ploučnice River with the town Česká Lípa at the left. The Lusatian Mountains (Lužické hory) are in the background. Photo: V. Peša.

term silvopasture by domesticated animals (starting in the High Middle Ages) and the removal of undergrowth. The original forest must have been the exact opposite: trees of varying ages (from young trees to dead and fallen individuals), combined with typical forest undergrowth. Today, not even the remaining central European "old-growth" forests in the continent's best-protected nature reserves fit this description. They, too, have been affected by several centuries of intense human pressure on the landscape in the Late Middle Ages and early modern era, in conjunction with the impact of natural calamities (Zeithammer 1902: 75 sq., Průša 1990: 10 sq., Douda 2009, Hédli, Szabó 2009, Dreslerová 2012a: 203, 228). If we ignore the significant deforestation caused in the mountain foothills by high medieval colonization in the 13th and 14th centuries, many of these changes affected the actual **terrain** as well, with a general tendency towards its flattening. Wetlands and depressions were filled in, the overwhelming majority of rocks and boulders were removed and broken down into building material, and smaller rock outcrops and hilltops were quarried away (Čílek 2002: 24–29, Zeithammer 1902: 46). These changes affected not only the cultural landscape in central Bohemia, but also foothill regions and some mountainous areas, regardless of the type of rock (in the area under review, the quarried materials were sandstone and volcanic rock; beyond the Lusatian Fault, granite and syenite). **Rivers and streams** were transformed by straightening and by changes to their embankments. The old streambeds used to be full of boulders and tree trunks left over from past floods, but starting in the High Middle Ages they were gradually cleared and made navigable, although the main period for such activities is the 19th and 20th centuries (Zeithammer 1902: 18, 34 sq., Čílek 2002: 26, Belisová 2012). To summarize: During prehistory, the landscape was significantly less passable than today. Although this is a generally presumed characteristic of the prehistoric landscape, it is not always taken into account when reconstructing life during the prehistoric era.

CATEGORIES OF ARCHAEOLOGICAL SITES

Both in the Mesolithic as well as in the Early (Linear Pottery Culture, LBK) and Late (Stroke-Ornamented Pottery Culture, SBK) Neolithic – and apparently also in the Proto- to Early Aeneolithic (EA) – there existed four types of sites on the border between the settled and unsettled landscape:

A) open-air settlements (often in the vicinity of rocky areas)

B) sandstone rockshelters (rockshelters)

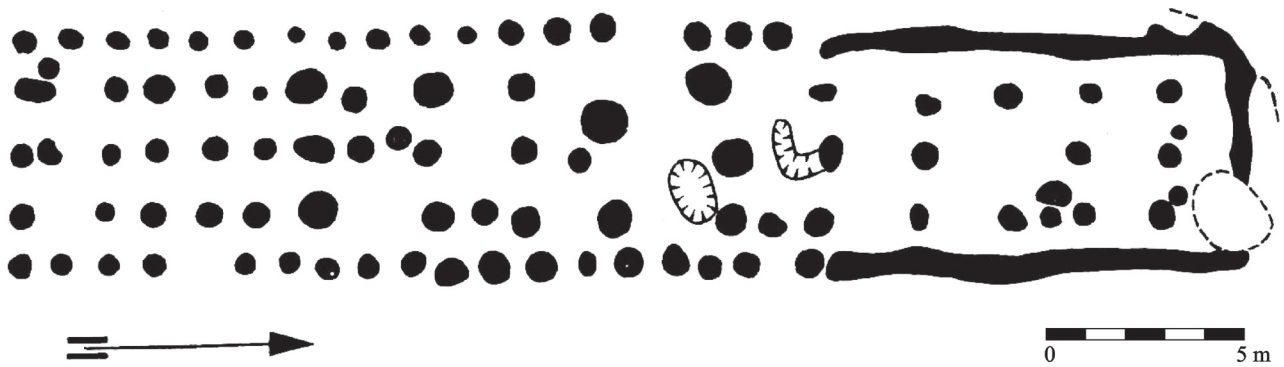
C) stray finds of stone artefacts (axes, hatchets, hoes, occasionally undateable flint flakes)

D) accumulations of stone tools within a small territory

A) **Settlements** in the open landscape have been identified only in isolated locations in the Česká Lípa district (Blíževedly, Stvolínky, Svěbořice in Ralsko). They are located in areas characterized by the incidence of loess-clay soils and near small streams, usually in the warmest parts of the studied region (mild/warm zone 9). One exception is the Svěbořice site, which is located in mild/warm zone 7. Mild/warm zone 9 is characteristic by average temperature -3 to -4 °C in January and 17 to 18 °C in July, total precipitation 650–750 mm. Mild/warm 7 is characteristic by average temperature -2 to -3 °C in January and 16 to 17 °C in July, total precipitation 650–750 mm (Mackovčín *et al.* Eds. 1999: 28). Excavations at the Stvolínky site in the 1930s uncovered much of the ground plan of a Stroke-Ornamented Ware Culture house with several pits (Zápotocká 1999). Surface finds at Stranné I near Blíževedly document the site's settlement in the early as well as late Neolithic (LBK, SBK, unpublished). And surface collections at Svěbořice found pottery from the late LBK and the Šárka phase of the early SBK (Peša, Jenč *in press*).

B) **Rockshelters** are more numerous, and the presence of finds from various periods offers an interesting look at the presence of people in the landscape. There are hundreds of rockshelters in areas with sandstone formations, of which the main preferred type were those on the boundary between a more open landscape and forested mountainous areas. Interestingly, rockshelters with LBK finds are among the largest, but their size is not even half the size of a Neolithic longhouse (*Figure 3*). Rockshelters with SBK and Early Aeneolithic finds are quite diverse in size, ranging from large and spacious sites (Heřmánky I, Sosnová/Pod Zubem) to small sites barely usable by a nuclear family. The cultural layers below rockshelters contain fireplaces and small sets of pottery fragments, flakes, and sometimes animal bones.

C) **Stray finds** of stone axes are scattered throughout both the settled and unsettled landscape, except for central mountainous and rocky areas. About half of the ground tool assemblage was made of actinolite-hornfels quarried near Jistebsko/Velké Hamry on the upper Jizera River (Peša *et al.* 2012). When working with this group of finds, there is a danger that the time



A comparison between the size of the LBK long house of Bylany and some neolithic rockshelters.

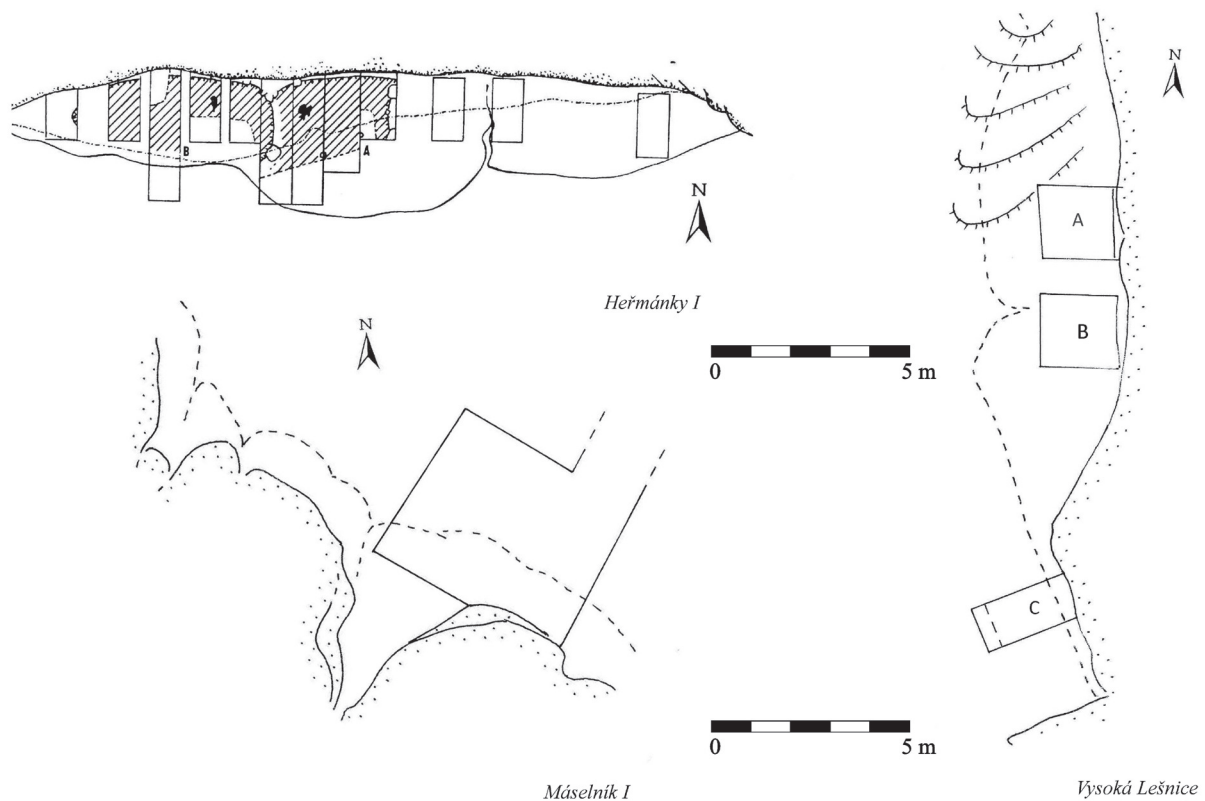


FIGURE 3. Size comparison of LBK longhouse with neolithic rockshelters. After Pleiner, Rybová Eds. (1978) and Svoboda Ed. (2003).

of manufacture or the stone tool's dating (to the Neolithic or Aeneolithic) will not necessarily reflect the period of its most recent use or when it was deposited at the place where it was found. Especially for sites located within towns and villages, it is likely that the hatchets and axe heads were used during the historic era as thunderstones – i.e., as modern items imbued with magic (Sklenář 1999).

D) Accumulations of stone artefacts. In some towns or villages, there is a noticeable accumulation of polished and chipped tools, which indicates either the existence of as-of-yet undiscovered settlements or a different kind of site with a preference for stone tools over ceramic vessels (e.g., Dolní Habartice, Horní Habartice and Malá Veleň in the Děčín district: Peša, Jenč 2013; Holany, Mimoň, Stvolínky,

Ralsko/Svébořice and Ralsko/Židlov in the Česká Lípa district: Jenč, Peša 2000, Peša *et al.* 2012). This type of site requires closer attention in the future.

FUNCTION OF ROCKSHELTERS

The poor find situations at most LBK and SBK sites preclude a more detailed interpretation, but they differ from prior Mesolithic settlements. Cultural layers of post-Mesolithic cultures are less distinctive and thinner, with fewer finds. Unlike in karst caves (cf. Peša 2011, 2014, *in press*), the chipped industry is probably evidence of the working of raw materials or the repair of flint and quartzite tools beneath the rockshelter, assuming it is not an intrusion from Mesolithic layers (Svoboda *Ed.* 2003). An unpublished mineralogical-petrographic analysis of pottery from two sites located close to each other (the open-air site at Stvolínky and the Lhota/Stará Skála rockshelter) revealed a different production tradition and thus probably the presence of different populations at each site (analysed by Miloš Gregor and Richard Thér, University of Hradec Králové). An unpublished analysis of encrustations on vessels from the tail end of the Late Bronze Age to the Hallstatt Period, performed by Jaroslav Pavelka from the University of West Bohemia in Pilsen, showed the consumption of grain porridge with beef and mutton but without the presence of the dairy products that we would expect from pastoral management (Šídelník I near

Heřmánky, etc.). Neolithic and Aeneolithic fragments do not contain similar encrustations from food preparation. Also, neither the archaeological nor the palaeobotanical sources allow us to reconstruct the specific function and purpose of the rockshelters.

The only evidence of cult activities – a deliberately placed vessel depicting an orant – comes from the SBK horizon at the Stará Skála rockshelter near Lhota (Figure 4) (Svoboda *Ed.* 2003: 98). The rockshelter itself is not unusual in any way, although it is located on a hill whose old name was a variation on "Altersteine" or "Altarsteine" – i.e., either Old Stones or Altar Stones. In the 19th/20th centuries, the hilltop was damaged by sandstone quarrying, but the surviving relicts of significantly weathered and perforated outcrops indicate that the hill may have been the site of interestingly shaped rock formations resembling the original names. The rockshelter should in fact be seen as part of a larger site. The find of a ritual vessel fits well with such an exceptional natural situation.

SITE CATALOGUE

Rockshelters

1. BEZDĚŽ (Česká Lípa district): Západní Vyhlička rockshelter

Period: SBK. The north-facing rockshelter is 18 m long and about 3 m wide, and is located in a sandstone



Figure 4. Stará Skála rockshelter near Lhota with activities in the SBK. Left: The excavated site; 1998; right: the decorated vessel with an orant image. Photo V. Peša, drawing I. Skřivanová.

formation on the slope of the phonolite Bezděz Hills, at an elevation of 364 m.a.s.l. The excavation, performed by V. Peša and J. A. Svoboda in 2000 in a trench measuring 350 × 250 cm, yielded a prehistoric stratigraphy of brownish to darkish sandy-loamy layers with thin interstratified charcoal layers containing partially separated cultural horizons from the Late Bronze Age, Neolithic and Mesolithic. The Late Mesolithic layer dating to about 5800 cal BC was separated from the Late Neolithic horizon by a thin and almost sterile interlayer. The Neolithic horizon contains pottery sherds from the SBK IV stage (probably IVb based on one decorated sherd with insized grating), a bone awl and a graver (perhaps for decorating pottery), and a small number of bone fragments from wild animals. The lithic assemblage from the post-Mesolithic periods contains more than 20 pieces including four retouched tools and eight blades (preliminary Svoboda *Ed.* 2003: 113 sq.).

2. SOSNOVÁ (incorrect: ČESKÁ LÍPA, Česká Lípa district): Pod Zubem rockshelter

Period: SBK. The excavated northern part of the rockshelter, ca. 18 m long and 2.5–4 m wide, is located in the rock face of a flat sandstone ridge at 260 m.a.s.l. The three excavations carried out by a team led by J. A. Svoboda in 1997 in trenches measuring 2 × 2–3 m, yielded a prehistoric stratigraphy that included the Late Bronze Age, Late Neolithic and Late to Early Mesolithic. The entire cultural sequence with sandy-to-clayey layers was interstratified by layers of charcoal, burnt sand, and calcareous lenses. The two latest Mesolithic dates are about 5700 and 5500 cal BC. The SBK horizon contained about 40 sherds that may come from at least two vessels – one stroke-ornamented vessel and one undecorated vessel with a rough surface. The post-Mesolithic lithic debitage is represented by 22 pieces including a microblade, three retouched tools and four unretouched blades (Svoboda *et al.* 1999, Svoboda *Ed.* 2003: 201 sq.).

3. DOUBICE (Děčín district): Jezevčí Převís rockshelter

Period: EA. The small and shallow south-facing rockshelter, ca. 11 m long and 2.5 m wide, is located in a low sandstone formation on the border of the central Elbe sandstone landscape at 372 m.a.s.l. The excavation, performed by a team led by J. A. Svoboda in 1999 in a trench measuring 3 × 5 m, yielded a partially disturbed stratigraphy containing, among other things, several intact fireplaces. The two upper fireplaces yielded Early and Middle Aeneolithic dates: 3944–3824 and 3413–3609 cal BC. Two undated prehistoric sherds and 48

pieces of lithic debitage including one retouched and four unretouched blades date from the post-Mesolithic sequence. The adjacent "Švédův Převís" rockshelter shows traces of being occupied starting in the Middle Aeneolithic (Svoboda *Ed.* 2003: 268 sq.).

4. DŘEVČICE (Česká Lípa district): Máselník I rockshelter

Period: SBK (–EA?). The shallow NE-facing rockshelter with a small cave is 1.5–4 m wide, and is located in a sandstone formation on the edge of an area of rock formations at 360 m.a.s.l. The excavation was performed by a team led by J. A. Svoboda in 1994–1995 in a trench measuring 28 m². The most important prehistoric occupation is dated to the Late Bronze Age and Hallstatt period, with minor finds from the Late Neolithic and Roman era. Most of the lithic debitage (14 pieces) can be dated to the SBK (Svoboda *Ed.* 2003: 201sq.). The earliest pottery horizon contained the remnants of two vessels without stroke ornamentation: a reconstructed early SBK bottom whose sherds were dispersed along 1.5 × 2 m of the surface, and a rim fragment probably from the late SBK or EA.

5. DŘEVČICE (Česká Lípa district): Máselník II rockshelter

Period: SBK. The north-facing sandstone rockshelter is located 180 m from Máselník I at an elevation of 355 m.a.s.l and is 12 m long and 2 m wide. Two trenches of about 1 m² were excavated by V. Ložek and V. Cílek in 1994–1995 and V. Peša with P. Jenč in 1996. The entire stratigraphy up to the sandy subsoil was disturbed, probably by local research activities in the 1930s. Pottery sherds indicate prehistoric use during the SBK (two stroke-ornamented pieces), Late Aeneolithic (cord-decorated ware), Hallstatt period (?) and Roman era. Most of the sherds are undated, as are the 22 pieces of lithic debitage and intensive fragmented animal bones.

6. DŘEVČICE (Česká Lípa district): Srní Převís rockshelter

Period: SBK? The north-facing rockshelter, 9 m long and 2.5 m wide, is located in a sandstone formation in the central area of rock formations in the northern Kokořínsko Protected Landscape Area at ca. 340 m.a.s.l. An excavation by geologist V. Cílek in 1997 yielded a stratigraphy of 23 undated prehistoric and historical fireplaces. The prehistoric pottery sherds and lithic debitage are undateable and without decoration, although several of them can probably be dated to the Neolithic based on the nature of the ceramics and surface

workmanship (unpublished report by V. Cílek, V. Peša and P. Jenč).

7. HEŘMÁNKY (Česká Lípa district): Heřmanky I rockshelter

Periods: LBK, SBK, EA. The south-facing rockshelter is 24 m long and ca. 4.5 m wide, and is located in a lower part of rocky valley on the border of an area of sandstone formations at 383 m.a.s.l. (Figure 5). Excavation were carried out by J. A. Svoboda in 1978–1979 in a series of trenches measuring ca. 32 m² in total. The prehistoric loess-to-sandy layer between the Mesolithic and the 20th century yielded two fireplaces, pottery sherds from various cultures (Neolithic, Early to Middle Aeneolithic, Early Iron Age?), lithic debitage and animal bones. At the time, Svoboda's team did not



FIGURE 5. Heřmanky I Rockshelter with activities during LBK, SBK and EA. The timber dwelling constructions were built by campers in the 1990s. Photo V. Peša.

elaborate a detailed stratigraphy of pottery horizons (Svoboda *Ed.* 2003: 172 sq.).

8. HEŘMÁNKY (Česká Lípa district): Šídelník I rockshelter

Period: SBK. The west-facing rockshelter measures 8 m long and 2 m wide, and is located in a low sandstone formation at 360 m.a.s.l. The excavation, carried out by a team led by J. A. Svoboda in 1998 in a trench measuring 14 m², yielded a SBK horizon with 10 decorated sherds from the early to middle SBK stage. The 10 pieces of post-Mesolithic lithic debitage probably belong to the SBK as well. The most intensive use of the area in front of the rockshelter was in the Late Bronze Age to Hallstatt period. The two small excavated rockshelters on the opposite rock wall contained no Neolithic finds (Svoboda *Ed.* 2003: 201 sq.).

9. HRADČANY in Ralsko (Česká Lípa district): Uhelná Rokle II and III rockshelters

Period: EA? The two neighbouring rockshelters, facing SW and west, 20/15 m long and 4/3 m wide, are located at 320 m.a.s.l. in a sandstone formation in the narrow Uhelná Rokle valley. Excavations were carried out by a team led by J. A. Svoboda in 2000 in trenches measuring 12 m² and 1.5 m². Both rockshelters yielded what is probably an Aeneolithic horizon with little distinguished pottery sherds and lithic debitage (Svoboda *Ed.* 2003: 186 sq.).

10. KVÍTKOV (Česká Lípa district): Sněhurka rockshelter

Period: SBK. The north-facing rockshelter, ca. 18 m long and 6 m wide, is located at 270 m.a.s.l. in a low sandstone formation in the Pavlinino Údolí (Pavčina Valley). A survey carried out by geologist V. Cílek in 1997 in two small trenches yielded a collection of prehistoric pottery sherds predominantly from the Late Bronze Age to Hallstatt period, although a small stroke-ornamented sherd was found as well (unpublished report by V. Cílek, V. Peša and P. Jenč).

11. LHOTA (Česká Lípa district): Stará Skála rockshelter

Period: SBK. The shallow west-facing rockshelter, 9 m long and 2.5–4 m wide, is located at 345 m.a.s.l. in the low sandstone ridge previously known as Altersteine or Altarsteine. The hilltop was severely damaged by several small sandstone quarries in the modern era. The excavation, on an area measuring ca. 18 m², was carried out by a team led by J. A. Svoboda in 1998 (Figure 4). The stratigraphy in the inner part of the rockshelter was disturbed by earlier digs probably corresponding with

excavation activities in the 1930s, although the mixed deposits yielded numerous finds including sherds from the early and late SBK. A unique boat-shaped bowl with an orant decoration and two handles was found in an intact layer on the edge of the sheltered area outside the earlier excavation. Six flint artefacts from the undisturbed sediments may belong to the Neolithic or Middle/Late Aeneolithic horizon as well, but the amount of the lithic debitage remains undeterminable (Svoboda *Ed.* 2003: 201sq.).

12. RADVANEČ (Česká Lípa district): Údolí Samoty rockshelter

Period: EA (?) The west-facing rockshelter, 10 m long and max. 3 m wide, is located at 357 m.a.s.l. in a low sandstone formation in the Údolí Samoty valley. The excavation was carried out by a team led by J. A. Svoboda in 2011 in a trench measuring 2.5×2.5 m. Two previous excavations took place in 1999 and 2003. The massive sequence of Late Palaeolithic and Mesolithic horizons continues into an undistinctive prehistoric pottery horizon dating to the Aeneolithic and Late Bronze Age that yielded sherds, lithic debitage, disturbed animal bones and a flint arrow point (Svoboda *Ed.* 2003: 201 sq., Svoboda *et al.* 2013).

13. BOREČEK (Česká Lípa district): Lakota rockshelter

Period: EA (TRB). The spacious east-facing rockshelter, 16 m long and 6 m wide, is located at 270 m.a.s.l. in an isolated sandstone rock formation on the banks of the Ploučnice River. The excavation, carried out by geologist V. Cílek in 2000 in a trench measuring 1.5×1.5 m, yielded a 150 cm thick prehistoric sequence beginning with the Early Aeneolithic TRB culture. The 50 cm thick TRB layer pocket located on the bedrock yielded numerous pottery sherds with several typical fragments and 65 pieces of silex debitage (Svoboda *et al.* 2001).

14. ROZSTÁNÍ (Liberec district): Jeřmanská Skála rockshelter

Period: SBK, LgK? The SE-facing rockshelter, ca. 27 m long and 3 m wide, is located at about 540 m.a.s.l. in an isolated sandstone outcrop beneath a geological boundary of quartzite with mica schist and phyllites in the Ještěd massive (1012 m). The excavation, carried out by J. Kaván in 1960 in trenches measuring about 5 m², yielded a decorated pottery sherd from the SBK, as well as one sherd probably from the painted Lengyel ware (Kaván 1961). The excavation site was revisited by P. Brestovanský and J. Prostředník in 2013.

15. SRBSKÁ KAMENICE (Děčín district): Arba rockshelter

Period: EA. The SW-facing rockshelter, 11 m long and max. 5 m wide, is located in a hilltop sandstone formation 32 m above the Kamenice River (232 m.a.s.l.), from where it offers a beautiful view of the wide valley. The excavation, carried out by a team led by J. A. Svoboda in 1999 in a trench measuring 2.5×2.5 m, yielded a shallow Aeneolithic horizon that was mixed with the upper part of the Mesolithic layer. The pottery sherds (a total 38 pieces) point to the Early Aeneolithic (TRB?) and probably the Middle Aeneolithic. No lithic debitage from that time was identified among the numerous Mesolithic artefacts (Svoboda *Ed.* 2003: 251 sq.).

16. VYSOKÁ LÍPA (Děčín district): Dolský Mlýn rockshelter

Period: EA. The SW-facing rockshelter, ca. 20 m long and max. 3 m wide, is located at 188 m.a.s.l. in a sandstone wall at the base of a steep canyon along the Kamenice River. Excavations were carried out in 11 m² of trenches by a team led by J. A. Svoboda in 2001. The post-Mesolithic sequence located at a depth of ca. 50–170 cm contains several find horizons dated to the Aeneolithic and the Late Bronze Age / Early Iron Age with an abundance of pottery sherds and about 1,200 pieces of lithic debitage (Svoboda *Ed.* 2003: 228 sq.).

17. ZÁTYNÍ (Česká Lípa district): rockshelters in Lešnice Valley

Period: LBK, SBK, EA

- 1) The west-facing Vysoká Lešnice rockshelter is 12 m long and max. 3.5 m wide, and is located in a sandstone bank at 323 m.a.s.l. An excavation consisting of three trenches totalling 11 m² was carried out by a team led by J. A. Svoboda in 1998. Only one LBK sherd was found in Trench C outside the main site of the rockshelter's inhabitation (Svoboda *Ed.* 2003: 120 sq.).
- 2) The south-facing Německá Lešnice rockshelter is located in a sandstone bank at 330 m.a.s.l. The excavation was carried out by geologist V. Cílek in 1998 in a measuring 0.5×0.5 m. The site's Neolithic occupation is documented by a decorated sherd from the early-to-middle SBK and three flint artefacts probably from the same period (Cílek 2000).
- 3) The small west-facing Nížká Lešnice, 6 m long and 3 m wide, is located in a sandstone bank at 321 m.a.s.l. A team led by J. A. Svoboda carried out an excavation in 1998 in a trench measuring 5 m²,

which yielded 40 smaller pottery sherds from the Aeneolithic in the disturbed interlayer between today's surface and the Mesolithic sequence. A decorated rim was dated to the Proto/Early Aeneolithic. Many of the 30 pieces of lithic debitage from this layer are from the Aeneolithic as well (Svoboda *Ed.* 2003: 127 sq.).

Open-air sites

18. BLÍŽEVEDLY / LITICE (Česká Lípa district): fields

Period: LBK. Two decorated pottery sherds, now in the collection of the Česká Lípa Regional Museum and Gallery, probably found 1941, and an axe head (Schuhleistenkeil) from another nearby location; unpublished.

19. BLÍŽEVEDLY (Česká Lípa district): Stranné I

Period: LBK?, SBK, Neolithic – Aeneolithic. Some flint debitage and two stone axes from field surveys in 1988, 2000 and 2004 (previously Kotyza 1990: 155, Jenč, Peša 2000). Z. Fidrhel 2012 and M. Rezler 2014 found one decorated sherd each, both from the older SBK stage (unpublished).

20. DĚČÍN (Děčín district): Kvádrberk table mountain (Quaderberg, Stoličný Vrch)

Period: SBK. Only four decorated sherds from the earlier SBK have been found on the plateau of the sandstone mountain above the city of Děčín. Besides these pottery finds discovered sometime before 1881, several flint flakes and two ground tools were found there dispersed at the different sites on the hill. Located at the entry of a 300 m deep Elbe River canyon, Quaderberg played an important role in the Late Bronze Age, as evidenced by the presence of at least 8 bronze hoards, including some gold items as well (Joza 2009: 9–37).

21. HOLANY (Česká Lípa district): Holany I

Period: EA? This shallow sandstone ridge located between two marshlands – since the Middle Ages known as the Holanský and Velká Nohavice ponds – yielded scattered finds of lithic debitage including several tools and two Late Aeneolithic arrowheads, plus a small stone axe and an indeterminate number of prehistoric pottery sherds. The site's history probably dates back to earlier in the Aeneolithic, but precisely dated finds are still missing. All the finds come from field surveys in the 1930s, 1970s and since 1998 (previously Jenč, Peša 2000: 11).

22. SLOUP V ČECHÁCH (Česká Lípa district): castle rock

Periods: LgK (?), EA. The isolated sandstone rock and plateau were used predominantly in the Late Bronze Age, with isolated finds from the Roman era, Iron Age and Middle Aeneolithic as well (*Figure 6*). The site was excavated in the 1930s, 1971 and 1998. The prehistoric layers were secondarily deposited at the foot of the rock because of the presence of a medieval castle and, later, a hermitage on the plateau (Waldhauser 1971, Jenč, Peša 2000). The latest revision of the prehistoric pottery identified a sherd from a funnel vessel from the Early Aeneolithic and fragments of a storage vessel probably from the Lengyel Period (Mildeová 2012).

23. STVOLÍNKY (Česká Lípa district): below Ronov Hill

Period: SBK (IIb). The first SBK house to be found in Bohemia and several other settlement pits were excavated in 1930–1933 by L. Franz on the NE foothills. A paper on the excavation was recently published by M. Zápotocká (1999).

24. SVĚBOŘICE (RALSKO, Česká Lípa district): around Dubový Vrch Hill

Period: Šárka – SBK. About 20 sherds from the Šárka and early SBK periods were found in 1960 by non-archaeologist J. Nachlinger near the SW foothills, but the exact location is unknown. A stone axe was found between 1930 and 1933 on the northern foothills. Various unpreserved finds, possibly dating to the Neolithic, were reported in the literature before 1945, but their find location and dating remain uncertain (Waldhauser 1971, Peša 2012: 65, Peša, Jenč *in press*).

25. ÚSTÍ NAD LABEM (Ústí nad Labem district): Mírové náměstí (Palác Zdar office building)

A part of a rondel from the late Neolithic was excavated in 2006 by the Institute of Archaeological Monument Preservation in Northwest Bohemia in cooperation with the Ústí nad Labem Municipal Museum. The excavation has not yet been published (Řídký 2011: 34).

26. ŽELÍZY (Mělník district)

A rondel detected by aerial survey but not studied in any more detail. Surface finds are from the Neolithic (Řídký 2011: 41).



FIGURE 6. Sloup v Čechách – castle rock with activities during the Early Aeneolithic and plausibly during the Lengyel Period. Photo V. Peša.

COLONIZATION OF UNINHABITED TERRITORY

A look at the settlement map for the various cultures of the early prehistoric agricultural era (see *Figure 1*), when archaeological evidence of human presence is found deeper and deeper in the unsettled landscape, encourages us to use the word "colonization", although its character and meaning may be different from the relatively short periods of colonization during the Middle Ages.

From the Late Mesolithic to the Early Neolithic (LBK)

The studied area was relatively intensively settled in the Late and Middle Mesolithic (e.g., Svoboda 2006, Svoboda *et al.* 2013). The most recent Mesolithic carbon-14 dates from around 5700–5500 cal BC (Vysoká Lípa in the Bohemian-Saxon Switzerland – Dolský Mlýn rockshelter: GrN-26557 = 5736–5546 cal BC; Sosnová u České Lípy – Pod Zubem rockshelter: GrN-23333 =

5592–5500 cal BC) are currently found only in regions located farther away from LBK settlement regions, where there are no concurrent Neolithic sites. The most recent Mesolithic date in the southern area bordering on LBK is approximately 6000 cal BC (Heřmáňky – Šídelník I rockshelter: GrN-11456 = 6062–5918 cal BC). Finds of classic LBK pottery come from only two rockshelters in an area closer to the settlement region (Heřmáňky I rockshelter, Zátyní – Vysoká Lešnice rockshelter). The LBK settlement penetrated from the core area of the eastern Litoměřice region (microregion Úštěk: Zápotocká 2009) into the small enclave of loess soils between the sandstone rock formations of the Polomené Hory (whose dominant peak is Vlhošť, 694 m) and the Central Bohemian Uplands, as documented at the very least by the "Blíževedly – Chmelnice Stranné I" site. In this direction, we can assume the use of the Heřmáňky I rockshelter, located five kilometres from Stranné I. The second rockshelter at Zátyní may have been visited from the east-west Tuháň – Dubá corridor

between Vlhošť and the central rock formations of the Kokořínsko Protected Landscape Area. The currently not fully confirmed Neolithic settlement finds (polished axes, atypical pottery) come from the area surrounding the village of Tuhaň on the eastern margins of the old settlement region ca. 3 km from Vysoká Lešnice rockshelter near Zátyní. Both rockshelters contain only isolated fragments of linear pottery and are currently the LBK sites farthest removed from the permanently settled region. They are located on the eastern margins of the area of rock formations, i.e., in the direction of the "wilderness". It is interesting to note that they are the largest rockshelters in this marginal zone to be used by LBK people (see *Figure 3*).

The Bohemian Late Neolithic (SBK)

Deep within the previously unsettled territory in the eastern part of the Česká Lípa region, there exists the isolated open-air site of Svěbořice (Ralsko, 300 m.a.s.l.), which was founded during the late LBK or the Šárka Period and used during the early SBK (Peša, Jenč *in press*). The nearest settled landscape is located 18 km to the southeast towards the upper reaches of the Jizera River, but roughly halfway is the Židlov site (Ralsko) with numerous polished tools, some of which may belong to the Late Neolithic (Peša *et al.* 2012). Currently the northernmost SBK site, the Jeřmanská Skála sandstone rockshelter (ca. 540 m.a.s.l.) is located near Rozstání, Liberec, on the western slopes of the region's dominant landscape feature, Mount Ještěd (1012 m.a.s.l.). The spacious rockshelter is situated inside a sandstone intrusion into metamorphic rock and has an interesting morphology that from a distance resembles a gate into the mountain. The rockshelter is located 12 km from Svěbořice and ca. 17 km from the nearest settlement territory along the upper reaches of the Jizera River near Turnov. However, any connection between these two distant sites with settlements along the upper Jizera River can be inferred only on the basis of the smallest distance, since the actual finds show no such connection, as in the following example from the western Česká Lípa region.

The fact that the people of the SBK penetrated deeper into the archaeologically "empty" landscape also applies to the western part of the Česká Lípa district. The Neolithic enclave between the Central Bohemian Uplands and Vlhošť continued to develop in the Late Neolithic, with the addition of new sites (Blíževedly – Stranné I, Stvolínky – the settlement beneath Ronov, and a significant concentration of polished and chipped stone industry especially within the municipality of Stvolínky).

No settlement site has been found along the southern corridor near Tuhaň. There are increased finds of stroke-ornamented ware underneath rockshelters, but the sites are again concentrated only on the eastern margins of the rock formations near Mount Vlhošť. Early SBK predominates, although the later stage is present as well (Dřevčice – Máselník I rockshelter, Lhota – Stará Skála rockshelter). Stará skála yielded the only evidence to date of cult activities beneath rockshelters – the deposit of an entire vessel with an orant decoration (Svoboda *Ed.* 2003: 98). The further north that SBK people penetrated was to the edge of the Ploučnice floodplain near Česká Lípa – it is a mere 7 km from Stvolínky to the Pod Zubem rockshelter near Sosnová. The pottery underneath the rockshelter dates to the early SBK (Svoboda *et al.* 1999). Based on current findings, the Ploučnice River was the northern boundary of the territory of SBK people (Svěbořice, Sosnová – Pod Zubem rockshelter, Děčín – Quaderberg hill). The isolated finds of early and late SBK pottery from the Západní Vyhlička rockshelter at Bezděz in the southern Česká Lípa region may point towards a third direction of infiltration from the settled landscape along the middle reaches of the Jizera River, from where it is the shortest distance to Bezděz from the Neolithic settlements (near Mšeno?). Velký Bezděz (604 m) is a dominant feature in the otherwise flat landscape and is visible from many tens of kilometres away (even from the northern edge of Prague). A Neolithic stone axe was found on its rocky slopes (Slabina 2009).

The Proto- and Early Aeneolithic

Human infiltration deeper into the unsettled landscape continued during the Proto-, Early and Middle Aeneolithic (ca. 4300–2300 cal BC), although we only have archaeological evidence for the use of specific natural sites (rockshelters, plateaus) or scattered stone tools (primarily hatchets and axe heads) outside the recorded sites. A significant site in Bohemia is the isolated sandstone pillar of Sloup Castle, located 6 km to the north of the Neolithic Pod Zubem rockshelter (see *Figure 6*). The function of Sloup (literally "column") – a flat-topped rock formation in a boggy valley – remains unknown. Its oldest use is evidenced by a pottery fragment dated to probably as far back as the Lengyel horizon, followed by the Funnelbeaker culture and the Middle/Late Aeneolithic (Mildeová 2012, Jenč, Peša 2000). People apparently visited the Údolí Samoty rockshelter (Radvanec) and the table mountain at Oybin, two sites at the foothills of the Lusatian/Zittau Mountains, at some point during the Aeneolithic. A short-term human presence is also evidenced at

rockshelters with cultural layers and fireplaces on the southern margins of the Bohemian Switzerland (the Arba rockshelter in Srbská Kamenice and the Dolský Mlýn rockshelter near Vysoká Lípa) and on the edge of the Lusatian Mountains (Jezevčí and Švédův rockshelters near Doubice, possibly also the Údolí Samoty rockshelter near Radvanec; Svoboda *Ed.* 2003). The small sets of pottery do not allow for a more detailed reconstruction of human occupation of the foothill regions. For instance, the set of pottery edges with decoration in the shape of a Romanesque lesene could be from either the Proto-Aeneolithic or from the early Funnelbeaker culture (TBK).

We currently do not know whether the shift of human activity into the foothill regions was followed by village settlement and agricultural activities. One possible indication is the isolated presence of grain in the palynological profile near the Vysoká Lípa/Dolský Mlýn rockshelter, although it has not yet been independently verified (Kuneš *et al.* 2005). To date, the region north of the Ploučnice River up to the Lusatian Mountains has not yielded any standard settlement sites, and any indications of more permanent settlement from the southern territory near Stvolínky – Holany are merely

indirect (e.g., a concentration of chipped stone industry within the Holany town limits: Jenč, Peša 2000).

FINDS IN THE LANDSCAPE OUTSIDE THE "BORDERS"

Further to the north, Upper and Lower Lusatia remained unsettled for the entire Neolithic and the first half of the Aeneolithic (Meller 2000). The studied territory thus represents an occupied area on the very margins of what was then the known world (*Figure 7*). Despite this fact, however, people may have entered the unsettled region starting in the Neolithic, as documented by the scattered presence of ground stone tools throughout Upper Lusatia (Frehse 2008). Nevertheless, we cannot say with certainty whether the isolated finds of hatchets truly date to the Neolithic, or whether the tools with Neolithic shapes were left there during their later reutilization. Unlike in Upper Lusatia, the stone tools in the adjoining unsettled region of Bohemia are placed in the Aeneolithic. It thus remains an open question to which extent Neolithic people truly infiltrated the contiguously forested landscape.

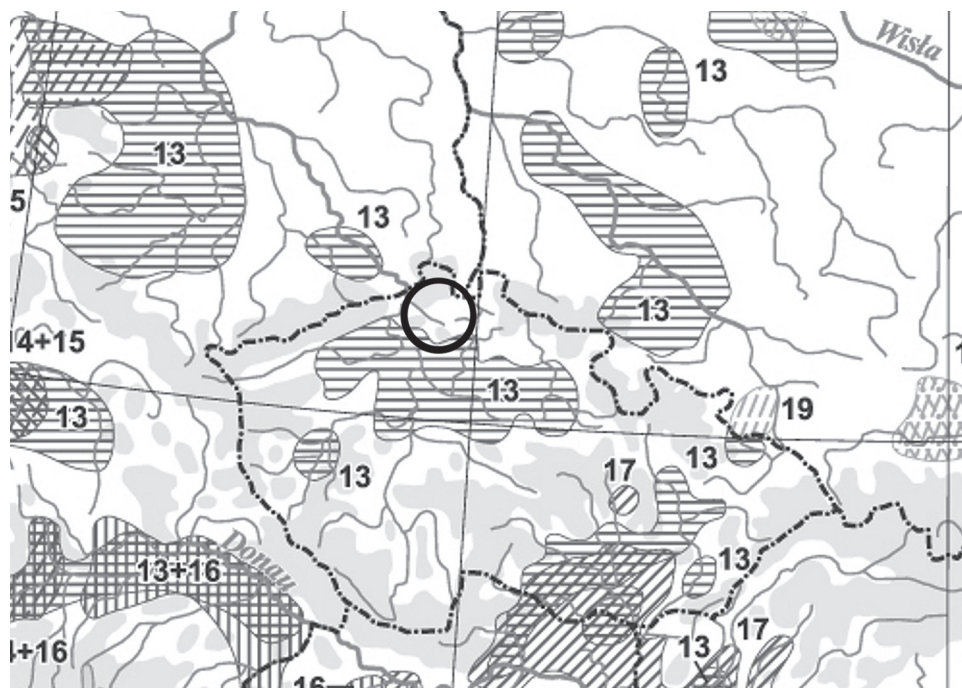


FIGURE 7. The location of Northern Bohemia within Neolithic Central Europe: no. 13, SBK areas (after Buchvaldek *et al.* 2007); circle, Northern Bohemia.

DISCUSSION

A look at the changing settlement of the studied area in roughly 1,500-year intervals gives us the following summary. Sometime after 5500 cal BC, when Neolithic LBK agriculturalists first infiltrated the margins of the unsettled landscape of the southwestern Česká Lípa region, Mesolithic sites beneath rockshelters had apparently been abandoned for several centuries (the most recent date has been determined at around 6000 cal BC). It would seem that around the same time, settlement of the more northern regions around the Ploučnice River and the Elbe Sandstone Mountains by groups of Mesolithic hunter-gatherers had just come to an end – the most recent Mesolithic data from here are from around 5500 cal BC. Current findings thus do not point towards any contact between the two groups, but towards a roughly 500-year hiatus between the two. The new settlement enclaves discovered and perhaps also tested by LBK people (Blíževedly – Stvolínky) were regularly inhabited during the Late Neolithic, and in the direction towards the uninhabited landscape there again appear sites beneath rockshelters. Judging by the archaeological finds, SBK people had a greater interest in prospecting the "empty" territory than during the LBK, and rockshelters with pottery appear relatively far from previously known settlements. A similar colonizational model was repeated in the early Aeneolithic. Although no regular settlements are known from that era, the concentration of chipped stone industry again points towards the further advance of settlement, and geographically more distant locations beneath rockshelters are found all the way in the foothills of the Lusatian Mountains and on the margins of the Bohemian-Saxon Switzerland. Whereas there is a high probability that colonization in the Neolithic moved from the southwest from the nearest microregion of settlement, Úštěk, in the early Aeneolithic we may hypothesize a movement from the northwest from Saxony. Nevertheless, we currently lack any comparative finds for a more detailed analysis.

We can currently only guess as to the initial impulse for seeking out new territories. With regard to the extensive unsettled areas of Neolithic central Europe (Buchvaldek *et al. Eds.* 2007), we can probably rule out the building of transport and communications networks and their focal points – as is clearly evidenced in this region for the Early Middle Ages. Pastoralism also strikes me as unlikely; if any silvopasture existed (cf. Dreslerová 2012a), it was certainly limited to the immediate surroundings of settlements and not several

kilometres deep into the forested landscape full of wild animals. Was, therefore, the main reason prospecting – i.e., the search for raw materials for stone tools, or the gathering of special medicinal herbs or hallucinogenic plants? One variant of raw materials prospecting is supported by the Jistebsko/Velké Hamry mining areas on the margins of the Jizera Mountains (Ramming, Šída 2012), which were known starting in the Mesolithic and whose raw materials were still being used in abundance in the southeastern Česká Lípa region during the Aeneolithic (Peša *et al.* 2012). Later, once the area had been explored and incorporated into the inhabited realm, the foundations had been laid for its settlement in the form of standard settlement units (hamlets, groups of houses, curia/farms, etc.).

Our archaeological considerations led us to a more general view of the appropriation of foreign lands by traditional societies as presented by religious historian Mircea Eliade (1957). For traditional societies, the inhabited territory is a Cosmos with a fixed order that is governed by an awareness of the existence of the order of the world and the meaning of human existence. Related to this is the necessary presence of a shrine – a sacred site where man receives this information thanks to the place's specific nature (in the words of Eliade, these sacred sites are fixed points that help man to orient himself within the surrounding chaos). They are places where the Cosmos comes together with the underworld and where man can mentally communicate with both worlds. Anything that is outside this "boundary" is foreign, chaotic, inhabited by ghosts, demons, or the souls of the dead (Eliade 1957). This binary division of the landscape can be illustrated using the example of human relationship to caves as underground spaces in the Late Middle Ages and early modern era, when people did not generally seek out caves, viewed them with respect, and included them into the "other" world than the one they inhabited (Peša 2013: 259 sq.). This alien space is made a part of the human world through ritual acts symbolizing the repetition of the cosmogonic act on the level of the microworld (Eliade 1957). The creation of a new space for life within the cosmic (divine) order is possible either symbolically through ritual acts, or through sacrifice, the latter of which Eliade identifies only with the advent of agricultural civilization.

How to translate this information onto archaeological landscape structures? At the very least, it shows that, when colonizing an uninhabited territory, it was necessary to find suitable places for sacred sites at which to perform the ritual repetition of Creation. Suitable locations during the Proto-Aeneolithic may have

included the extraordinary natural formation of the Sloup castle rock and the "Alter Steine" ridge near Lhota with an SBK cult vessel. On the practical level I see support for this theory, which envisions the initial creation of natural shrines in the unsettled territory, in the repeated colonization of the same landscape much later – at the close of the Middle Bronze Age by people from the Lusatian Culture. In the Česká Lípa region, many of the bronze items from the Urnfield culture come from this culture's earliest known Br D horizon. Their find context, which is associated with hilltops, hills, and rock formations, leaves no doubt that they are votive offerings (a study is being prepared). From this point of view, the isolated finds of stone hatchets and axe heads from the slopes of variously distinctive hills become more interesting, with some of them possibly being sacrifices that point towards the existence of natural shrines of a cosmic/heavenly nature (in the Česká Lípa district, these include Velký Bezděz 604 m – Slabina 2009, Lysá Skála 419 m, Ralsko 696 m see Peša 2012, Peša *et al.* 2012; Černý Vrch near Luhov, Kovářský Vrch 461 m near Kunratice u Cvikova, and Sokol 593 m, but also Ještěd 1,012 m).

After the new territory has been ritually re-created for human purposes, people can begin to make use of it. During this early phase of colonization, distinctive landscape elements such as hills, watercourses, rock formations and lookout points that helped people orient themselves in the unfamiliar landscape were probably of significant meaning. These places may also have included certain rockshelters, especially the larger isolated ones (such as Pod Zubem near Sosnová/Česká Lípa, Sněhurka near Kvítkov, Jeřmanská Skála near Rozstání, the Heřmánky I rockshelter, and the rockshelters near Bezděz), which offered not only a fixed point in the landscape but also acted as temporary shelters or bases for various nearby activities. The landscape elements were given names and became a part of the cultural landscape and, with time, the mythological landscape as well (cf. Aguilar *et al.* 2005: 69).

CONCLUSIONS

There is a visible chronological dynamic in landscape use outside of regions of settlement: During the LBK we find isolated sites in marginal areas, during the SBK they penetrate deeper into the unsettled landscape, and during the Early Aeneolithic they reach the distant margins of the border mountains. Interestingly, this dynamic apparently does not correspond to the general

development of Neolithic / Aeneolithic cultures in the neighbouring settled landscape, since settlement in the areas around the Elbe and Jizera Rivers decreased starting in the Early and Middle Aeneolithic and only the regions with most fertile soils were occupied (Dreslerová 2012b). Sites with pottery located in the sporadically settled landscape are represented by sandstone rockshelters, open-air flatland sites (settlements?), and (only rarely) elevated rock sites (SBK, LgK, TRB).

The best-studied type of sites are rockshelters. However, their find situations and the structure of finds are poor and do not contain any more specific information as to their function or purpose. Cult activities have been clearly documented only at one site: Stará Skála near Lhota, where the rockshelter was probably part of a hilltop with interesting outcrops. The intact vessel depicting an orant was consciously placed onto the rocky ledge on the edge of the rockshelter.

Stone tools are dispersed among all types of landscapes: settlement areas, sporadically settled regions and, starting in the Early Aeneolithic at the latest, the expansive permanently unsettled territories of Northern Bohemia and Upper Lusatia. The only place where they are not found is in the central areas of the Elbe Sandstone Mountains and Lusatian Mountains. The studied area is located on the border between the traditional prehistoric settlement regions and the extensive unsettled areas of Neolithic central Europe. What was life like on this periphery of civilization, and how was this remoteness perceived? Did the local people possess a system of defences against the "uncivilized" landscape? A partial answer to these questions in the introduction of this article is offered by the general model for the landscape settlement by traditional societies as presented by Mircea Eliade. Its application to landscape structures shows that the first sites to emerge in the previously unappropriated landscape were probably cult places and shrines/sacred sites at which people engaged in a ritual re-creation of the Cosmos that allowed them to include the new territory into their world and to settle it or continue to use it. This theory must, however, be taken as an initial look at the interesting issue of the religious behaviour of prehistoric human.

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