RESEARCH ARTICLE – VÝZKUMNÝ ČLÁNEK

Paths to this and the next world: A La Tène sunken hut from Nižbor, Central Bohemia

Cesty na tento i onen svět: Laténská polozemnice z Nižboru ve středních Čechách

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The article presents the assemblage of finds from a sunken hut in Nižbor opposite the Stradonice oppidum on the other bank of the Berounka River. The inventory from the sunken hut, which testifies to its contemporaneity with one of the phases of settlement at the oppidum in the Late La Tène period, was composed of common settlement finds of pottery and animal bones but also the skeletal remains of an older male. As such, it is a source for the study of excarnation, or the handling of the body of the deceased in the central European Late La Tène period following the end of burials at the so-called flat cemeteries. Radiocarbon dating of human and animal bones is important for establishing the chronology of the accompanying find assemblage, especially painted pottery in Bohemia. The location of the site near a probable ford over the Berounka River is the starting point for the reconstruction of the roads in the broader vicinity of the oppidum.

settlement – oppidum hinterland – excarnation – roads – ford – La Tène period – radiocarbon dating

Článek představuje nálezový soubor z polozemnice v Nižboru, ležící naproti oppidu Stradonice na druhém břehu řeky Berounky. Nálezy z polozemnice, které svědčí o její současnosti s jednou z fází osídlení na oppidu v mladší době laténské, tvořily kromě běžných sídlištních nálezů keramiky a zvířecích kostí také kosterní pozůstatky staršího muže. Jde tedy o pramen ke studiu exkarnace, resp. zacházení s těly zemřelých ve středoevropské mladší době laténské po ukončení pohřbívání na tzv. plochých pohřebištích. Radiokarbonové datování lidských i zvířecích kostí významně přispívá k řešení chronologie doprovodného nálezového souboru, zejména malované keramiky v Čechách. Poloha lokality u pravděpodobného brodu přes Berounku tvoří výchozí bod pro rekonstrukci cest v širším okolí oppida.

sídliště – zázemí oppida – exkarnace – cesty – brod – doba laténská – radiokarbonové datování

Introduction

Although the study of the hinterland of oppida in Bohemia has revived more attention in recent years (Kosoř site: *Venclová – Danielisová 2020* with refs.), the demand for quality data on this topic remains high. As such, this article presents another find assemblage as a contribution to the study of this issue. The work addresses not only the relationship between the population inside and outside the oppidum, but also serves as a basis for the reconstruction of the treatment of the bodies of the deceased after the end of burials at 'flat cemeteries' in the La Tène period, and for the reconstruction of fords and roads. The focus of the article is a previously unpublished find of a Late La Tène sunken hut from Nižbor

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in close proximity to the Stradonice oppidum. The find is significant for its location across the Berounka River directly opposite the oppidum at a likely ford to which a network of roads was connected, for its contemporaneity with a certain phase of the existence of the oppidum and the presence of human remains inside the hut.

The study based on the assemblage of finds from the sunken hut classifies the feature and movable artefacts and evaluates them from the perspective of relative chronology using a comparison with contemporaneous find assemblages in La Tène Europe. Osteological finds are analysed and radiocarbon dates from human and animal bones are used to establish the absolute chronology. All data are used to characterise the La Tène activities carried out at the site with regard to its position in the landscape, with special attention being paid to the interpretation of the deposition of human remains based on data from Czech and European settlement contexts. Hydrology, geology, and historical sources are used to evaluate possible routes using the ford across the Berounka River between the Nižbor site and the Stradonice oppidum. Subsequently, the network of potential communication corridors is reconstructed using the Cumulative Focal Mobility Network (CFMN) analysis based on data from the Archaeological Map of the Czech Republic (AMCR).

The La Tène period settlement site at Nižbor

The site is located in the village of Nižbor (Beroun district) in Central Bohemia. It lies on the left bank of the Berounka River at the portal of the Novohuťský bridge between the Berounská road and the Beroun–Rakovník railway line on parcel no. 506/2, besides building parcel no. 423/2 (50.0024000N, 14.0033136E; *Fig. 1*). It is located across from the Stradonice oppidum on the opposite side of the river at an elevation of 240 m above sea level. The excavations started by accidental find. On 9 February 1982, school children found human bones in a trench for a gas line running to the local glass factory, which their teacher Jana Leopoldová reported to the museum in Beroun. Václav Matoušek, an archaeologist at this museum, visited the site that same day, took over the finds, stated that the trench for the gas line had disturbed a sunken feature, and had the soil covering this feature removed. The next day, on 10 February 1982, he uncovered the eastern part of the feature. Due to the difficult conditions (the frozen ground had to be thawed), he could only document the situation and collect immediately threatened finds, especially human bones, visible in the wall of the trench. The gas line trench destroyed a large part of the feature, and the excavated soil was removed from the site, making it impossible to retrieve any other possible finds from it. On 23 March 1982, V. Matoušek and N. Venclová investigated the remaining western part of the feature (*Venclová 1982*; *Matoušek – Venclová 1985*).

Description of feature

The incomplete southern half of the sunken hut with a rectangular floor plan was preserved (*Fig. 2*). It had a flat bottom, slanted to nearly vertical walls, a posthole along the west wall, and another hole in the western half near the longer axis of the hut. The east wall of the hut was not preserved. Orientation of the longer axis was WWS–EEN. Two accumulations of human bones were discovered roughly in the middle part of the feature. The subsoil at the site was yellow to yellowish-brown gravel-sand (Berounka River terrace);

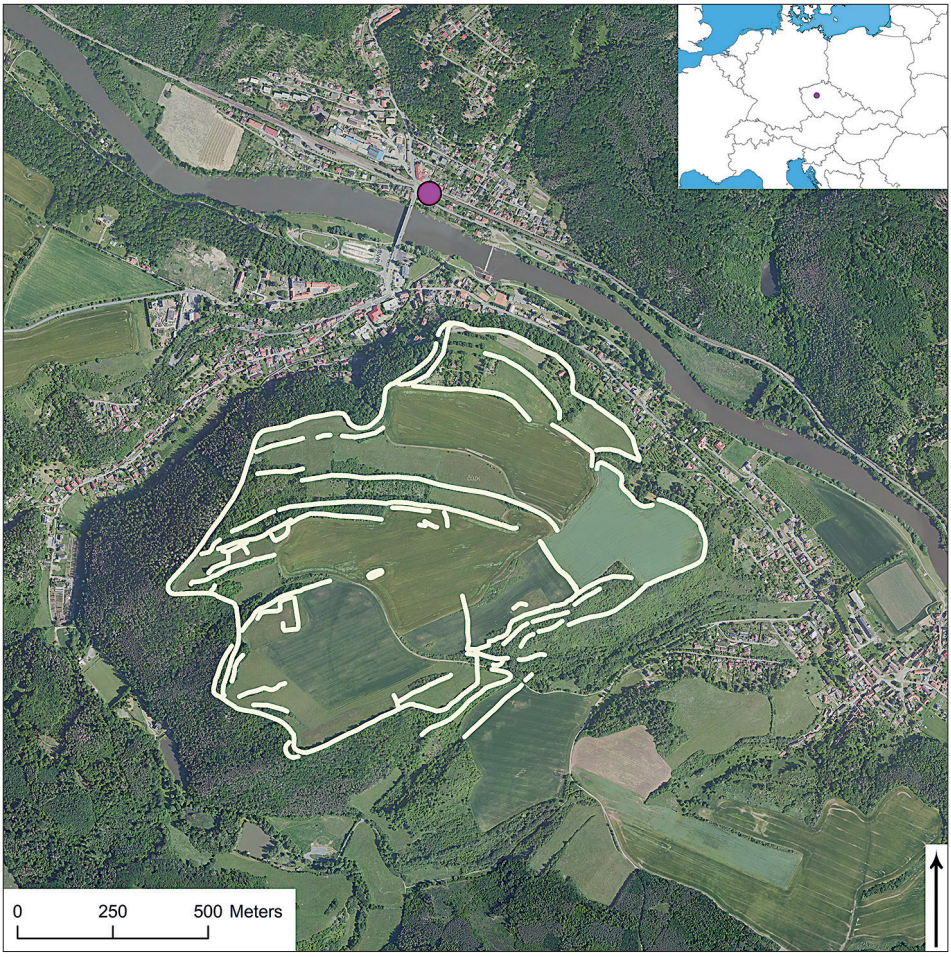

Fig. 1. Location of Nižbor site (violet) and Stradonice oppidum with its fortifications (white). Stradonice fortifications after *Kuna et al. 2014*.

the feature fill was brown sandy soil with stones. The maximal preserved length was 310 cm and depth 40–50 cm; the posthole had diameter of 54 cm at the mouth, 30 cm at the bottom, and was 30 cm deep. Estimate of original dimensions of feature is ca. 340 × 220 cm. Finds consist of pottery, human bones, and animal bones. Pottery is held in the Museum of Bohemian Karst in Beroun, anthropological material in the National Museum in Prague, and osteological material in the Institute of Archaeology in Prague.

Pottery description

The assemblage contains only 41 pottery fragments. Such a small number is perhaps the result of the incomplete preservation of the feature and the removal of most of the fill prior to the arrival of the archaeologist. Moreover, between the first and second phase of

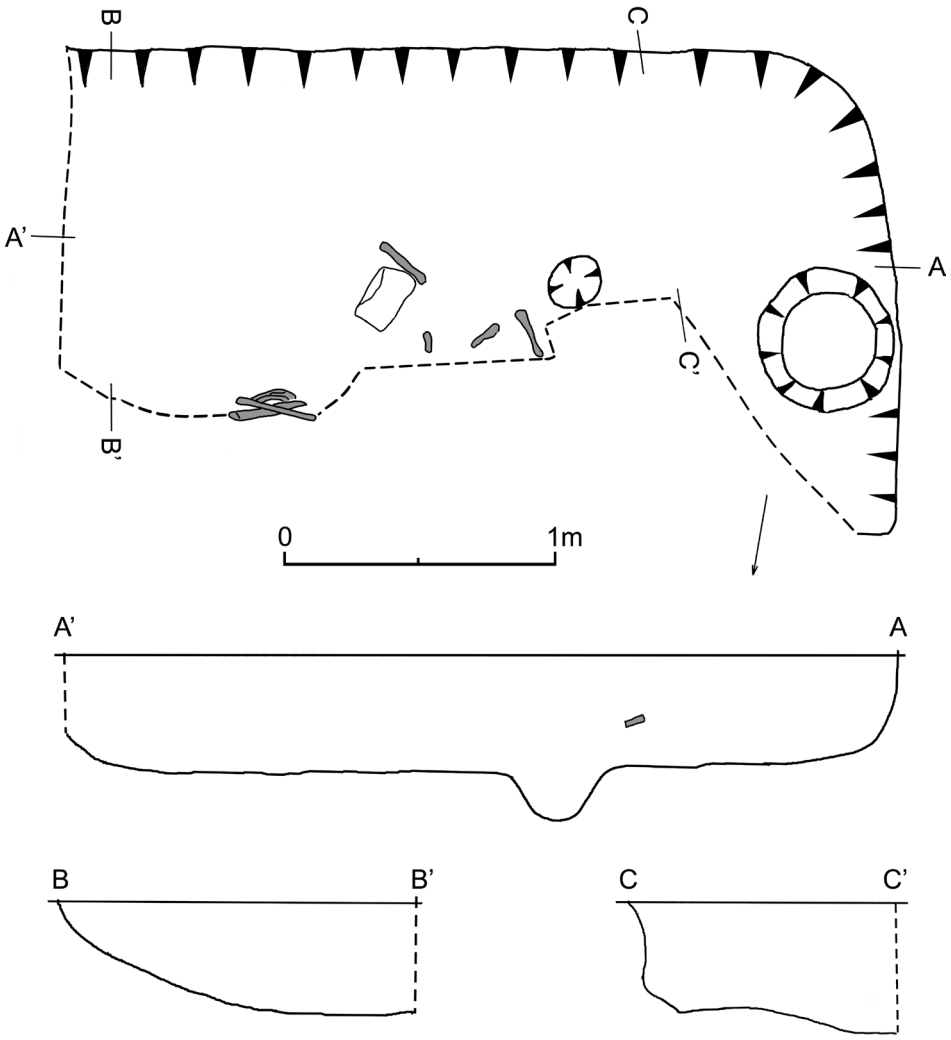

Fig. 2. Nižbor. Sunken hut excavated in 1982 (contents V. Matoušek and N. Venclová, graphics E. Čepeláková).

the excavation, the remaining uninvestigated part of the feature was freely accessible, thus raising the possibility that passers-by carried some artefacts away.

As the small potsherd count renders a statistical evaluation of the assemblage meaningless, it is necessary to work only with the presence/absence of individual pottery characteristics (*Tab. 1*). The assemblage contains fine wheel-turned pottery, wheel-finished pottery with a sandy fabric, one graphite fragment, and the remaining potsherds are from hand-formed pottery with a coarse fabric. Pottery forms include storage vessels, shouldered pots with curved neck, S-profiled bowls, and neckless bowls with slightly rounded profile. Grated surface was recorded in several cases, as was a grainy surface and tooled surface. The most remarkable decoration is painting accompanied by incised wavy line, and black

Context	No.	Pcs	Technique	Fabric	Form	Base	Surface	Decoration
9.-10.2.1982	1	2	1	1-fine	212		1-polished	302-painting 7-incision
hut-E part	2	1	1	1-fine	212		1-polished	
	3	1	3	5-coarse	120		2-smooth	
	4	1	3	5-coarse	130		2-smooth	201-black coating
	5	1	3	4-sandy	714		3-roughly smoothed	
	6	1	2	4-sandy	232		7-grated	201-black coating
	7	1	2	4-sandy			7-grated	
	8	1	3	5-coarse			2-smooth	201-black coating
	9	1	3	5-coarse			3-roughly smoothed	6-coarse combing
	10	1	2	4-sandy			83-grainy	
	11	1	2	9-graphite			2-smooth	
	12	6	3	5-coarse			2-smooth	
	13	2	3	5-coarse		1-flat	2-smooth	
	14	1	1	2-fine-grained			1-polished	201-black coating
23.03.1982	15	1	1	2-fine-grained	232		1-polished	
hut-W part	16	1	1	2-fine-grained			1-polished	
	17	1	2	4-sandy	222		83-grainy	
	18	1	2	4-sandy	232		7-grated	
	19	1	3	5-coarse	714		2-smooth	
	20	1	3	5-coarse	714		4-uneven	
	21	1	3	5-coarse	130		3-roughly smoothed	
	22	1	2	4-sandy	231		7-grated	
	23	4	2	4-sandy			7-grated	
	24	1	3	4-sandy			2-smooth	201-black coating
	25	1	2	4-sandy			83-grainy	
	26	2	3	5-coarse			11-tooled	
	27	3	3	5-coarse			2-smooth	
	28	1	3	5-coarse		1-flat	2-smooth	

Tab. 1. Nižbor. Pottery description (categories after *Venclová 1998*, 345–348, fig. 49–54). Technique: 1 – wheel-turned; 2 – wheel-finished; 3 – hand-made. Form: 120, 130 – storage jars; 212 – neckless pot, slightly rounded; 222 – S-profiled pot; 231, 232 – bipartite shouldered pots with curved neck; 714 – neckless bowl, slightly rounded. Numbers correspond to *Fig. 3* and *Fig. 4*.

coating, which appeared on several sherds. A round disk with a completed perforation but with unfinished edges was cut from a potsherd of a fine wheel-turned vessel (*Fig. 3*; *Fig. 4*).

Anthropological assemblage

The assemblage of human bones was found in two accumulations – one by a large stone roughly in the central part of the sunken hut, the other near the northern preserved edge

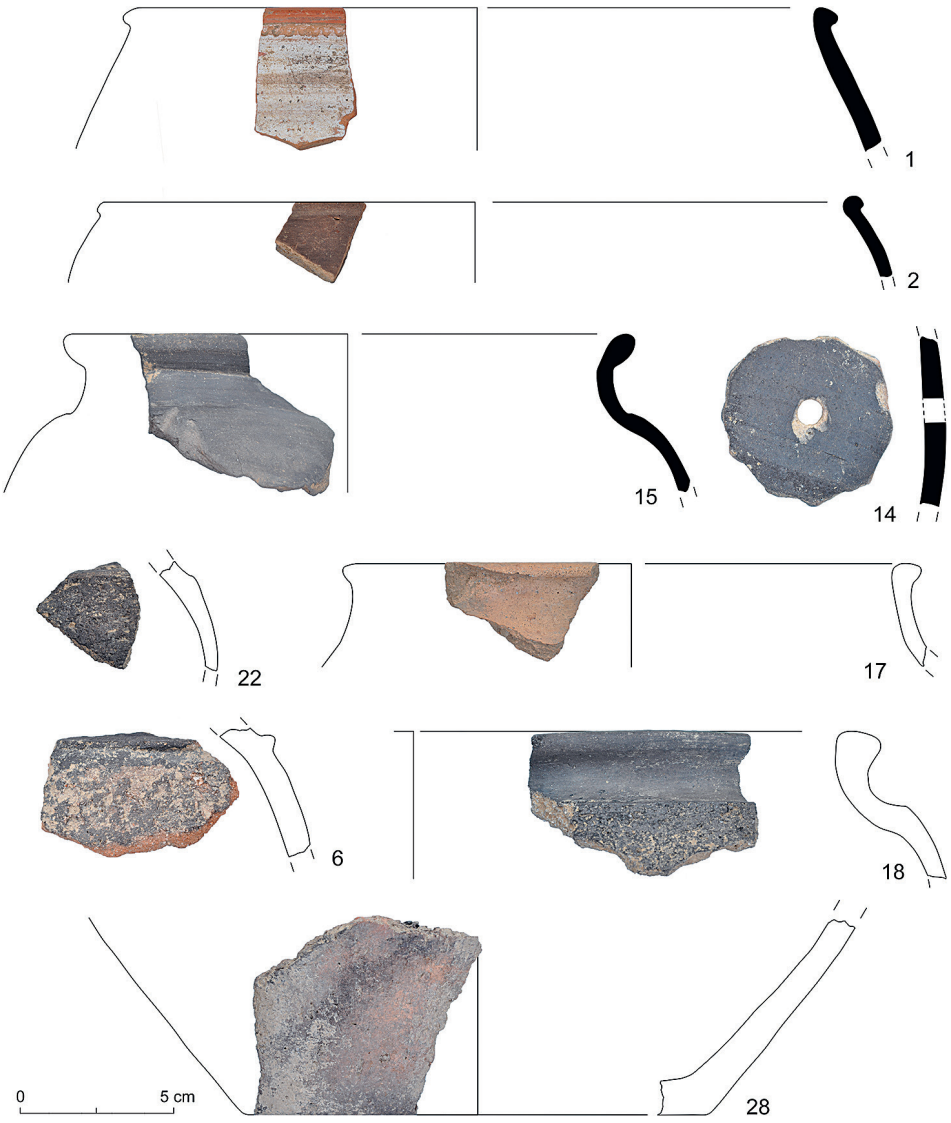

Fig. 3. Nižbor. Pottery (drawing and photo T. Jošková).

of the feature, in the wall of the gas line trench (*Fig. 5*). Other bones were apparently destroyed during the digging of the trench. The bones mostly laid on the bottom of the hut, though a few were found in the lower part of its fill. The anthropological evaluation of the bones was undertaken by *Chochol* (*1982*).

Bone finds are composed of one free tooth (second upper incisor from the left side), fragments of several ribs, the left clavicle and scapula, the humerus, the radius and ulna from the left arm, the sacrum, the left pelvic bone, both femurs, and the metatarsal of the big toe on the right foot. The assemblage did not include the skull or any of its fragments.

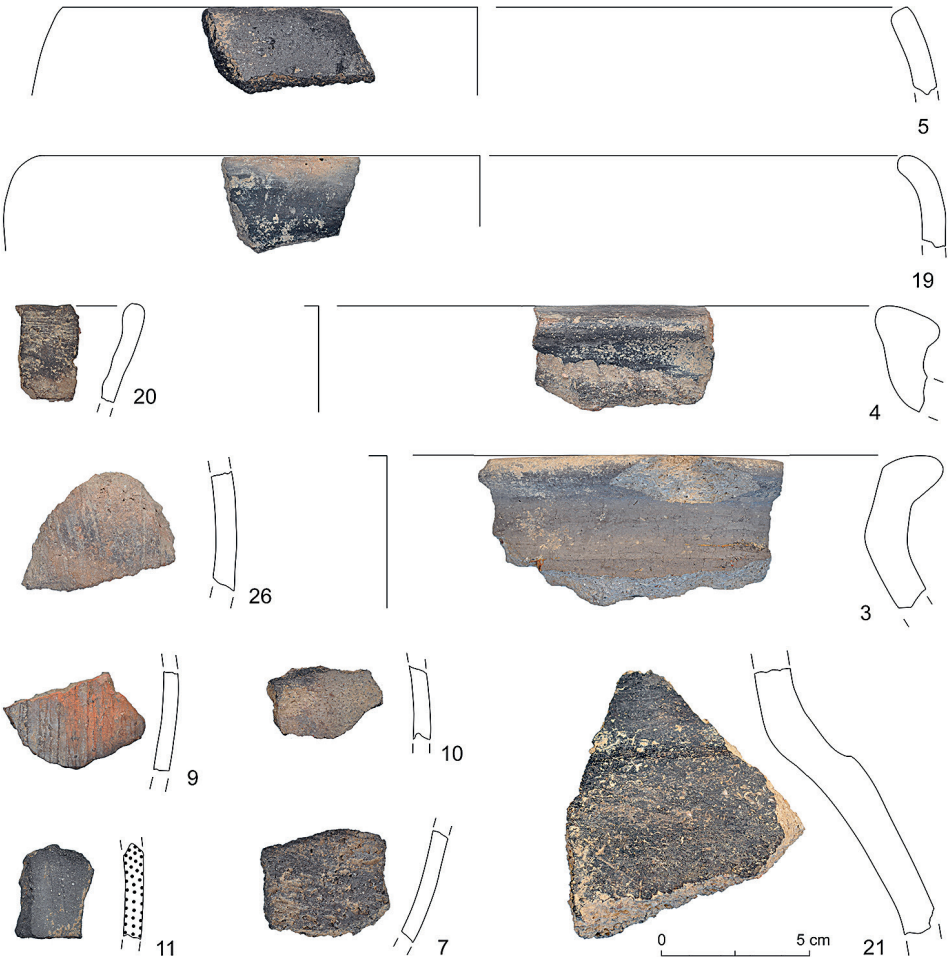

Fig. 4. Nižbor. Pottery (drawing and photo T. Jošková).

The bones are relatively gracile, with heads up to medium in size and distinctively modelled by the well-developed relief of muscle attachments. The remarkable intensity of the functional load is also attested by the exceptionally developed attachment edges on the humerus, the femur, the third trochanter, *crista iliaca*, and *adductor tubercle*. All of the bones bear marks of moderately advanced decalcification; the articular surfaces are bounded by an arthritic border. According to measurement results, the femurs are hyperplatymeric (index 68.1); body height was calculated at 160.7 cm as subaverage. Traces of possible violence were not detected on the preserved bones.

As such, these are bones belonging to the skeleton of a man who died at a higher age (maturus II, 50–60 years old), was relatively slim, short and quite small, but with a very muscular build. Partial bone and muscular atrophy (perhaps even a joint inflammatory process) set in at an advanced age. The bones are held today in the Anthropological Depository of the National Museum in Prague (inv. no. Ao 8349).

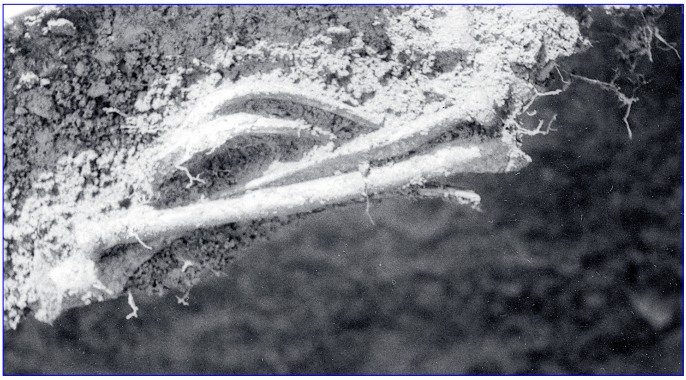

Fig. 5. Nižbor. Accumulation of human bones in the sunken hut (photo V. Matoušek).

Animal bones

The assemblage of animal bones was originally determined by *Peške* (*1982*), and *Kyselý* (*2024*) performed a detailed determination (see *Online Supplementary Material 1*).

The small assemblage collected manually from the analysed feature comprises 65 bones, 25 of which can be more precisely taxonomically determined. It certainly represents only a small part of the bone waste originally produced, but it is nevertheless a valuable source of information. In addition to sampling for radiocarbon dating (see below), the assemblage was evaluated using traditional two quantification methods to provide a taxonomic and anatomical determination (*Tab. 2*). At least six animal species were present in the assemblage: horse (*Equus caballus*), cattle (*Bos taurus*), goat (*Capra hircus*), pig (*Sus domesticus*), red deer (*Cervus elaphus*) and an undetermined bird.

Finds of three anatomically varied horse bones are interesting and probably come from adult individuals (or individual), with a proximal phalanx (*phalanx proximalis*) bearing a cut and chopping (*Fig. 6*; *Tab. 2*). These marks document the processing of the horse body, though not necessarily for food purposes. The horse documented at Nižbor was small (measurements of bones in *Online Supplementary Material 1*), which is consistent with horse size in the given period (*Peške 1994*; *Kyselý – Peške 2022*). A mandible of a small ruminant featuring an unusual morphology of the third molar was identified as belonging to an adult goat (*Fig. 7*). Goats are not frequently identified in La Tène assemblages in the Czech Republic, and Central Europe generally (see e.g. *Beech 1995*; *Kyselý 2002*; *Saliari – Trebsche 2023*). The well-known difficulty in discerning between sheep and goat is only a minor factor in their low numbers. The only evidence of wild animals in the assemblage was a fragment of pelvis, a fragment of metapodium, and part of a fragmented (perhaps lengthwise chopped) distal part of the radius of an adult deer. The presence of the proximal bones of legs points to hunting, while the large deer pelvis suggests the catch of an adult male. Birds are represented by three bone fragments of juvenile individuals (or individual) of an unspecified species, all corresponding in size to domestic fowl. Other categories of animals (e.g. dog or fish) are not documented at all. In contrast to the bones of juvenile birds, mammal bones belong to adult or subadult individuals. This applies to horse, cattle, sheep/goat and pig, and does not indicate a selective supply of more culinary interesting juvenile animals or parts of their bodies (see e.g., mandibles of adult goat and pig; *Fig. 7*; *Online Supplementary Material 1*).

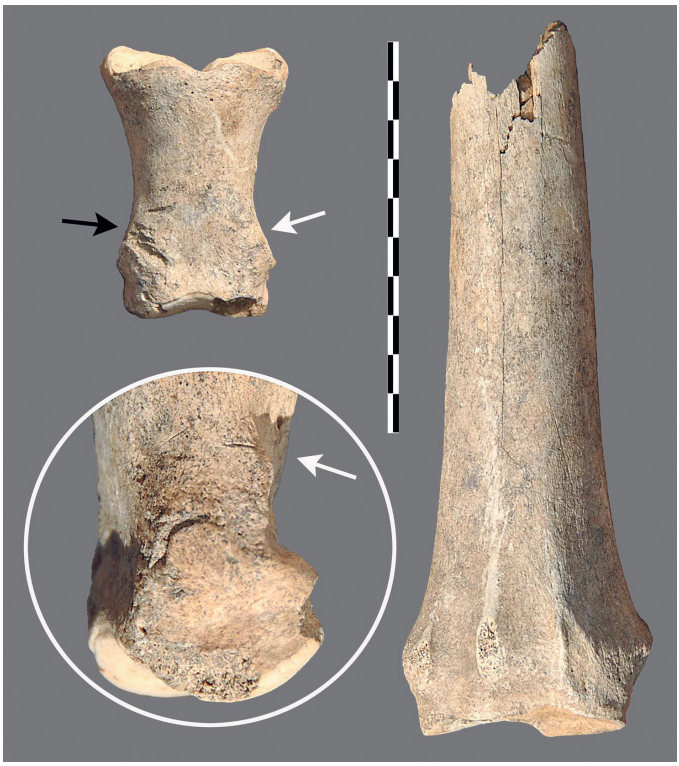

Fig. 6. Nižbor. Horse (*Equus caballus*) bones. Right – radius; left – proximal phalanx with chops (black arrow) and two cuts from the lateral side (white arrow and detail in circle) (scale: 1 unit = 1 cm; photo R. Kyselý).

Fig. 7. Nižbor. Find determined as right mandible of goat (*Capra hircus*). Above – lateral aspect, below – view of the occlusal surfaces of teeth of the same mandible (see morphology of third molar) (scale: 1 unit = 1 cm; photo R. Kyselý).

While the overly small assemblage does not allow to reconstruct the subsistence strategy of local inhabitants reliably, we can state that the determined taxonomic composition is in agreement with the spectrum known from other Late La Tène collections, including the Stradonice oppidum itself. At Stradonice (*Kyselý 2012*) as well as Radovesice (*Peške 1993*), Mšecké Žehrovice (*Beech 1998*), Závist (*Čižmář 1989*; *Motyková et al. 1990*),

	Incisivus inferior	*Molar 2 superior*	*Costa*	*Os incisivum*	*Maxilla*	*Mandibula*	*Metapodium*	*Radius*	*Radius + ulna*	*Metacarpus*	*Pelvis*	*Femur*	*Tibia*	*Talus*	*Metatarsus*	*Tarsometatarsus*	*Phalanx I*	*Indet.*	Σ
	number of finds (NISP, N)																		
Equus caballus			1					1									1		**3**
Bos taurus				1	1			1		1			1	1	2				**8**
Ovis/Capra	1	1	2	1				1					1		1				**8**
Sus domesticus						1											1		**2**
Cervus elaphus							1		1		1								**3**
Capra hircus						1													**1**
Unspecified mammal																		24	**24**
Unspecified bird								1				1				1			**3**
Medium mammal			2															1	**3**
Large mammal															1			9	**10**
	weight [g]																		
Equus caballus			47					120									37		**204**
Bos taurus				16	7			25		23			22	45	90				**227**
Ovis/Capra	1	4	4	1				6					9		9				**34**
Sus domesticus						76											5		**82**
Cervus elaphus							9		51		139								**199**
Capra hircus						56													**56**
Unspecified mammal																		24	**24**
Unspecified bird								1				1				1			**3**
Medium mammal			9															8	**17**
Large mammal															9			42	**50**

Tab. 2. Nižbor. Taxonomic and anatomical determination of animal bones and their quantification according to number of finds (NISP, N) and weight.

southwest Bohemia (*Kyselý 2004*), Moravia (*Čižmář – Čižmářová 2013*, 188–189), and elsewhere in the Czech Republic and neighbouring regions (e.g. *Saliari – Trebsche 2023*), hunting was merely a supplemental component. Bones from cattle, pig and sheep/goat are the most numerous. Horse could have had a combined function – its occurrence is quite variable in the La Tène period. Generally, it is represented regularly, albeit usually at a lower percentage than cattle, pig, and sheep/goat. In this sense, the Nižbor assemblage is not exceptional.

The analysis offers no indication that the local residents had a subsistence strategy that differed from the standard at that time, i.e. they were not dependent on hunting, did not have supply of 'better cuts of meat', and were not strongly supported by horses or dogs.

Chronology of the find assemblage

Relative chronology

The only type of find that can be used to establish the relative chronology of the assemblage are sherds of ceramic vessels. All of the characteristics of the pottery assemblage from Nižbor, i.e. the sandy fabric of wheel-finished strongly profiled pots with grated or a grainy surface, storage vessels with characteristic rims and a black coating belong to the later phase of the La Tène period, or in general to LT C2–D1 (*Venclová et al. 2013*, 104–107; *Venclová – Danielisová 2020*; LT D chronological system as used by *Danielisová 2020*). This dating is not challenged even by a perforated disk cut from a potsherd of a wheel-turned vessel, which has numerous parallels at La Tène settlements from the LT C–D1 period (*Venclová et al. 2013*, 63, with refs.).

Painted pottery deserves closer attention. Two fragments of one wheel-turned, neckless vessel with a slightly thickened rim from brick-red fine material with a grey core have been preserved. The rim is painted in red, while below it and on the shoulders the surface is covered with white paint into which a small wavy line is incised or rather scratched (*Fig. 8*).

The shape of the vessel is not clearly determinable, as the slight curvature of the body allows it to be reconstructed either as a beaker or as a deep bowl/terrine. A remarkable feature of the Nižbor vessel is the incised wavy line below the rim, an element already observed by *Píč* (*1903*, 88, tab. XLIX: 7) in the assemblage of painted vessels from the Stradonice oppidum. *Břeň* (*1966*, 88–89; *1973*, 111) described the engraved wavy line just below the rim of painted beakers or bowls, as well as bottle or vase forms, as typical for Bohemia and Moravia. The heavy occurrence of parallels to the Nižbor vessel at Stradonice, both of a beaker and globular form, was confirmed by the analysis of finds from A. Stocký's excavation from 1929 as well as from older assemblages from the site (*Venclová – Valentová 2012*, 61, obr. 109; *Valentová 2013*, 43, tab. 14–23). Only isolated finds of neckless painted vessels with an incised wavy line or without it have been found in Bohemia away from Stradonice and also at Staré Hradisko and elsewhere in Moravia (*Jansová 1963*, 338, obr. 3: 1; *Meduna 1980*, 98–99; *Ženožičková 2009*, 38; *Venclová – Valentová 2012*, 60; *Valentová 2013*, 43–44; *Čižmář 2015*, obr. 11: 6). In the case of a single painted vessel with an incised wavy line from Manching (*Maier 1970*, 38, č. 792), *Cumberpatch* (*1993*, 80) did not rule out its origin in Bohemia.

Maier (*1970*, 9, 37–38, 101–103) designated painted vessels of a globular shape as '*bol Roanne*' after pottery from the Roanne site in Auvergne, France. Globular bowls occur at the site from horizon 5, i.e. in 40–30 BC (*Lavendhomme – Guichard 1997*, 146, 154, 204) and they were produced there and elsewhere in Gaul until the beginning of the 3rd century AD (*Grand 1995*, 178–179). The term was adopted especially in Czech literature for a type of vessel from the very end of the Late La Tène period, or the Augustan Age, to which the assumption of this late absolute dating of the respective find assemblages was also adapted (*Meduna 1980*, 98–99; *Drda 1981*, 206). In the meantime, however, the absolute dating of the end of the La Tène period (the end of LT D1 phase) shifted back substantially to roughly 50 BC (*Danielisová 2020*, 113–117, with refs.), i.e. before the Augustan Age. In Central Europe, vessels of this type (painted globular bowls) have been regarded as a very late element and were placed in LT D or not earlier than

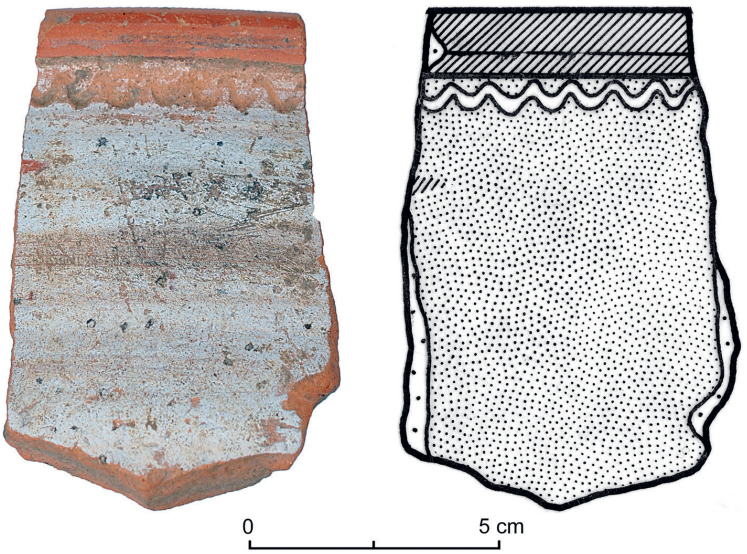

Fig. 8. Nižbor. Painted pottery fragment (photo T. Jošková).

the horizon of Nauheim fibula (Stradonice, horizon 2 to 4: *Rybová – Drda 1994*, 97–99, 131–132).

However, *Maier* (*1970*, 106) already expressed reservations about the exclusively late dating of '*bol Roanne*' vessels, assuming, based on La Tène finds from Manching, that some variants of this form could be the predecessors of classic Augustan vessels. French research also views these vessels as a continuation of the Gallic (i.e. pre-Augustan) tradition (*Mennessier-Jouannet – Deberge 2017*, 616). In Western European archaeology, the term is used exclusively for painted bowl-shaped vessels of the Gallo-Roman period and should not be applied at all to La Tène pottery, as that leads to chronological errors.

Neckless vessels with a slightly thickened rim and with red and white stripes include, though, not only hemispherical bowls, but also beaker-shaped, vase-shaped, and ovoid vessels. They appear from LT C2 and were apparently produced earlier than bowl-shaped and terrine-shaped forms (e.g. *Guichard et al. 1991*, 217, fig. 6: 3; *Kaenel 1991*, 242–243; *Mennessier-Jouannet – Deberge 2017*, 252–253). The incised wavy line below the rim (as it appears on the vessel from Nižbor) is found in the Stradonice assemblage on bowls (refs. above) as well as on pots, beakers and bottles, or on vessels of an undetermined form (*Břeň 1973*, tab. VI: 1–6; *Venclová – Valentová 2012*, obr. 54: 587291; *Valentová 2013*, 44–45, e.g. tab. 14: 104580; tab. 15: 104584, 104590). A slightly thickened rim and neckless body also characterise the painted '*gedrungene Tonnen*' in the Manching assemblage (*Maier 1970*, 31). This suggests that small fragments of such vessels cannot be labelled unconditionally as globular bowls, which, for that matter, also applies to the painted vessel from Nižbor.

La Tène style pottery painted red and white, mostly in bands, appears in well-dated Western European contexts rarely in LT C1, i.e. in the second half of the 3rd century BC (*Mennessier-Jouannet – Deberge 2017*, 252–253, 267–268), in large numbers in LT C2, i.e. in the first half of the 2nd century BC (*Kaenel 1991*, 242–243; *Loughton 2005*, 156; *Deberge et al. 2007*, 173, 197) and subsequently in LT D. This also applies to Central

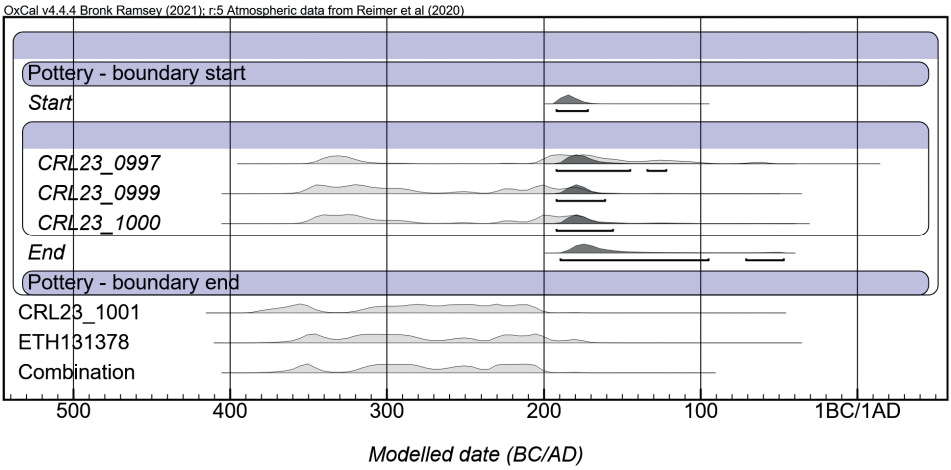

Fig. 9. Nižbor. Model setting and probability distributions for the start and end of the site. Modelled in OxCal v4.4 using the IntCal20 calibration curve (*Bronk Ramsey 2009*; *Reimer et al. 2020*).

Europe, where it is present in settlement assemblages dated to LT C2–D1, e.g. at the Manching oppidum (*Geilenbrügge 1992*, 104–107, 120–121) and other oppida and settlements (*Venclová – Valentová 2012*; *Valentová 2013*), and also to Southeast Europe (*Dragan 2014*). This dating also fits the painted vessel and the entire pottery assemblage from the sunken hut in Nižbor, where the beginning is considered to be in the LT C2 phase, i.e. shortly after 200 BC according to the current assumptions (*Danielisová 2020*, 116, tab. 2; *Wimmer 2022*). In summary, painted neckless vessels previously labelled '*bol Roanne*' were produced in La Tène Europe during the Late La Tène period and can be regarded as predecessors and models for Augustan Age vessels, as was also the case with bottle-shaped and vase-shaped forms. The variant with an incised wavy line below the rim seems to be a local product whose origin can possibly be assumed at the Stradonice oppidum.

Absolute chronology

Human rib and three herbivore bones (*Tab. 3*) excavated in the hut were used for radiocarbon dating. Graphitised samples of bone collagen were measured at the Czech Radiocarbon Laboratory (CRL) using the accelerator mass spectrometer MILEA (*Kučera et al. 2022*). A control measurement of the same human bone sample was performed at the ETH Zurich laboratory (*Tab. 3*). The program OxCal 4.4 along with the IntCal20 calibration curve for terrestrial samples of the Northern Hemisphere were used to determine the age of samples and modelling (*Bronk Ramsey 2009*; *Reimer et al. 2020*).

The very broad resulting intervals (*Fig. 9*, light grey) are a consequence of the plateau on the radiocarbon calibration curve. According to the archaeological analysis, the La Tène pottery found with the sampled bones can be dated to the first half of the 2nd century BC (see above). This refinement significantly narrows the dating intervals of all three animal bones (*Fig. 9*, dark grey; *Tab. 3*) to ca. 190–150 cal BC.

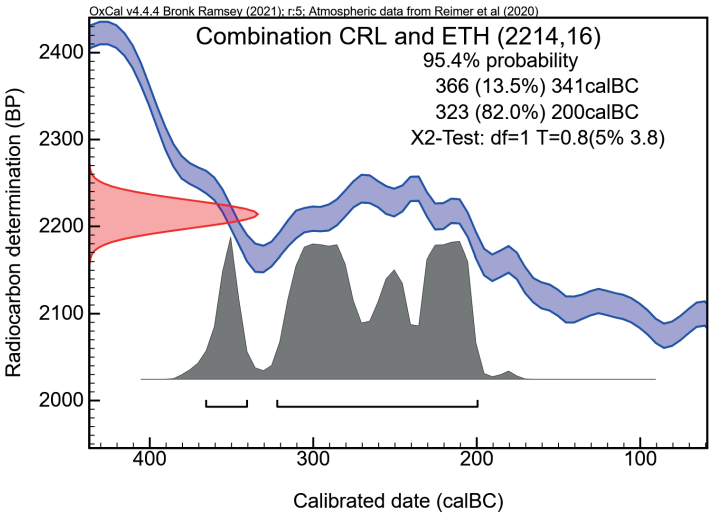

Fig. 10. Nižbor. The combination of radiocarbon measurements from the same human bone obtained at the CRL and ETH Zurich laboratories. Calibrated in OxCal v4.4 using the IntCal20 calibration curve (*Bronk Ramsey 2009*; *Reimer et al. 2020*).

The combination of measurements from the same human bone (*Fig. 10*) obtained in two independent laboratories falls on the very upper limit of the modelled posterior distribution of animal bones; the measurement from ETH Zurich overlaps, but this overlap is not statistically significant. The minimum difference between the radiocarbon dating on the 95% probability level and the lower limit for the pottery chronology (ca. 190 BC without considering uncertainty of the lower limit estimation) is 0 years for the ETH measurement, 10 years for the CRL measurement, and 8 years for the combined measurements. Given the estimated age of the individual (50–60 years), regeneration of bone collagen was already very slow (*Ubelaker et al. 2015*; *Handlos et al. 2018*) and thus the collagen may have appeared to be approximately 25 or more years older than the death of the individual. The overlap in the dating of the individual and the pottery is possible.

Because the site is located on the banks of the Berounka River, freshwater sources might form a significant portion of the inhabitants' diet. Therefore, the freshwater reservoir effect (FRE; *Bíšková et al. 2023*, 48–49) must be considered when dating human bones. FRE causes a decrease in ^{14}C activity and leads to an apparent increase in sample age, e.g. due to an admixture of fossil carbon originating from carbonates dissolved in the water. Fossil carbon is assimilated by aquatic organisms and further transferred within the food chain (*Olsen et al. 2010*; *Philippsen 2013*). The local influence of the FRE for archaeological samples can be calculated as the difference of ^{14}C activities of the remains of herbivores with samples of fauna that (also within the food chain) could incorporate fossil carbonates into their tissues (*Svyatko et al.* 2022; *Bíšková et al. 2023*, 48). The difference, so-called freshwater reservoir offset (FRO), between the herbivores and combined human radiocarbon dates was $\Delta FRO = 65 \pm 26$ (CRL-23_0997), $\Delta FRO = 31 \pm 26$ (CRL-23_0999), and $\Delta FRO = 42 \pm 26$ (CRL-23_1000). Assuming only that the sheep/goat (CRL-23_0997) and human died at the same time, the ΔFRO result indicates the presence of FRE, which cannot be validated based on the finding situation. FRE was not proven when comparing the man to the other two herbivores. The results of the stable isotope study of C and N do not imply that the man consumed more freshwater fauna.

Sample	Lab code	Radiocarbon age (BP)	Calibrated age (95% probability)	Modelled posterior interval (95% probability)
bone, *Capra/Ovis, metatarsus dextra*	CRL-23_0997	2149 ± 21	351–57 BC	193–123 BC
bone, *Bos taurus, radius sinistra*	CRL-23_0999	2183 ± 21	359–167 BC	193–162 BC
bone, *Equus caballus, radius dextra*	CRL-23_1000	2172 ± 21	356–124 BC	193–157 BC
bone, *Homo sapiens, costa*	CRL-23_1001	2227 ± 21	380–203 BC	
	ETH-131378	2199 ± 22	361–176 BC	
	Combination	2214 ± 16	366–200 BC	

Tab. 3. Nižbor. Radiocarbon measurements from bones. Calibrated in OxCal 4.4 software using IntCal20 (*Bronk Ramsey 2009*; *Reimer et al. 2020*).

Determination of $\delta^{13}C$ and $\delta^{15}N$ stable isotope ratios (IRMS) from human and three herbivore bones was performed in the CRL laboratory (*Tab. 4*; *Fig. 11*). The isotope values of herbivores from Nižbor (N = 3, $\delta^{13}C$ = -21.03 ± 0.7‰; $\delta^{15}N$ = 5.32 ± 1.4‰; *Tab. 4*) correspond to the fact that the animals were fed C3 plants and are within the variability of faunal isotopic signals from other studies in the Czech Republic (*Le Huray – Schutkowski 2005*; *Drtikolová Kaupová 2023*). The $\delta^{13}C$ values of the human individual do not indicate increased consumption of meat or freshwater food ($\delta^{13}C$ = -18.37‰; $\delta^{15}N$ = 8.52‰). The average difference between the values of the human and the fauna group was 2.7‰ for $\Delta^{13}C$ and 3.2‰ for $\Delta^{15}N$.

Sample	Lab code	δ13C	δ15 N	%C	%N	C/N
bone, *Capra/Ovis*	CRL-23_0997	-20.61	4.45	38.42%	15.07%	2.97
bone, *Bos taurus*	CRL-23_0999	-20.43	7.4	38.28%	15.32%	2.92
bone, *Equus caballus*	CRL-23_1000	-22.04	4.11	36.69%	13.90%	3.08
bone, *Homo sapiens*	CRL-23_1001	-18.37	8.52	37.91%	14.23%	3.11

Tab. 4. Nižbor. Results of measuring contents of stable isotopes C and N.

Published data from the La Tène sites of Kutná Hora–Karlov and Radovesice were used for the comparison of $\delta^{13}C/\delta^{15}N$ values (*Le Huray – Schutkowski 2005*). The man from Nižbor belongs to the more poorly nourished segment of the population, his values are even among the lowest of the entire comparative group (N = 88; *Fig. 11*).

Settlement activities at the site

The only feature found is a rectangular sunken hut with a posthole in the middle of the shorter wall, or on the longer axis of the feature. This is a common type of settlement feature occurring frequently at LT B–D settlements (*Venclová et al. 2013*, 49–52, with refs.). According to the vessel sherds in the fill, activities related to the preparation, consumption

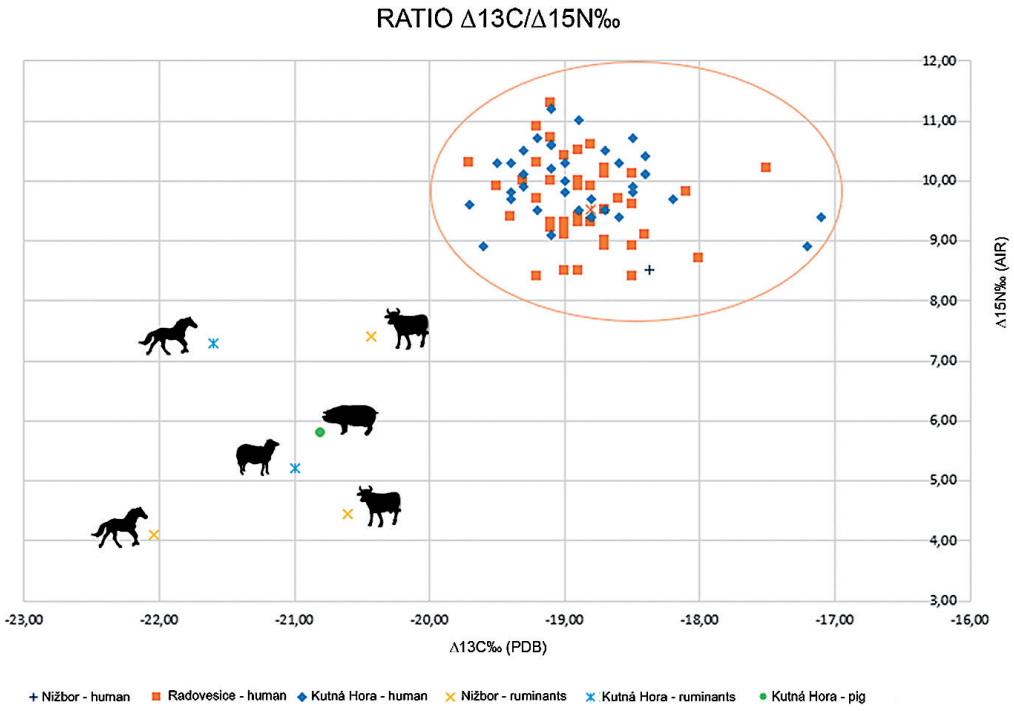

Fig. 11. Comparison of isotope values of C and N in humans and fauna from Nižbor and other La Tène sites in the Czech Republic (after *Le Huray – Schutkowski 2005*).

and storage of food (kitchen, table and storage pottery) occurred in the local settlement area. Another activity is the production of textiles, or spinning, as shown by a spindle whorl made from a potsherd. Animal bones can be considered the remains of meat consumption, but also of other activities (bone and skin processing). They suggest the cattle, pig, and sheep/goat husbandry occasionally accompanied by hunting (red deer). Horses, as well as other documented domesticates, are regularly present in the given period. Bone finds did not suggest anything other than a normal diet. As the feature fill was not subjected to flotation, botanical macroremains as primary evidence of crop cultivation were not identified. Cambisols with low production potential (with only 20 of 100 points on the productivity scale; *BPEJ Catalogue*) occur in the vicinity of the site.

Striking at first glance is the location of the sunken hut on the bank of the Berounka River opposite Hradiště Hill, i.e. across the river from the Stradonice oppidum, with both sites being in view of the other. The distance of the hut from today's river bank is ca. 50 m, from gate C in the northern rampart of the oppidum ca. 350 m, and 970 m from the highest point of the oppidum (elevation 380 m above sea level). Unfortunately, the Nižbor sunken hut is the only feature known from the site and no other La Tène finds were recorded there. We do not know if the sunken hut was a single, isolated feature (with a specific function?) or if it was part of a settlement. The dating of the finds documents the contemporaneity of the Nižbor feature with the early phase of occupation at the oppidum, which occurred during LT C2 (*Rybová – Drda 1994*; *Danielisová 2020*).

Deposition of human skeletal remains

A completely different, non-profane type of activity at the site is undoubtedly demonstrated by the parts of the human skeleton in the Nižbor sunken hut. The bones were found at the bottom of the sunken hut, with single bones in the lower part of the fill, in two accumulations. One of them was a non-random cluster of long bones and ribs (*Fig. 5*), which indicates the intentional deposition of (selected) dry bones. As the bones were heavily disturbed, or partially destroyed by the digging of the gas trench, it is impossible to determine with certainty whether the bones of an older man without signs of violence reached the hut in their entirety or whether only part of the skeleton was deposited.

Finds of human bones are not unusual in La Tène settlement context. A great deal was learned from the results of the processing of large assemblages of human skeletal remains from the Manching oppidum (*Lange 1983*; *Hahn 1992*; *2013*). The bone composition at this site corresponds to the average population. Any injuries that were found reflected duelling rather than war battle, and no evidence of cannibalism was identified. The quantity of individual bones and their fragments in the fill of the features was interpreted as a consequence of excarnation: the dead were kept outside the oppidum and only after a period of time some bones were brought back and deposited in pits, huts or ditches. Skulls could have been buried elsewhere. This manner of handling the dead was interpreted by the authors as a multistage or secondary burial following excarnation.

The phenomenon of excarnation and multistage burial has been studied by a wide range of authors. The exposure of the deceased is thought to have taken place outside the settlement, where the bodies were left until they were reduced to dry bones, i.e. months or even years. This process need not have left any traces if the bodies were set outside on scaffolding or, on the other hand, in sheds or other covered spaces, while evidence is provided of deposition in pits (*Carr – Knüsel 1997*; *Jud 2008*, 155). An example of the latter alternative is the remains of two bodies deposited in a circular pit together with an animal skeleton and dozens of intentionally broken vessels in Nové Dvory in Bohemia (*Šumberová – Valentová 2011*). The long exposure of the bodies before subsequent cremation, followed by burial in graves, is assumed according to the situation in the Late La Tène cemetery of Lamadelaine in Luxembourg (*Metzler-Zens – Méniel 1999*, 405–409).

Finds of human bones at settlements are mostly regarded as the final phase of multistage burial, when the bones of ancestors were incorporated into profane life. Today, this interpretation is broadly accepted by researchers (*Carr – Knüsel 1997*; *Veit 2016*), who acknowledge that with the deposition of human bones at settlements, it is inappropriate to talk about extraordinary or special behaviour (*Trebsche 2013*), because this is essentially a common and proper burial rite, or a ritual norm of the late phase of the La Tène culture, the beginnings of which can already be found in the LT A phase.

Human remains in the settlement context can be divided into several groups – complete skeletons, incomplete skeletons, skulls or their parts, pelvic bones, scattered bones (single or in groups), and multiple skeletons. The skeletal remains of small children found at settlements are a separate phenomenon (*Waldhauser 2010*; *Fitzpatrick 2011*; *Trebsche 2020*, 424–438). As for adults, both parts of skeletons and whole skeletons of probably only selected people, e.g. members of the elite (*Jud 2008*, 157), or, on the contrary, foreigners, enemies or excluded persons, could be brought to the settlement (*Fitzpatrick 2011*, with refs). A close relationship between the deceased and the residents of the houses near

which their bones were deposited is not ruled out (*Jud 2008*, 158). It is thought that the bones or parts of the skeletons missing from the settlements could have been scattered on the fields as fertiliser, or as part of the cult of harvest and regeneration of life (*Carr – Knüsel 1997*; *Kaliff – Oestigaard 2004*, 99). Other interpretations – a reflection of war (conflict) events, building sacrifices, anthropophagy, etc. are certainly possible in some cases, but are neither convincing nor clearly documented (*Venclová et al. 2013*, 97–98; *Salač 2014*, 441–442).

Burials in settlement contexts are known in Czech prehistory from the Neolithic (*Rulf 1996*). Human remains from the La Tène period have been found at settlements of all types (*Salač 2014*, 441, with refs.), often in LT A. They can be deposited in storage pits, on the grates of pottery kilns or in cisterns and other features (*Rousseau 2011*; *Trebsche 2013*, 392–400; *2016*; *2020*, 424–434; *Egri – Rustoiu 2016*). In the later part of the La Tène period, from LT B, they occur in unenclosed settlement agglomerations as well as at ordinary settlements, as examples from Bohemia and Europe show (*Waldhauser 1993*, 307–315; *Čižmář 2000*; *O'Brien 2014*; *Holodňák 2015*). A detailed study of human bones at the Late La Tène settlement of Basel-Gasfabrik (*Jud 2008*) made it possible to distinguish primary deposition (intentional burial of skulls or large parts of skeletons) and secondary deposition (in the upper layers of fills). Numerous human bones come from oppida (Bohemia and Moravia: e.g. *Čižmář 1989*, 106–107; *Drda – Rybová 1997*; Manching in Bavaria: *Wendling 2019*, with refs.) and other hillforts (e.g. Danebury in Britain: *Fitzpatrick 2011*, with refs.; *O'Brien 2014*).

A special case is the deposition of human remains in ritual areas located in a settlement context. They are square enclosures surrounded by a ditch similar to grave enclosures at cemeteries (from which they are probably derived; see *Trebsche 2020*, 442, 463; *Mangel et al. 2023*), but located within La Tène settlements. They occur mainly in Central Europe from LT B1 to LT C1 (*Čižmář et al., forthcoming*). The enclosures could but need not contain graves; human bones might be deposited in ditches or sacrificial pits. An example is the settlement agglomeration of Roseldorf in Lower Austria, which provided three areas (*Kultbezirke*) with a total of seven quadrangular enclosures. Of these, at least five contained human bones usually accompanied by intentionally damaged weapons, selected animal bones, and other extraordinary finds (*Holzer 2019*; *Trebsche 2020*, 442–450). Other features of this type have been recently identified in Němčice in Moravia, where at least five quadrangular ditch enclosures were found. Investigated enclosure 525 contained two cremation graves and skull fragments, and other human bones were found in its ditch along with fragments of weapons and animal bones (*Čižmář et al., forthcoming*).

Human remains are relatively rare in sunken huts. In addition to the Nižbor find, these include a complete male skeleton in Hut 74 from LT C1 in Bratislava–Devín. It is interpreted as a manifestation of a ritual act – a burial in a hut after the end of its use (*Styk – Repka 2021*). Another example is the skeleton of an old female in Hut 816 in Prellenkirchen in Lower Austria from LT C1–D1 (*Trebsche 2020*, 430). Examples from Western Europe include Late La Tène sunken huts in Basel-Gasfabrik, Switzerland (*Jud 2008*, 152), or in Montmartin, France (*Rousseau 2011*, 123).

The find situation in Nižbor can probably be interpreted as the deposition of a skeleton or its parts in a sunken hut that was no longer used and probably more or less empty. The fact that the sunken hut was cleaned out could be reflected in the small number of

finds in the feature. It is unclear if the two determined accumulations of several bones are original (intentional) or are the result of the recent damage of the sunken hut and its fill. It is likely that the bones were covered with at least a thin layer of soil (the bones were deposited not only on the bottom, but were also occasionally found in the lower part of the fill), because they do not show signs of chewing or degradation.

According to present research, human bones in the settlements are the result of post-mortem manipulation with the remains as part of the last stage of multistage burial; the corpses were previously temporarily kept outside the settlement for several months or years, though where such a place was in the case of the Nižbor skeleton, we can only guess. Given the relatively good preservation of the bones, it must have been a covered space rather than an exposed one.

The ford and its use

Directly across the river, opposite the Nižbor hut, is the mouth of the Habrový (or Habrovský, Otročínský) Stream, the valley of which lines the northwest and west side of the oppidum. According to A. Rybová and P. Drda, a road ran from this valley to gate C situated in the northwest corner of the oppidum fortification (*Fig. 1*), and could have then continued across the ford on the Berounka River. This interpretation is supported by a map printed in 1840 (*Rybová – Drda 1994*, 16, Fig. 5, Note 6). The valley of Habrový Stream leads to today's bridge and, on the opposite bank of the Berounka River, the current road running to the north and northeast.

The course of the assumed path connecting the Nižbor site with the Stradonice oppidum assumes the existence of a ford over the Berounka, which provides quite good conditions for crossing, at least in some parts of the year: it is a small river in the summer, and in rivers of this size it is often difficult to cross only the main river channel, which is about 5 m wide. The disadvantage of fords is that they are viable only when the water level is low; hence, the existence of seasonal ferries cannot be ruled out (*Bolina – Klimek – Cílek 2018*, 63–70, 217–220). According to the 1907 French army manual, the appropriate water depth for river crossings for infantry is 1 m, for cavalry accompanied by horse-drawn wagons (which were allowed to get wet) 1.3 m, for other wagons and artillery 0.7 m (cited after *Dumont 2011*, 49). While it can be assumed that the conditions were somewhat different in the Late La Tène period due to smaller horse size, modern data at least serves as a basis for considerations about the characteristics of fords in general.

The probability of the existence of a ford between the mouth of the Habrový Stream (and the Stradonice oppidum) and Nižbor is supported by the geomorphology and geology of the Berounka valley in the area. The valley of the Habrový Stream was formed by the erosion of loose rocks at the fault between the valley of the Habrový Stream and the valley of the Žlubinecký Stream on the opposite bank of the Berounka River. The fault is mapped in the Blovice lithostratigraphic unit composed of greywacke, siltstone and slate. According to the geological map, the northern part of the Blovice lithostratigraphic unit is less resistant to erosion than its more southern part located beneath the Habrový Stream. The resistant positions of the bedrock normally reduce the depth erosion of the Berounka River, and this created more favourable conditions for a wider riverbed and a shallow flow. Today, the river is regulated and the water level is raised by a weir located 100 m below

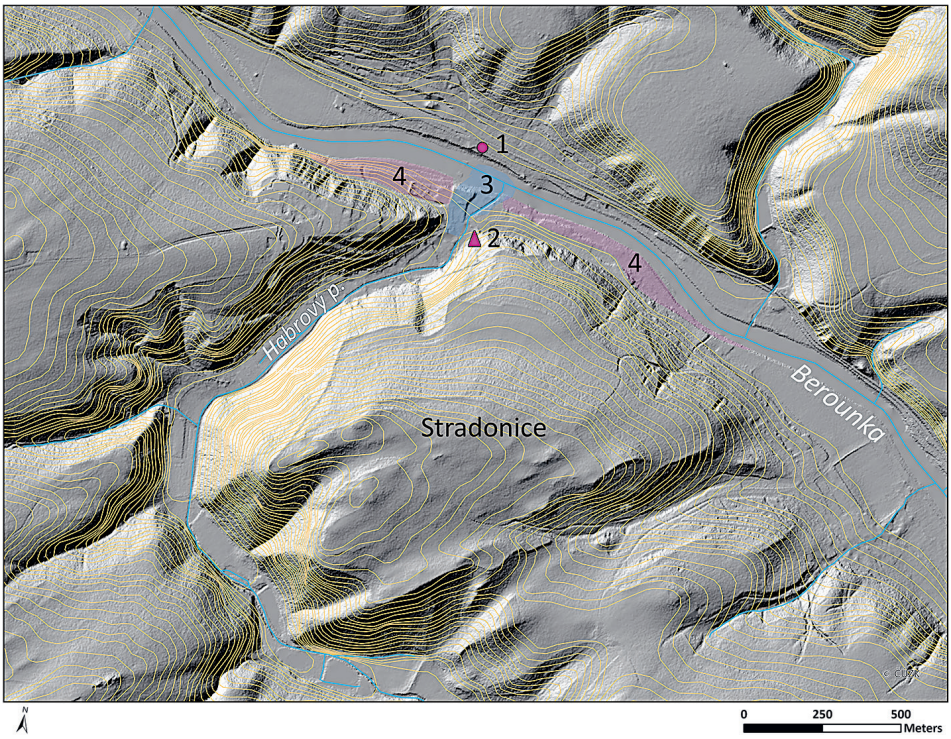

Fig. 12. Digital Terrain Model of the Czech Republic (DMR 5G) showing Stradonice oppidum and position of the hut at Nižbor. 1 – hut; 2 – gate C of Stradonice oppidum (after *Rybová – Drda 1994*); 3 – alluvial fan of Habrový Stream; 4 – alluvial sediments of Berounka River (contents J. Šebesta, graphics Č. Čišecký).

the current mouth of the Habrový stream which is here at the altitude of ca. 223–224 m. The original riverbed can be considered 2–3 m lower, i.e. around 221 m above sea level. The stream at the mouth creates an alluvial fan, which is subsequently flooded by the stronger flow of the Berounka and creates a 100- to 140-m-wide floodplain (i.e. accumulation of eroded sediments) on the right bank. The floodplain is also formed above the alluvial fan, which means that the flow of the Berounka River does not have sufficient erosion power to carry away the entire alluvial fan, but only floods it. Simultaneously, this process creates a partial damming of the river causing the deposition of sediments in the form of a floodplain before its accumulation.

The Digital Terrain Model of the Czech Republic (DMR 5G) makes it possible to follow the original bed of the Habrový Stream), which is now abandoned (*Fig. 12*). Currently, the new straight channel runs somewhat further south and is clearly of anthropogenic origin. As older maps of the 1st and 2nd Military Survey (e.g. Sheet 123 of the 1st Josephine Military Survey; *Fig. 13*) show, there was a small island in the Berounka River right at the head of the lower edge of the flooded alluvial fan, across which the path of a possible ford is marked. It can be assumed that the current Habrový Stream bed was created when the path to the ford drew off the original bed and changed its flow towards the southeast.

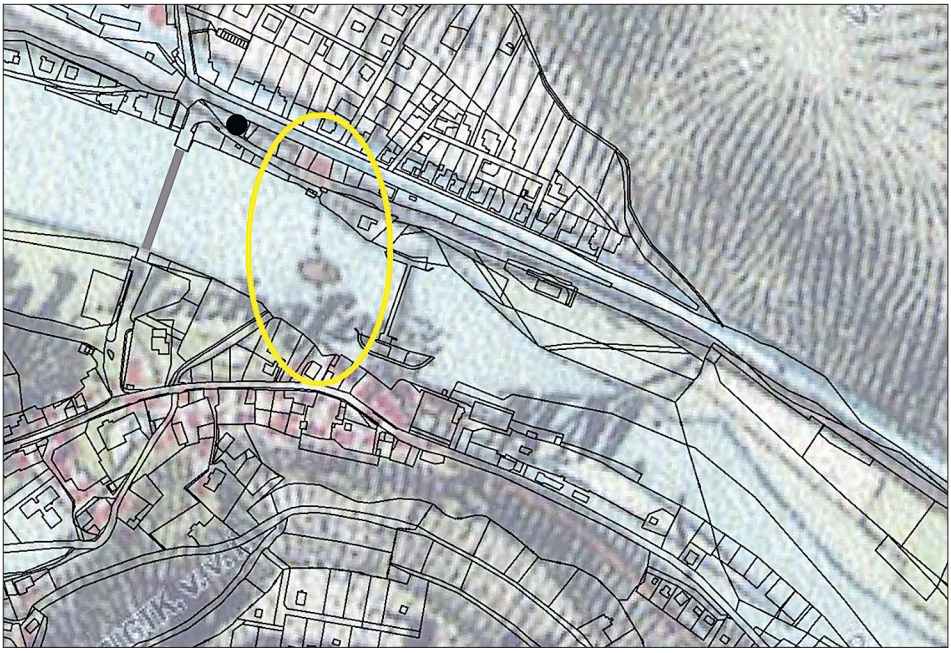

Fig. 13. Nižbor. Position of ford that uses residuum of the alluvial fan of Habrový Stream on map from 2nd Military Mapping in 1836–1852. Black point – the Nižbor site (drawing J. Elznicová).

Road network

According to the historical reconstruction of medieval and modern roads in the western part of Central Bohemia (*Bolina et al. 2018*, 359, 362, obr. 5.1.2.11), the watershed of the Loděnice Stream and the left-bank tributaries of the Berounka River (Hýskovský, Žlubinecký and Vůznice streams) in the northern direction was used. However, the precise routes are not documented but it can be assumed that from the Stradonice oppidum and in the immediate vicinity of the Nižbor hut, advantageous routes could have run to the north even in the La Tène period. They could head, among others, for Mšecké Žehrovice (LT C2–D1 homestead contemporaneous with the Stradonice oppidum and the feature in Nižbor; *Venclová 1998*) and further towards northwest Bohemia with many documented settlements from this period.

These assumptions must be placed in the context of the settlement network in the La Tène period. The immediate contemporary neighbour of the Nižbor site, just across the river, was the Stradonice oppidum. Located a bit further to the southeast of Nižbor, above the left bank of the Berounka River, was the promontory hillfort at Žlubinec (a doubtful La Tène dating; *Křivánek 2011*). The La Tène, and also pre-La Tène settlement of the region was only sporadic.

To reconstruct the position of the studied site in the LT B–LT D period in a broader sense, the settlement pattern should be considered within the Křivoklát Protected Landscape Area and its surroundings (principally Beroun, Kladno, Praha-západ and Rakovník districts in Central Bohemia). An overview of La Tène sites was recently presented

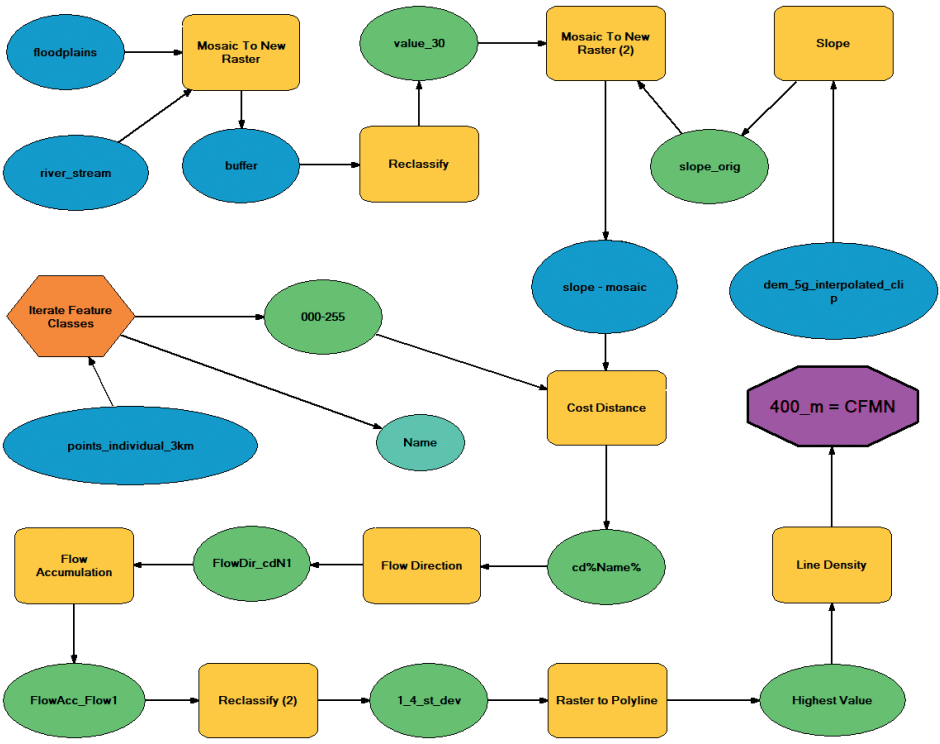

Fig. 14. Model Builder (ArcGIS 10.8.1) syntax of the Cumulative Focal Mobility Network (CFMN) analysis.

(*Dreslerová et al. 2022*) based on current archaeological records (*AMCR database*). Hence, in a 50 km radius around Nižbor, 344 positive confirmations of human activity can be found between LT B and LT D. For the needs of this study, the site location was refined by merging the immediately neighbouring ones into clusters, which are further treated as one site with positive confirmation of occupation in LT B–LT D. A total of 149 sites were thus studied in relation to Nižbor.

The following questions were asked: Was the Nižbor settlement easily accessible from sites other than its immediate neighbours and, if so, from which ones? Was it located at a convenient fording point? Which areas beyond the immediate riverine valley could have been linked with one another through Nižbor with ease?

Knowing the principal distribution of settlements in the LT B–D period, the spatial interpretation of Nižbor's position can be studied in terms of landscape connectivity using the Cumulative Focal Mobility Network (CFMN) analysis, which has been developed for more than a decade. This method calculates directional-less movement in the artificial environment from a multitude of source points (grid of 256 equally spaced points in a 50 km radius around Nižbor) by means of the interpretation of slope model using hydrological tools (*Fábrega-Álvarez 2006*; *Murrieta-Flores 2012*). The resulting x-number of models, representing the most convenient paths to the selection of points, are then merged and analysed with the Density tool to find the highest number of overlaps (for the syntax, see *Fig. 14*). In practice, these are the corridors for the most convenient movement throughout

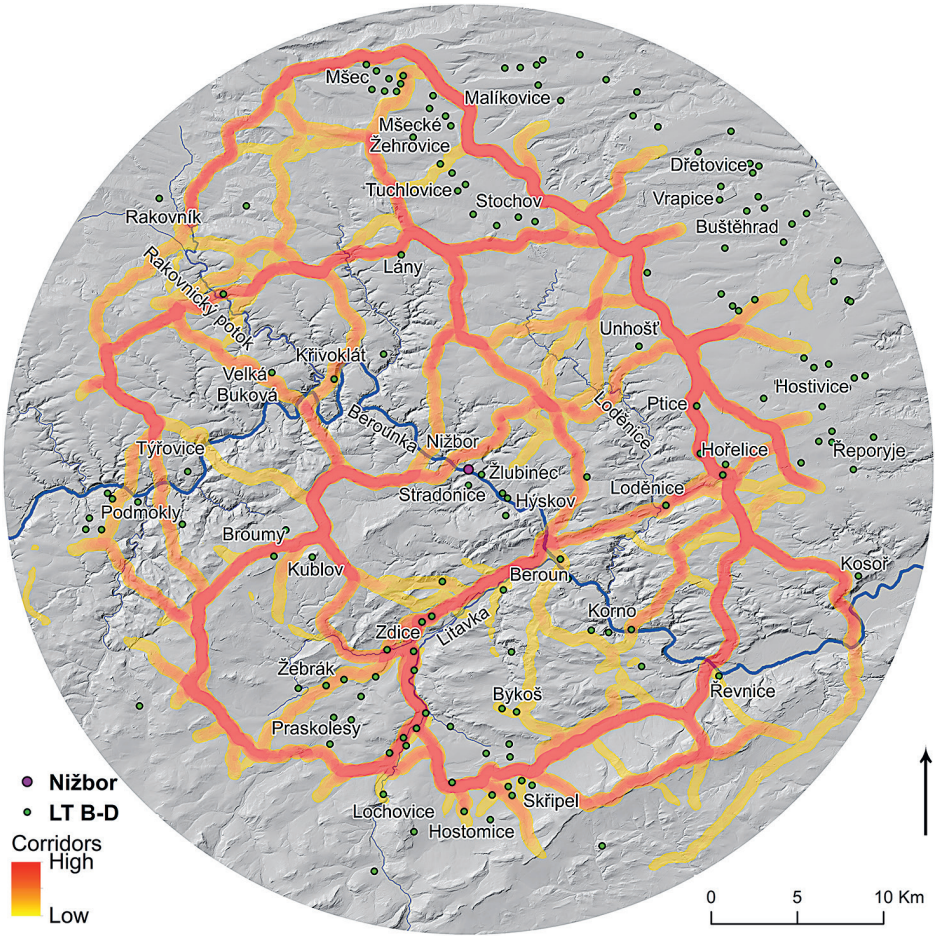

Fig. 15. CFMN analysis results with Nižbor site in middle representating the most convenient movement corridors in the study area. The warmer the colour, the greater the amount of overlaps of calculated paths.

the landscape (*Bellavia 2001*; *Verhagen 2010*; *Déderix 2016*). In other words, the analysis can be described as an ideal model of connectivity and accessibility of various locations in the terrain and of optimal pathways – natural corridors of movement – leading across the entire landscape (*Verhagen et al. 2013*; *Stančo – Pažout 2020*).

The 5th generation Digital Terrain Model of the Czech Republic (DMR 5G) was used for the analysis. It was reclassified to an 8 m cell size and cleared of modern infrastructure developments (*Novák et al. 2022*). It was combined with the Model of Potential Floodplains in the Czech Republic (*Novák 2017*), which served as a further buffer for the movement. All analyses were calculated in ArcMap 10.8 software (see *Online Supplementary Material 2* for details).

According to the results, Nižbor was highly accessible from the concentration of settlements around Mšec, Mšecké Žehrovice, Tuchlovice and Stochov in the north (*Fig. 15*). A potential connection was also good with the cluster of settlements located near Unhošť,

Hostouň and Buštěhrad to the northeast. Nižbor's river crossing was on a convenient path when travelling from the area of these sites to the west, where LT B–D sites like Broumy and Kublov are known. From there, a convenient connection was available to Podmokly, Hradiště nad Berounkou, Čilá, and Skryje sites. Getting there was far easier using the Nižbor river crossing than following the Berounka valley, and the same can be said about the connection to the LT B–D settlements at Křivoklát and Velká Buková.

However, the greatest concentration of sites in the studied area was defined by the polygon created by today's villages of Žebrák, Osov and Zdice. No convenient path to connect these with Nižbor appeared in our analysis; they are separated from Stradonice and its environs by terrain difficult to cross even today. Instead, these sites apparently formed a part of a cluster of La Tène sites around the Litavka Stream, the left bank of which served as a corridor to the northeast river crossing at Beroun. Beyond that, the calculated nexus can be followed further to Loděnice, Hořelice, Třebonice, Rudná, and Hostivice on the outskirts of today's Prague (roughly following the modern routes no. 200 and E 50).

From a spatial perspective, the location of the Nižbor settlement can be clearly perceived as linked to the Stradonice oppidum. This suggests that fording took place somewhere near Nižbor and this was further confirmed by CFMN analysis. Like the oppidum itself, Nižbor was located on the convenient path connecting principal La Tène sites northwards and westwards. A settlement should not be a surprise there, as the site itself formed an important crossroads between calculated pathways and a potential route via the Berounka River itself. However, the main communication hub and also an area with the greatest density of archaeological sites belonging to the LT B–D period in the studied region, bypassed Nižbor some 8 km southwards, crossing the Berounka River on the outskirts of the present city of Beroun. Other river crossings of similar importance can be defined further downstream near Řevnice and Kosoř.

Conclusion

If we adopt the model of the economic hinterland of oppida as a sphere with a radius of 5 km, or a distance of a one-hour walk (*Venclová – Danielisová 2020*, with refs.), then the Nižbor site was undoubtedly part of the Stradonice hinterland. The sunken hut on the bank of the Berounka River and its assemblage of finds document common settlement activities at the site. The human skeletal remains deposited in the abandoned or cleared hut are an exception.

Based on the absence of earlier finds to which it could be connected, the building of the sunken hut on the bank of the Berounka River opposite the Stradonice oppidum was probably related to the beginning of the oppidum, i.e. to the first half of the 2nd century BC, or in 190–150 BC. The hut could have been part of a site (but also an isolated feature) functioning as a guard post at the ford (ferry?) and road. Remains of a man, which were found in the hut, testify to the physical work of the individual with an otherwise average to subaverage diet. It would be tempting to see him as ford guard or ferryman, although it is beyond verification. We can regard the assumed ford across the Berounka as a link in the road connecting the Stradonice oppidum with the northern parts of Bohemia. A reconstruction of the roads shows, though, that the main Late La Tène routes probably avoided the Stradonice oppidum.

The Nižbor hut could also be interpreted as an 'excluded' place outside the walls of the oppidum. The man, whose bones were deposited here, might hold a specific position in the La Tène community, either in a positive or negative sense. However, the reconstructed settlement activities at the site, including a common diet documented by isotope analysis, do not testify to the unusual life of the local resident(s).

The discovery of the sunken hut in Nižbor containing human remains is a welcome source for the study of burial rite in the Late La Tène period after the end of incarnation at cemeteries. Human bones in La Tène settlement contexts demand appropriate attention. As recent more detailed research suggests, this is a relatively common but not very well understood phenomenon. At the same time, it was again demonstrated (cf. *Dreslerová et al. 2023*) that even for seemingly well typologically dated La Tène samples, it makes sense to use radiocarbon dating, despite the fact that a large part of this period is blurred by the so-called 'small La Tène plateau'.

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