



PAMÁTKY

ARCHEOLOGICKÉ

CIX / 2018

PEER-REVIEWED
OPEN ACCESS
JOURNAL

FOUNDED 1854



Editor

Michal ERNÉE, ernee@arup.cas.cz

Editorial Board

Miroslav BÁRTA, Martin BARTELHEIM, François BERTEMES, Miroslav DOBEŠ, Eduard DROBERJAR, Václav FURMÁNEK, Martin JEŽEK, Petr KOČÁR, Martin KUNA, Michal LUTOVSKÝ, Karel NOVÁČEK, Rudolf PROCHÁZKA, Lubor SMEJTEK, Petr ŠKRDLA, Jaroslav TEJRAL, Martin TOMÁŠEK, Peter TREBSCH

Technical Editor

Ivana HERGLOVÁ, herglova@arup.cas.cz

Type-setting, Layout

Agama[®] poly-grafický ateliér, s. r. o., Na Výši 424/4, 150 00 Praha 5, Czech Republic, agama@agamaart.cz
Cover design Michal ERNÉE

Print

RAIN TISKÁRNA, s. r. o., Czech Republic

Open Access since 2015 available for free on:

<http://www.arup.cas.cz/?cat=68>

<http://www.arup.cas.cz/?cat=68&lang=en>

The journal *Památky archeologické* is indexed and abstracted in *Arts and Humanities Citation Index[®]* (*Web of Science[®]*) by Thomson Scientific.

The journal *Památky archeologické* is also indexed or abstracted in *SCOPUS* (SJR 2016: 0,156), *ERIH PLUS*, *EBSCO* and *Ulrich's Periodicals Directory*.

Vydává Archeologický ústav Akademie věd České republiky, Praha, v. v. i.

Published by the Institute of Archaeology of the Czech Academy of Sciences, Prague, V. V. I.

Registrováno pod ev. č. MK E 4240

Redakce — Office: Letenská 4, CZ 118 01 Praha 1, tel.: +420 257 014 382, e-mail: pamatky@arup.cas.cz

Rozšiřuje, informace o předplatném podává a objednávky přijímá:

Archeologický ústav AV ČR, v. v. i., Knihovna, Letenská 4, CZ 118 01 Praha 1, tel.: +420 257 014 415, +420 257 014 318, e-mail: knihovna@arup.cas.cz

Orders from abroad:

Mr. František Ochrana, LIBRARY, Letenská 4, Praha 1, CZ 118 01, Czech Republic, tel.: +420 257 014 415, e-mail: ochrana@arup.cas.cz

SUWECO CZ, s. r. o., Sestupná 153/11, Praha 6 - Liboc, CZ 162 00, Czech Republic, tel.: + 420 242 459 205, e-mail: suweco@suweco.cz

Toto číslo vyšlo v prosinci 2018 v nákladu 600 výtisků

ISSN 0031-0506 (Print)

ISBN 2570-9496 (Online)

© Institute of Archaeology of the Czech Academy of Sciences, Prague, V. V. I.; Prague 2018

Obsah — Contents — Inhalt

Petr Neruda

- Settlement Strategies of Palaeolithic and Mesolithic Societies in north Moravia and Czech Silesia (Czech Republic) —
Sídlní strategie paleolitických a mezolitických populací severní Moravy a Českého Slezska (Česká republika) 5–36

Pavel Burgert — Katarína Kapustka — Zdeněk Beneš

- Zpracování bavorských deskovitých rohovců v neolitu na příkladu dílny ze sídliště kultury
s vypíchanou keramikou v Chotýši u Českého Brodu — The working of Bavarian tabular chert in the Neolithic based
on the example of the workshop from the Stroked Pottery culture settlement in Chotýš near the town of Český Brod 37–74

Mária Novotná — Martin Furman

- Bronzový depot z Belej-Dulíc, okres Martin a dvojramenné čakany karpatskej proveniencie —
Das Bronze depot aus Belá-Dulice, Bez. Martin und die Doppelarmknäufle karpätenländischen Ursprungs 75–96

Jaroslava Pavelková — Václav Furmánek

- Demografie popelnicových polí na Slovensku. Pohled antropologie a archeologie —
Demography of Urnfields in Slovakia. View of Anthropology and Archaeology 97–126

Alžběta Danielisová — Jan Kysela — Tomáš Mangel — René Kyselý — Jiří Militký

- Iron Age site in Žehuň, Central Bohemia. An open settlement with central functions —
Žehuň ve středních Čechách. Otevřené sídliště z doby laténské s centrální funkcí 127–178

Jiří Militký

- Celtic coins from the central site of Žehuň — Keltské mince z areálu centrálního sídliště v Žehuni 179–231

Luca Zavagno — Bülent Kızılduman

- A Countryside in Transition: The Galinoporni-Kaleburnu Plain (Cyprus) in the Passage from Late Antiquity
to the Early Middle Ages (ca. 600 – ca. 850) — Měnicí se krajina: planina Galinoporni-Kaleburnu (SV Kypr)
na přechodu mezi pozdní antikou a raným středověkem (ca 600 – ca 850) 233–251

Recenze — Reviews — Rezensionen

- Eva Lenneis /Hrsg./, Erste Bauerndörfer – älteste Kultbauten. Die frühe und mittlere Jungsteinzeit in Niederösterreich.
Archäologie Niederösterreichs (rec. Ivan Pavlů — Pavel Burgert) 253–255*

- Dragana Antonović, Kupferzeitliche Äxte und Beile in Serbien. Prähistorische Bronzefunde, Abteilung IX, Band 27
(rec. Miroslav Dobeš) 256–257*

- Zoja Benkovsky-Pivovarová — Bohuslav Chropovský, Grabfunde der frühen und der beginnenden Bronzezeit
in der Westslowakei. Archaeologica Slovaca Monographiae Studia, Tomus XXI (rec. Markus Dürr) 258–260*

- Ludwig Wamser, Mauenheim und Barga. Zwei Grabhügelfelder der Hallstatt- und Frühlatènezeit
aus dem nördlichen Hegau. Forschungen und Berichte zur Archäologie in Baden-Württemberg 2 (rec. Lucia Benediková) 260–266*

- Manuel Fernández-Götz — Holger Wendling — Katja Winger /eds./, Path to complexity. Centralisation
and Urbanisation in Iron Age Europe (rec. Miloslav Chytráček) 267–268*

- Martin Ježek, Archaeology of touchstones. An introduction based on finds from Birka, Sweden (rec. Jan Kypta) 268–271*

Iron Age site in Žehuň, Central Bohemia An open settlement with central functions

Žehuň ve středních Čechách
Otevřené sídliště z doby laténské s centrální funkcí

Alžběta Danielisová — Jan Kysela — Tomáš Mangel — René Kyselý — Jiří Militký

Předloženo redakci v říjnu 2017, upravená verze v lednu 2018

The authors introduce the settlement in Žehuň (district Kolín, Central Bohemia), a La Tène period site that was investigated by surface prospecting for four seasons between 2011 and 2014. The results of the chrono-typological analysis of the material assemblage show that Žehuň was an outstanding settlement in terms of exceptionally long-term occupation and concentration of metallic objects including the possibility of local coin production during the Late La Tène period. The site, occupied between the 6th and 1st century BC was located on a long-distance route connecting Central Bohemia with areas in Lower Silesia and through Moravia also Middle Danube. It is very likely that similar regional centres were more common in Bohemia and Moravia; however, we still have almost no information about them so far. The Žehuň settlement thus brings important information on the hierarchy of open settlements during both the Middle ('pre-oppida phase') and Late ('oppida phase') La Tène period.

La Tène period, open settlements, metal detector survey, bronze artefacts, coinage, settlement hierarchy, socio-economic structure

Autoři představují výzkum na laténské lokalitě Žehuň (okr. Kolín, střední Čechy), která byla prozkoumána pomocí povrchových prospekci během čtyř sezon mezi lety 2011 a 2014. Výsledky chrono-typologické analýzy materiálového souboru ukazují, že Žehuň byla velmi významným sídlištěm vzhledem k dlouhodobé kontinuitě osídlení a nadstandardní koncentraci a charakteru kovových nálezů, které nevylučují i lokální produkci mincí. Lokalita, nacházející se na jedné z hlavních dálkových komunikací spojujících střední Čechy se Slezskem a skrze Moravu také se středním Podunajím, byla osídlena mezi 6. a 1. stoletím př. n. l. Je velmi pravděpodobné, že podobné centrální lokality na úrovni regionů byly v době laténské běžné; nicméně postrádáme k nim prakticky jakékoliv archeologické prameny. Sídliště v katastru Žehuně je tak velmi důležité z hlediska poznání vytváření sídelní hierarchie otevřených sídlišť v Čechách během, jak předoppidální tak oppidální fáze doby laténské.

Doba laténská, otevřené sídliště, prospekce detektory kovů, bronzové artefakty, mincovnictví, sídelní hierarchie, socio-ekonomická struktura

1. Introduction

During the last twenty years the significance of large lowland settlements of Middle and Late La Tène period came to appreciation driven especially by research of major sites such as Němčice nad Hanou, Roseldorf, Neubau or by (LT C1–C2) Manching itself to name just a few. They have become 'new central sites' with complex economic structure and the earliest coin production North of the Alps that preceded founding of the oppida for about one hundred years. In contrast to these large sites the 'second-tier-settlements', i.e. those with area exceeding 7 ha and significant collections of finds, remained so obscure in the archaeological record that they have been labelled the 'missing link' in a recent study by Peter Trebsche (2014). In this paper we would like to present findings on one such site that was investigated for several years by the Archaeological Institute in Prague.

The La Tène settlement at Žehuň is located in the Eastern part of Central Bohemia (fig. 1) within the so

called traditional settlement area that included especially the fertile basin of the Elbe River and its confluence with Vltava. From the socio-cultural point of view the region where the Žehuň site is located is closer to the Eastern than to the Central Bohemia. Its location on a historical long-distance route and the collection of finds that were assembled during four prospection seasons made it clear that Žehuň was an outstanding settlement with recognisable supra-regional character.

Archaeological research in the Žehuň pond area was triggered by information on illegal detector surveys before 2011. The distinctive concentration of metal finds, especially the La Tène coins, called for a need of systematic field verification of the terrain situation and safeguarding of any other metal and possibly also other artefacts. Even before the start of the first research season, in 2011, it was obvious that the 258 ha large pond, founded already in the late 15th century on the Cidlina River, flooded several prehistoric and early historic sites

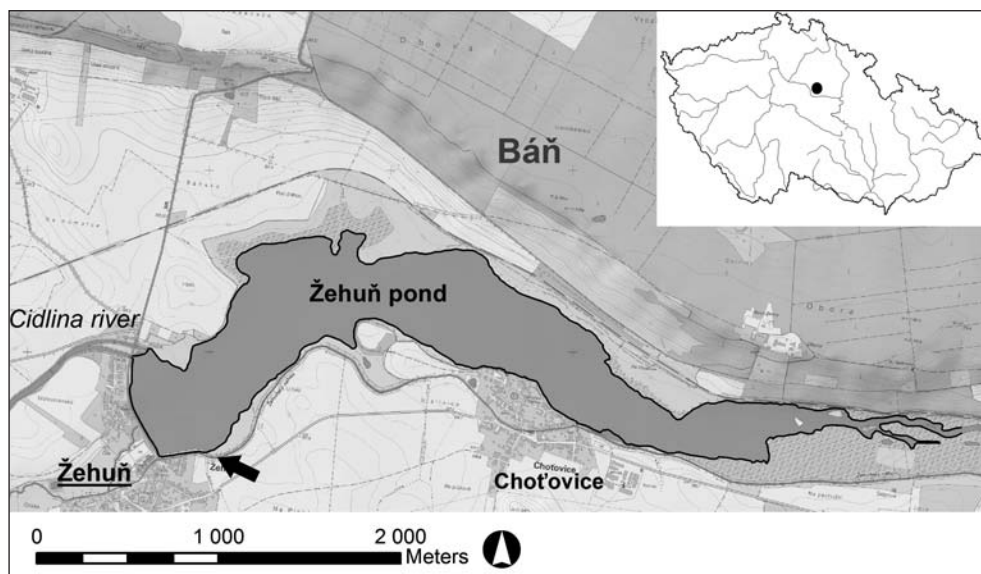


Fig. 1. Žehuň pond in Central Bohemia and its landscape settings. The research area is marked with an arrow. — **Obr. 1.** Poloha Žehuňského rybníku v krajině. Místo výzkumu označeno šipkou. (Autor: A. Danielisová).

along the frequented historic route from Central Bohemia to Poland. Therefore the accurate documentation of the prehistoric and historic activities was one of the most important research tasks.

2. Terrain Conditions and Methodology

2.1. History of site and terrain conditions

The pond of Žehuň was founded on the Cidlina River at the end of the 15th century (1492–1497) during the reign of Louis II Jagiellon. It is the largest water body in the region and it is nowadays also a valued natural reserve. In the North the pond is lined by a low terrain ridge called Báň (*fig. 1, 2*) that, despite its low prominence, is a conspicuous terrain feature.

The areas of interest for the archaeological research were located on the Southwestern and Northern banks of the pond in its Western part situated on the Eastern edge of the current village of Žehuň. These areas are accessible only approximately one week per year when the

water is temporarily drained out for the purpose of seasonal fishing.

The original subsoil on the bottom of the pond is formed by weathered marlstone, locally transformed into clayey layers. Original soil cover is largely removed (washed away) from the most of the site and the bottom of the pond is covered by a mud layer of variable depths. Although the Iron Age settlement is currently under the water it is not a regular waterlogged site with preserved organic structures such as wooden architecture or objects. These must have been long decomposed when the pond was founded in late Middle Ages and therefore this site must be considered a 'regular archaeological site', though with specific conditions for archaeological research.

2.2. Methodology

Since access to the area is available for the very limited time during the year, it was possible to carry out the research for only a few days during each research season.



Fig. 2. Žehuň pond during research with Báň ridge behind. On the right is the area with remains of preserved cultural layer (marked with an arrow). — **Obr. 2.** Žehuňský rybník během výzkumů s Báňským hřbetem v pozadí. V pravé části snímku jsou pozůstatky dochované kulturní vrstvy (označeno šipkou). (Autor: A. Danielisová).

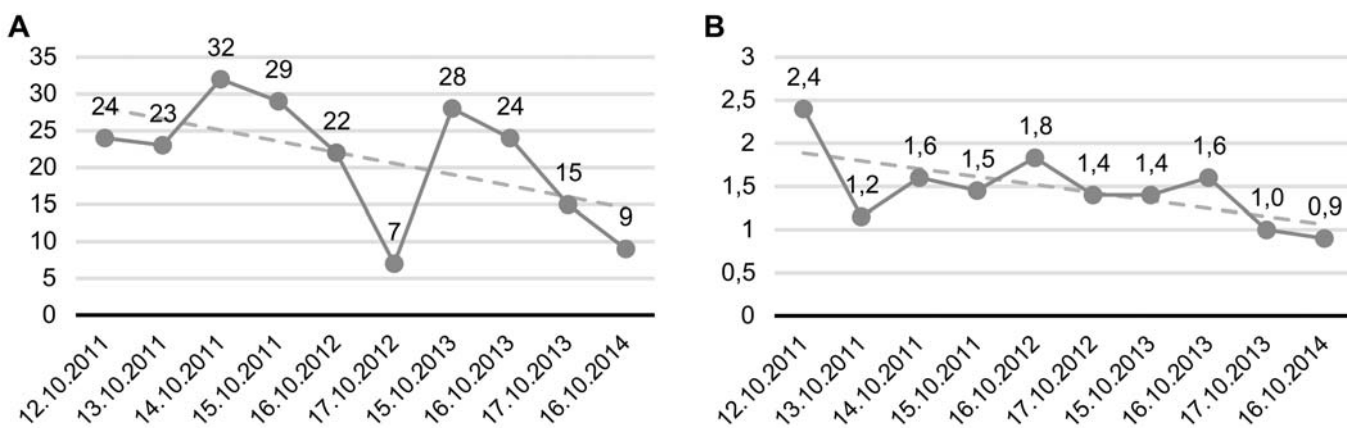


Fig. 3. Frequency statistics of the finds in the individual seasons (broken down to individual days). **A** – total number of finds, **B** – index of number of finds per number of detectors. — **Obr. 3.** Statistika frekvence nálezů během jednotlivých výzkumných sezón (vyneseny jednotlivé dny). **A** – celkový počet nálezů, **B** – index počtu nálezů vzhledem k počtu detektorů. (Autor: A. Danielisová).

Therefore the most cost effective methodology was applied. During the first phase the area was surveyed by metal detectors – their purpose was to effectively define the spatial extent of occurrence of metal objects and at the same time to safeguard as many finds as possible from the illegal private detector activities. We lack the finds from the beginnings of prospection (the settlement was discovered in 2009) that were removed by private detector activities. These possibly included the most of the substantial finds in terms of size and weight. During the surveys, a standard methodology was applied – each localised object was given GPS coordinates; for methodological purposes individual dates within the each of campaigns were also recorded. In this way the trend of gradual decreasing quantity of metal objects within the research area could be observed (fig. 3). The steady decrease of finds down to their virtual absence in the last survey season (2014) suggests that the accessible part of the settlement has currently been deprived of the majority of metal artefacts providing only little hope for any new discoveries.

In parallel to the metal detector surveys the surface area of the La Tène settlement was cleaned where possible with hand tools in order to identify possible archaeological features,¹ while the ceramic finds were collected systematically. In this way one sunken feature – a hut (no. 1/2012) – was discovered and excavated. It must be stressed out, however, that the terrain prospection was conducted under very specific conditions. The ceramics scattered on the surface was identifiable only during rainy weather or, on the other hand, by systematic removal of the thin layer of the pond sediment that totally obviated the visibility of the, otherwise quite numerous, pottery fragments. Also, all attempted excavations onsite were hampered by high level of groundwater. Despite all that, in the end several concentrations of pottery scatters were identified and an assemblage containing more than one thousand pieces was collected.

¹ Application of geomagnetic prospection was not possible due to the conditions onsite (pond sediment was too deep and surface too unstable for using the geomagnetic devices).

2.3. Results of the prospection

During the research campaigns from 2011 to 2014 we have documented four distinct archaeological sites: a Migration Period and a Late Bronze Age settlements on the North shore, and settlements of the La Tène and Roman periods on the Southwestern shore (fig. 4). In the survey the most attention was paid to the La Tène settlement due to its significance. Other sites have been investigated in order to confirm their dating and to assess their spatial extent where possible.²

During the research campaigns nearly 215 of metallic objects were collected. Our collection was subsequently augmented by objects from other surveys, resulting in nearly three hundred items. Together the assemblage that can be attributed to the La Tène period contains 164 objects, excluding coins.

It is important to emphasize, that our collection is incomplete and to a certain extent also biased. The main factors that have affected the character of the assemblage are the following:

Since its discovery in 2009 and before the beginning of the official archaeological surveys in 2011, the site had been raided regularly by illegal metal detector users.³ During their activities most of the larger or more distinctive objects have been removed, leaving thus only the remaining (and mostly smaller) metal objects for us to collect.

Specific terrain conditions of the pond and less favourable weather in the middle of October, when the prospection was taking place, caused that some parts of the original settlement were inaccessible for survey. Therefore, owing to the terrain conditions, only the Southwestern rim of the site could be investigated. In case the settlement was divided functionally we may be missing – or on the contrary overestimating – one or more of its components.

² See the site report (Institute of Archaeology CAS, Prague, v. v. i., TX-2014-5071).

³ Some of these collections were submitted for research evaluation.

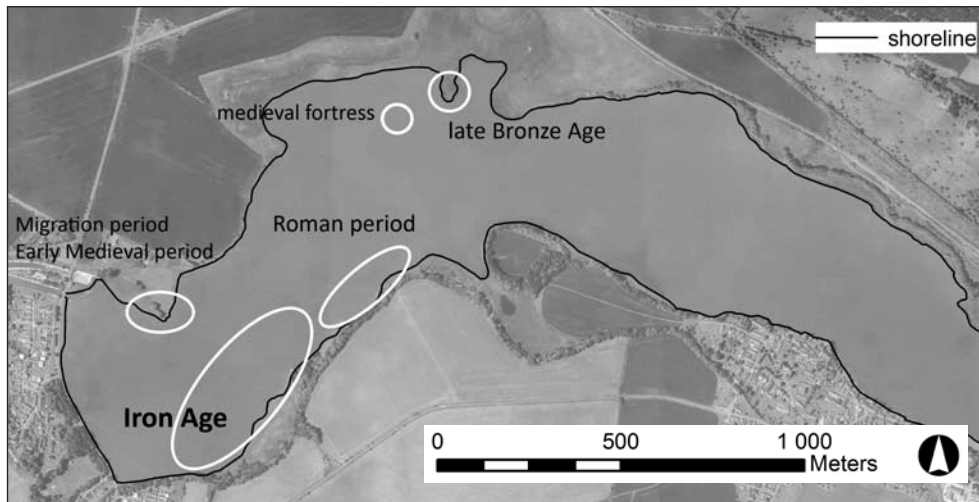


Fig. 4. Archaeological sites documented within the pond of Žehuň during prospections. — **Obr. 4.** Archeologické lokality dokumentované v Žehuňském rybníku během prospekci. (Autor: A. Danielisová).

From the technical point of view – the metal detectors were tuned up for detection of only non-ferrous metals during the surveys – an indispensable measure for avoiding an overflow of modern period trash with, however, the unfortunate side-effect of depriving the resulting collection of the (most of) the iron artefacts.

3. La Tène settlement

3.1. Character of the site

The settlement was located on the left bank of the former course of the Cidlina River, on the today's South-western rim of the pond. The metal detector finds were scattered in a belt over 500 m long and at least 50 m wide (fig. 5).

The width of the settlement, namely towards its Northern and Northwestern border in direction to the original river stream, was undetectable due to the increasingly thick layer of the pond sediment where the metal detectors could no longer be used to any effect. The finds continued to appear also in the Southeastern direction from the area of the highest concentration into the reed growths where the survey could not be carried out due to the protection zone of the nature reserve. The area behind the reeds was surveyed by test-pitting and revealed no settlement layers or finds. From these findings it can be inferred that the settlement originally spread from the water stream to the South and Southeast in a width possibly exceeding 200–250 m and its original spatial extent (though obviously comprising several settlement phases) thus could reach a maximum of 12.5 hectares.

The original soil cover on the most of the site is not preserved due to continuous impact of the pond environment. Only along the Southeastern border of the settlement area the narrow strip of dark cultural layer was preserved (fig. 2; 6: A–C) in an extent of approximately 2000 square metres. It is precisely from this area where the majority of both metal and ceramic finds originated from. It is probable that the topsoil, the original plough-soil, was either gradually destroyed by continuous flooding or removed already before the founding of the

pond and transported to other fields removing thus also the prehistoric objects originally present in it.

In the area outside the cultural layer, the original sediments are preserved only to a limited extent; this

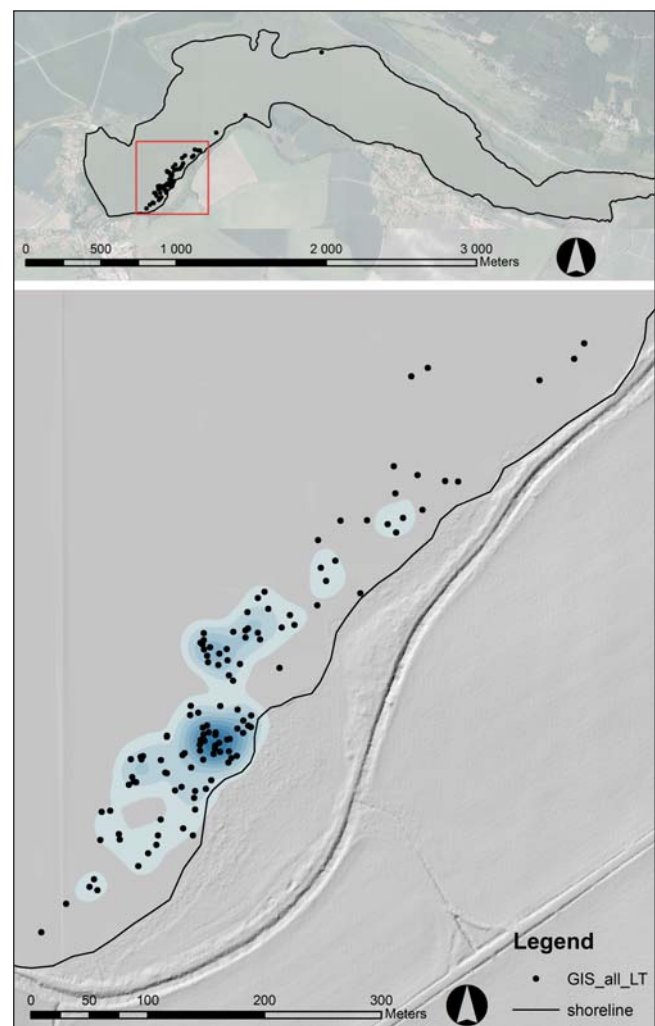


Fig. 5. Localisation and spatial distribution of the finds dated to the Hallstatt/La Tène period. — **Obr. 5.** Lokalizace a prostorová distribuce nálezů datovaných do doby halštatské a laténské. (Autor: A. Danielisová).



Fig. 6. Preserved cultural layer on the Southeastern side of the Žehuň pond (A–C) and feature 1/2012 (D). — **Obr. 6.** Dochovaná kulturní vrstva v jihovýchodní části Žehuňského rybníku (A–C) a objekt 1/2012 (D). (Autor: A. Danielisová).

has been proven by test-pitting. In these places ceramics only appeared in a limited number, and the existence of a settlement is only documented by metal artefacts. However, it must be stressed again that we still know relatively little about the original settlement surface because it is now covered by the pond sediment. This fact has undoubtedly been a major factor in the detection of potential settlement features. In the end only one sunken dwelling was discovered, located in the Southern part of the area of preserved cultural layer (fig. 6: D).

3.1.1. Feature 1/2012

The sunken hut had an oblong to slightly oval shape with dimensions 500 × 220 cm (9.86 square metres). Its major axis was oriented to the Northeast. The bottom was flat with one preserved posthole (with a diameter of 25 cm) on its Northern rim (fig. 7). Despite its shallowness (ca. 10–30 cm from the level of the preserved terrain), evidencing that only the bottom part of the feature

has actually been preserved, this context produced the most coherent set of ceramics. The analysis of the assemblage suggests its dating to LT B2–C1 phase (see chapter 4.2), though it must be taken into account that most of the ceramics was collected from the (preserved level of its) surface.

In the framework of contemporary settlement features, the sunken hut from Žehuň represents a typical representative of the settlement layouts from this period in Central Europe. Numerous examples from this area allow for comparison of its general layout as well as formal, metric and spatial parameters (see Březinová — Hečková 1994, 79–81, tab. II–IV; Čížmář 2003, 23–24; Hricáková 2007; Meduna 1980, 57–61, Tab. 1; Motyková–Šnajdrová 1960, 166, fig. 14–19; Rybová — Drda 1994, 40–50; Salač 1998, 48, fig. 2; Snítílý 2005; Trebsche 2010, 70–76; Waldhauser et al. 1993, 347–348, Abb. 165). From the point of view of the orientation towards the cardinal directions, we are most often confronted with the long axis in the East–West direction; the deviations to the Northeast as in the case of

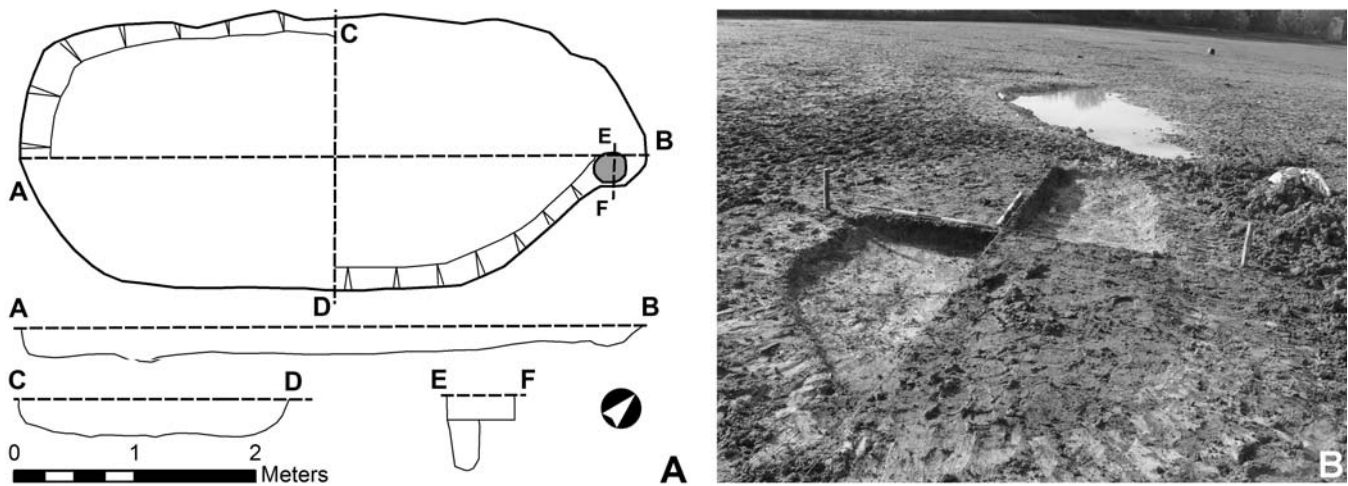


Fig. 7. Feature 1/2012 in the Southern part of the preserved cultural layer. — Obr. 7. Objekt 1/2012 v jižní části zchovalé kulturní vrstvy. (Autor: A. Danielisová).

feature 1/2012 (that was the most probably oriented along the original course of river Cidlina) are also quite common. Its preserved length and depth are also quite standard (fig. 8: A).⁴ On the contrary, the width of the hut lies rather at the lower limit of the values, which are mostly considered to be standard by the authors. The same applies to the value of the area of the feature against its proportionality (fig. 8: B) that is expressed by width/length (w/l) index reflecting the ratio of the maximum length and width of the layout.

The comparison with other sunken huts known from the territory of the Czech Republic shows that feature 1/2012 belongs to smaller, but quite elongated layouts, the length of which is more than twice the value of its width. Sunken huts with similarly extended ground plans appear quite rarely, rather in the context of Ha D – LT A settlements and then again during LT C2–D1 phases (Hricáková 2007, 22). Their occurrence can be considered rather marginal in other areas as well. Identical features regarding the proportions from LT C2–D1 are known for example from Michelstetten (V133 and V898: Trebsche 2010, 71, 107–108, Abb. 14, 57b) or from Kvítkovice (feature 2516: Parma 2007, 336–337, fig. 12). Others come from the settlement in Nitra-Šindolka (feature 94/75, 179/86, 189/86, 194/86: Březinová — Hečková 1994, tab. IV), which is dated within the range of LT B2/C1–C2/D1 (Březinová 1999, 65, tab. 1; 2000). Similarly dated is also an elongated feature 84 from the Hungarian site of Sárvár (Szilasi 2006, 240–241, tab. 23) as well two similar huts from Haselbach,

district of Korneuburg dated to LT C–D1 (Trebsche — Fichtl 2016, 25–26, Abb. 3–5). As an example, that is dated more precisely and is chronologically analogous to Žehuň, we can mention feature 27 from the settlement in Göttlesbrunn, dated to LT C1 (Karl — Prochaska 2005, 22, 53, Abb. 9).

The feature 1/2012 from Žehuň is distinguished from the standard more or less rectangular LT B–D1 sunken huts by a significant narrowing of one of its shorter sides. According to the results of J. Hricáková's analysis (Hricáková 2007, 21–23), similar layouts are characteristic for the timespan of Ha D – LT C1 while on the verge from LT A to LT B their orientation changes. While the narrowing of Ha D – LT A features points mainly to the South and Southwest, those dated to LT B–C1 are oriented mainly towards the East and Southeast, sometimes also to the North and Northeast. It is precisely in this direction where the narrowed side of the Žehuň feature is also oriented. Similar narrowing is sometimes associated with the presence of an entrance (Fröhlich 2001, 159; 2004, 187; Hellich 1921, 56, 104).

The construction classification is complicated by the fact that the bottom (= the floor) was not uncovered in its entirety and some structural elements may thus not have been detected by the excavation. This feature may belong to the most widespread type of these structures characterised by the presence of two or more posts located on the longer axis of the feature (type A1a or A2a according to Meduna 1980, 48, 50–54; type B according to Waldhauser et al. 1993, 348, Abb. 164: B). However, the type with only one post hole at one of the shorter sides (referred to as a subtype B, cf. Hricáková 2007, 22, 34–35, fig. 1: B1; Trebsche 2010, 74) cannot be excluded. The vast majority of huts belonging to this scheme can be dated within the timespan of Ha D – LT C1 phases. However, because of the relatively low frequency of the type B1, it is more likely that the feature 1/2012 belongs to the first of these alternatives, the occurrence of which can be observed for the whole La Tène period (Hricáková 2007, 20–24, 38; Meduna 1980, 61; Waldhauser et al. 1993, 348, Beilage 3). From

⁴ Monitoring of depths is generally very problematic. The values obtained only account for the state of preservation and not the original depth of the features. Certain problems with this parameter are also due to the fact that in many cases it cannot be unequivocally understood from the publications and excavation reports whether the declared value indicates the depth measured from the level of the current terrain or only from the topmost preserved level of the feature. These figures are therefore only indicative. However, this comparison at least shows that feature 1/2012 is nowhere near exceptional among contemporary settlement features from other sites.

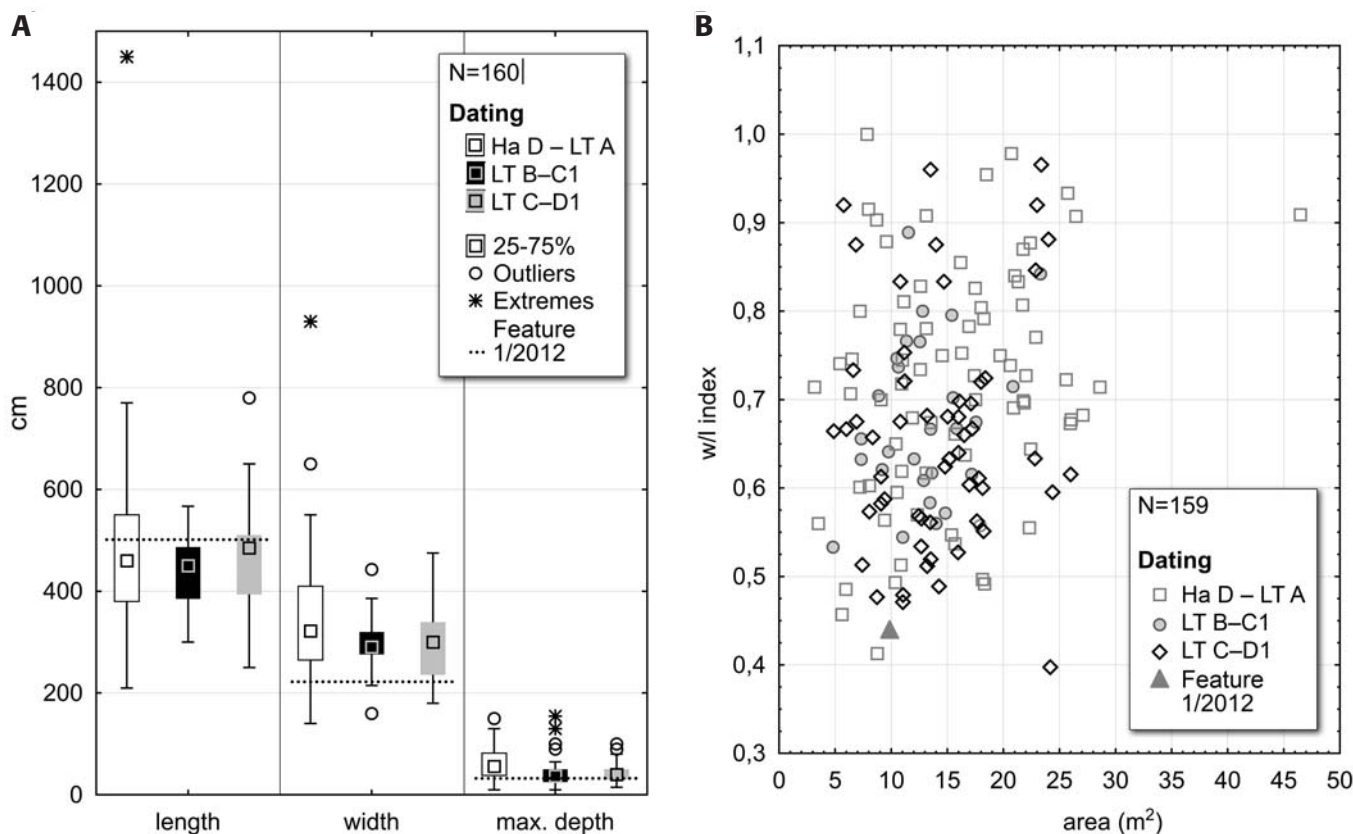


Fig. 8. Comparison of the metrics of the feature 1/2012 with selected La Tène sunken huts from the territory of Bohemia: **A** – based on basic metric data, **B** – according to length/width to area ratio. (After Hricáková 2007, modified and supplemented by additional data). — **Obř. 8.** Srovnání rozměrů objektu 1/2012 s vybranými laténskými zahloubenými chatami z Čech: **A** – základní metrické rozměry, **B** – délkový index. (Podle: Hricáková 2007, upraveno a doplněno). (Autor: T. Mangel).

the structural point of view, both layouts can be associated with the construction of the saddle roof (see Hricáková 2007, 49, 51–52, fig. 14; 17; 18: 1; Karl 1996, 64, 70, Abb. 17; Waldhauser et al. 1993, 350, Abb. 164), although in some cases flat or hip roof constructions are also considered (Sedláčková 1990, 35; Trebsche 2010, 74).

4. Evaluation of finds

Basing mainly on the assemblage of metal objects, it can be stated that the La Tène settlement in Žehuň probably lasted from the Ha D phase to the LT D phase, i.e. was occupied continuously for roughly six centuries, similarly to for example Radovesice in Northwestern Bohemia (Waldhauser et al. 1993). The collection of copper alloy objects is represented mainly by brooches, belt-hooks, -links, -terminals and (especially) pendants, further by bracelets, amulets (spoked wheels and knobbed rings), bronze beads, rivets etc. The onsite metalworking is evidenced by blacksmithing slag, bronze casting spills, a few semi-products and a crucible with metal droplets. From the area of preserved cultural layer comes the collection of iron slag and from the feature no. 1/2012 and cleaned surface of a cultural layer a large assemblage of La Tène ceramics was recovered. Quite distinctive is the collection of silver and gold coins. Despite the expectations, no glass artefacts have

been found onsite nor are they reported to have ever been seen there. This may be caused by the specific environment of the lake-bottom covered by thick layer of mud that have obscured the visibility of small and non-metal objects such as glass bracelets or beads. These conditions affected also the assemblage of ceramic fragments and slag.

The whole assemblage of La Tène objects, including the ceramics and coins, evidences continuous and possibly intensive occupation without any detectable hiatus between the 6th and the 1st century BC.

4.1. Metallic finds

The collection of metallic objects from the site of Žehuň consists of nearly three hundreds artefacts and fragments, in their absolute majority made of copper alloys. They represent a variable assemblage of objects from different periods from the Bronze Age to post-Medieval Period. Altogether, 164 objects were assigned to the Iron Age. These are presented here in the *Catalogue* (tab. 1) and analysed in detail in the following text. The *Catalogue* is organised according to functional categories of the artefacts which are all represented in fig. 9–17 identified by their catalogue numbers (cat. nos.).

The picture presented below resulted from combination of several factors (see chapter 2) that need to be

Cat. no.	Material	Description	Date	Dimensions (mm)
1	bz	fragment of a 'Doppelzierfibel' bow	Ha D3	L 26; Dm. (disc) 14; Th. (disc) 3
2	bz	a 'Maskenfibel' with zoomorphic foot	LT A	L 20; H. 15; W. 7
3	bz	a 'Tierkopffibel'	LT A	L 44; Th. 4; head L 16
4	bz	an asymmetrically roof-shaped brooch bow	LT A	L 31; Th. 3
5	bz	an ornitomorphic brooch foot	LT A	L 24; Dm. (disc) 8; Th. (disc) 4
6	bz	brooch with unattached foot and high arched bow decorated by herringbone incision	LT A	L 32, bow section 5 × 2
7	bz	Duchcov or Münsingen type brooch	LT B1b	L 36, bow Dm. 2 × 2
8	bz	fragment of a brooch foot	LT B2	L 19; (bulge) 7 × 5 × 5
9	bz	fragment of a brooch foot	LT B2/C1	L 24; (bulge) 9 × 5 × 6
10	bz	fragment of a brooch foot	LT B2/C1	
11	bz	fragment of a brooch foot	LT B2/C1	L 31; Th. (bar) 3; 13 × 12 × 9 (bead)
12	bz	MLT brooch type Ptení	LT C1	L 30; W. (bulge) 11
13	bz	MLT brooch	LT B2/C1–C1	L 33, bow Dm. 2 × 2
14	bz	MLT brooch rectangular decorative plate	LT C1	L 36; W. (max.) 9
15	bz and fe	fragment of a MLT brooch, 'Kugelfibel'	LT C1–D1a	L 19; W. 7
16	bz	bow of a Mötschwil type brooch	LT C2	L 50; W. (bow) 5
17	bz	bow of a Mötschwil type brooch	LT C2	L 51; Th. (max.) 6
18	bz	Mötschwil type brooch	LT C2	L 46; Th. (bow) 3
19	bz	foot of MLT Blankenfelde type brooch	LT C2–D1	L 22; W. 8; H. 6
20	bz	filiform brooch of late LT scheme	LT D1a	L 45; W. (spring) 11; Th. (bow) 3
21	bz	variant of Nauheim type brooch	LT D1a	L 21; W. (bow) 6
22	bz	fragment of an unattached brooch foot	LT B1	L 10; W. 5
23	bz	fragment of an unattached brooch foot	LT B2–C1	L 12; Dm. (top) 6; Dm. (bottom) 8
24	bz	brooch spring with 2 × 13 windings and central axis	Ha D2–3?; LT B2/C1?; LT C2?; Rm C?	L 39; Dm. 4
25	bz	fragment (half) of a brooch spring with 2 × 3 windings and external chord	?	24 × 16; Th. (wire) 3
26	bz	fragment of a brooch	?	L 18
27	bz	fragment of a bracelet with alternating bigger (flattened) and smaller (globular) bulges; the smaller bulges are decorated by three concentric circles	LT B1b/c–B2	int. Dm. cca. 80, Th. 5 × 4
28	bz	fragment of a bracelet with alternating bigger (flattened) and smaller (globular) bulges; the bulges are smooth	LT B1b/c–B2	L 11; bulge 9 × 4
29	bz	fragment of a bracelet with alternating bigger (flattened) and smaller (globular) bulges; the bulges are smooth	LT B1b/c–B2	L 17; W. (bulge) 11;
30	bz	part of a hinged bracelet consisting of alternating globular elements and smaller ribs	LT B2–C1	int. Dm. cca. 50, Th. 5 × 4
31	bz	fragment of a bracelet with 'rose-bud decoration'	LT B2b–C1a	Th. 4 × 3
32	bz	fragment of a bracelet with 'rose-bud decoration'	LT B2b–C1a	int. Dm. cca. 60, Th. 9 × 7
33	bz	fragment of a bracelet with 'rose-bud decoration'	LT B2b–C1a	int. Dm. cca. 50 × 45, Th. 3 × 3
34	bz	fragment of a bracelet with 'wart decoration'	LT B2–C1	L 16; W. (max.) 10; Th. 6
35	bz	a flat leaf-shaped belt hook	LT B2–C1	L 47; W. 8; Th. 3; eyelet Dm. 7 × 6
36	bz	a belt-hook with broken-off hook	LT C1 (–LT D?)	L 61; W. 20; Th. 6
37	bz	fragment of a belt-hook	LT C1–C2	L. (cons.) 42; W. 13; Th. 5
38	bz	an openwork belt-hook with zoomorphic hook and pelta-shaped body	LT C2	L 58; W. 27; Th. 4
39	bz	a fragment of a belt-hook – hook only	LT C2? D1?	L 38; W. (max.) 15; Th. (max.) 10
40	bz	a fragment of a belt-hook with cushion shaped elements and enamel decoration	LT C?	L 31; W. (max.) 14; H. 5
41	bz	zoomorphic termination of a belt-hook	LT C1 (–C2?)	L 13; W. (max.) 8; Th. (bar) 6
42	bz	zoomorphic termination of a belt-hook	LT C1 (–C2?)	L 15; W. (max.) 5
43	bz	zoomorphic termination of a belt-hook	LT C1 (–C2?)	L 19; W. (max.) 7; Th. (bar) 5
44	bz	a chain-belt link	LT C1	L 37; W. 18; Th. 3
45	bz	a chain-belt link	LT C1	L 26; W. 18; Th. 3
46	bz	terminal piece of a chain-belt	LT C2?	L 35; Dm. (disc) 21; Th. (disc) 5
47	bz	terminal piece of a chain-belt	LT C2?	L 16; Dm. (disc) 11; Th. (disc) 1
48	bz	flat chain-belt pendant with globular termination	LT B1	L 32; W. 6; Dm. (termination) 4
49	bz	small globular chain-belt pendant	LT C1?	L 13; Dm. 8;
50	bz	piriform chain-belt pendant	LT B2–C1	L 18; Dm. (max.) 7
51	bz	piriform chain-belt pendant	LT B2–C1	L 22; Dm. 7; Dm. (eyelet) 6
52	bz	piriform chain-belt pendant	LT B2–C1	L 27; Dm. (max.) 8; Dm. (bottom tab) 8
53	bz	piriform chain-belt pendant	LT B2–C1	L 26; Dm. (max.) 8; Dm. (bottom) 7
54	bz	piriform chain-belt pendant	LT B2–C1	L 28; Dm. 7
55	bz	piriform chain-belt pendant	LT B2–C1	L 20; Dm. 8 (max.); Dm. (bottom) 7
56	bz	piriform chain-belt pendant	LT B2–C1	L 21; Dm. 6

Cat. no.	Material	Description	Date	Dimensions (mm)
57	bz	piriform chain-belt pendant	LT B2–C1	L. 24; Dm. (max.) 8
58	bz	piriform chain-belt pendant	LT B2–C1	L. 26; Dm. (max.) 10; Dm. (bottom) 9
59	bz	piriform chain-belt pendant with decorative lower end	LT B2–C1	L. 23; Dm. (max.) 11; Dm. (bottom) 10
60	bz	piriform chain-belt pendant with decorative lower end	LT B2–C1	L. 33; Dm. (max.) 11; Dm. (bottom) 10
61	bz	strongly profiled mushroom shaped chain-belt pendant	LT C1–C2?	L. 25; W. (max.) 12
62	bz	strongly profiled mushroom shaped chain-belt pendant	LT C1–C2?	L. 30; Dm. (max.) 11
63	bz	strongly profiled mushroom shaped chain-belt pendant	LT C1–C2?	L. 33; Dm. (max.) 11; Dm. (bottom) 9
64	bz	strongly profiled mushroom shaped chain-belt pendant	LT C1–C2?	L. 28; Dm. (max.) 13; Dm. (bottom tab) 12
65	bz	strongly profiled globular chain-belt pendant	LT C1–C2?	L. 20; Dm. (max.) 11
66	bz	strongly profiled globular chain-belt pendant	LT C1–C2?	L. 20; Dm. (max.) 11
67	bz	strongly profiled globular chain-belt pendant	LT C1–C2?	L. 22; Dm. (max.) 9; Dm. (bottom) 7
68	bz	globular chain-belt pendant	LT C1?	L. 30; Dm. (max.) 16
69	bz	bobbin shaped chain-belt pendant	LT C1–C2?	L. 22; Dm. (top) 10; Dm. (bottom) 10
70	bz	bobbin shaped chain-belt pendant	LT C1–C2?	L. 24; Dm. (max.) 10
71	bz	bobbin shaped chain-belt pendant	LT C1–C2?	L. 30; Dm. (bottom) 16; Dm. (top) 15
72	bz	spinning-top shaped chain-belt pendant	LT C1–C2?	L. 21; Dm. 13
73	bz	spinning-top shaped chain-belt pendant	LT C1–C2?	L. 22; Dm. 14
74	bz	spinning-top shaped chain-belt pendant	LT C1–C2?	L. 15; Dm. 11
75	bz	belt termination („Riemenzunge“)	Rm B	L. 36; W. 5
76	bz	belt termination („Riemenzunge“)	Rm B	L. 40; W. 5
77	bz	belt termination („Riemenzunge“)	Rm B	L. 54; W. 5; Dm. (max.) 8
78	bz	shafted eyelet (belt piece?)	LT C2?	L. 27; eyelet 14 × 12 × 5
79	bz	fragment of a large spoked wheel with 8 spokes	LT C2–D?	Dm. 4.5; Th. (center) 5
80	bz	fragment of a small smooth spoked wheel with 4 (?) spokes (only part of the felly is preserved)	LT (A-C1) C2–D1	Dm. cca 20;
81	bz	a small smooth spoked wheel with 4 spokes	LT (A-C1) C2–D1	Dm. 21; Th. 2
82	bz	a small smooth spoked wheel with 4 spokes and marked nave	LT (A-C1) C2–D1	Dm. 21; W. (central part) 9
83	bz	fragment of a small smooth spoked wheel with 4 spokes (roughly a half is preserved)	LT (A-C1) C2–D1	Dm. 22;
84	bz	a small toothed spoked wheel with 4 spokes and marked nave	LT (B-C1?) C2–D1	Dm. 21; Th. 3
85	bz	a small toothed spoked wheel with 4 spokes and marked nave	LT (B-C1?) C2–D1	Dm. (ext.) 19; Th. 2
86	bz	a fragment of an anchor shaped pendant	LT D?	L. 20; Th. 2
87	bz	a knobbed ring with three rows of 21–22 knobs	LT C–D	Dm. (int.) 34; Th. (bar) 6
88	bz	a knobbed ring with three rows of knobs, partly erased	LT C–D	Dm. (ext.) 23; Dm. (int.) 15; W. 4
89	bz	a fragment of a knobbed ring with a single row of knobs	LT C–D	Dm. (int.) 16; L. (cons.) 21; Th. (bar) 5
90	bz	ring	LT C–D?	Dm. (ext.) 12; Th. 3
91	bz	bead	LT C–D?	Dm. (ext.) 11; Th. 4
92	bz	bead	LT C–D?	Dm. (ext.) 15; Th. 5
93	bz	ring, square section, traces of iron corrosion	LT C–D?	Dm. 8; Th. 2.5
94	bz	ring, square section	LT C–D?	Dm. (int.) 7; Th. 3
95	bz	ring, round section	LT C–D?	Dm. (ext.) 14; Th. 3
96	bz	ring, round section	LT C–D?	Dm. (ext.) 12; Th. 3
97	bz	ring, round section	LT C–D?	Dm. (ext.) 14.5; Th. 2
98	bz	ring, square section	LT C–D?	Dm. (ext.) 12; Th. 2
99	bz	ring flattened section	LT C–D?	Dm. (ext.) 18; Th. 3
100	bz	ring, flattened section	LT C–D?	Dm. (ext.) 14; Th. 2.5
101	bz	ring, square section	LT C–D?	Dm. (ext.) 12; Th. 3
102	bz	ring, square section	LT C–D?	Dm. (ext.) 14; Th. 3
103	bz	ring, round section	LT C–D?	Dm. (ext.) 13; Th. 2
104	bz	ring, flattened section	LT C–D?	Dm. (ext.) 14.5; Th. 3
105	bz	ring, square section	LT C–D?	Dm. (ext.) 12; Th. 2
106	bz	ring, square section	LT C–D?	Dm. (ext.) 11; Th. 2
107	fe	ring, square section	LT C–D?	Dm. (ext.) 10; Th. 3
108	bz	ring, round section	LT C–D?	Dm. (ext.) 29; Th. 3
109	bz	ring, round section	LT C–D?	Dm. (ext.) 13; Th. 3
110	bz	ring, square section	LT C–D?	Dm. (ext.) 15; Th. 3
111	bz	cast ring with (square section) with two small chain links of bent bar	LT C–D?	Dm. (ext.) 11; Th. 2.5
112	bz	ring, flattened section	LT C–D?	Dm. (ext.) 14.5; Th. 4
113	bz	ring, square section	LT C–D?	Dm. (ext.) 17; Th. 4
114	bz	ring, round section	LT C–D?	Dm. (ext.) 18; Th. 3
115	bz	ring, round section	LT C–D?	Dm. (ext.) 16; Th. 2
116	bz	ring, flattened section	LT C–D?	Dm. (ext.) 14; Th. 3

Cat. no.	Material	Description	Date	Dimensions (mm)
117	br	ring-chain (a cast ring with three small links of bent bar in line)	LT C–D?	Dm. (ext.) 15; Th. 2.5
118	bz	ring, round section	LT C–D?	Dm. (ext.) 13; Th. 3
119	bz	ring, square section	LT C–D?	Dm. (ext.) 15; Th. 3
120	bz	ring, round section	LT C–D?	Dm. (ext.) 21; Th. 3
121	bz	ring, flattened section	LT C–D?	Dm. (ext.) 17; Th. 3
122	bz	ring, flattened section	LT C–D?	Dm. (ext.) 15; Th. 3
123	bz	ring, square section	LT C–D?	Dm. (ext.) 13; Th. 3
124	bz	ring, round section	LT C–D?	Dm. (ext.) 8; Th. 2
125	bz	ring, square section	LT C–D?	Dm. (ext.) 14; Th. 2
126	bz	ring, round section	LT C–D?	Dm. (ext.) 7; Th. 3
127	bz	chain - three links in line, a bigger cast one and two small bent	LT C–D?	Dm. (ext.) 10; Th. 2
128	bz	ring, square section	LT C–D?	Dm. (ext.) 13; Th. 3
129	bz	flattened ring, flattened section	LT C–D?	14 × 12; Th. 2.5
130	bz	chain - a bigger cast ring with four links bent from a flat bar	LT C–D?	Dm. (ext.) 14; Th. 3
131	bz	chain - a bigger cast ring with two links bent from a flat bar	LT C–D?	Dm. (ext.) 16; Th. 3
132	bz	ring, square section	LT C–D?	Dm. (ext.) 16; Th. 4
133	bz	ring, round section	LT C–D?	Dm. (ext.) 13.5; Th. 3
134	bz	ring, round section	LT C–D?	Dm. (ext.) 13; Th. 3
135	bz	ring, round section	LT C–D?	Dm. (ext.) 20; Th. 4
136	bz	ring, round section	LT C–D?	Dm. (ext.) 16; Th. 4
137	bz	ring	LT C–D?	Dm. (ext.) 9; Th. 3
138	bz	ring	LT C–D?	Dm. (ext.) 10; Th. 2
139	bz	ring	LT C–D?	Dm. (ext.) 12.5; Th. 2
140	bz	ring	LT C–D?	Dm. (ext.) 11; Th. 2
141	bz	ring	LT C–D?	
142	bz	broad ring with open ends, external rib	LT C–D?	Dm. (ext.) 13; H. 6
143	bz	fragment of a chain-girdle link (Stabkettengürtel)	Ha D	L. 35; Dm. (ext.) 16; Dm. (int.) 8; Th. (bar) 5
144	bz	looped boss	Ha C–D1	13 × 13 × 4 (boss); H. 12
145	bz	looped boss	Ha C–D1	10 × 7 × 3 (boss); H. 8
146	bz	nail with a decorative domed head; reticulate pattern	LT D	L. 15; Dm. (head) 8
147	bz	nail with a decorative semi-globular head+ radial pattern	LT D	L. 20; head Dm. 7; H. 4
148	bz	decorative globular nail head with a smooth collar; decoration divided into three reticulate fields	LT D	(max.) 15 × 14; (nailhead) Dm. 10
149	bz	fragment of a nail with a decorative globular head, stuck in a band of bronze sheet; reticulate pattern	LT D	40 × 11 (sheet)
150	bz	nail with a decorative semi-globular head; reticulate pattern	LT D	L. 11; Dm. (nailhead) 8
151	bz	shield clasp		L. 22; W. 11; H. 9
152	bz	fragment of a mirror handle, decorated with relief eyes so as to resemble an animal head	LT D1b–D2	L. 27; Dm. (max.) 10; (head) W. 8
153	bz	tweezers		L. 64; W. (max.) 6
154	bz	tweezers		L. 29; W. 5
155	fe	scythe loop		45 × 44 × 15
156	bz	profiled bar		L. 44; Dm. (bar) 5; Dm. (eyelet) 5
157	pottery	crucible rim fragment		
158	bz	miscast		L. 19; W. 7; Th. 5
159	bz	miscast of a ring		L. 25; Th. 3
160	bz	semiproduct		L. 34; W. 4
161	bz	semiproduct		L. 29; W. 16; Th. 2
162	ag	ingot		
163	slag	slag		
164	bz	miscast of a ring		
165	bz	miscast of rings		
166	fe	knife		L. 190; W. 23
167	fe	axe-head		L. 86; W. 28–57; Th. 12
168	slag	slag cake		
169	slag	slag cake		
170	slag	slag cake		
171	stone	whetstone		

Tab. 1. Catalogue of metallic finds from the Žehuň site. — **Tab. 1.** Katalog kovových nálezů ze Žehuně.

taken into account in order to understand the assemblage correctly. Most importantly, there was collected only negligible number of iron objects. Therefore the evaluation of finds made of iron is limited compared to artefacts made of copper alloys and precious metals (see chapters 4.1.1.6 and 4.1.2.2).

4.1.1. Copper alloy objects

4.1.1.1. Brooches

There are 26 brooches or their clearly recognizable fragments in the Žehuň collection; the majority of these can be typologically and chronologically classified.

The brooch series begins with a thick serrated disk with concave central part and two wire protrusion on both sides (cat. no. 1). This is probably a fragment of the central part of a Ha D3 Doppelzierfibel (*Mansfeld 1973*, 43–46, type dZ1).

The minuscule Maskenfibel cat. no. 2 is embellished with circular sockets possibly for coral inlays. Three pairs of small sockets interspaced with three bigger ones in the middle run along the longitudinal axis of the brooch; in this way the three sockets in the frontal part of the bow also constitute the eyes and the mouth of the human mask while in the animal head on the upturned foot, they appear on the head-top and in place of its nostrils. The object can be classified among the Binding's type 5 ('Maskenfibeln mit anthropomorpher Kopfmaske und zoomorpher Fußzier': *Binding 1993*, 9) with – as is usually the case – majority of finds concentrating in the Southwestern part of Germany (*Binding 1993*, 143, Liste 5). The basic scheme of mask brooch is clearly present although the almost ridiculously small dimensions of the tiny object did not make for enough space for flamboyant details characterising other (Bohemian) examples of such fibulae (for the latest contribution on the matter cf. *Waldhauser 2014*). This austerity must have been more than compensated for by the colourful inlays which are otherwise rather exceptional in this type of artefact: e.g. mere two sockets are employed for highlighting the eyes and three other decorate the bow in a brooch from Gleichberg (*Binding 1993*); the brooch which stands closest to the Žehuň piece in terms of quantity and density of sockets is the famous full-figure brooch from Manětín-Hrádek (*Soudská 1968*).

Another clearly LT A piece is cat. no. 3, a 'Tierkopffibel mit Entenkopf' according to terminology of Ulrike Binding (*Binding 1993*, 27–33, type 16; the obvious ears and the button-like snout in the supposedly duck head need not trouble us here). This is the most numerous group of LT A figural brooches though slender pieces akin to the Žehuň brooch are rare (cf. *Binding 1993*, cat. nos. 23, 36, 87, 144, 148, 151a, 195, 213, 296 – again mostly from southwestern Germany). A nice (though earless) analogy from Bohemia comes from the settlement in Beroun-Plzeňské předměstí (*Břicháček — Charvát — Matoušek 1983*, 381, obr. 4: 1) although there unlike the continuously arched Žehuň piece, the bow is asymmetrically roof shaped.

Such an asymmetrical roof shaped bow is represented in Žehuň by another brooch fragment (cat. no. 4).

The spring and foot are missing so all considerations must be based on the bow shape itself. Variations of asymmetrical roof shaped bow appear in different phases of La Tène period (e.g. in LT B1a – *Kruta 1971*, type A2; *Holodňák — Waldhauser 1984*, 38–42) but LT A remains the most probable option for the fragment in question.

Another LT A fragment is a broken-off brooch foot (cat. no. 5) in the shape of a bird's (?) head with two eyes on a flat disk-shaped medallion and a long serrated up-turned snout (beak?). Particularly this latter element is very characteristic of LT A fibulae (*Binding 1993*, 33).

Cat. no. 6 is somewhat atypical by its bow of lenticular section decorated by a herringbone engraving. The unattached foot terminates in an almost unperceivably fine bulge. No precise analogy to this particular combination of features is known to us and classification to LT A and LT B are both possible.

The cat. no. 7 missing its foot belongs to the LT B1b Duchcov/Münsingen family. It has a simple bow with round section which is in all its preserved length decorated with fine engraved rings. The spring has 2 × 2 coils and external chord which is wrapped around the bow. The general shape of the fragment corresponds to the Duchcov type brooches and also its details fit their characteristics well: the decoration by fine engraved rings (*Kruta 1971*, pl. 11: 32) is among the most characteristic ones and also the wrapped chord is a commonplace (e.g. Liběšovice, Nové Třebčice, gr. 4, Podbořany: *Holodňák 1988*, 47, obr. 3: 1; 49, obr. 13: 6; 50, obr. 13: 14). Among the LT B1 brooches which are almost identical with our piece in combining both of these traits we can name those from gr. 17/1894 in Křinec (*Sedláčková — Waldhauser 1987*, obr. 15: 4) or gr. 89 in Pottenbrunn, Lower Austria (*Ramsl 2002*, 140, Taf. 43: 5). Similar features appear, however, in types datable as late as LT B2/C1 (Malé Kosihy, gr. 24: *Bujna 1995*, 22, Taf. 8A: 1–2).

The brooches with unattached foot are further represented by four broken-off foot terminations dating most probably to LT B2 or LT C1. Three of these are very fine bars terminating in simple smooth (sub)globular beads flanked from either side with simple moulding. In cat. nos. 8 and 172 the bead is globular and the foot smooth, while in cat. nos. 9 and 10 the beads are axially flattened; in the former the entire preserved portion of the foot is transversely fluted, in the latter only the bead is preserved. All these beads are set asymmetrically on the foot, i.e. they only stick upwards above the foot while they are flush with it in its lower part. Neither ornaments set asymmetrically on a brooch foot nor transversely fluted foot would exclude LT B1 date, the 'bulgy' nature of the beads hints however rather to 'plastic' fashions of LT B2. Possible analogies include e.g. Letky, gr. 7: *Waldhauser et al. 1987*, 95, Taf. 9: 17. Very close analogies to cat. nos. 9 and 10 are present, however also in the latest brooches with unattached foot accompanied already by MLT scheme brooches such as e.g. in Jenišův Újezd, gr. 81 (*Waldhauser et al. 1978*, Taf. 22: 8763).

A thick bar with a massive relief bead at the end (cat. no. 11) may be a fragment of both attached and unattached foot. The decoration of the bead – four

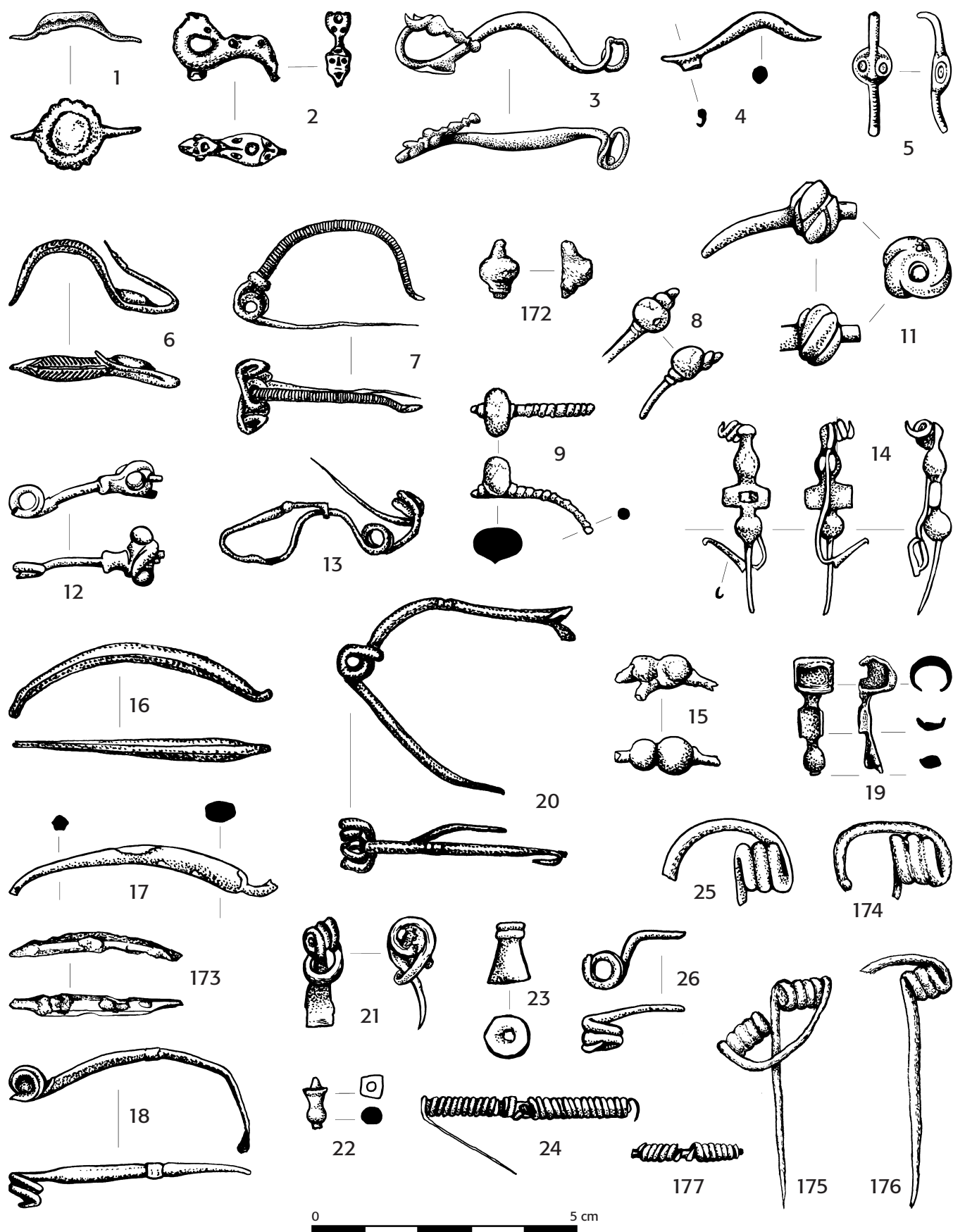


Fig. 9. Metallic finds – bronze brooches. (Drawings J. Kysela, P. Kazakova, M. Pleska). — Obr. 9. Bronzové nálezy – spony. (Kresby: J. Kysela, P. Kazakova, M. Pleska).

almond shaped elements swirling around their central axis – is far from sophisticated and despite its simplicity it is not very competently executed either. Beads with analogous decoration appear on brooches with both unattached and attached foot and both LT B2 and LT C1 date remains possible due to stylistic reasons (LT B2/C1: Makotřasy, t. 14 – the decorated bulges are made of bone: Čížmář 1978, 126–127, 137, obr. 11: 1–2; Letky, t. 21: Waldhauser et al. 1987, Taf. 23: 13–14; Dubník, gr. 14: Bujna 1989, 260, Taf. XIA1). Decoration with swirling almond shapes is nevertheless very characteristic of a series of MLT brooches represented by the following piece. A frontal part of a MLT scheme brooch with a massive binding element decorated in plastic style (cat. no. 12) poses no classification and dating problems. Such brooches, the so-called type Ptení, are extremely characteristic of the earliest stages of LT C1 in Bohemia and elsewhere (overview of the numerous examples in Sankot 2014, 258–259, Abb. 2: 1, 7–8; 3: 1–2; 4: 1–7). The complete MLT scheme bronze brooch with a short high bow and a little bead on the attached foot (cat. no. 13) can be classified as type G2-A after J. Bujna (2003, Abb. 63) and dated to LT B2/C1–C1.

The MLT scheme brooch with the bow made up by two drop shaped beads flanking a transverse rectangular piece with a cavity for a coral inlay (cat. no. 14) belongs to a type alien to Central Europe. These LT C1 brooches are at home in the Carpathian basin, in Transylvania and Banat with still more pieces appearing in contexts of the pre-Púchov culture in Slovakia (Pieta 2008, 29, fig. 9; 2014, 149). Their westernmost find place had so far been Horní Věstonice in Southern Moravia (Čížmář 2002a, 267, Abb. 8: 1).

The fragment cat. no. 15 can be identified as the central part of a MLT brooch bow with one stub of iron wire at one end (the bow) and two at the other (the foot and catch-piece). At this junction of the brooch parts there are twin bronze spheres. Such bimetallic brooches are not characteristic of local La Tène material; their various versions appear, nevertheless, in the neighbouring regions reaching as far as Gotland in the north and the Poienest-Lukaševka culture in the east with a clear concentration in regions of the Jastorf culture namely in the Elbe-Havel-Oder region (Bieger 2003, 19, Abb. 8, Karte 9; cf. also Müller 1985, 76–77; Babeş 2005). This Jastorf tendency is obvious in distribution of the 'Kugelfibeln' in Bohemia where they concentrate in the northern areas of the Bodenbach/Podmokly group (Bieger 2003, 66). The chronology of this extremely fragmentary piece is hard to estimate beyond the enormous timespan of LT C1–D1a.

Three fragments of frontally thickened faceted bows with remains or imprints of foot clasp (cat. nos. 16–18 and 173) represent the Mötschwil type. Though fully aware of the potential typological complexity of the Mötschwil family (Márton 2004), we will content ourselves with stating their broadly LT C2 date, generally recognised since 1970's (Meduna 1970b). An important trait of the bow fragment cat. no. 173 is its deeply pitted surface very probably meaning we are dealing here with a miscast.

The fragment cat. no. 19 is a terminal part of a MLT brooch foot including its attachment clamp. It is provided with two rectangular brackets (a transverse one on the clamp and an axial one on the foot) for insertion of decorative elements, presumably coral inlays. There are several types of MLT scheme brooches with coral inlays on the foot in Central Europe. Our fragment with its broad circular clamp does not come from the so-called 'shield' or 'Boii brooches' most common of Bohemia (Čížmář — Meduna 2012) since their bows are very fine but rather from the Blankenfelde type of coral brooches characteristic of southern regions of the Jastorf culture (Müller 1985, 76, 174, Taf. 89: 13; Brandt 2001, 87–88), more precisely – considering its dimensions – from their 'variant Kožuchów' recently defined by Maciej Karwowski (2017). Unlike the smaller 'classical' Blankenfelde type brooches whose distribution is restricted to the actual Jastorf culture area, the bigger ones of the 'variant Kožuchów' are regularly present also in its southern neighbouring areas including also Bohemia (Karwowski 2017, 193, fig. 4). These ornate variants of the Mötschwil type date to LT C2–D1.

Only a single indisputably Late La Tène scheme brooch is preserved of which remains enough to allow for classification (cat. no. 20). Its filiform body with a fine relief ring class it in Gebhard's 6th group, dating to LT D1a (Gebhard 1991, 9–11, 93–94; cf. e.g. Stradonice: Břeň 1964, 222–224, tab. 8: 292, 295 /type C1/; Rybová — Drda 1994, 106, fig. 34: 7). The same date is probable for the small fragment consisting of a half-spiral with inner chord and broken-off base of ribbon shaped bow (cat. no. 21) which would class it somewhere among the large family of Nauheim type derivatives.

Fragment cat. no. 22 (a baluster shaped piece with a globular lower and square upper part with a short stubby point at the top) and the small solid cone with a double ring at the top cat. no. 23 may both have originally been foot finials of either Duchcov type brooches (Kruta 1971, pl. 18: 28) or of a fine brooches with long feet (Letky, gr. 27: Waldhauser et al. 1987, 101, Taf. 14: 12–13; Jenišův Újezd, gr. 81: Waldhauser et al. 1978, Taf. 22: 8761; gr. 97: Waldhauser et al. 1978, Taf. 28: 9113–9114; Krämer 1985, 176, Taf. 96: 8–9). In the former case they would chronologically belong to LT B1, in the latter to LT B2 or C1.

Three (fragments of) brooch springs give little hope as to their exact typological determination. No unequivocal statement can be made as to the long brooch springs with spring axis cat. no. 24 with 2 × 13 coils and 177 with 6 + 7 coils. Such long springs are known from Ha D2–3 (Mansfeld 1973, 49–55; Pauli 1978, 107–111), LT B2/C1 (Bujna 1989, taf. XIV: 4), LT C2, but also from recent Roman Iron Age (3rd century AD) all of which are represented in the site. There is no point in discussing the brooch fragments cat. nos. 25–26 and 174–176.

4.1.1.2. Bracelets

Eight fragments of bracelets all find their analogies in the LT flat graves. There are three fragments of bracelets (cat. nos. 27, 28 and 29) with alternating big-

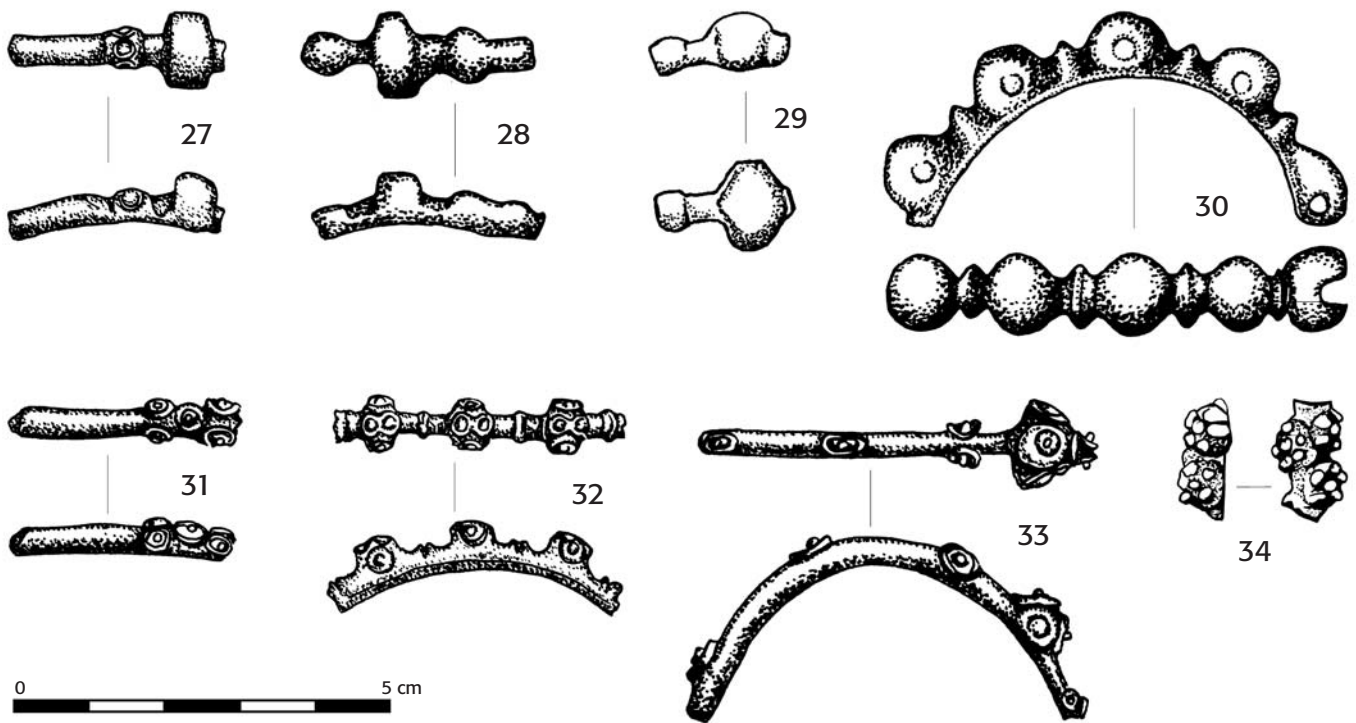


Fig. 10. Metallic finds – bronze bracelets. (Drawings M. Pleska, J. Kysela, P. Kazakova). — **Obr. 10.** Bronzové nálezy – náramky. (Kresby: M. Pleska, J. Kysela, P. Kazakova).

ger (axially flattened) and smaller (vaguely globular) bulges. In one case (cat. no. 27) the smaller bulge is decorated by three concentric circles; the other two fragments are smooth. Bracelets with which these fragments correspond (type E4 after *Bujna 2005*) appear in Bohemia in graves dated to LT B1b/c to LT B2 (*Sedláčková — Waldhauser 1987*, 143, obr. 12: 2; *Zápotocký 1973*, 141, obr. 13: 4, 153–154, obr. 15: 4–5; *Uenze 2005*, 73, Abb. 2: 24).

A substantial part of a hinged bracelet cat. no. 30 consisting of alternating globular elements and smaller ribs dates to LT B2–C1 with analogies from Křinec (*Sedláčková — Waldhauser 1987*, 143, obr. 12: 7 – hinged), Křenovice (*Čižmářová 2009*, Tab. 33: 9a–b – hinged) or Libochovice (*Zápotocký 1973*, 142, obr. 2: 18 – hingeless).

By three fragments (cat. nos. 31–33) are represented the so-called bracelets with 'rose-bud decoration'. This is a rather consistent sub-group within the broader category of jewels decorated with pseudo-filigree (*Kruta 1975*, 70–74; *Čižmářová 2012*) well represented in LT B2b–C1a graves in Moravia, Bohemia and Bavaria. The arrangement of the buds is highly variable but still we may find a relatively close analogy for each of the Žehuň rings: cat. no. 33 – Holubice, t. 71 (*Čižmářová 2009*, 108, tab. 27: 4), Jenišův Újezd, t. 81 (*Waldhauser et al. 1978*, Taf. 22: 8767); Eggfling, gr. 1853 (*Krämer 1985*, 135, No. 85, Taf. 69: 4); cat. no. 32 – Mastřovice (*Zápotocký 1973*, 150–151, obr. 17: 6); Brno-Maloměřice, gr. 52, Holubice, gr. 71 (*Čižmářová 2012*, 210, 211, tab. VIII: 1, 6); cat. no. 31 – Makotřasy, gr. 18 (*Čižmář 1978*, 137, obr. 13: 3), Radovesice, gr. 31 (*Waldhauser et al. 1987*, 129, Taf. 25: 17–18); Cröbern, Kr. Leipzig-Land (*Brandt 2001*, 108, Taf. 11: 4), cf. also e.g.

Eggfling (*Uenze 2000*, 9, Abb. 11: 24; 2005, 60, 75–76, Abb. 2: 23, 25).

Possibly also from a bracelet comes a short stub of bronze bar with three globular elements on one face, cat. no. 34; each of them is decorated by six little 'warts' – one in the centre and the others around it – making thus a kind of 'buds'. A similar fragment of bracelet with 'wart' decoration comes from the settlement of Eggfling (*Uenze 2000*, 9, Abb. 11: 23). A nice parallel is also a pair of bracelets from the Hunsrücken cemetery in Manching (*Krämer 1985*, 97, Taf. 36: 16–17) only the buds there are organised in pairs rather than in a zig-zag line (a negligible detail). Unfortunately both the Eggfling fragment and the Hunsrücken bracelets are stray finds without a clear context. Another very similar pair of bracelets was found in a LT B2/C1 grave in Basel-Grenzacherstrasse (*Müller 1981*, Abb. 12: 18–19). This date corresponds well also with the decoration of the piece which once again belong to the pseudo-filigree group.

4.1.1.3. Belt fittings and chain belts

The most numerous functional group of artefacts is that of metal belt elements.

There are eight **belt hooks**. Cat. no. 35 is a very simple leaf-shaped piece with a flat eyelet at its proximal end. Its general shape is close to the type L1/L2 after *J. Bujna (2011, 128–129)*, belonging to LT B2–C1. They feature both rolled-up eyelets (*Čižmářová 2013*, 231, tab. 44: 8; *Krämer 1985*, 123, Taf. 61: 6) and flat ones, such as the one in our example (Brno-Maloměřice,

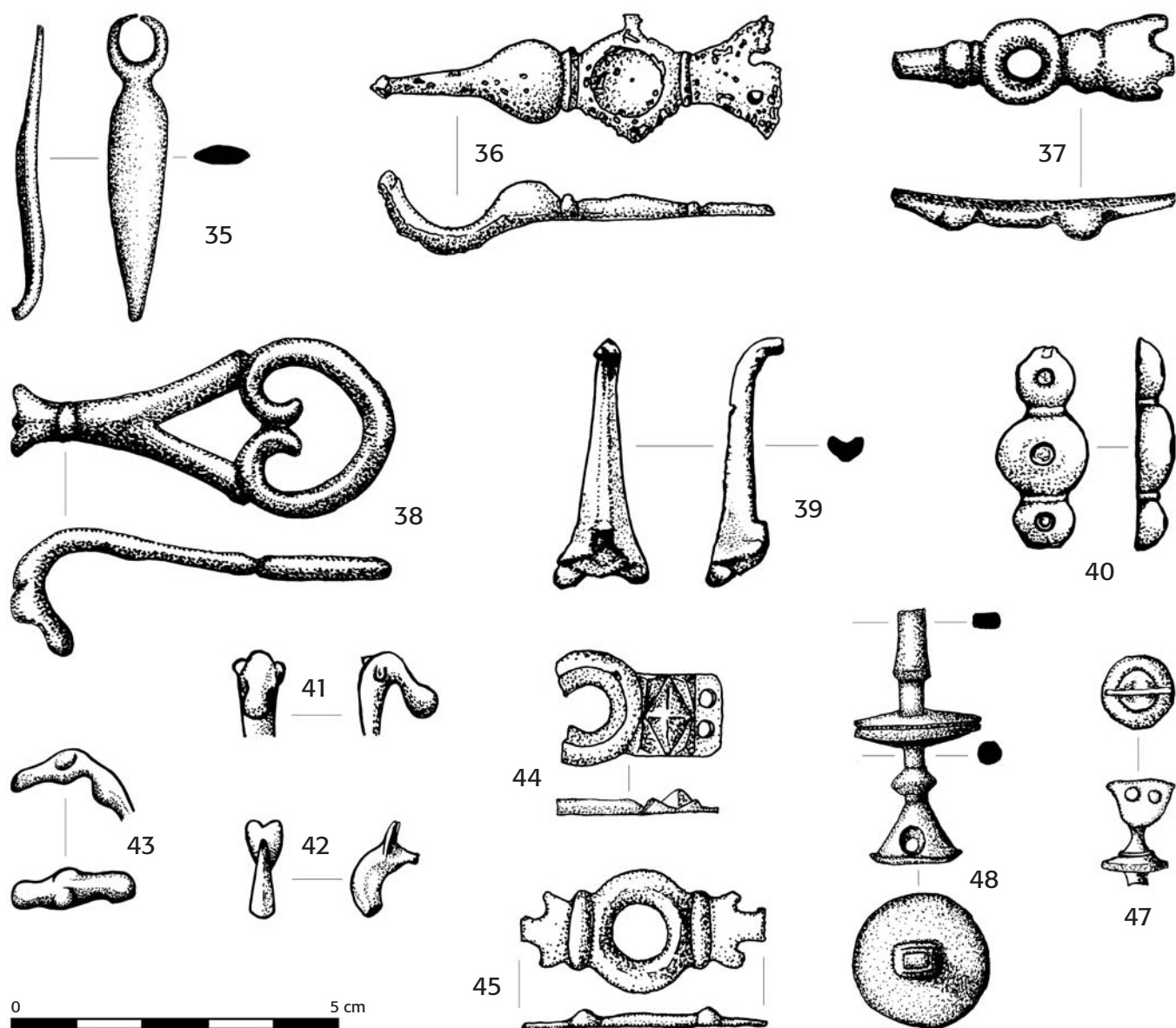


Fig. 11. Metallic finds – bronze chainbelt elements. (Drawings J. Kysela, P. Kazakova, M. Pleska). — **Obr. 11.** Bronzové nálezy – součásti opasku. (Kresby: J. Kysela, P. Kazakova, M. Pleska).

gr. 37: Čižmářová 2005, 111, obr. 70: 15). Cat. no. 36 is almost identical with a belt hook from Mnichovský Týnec, distr. Louny (Filip 1956, 173, obr. 51: 2). Jozef Bujna (2011) classifies it as his type Gs-T, dating it very generally in LT C (Bujna 2011, fig. 53), noting that the belt type, for which it was employed, may have remained in use till LT D1 (Bujna 2011, 92). The belt hook cat. no. 37 is a somewhat beaten-up relative of a fine hook from the rich grave in Křepice, distr. Brěclav, dated to later LT C1 while the belt hook itself (Bujna's type Gs-P2a) may run through LT C2 (Bujna 2011, 121, 129, obr. 51: 1; 53; cf. e.g. – Manching-Steinbichel, gr. 18 and Aislingen: Krämer 1985, 79, Taf. 9: 1; 176, No. 173, Taf. 97: A3; Písek: Michálek et al. 2014, 155, obr. 10: 9). The hook cat. no. 38 terminates with a zoomorphic hook but its body is pelta/omega shaped. Such openwork approach is not very usual for belt

hooks⁵ and no direct analogies can be named: from typological point of view it is similar to a series of belt hooks which are almost identical in shape but much heavier and lavishly decorated with enamel, probably dating to LT C2 (Němčice: Čižmář — Kolníková — Noeske 2008, 660–661, Abb. 8: 9; Těšice: Čižmář et al. 2008, 129, 134, obr. 5: 9; Nowa Cerekwia: Rudnicki 2014, 426, fig. 4: 9). Formally slightly different but stylistically very similar belt hook comes from a LT C1 grave in Biskupství, distr. Olomouc (Bujna 2011, 92, obr. 38: 7). A fragment of a hook shaft cat. no. 39 is very similar to the Biskupství belt hook just quoted though

⁵ It is more common in case of the terminal (i.e. female) elements of chain belts (cf. e.g. Stradonice u Loun: Píř 1902, 171, tab. XXX: 1).

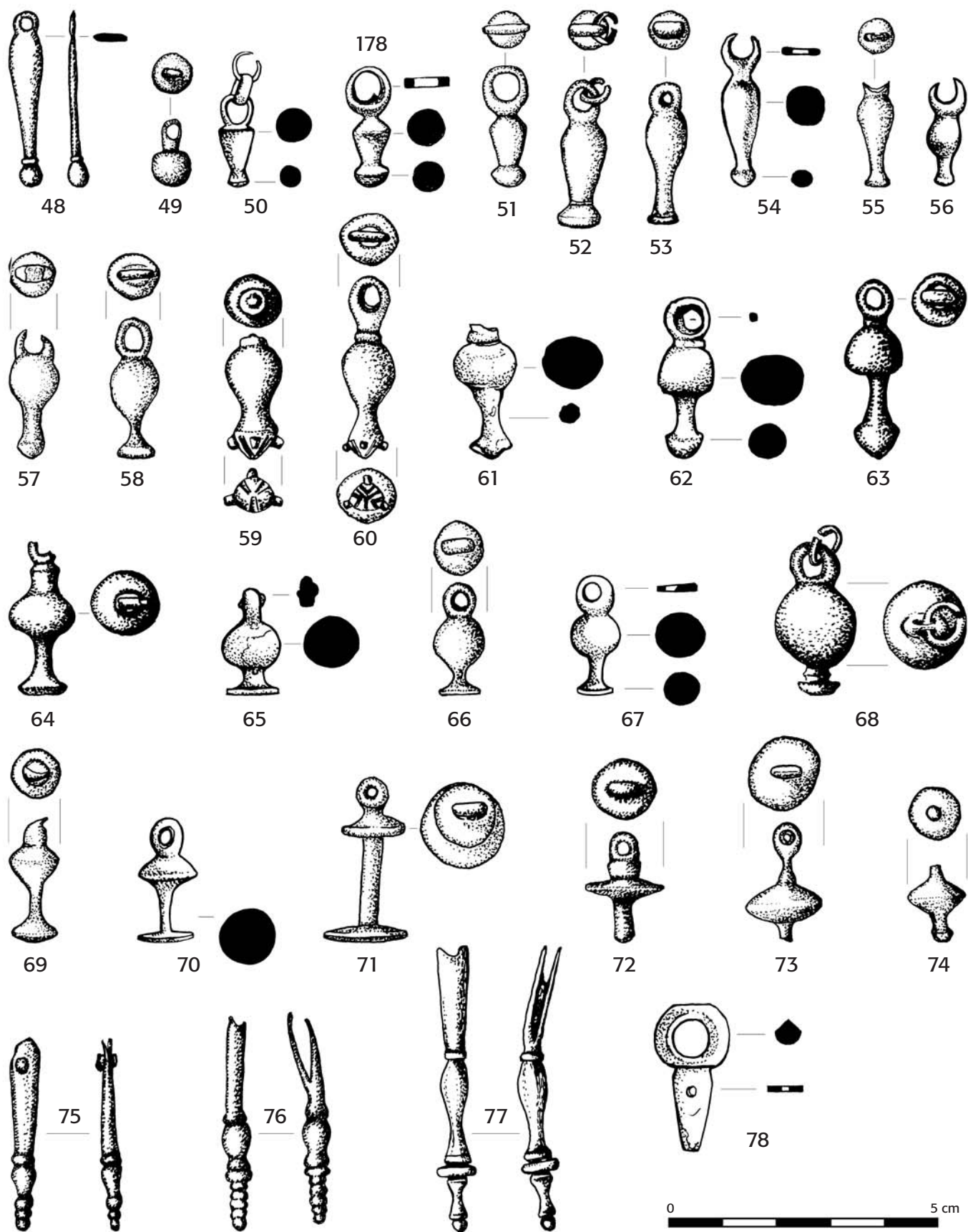


Fig. 12. Metallic finds – bronze chainbelt pendants. (Drawings J. Kysela, P. Kazakova, M. Pleska). — **Obr. 12.** Bronzové nálezy – součásti opasku. (Kresby: J. Kysela, P. Kazakova, M. Pleska).

vaguely similar elements appear also in much starker belt hooks from the oppidum of Staré Hradisko (*Meduna 1970a*, Taf. 5: 6; LT C2 or D1?). Also cat. no. 40 should be probably classed among belt hooks. The fragment consisting of three cushion shaped circular discs with small enamel inlays in centre of each of them recalls very clearly the chain belts; no direct analogies are available, though. Because the breaks are of unequal width at each of the ends, the object must have been asymmetrical, i.e. belt hook rather than a belt link. To conclude the overview of belt hooks, there are three zoomorphic hook terminations: cat. nos. 41, 42 and 43 with innumerable analogies from LT C1–C2.

Among **chain belt links**, cat. no. 44 corresponds with Bujna's type P-2b with closest analogy in Laufen, Bavaria. Its probable date is late LT C1 (*Bujna 2011*, 121, 143; *Krämer 1985*, 117, Taf. 53E: 12). Fragment cat. no. 45 is close to the former due to its annular central part and two chain holes in the side plate which is however square and not trapezoidal, making the artefact Bujna's type P-2a with the same chronology. An unusual feature is the decoration of the side plate – a pointed lozenge inscribed in a frame with similarly pointed triangles in the corners. These two link types were preliminarily termed as 'German' and 'Moravian' respectively (cf. *Bujna 2011*, 121); discovery of one link of each of these types in Žehuň does not support these assumptions.

A miscast cat. no. 158 may have been meant to become of chain belt link, an extremely simplified variety of 'profiled bar links'⁶ (*Bujna 2011*, 100–105, group Gk-J; cf. *Rudnicki 2014*, 426, fig. 4: 10–13; *Schäfer 2010*, Taf. 10: 932; *Krämer 1985*, Taf. 23: 1), or perhaps a battery of bronze rings which happened to get fused to a single piece.

Cat. nos. 46 and 47 are variously moulded bronze bars flaring in one point into a transverse flat disc. In each of them only one end is preserved: a cone with three holes in the former case, and a flat triangle with two holes in the latter. Both of these pieces bear very close resemblance with the elements of chain belts discussed above, but do not correspond precisely with any of them. Their sharply discoidal rather than globular central piece would make them rather uncomfortable to wear as belt links and the funnel shaped termination and three holes around the circumference of cat. no. 46 suggest that rather than a link it was a terminal piece of a chain-belt from which three chains with belt pendants were hung. Cat. no. 47 is certainly the same type of object from which the upper part is preserved. A few such pieces survived in late LT C1 and LT C2 graves in Bavaria (*Krämer 1985*, 75–76, Taf. 1: 7; 79, Taf. 8: 4) while a piece from Semice, distr. Písek, is a surface find (*Fröhlich — Michálek — Jiřík 2011*, 140–141, obr. 9: 1 – discussed there as 'a pendant'). Their rather plump shapes differ markedly from the sharp Žehuň pieces while recalling the chain belt links with central globular

element and side plates (*Bujna 2011*, 123, group Gk-R; cf. *Čížmář — Kolníková — Noeske 2008*, 661, Abb. 8: 1–3). As argued by J. Bujna, absence of chain belts of the group Gk-R in flat graves of the Middle Danube region along with the contexts of Bavarian examples hint at their LT C2 date. The Žehuň pieces with their sharply discoidal rather than globular central piece find exact parallels in two fragments from the oppidum of Stradonice (*Píř 1903*, tab. XX: 33; XXVI: 15). This does not contradict a LT C2 date.

The **chain-belt pendants** present in number of 27 are one of the most copious find categories in the site. These objects have so far received only limited scholarly attention. A sketchy typology and chronology is outlined by Jiří Waldhauser and Filip Krásný (*Waldhauser — Krásný 2006*, 109–111) basing on finds from Bohemian graves. These provide, however, a rather limited sample. Some common types are therefore absent from the typology (though mentioned in the text). Moreover, limits between the single types are rather fluid and one has hard time to attribute a pendant to one type or another. Although the general trend suggested by the authors – simple slender forms developing towards more articulated and geometrical ones – seems to be generally valid, it is not in all details upheld by evidence from regions richer in these finds, such as Moravia, Slovakia or Bavaria. For all these reasons, we will restrain from using the typology, stressing the need for a new study based on a larger sample and for our present needs we will – without any ambition at actual classification – order the pendants into large formal groups.

A single flat narrow pendant with a small globular termination (cat. no. 48) has few counterparts but interestingly an almost identical piece comes from a very early (LT B1) grave in Dürrenberg (*Penninger 1972*, 53, Taf. 14: 19). One small globular pendant with an eyelet (cat. no. 49) – not necessarily from a chain-belt – is a rare find, no doubt due to its minuscule size (Wederath, t. 1493, LT C2: *Cordie-Hackenberg — Haffner 1991*, 49, Taf. 391: k) but attested in some graves (Lovosice, gr. 14, LT C1: *Zápotocký 1973*, 148, obr. 8: 21) and even settlements (*Eggling: Uenze 2005*, 60, Abb. 2: 32). A group of 12 pendants (cat. nos. 50–60, 178) range in their shapes in a vague piriform / bottle- / baluster-shaped realm, covering Waldhauser's types III–IV and VI–VIII. This fact (let us recall that the Waldhauser typology was based on Bohemian flat graves) as well as countless analogies from graves in other regions testify to their mostly LT B2–C1 date. The lower ends of two of these pendants (cat. nos. 49 and 50) are decorated in an identical way by three linear incisions – possibly meant to receive an enamel inlay – interspaced with relief dots similarly to the surface finds from Nowa Cerekwia (*Rudnicki 2014*, fig. 5: 1) or pendants on stray chain-belts from Laufen (?) and Einhausen in Bavaria (*Krämer 1985*, Taf. 53: 12).

Worth pointing out are several strongly articulated ('mushroom shaped') pendants (cat. nos. 61–63 and maybe 64). A single grave find of this type is known to us, from quite distant Wederath, Ldkr. Bernkastel-Wittlich (t. 1416, LT C1; *Cordie-Hackenberg — Haffner 1991*, 49, Taf. 374: j). It is on the other hand completely absent in flat graves in Bohemia and surroundings

⁶ Local production of chain belt links of this type in Žehuň would be the ultimate reason to abandon the term 'middle-German type' sometimes used for this type of belt-link following the study of J. Reitingner (cit. *apud Bujna 2011*, 4).

while it is regularly and consistently present in La Tène agglomerations there (Němčice: Čížmář — Kolníková — Noeske 2008, 662, Abb. 8: 13–14, 18–19; Nowa Cerekwia: Rudnicki 2014, 427, fig. 5: 1–2; Egglefing: Uenzen 2005, Abb. 4: 20; Zohor: Elschek — Kolníková 2014, 365, Abb. 6: 7–9) and among surface finds (e.g. Michálek et al. 1999, 85, obr. 69: 2; Mangel — Jílek 2012, 57–58, obr. 2). It appears as if these pendants appeared in the west by the end of LT C1 but only came to massive use in Central Europe in LT C2.

Four pendants are outright globular. While those with a long stalk and terminating in a flat disk (cat. nos. 65–67) might be considered variants of the previous type with analogies e.g. in Němčice (Čížmář — Kolníková — Noeske 2008, Abb. 8: 13, 14, 17), the cat. no. 68 with its stubby appendix has the only approximate counterparts in Dubník (gr. 27: Bujna 1989, Taf. XXVIII: 4) and in Malé Kosihy (gr. 149, LT C1), unusually made of iron (Bujna 1995, Taf. 16: 1).

Pendants in the form of bobbin and of spinning-top (the latter may be only broken-off parts of the former) are represented by three pieces each (cat. nos. 69–71 and 72–74). Once again, in narrower Central Europe these shapes are extremely rare or absent in graves but they are present in agglomerations (Němčice: Čížmář — Kolníková — Noeske 2008, 660, Abb. 3: 1), in surface finds (Čížmář et al. 2008, 129, obr. 3: 10) and even oppida (three bobbin shaped pendants in Stradonice: Píč 1903, tab. XX: 15, 18, 27). This along with their similarity with the discoid chain belts discussed above (cat. nos. 46 and 47) make us consider their late date as probable though (once again) a complete chain-belt from t. 1464 in Wederath attest their appearance further west already in (late) LT C1 (Cordie-Hackenberg — Haffner 1991, 42–43, Taf. 384: e).

The series of belt finials comes to its end with three bronze **'Riemenzungen'** (cat. nos. 75, 76 and 77). Though differing from each other in details they all share the general characteristics of a baluster shaped central element with a series of variously shaped appendices at the bottom and two languets with a transverse rivet hole at the top end. Such belt finials, in both bronze and iron, are present (often in significant quantities) in various Late La Tène oppida (e.g. Stradonice: Píč 1903, Tab. XXIII: 1–4, 8–9, 16–17, 22–23; Staré Hradisko: Meduna 1961, 6, Taf. 9: 12–17; 1970a, Taf. 7: 1–6; Manching van Endert 1991, 30–34; Sievers 2010, 21–22, Taf. 38) but they continue to be used also in the late 1st century BC and in the 1st century AD (e.g. Deimel 1987, 77, 244–249, Taf. 57; Drobejar 1999, 93, Abb. 21). The slender Žehuň pieces with their finely profiled bulges are much more akin to the late finials from late 1st century BC/early 1st century AD rather than to the massive and heavy ones from the oppida period (Deimel 1987, 77).

A massive ring with a flat lateral languette cat. no. 78 has a very close counterpart in La Tène (Vouga 1923, 48, pl. VIII: 6c) and in the oppidum of Altenburg-Rheinau (Lauber 2012, 728, Abb. 18, Nr. 219) which is interpreted as a belt element. For this reason we mention it here although other (much vaguer) explanations ('a fitting') can be equally valid.

4.1.1.4. 'Amulets'

The Žehuň surveys have produced eleven objects classifiable as 'amulets'. Their majority are various iterations of spoked wheels, complemented by knobbed rings and an anchor shaped pendant.

There is one fragment of large **spoked wheel** with originally eight spokes (cat. no. 79), four small smooth four-spoked wheels or fragments thereof (cat. nos. 80–83), two toothed four-spoked wheels (cat. nos. 84–85) and an uncommon four spoked wheel with small appendices around its circumference (cat. no. 179). These artefacts have recently been exhaustively synthesised by Miloš Hlava (2009; 2015 – 'amulets' from the oppidum of Třisov and the hoard of Ptení respectively) and Hana Čížmářová (Čížmářová 2014 – spoked wheels in Moravia), so we may just recall some of their conclusions. Appearing as early as LT A (if not Ha D) these artefacts are represented throughout the La Tène period: from rare examples in LT B–C flat graves, through LT C agglomerations, up to LT C2–D1 oppida. Their seeming prevalence in the latter may be to a great extent due to bibliographic visibility, numerical consistency and relatively good chronology of the oppida assemblages (Stradonice: Píč 1903, tab. X; Třisov: Hlava 2009; Staré Hradisko: Meduna 1961, 5, Taf. 3: 9; Manching: van Endert 1991, 15–18, Taf. 5, Nr. 93–120; Sievers 2013, 170, Abb. 5: 12–16; Villeneuve-St.-Germain: Debord 1993, 91, fig. 28–29; 1998, 82–85, fig. 21). The presence of both smooth and toothed wheels in LT C agglomerations is, however, all but negligible (Němčice: Čížmář — Kolníková — Noeske 2008, 660, Abb. 3: 15–16; Roseldorf: Dembski 2009, 98, Abb. B22; Egglefing: Uenzen 2000, Abb. 11: 13; 13: 7; Berching-Pollanten: Schäfer 2010, 66, Taf. 2: 101–103; 30: 1509; 34: 1760; 70: 3918; 71: 3981; 104: 6209). Despite some early considerations about Southern origin of the toothed variant, all the versions of this artefact category were doubtlessly produced locally in Central Europe. Their extreme simplicity makes any considerations based on typological let alone stylistic variations superfluous.

The only comparison we are aware of for the unusual four-spoked wheel with appendices around the circumference cat. no. 179 is a fragment from Němčice nad Hanou (Čížmářová 2014, 658, 664, Abb. 3: 31), identical with it in terms of dimensions, number of appendices and the continuation of one of the spokes on the outside of the ring sticking out between two of the appendices. The weirdness of the Němčice fragment made H. Čížmářová doubt whether it actually belongs to the category of spoked wheels. The complete Žehuň piece dispels the doubts though confirming the weirdness. Some traits of the objects make us consider it a possible miscast (one of the spokes and one quarter of the appendices are completely missing, some of the appendices present obvious casting seams).

The **anchor shaped pendants** (cat. no. 86) are much less common than the wheel-shaped ones and they appear almost exclusively in oppida (Stradonice: Píč 1903, tab. XII: 19, 27, 34–35; Třisov: Hlava 2009, 118–119, obr. 1: 12) with some exceptions (Tetín: Sklenář 1978, 24, tab. XII: 726).

The category of 'amulets' is complemented by three (or four) **knobbed rings**. Also these have recently been

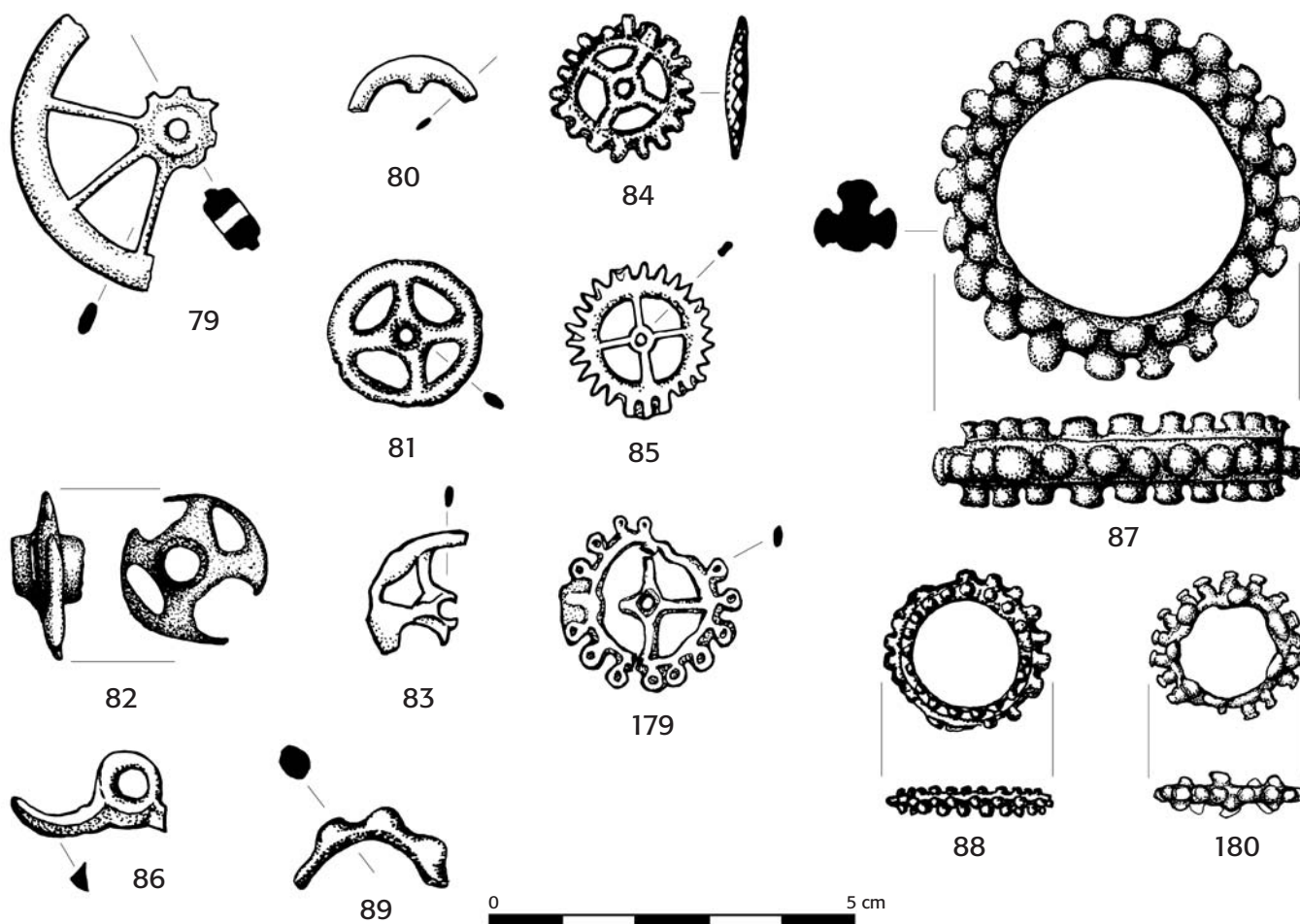


Fig. 13. Metallic finds – bronze ‘amulets’. (Drawings J. Kysela, P. Kazakova, M. Pleska). — **Obr. 13.** Bronzové nálezy – ‘amulety’. (Kresby: J. Kysela, P. Kazakova, M. Pleska).

synthesised by Monika Dębiec and Maciej Karwowski (Dębiec — Karwowski 2014; 2016) with further observations by Miloš Hlava (2009; 2015, 271). Two rings (cat. nos. 87 and 88) with knobs densely packed in three mutually independent rows – not distinct groups of three – along the circumference and each face belong to type IIB after Dębiec — Karwowski (2016, 121–122), i.e. the most numerous group. The ring cat. no. 180 with the number of knobs around the circumference twice as high as that on each face represents the type IIC, which has so far been attested in Bohemia by a single published item (Dębiec — Karwowski 2016, 124–125). The simple fragment of a bronze ring with three bulges around its circumference (cat. no. 89) can be considered as an atypical version of the knobbed rings (Dębiec — Karwowski 2016, 130, fig. 14, nos. 159–161). Its few other examples correspond with the Žehuň piece also by their dimensions. This small group may perhaps be considered a ‘quick and cheap’ variety of the knobbed rings properly speaking. Knobbed rings are very numerous in late Iron Age Europe; their ubiquity earned them even place in the famous Déchelette’s comparison table (along with spoked wheels – discussed above – and enamelled rivet heads discussed below). Their origin is usually searched for in Northeastern Balkans in 4th–3rd century BC (Čižmář 2002b) whence

they supposedly spread to Central Europe. Here they concentrate in particular in the area of the so-called Boii coinage where M. Dębiec and M. Karwowski register as many as 153 pieces (Dębiec — Karwowski 2016). Further west, they get much scarcer already in Bavaria though they are present also in the Rheinland (e.g. Schlott — Spennemann — Weber 1985, 472–473, Abb. 21: 1–5) and even produced as far as in the Gaul (Pierrevelcin 2009, 227–228). As to chronology, they are as a rule considered Late La Tène objects as suggested by their presence in oppida and by their first appearance in the Mokronog group tombs. However, their distinct concentration in Němčice nad Hanou (as many as 17 pieces: Dębiec — Karwowski 2016, 132) proofs their perfect domestication in this area already during the site’s apogee in at least LT C2.⁷

⁷ We may also point to out the appearance as early as in the 4th–3rd c. BC of objects very similar to knobbed rings (albeit bigger) in their domestic Romania (Glodariu 1984, 70–71) but also LT B1 graves in Hrušky and Marefy in Moravia (Čižmářová 2013, tab. 19: 7 and 31: 3). When exactly the knobbed rings came to exit in their classical variety known from the oppida period, cannot be confidently said, once again due to our still only very general idea about artefact development and seriation in the time span between LT C1 and LT D1.

4.1.1.5. Other bronze artefacts

A considerable body of finds is constituted by extremely simple bronze beads and rings. There are four **beads**, i.e. rings with the thickness of the walls equal or greater than that of the diameter of the central hole (cat. nos. 90–93), 48 **rings** (cat. nos. 94–141), five of them with remains of fine bronze chains attached to them, one annular band with open rounded ends (cat. no. 142), and three (or four) miscasts of rings (cat. nos. 159, 164–165 and potentially also cat. no. 158 already mentioned). The Žehuň rings share all the same form (the section varying – often even in a single ring – from rhomboid through lenticular to oval) and dimensions (thickness 4–2 mm, external diameter 13–14 mm and internal diameter 7–8 mm; some rare outliers reach up to 29/23 mm and down to 9/5 mm of external/internal diameter).

Such simple bronze rings appear (sometimes in massive numbers) in some of LT C–D settlements in Central Europe (most eloquent example being the ca. 750 pieces from Stradonice strung ostentatiously on seven threads in *Pič 1903*, tab. XVIII; see also e.g. Nowa Cerekwia: *Rudnicki 2014*, fig. 4: 14–25; Staré Hradisko: *Meduna 1970a*, Taf. 14: 2–31; Eggfling: *Uenze 2005*, 77, Abb. 3: 22–46; 4: 30–37; Manching: *van Endert 1991*, 22–23 (beads), 104 (rings), Taf. 6, 38–39, Nr. 131–194, 623–729; *Sievers 2013*, 208, Abb. 37–38; Heidetränk: *Schlott – Spennemann – Weber 1985*, 460, Abb. 12–14; Villedeneuve-St.-Germain: *Debord 1998*, 80–82, fig. 20). Their absence elsewhere may be caused by research strategies (excavations without metal detectors or without the heed characterising the pillagers of Stradonice) or by publication rationality.⁸ The limited interest of scholars in these objects is probably to a certain extent deserved: the rings – components rather than artefacts themselves – probably served a number of different purposes in personal and household equipment. They may have served in pairs as fasteners for leather straps or otherwise made part of belts (as suggested based on their massive presence in the Heidetränk ustrinum: *Schlott – Spennemann – Weber 1985*). Although the study of individual rings will never bear particularly rewarding fruits, there may be some potential in their statistic evaluation and comparison between sites – they are after all a nicely quantifiable part of metal consumed in a site.

A curious artefact is the slightly arched bar with a tangential eyelet at one end and the other end broken off (cat. no. 143). It corresponds very well with the ‘eastern variety’ of the Hallstatt period chain-belt or ‘**Stangengliederkette**’ characteristic of southern Germany (*Schaaf 1974*, 73, Abb. 9). This eastern variety has been detected in Dürrenberg and in Hallstatt itself (*Pauli 1978*, 180–183). It is hard to guess how it may have made its way to the borders of Eastern Bohemia.

⁸ For example no rings are mentioned in the publication of Němčice, but a miscast of three of them is presented among the evidence of local bronze working (*Čížmář – Kolníková – Noeske 2008*, Abb. 9: 2). There was obviously no place in the very succinct paper for these extremely simple and extremely little telling objects.

Two almost identical semi-globular bronze **looped bosses** (cat. nos. 144 and 145) correspond perfectly with components of Hallstatt period horse and wagon harnesses. Analogies are available from numerous Ha C–D1 wagon burials in Bohemia and elsewhere in which such bosses with solid loops were found threaded onto harness straps (*Dvořák 1938*, 13, obr. 9: b–d – Lhotka nad Labem; 25–27, obr. 26: esp. 6–9 – Hradenín, gr. XXIV; 48, obr. 5–8 – Plaňany; 58, obr. 53 – Moritzbrunn, D; *Chytráček et al. 2015*, 77, Abb. 8: esp. 24–26). Curiously such simple bosses are no more present in this function in the more recent Ha D3 – LT A two-wheel chariot graves (Manětín-Hrádek: *Soudská 1976*; Kladruby: *Sankot 2012*; Mírkovice: *Chytráček 1990*). Such bosses have also recently been connected with LT A shoe-lacing implements (*Čambal 2016*, 111–114) although in them the eyelet has a very different shape (*Schönfelder 1999*).

There are four examples of bronze **rivet/nail heads decorated by incision** and possibly enamel inlays (in none of them there are its remains preserved). The cat. nos. 146–147 are two very similar short nails with flat shafts; their rather flat heads are decorated by reticulate and radial pattern respectively. Basically only the head is preserved from cat. no. 148; it is also flattish, divided by smooth lines into thirds, two of which are decorated by reticulate pattern, the third one by incised chevrons. The last item (cat. nos. 149–150) is a fragment of rivet with a (squeezed) globular head decorated by series of straight lines in three different directions constituting thus a knot-like pattern. It sticks in a hole at the end of strip of bronze sheet; the strip is broken off several centimetres ahead in place of another hole. The incised rivet/nail heads are among the most characteristic artefacts of the Late La Tène culture (e.g. Stradonice: *Pič 1903*, tab. IX; Staré Hradisko: *Meduna 1961*, Taf. 7: 24–31; 1970a, Taf. 6: 9, 15–17). They are, however, as omnipresent as they are archaeologically elusive: extremely simple objects (by themselves basically irrelevant) decorated by extremely simple patterns and bound to defy any meaningful classification. Probably the most (and the only) useful statement we can advance based on our four pieces is their LT D date.

Cat. no. 151 is a bronze **U-shaped clamp** with a hole in each of its languets. Such clamps – found separately or often pinched upon fragments of bronze gutters – are most convincingly considered elements of shield rims (*Penninger 1972*, Taf. 27: 9; *Sievers 2010*, 34–35, nos. 758–759, 762, 764; *van Endert 1991*, 104). Alternatively they might be interpreted as elements of Late La Tène sword scabbards (*Pič 1903*, 72–73, cf. e.g. tab. XXX: 8, 9, 14; *Pieta 2008*, 272, obr. 126). This is, however, doubtful since they have never been found on actual and indisputable scabbard remains rather than on the simple gutters. The transverse elements of sword scabbard are throughout the La Tène period made as a single solid piece with the chape (*Lejars 1994*; *Sievers 2010*, 14–18). No scabbards with separate clasps are attested at La Tène (*Lejars 2013*), Bern-Tiefenau (*Müller 1990*), Manching (*Sievers 2010*), or Alesia (*Sievers 2001*). Even the Stradonice rims need not necessarily be remains of sword scabbards. Although *Pič (1903, 73)* states very explicitly that ‘at least in one case this con-

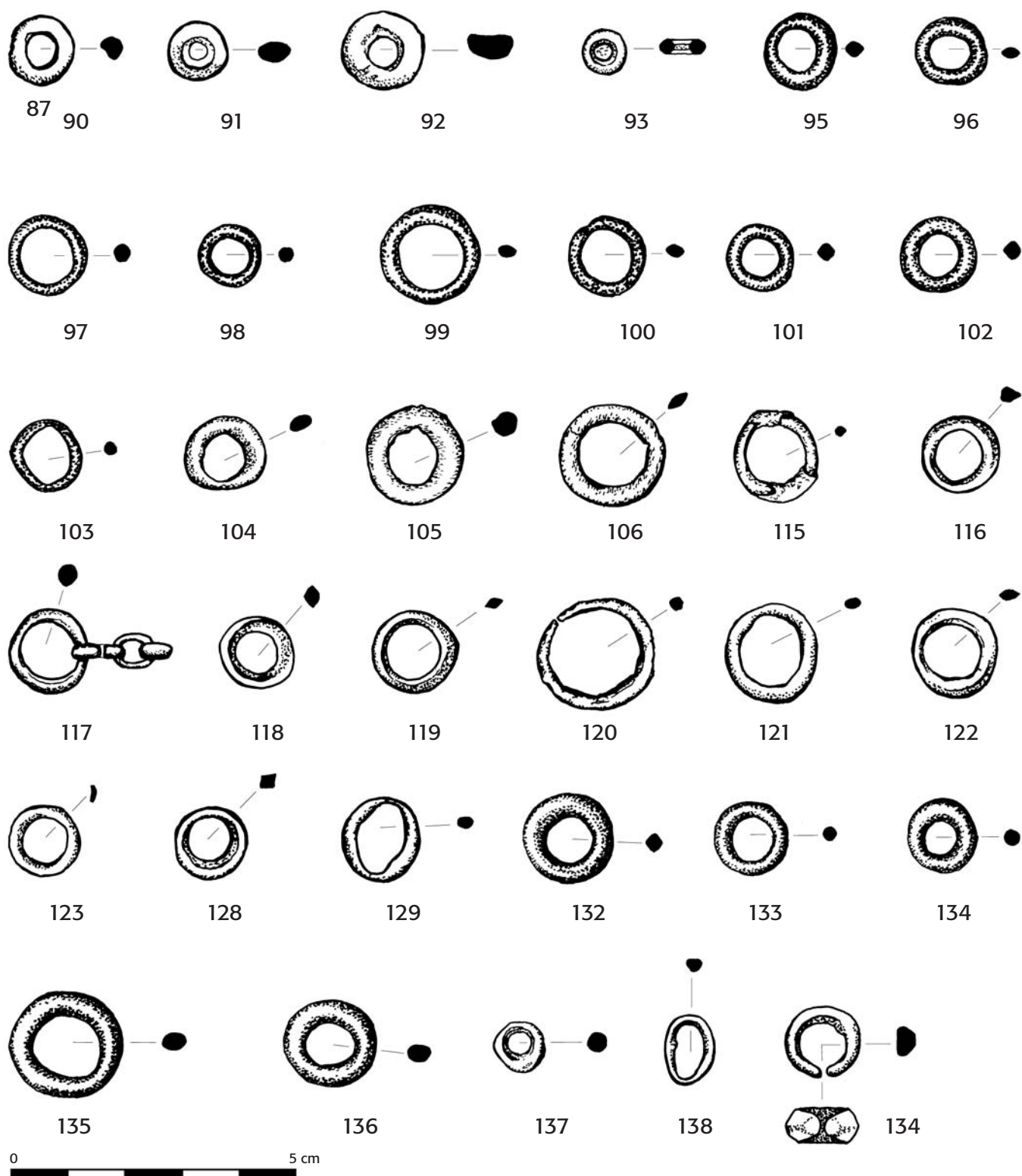


Fig. 14. Metallic finds – bronze rings. (Drawings J. Kysela, P. Kazakova, M. Pleska). — **Obr. 14.** Bronzové nálezy – kroužky. (Kresby: J. Kysela, P. Kazakova, M. Pleska).

figuration [i.e. clamp attached to the rim] is original',⁹ the shape of the Stradonice rims does not exclude the

⁹ Suggesting thus that in other cases it may have been staged in 19th century – note that in *Piř 1903*, tab. XXX: 14 there are four clamps, each of them of a different shape and size.

possibility that they come from another type of object, most probably a shield.

One of the artefacts which clearly stand out in the Žehuň collection is the fragment cat. no. 152. This is an Y-shaped bronze finial in the form of an animal head with open jaws and gazing almond shaped eyes.

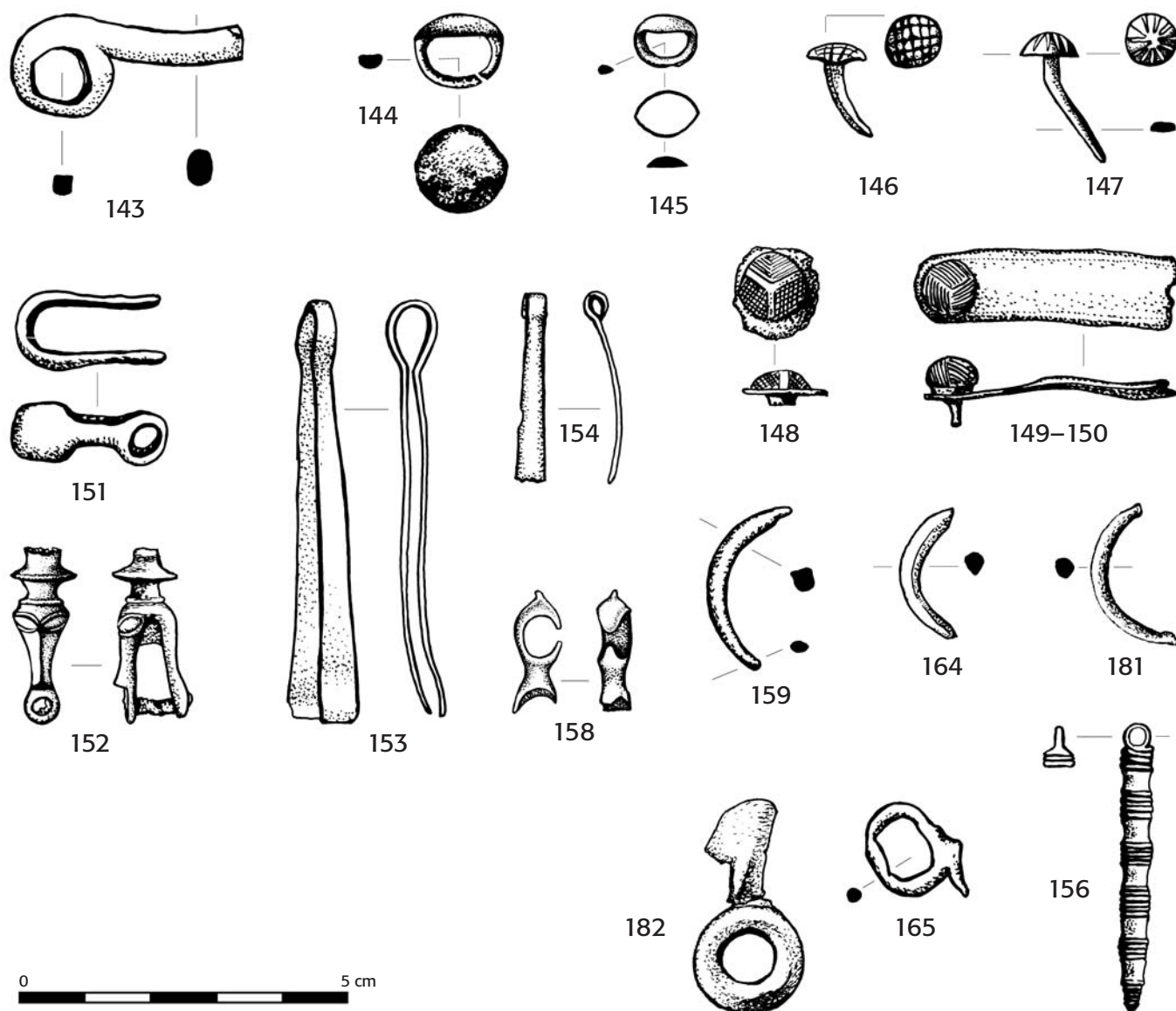


Fig. 15. Metallic finds – bronze, varia. (Drawings J. Kysela, P. Kazakova, M. Pleska). — Obr. 15. Bronzové nálezy – varia (Kresby: J. Kysela, P. Kazakova, M. Pleska).

Originally, a rivet ran through the frontal ends of both jaws; the small flat recessed surface in the top jaw where the rivet head was placed – a rather unattractive spot of the otherwise very finely shaped face – suggests that the rivet may have had a decorative head. Thanks to its characteristic shape, the object of which the finial originally made part can be classified as a **mirror handle**. These artefacts were first discussed by K. Pieta (1996) and more recently (and more in detail) by A. Szpunar and P. Dulęba (Szpunar — Dulęba 2008) who provide a concise overview of finds across Central Europe and conclude (albeit for no clear reason) that the production area of these mirrors is most probably to be searched for in Noricum. This idea may be partially due to a thought automatism according to which all mirror finds in Iron Age Central Europe are (suspect of being) Mediterranean imports. Though this may be true for some of them there is neither any proof of it nor can we assume it based on any

logical consideration (Kysela — Danielisová — Miltký 2014, 583–585).¹⁰ The exclusively Central European distribution of this type of mirror handle is another argument in favour of a local production of at least some mirrors. Rather than in Noricum (whence no finds of this type of mirror handle are known) the concentration of majority of finds in the Middle Danube area (Devín; Oberleiserberg; Jois, Bez. Neusiedlersee) with two (including the Žehuň piece) outliers in Bohemia and three in Poland make us think rather of their origin in the ‘amber route zone’ (Moravia, Lower Austria, SW Slovakia).

¹⁰ In the quoted study we (perfectly aware of these considerations) treated the mirrors as imports for the needs of elementary statistics and principally for the impossibility to distinguish the imported mirrors from those locally produced. This is not the case with the Žehuň handle.

The Žehuň piece is unique within this group due to its figural decoration. The (canine?) beast of prey is very clearly depicted within the stylistic confines of Celtic art, thus further underlining its Central European origin. The most prominent stylistic element of the head are its almond shaped eyes (Schlitzaugen). This trait appears already in the 'early style' of La Tène art in LT A (e.g. Kruta 1975, 15, fig. 3: 2; Pauli 1978, 109–116; Binding 1993, 87–90, Abb. 89) and persists all the way through LT D (e.g. Hallein flagon: Penninger 1972, Taf. 52: 21, 23; Brno-Maloměřice mounting: Čižmářová 2005, obr. 89–91; LT C1 chain-belt hooks: Krámer 1985, Taf. 27: 6). A nice comparison for the Žehuň piece is e.g. the pendant (?) from Heidetränk (Müller-Karpe — Müller-Karpe 1977, 45–46, Abb. 3: 2, Taf. 8: 3). The datable find contexts of mirror handles of this kind listed by Szpunar and Duleba fall into a relatively restricted period of later LT D1 and LT D2 (Szpunar — Duleba 2008).

We remain among toilet utensils with bronze **tweezers** (cat. nos. 153 and 154). One complete pair and a fragment of another one have basically the same shape with slightly flaring straight sided jaws. Tweezers are not uncommon in transalpine Europe throughout the Iron Age. They appear in graves of early and middle LT period (Dürrnberg, LT B1: Penninger 1972, 78, Taf. 42A: 3; Pottenbrunn: Ramsel 2002, 87, Taf. 56: 4; Dubník, gr. 2A: Bujna 1989, 252, Taf. IB: 5; Malé Kosihy, LT B2: Mannersdorf: Ramsel 2011, 147, Taf. 146: 2b; LT C1: Bujna 1995, 82, Taf. 40: 8), in oppida and agglomerations (Stradonice: Píč 1903, tab. XVII; Manching: van Endert 1991, 60–61, Taf. 16: 291–297; Sievers 2013, 183, Abb. 18: 3; Berching-Pollanten: Schäfer 2010, 109–110, Abb. 75) as well as in the site of La Tène itself (Vouga 1923, pl. XXI; Lejars 2013, 219). Tweezer are so frequent and technologically so little demanding that we definitely restrain from considering them status markers.

In case of several objects their exact classification remains uncertain although their protohistoric date is probable. This is for example the case of cat. no. 156, a rather massive bronze bar with six groups of fine relief rings interspaced with smooth concave spots and with a fine loop at the top. No exact analogy has been identified.

4.1.1.6. Iron objects

Among the little numerous iron finds, three items might be of Iron Age date: the D-shaped band cat. no. 155 is presumably a **scythe ring** (cf. Manching: Jacobi 1974, 76, Nr. 1086–1097; Staré Hradisko: Meduna 1961, 26, Taf. 43: 1–12; 1970a, Taf. 25: 1–4, 8; Berching-Pollanten: Schäfer 2010, 107, Abb. 74: 5066, 2848, 5722, 1695; Třisov: Malinková 2014, Tab. 9: 4–13; the Bezdědovice-hoard: Michálek et al. 1999, 40, obr. 13: 619–621; Bezdědovice-settlement: Michálek et al. 1999, 62, obr. 42: 5–6). A **knife** with curved blade and a thorn tang cat. no. 166 poses some classification problems. Although fully preserved, it is covered in so thick layers of corrosion that it cannot be said if its edge is on the concave or the convex side of its blade. However, both types are known mainly from the oppida period (convex

blade: Stradonice, Píč 1903, tab. 34: 5; Staré Hradisko, Meduna 1970a, Taf. 16: 7; Manching, Jacobi 1974, 122–123, Taf. 20: 337–338; Třisov, Malinková 2014, Tab. 6: 29; the Lipany-hoard, Rybová — Motyková 1983, 145, Abb. 25: 3; concave blade: Manching, Jacobi 1974, Taf. 22: 372–373). The thorn tang is not the most common type of handle arrangement of the oppida period but it does appear occasionally (Manching: Jacobi 1974, Taf. 20: 337–339; 21: 340–348; Meduna 1970a, Taf. 17: 13, 15, 16). In case of the **axe-head** cat. no. 167 attribution to La Tène period is less certain. Only blade is preserved and although its outline and simple profile are close to La Tène axes (e.g. Jacobi 1974, 28–32, Taf. 13–16; Rybová — Motyková 1983, 132–133), there are no obvious traces of the characteristic square socket and the symmetry and relative thickness of the blade in its upper part does not support the idea it originally had one.

4.1.2. Evidence of metallurgical activities

4.1.2.1. Bronzeworking

There is some evidence of bronze working in Žehuň. Its manifestations are very similar to those from Némčice or Nowa Cerekwia though they are much more limited in quantitative terms.

One pottery fragment can be considered a **crucible rim** (fig. 18: 5) thanks to a lump of cooper or bronze still clinging to its surface (cat. no. 157). Unfortunately, these metal remains, the small dimensions of the sherd as well as its deformation by heat do not allow reconstruction of the original shape of the vessel. The fragment is a valuable supplement to the list of crucible finds in Bohemian and Moravian La Tène settlements (Waldhauser 1986; Čižmář 2002c) but is of little help for typological and chronological considerations (cf. Čižmář 2002c, 248).

There are several miscasts including a failed chain-belt link (or perhaps two rings) discussed above (cat. no. 158) a miscast of a Mötschwil brooch (cat. no. 173) and maybe of a spoked wheel (cat. no. 179) as well as three segments of rings (cat. nos. 159, 164 and 181) with close analogies in Némčice and Nowa Cerekwia respectively (Čižmář — Kolníková — Noeske 2008, 661, Abb. 8: 8; Rudnicki 2014, fig. 4: 19–20). There is moreover one small ring with remains of its casting sprue (cat. no. 182). Other non-classifiable objects could be considered semi-finished products: a small bronze bar with plano-convex section (cat. no. 160 – an unachieved brooch?), an S-shaped flat piece of bronze (cat. no. 161), and a piece of silver bar, possibly an ingot (cat. no. 162).

Thirty objects in total were classified as **casting spills**. They were usually quite small in both size and weight, the heaviest reaching a little over 6 grams. Their spatial distribution (fig. 17) does not show any specific pattern or concentration (except for the aforementioned area of preserved cultural layer) and their quite limited occurrence, compared to other metallic objects, suggests that metalworking probably was not of highest significance in the life of the settlement or was conducted elsewhere (i.e. in the non-investigated part).

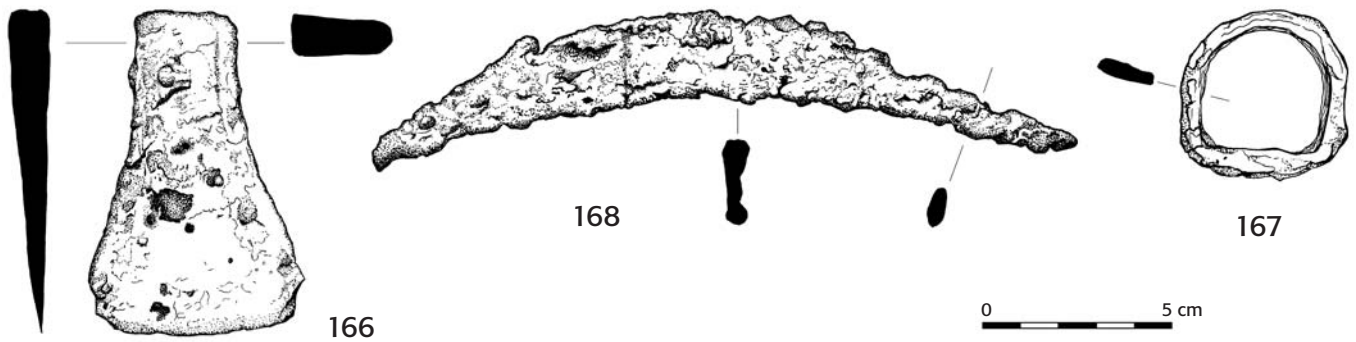


Fig. 16. Metallic finds – iron tools. (Drawings J. Kysela, P. Kazakova). — Obr. 16. Železné nálezy – nástroje. (Kresby: J. Kysela, P. Kazakova).

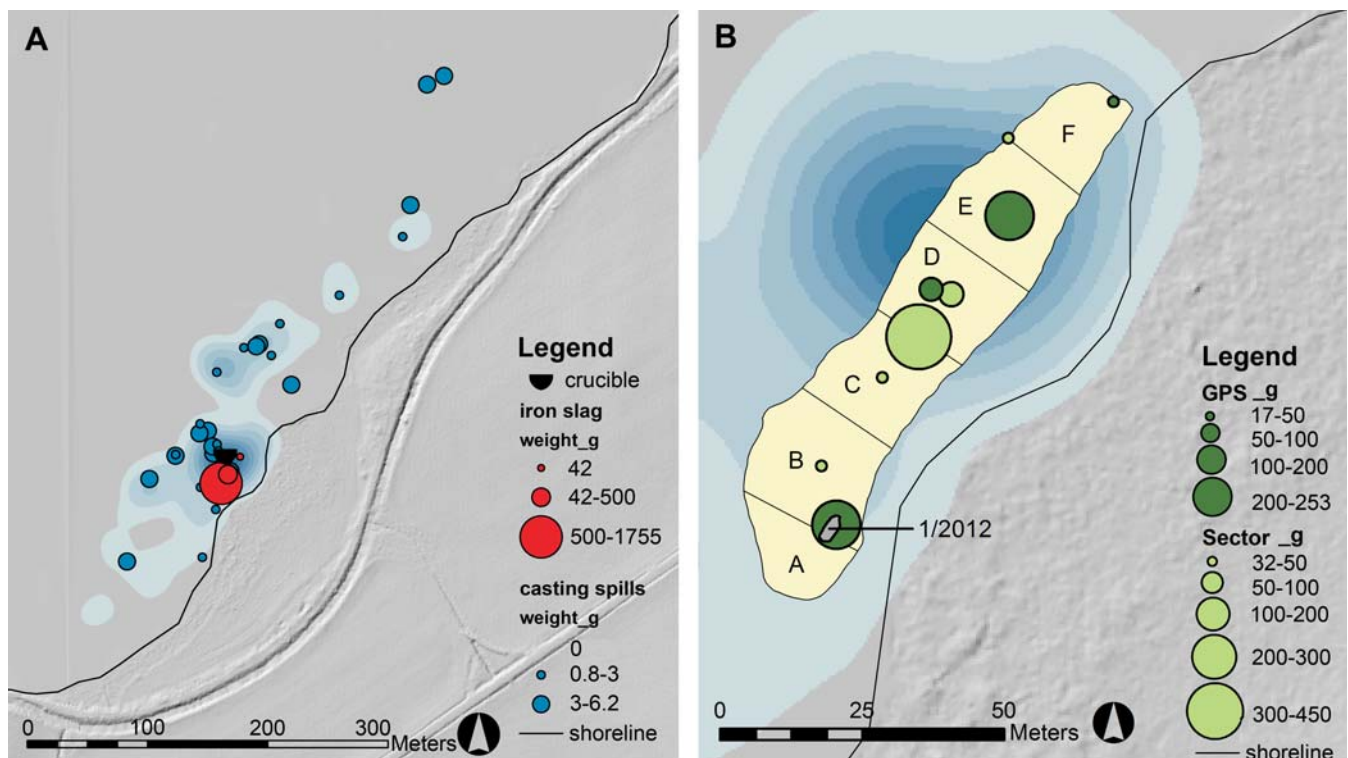


Fig. 17. Spatial pattern of (A) bronze casting spills and iron slag including plano-convex slag cakes, and (B) ceramics. Legend (B): 'GPS_g' – distinctive spatial concentrations of ceramics collected around a specific point, 'sector_g' – centroid of a sector (as an area unit) where the fragments were collected (the largest circle refers to the C and D sectors combined). In the background is the projected density of metallic finds (see fig. 5). (All weighting units "g" are given in grams.) — Obr. 17. Prostorová struktura (A) bronzových slitků a železných strusky včetně plankonvexních slitků, (B) keramiky. Legenda (B): 'GPS_g' – výrazné prostorové koncentrace keramiky shromážděné kolem konkrétních GPS bodů, 'sector_g' – centroid sektoru (jako prostorové jednotky) odkud byly shromážděny keramické nálezy (největší symbol zahrnuje sektory C a D dohromady). Na pozadí je hustota výskytu kovových nálezů (viz obr. 5); (všechny hmotnostní údaje jsou uvedeny v gramech). (Autor: A. Danielisová).

4.1.2.2. Ironworking

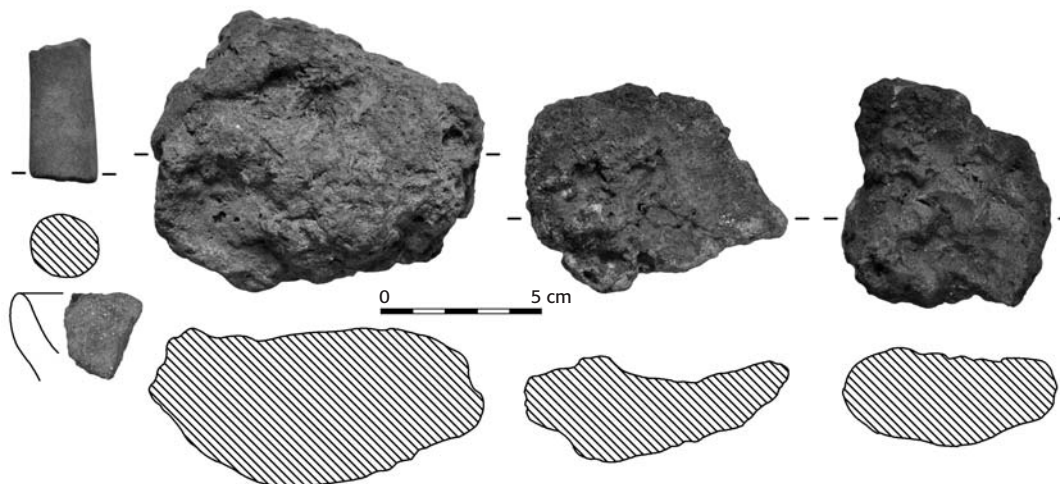
Eight pieces of **iron slag** suggest blacksmithing rather than iron smelting onsite (cf. Pleiner 2006, 112–122, fig. 54). Three objects from the assemblage can be determined as pieces of plano-convex slag cakes (the smithy hearth bottoms, cat. nos. 168–170), (fig. 18: 2–4). Together with a relatively small lump of iron slag (cat. no. 163) these might suggest presence of a smithery. Its dating may be questionable due to little support in the spatial context of finds (the surface layer), however, their distribution correlates with the concentration of

other La Tène finds (fig. 17) and the fact that presence of other prehistoric or later occupation on this spot is rather negligible.

4.1.3. Coins

Very important is the collection of Celtic coins discovered during four seasons of systematic survey (for more detail see the field report and Militký 2018). Žehuň is the first open settlement of a central character in Bohemia with evidence of intensive coin circulation.

Fig. 18. Sandstone whetstone from feature 1/2012 (cat. no. 171), crucible rim fragment (cat. no. 157) and iron plano-convex slag cakes (cat. nos. 168–170) from the surface prospection in the settlement area (for spatial context see fig. 17). — **Obr. 18.** Pískovcový brousek z objektu 1/2012 (cat. no. 171), fragment tyglíku (cat. no. 157) a železné plankonvexní slítky (cat. nos. 168–170) z povrchové prospekce (místo nálezů viz obr. 17). (Autor: A. Danielisová).



Area of origin	Material	Nominal	Type	Pieces	Dating
Bohemia	AV	1/3- 1/8- 1/24- stater	Bohemian local issues	1 - 1 - 3	LT C1-2
Bohemia	AV/AE	1- 1/3- 1/8- stater (sub.)	Bohemian local issues	1 - 1 - 1	LT C1-2
Bohemia	AR	obolus	Bohemian local issues - Horoměřice/Dřemčice - Němčice/Roseldorf II. - undeterminable	9 -14 - 29 - 2	LT C1-2
Bohemia / Moravia	AV	1/8- stater	Athena Alkidemos	1	LT C1-2
Bohemia / Moravia	AV	1 stater	Niké (?)	1	LT C1-2
Moravia	AV/AE	1 stater (sub.)	Athena Alkidemos	1	LT C1-2
Moravia	AV	1/8- 1/24- stater	Athena Alkidemos	1 - 1	LT C1-2
Moravia	AV/AE	1/8- stater (sub.)	Athena Alkidemos	1	LT C1-2
Moravia	AR	obolus	Němčice-Roseldorf II; with a star	1 - 1	LT C1-2
Bohemia (?) / Moravia (?)	AV/AE		Bohemian local issues	4	LT C1-2 (?)
Bohemia	AV	1/3- 1/8- stater	shell series	1 - 1	LT D1a
Bohemia	AV/AE	1/3- stater (sub.)	Athena Alkidemos - late; shell series	1 - 1	LT D1a
Bohemia	AR	obolus	Stradonice/Žehuň - Stradonice	6 - 42	LT D1a
Moravia	AR	obolus	Staré Hradisko	2	LT D1a
Southern Germany	AR	1/4- quinar	Vindelicí Manching 2	1	LT D1a
Gaul/Leuci	AR	potin	var. Id	1	LT D1a-b
Bohemia	AR	obolus	Stradonice/Karlstein	13	LT D1b
TOTAL				143	

Tab. 2. Coins registered during the surveys in Žehuň. Legend: **AV** – gold, **AR** – silver, **AE** – fourré (bronze core, plated with gold or silver). (For more detailed overview refer to the paper of J. Militký). — **Tab. 2.** Mince nalezené během prospekce. Legenda: **AV** – zlato, **AR** – stříbro, **AE** – suberáty. (Detailní přehled viz následující článek J. Militkého).

In total there are 143 coins registered (tab. 2), of which 74 belong to the LT C1–C2 horizon. The collection is represented especially by a group of the so-called Bohemian local issues, gold staters ($\frac{1}{3}$, $\frac{1}{8}$ and $\frac{1}{24}$ respectively) and silver oboli, of which five specimens belong to the Horoměřice-Dřemčice group and local imitations of the Němčice-Roseldorf II type. There are also two gold $\frac{1}{8}$ - staters of the *Athena Alkidemos* type that were apparently imported from Moravia together with an obolus of the Roseldorf/Němčice II type a one piece with a star.

The collection of coins from the following oppida period is also quite significant, comprising 56 (LT D1a) plus 13 (LT D1b) pieces. Very valuable are the finds of gold $\frac{1}{3}$ - and $\frac{1}{8}$ - staters of the so called Boii shell series – these coins are known from the Starý Kolín hoard and from the oppida of Stradonice and Třísov. The core production of the oppida period (LT D1) is again represented by silver oboli – completely new issues represented by several specimens of the Stradonice/Žehuň type that are characterised by the motif

of the rider on the reverse. Besides, also specific obols with depiction of a female head on the obverse are known from this site. However, the most numerous issues presented the assemblage from Žehuň are the obols of the Stradonice type. All above mentioned types belong to the LT D1a horizon. Finally, there are 13 specimens of the Stradonice/Karlstein type, evidencing the duration of occupation of the site to the very end of the La Tène period (or more precisely the end of the coin production in Bohemia). Beside coins, there is also an indirect evidence of potential coin production represented by two gold ingots.

Regarding the chronology, unlike the collection of copper-alloys objects, where the LT D1 phase is possibly underestimated due to the absence of iron artefacts, the coins show rather equal representation of types characteristic of LT C1–C2 and LT D1 phases respectively (i. e. horizons A/B–D in the coin chronology, cf. Militký 2015). No distinctive spatial pattern of either phase was observed (fig. 19).

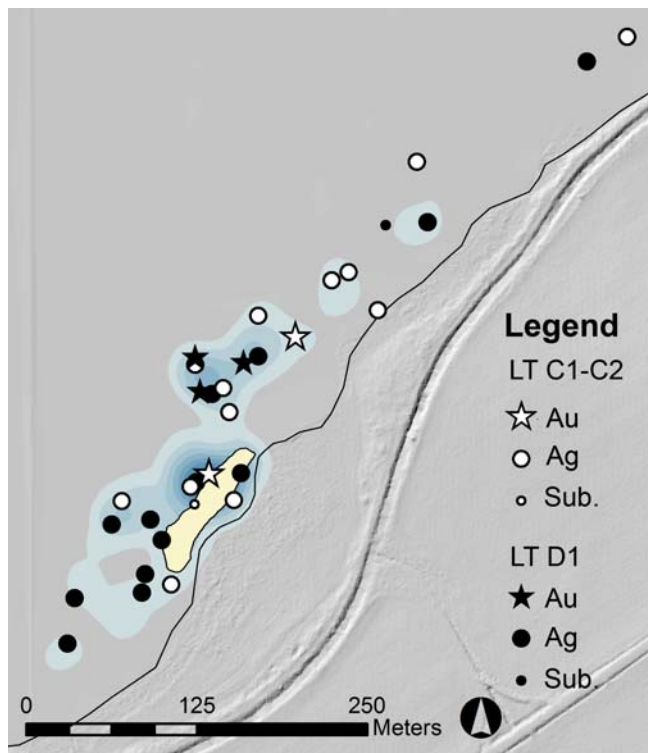


Fig. 19. Spatial pattern of coin finds in Žehuň (2011–2014) with GPS coordinates. Legend: **Au** – AV (gold), **Ag** – AR (silver), **Sub.** – fourées (gold + silver). — **Obr. 19.** Prostorová struktura nálezů mincí ze Žehuně (2011–2014) s GPS koordinátami. Legend: **Au** – AV (zlato), **Ag** – AR (stříbro), **Sub.** – suberát (Au + Ag). (Autor: A. Danielisová).

The intensity of coin occurrence in the lowland sites is a significant indicator of the social differentiation of the settlements during both the pre-oppida and oppida periods. It is very likely that similar sites existed within the territories of both Bohemia and Moravia. In the case of Žehuň it can be stated that the coin collection is quite extraordinary among the contemporary Bohemian open settlements and it opens a new perspective on the coin production in Bohemia during both LT C1–C2 and LT D1.

4.2. Ceramics

4.2.1. Sunken hut 1/2012

The two excavated quarters of the feature 1/2012 have produced total of 287 pottery fragments.¹¹ The pottery comes from both the surface and from the fill of the 10–30 cm deep feature (fig. 7). Basing on the actual physical match between the sherds as well as on the analysis of their technological and formal character, the sherds have been subdivided into 192 ‘groups’ corresponding to (reconstructed number of) ceramic individuals to be analysed. Since the assemblage consists of more than 100 analytical units, its evaluation was based principally on quantitative and comparative analyses of some

diagnostic traits selected for their potential chronological or regional variability. These traits include the ceramic matter, the shaping technique, the firing method, the treatment of external surface, the spectrum of forms in the assemblage and the decoration variability. These categories have been described exclusively basing on macroscopic observations whose results were registered in the descriptive system developed for the La Tène pottery of Eastern Bohemia (Mangel 2011).¹² Žehuň belongs to the La Tène settlement macro-region of Central-Eastern Bohemia (Waldhauser 2001, 42–44) corresponding with a characteristic area of pottery production in Lower Vltava and Elbe region (Waldhauser 1996). For this reason mainly ceramic assemblages from this territory were selected for comparison.

From the point of view of the used materials, the assemblage is characterised by high proportion of pottery tempered prevalently with fine ground (grain size < 1 mm) muscovitic mica (MTS) or by mica and sand in roughly equal proportion (MTSP). These two classes represent as much as 79.1 % of the entire assemblage (fig. 20: A). Mica tempered pottery is characteristic of the Eastern part of Bohemia (Motyková — Drda — Rybová 1990, 361) with most massive representation in the Southern part of this region, i.e. in the districts of Chrudim, Kutná Hora and Kolín (Čížmář 2003, 58; Danielisová 2010, 75, obr. 53; Valentová — Šumberová 2007, 292, 298). The mica used as temper probably came from the nearby outcrops of the so called Kutná Hora crystalline basement and of the Moldanubicum metamorphic units including rocks containing mica (Thér — Mangel — Gregor 2014, 441–442; 2015, 109–111). The high percentage of mica-tempered ware is no surprise in Žehuň, a site only 10–15 km far from the closest of these rock outcrops.¹³ Equally high proportions of the mica-tempered pottery were observed also in the ceramic assemblage from Chvaletice (district of Pardubice)¹⁴ whence the distance to the mentioned mica sources is approximately the same as from Žehuň. Proportionally to the high percentage of mica- and mica-and-sand-tempered pottery (MTS and MTSP) the occurrence of ware tempered prevalently with sand (MTP) is rather low in the feature 1/2012, being only 7.8 %. The proportion of the fine pottery (MTBI), 10.4 %, matches the values in which this ware is present in the Northwestern Bohemia (Salač 1998, 54–56, 59), in the upper Elbe region (Mangel 2011, 1007, obr. 20), in the settlement area of Srbeč (LT B2/C1–C1a: Venclová 1999, 36–37) or in the earlier horizon of Mšecké Žehrovice (LT B2/C1–C1/C2: Venclová 1998, tab. 15). Graphite tempered pottery (MTG) with its 2.6 % fits well the span of values (2–4 %) defined for this class in the regions of Rakovník and Říčany, Central Bohemia, during LT B2/C1–C1/C2; in later assemblages from these regions the percentages of graphite-tempered pottery dropped (Venclová 1998,

¹¹ Roughly a half of the feature was excavated; we may assume therefore that the original ceramic assemblage was about the double of that available to us.

¹² The classification of the vessel shapes and surface treatments correspond to the definitions introduced by N. Venclová in her descriptive system (Venclová 1998, 82–93, fig. 49, 54).

¹³ Cf. geological map 1 : 50 000. © 2014 Česká geologická služba. Available online: http://mapy.geology.cz/geocr_50/. Accessed on 20th June 2017.

¹⁴ Unpublished rescue excavation by M. Cejpková in 2008.

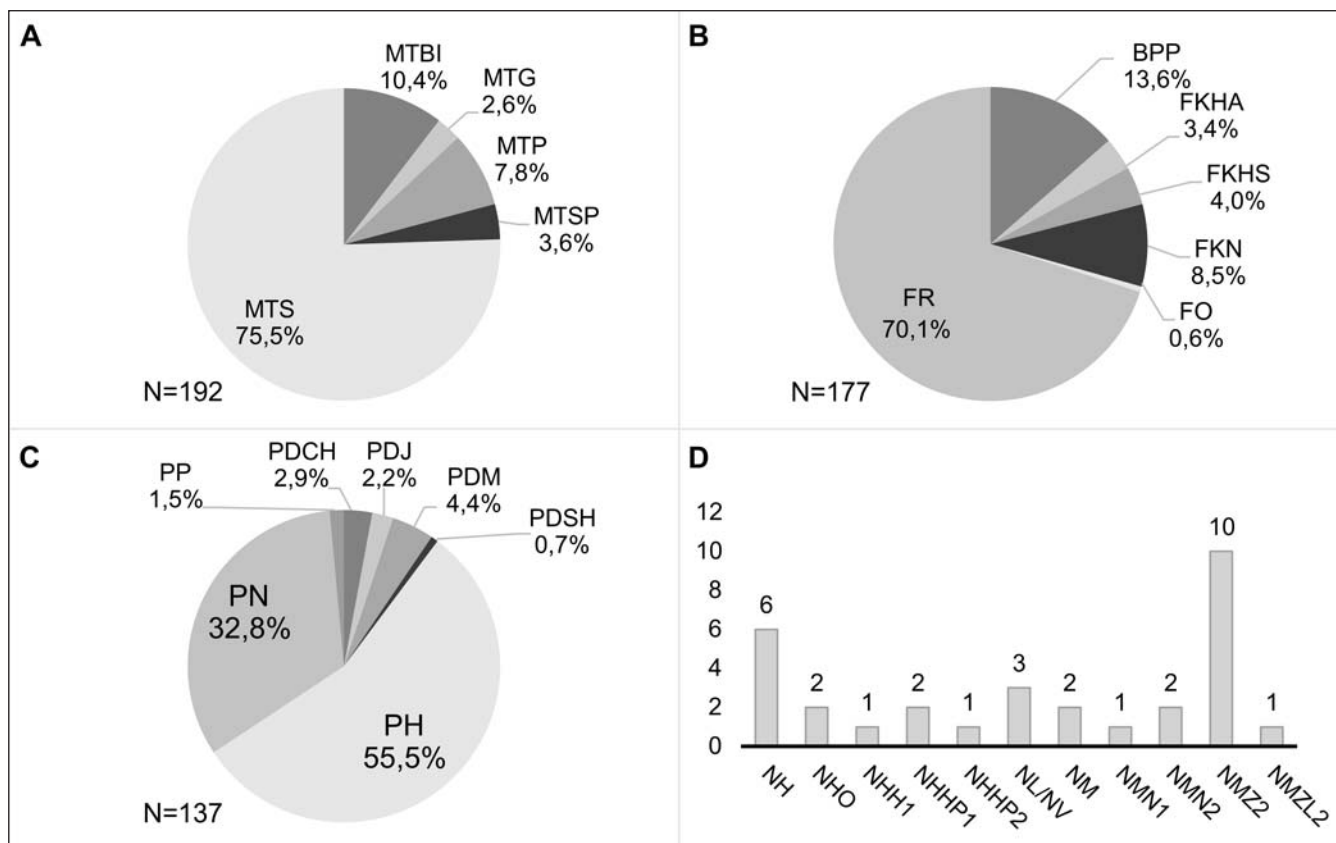


Fig. 20. **A** – Representation of material classes in the ceramic assemblage from feature 1/2012. MTBI – fine, MTG – graphite-tempered, MTP – sand-tempered, MTS – mica-tempered, MTSP – mica- and sand-tempered. **B** – Representation of pottery categories according to their firing method in the ceramic assemblage from feature 1/2012. FKHA – combined homogenous asymmetrical, FKHS – combined homogenous symmetrical, FKN – non-homogenous, FO – oxidation, FR – reduction, BPP – overfired pottery. **C** – Representation of surface treatments in the ceramic assemblage from the feature 1/2012. PDCH – crumb-roughening, PDJ – fine-roughening, PDSH – coarse grated surface, PH – smoothed, PDM – ‘marble-type’ roughening, PN – untreated, PP – tooled. **D** – Representation of vessel shapes in the ceramic assemblage from pit 1/2012. NH – pot, NHO – bipartite-profiled pot, NHO1 – bipartite-profiled pot with slightly curved neck, NHP1 – S-shaped pot with slightly curved neck, NHP2 – S-shaped pot with strongly curved neck, NL/NV – flask/vase-shaped vessel, NM – bowl, NMN1 – neckless conical bowl, NMN2 + NMZ1 – neckless bowls with slightly rounded profile, NMZ2 – neckless bowl with strongly rounded profile, NMZL2 – neckless bowl with rounded bipartite profile. — **Obr. 20.** Charakteristika keramického souboru z objektu 1/2012. **A** – zastoupení materiálových tříd: MTBI – jemná, MTG – grafitová, MTP – písčitá, MTS – slídnatá, MTSP – slídnatopísčitá. **B** – zastoupení tříd výpalu: FKHA – kombinovaný homogenní asymetrický, FKHS – kombinovaný homogenní symetrický, FKN – nehomogenní, FO – oxidační, FR – redukční, BPP – přepálená keramika. **C** – zastoupení povrchových úprav: PDCH – chuchvalcovitě drsněný, PDJ – jemně drsněný, PDSH – hrubě struhadlovitě drsněný, PH – hlazený, PDM – mramorování, PN – neupravený, PP – s přetahy. **D** – zastoupení tvarů nádob: NH – hrnec, NHO – hrnec s odsazeným hrdlem, NHO1 – hrnec s odsazeným hrdlem se slabě prohnutým hrdlem, NHP1 – esovitě profilovaný hrnec se slabě prohnutým hrdlem, NHP2 – esovitě profilovaný hrnec se silně prohnutým hrdlem, NL/NV – láhev/váza, NM – mísa, NMN1 – nečleněná kónická mísa, NMN2 + NMZ1 – nečleněné mísy se slabě klenutými stěnami, NMZ2 – nečleněná mísa se silně klenutými stěnami, NMZL2 – nečleněná mísa se zalomenou klenutou stěnou. (Autor: T. Mangel).

150–151, tab. 15, 16; 1999, 37, 40; Venclová et al. 2008, 186, tab. 26). On the contrary, we encounter very similar values in some LT C2–D1 assemblages from relatively nearby sites, e.g. from the oppidum of České Lhotice (3 %: Danielisová 2010, 75, fig. 53) or from the settlement area of Prague-Běchovice (2.9 %: Venclová et al. 2008, 186, tab. 20).

The assemblage is dominated by hand-made ware (TR) represented by 88.5 %. Vessels shaped with the aid of rotation (TK) are only a small minority basically corresponding with the fine ware (MTBI). In only a single case (0.5 %) have the traces of rotation been detected also on coarse sand-tempered ware (TN: fig. 22: 3). The ratio of coarse hand-made vs. fine wheel-thrown pottery in the assemblages is by itself not chronologically indicative. These values may be affected by a series of various factors including the users' status, the waste disposal strategies, or other out-of-ordinary activities in

the settlement area (Venclová et al. 2008, 186–187, 189). Nevertheless, wheel shaping and wheel finishing of coarse ware does not appear earlier than in LT C and only become frequent in LT C2–D1 (Thér – Mangel – Gregor 2015, 120; Venclová 1998, 162). This is clearly demonstrated not only by its increasing representation in the assemblages from the region of Rakovník (Venclová 1998, tab. 15, 16; 2001, 49, tab. 5, 6) but also by the relatively high proportions of this pottery in the oppida (České Lhotice: min. 5 % – Danielisová 2010, fig. 51; Stradonice: 61–68.3 % – Rybová – Drda 1994, 82; Závist: 50.4–68.5 % – Motyková – Drda – Rybová 1990, 354, tab. 6).

The dark, grey to black, colour of matrix (FR) observable at 70.1 % of the Žehuň pottery is proof of its firing in the reduction environment. Other firing methods are documented only in rare instances (fig. 20: B). We should stress here the low incidence of pottery (FKHS)

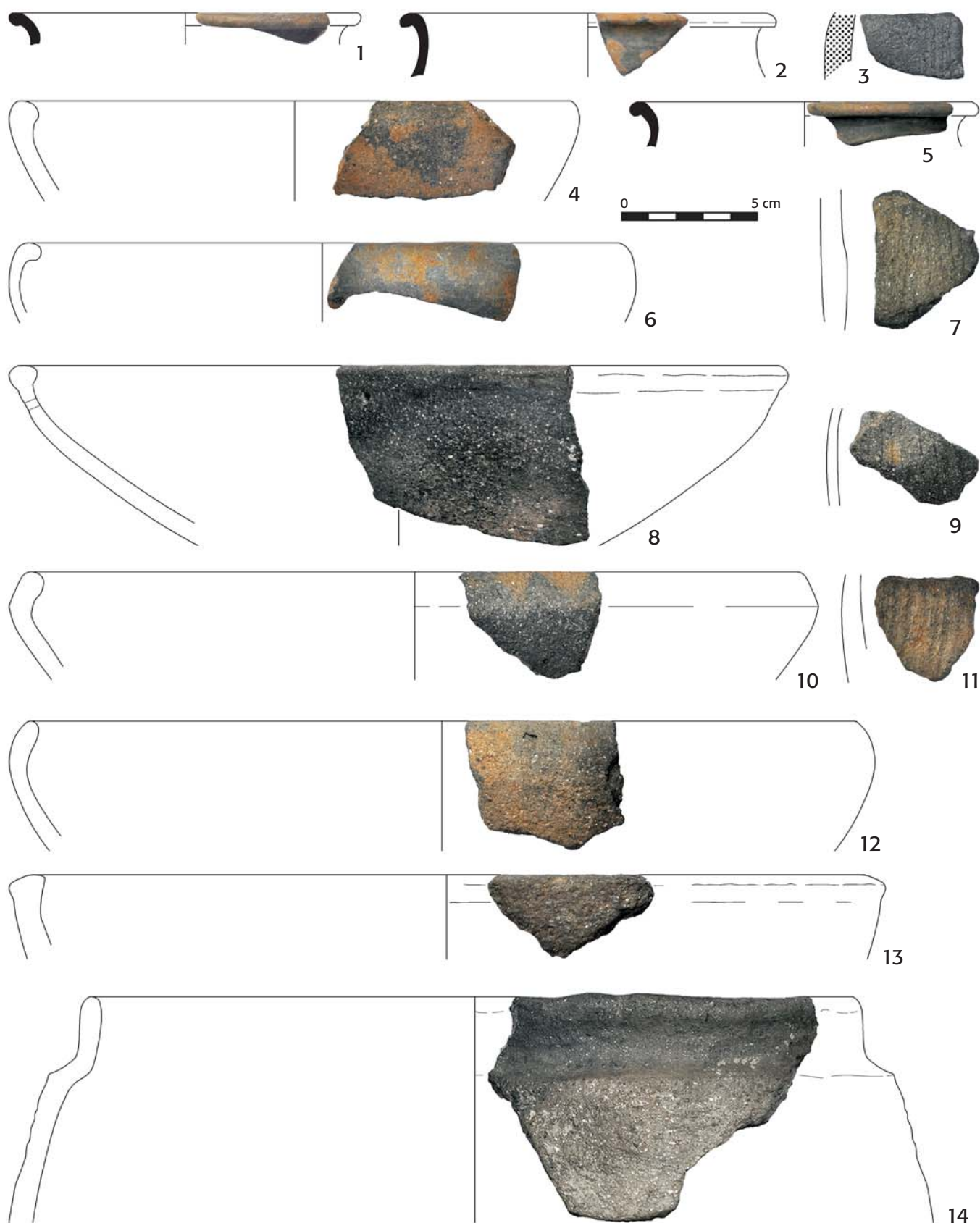


Fig. 21. Pottery from feature 1/2012. **Black-filled section** – fine wheel thrown pottery; **white section** – coarse hand-made pottery; **dotted section** – graphite pottery. (Drawing and photo J. Kysela and T. Mangel). — **Obr. 21.** Keramika z objektu 1/2012. **Černý profil** – jemná na kruhu točená keramika; **bílý profil** – hrubá v roce vyrobená keramika; **tečkovaný profil** – grafitová keramika (Kresby a foto: J. Kysela and T. Mangel).

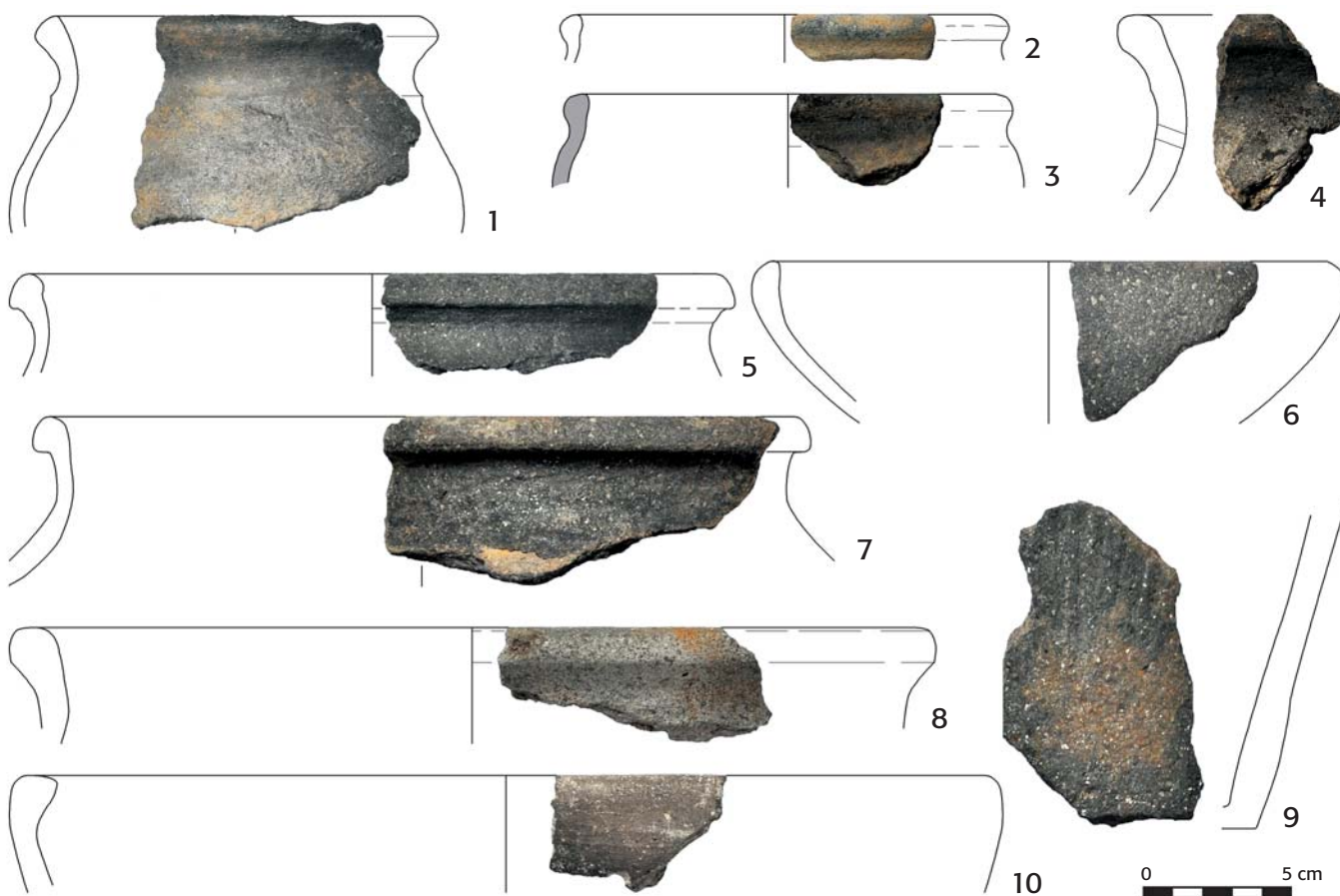


Fig. 22. Pottery from feature 1/2012. **Grey section** – coarse wheel-thrown pottery; **white section** – coarse hand-made pottery. (Drawing and photo J. Kysela and T. Mangel). — **Obr. 22.** Keramika z objektu 1/2012. **Šedý profil** – hrubá na kruhu točená keramika; **bílý profil** – hrubá v ruce vyrobená keramika. (Kresby a foto: J. Kysela and T. Mangel).

characterised by dark grey or dark brown surfaces with lighter colour of the core or with dark core and dark surfaces marked off by fine subsurface layers of lighter colours, mutually symmetrical and parallel with the sherd surfaces. Such arrangement has been observed in mere 4 % of sherds, mostly of fine wheel-thrown pottery. Such symmetrical parallel stratifications – quite common mainly in the Late La Tène fine ware – result from the two-space firing in which the burning fuel and the fired vessels are kept separated from each other (Thér — Mangel — Gregor 2015, 71, 122, obr. 7.31). This firing method is best executed in two-chamber vertical kilns which become common – also in Bohemia – from LT B onwards (Mangel — Thér 2015). The only more frequently represented group in the assemblage is the pottery with traces of thermic damage (BPP). These resulted either from ill-controlled firing or from excessive secondary thermic exposure.

The external surface of the vessels was most often smoothed (PH: 55.5 %) or they lack any traces of intentional treatment (PN: 32.8 %). The total absence of polished surfaces is most probably caused by the environment in which the sherds were deposited and which may have obliterated any traces of polishing. Other categories of surface treatment are represented rather marginally (fig. 20: C). From the chronological point of

view, interesting is the presence of crumb-roughening (PDCH) in almost 3 % of fragments and of 'marble' type (PDM) of surface treatment present in 4.4 % of cases. These traits as well as their relatively high proportions are characteristic of the earlier horizons (LT B2/C1–C1/C2) in the region of Rakovník while in the recent horizons (LT C–D1) they gradually disappear (Venclová 2001, 49, tab. 5, 6). This may be only a regionally limited trend in case of the 'marble' type because in the Říčany region its incidence is almost identical in both chronological horizons (Venclová et al. 2008, 188, tab. 26); on the other hand, the crumb-roughening – though present only sporadically in the Říčany region – is only attested in the LT C1 assemblages as is the case also in the Rakovník region. This surface treatment is counted among the qualitative traits typical of LT B–C1 also in the Northwestern Bohemia (Salač — Kubálek 2015, 53). In case of the feature 1/2012 this assumption would be further corroborated by the very low percentages of pottery fragments with 'grated' type of surface treatment which was observed in only a few instances (PDSH: 0.7 %). This surface treatment appeared marginally in LT C1 but became widespread mainly during LT C2–D1 with percentages progressively increasing overtime (e.g. Čížmář 1994, 596; Kuna — Waldhauser — Zavřel 1989, 29, tab. 3; Salač — Kubálek 2015, 54; Venclová et al. 2008, 188, tab. 26). The low percentages of grated surfaces in the feature 1/2012

assemblage correspond with the initial phases of its occurrence and with values close to those of the earlier horizon in the Rakovník region, i.e. 0.8 % on average (Venclová 2001, 49, tab. 5). There is no clear chronological or other interpretation in this context for the occasionally occurring finely roughened (PDJ: 2.2 %) and tooled surfaces (PP: 1.5 %).

Low and high vessel forms, i.e. bowls and pots (vases) respectively,¹⁶ are represented in the assemblage in equal numbers with slight prevalence of bowls (fig. 20: D). Such balanced ratios are as a rule characteristic rather of LT C2–D1 assemblages while in LT B–C1 the low vessel forms neatly prevail (Rulř — Salač 1995, 383; Venclová 1998, 151; Venclová et al. 2008, 186–187). However, the studied fragments need not necessarily reflect the complete representation of vessels in the original assemblage; the result may also be biased by an insufficiently representative sample – only 31 individuals were determined on the elementary level of the ceramic shape and more precise typological determination was possible only in case of 21 of them. Apart from the common and chronologically very little telling neckless bowls with strongly rounded profile (NMZ2: fig. 21: 6, 12; 22: 6, 10) the assemblage is conspicuously characterised by vessel forms considered typical of LT B2/C1–C1/C2 or of LT B–C1 in general (Salač — Kubálek 2015, 53–54; Venclová 1998, 151; 2001, 49; Venclová et al. 2008, 187, 192–193). These include S-shaped pots with slightly curved neck (NHP1: fig. 22: 3) and neckless conical bowls (NMN1: fig. 21: 13). The more ancient assemblages are also – unlike the later ones – sometimes characterised by higher incidence of neckless bowls with slightly rounded profile (NMN2 and NMZ1: fig. 21: 4, 8). We may further class among the older types also the indistinctly bipartite-profiled pot with slightly curved neck (NHO1: fig. 21: 14; cf. Rybová 1969, 384–386, 398–399, obr. 1: 23; 2: 8, 9; Venclová 1973, 645, obr. 8: 5, 9; 9: 5, 6; Kuna — Waldhauser — Zavřel 1989, 29, obr. C, tab. 3) or the S-profiled pot with an indistinct horizontal plastic band (NHP2: fig. 22: 1; cf. Meduna 1980, 140, Abb. 17: 13; Trebsche 2010, 90, 93, Abb. 32: KT2, Tab. 2, 5). Only a single fragment – rim of a neckless rounded bipartite bowl (NMZL2: fig. 21: 10) – can be clearly connected with LT C2–D1 since this shape never appears in earlier assemblages (Venclová 2001, 49, tab. 5; Venclová et al. 2008, 187, 193, tab. 26).

¹⁵ Finely roughened (matt) surfaces are characteristic mainly of the so-called grey mica pottery with its main distribution area in Northwestern Bohemia (Venclová 2001, 30). The ceramic matter of the finely roughened pottery from the Žehuň assemblage is, however different, rougher than the latter. Therefore neither it nor the similar wares from the Říčany region (Venclová et al. 2008, 188) can be associated with the grey mica pottery.

¹⁶ Apart from pots and bowls there were also remains of three vessel, most probably flasks or vase-shaped vessels (NL/NV: fig. 21: 1, 2, 5). This classification – although not certain – is quite probable due to the rim diameters. The values of 12–14 cm correspond to the flasks from various assemblages for which quantitative data are available (České Lhotice: Danielisová 2010, 81–82, obr. 63; upper Elbe region: Mangel 2011, 132, obr. 39; Northwestern Bohemia: Salač 2015, tab. 2; Manching: Salač — Neruda — Kubálek 2013, Tab. 1). On the other hand, we cannot exclude the possibility that they are remains of small beakers or of strongly profiled situlae (cf. Danielisová 2010, 81–82, obr. 63; Salač — Kubálek 2015, 130, 132, obr. 81C, 82).

The majority of the 31 determinable rim fragments are simple and round (fig. 21: 1, 2, 5, 6, 10, 12, 14), another more numerous group include thickened rims (fig. 21: 4, 8; 22: 2–5, 7, 8), the remaining categories are represented only marginally (fig. 21: 13; 22: 1, 6, 10). Even less variable is the typology of vessel base forms. The majority of the 21 classifiable bases belong to plain flat type (fig. 22: 9). In only a single case appears a base ring characteristic of fine wares. Neither of the mentioned types is, however, diagnostic from chronological point of view (Venclová et al. 2008, 187–188).

Decorated pottery fragments make up 8.9 % of the assemblage. This value is relatively low in comparison with other assemblages. The low proportions of decorated pottery is considered characteristic of assemblages from the period preceding the emergence of oppida (e.g. Rulř — Salač 1995, 384; Salač — Kubálek 2015, 53; Venclová 2001, 49) and this value then progressively increases. The Žehuň assemblage, nevertheless, matches in this respect almost exactly the values of the LT C2–D1 pottery from the oppidum of České Lhotice (Danielisová 2010, 88) or the average occurrence of decorated pottery in the assemblages of the later horizon of the Říčany region where the decorativeness on the contrary decreases overtime (Venclová et al. 2008, 189, tab. 25). The decorative traits, identified in 17 individuals, include principally 14 cases of coarse vertical combing (fig. 21: 3, 7, 9, 11; 22: 9). This is a common decoration (or rather a specific surface treatment) in Central and Eastern Bohemia, appearing at the latest in LT B and persisting until the end of the La Tène period (Meduna 1980, 64–66; Waldhauser — Fröhlich 2007, 326). Vertical combing is often associated with graphite-tempered pottery (cf. Čiřmář 1989, 88; Kappel 1969, 3–9; Rybová — Drda 1994, 101, pl. 12; Mangel 2011, 159; Motyková — Drda — Rybová 1990, 360). In this respect, the Žehuň assemblage does not fit the norm – with a single exception (fig. 21: 3) vertical combing is present here in coarse mica-tempered pottery (fig. 21: 7, 9, 11; 22: 9). Miloř Čiřmář (1987, 223) considered frequent vertical combing on non-graphite coarse ware characteristic of LT D assemblages. This view is also supported by analyses showing gradual decrease of graphite tempered pottery in some of the Late La Tène sites (Čiřmář 2003, 57; Sievers 2004, 70; cf. Venclová 1998, 165). There are, however, also other possible explanations, not necessarily based on chronology, including for example local lack of demand for graphite-tempered ware or regionally limited accessibility of the necessary raw material. The latter might be the case in Central Bohemia as indicated by generally lower values of graphite tempered ware in comparison with assemblages from other regions, closer to graphite sources (cf. Venclová 2001, 30; Waldhauser 1992).¹⁷ A similar structure of graphite tempered pottery representation is,

¹⁷ For completeness' sake it should be mentioned that this opinion is not generally accepted. Jiř Meduna (1980, 69) refused such a view pointing out several Moravian assemblages in close vicinity from graphite sources but with numerous graphiteless pottery with vertical combing as opposed to sites more distant from them but with high values on graphite pottery. The distance, however, cannot be the only factor to take into consideration; there may have been others such as the nature and dynamics of the distribution systems (cf. Hlava 2008, 204; Mangel — Danielisová 2014).

after all, documented in Northwestern Bohemia, that is, a region equally or even more distant from the assumed graphite deposits in Southern and Eastern Bohemia than Žehuň. Also there, the coarse vertical combing is frequent in non-graphite pottery (e.g. *Salač 1990*, 631, obr. 11; *Vlčková 1991*, 540, 545). Two fragments feature little prominent applied ribs (*fig. 22: 1*), also them without any chronological significance. The last decorative element to mention is black coating observed in a single case. Black coating – most often present on sand- or mica-tempered pottery – appears in small quantities as soon as LT C1 and becomes more frequent in the subsequent stages (*Venclová 1998*, 158–159, 162, tab. 20). Its absolutely marginal value in the Žehuň collection (0.5 %) corresponds to its average proportions in the early horizon – i.e. LT B2/C1–C1/C2 – in the region of Rakovník (*Venclová 2001*, 49, tab. 5) and differs dramatically from its high occurrence rate in the oppida (cf. *České Lhotice: Danielisová 2010*, 88; *Stradonice: Rybová — Drda 1994*, 104; *Závist: Motyková — Drda — Rybová 1990*, 354). A conspicuous trait is the absence of burnished decoration characteristic of LT C2–D1 pottery though appearing (in small quantities) already in LT C1 (*Venclová 1987*, 452–453; *1998*, 159, 162, tab. 15).

We may further mention repair holes of which four instances were detected, always in coarse mica-tempered pottery (*fig. 21: 8; 22: 4*). Traces of repair – common though not frequent in La Tène pottery – testify of effort to maintain some vessels in use in spite of them having been damaged (*Meduna 1980*, 110–111; *Novák 2011*). Such interventions concern indiscriminately all kinds of pottery including fine, graphite- and coarse mica- and sand-tempered wares.

In conclusion, the pottery assemblage from feature 1/2012 is relatively homogenous and corresponds by its various traits to other assemblages from Central and Eastern Bohemia. Most of the analysed traits matched the pottery production from these regions in the period preceding the emergence of oppida. The assemblage may therefore be generally dated to LT B2–C1.

4.2.2. Surface scatters

Field walking in the area of the settlement produced a collection of total 1173 pottery fragments. The assemblage contains pottery from all phases of the La Tène period. The evidence is the least telling in case of Ha D2/3 – LT A for which no clear and irrefutable traits have been identified. Dating to this period may be considered in case of some coarse barrel-shaped and open pots with plastic band with impressions or with a line of finger imprints on the neck (*fig. 23: 5, 9*); though such vessels appear also in the following stage of the Iron Age (e.g. shapes 11 120 and 11 210; *Chytráček — Metlička 2004*, 45). The same applies in case of wheel-thrown, strongly S-shaped bowls with strongly opened, rounded or slightly thickened rim and strongly rounded body (*fig. 23: 1*). Such vessel shapes start appearing in the recent phase of LT A (cf. e.g. *Gosden 1984*, 304, *fig. 3: 1–3; 1987*, *fig. 5: 3, 12, 13; 10: 13; 11: 11; Pauli 1978*, 325, *Abb. 44, 45; Salač 1984*, 268, *obr. 4: 8*) but remain in use also in the following period (e.g. *Drda 1974*, 604, *obr. 1: 5; Holodřák — Waldhauser 1984*, 42, *obr. 6: 28, 29*).

By several examples are represented conical bowls with straight walls (*fig. 23: 20*), various iterations of indistinctly shaped pots (*fig. 23: 16*), pots with a line of diagonal incisions below the neck (*fig. 23: 4*) or crumb-roughened surface. These traits are considered characteristic of assemblages dated to LT B–C1 or C1 (*Meduna 1980*, 140–145; *Salač — Kubálek 2015*, 53–54; *Venclová 1998*, 151, 157–158; *Venclová et al. 2008*, 184, 192–193).

Other traits can be associated with the later stages of the La Tène period, i.e. LT C2–D1. These include bipartite pots with strongly curved neck and often with grated type of surface treatment (*fig. 23: 3, 10, 11; Venclová 1998*, 162; *Waldhauser 1996*, 340–341, *Abb. 1*). Also black coating, documented on several of the Žehuň fragments (*fig. 23: 18*), is characteristic for this period although it appears singularly already in LT C1 (*Venclová 1998*, 152, 158–159, 162, tab. 15). Another recent element is the rim fragment decorated by stripes of white and red paint (*fig. 23: 2*). In Central Europe, painted pottery is typical of LT D; its origins, however, probably reach back to LT C2 (*Cumberpatch 1993*, 60–62; *Loughton 2005*, 156–157; *Maier 1970*, 78–144).

Several surface finds feature the so called thickened club-shaped rims (*fig. 23: 19*). These are best documented in the Middle Danube area and considered here a very late formal element, typical of LT D1/D2–D2. Some scholars assume the connection with influence of Norican kingdom spreading into this region after the withdrawal of the Dacians in the 2nd half of the 1st c. BC (*Čambal et al. 2014; 2016*, with further bibliography). This typological feature has recently been recognised also in South Bohemian ceramic assemblages from the transition period between the Late La Tène and the Early Roman period (LT D2 / R A) (*Zavřel 2014*). The spatial distribution of thickened club rims in the Late Iron / Early Roman Age Central Europe is probably quite common, as indicated by their recent identification in Slepovice (district of Pardubice), in assemblages dated to this very period (*Jílek et al. 2015*, tab. 66: 6; 77: 2, 4; 92: 1, 11, etc.). Another fragment worth pointing out is decorated with vertical combing associated with incised horizontal wavy line (*fig. 23: 21*). This type of decoration appears in LT C2–D1 assemblages in Northwestern Bohemia and Southern Germany (*Salač — Carnap-Bornheim 1994*, 118–120, *Abb. 11, 12*).

The remaining vessel shapes including neckless bowls with rounded profile (*fig. 23: 6, 8*), different variants of pots (*fig. 23: 12, 14*) or the uncommon outstanding foot or pedestals with concave base (*fig. 23: 13*) are of no chronological significance. Only one outstanding foot (*fig. 23: 15*) makes us consider, on the grounds of its relatively coarse character and thick walls, its probable LT B2–C1 date. Another artefact documented among the ceramic fragments collected on the surface was a disc with a central hole, carved out from the wall of a discarded vessel (*fig. 23: 7*). Such objects, appearing frequently from LT C onwards, are usually interpreted as spindle whorls; we cannot exclude, however, also other possibilities, such as weights for fishing nets, amulets, gaming pieces, counting tokens, flywheels or components of toys (for summary and discussion of the various possibilities cf. *Wendling 2009*, 280–284). In a single instance a clay biconical spindle whorl (*fig. 23: 17*) has been documented.

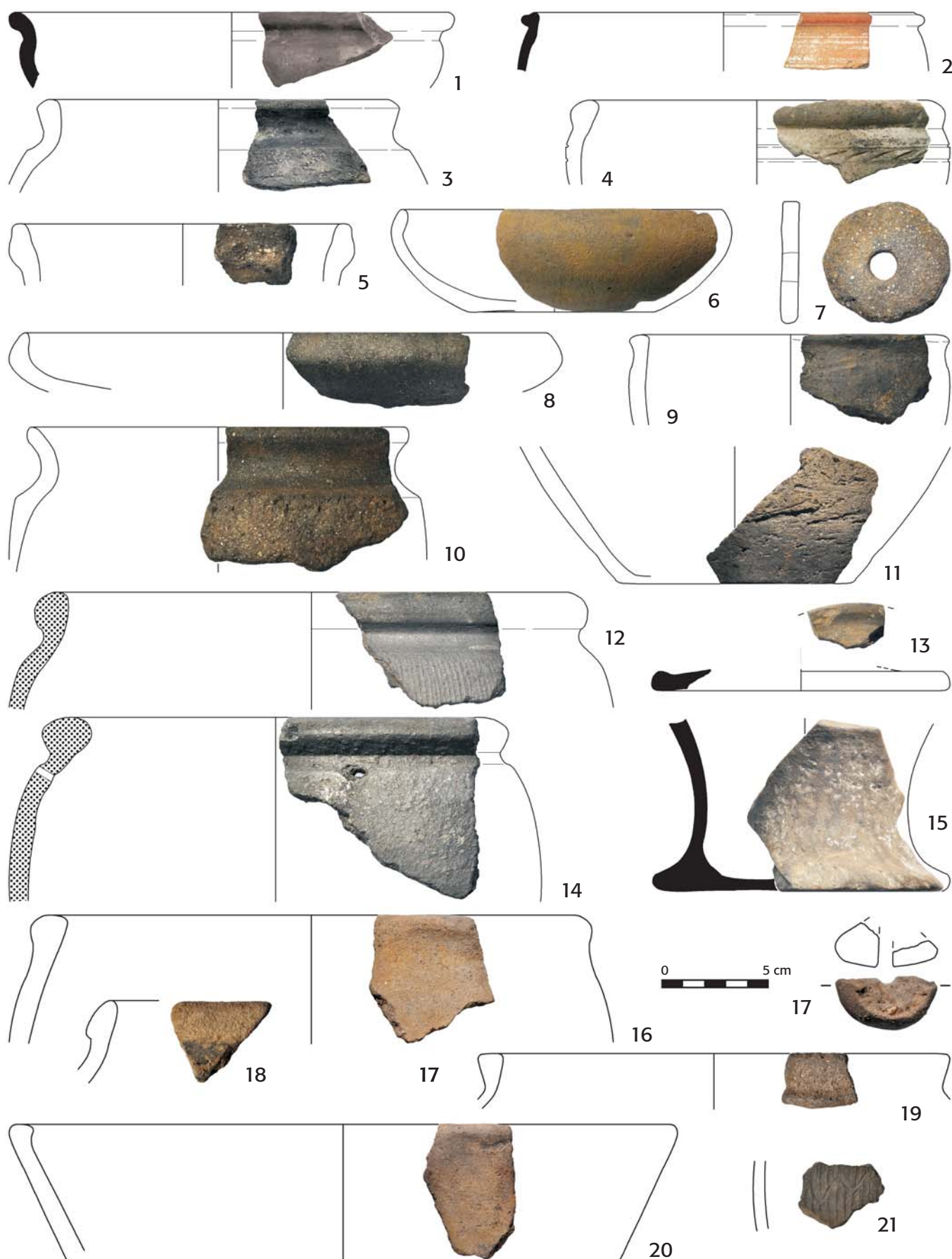


Fig. 23. Selection of pottery from surface prospection. **Black section** – fine wheel-thrown pottery; **white section** – coarse hand made pottery; **dotted section** – graphite pottery. (Drawing and photo J. Kysela and T. Mangel). — **Obr. 23.** Výběr keramických nálezů z povrchových sběrů. **Černý profil** – jemná na kruhu točená keramika; **bílý profil** – hrubá a v ruce vyrobená keramika; **tečkovaný profil** – grafitová keramika. (Kresby a foto: J. Kysela and T. Mangel).

4.3. Other finds

4.3.1. Stones and stone tools

Sunken hut 1/2012 produced a broken sandstone whetstone irregularly circular in section, 20 × 20 mm in diameter and preserved in the length of the 44 mm; towards the centre, its body has been ground narrower (fig. 18: 1). Whetstones are common artefacts in La Tène settlements without any chronological value (Jacobi 1974, 130; Meduna 1980, 132–133). The Žehuň piece belongs to the less usual category of whetstones with circular section which – according to J. Leichmann – are nothing but a subgroup of the most common category roughly square in section (Leichmann 1994, 105, group 1).

The same feature has yielded several unworked quartz pebbles and also a small fragment of mica-rich muscovite rock. The analysis of the ceramic assemblage has shown the dominance of pottery tempered with muscovite rocks. The closest sources of mica-rich rocks are in the regions of Kolín and Kutná Hora, some 10–15 km far from Žehuň. Presence of this material in its raw form directly in the settlement testifies to its import from the source areas and indirectly hints at local pottery production. Distribution of micaceous rocks is moreover documented also over yet greater distances, up to ca. 50 km (cf. Thér — Mangel — Gregor 2014, 109–111).

4.3.2. Clay daub

Two small fragments of daub (overall weight 26 g) have been discovered within the fill of the feature 1/2012. No specific imprints of construction elements have been observed on them but in one of them its original smoothed surface was preserved. The fragments may be remains of the house's walls though given their small size and quantity we cannot exclude other possibilities, such as them being remains of some pyrotechnological installation.

4.3.3. Animal bones

Due to dubious dating of the surface osteological finds, only the assemblage from the feature 1/2012 was evaluated.

All animal bones coming from feature 1/2012 are dark (brown) in colour due to their long-term exposition to waterlogged conditions. Mostly these are fragments. Some fragments are darker than others (almost black in colour), which could be caused by burning, but this cannot be reliably confirmed without further evidence. Although the assemblage from the sunken hut is numerically rather small both in number and volume (N = 31), it is quite variable from the taxonomic-anatomical point of view. In addition to traditional and the most common species (cattle, pig, small domestic ruminant), it contains two horse bones, both from the extremities of the limbs (proximal metatarsal part and mostly preserved *phalanx proximalis*), generally considered unusable nutrition wise. In the assemblage, a goat was recognised based on the basis of the horn, which is usually

less frequent than the sheep. Also cattle is represented in the set by the fragment of a horn. In this case, it is a horn of a small *brachyceros* type (i.e. a short-horned type). Variability and mixed character of the assemblage is shown by the fact that cattle is represented by both skull and limb bones and by both adult and juvenile individuals. For the most part, the preserved mandible of a domestic pig belongs to a subadult or adult individual. The bones of the horse belong to an individual of a smaller body size, probably adult. One bone fragment appears to be worked. A detailed overview of the findings quantified by two methods (by number and weight) is given in tab. 3.

Biometric dimensions of bones of adult individuals from feature 1/2012: *Equus: metatarsus*, Bp = 44.5 mm; *phalanx proximalis*, Bp = (49.2) mm, SD = 30.5 mm; *Bos Taurus: proc. cornualis*, min. base diameter = 23.3 mm; *humerus*, Bd = (73) mm; *tibia*, Bd = 58.5 mm, Dd = 40.7 mm; *Capra aegagrus: proc. cornualis*, min. base diameter = 24.5 mm; *Ovis / Capra: humerus*, Bd = 30.2 mm; *Sus domesticus: mandibula*, teeth (length × width), M3 = 33.4 × 14.4 mm; M2 = 20.5 × 13.2 mm; M1 = 16.5 × 10.2 mm; P2–P4 = 35.7 mm (dimensions and abbreviations according to von den Driesch 1976).

In addition to the assemblage described above, a total of 75 other animal bones or bone fragments were found on the terrain surface in various sectors within the area of preserved cultural layer. This set is not represented in the tab. 3 due to the uncertainty in dating, but in many aspects it resembles the bones from the feature 1/2012; namely what concerns the bone colour, taxonomic-anatomical variability and fragmentation rate. On the other hand, one diaphysis of the long bone of a large mammal is transversely cut by a saw, in a way that does not necessarily exclude dating to the La Tène period, but would be expected rather in the (pre)modern age. An interesting part of this assemblage are the two horse teeth (the milk molar and the third permanent molar of a smaller individual); a dog's shoulder bone of the size between the collie border and the shepherd with transversal cuts near the distal joint showing the cutting, three bones of a domestic chicken, two of which belong to smaller, gracile individuals (or individual).

The evaluated assemblage does not differ from the findings of previous research on La Tène period material. The regular presence of domestic cattle, pigs, sheep/goats, dogs, horses, and sporadically even chickens can be observed in assemblages originating from both the oppida and open settlements (Beech 1998; Kyselý 2002; 2012; Peške 1993a; 1993b; 1994; Zikmundová 1972). Among them, as in Žehuň, the domestic species prevail, and the cattle often dominates. The size of the animals and their horn shapes seen in the Žehuň assemblage also correspond to the known and anticipated types of the La Tène period. However, the 'sabre-shaped' horn of the goat is an interesting find, as it was not documented in Bohemia during the Late Iron Age. The size and shape of the cattle horns were probably somewhat variable (see Peške 1993a; Kyselý 2015). The comparison of the dimensions of the horse bones from the feature 1/2012 shows an average or slightly above average size for a given period (according to the comparison with the data for Závist and Manching, cf. Peške 1993b; 2008). In total,

	Skull				Foreleg			Hind leg				Phalanges	Indetermined	TOTAL	MNI
	Processus cornualis	Frontale	Occipitale	Mandibula+dentes	Scapula	Humerus	Radius	Ilium	Femur	Tibia	Metatarsus	Phalanx proximalis			
number of finds, NISP															
<i>Equus caballus</i> (horse)											1	1		2	1
<i>Bos taurus</i> (domestic cattle)	1		1			1	1	1		2		1		8	2
<i>Sus domesticus</i> (domestic pig)				1										1	1
<i>Capra hircus</i> (goat)		1												1	1
<i>Ovis/Capra</i> (sheep/goat)				1		1	1				1			4	
Large mammal (<i>Cervus-Bos</i> size)					1									8	9
Medium mammal (<i>Canis-Ovis-Sus</i> size)														3	3
Small ruminant									1						1
Large or medium mammal														2	2
TOTAL	1	1	1	2	1	2	2	1	1	2	2	2	13	31	5
weight (grams)															
<i>Equus caballus</i> (horse)											89.9	27.3			117.2
<i>Bos taurus</i> (domestic cattle)	21.9		11.3			87.3	12.1	27.5		105.5		5.9			271.5
<i>Sus domesticus</i> (domestic pig)				53.8											53.8
<i>Capra hircus</i> (goat)		31.3													31.3
<i>Ovis/Capra</i> (sheep/goat)				5		9.9	3.7				8.2				26.8
Large mammal (<i>Cervus-Bos</i> size)					6.7									72.9	79.6
Medium mammal (<i>Canis-Ovis-Sus</i> size)														3.6	3.6
Small ruminant									1.2						1.2
Large or medium mammal														17.3	17.3
TOTAL	21.9	31.3	11.3	58.8	6.7	97.2	15.8	27.5	1.2	105.5	98.1	33.2	93.8	602.3	

Tab. 3. Overview of the animals bones from the settlement of Žehuň quantified by two methods. — **Tab. 3.** Přehled náleží zvířecích kostí ze Žehuně kvantifikovaných pomocí dvou metod.

it can be stated that a relatively many species were documented in a relatively small sample.

5. Interpretation of the chronology and spatio-temporal development of the settlement

The chronological overviews at the end of each subchapter make it obvious that the onsite activities, though of variable intensity, were continuous throughout the Iron Age beginning in late Hallstatt period (late 6th century BC) and reaching certain level of consistency in LT A as is evidenced mainly in the assemblage of **metallic finds** (namely **the copper-alloy objects**). That same assemblage also revealed no undisputable LT B1a artefacts so far and LT B1b phase is represented only by a single brooch. However, a quite rapid growth over the phase LT B2 is followed by a flourish in LT C1–C2. On the contrary the LT (C2)–D1 phase within the assemblage seems like a decline especially when compared with the intensity of earlier phases (fig. 24: A). Finally, among the bronze objects there is only little evidence of occupation in LT D1b or later stages (with the exception of three belt fittings dated to the stage B of the Roman Iron Age). This chronological pattern, beside reflecting

the actual development trends in occupation, may be also caused by greater inclination to other types of materials than copper alloys in the Late La Tène period.

The fact that each stage of occupation is represented by different types of artefacts can be explained by changing nature of fashion (e.g. richly decorated belt fittings from LT C phase) and especially in shifting in material preferences, when during the Late La Tène period iron replaced previously widely preferred bronze in the garment parts (especially brooches, but also belt fittings, armrings etc.) and other small objects. This shift seems to occur sometime around LT C2/D phase. This rises an interesting point of – rather than what is present in our assemblage – what is missing from it: adding more iron brooches to the overall picture might help us make clearer idea about the LT D1(a–b) phase of the site. The intensity of occupation should be thus inferred also from other evidence such as ceramics or coins.

The chronology of the **coin** collection is pretty consistent. During the prospectations there were recorded 74 specimens of LT C1–C2 and 69 pieces of LT D1a–b phase (fig. 24). The coin collection revealed a non-negligible number of Stradonice/Karlstein pieces (13) dated to LT D1b, evidencing thus the distinctive occupation to the very end of the La Tène period. This development

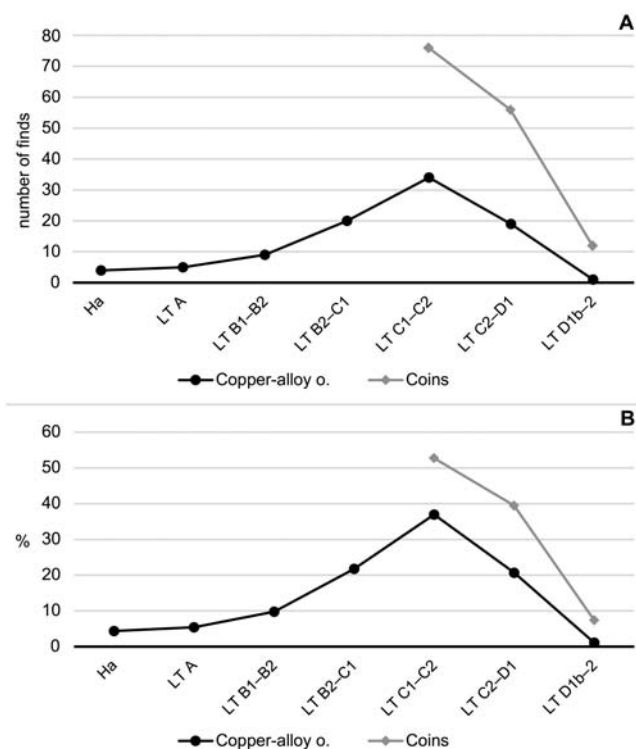


Fig. 24. Chronology of the copper-alloy objects and coins from the prospections in Žehuň (2011–2014). — **Obř. 24.** Chronologie nálezů z barevných kovů a mincí pocházejících z prospekci v Žehuni (2011–2014). (Autor: A. Danielisová).

scheme shows a clear peak during the LT C1–C2 with slightly decreasing tendency in the following period, however, it can be stated that the intensity of occupation is comparable during both the Middle and Late La Tène period.¹⁸ The decline in LT D1b is consistent with the general tendencies of settlements both in the Bohemian basin and the surrounding regions.

Unlike in the assemblage of metallic objects the LT C2–D1 phase dominates the **ceramic collection**. On the contrary the earliest phases are almost absent or invisible within the assemblage. This is certainly caused by the dating possibilities of the Iron Age pottery in general. Late La Tène ceramics is much better recognisable compared to Middle La Tène period thanks to a distinctive set of characteristic features (black coating, red and white painting, grated type of surface treatment etc.). Even so, only about 10 % of the ceramic assemblage could be dated with at least certain reliability. Late Hallstatt and Early La Tène ware can be distinguished by presence of typically shaped bowls or cups, plastic decoration and especially by wheel-thrown pottery with a stamped decoration. These, however, were not present at Žehuň. Only several pieces within the assemblage were assigned to Ha D / LT A phase, confirming what was already suggested before while dealing with metallic objects.

The chronological evidence of metallic finds and ceramics start to differ between LT B2–C and LT C–D.

¹⁸ The Late La Tène period is here plotted in two phases: LT C2–D1 and LT D1b–2 (fig. 24).

While the feature 1/2012 can with some certainty be attributed to the Middle La Tène period, the ceramic collection from the surface is clearly dominated by the Late La Tène pottery.¹⁹ This suggests that we may presume that both the Middle and Late La Tène settlement phases are comparable regarding their intensity. This assumption complements the chronological evidence of coins. The latest chronological feature within the assemblage, the thickened club rim (fig. 23: 19), whose occurrence was lately identified also from Bohemia (Zavřel 2014), can date the end of La Tène occupation of the site to LT D1b–D2 (Čambal et al. 2016), which is, again, also supported by chronology of the coin assemblage.

For the reasons listed above it may be misleading to assume the intensity of settlement activities in different periods only from the frequency of occurrence of metallic objects. Normally, when establishing the chronology or development trends, one is usually limited to evidence of ceramics. As was already mentioned above there is only rare or almost no occurrence of the ceramic material older than LT B2 phase in Žehuň. This may suggest that 1) main settlement activities of the Ha D – LT A were carried out elsewhere, i.e. in an unexplored part of the site, 2) the earliest occupational traces were destroyed by later settlement phases, and finally 3) the earliest Iron Age activities were indeed not very intensive despite the relative abundance of LT A metallic objects.

The spatial distribution of finds suggests that the settlement activities were probably carried out in the same area during the whole period of the settlement's existence, meaning that there were probably no distinctive spatial shifts between individual settlement phases. We have already stated, however, that the currently available data may be biased in several ways. For the spatial patterning of the long-term settlements we may thus have to turn to analogies from elsewhere. Generally it seems that spatial structure of the Late Hallstatt / Early La Tène settlements in Bohemia tends to be more packed and sites are densely occupied contrary to mostly household-sized and more loosely dispersed settlement units of the LT B–D phases across the landscape (fig. 25; Kuna 1991).

This trend is well demonstrated also at larger long-term settlements that were investigated archaeologically, namely e.g. Radovesice, where the Ha D – LT A phases are clearly nucleated and occupation from later periods is more scattered (cf. Waldhauser 1993). Despite their shorter occupation similar phenomenon can also be observed at Dobrovíz (Řídký 2008; Pecinová personal communication) – LT A; Tuněchody – LT A; Hostomice (Budinský 1997/1999) – Ha D – LT A; Počerady (Koutecký – Venclová 1979) – Early and Late LT; Vikletice (Drda 1977) – LT C–D; Dolní Břežany (Čížmář 1994) – LT C–D; Lužice (Salač – Kubálek 2015) – LT D; etc. (cf. fig. 26).

Also in Lower Austria there are indications that some Early La Tène settlements exceeded in size those from Middle and Late La Tène. However, the situation in Lower Austria shows a different trend (cf. Trebsche 2014, 347–348; 2016). Recent prospections have brought to

¹⁹ The ratio of LT C2–D1 : LT B2–C1 : Ha D / LT A is 6.5 : 2.5 : 1.

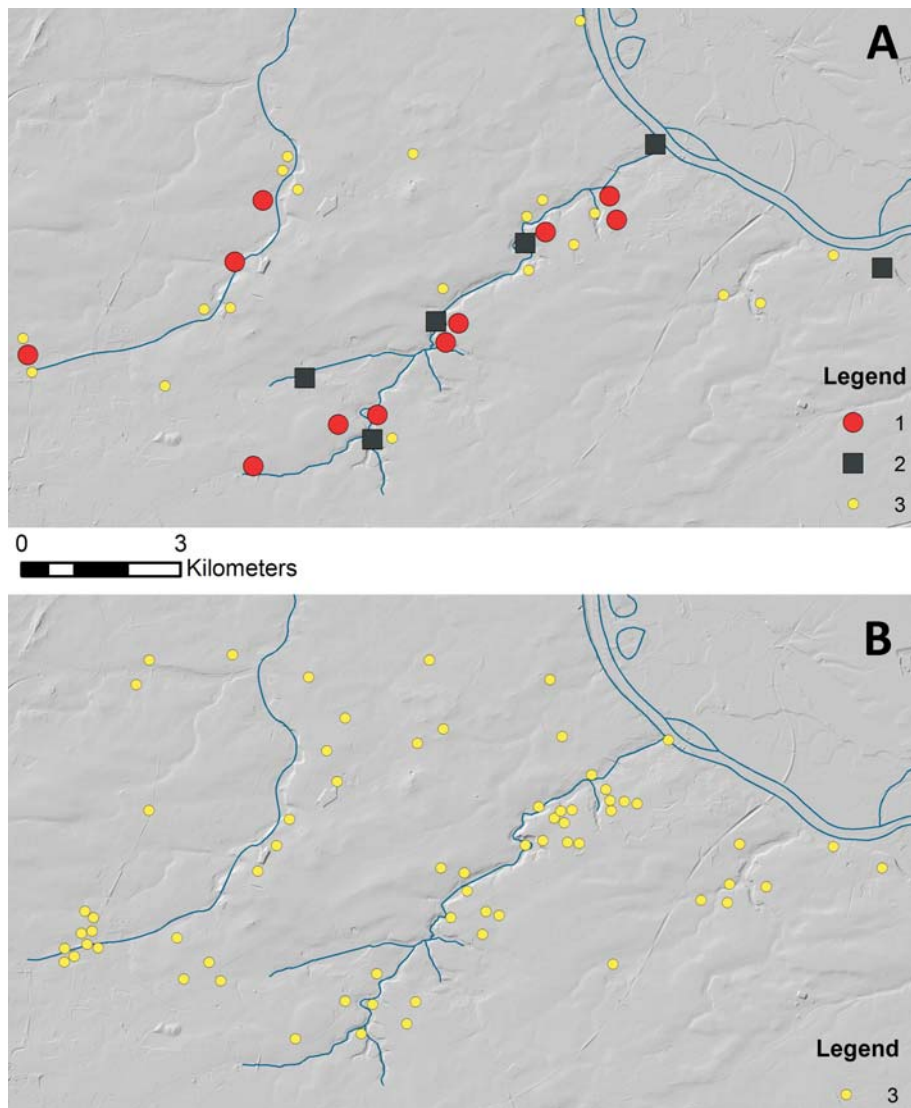


Fig. 25. Nucleated vs. dispersed settlements of Ha D – LTA (A) and LT B–D (B) phases respectively in the Vinoř brook area in Central Bohemia; **1** – intensive occupation, **2** – promontory site, **3** – low intensity occupation activities. (After: Kuna 1991). — **Obr. 25.** Nukleované versus rozptýlené osídlení v povodí Vinořského potoka ve středních Čechách během Ha D – LTA (A) a LT B–D (B); **1** – intenzivní osídlení, **2** – lokalita na ostrožně, **3** – osídlení s nízkou intenzitou. Podle: Kuna 1991. (Autor: A. Danielisová).

light a particular category of sites – the ‘missing link’ between the open agglomerations and common rural settlements. These ‘medium-sized-settlements’ are usually of a size of several hectares (ca. 6–10 ha, commonly around 7 ha), contain several dozens of sunken dwellings and are recorded in both Middle and Late La Tène period in the Austrian Danube area and Bavaria (Trebsche 2014, 346–347; 2016). Similarly to Žehuň these sites stand out with their rich find spectra and abundant coin collections with occasional indices of their own monetary production (especially sites from LT B2–C2). The estimated original area of 12.5 hectares given for Žehuň is only approximative, in fact this represents the maximum potential spatial extent basing on terrain conditions. The LT B2–D1 activities have been evidenced in the entire area without any particular spatial patterning. It is therefore possible that Žehuň, despite the unknown number of sunken dwellings, is in fact the first representative of the category of ‘medium-sized-settlement’ in Bohemia.

We already established that the settlement in Žehuň revealed the same intensity of occupation during both LT B2–C2 and LT C2–D1 phases. This phenomenon is

not very usual especially when it comes to both large and medium sized settlements. Some sites experienced (rather rapid) decline of occupation already at the end of Middle La Tène period with the following phase of LT D1 rather negligible compared to very intensive previous period of prosperity. These are the sites such as Němčice (with so far insignificant Late La Tène occupation, Ivan Čizmář personal communication), Roseldorf (Holzer /ed./ 2009, 77; Holzer 2014), Etzersdorf (Karwowski 2015; Militký 2015; Trebsche 2016), Stripfing (Karwowski 2015; Militký 2015; Trebsche 2016), Haselbach-Niederhollabrunn (Trebsche 2016; Trebsche — Fichtl 2016; Dembski 2017), Mšecké Žehrovice (Venclová 1998, 203), etc.; some, on the contrary, flourished especially during the Late La Tène period, such as Neubau (Moser 2001), Berching-Pollanten (Schäfer 2010), Haselbach an der Perschling (Preinfalk 2005) or Lovosice (Salač 1990), to name just a few (see tab. 4 and fig. 28).

Among the settlements, that, like Žehuň, had the potential of assuming the role of regional central places during both the Middle and the Late La Tène period, only Manching and Eggfling could be recognised so far

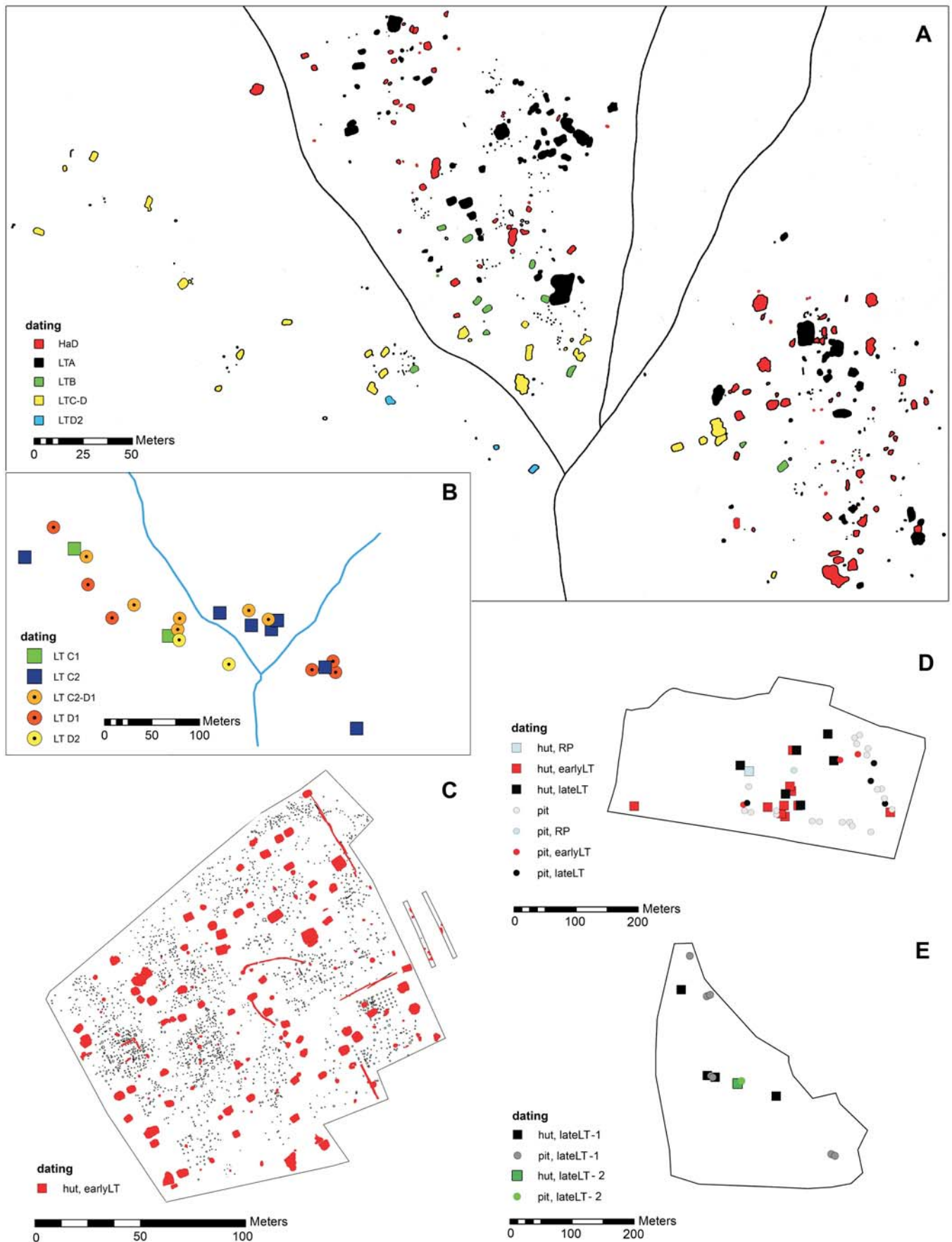


Fig. 26. Occupation trends of the settlements in Bohemia. — **Obr. 26.** Sidelní trendy laténských lokalit v Čechách. **A–B** – Radovesice: **A** – general development/základní vývoj: from/od Ha D to/do LT D, **B** – Late La Tène period/mlado- a pozdně laténské období: from/od LT C1 to/do LT D2; **C** – Dobrovíz; **D** – Počeradý; **E** – Lužice. (After/Podle: Waldhauser et al. 1993; Kuna 1991; Pecinová unpublished/nejubl.; Řídký 2008; Salač – Kubálek 2015; Koutecký – Venclová 1979); LT – La Tène period/doba laténská; RP – Roman period/doba římská. (Autor: A. Danielisová).

(see *tab. 4*). Of course, it could be a state-of-the-art question, however, Manching already established itself as an exception among the contemporary sites in various aspects (cf. e.g. *Wendling 2013*). What concerns the 'medium-sized-settlements' (*sensu Trebsche 2014; 2016*) the long-term continuity is equally rare being so far attested only in case of Eggling (*Uenze 2000; 2005; Ziegau 2000*). Only from the level of 'common rural' settlements it seems that founding the new sites during the 'oppida phase' and continuity of the existing sites from the previous period is a common phenomenon as was for example demonstrated in the case of Nový Bydžov (*Rybová 1964*) and Radovesice settlements (*Waldhauser et al. 1993*), the area surrounding the oppidum of Staré Hradisko (Ivan Čižmář personal communication) and also for example Mont Beuvray - Bibracte in LT D2 (*Barral — Nowel 2012, fig. 12*).

The lower intensity of find occurrence from the end phase of the occupation (LT D1b) can be explained by a general development trend of the La Tène settlements in Bohemia and Moravia that show a certain degree of decline towards the end of Late La Tène period (cf. *Danielisová — Miličková 2014*), where LT D1b is extremely rarely represented especially in the countryside (the only known case is the excavated sunken dwelling from Křinec, cf. *Sedláčková 1991*). This tendency is well observed especially at settlements with substantial collection of metallic finds such as the oppida or lowland agglomerations.

6. The Žehuň settlement in the context of contemporary sites in the Central Europe

6.1. Location of the settlement and its position in the regional and interregional networks

All settlements in the Žehuň area by the former Cidlina River, flooded in late 15th century, were originally located along the frequented long distance route to Kłodzko (today in Lower Silesia). These settlements benefited from the major communication route that had been established in the Prehistory and was well known especially in the Middle Ages and later.

The spectrum of finds fits well into the socio-cultural framework of Central/Eastern Bohemia. While the ceramic production in Žehuň matches rather Eastern Bohemian circuit, observed at numerous sites in this region (cf. *chapter 4.2*), the majority of bronze objects can be characterised as fitting generally into the Central European framework. In case of some of them (most obviously in the chain belts) analogies were available only from Bavaria and Middle Danube area; this is, however, due to the fact that between the end of flat graves and the beginning of oppida we lack any clear contexts from the Bohemian territory.²⁰ In other words the LT C1/C2–C2 artefactual facies is still to be defined in Bohemia and the site of Žehuň is a significant contribution to this effort. Moravia with its distinctive settlements, nevertheless must have played the go-between role in mediating

some of the rare allochthonous artefacts such as the Middle La Tène brooch with enamel inlays on the central plate (cat. no. 14) originally from the Scordisci area; also the mirror handle with figural decoration (cat. no. 152) may be of Middle Danube origin. Two fragments of brooches characteristic of the Jastorf culture (cat. nos. 15 and 19) attest a contact with the Northern areas; it is not yet sure if it was with the very core area of the Jastorf culture (present day territory of Germany and Poland) or with the peripheral groups of Bodenbach/Podmokly and Kobyly in the North of Bohemia with which Žehuň is connected by the Cidlina and Elbe river respectively (*fig. 27*).

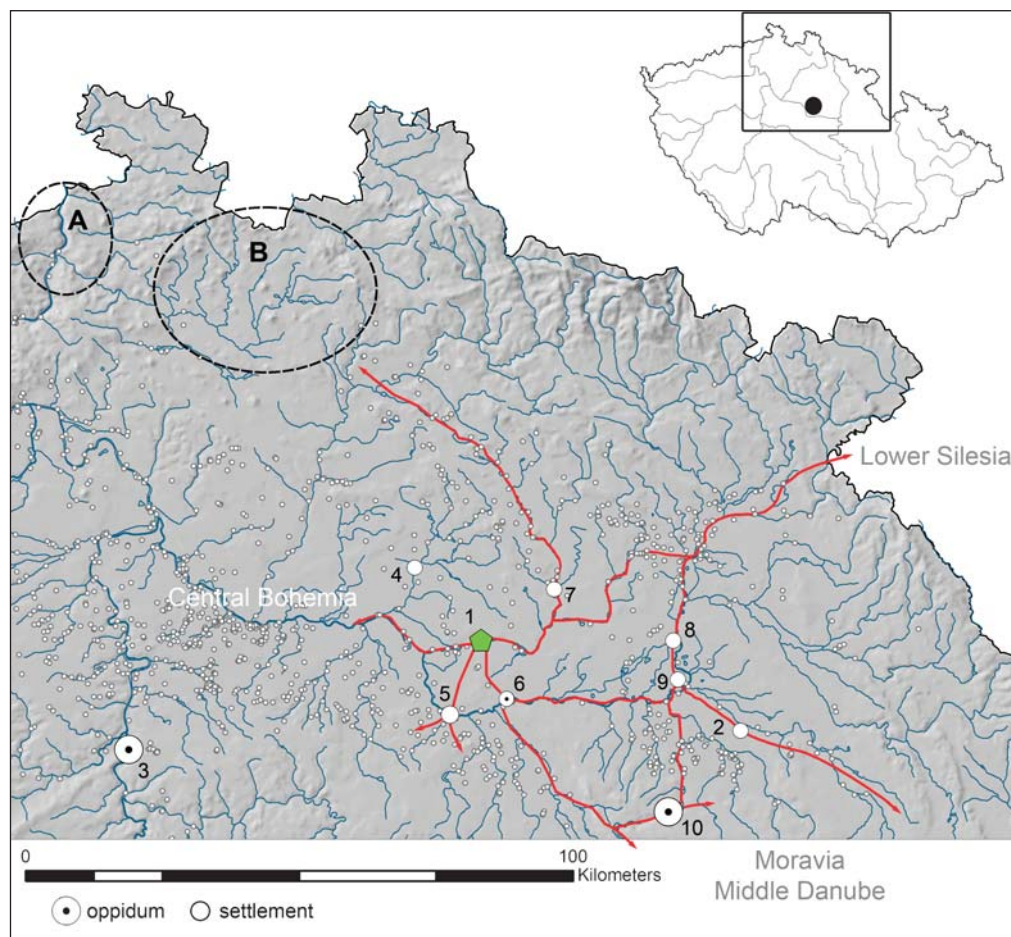
The regional contact network possibly included the fortified site of Kolo u Týnce nad Labem, where the adjacent open settlement with a distinctive assemblage of LT C2–D1 finds, matching the set from Žehuň, was investigated recently (*Beneš 2015*). We can also imagine other sites such as settlements in the Kolín area, oppidum of České Lhotice, a rotary querns production site at Ráby, open settlements in Opatovice nad Labem and Slepovice being parts of this system, interconnecting the routes to Central and Northwestern Bohemia (Kobyly group), and Lower Silesia with the Middle Danube via Moravia (*fig. 27*). During the earlier phase of the Middle La Tène period the situation is somewhat less clear in terms of investigated settlements, but we may assume that potential counterparts of Žehuň were sites in Křinec, Kolín and Nový Bydžov areas (*fig. 27*), and the settlements belonging to cemeteries in the middle Elbe area (*Sedláčková — Waldhauser 1987*) in general. The Elbe river axis then led through Central Bohemia and the Bodenbach/Podmokly group to the area occupied by Jastorf culture to the North. Generally it can be stated that from the perspective of the long-distance contacts, the Žehuň assemblage relates to the similar settlements in Central Europe.

6.2. Status of the settlement and its position among contemporary settlements in the Middle Danube area

The general notion about the common rural settlements during the Iron Age in Bohemia so far was such that they were practically free of metals, or more precisely free of copper-alloys objects. For Middle La Tène period it were the graves where the majority of metal objects found their place in the attires of the buried and thus reflected the wealth and status of communities. In case of the Late La Tène period we do not know any significant metallic collections from settlements other than the oppida (the 'rich' oppida, as there are also sites with rather negligible metal assemblages) or the agglomerations regarded as 'central' (see *tab. 4*). However, Žehuň is a site with an unusual abundance of bronze objects and precious metals, and not only during Middle or Late La Tène period only, but for the whole period of La Tène itself. It is precisely this specific abundance of metals what makes Žehuň so special among contemporary La Tène settlements (not only) in the Czech Republic. One can argue that this is more of a state-of-the-art question and of a chosen methodology (the metal detector prospection), however, even well investigated sites, with excep-

²⁰ I.e. the Némčice-Roseldorf type of sites.

Fig. 27. Position of the Žehuň site in the modelled network of regional and interregional communication routes from LT B2–C1 to LT C2–D1. **A** – Bodenbach/Podmokly group, **B** – Kobyly group. Numbers – significant sites and potential nodal points on the communication network: **1** – Žehuň, **2** – Slepotice, **3** – Závist, **4** – Křinec (area), **5** – Kolín (area), **6** – Kolo u Týnce nad Labem ('oppidum type settlement' with an unfortified bailey), **7** – Nový Bydžov (area), **8** – Opatovice nad Labem, **9** – Ráby (production site of rotary querns), **10** – České Lhotice. — **Obr. 27.** Pozice lokality Žehuň v modelované síti regionálních a intraregionálních komunikací od LT B2–C1 do LT C2–D1. **A** – Podmokelská skupina, **B** – Kobylyská skupina. Číslo – významné lokality a potenciální uzlové body na komunikační síti: **1** – Žehuň, **2** – Slepotice, **3** – Závist, **4** – Křinec (širší oblast), **5** – Kolín (širší oblast), **6** – Kolo u Týnce nad Labem (sídliště oppidálního typu s neopevněným předhradím), **7** – Nový Bydžov (širší oblast), **8** – Opatovice nad Labem, **9** – Ráby (produkční lokalita žemovů), **10** – České Lhotice. (Autor: A. Danielisová).



tion of major agglomerations, did not reveal such collections. On the other hand, in the obvious comparison with the contemporary Němčice-Roseldorf type sites or with for example Berching-Pollanten, Žehuň stands on far lower level from both quantitative and qualitative point of view. In terms of size, chronology of occupation, and the character of finds the best matches to Žehuň would be the sites of Etzersdorf (Karwowski 2015, 214), Egglfing (Uenze 2000; 2005), Stripfing (Trebsche 2016; Militký in print) or Haselbach (Niederhollabrunn) (Trebsche 2016; Trebsche — Fichtl 2016). Excluding – in terms of number of coins – much richer Etzersdorf and Stripfing (cf. tab. 4; fig. 28), and both Haselbachs (Trebsche — Fichtl 2016; Trebsche 2016; Preinfalk 2005) that were occupied or saw their apogees only during either the Middle or the Late La Tène period, the most similar counterpart to Žehuň remains in Egglfing. The number of coins there is roughly twice as large as that known from Žehuň (Ziegeus 2000, 40), however, due to specific research conditions in Žehuň we cannot consider the number of coins we have available nowhere near the original number present onsite. In any case, Žehuň possibly belongs to the category of so-called 'medium-sized settlements', which are known in particular from the territory of Bavaria and Austrian Danube region (Trebsche 2014, 346–347; 2016). Among these sites Žehuň is somewhat specific due to its long-term continuous occupation that has not been attested anywhere else so far (cf. tab. 4).

From the perspective of metallic finds, we can safely say that the collection from Žehuň is quite extraordinary among the contemporary open settlements as it offers a new perspective on the coin production and in a broader sense also the social differentiation of the sites during both the pre-oppida and oppida period in Bohemia. In Bohemia we still have very little information regarding the regional centres especially of LT C1–C2 period although it is very likely that sites similar to those of Němčice-Roseldorf type must have been in existence. It is interesting to note that, unlike in the Middle La Tène period, when the coin production is documented rather regularly in open agglomerations and even in 'medium-sized settlements' (cf. tab. 4), during the LT C2–D1 it is concentrated almost exclusively in the oppida. Also the question of a local production of gold and silver coins remains unclear. The two finds of gold ingots could be regarded as a clue. Despite the possibility of coin minting in the Žehuň settlement cannot be excluded, we are not able to prove it. The finds of specific coin types are not necessarily evidence of local production.

Interesting question would be whether the status of the site somehow evolved during its long-term existence. It was already suggested (cf. chapter 4.1) that 'certain level of status' was reached already in the LT A phase – when several prestige objects including the extraordinary maskenfibel with (sockets for) coral inlays found their way to Žehuň.

Things may become more difficult to grasp in LT B2/C1–C2 when we observe a remarkable quantitative

No.	Site	Country	Area	Dating	Occupation peak	Coins	Coin prod.	Literature
1	Němčice nad Hanou	CZ	35 ha	LT B2–D1	LT B2–C2	1055 + ?	+	Čížmář — Kolníková 2006; Čížmář et al. 2008; Kolníková 2012; Čížmář pers. commun.
2	Etzersdorf	AT	9.5 ha	LT B2–D1	LT C	ca. 800	+	Trebsche 2016; Karwowski 2015; Militký 2015; Militký in print
3	Michelstetten	AT	100 x 50 m	LT B–D	LT B–C	+	+	Trebsche 2010, 2014; Karwowski 2015
4	Roseldorf	AT	40 ha	LT B–D1	LT B2–C2	1500 + ?	+	Holzer /ed./ 2009; Dembski 2009; Karwowski 2015; Trebsche 2014
5	Stripfing	AT	6.2 ha	LT B–C2	LT C	ca. 400	?	Trebsche 2014; 2016; Karwowski 2015; Militký 2015; Militký in print
6	Nowa Cerekwia	PL	min 6 ha	LT B1–C2	LT B2–C2	ca. 600	+	Rudnicki 2014
7	Manching	DE	380 ha	LT B–D1	LT B2–C, LT C–D1	1342	+	Kellner 1990; Wendling 2013 (with references); Ziehaus 2013
8	Eggfling	DE	500 x 300 m	LT B2–D	LT B2–C, LT C–D1	308 +	+ ?	Uenze 2000; 2005; Ziehaus 2000; Schäfer 2007; Militký in print
9	Žehuň	CZ	250 x 500 m	LT A–D1	LT B2–C, LT C–D1	129	+ ?	this article; Militký 2018
10	Vraclav (Sedlec)	CZ	?	LT C1–D	LT C1–C2	21		Militký 2015
11	Drösing	AT	20.7–25 ha	LT C2–D1	LT C2–D1	+	+ ?	Jedlická 2017; Groh — Sedlmayer 2017; Karwowski 2015
12	Haselbach (Niederhollabrunn)	AT	6.6 ha	LT C–D1	LT C	73 +		Trebsche 2014; 2016; Trebsche — Fichtl 2016; Dembski 2017; Karwowski 2015
13	Neubau	AT	750 x 500 m	LT C2–D1	LT D1	552	+	Prokisch 1993; 1999; 2004a; 2004b; 2010; 2011; Moser 2001; Trebsche 2007; 2010; 2014; Karwowski 2015
14	Rataje	CZ	?	LT C–D	LT C–D	26		Militký 2015
15	Berching-Pollanten	DE	min 25 ha	LT C2–D1	LT C2–D1	77		Kellner 1990; Schäfer 2007; 2010
16	Steinebach	DE	800 x 600 m	LT B2–D1	LT C1–D1	+		Irlinger 2007; Kaindl 2010; Trebsche 2014
17	Stöffling	DE	400 x 150 m	LT B2–D1	LT D1	c. 500		Ziehaus 1995; Irlinger 2007; Trebsche 2014
18	Lovosice	CZ	20–40 ha (?)	LT C2–D1	LT C2–D1	+		Salač 1990
19	Prague-Bubeneč	CZ	40 ha (?)	LT C2–D1	LT C2–D1	1		Bursák — Kacl 2017

Tab. 4. Open settlements with a possible central character in the LT B2–C2 and LT C2–D2 horizons respectively. — **Tab. 4.** Otevřená sídliště potenciálně centrálního charakteru během LT B2–C2 a LT C2–D2.

growth of artefacts. This phenomenon is nevertheless not easy to read. Despite their quantity, the objects are to a certain degree repetitive: apart from brooches and bracelets they are mostly elements of chain belts. These are sometimes considered 'elite' indicators due to their presence in 'rich' graves (cf. e.g. Waldhauser — Krásný 2006, 110–111), but the enormous quantities of their elements (particularly of terminal pendants) in sites like Němčice, Nowa Cerekwia, Eggfling and now also Žehuň make rather the impression of mass-produced and mass-consumed objects. Our view may be – again – biased: the heavy massive pendants dangling on the ends of fine chains were most likely to get easily lost and easily rediscovered by metal detectors. Still we find it more probable to consider these objects indicators of popular 'middle class' than of the elite. Otherwise, apart from apparent handling of precious metals, we find no higher status indicators among the finds: brooches were indispensable part of personal outfit, shields or tweezers must have been common property of most men and/or women. In the Late La Tène period the picture changes only little from the qualitative point of view. A remarkable find is the – probably imported – mirror handle, while the few brooches and amulets maintain the status level of the previous phase. The fact that majority of even the personal items was now made of iron does not change the overall perspective.

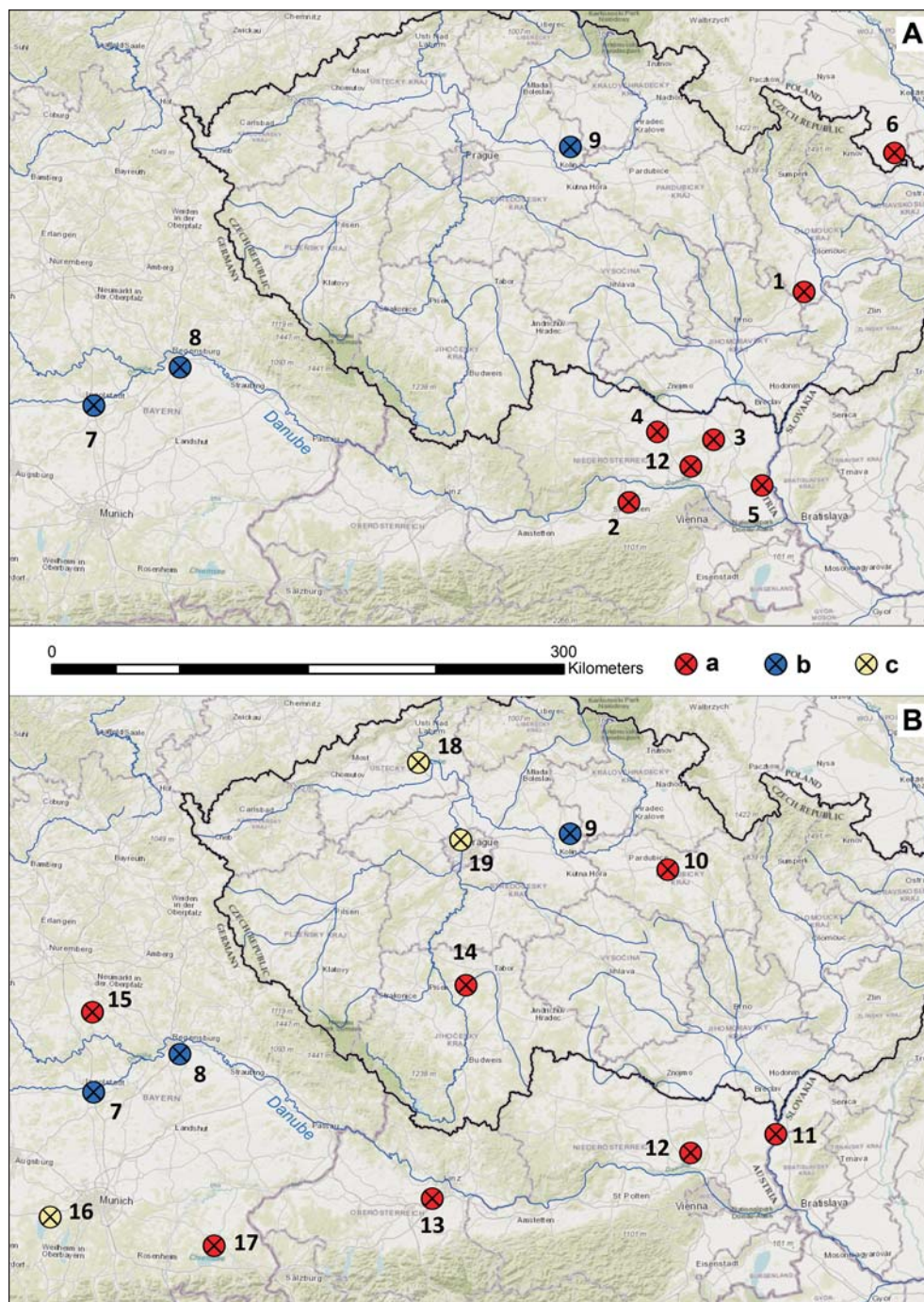
All in all the assemblage of metal artefacts from Žehuň makes the impression of a site which – far from being a simple agricultural settlement – probably enjoyed certain degree of (inter)regional centrality during

its apogee in Middle and Late La Tène period indicated by:

- 1) Probably sizeable population of certain economic means (= numerous elements of female chain belts, Early La Tène brooches – *Maskenfibeln*, handling of precious metals, etc.).
- 2) Size of the settlement: with its maximum reconstructed size of 12.5 ha, Žehuň can be counted among the category of 'medium-sized-settlements', a hierarchical step between the agglomerations of Němčice-Roseldorf type and common rural settlements, so far known only from the territory of Lower Austria and Bavaria.
- 3) Continuous occupation from Ha D / LT A to LT D period. The continuity of the significance of the site from the Middle to the Late La Tène period is implied especially by coins.
- 4) Rather limited (though present) evidence on metalworking (especially copper alloys), though that question in particular remains complicated.²¹ Metalworking in general is difficult to assess as the (published) evidence from other sites usually does not account for the casting spills and, apart from large settlements, this issue remains rather obscure also in other regions (cf. Trebsche 2014, 360–363).
- 5) Participation on (interregional) exchange (several allochthonous and/or prestigious artefacts), position on

²¹ We lack the finds from the beginnings of prospection (the settlement was discovered in 2009) that were removed by private detector activities.

Fig. 28. Settlements (agglomerations) with a significant occurrence of coins and/or possible central functions during the LT B2–C2 (A) and LT C2–D2 (B) horizons respectively. Legend: **a** – site with a peak in either of the phases, **b** – comparable significance / status in both phases, **c** – site with an unknown occurrence of coins. Numbers in map correspond with table 4. — **Obr. 28.** Sídliště (aglomerace) se významným výskytem mincí a potenciální centrální funkcí během LT B2–C2 (A) a LT C2–D2 (B). Legenda: **a** – lokalita s vrcholem osídlení v jedné ze dvou fází, **b** – srovnatelný význam lokality v obou fázích, **c** – lokalita s dosud neznámým výskytem mincí. Čísla na mapě korespondují s tab. 4. (Autor: A. Danielisová).



a long-distance route, connection to other significant settlements or territories such as Kolo u Týnce nad Labem, Middle Danube area, Bavaria, etc.

- 6) The question of a local production of gold and silver coins remains unresolved. The two gold ingots could be regarded as a clue. On the contrary, the finds of specific coin types cannot be considered as a proof of the local minting. Thus, the production of coins in the Žehuň settlement is possible, but reliable evidence is still missing.

7. Conclusion

It is obvious that the La Tène settlement in Žehuň belongs to the long-term occupied open settlements

of a central character, that, while being known from Moravia for over a decade, remained virtually absent in Bohemia. In this respect much attention was paid to its systematic investigation since the site's discovery in 2009. Since 2011, when the official surveys began, several sites spanning from the Late Bronze Age to Early Medieval period were located along the former course of the Cidlina River that also formed a frequented long-distance route.

The abundance of metallic finds, especially what concerns the copper-alloys, makes the site of Žehuň exceptional among contemporary "(Late Hallstatt) – La Tène" settlements in Bohemia and Moravia, placing it almost on the same level as Němčice or Roseldorf. Regarding

its size, however, the site ranks among the ‘medium-sized-settlements’, a category between the agglomerations and common rural settlements. Unlike its counterparts, there is an evidence of continuous occupation in Žehuň from Ha D / LT A to LT D1b and quite specific is also possibly undiminished intensity of occupation from Middle (i.e. LT B2–C2) to Late (LT C2–D1) La Tène period that is not typical for the other Middle La Tène sites of the central character.

It is the character of the metallic assemblage and especially the coins that make Žehuň so specific. In this respect Žehuň indeed represents a ‘missing link’ in the settlement hierarchy in Bohemia. It is obvious that similar sites must have existed in both Bohemia and Moravia; some indices in terms of metallic finds come from open settlements in Sedlec or Rataje districts (*tab. 4; fig. 28*) both dated to the Late La Tène period (*Militký 2015*). In a situation when we have still very little information regarding the regional centres especially of LT C1–C2, the Žehuň settlement is thus a significant contribution.

Acknowledgement

The support of the Czech Science Foundation under Grant ‘Celtic coin production in Bohemia in the 3rd and 2nd centuries BC and its relationship to the oppida period’ (no. 13-24707S) and of the European Regional Development Fund-Project ‘Creativity and Adaptability as Conditions of the Success of Europe in an Interrelated World’ (No. CZ.02.1.01/0.0/0.0/16_019/0000734) is kindly acknowledged.

English by the authors

Souhrn

1. Úvod

Během posledních dvaceti let laténská archeologie identifikovala a v mnohých případech také popsala nový typ nížinného sídliště s komplexní ekonomickou strukturou a produkcí mincí doloženou již od LT C1. Tato sídliště se stala „novými centrálními sídly“ na území severně od Alp. Mezi těmito aglomeracemi a běžnými venkovskými sídlišti však stále chyběl spojující článek, tzv. sídliště druhého řádu, neboli „medium-sized-settlement“, jak je v nedávné studii nazval *Peter Trebsche (2014)*. Tento příspěvek se zaměřuje na jedno takové sídliště z doby laténské, objevené na katastru obce Žehuň, okr. Kolín.

Lokalita se nachází ve východní části středních Čech (*obr. 1*) na jedné z hlavních dálkových komunikačních os a kolekce nálezu zde shromážděná během čtyř výzkumných sezón ukázala, že se jedná o významné sídliště prokazatelně nadregionálního charakteru. Výzkum zde byl podnícen zejména ilegálním detektorovým průzkumem.

2. Podmínky výzkumu a metodologie

2.1. Historie lokality a terénní podmínky

Místa archeologického zájmu se nacházela zejména na jihozápadním a severním břehu rybníka v jeho západní části sousedící se současnou obcí Žehuň. Plochy výzkumu byly přístupné pouze jednou do roka po dobu cca týdne při pravidelných výlovech (*obr. 2*). Původní navětralé podloží bylo překryto vrstvou rybníčního sedimentu, který podstatně ztěžoval podmínky běžného archeologického průzkumu. Původní povrch byl navíc pravděpodobně odstraněn již v době založení rybníka v 15. století.

2.2. Metodika průzkumu

Vzhledem k omezené přístupnosti lokality byla zvolena optimální strategie pro lokalizaci a zajištění co největšího množství nálezů. V první fázi byla provedena prospekce detektory kovů; sídliště bylo „objeveno“ již před začátkem prospekce (2011) v roce 2009 a soustavně narušováno. Monitorování frekvence nálezů (*obr. 3*) ukázalo sestupný trend až k pomyslné nule a lokalita se tak (za použití současné metodiky) dá považovat za zcela prozkoumanou.

Současně s detektorovým průzkumem byl povrch lokality selektivně čištěn, kde to podmínky umožňovaly. Tímto způsobem byla získána poměrně velká kolekce laténské keramiky a prozkoumán sídlištní objekt – zahroubená chata č. 1/2012.

2.3. Výsledky prospekce

Během čtyř výzkumných sezón byly dokumentovány čtyři archeologické lokality: dvě z doby stěhování národů a z mladší doby bronzové na severním břehu a sídliště z doby laténské a římské na jihozápadní straně (*obr. 4*). Z toho se počtem a spektrem nálezů ukázalo jako nejvýznamnější sídliště z doby laténské. Během výzkumných sezón bylo shromážděno celkem 215 kovových nálezů, které byly posléze doplněny o nálezy z jiných prospekce. Z celkem přibližně tří set předmětů jich cca dvě stě bylo datováno do doby laténské.

Je nutné upozornit, že se zajisté nejedná o kompletní nebo dokonce reprezentativní soubor. Předně mnoho (větších či těžších) nálezů již bylo vyzdvíženo během nelegálních prospekce. Dále se na charakteru a stavu souboru podepsaly lokální terénní podmínky a v neposlední řadě také preference detektorového výzkumu, který je primárně zacílen na neželezné kovy.

3. Laténské sídliště

3.1. Charakter lokality

Sídliště se nacházelo na levém břehu původního toku řeky Cidliny; dnes se jedná o jihozápadní stranu Žehuňského rybníka. Náležely byly rozmístěny v pásu přibližně 500 m dlouhém a 50 m širokém (*obr. 5*). Původní šířka sídliště byla nerozpoznatelná kvůli narůstajícímu rybníčnímu sedimentu, kde již nemohly být použity detektory kovů. Na druhé straně nálezy pokračovaly do hustého rákosového porostu, kde se nachází chráněná přírodní rezervace. Zkušební testy na jeho druhé straně prokázaly, že za tento porost již lokalita dále nepokračuje. Maximální rozsah laténské sídliště tak lze rekonstruovat přibližně na 12,5 ha. V jeho jihovýchodní části se nachází pruh dochované kulturní vrstvy (*obr. 6: A–C*) o velikosti cca 2000 m². V tomto prostoru se nacházela největší koncentrace všech nálezů a nacházel se zde i objekt 1/2012.

3.1.1. Objekt 1/2012

Jedná se o pozůstatky (dno) zahroubené chaty oválného tvaru a rozměrů 550 × 220 cm (*obr. 7*). Dochovaná hloubka dosahovala 10–30 cm. Uvnitř půdorysu se na delší ose dochovala jedna kulová jamka. Keramický soubor shromážděný v kontextu objektu umožňuje jeho chronologické zařazení do LT B2–C1.

4. Vyhodnocení nálezů

Z vyhodnocení kovových artefaktů vyplývá, že soubor lze datovat mezi Ha D do LT D; tj. lokalita byla souvisle osídlena nejméně po dobu šesti století (6.–1. století př. n. l.), podobě jako např. Radovesice (*Waldhauser et al. 1993*). Kovové nálezy pocházejí z celé prozkoumané plochy sídliště (*obr. 5*), z prostoru dochované kulturní vrstvy (*obr. 6*) pochází početná kolekce keramiky. Nebyly nalezeny žádné artefakty ze skla.

4.1. Kovové nálezy (*obr. 9–16*)

Kovové nálezy sestávají povětšinou z bronzových artefaktů (172 kusů), výrazně méně početné jsou předměty železné (3 kusy). Soubor 26 spon a jejich fragmentů začíná v Ha D3 (č. 1) a LT A (č. 2–5/6?), doložena je i jedna drobná spona maskovitá (č. 2). Spony fáze LT B1 jsou vzácné (č. 6–7), nejhojnější jsou spony fáze LT B2 a C1 (č. 8–14, 22–23, 172) a (C1)–C2 (č. 16–18, 173). Jen jediná spona patří do pozdního laténu (č. 20, LT D1a). Spona č. 14 náleží

materiálových kategoriích, zejména v mincích a keramice je již mlado- a pozdně laténské osídlení buď zastoupeno podobně, nebo dokonce dominuje (obr. 24). Mincovní kolekce také prokázala jeho trvání až do konce doby laténské, tj. do LT D1b. Tento jev je poměrně výjimečný mezi laténskými sídlišti podobného charakteru v celé střední Evropě. Aglomerace s doklady produkce mincí během LT C1–C2 zpravidla upadají v následujícím období, nebo naopak pozdně laténské aglomerace mají jen nevýrazné osídlení z předcházejících fází. Prostorové rozložení nálezů napovídá, že sídlištní aktivity probíhaly v celé ploše se stejnou intenzitou po celou dobu trvání osídlení. Svým charakterem tak Žehuň nejlépe odpovídá kategorii tzv. „medium-sized-settlements“ („sídlíšť střední velikosti“), rozpoznávaných zejména v dolním Rakousku a Bavorsku (*Trebsche 2014; 2016*), která tvoří jakýsi přechodný stupeň mezi centrálními nížinnými aglomeracemi a běžnými venkovskými sídlišti. Tato sídliště „druhého řádu“ dosahují zpravidla velikosti 6–10 ha a pochází z nich bohaté nálezy soubory z barevných kovů, včetně dokladů produkce mincí v LT C1–C2 (doklady mincovní produkce z pozdně laténského období naopak prakticky absentují).

6. Žehuň v kontextu soudobých sídlišť ve střední Evropě

6.1. Poloha sídliště a jeho pozice v regionálních a nadregionálních kontaktech

Žehuňské sídliště leží na původní dálkové komunikaci spojující střední Čechy s dolním Slezskem a spektrum nálezů plně odpovídá socio-kulturnímu kontextu středo-východní části Čech (keramika) či obecně středoevropskému prostoru (kovové nálezy). Tato lokalita je především významná výrazným zastoupením nálezů z LT C1–C2, typických pro aglomerace typu Němčice-Roseldorf, které v prostředí Čech obecně postrádáme. Morava musela zprostředkovávat kontakt do oblasti středního Podunají, odkud sem byla donesena spona s korálovými vložkami (č. 14) nebo rukojeť zrcadla (č. 152). Patrně z prostředí Jastorfské kultury (či její periferní podmokelské skupiny) nebo kobylské skupiny pocházejí dvě spony (č. 15 a 19). Je zřejmé, že Žehuň hrála významnou roli i v kontaktní síti lokálních obchodů (obr. 27).

6.2. Status sídliště v kontextu soudobých centrálních sídlišť ve středodunajském prostoru

Oproti běžným venkovským sídlištím doby laténské v Čechách se Žehuň odlišuje jednak kontinuálním osídlením a jednak nadprůměrným množstvím kovových nálezů, které ji přibližují k aglomeracím typu Němčice-Roseldorf nebo bohatším oppidům, ačkoliv jejich úroveň pravděpodobně nedosahuje především vzhledem k omezené prostorové rozloze. Ve středodunajském prostoru nejbližší analogii k Žehuni lze nalézt v sídlištích (*tab. 4; obr. 28*) Stripfing (*Trebsche 2016; Militký in print*), Etzersdorf (*Karwowski 2015, 214*), Haselbach-Niederhollabrunn (*Trebsche 2016; Trebsche – Fichtl 2016*) a především v lokalitě Eggfing v Bavorsku (*Uenze 2000; 2005*), který odkazuje na Žehuň jednak v počtu a charakteru nálezů a zejména také v dlouhodobém a kontinuálním osídlení. Jak již bylo řečeno, parametry sídliště, byť vzhledem k podmínkám výzkumu pouze předběžně stanovené, jej dovolují zařadit mezi tzv. „medium-sized-settlements“ (*Trebsche 2014, 346–347; 2016*), které byly dosud známy z oblasti Bavorského a Rakouského Podunají.

V rámci Čech je lokalita významná především díky bohaté kolekci nálezů z LT C1–C2, které naznačují, že zde mohla být lokalita podobná aglomeracím typu Němčice-Roseldorf. Otázka produkce mincí v horizontech LT C i LT D na žehuňském sídlišti zůstává otevřená. Posledním významným zjištěním je doba trvání sídliště až do LT D1b (výskyt mincí typu Karlstein), což je zatím až na výjimky doloženo opět pouze z oppid, jakkoliv se na venkově dá důvodně předpokládat.

Všechny tyto poznatky hovořící pro jistou centralitu sídliště a jeho nadregionální charakter především v mladších fázích jeho existence lze shrnout do několika bodů:

Pravděpodobně početná populace disponující určitými ekonomickými prostředky (množství kovových nálezů, výskyt drahých kovů).

Velikostí Žehuň tvoří mezistupeň mezi velkými aglomeracemi či oppidy a běžnými venkovskými sídlišti a řadí se do kategorie „medium-sized-settlement“.

Zhodnocení všech nálezových kategorií potvrdilo dobu existence sídliště kontinuálně od Ha D / LT A do LT D1b.

Poněkud omezené doklady specializované výroby (slitky, struska, technická keramika) mohou být způsobeny podmínkami výzkumu, ale mohou také svědčit o specifické funkci sídliště (primárně ne výrobní funkce).

Intenzivní participace na jak lokálním, tak dálkovém obchodu.

Indicie lokální mincovní produkce nebo alespoň o disponování s drahými kovy (dosud neznámý typ stříbrného obolu, zlatý ingot).

7. Závěr

Je zřejmé, že sídliště v Žehuni patří k centrálnímu typu sídel, která byla dříve známá z Moravy, ale v podstatě o nich dosud chyběly jakékoliv doklady z Čech. Právě proto byla velká pozornost věnována této lokalitě, která byla prozkoumána mezi lety 2011 a 2014. Bylo zde nalezeno několik poloh osídlených od doby bronzové do raného středověku, z nichž nejvýznamnější bylo právě sídliště z doby laténské. Nejdůležitější zjištění se spojují především s dlouhodobým osídlením a patrně kontinuálně udržovaným významem lokality od LT B2 do LT D1, což je mezi soudobými laténskými sídlišti jev naprosto výjimečný. Vzhledem k uvedeným faktům můžeme uzavřít, že v Žehuni byl skutečně nalezen „chybějící článek“ laténské sídelní hierarchie nejen v Čechách, ale v širším středoevropském prostoru.

Bibliography

- Babeş, M. 2005:*
The brooch from Horodnica: Dacian, Celtic or Germanic? In: Dobrzańska, H. — Megaw, V. — Poleska, P. /eds./: *Celts on the Margin. Studies in European Interaction 7th century BC – 1st century AD. Dedicated to Zenon Woźniak.* Kraków, 121–129.
- Barral, P. — Nouvel, P. 2012:*
La dynamique d'urbanisation à la fin de l'âge du Fer dans le centre-est de la France. In: Sievers, S. — Schönfelder, M. /eds./: *Die Frage der Protourbanisation in der Eisenzeit. Akten des 34. Internationalen Kolloquiums der AFEAF vom 13.–16. Mai 2010 in Aschaffenburg.* Bonn, 139–164.
- Beech, M. 1998:*
Animal Bones from Mšecké Žehrovice. In: *Venclová, N.: 225–258.*
- Beneš, Z. 2015:*
Záchraný archeologický výzkum podhradí hradiště kolo u Týnce nad Labem, okr. Kolín — The Rescue excavation in the outer Bailey of the hillfort of Kolo near Týnec nad Labem, Kolín district, a preliminary report. *Archeologie ve středních Čechách* 19, 245–253.
- Bieger, A. 2003:*
Kugelfibeln: eine typologisch-chronologische Untersuchung zu den Varianten F, N und O von Beltz. *Universitätsforschungen zur prähistorischen Archäologie* 98. Bonn.
- Binding, U. 1993:*
Studien zu den figürlichen Fibeln der Frühlatènezeit. Bonn: Habelt.
- Brandt, J. 2001:*
Jastorf und Latène – Kultureller Austausch und seine Auswirkungen auf soziopolitische Entwicklungen in der vorrömischen Eisenzeit. *Internationale Archäologie* 66. Rahden.
- Břeň, J. 1964:*
Význam spon pro datování keltských oppid v Čechách — The Signification of Brooches for Dating of the Celtic Oppida in Bohemia. *Sborník Národního muzea v Praze. Řada A – Historie* 18/5, 195–268.
- Březinová, G. 1999:*
Sídliště z doby laténskej v Nitre-Šindolke a jeho postavenie v rámci regiónu stredného Ponitria. *Slovenská archeológia* 47/2, 61–74.

- Březinová, G. 2000: Nitra-Šindolka. Siedlung aus der Latènezeit. Katalog. Bratislava.
- Březinová, G. — Hečková, J. 1994: K problematike laténskeho osídlenia v Nitre-Šindolke — Zur Problematik der latènezeitlichen Besiedlung in Nitra-Šindolka. Študijné zvesti 30, 73–96.
- Břicháček, P. — Charvát, P. — Matoušek, V. 1983: Zpráva o záchranném výzkumu v Berouně 1979–1980. Archeologické rozhledy 35, 377–386.
- Budinský, P. 1997/1999: Výzkum praeltské osady u Hostomic (okres Teplice) v letech 1970–77, I–II. Teplice.
- Bujna, J. 1989: Das latènezeitliche Gräberfeld bei Dubník I. Slovenská Archeológia 37/2, 245–354.
- Bujna, J. 1995: Malé Kosihy. Latènezeitliches Gräberfeld. Katalog. Nitra: Archeologický ústav SAV.
- Bujna, J. 2003: Spony z keltských hrobov bez výzbroje z územia Slovenska (Typovo-chronologické triedenie LT B- a C1-spôn). Slovenská archeológia 51/1, 39–108.
- Bujna, J. 2005: Kruhový šperk z laténskych ženských hrobov na Slovensku. Nitra.
- Bujna, J. 2011: Opasky ženského odevu z doby laténskej. Nitra.
- Bursák, D. — Kacl, P. 2017: The La Tène lowland agglomeration in Prague-Bubeneč in Perspective of Latest Research. In: Kysela, J. — Danielisová, A. — Miličák, J. /eds./: Studies that made the Iron Age. Studies in Iron Age Archaeology dedicated to Natalie Venclová. Praha.
- Chytráček, M. 1990: Mohylové pohřebiště u Mírkovic, okres Domažlice — Das Hügelgräberfeld bei Mírkovice, Bez. Domažlice. Památky archeologické 81, 74–139.
- Chytráček, M. — Meliška, M. 2004: Die Höhensiedlungen der Hallstatt- und Latènezeit in Westböhmen. Památky archeologické – Supplementum 16. Prague.
- Chytráček, M. et al. 2015: Zu einem Fürstengrab aus der Späthallstattzeit mit zweirädrigem Wagen und Bronzegefäßen bei Rovná (okr. Strakonice) in Südböhmen. Ein Vorbericht. Archäologisches Korrespondenzblatt 45, 71–89.
- Cordie-Hackenberg, R. — Haffner, A. 1991: Das keltisch-römische Gräberfeld von Wederath-Belginum. 4. Teil: Gräber 1261–1817, ausgegraben 1978–1980. Trierer Grabungen und Forschungen VI, 4. Mainz am Rhein.
- Cumberpatch, Ch. G. 1993: The Circulation and Exchange of Late Iron Age slip decorated Pottery in Bohemia and Moravia. Památky archeologické 84, 60–85.
- Čambal, R. 2016: Včasnotaténske spony z Horných Orešian - Slepého vrchu v zbierkach SNM Archeologického múzea v Bratislave — Frühlatènezeitliche Fibeln aus Horné Orešany - Slepý vrch in den Sammlungen des SNM Archäologischen Museums in Bratislava. Zborník Slovenského národného múzea 110, Archeológia 26, 109–118.
- Čambal, R. et al. 2014: Čambal, R. — Bazovský, I. — Březinová, G. — Kovár, B. — Karwowski, M.: Problematika hrncov s tzv. „kyjovitým“ okrajom zo záveru neskorej doby laténskej v stredodunajskom priestore. In: Komoróczy, B. /ed./: Sociální diferenciace barbarských komunit ve světle nových hrobových, sídlištních a sběrových nálezů. Archeologie barbarů 2011. Brno, 63–77.
- Čambal, R. et al. 2016: Čambal, R. — Gregor, M. — Bazovský, I. — Březinová, G. — Kovár, B. — Karwowski, B.: The Pottery with Thickened Club Rim at the End of the Late La Tène Period in the Middle Danube Region (Mineralogical and Petrographic Characteristics). In: Karwowski, M. — Ramsel, P. C. /eds./: Boii – Taurisci. Proceedings of the International Seminar, Oberleis-Klement, June 14th–15th, 2012. Mitteilungen der Prähistorischen Kommission 85. Wien, 147–169.
- Čížmář, M. 1978: Keltské pohřebiště v Makotřasích, okres. Kladno — Keltisches Gräberfeld in Makotřasy, Bezirk Kladno. Památky archeologické 69/1, 117–144.
- Čížmář, M. 1987: Laténské sídliště ze Strachotína, okr. Břeclav. Památky archeologické 78, 205–230.
- Čížmář, M. 1989: Pozdně laténské osídlení předhradí Závisti — Die spätlatènezeitliche Besiedlung der Vorburg von Závist. Památky archeologické 80, 59–122.
- Čížmář, M. 1994: Pozdně laténské sídliště v Dolních Břežanech (okres Praha-západ) — Die spätlatènezeitliche Siedlung in Dolní Břežany, Bezirk Prag-West. Archeologické rozhledy 46, 594–606.
- Čížmář, M. 2002a: Vývoj laténského osídlení pod Pavlovskými vrchy. In: Stuchlík, S. /ed./: Oblast vodního díla Nové Mlýny od pravěku do středověku. Brno, 250–271.
- Čížmář, M. 2002b: Laténský depot ze Ptení. K poznání kontaktů našeho území s jihem — Der latènezeitliche Hortfund von Ptení. Zur Erkenntnis der Kontakte Mährens zum Süden. Památky archeologické 93, 194–225.
- Čížmář, M. 2002c: Nálezy tyglíků na laténských nížinných sídlištech na Moravě — Tiegelfunde auf latènezeitliche Flachlandsiedlungen in Mähren. Pravěk – Nová řada 12, 243–255.
- Čížmář, M. 2003: Laténské sídliště v Bořitově — Latènezeitliche Siedlung in Bořitov. Pravěk – Supplementum 10. Brno.
- Čížmář, M. — Kolníková, E. 2006: Němčice – obchodní a industriální centrum doby laténské na Moravě — Němčice – a La Tène trading and industrial centre in Moravia. Archeologické rozhledy 58, 261–283.
- Čížmář, M. — Kolníková, E. — Noeske, H.-Chr. 2008: Němčice-Viceměřice, ein neues Handels- und Industriezentrum der Latènezeit in Mähren: Vorbericht. Germania 86, 655–700.
- Čížmář, M. et al. 2008: Čížmář, M. — Čížmářová, J. — Kejzlar, M. — Kolníková, E.: Detektorová prospekce lokalit z doby laténské na Moravě. Přehled výzkumů 49, 125–131.
- Čížmář, M. — Meduna, J. 2012: “Bójské” spony v Čechách a na Moravě — “Boiiian” fibulae in Bohemia and Moravia. Archeologické rozhledy 64, 355–356.
- Čížmářová, H. 2014: Ein Beitrag zu neuen Funden latènezeitlicher gegliederter Rädchen in Mähren. In: Čížmářová, J. — Venclová, N. — Březinová, G. 2014: Die Latènezeitliche Siedlung in Nitra-Šindolka. Bratislava.

- nová, G. /eds./: Moravské křižovatky. Střední Podunají mezi pravěkem a historií. Brno, 655–666.
- Čižmářová, J. 2005: Keltské pohřebiště v Brně-Maloměřicích — Das keltisches Gräberfeld in Brno-Maloměřice. *Pravěk – Supplementum* 14. Brno.
- Čižmářová, J. 2009: Keltská pohřebiště z Holubic a Křenovic — Keltische Gräberfelder in Holubice und Křenovice. *Pravěk – Supplementum* 19. Brno.
- Čižmářová, J. 2011: Keltská pohřebiště na Moravě. Okresy Brno-město a Brno-venkov — Keltische Gräberfelder in Mähren. Bezirke Brno-město und Brno-venkov. Brno.
- Čižmářová, J. 2012: Filigránový šperk doby laténské na Moravě. In: Březinová, G. — Varsík, V. /eds./: Archeológia na prahu histórie. K životnému jubileu Karola Pietu. Nitra, 201–234.
- Čižmářová, J. 2013: Keltská pohřebiště na Moravě. Okresy Blansko a Vyškov — Keltische Gräberfelder in Mähren. Bezirke Blansko und Vyškov. Brno.
- Danielisová, A. 2010: Oppidum České Lhotice a jeho sídelní zázemí — Oppidum České Lhotice and its Hinterland. *Archeologické studijní materiály* 17. Praha.
- Danielisová, A. — Militký, J. 2014: Pozdně laténské spony z oppida Třisov, získané povrchovou prospekci v letech 2008–2013 — Late La Tène brooches from the Třisov oppidum, acquired through surface prospection in years 2008–2013. *Archeologické rozhledy* 66, 40–66.
- Dębiec, M. — Karwowski, M. 2014: Celtic Knotenringe from Staré Hradisko. In: Čižmářová, J. — Venclová, N. — Březinová, G. /eds./: Moravské křižovatky. Střední Podunají mezi pravěkem a historií. Brno, 667–680.
- Dębiec, M. — Karwowski, M. 2016: A Typological Study of the La Tène Knotenringe in the Territory of the Boii. In: Karwowski, M. — Ramsel, P. C. /eds./: Boii – Taurisci. Proceedings of the International Seminar, Oberleisklement, June 14th–15th 2012. *Mitteilungen der Prähistorischen Kommission* 85. Wien, 115–146.
- Debord, J. 1993: Les artisans gaulois de Villeneuve-Saint-Germain (Aisne). Structures, production, occupation du sol. *Revue archéologique de Picardie* 1993/3–4, 71–110.
- Debord, J. 1998: Le mobilier en bronze du site gaulois de Villeneuve-Saint-Germain (Aisne). *Revue archéologique de Picardie* 1998/3–4, 53–91.
- Deimel, M. 1987: Die Bronzekleinfunde vom Magdalensberg. *Kärntner Museumschriften* 71. Archäologische Forschungen zu den Grabungen auf dem Magdalensberg 9. Klagenfurt.
- Dembski, G. 2009: Eigenprägung und Fremdgeld – Die Fundmünzen aus Roseldorf. In: Holzer, V. /ed./: 87–101.
- Dembski, G. 2017: Fundmünzen aus dem Bereich der Keltensiedlung Haselbach. In: Pieler, F. — Trebsche, P. /eds./: Beiträge zum Tag der Niederösterreichischen Landesarchäologie 2017. Festschrift für Ernst Lauer mann. Katalog des Niederösterreichischen Landesmuseums N. F. 541. Asparn/Zaya, 280–291.
- Drda, P. 1974: Příspěvek k datování laténských sídelních objektů s mladšími keramickými příměsemi. *Archeologické rozhledy* 26, 603–613.
- Drda, P. 1977: Laténská osada Vikletice I. *Archeologické rozhledy* 29, 366–393.
- Driesch, A. von den 1976: A guide to the measurement of animal bones from archaeological sites. *Peabody Museum Bulletin* 1. Cambridge, Mass: Harvard University.
- Droberjar, E. 1999: Dobřichov-Piňhora. Ein Brandgräberfeld der älteren römischen Kaiserzeit in Böhmen. (Ein Beitrag zur Kenntnis des Marbod-Reichs). *Fontes Archaeologici Pragenses* 23. Praha.
- Dvořák, F. 1938: Knižecí pohřby na vozech v době železné. Praha.
- Elschek K. — Kolníková, E. 2014: Beitrag zur Datierung der latènezeitlichen Zentralsiedlung von Zohor in der Westslowakei. Kleinfunde, keltische und frühromische Münzen. In: Čižmářová, J. — Venclová, N. — Březinová, G. /eds./: Moravské křižovatky. Střední Podunají mezi pravěkem a historií. Brno, 353–375.
- van Endert, D. 1991: Die Bronzefunde aus dem Oppidum von Manching. Kommentierter Katalog. *Die Ausgrabungen in Manching* 13. Stuttgart.
- Filip, J. 1956: Keltové ve střední Evropě. Praha.
- Fröhlich, J. 2001: Nové nálezy časně laténských polozemnic na Písecku — New discoveries of Early La Tène semi-sunken Dwellings in the surroundings of Písek (South Bohemia, Czech Republic). *Archeologické výzkumy v jižních Čechách* 14, 159–198.
- Fröhlich, J. 2004: Časně laténská polozemnice v Oseku u Milevska — Early La Tène semi-sunken hut in Osek near Milevsko (South Bohemia, Czech Republic). *Archeologické výzkumy v jižních Čechách* 17, 185–196.
- Fröhlich, J. — Michálek, J. — Jiřík, J. 2011: Nové nálezy kovových předmětů z doby halštatské a laténské v jižních Čechách — Neue Funde der Metallgegenständen aus der Hallstatt- und Latènezeit von Südböhmen. *Archeologické výzkumy v jižních Čechách* 24, 129–161.
- Gebhard, R. 1991: Die Fibeln aus dem Oppidum von Manching. *Die Ausgrabungen in Manching* 14. Stuttgart.
- Glodariu, I. 1984: „Brățările“ cu nodozități Latène tirzii în Dacia. *Acta Musei Napocensis* 21, 63–80.
- Gosden, Ch. H. 1984: Bohemian Iron Age Chronologies and the Seriation of Radovesice. *Germania* 62, 289–309.
- Gosden, Ch. 1987: The production and Exchange of La Tène A wheel-turned pottery in Bohemia. *Archeologické rozhledy* 39, 290–316.
- Groh, S. — Sedlmayer, H. 2017: Horror vacui in Drösing. Ein polykultureller Fundplatz im Spiegel geophysikalischer Befunde und archäologischer Artefakte. In: Pieler, F. — Trebsche, P. /eds./: Beiträge zum Tag der Niederösterreichischen Landesarchäologie 2017. Festschrift für Ernst Lauer mann. Katalog des Niederösterreichischen Landesmuseums N. F. 541. Asparn an der Zaya, 327–349.
- Hellich, J. 1921: Nový příspěvek ke kultuře žárových laténských hrobů na Horákách u V. Opolan. *Památky archeologické* 32, 103–110.

Hlava, M. 2008:

Grafit v době laténské na Moravě — Grafit in der Latènezeit in Mähren. *Památky archeologické* 99, 189–258.

Hlava, M. 2009:

„Amulety“ z oppida Třisov (okr. Český Krumlov). *Archeologické výzkumy v jižních Čechách* 22, 115–123.

Hlava, M. 2015:

Laténský depot z Ptení (okr. Prostějov): nová fakta — Latènezeitliches Depot von Ptení (Landkr. Prostějov): neue Fakten. *Památky archeologické* 106, 247–290.

Holodříák, P. 1988:

Keltská pohřebiště ve středním Poohří — Keltische Gräberfelder im mittleren Egerflussgebiet. *Památky archeologické* 79, 38–105.

Holodříák, P. — Waldhauser, J. 1984:

Předduchcovský horizont (fáze LT B1a) v Čechách. *Archeologické rozhledy* 36, 31–48.

Holzer, V. 2014:

Roseldorf – An Enclosed Central Settlement of the Early and Middle La Tène Period in Lower Austria (Roseldorf/Němčice Centre). In: Fernández-Götz, M. — Wendling, H. — Winger, K. /eds./: *Paths to Complexity. Centralisation and Urbanisation in Iron Age Europe*. Oxford, 122–131.

Holzer, V. /ed./ 2009:

Roseldorf. Interdisziplinäre Forschungen zur größten keltischen Zentralsiedlung Österreichs, KG. Roseldorf, MG. Sitzendorf an der Schmida. *Forschung im Verbund. Schriftenreihe, Band 102*. Wien.

Hricáková, J. 2007:

Laténské polozemnice v Čechách. Manuscript of a Bachelor thesis, Faculty of Arts, Charles University, Prague. Available at: <https://is.cuni.cz/webapps/zzp/detail/50917/>; Accessed on 25. 7. 2017.

Irlinger, V. 2007:

Die mittel- und spätlaténezeitliche Besiedlung in Südbayern – ein Überblick anhand der Oppida und Großsiedlungen. In: Prammer, J. — Sandner, R. — Tappert, C. /eds./: *Siedlungsdynamik und Gesellschaft. Beiträge des internationalen Kolloquiums zur keltischen Besiedlungsgeschichte im bayerischen Donaauraum, Österreich und der Tschechischen Republik 2.–4. März 2006 im Gäubodenmuseum Straubing. Jahresbericht des historischen Vereins für Straubing, Sonderband 3*, 261–282.

Jacobi, G. 1974:

Werkzeug und Gerät aus dem Oppidum von Manching. *Die Ausgrabungen in Manching* 5. Wiesbaden.

Jedlická, F. 2017:

Ein Stück Bernsteinstraße im nordöstlichen Weinviertel. Ur- und frühgeschichtliche Streufunde als Beitrag zur Siedlungsgeschichte Niederösterreichs. Band 2, Teil 1: Fibeln der Urgeschichte und Älteren Römischen Kaiserzeit. *Internationale Archäologie* 129.

Jílek, J. et al. 2015:

Jílek, J. — Vokolek, V. — Beková, M. — Bek, T. — Urbanová, K. — Horník, P.: Sídliště z časně doby římské ve Slepoticích. *Archeologie východních Čech* 6 (2013), 21–334.

Kaindl, M. 2010:

Die jüngerlaténezeitliche Großsiedlung von Steinebach a. Wörthsee im Landkreis Starnberg. *Ber. Bayer. Bodendenkmalplf.* 51, 127–195.

Kappel, I. 1969:

Die Graphittonkeramik von Manching. *Die Ausgrabungen in Manching* 2. Wiesbaden.

Karl, R. 1996:

Latènezeitliche Siedlungen in Niederösterreich. Untersuchungen zu Fundtypen, Keramikchronologie, Bautypen, Siedlungstypen und Siedlungsstrukturen im latènezeitlichen Niederösterreich. *Historica Austria* 2, 3. Wien.

Karl, R. — Prochaska, S. 2005:

Die latènezeitliche Siedlung von Göttlesbrunn, p.B. Bruck an der Leitha, Niederösterreich. Die Notbergung 1989, die Grabungen 1992–1994, zwei latènezeitliche Töpferöfen. *Historica Austria* 6. Wien.

Karwowski, M. 2015:

Die befestigten Höhensiedlungen in der „boischen“ Donauzone. In: Karwowski, M. — Salač, V. — Sievers, S. /eds./: *Boier zwischen Realität und Fiktion. Akten des internationalen Kolloquiums in Český Krumlov vom 14.–16.11.2013*. Bonn, 211–224.

Karwowski, M. 2017:

Middle La Tène Brooches of Variant Kožuchów. In: *Na hranicích impéria — Extra fines imperii. Jaroslavu Tejralovi k 80. narozeninám*. Brno, 191–196.

Kellner, H.-J. 1990:

Die Münzfunde von Manching und die Keltischen Fundmünzen aus Südbayern. *Die Ausgrabungen in Manching* 12. Stuttgart.

Kolníková, E. 2012:

Němčice. Ein Macht-, Industrie- und Handelszentrum der Latènezeit in Mähren und Siedlungen am ihren Rande. *Komentierter Fundkatalog. Münzen. Spisy Archeologického ústavu AV ČR Brno 43*. Brno.

Koutecký, D. — Venclová, N. 1979:

K problematice osídlení severozápadních Čech v době laténské a římské. Sídliště Počerady I a II. *Památky archeologické* 70, 42–112.

Krämer, W. 1985:

Die Grabfunde von Manching und die latènezeitlichen Flachgräber in Südbayern. *Ausgrabungen in Manching* 9. Stuttgart.

Kruta, V. 1971:

Le trésor de Duchcov dans les collections tchécoslovaques. Ústí nad Labem.

Kruta, V. 1975:

L'art celtique en Bohême: les parures métalliques du V^e au II^e siècle avant notre ère. Paris.

Kuna, M. 1991:

The structuring of prehistoric landscape. *Antiquity* 65, 332–347.

Kuna, M. — Waldhauser, J. — Zavřel, J. 1989:

Říčany 1986. Záchranný archeologický výzkum sídliště doby laténské a železářského areálu starší doby římské. *Studie a zprávy Okresního muzea Praha-východ, Supplementum 1*. Brandýs n. L. – Stará Boleslav.

Kysela, J. — Danielisová, A. — Militký, J. 2014:

Středomořské importy z oppida Třisov. Nálezy z povrchové prospekce s detektory kovů z let 2007–2013 — Mediterranean imports at the Třisov oppidum. *Findings from surface surveys with metal detectors, conducted in 2007–2013. Archeologické rozhledy* 66, 567–608.

Kyselý, R. 2002:

Laténské zvířecí kosti z polohy Střekov-Podhradí (Ústí n. L.).

- In: Čech, P. — Smrž, Z. /eds./: Sborník Drahomíru Koutec-kému. Ústav archeologické památkové péče severozápadních Čech. Most, 93–96.
- Kyselý, R. 2012:*
Zvířecí kosti. In: Venclová, N. — Valentová, J. /eds./: Oppidum Stradonice – Výzkum Albína Stockého r. 1929. *Fontes Archaeologici Pragenses* 38, 77–83, 222–225.
- Kyselý, R. 2015:*
Evidence of the use of a horn yoke in the Middle La Tène period, and an analysis of animal finds from La Tène features in the Velké Zboží and Malé Zboží cadasters, central Bohemia. *Archeologické rozhledy* 67 (3), 432–437.
- Lauber, J. 2012:*
Kommentierter Katalog zu den Kleinfunden (ohne Münzen) von der Halbinsel Schwaben in Altenburg, Gemeinde Jesetten, Krs. Waldshut. *Fundberichte aus Baden-Württemberg* 32, 717–803.
- Leichmann, J. 1994:*
Brousky z keltského oppida Staré Hradisko u Prostějova. *Časopis Moravského Muzea, Vědy společenské* 79, 101–109.
- Lejars, Th. 1994:*
Gournay III. Les Fourreaux d'épée: Le Sanctuaire de Gournay-sur-Aronde et l'armement des Celtes de la Tène moyenne. Paris.
- Lejars, Th. 2013:*
La Tène : la collection Schwab (Bienne, Suisse). La Tène, un site, un mythe 3. *Cahiers d'archéologie romande* 140/141. Lausanne.
- Loughton, M. 2005:*
Late La Tène painted pottery: use and deposition. In: Karl, R. — Leskovar, J. /eds./: *Interpretierte Eisenzeiten. Fallstudien, Methoden, Theorie. Tagungsbeiträge der 1. Linzer Gespräche zur interpretativen Eisenzeitarchäologie. Studien zu Kulturgeschichte von Oberösterreich* 18. Linz, 155–170.
- Maier, F. 1970:*
Die bemalte Spätlatène-Keramik von Manching. *Die Ausgrabungen in Manching* 3. Wiesbaden.
- Malínková, K. 2014:*
Železné nástroje z oppida Třisov – The iron tools from oppidum Třisov. Manuscript of a Bachelor thesis, Faculty of Arts, Charles University, Prague.
- Mangel, T. 2011:*
Laténské osídlení horního Polabí ve světle keramických nálezů. Manuscript of Master thesis, Faculty of Arts, University of Hradec Králové.
- Mangel, T. — Danielisová, A. 2014:*
Dostupnost zdrojů surovin a specializovaná výroba v době laténské — Accessibility of mineral sources in the La Tène period. *Živá archeologie – (Re)konstrukce a experiment v archeologii* 16, 39–48.
- Mangel, T. — Jílek, J. 2012:*
Drobné laténské nálezy z východních Čech II — Latènezeitliche Kleinfunde aus Ostböhmen II. *Archeologie východních Čech* 3, 55–67.
- Mangel, T. — Thér, R. 2015:*
Ke stavu poznání hrnčářských pecí z doby laténské v Čechách a na Moravě — Research into Pottery Kilns from the La Tène Period in Bohemia and Moravia. *Živá archeologie* 17, 48–54.
- Mansfeld, G. 1973:*
Die Fibeln der Heuneburg 1950–1970. Ein Beitrag zur Geschichte der Späthallstattfibeln. *Heuneburgstudien* II. Römisch germanische Forschungen 33. Berlin.
- Márton, A. 2004:*
La fibule du type de Mötschwil. *Acta Archaeologica Academiae Scientiarum Hungariae* 55, 279–322.
- Meduna, J. 1961:*
Staré Hradisko. Katalog der Funde im Museum der Stadt Boskovic. *Fontes Archaeologiae Moraviae – tomus II.* Brno.
- Meduna, J. 1970a:*
Staré Hradisko II. Katalog der Funde aus den Museen in Brno /Brünn/, Praha /Prag/, Olomouc, Plumlov und Prostějov. *Fontes Archaeologiae Moraviae – tomus V.* Brno.
- Meduna, J. 1970b:*
Das keltische oppidum von Staré Hradisko in Mähren. *Germania* 48, 34–59.
- Meduna, J. 1980:*
Die latènezeitlichen Siedlungen in Mähren. Praha.
- Michálek, J. et al. 1999:*
Keltský poklad z Bezdědovic na Blatensku. Blatná – Strakonice.
- Michálek, J. et al. 2014:*
Michálek, J. — Chvojka, O. — Fröhlich, J. — John, J. — Jířk, J. — Pták, M.:
Nové nálezy kovových předmětů z doby halštatské a laténské v jižních Čechách (pokračování) — Neue Funde der Metallgegenständen aus der Hallstatt- und Latènezeit von Südböhmen (Fortsetzung). *Archeologické výzkumy v jižních Čechách* 27, 151–180.
- Milítký, J. 2015:*
Die Boier und die Numismatik – Gegenwärtiger Stand der Forschung und die Möglichkeiten der Interpretation des Fundbestandes. In: Karwowski, M. — Salač, V. — Sievers, S. /eds./: *Boier zwischen Realität und Fiktion. Akten des internationalen Kolloquiums in Český Krumlov vom 14.–16.11.2013.* Bonn, 69–102.
- Milítký, J. 2018:*
Celtic coins from the central site of Žehuň — Keltské mince z areálu centrálního sídliště Žehuň. *Památky archeologické* 109, 179–231.
- Milítký, J. in print:*
Keltisches Münzwesen in Nordostösterreich. In: Trebsche, P. /ed./: *Latènezeit im Osten Österreichs. Reihe „Archäologie in Niederösterreich“.* Wien.
- Moser, S. 2001:*
Die latènezeitliche Siedlung von Neubau bei Traun – neue Funde keltischer Schrötlingsformen aus Jahrbuch Oberösterreichischen Musealvereines. *Gesellschaft für Landeskunde* 146/1, 97–128.
- Motýková-Šnajdrová, K. 1960:*
Osídlení z mladší doby laténské, z doby římské a stěhování národů v Záluží u Čelákovic II. *Památky archeologické* 51, 161–180.
- Motýková, K. — Drda, P. — Rybová, A. 1990:*
Oppidum Závist – prostor brány A v předsunutém šjiovém opevnění — Oppidum Závist. Der Raum des Tors A in der vorgeschobenen Abschnittsbefestigung. *Památky archeologické* 81, 308–433.
- Müller, F. 1981:*
Die frühlatènezeitlichen Flachgräber der Kantone Baselstadt und Baselland. *Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte* 64, 73–106.
- Müller, R. 1985:*
Die Grabfunde der Jastorf une Latènezeit an untere Saale und Mittelelbe. Berlin.

- Müller, F. 1990:
Der Massenfund von der Tiefenau bei Bern: zur Deutung latènezeitlicher Sammelfunde mit Waffen. *Antiqua* 20. Basel.
- Müller-Karpe, A. — Müller-Karpe, M. 1977:
Neue latènezeitliche Funde aus dem Heidentränk-Oppidum. *Germania* 55, 33–63.
- Novák, M. 2011:
K otázce reparací pravěké keramiky. *Sborník prací Filozofické fakulty brněnské univerzity M16*, 89–100.
- Parma, D. 2007:
Laténské sídliště Otrokovice „Chmelín“ — Latènezeitliche Siedlung Otrokovice „Chmelín“. *Pravěk – Nová řada* 16 (2006), 325–358.
- Pauli, L. 1978:
Der Dürrnberg bei Hallein III. Auswertung der Grabfunde. München.
- Penninger, E. 1972:
Der Dürrnberg bei Hallein I. München.
- Peške, L. 1993a:
Osteological analysis of the material from Radovesice. In: *Waldhauser, J. et al.*: 156–172.
- Peške, L. 1993b:
Animal utilisation in the La Tène period. In: Pavúk, J. /ed./: *Actes du XII^e Congrès International des Sciences Préhistoriques et Protohistoriques*, Bratislava 1991. T. 1. Bratislava, 213–217.
- Peške, L. 1994:
The history of natural scientific methods in the Archaeological Institute and their present objectives. In: Fridrich, J. /ed./: *25 years of archaeological research in Bohemia. Památky archeologické – Supplementum 1*, 259–278.
- Peške, L. 2008:
Zvířecí kosti. In: Drda, P. — Rybová, A.: *Akropole na hradišti Závist v 6.–4. stol. př. Kr. Památky archeologické – Supplementum 19*. Praha.
- Píč, J. L. 1902:
Kostrové hroby s kulturou marnskou čili laténskou a Bojové v Čechách. *Starožitnosti země České II. Čechy na úsvitě dějin 1*. Praha.
- Píč, J. L. 1903:
Hradiště u Stradonic jako historické Marobudum. *Starožitnosti země České II. Čechy na úsvitě dějin 2*. Praha.
- Pierrevelcin, G. 2009:
Ke studiu dálkových kontaktů v pozdní době laténské — Contribution à l'étude des contacts à longue distance à LT finale. *Archeologické rozhledy* 61, 223–253.
- Pieta, K. 1996:
Romischer Import der Spätlatènezeit in der Slowakei. *Archeologičeskí vestník* 47, 183–195.
- Pieta, K. 2008:
Keltské osídlenie Slovenska: mladšia doba laténska. Nitra.
- Pieta, K. 2014:
Hradiská vo Folkušovej-Necpaloch a Blatnici. Juhovýchodné prvky v púchovskej kultúre — Burgwälle aus der Latènezeit in Folkušová-Necpal und Blatnica Südöstliche Elemente in der Púchov-Kultur. *Slovenská archeológia* 62, 125–165.
- Pleiner, R. 2006:
Iron in Archaeology: Early European Blacksmiths. Praha.
- Preinfalk, F. 2005:
Die spätlatènezeitliche Siedlung von Haselbach. In: *Zeitschriften. Vom Tullnerfeld ins Traisental. Fundberichte aus Österreich, Materialhefte, Sonderheft 2*, 102–105.
- Prokisch, B. 1993:
Keltische Fundmünzen aus Oberösterreich. Die römischen Münzen des Stadtmuseums Nordico in Linz. Linz.
- Prokisch, B. 1999:
Neufunde keltischer Münzen in Oberösterreich aus den Jahren 1992 bis 1998. *Numismatische Zeitschrift* 106–107, 37–48.
- Prokisch, B. 2004a:
Neufunde keltischer Münzen in Oberösterreich aus den Jahren 1998 bis 2003. *Numismatische Zeitschrift* 111–112, 5–34.
- Prokisch, B. 2004b:
Neufunde keltischer Münzen in Oberösterreich in Jahr 2004. *Jahrbuch des Oberösterreichischen Musealvereines Gesellschaft für Landeskunde* 149. Festschrift Bernard Winkler zum 70. Geburtstag. Linz, 41–89.
- Prokisch, B. 2010:
Neufunde keltischer Münzen in Oberösterreich aus dem Jahre 2005 bis 2009. *Mitteilungen der Österreichischen Numismatischen Gesellschaft* 50, 17–43.
- Prokisch, B. 2011:
Die Fundmünzen aus den in Zusammenhang mit dem Bau der Umfahrungsstrasse der Ortschaft Neubau (MG Hörasing, VB Linz-Land OÖ) durchgeführten archäologischen Untersuchungen der Jahre 2005/2008. *Numismatische Zeitschrift* 118, 7–51.
- Ramsl, P. 2002:
Das eisenzeitliche Gräberfeld von Pottenbrunn. Forschungsansätze zu wirtschaftlichen Grundlagen und sozialen Strukturen der latènezeitlichen Bevölkerung des Traisentales, Niederösterreich. *Fundberichte aus Österreich, Materialhefte A 11*. Wien.
- Ramsl, P. 2011:
Das latènezeitliche Gräberfeld von Mannersdorf am Leithagebirge, Flur Reinthal Süd, Niederösterreich. *Studien zu Phänomenen der latènezeitlichen Kulturausprägungen. Mitteilungen der Prähistorischen Kommission* 74. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Rudnicki, M. 2014:
Nowa Cerekwia – the Middle La Tène centre of power north of the Carpathians. In: Čížmářová, J. — Venclová, N. — Březinová, G. /eds./: *Moravské křížovatky. Střední Podunají mezi pravěkem a historií*. Brno, 421–437.
- Rulf, J. — Salač, V. 1995:
Zpráva o laténské keramice v severozápadních Čechách — Bericht über die latènezeitliche Keramik NW-Böhmens. *Archeologické rozhledy* 47, 373–417.
- Rybová, A. 1964:
Pozdně laténské a časně římské sídliště v Novém Bydžově - Chudonicích. *Acta Musei Reginaehradecensis, serie B: Scientiae Sociales VII*. 3–142.
- Rybová, A. 1969:
Keramika na rovinných osadách východních Čech v době laténské. *Památky archeologické* 60, 367–442.
- Rybová, A. — Drda, P. 1994:
Hradiště by Stradonice. Rebirth of a Celtic oppidum. Praha.
- Rybová, A. — Motyková, K. 1983:
Der Eisendepotfund der Latènezeit von Kolín. *Památky archeologické* 74, 96–174.
- Řídký, J. 2008:
Zpráva o záchranném archeologickém výzkumu v Dobrovízi (okr. Praha-západ), květen-září 2007. Č.j. 2954/08.
- Salač, V. 1984:
Laténské sídliště u Břešťan, okr. Chomutov. *Archeologické rozhledy* 36, 261–278.

- Salač, V. 1990:
K poznání laténského (LT C2–D1) výrobního a distribučního centra v Lovosicích. *Archeologické rozhledy* 42, 609–639.
- Salač, V. 1998:
Standardní soubor laténské sídlištní keramiky — Ein Standardensemble latènezeitlicher Keramik. *Archeologické rozhledy* 50, 43–76.
- Salač, V. 2015:
Kolik střepů chybí v Radovesicích? Živá archeologie – (Re)konstrukce a experiment v archeologii 17, 79–83.
- Salač, V. — Carnap-Bornheim, C. 1994:
Die westlichen Beziehungen Böhmens in der Mittel- und Spätlatènezeit am Beispiel der Keramik. *Germania* 72, 95–131.
- Salač, V. — Kubálek, T. 2015:
Laténská sídlištní keramik v severozápadních Čechách — Die latènezeitliche Siedlungskeramik in Nordwestböhmen. Praha.
- Salač, V. — Neruda, R. — Kubálek, T. 2013:
Zu quantitativen Charakteristika der Manching Keramik. In: Sievers, S. — Leicht, M. — Ziegau, B. /eds./: Ergebnisse der Ausgrabungen in Manching-Altenfeld 1996–1999. Die Ausgrabungen in Manching 18. Wiesbaden, 637–668.
- Sankot, P. 2012:
Bemerkungen zur Wiederauffindung des späthallstattzeitlichen Wagengrabs von Kladruby, Bezirk Rokycany, Westböhmen — Poznámky k znovuobjevení pozdně halštatského hrobu na voze z Kladrub, okr. Rokycany. *Archeologické rozhledy* 64, 695–722.
- Sankot, P. 2014:
Der Donauraum und Böhmen im dritten Jahrhundert vor Christus. In: Čižmářová, J. — Venclová, N. — Březinová, G. /eds./: Moravské křižovatky. Střední Podunají mezi pravěkem a historií. Brno, 255–271.
- Schaaf, U. 1974:
Ein keltisches Fürstengrab von Worms-Herrsheim. *Jahrbuch des Römisch-Germanischen Zentralmuseum Mainz* 18 (1971), 51–117.
- Schäfer, A. 2007:
Zur Chronologie und Chorologie Süddeutscher Latènemünzen. In: Prammer, J. — Sandner, R. — Tappert, C. /eds./: Siedlungsdynamik und Gesellschaft. Beiträge des internationalen Kolloquiums zur keltischen Besiedlungsgeschichte im bayerischen Donauraum, Österreich und der Tschechischen Republik 2.–4. März 2006 im Gäubodenmuseum Straubing. Jahresbericht des historischen Vereins für Straubing, Sonderband 3, 125–144.
- Schäfer, A. 2010:
Berching-Pollanten II. Die Kleinfunde der jüngerlatènezeitlichen Siedlung Berching-Pollanten, Lkr. Neumarkt i.d. Oberpfalz. *Marburger Studien zur Vor- und Frühgeschichte* 24. Rahden/Westf.
- Schlott, Chr. — Spennemann, D. R. — Weber, G. 1985:
Ein Verbrennungsplatz und Bestattungen am spätlatènezeitlichen Heidetränk-Oppidum im Taunus. *Germania* 63/2, 439–505.
- Schönfelder, M. 1999:
Knöpfe an Schuhen der Frühlatènezeit. *Archäologisches Korrespondenzblatt* 29, 537–552.
- Sedláčková, H. 1990:
Ein latènezeitliches Haus aus Mittelböhmen (samt Rekonstruktionsversuch). *Mannus* 56, 27–42.
- Sedláčková, H. 1991:
La Tène period sunken-floored houses at Křinec, district of Nymburk. *Archaeology in Bohemia 1986–1990*. Prague, 228–232.
- Sedláčková, H. — Waldhauser, J. 1987:
Laténská pohřebiště ve středním Polabí, okr. Nymburk — Latènezeitliche Gräberfelder in dem mittleren Elbegebiet, Bez. Nymburk. *Památky archeologické* 78, 134–204.
- Sievers, S. 2001:
Les armes d'Alésia. In: Reddé, M. — Schnurbein, S. von /eds./: Alésia. Fouilles et recherches franco-allemandes sur les travaux militaires romains autour du Mont-Auxois (1991–1997). Vol. 2: Le matériel. Paris, 121–241.
- Sievers, S. 2004:
Das „Ende“ von Manching – eine Bestandsaufnahme. In: Hüsen, C.-M. — Irlinger, W. — Zanier, W. /eds./: Spätlatènezeit und frühe römische Kaiserzeit zwischen Alpenrand und Donau. Akten des Kolloquiums in Ingolstadt am 11. und 12. Oktober 2001. *Kolloquien zur Vor- und Frühgeschichte* 8. Bonn, 67–71.
- Sievers, S. 2010:
Die Waffen aus dem Oppidum von Manching. *Die Ausgrabungen in Manching* 17. Wiesbaden.
- Sievers, S. 2013:
Die Kleinfunde. In: Sievers, S. — Leicht, M. — Ziegau, B. /eds./: Ergebnisse der Ausgrabungen in Manching-Altenfeld 1996–1997. Die Ausgrabungen in Manching 18. Wiesbaden, 163–241.
- Sklenář, K. 1978:
Okresní muzeum v Berouně – katalog pravěké sbírky. Zpráva Československé společnosti archeologické XX/1–2. Praha.
- Snítílý, P. 2005:
Laténská zahloubená obydlí. In: Neustupný, E. — John, J. /ed./: Příspěvky k archeologii 2. Plzeň, 201–239.
- Soudská, E. 1968:
Hrob s maskovitou sponou z Manětína-Hrádku — Das Grab mit Maskenfibel in Manětín-Hrádek. *Archeologické rozhledy* 20, 451–469.
- Soudská, E. 1976:
Hrob 196 z Manětína-Hrádku a další hroby s dvoukolými vozy v Čechách — Das Wagengrab 196 von Manětín-Hrádek und weitere Gräber mit zweirädrigen Wagen in Böhmen. *Archeologické rozhledy* 28, 625–654.
- Szilasi, A. B. 2006:
Kelta település részlete Sárvár határában. *Savaria* 30, 231–290.
- Szpunar, A. — Duleba, P. 2008:
Einmaliger Import aus Noricum, gefunden in der Siedlung in Pasięka Otfinowska, powiat Tarnów. *Acta Archaeologica Carpathica* 42–43 (2007–2008), 109–139.
- Thér, R. — Mangel, T. — Gregor, M. 2014:
Produktion laténských hrnčírských pecí na Chrudimsku: příspěvek k poznání organizace hrnčírského řemesla — The production of La Tène pottery kilns in the Chrudim region: A contribution to understanding of the organisation of the pottery craft. *Archeologické rozhledy* 66, 415–452.
- Thér, R. — Mangel, T. — Gregor, M. 2015:
Život hrnčíře začíná v LT A. Výroba keramiky v době laténské na Chrudimsku — Life of a potter begins in LT A. Červený Kostelec.
- Trebsche, P. 2007:
Die Siedlungsentwicklung während der Latènezeit in Oberösterreich. In: Schwanzar, C. — Winkler, G. /eds./: Archäologie und Landeskunde. Beiträge zur Tagung im Linzer Schlossmuseum 26.–28. April 2007. *Studien zur Kulturgeschichte von Oberösterreich* 17, 53–65.
- Trebsche, P. 2010:
Auswertung der latènezeitlichen Funde und Befunde von Mi-

- chelstetten. In: Lauermaier, E. /ed./: Die latènezeitliche Siedlung von Michelstetten. Die Ausgrabungen des Niederösterreichischen Museums für Urgeschichte in den Jahren 1994–1999. Archäologische Forschungen in Niederösterreich, 7. St. Pölten, 15–115.
- Trebsche, P. 2014:*
Size and economic structure of La Tène period lowland settlements in the Austrian Danube region. In: Hornung, S. /ed./: Produktion – Distribution – Ökonomie. Siedlungs- und Wirtschaftsmuster der Latènezeit. Akten des internationalen Kolloquiums in Otzenhausen, 28.–30. Oktober 2011, 341–374.
- Trebsche, P. 2016:*
Structuration et planification des agglomérations laténiennes en Basse-Autriche. In: Blancquaert, G. — Malrain, F. /eds./: Évolution des sociétés gauloises du Second âge du Fer, entre mutations internes et influences externes. Actes du 38^e colloque international de l'AFEAF, Amiens, 29^e Mai – 1^{er} juin 2014. Revue Archéologique de Picardie, Numéro spécial 30. Senlis, 363–375.
- Trebsche, P. — Fichtl, S. 2016:*
Die latènezeitliche Zentralsiedlung von Haselbach (Gemeinde Niederhollabrunn) – zum Beginn des französisch-österreichischen Forschungsprojektes. In: Lauermaier, E. — Trebsche, P. /eds./: Beiträge zum Tag der Niederösterreichischen Landesarchäologie 2016. Katalog des Niederösterreichischen Landesmuseums 531, 20–36.
- Uenze, H. P. 2000:*
Die jüngerlatènezeitliche Siedlung von Eggfling. Bayerische Vorgeschichtsblätter 65, 1–38.
- Uenze, H. P. 2005:*
Neue Funde von Eggfling. Bayerische Vorgeschichtsblätter 70, 57–94.
- Valentová, J. — Šumberová, R. 2007:*
Nová laténská sídliště v Podoubraví, okr. Kutná Hora — Neue latènezeitliche Siedlungen im Wassergebiet der Doubrava, Bez. Kutná Hora. Pravěk – Nová řada 16 (2006), 267–308.
- Venclová, N. 1973:*
Nové laténské nálezy ze středních Čech. Archeologické rozhledy 25, 626–646.
- Venclová, N. 1987:*
Bemerkungen zum Grenzgebiet der Latènekultur in Nordwestböhmen. Památky archeologické 78, 449–464.
- Venclová, N. 1998:*
Mšecké Žehrovice in Bohemia. Archaeological background to a Celtic hero 3rd–2nd cent. B. C. Sceaux.
- Venclová, N. 1999:*
Srbeč: příklad laténské výrobní sídliště — Srbeč (Central Bohemia): a La Tène period industrial settlement. Památky archeologické 90, 28–64.
- Venclová, N. 2001:*
Výroba a sídla v době laténské. Projekt Loděnice. Praha.
- Venclová, N. et al. 2008:*
Hutnický region Říčansko. Praha.
- Vlčková, J. 1991:*
Pohlody okr. Chomutov. Příspěvek k laténskému osídlení podkrušnohorského regionu. Archeologické rozhledy 43, 520–551.
- Vouga, P. 1923:*
La Tène. Leipzig.
- Waldhauser, J. 1986:*
Ziskávání mědi a její tavba v keltských Čechách během pozdního halštatu a v laténu (stav teoretického výzkumu). Studie z dějin hornictví 16, 46–88.
- Waldhauser, J. 1992:*
Keltische Distributionssysteme von Graphittonkeramik und die Ausbeutung der Graphitlagerstätten während der fortgeschrittenen Latènezeit. Archäologisches Korrespondenzblatt 22, 377–392.
- Waldhauser, J. 1996:*
Regionale keramische Kreise der jüngeren Latènezeit in Böhmen: Anfänge der Forschungen. In: Jerem, E. — Krenn-Leeb, A. — Neugebauer, J. W. — Urban, H. O. /eds./: Die Kelten in den Alpen und an der Donau. Akten des Internationalen Symposiums St. Pölten, 14.–18. Oktober 1992. Budapest – Wien, 335–357.
- Waldhauser, J. 2001:*
Encyklopedie Keltů v Čechách. Praha.
- Waldhauser, J. 2014:*
Maskovitá spona stupně LT A z Hradištka ve středním Polabí. In: Čizmářová, J. — Venclová, N. — Březinová, G. /eds./: Moravské křižovatky. Střední Podunají mezi pravěkem a historií. Brno, 165–171.
- Waldhauser, J. — Fröhlich, J. 2007:*
Laténské sídliště rýzovníků zlata (?) u Velhartic v Pošumaví: Počátek výskytu tuhové hřebenované keramiky v jižních Čechách. Archeologické výzkumy v jižních Čechách 20, 321–330.
- Waldhauser, J. — Krásný, F. 2006:*
Problémy konce doby laténské v Pojizeří. In: Droberjar, E. — Lutovský, M. /eds./: Archeologie barbarů. Sborník příspěvků z I. protohistorické konference „Pozdně keltské, germánské a časně slovanské osídlení“, Kounice, 20.–22. září 2005. Praha, 91–153.
- Waldhauser, J. et al. 1978:*
Das keltische Gräberfeld bei Jenišův Újezd in Böhmen. Teplice.
- Waldhauser, J. et al. 1987:*
Keltische Gräberfelder in Böhmen. Bericht der Römisch-Germanischen Kommission 68, 25–224.
- Waldhauser, J. et al. 1993:*
Die hallstatt- und latènezeitliche Siedlung mit Gräberfeld bei Radovesice in Böhmen. Archeologický výzkum v severních Čechách 21. Teplice.
- Wendling, H. 2009:*
Zur Funktion latènezeitlicher Scherbenrundel. In: Karl, R. — Leskovar, J. /ed./: Interpretierte Eisenzeiten. Fallstudien, Methoden, Theorie. Tagungsbericht der 3. Linzer Gespräche zur interpretativen Eisenzeitarchäologie. Studien zur Kulturgeschichte von Oberösterreich 22. Linz, 277–294.
- Wendling, H. 2013:*
Manching Reconsidered: New Perspectives on Settlement Dynamics and Urbanization in Iron Age Central Europe. European Journal of Archaeology 16 (3), 459–490.
- Zápotocký, M. 1973:*
Keltská pohřebiště na Litoměřicku. Archeologické rozhledy 25, 139–184.
- Zavřel, P. 2014:*
Nálezy hrncovitých nádob s tzv. Kyjovitým okrajem z období LT D2b – Ř A z jižních Čech — Die Funde der Töpfe mit kolbenförmig verdicktem Rand aus der Zeitspanne LT D2b – RA aus Südböhmen. Zborník Slovenského Národného Muzea CVIII, Archeológia 24, 261–269.
- Ziegau, B. 1995:*
Der Münzfund von Großbissendorf. Eine numismatisch-historische Untersuchung zu den spätkeltischen Goldprägungen in Südbayern. Ausstellungskataloge der Prähistorischen Staatssammlung 27. München.

Ziehaus, B. 2000:

Die Fundmünzen aus der jüngerlatènezeitlichen Siedlung von Eggfing. Bayerische Vorgeschichtsblätter 65, 39–83.

Ziehaus, B. 2013:

Münzen und Münzwerkzeuge. Katalog der Münzen und Werkzeuge. In: Sievers, S. — Leicht, M. — Ziehaus, B.: Ergebnisse

der Ausgrabungen in Manching-Altenfeld 1996–1999. Die Ausgrabungen in Manching. Band 18. Teil 2: Text. Wiesbaden, 425–619.

Zikmundová, E. 1972:

Chov zemědělských zvířat na sídlištích doby laténské. Vlastivědný sborník Podbrdská 6, 33–51.

Mgr. Alžběta Frank Danielisová, Ph.D., Institute of Archaeology CAS, Prague, v. v. i. (Archeologický Ústav AV ČR, Praha, v. v. i.), Letenská 4, CZ 118 01 Praha 1;

e-mail: danielisova@arup.cas.cz

Mgr. Jan Kysela, Ph.D., Institute of Classical Archaeology, Faculty of Arts, Charles University (Ústav pro klasickou archeologii, Filozofická fakulta, Univerzita Karlova), Celetná 20, CZ 116 42 Praha 1;

e-mail: jan.kysela@ff.cuni.cz

Mgr. Tomáš Mangel, Ph.D., Department of Archaeology, Faculty of Arts, University Hradec Králové (Katedra archeologie, Filozofická fakulta, Univerzita Hradec Králové), Rokitanského 62, CZ 500 03 Hradec Králové 3;

e-mail: tomas.mangel@uhk.cz

Mgr. René Kyselý, Ph.D., Institute of Archaeology CAS, Prague, v. v. i. (Archeologický Ústav AV ČR, Praha, v. v. i.), Letenská 4, CZ 118 01 Praha 1;

e-mail: kysely@arup.cas.cz

PhDr. Jiří Militký, Ph.D., National museum (Národní muzeum), Václavské náměstí 1700/68, 110 00 Praha 1 - Nové Město; Institute of Archaeology CAS, Prague, v. v. i. (Archeologický Ústav AV ČR, Praha, v. v. i.), Letenská 4, CZ 118 01 Praha 1;

e-mail: militky.jiri@seznam.cz