

METAL FINDS AND OTHER SMALL ARTEFACTS FROM THE LATE AND FINAL BRONZE AGE FORTIFIED HILLTOP SETTLEMENT AT THE DESERTED CASTLE IN ZVOLEN, CENTRAL SLOVAKIA¹

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The study evaluates the selected metal and other small findings from the Late and Final Bronze Age fortified hilltop settlement at the Deserted Castle, Upper castle in Zvolen (central Slovakia). This was part of a network of hillforts built at strategically advantageous locations in the Slovenské stredohorie mountains at the end of the Bronze Age. The studied assemblage of the artefacts comes from the 2016–2023 systematic excavation and is supplemented by some significant earlier discovered finds. Its diversity evidences the people's intense presence, movements, and activities at this hillfort during the Urnfield culture period. The evaluation of the finds complements the analysis of the ceramic material. It confirms the habitation phases of the site from the Late Bronze Age (stage HA1) to the beginning of the Hallstatt period (stage HC1), or roughly from the 12th to the 8th century BC.

INTRODUCTION

Situated in the Javorie hills, above the confluence of the Hron River and the Slatina stream in Central Slovakia, the National Cultural Monument Pustý hrad in Zvolen, also known as the Deserted Castle, spans two peaks of the hill bearing the same name. The site's fame stems mostly from the remnants of the great stone castle (Fig. 1) built there in the High Middle Ages by Hungarian rulers of the Árpád dynasty. The Upper castle was constructed on the hilltop plateau (571 m a. s. l.) with an area of 3.5 ha, and the Lower castle (476 m a. s. l.) with an area of 0.7 ha (newest *Beljak et al. 2021*, 137–168).

The Deserted Castle hill is ideally situated with a strong strategic position and an appealing perspective over the Zvolenská kotlina basin and its surrounding areas. Therefore, it should not be surprising that this location has appealed to settlers since prehistoric times. The earliest known habitation dates to the Final Stone Age, when an upland settlement from the final phase of the Baden culture was established, mostly at the location of the Lower castle (*Beljak et al. 2014*, 80–106; *Beljak Pažinová/Niklová/Beljak 2015*).

In the framework of the submitted paper, we will present selected metal finds and other small artefacts (jewellery, weapons, tools) from the Late and Final Bronze Age hillfort at the Zvolen-Deserted Castle, Upper castle site. These artefacts are essential for clarifying cultural-chronological questions about the residents' behaviours on the site since they indicate everyday household activities on the hillfort. Above all, we present the excavation results of the fortified settlement conducted in the Upper castle from 2016 to 2023 (Fig. 2). In addition, we considered important past discoveries in this regard, only some of which have been published so far.

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Fig. 1. Zvolen-Deserted Castle, Upper castle. Aerial view of the hilltop from the northeast. Author J. Beljak.

THE FIRST DISCOVERIES AT A PREHISTORIC HILLFORT

It was long assumed in archaeological literature (e.g. Balaša 1946, 95; Furmánek 1983, 31, fig. 2: 16; Labuda 1981, 120) that the Deserted Castle site was an ancient hillfort. First documented in a report by local lawyer and amateur antiquarian J. Thomka (1891, 297), the prehistoric settlement at the site is also mentioned a little later in the notes of polyhistorian A. Kmeť, who reportedly discovered “Lusatian-Silesian sherds” there (Eisner 1933, 158; Medvecký 1924, 200, note. 1). Nonetheless, the site gained recognition among expert archaeologists only in the middle of the 20th c. due to the publication of bronze artefacts from the looted and dispersed hoard found in 1944 when digging military trenches beneath a 12 m high cliff on the western flanks of the castle hill (Balaša 1946, 90–95). Also, in the first post-war monograph on the prehistory of Slovakia, the Deserted Castle site was mentioned again as a hillfort associated with the Lusatian culture (Budinský Krička 1947, map VII). Archaeologists paid greater attention to the site after other metal artefacts from the mentioned hoard discovered at the end of WWII were published in the 1970s and 1980s (Furmánek/Kuka 1973, 603–614; Novotná/Ratimorská 1981, 200, 201). The remaining part of this large treasure was uncovered in 2001 when the discovery location was precisely identified. After completion, it is known to have contained ceramic bowl and at least 244 bronze artefacts (axes, sickles, spiral-armlets, pendants, anvil, patches, wires) typical of Piliny culture metallurgy of the so-called Ožďany deposit horizon (according to Novotná 1970a), which can be synchronised in Zvolenská kotlina basin to the stages² BC2–BD (further details Beljak 2002, 37, 38; Beljak et al. 2014, 19; Zachar 2018, 32, 33, 151–159).

The Lower castle area excavations conducted between 2009 and 2014 brought the first clear indications of Urnfield period occupation at the site (Beljak et al. 2014, 107–125). A stone-earth rampart from the Bronze Age was also documented, and it was discovered beneath the western and southeastern lines of the Lower castle’s mediaeval walls. However, compared to the Upper castle’s findings, this site’s archaeological material is of considerably lesser quality, and its informative value is quite low (Beljak et al. 2014, pl. IX–XIII). On the other hand, the discovery of a solitary cremation grave in the saddle behind the mediaeval residential tower of the Lower castle was unexpected (Beljak et al. 2014, fig. 68). It was represented by a find of heavily fragmented ceramic barrel-shaped urn, which was

² A Central European chronological system for the Bronze Age Urnfield period (developed by H. Müller-Karpe) is used in this study (Mitáš/Furmánek 2016, 358–374; with further references).

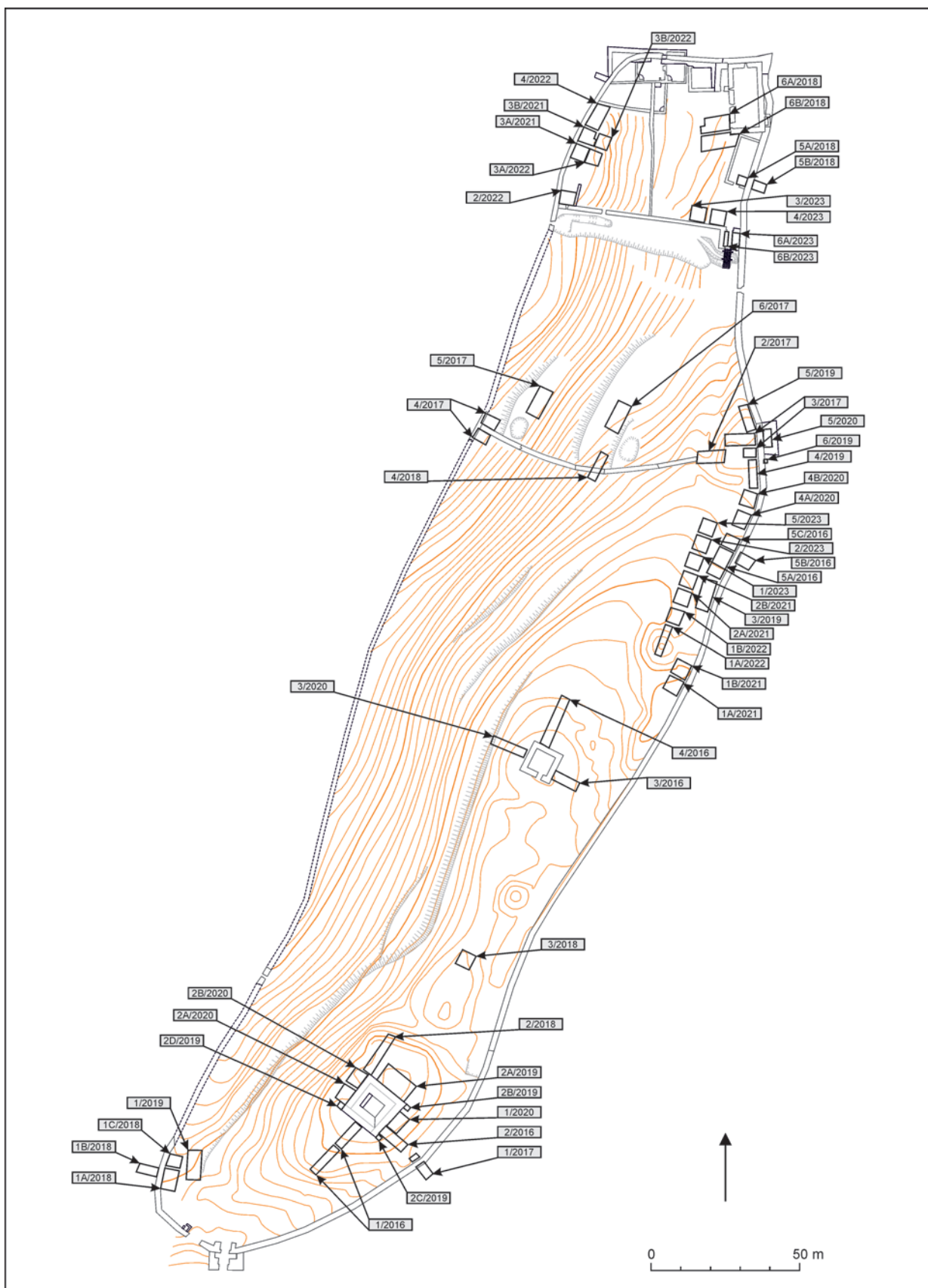


Fig. 2. Zvolen-Deserted Castle, Upper castle. Trenches excavated during seasons 2016–2023. Authors J. Beljak, N. Beljak Pažinová.

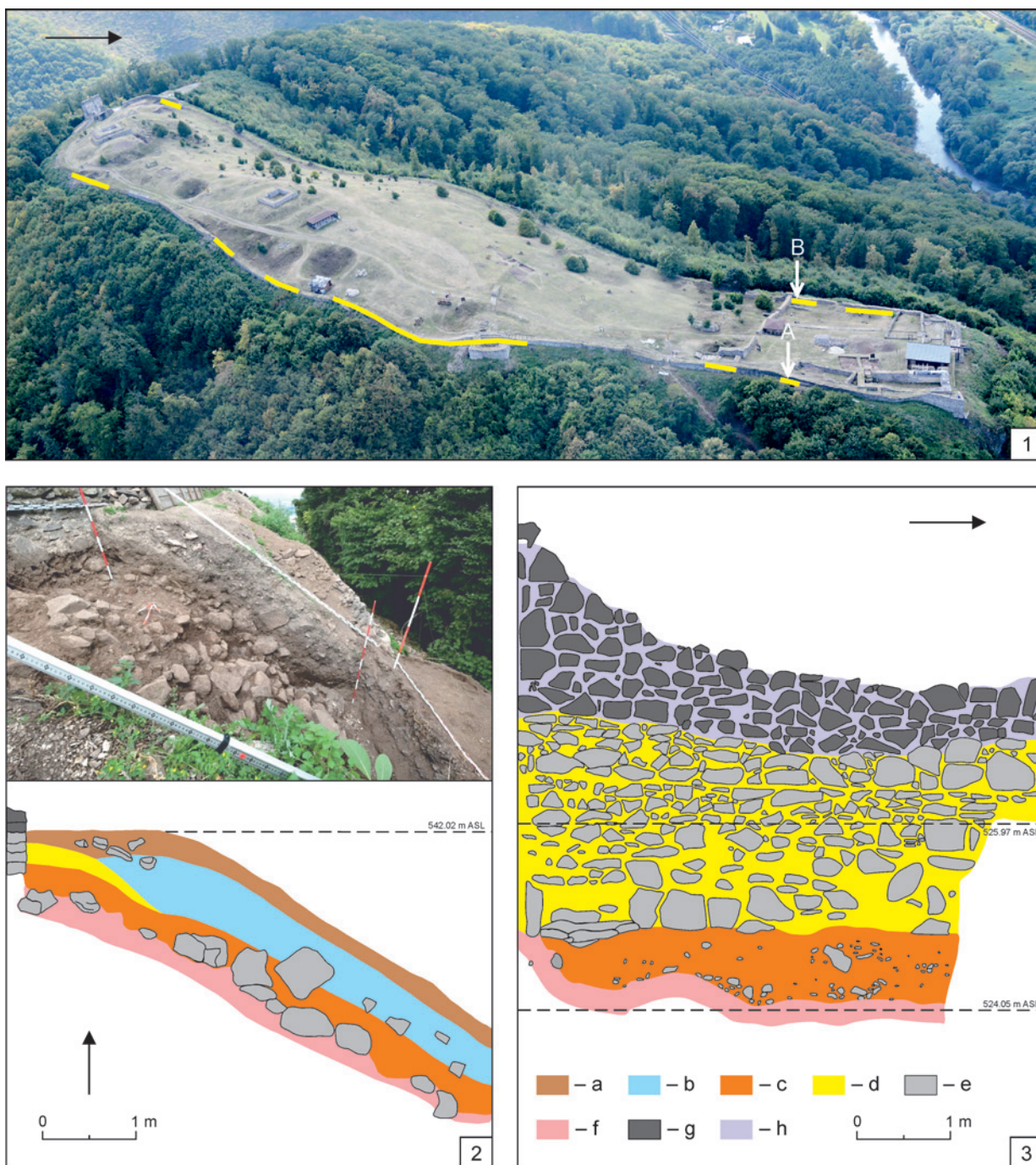


Fig. 3. Zvolen-Deserted Castle, Upper castle. 1 – aerial view of the hilltop with prehistoric rampart remnants documented under the mediaeval wall (marked with yellow line; A – position of trench 5B/2018; B – position of trench 2/2022); 2 – northern profile of trench 5B/2018; 3 – western profile of trench 2/2022. Legend: a – topsoil (forest humus); b – destroyed remains of the medieval defensive wall; c – prehistoric wall (red-dish soil and quarry stones); d – layer of earth and mortar; e – mediaeval defensive wall (original); f – bedrock (andesite); g – non-original stone masonry; h – mediaeval defensive wall (restored). Authors J. Beljak, J. Godiš, N. Beljak Pažinová.

most likely covered with a bowl. Numerous severely charred (temperature of glow 800–1000 °C) and broken (weight 338 g) human bones from an adult were found among the sherds. The burial dates to the late site's habitation phase in the Final Bronze Age (end of stage HB). The grave's placement on this high elevation offers an exceptional mystery. Nonetheless, archaeologist V. Hanuliak, who had previously conducted long-term excavations on the site identified the remnants of a likely another

cremation urn grave at a depth of around 1.4 meters in the so-called Donč's castle at the Upper castle site (information details from the 2000 excavation season catalogue; reported by V. Hanuliak under add. no. 11/2000). His excavation campaign on Upper castle lasted between 1992 and 2008, from which only a few prehistoric finds were published (*Hanuliak 1993, 49; 2002, 62*). Despite the abundance of Bronze Age artefacts from these excavations, they have not been properly processed and presented to the scientific community.

THE CURRENT STATE OF RESEARCH ON THE PREHISTORIC HILLTOP SETTLEMENT

The Upper castle's archaeological excavation has been restored since 2015 (*Beljak et al. 2022; Beljak/Beljak Pažinová 2016; Beljak/Beljak Pažinová/Šimkovic 2018, 56, 57*). Subsequent seasons of excavation yielded a wealth of information on prehistoric habitation of the site (layers and stratigraphic sequences) in various areas of the castle area (*Beljak/Beljak Pažinová/Putško 2022, 85–104; Beljak/Beljak Pažinová/Šimkovic 2018, 11–18*).

In addition to the many tens of thousands of artefacts (ceramic sherds), there is evidence that the Upper castle's mediaeval fortification includes remnants of a prehistoric defensive structure, most likely a stone-earthen rampart (Fig. 3: 1). As early as 1994, the rampart was first documented near the eastern line of the mediaeval wall in the castle's centre (*Malček 1996, 129*). The path of an older stone-earthen rampart under its floor was verified during the 1996–1998 and 2020 excavations of the mediaeval prism-shaped tower on the fortification's eastern line. Numerous Late and Final Bronze Age pottery fragments were found in the rampart backfill.

More poorly preserved traces of the rampart were documented on the hilltop plateau south of the prism-shaped tower in the eastern line of the mediaeval fortification during season 2016. The thickness of the Bronze Age cultural layer was more than 1.2 m. It contained heavy rocks, as remains of a destroyed drystone rampart, mixed with black loam containing pottery finds from the Final Bronze Age. In the rampart vicinity, a contemporary dwelling was identified with remains of an orange-charred earthen floor with an irregular ground plan. A tragedy probably happened there at the end of the Bronze Age, as a toddler skeleton was found impiously lying in the northwestern part of the floor (Fig. 4; *Beljak/Beljak Pažinová/Putško 2022, 95–99; Beljak/Putško/Beljak Pažinová 2021*). It was impossible to determine the cause of death. Its dating to the Final Bronze Age (10th–9th c. BC) has been confirmed by a radiocarbon analysis.

Other parts of the Bronze Age rampart and a dark loam layer on which the mediaeval wall was built were also identified in seasons 2018 and 2021 on the hilltop plateau along or under the eastern line of the mediaeval fortification. The prehistoric cultural layer in this area is rather thick (max. 1.2 m) and reaches down to the andesite bedrock. A reddish layer of loam with traces of strong heat and pottery from the Urnfield culture period was documented almost everywhere in the mass of the rampart, above the bedrock level (*Beljak/Beljak Pažinová 2018, 223*).

During the 2017 season, it was confirmed that the terraces in the bailey of the so-called Donč's castle date back to the Late or Final Bronze Age. There were structures of arranged stones that might have been base walls of log houses. A sunken feature with a regular rectangular ground plan of approx. 1.7 × 3.4 m was also detected there and contained Bronze Age artefacts. The features' function could not be determined.

In season 2018, new segments of the prehistoric stone-earthen rampart with a red-charred clay layer were uncovered in the southern line of the mediaeval fortification of the Upper castle and the so-called Donč's castle near the eastern line of the fortification (Fig. 3: 2).

Season 2020 brought an unexpected discovery at the western wall of the tower at the county castle situated at the highest point of the Upper castle area (570 m a. s. l.). An assemblage of pottery vessels (mostly cups) and clay spindle whorls – probably deposited in a large clay storage vessel from the Late–Final Bronze Age (*Beljak et al. 2022, fig. 45*) – was discovered under the mediaeval mortar floor and stone debris in the lower part of the examined trench.

Season 2022 confirmed the presence of a 0.5 m thick cultural layer from the Bronze Age at the lower terrace of the so-called Donč's castle near the western line of mediaeval fortification. The remains of an older rampart (Fig. 3: 3) were also detected. It was originally built on the hill's andesite bedrock.

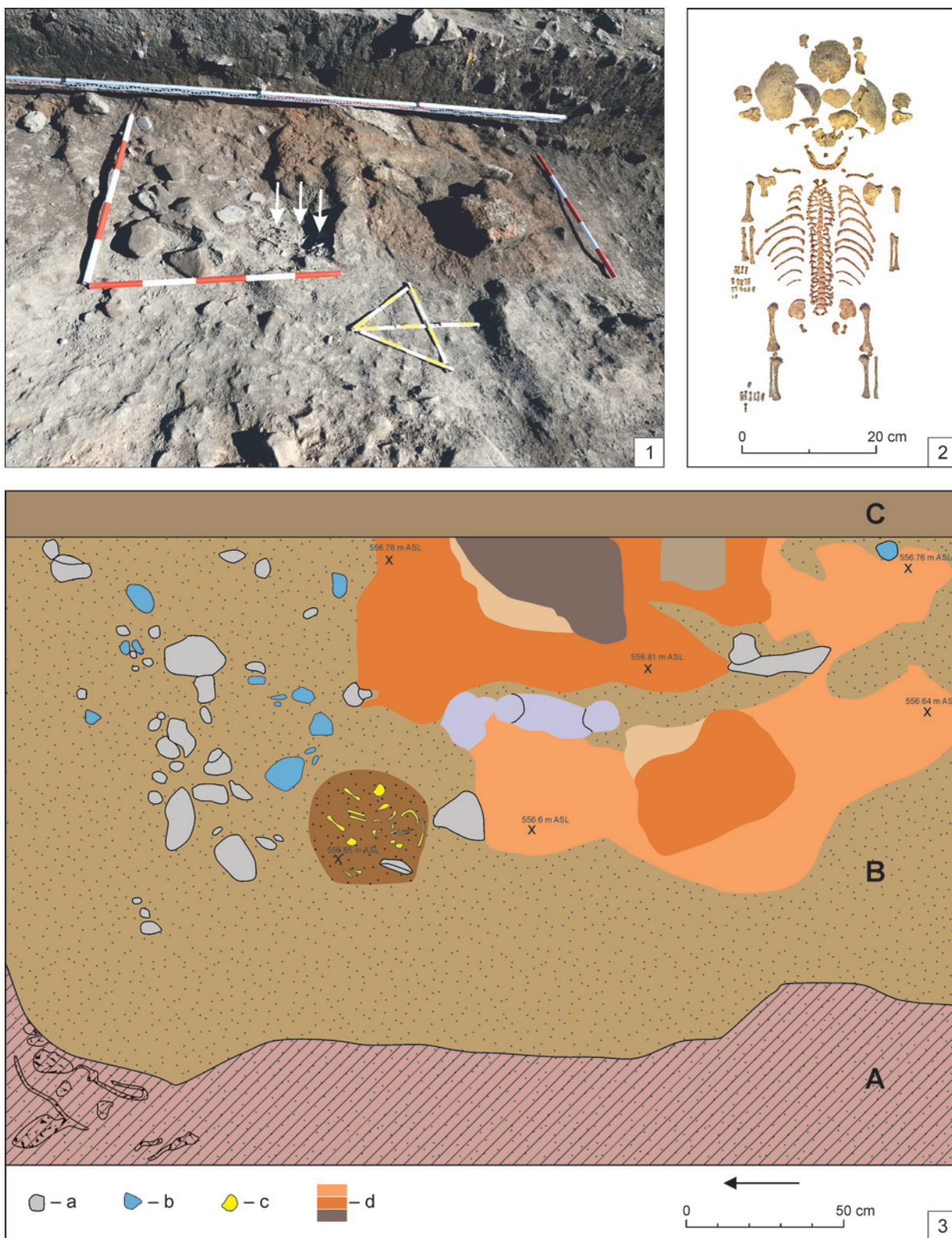


Fig. 4. Zvolen-Deserted Castle, Upper castle. 1 – remnant of the burned dwelling's clay floor with the discovery of the skeletal remains of an infant dated to the Late Bronze Age in trench 5A/2016 (terrain photo: J. Beljak); 2 – preserved skeletal remains of an infant found in trench 5A/2016 (photo: M. Putško); 3 – section of the trench 5A/2016 groundplan. Legend: A – stable andesite rock; B – cultural layer from the Bronze Age; C – mediaeval wall; a – remnants of the pre-historic rampart; b – pottery sherds from the Bronze Age; c – infant skeleton; d – burnt floor and ash layer. Authors J. Godiš, N. Beljak Pažinová.

RELATIVE DATING OF THE PREHISTORIC SETTLEMENT

It is possible to discern three primary habitation stages of the hilltop settlement at the Zvolen-Deserted Castle, Upper castle site based on the stylistic study of ceramic sherds from the 2016–2021 seasons (*Beljak Pažinová/Godiš/Beljak 2023*). They encompass the period roughly from the 12th to the 8th c. BC, from the Late Bronze Age (stage HA1) to the beginning of the Hallstatt period (stage HC1). The current state of research indicates, that when the communities of the Piliny culture began infiltrating the southern Zvolenská kotlina basin at the end of stage BC2, no permanent settlement was established on this upland site (*Zachar/Malček 2011*, 33–36, fig. 10). It is possible to say that the hilltop settlement's formation occurred at the earliest during stage HA1 when the Lusatian culture³ rapidly spread from the regions of Liptov, Turiec, and upper Nitra valley to the Zvolenská kotlina basin (*Beljak Pažinová 2018*, 19, with further references; *Kujovský 1994*, 307, map 1; 2015, 180; *Zachar/Malček 2011*, 36, 37). It is also possible that the communities of the Lusatian culture and the Piliny enclave already existing in the area would coexist briefly (*Zachar/Mitáš 2012*, 419–421). This is argued mainly by the evaluation of the ceramic material from the Lower castle (*Beljak et al. 2014*, 119) and the oldest burial horizon known to exist at the Zvolen-Balkán cemetery, which dates to the beginning of stage HA1 or the transition stages BD/HA1 (*Bátora 1979*, 78; *Zachar 2010*, 54).

The Upper castle pottery analysis revealed a considerable stylistic overlap between the Lusatian and Kyjatice ceramic traditions (*Beljak Pažinová/Godiš/Beljak 2023*). The rampart at the Upper castle was most likely built during the cohabitation of Lusatian and Kyjatice cultures in the Zvolen microregion. It was discovered along the mediaeval defensive wall's eastern, southern, and western boundaries. A notable decline of this settlement is documented at the very end of the Bronze Age (the transition between stages HB and HC) when the alleged settlement crisis (depopulation?) struck the wide territory in the northern Carpathian Basin.

ABSOLUTE DATING OF THE PREHISTORIC SETTLEMENT

Currently, 14 absolute data are available from the Deserted Castle – two date the features in the Final Bronze Age, and the others are associated with the High Middle Ages. The first comes from the rib of a child skeleton discovered near the burnt floor in a dwelling from the Final Bronze Age (Fig. 4). The second is collagen extracted from a bone awl. Measurements were done using the AMS (Accelerator Mass Spectrometry) method in the laboratory in Poznań. To determine the age of the samples, we used

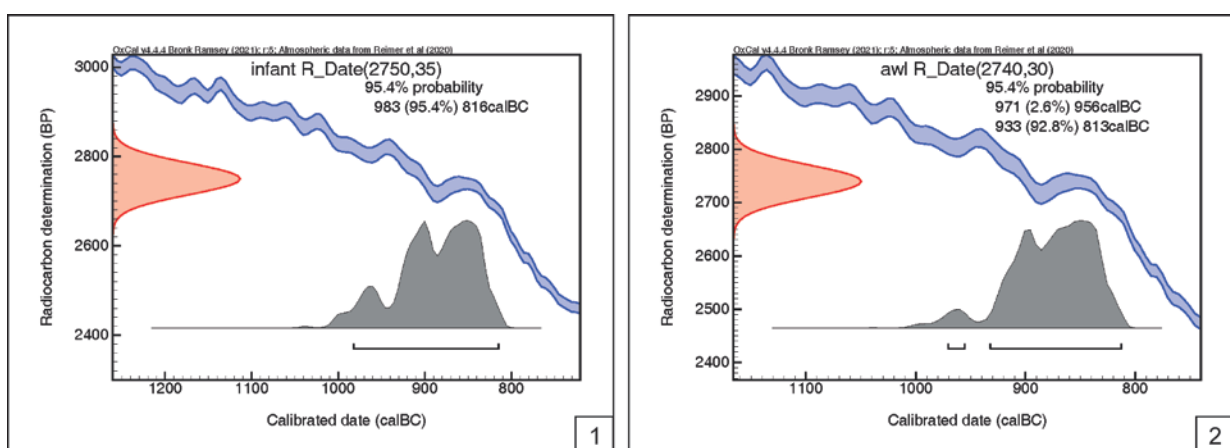


Fig. 5. Zvolen-Deserted Castle, Upper castle. Results of radiocarbon dating of two samples. 1 – infant's rib from trench 5A/2016; 2 – bone awl from trench 3A/2019. Graph plot generated by Calib 8.1.0. <http://calib.org/calib/> [20. 12. 2024].

³ The earliest evidence of the "first colonization wave" of the Lusatian culture infiltrating in the territory of the Slovenské stredohorie mountains are evidenced as early as stage BD and in the beginning of stage HA1 (Mikušovce horizon according to L. Veliačik). It is documented mainly by grave goods from some cremation graves at the sites of Zvolen-Podborová, Sliach, Zvolenská Slatina (*Beljak Pažinová 2018*, 19; *Zachar/Malček 2011*, 36, 37).

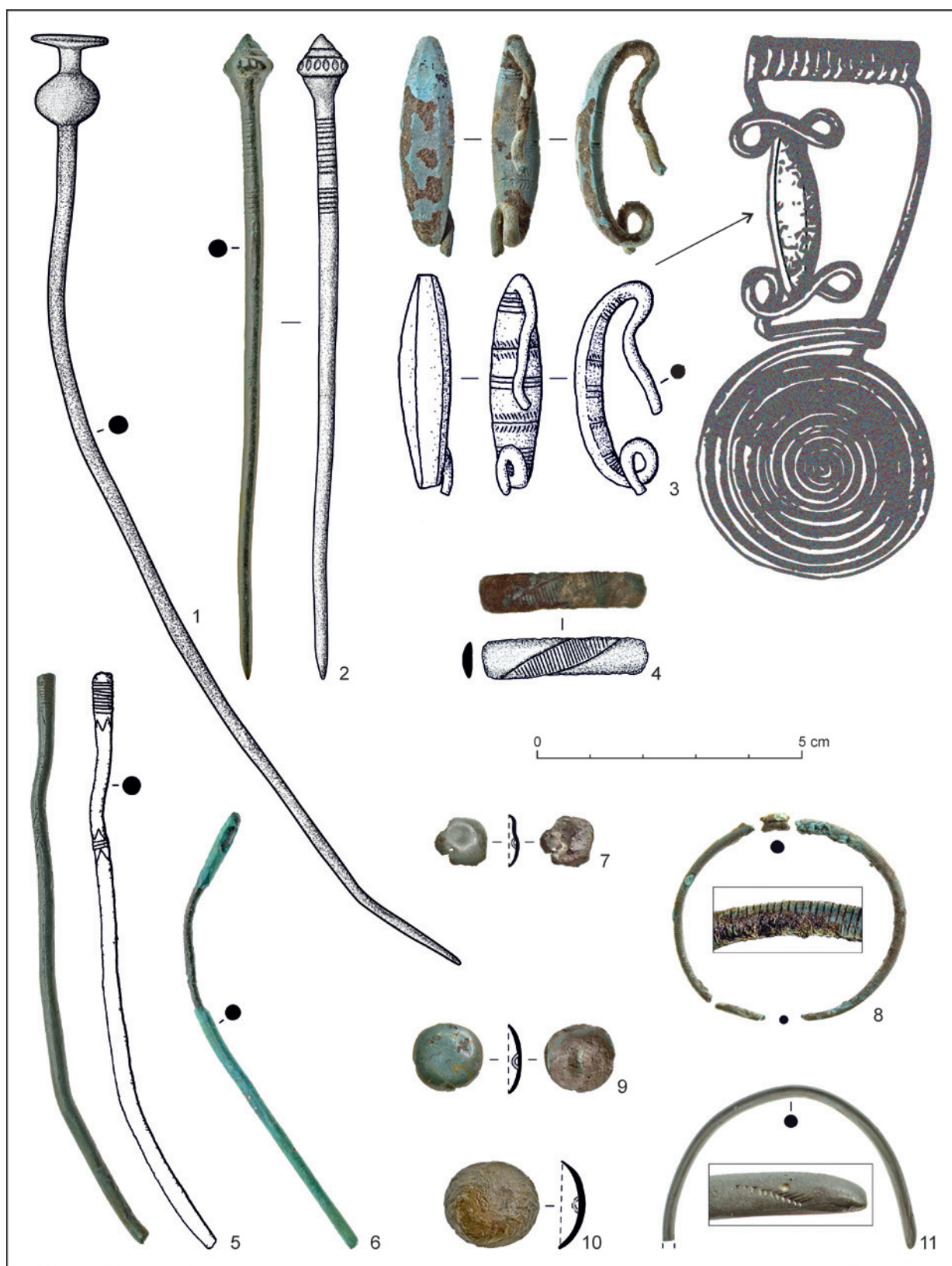


Fig. 6. Zvolen-Deserted Castle, Upper castle. Selected metal findings from the Late and Final Bronze Age. 1, 2, 5 – pins; 3 – fibula; 4, 8, 11 – bracelets; 6 – pin (?); 7, 9, 10 – patches. 1 – trench 3/2007; 2 – trench 5A/2016; 3 – trench 3A/2022; 4 – trench 1C/2018; 5 – trench 3B/2021; 6 – trench 6/2017; 7 – trench 4/2020; 8 – trench 3/2019; 9 – trench 4/2019; 10 – trench 5C/2016; 11 – trench 1A/2021. Authors J. Godiš, I. Látečková.

the OxCal 4.4 calibration program with a radiocarbon calibration curve, IntCal20, for terrestrial samples from the Northern Hemisphere (*Bronk Ramsey 2021; Reimer et al. 2020*).

Samples came from the prehistoric cultural layer identified on the hilltop plateau, near the prism-shaped tower at the eastern line of the mediaeval castle fortification. They were discovered 0.9–1.2 meters below the present-day surface of the landscape. Both samples, the infant's rib (983 [95.4%] 816 cal BC) and the bone awl (933 [92.8%] 813 cal BC),⁴ date to the end of the 10th and 9th c. BC (Fig. 5). Due to these results, it is possible to date also the stone-earthen rampart to the Final Bronze Age because of the dating of the child's skeleton discovered on the burned earthen floor of a destroyed dwelling that was constructed directly on the andesite rock at close quarters to the rampart.

SELECTED SMALL COPPER-ALLOY ARTEFACTS

Pins

One of the best-preserved so far found prehistoric metal finds from the area of the fortified upland settlement at the Upper castle is a bronze pin with a biconical head, whose upper part is decorated with engraved encircling lines, which resembles a step-like design (Fig. 6: 2). The head is in its widest dimension emphasized by a ring and decorated by short vertical flutings (grooves) along the circumference, which creates a so-called cogwheel motif. On the neck are two separate bands with bunches of dense horizontal encircling lines that continue as a straight, smooth pin with a circular cross-section. The find from Zvolen can be classified in the group of pins with biconical, densely horizontally grooved, or step-like designed heads; during their typological development, their heads became smaller, and they were used from the beginning of stage BD to stage HB1 (*Novotná 1980, 134, 135; Říhovský 1979, 123*). Analogies with richly decorated heads in the territory of the early Urnfield culture in Slovakia were found in the settlement layer in Pobedim (*Studeníková/Paulík 1983, 131, pl. XLVII: 8*) or in cremation grave from Diviaky (grave 14; *Pivovarová 1959, pl. II: 9*). Some pins close to the Banka type (according to *Novotná 1980, 132, 133*) from the urnfield burial ground in Ilava (graves 21 and 133; *Benediková et al. 2016, 146, fig. 41*) and the find (with a thickened neck) from the Liptovský Mikuláš-Liptovská Ondrášová with a similarly shaped head (grave I/III; *Veliachik 1975, 26, fig. 10: 19*) suggest earlier dating. The closest shape parallels with decoration are found in southern Moravia (Tetčice – a settlement find) and in the northeastern part of Lower Austria (Petronell – a stray find), which are roughly dated to the Late and Final Bronze Age as they do not come from closed features (*Říhovský 1958, fig. 104: 1; 1979, 120–123, pl. 36: 726, 742*). The decorated pin with a biconical head from the Upper castle can be dated to the transition of the stages BD/HA1; nevertheless, considering the previously analysed ceramic material from the site, stage HA1 is most likely.

Another complete find of a bronze pin with a large vase-shaped head and a long, arcuately bent (probably partly deformed) smooth needle with a circular cross-section (Fig. 6: 1) was found in 2007 during excavation by V. Hanuliak. Despite many discussions on the chronological sensitivity of this type of pins, several researchers in the past agreed on the parallel use of variants with large as well as small heads during the whole Final Bronze Age (*Novotná 1980, 78; Podborský 1970a, 130; Říhovský 1979, 203–207; 1983, 50*).

Further documentation indicated that pins featuring bigger, frequently ornate heads may have appeared earlier in the Middle Danube area, during the transition of stages HA2/HB1. In the Eastern Alps, variations of pins with both big and small heads coexist as late as stage HB1 (*Erbach 1995, 310, fig. 3; Nebelsick 1994, 324, 325*). Presently, it is hypothesised by some that throughout the latter part of the Final Bronze Age, these pins were replaced by designs featuring little vase-shaped heads (*Stegmann-Rajtár 1994, 322–324*). The presence of both types of cloth fasteners in hoards from the end of the Bronze Age (HB2–HB3) in the region of Transdanubia shows that the question of their finer dating has not been solved (see also *Kalicz/Váczi 2010, 266*). The greatest similarities to the head shape of the pin from Zvolen are observed on a stray old find from Ladzany (*Novotná 1980, pl. 43: 967*), a pin from the burial ground in Dolný Kubín II (grave 492; *Čaplovič 1977, fig. 33: 10*), or another specimen from Zemianske Podhradie (*Budinský-Krička 1947, pl. XXI: 10*). They all come from the Lusatian cultural milieu in the Final Bronze Age and the Early Hallstatt period.

⁴ The infant's rib – trench 5A/2016: 2750 ±35 BP. The bone awl – trench 3A/2019: 2740 ±30 BP.

The exact typological identification of another pin (Fig. 6: 5) remains a question. Only the needle decorated with bunches of horizontal lines lined with a zigzag motif on the neck and below it has been preserved. The neck's decorative design implies that the pin's head may have been shaped and had a larger diameter than the needle itself. It might be a pin with a biconical or vase-shaped head, depending on the composition of the ornamentation and similar parallels. Close exemplars were found, e.g. among numerous bronzes from the settlement in Pobedim (*Studeníková/Paulík 1983*, pl. XLVII: 8) or from a famous upland hillfort and supra-regional centre of metallurgy in Velemszentvid, Hungary (*Říhový 1983*, pl. 22: 535; 24: 547–577, 579, 593, 602). Nevertheless, most of them are unstratified finds. The specific decoration with zigzag lines on the neck also occurred on other types of pins from the entire Urnfield culture period (e.g. pins with club-shaped or trumpet-shaped heads; see e.g. *Novotná 1980*, pl. 41: 924; 44: 1019B), which disallows proper typological and chronological classification of the find from Zvolen. Here, we must mention a similar (?) find of a pin from the rescue excavation carried out in 1999–2000 at the site of Zvolen-Haputka below the northern slope of the Deserted Castle; it had a decorated profiled (?) neck (and possibly a broken-off head), and it was dated – also concerning the associated pottery close to the Kyjatice culture style – to the Final Bronze Age (*Malček/Mihok 2001*, 145, fig. 74: 5).

A deformed (?) bar-shaped bronze artefact with a thick coating of noble patina may also be found among clothing fasteners (Fig. 6: 6). The item seems like a basic, undecorated variant of pins with club-shaped heads, which are uncommon for the Early Hallstatt period and mostly characteristic of the Late Bronze Age (in stages BD–HA1; *Novotná 1980*, 141, 142; *Říhový 1979*, 151, 152). If the artefact is not a pin, it can only be categorised with the group of unidentified, circular-cross-sectioned, differently distorted fragments of bronze wire from the hillfort area.

Fibula

A more recent rare find is a fragment of a bronze “Carpathian” saddle-shaped fibula (Bükkszentlászló type; according to *Novotná 2001*, 31–35), more exact, its diagnostical part – i.e., the cast “saddle” with a longitudinally edged back and a part of a deformed winding (Fig. 6: 3). On the bottom or interior part of the artefact, there is preserved engraved so-called branch decoration (Fig. 6: 3). Archaeological literature reports the discovery of saddle-shaped fibulae at two other locations in Zvolen. While attribution of the find of an 8-shaped winding from the burial ground at the site of Zvolen-Balkán (grave 21; *Bátora 1979*, 77; *Zachar 2008*, 30, pl. XI: 9) to the above-mentioned type of fibulae is problematic, two other fragmentary finds from the site of Zvolen-Borová hora are – regarding the preserved characteristic parts – undisputable (*Zachar/Mitáš 2012*, fig. 2: 4, 5). Other saddle-shaped fibulae rarely occurred in the wide area of central Slovakia. Among them, the completely preserved finds from the hoard discovered in Plešivec stand out (*Furmánek 2015*, fig. 255, 302; *Paulík 1965a*, 40, pl. VIII: 1, 3, 7, 9). Fragments of another fibula come from another metal deposit discovered at the foot of the Holík elevation in the cadastral area of the village of Počúvadlo (*Budinský-Krička 1948–1949*, 272; *Ožďáni/Žebrák 2017*, pl. IX: 7), more fragments were reportedly found in a cremation grave excavated by A. Kmeť at the end of the 19th c. in Domaníky (*Budinský-Krička 1947*, pl. XXI: 5; *Novotná 2001*, 31, pl. 4: 39).

Only a handful of the mentioned finds had decorations on the underside of the “saddle.” The fibulae from Zvolen-Borová hora, the example from Počúvadlo, and the fully preserved stray find of fibula from the vicinity of Levice (*Novotná 2001*, pl. 4: 40, 43) show a similar parallel to the composition of ornamentation on the find from the Deserted Castle. Saddle-shaped fibulae are a chronologically sensitive type of artefacts that occurred in the territory of Slovakia at the very end of the Bronze Age, i.e., in stage HB3 (*Novotná 2001*, 31). Nevertheless, some finds from the territory of northern Hungary or Moravia indicate their possible occurrence as early as stage HB2 (*Betzler 1974*, 85, 90; *Kemenczei 1996*, 261; *Podborský 1970a*, 126). Their geographical distribution in the northern part of the Carpathian basin also suggests that the territory occupied by the Kyjatice culture might have been one of the production centres manufacturing this functional adornment of a complex construction (*Novotná 2001*, 34, pl. 27). In addition to the relatively high amount of Kyjatice-style pottery discovered in the material from the present-day Zvolen territory (*Beljak Pažinová/Godiš/Beljak 2023*, 101, pl. I: 1–14), the discovery of saddle-shaped fibulae from the Upper castle and the Zvolen-Borová Hora site serve as another important evidence of contacts with the southeast in terms (not just) of the metal goods distribution.

Annular adornments

The small group of annular ring adornments from the site includes a subtle open bracelet made from a bar with a circular cross-section and pointed ends decorated by bunches of fine transversal lines in separate fields on the outside (Fig. 6: 8). Another exemplar is approximately half of a little thicker bar bracelet made of copper alloy with flattened and rounded ends. Near its end, an unfinished (?) miniature ornament in the form of an oblique band of narrow cuts is observable, while the rest of the artefact surface is smooth (Fig. 6: 11).

No analogies to the mentioned finds are currently known from the Zvolenská kotlina basin or the wider region of central Slovakia. Regarding their interior diameter (approx. 4 cm), they can be identified as wrist decorations (bracelets). On the contrary, their specified chronological classification in the Urnfield period is difficult, as this type of simple adornment does not show considerable and visible changes in time.

A different fragment comes from another bracelet made from a bronze strap bar with a D-shaped cross-section and with decoration in the form of two oblique grooves whose interior surface (approx. 0.5 cm wide) is filled with crosswise cuts or shading (Fig. 6: 4). Exact analogies in ornamentation are currently unknown. A comparable as well as geographically close find is a bracelet (most probably from the Hallstatt period) from the upland hillfort in Horná Lehota with a similar, i.e., diagonal, scheme of decoration, which has bands filled with a grid ornament arranged in intervals on the outside (*Benediková 2014*, 28; *Pieta/Mosný 2002*, 161, fig. 110: 11). When the relatively simple decoration on the subtle fragment from Zvolen is contrasted with the intricate decoration on older variants of bracelets⁵ with plano-convex cross-sections made from massive bronze bars in the Urnfield period (see mainly *Podborský 1970a*, fig. 24; *Salaš 2005*, 85–89), its younger (proto-historical) chronological classification appears more likely.

Garment ornaments

Metal garment decorations are represented by a few pieces of semi-globular bronze plate patches (so-called hat-shaped caps) with inside loops (Fig. 6: 7, 9, 10). Several exemplars of patches of this variant were represented, e.g. in the well-known metal deposit from below the Deserted Castle; the hoard contained – among other artefacts – about 170 pieces (and its fragments) of such metal plate ornaments with two opposing holes for sewing and with no loop on the inside (*Balaša 1946*, 93, 94, fig. 3: 40; *Zachar 2018*, 68, pl. 18: 15). Regarding the chronological classification of the patches from the hillfort in Zvolen, we can consider the loop as well as their smaller diameter (13–18 mm), which indicates their dating to the older or middle Urnfield culture period, i.e., stages BD–HA (*Salaš 2005*, 117). They cannot be dated more precisely, as they were used unchanged until the end of the Bronze Age (*Veliačik 1983*, 55). Similar examples found near the contemporary highland hillfort in Detva-Kalamárka should be brought up in this context (*Šalkovský 2001*, 52, fig. 14: 1–7). Although they may have been used to adorn military armour, waggons, or even horse harnesses, it is generally considered that they mainly ornamented clothing.

The prehistoric origins of other circular or oval items crafted from thin copper alloy sheet metal (Fig. 7: 2, 3) remain unverified, and their incorporation into the studied assemblage is solely dependent on the find context, which is presumed to be linked to previous habitation at prehistoric times. The artefacts may be interpreted, albeit with some uncertainty, as semi-finished products for the metal sheet manufacturing activities at the site. Similar plates were found, for instance, in the hoard from Liptovská Sielnica-Liptovská Mara (*Veliačik 1983*, 53, 54, 148, pl. XXXIV: 20, 22) classified in stage HA1. Prehistoric provenance can also be doubted in the closed bronze ring made from a bar with a circular cross-section covered with a layer of noble patina (Fig. 7: 9), whose function cannot be identified either. In the final stages of the Bronze Age and at the beginning of the Hallstatt period, similar items occur mainly as parts of other more complex artefacts, such as hanging jewels or even on bronze vessels (e.g. situle or buckets).

⁵ Analogous decoration occurs on some bracelets of this type, but the transversally grooved band is basically zigzagged (*Bartík/Farkaš/Jelínek 2019*, pl. 5; *Salaš 2005*, tab. 355: 21; 379: 7).

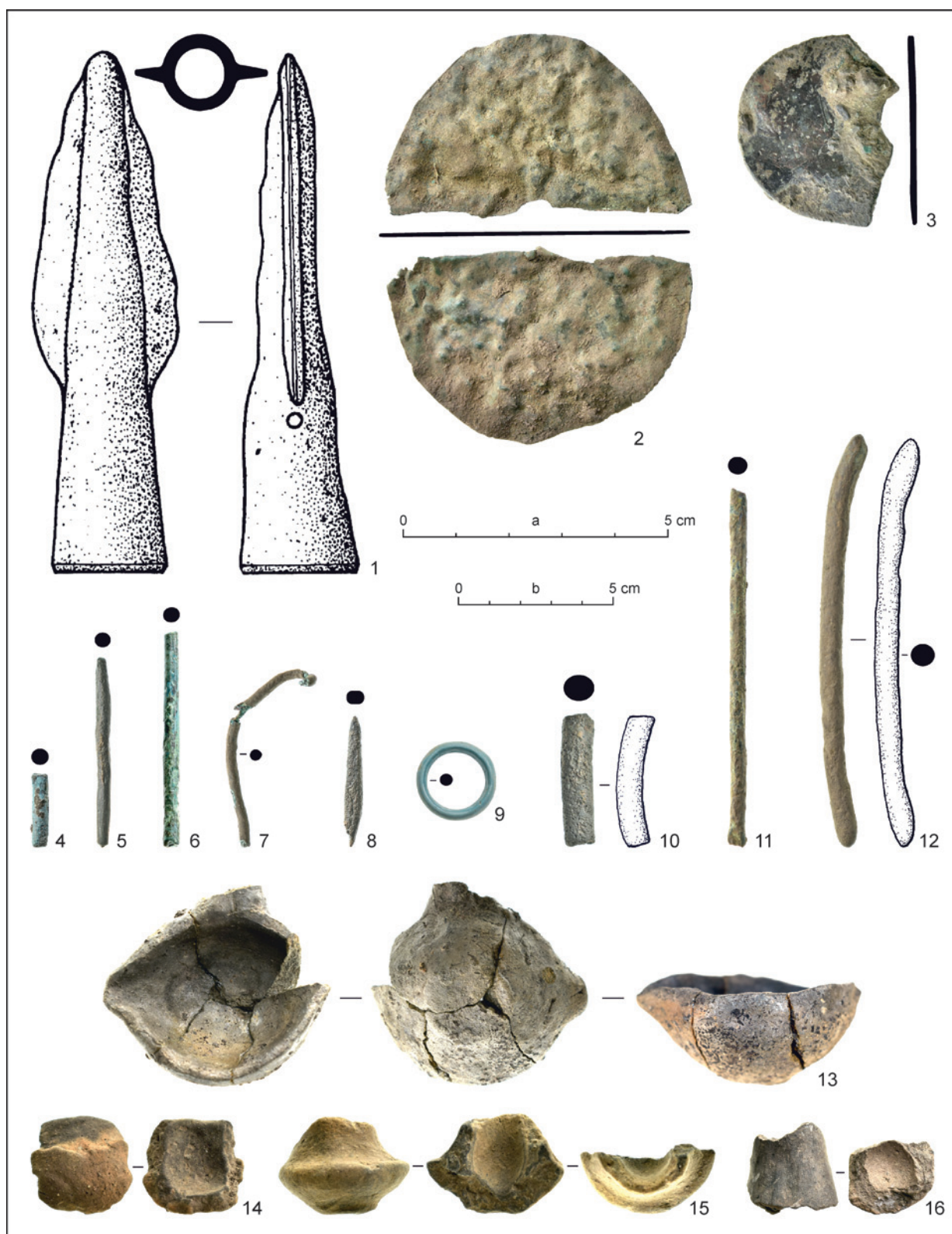


Fig. 7. Zvolen-Deserted Castle, Upper castle. Selected metal findings and other small artefacts from the Late and Final Bronze Age. 1 – spear point; 2, 3 – metal sheets; 4–7, 10–12 – metal bars; 8 – metal awl (?); 9 – metal ring; 13 – ceramic crucible with a spout; 14–16 – thick-walled ceramic vessels. 1 – sector 10/F, 1997; 2, 3 – trench 4/2019; 4 – trench 4B/2020; 5 – trench 1A/2021; 6 – trench 5C/2016; 7 – trench 3/2019; 8 – trench 4A/2020; 9 – trench 3B/2021; 10 – trench 2/2021; 11 – trench 3/2019; 12 – trench 1A/2022; 13 – trench 5A/2016; 14 – trench 5C/2016; 15 – trench 5C/2016; 16 – trench 3/2019. Scale: a – 1; b – 2–16. Authors J. Godiš, I. Látečková.

Axes

In 2005, V. Hanuliak discovered the sole fully intact bronze axe with an asymmetrically carved socket opposite the loop during the excavation of the so-called Donč's castle's courtyard. The expanded edge of the mouth is flanked on either side by two curved ribs that run parallel to the almost rectangular, rounded axe body (Fig. 8: 1). These types of finds occurred in a wider time, from the early Urnfield culture to its late development stage; some of them were present in Final Bronze Age contexts (Novotná 1970b, 73–79; Říhovský 1992, 187; Salaš 2005, 38). As a result, it is difficult to classify them precisely chronologically without corresponding, relevant artefacts. Similar axes were found, e.g. in Komjatná as a representative of hoard horizon from stage HA2 (Novotná 1970a, 77; 1970b, pl. 31: 548, 552; Veliačik 1983, pl. XXXVI: 16). Other morphologically close finds are known, e.g. from Horné Strháre and Žitavany (Novotná 1970b, pl. 31: 542, 555). The find from the Deserted Castle can be associated with two similar axes (with symmetrically cut socket mouth) from the hoard discovered at the nearby site of Zvolen-Krivá Púť – Balkán⁶ in 2005 (Oždáňi/Ušiak/Zachar 2007, 169, fig. 5: 2a–d; 6: 1a–d), which is – as a (probably incomplete assemblage) whole – dated to the beginning of the Final Bronze Age (stage HB1). Because of the plastic ribs behind the socket mouth, the axe from Deserted Castle can be dated to the stages HA2–HB1.

Apart from the above-described artefacts, only fragments of other bronze axes are known from the upland hillfort at the Deserted Castle. Their condition indicates they were damaged (destroyed) most probably due to long-term usage. There is a fragment of a slightly rounded edge of a massive axe (Fig. 8: 2) with a socket (?) and a miniature fragment from the socket mouth of another small axe (or a chisel) that was decorated with longitudinal and transversal plastic ribs (Fig. 8: 3). A small fragment of another, presumably socket-like unidentifiable artefact can also be included to this group (Fig. 8: 4). Due to the absence of further diagnostic features, these items may only be roughly dated between stages HA and HB, during which the communities of the Urnfield cultural complex frequently manufactured socketed tools and weapons of various types (Furmánek 2015, 227; Novotná 1970b, 72–98).

Sickle

The usage of metal tools in agricultural production at the site and its catchment area in the Late Prehistory is documented by the discovery of a sickle-blade tip with a longitudinal rib and a thicker back (Fig. 8: 5). Its typological categorisation is difficult since it lacks a handle, which is one of the crucial attributes. A partial indication may be found in the two tens of sickles and their fragments found in the hoard beneath the Deserted Castle in 1944 (Balaša 1946, 90–95; Furmánek/Novotná 2006, pl. 47; Zachar 2018, pl. 15; 16: 1–7). In addition to a few particular – likely local – forms of sickles, the most numerous in the collection were the pieces with tangs and grip tongues. The chronological presence of the entire typological group of bronze sickles in the Zvolen hoard varies between stages BC2–HA1 (Furmánek/Novotná 2006, 106; see also Zachar 2018, 51–54). Based on the Upper castle's ceramic material, the sickle fragment from the hillfort may be dated to the Late Bronze Age (stage HA1) or perhaps later.

Spear point/lance point

The only specialized type of weapon from the Bronze Age at the Upper Deserted castle so far is represented by a bronze socketed point discovered in 1996, as a stray find on the surface of sector 10/F discovered during the removal of invasive vegetation (Fig. 7: 1; Mosný 1997, 135, fig. 95). Its length of only about 10.5 cm suggests that it was most probably a point from a throwing weapon – a lance with an almond-shaped leaf point. A considerably analogous spear/lance point from the territory of the Lusatian culture in Slovakia comes from the hoard found in Rosina near Žilina, which is classified in stage HA2 (Veliačik 1983, 45, pl. XLIV: 6). Similar exemplars were also discovered in the similarly dated metal hoards from Trenčianske Bohuslavice, Bešeňová, or Žaškov (Petrikovich 1904, pl. I: 3, 11; Novotná 1970a, pl. XXIII; XXV; Veliačik 1983, pl. XL: 3, 5; XLII: 16; with further references). As for the milieu of the Middle Danube

⁶ Another hoard dated to the stage BD/HA1 was discovered at this site in 1964. It contained a ceramic jug and about 133 bronze hat-shaped caps, which were seemingly wrongly interpreted as a wooden shield component (Paulík 1965b, 17–32; Zachar 2015, 187–198, fig. 2).

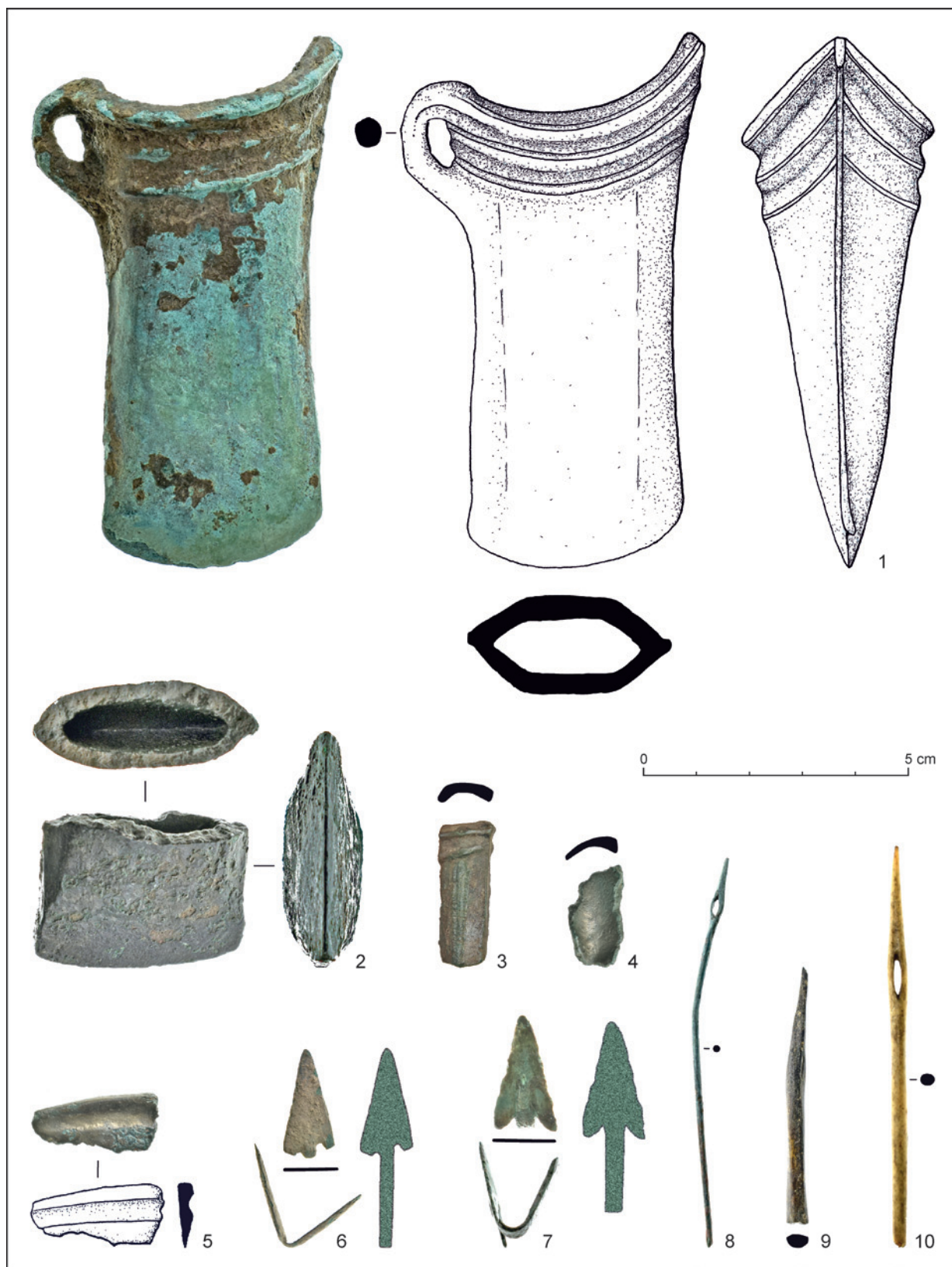


Fig. 8. Zvolen-Deserted Castle, Upper castle. Selected metal and other findings from the Late and Final Bronze Age. 1–4 – axes; 5 – sickle; 6, 7 – arrow heads; 8 – metal needle; 9 – bone awl; 10 – bone needle. 1 – trench 2/2005; 2 – trench 3/2017; 3 – trench 1C/2018; 4 – trench 1A/2021; 5 – trench 5/2020; 6 – trench 3/2019; 7 – trench 3/2017; 8 – trench 5B/2016; 9 – trench 5/2016; 10 – trench 5B/2016. Authors J. Godiš, I. Látečková.

Urnfield culture in Slovakia, we have parallels to the find from Zvolen, e.g. from the Šintava or Galanta region, which are dated to stages BC2/BD–HB1 (Mitáš *et al.* 2018, 235, fig. 3; pl. II: 5). A suitable analogy also occurred in the hoard from Egyek in northeastern Hungary dated to stage HB1 (Kemenczei 1984, pl. CXCI: 8; *Mozsolics* 2000, 43, pl. 28: 2). In general, typological-chronological classification of this group of artefacts, as well as identification of their function, is usually complicated (*Mozsolics* 1985, 20; *Novotná* 2004, 399). The indistinct morphology of the find from Zvolen does not allow its exact chronological classification within the Urnfield culture period (Zachar 2018, 51). Therefore, its association with the Piliny culture communities, earlier infiltrating into this microregion cannot be ruled out with certainty (see Zachar/Malček 2011, 35). To complement the type, another – much older – find of a spear/lance point from the stray find collection at the site of Zvolen-Borová hora must be mentioned. It has traces of fire damage and is dated to the Ožďany horizon, i.e. to the stages BC2–BD (Zachar/Mitáš 2012, 417, fig. 2: 1).

Arrowheads

Simple flat triangular bronze arrowheads extended at their base to side barbs and a long narrow rectangular tang, which come from the area of the Upper castle, are still rare finds in the milieu of the Urnfield culture in Slovakia (Fig. 8: 6, 7). Small sizes and the generally subtle character of their design in comparison with much more robust and numerous socketed exemplars make us think about their practical use in fight or hunting (Lauermann/Mödlinger 2021, 220, fig. 08_07; *Novotná* 2004, 402–406). The nearly identical deformations of tangs in both discovered exemplars (unless caused by post-deposition processes) indicate that it could be caused when the projectile struck a hard surface and was already partially deflected off the axis of the arrow's wooden shaft. The bronze arrowheads from the Deserted Castle are evidence of the local use of mechanical long-range weapons – bows. In terms of chronology, their occurrence appears to be limited to the contexts from the Final Bronze Age to the Early Hallstatt period. It is documented, e.g. by an unstratified find from the settlement in Pobedim (Studeníková/Paulík 1983, 128, pl. XXXV: 12); another similar find comes from the hillfort in Klentnice in southern Moravia (Říhorský 1996, 130, 132, pl. 28: 458) and by their representation among the goods from the tumuli of the Horákov culture (Podborský 1970b, fig. 21: 15–17, 19). The state of the published source material from the Bronze Age indicates that this flat arrowhead was relatively uncommon in the milieu of the Urnfield culture within the territory of Slovakia.

Artefacts associated with textile production

The small-sized artefacts from the site that are not relevant for clarifying cultural-chronological questions due to minimum changes in their morphological development in the Late Prehistory (and later) but reflect everyday household activities taking place at the hillfort include a subtle bronze needle with an eye (Fig. 8: 8) and another similar specimen made from a bone (Fig. 8: 10). Both findings are classified as utility tools common at settlements from the Final Bronze Age, such as the previously mentioned Pobedim and Prašník (Novák 2011, 64, pl. 36: 494; *Studeníková/Paulík* 1983, 127, pl. XXI: 12; XXXVIII: 6–9, 12–14). A partly damaged bronze artefact with a pointed end (a tip) and a shank with a rectangular cross-section and rounded edges, which is thickened in the middle, might also represent a massive type of metal awl (Fig. 7: 8), as well as the other find made from bone (Fig. 8: 9).

Finds of the above-mentioned metal and bone needles and awls, together with clay spindle whorls – especially disc- and conical-shaped (Fig. 9: 11, 14, 17–19) – and fragments of weaving weights document the past existence of textile production⁷ at the hillfort (a weaving workshop). Some researchers also link this kind of manufacture to tiny clay spools (Fig. 9: 20–23) for winding the yarn, but sometimes these are wrongly interpreted as figure feet or miniature pottery stands. However, the Upper castle is unquestionably the place of the interesting discovery of an artefact moulded from fine clay in the shape of a robust human (?) lower limb with a modelled foot (Fig. 9: 16). Regarding the chronological classification of this artefact, its archaic character as well as much earlier traces of settlement at the site in the Final Stone Age should be taken into consideration. A remarkably similar find suggesting possible connections comes

⁷ Artefacts related to the textile production of the Piliny and Kyjatice cultures in Slovakia have recently been summarized and discussed by V. Mitáš (2023a; 2023b; 2024; with further references).



Fig. 9. Zvolen-Deserted Castle, Upper castle. Selected clay artefacts from the Late and Final Bronze Age. 1 – trench 5/2016; 2, 3 – trench 4/2019; 4 – trench 1/2016; 5 – trench 1/2016; 6 – trench 5A/2016; 7 – trench 5A/2016; 8 – trench 5/2016; 9 – trench 4/2019; 10 – trench 5/2016; 11 – trench 5C/2016; 12, 13 – trench 5A/2016; 14 – trench 1/2016; 15, 16 – trench 4/2019; 17–19 – trench 3/2019; 20, 21 – trench 4/2019; 22 – trench 5A/2016; 23 – trench 3/2019. Author J. Godiš.

from excavations at the Lower castle. However, its dating is also uncertain as it is not typical of the Baden culture either (Beljak *et al.* 2014, 89, 90, fig. 57). As for similar Bronze Age finds from central Slovakia, we can mention here more archaic leg/foot fragments from the multi-cultural settlement in Včelince (Marková 2001, 361, fig. 4: 6, 8, 10). From the Lusatian culture milieu in Slovakia, clay artefacts modelled as a human foot, very similar to finds from Zvolen, were found in settlement site Dolný Kubín III (Čaplovič 1987, pl. LXVIII: 6–11). Other plastics of this type are known from settlements in Detva-Kalamárka (Šalkovský 2001, fig. 11: 10), Ponická Huta (Kvietok 2014, pl. IX: 6) or Žiar and Hronom-Ladomerská Vieska (Žebrák 1987, 113, fig. 69). Some of them are perforated so they could be used as pendants. In addition, their shape suggests that they could be more likely a representation of an animal's foot (water bird). In the context of the Urnfield period, more completely preserved anthropomorphic figurines are documented rather exceptionally not only in the local (Lusatian) but also in the geographically much larger territory of the Central Europe. If they occur, the specimens found in the northern Carpathian Basin have the form of flat idols following from the Early and Middle Bronze Age traditions (see e.g. Guba 2020; Šlusarska 2023). From the northern Lusatian culture region, such as the Gliniany (eastern Poland), there comes a clay male figurine, found among grave goods, which has similarly sculpted legs as the finds from Zvolen (Jankowska/Wojciechowska 1973; Kaletyn 1971). Currently, it can only be stated that the question of the chronological classification of the figurine from the Upper Deserted castle remains open. Lastly, another fragment of a subtle foot (?) from the site that is different from other spool findings (associated with textile production) and has a thickened circumference like a seal or stamping instrument (Fig. 9: 15), could perhaps be associated to a figurine.

Besides common pyramidal ceramic weights with rounded angles on the hillfort (Fig. 9: 1), there was also a fragment with an engraved cross symbol (Fig. 9: 2). This weight's marking has parallels both in Lusatian and Kyjatice cultures, e.g. the finds from lowland settlements at Hájna Nová Ves (feature 128; Wiedermann 2013, fig. 162: 2) and Radzovce (feature 76/79; Furmánek 2019, 66, pl. LXXII: 1) or at hillfort in Szilvásvár (Matuz/Nováki 2002, fig. 136: 2). From the area of the Eastern Hallstatt culture in western Slovakia (stages HC–HD1), we should mention the important discovery of a weaving workshop at the settlement in Dunajská Lužná-Nové Košariská, where several weights with identical marks were found (Čambal 2015, pl. XXII: 2, 19, 20; XXIII: 7–9, 13, 14, 20).

The markings that appear in nearly similar forms from the Bronze Age to the Roman period have been interpreted in a variety of ways; some researchers believe that they are the marks of their owners or makers. Given their extensive geographical and chronological distribution, the most plausible explanation currently appears to be that they were designed to make it easier to identify weights on clusters of threads when adorning a fabric with a distinct pattern weft (Grömer 2010, 116; Mitáš 2023a, 46, with further references; Štolcová/Zajonc 2014, 62, 63).

Notable is also a piece from another kind of flat ceramic weight (?) with rounded sides and a circular opening in the upper section, bordered with beam-like bunches of engraved lines (Fig. 9: 3). The motif's asymmetrical arrangement encourages us to think about the possibility that it was a sort of "technical" mark on the artefact that was connected to its role in the textile production process rather than decoration.

Robust, flattened clay discs with a central circular hole whose occurrence rapidly increases at settlements from the Final Bronze Age and the beginning of the Hallstatt period might also be directly associated with textile production (Fig. 9: 4–6, 9, 10). Various diameters and thicknesses of this group of toroid artefacts support the interpretation that they could have been used as effective weights with a small weaving loom (Hlavenková 2010, 41; Lochner 1991, 257; Mitáš 2023b, 45; Paulík 1976, 136; Vávra/Bača 2016, 115). There were also some pieces decorated or marked on the surface with bunches of parallel engraved lines (Fig. 9: 5).

Artefacts associated with metallurgy

A fragment of a bronze wire and thick bronze bars with circular or oval cross-section with cut-off or broken-off ends (Fig. 7: 4–7, 10–12) found in various parts of the hillfort area do not show any diagnostic features, so it is not possible to make a definite statement regarding their function or dating. Because they come from the late prehistoric contexts (settlement layers) and some of them are damaged, they might be manufacturing waste from the local metallurgical or smithing workshop. These small fragments might be leftover raw materials meant for further recycling. In association with this, the find of

a small copper “cake” of probably prehistoric origin, which comes from the area of the Lower castle should be mentioned (Beljak *et al.* 2014, 79, fig. 50).

The discovery of a well-preserved ceramic crucible with a spout and broken handle (Fig. 7: 13) suggests a prehistoric metallurgic workshop at the Zvolen upland settlement, in addition to previously stray finds of sandstone moulds⁸ and amorphous bronze solids (Pančíková 2008, 126, 135). In the territory of Slovakia, technical pottery of this type is known, e.g. from excavations at the Late and Final Urnfield culture settlements at the sites of Bratislava-Devín (Plachá/Paulík 2001, 51, fig. 6), Pobedim (Studeníková/Paulík 1983, 245, pl. XXXIII: 2), or feature 31/78 interpreted as a metallurgic workshop in Radzovce (Furmánek 2019, 37, pl. XXXIII: 5). Bronze manufacturing is likely linked to the miniature thick-walled ceramic vessels (Fig. 7: 14, 16), particularly the biconical specimen (Fig. 7: 15), which has similarities at the settlement from the Final Bronze Age in Hájna Nová Ves (Wiedermann 2013, fig. 144: 3) and in the previously mentioned Radzovce, where traces of copper were confirmed on the surface of the local artefacts using exact chemical analyses (Furmánek/Cengel/Mihok 1982, 205, fig. 1: 1, 3).

Sword (long dagger) from below the Upper castle hill

We ought to highlight the important earlier stray find of almost a complete short bronze sword (preserved length 28.4 cm) found at the site of Červený medokýš near the Teplý potok stream flowing into the Hron River near the western foot of the Upper castle hill. The sword⁹ (Fig. 10: 1) is characterised by a smooth, symmetrical blade narrowing up to the point, which has a slightly offset blade edge and a suggested central longitudinal rib running from the hilt towards the tongue-profiled grip with straight edge plates and a damaged (incomplete) end. The flanged shoulders of the trapezoidal hilt arms are almost straight, and slightly rounded, with circular rivet holes on each side. In the place where the blade is tapered from the handle, just under the rivet openings, symmetrically curved grooves on both sides are visible indicating the direction in which the blade is smoothly offset from the blade-edge down to its tip. The sword with the tongue-shaped grip is considered as a rare find from the mountainous areas of the Lusatian culture in Slovakia (see Veliačik 1999, fig. 3). The nearest comparable (stray) finds of this sword-type are documented only from Dolná Mičiná (Kemenczei 1988, 76, pl. 47: 416); then there is also an exemplar deposited in the so-called Evans' collection, which allegedly comes from the Orava region (Čaplovič 1987, 163, note. 150; pl. XIX: 3); and, finally, there is a sword from Podlužany (Veliačik 1999, 149–154, fig. 2). Nevertheless, the mentioned swords are classified in the Reutlingen type (according to Schauer 1971, 132–148) and dated to the interface of the Middle and Late Bronze Age (BC2–BD); their occurrence is more typical of the territory of southeastern Urnfield cultures. The damaged end of the handle (tang), the trapezoidal shape of the interface (a plate) without any trace of cutouts on the sides, and especially the unusually short length do not allow clear typological-chronological classification of the exceptional find from Zvolen. The sword shares many characteristics with short swords with tongue-shaped handles from the late and final stages of the Middle Bronze Age (compare e.g. Rataje, surroundings of Trnava, Alsónémedi, Nagyhalász; Kemenczei 1988, 51, 52, pl. 25: 244, 245; Novák 1975, 19, 28, pl. 11: 73; 20: 135). Regarding the current state of research on the settlement in the Zvolen microregion, dating of the sword from the site of Červený medokýš to the beginning or advanced Late Bronze Age¹⁰ seems most probable (stage BD–HA1). The question remains, whether the sword might have been ritually deposited in water (votive artefact), i.e., it was not an accidental loss – according to the information on the reported site of the discovery (see Novotná 2018, 256). Such an option cannot be denied if we consider previously

⁸ M. Novotná (1982, 365, note. 20) mentions an older find from the site – a mould for “casting needles” (?) that is deposited in the collection of the local Forestry and Timber Museum in Zvolen. In 1999, V. Hanuliak discovered a fragment of a stone with relief modification near the southern defensive wall of the so-called Donč's castle (sector CX2, 190 cm deep). It was originally interpreted as a mould for casting arrowheads or spear points. However, re-evaluating the photographic documentation of the find suggests, that it is more likely a medieval architectural element.

⁹ The find was spectrally analysed by the Delta ED-XRF spectrometer, which measured the final values of its chemical composition: Cu 80.93% ($\pm 0.17\%$); Sn (18.08%); Zn (0.65%); Ni (0.33%). Concerning this, an above-average share of tin in the alloy appears, considerably increasing the hardness of the artifact (compare the chemical composition of swords from the Bronze Age, e.g. Bartík 2008, 46; Longauerová/Longauer/Makarius 1999, 78). The high measured value of tin might also result from corrosion changes on the surface of the artefact (Gyöngyösi *et al.* 2023, 177).

¹⁰ In association with this, we must point to an analogous rare find of a sword from Králov brod in western Slovakia (Novák 1975, 21, 22, pl. 13: 89) classified in the Nenzingen type and dated to the early stage of the Urnfield culture (stage BD).

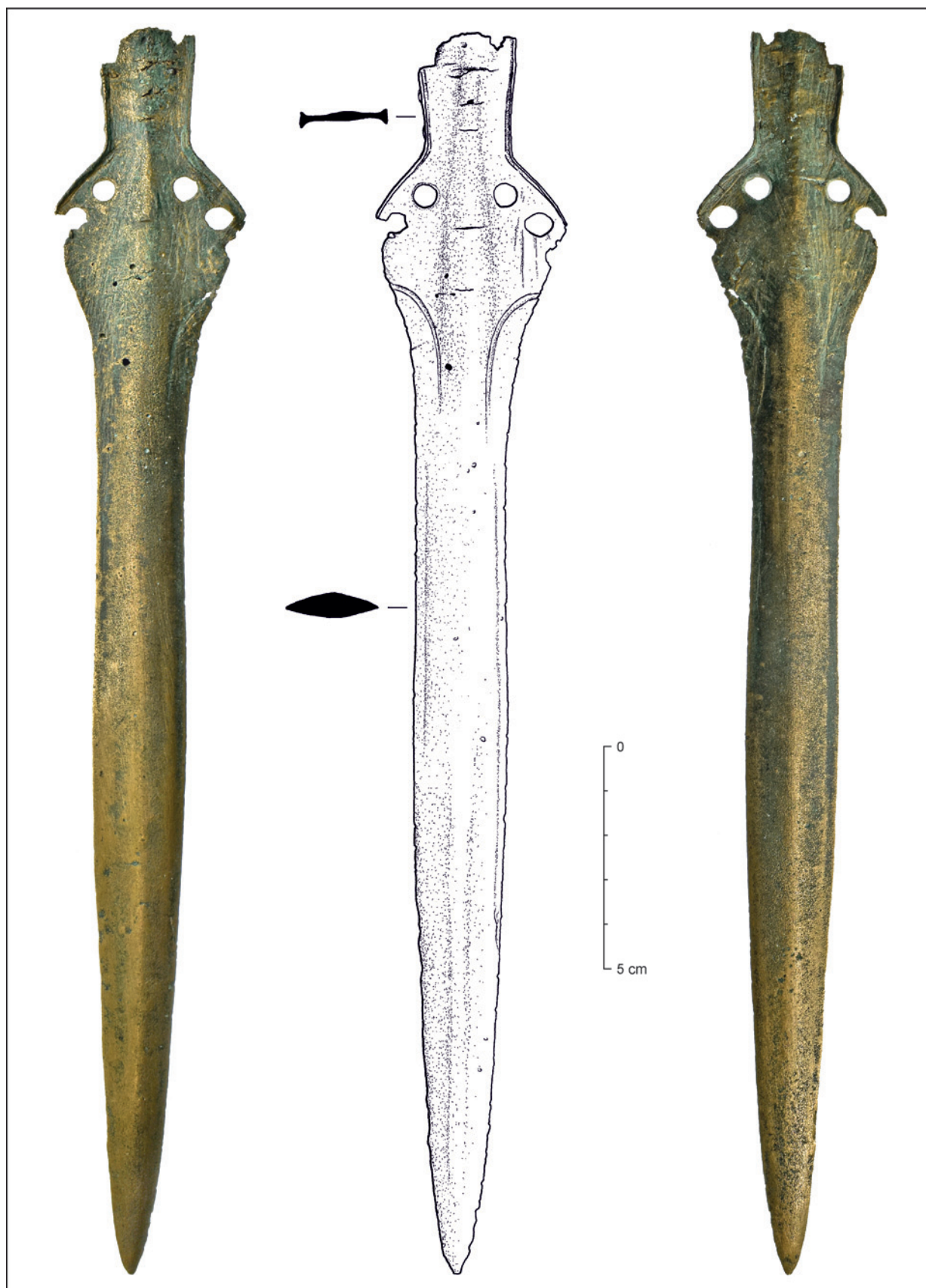


Fig. 10. Zvolen-Červený medokýš site. Grip-tongue sword/long dagger from below the Upper Castle Hill near the Teplý potok stream flowing into the Hron River. Stray find. Authors J. Godiš, I. Látečková.

known artefacts from the Urnfield culture period discovered in a well-known small lake on the top of the travertine heap and its surroundings at the site of Zvolen-Borová hora, which is situated approx. 6 km northwest (see Malček 2006, 66; Zachar/Mitáš 2012, 419–422).

Concerning the above-stated, we should mention one more important find of a different type of sword from Zvolen, which was part of the metal deposit (hoard III) discovered in 1962 at the Haputka (Krivá púť) site situated below the northeastern slope of the castle of Pustý hrad. It contained six bronze solid-hilted swords close to the Högl type (according to Novotná 2014, 66) and almost forty bracelet-shaped bronze ingots (Kuka 1965, fig. 209–211), while other similar swords were reportedly found near the stated site in the past (Novotná 2014, 9, 47, 67). These artefacts are interpreted as products of a local metallurgical workshop from stages HA2–HB1, i.e., when the Bronze Age upland settlement at the Deserted Castle was already fully established.

CONCLUSION

The publication and basic evaluation of metal and other small artefacts from the Upper Deserted Castle is another step that enriches our knowledge about the late prehistoric settlement in the Zvolen micro-region. Along with the ceramic material obtained over decades of systematic excavations, the analysed artefacts extend information on various activities at this strategic upland site during the Urnfield period. Many of these finds are badly damaged and lack diagnostic features, which prevents their basic functional identification and thus more accurate dating. On the other hand, the presented artefacts clearly document – directly or indirectly – e.g. agricultural (sickle), textile (weights, spindle whorls, awls, spools), or metallurgical (crucibles) production taking place in the prehistoric upland settlement. There are also finds of tools used to obtain and process timber (axes), for hunting animals or protection of the hillfort (spear/lance, arrowheads). Another group of artefacts helps us picture how locals ornamented their clothing in the Bronze Age and expressed their individuality within the community of which they were a part (pins, fibula, bracelets, patches).

The functional metal jewellery (pins, fibulae) in the studied assemblage are the most chronologically sensitive artefacts and hence best exemplify several habitation phases of the Upper castle prehistoric settlement. Recent evaluation of ceramic material suggests a distinction of three phases, spanning from the advanced Late Bronze Age to the onset of the Hallstatt period (Beljak Pažinová/Godiš/Beljak 2023, 98). The first phase, roughly synchronised with stage HA, is reflected in the find of a bronze pin with a biconical step-like designed head. Further development took place around the first half of the final Bronze Age, as evidenced by the large pin with a vase-shaped head when the material from the site reflects intense contact between the local Lusatian settlement enclave and the Kyjatice cultural region (stages HB1–HB2). Regarding metal finds, the final phase is exemplified by a fragment from a saddle-shaped fibula characteristic of the very end of the Bronze Age (stage HB3). It should be noted here that the long-term systematic excavation at the Deserted Castle in Zvolen has not yet yielded representative metal artefacts, which could be reliably dated to the beginning of the Hallstatt period (stage HC1). On the contrary, the ceramic assemblage from the site evaluated so far contains finds typical for this chronological period¹¹, like at the adjacent cremation burial ground at the site of Balkán situated just under the hillfort on the right bank of Hron River. A future task remains the processing and evaluation of the abundant ceramic material from the excavation campaign led by V. Hanuliak in 1992–2008. After all, it will also be necessary to incorporate new terrain discoveries and artefacts from the next excavation seasons planned at this remarkable upland archaeological site.

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¹¹ From the site of Zvolen-Borová hora comes an old find of a unique equinomorphic bronze bridle sidebar from a horse harness dated to the transition of stages HB3/HC1, which refers to contacts with a territory as far as the Apennine Peninsula (Farkaš 1984, 55–81; Hampel 1892, 171, 172, pl. LX: 5; see also Zachar 2010, 79–85, fig. 2).

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Kovové nálezy a ďalšie drobné predmety z opevneného výšinného sídla z mladšej a neskorej doby bronzovej na Pustom hrade vo Zvolene, stredné Slovensko

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Súhrn

Národná kultúrna pamiatka Pustý hrad vo Zvolene na strednom Slovensku sa nachádza na juhozápadnom okraji mesta na rovnomennom kopci (obr. 1). Je známa výstavbou rozsiahleho hradného komplexu vo vrcholnom stredoveku, ktorú iniciovali panovníci z dynastie Arpádovcov (Beljak et al. 2021, 137–168). Najstaršie doložené osídlenie lokality pochádza z neskorej doby kamennej, keď na mieste tzv. Dolného hradu bola vybudovaná výšinná osada badenskej kultúry (Beljak et al. 2014, 80–98). Predpoklad o existencii pravekého hradiska na susednej polohe, tzv. Hornom hrade, sa objavuje v odbornej literatúre už od polovice minulého storočia (napr. Balaša 1946, 95; Furmánek 1983, 31, obr. 2: 16; Labuda 1981, 120). Prvý skromný súbor artefaktov z doby bronzovej, nájdených počas moderného archeologického výskumu na lokalite, publikoval V. Hanuliak (1993, 49; 2002, 62). Jednoznačné hnutelné aj nehnuteľné doklady osídlenia lokality Pustý hrad období kultúry popolnicových polí priniesol až výskum areálu Dolného hradu v rokoch 2009–2014 (Beljak

et al. 2014, 107–125). Aktuálny výskum Horného hradu, realizovaný každé leto od roku 2016 (obr. 2), priniesol súbor nálezov z mladšej a neskorej doby bronzovej, pozostávajúci z niekoľkých desiatok tisíc kusov, z ktorých najväčšiu časť prirodzene tvoria fragmenty keramiky (Beljak Pažinová/Godiš/Beljak 2023). Predložený príspevok prezentuje vybrané kovové predmety a ďalšie drobné nálezy z mladšej a neskorej doby bronzovej, objavené na Pustom hrade – Hornom hrade v rokoch 2016 až 2023, pričom sú doplnené aj o niektoré významné artefakty z výskumov V. Hanuliaka. Ich zverejnenie je dôležité nielen pre riešenie základných kultúrno-chronologických otázok ale aj ako doklad rôznych každodenných činností pravekých obyvateľov výšinného sídla nad Zvolenom.

Pri systematickom archeologickom výskume boli na Hornom hrade pod stredovekou hradbou na viacerých miestach identifikované zvyšky pravekého kamenno-zemného valu (obr. 3: 1). Tento val bol prvýkrát zaznamenaný už v roku 1994 (Malček 1996, 129), pričom jeho priebeh sa postupne potvrdil aj pozdĺž východnej línie opevnenia na vrcholovej plošine, v južnej časti opevnenia a napokon aj pod stredovekou hradbou tzv. Dončovho hradu (obr. 3: 2, 3). Výskumom sa dosiaľ zistilo, že najmasívnejšia kultúrna vrstva z doby bronzovej sa zachovala na vrcholovej plošine, v strednej časti hradného areálu pri východnej línii stredovekého opevnenia. V niektorých úsekoch dosahuje mocnosť až 1,2 m. V tejto oblasti sa podarilo identifikovať aj pozostatky ohňom zničeného obydlia nepravidelného pôdorysu s podlahou tvorenou hlineným výmazom, ktorá bola spálená do oranžova. Na nej bol objavený nepietne ležiaci skelet novorodenca (obr. 4; Beljak/Beljak Pažinová/Pušk 2022, 95–99). Rádiouhlíkové datovanie rebra dieťaťa (obr. 5: 1) potvrdilo predpokladaný vek kontextu, spadajúci do obdobia medzi 10. a 9. storočím pred Kr. (2750 ±35 BP; cal BC 983; 95,4 %; cal BC 816). Tento údaj je v súlade aj s výsledkom absolútneho datovania kosteného šidla (obr. 5: 2), nájdeného na mieste vrcholovej plošiny (2740 ±30 BP; cal BC 933; 92,8%; cal BC 813).

Analýzovaný súbor pravekých artefaktov z Horného hradu, vyrobených zo zliatiny medi, je pomerne rôznorodý. Tvoria ho hlavne šperky a iné ozdoby odevu, ale aj pracovné nástroje a zbrane. Viaceré predmety sa pre svoju fragmentárnosť nepodarilo presnejšie identifikovať (drôty, tyčinky). Ojedinele sa objavili kompletne zachované exempláre, ako napríklad bronzová ihlica so zdobenou dvojkónickou hlavou (obr. 6: 2) typická pre staršiu a strednú fázu doby popolnicových polí. Ďalším významným nálezom je celistvá bronzová ihlica s veľkou vázičkovitou hlavou (obr. 6: 1), ktorá predstavuje kovovú industriu mladšej až neskorej fázy doby popolnicových polí.

Vzácnym novším nálezom z areálu hradiska na Hornom Pustom hrade je diagnostický fragment z bronzovej „karpatskej“ sedlovitej spony (obr. 6: 3), charakteristického šperku z obdobia záveru doby bronzovej. Zachovalo sa z nej iba liate „sedlo“ s pozdĺžne hraneným chrbtom a časťou drôteného vinutia, pričom zospodu je na ňom rytá vetvičkovitá výzdoba (obr. 6: 3).

K malej skupine kruhových ozdôb vyrobených zo zliatiny medi patrí subtilný, otvorený tyčinkovitý náramok so zašpicatými koncami, zdobený zväzkami priečných línii (obr. 6: 8). Ďalším príkladom je približne polovica, o niečo hrubšieho, hladkého tyčinkovitého náramku so splošteným, zaobleným koncom, pri ktorom je viditeľná nedokončená (?) jemná výzdoba šikmými pásmi zásekov (obr. 6: 11). Odlišný charakter má fragment pásikového náramku s plan-konvexným prierezom a výzdobou v podobe dvoch šikmých rýh, ktorých vnútorná plocha je vyplnená priečnymi zásekmi, resp. šrafovaním (obr. 6: 4). Pri niektorých z uvedených nálezov však nie je možné s istotou potvrdiť, že naozaj pochádzajú z mladšieho praveku. Bronzové ozdoby odevu zastupuje niekoľko kusov polgulovitých plechových nášiviek rôzneho priemeru s vnútorným uškom (obr. 6: 7, 9, 10).

Zo systematického výskumu na Hornom hrade poznáme aj nálezy, prevažne fragmenty bronzových sekier (obr. 8: 2–4) a kosáka (obr. 8: 5). Spôsob ich poškodenia indikuje (lom na zlomkoch), že k nemu prišlo najskôr pri pracovnej činnosti. Na terasách tzv. Dončovho hradu však bola objavená aj jedna celkom neporušená zdobená sekerka s asymetricky (zobákovite) vykrojenou tuľajkou oproti ušku (obr. 8: 1), ktorú možno datovať do konca mladšej a na začiatok neskorej doby bronzovej (stupne HA2–HB1). K nezvyčajným nálezom z lokality patria ploché kovové hroty šípv so spätnými krídelkami a zdeformovaným, dlhým obdĺžnikovitým trňom (obr. 8: 6, 7). Z areálu Horného Pustého hradu pochádza aj solitérny nález bronzového hrotu s mandľovitým tvarom listu a tuľajkou, ktorý bol objavený ešte v roku 1996 (obr. 7: 1; Mosný 1997, 135, obr. 95). Jeho malá dĺžka (10,5 cm) naznačuje, že nešlo primárne o kopiju, ale skôr o hrot vrhacej zbrane, teda oštep.

Pri príležitosti spracovania pravekých artefaktov zo zliatiny medi z lokality Pustý hrad sme sa rozhodli zverejniť aj významný starší, ojedinelý nález, takmer úplne zachovaný krátky bronzový meč (obr. 10) s dĺžkou viac než 28,4 cm. Objavený bol pod hradným kopcom, v polohe Červený medokýš, konkrétne pri Teplom potoku, ktorý sa vlieva do rieky Hron. S ohľadom na jeho typologické črty, relatívne krátku čepeľ, ale tiež aktuálny stav poznatkov o osídlení zvolenského mikroregiónu v mladšom praveku, sa jeho vznik najpravdepodobnejšie datuje na začiatok mladšej doby bronzovej.

Rozmanitý súbor artefaktov z obdobia kultúr popolnicových polí, objavený na Hornom hrade, ďalej poodhaľuje intenzívnu prítomnosť, pohyb a aktivity ľudí na tejto strategickej výšinnej polohe. Mnohé z analyzovaných predmetov sa však našli značne poškodené, resp. iba ich malé fragmenty, často bez diagnostických znakov, bez čoho ich nie je v zásade možné identifikovať. Artefakty, ktoré však bolo možné určiť, sú dôležitým svedectvom napríklad o existencii poľnohospodárskej (kosák; obr. 8: 5), hrnčiarskej (do kruhu obrúsené črepy), textilnej (záväžia, prasleny, šidlá, cievky; obr. 8: 9; 9) či metalurgickej produkcie (kruhové pliešky; tégly; obr. 7: 2, 3, 13–16) v areáli hradiska. O každodenných aktivitách obyvateľov lokality ďalej vypovedajú pracovné nástroje, ktoré boli späté so získavaním a spracovaním dreva (sekery; obr. 8: 1–4), ako aj militárie, využívané pri love zvierat alebo obrane sídla (oštep, hroty šípv; obr. 7: 1; 8: 6, 7). Nálezy funkčných šperkov nám zároveň umožňujú utvoriť si predstavu o tom, aké typy ozdôb tvorili kraj, ktorý reflektoval príslušnosť k miestnej komunite, ale tiež môžu naznačiť, aké boli požiadavky na ich estetickosť (ihlice, spona, náramky, nášivky; obr. 6).

Jednotlivé etapy vývoja osídlenia na Hornom Pustom hrade v mladšom praveku boli nedávno rámcovo zadefinované na základe vyhodnotenia keramického materiálu do troch fáz (Beljak Pažinová/Godiš/Beljak 2023, 98). Tieto etapy pokrývajú vývoj od pokročilej mladšej doby bronzovej (stupeň HA1), cez neskorú dobu bronzovú (stupeň HB1–2), až po začiatok doby halštatskej (stupeň HC1), čo zodpovedá približne obdobiu od 12. až po 8. storočie po Kr. Z hľadiska tu analyzovaných kovových nálezov sú prvé dve etapy adekvátne reprezentované nálezmi ihlíc a spony, keďže ide o relatívne chronologicky najcitlivejšiu skupinu artefaktov. Predmety, ktoré by boli typické pre počiatok doby železnej zatiaľ v areáli hradiska nie sú evidované.

Doteraz sa na Pustom hrade nepodarilo zistiť stopy po trvalejšom osídlení, ktoré by tam bolo založené už v čase infiltrácie pilinskej kultúry do južnej časti Zvolenskej kotliny, ku ktorej došlo najskôr od záveru stupňa BC2 (Zachar/Malček 2011, 33–36, obr. 10). Vznik výšinnej osady vo vrcholovej časti Pustého hradu možno bezpečne spájať až so stupňom HA1, keď sú v archeologickom prameni zreteľné výrazne stopy po expanzii lužickej kultúry z regiónu Liptova, Turca a horného Ponitria do Zvolenskej kotliny a jej rýchlemu etablovaniu sa v tomto priestore (Beljak Pažinová 2018, 19, tam ďalšia literatúra; Kujovský 1994, 307, mapa 1; 2015, 180; Zachar/Malček 2011, 36, 37). V tejto súvislosti nemožno vylúčiť ani krátkodobú koexistenciu nositeľov lužickej kultúry s už skôr prítomnou enklávou pilinskej kultúry (Zachar/Mitáš 2012, 419–421), na čo poukazujú aj výsledky analýzy materiálu z Dolného hradu (Beljak et al. 2014, 119). Pri celkovom hodnotení pravekých hnutelných nálezov z Pustého hradu je potrebné osobitne zdôrazniť charakter keramiky z neskorej doby bronzovej, v ktorej sa súčasne vyskytujú prvky typické pre hrnčiarsky štýl lužickej aj kyjatickej kultúry. Zadefinovať presnejšie ich vzájomný podiel výskytu nie je z objektívnych dôvodov možné, avšak svojrázna keramika kyjatickej kultúry je na lokalite nepochybne zastúpená v tak výraznej miere, že je možné predpokladať jej lokálnu produkciu. Praveká kamenno-hlinitá fortifikácia na Hornom hrade bola pravdepodobne vybudovaná práve počas tejto fázy osídlenia (stupeň HB1–2). Aktuálny stav výskumu naznačuje, že stopy po sídelných aktivitách sa v závere doby bronzovej a na počiatku doby železnej (na prelome stupňov HB/HC) z lokality postupne vytrácajú. V tejto súvislosti sa vo všeobecnosti uvažuje, že vtedy došlo k určitej spoločensko-kultúrnej kríze, ktorá zasiahla rozsiahle územie severnej časti Karpatskej kotliny a mohla do istej miery viesť až k čiastočnej depopulácii niektorých regiónov.

Na základe doteraz získaných poznatkov možno konštatovať, že návršie Pustého hradu nad sútokom meandrujúcich riek Slatiny a Hrona sa už v priebehu mladšej doby bronzovej stalo vyhľadávaným miestom, kvôli jeho strategickej polohe poskytujúcej kontrolu nad priľahlým okolím. Výšinná osada sa následne po vybudovaní fortifikácie podľa všetkého transformovala na dôležité regionálne mocensko-správne centrum so silným hospodárskym zázemím, ktoré nadviazalo kultúrno-obchodné kontakty s oblasťami ďaleko presahujúce Zvolenskú kotlinu.

Obr. 1. Zvolen-Pustý hrad, Horný hrad. Letecká snímka areálu vrcholovej plošiny zo severovýchodu. Autor J. Beljak.

Obr. 2. Zvolen-Pustý hrad, Horný hrad. Skúmané archeologické sondy v rámci sezón 2016–2023. Autori J. Beljak, N. Beljak Pažinová.

Obr. 3. Zvolen-Pustý hrad, Horný hrad. 1 – letecká snímka areálu vrcholovej plošiny s vyznačením dokumentovaných zvyškov pravekého valu pod stredovekou hradbou (značené žltou líniou; A – umiestnenie sondy 5B/2018; B – umiestnenie sondy 2/2022); 2 – severný profil sondy 5b/2018; 3 – západný profil sondy 2/2022. Legenda: a – pôdny kryt (lesný humus); b – deštrukcia stredovekej hradby; c – praveký val (červenkastá hlina a lomové kamene); d – vrstva hliny a malty; e – stredoveká hradba (pôvodná); f – skalné podložie (andezit); g – nie pôvodné kamenné murivo; h – stredoveká hradba (rekonštrukcia). Autori J. Godiš, N. Beljak Pažinová, J. Beljak.

Obr. 4. Zvolen-Pustý hrad, Horný hrad. 1 – pozostatok prepálenej hlinenej podlahy obydla s nálezom kostrových pozostatkov dieťaťa z neskorej doby bronzovej v sonde 5A/2016 (foto terénu J. Beljak); 2 – zachované kostrové pozostatky dieťaťa v sonde 5A/2016 (foto skeletu: M. Putško); 3 – časť pôdorysu sondy 5A/2016. Legenda: A – skalné podložie (andezit); B – kultúrna vrstva z doby bronzovej; C – stredoveká hradba; a – pozostatky pravekého opevnenia; b – črepy z doby bronzovej; c – kostra dieťaťa; d – spálená podlaha a popolovitá vrstva. Autori J. Godiš, N. Beljak Pažinová.

Obr. 5. Zvolen-Pustý hrad, Horný hrad. Výsledok absolútneho datovania dvoch vzoriek. 1 – dieťa zo sondy 5A/2016; 2 – kostené šidlo zo sondy 3A/2019. Vizualizácia Calib 8.1.0. <http://calib.org/calib/> [20. 12. 2024].

Obr. 6. Zvolen-Pustý hrad, Horný hrad. Vybrané kovové nálezy z mladšej a neskorej doby bronzovej. 1, 2, 5 – ihlice; 3 – spona; 4, 8, 11 – náramky; 6 – ihlica (?); 7, 9, 10 – nášivky. 1 – sonda 3/2007; 2 – sonda 5A/2016; 3 – sonda 3A/2022; 4 – sonda 1C/2018; 5 – sonda 3B/2021; 6 – sonda 6/2017; 7 – sonda 4/2020; 8 – sonda 3/2019; 9 – sonda 4/2019; 10 – sonda 5C/2016; 11 – sonda 1A/2021. Autori J. Godiš, I. Látečková.

Obr. 7. Zvolen-Pustý hrad, Horný hrad. Vybrané kovové nálezy a iné drobné artefakty z mladšej a neskorej doby bronzovej. 1 – hrot oštep; 2, 3 – kruhové pliešky; 4–7, 10–12 – kovové tyčinky; 8 – kovové šidlo (?); 9 – kovový krúžok; 13 – keramický téglík s výlevkou; 14–16 – hrubostenné keramické nádoby. 1 – sektor 10/F, 1997; 2, 3 – sonda 4/2019; 4 – sonda 4B/2020; 5 – sonda 1A/2021; 6 – sonda 5C/2016; 7 – sonda 3/2019; 8 – sonda 4A/2020; 9 – sonda 3B/2021; 10 – sonda 2/2021; 11 – sonda 3/2019; 12 – sonda 1A/2022; 13 – sonda 5A/2016; 14 – sonda 5C/2016; 15 – sonda 5C/2016; 16 – sonda 3/2019. Mierka: a – 1; b – 2–16. Autori J. Godiš, I. Látečková.

Obr. 8. Zvolen-Pustý hrad, Horný hrad. Vybrané kovové a iné nálezy z mladšej a neskorej doby bronzovej. 1–4 – sekery; 5 – kosák; 6, 7 – hroty šípov; 8 – kovová ihla; 9 – kostené šidlo; 10 – kostená ihla. 1 – sonda 2/2005; 2 – sonda 3/2017; 3 – sonda 1C/2018; 4 – sonda 1A/2021; 5 – sonda 5/2020; 6 – sonda 3/2019; 7 – sonda 3/2017; 8 – sonda 5B/2016; 9 – sonda 5/2016; 10 – sonda 5B/2016. Autori J. Godiš, I. Látečková.

- Obr. 9. Zvolen-Pustý hrad, Horný hrad. Vybrané hlinené predmety z mladšej a neskorej doby bronzovej. 1 – sonda 5/2016; 2, 3 – sonda 4/2019; 4 – sonda 1/2016; 5 – sonda 1/2016; 6 – sonda 5A/2016; 7 – sonda 5A/2016; 8 – sonda 5/2016; 9 – sonda 4/2019; 10 – sonda 5/2016; 11 – sonda 5C/2016; 12, 13 – sonda 5A/2016; 14 – sonda 1/2016; 15, 16 – sonda 4/2019; 17–19 – sonda 3/2019; 20, 21 – sonda 4/2019; 22 – sonda 5A/2016; 23 – sonda 3/2019. Autor J. Godiš.
- Obr. 10. Zvolen-Červený medokýš. Meč/dlhá dýka s jazykovitou rukoväťou spod Horného Pustého Hradu pri Teplom potoku vlievajúcim sa do toku Hrona. Ojedinelý nález. Autori J. Godiš, I. Látečková.

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