

UNDERSTANDING THE LATE AND FINAL BRONZE AGE SETTLEMENT AT ZVOLEN, PUSTÝ HRAD SITE. THE EXPRESSION OF POTTERY

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The study presents the settlement at the Pustý hrad Castle in Zvolen-Upper castle area in the Late and Final Bronze Age through the expression of pottery. The assemblage includes the diagnostic ceramic material found during systematic excavation since 2016. The amount and variability of the culturally heterogeneous pottery collection document the intense presence and movement of people at this hillfort in the Urnfield culture period. A thorough analysis of the pottery allowed the specification of the basic settlement phases from the Late Bronze Age (stage HA1) to the beginning of the Hallstatt period (stage HC1), which corresponds with the period approx. from the 12th to the 8th century BC. Highland settlement at Upper castle site belongs to a system of hillforts established at geographically favourable sites in the mountainous region of the Slovenské stredohorie mountains at the end of the Bronze Age.

Kľúčové slová: Pustý hrad, Horný hrad, mladšia a neskorá doba bronzová, kultúry popolnicových polí, keramika;

Keywords: Pustý hrad site, Upper castle, Late and Final Bronze Age, Urnfield cultural groups, pottery;

Introduction

The National cultural monument Pustý hrad Castle in Zvolen (eng. Deserted Castle) spreads over two tops of the hill with the same name, which is located at the southwestern edge of the town of Zvolen, in the Javorie hills, above the confluence of the Hron river and the Slatina stream in Central Slovakia. The site is known mainly thanks to medieval builders, as Hungarian kings from the Árpád dynasty had a massive stone castle built there in the High Middle Ages; its catchment area used the natural properties of the site (Fig. 1). On the hilltop plateau (571 m a. s. l.), the Upper castle was built with an area of 3.5 ha and lower (476 m a. s. l.), the Lower castle with an 0.7 ha area (newest *Beljak et al. 2021*, 137-168).

The Pustý hrad castle hill has an excellent strategical location with a good view of the Zvolenská kotlina basin and its wider surroundings. Therefore, it is no surprise that this area was popular with settlers since prehistory. The oldest recorded settlement comes from the Late Stone Age, when – mainly at the site of the Lower castle – an upland settlement from the end of the Baden culture was located (*Beljak et al. 2014*, 80-106; *Beljak Pažinová/Niklová/Beljak 2015*).

In the framework of the submitted paper, we will present the current state of research on the Late and Final Bronze Age at the Pustý hrad site through the pottery found at the Upper castle. Our goal is the evaluation of the findings from the point of view of cultural-chronological relations. We are not dealing with the analysis of the spatial distribution of the finds and the residential use of the site in this contribution.



Fig. 1. Zvolen, Pustý hrad Castle, Upper castle. Aerial view of the area from the northeast. Photo by J. Beljak, 2016.

The current state of knowledge

The prehistoric settlement at the Pustý hrad site is first mentioned in a report by a local lawyer and amateur antiquarian *J. Thomka* (1891, 297) as well as a little later in notes of polyhistorian *A. Kmeť*, who reportedly discovered “Lusatian-Silesian sherds” there (*Eisner 1933*, 158; *Medvecký 1924*, 200, pozn. 1). However, the site became known among professional archaeologists as late as the mid-20th

century thanks to the publication of bronze artefacts from the robbed and scattered hoard discovered in 1944 while digging trenches under a rock cliff on the western slopes of the castle hill (*Balaša 1946, 90-95*). Ten years later, in 1954, a rescue excavation was carried out at the site of Balkán on the south-eastern periphery of the Zvolen town. An urnfield necropolis (143 cremation graves) was uncovered there which documented the continuity in burying since the Late Bronze Age until the Early Hallstatt period (*Balaša 1955, 750-752; 1964*). In 1962, a hoard of bronze swords and ingots was discovered at the site of Haputka, which is situated at the north-western foot of the Pustý hrad hill. This was another important sign of the presence of a prehistoric hillfort above the town of Zvolen (*Kuka 1965, 783-790*). Three years later, a hoard of bronze disc-shaped patches discovered at the site of Krivá púť-Balkán followed (*Paulík 1965, 17-32*). After the publication of other metal artefacts in the 1970s and 1980s, which were originally part of a hoard found during WWII, the site of Pustý hrad received more attention from archaeologists (*Furmánek/Kuka 1973, 603-614; Novotná/Ratimorská 1981, 200, 201*).

The existence of a prehistoric hillfort at the Pustý hrad site was assumed in archaeological literature for some time (e. g. *Balaša 1946, 95; Furmánek 1983, 31, obr. 2: 16; Labuda 1981, 120*). First modest selection of prehistoric artefacts was published by *V. Hanuliak (1993, 49; 2002, 62)*, who carried out excavations on the castle hill between 1992 and 2008. Although there is numerous Bronze Age material from these seasons, it has not been complexly processed and presented to the expert public. The first explicit traces of settlement at the site in the Urnfield period were brought by the excavation at the Lower castle area in 2009–2014 (*Beljak et al. 2014, 107-125*). Nevertheless, archaeological material from this site is of much lower quality compared to the finds from the Upper castle area and its information value is limited (*Beljak et al. 2014, tab. IX-XIII*). On the other hand, the discovery of a cremation grave in the saddle below the Lower castle's residential tower was unexpected (*Beljak et al. 2014, obr. 68*). Its position on such an elevated site is very rare.

Since 2015, archaeological excavation at the Upper castle has been restored. In the beginning, its priority was to completely uncover the medieval cistern (*Beljak/Beljak Pažinová 2016; Beljak/Beljak Pažinová/Šimkovic 2018, 56, 57; Beljak Pažinová/Beljak 2016*). Various parts of the inner castle area were studied in further seasons, bringing also numerous evidence of prehistoric finds and contexts (*Beljak/Beljak Pažinová/Putško 2022, 85-104; Beljak/Beljak Pažinová/Šimkovic 2018, 11-18*). Discovery of an older stone-earthen wall remains near the exterior face of the southern line of the medieval fortification as well as along a considerable part of the eastern line of the medieval rampart is particularly important. In almost all instances, a reddish layer of soil with traces of extreme heat and pottery sherds from the Urnfield period has been found in the fortification, situated above the rock-bottom (*Beljak/Beljak Pažinová 2018, 223; Malček 1996*). Moreover, the finding of skeleton of reverently deposited child inside the destructed Final Bronze Age dwelling was another important discovery (*Beljak/Putško/Beljak Pažinová 2021*). It was found on the hilltop plateau of the castle area near the eastern line of the fortification (*Beljak/Beljak Pažinová/Putško 2022, 95-99*).

Methodology of pottery processing

The prehistoric pottery sherds found since the year 2016 at the Upper castle are an assemblage containing several tens of thousands of specimens. They were present in various numbers in each of the studied trenches (Fig. 2), especially in secondary or even tertiary positions. Most of the obtained prehistoric fragments, with rare exceptions, come almost exclusively from the Urnfield period. Several dozen sherds show more archaic decorative elements referring to earlier, still sporadically recorded, settlement from the Baden culture period, whose existence has been reliably confirmed in the Lower castle area (*Beljak et al. 2014, 80-98; Beljak/Beljak Pažinová/Putško 2022, obr. 6*).

Finds from the Late Bronze Age at the Upper castle are characterized by a high degree of fragmentation, which is a result of intense post-depositional and other taphonomic processes going on at this exposed upland site, open to weather and soil erosion for a long time. They were later amplified by areal terrain modifications associated with the construction of the medieval castle in the 12th and 13th centuries.

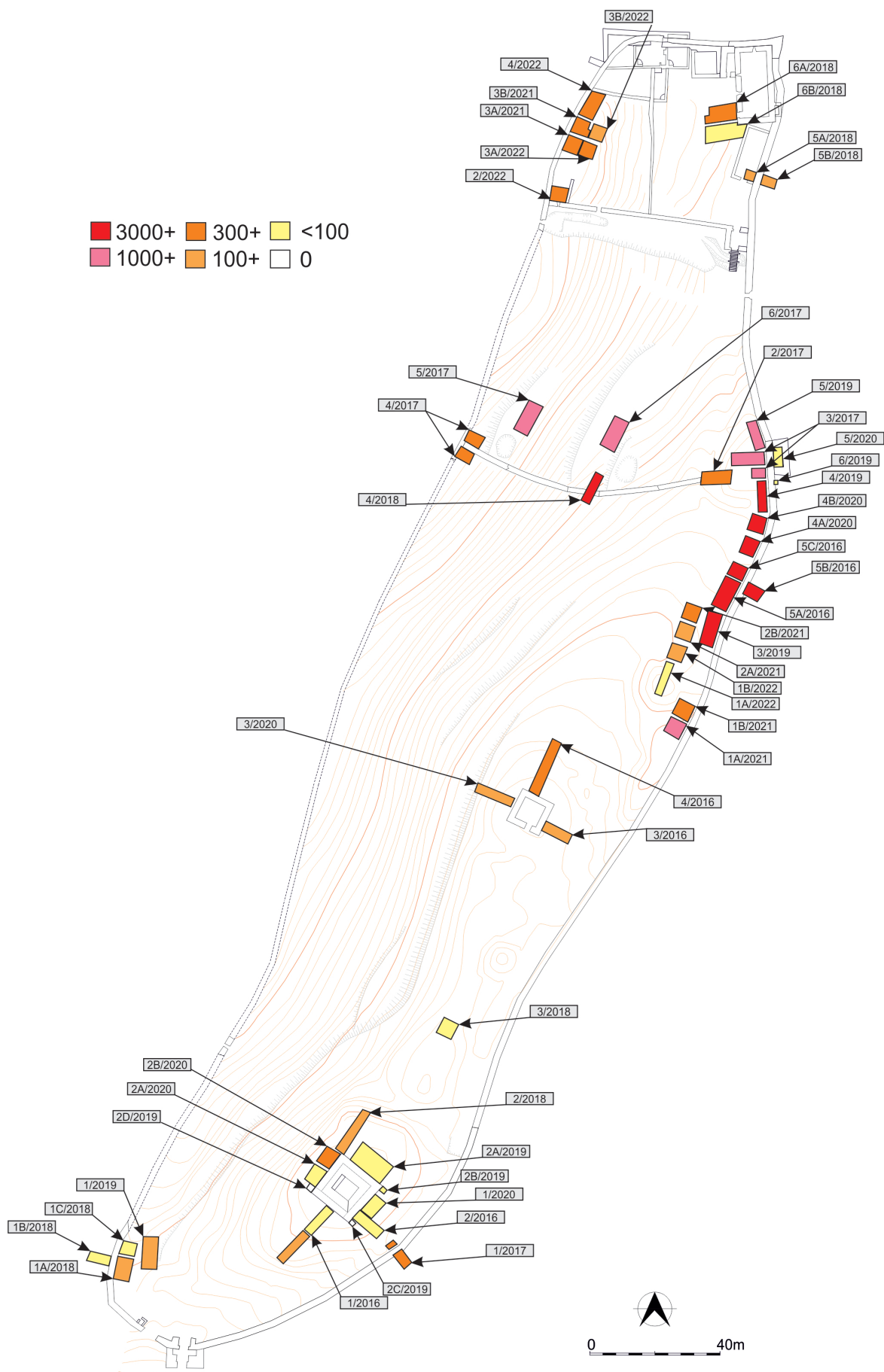


Fig. 2. Zvolen, Pustý hrad Castle, Upper castle. Density of pottery fragment finds from the Late and Final Bronze Age in individual trenches. Author: J. Godiš, N. Beljak Pažinová.

The classical method of identification and classification of sherds into basic morphological-typological groups (amphorae, amphora-shaped vessels, pots, bowls, cups) and their comparison with analogous shapes from other contemporary sites is applied only to a limited extent. In the case of the finds from the Pustý hrad site, this procedure has significant limits, since only in rare cases is it possible to reconstruct the complete shape of the vessel.

The pottery range does not change significantly in the cultures of the Late and Final Urnfield periods, it develops slowly (Danielová 2017, 68; Kujovský 1994, 265; Veliačik 1991, 214). For this reason, the evaluation is primarily based on the stylistic analysis of decorative motifs on ceramics, whether as incisions, channellings, embossed decorations, or impressions and also on a specific way of surface treatment. These allow to trace the chronological development of the site and partly also the nature and intensity of contacts with the surrounding cultural regions. It is important to notice the elements of tectonics or decoration, which are a real chronological criterion,¹ and to try to distinguish them from the expressions of regional particularity or the simple invention of a specific potter of the given time (Kujovský 2018, 284).

There are also known cases of processing settlement pottery from the final stages of the Bronze Age by the method of identification of technological groups showing that chronological data can be carried – unlike tectonics of vessels – by the composition of pottery clay and additives, it was fired from. It seems that the mentioned phenomenon is a matter of a specific location, and it cannot be generalized (Danielová 2017, 63). This innovative method (evaluation of additive type, quality and type of surface finish or colour of sherds) was applied to the sherds from the Bronze Age discovered at the Lower castle of the Pustý hrad site and its results were confronted with the classical stylistic analysis of pottery (Beljak et al. 2014, 108-111).

Expression of pottery

Amphorae and amphora-shaped vessels

Amphorae and amphora-shaped vessels are the chronologically most sensitive category. Certain tendencies in their development can be observed during the Late and Final Bronze Age. Their distinct quantitative representation in the collection is related to the dimensions of this pottery form and the volume of the pottery clay used for their modelling. At the Upper castle, there are mainly amphorae with conical necks and flaring rims, under which decoration with dense horizontal incisions is applied. This specific pottery is also referred to as the so-called classical Kyjatice amphora and – apart from decoration – it is characterized by contrasting colours of the exterior (black) and interior (yellow or pale) surface (Furmánek 1990, obr. 20: 1, 2; Furmánek/Pavelková/Budinský-Krička 2022, 167; Paulík 1962, 118). It occurs since the early phase of the Kyjatice culture (stage HA2) and its evolution continued in the classical phase dated to the beginning of the Final Bronze Age, i. e. stage HB1. Their late occurrence in grave contexts classified in stage HB2 is rarely documented (Marková 2011, 34, 35). The variable quality of the incision technique is noticeable. It can be explained by different manufacturers and by the attempt to imitate a foreign decorative element. It is obvious e. g. on a fragment of a neck with rarely preserved traces of imperfect connection of rows of horizontal incisions which the potter was not able to apply in straight lines (Pl. I: 4). Larger fragments show that horizontal incisions or narrow channellings were applied from below the neck to the shoulder and sometimes the area below it was decorated with a row of circular impressions (Pl. I: 1, 7, 10, 12), a row of short vertical incisions (Pl. I: 11) or small knobs lined with flutes (Pl. I: 6, 13). Groups of impressions in the lower part of the neck (Pl. I: 13) of the so-called Kyjatice amphora are considered as reminiscences of the Piliny culture pottery tradition (Furmánek/Pavelková/Budinský-Krička 2022, 160; Marková 2011, 34). They are used to various extent in the decoration on similar forms of the Urnfield culture since stage HA2, while their occurrence culminates at the beginning of the Final Bronze Age (Hrubec/Kujovský 1994, 18; Kujovský 2018, 273). This form of unusual imprinted decoration – “stamping”, also appeared on amphora vessel found in grave 67/09 (it served as an urn there) in not distant burial ground of south-east Urnfield culture in Cinobaňa (Mitáš/Furmánek 2015, 179, 180, obr. 21).

¹ The article uses the conventional Central European periodization system for the Urnfield cultures (more information in Mitáš/Furmánek 2016, 358-374; more references there).

In the Hallstatt period, the above-described decoration on pottery is not recorded (Danielová 2017, 68). The considerable share of this specific pottery in the analysed assemblage is legitimately associated with the influence or possible coexistence of the late, i. e. disappearing Piliny and mainly Kyjatice cultures in the region. An identical collection of pottery occurred at the Lower castle as well (technological group 1) and it is dated to the end of stage HA (Beljak et al. 2014, 116).

Fragments of bodies of minor amphora-shaped (?) vessels decorated with narrow oblique channellings (Pl. II: 8-11) are associated with the influence of the Čaka culture pottery style, whose elements expanded – according to J. Bátor (1979, 69) – in the territory of the Lusatian culture in central Slovakia in the early stage HA1. Further development until the end of the Late Bronze Age can be documented by a fragment from an amphora with narrow horizontal channellings in the lower part of the neck combined with wide vertical channellings on the body (Pl. II: 7). Similar finds are classified in the late Lusatian development, i. e. stage HA2, based on the material analysis from the settlement in Pobedim (Studeníková/Paulík 1983, 111).

Fragments of vessels with wide horizontal channellings on the upper part of the belly (Pl. II: 13, 14; III: 4-6), some of them decorated also with rows of oblique incisions (Pl. II: 14), are typical. Faceting was characteristic mostly of the Middle Danube cultural region and this trend entered the pottery style of the south-eastern as well as Lusatian Urnfields during stages HA2 – HB1 (Marková 2011, 35; Říhorský 1968, 42, 43, tab. 1). A pale-yellow sherd from the belly of the Kyjatice amphora (Pl. II: 2) with identical parallels in the vessel from grave 277/70 in Radzovce (Furmánek/Mitáš/Budaváry 2016, Taf. XLIII: 3) is typical. This amphora subtype was frequent mostly in the earlier phase (stage HA2), but it sporadically occurs in the classical phase of the Kyjatice culture dated to stage HB1 (Furmánek/Pavelková/Budinský-Krička 2022, 199; Marková 2011, 35). At the burial ground Zvolen-Balkán, amphorae with such advanced surface finish are dated to stage HB (grave 8/54; Bátor 1979, 72, obr. 11: 6), while it seems that in terms of tectonics, they are original shapes of the Kyjatice culture and not an adopted decorative element applied on the local Lusatian pottery (Zachar 2010, 28). It is certainly no coincidence that some of the finds from the Upper castle have an extremely high-quality polished outer surface, which prompts the speculation that it was pottery with a prestigious character lying in its aesthetic impressiveness. At the same time, this could define it as a trade commodity for regional and possibly also long-distance exchange (Pl. II: 14; III: 4).

So-called “blind handles” are a diagnostic feature on sherds from the interface of necks and bodies of amphorae (Pl. II: 12). Their occurrence is typical of the turn of the Late and Final Bronze Age, i. e. stages HA2/HB1 in the wider territory of the Urnfield culture (Benkovská-Pivovarová 1975, 45; Danielová 2017, 69; Veličik 1983, 120).

Amphorae of the Final Bronze Age are characterized by maximum diameter shifted lower, which resulted in their round body as well as the smooth interface between the neck and the body (Pl. I: 8; III: 3), while the neck is cylindrical and bent (Pl. III: 1, 2). The decoration is limited to channellings, rows of incisions as well as small impressions (Hrubec/Kujovský 1994, 22; Veličik 1983, 111).

A fragment from an amphora neck with narrow horizontal channellings attached to incised triangles filled with oblique incisions (Pl. I: 9) can be classified to the first half of the Final Bronze Age. While this element occurred on cups and bowls in the whole course of stage HB (Kujovský 1994, 278), as for amphorae, it is probably a chronologically sensitive attribute associated with stage HB1 – HB2 (Danielová 2017, 68). Parallels can be found e. g. at the hillforts in Prašník and Nitra-Zobor or in the non-stratified find from the burial ground in Jasenica (Danielová 2017, tab. 28: 1; Novák 2011, tab. 34: 467; Žilincová 2010, 169, tab. VIII: 4).

Fragments of amphorae decorated with wide oblique channellings on the upper part of the belly (Pl. III: 7, 8) most probably belong to the early phase of stage HB as well (Danielová 2017, 49; Studeníková/Paulík 1983, 111). Sherds from lower parts of vessels with ringed bases are significant (Pl. III: 13, 14). They do not have any support in the Lusatian pottery inventory, but they are specific for miniature amphorae of the Podolí culture present in southern Slovakia in stages HB1 – HB2 (Furmánek/Veličik/Vladár 1991, 157).

Fragments of amphorae with rows of horizontal incisions and with stripes of short oblique incisions following from them where the body is smoothly offset from the neck must be classified in the second half of stage HB and beginning of stage HC1 (Pl. II: 3, 5, 6). In general, the decomposition of “decoration” is typical of the end of the Bronze Age and this phenomenon is observable for instance on pottery from the burial ground in Háj (grave 44 and 52; *Hrubec/Kujovský 1994*, 19, tab. V: 10; VI: 16, 17), from the hillfort in Nemce near Banská Bystrica (*Kvietok 2014*, tab. III: 1) or at the settlement in Nová Ves nad Žitavou (*Kujovský 2012*, 215, obr. 5: 3).

Fragments from amphora-shaped vessels with embossed decoration (elongated knobs or short horizontal ribs with knobs on the edges) placed on the body where the bulge passes into the neck belong to the late horizon of the site. Sherds with simple horizontal ribs and areas below decorated with wide vertical channellings are also associated with those finds (Pl. III: 9-12). An analogous form of decoration has been recorded on the “late Lusatian” pottery from the burial ground in Malé Kršteňany (*Šuhajiková-Pivovarová 1961*, obr. 280: 1) and Abrahám (*Struhár/Fodor 1998*, obr. 107: 4), but it also occurred on amphorae from grave 5 and 113 in Zvolen-Balkán (*Balaša 1964*, 49, 72). Regarding their tectonics and mainly superposition they are dated to stages HB3-HC (*Zachar 2018*, 101). Recent results of pottery analysis from the hillfort at Nitra-Zobor also confirm the dating of this decorative motif at the end of the Bronze Age – stage HB3 (*Danielová 2017*, 71). The fact that fragments decorated with arches made of narrow channellings, a specific feature of the Lusatian pottery style in the final phase of stage HB, have been not yet recorded in the pottery material from the Upper castle – except for one (Pl. I: 15) – is quite surprising (*Šalkovský 2001*, 47; *Veličik/Srnka/Valo 2002*, 39).

The best preserved and restorable amphora from the whole assemblage is defined by a bulbous lower part, an inverted conical neck with an open mouth and a pair of opposing massive strap handles connecting shoulders with the neck (Pl. II: 1). At the interface of the body and the lower part three rows of horizontal channellings are applied and below them are narrow vertical and oblique channellings. The described motif also occurred on several fragments from other vessels (Pl. I: 16). Almost identical analogies to the shape and decoration are frequent e. g. at the burial ground of the Orava group of the Lusatian culture in Dolný Kubín II, where the local four-handle variant dated to stages HC – HD is present (*Čaplovič 1977*, 69, obr. 11: 3, 6; 12: 1, 4, 5). Due to the lower number of handles, and especially the overall quality of the accompanying finds from the site, the globular amphora from the Pustý hrad-Upper castle can be dated a bit earlier, probably to the early Hallstatt period (stage HC1).

Pots

Naturally, fragments from thick-walled pot-shaped vessels with horizontal circumferential indented ribs or stripe made of indentations, are very common in the settlement material. Application of such ribs facilitated manipulation with a vessel, since its profile was rather straight and, thus, unsuitable for a grip. It is documented by larger potsherds (Pl. IV: 1, 2, 4, 6) allowing us to derive their original design, which was rather barrel-shaped with a globular belly or biconical body. It is a typical attribute of the late stage of development – roughly stage HB (*Veličik 1991*, 214). In some cases, we can observe minor differences in the decorative motifs of ribs and stripes made by various tools and also techniques. Nevertheless, for now, it does not seem to be a relevant diagnostic feature to which special attention is paid in the literature, as it could only be an expression of various potters’ inventions (compare Pl. IV: 2-5, 7, 8). Course settlement pottery is represented – together with robust rims from storage vessels (Pl. V: 1, 2) – by a sherd from a pot with a massive handle following from the stripe made of indentations (Pl. IV: 10). Such location of handles below the rim (Pl. IV: 9, 11, 12) started to be applied on pots from the Urnfield culture in stage HA2 and gradually disappeared during of the Final Bronze Age (*Marková 2011*, 46).

A related group consists of barrel-shaped pots with massive horizontal lingular knobs below the rims which were used as stable handles for manipulation (Pl. V: 3-10). The intensity of the production of barrel-shaped pots with ribs rapidly increased towards the Hallstatt period (*Šalkovský 2001*, 41). It corresponds with their remarkable share in the analysed assemblage from Pustý hrad. In the Final Bronze Age, in the environment of the Lusatian culture, they replaced forms with two handles (*Bátora*

1979, 64; Hrubec/Kujovský 1994, 17) whose presence at the site can be assumed based on several fragments (Pl. IV: 10-12). The evolution of pottery inventory at several burial grounds of the Lusatian culture indicates that barrel-shaped pots with two handles were probably replaced by exemplars with knobs below the rim in the second half of stage HB (Hrubec/Kujovský 1994, 22). This is supported also by the recent evaluation of finds e. g. from the hillfort of Nitra-Zobor (Danielová 2017, tab. 19: 4; 23: 3, 5; 25: 4, 6). The finds from Zvolen-Pustý hrad are strongly affected by the pottery tradition of the Kyjatice culture. Pots with two handles and similar knobs below the rim are typical of the early phase of Kyjatice culture which is dated to the Late Bronze Age, i. e. stage HA2 (Marková 2011, 46).

Contact with the pottery style of the Middle Danube cultures of the Late Bronze Age is documented by fragments with vertical finger fluting on the surface (Pl. V: 11-13) which are exceptional in the Lusatian territory (Kujovský 1994, 276). Grave I/75 from Medovarce dated to stage HA1 is often presented as ideal evidence of the expansion of impulses from the Čaka culture in the mountainous region of central Slovakia (Bátora 1978, 244, obr. 2: 2). Torsos of pots with decoration in form of vertical finger fluting were also discovered in graves 35, 60 and 125 at the site of Zvolen-Balkán and they are dated identically (Zachar 2010, 33, 37).

Regarding the generally poor chronological argumentativeness of pot-shaped vessels of the Urnfield culture and the absence of larger fragments in the assemblage which would allow us to judge the mutual position of the handle or knobs and define the profile of the body, we can only assume that their presence in general complements the settlement of the site in the whole course of the Final Bronze Age.

To be mentioned is the presence of relatively rare evidence of the use of impregnating resin coats on vessels, which is documented by a fragment of a pot with an elongated lingular knob (Pl. IV: 13), but it also occurred on a torso of a miniature bowl (Pl. VI: 9). Their use is associated with the influence of the Hallstatt culture (Bátora 1979, 79), although it must be emphasized that we encounter this in the environment of the Kyjatice culture a little earlier, during stage HB (Furmánek 1990, 40, obr. 26: 7). For example, the impregnating resin coats were often applied on vessels from Cinobaňa and Kyjatice burial grounds; it was observable mainly on pots and amphorae dated to late phase of Kyjatice culture (Furmánek/Pavelková/Budinský-Krička 2022, 184; Mitáš/Furmánek 2015, 179).

Bowls

The earlier horizon of settlement is represented by sherds from conical (?) bowls with slightly inverted mouths and oblique channellings displayed on the rim (Pl. VI: 1, 2). They prove undisputable contacts with the Danube region, where this significant element occurred as early as stage BD, while it generally expanded in stage HA (Kujovský 1994, 271; Studeníková/Paulík 1983, 116, 117). We encounter this type of pottery sporadically in contexts classified in stage HA1 (Veličák 1983, 120, 127; 1991, 196), as illustrated by several examples from the burial ground in Zvolen-Balkán (Zachar 2010, 35; 2018, tab. 48: 5).

Fragments of rims from bowl-shaped vessels with multiple horizontally bent or faceted rims (Pl. VI: 3, 8) probably belong to this chronological horizon. Their occurrence is typical of the second half of the Late Bronze Age, possibly surviving at the beginning of stage HB1 (Říhovský 1960, 216-218, obr. 85: 8; 1966, 468, 469, 487). The presence of this type of vessel at sites in the Slovenské stredohorie mountains is – identically with the previous cases – interpreted as influence from the territory of the Middle Danube, the Čaka culture in particular (Labuda 1981, 119; Paulík 1968, 9).

The Final Bronze Age is exemplary represented by a restorable large bowl with an inverted rim whose belly is decorated with continuous rows of oblique incisions and four horizontal incised lines above the bend (Pl. VI: 5). On the interior surface, there were wide incisions displayed in a garland pattern, which started to be applied on this type of vessels in stage HB1 and continued with slight modifications until the end of the Final Bronze Age (Danielová 2017, 66). Other large bowl fragments decorated on the interior surface and made from pottery clay with similar consistency most probably belong to the same group (e. g. Pl. VI: 7).

A unique fragment of a rim probably from a bowl-shaped vessel with horizontal channelling and decoration consisting of two rows of short vertical incisions appears to be important (Pl. VI: 4). A comparable form of decoration occurred on a torso from an amphora in settlement feature 5/59 in Pobedim (*Studeníková/Paulík 1983, 113, tab. I: 3*). It had a horizontally angled body, and it was safely dated by the associated finds to the later phase of stage HB, with several analogies in the final Silesian phase of the Lusatian culture in Moravia (*Nekvasil 1970, obr. 2: 20, 29; Podborský 1970, 48, tab. 86: 7*).

A bowl rim with an inverted mouth, decorated with groups of vertical incisions (Pl. VI: 6) also deserves our attention. Although we do not know yet whether the finds from the Upper castle bore incisions or fluted ornament on the inside, this specific attribute occurred on e. g. a richly decorated bowl from grave 2/59 in Malé Kršteňany together with a bronze pin with a large vase-shaped head, which is one of the typical representatives of metal industry from stage HB (*Šuhajková-Pivovarová 1961, 802, obr. 277: 6*).

Cups

Sherds from lower parts of cups and bowls whose interior was decorated with various motifs of incisions (Pl. VI: 14-23) play a considerable role in the assemblage. Complete reconstruction of the ornamentation is problematic due to the fragmentary state of the material. The studied decorative motifs must also be specific to be used for solving cultural-chronological questions (*Kujovský 2018, 282; Veličik 1983, 135*). Many fragments, whose poorly preserved profile lines do not allow reliable identification of whether they come from bowls or larger cups, are decorated on the inside by multiple garlands. The current state of knowledge on this peculiar group of pottery and associated rich ornamentation shows that its use started in HA1 and its evolution continued to a five-pointed garland in stage HA2 (*Kujovský 2018, 284*). It means that based on the state of preservation of the material from the Upper castle site, it is only possible to date the group of cups to the second half of the Late Bronze Age, i. e. stage HA.

The influence of the Kyjatice pottery style on the decoration is documented by a fragment (Pl. VI: 16) with rows of incisions displayed in a circular pattern around the bulge of the bottom, to which stripes of short incisions are perpendicularly joined. A suitable analogy can be found e. g. in the grave from the Muhi burial ground situated in the territory of the Gáva culture, where the ornament is depicted on a local cup and identically interpreted as influence from the Kyjatice cultural region (*Kemenczei 1984, 159, Taf. CXXXIII: 17b; Marková 2011, 41*). As for the cup with an unusual decoration from grave 57 in Žitavany-Kňazice dated as a whole in stage HA2 (*Kujovský 2018, tab. XXVII: 11*), the situation is similar. Apart from the mixed form of decoration, the material from the Pustý hrad site included numerous fragments with rows of oblique incisions framed by a row or rows of vertical incisions, which most probably reflect the authentic Kyjatice decorative style (Pl. VI: 17, 18, 20; *Kujovský 1994, 279; Marková 2011, 41, obr. 3: 11, 12*). A comparable cup bearing a slightly modified ornament with attributed south-eastern provenance was discovered e. g. in Netopierska jaskyňa cave near Banská Bystrica and it is dated roughly to stage HB (*Bárta/Mácelová/Pieta 1987, 29, obr. 2*).

An important discovery is a miniature fragment from the upper part of a thin-walled cup whose outer surface is decorated with a basic horizontal band of grooves above which there is a continuous row of short vertical incisions (Pl. VI: 13). The last-mentioned motif is considered a specific feature of stage HB1 (*Kujovský 2018, 283*). A similar cup was discovered e. g. in grave 28 in Žitavany-Kňazice, where it was associated with a bronze pin with a vase-shaped head. The composition of the grave inventory classifies it to the transitional period of stages HA2/HB1 (*Kujovský 2018, 286, tab. XIV: 7, 8*).

Torso of a restorable semi-globular cup with an indistinctly S-shaped body bears exterior decoration in form of rows of horizontal incisions displayed on the neck from which rows of short oblique incisions follow (Pl. VI: 10). Remarkably similar shapes occurred in graves at the site of Zvolen-Balkán from the turn of stages HB/HC (*Bátora 1979, 67*) or in the material from the hillfort of Ilija-Sitno, where a similar cup is dated to the Early Iron Age (*Labuda 1981, 121, obr. 2: 4*). A cup with a semiglobular lower part distinctly offset from a funnel-shaped neck in a sharp angle is different

(Pl. VI: 11). Good parallels are observable in the assemblage from the site of Nitra-Zobor dated also to the Early Hallstatt period (Danielová 2017, 72, tab. 24: 5, 6).

Jugs

The analysed assemblage did not contain any fragments which could be classified in this morphological-typological group. An exception is represented by a torso of a small jug with a fluent S-shaped profile of the body. In the upper part of the maximum diameter, it is decorated by three circular impressions arranged in a triangle next to the handle base (Pl. VI: 12). Parallels to this specific decorative motif on amphorae can be found at the grave 27 at the site of Zvolen-Balkán (Bátora 1979, obr. 10: 6) and grave 17 in Žiar nad Hronom (Trgina 1983, obr. 165: 7) with similarly smooth tectonics, which is recently dated to stage HA1 (Zachar 2010, 58; 2018, 103, 104).

Concerning the result of the pottery analysis from the Upper castle area and its chronological spectrum, the absence of the jugs at the site is not surprising and it corresponds with the statement of R. Kujovský (2018, 285), based on the study of extensive collections from numerous sites of the Lusatian culture. Jugs as a type of vessel probably were not part of regular pottery production in the Lusatian culture region in Slovakia from the end of the Late to the end of the Final Bronze Age.

Other solitary pottery forms

Unique is a rim from a vessel with an inverted neck and open mouth below which a pair of perforations for a suspension cord is situated (Fig. 3: 1). The encircling wide horizontal incisions on the neck follow the tradition of the Kyjatice culture pottery style and a more distant parallel to it can be seen e. g. on the small vessel from grave 53 in Žitavany-Kňažice, which is dated to stage HA2/HB1 (Kujovský 2018, 285, tab. XXVI: 13). Prehistoric finds of hanging vessels are – regarding their current use in religious life – primarily associated with the cult, e. g. used as censers (Benediková et al. 2016, 237).

Miniature vessels with bowl forms and varying production quality make a unique, individually undatable group. Some sturdy "miniature bowls" have a child-made appearance to their design (Fig. 3: 4-6), similar to a roughly shaped spoon-like artefact (Fig. 3: 9). Other more sophisticated artefacts (Fig. 3: 10, 11) might have been used as containers for loose commodities used in households or ritual practices. They could also be associated with lids of similar sizes with or without handles (Fig. 3: 12, 13, 15). Although their presence on the site is acknowledged, lids proved to be quite difficult to detect in the collection (Fig. 3: 14).

Strainers are rare in the collection (Fig. 3: 7, 8) as well as a fragment of a separate spout with a channel which comes from a thin-walled feeding vessel; the spout was originally applied on the maximum diameter of the vessel wall (Fig. 3: 2). The latest investigations focused on lipid traces on pottery have exactly confirmed that primarily milk was poured into these unique vessels, which have a small spout through which liquid could be poured or suckled, and they were used to feed newborns (for more information see Dunne et al. 2019, 246-248). The oldest exemplars are known from the turn of stages BD/HA1 and their occurrence continued until the Hallstatt period (Studeníková/Paulík 1983, 119). Their origin is associated with the Middle Danube region, but they were also widely used in the northern sphere of the Lusatian culture during the Late and Final Bronze Age. The spouted vessel from the Pustý hrad site is not restorable, but regarding the shape of the spout, it is dated to the turn of stages HB1/HB2 or the beginning of stage HC can be assumed, also taking the analogies from the burial ground in Ilava into consideration (Benediková et al. 2016, 236). The fragment of a spouted vessel with rows of wide horizontal incisions on the neck and perforated elbow-shaped handle seems more archaic (Fig. 3: 3); its design suggests "Kyjatice" provenance (Furmánek/Mitáš 2007, 107, obr. 8: 1; see more references Furmánek/Pavelková/Budinský-Krička 2022, 178). A similar but undecorated spouted vessel with an identically shaped handle was found in grave 1/99 at the site of Balkán, which is dated to stages HB1 – HB2 by a pin with a vase-shaped head (Mácelová 2000, 87, obr. 49: 3; Zachar 2010, 47).

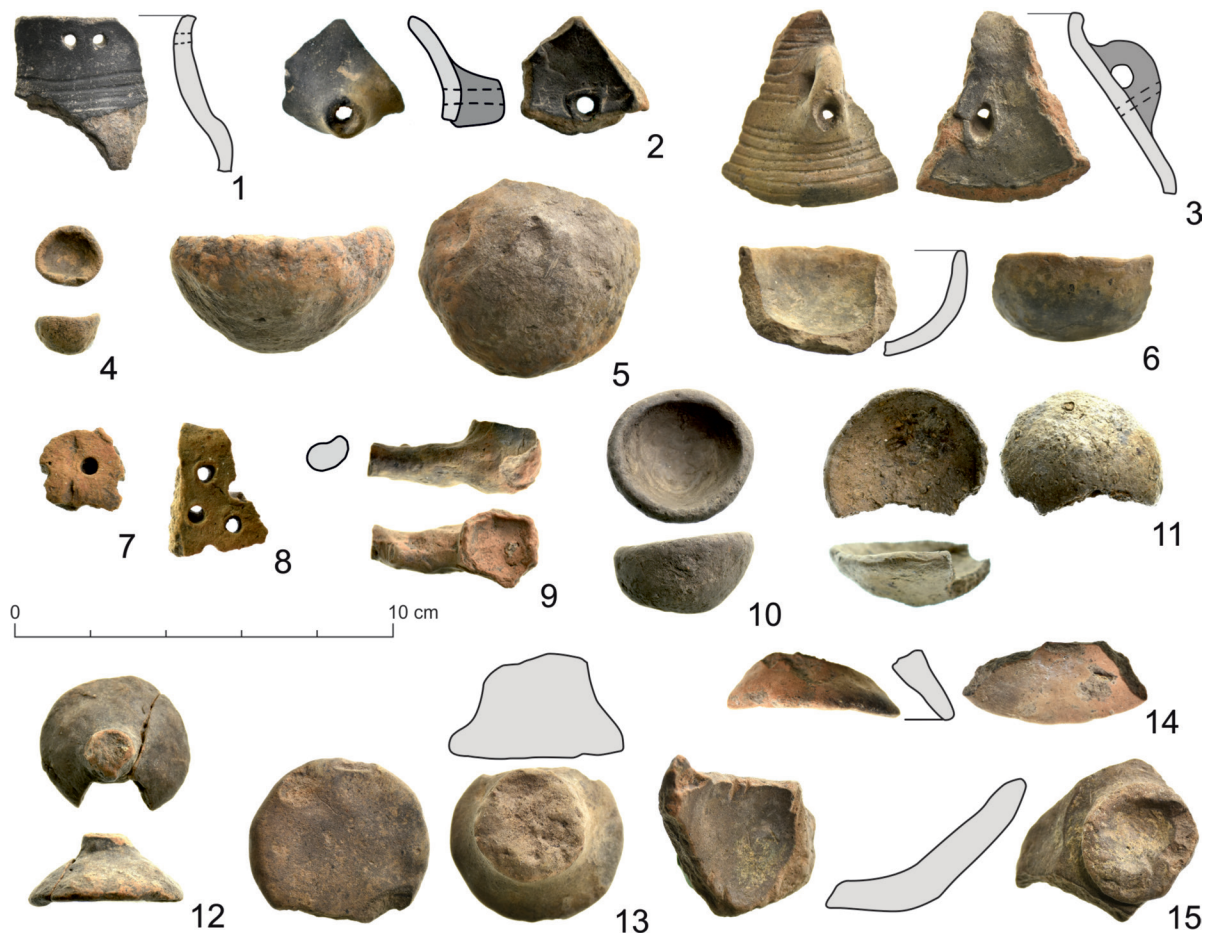


Fig. 3. Zvolen, Pustý hrad Castle, Upper castle. Other solitary pottery shapes (miniatures, spouted vessels, lids, strainers). Author: J. Godiš, N. Beljak Pažinová.

Evaluation

Based on the stylistic analysis of pottery fragments, three basic chronological stages of the site settlement can be distinguished. They cover the development from the Late Bronze Age (stage HA1) to the beginning of the Hallstatt period (stage HC1), which corresponds with the period approx. from the 12th to the 8th century BC. Classification of diagnostic finds in specific periodization stages is problematic, as many of them persist in transitional phases of stages HA2/HB1 and then HB3/HC. It means that they are chronologically undistinguishable. If there were finds specific for shorter periods in the assemblage, most of them were particularly mentioned in the analysis.

Basic phases of settlement of the Zvolen-Pustý hrad, Upper castle area in the final Bronze Age:

- phase I: **stage HA** (Late Bronze Age)
- phase II: **stage HB1-2** (Final Bronze Age)
- phase III: **stage HB3-HC** (end of the Bronze Age/beginning of the Hallstatt period)

The oldest proven traces of settlement at the hilltop of the Upper castle are recorded in the developed Late Bronze Age, which is indirectly documented mainly by pottery decorated with elements of older Middle Danube Urnfield cultures. Evidence of the earlier settlement at the site (apart from finds of the Baden culture pottery) has not been provided by the examined pottery material. However, there are several indications² that people might have moved on the hilltop above the confluence

² Oral information from V. Hanuliak and P. Mosný on alleged find of a fragment of a heart-shaped ribbed pendant at the site, which is supposed to be derived from archaic pendants of the Hodejov type, has been published (*Furmánek 1996, 127*). Here, we should prefer the opinion of *T. Zachar (2010, 6)*, who assumes that the information could have been distorted with the authors and the fragments probably came from a ribbed lunular pendant of the Piliny provenance date to the

of the Hron river and Slatina stream even earlier. The find of a small semi-globular jug with three circular impressions (Pl. VI: 12) and a sherd from an amphora (?) with a pointed knob lined with incised semicircles below (Pl. VI: 19) can be possibly classified in the transitional Piliny-Kyjatice horizon, i. e. earlier than the later part of stage HA1 at the furthest.

It follows from the above mentioned that no permanent settlement was established at the Pustý hrad site at the time of the infiltration of the Piliny culture in the southern part of the Zvolenská kotlina basin, taking place since the end of stage BC2 (Zachar/Malček 2011, 33-36, obr. 10). Regarding the current state of the research, it would be groundless to look for a relation between the known find of a bronze hoard below the rock on the western slope of the Upper castle (summarized in Beljak 2002, 37, 38), where peculiar artefacts of the Piliny provenance were present (horizon Ožd'any: BC2/BD), and the settlement on its hilltop. Establishment of the upland settlement can be, thus, safely associated with the stage HA1, when the Lusatian culture³ intensely expanded from the regions of Liptov, Turiec and upper Ponitrie to the Zvolenská kotlina basin and it was rapidly established in this territory (Kujovský 1994, 307, mapa 1; 2015, 180). Short-term coexistence of the Lusatian culture communities with the already existent enclave of the Piliny culture situated in the territory in question cannot be excluded either (Zachar/Mitáš 2012, 419-421). This statement is following the results of the analysis of the finds from the Lower castle (Beljak et al. 2014, 119) and with the oldest recorded burial horizon at the site of Zvolen-Balkán, which is dated to the turn of stages BD/HA1 or the beginning of stage HA1 (Bátora 1979, 78; Zachar 2010, 54). The continuation of the settlement at the end of the Late Bronze Age is not documented by the analysed pottery, since there are only a few sherds in the available assemblage or no diagnostic features were identified on them which could be classified exclusively in stage HA2. Most of the decorative motifs from that period occur unchanged in the following stage HB1, and that is e. g. in association with the dating of fragments from typical Kyjatice amphorae, an undesirable fact. Regarding the uninterrupted development at the adjacent necropolis at the site of Zvolen-Balkán, where the highest number of graves from stage HA has been documented (Zachar 2008, 33; 2010, 87), as well as at the settlement in the area of the Lower castle (Beljak et al. 2014, 116-119), it is almost certain that life at this site continued steadily without any remarkable changes.

Hoard of bronze swords and ingots in the territory (?) of the open lowland settlement at the site of Haputka (Kuka 1965, 783-790; Novotná 1970, 131) and metal sheet discs⁴ deposited in a vessel and discovered at the site of Krivá Púť-Balkán (Paulík 1965, 17-32; Zachar 2015, 195) can be synchronized with the first settlement stage in the Late Bronze Age (stage HA).

The second phase of settlement at the site is best distinguishable in the archaeological assemblage with its diverse range of movable finds and it roughly corresponds with the first half of the Final Bronze Age (stages HB1-HB2). The assemblage is characterized mainly by a high proportion of elements typical of the Kyjatice pottery style. Such a trend is also observable – apart from the surroundings of Zvolen – in a larger territory of the Slovenské stredohorie mountains (Bátora 1979, 78, 79; Kujovský 2005, 25; Labuda 1981, 116; Zachar 2010, 87). The prehistoric hillfort at the Pustý hrad-Upper castle site was most probably built during this phase.

A hoard of bronze axes and neck rings (incomplete?) from the site of Krivá Púť-Balkán dated to the beginning of stage HB1 (Ožd'áni/Ušiak/Zachar 2007, 174) is chronologically parallel with the second phase of the settlement at the hillfort in the Final Bronze Age. Fortification of the upland site must have been determined by the stabilization of settlement in the area and its distinctive densification on which we only have scarce information, as none of the open lowland settlements in the

Opályi horizon (stage BD). An exemplar of this type was represented in the hoard below the Upper castle and another one was found at the site of Zvolen-Borová hora (Malček 2006, tab. I: 1).

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

⁴ The bronze metal sheet disc (interpreted as a phalera or umbo of a shield) published by J. Paulík (1965, obr. 1: 1) was originally not part of the hoard, so the information is wrong. It is supposed to come from an unspecified place at the Pustý hrad site (Beljak 2002, 39).

urban area of Zvolen has been systematically excavated. Traces of them were detected only thanks to short rescue excavations resulting from the developing urbanization of the town. Inhabitants of those prehistoric settlements buried their dead at the necropolis at the site of Zvolen-Balkán, which was probably the central funeral area for a wider region in the Urnfield period (list of sites, *Zachar 2010*, 126, 127). The content of the last, third phase of the prehistoric settlement consists of finds of pottery with characteristic features of the end of the Final Bronze Age and Early Hallstatt period. For instance, there is an almost completely preserved decorated amphora with a globular body (Pl. II: 1) with several parallels found mainly at burial grounds of the Orava group⁵ of the Lusatian culture dated to the beginning of stage HC. In that period, the territory of Zvolen is exposed – apart from the little-known impulses from the north – also to the influences from the progressive east Hallstatt cultural sphere, which are well reflected by e. g. the inventory of cremation grave 121 at the site of Zvolen-Balkán (*Bátora 1979*, 74, obr. 11: 8-11; *Stegmann-Rajtár 2009*, 78, obr. 15). Traces of impregnation coating on pottery (*Bátora 1979*, 79) which sporadically occurred at the Upper castle (Pl. IV: 13; VI: 9) and are represented also on the barrel-shaped pot from the above-mentioned grave complex in Zvolen-Balkán are also considered expressions of “Hallstattization” (*Zachar 2008*, 21). In association with the beginning of the Iron Age, a certain form of collapse of settlement in this culturally indistinct environment (with the dominant Lusatian element) is supposed, to result in partial depopulation of the territory in question (*Benediková 2014*, 28, obr. 1; *Kujovský 1994*, 290). Analogous phenomenon has been recorded also in the settlement territory of the Kyjatice culture, which is a decisive evidence of the microregion of Zvolen being an integral part of the northern area of the Carpathian basin and was subject to common trends in the settlement dynamics in the development of archaeological cultures during the final phases of the Bronze Age and the Early Iron Age (*Beljak/Beljak Pažinová/Putško 2022*, 101, 102). Activity near Zvolen in the final stage of the Bronze Age (stage HB3) is documented e. g. by bronze saddle-shaped fibula found near the travertine lake at Borová hora site (*Zachar/Mitáš 2012*, 421, Abb. 2: 4, 5). A find of a unique bronze zoomorphic cheek-piece of a bridle from a horse harness dated to the turn of stages HB3/HC1 without an unidentified place of discovery allegedly comes from that area. It refers to contacts with the territory as far as the Apennine peninsula (*Zachar 2010*, 79-85, obr. 2).

The presented concept of the internal chronology of the Upper castle Bronze Age settlement can be fully synchronized with the determined phases of settlement at the Lower castle and the development of the burial ground at the site of Zvolen-Balkán. Available data do not point to any noteworthy differences in the interval of the active use of these sites, which suggests the existence of a compact and prosperous prehistoric settlement unit in the territory of Zvolen.

Discussion

Our current knowledge of the archaeological topography of the region creates a picture of the existence of two main, chronologically relatively subsequent concentrations of sites from the Urnfield period occurring in the territory of today's Zvolen (*Zachar/Mitáš 2012*, 419). One of them is represented by the extraterritorial enclave of the Piliny culture situated on the left-bank terrace of the Hron river, at the sites of Podborová and Borová hora, which belonged to the oldest horizon of settlement in the Middle and at the beginning of the Late Bronze Age (*Malček 2006*, 66, obr. 1). The second one consisted of a younger complex of settlements (Haputka) and associated burial grounds (Balkán) near the confluence of the Hron river and Slatina stream in the southwestern part of the town, i. e. in the forefield of the Lower and Upper castles of the Pustý hrad site (*Ožďáni/Ušiak/Zachar 2007*, 174, obr. 2). Its continuous development taking place at least since stage HA1 until stage HC was almost permanently formed by the symbiosis of several cultural traditions. This long-discussed phenomenon is archaeologically expressed in the extremely mixed character of pottery material which includes elements typical of the northern (Lusatian), south-eastern (late Piliny-Kyjatice) and Middle Danubian

⁵ Contacts with the Orava group of the Lusatian culture in the Early Hallstatt period are recorded e. g. in the assemblage from the sites of Nemce-Hrádok (*Kvietok 2014*, 136, tab. V: 1-3) or Detva-Kalamárka (*Šalkovský 2011*, obr. 7: 2).

(Čaka-Podolí) cultural environments (Bátora 1979, 76-78; Beljak 2002, 35; Beljak Pažinová 2018, 19-23; Malček 2008, 11; Paulík 1962, 123; Zachar/Mitáš 2012, 419-421).

The heterogeneous character of prehistoric pottery was also confirmed by the processed assemblage from the Upper castle area and it specified its content to a great extent. Contact with the south-western, i. e. Danubian cultural sphere is evident in the studied material (especially in the Late Bronze Age), although we must say that near the microregion of Zvolen, it was not as strong as the Kyjatice culture since stage HB. The arrival of these cultural spheres in the studied area might have been greatly influenced by the longer geographical distance as well as the method of their indirect intermediation or changing cultural tracing in later phases of the Bronze Age. It is suggested by the specific character of grave pottery from the sites on the upper stream of the Štiavnica and Krupinica rivers (Žiar nad Hronom, Prenčov, Medovarce, Krupina, Lišov, Domaníky, Hronský Beňadik), which are closer to the complex of the Middle Danube Urnfield cultures, as well as by part of the finds from the well-known fortified settlement on the hill of Sitno.

Debate is also inspired by the fact that the proportion of the typical pottery of the Lusatian culture in the assemblage is surprisingly not as visible as expected in this mountainous environment. This component is represented mostly by sherds with the decoration technique of channellings with the typical Lusatian motif and fragments of thin-walled profiled and semi-globular cups with rich interior decoration. Despite this, character of the pottery from the studied part of the cremation burial ground at the site of Zvolen-Balkán shows that the proportion of the "Lusatian" component⁶ was rather dominant and constant in the whole course of burying. It is now possible to state that the population living in the southern part of the Zvolenská kotlina basin in general inclined towards the "mother" Lusatian urnfield complex in terms of cultural trends. On the other hand, we must point to the fact that apart from the burial ground in Zvolen itself, no other similar sites have been largely uncovered.

The close relations between the bearers of the Lusatian and Kyjatice cultures in the territory of the Slovenské stredohorie mountains were peaceful in the final phase of the Bronze Age. This is documented by the previously often mentioned mixed inventory at the burial grounds, lowland settlements, and hillforts (Kujovský 1994, 290). Some fragments of amphorae from the Upper castle document the effort of a local potter to imitate the Kyjatice decorative style (dense horizontal grooving and fluting on vessel's neck), while many others come from high-quality exemplars. Their considerable proportion suggests that specialized potters must have been physically present at the hillfort, with sufficient know-how of precise decoration of their products with advanced technological processes used in the regions of Gemer and Novohrad further to the north. Moreover, culturally homogenous inventory of some graves with exclusive presence of derivatives (?) of Kyjatice culture pottery raises a question of possible physical infiltration of its communities (e. g. Zvolen-Balkán: grave 88, 107; Bátora 1979, obr. 11: 2-4, 12).

Conclusion

The hilltop of the Pustý hrad site, as a natural dominant above the confluence of the meandering Slatina stream and Hron river, became an important place motivating the local population to build a hillfort of supraregional importance as early as the Late Bronze Age. The strategical upland location provided perfect visual control of the southern part of the Zvolenská kotlina basin, which was then one of the key communication corridors between the Lusatian, Danubian and south-eastern cultural zones. The site belongs to the system of fortified settlements established on geographically favourable spots in the mountainous region of the Slovenské stredohorie mountains (f.e. Detva-Kalamárka, Ilija-Sitno).

The pottery finds from the site represent a common settlement assortment – utility ware (pots, storage vessels), kitchenware (amphorae, vases) and tableware (cups, bowls). In terms of stylistic

⁶ Similar situation is well illustrated by e. g. character of the material from the open settlement in Pobedim in the lower Po-važie region, which has a specific cultural habit following primarily from the Lusatian substrate influenced by traditions of the Middle Danube Urnfield cultures (Studeníková/Paulík 1983, 173-176).

analysis, it is a culturally heterogeneous pottery assemblage with “pure” forms and decorative techniques as well as specimens with visible overlapping pottery trends. The existence of the upland hillforts at the Lower and Upper castle areas of the Pustý hrad site, adjacent lowland settlements, continuously used urnfield burial ground in Zvolen and, finally, the concentration of bronze hoards prove the prominent status of the microregion of Zvolen at the end of the Bronze Age. Previous and new information confirms the hypothesis that a stable production-trade centre with a large catchment area was created in this economically attractive territory. Its population profited from the exploitation of local ore sources and the control of the crossroads of long-distance routes leading through the surrounding rugged valleys and mountain passes. Finally, it is possible that the hillfort at the Upper castle also became a local administrative centre.

Now, we still do not have enough information on where the peak of settlement activity of the Urnfield culture can be chronologically determined and whether its intensity could have been territorially changing within the complex of both hillforts at the Pustý hrad site. Confrontation of the presented findings with the results of older excavations led by V. Hanuliak as well as with further planned trenches will be an inevitable step in the future. Systematic study of hillforts from the final phases of the Bronze Age in the territory of Slovakia still belongs – due to difficult technical support and logistics – to considerably rare archaeological activities.

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RESUMÉ

Hradisko z mladšej a neskorej doby bronzovej na Pustom hrade vo Zvolene. Výpoveď keramiky

Predpoklad o existencii pravekého hradiska na Pustom hrade vo Zvolene (obr. 1) koloval v odbornej spisbe už od polovice minulého storočia (napr. *Balaša 1946*, 95; *Furmánek 1983*, 31, obr. 2: 16; *Labuda 1981*, 120). Prvý skromný výber artefaktov publikoval *V. Hanuliak* (1993, 49; 2002, 62). Jednoznačné hnutelné i nehnuteľné stopy osídlenia polohy v dobe popolnicových polí priniesol však až výskum areálu Dolného hradu v rokoch 2009 – 2014 (*Beljak et al. 2014*, 107-125). Aktuálny výskum Horného hradu realizovaný každú letnú sezónu od roku 2015 priniesol súbor nálezov z mladšej a neskorej doby bronzovej o početnosti niekoľkých desiatok tisíc kusov. Nachádzali sa v rôznom zastúpení spravidla v každej zo skúmaných sond (obr. 2). Značné zastúpenie mali v prvom rade sudkovité hrnce opatrené horizontálnymi obvodovými pretláčanými plastickými lištami (tab. IV: 1, 2, 4, 6), nechýbali však ani amfory, resp. amforovité nádoby predovšetkým s kónickým hrdlom a lievikovite nasadeným okrajom, pod ktorým sa nachádzala husto ryhovaná výzdoba. Zaujímavý je napríklad fragment hrdla amfory so vzácnymi zachovanými stopami nedokonalého prepojenia okružnej hori-

zontálnej ryhovanej výzdoby, ktorú sa hrnčiarovi očividne pri obtáčaní nádoby nepodarilo naniest' v jednej rovine (tab. I: 4). Vodorovné ryhovanie, resp. úzke žliabkovanie bolo aplikované od podhrdla až po plecía a niekedy bolo miesto pod touto plochou zdobené horizontálnymi pásmi kruhových jamiek (tab. I: 1, 7, 10, 12), krátkych ryžiek (tab. I: 11) alebo pupčekov lemovaných žliabkom (tab. I: 6, 13). Skupiny vtláčených jamiek v dolnej časti hrdla (tab. I: 13) tzv. kyjatickej amfory sa považujú za reminiscencie hrnčiarstva pilinskej kultúry. Zlomky z vydutia menších amforovitých (?) nádob zdobené šikmým žliabkovaním (tab. II: 8-11) sa spájajú s vplyvom čakanskej kultúry, ktorej prvky prenikali aj do lužickej oblasti na strednom Slovensku. Pokračovanie vývoja do záveru mladšej doby bronzovej môže dokladať fragment amfory s vodorovnými žliabkami v spodnej časti hrdla v kombinácii so zvislými širokými kanelúrami na tele (tab. II: 7). Do prvej polovice neskorej doby bronzovej je možné zaradiť zlomok z hrdla amfory s vodorovným širokým pásmo žliabkov, na ktorý sa napája rytá výzdoba motívom šrafovaného trojuholníka (tab. I: 9). K neskorému horizontu osídlenia lokality patria zlomky z amforovitých nádob, ktoré majú v mieste prechodu vydutia do hrdla krátku vodorovnú plastickú lištu s dvojitými výčnelkami na okraji. S týmito nálezmi zrejme súvisia aj črepy, na ktorých sú jednoduché horizontálne lišty a plocha pod nimi je zdobená širokými vertikálnymi žliabkami (tab. III: 9-12). Najzachovalejšiu, spoľahlivo rekonštruovateľnú amforu z celého súboru charakterizuje baňatá spodná časť, vťahnuté kónické hrdlo s otvoreným ústím a dvojica oproti sebe stojacich masívnych pásikových úch, ktoré spájajú plecía s hrdlom (tab. II: 1). V mieste rozhrania tela od spodnej časti je aplikovaný vodorovný pás troch paralelných žliabkov a pod nimi sú na vydutí ďalšie šikmo rozložené zväzky širších rýh.

K stolovej keramike patria aj šálky, džbánky a misy, ktorých vnútorná strana bola zdobená rôznymi formami vhlbenej ornamentiky (tab. VI: 14-23). Výzdoba bola často ovplyvnená štýlom kyjatickej kultúry v podobe pásov šikmých zalomených línií (tab. VI: 17, 18, 20). Typické je napr. vyobrazenie okružného pásu rýh okolo vypukliny dna, na ktorý sa kolmo pripínajú skupinky krátkych rýh (tab. VI: 16). Pozoruhodné je torzo malého džbánu s plynulou esovitou profiláciou tela, pričom na hornej časti baňatého vydutia je vedľa pri koreni ucha zdobené trojicou kruhových jamiek usporiadaných do trojuholníka (tab. VI: 12).

Kónické (?) misy s mierne zatiahnutým ústím a šikmo tordovaným (t.j. plasticky stáčaným) okrajom (tab. VI: 1, 2) predstavujú starší horizont osídlenia. K tomuto časovému horizontu patria aj zlomky okrajov miskovitých nádob s viacnásobne horizontálne hraneným, resp. fazetovaným okrajom (tab. VI: 3, 8), ktorých výskyt je typický pre druhú polovicu mladšej doby bronzovej. Neskorú dobu bronzovú zastupuje rekonštruovateľná väčšia misa s vťahnutým hrdlom, ktorej vydutie je zdobené hustým súvislým pásmo šikmých rýh, zatiaľ čo nad miestom lomu sú štyri vodorovné okružné ryté línie (tab. VI: 5). Na vnútornej strane bola aplikovaná girlandovitá výzdoba v širokých pásoch.

Hrubú sídliskovú keramiku reprezentujú popri robustných okrajoch zásobnicových nádob na uskladnenie potravín (tab. V: 1, 2) aj hrnce s masívnymi pásikovými uchami (tab. IV: 9-12). Vyskytli sa aj súdkovité hrnce s masívnymi horizontálnymi jazykovitými výčnelkami pod okrajom, ktoré slúžili ako stabilné držadlá pri ich prenášaní (tab. V: 3-10). Zriedkavo sa v analyzovanom súbore vyskytli aj fragmenty sacích nádobiek, cedidiel a pokrievok (obr. 3).

Na základe analýzy materiálu je možné vyčleniť tri základné fázy osídlenia pustohradného kopca v dobe bronzovej. Tie 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 trvaniu približne od 12. až po 8. storočie pred Kr. Zatiaľ sa na Pustom hrade nepodarilo potvrdiť stále sídlisko v čase prenikania pilinskej kultúry do južnej časti Zvolenskej kotliny, ku ktorému dochádzalo už od záveru stupňa BC2 (*Zachar/Malček 2011, 33-36, obr. 10*). Vznik výšinej osady na pustohradnom kopci je možné bezpečne spájať až so stupňom HA1, kedy došlo k intenzívnej expanzii lužickej kultúry z regiónu Liptova, Turca a horného Ponitria do Zvolenskej kotliny a jej rýchlemu etablovaniu sa v tomto priestore (*Kujovský 1994, 307, mapa 1; 2015, 180; Zachar/Malček 2011, 36, 37; Beljak Pažinová 2018, 19; tam ďalšia literatúra*). Nie je pritom vylúčené ani krátkodobé spolužitie nositeľov lužickej kultúry s už existujúcou enklávou pilinskej kultúry (*Zachar/Mitáš 2012, 419-421*), na čo poukázali aj výsledky analýzy materiálu z Dolného hradu (*Beljak et al. 2014, 119*). Na Pustom hrade dominuje

predovšetkým obdobie spoločného vystupovania predmetov lužickej kultúry s nálezmi, ktoré sú typické pre kyjatickú kultúru, resp. charakteristická je vysoká miera elementov typických pre keramický štýl kyjatickej kultúry. Počas tejto fázy s najväčšou pravdepodobnosťou došlo aj k vybudovaniu pravekej fortifikácie na Hornom hrade. Výrazný kolaps tohto osídlenia zaznamenávame v úplnom závere doby bronzovej (prelom stupňov HB a HC), keď kríza osídlenia (depopulácia?) zasiahla rozsiahle územia severnej časti Karpatskej kotliny.

Na základe zistených skutočností je nepochybné, že návršie Pustého hradu ako prírodná dominanta nad sútokom meandrujúcich riek Slatiny a Hrona sa už v dobe bronzovej stalo dôležitým miestom, ktoré podnietilo miestne populácie k tomu, aby na ňom vybudovali hradisko nadregionálneho významu. Strategická výšinná poloha poskytovala skvelú vizuálnu kontrolu nad južnou časťou Zvolenskej kotliny, ktorá bola v tomto období jedným z kľúčových komunikačných koridorov medzi lužickým, podunajským a juhovýchodným kultúrnym okruhom. Lokalita zrejme patrila k sústave opevnených sídlisk zakladaných na geograficky výhodne situovaných bodoch v hornatom regióne Slovenského stredohoria (podobne ako Detva-Kalamárka, Ilija-Sitno).

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Obr. 2. Zvolen, Pustý hrad, Horný hrad. Hustota keramických fragmentov z mladšej a neskoršej doby bronzovej v jednotlivých výskumných sondách. Autor: J. Godiš, N. Beljak Pažinová.

Obr. 3. Zvolen, Pustý hrad, Horný hrad. Ostatné ojedinelé keramické tvary (miniatúrne nádoby, sacie nádoby, pokrievky, cedidlá). Autor: J. Godiš, N. Beljak Pažinová.

Tab. I. Zvolen, Pustý hrad, Horný hrad. Fragменты амфор и амфоровитых сосудов. Автор: J. Godiš, N. Beljak Pažinová.

Tab. II. Zvolen, Pustý hrad, Horný hrad. Fragменты амфор и амфоровитых сосудов. Автор: J. Godiš, N. Beljak Pažinová.

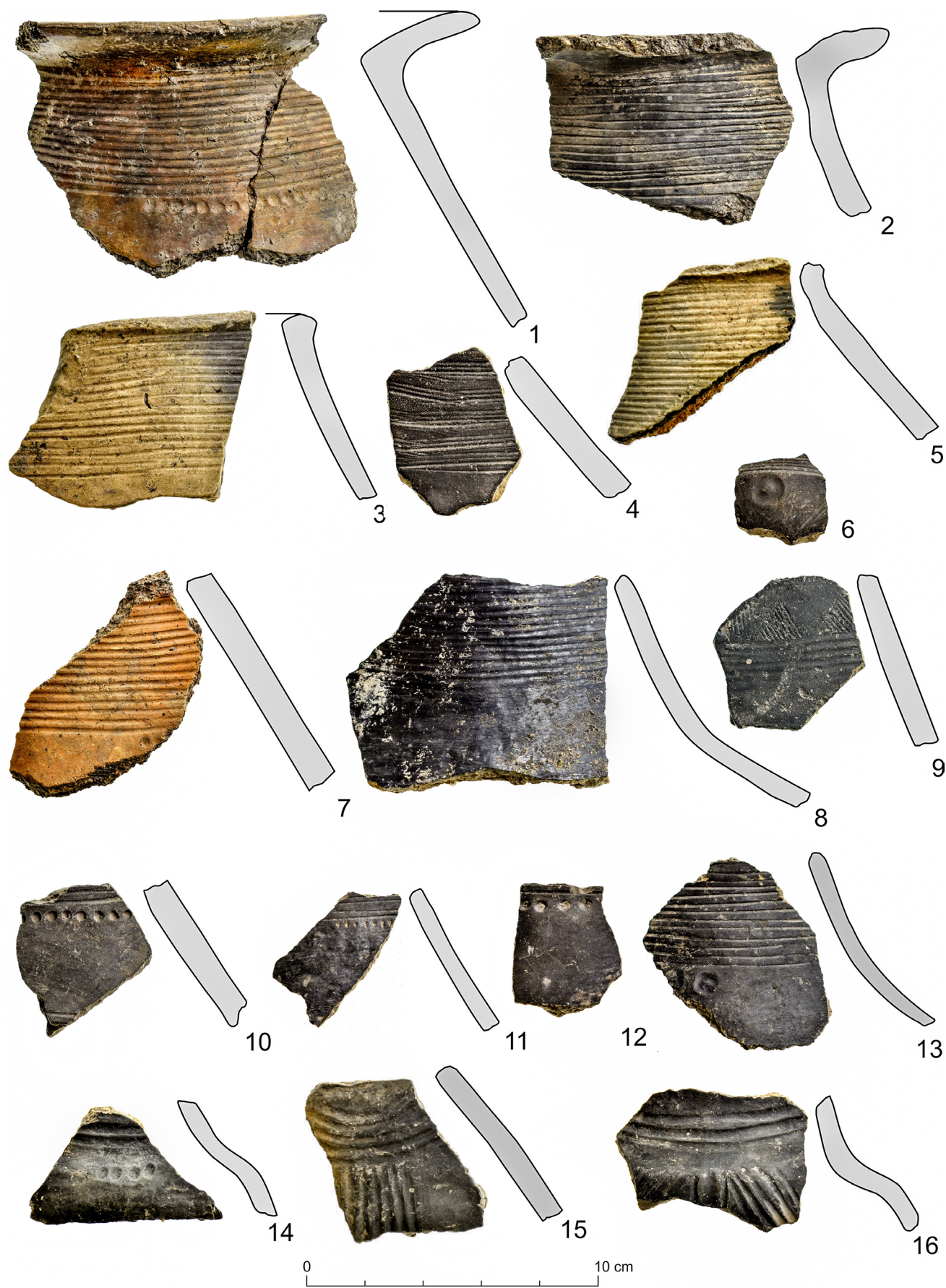
Tab. III. Zvolen, Pustý hrad, Horný hrad. Fragменты амфор и амфоровитых сосудов. Автор: J. Godiš, N. Beljak Pažinová.

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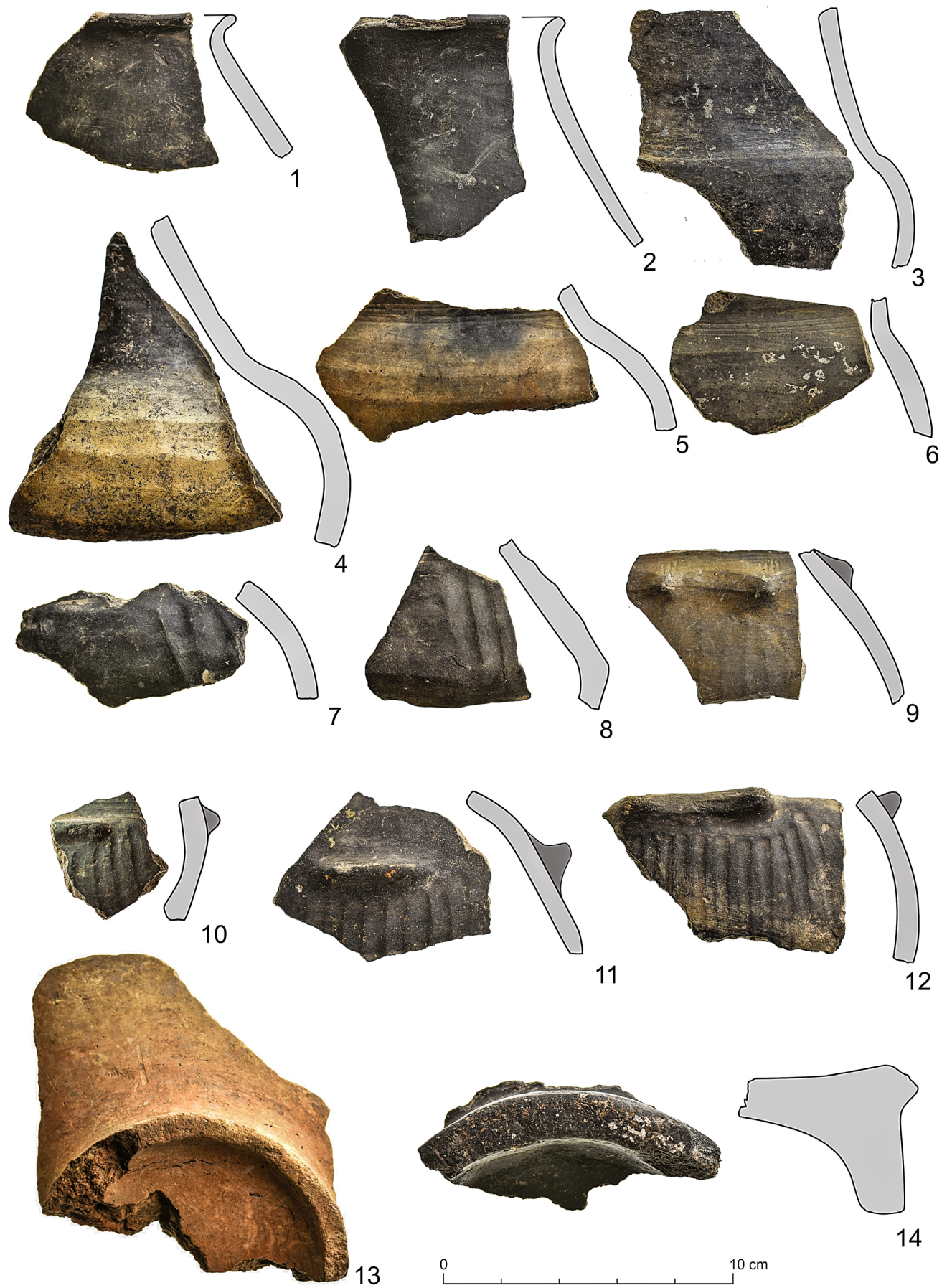
Preklad anglického textu V. Tejbusová



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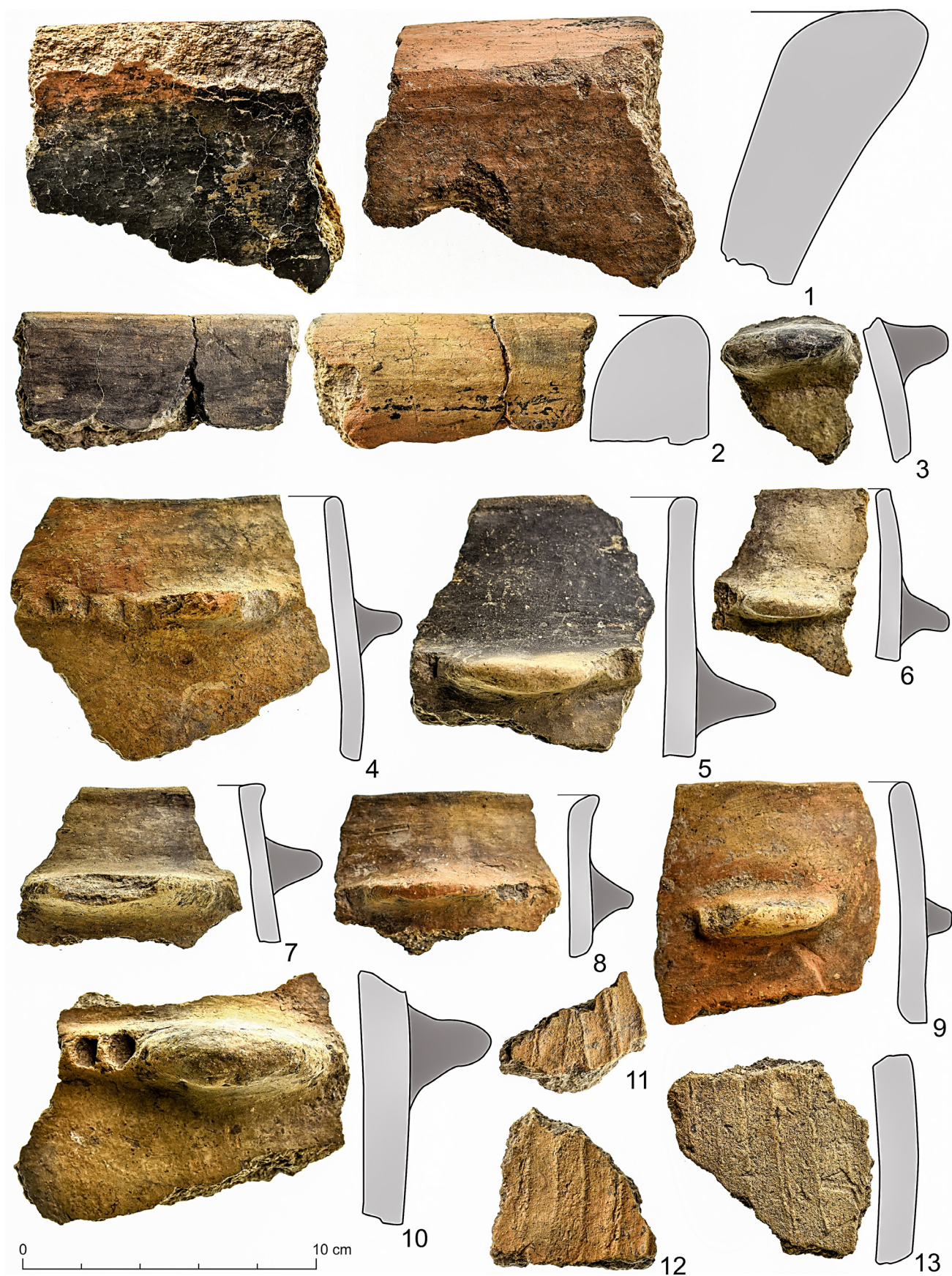
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Pl. III. Zoolen, Pustý hrad Castle, Upper castle. Fragments of amphorae and vases. Author: J. Godiš, N. Beljak Pažinová.



Pl. IV. Zvolen, Pustý hrad Castle, Upper castle. Fragments of pots. Author: J. Godiš, N. Beljak Pažinová.



Pl. V. Zoolen, Pustý hrad Castle, Upper castle. Fragments of pots. Author: J. Godiš, N. Beljak Pažinová.



Pl. VI. Zoolen, Pustý hrad Castle, Upper castle. Fragments of bowls, cups, and jugs. Author: J. Godiš, N. Beljak Pažinová.