

GLASS BEADS FROM THE SETTLEMENT OF THE PÚCHOV CULTURE AT LIPTOVSKÁ SIELNICA-LIPTOVSKÁ MARA, SITE III¹

Miroslava Kissová



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This study presents a typological and contextual analysis of glass beads discovered in the Púchov culture settlement at Liptovská Sielnica-Liptovská Mara, Site III. Compared to other contemporaneous sites in northern and northwestern Slovakia, this site features a significant and typologically diverse assemblage. The glass beads can be divided into three primary groups: monochrome beads in shades of blue, polychrome specimens decorated with eyes, waves, and spiral motifs, and ring beads produced using the same technique as glass bracelets. In addition to the glass beads, amber and clay specimens have also been found, broadening our understanding of the variety of decorative elements used in local clothing. Chronologically, the assemblage spans the LTB2–LTB2/C1 stages (pre-Púchov horizon) to the B2/C1 phase of the Roman period, which corresponds to the end of the Púchov culture. As there are no burials in the study area, the presence of beads in settlement contexts provides rare information about costume decorations that would otherwise remain unknown due to the lack of burial evidence. The quantity and variability of glass beads from Settlement III enhance our understanding of distribution networks and cultural connections between populations in the Middle and Late La Tène and Early Roman periods.

INTRODUCTION

Beads represent one of the oldest forms of jewellery. They were made of various materials in numerous shapes and colours, often featuring various decorations. In Slovakia, the earliest glass beads date to the Middle Bronze Age (*Furmánek/Horňák/Mitáš* 2009, 79). Their quantity varied during the following periods (*Benediková et al.* 2021, 4, 5). An increased occurrence of glass beads was documented in settlements and burial sites from the Early Iron Age and the beginning of the La Tène period (*Venclová* 2005, 29–35). Technological advances in the La Tène period led to an increase in the popularity and broader distribution of glass jewellery, which became a widely sought-after commodity across La Tène Europe. The La Tène cultural milieu is typical for the frequent occurrence of small glass artefacts. These artefacts are not limited to the central area of the La Tène world, but they are also found in peripheral zones situated in the western Carpathian Mountains (e.g., in the Tyniec group: *Grygiel* 2022, 70–79). One such peripheral region is the mountainous area of northern and northwestern Slovakia, occupied by the Púchov culture populations during the Late La Tène and Early Roman periods. In the Púchov culture, glass beads are known exclusively from settlements. There is no evidence of standard burials of the local population. This scarcity of evidence spans a long period, from the Late Hallstatt/Early La Tène transition until the Early Middle Ages.

So far, one of the largest bead collections has been found at the central site of the Púchov culture, in the settlement agglomeration of Liptovská Sielnica-Liptovská Mara (Liptovský Mikuláš dist., SK). This well-known site complex composes of the Havránok hillfort and six associated open settlements

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in its hinterland (Fig. 1). Numerous artefacts from these sites have been recovered, which have provided a clear picture of the cultural and chronological contexts in the Liptov region and the wider geographical area of the Western Carpathians (*Pieta* 1982; 1996a; 2000). Nevertheless, some of the findings have not yet been summarised. This study focuses on one of the smallest, yet significant elements of costume – beads, particularly those discovered during the rescue excavations in 1968–1974 at Settlement III, located at the southeastern foot of the Havránok hillfort. Considering the period of existence of Settlement III, the article deals with material from both the La Tène period (pre-Púchov horizon and the La Tène phase of the Púchov culture) and the Early Roman period (the Roman phase of the Púchov culture). In addition to the 16 glass beads, seven amber beads, four worked amber lumps, and one clay bead were found in Settlement III. Amber artefacts from the Púchov culture contexts have already been evaluated (*Švihurová* 2015) and are therefore not the focus of this paper.

The classification of glass beads for the La Tène period was based on the typology suggested by *N. Venclová* (1990), supplemented by new types (*Čížmářová* 2022; *Venclová* 2016). The most recent study of Celtic glass jewellery in Slovakia was conducted by *G. Březinová* (2018). For beads from Roman period contexts, the typological system of *M. Tempelmann-Maczyńska* (1985) was applied. This classification system was further categorised into groups and types based on shape, colour, and decoration (in text as T-M Group/Type). Glass beads of the Roman provincial origin were classified using the typological scheme by *E. Riha* (1990), based on the finds discovered at Roman provincial sites such as Augst and Kaiseraugst.

CULTURAL AND SPATIAL EVALUATION OF FINDS

In total, thirteen complete pieces and two fragmentary glass beads were found at Settlement III at Liptovská Sielnica-Liptovská Mara. The assemblage also includes a fragment of a ring bead, representing the full spectrum of glass jewellery at the site. No other glass artefacts were identified in the settlement layers.²

1. Rounded bead, complete, dark-blue glass. D. 10 mm, d. 4 mm, H. 5.5 mm, 22/68 (Fig. 2: 12).
2. Rounded bead, complete, deformed by fire. D. 17 mm, d. 3 mm, H. 10 mm, 38/68 (Fig. 2: 13).
3. Low barrel-shaped bead, complete, cobalt-blue glass. Decoration: traces of yellow glass in spirals. D. 14.5 mm, d. 4 mm, H. 9 mm, 3/69 (Fig. 2: 6).
4. Three-horned bead, complete, white translucent glass. Decoration: blue and yellow eyes. D. 18 mm, d. 7.5 mm, H. 11 mm, 7/69 (Fig. 2: 5).
5. Asymmetrical rounded bead, complete, light-green glass. Decoration: white wavy line. D. 14 mm, d. 4 mm, H. 7 mm, 14/69 (Fig. 2: 4).
6. Barrel-shaped bead, fragment, light-blue to turquoise glass. Decoration: minimum three two-layered blue-white eyes. D. 12 mm, d. 4.5 mm, H. 9.5 mm, 45/69 (Fig. 2: 1).
7. Biconical bead, complete, light-blue glass. D. 6 mm, d. 2 mm, H. 3.5 mm, 47/69 (Fig. 2: 11).
8. Annular bead, complete, cobalt-blue glass. D. 14 mm, d. 6 mm, H. 5 mm, 8/70 (Fig. 2: 9).
9. Barrel-shaped bead, complete, dark-blue glass. D. 20 mm, d. 9 mm, H. 10 mm, 12/70 (Fig. 2: 10).
10. Ribbed bead, fragment, cobalt-blue glass. D. unknown, d. unknown, H. 15 mm, 13/70 (Fig. 2: 8).
11. Ring bead, fragment, dark-blue glass. Decoration: yellow whirl design. D. 26 mm, d. 9 mm, H. 10 mm, 93/71 (Fig. 2: 15).
12. Bead, fragments, light-blue glass. Non-measurable, 58/72.
13. Barrel-shaped bead, complete, cobalt-blue opaque glass. Decoration: two-layered yellow-blue eyes in two alternating rows. D. 11 mm, d. 4.5 mm, H. 9 mm, 2/73 (Fig. 2: 2).
14. Barrel-shaped bead, complete, multicoloured whirl design. D. 15 mm, d. 4.5 mm, H. 14 mm, 7/73 (Fig. 2: 7).
15. Barrel-shaped bead, complete, yellow opaque glass. Decoration: three-layered blue-white eyes in three pairs. D. 12.5 mm, d. 5 mm, H. 10 mm, 25/73 (Fig. 2: 3).
16. Flat spindle-shaped bead, complete, light-green translucent glass. D. 24 mm, d. 4.2 mm, H. 7.5 mm, 35/73 (Fig. 2: 14).

The glass beads from Settlement III at Liptovská Sielnica-Liptovská Mara can be divided into three main groups. Beads made of monochrome glass were found in six different forms and sizes. Rounded or annular blue glass beads fall within a long-standing production tradition. Smaller pieces include undecorated rounded beads (*Venclová* types 113–123), which most often had dimensions ranging between 4 and 9 mm, and occasionally between 14 and 18 mm (*Čížmářová* 2022, 148; *Venclová* 2016, 25). A repre-

² The explanatory notes for the bead inventory: D. – maximum diameter of the bead; d. – diameter of the perforation; H. – height of the bead; xx/yy – inventory number of the small object/excavation year.



Fig. 1. Settlement agglomeration at Liptovská Sielnica-Liptovská Mara with marked settlement sites. I – Havránok hill-fort; II – Rybníky; III – Za panskými humny; IV – Vlašky; V – Bobrovník; VI – Bobrovník-Dĺžiny; VII – Kamenica.

sentative specimen with a body diameter of 10 mm was found in a mixed cultural layer in Sector VI/68, alongside the finds from the Late La Tène and Early Roman periods, making its exact dating uncertain (Fig. 2: 12). In the Central Danube region, blue rounded beads similar to Venclová types 117 and 119 occur from the Late Hallstatt period through to the Late La Tène, and possibly into the Roman period. These types became especially common from the LTB2 stage onwards, with numerous parallels known from burial sites (Venclová 1990; 47–50; 2016; 24, 25). A unique collection of over 600 pieces of finished beads of the Venclová type 117, along with dozens of semi-products and production waste, has been documented at Němčice nad Hanou (Prostějov dist., CZ), where a local glassworking was established during the period of the greatest expansion of the settlement centre, i.e. at the latest from LTC1 to LTC2 (Čížmář *et al.* 2024, 298, 302, 303; Venclová 2016, 25; Venclová *et al.* 2009, 384–387).

A slightly larger cobalt-blue annular bead, similar in shape to Venclová type 155, with a body diameter of 14 mm, was found in the lining of posthole K1_XIII/70 at Settlement III at Liptovská Sielnica-Liptovská Mara (Fig. 2: 9). There was a significant concentration of pottery from the La Tène–Roman horizon in the vicinity of this find. As with Venclová type 117, the production of low annular beads has been documented at Němčice (Prostějov dist., CZ). Beads of type 155 were produced by winding glass fibre multiple times around a core to form a spiral, which was subsequently divided and finished into individual beads (Venclová 1990, 56; 2016, 26, 27, fig. 41). Most specimens measure from 5 to 13 mm in diameter, most commonly 8 to 10 mm (Venclová 1990, 56). Such a semi-product was probably found in the sacrificial area at Udiča-Prosné (Považská Bystrica dist., SK; Pieta 1982, pl. XXXVIII: 11, 12). More recent finds of finished pieces include specimens from the Pod Rohačkou site at Ploštín (Liptovský Mikuláš dist., SK; Furman/Zachar/Felcan 2022) and the Dúbravy I and II sites at Žilina-Bánová (Žilina dist., SK), both of which were discovered through surface prospection (Both/Staneková 2024). In their vicinity at the Dúbravy site, a cobalt-blue bead decorated with a white wave, similar to Venclová type 722, was also discovered. The relatively frequent occurrence of cobalt-blue glass beads of annular shape is also indicated in the Spiš region (Březinová/Soják 2005, 75; Soják 2000, 116, fig. 76: 6; 2002, 183, 184, fig. 148: 16, 17). Such



Fig. 2. Glass beads from Settlement III at Liptovská Sielnica-Liptovská Mara. Photo by M. KISSOVÁ; drawing by A. BALOGOVÁ, J. HRITZOVÁ.

beads also appear within the territory of the Tyniec group (Grygiel 2022, 70–72), on the northern side of the Western Carpathians, indicating broader regional distribution. A relatively large assemblage of these glass beads with traces of the making technology was discovered at a settlement at Podłęże near Kraków (Lesser Poland Voivodeship, PL; Dzięgielewski/Purowski 2011).

The third monochrome bead of dark-blue glass, with a body diameter of 20 mm, from Settlement III at Liptovská Sielnica-Liptovská Mara may be classified as a barrel-shaped bead of Venclová types 137–142 (Fig. 2: 10). Like the annular and rounded forms, the barrel-shaped beads are not chronologically significant. They did not occur in large numbers at La Tène sites. They appeared at the Early Iron Age burials and settlements from the La Tène period, continuing into the Roman period (Čižmářová 2022, 150; Venclová 1990, 51, 52; 2016, 26). The bead from Settlement III at Liptovská Sielnica-Liptovská Mara was discovered just above the bedrock in Sector XI-A/70, near atypical pottery. It can likely be dated to the Middle to Late La Tène period.

Small biconical beads of Venclová types 301 to 305, represented in Settlement III at Liptovská Sielnica-Liptovská Mara by a light-blue specimen with a body diameter of 6 mm (Fig. 2: 11) originate from an earlier period. Central Europe represents the periphery of their occurrence. These types have been known in southeastern Europe, where they have been present since the 6th c. BC (Čižmářová 2022, 155; Venclová 2015, 144), originating in the Black Sea region or several workshops within the wider Mediterranean area (Venclová 1990, 59). In the Central Danube region, they occurred in graves as part of necklaces alongside amphora pendants in LTB–LTC1 contexts. At the burial site at Dubník (Nové Zámky dist., SK), grave 21 contained multiple biconical glass beads of various colours, together with amphora pendants, exotic small drilled red corals, and amber. It is assumed that the deceased was not of local origin (Bujna 2002, 27, fig. 1). Similar necklaces composed of small biconical beads were also discovered in Moravia and Bohemia. New finds in Moravia demonstrate that the beads were distributed during the LTB–LTC1 stages (Čižmářová 2022, 154, 155). A parallel from sites in northern and northwestern Slovakia is not yet known. The bead from Settlement III at Liptovská Sielnica-Liptovská Mara was found in a mixed Middle/Late La Tène cultural layer in Sector VII/68, with no possibility of more accurate dating.

A fragment of a barrel-shaped, cobalt-blue glass bead divided by vertical ribs was also found at Settlement III at Liptovská Sielnica-Liptovská Mara (Fig. 2: 8). Such shapes are referred to as melon-shaped beads. Similar artefacts date back to the Hallstatt period and are most frequently found in the Ha D2/D3–LTA stages, with these specimens surviving up to the LTB2 stage (Venclová 1990, 59–62; 2015, 144, 145). However, they were especially numerous in the Roman period (Tempelmann-Maczyńska 1985, 39–45, T-M Group XVIII, Type 162). The higher number of vertical ribs distinguishes beads dated to the Roman period from earlier specimens divided by five to nine ribs, most often seven (Venclová 1990, 60). The specimen from Liptovská Sielnica-Liptovská Mara, Settlement III is preserved in fragmentary condition, but the distribution of ribs suggests their higher number. Dating to the Early Roman period is also suggested by accompanying pottery finds from the cultural layer in Sector XV-A/70. Melon-shaped beads were widespread among Germanic populations in the Central Danube region. The cobalt-blue colour of the bead from Settlement III categorises it as T-M Type 162 of Group XVIII. Such beads were widespread mainly in the territories occupied by the Przeworsk and Wielbark cultures, as well as in the West Baltic area, from the B1 phase of the Roman period until its end (Tempelmann-Maczyńska 1985, 39–41). A rare variant with ten vertical ribs was discovered at Žehra (Spišská Nová Ves dist., SK; Březinová/Soják 2005, 75, fig. 3: 8).

The group of spirally wound glass beads includes a large, flat, spindle-shaped bead of T-M type 193/Riha type 11.24 (also known as *Knopfförmige Perlen vom Typ Kempten*). This is the only item of this group of beads found at Settlement III at Liptovská Sielnica-Liptovská Mara. It has a slightly asymmetrical conical form and is made of translucent light-green glass (Fig. 2: 14). Similar beads were widespread throughout the ancient world from the 1st c. AD onwards (Riha 1990, 90). In the Barbarian cultural milieu, they represent rare finds indicating contact with the Roman provincial world. Until now, no parallels have been recorded in Púchov culture contexts. Seven examples are known from sites in southwestern and central Slovakia (Haevernick 1972, 143, nr. 74, 78, 79; Šalkovský 2002, 119, fig. 18: 8; Varsik 2011, 126, 127, fig. 64: 2, 3; Varsik/Illášová/Štubňa 2021, 78, fig. 2: 20). Three more were found in Moravia (Zeman 2017, 129, fig. 36: 1–3), and one in eastern Slovakia (Lamiová-Schmiedlová/Luštíková/Tomášová 2017, 25, pl. XXXVIII: 1). In Bratislava-Trnávka (Bratislava dist., SK), beads of this type were discovered in Feature 33/34/53 and dated *post quem* by the presence of an Aurelian coin (270–275 AD; Varsik 2011, 126, 127). Another complete specimen from pit house 289 at Cífer-Pác (Trnava dist., SK) was found in a context dated to the last two-thirds of the 3rd c. AD (Varsik/Illášová/Štubňa 2021, 78). The glass bead from the Kalamárka hillfort at Detva (Detva

dist., SK) is associated with a late Suebi settlement dated to the end of the Roman period (Šalkovský 2002, 119), the bead from Ostrovany (Sabinov dist., SK) is also related to a settlement from the same period (Lamiová-Schmiedlová/Lušítková/Tomášová 2017, 25). In the graves of the Wielbark culture, this type of bead occurred in Roman stages B2 and C1 (Tempelmann-Maczyńska 1985, 47). The specimen from Settlement III at Liptovská Sielnica-Liptovská Mara was found in an earlier context dated to phase B1b–c of the Roman period, together with copper alloy brooches of Almgren 68 and Okorág/Jobst I.3/Ettlinger 13.7 types, as well as a copper alloy pin with a small pointed head and a hanging eye (Pieta 1982, pl. VIII: 13; XVI: 2). Brooches of Almgren type 68 are common across sites in northern and northwestern Slovakia, representing a typical dating marker for the Early Roman phase B1b–c, and eventually the beginning of stage B2 (Švihurová 2017, fig. 47). In contrast, Okorág/Jobst I.3/Ettlinger 13.7 brooches are found less frequently in the Barbaricum. They originate in the southern part of the province of Pannonia and the province of Dacia, where they occurred from the second quarter to the end of the 1st c. AD (Koščević 1980, 20–23; Pieta 1982, 42). Finds of these brooches from Gerulata (Rusovce, Bratislava dist., SK) are mainly dated to the second half of the 1st c. AD, especially the Flavian period (Varsik 1996, 551). Another case of this brooch type comes from northern Slovakia, from the Pod Hradiskom site at Spišské Tomášovce (Spišská Nová Ves dist., SK). It was discovered in settlement Feature 183/84 together with a brooch of Almgren type 45/47 (Chropovský 1985, 100).

In terms of the function of spiral wound glass beads, several considerations arise. For example, a pair of transparent blue glass beads from Bratislava-Trnávka was found together with bronze rivets with hollow hemispherical heads and wood remains (Varsik 2011, 126, 127, fig. 64: 2, 3). The author considers whether these beads may have served as spindle whorls on a wooden spindle, into whose shaft they were inserted using the rivets. Th. E. Haevernick (1972, 136–138, fig. 1; 2) attributed them the function of heads of long decorative pins, known as the Kempton type. These pins were produced in the Roman provincial regions in the 1st c. AD and were worn until the end of the 4th c. Their origin is sought in the northern Adriatic region (Riha 1990, 90). M. Tempelmann-Maczyńska (1985, 45–47) suggests that they were used as traditional jewellery or as part of a necklace.

The second major group of glass beads identified at Settlement III at Liptovská Sielnica-Liptovská Mara includes specimens decorated with eyes. N. Venclová (1990, tab. 8; 9) classified these beads into several types based on the colour and shape of the matrix, the number and placement of the eyes, and the number of their layers. It is represented by a cobalt-blue opaque glass bead with blue eyes in yellow fields, in two alternating rows (Venclová type 553; Fig. 2: 2), a yellow opaque glass bead with three pairs of blue-white three-layered eyes (Fig. 2: 3), a light-blue to turquoise glass bead with two-layered blue eyes on a white field (Venclová type 555, Fig. 2: 1), and a three-horned bead made of white translucent glass with blue-yellow eyes in the corners (Fig. 2: 5). This last bead was found together with a dark-blue bead bearing traces of yellow in a spiral decoration, displaying similarities to Venclová type 419 (Fig. 2: 6). The characteristic of the group of glass beads with layered eyes is similar for each type. They were produced using the core winding technique (for the production process, see Kunter 1995, 91–102). These beads were most commonly cylindrical, barrel-shaped, or rounded in shape, but often were very irregular. The eyes were usually asymmetrical (Čižmářová 2022, 164). These glass beads were highly popular and widely distributed across Europe and as far as the Middle East. It is believed that they originated in the Mediterranean region and Slovenia. Chronologically, they were most common in the transition period from the Late Hallstatt to La Tène (Ha D2–LTA), but relatively large numbers also appeared later in funerary, settlement, and oppidum contexts until the end of the Iron Age (Venclová 1990, 74–85, tab. 12; 13). Their frequency and visual symbolism are associated with a possible apotropaic function. In Bohemia, they were found at dozens of sites (Venclová 1990, 68–85), while in Moravia and Slovakia, they are far less frequent (Březinová 2018, 22–25, tab. 1; Čižmářová 2022, 163, 164; Osváth et al. 2018, fig. 1; Venclová 1990, 69–85). Isolated finds also appear in the Tyniec group in Poland (Grygiel 2022, 72, 73) or in contexts associated with the Przeworsk and Oksywie cultures (Bochnak 2014, 54, 55, list III.9). Chronologically, most glass beads with eyes can be dated to the period from the late Hallstatt to stages LTB–LTC1 (Březinová 2018, 22; Čižmářová 2022, 164), with only sporadic examples coming from later settlement contexts (Březinová 2018, pl. II: 22–25; IV: 28, 29; tab. 1). A small number of eye beads are also known from the studied area of northern and northwestern Slovakia, but unfortunately, many were found during surface prospections and can only be roughly dated to the La Tène period. One such item is a yellow (ochre) glass bead decorated with white and blue eyes found at Mošovce (Turčianske Teplice dist., SK; Kraskovská 1947, 112; Venclová 1990, 181). Several other beads were discovered during surveys in the Spiš region (Březinová 2018, pl. IV; Březinová/Soják 2005, 74, fig. 3). Other than a rough dating to the Middle to Late La Tène pe-

riod, it was not possible in the case of the specimen from Settlement III at Liptovská Sielnica-Liptovská Mara (Fig. 2: 3). This specimen was discovered in a sector, but its original context is unknown. Within the broader Liptovská Sielnica-Liptovská Mara settlement complex, two well-documented pieces (Venclová types 519 and 539) were found in the Late La Tène cultural layers of Settlement II (*Pieta* 2000, fig. 5: 30, 31).

A low, cylindrical bead made of opaque light-blue to turquoise glass, decorated with at least three double-layered blue-white stratified eyes (Fig. 2: 1), was found in a context that can be accurately dated. It was discovered together with a fragment of a belt hook clasp in the shape of a stylized horse's head in Sector IX-A/69 (*Pieta* 1982, pl. XI: 30). The body of the belt clasp was not preserved. Belt clasps in the shape of stylized animal heads have been found in graves dated to the LTC1 stage in southwestern Slovakia. Depending on the design of the belt clasp body, these belts date to the LTC2 stage as well (*Bujna* 1982, 337; 2011, 129). The turquoise bead with eyes from Settlement III at Liptovská Sielnica-Liptovská Mara is very similar to the Venclová type 555, defined according to a find from Němčice (*Venclová* 2015, 145, tab. 5: 1). The origin of these beads has been estimated to be in workshops on the island of Rhodes (*Venclová* 2015, 145, 146). They may be evidence of long-distance trade and contacts with the Mediterranean. A similar find was discovered at Settlement II at Liptovská Sielnica-Liptovská Mara.³ Several blue glass beads with white-blue double-layer eyes were also found at the Pod Hradiskom settlement at Spišský Hrhov (Levoča dist., SK), dated to the pre-Púchov horizon (*Soják/Fecko* 2013, fig. 11). In southwestern Slovakia, a comparable bead was discovered in a child's grave 64 at Palárikovo (Nové Zámky dist.), dated to the LTC1 stage (*Gardelková-Vrtelová/Beňadik* 2021, pl. LXIX; *Pieta* 2010, fig. 22: 9).

Another group of beads from Settlement III at Liptovská Sielnica-Liptovská Mara consists of specimens decorated with spiral motifs. One specimen is a low, cylindrical bead made of cobalt-blue glass with traces of yellow opaque glass in spirals, similar to Venclová type 419 (Fig. 2: 6). It was found together with a three-horned glass bead made of translucent glass with blue-yellow eyes in the corners (Fig. 2: 5), and pottery dated to the end of the La Tène period. Both items were situated in the stone lining of the posthole in Sector VII-A/68. Spiral decorations on glass beads first occurred during the Late Bronze Age and continued into the Early Iron Age. A spiral-decorated bead of uncertain date was found in the hillfort at Smolenice (Trnava dist., SK; *Březinová* 2018, fig. 5; pl. XLII: 1), likely originating in the Hallstatt period (*Ruttkayová* 2000, 29). Later occurrences of spiral-decorated glass beads were recorded from the LTB2 stage to the end of the La Tène period, becoming more popular in the LTC2–LTD stages (*Venclová* 1990, 67, 68; 2016, 28, 29). Spirals can be made individually or in connection with each other, and bead shapes vary from triangular and low cylindrical to barrel-shaped forms (*Čižmářová* 2022, 159–161). In northern and northwestern Slovakia, three-horned beads decorated with white or yellow spirals are relatively common. Several specimens were discovered in contexts dated to the Early Roman Period, as well as the Middle and Late La Tène periods, at Settlement II at the Liptovská Sielnica-Liptovská Mara agglomeration (*Pieta* 2000, fig. 4: 10; 5: 9, 28). Additionally, one piece was also found at the Havránok hillfort (*Pieta* 2008, fig. 136: 9). Another bead made of dark-blue glass (the colour of the spiral fibre is unknown) was recovered from the Veľký Vrch hillfort at Divinka (Žilina dist., SK; *Fusek/Slaná* 2020, fig. 11: 3; *Pieta* 1982, pl. XIII: 28). A particularly well-dated glass bead with spiral decoration was found in the sacrificial site at Udiča-Prosné (Považská Bystrica dist., SK), dated to the LTC2–LTD1a stage (*Pieta* 1982, pl. XXXVIII: 13). Among other artefacts, a fragment of a ring bead and two 'tubular' beads were also found there; these are probably semi-finished beads of Venclová type 155.

Slightly later in date are the glass beads decorated with wavy lines encircling the body, such as an asymmetrical specimen from Settlement III at the Liptovská Sielnica-Liptovská Mara agglomeration (Fig. 2: 4). This greenish bead has a white wavy line running around its circumference and a body diameter of 14 mm. Rounded glass beads in various colours, decorated with white or yellow wavy lines around the circumference, corresponded to Venclová types 707–712, were produced across Europe from the beginning of the Early Iron Age to the Early La Tène period, especially in Slovenia and the Carpathian Basin. It is assumed that they were produced in various geographically and chronologically different workshops (*Haevernick* 1974; *Venclová* 1990, 89, 90, map 5). In Moravia, they also appeared to a lesser extent in the context of LTB–LTC1, and occasionally LTC2–LTD (*Čižmářová* 2022, 170). In the Roman period, glass beads decorated with wavy lines reappeared from the end of phase B2, most frequently during B2/C1 (*Tempelmann-Maczyńska* 1985, 53, Group XXII, Type 255). The bead from Settlement III at the Liptovská Sielnica-Liptovská Mara agglomeration was found beneath a layer containing a bronze pin with a strongly curved spherical head, and engraved neck (*Pieta* 1982, pl. XVI: 3). The analogous type of pin is

³ Thanks to L. Benediková for this information.

generally dated to stage B of the Roman period (Beckmann 1966, tab. 3). However, given the stratigraphic context of the bead below this layer, we prefer to date it to the Early Roman period.

The group of glass beads decorated with stripes and wavy lines (T-M group XXII) also includes a barrel-shaped bead with multicoloured spiral decoration, similar to the T-M type 290c/Riha type 11.5 (Fig. 2: 7). This bead was found in the cultural layer of Sector XVII-C/73, together with an amber bead and a bronze ring, in a context of pottery dated to stage B2–B2/C1 of the Roman period. Similar specimens of these glass beads were found across a large area of former Barbaricum, particularly in the northeast, i.e., in the Wielbark culture and the West Baltic region (Tempelmann-Maczyńska 1985, 55, tab. 49). They only occur sporadically in the Roman provinces. E. Riha (1990, 84) suggested that several specimens were imported from Egypt in the 1st c.

The typologically indeterminable glass beads from Settlement III at the Liptovská Sielnica-Liptovská Mara agglomeration include a specimen deformed by fire from the Late La Tène cultural layer (Fig. 2: 13; possibly Venclová types 125 to 136) and fragments of a light-green glass bead, which was found just above the subsoil near the sunken feature 1_XXI-B/72, dated to the end of the Late La Tène period.

A special type of glass jewellery consists of ring beads (German: *Ringperlen*). These large, robust beads have a diameter of 18–30 mm and a small perforation measuring 9–15 mm. They are made using the same technique as glass bracelets. From Settlement III at the Liptovská Sielnica-Liptovská Mara agglomeration, a single specimen was found with a body diameter of 26 mm and a small hole with a diameter of 9 mm (Fig. 2: 15). It is difficult to determine the shade of the glass material macroscopically in such a thick specimen. It appears very dark, almost black, and when held up to bright light, it seems dark-blue. The glass bead is decorated with yellow fibres. The whirl design consists of twisting the yellow fibres into a thread shape, classifying the specimen from Liptovská Mara III as Group 23 according to the typology of Th. E. Haevernick (1960). However, corrosion of the glass material makes it impossible to macroscopically determine whether the core of the ring bead is porous and non-layered or composed of several layers (for more, see Venclová/Kozáková/Křížová 2020). The specimen was discovered in the stone structure of Sector IX-C/71, alongside a variety of finds from the LTD2 stage. Among other items, a copper alloy brooch of the Jezerine type IIb/Feugère type 12a was also found there (Pieta 1982, pl. VI: 14). These types of brooches were produced from the middle of the 1st c. BC to around the 30s of the 1st c. BC and were used until the last decade BC (Demetz 1999, 103; Feugère 1985, 258; Sedlmayer 2009, 17).

The production of glass ring beads in Central Europe is associated with the appearance of the latest types of glass bracelets. Some types occurred as early as LTC2, but they mainly dated from LTD (especially group 23). These beads were primarily found in La Tène settlements at the end of the period, in an 'oppidum' context (Březinová 2018, 19). Groups 24 and 25, the latest, were produced only during the LTD stage (Venclová/Kozáková/Křížová 2020, 198, 199). The colour of the glass material also plays an important role in the chronological classification of ring beads. Those made of purple or brown glass are generally younger (Čižmářová 2021, 243). The largest collections of ring beads were found in Central European sites, where they number in the hundreds (Venclová 2016, 85–87, 99, 100, fig. 85; 87). A smaller collection of sixteen specimens was discovered in Němčice (Prostějov dist., CZ; Čižmářová 2022, 121). Other pieces are known from Poland (Karwowski 1997, 43, fig. 1; tab. 1), from sites of the Przeworsk and Oksywie cultures (Bochnak 2014, 50–53, fig. 17), and the Tyniec group (Grygiel 2022, 73, 74). H. Čižmářová (2021, 241) suggests that, given their low frequency of occurrence in ordinary Moravian settlements compared to oppida, these objects may have belonged to individuals of a higher social rank who mainly moved in oppida and important administrative or commercial centres. G. Březinová (2018, 19, map 1; tab. 1) last addressed the discovery of glass ring beads in Slovakia, considering them to be part of necklaces or possibly serving as separate pendants or amulets.

Glass ring beads have been found in northern and northwestern Slovakia, specifically at a sacrificial site at Prosné (Považská Bystrica dist., SK) and a settlement at Púchov (Púchov dist., SK; for both see Pieta/Moravčík 1980, 261, fig. 6: 14; 14: 9) and Jánovce-Machalovce (Poprad dist., SK; Březinová 2018, pl. IV: 31; Březinová/Soják 2005, fig. 3: 3). One honey-brown specimen of Haevernick Group 23, decorated with yellow fibres, was found at the sacrificial site in Prosné and is dated to stages LTC2 to LTD1a (Pieta/Moravčík 1980, 261, fig. 6: 14). There should also be a purple specimen (Pieta 1982, 58). Two other brown specimens of Haevernick Group 23 are mentioned from the Havránok hillfort at Liptovská Sielnica-Liptovská Mara. One of these was found with material dated to the turn of the eras, in the earlier phase of the sacrificial site (Pieta 1982, 58). A more recent find of a glass ring bead was discovered during the prospection survey at Horný Lieskov (Považská Bystrica dist., SK; Pieta 2008, fig. 136: 6). In the context of the Púchov culture, three specimens from the highland site of Jičina-Požaha (Nový Jičín dist., CZ) can also be mentioned

(Čižmář 1996, fig. 3: 4, 5; Král 1962, 72, tab. 73: 2). However, none of these could be examined for colour determination (Čižmářová 2022, 123, 131). Glass ring beads sometimes occur as antiques artefacts in more recent periods. In southwestern Slovakia, a Haevernick Group 23 ring bead with a yellow whirl design was found at Galanta (Galanta dist., SK) at the Žihársky kopec site. It was discovered together with finds from the 11th–12th c. (unpublished; for excavation details, see Kopčeková 2011).

OTHER GLASS BEADS FROM THE LIPTOVSKÁ SIELNICA-LIPTOVSKÁ MARA SETTLEMENT AGGLOMERATION

Settlement III at Liptovská Mara in Liptovská Sielnica was not an isolated site, but one of six open sites surrounding the Havránok central hillfort. The settlement began to develop at the end of the 4th c. BC (during the LTB stage; for details of the pre-Púchov horizon, see Benediková/Pieta 2020, 384, 385). Settlement had specific characteristics due to the prevailing natural environment. For example, the stony sub-soil prevented the construction of large sunken buildings, resulting in a settlement composed primarily of above-ground structures with log or pole construction, often supplemented with stone elements. Several centuries of continuous habitation led to earlier features being overlain or destroyed by later ones. In some cases, this led to mixing of the stratigraphic layers, making it difficult to date the artefacts accurately. The Púchov culture settlement at the agglomeration came to an end in the second half of the 2nd c. AD (the B2/C1 stage of the Roman period), a time when the occupation of the Púchov culture declined across the entire region. Glass beads have been found in the earliest layers, dating from LTB2–LTC2 stages (the so-called pre-Púchov horizon, Pieta 2000, 339–346). Although 60 years have passed since the beginning of archaeological excavation at Liptovská Mara (excavation began in 1965), no comprehensive catalogue or publication of the findings has yet been produced. The following summary presents the published specimens.

A particularly rich collection of glass beads was found at Settlement II-Rybníky, where long-term occupation has been documented from the LTB stage until the decline of the Púchov culture during the B2/C1 phase of the Roman period. Archaeological excavations at Settlement II in the 1990s revealed that the stratigraphic layers associated with the pre-Púchov horizon were dominated by small, undecorated cobalt-blue glass beads and larger yellow glass beads with white-blue eyes, corresponding to Venclová types 519 and 539 (Pieta 2000, 329, fig. 5: 30, 31). Other unspecified glass beads were uncovered in the same horizon layers during later excavations in the following decade (Benediková et al. 2007, 41, 45; Benediková/Šebesta 2011, 65; the beads themselves have not yet been published). Three-horned glass beads with spiral decorations have been found in contexts ranging from the Middle La Tène period to the beginning of the Early Roman period (Pieta 2000, fig. 4: 10; 5: 9, 28). The colour of the matrix varies between shades of blue and green, and the spiral decorations are typically filled with yellow or white fibres. One notable specimen is a transparent glass bead decorated with golden foil, discovered in a feature with six postholes (Pieta 2000, 322, fig. 4: 12). This bead was found alongside common, rather atypical pottery from the beginning of the Early Roman period and an egg-shaped bronze pendant (Pieta 2000, fig. 4: 13). Golden-foil decorated glass beads such as this can be classified as T-M type 387. Similar specimens have been found in the Barbaricum, particularly in areas associated with the Przeworsk culture during Roman phase B1a, although they were found until the beginning of the Late Roman period (Tempelmann-Maczyńska 1985, 13, 64). The find of a grooved bead also dates to the same era of the beginning of the Early Roman period (Pieta 2000, fig. 4: 11). According to E. Riha's typology (1990, 80, type 1, variant 1), these are melon-shaped beads made of Kieselkeramik, which were found in the Roman Empire from the middle of the 1st c. AD. Although Egypt is considered the original production centre, these beads were later produced in the provinces of Western Europe (Riha 1990, 80).

Among the most notable finds discovered at Settlement II is a fragment of a coil-shaped bead, classified as Venclová type 904, also known as a "bobbin bead" or "spool-shaped mask bead" (Březinová 2018, pl. XLIII: 1; Pieta 1967, 629, fig. 204: 10; 1982, pl. XIII: 27). The production of bobbin-beads dates back to the early phases of La Tène glassmaking, specifically the LTC1 stage. These beads are typically made of translucent dark-blue glass, featuring protrusions in the same colour, decorated with differently coloured fibres in spirals or ring patterns. Occurrences of bobbin beads are concentrated mainly in the eastern part of the Middle Danube region, including Slovakia, Moravia, and northwestern Hungary, with isolated findings in Poland (Čižmářová 2019, fig. 3; 2022, fig. 98; Karwowski 1997, 54–56; 2005, fig. 5; list 3; Venclová 2016, 114, fig. 21). In addition to the specimen from Settlement II at the Liptovská Sielnica-Liptovská Mara

agglomeration, a small fragment from Kežmarok-Jeruzalemský vrch site (Kežmarok dist., SK) in northern and northwestern Slovakia was recorded (Březinová 2018, fig. 16; pl. XLIII: 2; Pieta 1982, 58). A low variant of a mask-shaped bead (Venclová type 901) was recovered from Jánovce-Machalovce (Poprad dist., SK; Březinová 2017, fig. 4: 4; 2018, 19, pl. IV: 30; Březinová/Soják 2005, fig. 3: 2). Unlike coil-shaped mask beads, the origins of these low mask beads have not yet been satisfactorily resolved. They are believed to have been produced in glass workshops operating in the western or northern part of the Black Sea region (Čižmářová 2022, 178, fig. 98; Venclová 1974, 593).

Within the Liptovská Sielnica-Liptovská Mara settlement agglomeration, glass beads were also found at the Havránok hillfort. Several specimens were discovered at the sacrificial site, some of which were heavily damaged by fire (Pieta 1996a, 84, pl. X: 11). Alongside the glass specimens, a faience bead of Roman origin was discovered at the sacrificial site (Pieta 1996b, 193, fig. 8: 10), possibly originating from Egypt or the Mediterranean region (Hrnčiarik 2013, 147). This is a unique find in the Púchov cultural milieu.

Among the other finds from the Liptovská Sielnica-Liptovská Mara settlement agglomeration, two unpublished beads from Settlement IV-Vlašky are noteworthy. The first is a lenticular bead made of yellow, opaque glass; only part of the second, a cobalt-blue bead has been preserved. It is probably a Venclová type 154/156 with an open circumference or the type 164 (Benedíková 1999, pl. II: 1, 2). Both beads are examples of types commonly found during the La Tène period. They can be roughly dated to the period of functioning of Settlement IV. The southwestern foot of Havránok hillfort was inhabited only during the Late La Tène horizon of stage LTD, with the possibility of short survival into phase B1a of the Early Roman period.

DISCUSSION

Sixteen glass beads of various shapes, sizes, and surface decorations were discovered at Settlement III at Liptovská Sielnica-Liptovská Mara. They were found scattered across the entire excavated area, with no apparent concentration (Fig. 3). Most of them lack an exact find context, they were found in mixed material stratigraphic layers, and even the ongoing synthetic evaluation of the site has not allowed for their precise chronological classification or functional definition in many cases. Some of them belong to types of beads with a long tradition of use and their forms have not changed over time, so they can only be roughly dated to the La Tène or the Early Roman periods. However, as glass beads are not artefacts of local origin, they can be used to trace cultural links with neighbours, closer or more distant. During the La Tène period, it is assumed that raw glass was imported from the Middle East and processed into final products in local European workshops (Čižmářová 2022, 225). Based on current research, areas where glass objects were likely produced and distributed to surrounding regions have been identified (Březinová 2018, 17, 18). Recently, the site of Němčice (Prostějov dist., CZ; Čižmář *et al.* 2024; Venclová 2007; 2015; 2016; Venclová *et al.* 2009) has been added to the list of locations with evidence of glass jewellery production. Among other items, monochrome beads of Venclová types 117 and 155 were produced here. Similar final products were found at sites in northern and northwestern Slovakia, suggesting active cultural links between these neighbouring regions. There were also lively contacts with southwestern Slovakia, where a separate glassmaking circle is also being considered in a workshop that has not yet been discovered (Venclová/Militký 2014, fig. 11), producing items characteristic of the eastern La Tène region. These include mainly glass bracelets of Haevernick Groups 15, 3b/1 and 6b/1, as well as coil-shaped mask beads (Venclová type 904), which are considered to be local products typical for the LTC1 stage (Čižmářová 2022, 180; Karwowski 2005; Venclová 2016, 33).

The tradition of decorating clothing with glass ornaments continued in the Púchov culture even after the destruction horizons at the turn of the eras. The origin of glass beads from the Roman period contexts is believed to be in the Roman provinces, where glass production and processing were highly developed and carried out by several workshops in both the eastern and western provinces (Aquileia, Aquincum, Brigetio, Arrabona, Intercisa, Mediterranean region: Barkóczi 1966–1967, 67–89; 1988, 27–38; Sasse/Theune 2003, 579, fig. 56). However, within the Danube Barbaricum, Celtic tradition in glassmaking must also be considered. As pointed out by Th. E. Haevernick (1974, 54–57), Celtic glassmakers continued to produce glass beads even during the Roman period. The author identified Emona (today's Ljubljana, Slovenia) as the centre of production during the Roman period. Contacts between northern Slovakia and the provincial environment have been confirmed, among other things, by the finding of a spiral-wound bead of Kempton type at Settlement III at Liptovská Sielnica-Liptovská Mara. This confirms the spread of Roman products to barbarian lands above the Danube. An increased influx of artefacts from the Noric-

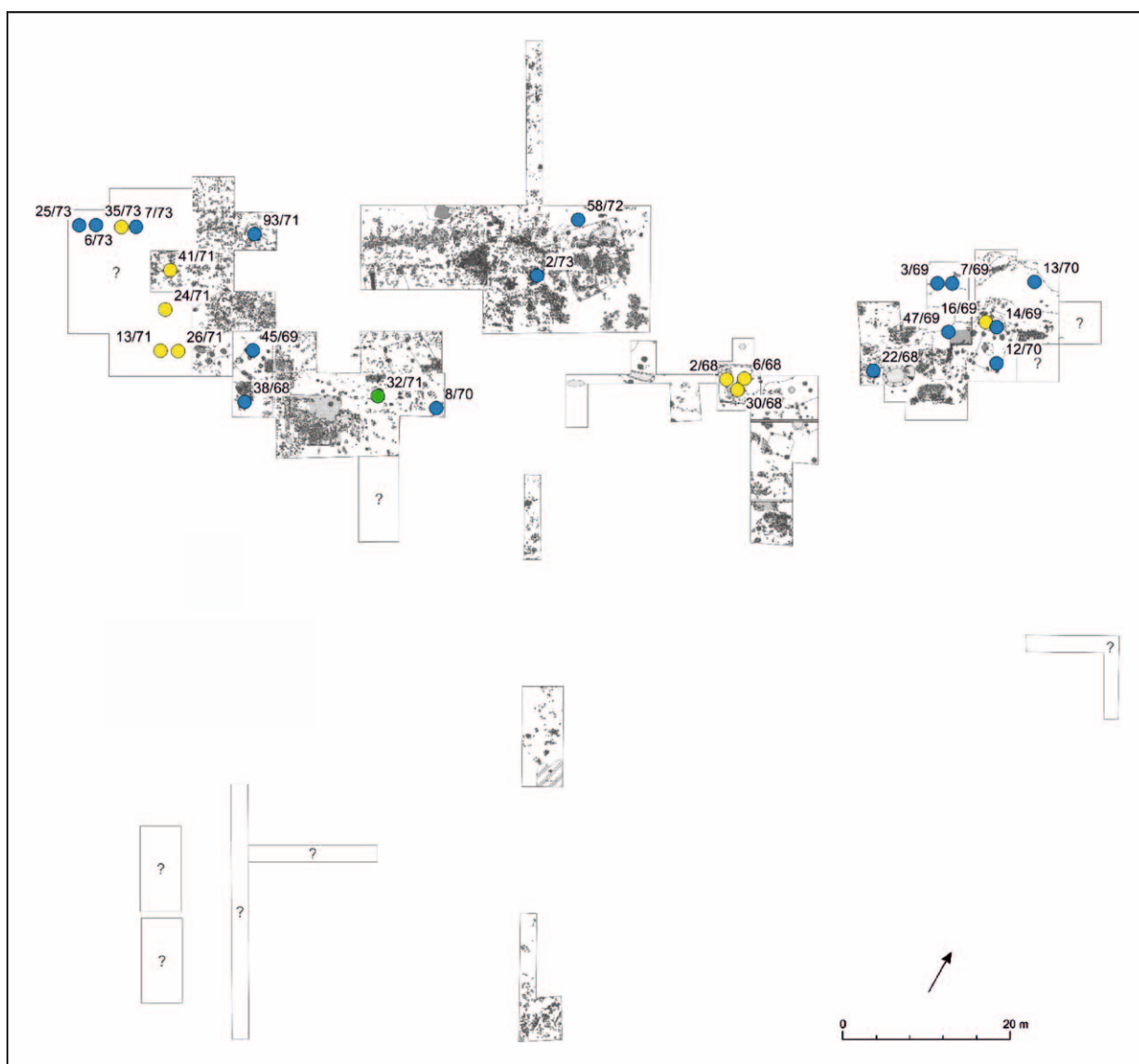


Fig. 3. Finds of beads from Settlement III at Liptovská Sielnica-Liptovská Mara. Blue – glass; yellow – amber; green – clay; xx/yy – inventory number of find.

Pannonian region manifests in the Púchov culture milieu at the beginning of the Early Roman period (Pieta 1996b; 1997; 2019, 279, 280). The local production of Germanic glass ornaments is considered to have begun in the later stages of the Roman period (Sasse/Theune 2003, 579; Tempelmann-Maczyńska 1985, 149, 150), i.e., at a time with no known evidence of the Púchov culture.

The current level of knowledge about glass jewellery in northern and northwestern Slovakia is significantly limited by the low number of publications of finds and their contexts. Concerning the occurrence of glass beads, it should be noted that, except for the collection from the Liptovská Sielnica-Liptovská Mara settlement agglomeration, the number of beads discovered at the sites in the studied area is relatively small (Fig. 4; see Catalogue). A significant concentration of glass beads is evident in the Spiš region (Březinová 2017, 47, 58; Březinová/Soják 2005; Soják 2000, 116, fig. 76: 6; 2002, 183, 184, fig. 148: 16, 17). For the most part, these were found during surface prospection, lacking clear finding or chronological contexts. Other glass bead fragments (as well as a ribbed bracelet of Haevernick group 7b) were discovered at a Middle La Tène settlement at Spišský Hrhov-Pod Hradiskom (Levoča dist., SK; Soják/Fecko 2015, 236). The number of glass beads from the Spiš region is expected to increase due to ongoing excavations at the Jánovce-Machalovce (Poprad dist., SK) hillfort and its surroundings, which have already yielded a new find of an amber bead (Repka et al. 2024, 116, fig. 69: 8).

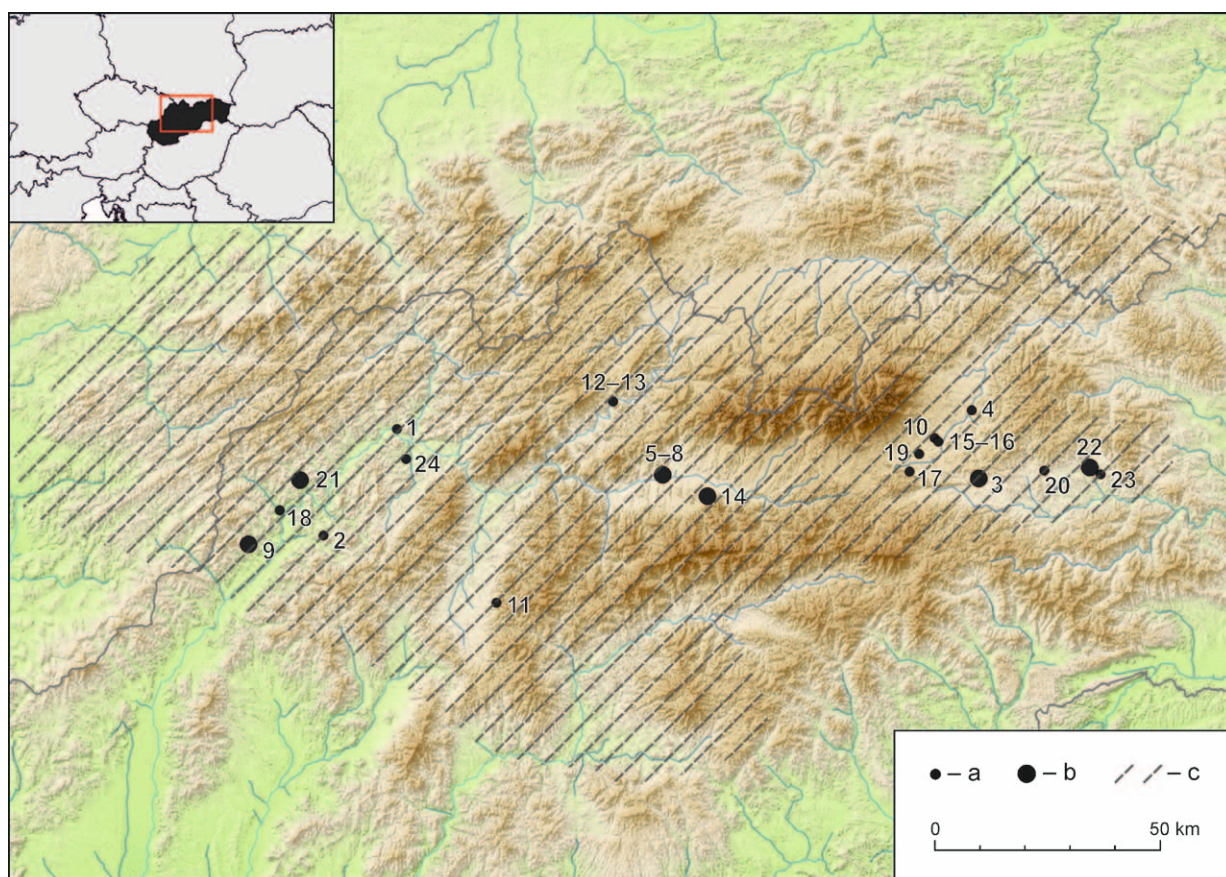


Fig. 4. Distribution of glass beads in northern and northwestern Slovakia from the Middle La Tène to the end of the Early Roman period. Legend: a – sites with fewer than five specimens of glass beads; b – sites with five or more pieces of glass beads; c – the maximum territorial extent of the Púchov culture. For numbering of sites and references, see Catalogue.

A second factor limiting the study of glass jewellery from early historical sites in northern and northwestern Slovakia is the absence of burial grounds. This means that the functional use of beads in grave complexes cannot be estimated. The presence of glass beads at settlements and sacrificial sites (e.g., Liptovská Sielnica-Liptovská Mara-Havránok and Udiča-Prosné) suggests that they were used in everyday life and were also a significant aspect in the ritual context. However, without evidence of standard burial customs, the function of glass beads remains unclear. The group of female inhumation burials from the Central Váh River region is undoubtedly of foreign origin and cannot be considered to represent standard burials (Pieta 2019). In Grave 1 in Mikušovce (Ilava dist., SK) six small, melon-shaped beads made of transparent glass with golden foil (*German: goldüberfangene Perlen*) were discovered. Judging by their location on the chest, it is likely that they hung from the neck on a cord (Pieta 2019, fig. 19; grave 1: 5). The dark-blue glass bead with inclusions from Grave 3 in Mikušovce was found on the left side of the pelvis, beneath the bones of the left hand, together with a pseudofiligree bronze circular pendant (Pieta 2019, 265). Both graves are associated with the penetration of Noric-Pannonian influences into northern and northwestern Slovakia during the Roman stage B1 (Pieta 2019, 279, 280) and do not represent a burial of the local population.

CONCLUSION

Glass ornaments, such as bracelets, ring beads, finger rings, necklace dividers, pendants, and various types of beads, were defining elements of La Tène material culture. The increase in the number of glass artefacts during the Middle La Tène period was connected with advances in glassworking technology, as well as with the broader stabilisation of the political and economic situations in the Middle Danube region. In the three centuries preceding and the two centuries following the turn of the millennium, when the pre-Púchov horizon and subsequently the Púchov culture expanded across northern and northwest-

ern Slovakia, glass beads became relatively common in settlement contexts. This trend is also manifested in the assemblage from Settlement III at Liptovská Sielnica-Liptovská Mara. Most beads from this site are monochrome specimens, typically in shades of blue (Fig. 2: 9, 10, 12). The presence of some of them is probably related to the activity of glass production centres at Némčice and Staré Hradisko in Moravia. The second group consists of polychrome beads, most often decorated with blue-and-white eyes (Fig. 2: 1–3, 5), as well as spiral motifs or wavy lines made of opaque white or yellow glass (Fig. 2: 4, 6). Most of these glass beads can be dated to the La Tène period, having no significant chronological value. The third group composes of ring beads (Fig. 2: 15), which occur in smaller numbers in northern and northwestern regions of Slovakia. These beads are mostly found at settlements and sacrificial sites, especially from LTD1 to LTD2 stages. The number of glass beads in this region is clearly affected by the state of archaeological research at sites in northern and northwestern Slovakia. Where archaeological excavations or systematic surface prospection have been carried out, higher concentrations of finds have been documented.

After the decline of the La Tène culture, the tradition of wearing glass beads continued into the Roman period. At that time, glass beads became the most widespread type of glass artefact in the Barbarian world, appearing in both settlement and funerary contexts. At Settlement III in Liptovská Sielnica-Liptovská Mara, a typologically varied group of glass beads from the Early Roman period occurred in various contexts (Fig. 2: 4, 7, 8, 14). These finds likely originated in the Roman provinces. Some of them may reflect the penetration of Noric-Pannonian influences into the study area during the B1 stage of the Roman period (*Pieta* 1996b; 1997; 2019).

The assemblage of beads from the Early Roman context of Settlement III at Liptovská Sielnica-Liptovská Mara includes not only glass products but also seven amber beads, four pieces of amber lumps⁴, and one clay specimen. Around the turn of the millennium, amber finds in northern and northwestern Slovakia were rather rare (*Švihurová* 2015). Despite the availability of raw amber, communities in this region (as well as those in the surrounding Celtic and subsequently Germanic worlds) did not use it to the same extent as their Bronze Age and Early Iron Age predecessors (*Duleba/Markiewicz* 2023, 314–316, fig. 3). Although amber never entirely disappeared from use in local barbarian society, its social status and symbolic role changed significantly. Nevertheless, amber continued to be transported southwards, where there was a high demand for the “gold of the north”, and trade on the Amber Road flourished. This imported raw material was regarded as a valuable commodity in the Roman world, and artefacts made of it represented luxury and the high status of their owner. It is said that amber jewellery decorated the clothing of Emperor Augustus (*Choińska-Bochdan* 2003, 76). In the Roman Empire, beads made of amber and other precious stones were inserted into necklaces as solitaires to strengthen their protective function against evil (*Riha* 1990, 79).

The findings of glass and amber beads from Settlement III at Liptovská Sielnica-Liptovská Mara expand our understanding of the distribution and typological diversity of jewellery in northern Slovakia from the Middle and Late La Tène periods to the end of the Early Roman period. While most specimens were found in contexts of unclear stratigraphy, their typological analysis has permitted a cultural-chronological evaluation. The presence of small biconical specimens, certain types of eye beads, and spindle-shaped forms attests to the site’s direct or indirect involvement in long-distance exchange networks leading from the Mediterranean and the southern Carpathian Basin. Meanwhile, the presence of monochrome rounded and annular beads suggests contact with production centres in Moravia. The significant variability of the identified bead types, as well as the time period over which they were used, reflects the transformations of the local environment under the influence of the La Tène culture during the Middle La Tène period, and later interactions with the Roman provinces, the Germanic Danubian environment, and the Przeworsk culture. Thus, glass and amber beads were not only a symbol of social status but also enable us to trace the supra-regional contacts of local communities.

Following the decline of the Púchov culture in the second half of the 2nd c. AD, Settlement III and the wider area of northern Slovakia were abandoned. Glass beads were found here only sporadically, in connection with the expansion of the Germanic Quadi towards the foothills of the Malá Fatra Mountains (e.g., Beluša: *Pieta* 1974, fig. 6: 5) or with the arrival of the North Carpathian group (e.g., Lazisko: *Pieta/Hanuliak* 1988, 111; Vrbov and Vyšný Kubín: *Pieta* 1991, fig. 2: 17, 18, 25; 1999, fig. 11: 14, 15, 18, 19; Vyšný Kubín-Ostrá skala: *Čaplovič* 1987, 193).

4 Lumps of amber were discovered together with a dark-red spherical bead in Feature 2_V/68, dated to the Early Roman phase of the Púchov culture (*Švihurová* 2015, fig. 5). We only know about them from a drawing in the excavation report. It is possible that the worked lumps may be the fragments of unrecognised beads, but the current absence of the lumps from the depository does not allow for material analysis.

CATALOGUE OF THE GLASS BEAD FINDS
FROM THE MIDDLE LA TÈNE UNTIL THE EARLY ROMAN PERIOD SITES
IN NORTHERN AND NORTHWESTERN SLOVAKIA

1. Divinka (Žilina dist., SK)

Location: Veľký vrch

Find context: hillfort; excavation

Finds: one three-horned blue bead with spiral decoration

Dating: the La Tène phase of the Púchov culture

References: *Fusek/Slaná 2020*, fig. 11: 3; *Pieta 1982*, 58, pl. XIII: 28

2. Horný Lieskov (Považská Bystrica dist., SK)

Location: unknown

Find context: surface prospecting

Finds: a ring bead of Haevernick group 23

Dating: the Late La Tène period

References: *Pieta 2010*, fig. 136: 6

3. Jánovce-Machalovce (Poprad dist., SK)

Location: Hradisko and Pod Hradiskom

Find context: hillfort and open habitation area in its hinterland; surface prospecting

Finds: various beads – a mask bead, a ring bead, monochrome rounded, annular, barrel-shaped beads, beads decorated with eyes, and zig-zag motifs

Dating: the La Tène period

References: *Březinová 2018*, pl. IV: 1–5, 10–13, 16–22, 25, 27, 28, 30, 31; *Březinová/Soják 2005*, 65, fig. 3: 2, 3, 6, 9–23, 26; *Soják 2002*, 183, fig. 148: 16, 17

4. Kežmarok (Kežmarok dist., SK)

Location: Jeruzalemský vrch

Find context: hillfort; surface finds

Finds: a fragment of the bobbin-bead, an eye bead

Dating: the Middle La Tène period

References: *Březinová 2017*, 47, fig. 4: 1, 3; *2018*, pl. XLIII: 2; *Pieta 1982*, 58

5. Liptovská Sielnica-Liptovská Mara (Liptovský Mikuláš dist., SK)

Location: Havránok

Find context: hillfort and sacrificial place; excavation

Finds: various beads (some of them burnt) – two ring beads (both of Haevernick group 23), several monochrome annular and rounded beads, three-horned bead with spiral decoration, a faience bead

Dating: the Middle and Late La Tène period

References: *Pieta 1982*, 58; *1996b*, fig. 8: 10; *2010*, fig. 134: 11; 136: 9

6. Liptovská Sielnica-Liptovská Mara (Liptovský Mikuláš dist., SK)

Location: Il-Rybníky

Find context: open settlement

Finds: various beads – a fragment of the bobbin-bead, several three-horned beads with spiral motifs, several eye beads, monochrome beads, etc.

Dating: from the Middle La Tène to the end of the Early Roman period

References: *Březinová 2018*, pl. XLIII: 2; *Pieta 1982*, 58, pl. XIII: 27; *1996a*, pl. I: 7; VIII: 10; X: 11; *2000*, fig. 4: 10–12; 5: 9, 28–31

7. Liptovská Sielnica-Liptovská Mara (Liptovský Mikuláš dist., SK)

Location: III-Za panskými humny

Find context: open settlement

Finds: thirteen complete pieces, two fragmentary glass beads, a fragment of a ring bead

Dating: from the Middle La Tène to the end of the Early Roman period

8. Liptovská Sielnica-Liptovská Mara (Liptovský Mikuláš dist., SK)

Location: IV-Vlašky

Find context: open settlement

Finds: two glass beads – a lenticular bead made of yellow, opaque glass; part of the cobalt-blue bead

Dating: the Late La Tène period

References: *Benediková 1999*, pl. II: 1, 2

9. Mikušovce (Ilava dist., SK)

Location: Malý hrádok

Find context: graves

Finds: six melon-shaped beads from Grave 1; one round bead from Grave 3

Dating: the B1a phase of the Early Roman period

References: *Pieta 2019*, 262, 265, fig. 20: 4–9; 23: 30

10. Mlynica (Poprad dist., SK)

Location: Červený kameň

Find context: surface find

Finds: a cobalt-blue bead

Dating: the Middle La Tène period (?)

References: *Soják 2000*, 116, fig. 76: 6

11. Mošovce (Turčianske Teplice dist., SK)

Location: unknown

Find context: surface find

Finds: a yellow bead with blue-white eyes

Dating: the La Tène period

References: *Kraskovská 1947*, 112; *Venclová 1990*, 181

12. Oravský Podzámok (Dolný Kubín dist., SK)

Location: Near the Church of St. John of Nepomuk

Find context: surface finds

Find: a cobalt-blue bead

Dating: the La Tène period (?)/the Púchov culture (?)

References: *Furman 2020*, 129, fig. 1: 1a, 1b

13. Oravský Podzámok (Dolný Kubín dist., SK)

Location: southern part of the urban area

Find context: open settlement (from the feature)

Find: a fragment of a bead

Dating: the La Tène period (the Púchov culture)

References: *Furman/Záhorec 2020*, 125

14. Ploštín (Liptovský Mikuláš dist., SK)

Location: Pod Rohačkou

Find context: open settlement; surface finds

Finds: seven cobalt-blue beads of a rounded, annular or globular shape and one green-translucent bead

Dating: the La Tène/Early Roman period (?)

References: *Furman/Zachar/Felcan 2022***15. Poprad-Matejovce (Poprad dist., SK)**

Location: Zadné rovne/Líščie diery

Find context: surface find

Finds: a cobalt-blue bead

Dating: the La Tène period

References: *Březinová/Soják 2005, 70, fig. 3: 31***16. Poprad-Matejovce (Poprad dist., SK)**

Location: Nad kopčekom

Find context: surface find

Finds: a cobalt-blue bead (?)

Dating: the La Tène period

References: *Březinová/Soják 2005, 65***17. Poprad-Veľká (Poprad dist., SK)**

Location: Hore Červeným potokom

Find context: surface find

Finds: a cobalt-blue annular bead

Dating: the Middle La Tène period

References: *Březinová/Soják 2005, 70; Soják 2002, 184***18. Púchov (Púchov dist., SK)**

Location: Skala

Find context: hillfort; excavation (?)

Finds: two ring beads (Haevernick groups 21 and 23)

Dating: the La Tène period

References: *Pieta 1982, 58, pl. XIII: 23; Pieta/Moravčík 1980, fig. 14: 9***19. Spišská Teplica (Poprad dist., SK)**

Location: Pod kameňom

Find context: surface find

Finds: a small cobalt-blue bead

Dating: the La Tène period

References: *Březinová/Soják 2005, 65***20. Spišský Hrhov (Levoča dist., SK)**

Location: Pod Hradiskom

Find context: open settlement; excavation

Finds: several blue beads with two-layered blue-white eyes

Dating: the Middle La Tène period (Pre-Púchov horizon)

References: *Soják/Fecko 2013, fig. 11***21. Udiča-Prosné (Považská Bystrica dist., SK)**

Location: Uhliská

Find context: sacrificial place

Finds: two ring beads (both of Haevernick group 23), semi-products of annular beads, three-horned bead

Dating: LTC2–LTD1a

References: *Pieta 1982, 58, pl. XXXVIII: 8, 11–13; 2008, fig. 32; Pieta/Moravčík 1980, 261, fig. 6: 11, 14, 16***22. Žehra (Spišská Nová Ves dist., SK)**

Location: Spišský hrad

Find context: hillfort; surface finds

Finds: various beads – monochrome annular beads, eye beads, melon-shaped bead, beads decorated by wavy line

Dating: the La Tène period

References: *Březinová 2017, 49, fig. 6: 1, 4, 5, 7, 8, 24, 25, 27–30; 2018, pl. IV: 6–8, 14, 15, 23, 24, 26, 29; Březinová/Soják 2005, 70, fig. 3: 1, 4, 5, 7, 8, 24, 25, 28–30***23. Žehra (Spišská Nová Ves dist., SK)**

Location: Hlinky I

Find context: settlement (?); surface find

Finds: a small fragment of the cobalt-blue bead decorated with white line

Dating: LTC–LTD

References: *Březinová/Soják 2005, 65***24. Žilina-Bánová (Žilina dist., SK)**

Location: Dúbravy I and II

Find context: settlement (?); survey prospecting

Finds: two annular blue beads (both of Venclová type 155), one cobalt-blue bead with a white wave (Venclová type 722)

Dating: the Hallstatt–La Tène periods

References: *Both/Staneková 2024*

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Sklené koráliky zo sídliska púchovskej kultúry v Liptovskej Sielnici-Liptovskej Mare, poloha III

Miroslava Kissová

Súhrn

Sklené koráliky predstavujú pomerne bežnú súčasť nálezového fondu v laténskom kultúrnom prostredí, vrátane okrajových území ležiacich na periférii laténskeho sveta v západných Karpatoch. Jedným z nich sú hornaté oblasti severného a severozápadného Slovenska, kde sa v priebehu troch storočí pred a dvoch po zlome letopočtu rozšírili predpúchovský horizont a následne púchovská kultúra. V nálezových kontextoch predpúchovského horizontu a púchovskej kultúry sú koráliky známe iba zo sídlisk a obočí, nakoľko dodnes nedisponujeme dokladmi regulárneho pochovávaní ich nositeľov. Doposiaľ jedna z najväčších kolekcí korálikov pochádza z centrálnej lokality púchovskej kultúry – zo sídliskovej aglomerácie Liptovská Sielnica-Liptovská Mara (okr. Liptovský Mikuláš, SK; obr. 1). V predloženej štúdii sa detailnejšie zaoberáme súborom sklených korálikov získaných počas výskumu realizovaného v rokoch 1968–1974 na sídlisku III (obr. 2). V porovnaní s inými súvekými lokalitami severného a severozápadného Slovenska ide o početne výrazný a typologicky rôznorodý súbor, chronologicky zastupujúci úsek

od stupňa LTB po stupeň B2/C1 doby rímskej. Hoci niektoré exempláre pochádzajú z chronologicky premiešaných kontextov, ich typologická analýza umožnila kultúrno-chronologické vyhodnotenie.

Prvú skupinu sklenených korálikov zastupuje šesť exemplárov rôznych typov a veľkostí, ktoré boli vyrobené z monochrómneho skla. Medzi sklené koráliky s dlhou výrobnou tradíciou patria nálezy oblého a kotúčovitého tvaru jednofarebných modrých odtieňov, blízke typom Venclová 117/119 a 155 (obr. 2: 9, 12). Ich výskyt môže súvisieť s aktívnymi sklárskymi strediskami v Némčiciach a Starom Hradisku na Morave, kde bola doložená produkcia analogických typov sklenených korálikov (Venclová 2016). Skupina jednofarebných sklenených korálikov tmavomodrých odtieňov je zastúpená aj nálezom súdkovitého tvaru (obr. 2: 10), ktorý má najbližšie k typom Venclová 137–142. Na Morave a v Čechách sa súdkovité koráliky rôznych farieb vyskytujú zriedkavo počas celej doby laténskej, ojedinele pokračujú až do doby rímskej (Čížmářová 2022, 151; Venclová 1990, 52). Zo staršieho prostredia vychádzajú aj drobné bikónické koráliky typov Venclová 301 až 305, zastúpené na sídlisku III exemplárom svetlomodrej farby (obr. 2: 11). Ďalšie dva koráliky, exemplár melónovitého tvaru vyrobený z kobaltovomodrého skla a špirálovito navíjaný korálik vretenovitého tvaru z bledozeleného skla (známy aj ako *Knopfförmige Perle vom Typ Kempten*) boli nájdené v starorímskych vrstvách sídliska III (obr. 2: 8, 14). Ostatne menovaný exemplár bol objavený v blízkosti bronzových spôn typu Almgren 68 a Okorág/Jobst I.3/Ettlinger 13.7, bronzovej ihlice s malou zahrotou hlavickou a závesným uškom a keramikou z fázy B1b–c doby rímskej (Pieta 1982, tab. VIII: 13; XVI: 2).

Druhú skupinu nálezov sklenených korálikov zo sídliska III v Liptovskej Sielnici-Liptovskej Mare predstavujú polychrómné koráliky, v ktorých výzdobe sa najčastejšie uplatňoval motív modro-bielych očiek (obr. 2: 1–3, 5), motív v podobe špirál či vlnoviek prevedených bielym alebo žltým opakným sklom (obr. 2: 4, 6). Väčšina sklenených korálikov je zaradená v zásade rámcovo do doby laténskej a nemá z hľadiska chronológie zásadnejšiu výpovednú hodnotu. Súdkovitý korálik bledomodrej až tyrkysovej farby zdobený minimálne tromi dvojrvtvovými bielo-modrými očkami, blízky typu Venclová 555, bol objavený spolu so zlomkom zápony s háčikom v tvare štylizovanej hlavy koníka (Pieta 1982, tab. XI: 30), ktoré sa na pohrebiskách juhozápadného Slovenska vyskytovali v hrobch v závislosti na vyhovení tela zápony od stupňa LTC1 do LTC2 (Bujna 2011, 129). Analogické koráliky, ktorých pôvod sa spája s dielňami na ostrove Rhodos, boli objavené v Némčiciach (Venclová 2015, 145, tab. 5: 1). V rámci severného a severozápadného Slovenska poznáme identický exemplár zo sídliska II v Liptovskej Sielnici-Liptovskej Mare⁵ a viaceré boli objavené na sídlisku Pod Hradiskom v Spišskom Hrhove, datovanom do predpúchovského horizontu (Soják/Fecko 2013, obr. 11). Trojboký korálik z priesvitného skla s modro-žltými očkami v rohoch bol objavený spolu s kobaltovomodrým korálikom so stopami žltého opakného skla v špirálach v kontexte datovanom keramikou do záveru doby laténskej v kamennom obložení kolovej jamy (obr. 2: 5, 6). Na sídlisku II v Liptovskej Sielnici-Liptovskej Mare bolo niekoľko kusov korálikov zdobených špirálami nájdených v kontextoch od strednej, cez neskorú dobu laténsku až po začiatok doby rímskej (Pieta 2000, obr. 4: 10; 5: 9, 28).

Do tretej skupiny sklenených korálikov sú zahrnuté prstencové korále, ktoré sa na lokalitách severného a severozápadného Slovenska vyskytujú v jednotkách kusov. V strednej Európe sa viažu predovšetkým s oppidálnym prostredím, v sledovanom priestore vystupujú v kontextoch stupňa LTD1 až LTD2. Na sídlisku III v Liptovskej Sielnici-Liptovskej Mare bol objavený fragment prstencového korála tmavomodrej farby zdobený žltým vírovitým motívom skupiny Haevernicks 23 (obr. 2: 15).

Po zániku laténskej kultúry, tradícia nosenia sklenených korálikov nezanikla. V dobe rímskej predstavujú koráliky najrozšírenejšiu skupinu sklenených nálezov v celom barbariku, vyskytujúcu sa ako v sídliskovom, tak aj vo funerálnom prostredí. Na sídlisku III v Liptovskej Sielnici-Liptovskej Mare zachytávame v kontextoch staršej doby rímskej rôznorodú škálu sklenených korálikov (obr. 2: 4, 7, 8, 14), ktorých pôvod sa hľadá predovšetkým v rímskych provinciách. Časť z nich môže súvisieť s prienikom noricko-panónskych vplyvov na sledované územie počas stupňa B1 doby rímskej (Pieta 1996b; 2019).

Kolekcia korálikov zo starorímskych kontextov sídliska III v Liptovskej Sielnici-Liptovskej Mare obsahuje nielen výrobky zo skla, ale je doplnená o sedem jantárových korálikov, štyri opracované hrudky jantáru a jeden kus z hliny (Švihurová 2015). Ich nálezy značne rozširujú poznanie o distribúcii a typologickej variabilite drobného šperku v priestore severného a severozápadného Slovenska počas strednej a neskorkej doby laténskej až záveru staršej doby rímskej. Prítomnosť drobných bikónických exemplárov, niektorých typov korálikov s očkami a vretenovitých korálikov potvrdzuje priame či sprostredkované zapojenie lokality situovanej v centre Liptovskej kotliny do diaľkových výmenných sietí smerujúcich zo Stredomoria a južných častí Karpatskej kotliny, jednofarebné koráliky oblého a kotúčovitého tvaru ukazujú na styky s výrobnými centrami na Morave, jantárové výrobky napovedajú kontaktom so severom. Výrazná variabilita identifikovaných typov korálikov, ako aj časový rozsah ich používania, odráža premeny miestneho prostredia pod vplyvom laténskej kultúry od strednej doby laténskej, ako aj neskoršie interakcie s rímskymi provinciami, stredodunajskými Germánmi a przeworskou kultúrou. Sklené a jantárové koráliky tak neboli len obchodným artiklom, symbolizujúcim spoločenský status, ale umožňujú sledovať aj nadregionálne kontakty miestnych komunít.

⁵ Za informáciu ďakujeme L. Benedikovej.

- Obr. 1. Sídlišťový areál v Liptovskej Sielnici-Liptovskej Mare s vyznačenými polohami osídlenia. I – hradisko Havránok; II – Rybníky; III – Za panskými humny; IV – Vlašky; V – Bobrovník; VI – Bobrovník-Dlžiny; VII – Kamenica.
- Obr. 2. Sklené koráliky zo sídliska III v Liptovskej Sielnici-Liptovskej Mare. Foto M. Kissová; kresba A. Balogová, J. Hritzová.
- Obr. 3. Nálezy korálikov zo sídliska III v Liptovskej Sielnici-Liptovskej Mare. Modrá – sklo; žltá – jantár; zelená – hlina; xx/yy – prírastkové číslo nálezu/rok výskumu.
- Obr. 4. Rozšírenie sklených korálikov na severnom a severozápadnom Slovensku od strednej doby laténskej až do záveru staršej doby rímskej. Legenda: a – lokality s nálezmi sklených korálikov v nižšom počte ako 5 ks; b – lokality s nálezmi sklených korálikov v počte 5 ks a viac; c – maximálny územný rozsah púchovskej kultúry. Lokality s literatúrou v katalógu.

Translated by author

Mgr. Miroslava Kissová, PhD.
Archeologický ústav SAV, v. v. i.
Akademická 2
SK – 949 21 Nitra
miroslava.svihurova@gmail.com
<https://orcid.org/0000-0003-0294-9503>

