

Podgorica: an Urnfield period settlement as part of the Podgorica-Dragomelj ‘twin settlement’ and an Early Iron Age cemetery

Podgorica: naselje iz obdobja kulture žarnih grobišč kot del podgoriško-dragomeljskega “solestja” in starejšeeželeznodobno grobišče

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Izveček

V pričujočem prispevku predstavljamo rezultate arheoloških raziskav bronastodobne naselbine pri Podgorici, obravnavane kot del tako imenovanega podgoriško-dragomeljskega “solestja”. Naselbina se je razprostirala vzdolž nekdanje rečne struge, na več kot 2 ha velikem območju. Gručasto razporejene stavbe ter na robove naselbine pomaknjena metalurško-livarska dejavnost pričajo o načrtni organiziranosti naselbine in o gospodarskih dejavnostih njenih prebivalcev. V prispevku pa so zaradi ponovne rabe prostora v starejši železni dobi predstavljeni tudi halštatskodobni grobovi.

Ključne besede: pozna bronasta doba; nižinska naselbina; livarske aktivnosti; obredni običaji; starejša železna doba; grobovi

Abstract

The article presents the results of the archaeological investigations conducted at Podgorica. They revealed a settlement considered part of the Podgorica-Dragomelj ‘twin settlement’ that was located at a former streambed and extended across more than 2 ha. The clustered buildings in its centre and the metallurgical-casting activities moved to the periphery indicate a deliberate organisation of the living and work spaces of its inhabitants. The area was then reused in the Early Iron Age, when it served as a burial ground in the Hallstatt period.

Keywords: Late Bronze Age; Early Iron Age; lowland settlement; casting activities; ritual practices; graves

The archaeological investigations conducted in advance of constructing the Slovenian motorway cross included a campaign in 1999 located in the plain northeast of Ljubljana, between the modern-day settlements of Pšata, Dragomelj and Podgorica. It unearthed the remains of lowland settlements (*Fig. 1*) from the Late Stone and Late Bronze Ages, as well as stray finds that indicate the area was also inhabited during the Early Stone Age, the Early Iron Age, the Roman period and the

Early Middle Ages.¹ The most intense habitation remains, however, date to the Late Bronze Age – the Urnfield culture period.²

¹ The results of the archaeological excavations are integrally published in the *Arheologija na avtocestah Slovenije* series (Vojaković, Novšak 2022; Turk, Svetličič, Pavlovič 2022).

² For the Dragomelj part of the ‘twin settlement’, see Turk, Svetličič in this volume.



Fig. 1: The Podgorica-Dragomelj 'twin settlement' investigated on the route of the motorway and the location of the potentially prehistoric hillforts in the vicinity. (basemap: <https://geohub.gov.si/ghapp/giskd>)

Sl. 1: Raziskano območje podgoriško-dragomeljskega "sometja" na avtocestni trasi ter lega okoliških, potencialno prazgodovinskih gradišč. (podlaga : <https://geohub.gov.si/ghapp/giskd>)

THE PODGORICA-DRAGOMELJ 'TWIN SETTLEMENT' FROM THE URNFIELD PERIOD: EVIDENCE FROM PODGORICA

The lowland settlement at Podgorica extended across the whole excavation area and beyond (Fig. 2), with the highest density of remains documented along a former streambed. The remains included sunken features of different shapes, sizes and functions – mostly postholes intended for the vertical supports of timber buildings – that we were able to connect into the ground plans of individual buildings. The identification of these ground plans relied on previously established criteria.³

We identified twenty buildings (A–U) (Fig. 2). All shared the construction with earthfast wooden posts. We distinguished two groups based on the presence or absence of ridge posts. The first group comprises Buildings A, B, J, K and R without ridge posts, in which the roof rested solely on the exterior wall posts. The second group consisted of Buildings N, P, S and U that had a row of ridge posts to support the roof structure in addition to the exterior wall posts.⁴

³ Dular, Tomanič Jevremov 2010, 88; Vojaković, Novšak 2022, 30.

⁴ All other buildings are insufficiently preserved to enable a ground plan reconstruction.

Some posts were strengthened with packing stones in the postholes, while others rested on a stone footing. The pieces of burnt daub and the imprints observed on them suggest wattle-and-daub buildings, with walls made of interwoven branches coated with clay. The analyses of the charcoal remains revealed the buildings were largely constructed of oak (*Quercus*), though beech (*Fagus*) and the wood of other deciduous trees such as maple (*Acer*), hornbeam (*Carpinus*) and rowan (*Sorbus*) was also used. A posthole of Building M held charcoal pieces of a conifer, either pine (*Pinus*) or fir (*Abies*). In addition to these species, the waste pits, storage pits and pits with fireplaces also revealed ash (*Fraxinus*), alder (*Alnus*) and hazel (*Corylus*) wood.⁵

The buildings fall into two size categories, one comprising Buildings A, B, J, K, N, P, R and S measuring up to 10 m in length, and the other consisting of Building U that is over 10 m long (Fig. 2).⁶

The ground plans show that the buildings were arranged in clusters with open areas between them that functioned as central courtyards. These clusters

⁵ Meta Culiberg analysed and identified all the organic remains from Podgorica (Culiberg 2022).

⁶ All other buildings are insufficiently preserved to enable us to identify the size category.

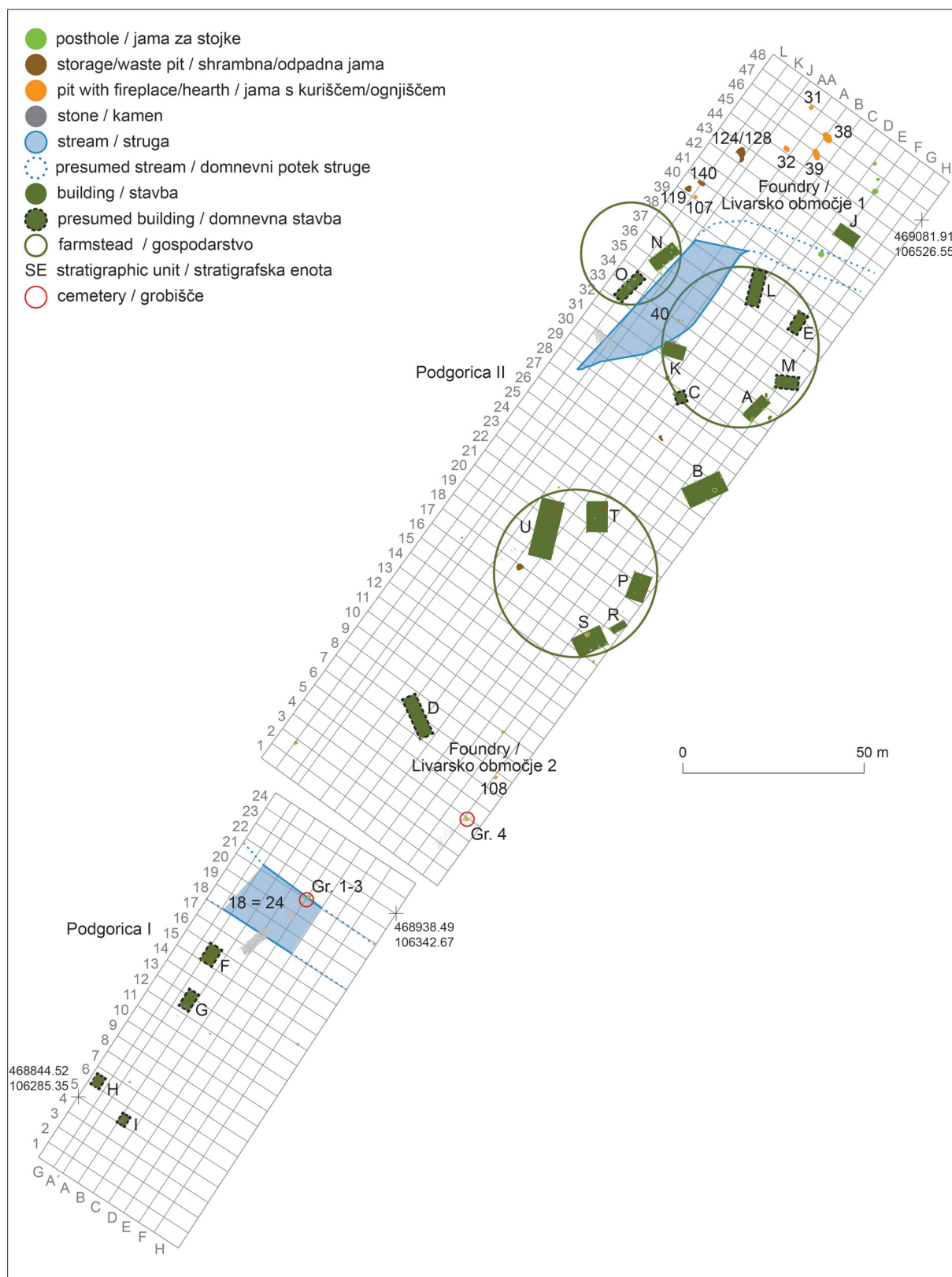


Fig. 2: Podgorica, excavation plan with marked buildings, pits and postholes from the Late Bronze Age and the cemetery from the Early Iron Age (from Vojaković, Novšak 2022, Fig. 18).

Sl. 2: Podgorica, načrt izkopnega polja z vrisanimi tlorisi stavb ter jam iz pozne bronaste dobe in grobiščem iz starejše železne dobe (po Vojaković, Novšak 2022, sl. 18).

(coordinate system / koordinatni sistem D48/GK)

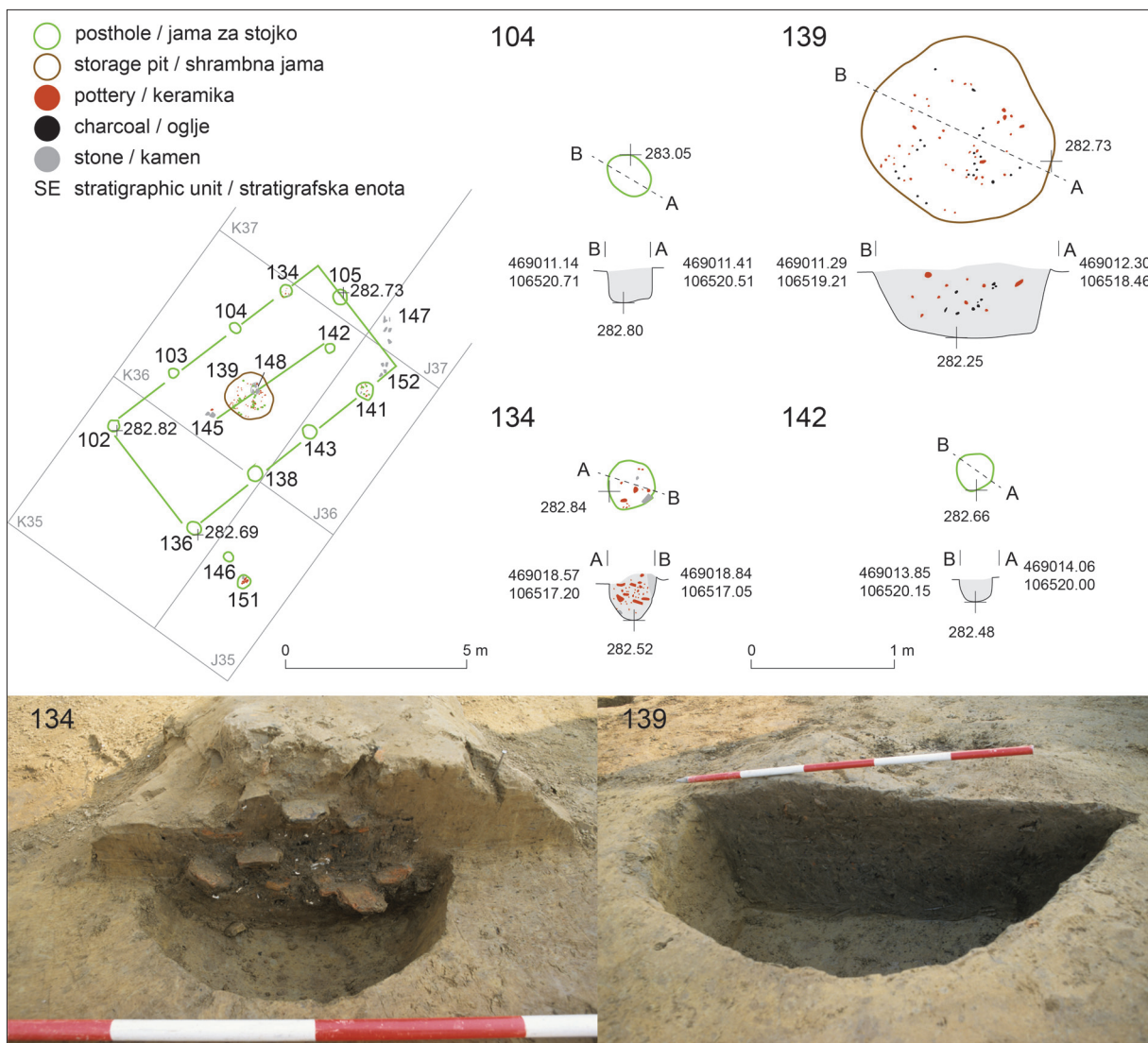


Fig. 3: Podgorica. Plan of Building N with some of its pits and postholes presented in plan and section.
 Sl. 3: Podgorica. Tloris stavbe N ter tlorisi in preseki v besedilu obravnavanih jam.
 (coordinate system / koordinatni sistem D48/GK)

formed 'farmsteads' with at least one large building (e.g., Buildings U, N and L) (Fig. 2). Buildings F, G, H and I, located south of the stream, may show a different organisation, though their poor preservation leaves this interpretation uncertain.⁷ The text below presents the construction features of the two best-preserved buildings.

Building N

Grid Squares J–K35–37 revealed a group of ten posts forming a rectangular plan of Building N,

⁷ For the geomorphological impact, see Gruškovnjak 2024, 19–20.

measuring 7.5×3.5 m with a NE–SW orientation (Fig. 2–3). The number and position of the postholes show it belongs to the second formal group (with a ridge post) and the first size category (up to 10 m in length). The postholes were dug 10 to 32 cm deep and were either oval (34×42 cm) or round in plan (diameter 16 to 44 cm), with vertical walls and a flat to concave bottom (Fig. 3).⁸ They were filled with dark brown sandy silt containing bits of charcoal, pottery sherds (Pl. 1: 6,8–11) and a glass bead (Pl. 1: 7).⁹ Standing out among the

⁸ Postholes SE 138 and SE 141 had a stepped bottom.

⁹ Posthole SE 105 was filled with a large quantity of charcoal bits (oak, beech, maple, rowan), Postholes SE 102, SE 104, SE 134, SE 136, SE 138 and SE 143 held bits

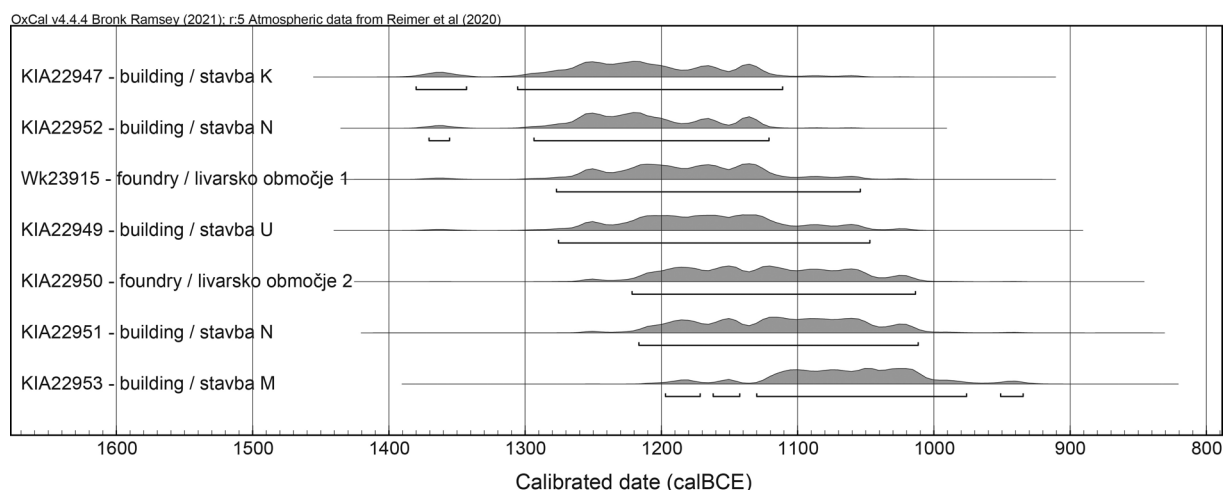


Fig. 4: Podgorica. Cumulative diagram showing the radiocarbon dates of charcoal and bone samples. Samples were analysed in the Leibniz-Labor für Altersbestimmung und Isotopenforschung, Christian-Albrechts-Universität zu Kiel, Germany, and in the Radiocarbon Dating Laboratory, University Waikato, Hamilton, New Zealand.

Sl. 4: Podgorica. Zbirni diagram radiokarbonskih datacij vzorcev. Vzorci so bili analizirani v laboratorijih Leibniz-labor für Altersbestimmung und Isotopenforschung, Univerza v Kielu, Nemčija in Radiocarbon Dating Laboratory, Univerza Waikato, Hamilton, Nova Zelandija.

postholes is that of SE 134, as it contained cremated human bones (parts of a skull, phalanx, long bone, scapula?),¹⁰ burned cattle horn and pig bones, as well as pieces of charcoal (oak). Burned bones, presumably human,¹¹ were also found in two other postholes (SE 104 contained skull fragments, SE 142 fragments of the pelvis, long bone and ulna).

The building interior revealed several small clusters of 10–40 cm large pieces of rubble, mixed with pottery sherds (*Pl. 1: 1*). Some of these clusters may represent the remains of a stone floor or the footing of loadbearing posts. Located in the centre of the building was an oval pit (SE 139) measuring 1.34 × 1.24 m in plan and 0.50 m in depth, with sloping walls and a concave bottom (*Fig. 3*). It was filled with dark grey sandy clay with charcoal bits (oak, maple) and a considerable amount of pottery sherds (*Pl. 1: 2–5*), daub fragments and burned bones, presumably human¹² (fragments of a skull, long bone and femur).

of burned animal bones, the bottom of Posthole SE 141 revealed burned animal bones and a 28 cm large piece of rubble, Posthole SE 102 held grains (wheat, millet), Posthole SE 136 grains (lentil, wheat) and burned animal bones.

¹⁰ Borut Toškan identified the animal bones (Toškan 2022), Tamara Leskovar identified those belonging to humans (Leskovar 2022).

¹¹ They are poorly preserved and therefore only tentatively identified as human.

¹² They are poorly preserved and therefore only tentatively identified as human.

Two other postholes (SE 146 and 151) were found to the southeast of the building (*Fig. 3*).

The charcoal samples from the central pit (SE 139) and one of the postholes (SE 134) were radiocarbon-dated and indicate that Building N most likely existed in the 13th or 12th century BC (2987 ± 25 BP; with a range of 1262 (40.7%)–1209 BC (1σ) and 1314 (67.7%)–1186 BC (2σ); or 2918 ± 33 BP; with a range of 1130 (50.5%)–1043 BC (1σ) and 1134 (63.3%)–1004 BC (2σ)) (*Fig. 4*).

Building U

Grid Squares A–C19–22 revealed a group of twelve postholes that constitute the ground plan of Building U measuring 15 × 6 m, with a NE–SW orientation (*Fig. 2, 5*). It falls into the second group according to the number and position of the postholes, and in the second size category (length of over 10 m). The postholes were dug to the depths of 12 to 50 cm. They were oval (28 × 34 cm) or round (diameter 24 to 50 cm), with sloping walls and a flat to concave bottom (*Fig. 5*). They were filled with dark brown sandy clay, charcoal and pottery sherds (*Pl. 1: 15–16*).¹³

¹³ Posthole SE 88 also contained the odd piece of rubble, up to 15 cm large, Pit SE 94 contained some pieces of burned bones, Pit SE 96 the remains of grains, while Pit SE 98 held up to 16 cm large rubble pieces at the top.

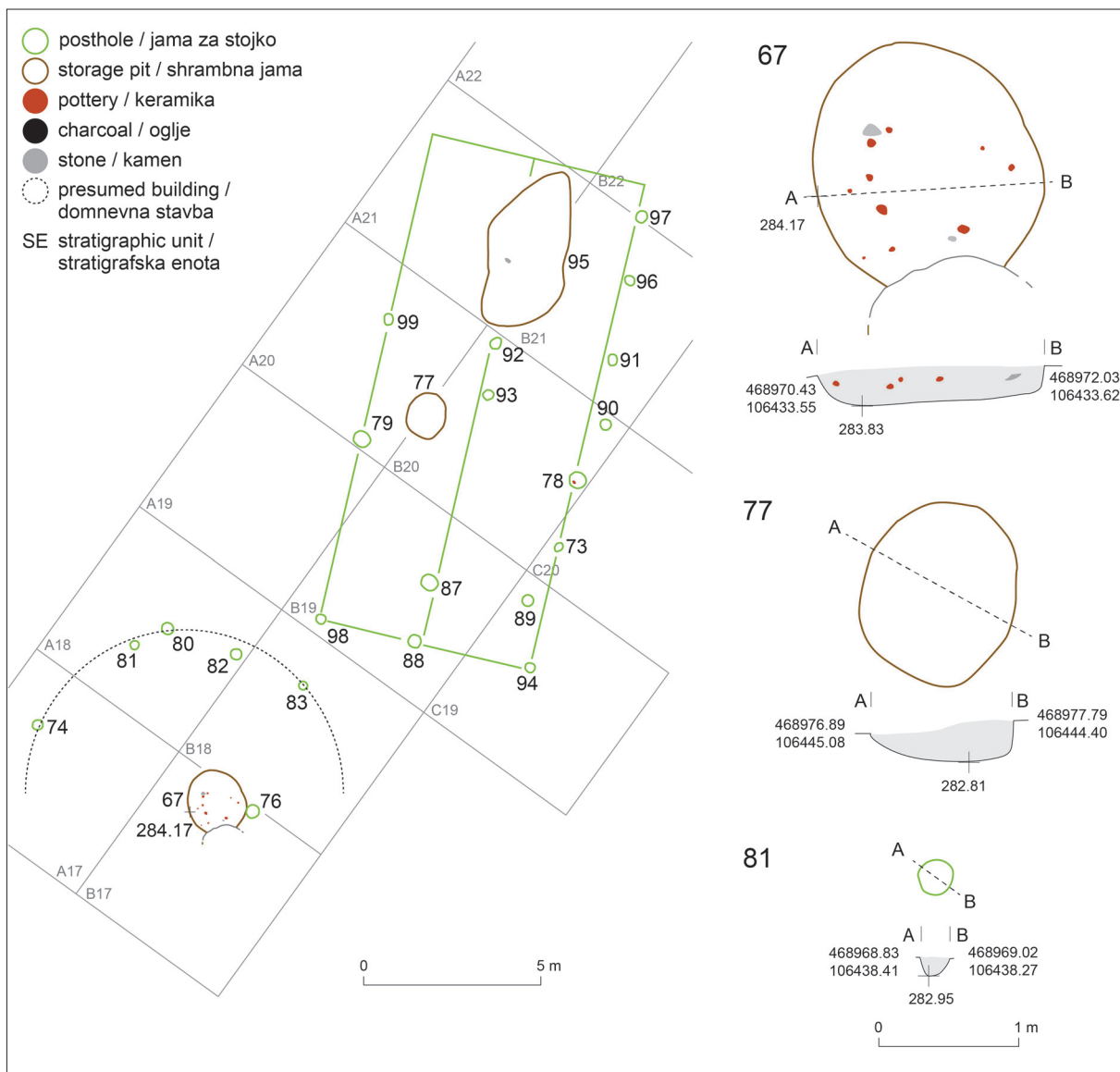


Fig. 5: Podgorica. Plan of Building U with some of its pits and postholes presented in plan and section.

Sl. 5: Podgorica. Tloris stavbe U ter tlorisi in preseki v besedilu obravnavanih jam.

(coordinate system / koordinatni sistem D48/GK)

The northernmost part of the building interior revealed a large irregularly shaped pit (SE 95), measuring $4.76 \times 2.36 \times 0.5$ m (Fig. 5). It had sloping walls and a stepped bottom. It was filled with dark brown sandy clay, mixed with a large amount of charcoal and several up to 20 cm large stones. A scraper was found among these stones (Pl. 1: 12). Southwest of Pit SE 95 was a smaller oval pit (SE 77), which measured 1.32×1.1 m in plan and 0.30 m in depth. It also had sloping walls and a concave bottom, and was filled with

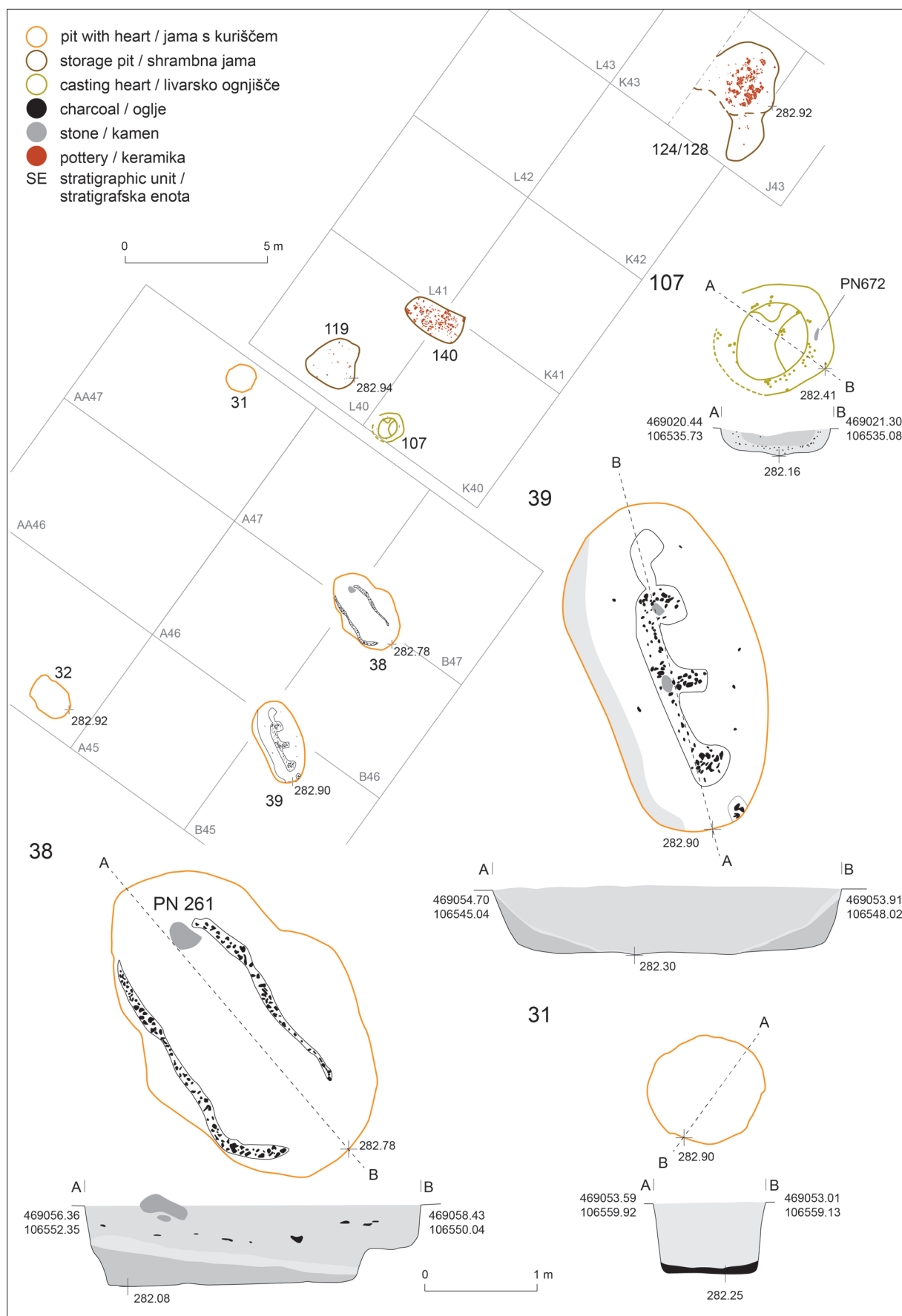
dark brown sandy clay, charcoal bits (oak, alder), grains (barley), pottery sherds (Pl. 1: 13–14) and cremated human bone fragments (rib, long bone, ulna).

Southwest of Building U was a large oval storage pit (SE 67), measuring 1.5×1.14 m in plan and 36 cm in depth, with sloping walls and a flat bottom. It was filled with dark brown sandy clay that contained pottery sherds (Pl. 2: 17–35), pieces of daub, a substantial amount of charcoal (oak) and burned animal bones (pig, dog). Several postholes

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Fig. 6: Podgorica. Plans and sections of the pits in Foundry 1. (coordinate system D48/GK)

Sl. 6: Podgorica. Tlorisi in preseki jam livarskega območja 1. (koordinatni sistem D48/GK)



were arranged in a semicircle around the pit (Fig. 5).¹⁴ One of them (SE 81) containing a glass bead (Pl. 2: 36).

The radiocarbon analysis of the charcoal from the storage pit (SE 67) dates Building U to the same time as Building N, i.e., the 13th or 12th century BC (2957 ± 34 BP; with a range of 1220 (53.3%)–1125 BC (1σ) and 1265 (91.6%)–1040 BC (2σ)) (Fig. 4).

Foundry 1

The northeastern edge of the excavation area revealed a group of pits (Fig. 2, 6). Two large oval pits stand out (SE 38 and 39), one surviving to the size of 3 × 2 m in plan and 70 cm in depth, while the other measured 3 × 1.5 m in plan and 62 cm in depth. Both contained a large amount of charcoal (oak) and ash, the first one also a stone quern (Pl. 3: 41), which suggests metallurgical activities, possibly the production of fuel – charcoal.¹⁵

Also filled with a large amount of charcoal (oak, beech) and ash was a smaller pit (SE 107), with a diameter of 26 cm, with sloping walls and a stepped bottom (Fig. 6). The ash mostly concentrated along the edge, while the charcoal was evenly distributed. Its fill included a mould for casting spearheads (Pl. 3: 37), suggesting we are dealing with the remains of a smelting-casting hearth.

Another interesting feature is a round pit with a diameter of 1.6 m (SE 31), vertical walls and a flat bottom, surviving to a depth of 65 cm (Fig. 6). Its fill consisted of a roughly 10 cm thick layer of burnt material covered by dark brown loamy clay with a substantial amount of charcoal (hornbeam, oak), as well as pottery fragments (Pl. 3: 38–39), a glass bead (Pl. 3: 40), fragments of burned animal bones and remains of grains (wheat, barley, millet).

A glass bead (Pl. 3: 44) also came to light in Pit SE 124, which measured 4.2 × 2.2 m in plan and 12 cm in depth. The pit had sloping walls and an uneven bottom (SE 128), and was filled with dark brown sandy clay containing a considerable amount of charcoal (oak), grain remains (barley), burned animal bones and several pottery sherds (Pl. 3: 42–43).

The radiocarbon dating of the bones from Pit SE 119 suggests a time between the second half of

the 13th and the 12th century BC (2967 ± 30 BP; with a range of 1260 (68.2%)–1120 BC (1σ) and 1310 (95.4%)–1050 BC (2σ)) (Fig. 4).

Foundry 2

The second area of casting activities with a presumed smelting-casting hearth was located at the south-eastern edge of the excavation area (Fig. 2, 7). It involved a large pit (SE 108) measuring 1.16 × 0.72 m in plan and 11 cm in depth, containing traces of a burning and tailings, a casting mould (Pl. 4: 47), a hammer for crushing ore (Pl. 4: 48) and a whetstone (Pl. 4: 49). The pit also contained a substantial amount of charcoal (oak, beech, alder, rowan, maple?), burned animal bones and pottery fragments (Pl. 4: 45–46).

The radiocarbon analysis of charcoal from the pit dates it to the 12th or 11th century BC (2928 ± 33 BP; with a range of 1131 (43.7%)–1049 BC (1σ) and 1215 (89.7%)–1010 BC (2σ)) (Fig. 4).

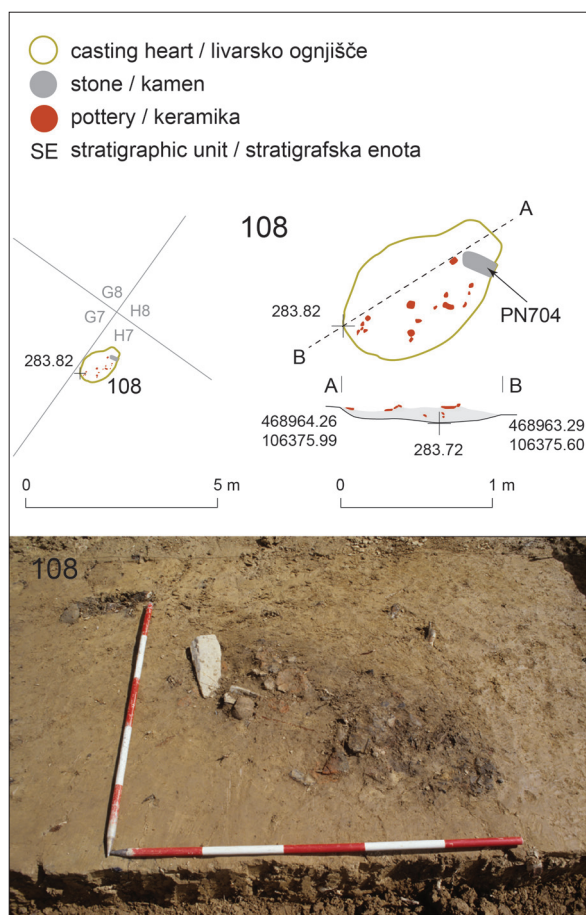


Fig. 7: Podgorica. Plans and sections of the pit in Foundry 2. Sl. 7: Podgorica. Tloris in presek jame livarskega območja 2. (coordinate system / koordinatni sistem D48/GK)

¹⁴ Pits SE 82 and SE 74 revealed the remains of grains (wheat and a hazel shell?).

¹⁵ Pleiner 2002, 115–126.

CHRONOLOGICAL ATTRIBUTION OF ARTEFACTS

The recovered pottery mainly comprises the remains of coarse kitchenware (differently sized jars and pithoi). The most common are ellipsoid jars with a rounded shoulder, long conical neck and strongly everted rim (Fig. 8: L1; Pl. 1: 6, 9; 2: 18–20; 3: 43). These are followed by ellipsoid jars with a conical neck and short everted rim (Fig. 8: L2; Pl. 1: 4, 13; 2: 35), a few examples of tulip-shaped jars with an everted rim (Fig. 8: L3; Pl. 1: 2, 10) and ellipsoid jars with a short neck and everted rim (Fig. 8: L4; Pl. 1: 14; 2: 21; 3: 38). Parallels for these vessels can be found at Tribuna in Ljubljana¹⁶ and at Rogoza near Maribor.¹⁷

The most common forms among the fine (table) ware are dishes, predominantly undecorated. The dishes with an inverted rim (Fig. 8: S1; Pl. 1: 11; 2: 24–34; 4: 46) can be paralleled with those from the settlements at Tribuna¹⁸ and Rogoza.¹⁹ Some of their rims were decorated with oblique cannelling (Fig. 8: S1; Pl. 1: 11; 2: 30, 33–34; 4: 46). The decoration of oblique, vertical and horizontal cannelling already appears in the Dobova cemetery during Ha A1.²⁰ The vessels with such decoration from Brinjeva gora date to the same period.²¹ Decorating with oblique cannelling was extremely popular in BA D–Ha A1 in the central Danube basin,²² and may have originated in the Baierdorf-Velatic group during BA D–Ha A.²³ The rims of dishes could also be decorated with horizontal facets (Fig. 8: S1; Pl. 2: 31). Examples of this come from Brinjeva gora, attributed to the habitation phases of both Ha A and Ha B.²⁴ At Dobova, such vessels of the same dating were

¹⁶ Vojaković 2013, 231–235, Fig. 121: L1a, L1b, L2a, L3; Vojaković 2023, 536–537, 542–547, 551; Pl. 2: 39–40, 43; 4: 92–94, 97; 6: 146–148, 151; 8: 189–191, 194; 9: 208–209.

¹⁷ Črešnar 2010, 37–38, Fig. 14: L4, 15: L5–L8.

¹⁸ Vojaković 2013, 219–220, Fig. 120: S2; Vojaković 2023, 536–537, 542–547, 551; Pl. 1: 3–5; 3: 52–54; 5: 107–109; 7: 160–162; 9: 200–201.

¹⁹ Črešnar 2010, 23–26, Fig. 8: Sz2, Sz3.

²⁰ Dular 1978, 37.

²¹ Oman 1981, 144–216.

²² This decoration on handles is known on an amphora from Grave 21 at Bezdanjača near Vrhovine, which the author correlates with the Lower Austrian Höting-Mörzg group and dates to Ha A1 (Drechsler-Bižić 1979–1980, 40).

²³ Črešnar 2010, 20–22, Fig. 7: Sv3b.

²⁴ Oman 1981, Pl. 5: 2; 16: 3; 33: 6, 11.

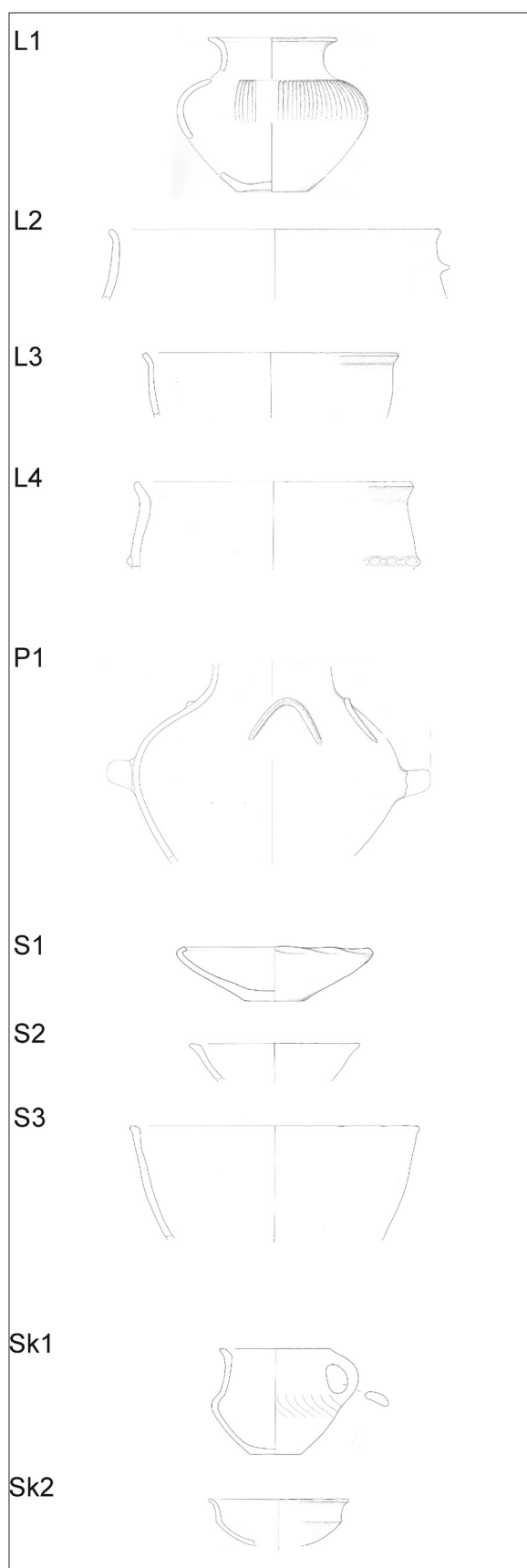


Fig. 8: Podgorica. Typology of the pottery from Podgorica.
Sl. 8: Podgorica. Tipološki prikaz posod iz Podgorice.

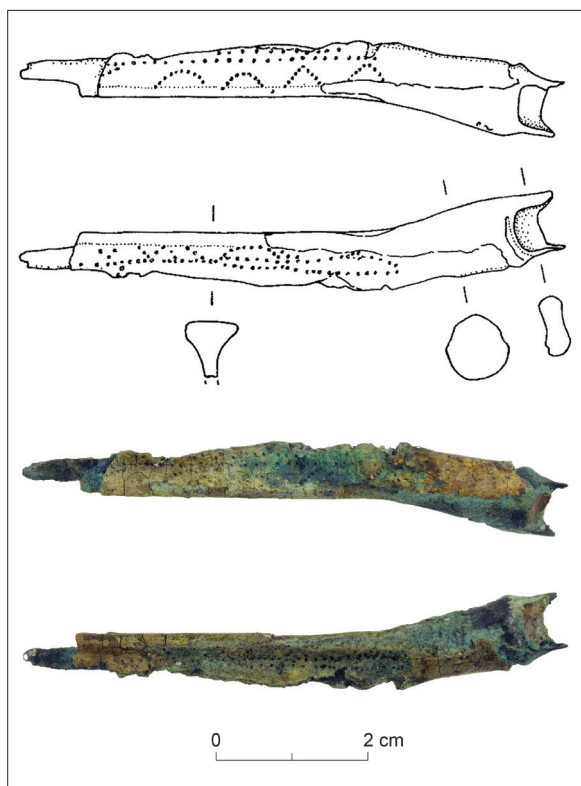


Fig. 9: Podgorica. Bronze knife found in a posthole (SE 163) of Building M. Scale = 1:1.

Sl. 9: Podgorica. Bronast nož odkrit v jami za stojko (SE 163) stavbe M. M. = 1:1.

found in Graves 90, 387 and 400,²⁵ while those from Mestne njive in Novo Mesto date to Ha B3.²⁶

Standing out among the bowls are those of an ellipsoid body with a conical neck and everted rim (Fig. 8: Sk1; Pl. 2: 35), which have parallels from the settlements at Tribuna²⁷ and Rogoza.²⁸ Particularly noteworthy is a bowl with oblique cannelling at maximum diameter (Fig. 8: Sk1). Dishes with the same decoration from Brinjeva gora are dated to Ha A, but may persist into Ha B.²⁹

The pottery also includes slightly earlier types, which are datable to Phase I of the Urnfield period according to Vinski-Gasparini (late BA C and partially BA D).³⁰ These were mainly discovered in the streambed (SE 40) and in Buildings A, B, C and D. They comprise numerous forms of jars, as well as an ellipsoid pithos with a conical neck and everted rim (Fig. 8: P1; Pl. 3: 42). There are also

single examples of conical dishes with an everted rim (Fig. 8: S2; Pl. 3: 39), bell-shaped dishes with an everted rim (Fig. 8: S3) and carinated bowls with a strongly everted rim (Fig. 8: Sk2; Pl. 1: 16). All these forms have been documented at Podsmreka³¹ and Oloris near Dolnji Lakoš.³² They are characteristic of the Virovitica group in the interfluvium of the Rivers Drava and Sava, as well as of the sites in the Bakony Hills and at Kis-Balaton during BA D.³³

An outstanding metal artefact is a tanged bronze knife that suffered heavy fire damage (Fig. 9). The surviving part of its back is straight and thickened on both sides. The blade is partly missing, but does reveal a decoration of punched dots on the upper edge. The knife was unearthed in Building M, specifically in Posthole SE 163 that was filled with bits of charcoal (oak, pine, fir). The radio-carbon analysis dates the charcoal to the 12th and 11th centuries BC (2883 ± 29 BP; with a range of 1054 (37.2%)–1004 BC at the 1σ standard deviation (68.3% probability) and 1130 (86.9%)–973 BC at the 2σ standard deviation (95.4% probability)) (Fig. 4). Parallels from Monte Prima in northern Italy suggest we can identify it as the Fontanella type and date it to the last phase of *Bronzo finale*, i.e., to the 11th–10th century BC,³⁴ though it could also be ascribed to the Wrocław – Grabiszyn type or the Bojanowo Stare variant from Phase IV of the Lužice culture.³⁵

THE STRUCTURE OF THE SETTLEMENT AND ITS ECONOMIC ACTIVITIES

The internal layout of settlements is generally believed to reflect the social organisation of its inhabitants.³⁶ The settlement at Podgorica consists of several clusters of buildings arranged around an open space – courtyard. These clusters presumably constituted individual farmsteads or economic units belonging to smaller communities in the sense of extended families or clans. It

²⁵ Stare 1975, Pl. 16: 12; 56: 5; 57: 6.

²⁶ Knez 1966, 77, Pl. 6: 2; 12: 2,4; 13: 2.

²⁷ Vojaković 2013, 255, Fig. 120: Sk4.

²⁸ Črešnar 2010, 28–30, Fig. 10: Skd4.

²⁹ Oman 1981, Pl. 7: 9.

³⁰ Vinski-Gasparini 1983, 547–617.

³¹ Murgelj et al. 2013, 21, 23, 25, 26–30, 34, Fig. 28a: S2; 29b: Sk1/2, 6; 30a: L1; 30b: L3/2, L4; 30d: L9; 30e: L12, 13; 31a: P1.

³² Dular, Šavel, Tecco Hvala 2002, 145, 147, 150, 154; Fig. 4: L1, L2; 5: L6, L8; 6: L12; 9: sk2.

³³ Dular, Šavel, Tecco Hvala 2002, 204, 205, Fig. 25: 7–8; 26: 2,3; 27: 3–5; 35: 8; 37: 2; 38: 1,7.

³⁴ Bianco Peroni 1976, 19–20, Pl. 5: 49; 61: C.

³⁵ Gedl 1984, 23–25, Pl. 4: 30.

³⁶ Smith 2014, 211–218.

seems likely that the individual buildings around the courtyard served different purposes within a single community. Settlements of a similar internal organisation have been documented in adjacent Dragomelj,³⁷ at Dobova in the Spodnje Posavje region,³⁸ as well as in Podravje, at sites such as Rogoza³⁹ in Orehova vas⁴⁰ near Maribor. These are more or less contemporaneous settlements that show a similar layout of buildings and a similar construction technique, employed to make wattle-and-daub houses of earthfast post construction. This in turn suggests a similar or even identical form of social structure or economy.

The archaeological evidence from Podgorica indicates that household activities took place inside the buildings (where most large pits of different functions were located), while economic activities, particularly foundry work, were separated and moved to the periphery of the settlement. On that note, no spindle whorls (except one unearthed in a posthole of Building N) or loom weights were found at Podgorica, while the part of the 'twin settlement' at Dragomelj only revealed such items in the pits outside the buildings,⁴¹ in courtyards. Although it is generally believed that weaving and textile production during the Bronze Age were the domain of individual households,⁴² the occurrence of different tools in the Podgorica-Dragomelj 'twin settlement' suggests specialized 'quarters' reserved for artisanal activities.

Foundry 1, located on the north-eastern edge of the Podgorica settlement, included a pit (SE 107) that held a fragment of a two-part stone mould made of talc slate (*Pl.* 3: 37). It is a metamorphic rock only found in Slovenia in the Kobansko area (for example at Pernice above Muta), and in the southern and northern parts of the Pohorje Mountains, outside Slovenia in Italy and Austria.⁴³ One side of the mould has part of the negative for casting a spearhead, while the opposite side had the negative of an object that could not be precisely identified (possibly a dress pin). The mould is intensely grey-black as the result of exposure to high temperatures. Similar two-part moulds for producing spearheads were found next to a hearth

at Pivnica near Odžak, in northern Bosnia. Alojz Benac dated them to the transitional Ha A2/Ha B1 phase, which corresponds to the time frame outlined for Podgorica.⁴⁴ A mould for casting spearheads was also found in the settlement at Varvara in northern Herzegovina.⁴⁵ Another fragment of a stone mould for casting spearheads, made of red quartz sandstone (*Pl.* 4: 50), was found at Podgorica in secondary position (in a stone structure (SE 19) next to Early Iron Age burials). As for the products made in such moulds, numerous bronze spearheads of different shapes are known from the cult hoard at Mušja jama near Škocjan,⁴⁶ from the Urnfield period,⁴⁷ a substantial number also originate from the River Ljubljanica.⁴⁸

Foundry 2 stood at the south-eastern end of the excavation area. In it, Pit SE 108 yielded another two-part mould made of talc slate (*Pl.* 4: 47) together with a stone hammer with a groove across the centre (*Pl.* 4: 48) and a whetstone fragment (*Pl.* 4: 49). The closest parallel for such a combination of tools comes from Kalnik – Igrišče in north-western Croatia, where the fragments of seven moulds for casting prepared bronze alloy, slag and a grooved stone hammer were excavated around seven hearths; the settlement at Kalnik is dated between the 13th and 11th centuries BC.⁴⁹ The combination of a mould and a stone hammer with two grooves was also found in one of the buildings at Špičak in the Czech Republic.⁵⁰ Horst studied grooved hammers and examined 850 stone examples from the Nordic cultural circle, the Lužice culture and Swiss pile-dwelling settlements, interpreting them as tools for processing bronze. Those from the Nordic circle were found in both settlements and hoards, while the hammers from Switzerland mainly originated from settlements, dating to Ha A and Ha B.⁵¹

A special find from Foundry 2 at Podgorica is a mould with the negatives for casting on three long sides: a wheel-shaped pendant and a waterfowl protoma on one of the wider sides, for the handle

³⁷ See Turk, Svetličič in this volume.

³⁸ Plestenjak et al. 2014.

³⁹ Črešnar 2010, 96–119.

⁴⁰ Grahek 2016, 29–41, Fig. 26–b.

⁴¹ See Turk, Svetličič in this volume.

⁴² Belanová Štolcová, Grömer 2010, 9–20; Harding 2000, 254–270.

⁴³ Mioč, Žnidarčič 1978.

⁴⁴ Benac 1966–67, 158.

⁴⁵ Čović 1971, 317; König 2004, 96; Gavranović 2012, Fig. 9: 1–9.

⁴⁶ Szombathy 1913, 134–140.

⁴⁷ Teržan, Borgna, Turk 2016, 63–93, Tab. 1–12, 35–50.

⁴⁸ Turk et al. 2009, 62–67, Fig. 66.

⁴⁹ Majnarić-Pandžić 1992, 57–73; Karavanić 2009; Karavanić, Kudelić 2013, 88–92; Karavanić, Kudelić 2016, 117–121; Karavanić, Kudelić, Karavidović 2015, 59–62.

⁵⁰ Smrž, Mlady 1979, 31–32.

⁵¹ Horst 1986, 85.

of a tanged knife on the opposite wider side and for two thin round-sectioned objects, possibly pins, created on one of the narrow sides. All four long sides have dowel holes, while the two short sides are finely finished. The mould was intended for making different objects, possibly for trade, though it could also have been the property of an itinerant foundry worker. Wheel-shaped pendants are objects with a broad scope in both time and type, appearing as early as the Middle Bronze Age, becoming especially common during the Urnfield period and continuing the tradition into the Initial Iron Age. In Slovenia, an assemblage of such pendants forms the Kanalski Vrh I hoard, which contains 43 examples of different types and is dated to the transition from Ha A to early Ha B, or to Horizon III of hoards according to Peter Turk.⁵² Individual examples are also known from the hoards at Mušja jama near Škocjan⁵³ and Ivanec Bistranski from Phase IV of hoards according to Vinski-Gasparini.⁵⁴ Interestingly, such pendants are very rare goods in the LBA graves in Slovenia, mainly associated with the burials of women. Two pendants of different types came to light at Dobova, one of which was found in Grave 289 and has a cross inside the thick outer ring similarly as the example from Podgorica.⁵⁵ Grave 289 is rich and ranks among the earliest of the cemetery, dating to Ha A1, which corresponds to Phase II of the Urnfield culture according to Vinski-Gasparini.⁵⁶ The same dating is shared by the other grave with a wheel-shaped pendant from Dobova – Grave 17.⁵⁷ The motif of a water bird – duck was also very popular throughout the Urnfield period. Depictions of waterfowl are characteristic of the Greek and eastern Mediterranean cultures, and continue to be used in the Iron Age. The geographically and formally closest parallel for the mould with the waterfowl negative from Podgorica is a fragmented mould from Rifnik, dated to Ha B1/B2, which bears the negative of two water birds.⁵⁸ The duck motif is also present on a fragment of a stone mould from the metallurgical centre of the Villanovan culture in Frattesina, in the lower reaches of the

River Po.⁵⁹ A bronze pendant with a pair of bird protomes comes from the Kanalski Vrh I hoard.⁶⁰ We should also mention the find of a small bronze female figurine with stylized arms in the shape of ducks, unearthed in one of the barrows between Griže and Šešče in the Savinja valley, symbolizing the Mistress of the Animals and dated to the Rifnik II/III horizon or Ha B2/B3.⁶¹ Peter Turk proposed an intriguing interpretation of the mould with a wheel-shaped pendant and a water bird from Podgorica, suggesting that it might have been used to cast parts of a cult wagon. Such wagons came to light as grave and/or votive (water or marsh) finds in different parts of Europe, during the Urnfield period and the Initial Iron Age. One such wagon, which is closest both geographically and chronologically, was found in a grave from Acholshausen in Franken, dated to the 11th century BC.⁶²

The functional link between the metallurgical-mining tools, such as moulds, hammer and whetstone, and the hoard of bronze raw material and ingots from Dragomelj⁶³ indicates foundry activities that took place in the Podgorica-Dragomelj 'twin settlement' during the Late Bronze Age, possibly even wider in the Ljubljana basin, as traces of these activities were also excavated in the partially contemporaneous settlement at Tribuna.⁶⁴ The organisation of the settlement excavated at Podgorica indicates the foundry areas were moved to its periphery. A similar situation has been observed at several sites outside Slovenia, for example at the lowland settlements of the Po valley such as Frattesina – Fratta Polesine, where finds of ivory, glass, Baltic amber, bronze plano-convex ingots and moulds show that workshops were located in the eastern part of the settlement; the settlement was inhabited roughly from the 12th to the 9th century BC.⁶⁵ Contemporaneous with Frattesina and located only 35 km to the west, was another LBA settlement at Mariconda di Melara, which revealed glassworks.⁶⁶ A variety of workshops was active contemporaneously (11th–8th century BC)

⁵² Teržan 1995, 203, Pl. 100–103; Žbona-Trkman, Bavdek 1996, 31–72; Turk 1996, 113–116; Turk 2001a, 249–279; Trampuž-Orel, Heath 2001, 143–171.

⁵³ Teržan, Borgna, Turk 2016, Tab. 33: 2–3.

⁵⁴ Žbona-Trkman, Bavdek 1996, 63.

⁵⁵ Stare 1975, 76, Pl. 40.

⁵⁶ Vinski-Gasparini 1973, 72, 95.

⁵⁷ Stare 1975, 28, Pl. 8: 6.

⁵⁸ Bolta 1959, 273.

⁵⁹ Le Fevre-Lehoerff 1992, 208.

⁶⁰ Žbona-Trkman, Bavdek 1996, 64; Teržan 1995, 203, Pl. 99: 18.

⁶¹ Teržan 1990, 111–112.

⁶² Turk, Turk 2019, 205, Fig. 256.

⁶³ See Turk, Svetličič in this volume.

⁶⁴ Vojaković 2023, 531–590.

⁶⁵ Bietti Sestieri 1984a, 413–427; Bietti Sestieri 1984b, 429–464; Bietti Sestieri et al. 2015, 427–436; Bietti Sestieri, Bellintani, Giardino 2019.

⁶⁶ Towle et al. 2002, 7–68.

in Montagnana, 30 km northwest of Frattesina, mostly in the eastern part of the settlement that revealed furnaces, moulds, metal (especially bronze), glass, loom weights, spindle whorls, rings, antler and other objects.⁶⁷ Connections with sites in the Po valley may also be identified in the four glass beads found at Podgorica. They are small annular beads of green (three) and turquoise (one) glass, measuring 0.4–0.5 cm across (*Pl. 1*: 7; 2: 36; 3: 40, 44). Two were found in the pits of Foundry 1 (SE 31 and 124), one in a posthole of Building N (SE 102) and one in a posthole of Building U (SE 81), both identified as the main buildings of individual households. Glass beads are rare finds in the Urnfield period settlements in Slovenia, comprising only a few stray examples.⁶⁸ Without PIXE and PIGE analyses, the origin of the Podgorica beads remains unknown, though they could have been imported from the northern Italian production centre at Frattesina, similarly as the bead found at Medvode – Svetje.⁶⁹

RITUAL PRACTICES IN THE SETTLEMENT

The archaeological investigations in Podgorica have revealed remains that point to ritual practices within the settlement. These came to light in the already mentioned Buildings N and U, which are two of the twenty identified buildings or structures. Both seem to have been central buildings within their respective clusters, probably separated by a stream. Both incorporated sunken features of different purposes (postholes and larger pits inside and next to the buildings) that contained burned animal and cremated human bones; Building N revealed an exceptionally high density of bone fragments in its postholes.⁷⁰ These bone remains come from the fills, indicating the possibility of them representing the result of a secondary process, as storage pits, waste pits and postholes could have been filled either during the settlement's existence or after it had been abandoned.

Although the context is not clear, we should consider the following. Cremated human bones

are not part of the typical household contents, nor can they be associated with kitchen waste, but may be interpreted as evidence of special rituals related to building construction.⁷¹ Building sacrifices stem from the belief that buildings can be endowed with prosperity and magical protection if offerings are placed at important spots in their structure. There are numerous examples of building sacrifices in northern Europe (hillforts, buildings, roads, walls and wells).⁷² Offerings were placed at special spots, for example under the threshold, above the main entrance, in building foundations or postholes, in hearths, or in the floor.⁷³ Capelle also describes several instances of human burials within Iron Age buildings in northern Europe,⁷⁴ with several of them belonging to small children. LBA and Iron Age ritual burials of newborn and stillborn infants inside buildings have been recorded in Cantabria (and other parts of the Iberian Peninsula),⁷⁵ as well as in Great Britain and central Europe.⁷⁶ The burial of a premature infant was recently found in the hillfort on Pungrt near Ig, in one of the Late Hallstatt buildings (Building 22).⁷⁷ A human bone (phalanx) fragment and a dog bone were found in the fill of a posthole in Building 12 = 13 from Phase IV (8th century BC) of the Tribuna settlement in Ljubljana.⁷⁸ The dog is considered man's best friend, a hunting and battle companion, a guardian of the domestic space and of livestock, hence an important element in various rituals, ceremonies and funerary rites, but not a food source.⁷⁹ At Podgorica, a burned dog phalanx was found near Building U in Pit SE 67. Two dog mandibles were also found at Ormož, one of them next to a large building that is considered central within the settlement (Building 13 at Skolibrova ulica).⁸⁰

The layout of the lowland Podgorica-Dragomelj 'twin settlement', at least the part at Podgorica,

⁷¹ Paulsson-Holmberg 1997, 169–172.

⁷² Capelle 1987; Hauge 1965, 76, 83, 96; Paulsson 1993, 13.

⁷³ Paulsson 1993, 15.

⁷⁴ Capelle 1987, 185, 191, 197, 204.

⁷⁵ Galilea, García 2002; Gusi, Luján 2011; Torres-Martínez 2011, 329.

⁷⁶ Karl, Löcker, 2011, 37.

⁷⁷ Vojaković et al. 2023.

⁷⁸ Vojaković 2023, 554; Škvor Jernejčič, Toškan 2018, 256–258.

⁷⁹ Škvor Jernejčič, Toškan 2018, 249–260.

⁸⁰ Dular, Tomanič Jevremov 2010, 90, 94, 103; Škvor Jernejčič, Toškan 2018, 256.

⁶⁷ Bianchin Citton 1998, 429–433; De Min 1984, 642–650; Bianchin Citton 2015, 251–266; Bianchin Citton, Balista, De Angeli 2015, 461–467.

⁶⁸ Leghissa et al. 2023, 442.

⁶⁹ Leghissa et al. 2023, 434–444.

⁷⁰ Toškan 2022, 88–90, Fig. 124.

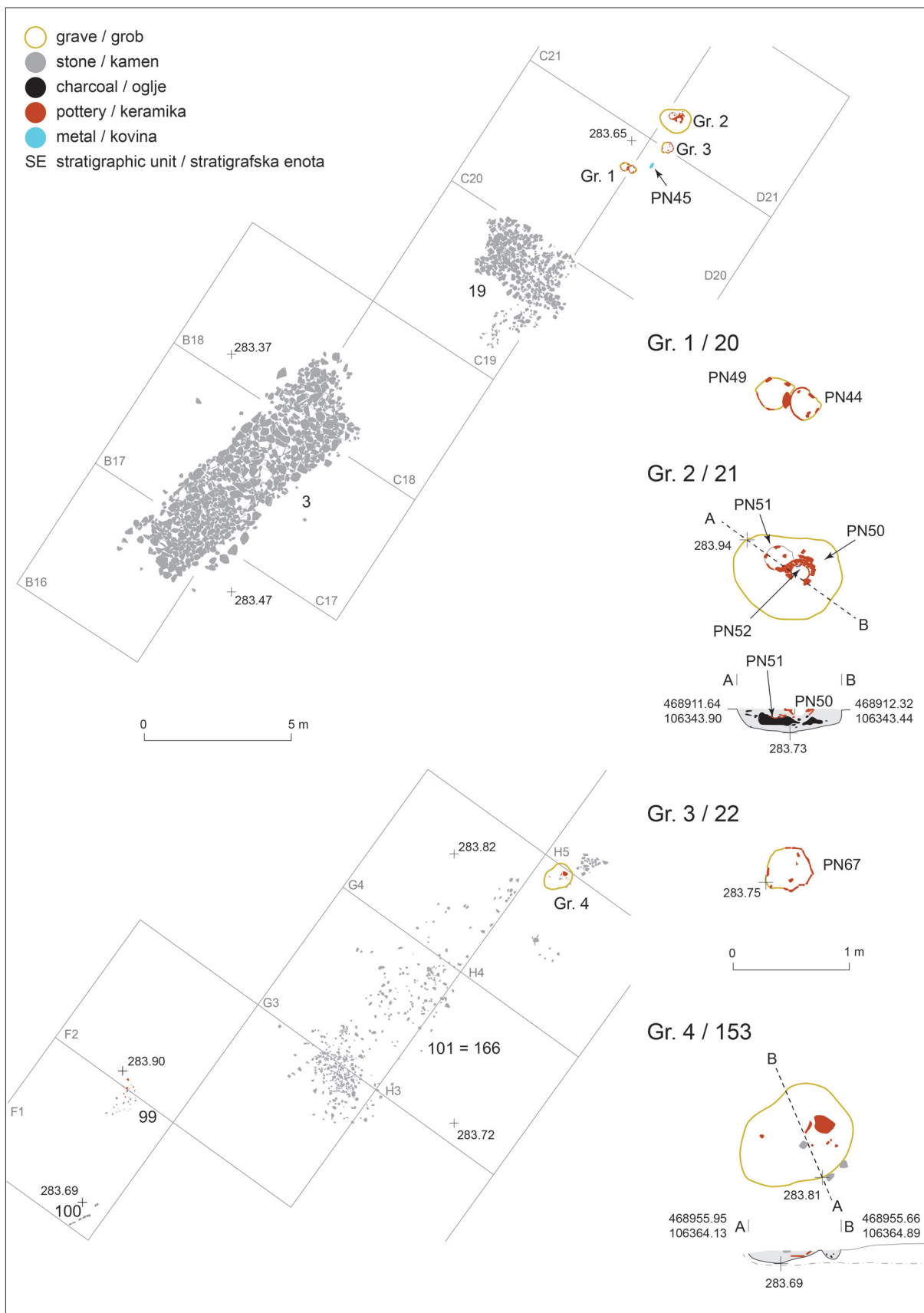


Fig. 10: Podgorica. Plan reconstruction of Graves 1–4. (coordinate system D48/GK)

Sl. 10: Podgorica. Tlorisna rekonstrukcija grobov 1–4. (koordinatni sistem D48/GK)

shows several residential or economic nuclei with buildings clustered around a courtyard – functioning as farmsteads – located in the centre of the settlement and foundries removed to the periphery. The available evidence indicates that foundry activities, with the production of bronze objects, were an important part of the settlement's economy, possibly forming part of a supra-regional network. The proximity of water (streambed) makes the choice of location logical. The disposition of the buildings, all of which show a single construction phase without traces of repairs or modifications, suggests that the settlement was not of a long duration. The analysis of the pottery, metal and stone finds reveals the settlement can be dated from the Early Urnfield period (Late BA D/Ha A1) and potentially up to the transition to the Late Urnfield period (Ha A2/B1), i.e., roughly from the 13th to the 11th century BC, with an emphasis on the 12th and 11th centuries BC. This time frame, based on the archaeological evidence, is corroborated by a series of radiocarbon dates (*Fig. 4*).

GRAVES FROM THE EARLY IRON AGE

The LBA 'twin settlement' came to an end around 1000 BC, which may have been associated with the process of early nucleation⁸¹ and consequently the rise of a new urban centre in Ljubljana.⁸² After this, the area was abandoned for several centuries. The southern part of the investigated area was then reused as a burial ground towards the end of the 7th or beginning of the 6th century BC.

Two substantial and elongated patches of stones oriented NE–SW were unearthed in the slightly sunken terrain in Grid Squares B–C16–21 (*Fig. 10*). One was a stone paving of a linear shape (SE 3), measuring 8.5 m in length and 2.5 m in width, consisting of differently sized and predominantly non-carbonate rubble (up to 29 cm large), cobbles and debris.⁸³ Located just under 4 m northeast

was another patch (SE 19), measuring 3 × 2.5 m (probably damaged), composed of differently sized and carefully arranged cobbles and differently sized rubble (up to 8 cm in size), among which was a mould for casting spearheads (*Pl. 4: 50*). The stones here were laid on an up to 15 cm thick layer of clay (SE 23), which covered the LBA streambed.⁸⁴ The stone patches are interpreted as the remnants of a paved path or entranceway that might have led to the graves, presumably under a barrow.

Grave 1

It was a grave (SE 20) without a clearly discernible pit found in Grid Squares C–D20, near the end of the stone patches (*Fig. 10*). Of its goods only two⁸⁵ rather damaged vessels survived (*Pl. 5: 51*), occupying an area of 0.52 × 0.25 m. In their immediate vicinity, 50 cm northeast of the vessels, lay an iron lozenge-shaped belt plate (*Pl. 5: 52*). No ashes or cremated remains were found.

Grave goods: The pedestal bowl (*Pl. 5: 51*) belongs to Type C9 after Dular.⁸⁶ Numerous parallels from the graves at Stična, Magdalenska gora and Vače show that such vessels appear in the Serpentine phase and remain in use in the following, Certosa phase.⁸⁷ The iron lozenge-shaped belt plate with traces of a mesh fabric (*Pl. 5: 52*) belongs to the type characteristic of the Stična-Novo mesto 2 and Serpentine phases. Most of these belt plates occur in inhumation graves. In cremations, they were found at Magdalenska gora (Preloge, Grave 13/10), Stična (Grave 48/30) and Podzemelj (Grave 28/1 from Grm). Belt plates generally formed parts of the male outfit that also comprised weapons or tools (awl or whetstone).⁸⁸ Considering the parallels, Grave 1 can be attributed to the Stična-Novo mesto 2 or Serpentine phase (around 600 BC).

⁸¹ Zamboni 2021, 387–430.

⁸² Vojaković 2023, 531–590.

⁸³ The rubble is predominantly of quartz siltstone and Carboniferous and quartz sandstone of Permian age. Carboniferous rocks are found on the surface in proximity to the site, on the peaks of the isolated hill west of Podgorica (Podgoriški hrib, Soteški hrib, Strašnjak), as well as on a ridge east of the site (Videmski hrib, Ajdovščina). Permian reddish quartz sandstone and conglomerate (Gröden Formation) are found slightly further away, on the ridge

between Mengeš and Šinkov Turn and on the left bank of the River Kamniška Bistrica above Rova near Radomlje. Non-carbonate cobbles were brought from the gravel beds of either the Kamniška Bistrica or the Sava.

⁸⁴ A natural depression (SE 18) was found under the levelling and revealed LBA pottery.

⁸⁵ One of the vessels is lost and is not included in the catalogue.

⁸⁶ Dular 1982, 50, *Pl. 16: 146*.

⁸⁷ Dular 1982, 51.

⁸⁸ Tecco Hvala 2012, 165–169.

Grave 2

The grave (SE 21) was excavated in Grid Squares C–D21, located approximately 1.6 m northeast of Grave 1 (*Fig. 10*). Its oval pit with sloping walls and an uneven bottom measured 0.96×0.7 m in plan and survived to a depth of 20 cm. It held at least two pottery vessels (*Pl. 6: 54–56*) and other grave goods (*Pl. 6: 57–62*). It was filled with dark brown to black silty clay mixed with a significant amount of charcoal and seeds, while the cremated human bones were placed in both vessels – urns. Some fragments of cremated bones were also found at the top of the grave fill, indicating that the grave had been disturbed prior to discovery. One urn (*Pl. 6: 54*) contained 7.5 g of cremated bones of the skull and long bones, while the other (*Pl. 6: 55*) held 18.7 g of cremated remains of the skull, long bones and articular surface fragments. The poorly preserved bones could not be used to determine the sex or height of the individual, though the thickness of the cranial bones and some long bones does suggest an adult. The presence of cremated remains in two vessels suggests a double burial, which the anthropological analysis could not confirm due to the poor preservation of the bone remains.⁸⁹ Oak and beech were identified among the charcoal remains.

Grave goods: Pottery vessels in the shape of situlae are generally considered imitations or substitutes for the much more valuable and prestigious bronze situlae, and are a common grave good within the Eastern Alpine Hallstatt and northern Italian cultural groups.⁹⁰ The pedestal situla from Podgorica (*Pl. 6: 54*) most closely resembles those of Type 2 after Dular⁹¹ (also see the pedestal situlae of Type IIb1 after Tecco Hvala).⁹² It was used as an urn and held ashes and cremated bones, as well as a heavily damaged iron awl/chisel (*Pl. 6: 58*) and an iron tanged knife (*Pl. 6: 57*). Such knives occur throughout the Hallstatt period in the graves of both men and women.⁹³ Ashes and cremated bones were also found in a vessel only surviving in its lower part (*Pl. 6: 55*). Other grave goods include two pieces of iron awls/chisels (*Pl. 6: 59, 61*), an iron nail (*Pl. 6: 60*) and a small bead of

black glass (*Pl. 6: 62*). The human remains placed in two urns suggest a grave with a double burial, while the grave goods date it to the Stična-Novo mesto 2 or Serpentine phase.

Grave 3

The grave (SE 22) without a clearly discernible pit was excavated in Grid Squares D20–21, less than a meter northeast of Grave 1 and roughly 0.5 m south of Grave 2 (*Fig. 10*). Only a damaged vessel (*Pl. 5: 53*) survived, covering an area of 0.32×0.25 m. No cremated remains or human bones were found. Grave goods: The vessel (*Pl. 5: 53*) is a pedestal bowl of Type 3 after Dular.⁹⁴ Such bowls appear in the Stična-Novo mesto 2 phase and continue to be used in the following Serpentine phase.

Excavated some 20 m northeast of Graves 1–3, in Grid Squares F–H1–5, was scattered rubble and cobbles documented in an elongated patch with a NE–SW orientation and two concentrations (*Fig. 10*). The first concentration (SE 99) measured 1.5×0.8 m and comprised differently sized (up to 7 cm) rubble mixed with pottery sherds. Next to it was a 3.2 m long semicircular row of flat and up to 24 cm large pieces of rubble (SE 100). The second concentration (SE 101, SE 166) was located just over 3 m to the southwest, measuring 7×5 m and consisting of up to 19 cm large cobbles. These remains may also represent a damaged path or entranceway or an above-ground grave construction of a presumed barrow.

Grave 4

The oval pit of this grave (SE 153) was excavated in Grid Squares H4–5, at the edge of the stone patch (SE 99) (*Fig. 10*). It measured 1×0.84 m and survived 16 cm deep, it had sloping walls and an uneven bottom. The pit held two pottery vessels (*Pl. 6: 63–64*). It was filled with black sandy silt mixed with some pieces of rubble, a large amount of charcoal, ashes and cremated bones (4 g of skull and long bone fragments). The bone remains are poorly preserved and do not enable conclusions as to the sex and height of the deceased, though a skull fragment with an open suture and the roughly 4 mm thick flat skull bones do suggest an adult younger than 30 years.

⁸⁹ Tamara Leskovar performed all the anthropological analyses (Leskovar 2022).

⁹⁰ Teržan 2014, 255.

⁹¹ Dular 1982, 97, *Fig. 7: 13*.

⁹² Tecco Hvala 2014, 333–334, *Fig. 4: IIb1*.

⁹³ Tecco Hvala 2012, 135–136.

⁹⁴ Dular 1982, 45–46, *Pl. 13: 119–123*.

Grave goods: The pedestal dish (*Pl.* 6: 63) belongs to Type 1 after Dular.⁹⁵ The rare known parallels suggest that such pedestal dishes were used primarily in the Late Hallstatt period. The other vessel was a dish with an inverted rim (*Pl.* 6: 64), with parallels occurring within a broader time frame. The burial can thus be dated to the Serpentine or Certosa phase.

The excavated remains suggest the area was used as a cemetery during the transition from the Early to the Late Hallstatt period. Graves 2 and 4 were clearly cremation burials, Graves 1 and 3 may also have been cremations, though we cannot exclude the possibility of contemporaneous inhumations.⁹⁶ The modern-period agricultural land use also erased any clear evidence that would reveal whether the graves were covered by barrows or rather formed parts of a flat cemetery.

⁹⁵ Dular 1982, 72, Pl. 24: 233–235.

⁹⁶ The absence of ashes and cremated bones, the position of the grave goods and the absence of grave pits suggest Graves 1 and 3 could together represent a single inhumation burial.

The pottery grave goods and even more so the iron lozenge-shaped belt plate indicate the burials can be dated to the Stična-Novo mesto 2 or Serpentine phase (c. 600 BC). The settlement of the people who buried their dead in the lowland area of Podgorica is to be sought in the vicinity, with its location possibly indicated by a LiDAR image of the area (*Fig.* 1). The image shows that the nearest hillfort is on Podgoriški hrib (0.6 ha), while two others were located further away on Soteški hrib (15 ha) and Strašnjak (0.1 ha). It is also possible that the associated settlement was in the lowland, in the immediate vicinity of the cemetery; this possibility is suggested by the presumably contemporaneous remains excavated at the Dragomelj site, which could be interpreted as either habitation or funerary in nature.⁹⁷

Translation: Andreja Maver

⁹⁷ See Turk, Svetličič in this volume; Turk 2001b, 161–162, Fig. 7.

CATALOGUE

The catalogue only brings the finds unearthed in Buildings N and U, in Foundries 1 and 2, as well as in the graves. To facilitate cross-referencing, the numbers of special finds (PN) are added at the end. The small finds are kept in the Mestni muzej Ljubljana.

The information on the finds comprises the type or shape of the vessel, the surface colour, grain-size of the fabric and decoration. Drawings are the work of Simona Tomažič, Ida Murgelj, Borut Plohl, Jerica Brečič in Suzana Puhar.

Okrajšave / Abbreviations:

b. = base / dno	SE = stratigraphical unit / stratigrafska enota
l. = length / dolžina	w. = width / širina
GS = grid square / kvadrant	r. = rim / ustje
frg = fragment / odlomek	h. = height / višina
surv. = surviving / ohranjen	[] = not drawn / ni izrisano
d. = diameter / premer	

Plate 1

Building N

1. Frg of a vessel; reddish-brown; medium-grained; cordon with impressions. Surv. l. 3.8 cm, surv. w. 4.2 cm. Floor or footing SE 148, GS K37, PN 959.
2. Rim frg of a jar; reddish-brown; medium-grained; finger impressions on the rim. R. d. 28.8 cm, surv. h. 4.2 cm. Pit SE 139, GS K36, PN 851.
3. Frg of a vessel; dark to light brown; fine-grained; conical knob. Surv. l. 3.9 cm, surv. w. 4.2 cm. SE 139, GS K36, PN 850.
4. Rim frg of a jar; dark brown; fine-grained. Surv. l. 2.3 cm, surv. w. 2.7 cm. SE 139, GS K36, PN 893.
5. Domed spindle whorl; mottled light to dark brown. D. 5.7 cm, h. 2.8 cm. SE 139, GS K36, PN 886.

6. Rim frg of a jar; dark brown; medium-grained; horizontal cannelling on rim interior. R. d. 20.2 cm, surv. h. 4.6 cm. Posthole SE 102, GS K35, PN 739 + PN 741.
7. Small annular bead of green glass. D. 0.4 cm, h. 0.3 cm. SE 102, GS K35, PN 964.
8. Rim frg of a jar; mottled light to dark brown; fine-grained. Surv. l. 3.5 cm, surv. w. 4.3 cm. Posthole SE 134, GS J36, PN 926.
9. Rim frg of a jar; light brown; fine-grained. Surv. l. 3.3 cm, surv. w. 4.5 cm. Posthole SE 141, GS J36, PN 896.
10. Rim and body frg of a jar; mottled dark to light brown; fine-grained. R. d. 13.9 cm, surv. h. 5.3 cm. SE 141, GS J36, PN 898.
11. Rim frg of a dish; dark brown; fine-grained; oblique cannelling on the rim. Surv. l. 2 cm, surv. w. 2.6 cm. SE 141, GS J36, PN 897.

Building U

12. Straight scraper of silicified green tuff or tuffite. Flaked off a medium-sized cobble. Surv. l. 7.2 cm, surv. w. 4.9 cm. Pit SE 95, GS A–B21, PN 633.
13. Rim and body frg of a jar; mottled dark brown to brown; medium-grained; horizontal facet on rim interior. R. d. 33.4 cm, surv. h. 9.7 cm. Pit SE 77, GS A–B20, PN 653.
14. Rim and body frg of a jar; mottled dark brown to brown; fine-grained; cordon with impressions, facet on rim interior. R. d. 33.4 cm, surv. h. 9.7 cm. SE 77, GS A–B20, PN 654.
15. Frg of a dish with a horizontally perforated grip; dark brown; fine-grained. Surv. l. 2.9 cm, surv. w. 2.5 cm. Posthole SE 73, GS C20, PN 612.
16. Rim and body frg of a bowl; brown; fine-grained. R. d. 13.2 cm, surv. h. 3.2 cm. Posthole SE 78, GS B20, PN 651.

*Plate 2***Vicinity of Building U**

17. Frg of a pithos with an elongated grip at maximum diameter; mottled reddish to dark brown; fine-grained. Surv. l. 6.9 cm, surv. w. 9 cm. Pit SE 67, GS B17, PN 507.
18. Rim frg of a pithos; reddish-brown; fine-grained; horizontal cannelling on rim interior. R. d. 27.9 cm, surv. h. 4.1 cm. SE 67, GS B17, PN 524.
19. Rim frg of a jar; light brown; fine-grained; horizontal facet on rim interior. Surv. l. 1.5 cm, surv. w. 3.9 cm. SE 67, GS B17, PN 538.
20. Rim frg of a jar; dark brown; fine-grained. R. d. 24.4 cm, surv. h. 3.7 cm. SE 67, GS B17, PN 523.
21. Rim and body frg of a jar; reddish-brown; fine-grained. R. d. 14.3 cm, surv. h. 3.8 cm. SE 67, GS B17, PN 525.
22. Pedestal frg of a vessel; mottled dark brown to brown; fine-grained. B. d. 20.3 cm, surv. h. 2.6 cm. SE 67, GS B17, PN 531.
23. Rim frg of a jar; dark brown; fine-grained. Surv. l. 2.3 cm, surv. w. 3 cm. SE 67, GS B17, PN 528.
24. Frg of a dish with a vertical and horizontally perforated grip at maximum diameter; mottled reddish to dark brown; medium-grained. R. d. 18 cm, surv. h. 4.7 cm. SE 67, GS B17, PN 503.
25. Frg of a dish; dark brown; fine-grained. R. d. 18.4 cm, surv. h. 4 cm. SE 67, GS B17, PN 527.
26. Frg of a dish; mottled dark brown to brown; fine-grained; knob applied below the rim. R. d. 19.5 cm, surv. h. 2.4 cm. SE 67, GS B17, PN 526.
27. Frg of a dish; mottled dark brown to brown; fine-grained. R. d. 17.8 cm, surv. h. 5.4 cm. SE 67, GS B17, PN 522.
28. Frg of a dish; mottled dark brown to brown; fine-grained. R. d. 24.3 cm, surv. h. 3.1 cm. SE 67, GS B17, PN 536.
29. Frg of a dish; mottled dark to reddish-brown; fine-grained. R. d. 21.9 cm, surv. h. 3.4 cm. SE 67, GS B17, PN 535.
30. Frg of a dish; reddish-brown; fine-grained; oblique cannelling on the rim. R. d. 28.3 cm, surv. h. 3 cm. SE 67, GS B17, PN 534.
31. Frg of a dish; dark brown; fine-grained; horizontal facets on the rim. Surv. l. 2.5 cm, surv. w. 4.1 cm. SE 67, GS B17, PN 541.
32. Frg of a dish; mottled dark to reddish-brown; fine-grained. R. d. 16.3 cm, surv. h. 2.6 cm. SE 67, GS B17, PN 547.

33. Frg of a dish; mottled dark to reddish-brown; fine-grained; oblique cannelling on the rim. Surv. l. 4.5 cm, surv. w. 2.1 cm. SE 67, GS B17, PN 548.
34. Frg of a dish; mottled dark to reddish-brown; fine-grained; oblique cannelling on the rim. R. d. 26.1 cm, surv. h. 3 cm. SE 67, GS B17, PN 549.
35. Rim frg of a bowl; dark brown; fine-grained. R. d. 16.4 cm, surv. h. 3.6 cm. SE 67, GS B17, PN 521.
36. Frg of a small annular bead of turquoise glass. D. 0.5 cm, w. 0.1 cm. Posthole SE 81, GS K17, PN 965.

*Plate 3***Foundry 1**

37. Mould of grey-green foliated talc schist for making a spearhead on one side and an unidentifiable object, possibly a vase-headed pin, on the other side. L. 12.8 cm, w. 5.4 cm, h. 2.4 cm. Pit SE 107, GS K39–40, PN 672.
38. Rim frg of a jar; light brown; fine-grained; oblique impressions on the rim. Surv. l. 2.9 cm, surv. w. 3.5 cm. Pit SE 31, GS AA47, PN 236.
39. Frg of a bowl; very mottled dark brown to brown; medium-grained. R. d. 19 cm, surv. h. 3.7 cm. SE 31, GS AA47, PN 237.
40. Small annular bead of green glass. D. 0.4 cm, w. 0.2 cm. SE 31, GS AA47, PN 433.
41. Frg of a quern of quartz conglomerate. Surv. l. 44.2 cm, surv. w. 19.9 cm. Pit SE 38, GS AA47, PN 261.
42. Pithos with two twice-perforated grips at maximum diameter; mottled dark to reddish-brown; medium-grained; appliques in the shape of a downturned U. Max. d. 46.2 cm, surv. h. 31.9 cm. Pit SE 124, GS K43, PN /.
43. Frg of a jar with a concave neck and everted rim; mottled dark brown to brown; fine-grained; vertical cannelling on the shoulder and maximum diameter; two horizontal facets on rim interior. R. d. 15.4 cm, base d. 8.8 cm, surv. h. 19.2 cm. SE 124, GS K43, PN /.
44. Small annular bead of green glass. D. 0.5 cm, h. 0.3 cm. SE 124, GS K43, PN 676.

*Plate 4***Foundry 2**

45. Frg of a vessel; light brown; fine-grained; fingerprints on the body. Surv. l. 3.4 cm, surv. w. 3.7 cm. Pit SE 108, GS H7, PN 784.
46. Frg of a dish; dark brown; fine-grained; oblique cannelling on the rim. R. d. 12.8 cm, surv. h. 2.1 cm. SE 108, GS H7, PN 782.
47. Mould of brown foliated talc schist for making a duck protoma and a wheel-shaped pendant on one side, a tanged knife on the other and a pin on the third side. L. 11.3 cm, w. 4.8 cm, h. 2.3 cm. SE 108, GS H7, PN 704.
48. Grooved hammer of red quartz sandstone (Gröden sandstone). L. 7.9 cm, w. 7.2 cm. SE 108, GS H7, PN 705.
49. Frg of a whetstone of quartz sandstone (Gröden sandstone). Surv. l. 7.2, surv. w. 4.7 cm. SE 108, GS H7, PN 706.

Stone paving near Graves 1–3

50. Frg of a mould of red quartz sandstone (Gröden sandstone) for making spearheads. Surv. l. 5.9 cm, surv. w. 3.6 cm. Stone patch SE 19, GS C19, PN 66.
- [not drawn] Cobble debris of grey foliated chert. Surv. l. 6.5 cm, surv. w. 4.5 cm. SE 108, GS H7, PN 708.

Plate 5

Grave 1

51. Pedestal bowl; reddish-brown; fine-grained; horizontal canelling on the pedestal. R. d. 15 cm, h. 21.8 cm. SE 20, GS C20, PN 44.
52. Iron lozenge-shaped belt plate. L. 13.8 cm, w. 3.3 cm. SE 20, GS D20, PN 45.
- [not drawn] Vessel (lost). SE 20, GS C20, PN 49.

Grave 3

53. Pedestal bowl; very dark brown, with red-brown patches on the pedestal; fine-grained. R. d. 13.6 cm, base d. 6.3 cm, surv. h. 22.1 cm. SE 22, GS D21, PN 67.

Plate 6

Grave 2

54. Pedestal situla – urn; very dark brown; fine-grained. R. d. 17.2 cm, surv. h. 20.7 cm. SE 21, GS C21, PN 50.
55. Base and body frg of a vessel – urn; mottled red-brown to dark brown; medium-grained; applied knob. B. d. 6 cm, surv. h. 4.5 cm. SE 21, GS C21, PN 51.
56. Rim frg of a vessel; very dark brown; fine-grained. Surv. l. 2.2 cm, surv. w. 4.1 cm. SE 21, GS C21, PN 65.

57. Iron knife with a tang (in vessel with Cat. No. 56, PN 50). Surv. l. 11.7 cm, w. 2 cm. SE 21, GS C–D21, PN /.
58. Frg of a round-sectioned iron object – awl/chisel? (in vessel with Cat. No. 56, PN 50). Surv. l. 3.3 cm, w. 0.5 cm. SE 21, GS C21, PN 52.
59. Frg of an iron awl or chisel. Surv. l. 5.3 cm, surv. w. 0.5 cm. SE 21, GS C21, PN 601.
60. Small iron nail of a rectangular section. Surv. l. 2.9 cm, surv. w. 0.9 cm. SE 21, GS C21, PN 54a.
61. Frg of an iron awl/chisel. Surv. l. 3.2 cm, surv. w. 0.8 cm. SE 21, GS C21, PN 54b.
62. Annular bead of black glass; subsequently melted. D. 0.4 cm, h. 0.2 cm. SE 21, GS C21, PN 263.
- [not drawn]. Chip of pale yellow-brown chert. Surv. l. 1.1 cm, surv. w. 0.5 cm. SE 21, GS C21, PN 600.

Grave 4

63. Frg of a pedestal dish; mottled very dark to pale brown; very fine-grained; vertical grooves at maximum diameter. B. d. 7.8 cm, surv. h. 2.7 cm. SE 153, GS H4–5, PN 957.
64. Dish with a knob-shaped horizontal grip at maximum diameter; very dark brown; fine-grained. R. d. 13.6 cm, base d. 6.6 cm, h. 11.2 cm. SE 153, GS H4–5, PN 153a.

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Podgorica: naselje iz obdobja kulture žarnih grobišč kot del podgoriško-dragomeljskega "sometja" in starejšeeželeznodobno grobišče

Povzetek

Leta 1999 so bili ob gradnji slovenskega avtocestnega križa na ravninskem območju severovzhodno od Ljubljane, natančneje med naselji Pšata, Dragomelj in Podgorica, odkriti sledovi večje nižinske podgoriško-dragomeljske naselbine iz pozne bronaste dobe (sl. 1).¹ Naselbina na območju Podgorice se je razprostirala po celotnem območju, raziskanem z arheološkimi izkopavanji (sl. 2), največjo zgostitev pa je bilo mogoče zaznati ob nekdanji strugi potoka. Večino jam različnih oblik, velikosti in namembnosti, med katerimi so prevladovala tista za navpične lesene nosilce stavbnih konstrukcij (stojke), nam je uspelo povezati v tlorisne zasnove stavb.²

Razpoznali smo 20 tlorisov potencialnih stavb (A–U) (sl. 2). Vse so bile grajene tako, da so imele v tla vkopane jame za nosilne lesene stebre stavbne konstrukcije (stojke). Ločili smo dve skupini glede na prisotnost ali odsotnost slemenskih stojk. V prvi skupini so bile stavbe A, B, J, K in R brez slemenskih stojk, streha je slonela le na stebrih obeh stranskih sten. Pri drugi skupini, stavbah N, P, S in U, pa je strešno konstrukcijo poleg stranskih sten podpirala dodatna vrsta slemenskih stebrov.³ Med stavbami sta bila zastopana dva velikostna razreda, prvi s stavbami dolžine do 10 m (stavbe A, B, J, K, N, P, R in S) in drugi s stavbami dolžine nad 10 m (stavba U).⁴

KRONOLOŠKA OPREDELITEV NAJDB

Med odkritimi keramičnimi najdbami prevladujejo odlomki grobih kuhinjskih posod (lončki, lonci, pitosi) (sl. 8: L1–L4; t. 1: 2, 4, 6, 9–10, 13–14; 2:

18–21, 35; 3: 38, 43), ki jim najdemo paralele tako na Tribuni v Ljubljani⁵ kot na najdišču Rogoza pri Mariboru.⁶ Najštevilnejše med finim (namiznim oz. servirnim) posodjem so sklede (sl. 8: S1; t. 1: 11; 2: 24–34; 4: 46), sledijo jim skodele (sl. 8: Sk1; t. 2: 35). Nekatere izmed skled so imele ustje okrašeno s poševnimi kanelurami (sl. 8: S1; t. 1: 11; 2: 30, 33–34; 4: 46). Okraševanje s poševnimi kanelurami je bilo izjemno priljubljeno v času Bd D–Ha A1 na območju srednjega Podonavja,⁷ njegov izvor pa bi morda lahko iskali v skupini Baierdorf-Velatice v obdobju Bd D–Ha A.⁸ Pomenljivo je, da so med keramičnimi najdbami zastopane tudi nekoliko starejše oblike posodja (sl. 8: P1; t. 3: 42; sl. 8: S2; t. 3: 39; sl. 8: S3; sl. 8: Sk2; t. 1: 16), ki jih lahko datiramo v I. fazo KŽG po K. Vinski-Gasparini (konec Bd C in delno Bd D).⁹ Odkrite so bile predvsem v strugi potoka (SE 40) ter v sklopu stavb A, B, C in D.

USTROJ NASELBINE IN GOSPODARSKE DEJAVNOSTI V NJEJ

Naselbino v Podgorici sestavlja več skupin gručasto razporejenih stavb, nanizanih okoli odprtega prostora – dvorišča. Te stavbne skupine naj bi sestavljale posamezno gospodinjstvo oz. gospodarstvo z najmanj eno večjo stavbo (npr. stavbe U, N in L) (sl. 2–3, 5), ki je pripadalo posameznim ožjim družbenim skupnostim v smislu razširjene družine oz. rodbine. Zdi se verjetno, da so se posamezne stavbe okoli dvorišča uporabljale za različne namene v okviru iste skupnosti. Podobno organizirane

¹ Celostni rezultati arheoloških izkopavanj so objavljeni v zbirki Arheologija na avtocestah Slovenije (Vojaković, Novšak 2022; Turk, Svetličič, Pavlovič 2022).

² Pri njihovem opredeljevanju smo se opirali na že večkrat predstavljene kriterije (Dular, Tomanič Jevremov 2010, 88; Vojaković, Novšak 2022, 30).

³ Preostale stavbe niso bile ohranjene do te mere, da bi jim lahko začrtali tloris.

⁴ Preostale stavbe so bile preslabo ohranjene, da bi jih lahko razporedili v velikostni razred.

⁵ Vojaković 2013, 231–235, sl. 121: L1a, L1b, L2a, L3; Vojaković 2023, 536–537, 542–547, 551; t. 2: 39–40, 43; 4: 92–94, 97; 6: 146–148, 151; 8: 189–191, 194; 9: 208–209.

⁶ Črešnar 2010, 37–38, sl. 14: L4, 15: L5–L8.

⁷ Tako okrašena ročaja je imela tudi amfora iz groba 21 v Bezdanjači pri Vrhovinah, ki ga avtorica ob pomoči navezav na spodnjeavstrijsko skupino Höting-Mörzrg datira v Ha A1 (Drechsler-Bižić 1979–1980, 40).

⁸ Črešnar 2010, 20–22, sl. 7: Sv3b.

⁹ Vinski-Gasparini 1983, 547–617.

naselbine zasledimo tako v sosednjem Dragomlju¹⁰ in Spodnjem Posavju, npr. v Dobovi,¹¹ pa tudi v Podravju, denimo v Rogozi¹² in Orehovi vasi¹³ pri Mariboru. Ker gre za bolj ali manj sočasne naselbine, ki v svoji zasnovi odražajo podobno razporeditev stavb in hkrati podoben način gradnje s stojkami za lesene stavbne nosilce butanih hiš, domnevamo, da gre tudi za podobno ali morda celo povsem enako obliko družbene strukture oz. gospodarstva.

Zdi se, da so se na podgoriškem delu naselbine gospodinjske dejavnosti odvijale v stavbah (predvsem v slednjih so bile večje jame različnih namembnosti), medtem ko so bile gospodarske dejavnosti, zlasti livarske, ločene od stavb in pomaknjene na obrobje naselbine (sl. 2, 6–7). Pomenljivo se zdi, da na podgoriškem delu "solestja" nismo našli vretenc (z izjemo enega v jami za stojko v stavbi N) in tkalskih uteži, medtem ko so bile na dragomeljskem delu slednje odkrite le v jamah zunaj stavb,¹⁴ tj. na dvoriščih. Čeprav velja mnenje, da sta bila tkanje in izdelava blaga v bronasti dobi domena posameznih gospodinjstev,¹⁵ se zdi, da pojavnost različnih rokodelskih pripomočkov v podgoriško-dragomeljskem primeru nakazuje nekakšne specializirane "četrti" rokodelskih dejavnosti v okviru "solestja".

V prvi livarski delavnici (sl. 2, 6), na severovzhodnem robu podgoriške naselbine, je bil v jami SE 107 odkrit fragmentiran dvodelni kamniti kalup iz lojevčevega skrilavca (t. 3: 37). Gre za metamorfno kamnino, ki jo v Sloveniji najdemo le na Kobanskem (npr. Pernice nad Muto) ter na južnem in severnem delu Pohorja, sicer pa v Italiji in Avstriji.¹⁶ Na eni strani kalupa je ohranjen del negativa sulične osti, na nasprotni strani pa negativ predmeta, ki ga ni mogoče natančno opredeliti (morda gre za iglo). Kalup je izrazito sivo-črne barve (zaradi delovanja visokih temperatur). Podobna dvodelna kalupa za izdelavo suličnih osti sta bila najdena ob ognjišču na najdišču Pivnica pri Odžaku v severni Bosni. Alojz Benac ju datira v prehodno fazo Ha A2/Ha B1, torej v podoben čas kot v Podgorici.¹⁷ Kalup za ulivanje suličnih

osti je bil odkrit tudi v naselbini Varvara na severu Hercegovine.¹⁸ Na tem mestu naj omenimo še v sekundarni legi (tj. v kamniti strukturi SE 19 ob starejšeeleznodobnih grobovih) odkrit odlomek kamnitega kalupa iz rdečega kremenovega peščenjaka. Tudi ta je bil namenjen izdelavi suličnih osti (t. 4: 50). Številne različno oblikovane bronaste sulične osti, izdelane v takšnih kalupih, so znane iz kulturnega depoja v Mušji jami pri Škocjanu¹⁹ iz obdobja kulture žarnih grobišč,²⁰ zajeto število pa jih izvira tudi iz reke Ljubljanice.²¹

Druga livarska delavnica je stala na jugovzhodnem robu izkopnega polja (sl. 2, 7). V jami SE 108 je bil odkrit še en dvodelni kamniti kalup iz lojevčevega skrilavca (t. 4: 47), skupaj s kamnitim tolkačem s sredinsko kaneluro (t. 4: 48) in odlomkom kamnitega brusa (t. 4: 49). Najbližje primerjave omenjene kombinacije orodij najdemo na najdišču Kalnik – Igrišče na severozahodu Hrvaške, kjer je bilo okrog sedmih ognjišč raztresenih sedem fragmentiranih kalupov za ulivanje pripravljene bronaste zlitine, žlindra in kaneliran kamnit tolkač. Naselbina na Kalniku je datirana v obdobje med 13. in 11. st. pr. n. št.²² Kombinacija kalupa in tolkača z dvema kanelurama je bila odkrita tudi v eni izmed stavb na najdišču Špičak na Češkem.²³ S kaneliranimi tolkači se je v svoji študiji ukvarjal F. Horst. V njej je obravnaval 850 kamnitih tolkačev iz nordijskega kroga, lužiške kulture in švicarskih koliščarskih naselbin ter jih interpretiral kot orodja za obdelavo brona. V nordijskem kulturnem krogu jih najdemo tako v naselbinah kot depojih, tolkači iz Švice pa izhajajo predvsem iz naselbin stopenj Ha A in Ha B.²⁴

Iz druge livarske delavnice v Podgorici izstopa kalup, ki ima na eni strani negativ obeska v obliki kolesa in negativ vodne ptice, na nasprotni strani pa je negativ dela noža z jezičastim nastavkom za držaj. Na stranski stranici sta vidna negativa za vliivanje ozkih predmetov z okroglim presekom – morda igli. Na obeh ožjih stranskih stranicah so – enako kakor na obeh glavnih – luknje za spojke, ozki frontalni stranici pa sta lepo zglateni. Kalup je

¹⁰ Glej tu: Turk, Svetličič.

¹¹ Plestenjak et al. 2014.

¹² Črešnar 2010, 96–119.

¹³ Grahek 2016, 29–41, sl. 26–b.

¹⁴ Glej tu Turk, Svetličič.

¹⁵ Belanová Štolcová, Grömer 2010, 9–20; Harding 2000, 254–270.

¹⁶ Mioč, Žnidarčič 1978.

¹⁷ Benac 1966–67, 158.

¹⁸ Čović 1971, 317; König 2004, 96; Gavranović 2012, sl. 9: 1–9.

¹⁹ Szombathy 1913, 134–140.

²⁰ Teržan, Borgna, Turk 2016, 63–93, tab. 1–12, 35–50.

²¹ Turk et al. 2009, 62–67, sl. 66.

²² Majnarić-Pandžić 1992, 57–73; Karavanić 2009; Karavanić, Kudelić 2013, 88–92; Karavanić, Kudelić 2016, 117–121; Karavanić, Kudelić, Karavidović 2015, 59–62.

²³ Smrž, Mlady 1979, 31–32.

²⁴ Horst 1986, 85.

bil namenjen izdelavi različnih predmetov, morda za trgovino, morda pa je bil last potujočega livarja. Kolesasti obeski niso ozko časovno in tipološko omejeni, saj se pojavijo že v srednji bronasti dobi, zlasti pogosti pa so v času kulture žarnih grobišč in se kot tradicija obdržijo še v zgodnji železni dobi. Na našem prostoru imamo v I. depoju s Kanalskega Vrha pravo zbirko 43 kolesastih obeskov različnih tipov. Depo je datiran v čas prehoda iz stopnje Ha A in v zgodnji Ha B oz. v III. depojski horizont po P. Turku.²⁵ Posamezni primerki so znani tudi iz depoja v Mušji jami pri Škocjanu²⁶ ter iz depoja v Ivancu Bistranskem iz IV. stopnje depojev po K. Vinski-Gasparini.²⁷ Zanimivo je, da so tovrstni obeski v grobovih kulture žarnih grobišč na slovenskem ozemlju izjemno redki, pojavljajo pa se predvsem v ženskih grobovih. Iz Dobove sta znana kolesasta obeska različnega tipa, pri čemer ima primerek iz bogatega groba 289 znotraj odebeljenega obroča križno razdelitev, kar ga približa našemu kosu.²⁸ Grob 289 spada med najstarejše na nekropoli, je iz stopnje Ha A1, kar je primerljivo z II. fazo kulture žarnih grobišč po K. Vinski-Gasparini.²⁹ Iz istega obdobja je tudi drugi dobovski grob s kolesastim obeskom – grob 17.³⁰ Motiv vodne ptice – račke je bil prav tako razširjen skozi celotno obdobje kulture žarnih grobišč, upodobitve vodnih ptic so značilne za grški svet in kulture vzhodnega Sredozemlja, pojavljajo pa se tudi še v železni dobi. Kalup z negativom vodne ptice iz Podgorice ima najbližjo in najboljšo primerjavo v fragmentiranem kalupu z Rifnika, na katerem je negativ dveh vodnih ptic, opredeljen pa je v stopnjo Ha B1/B2.³¹ Motiv račke najdemo tudi na fragmentiranem kamnitem kalupu v metalurškem središču villanovske kulture v Frattesini ob spodnjem toku Pada.³² Bronasti obesek s ptičjima protomoma izvira iz I. depoja s Kanalskega Vrha,³³ omembe vredna pa je tudi drobna ženska bronasta figurica s stiliziranimi rokami v obliki račke iz ene izmed gomil na območju med Grižami in Šeščami

v Savinjski dolini, ki simbolizira gospodarico živali in je datirana v horizont Rifnik II/III oz. Ha B2/B3.³⁴ Zanimivo interpretacijo kalupa s kolesastim obročkom in vodno ptico iz Podgorice je ponudil P. Turk, ki meni, da bi lahko v kalupu ulivali posamezne dele za izdelavo kulturnega vozička. Ti vozički so bili odkriti kot grobne in/ali votivne (vodne ali močvirske) najdbe v različnih delih Evrope, in sicer v času kulture žarnih grobišč in zgodnji železni dobi. Eden izmed takšnih je bil najden v grobu iz Acholshausna na Frankovskem, datiranjem v 11. st. pr. n. št.³⁵

Funkcionalna povezanost metalurško-rudarskega orodja, kot so kalupi, tolkač in brusni kamen, ter dragomeljski depo bronastih surovcev in ingotov³⁶ nakazujeta na livarske dejavnosti, ki so se odvijale med pozno bronasto dobo v podgoriško-dragomeljskem "sometju" ter morda tudi širše v Ljubljanski kotlini, če omenimo sledove teh dejavnosti tudi v delno sočasni naselbini na Tribuni v Ljubljani.³⁷ Organiziranost podgoriške naselbine kaže, da sta bili livarski območji pomaknjeni na njeno obrobje. Podobna situacija je bila ugotovljena tudi na nekaterih bolj oddaljenih najdiščih, npr. v nižinskih naselbinah v Padski nižini, kot je Frattesina – Fratta Polesine, kjer so v vzhodnem delu naselbine delovale rokodelske delavnice, o čemer pričajo najdbe, med drugim slonovina, steklo, baltski jantar, bronaste pogače in kalupi. Naselbina je živela od približno 12. do 9. st. pr. n. št.³⁸ Sočasna s Frattesino, le 35 km zahodno od nje, je bila druga poznobronastodobna naselbina, Mariconda di Melara, kjer so bile odkrite delavnice stekla.³⁹ Tudi v Montagnani, 30 km severozahodno od Frattesine, so sočasno (tj. 11.–8. st. pr. n. št.) delovale različne rokodelske delavnice, in sicer po večini v njenem vzhodnem delu, kjer so našli peči, kalupe, kovino, predvsem bron, pa tudi uteži, vretenca, svitke, rogovje itd.⁴⁰ Povezave z najdišči v Padski nižini morda nakazujejo tudi najdbe steklenih jagod v Podgorici. Odkrite so bile štiri majhne okrogle steklene jagode, tri zelene in ena

²⁵ Teržan 1995, 203, t. 100–103; Žbona-Trkman, Bavdek 1996, 31–72; Turk 1996, 113–116; Turk 2001a, 249–279; Trampuž-Orel, Heath 2001, 143–171.

²⁶ Teržan, Borgna, Turk 2016, tab. 33: 2–3.

²⁷ Žbona-Trkman, Bavdek 1996, 63.

²⁸ Stare 1975, 76, t. 40.

²⁹ Vinski-Gasparini 1973, 72, 95.

³⁰ Stare 1975, 28, t. 8: 6.

³¹ Bolta 1959, 273.

³² Le Fevre-Lehoerff 1992, 208.

³³ Žbona-Trkman, Bavdek 1996, 64; Teržan 1995, 203, t. 99: 18.

³⁴ Teržan 1990, 111–112.

³⁵ Turk, Turk 2019, 205, sl. 256.

³⁶ Glej tu Turk, Svetličič.

³⁷ Vojaković 2023, 531–590.

³⁸ Bietti Sestieri 1984a, 413–427; Bietti Sestieri 1984b, 429–464; Bietti Sestieri et al. 2015, 427–436; Bietti Sestieri, Bellintani, Giardino 2019.

³⁹ Towle et al. 2002, 7–68.

⁴⁰ Bianchin Citton 1998, 429–433; De Min 1984, 642–650; Bianchin Citton 2015, 251–266; Bianchin Citton, Balista, De Angeli 2015, 461–467.

turkizna, velikosti od 0,4 do 0,5 cm (*t.* 1: 7; 2: 36; 3: 40, 44). Dve sta bili najdeni v jamah prvega livarskega območja (SE 31 in 124; *sl.* 6), ena v jami za stojko stavbe N (SE 102; *sl.* 3), še ena pa v jami za stojko stavbe U (SE 81; *sl.* 5), tj. v stavbah, ki smo ju označili kot vodilni stavbi v posameznih gospodarstvih. Najdbe steklenih jagod v naselbinah kulture žarnih grobišč po Sloveniji so redke, odkritih je bilo le nekaj posamičnih primerkov.⁴¹ Izvor jagod iz Podgorice brez opravljenih analiz PIXE in PIGE ostaja neznan, morda bi bile lahko, podobno kot tista z najdišča Medvode – Svetje, uvožene iz severnoitalskega proizvodnega središča Frattesina.⁴²

OBREDNI OBIČAJI V NASELBINI

Arheološke raziskave v Podgorici so odkrile tudi nenavadne obredne običaje v naselbini. Med 20 razpoznanimi stavbnimi tlorisi oz. stavbami vzbujata največ pozornosti stavbi N in U (*sl.* 2, 3, 5). Za obe se zdi, da sta bili osrednji stavbi v svoji skupini in ti sta bili med seboj verjetno ločeni s strugo potoka. V obeh stavbah so bile v jamah različnih namembnosti (jame za stojke ter večje jame v notranjosti stavbe in ob njej) odkrite sežgane živalske in človeške kosti, pri čemer stavba N odstopa z nadpovprečno gostoto pojavnosti kostnih drobcov v jamah za stojke.⁴³ Velja poudariti, da te najdbe izvirajo iz zasutij jam, kar pomeni, da je lahko šlo za sekundarni proces. Jame – tako shrambene in odpadne kot tudi jame za stojke – so bile namreč lahko zasute še v času obstoja naselbine ali pa po njenem propadu.

Kljub temu želimo tu ponuditi naslednji premislek. Sežgane človeške kosti niso del običajnega hišnega inventarja, prav tako jih ne moremo povezati z ostanki kuhinjskega odpada, zato bi jih morda smeli razlagati kot dokaz posebnih obredov, povezanih z gradnjo stavb.⁴⁴ Stavbne daritve temeljijo na verovanju, da lahko stavbam zagotovimo bogastvo in magično zaščito, če na pomembna mesta v njihovi strukturi postavimo darove. Znani so številni severnoevropski primeri stavbnih daritev (gradišča, stavbe, ceste, zidovi in vodnjaki).⁴⁵ Darovi so bili

položeni na posebna mesta, npr. pod prag, nad glavni vhod, v temelje stavb ali stojke, v ognjišča ali v stavbni tlak.⁴⁶ Capelle opisuje tudi več primerov človeških grobov, najdenih v severnoevropskih stavbah iz železne dobe,⁴⁷ v kar nekaj med njimi so bili položeni majhni otroci. Poznobronastodobni in železnodobni obredni pokopi novorojenčkov in mrtvorjenih otrok v notranjosti stavb so bili med drugim zaznani v Kantabriji (in drugih delih Iberskega polotoka)⁴⁸ ter v Veliki Britaniji in srednji Evropi.⁴⁹ Pokop nedonošenčka v eni izmed mlajšehalštatskodobnih stavb (stavba 22) je bil nedavno odkrit tudi na gradišču Pungrt nad Igom.⁵⁰ Del človeškega skeleta (človeška prstnica) in pasja kost pa sta bila odkrita v zasutju jame za stojko v eni izmed stavb (stavba 12 = 13) iz IV. naselbinske faze (8. st. pr. n. št.) v naselbini na Tribuni v Ljubljani.⁵¹ Pes velja za človekovega najboljšega prijatelja, lovskega in vojnega spremljevalca, zaščitnika domačega prostora in čred domačih živali ter zato tudi pomemben element pri različnih obredih, ceremonijah in pogrebnih svečanostih, ne pa kot vir hrane.⁵² V Podgorici je bila sežgana pasja prstnica odkrita v bližini stavbe U v večji jami (SE 67). Pasja čeljustnica je bila najdena tudi v Ormožu, in sicer ob veliki stavbi, ki ji pripisujejo osrednje mesto v naselbini (tj. na Skolibrovi ulici: Stavbi 13).⁵³

Nižinsko podgoriško-dragomeljsko "sometje", vsaj njegov del na območju Podgorice, v svoji zasnovi odraža večje število stanovanjskih oz. gospodarskih jeder z gručasto razporejenimi stavbami okoli dvorišnega prostora, gre za tako imenovana gospodarstva v središču naselja in na njegovo obrobje pomaknjena livarska območja. Na podlagi predstavljenega se zdi, da je bila pomembna gospodarska panoga prav livarska dejavnost s proizvodnjo bronastih predmetov, morda je imela nadregionalni pomen. Zaradi bližine vode (struga) se zdi logična tudi izbira lokacije. Iz razmestitve stavb, ki vse kažejo le enofaznost gradnje, brez posebnih sledov in znamenj popravil ali dogradnje,

⁴⁶ Paulsson 1993, 15.

⁴⁷ Capelle 1987, 185, 191, 197, 204.

⁴⁸ Galilea, García 2002; Gusi, Luján 2011; Torres-Martínez 2011, 329.

⁴⁹ Karl, Löcker, 2011, 37.

⁵⁰ Vojaković et al. 2023.

⁵¹ Vojaković 2023, 554; Škvor Jernejčič, Toškan 2018, 256–258.

⁵² Škvor Jernejčič, Toškan 2018, 249–260.

⁵³ Dular, Tomanič Jevremov 2010, 90, 94; Škvor Jernejčič, Toškan 2018, 256.

⁴¹ Leghissa et al. 2023, 442.

⁴² Leghissa et al. 2023, 434–444.

⁴³ Toškan 2022, 88–90, *sl.* 124.

⁴⁴ Paulsson-Holmberg 1997, 169–172.

⁴⁵ Capelle 1987; Hauge 1965, 76, 83, 96; Paulsson 1993, 13.

sklepamo, da ne gre za dolgotrajno naselbino. Po analizi keramičnih, kovinskih in kamnitih najdb jo lahko datiramo v čas starejše kulture žarnih grobišč (pozna Bd D/Ha A1) in eventualno vse do prehoda v mlajše obdobje žarnih grobišč (Ha A2/B1) oz. od 13. do 11. st. pr. n. št., s poudarkom na 12. in 11. st. pr. n. št. Takšna časovna opredelitev, ki se opira na analizo arheoloških najdb, je podprta tudi z nizom radiokarbonskih datacij (*sl.* 4).

GROBOVI IZ STAREJŠE ŽELEZNE DOBE

Po propadu poznobronastodobnega "someslja" okoli leta 1000 pr. n. št., ki bi ga morda lahko povezovali s procesom zgodnje nukleacije⁵⁴ in posledično z vzponom novega urbanega središča – Ljubljane,⁵⁵ je bil južni del raziskanega območja ob koncu 7. oz. začetku 6. st. pr. n. št. po večstoletni opustitvi ponovno v uporabi, vendar tokrat kot grobišče.

⁵⁴ Zamboni 2021, 387–430.

⁵⁵ Vojaković 2023, 531–590.

Očitno je, da sta bila vsaj grobova 2 in 4 žgana (*sl.* 10; *t.* 6: 54–64), ne izključujemo pa prisotnosti sočasnega skeletnega groba, t.j. grob 1 in 3 (*sl.* 10; *t.* 5: 51–53).⁵⁶ Ali so bili prekriti z gomilo ali je bila nekropola plana, ostaja zaradi novoveške agrarne izrabe prostora neznano. Grobna keramika in predvsem železna rombična pasna spona govore, da bi smeli čas pokopov datirati v stopnjo Stična-Novo mesto 2 ali v horizont kačastih fibul (okoli 600 pr. n. št.).

Kje so živeli nekdanji prebivalci, ki so svoje umrle pokopavali na ravninskem območju Podgorice, nam po eni strani nakazuje lidarski posnetek bližnje okolice (*sl.* 1). S tega je razvidno, da je najbližje utrjeno gradišče na Podgoriškem hribu (0,6 ha), nekoliko bolj oddaljeni sta še na Soteškem hribu (15 ha) in Strašnjaku (0,1 ha). Morda pa bi morali grobišču pripadajočo naselbino, predvsem zaradi domnevnih sočasnih ostalin na dragomeljskem delu najdišča,⁵⁷ iskati na ravninskem delu, torej v neposredni bližini grobišča.

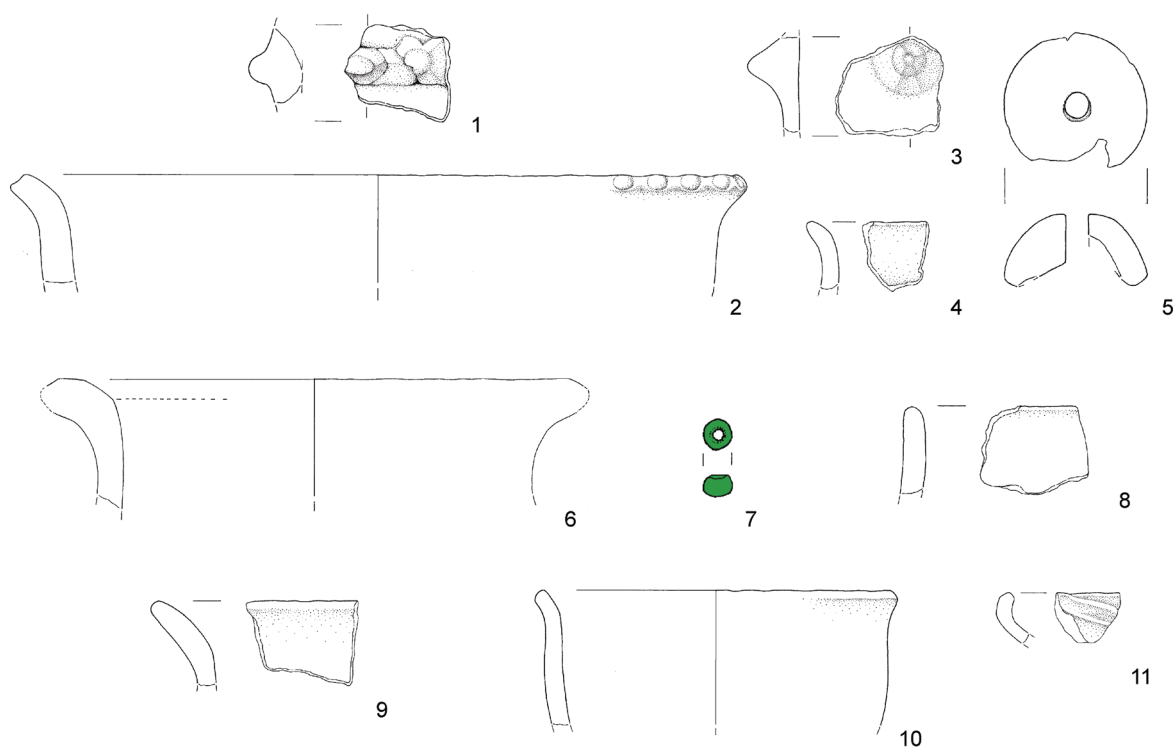
⁵⁶ Zaradi odsotnosti žganine in žganih kosti, položaja pridakov ter manka grobnih jam domnevamo, da bi lahko grobova 1 in 3 skupaj nakazovala na skeletni pokop.

⁵⁷ Glej tu Turk, Svetličič; Turk 2001b, 161–162, sl. 7.

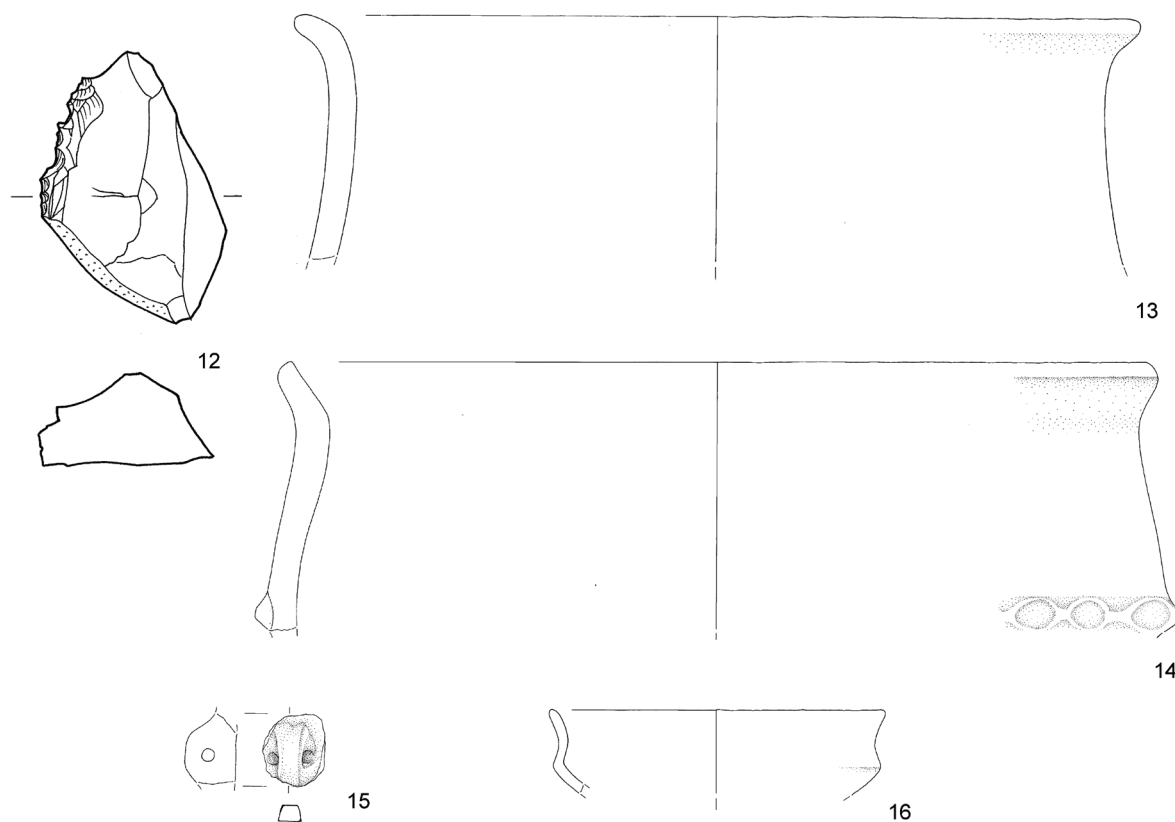
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Building / Stavba N

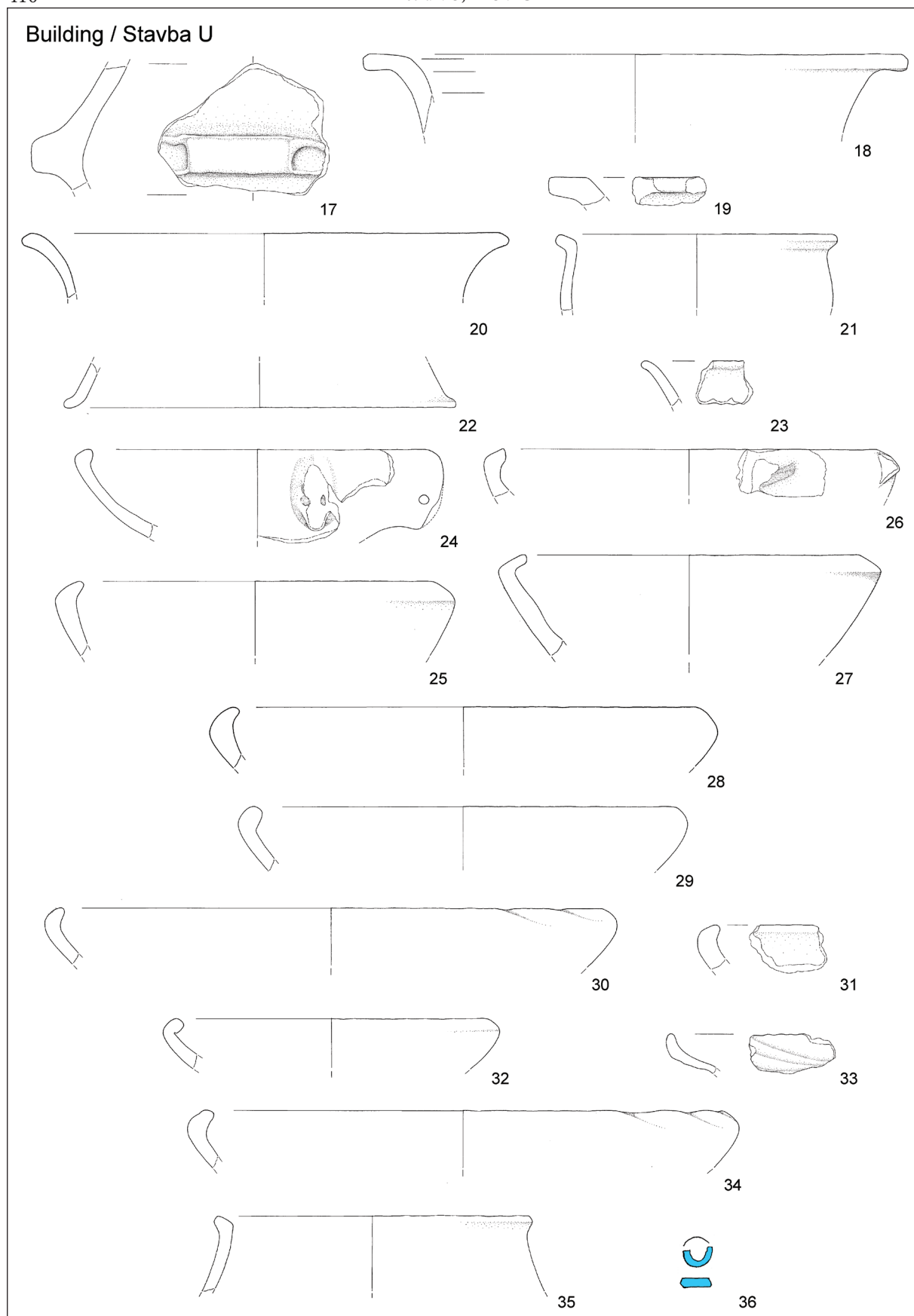


Building / Stavba U



Pl. 1: Podgorica. Buildings N and U. 1–6, 8–11, 13–16 pottery; 12 stone; 7 glass. Scale 7 = 1:1; 12 = 1:2; 1–6, 8–11, 13–16 = 1:3.
 T. 1: Podgorica. Stavba N in U. 1–6, 8–11, 13–16 keramika; 12 kamen; 7 steklo. M. 7 = 1:1; 12 = 1:2; 1–6, 8–11, 13–16 ostalo = 1:3.

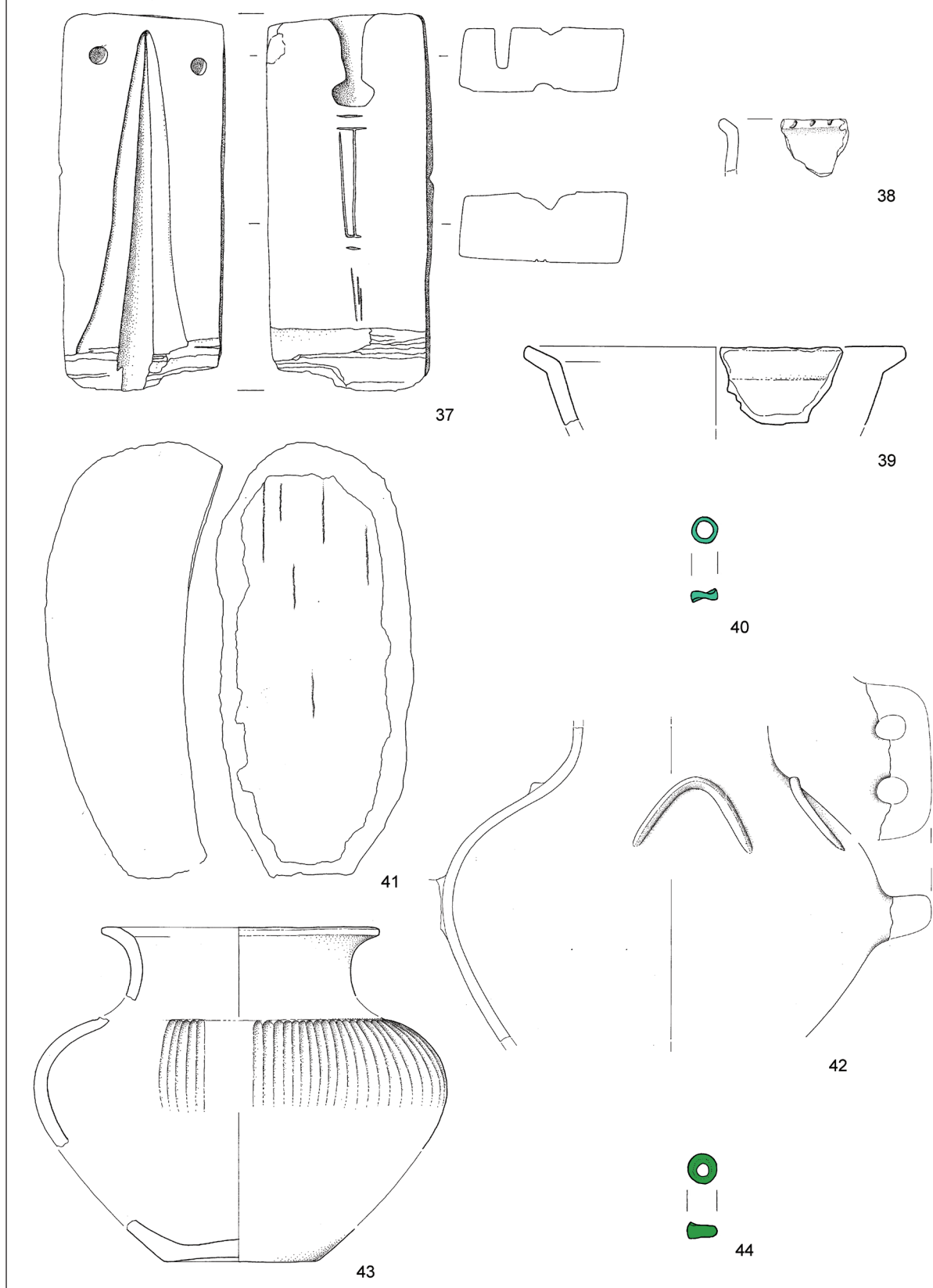
Building / Stavba U



Pl. 2: Podgorica. Building U. 17–35 pottery; 36 glass. Scale 36 = 1:1; 17–35 = 1:3.

T. 2: Podgorica. Stavba U. 17–35 keramika; 36 steklo. M. 36 = 1:1; 17–35 = 1:3.

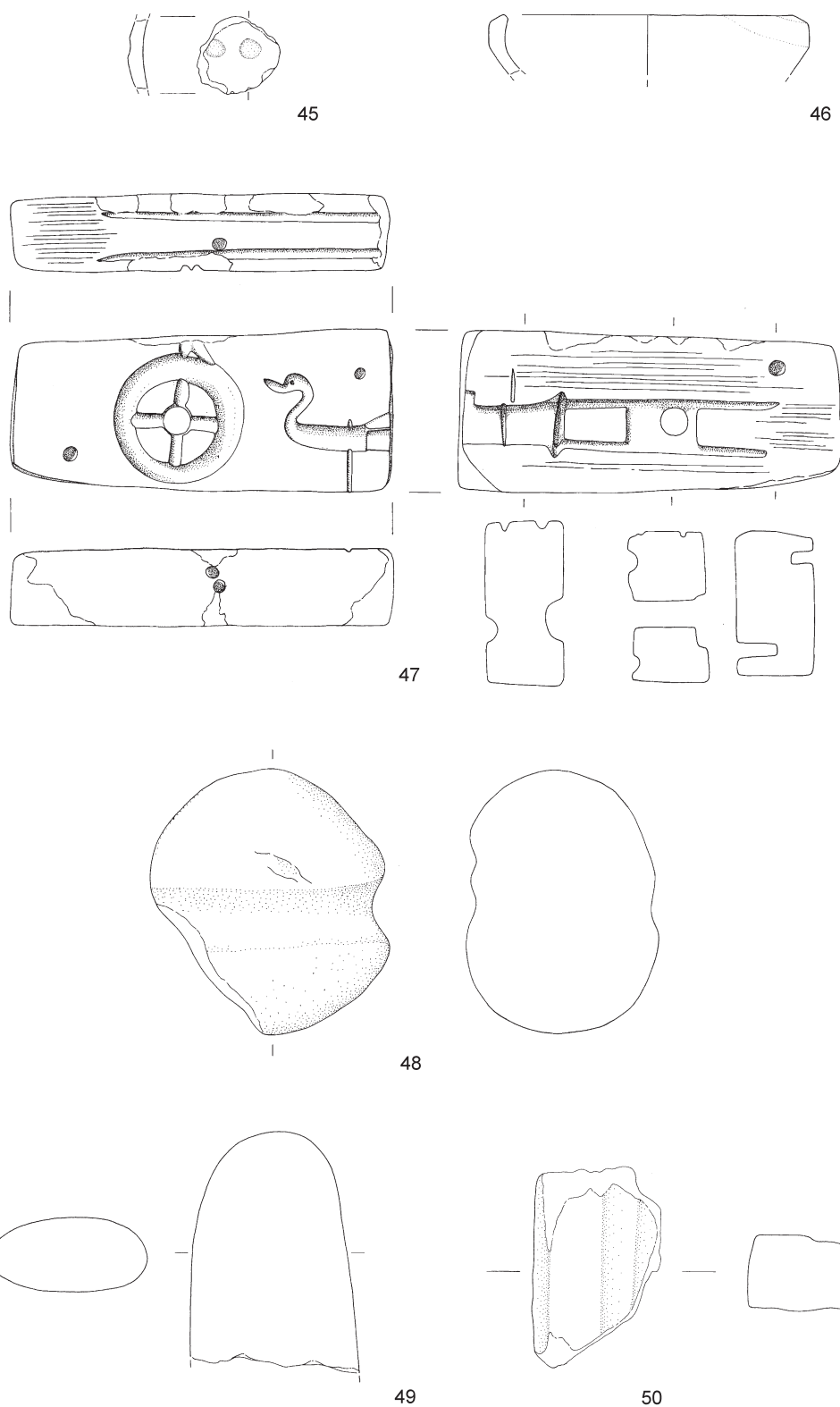
Foundry / Livarsko območje 1



Pl. 3: Podgorica. Foundry 1. 38–39, 42–43 pottery; 37, 41 stone, 40, 44 glass. Scale 37 = 1:2; 40, 44 = 1:1; 41–42 = 1:6; 38–39, 43 = 1:3.

T. 3: Podgorica. Livarsko območje 1. 38–39, 42–43 keramika; 37, 41 kamen, 40, 44 steklo. M. 37 = 1:2; 40, 44 = 1:1; 41–42 = 1:6; 38–39, 43 = 1:3.

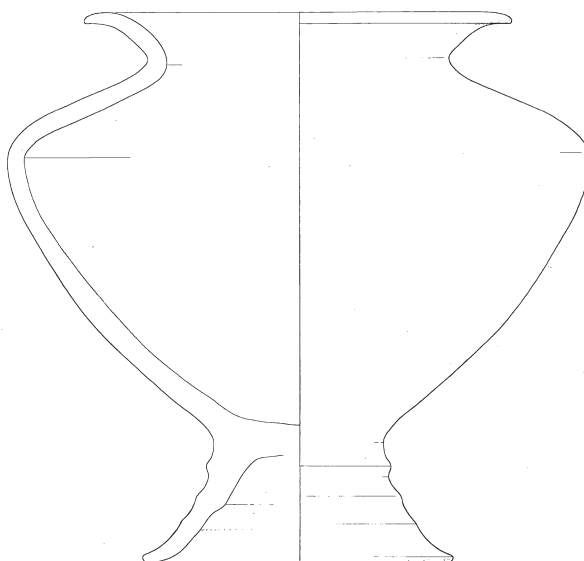
Foundry / Livarsko območje 2



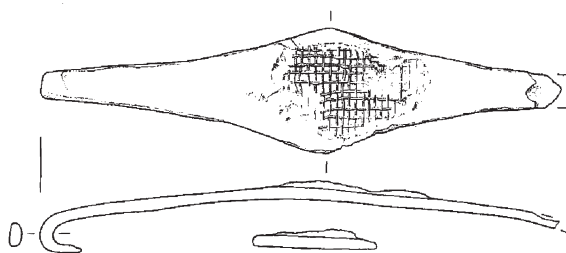
Pl. 4: Podgorica. Foundry 2. 45–46 pottery; 47–49, 51 stone. Scale 47–49, 51 = 1:2; 45–46 = 1:3.

T. 4: Podgorica. Livarsko območje 2. 45–46 keramika; 47–49, 51 kamen. M. 47–49, 51 = 1:2; 45–46 = 1:3.

Gr. 1

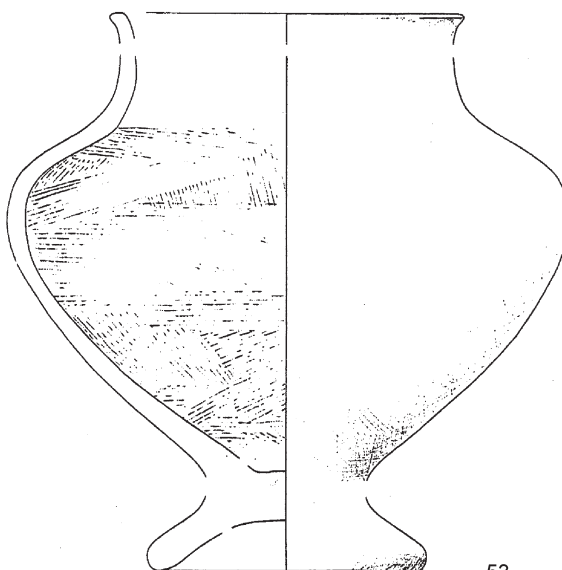


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Gr. 3

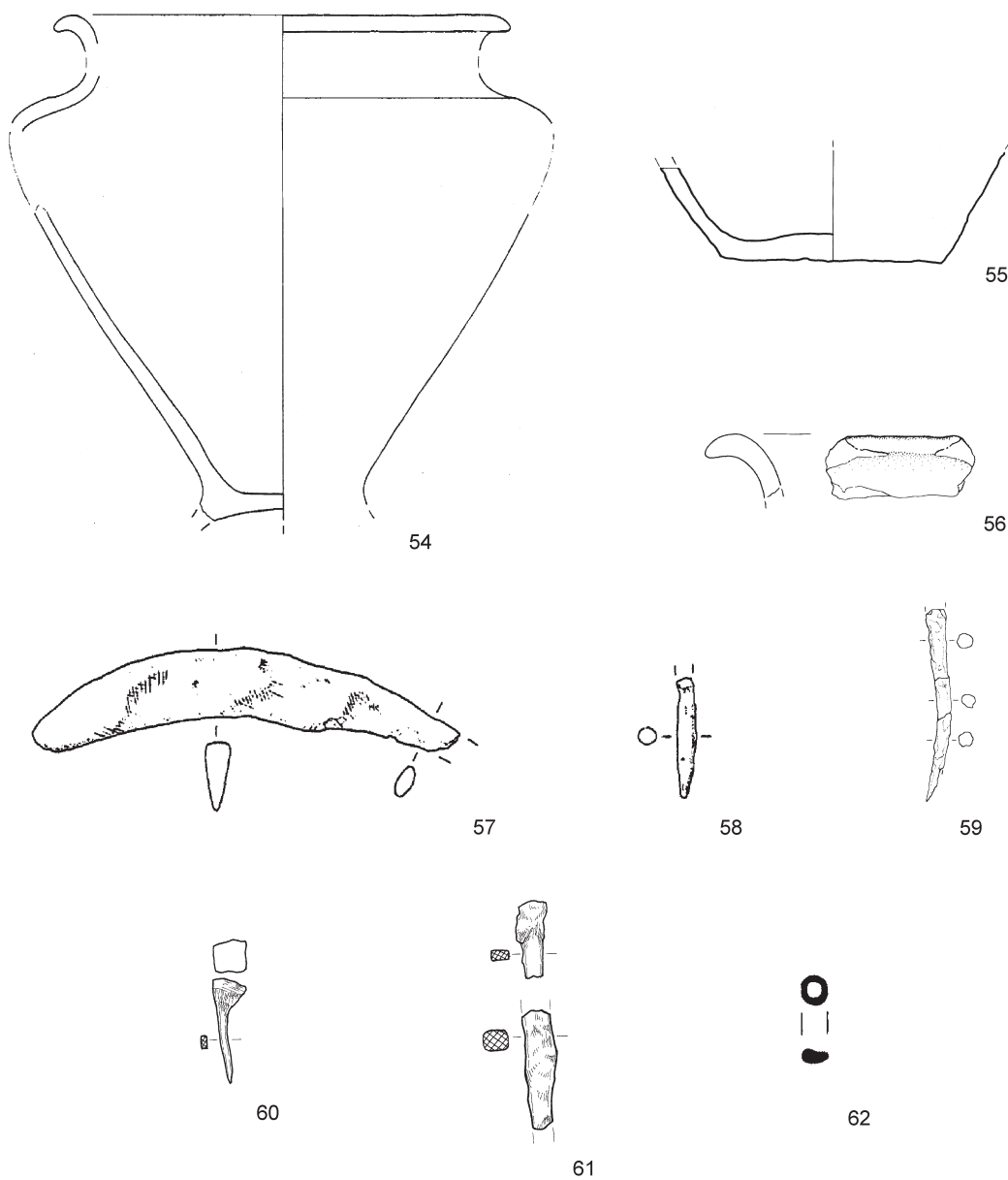


53

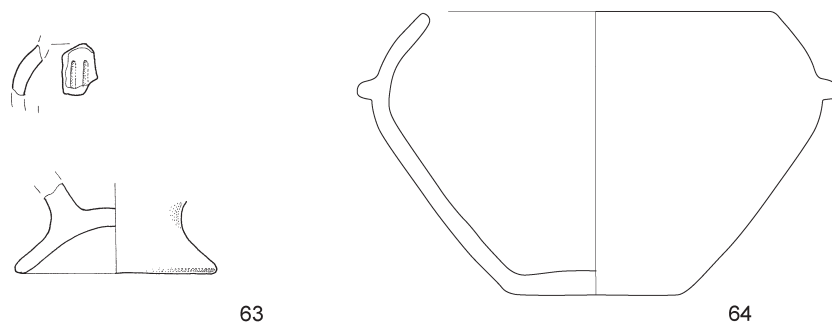
Pl. 5: Podgorica. Graves 1 and 3. 52,55 pottery; 54 iron. Scale 54 = 1:2; 52,55 = 1:3.

T. 5: Podgorica. Grob 1 in 3. 52,55 keramika; 54 železo. M. 54 = 1:2; 52,55 = 1:3.

Gr. 2



Gr. 4



Pl. 6: Podgorica. Graves 2 and 4. 56–58, 66–67 pottery; 59–63 iron, 64 glass. Scale 59–63 = 1:2; 64 = 1:1; 56–58, 66–67 = 1:3.
 T. 6: Podgorica. Grob 2 in 4. 56–58, 66–67 keramika; 59–63 železo, 64 steklo. M. 59–63 = 1:2; 64 = 1:1; 56–58, 66–67 = 1:3.