CREMATION GRAVES FROM LA TÈNE PERIOD IN SLÁDKOVIČOVO


The article discusses three La Tène cremation graves discovered in Sládkovičovo (SW Slovakia) during the construction of a new access road to family houses in the site Pri železnici/Malý Diosek. Burnt human remains were placed together with grave inventory in one or two concentrations in northern parts in grave pits. Human remains were in one of the graves (grave 1) in a vessel. Rich equipment in graves 2 and 3 consisting especially of parts of costume points to adult woman burials. The graves can be based on grave inventory and radiocarbon dating from animal bones to the Middle La Tène–LT C1 stage (LT C1a phase). The article presents the basic processing of anthropological material, the grave inventory included archaeozoological analysis of animal bones. Very important is analysis of the burial rite of graves.

Keywords: Sládkovičovo, Middle La Tène period, cremation graves, anthropology, archaeozoology, burial rite.

INTRODUCTION

In 2019, during a rescue excavation in Sládkovičovo on the ‘Local service communication for IBV Záhradnícka, Sládkovičovo’ construction site, three cremation graves from the La Tène period were excavated at the Pri železnici/Malý Diosek polycultural site. These are the first La Tène graves from the cadastre of the village which came to archaeological awareness in the second half of the 1960s. Back then, archaeological research was carried out in this place during the construction of the road I/62 in the location of Nové diely (e.g. Bartík 2000, 14; Kolník 1980, 126; Vladár 1969, 98). The Dudváh river flows to the east of the location and the Čierna voda river with Stoličný stream to the west. To the south of the site, abandoned meanders are still visible. In the north, the surveyed area is bounded by the existing road of Budovateľská street, in the south by the railway, in the east by the residential area and in the west, it is adjacent to cultivated agricultural land. Before construction, the eastern part of the excavated area was used as an orchard and the remaining part as arable land (central and western road).

SITE DESCRIPTION AND RESEARCH

The three La Tène graves were examined during an archaeological excavation which took place between 2016 and 2020, when engineering networks were being gradually built on three new parallel roads (today, these roads are called Veterná, Slnečná and Sadová streets). The site is situated at the south-western edge of Sládkovičovo’s build-up area, in the location of Pri železnici/Malý Diosek, on the south-eastern foot of the mound which belongs to a group of loess dunes stretching from the north-west to the south-east (Fig. 1). It is the south-eastern part of the older, larger, and in the literature better-known location of Nové diely (e.g. Bartík 2000, 14; Kolník 1980, 126; Vladár 1969, 98). The Dudváh river flows to the east of the location and the Čierna voda river with Stoličný stream to the west. To the south of the site, abandoned meanders are still visible. In the north, the surveyed area is bounded by the existing road of Budovateľská street, in the south by the railway, in the east by the residential area and in the west, it is adjacent to cultivated agricultural land. Before construction, the eastern part of the excavated area was used as an orchard and the remaining part as arable land (central and western road).

The site was already inhabited in the Neolithic (the Linear Pottery culture; Budaj/Čambal 2007, 241) and Middle Eneolithic (the Baden culture; Točík 1979, 180). Evidence of more intensive settlement is known from the end of the Eneolithic and the Bronze Age (the Makó-Kosihy-Čaka culture, the Bell Beaker culture, the Maďarovce culture, the Middle Danubian Tumulus culture; Bartík 2000, 14–23; Točík 1979, 180; Vladár 1969, 97–114). Based on the state of research,
Fig. 1. Sládkovičovo. Localisation of excavated roads and identified La Tène graves in Pri železnici/Malý Diosek site. Legend: a – excavated area; b – cremation graves localization. Author R. Ölvecky.

Fig. 2. Sládkovičovo. Cross-section of excavated area with marking of La Tène graves. 1 – grave 1; 2 – grave 2; 3 – grave 3. Authors M. Styk, R. Ölvecky, M. Tábiová.
In addition to the cremation graves presented in this article, settlement from the LT C2 and LT D2 stages was documented here. The other settlement feature has also documented the settlement, but without a closer chronological classification within the La Tène period (Březinová 2006, 39, no. 313). In the nearby part of Sládkovičovo near Mala Mača, a hoard of Dacian coins from second half of 2nd–first half of 1st c. BC has been found (Budaj/Čambal 2019, 18, 22, fig. 6: 1). From the following period of the Roman period, several settlements and burial finds were found at the location of Nové diely. They prove the significant intensity of Germanic settlement in the earlier as well as in the later Roman period (Kolník 1980, 126–164; Točík 1992, 158; Turčan 1981, 321). From the Middle Ages, the excavated site is composed of an (old) Hungarian grave ground from the 10th c., a grave ground from the 11th c., and a settlement from the 11th–13th c. (Bialková 1989, 99; Točík 1992, 158–160, 177, 178, 210–214).5

The archaeological excavation was gradually carried out on individual roads. First, a test trench was carried out, which was followed by a surface excavation, which was limited by the length and width of the roads, but also by the nature of the terrain. Archaeological research proved the polycultural settlement of the site. Settlement features from the early Roman period and the Middle Ages were examined, as well as inhumation graves from the early Bronze Age and cremation graves from the La Tène period which are the subject of this paper.

Three La Tène cremation graves (Grave 1 – Feature 154, Grave 2 – Feature 161, Grave 3 – Feature 163) were identified approximately 3.5 m and 4.5 m apart (Fig. 2). The underlying terrain at the burial site consisted of loose sandy soil, in which archaeological features were difficult to identify and delineate. This type of terrain was found only at this location. In other parts of the polycultural site, the underlying terrain was more compact. Grave 1, the shallowest amongst the three, was the most visible one. On the contrary, graves 2 and 3, which were buried deep in the ground, were the least visible in the terrain and were not even expected to be the features of anthropogenic origin. Based on the findings, random cuts into the subsoil were made on the exposed area at the end of the research which ruled out the presence of further graves.

Based on a rare finding of a glass La Tène bracelet of 8b type (Čambal/Štrbišk 2014, 109, table 1: 18; Kolník 1980, 327, tab. CLXIV: 5).

One settlement feature with typical Late La Tène ceramic finds has been found there. The authors would like to thank Mgr. Radoslav Čambal, PhD. from the Slovak National Museum – Archaeological Museum in Bratislava for this information.

The authors would like to thank Mgr. Radoslav Čambal, PhD. from the Slovak National Museum – Archaeological Museum in Bratislava for information about settlement from 13th c.
Fig. 4. Sládkovičovo, grave 1. A – ground plan; B – southwestern profile. Legend: a – bottom of the grave; b – terrain edge; c – laying out the feature; d – archaeological cross-section; e – stratigraphic discordance; f – feature edge; g – assumed shape of the grave pit; h – cremation bones; i – pottery; j – section mass. Authors M. Styk, M. Tábiová.
DESCRiPTiON oF GRAVES AND GRAVE GOODS

Grave 1

The cremation grave was outlined in the loose sandy subsoil as an oval formation, which had a sandy loam filling of a light brown colour (Fig. 3; 4). It was 125 cm long in the northwest-southeast direction, and its width in the northeast-southwest direction reached max. 80 cm. A vessel (1) containing cremated bones was stored in the north-western part of the grave (Cat. no. SL-ZA 178/2019). When excavating the feature, its edges were difficult to read. The bottom of the grave was narrow and located at a depth of approximately 70 cm from the ground level. The walls of the grave pit were perpendicular, even steeply sloping.

Grave goods

1. Ceramic terrine-shaped vessel with a partially broken mouth (6 pcs.). S-shaped, omphalos at the bottom. Grey-brown surface, material: fine clay – highly fired. Made on a potter’s wheel. Height 124 mm, mouth average 167 mm, max. diameter 177 mm, bottom diameter 99 mm. Cat. no. SL-ZA 44/2019, 60/2019. Fig. 4: 1; Pl. 1: A1.
Fig. 6. Sládkovičovo, grave 2. A – ground plan; B – southwestern profile. Legend: a – bottom of the grave; b – terrain edge; c – laying out the feature; d – archaeological cross-section; e – stratigraphic discordance; f – feature edge; g – assumed shape of the grave pit; h – cremation bones; i – pottery; j – animal bones; k – iron grave goods; l – bronze artefacts; m – section mass. Authors M. Styk, M. Tábiová.
Grave 2

The cremation grave was dug into the loose sandy subsoil and appeared as an oval formation (measurements 100 × 68 cm) with a mixed yellow sandy and brown loamy sandy filling (Fig. 5; 6). However, the edges of the feature were not clear. A similar mixed filling was identified once the backfilling of the grave was removed. However, the walls and the bottom of the feature could not be determined clearly. Originally, the grave likely had an elongated, square shape with rounded shorter sides measuring 135 × 80 cm and with a flat bottom. The bottoms of a pair of ceramic vessels that were part of the grave goods (10, 11) were located at a depth of 145 cm from the ground level. The mentioned vessels, as well as other grave offerings, were placed in the north-western part of the grave pit. Burnt human remains (Cat. no. SL-ZA 46/2019, 63/2019) mixed with animal bones (12, 13) and a part of iron objects (1–3) were located between the vessels. A larger number of small objects without the presence of human remains were deposited south of the bowl-shaped vessel (4–9).

Grave goods

1. Considerably damaged wire iron fibula of Middle La Tène (MLT) construction with a low arched bow and a short spring (?). Length 52 mm. Cat. no. SL-ZA 65/2019. Fig. 6: 1; Pl. I: B7.
2. Fragment of a considerably damaged wire iron fibula. Preserved pin and short spring (2 + 2 coils). Preserved length 88 mm. Cat. no. SL-ZA 65/2019. Fig. 6: 2; Pl. I: B6.
3. Fragment of iron scissors/knife (?). Preserved transition of the arm into the blade and its offset. Preserved length 67 mm. Cat. no. SL-ZA 65/2019. Fig. 6: 3; Pl. I: B5.
4. Fragments of two bipartite bronze knobbed rings with plastic decoration (7 pcs.). One piece consists of a complete part of a ring formed by three hollow hemispheres (Pl. II: 1). Another knob is corroded to the mentioned part of the ring but placed in a secondary position (Pl. II: 1c). All knobs are filled with clay that has been secondarily fired. The remaining pieces are represented by six separate knobs. In four cases, the bronze knobs are partially preserved (Pl. II: 2; III: 1, 5, 6a). The remaining specimens consist only of clay fillings of knobs into which plastic decoration was pressed (Pl. II: 3, 4). The measurements of these knobs are 32 × 60 mm; inner diameter of the ring based on one preserved part with three knobs approx. 65–75 mm. Cat. no. SL-ZA 47/2019. Fig. 6: 4.
5. Fragments of an iron chain belt (5 pcs.) from (double?) twisted links with a ring terminal. The preserved length of the belt is 231 mm, the outer diameter of the ring is 25–28 mm, the inner diameter of the ring is 10 mm. Cat. no. SL-ZA 47/2019. Fig. 6: 5; Pl. III: 2–4; 6c.
6. Fragment of a ring made of a smooth iron rod with a cross-section in the shape of the letter ‘D’. Inner average 75–77 mm, thickness 6–9 mm. Cat. no. SL-ZA 47/2019. Fig. 6: 6; Pl. III: 6b.
7. Fragments of an unidentifiable object/objects from sheet iron (2 pcs.). Cat. no. SL-ZA 47. Fig. 6: 7; Pl. I: B3, B4.
8. Fragment of an unidentifiable object from an iron bar of annular cross-section. Preserved length 55 mm; thickness 4–5 mm. Cat. no. SL-ZA 47. Fig. 6: 8n; Pl. I: B9.
9. Fragments of unidentifiable iron objects (4 pcs.). Cat. no. SL-ZA 47. Fig. 6: 9.
10. Fragments of a ceramic bowl-shaped vessel (76 pcs.). Rather deep and S-shaped. A dark brown surface, the material: fine clay – loamy fired. Made on a potter’s wheel. Mouth average 299 mm, bottom average 60 mm. Cat. no. SL-ZA 62/2019, 66/2019. Fig. 6: 10; Pl. I: B8.
11. Ceramic situla-shaped pot with graphite content. Surface modified by a vertical combing. Made on a potter’s wheel. Height 163 mm, mouth average 156 mm, max. diameter 167 mm, bottom average 108 mm. Cat. no. SL-ZA 48/2019. Fig. 6: 11; Pl. I: B2.
12. Bones of a cattle. Cat. no. SL-ZA 64/2019. Fig. 6: 12.
13. Bones of a medium-sized mammal – caprine (?). Cat. no. SL-ZA 64/2019. Fig. 6: 13.

Grave 3

The cremation grave in the loose sandy subsoil was barely visible. Its filling consisted of yellow sandy soil slightly mixed with dark yellow loamy sandy soil. The grave had a quadrangular shape with rounded corners (Fig. 7; 8). Its measurements reached 154 × 117 cm. The bottom of the grave was located at a depth of 130 cm from the ground level. Just above the level of the grave’s bottom, the remains of a quadrangular, most likely wooden chamber could be seen. The chamber’s measurements were 110 × 90 cm. The grave goods were located in the north-western part of the grave pit, in the space defined by the chamber. There, two ceramic vessels were present (10, 11). Approximately 20 cm south of the bowl-shaped vessel, there was an accumulation of destroyed metal objects (1–6, 8, 9) mixed with burnt human remains (Cat. no. SL-ZA 157/2019, 161/2019, 164/2019) and animal bones. (15). Other human and animal bones were deposited next to the bowl-shaped vessel (13). A smaller amount of human and animal bones and small objects were found throughout the entire grave area (7, 14, 15). Animal bones (12) were also found inside a bowl-shaped vessel (10).

Grave goods

1. Fragment of a severely damaged wire iron fibula. Preserved catchplate, part of its foot and a pin (?). Preserved length 31 mm. Ex. no. SL-ZA 170. Fig. 8: 1; Pl. IV: 2.
2. Fragment of a small iron rod. Preserved length 43 mm. Cat. no. SL-ZA 170/2019. Fig. 8: 2; Pl. IV: 1.
3. Secondary fired clay fillings of the knobs (9 pcs.) of two (?) bronze (?) knobbed rings. Measurements of the knobs’ clay fillings 43 × 45 mm. Cat. no. SL-ZA 158/2019, 159/2019, 167/2019. Fig. 8: 3; Pl. IV: 10a, V: 1–3.
4. Fragments of chain/chains from a chain belt (28 pcs.) made up of small bronze rings. Diameter of rings 4–5 mm. Cat. no. SL-ZA 165/2019, 169/2019, 170/2019. Fig. 8: 4, Pl. IV: 9.

5. Fragment of a ring of a smooth iron rod with a circular cross-section. Inner average ca. 72 mm, thickness 3 mm. Cat. no. SL-ZA 159/2019. Fig. 8: 5, Pl. IV: 3.

6. Fragments of unindentifiable iron objects (3 pcs.). Cat. no. SL-ZA 170/2019. Fig. 8: 6, Pl. IV: 4.

7. Fragment of an unidentifiable iron object. Cat. no. SL-ZA 160/2019. Fig. 8: 7, Pl. IV: 8.

8. Fragment of molten glass of light green colour. Preserved length 20 mm. Cat. no. SL-ZA 168/2019. Fig. 8: 8, Pl. IV: 6.

9. Flint. Measurements 17 × 13 × 8 mm. Cat. no. SL-ZA 168/2019. Fig. 8: 9, Pl. IV: 7.

10. Ceramic bowl-shaped vessel. Shallow and S-shaped, with an omphalos at the bottom. Light grey surface, fine clay material – highly fired. Made on a potter’s wheel. Height 89 mm, mouth average 230 mm, max. diameter 221 mm, bottom average 115 mm. Cat. no. SL-ZA 171/219. Fig. 8:10, Pl. V: 5.

11. Ceramic bottle-shaped vessel. The surface is grey to grey-brown, the material is fine clay – highly fired. Made on a potter’s wheel. Height 315 mm, mouth average 154 mm, max. diameter 284 mm, bottom average 134 mm. Cat. no. SL-ZA 172/219. Fig. 8: 11, Pl. V: 4.

12. Bones of a domestic hen. Cat. no. SL-ZA 163/2019. Fig. 8: 12.

13. Bones of a domestic pig. Cat. no. SL-ZA 162/2019. Fig. 8: 13.

14. Bones of domestic pig. Cat. no. SL-ZA 164/2019. Fig. 8: 14.

15. Bones of a caprine. Cat. no. SL-ZA 164/2019, 166/2019. Fig. 8: 15.
Fig. 8. Sládkovičovo, grave 3. A – ground plan; B – northwestern profile. Legend: a – bottom of the grave; b – terrain edge; c – archaeological cross-section; d – stratigraphic discordance; e – laying out the feature; f – cremation bones; g – pottery; h – glass ring; i – wooden structures; j – iron grave goods; k – bronze grave goods; l – stone grave goods; m – section mass. Authors M. Styk, M. Tábiová.
ANTHROPOLOGICAL ANALYSIS OF HUMAN REMAINS

The anthropological analysis consisted of a morphoscopic analysis, which was determined based on manuals (Langley/Tersigni-Tarrant 2017, Siloukal et al. 1999). The human remains faced fifth-degree burns – resulting in their cremation. The fragments were divided into three size categories: small with measurements up to 10 mm, medium with measurements from 10 mm to 50 mm, and large with measurements above 50 mm. The degree of cremation was determined on the basis of the scale by E. Bonucci and G. Graziani (1975), according to which fragments of greyish and grey colour were exposed to temperatures above 550 °C and fragments of chalky white colour were exposed to temperatures above 650 °C. For further information about the individuals, histological methods or a DNA analysis are recommended as they might help to determine, among other things, the sex, age, and possible pathological changes of the buried individuals.

Grave 1

The human remains from grave 1 consist of re-deposited fragments weighing 86 g which were placed in a vessel. Discovered fragments were of a small (293 pcs.) and medium (120 pcs.) size. Among the bones were the fragments of diaphyses (9 pcs.), a fragment of probably an eye socket (1 pc.), skull fragments (2 pcs.), unidentified fragments (401 pcs.) and very small to dust-like fragments together with a clay sample weighing 22 g. The fragments are of a chalky white colour, with some fragments (7 pcs.) being of a greyish colour. On the diaphyses, there are visible oval cracks. Such cracks typically occur on the bones protected by soft tissue which were exposed to fire. Due to the fragments’ conditions, it was not possible to determine the sex, age and height of the individual.

Grave 2

Grave 2 contains human remains weighing 123 g which were stored between two vessels. The fragments were of a small (290 pcs.), medium (189 pcs.) and large size (2 pcs.). There were fragments of diaphyses (9 pcs.), spongy bone tissue (8 pcs.), a vertebral body fragment (1 pc.), a rib fragment (1 pc.), a fragment of the articular surface of a blade bone or a pelvic bone (1 pc.), fragments of a skull (13 pcs.), unidentified fragments (447 pcs.) and very small to dusty fragments with a clay sample weighing 13 g. The fragments are chalky white in colour, with some fragments being of a greyish to chalky grey colour (13 pcs.). There are transverse cracks on some bones. It was possible to fuse seven bones from the skull together to form the right and left parietal bone in the area of the sagittal suture. Due to the condition of the fragments, it was not possible to determine the height and sex of the individual. Based on the thickness of the cranial bones, it is estimated the buried individual was an adult.

Grave 3

In grave 3, a larger accumulation of human remains was located along with other small objects, located approximately 20 cm south of the bowl-shaped vessel. Therefore, there are traces of the presence of iron (32 pcs.) and copper alloy (3 pcs.) on some bones. A smaller number of fragments of human and probably also animal bones were scattered over the entire grave area (even outside the remains of the wooden lining). Bones weighing 380 g were picked up and examined. In terms of size, there were small (682 pcs.), medium (548 pcs.), large fragments (5 pcs.) and very small to dusty fragments with a clay sample weighing 55 g. Among the fragments were fragments of diaphyses (50 pcs.), skulls (31 + 7? pcs.) – of which two fragments belonged to the mandible and three fragments to the dental arches, possibly a cervical vertebra (1 pc.), diaphyses of the radius/ulna (1 pc.), teeth (3 pcs.) – one being a permanent eye/molar tooth with a damaged crown, metatarsal/metacarpal heads (1 pc.), phalange of the third toe (1 pc.), a phalange of a finger (1 pc.) and unidentified fragments (1 139 pcs.). The fragments were of a chalky white and greyish colour. Some had a grey-black coloration in the cross-section, which indicates damage to the bone after its removal from the feature and indicates the high fragility of the bones. There are arcuate fractures on the fragments of the diaphyses of long bones. For some skull fragments, it was not possible to determine their origin with absolute certainty.

Several fragments were connected to the metal objects (15 pcs.). The bones were of a chalky white colour and could not be separated from the metals. Among them were the rib fragments, diaphyses of long bones, flat bones and undetermined bone fragments. The bones belonged to the small and medium size category. Transverse cracks were visible on the bones.

Another smaller group of human remains weighing 9 g was located under a bowl-shaped vessel. These were medium-sized fragments (9 pcs.) of a chalky white colour. Among the fragments were fragments of diaphyses (6 pcs.), skull (1 pc.) and un-
determined fragments (2 pcs.). One fragment of the diaphysis has lumps caused by high temperatures. Arcuate fractures can be seen on the fragments.

Due to the bones’ condition, it was not possible to determine the sex and height of the individual. Based on the finding of the eye/molar tooth and the fragment of the diaphysis of the radius/ulna, it is possible that the buried individual was an adult.

ANALYSIS OF GRAVE GOODS

Fibulae

Three iron objects, which were destroyed by fire and corrosion, can be acknowledged as fibulae. In grave 2, there was a small (length 55 mm) wire fibula, probably of MLT construction with a short coil spring (Pl. I: B7). From the shape and dimensional aspect, it can be included in the series of small iron fibulae of the MLT construction EF-H (according to Bujna 2003, 75, 76, 78). These are the fibulae with a length of 43–60 (65?) mm with a short spring (2 + 2 coils), an internal cord, a low arched bow, to which a variously segmented or even smooth (undecorated) foot is strapped by a clamp. Fibulae of this series occur throughout the entire LT C1 stage (Bujna 2003, 88–92).

The aforementioned fibula in grave 2 was complemented by another fibula, which was of an iron material and was larger in size (preserved length 88 mm). However, only a short spring (2 + 2 coils) with an inner cord and a pin was preserved (Pl. I: B6). Based on the mentioned shape and structure features, as well as the preserved dimensions, it is possible to consider the classification of the fibula in question into the series of long iron fibulae of the MLT construction and their subtype with the internal cord EF-Ly (according to Bujna 2003, 78–81). The aforementioned fibulae are equally widespread within the LT C1 stage (Bujna 2003, 90). In grave 3, the presence of a single iron wire fibula can be safely confirmed (Pl. IV: 2). Only the catch plate, part of the foot and presumably a pin were preserved. However, a closer classification of the fibula’s type is not possible due to its poor preservation.

Belts

The examined graves contained two chain belts. In grave 2, fragments of a chain belt made of massive twisted iron links were found (Pl. III: 2–4, 6c). J. Bujna (2011, 75–82) divides this type of belts into two groups, namely Gk-B (multiple twisted links) and the evolutionary younger group of Gk-C (double-twisted links). The find from Sládkovičovo, despite its poor preservation, most likely belongs to the Gk-C group. This is also evidenced by the chain with a ring terminal with an outer diameter of 25–28 mm, which size-wise corresponds to belts made from double-twisted links. A closer classification into a specific type of the given belt group (Gk-C1 to Gk-C3) is not possible. Belts made from double-twisted links are a significantly expanded form of belts from the period at the end of the LT B2 stage and especially (the beginning) of the following LT C1 stage (Bujna 2011, 76–81). They were worn both by men (warriors) and women (Bujna 2011, 76–82, 133; Dizdar 2020, 38–74; Repka 2015, 168).

A belt’s presence in grave 3 is evidenced by chain fragments formed by small bronze rings with a diameter of 4–5 mm (Pl. IV: 9). However, their assignment to a specific belt type is not definite due to significant fragmentation. However, the presence of fine bronze chains recalls chain belts made from links connected by small chains, such as in the Gk-E1B, Gk-E2B, Gk-P, or Gk-R groups (Bujna 2011, 87–89, 92–94, 121–124). These are exclusively female belts occurring in the Middle La Tène period.

The Gk-E1B group falls into the early to middle phase of the LT C1 stage, whereas the Gk-E2B and Gk-P groups appear only at the end of this stage. The Gk-R group is the youngest of these options, from the LT C2 stage, or from LT C2 to D1 stages (Bujna 2011, 87, 92, 121, 123, 136, 144). Based on the occurrence of these belts mainly in Bohemia, Moravia, Austria, and Bavaria, it is evident that the finds from Sládkovičovo are not of local origin (Bujna 2011, 137, 143; Čižmár/Jarůšková 2019; Mangel/Jošková 2019).

Ring jewellery

In graves 2 and 3, there were remains of two-piece knobbed rings with plastic decoration in the form of three protuberances – one at the top and two at the sides, on each of the knobs (Pl. II: III: 1, 2, 6a). In the first of the mentioned pair of graves, the upper protuberances are slightly edged and their upper area is spirally divided into four parts. The side protuberances are smaller and oval in shape. They are divided vertically or obliquely in the centre by a wider groove (notch). The knobs from grave 3, though preserved only in the form of imprints of their clay filling, are different in shape (Pl. IV: 10a; V: 1–3). The upper protuberances are circular in shape and each of them is complemented by one smaller hemispherical protuberance. The lateral protuberances are similar to those from grave 2, but the central groove is much more pronounced (deep notch).
Due to considerable damage caused by the burning of the bodies of the individuals buried here, it is not possible to determine with full certainty how many separate rings were a part of the burial. Since knobbed rings were worn primarily in pairs as anklets (Bujna 2005, 61; Spáčil 2023), it can be assumed that this was also the case. This assumption is supported by the number of the knobs (grave 2: 11 pieces, grave 3: 9 pieces) and their size (32 × 60 mm). Finds of knobbed rings with plastic decoration standardly consist of 6 to 10 hollow knobs (Filip 1956, 134; Spáčil 2023, 32). The aforementioned dimensions correspond with the rings made of six to seven hollow knobs. On the other hand, those consisting of nine hollow hemispheres reach dimensions only at the level of 20 × 25 mm (e.g. Čižmářová 2005, 205, fig. 75: 9, 11). In grave 2, one piece of such an anklet was also found. This preserved jewel consisted of three hollow knobs (Pl. II: 1). On one side, the semicircle ends with a ‘socket’ (Pl. II: 1a) and the other side with a ‘bolt’ (Pl. II: 1b). To this part of the circle is attached another knob with a noticeable socket, even though it was placed in a secondary position (Pl. II: 1c). The grave even contained a third knob, which originated from a knobbed anklet with a preserved socket (Pl. III: 1). The aforementioned clearly confirms the presence of a pair of anklets of an identical shape. Based on the discovery of half of one of them, these were originally anklets consisting of six (3 + 3) or seven (3 + 4) hollow knobs.

The plastic decoration described above belongs to a florid rococo-like protuberances, although the decorative range of the currently known specimens is already much more diverse. From a typological point of view, the knobbed rings from Sládkovičovo can be classified into a group with three protuberances on the knobs (group B3 according to Spáčil 2023, 23). The latter is widespread exclusively in the territory of southern Moravia and south-western Slovakia (Bajč-Vlkanovo, grave 40, Palárikovo II, grave 2, Trnovec nad Váhom-Horný Jatov, grave 398, 564; Bujna 2005, 61, table 31).4 In the case of the specimens from grave 2, the greatest similarities within this group can be found in the find from Uhřice in Moravia, where the lateral protuberances are also divided into two parts by a groove and the upper protuberance are divided spirally into four parts (only a fragment of one knob is preserved; Čižmářová 2017, 121, tab. 36: 3). A parallel can be observed with the fragments of two knobbed rings discovered in the Moravian site Křepice (site 1, intravilan of the village). However, in this case the upper and the lateral knobs are divided merely into two parts (one of the rings consisting of six hollow knobs – 3 + 3 is completely preserved; Čižmářová 2019, tab. 19: 1, 2). On the other hand, any direct analogies to the moulded knobs from grave 3 in Sládkovičovo have not been found.

Knobbed rings with plastic decoration are characteristic of the territory of Moravia and Bohemia, regardless of the closer type classification (Čižmář/Čižmářová/Popolka 2021, 148, 149; Filip 1956, 134–136; Spáčil 2023). However, in reduced numbers they also appear in other areas – southern Germany, Switzerland, Hungary, north-eastern Croatia (here referred to as the Osijek type; Dzidar 2020, 347–353). In Slovakia, their occurrence at the present state of research is only sporadic and limited to the aforementioned group with three protuberances on the knobs (Bujna 2005, 61, table 31). An exception is a pair of moulded rings consisting of ten hollow knobs from Bratislava-Rača (Eisner 1933, fig. 18: 6), likely originating from a desecrated grave.

In terms of time classification, knobbed anklets with plastic decoration belong to the period of the LT B2 stage to the LT C1a phase. Their development went from rings consisting of multiple hollow knobs to rings with a smaller number of them (consisting of seven and six hollow knobs; Bujna 2005, 61, 150, 151; Spáčil 2023, 44, 46; Waldhauser 1987, 37, fig. 4, type 106). The rings from Sládkovičovo, as well as other similar finds from the territory of Slovakia, can be classified both in terms of the number of knobs as well as decorative motifs, to the end of the expansion of knobbed rings with plastic decoration, namely to the LT C1a phase.

In graves 2 and 3, the costume of the buried individuals was supplemented with rings made of a smooth iron bar, in one case with a cross-section with a ‘D’ shape (Pl. III: 6b) and in the other with a circular cross-section (Pl. IV: 3). Such rings are known in the ER-U type, where they consisted of a twisted iron rod with an open terminal (Bujna 2005, 110). These rings were worn as bracelets. Rings made of iron are not a very common type of jewellery in Slovakia. However, if they do occur, it is mainly in the LT B2 stage and in the beginning of the LT C1 stage (Bujna 2005, 110).

Ceramics

The inventory of the analysed graves also included ceramic vessels. One specimen was found in grave 1, in the shape of a terrine (Pl. I: A1). It is an

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4 J. Bujna (2005, 61, 62) typologically classifies finds from the territory of Slovakia in the BR-G1 group and the BR-G1-A and BR-G1-B types.
undecorated deep biconical S-shaped vessel with an omphalos at the bottom. Looking at its shape and size (height 124 mm, mouth average 167 mm), it can be compared to other vessels of this type, which are known in the territory of the Middle Danube region and the Carpathian basin (Repka 2017, 211; 2021, 52, fig. 44). They are very common and often used as grave ceramics during the entire period of Celtic flat grave grounds. Nevertheless, their function in funeral ceremonies is not clear. In the case of grave 1, however, the terrine was used as a vessel for storing burnt remains. In addition to pots and vases, terrines were most often used as urns (Ďuďáková 2014, 490; Repka 2021, 102, fig. 94).

In graves 2 and 3, there was a pair of vessels. In the first case, it was a biconical bowl and a situla-shaped pot. The bowl was preserved in broken and only partially reconstructable state (Pl. I: B8). Due to low firing, it shattered into numerous fragments. Even so, it is apparent that the bowl was quite deep, S-shaped with an outwardly curved and slightly reinforced edge. On the other hand, the lower part and the bottom cannot be described in more detail. There is no decoration on the preserved surface. The second vessel – a pot containing graphite – has a situla shape characteristic for the La Tène period (Pl. I: B2). The edge is reinforced and shifting into ovality. Typical for situlas is the treatment of the surface by vertical combing starting in the area of the maximum diameter and heading down to the bottom. Situla-shaped pots are not a typical burial pottery in the La Tène period. On the contrary, they represent typical settlement ceramics. In some cases, they do appear as parts of grave goods, but mostly they appear in smaller shapes (cups/situlas) reaching a height of 90 to 150 mm and a diameter of the mouth in the range of 90 to 150 mm (Repka 2017, 212, diagram 5; 2021, 47). The specimen from Sládkovičovo is slightly above this limit (height 163 mm, mouth average 156 mm). Graphite situlas as parts of grave goods are observed as early as since the LT B1 level (Benadík 1961, 183–185, fig. 10; 11; Zeiler 2010, 106–109) but the shape of the edge and its shifting into ovality is already typical for the Middle La Tène period (Repka 2020, 143).

In the case of grave 3, the shallow biconical bowl was completely preserved (tab. V: 5). Similar to the case of grave 2, it has a biconical S-shaped body structure with an outwardly curved and slightly reinforced edge. There is an indistinct omphalos at the bottom. A chronologically sensitive element includes the position of the maximum diameter, which is located in the upper third of the vessel’s height, which significantly shortens the neck. The gradual shortening of the neck of the shallow biconical vessels begins gradually already in the LT B2 stage, but only in the LT C1 stage it moves to the upper third. This type of bowls thus begins to resemble conical bowls in this period. The strengthening of the edge is also much more pronounced compared to the earlier La Tène period. In this period, the plastic cordon on the neck is completely absent, as there is no room for its placement due to the shortening of the neck (Repka 2020, 143, 144).

In grave 3, the bowl was complemented by a bottle (Pl. V: 4). The vessel has an egg-shaped body, a higher neck and a funnel-shaped, slightly open mouth. On the neck, there is an indistinct circumferential plastic cordon, which probably had a practical use (Repka 2020, 152, 153). The circumferential cordon is also located on the edge of the bottom. The bottom is slightly curved inwards. In terms of size, the bottle from grave 3 belongs to the most frequently occurring size group (group II according to Repka 2017, 209, diagram 1; 2021, 33, 38, fig. 14; 20). Bottles of the described shape are common for the period of the end of the earlier, but especially the Middle La Tène period, when the larger opening of the mouth, typical of the earlier La Tène period, disappears. The shape of the body also changes, in connection with a smoother profile between the neck, shoulders and maximum diameter (Repka 2020, 142).

Glass

In grave 3, an oblong fragment of light green glass, 20 mm long, but significantly destroyed by fire, was found (Pl. IV: 6). Traces of blue colour also appear on the surface in some places. This may be a fragment of a glass ring. They occur in the La Tène period in Slovakia from the beginning of the LT C1 stage (Březinová 2018, 25; Bujna 2005, 151, 152). Among the oldest is type 5(b) with profiled edges and a wide smooth central rib, which was worn as an armlet. Similar to the case of the fragment from Sládkovičovo, it is characterized by a light green colour. On the surface, there is an applied decoration made of glass fibre of blue colour creating a braid motif (Bujna 2005, 131–133, 151; Čižmárková 2021, 238).

Flint

A small stone – flint (Pl. IV: 7), which probably served to starting a fire in the La Tène period can be deemed as an exceptional find, and not only in regards to burial context. The object has a square shape and traces of human intervention are visible on it. From the territory of Slovakia, similar finds are known from a pair of richly equipped Middle
La Tène (LT C1a) graves from Hurbanovo-Abadomb, grave 3 (Benadík/Vlček/Ambros 1957, 45) and Palárikovo II, grave 5 (Paulík/Zachar 1975, 294, 295, 314, fig. 26: 18). In the case of the find from Hurbanovo, the material used was most likely a Jasper. On the other hand, in Palárikovo, it was a flint.

ARCHAEOZOOLOGICAL ANALYSIS

The basic anatomical-taxonomic analysis was created based on available publications of veterinarians, anatomists and archaeozoologists (Adams/Crabtree 2008; Bocheński/Tomek 2009a; 2009b; France 2009; Kolda 1951; Popesko 2007; Schmid 1972) and using an own comparative collection.

The osteological material from the animals came from two graves (grave 1, 2), in which the following species were identified: cattle (Bos taurus), domestic pig (Sus domesticus), caprines (Ovis/Capra). Poultry was also present, specifically the domestic chicken (Gallus domesticus). Concerning wild fauna, fragments of malacofauna (sp.) shells were found.

Grave 2

Fragments of cattle ribs (Bos taurus; Fig. 6: 12) were found between the large and the small vessels. One of these fragments was coloured to brown-black on its lower part, indicating an exposure to the temperatures of 285–525 °C (Shipman/Foster/Schoeninger 1984; Thurzo/Beňuš 2005). The other fragment showed traces of chopping. It is an indication that these bones could represent a meat offering placed in the grave that had already been heat-treated. Fragments of an unidentified medium-sized mammal also come from the given place in the grave (Fig. 6: 13).

Next to the large vessel, fragments of a skull were found which had been burned to a chalky white colour, but it was not possible to determine whether these fragments were human remains or the skull of a caprine (Capra/Ovis?).

Grave 3

The bones from grave 3 originated from three contexts. In first context, at a depth of 40 cm and during cleaning, 170 bone fragments and three malacofauna shell fragments were found, while 159 of them were burnt to chalky white. That indicates temperatures higher than 940 °C (Shipman/Foster/Schoeninger 1984; Thurzo/Beňuš 2005). These bones and fragments were of human and animal origin, and it was possible to identify fragments of caprines (14 pieces; Fig. 8: 15). Due to the high degree bone burns and their mixing with human remains, it is likely that the animal in question was burned together with the deceased individual on the funeral pyre. From an anatomical point of view, the fragments of a right shoulder girdle, lumbar vertebra, left ulnar bone, pelvis, tooth and a phalange were identified.

Four unburnt bone fragments belonged to a domestic pig (Sus domesticus; Fig. 8: 14). The scapula with an unossified glenoid fossa indicates an individual about 12 months old. A fragment of a tooth (M3), a proximal part of a femur and two fragments of a skull came from a domestic pig. In the malacofauna’s case, it is not certain whether it originates from the given context. It was not identified in more detail, as it was a very small species (approx. up to 2.5 mm shell diameter).

Bone fragments from a domestic pig were also found under the bowl-shaped vessel – second context (Fig. 8: 13). The most fragments were from a lower jaw (fragmented) and isolated teeth, while one fragment of a lower jaw was burnt to brown colour in the area of the incisors. In the case of a dentition and-wear of teeth of an incomplete lower jaw, it is assumed that this individual was 9–10 months old. Furthermore, there were fragments of a skull, an ulna and a radius.

The bones of a domestic chicken (Gallus domesticus; Fig 8: 12) were found inside the aforementioned vessel, and almost all parts of the animal were represented (cervicalvertebrae, sternum, ribs, pelvis, lumbosacral area, long bones of limbs and wings). Based on the missing spur on the tarsometatarsus, it was possible to determine the sex, i.e. it was a hen-female. So, there was almost a whole chicken in the vessel, though its head was missing. Since none of the bones showed signs of fire, it is likely that this hen was cooked and placed as a meat offering.

ANALYSIS OF THE BURIAL RITE

The analysis of the burial rite stands on the practices of Burial archaeology, which is based on a separate analysis of the arrangement of the grave, the spatial arrangement of grave goods, and the manner in which human remains were handled.

Grave 1

The backfilling of the grave pit was recognised after an initial overburden; the grave’s bottom could not be reliably distinguished from the subsoil. An oval shape was evident at topsoil level indicating
that the overall dimensions of the grave pit were of a rather elliptical shape (Fig 3; 4). The longer axis of the grave pit was oriented in the SSW – SSE direction (azimuth 38.25 °W). Given the nature of the grave, it may have been a superposition with a settlement feature. In such a case, it would have been a grave pit with a circular shape and a diameter of 35 cm. The profile shows a maximum grave depth of 15 cm which is due to the method of excavation (the bottom was 70 cm from the ground level). The existence of an elevation is indicated by the location of vessel no. 1, which is approximately 5 cm above the documented grave bottom. If the existence of a circular grave pit is taken into account, a similar type of burial rite is found at Bajč-Vlkanovo in grave 51. Here, the cremated remains were in a small ‘vase’ covered by an S-shaped bowl without other grave offerings. The grave, however, was much deeper at 125 cm (Benadik 1960, 403). A similar case occurs at the grave 67 in the burial site of Maňa, which, however, was heavily damaged by ploughing as it was only 40 cm deep (Benadik 1983, 39). One ceramic terrina-shaped vessel was discovered in the grave, which was located in the northern part of the entire feature (Fig 3; 4: 1). In the case of a circular grave pit, it would be in its centre. The terrine represents a specific shape that often appears as a distinct grave offering separated from human remains. Here, it served as an urn. A very similar case is observed at the Trnovec nad Váhom-Horný Jatov grave ground. There, in graves 204 and 207, a single ‘vase-like’ vessel was discovered, but it was of a similar terrina shape and it contained cremation bones. The graves were 35–70 cm deep, and apart from ceramics, no other grave goods were found in them (Benadik/Vlček/Ambros 1957, 20). At the grave ground in Holiare, a similar grave 383 was discovered, which contained a single bowl with cremated bones. The grave was damaged without a recognized grave pit at a depth of 45 cm (Benadik/Vlček/Ambros 1957, 91).

Burnt human bones (identified amount 88 g) were stored in a terrina-shaped vessel. From a spatial point of view, the burial represents a common urn burial. In this regard, it is essential to establish the presence of an organic residue in the wall of the vessel, which is confirmed to originate from animal fat (expert report Brychová 2023). Due to the low representation of the total lipid extract, it is not likely the container in question served as a cooking vessel. For this reason, it is appropriate to hypothesize of a combined deposit of a grave offering in the form of meat dish and human remains in one vessel.\(^5\)

**Grave 2**

The filling of the grave was already recognized during the surface cleaning, while it corresponded only to the southern part of the grave with a slightly oval shape (Fig 5; 6). In the profile of cross-section, an inconsistent backfill can be recognized, which may be evidence of a secondary interference in the grave. Considering the burial context discovered at the bottom level, the grave pit itself had to be of significantly larger dimensions while retaining its oval shape. The longer axis of the grave pit was in the NW – SE direction (azimuth 55.22 °N). The documented ground plan thus only partially corresponds to the original dimensions of the grave. The depth of the grave was 61 cm (130 cm below the ground level).

The grave contained relatively rich grave goods which can be divided into a ceramic set, a meat dish, parts of a costume, and metal offerings. In this case, the ceramic set was represented by a larger S-shaped bowl (Fig 6: 10), which was the central point of the burial context. All the other finds were concentrated around it. This bowl was fired on a lower temperature and did not contain any archaeologically distinguishable offerings. Attached to it was a barrel-shaped pot (Fig. 6: 11) containing graphite – a typical feature of settlement cooking vessels.

Among these vessels, there are organic grave offerings in the form of slices of a cattle’s portioned ribs (Fig. 6: 12) and an unspecified medium mammal – caprine (?; Fig. 6: 13). It is the ribs of the caprine (?) that bear the evidence of mild cremation related primarily to the course of burial feasts. A presence of beef dishes in similar burial types is very rare. The closest analogy can be found in grave 1038 at the Ludas grave ground, which contained a larger number of ceramic inventory and a pair of knives (Szabó/Tankó/Czajlik 2012, 63). Beef offerings are often linked to the higher social status of the deceased (cf. Bujna/Drtikolová Kaupová/Hajnalová 2019). The presence of caprine bones in graves from the La Tène period is also very rare (Bielichová 2019, 220, table 3; Duďáková 2014, 491, graph 2).

The costume’s parts are represented by iron and bronze objects. They were exposed to high temperatures, but were deposited separately, apart from the cremated bones south of the S-shaped bowl (Fig. 6: 10). They were found in a bounded concentration, indicating the presence of an organic container. It is not possible to determine the form of fastening or the type of this container.

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\(^5\) The vessel is not depicted; therefore, it is not possible to verify its type classification.

\(^6\) A detailed evaluation of the contents of the vessels will be published separately in a forthcoming study.
Grave 3

The filling of the grave pit was recognized at a level of 108 cm below the ground, while it was significantly homogeneous without noticeable differences with the loess subsoil (Fig. 7, 8). Because of this, it was impossible to recognize its shape from the initial levels. The documented flat bottom of the grave was discovered 47 cm from the visible backfill, i.e. 155 cm below ground level. The grave pit has a rectangular shape with significantly rounded corners and is oriented in the NW – SE direction (azimuth 53.17°N). The proportions of the grave pit are clearly determined by the remains of the wooden structure, which was identified during the cleaning of the grave’s bottom. Based on the rectangular floor plan with dimensions of 110 × 90 cm, there was likely a wooden chamber that appears in wealthy cremation graves. It is only estimated that the thickness of the walls is at 8–10 cm. The orientation and proportions of the wooden chamber correlate with the grave pit and the grave goods found, which they narrowly define. The presence of a wooden chamber is also indicated by the position of the bottle-shaped vessel (Fig. 8: 11), which leaned towards the NW edge and thus leaned against the wall of the chamber. The minimum height can be estimated based on the tallest vessel, which is the already mentioned 31.5 cm bottle. Thanks to the longitudinal archaeological cross-section conducted right through the NW wall of the chamber, it was possible to identify a different filling in the NW profile (Fig. 7: B) which can be identified with the chamber. This indicates the possible height of the wooden chamber up to 43 cm. In connection with this type of internal structure, the question of its cover arises. A common phenomenon in wooden structures is a strong fragmentation of the ceramic inventory caused by the sudden collapse of the structure (Repka 2018, 240, 241). In the case of grave 3, such a condition is not recorded. It can be explained by a different way of covering, when the loess backfill could gradually penetrate into the burial space, or by a total absence of covering. A similar construction is found within the female cremation graves at the Malé Kosihy grave ground in graves 217 and 274 with rectangular to square grave pits at the depths of 125 and 160 cm (Bujna 1995, 53, 63). At the grave ground in Ludas, such structures are observed in graves 661 and 662, where the dimensions of the chamber were established to be 95 × 60 cm at a depth of 110 cm (Szabó/Tankó/Czajlik 2012, 20, 21).

Looking at the grave goods, it was a rich burial containing a ceramic set, numerous meat offerings, costume’s parts, and metal offerings. The ceramic set consists of two vessels in the northern corner of the chamber. It is a shallow S-shaped bowl (Fig. 8: 10), which served as a vessel for meat dishes, and a tall bottle (Fig. 8: 11) wherein the presence of liquid was assumed. Both vessels were highly fired.

Meat offerings are exceptionally represented here, both from the point of view of species composition and spatial division into four contexts. The first context is closely related to the remains of the deceased, among which there were calcined animal bones, while a part (6 out of 160 fragments) was assigned to caprines (Fig. 8: 15). The identical placement and degree of burning indicates a joint cremation at the funeral pyre along with the human remains. That also indicates that this animal offering served a different purpose than just an ordinary meat dish. The second context corresponds to the meat offerings which are separated from the human remains and are located under the bowl (Fig. 8: 10)
in the northern corner of the chamber. These are the remains of the head and front limbs of a domestic pig (Fig. 8: 13). One fragment shows minor burns, which could point to cooking over an open fire. An S-shaped bowl was placed on them (Fig. 8: 10) which contained almost an entire domestic chicken without a head (Fig. 8: 12). The aforementioned represents the third context of meat offerings. Due to the absence of traces of burning, it can be assumed this was a cooked dish served in a bowl. Numerous meat offerings in these types of burials, where both a chicken and a domestic pig are included, appear at the Hurbanovo-Bohatá grave ground in grave 56, where unburnt bones are mixed with human remains in one pile (Rejholcová 1977, 51). This is even more common in the Malé Kosiňy grave ground – for example in grave 192 – where unspecified burned animal bones are mixed with human remains and unburned chicken bones are stored in an S-shaped vessel near the remains (Bujna 1995, 50, 51). The same applies to grave 274, where a goose is placed in an S-shaped bowl instead of a domestic chicken (Bujna 1995, 63, 64). The fourth context in grave 3 in Sládkovičovo is disputable and represents burnt remains of caprine bones (Fig. 8: 15) located in the eastern corner of the chamber from the inner and outer side. The positioning outside of the burial context can be explained by post-depositional processes which are also related to the allocation of one link of the bronze belt (Fig. 8: 4). On the other hand, it is not unusual to observe a deliberate placement of a specific group of grave offerings, fulfilling more of a ritual function outside the burial context right in the peripheral areas of the burial pit (e.g. Bujna 1998, 294, 298; Repka 2018, 245, fig. 5).

The costume’s parts are represented by two iron fibulae (Fig. 8: 1, 2?), two bronze knobbed rings (Fig. 8: 3), a bronze chain belt (Fig. 8: 4), a smooth iron ring (Fig. 8: 5), a part of a glass circle (Fig. 8: 8) and unspecified iron objects (Fig. 8: 6). All of these items were found in one pile together with the burnt remains. Their condition shows they were exposed to high temperatures which supports the interpretation they were used as a funeral gown.

A flint (Fig. 8: 9) placed among the human remains appears to be a personal offering. Another metal offering, which could not be identified (Fig. 8: 7), was located between the two vessels and was first related to the included dish. The personal equipment of the deceased reflects a female costume which, especially in the case of the bronze knobbed rings (Fig. 8: 3), corresponds to the situation in grave 2. The presence of a flint is noteworthy, as such an offering is not common in La Tène burials. In Slovakia, there are only two known cases of burials from the La Tène period in which a flint is included amongst grave goods – namely at the Hurbanovo-Abadomb grave ground, grave 3 (BenádiK/Vlček/Ambros 1957, 45) and in the barrow in Palárikovo II, grave 5 (Paulík/Zachar 1975, 294, 295). Other, but equally rare, cases are known from the neighbouring areas of Lower Austria – Mannsdorf, grave 4 (Ramsl 2011, 34) and Transdanubia – Győr-Ménfócsanak, grave 12 (Uzsoki 1987, 21, 22). In all cases, these were better equipped female graves.

Human burnt remains were located in the central part of the grave. The sharply defined concentration points to the existence of an organic container in which the costume’s parts and personal items were placed. This is also clearly demonstrated by anthropological observations of bone fragments fastened together with metal objects. What is questionable is the storage of the animal offerings which were burnt as well and were most likely combined together at the cremation pyre. A smaller amount of human and animal calcined bones scattered throughout the bottom of the grave pit is caused by the post-depositional transformations. Their positioning beyond the area of the wooden chamber also indicates a much later course of these processes. On the other hand, the group of human bones (9 g) under the bowl (Fig. 8: 10) corresponds to the intentional placement. Together with the central concentration, it could represent a burial rite consisting of multiple scattering of human remains at the bottom of the grave pit. Multiple piles are rarely seen in women’s graves. A similar case was observed in Hurbanovo-Bohatá, in grave 45, where two concentrations of human remains were seen. In addition, there is evidence of a meat offering of an unburnt caprine in the aforementioned grave (Rejholcová 1977, 49, 50). Another example was observed in a gender-undetermined grave in gender-undetermined grave 183 in Malé Kosiňy, where the shape and dimensions of the grave pit are similar (Bujna 1995, 47, 48), or in Ludas, in a children’s grave 1157 which also contained a wooden chamber (Szabó/Tankó/Czajlik 2012, 76, 77).

**DATING**

Based on the grave goods, two (graves 2, 3) out of three burials can be safely dated to the beginning of the LT C1 stage, and thus to the beginning of the Middle La Tène period. The most chronologically sensitive objects in the given graves can be considered to be the knobbed anklets with plastic decoration. The time classification in the case of grave 2 is also definitely confirmed by the iron chain belt made from massive twisted iron links of the Gk-C group (Bujna 2011, 78). Other grave goods,
such as iron wire fibulae of the Middle La Tène construction, rings made of a smooth iron rod, a fragment of melted light green glass, fragments of a belt made from links connected by small chains (groups Gk-E1B, Gk-E2B, Gk-I, or Gk-R according to Bujna 2011, 87, 92, 121, 123) and ceramic vessels can be only tentatively dated to the LT C1 level due to their preservation or their characteristics.

In the case of grave 1, which consisted solely of a ceramic vessel, the dating can be determined on the basis of the burial rite – which in this case was the urn burial. In the territory of Slovakia, placement of burnt human remains in vessels is encountered primarily during the Middle La Tène period (Ďuďáková 2014, 490; Repka 2020, 127, 158). Analogous urn burials consisting of only an urn and cremated human remains are dated from LT B2/C1 (Bajč-Vlkanovo, grave 51; Benadík 1960, 403) to the course of the LT C1 stage (Holiare, grave 383; Benadík/Vlček/Ambros 1957, 91).

Radiocarbon dating

Three samples of animal bones from grave 3 were provided to determine absolute dating using $^{14}$C isotope measurement. Sample CRL_22_2037 represented a humerus of a domestic chicken (SL-ZA 163/2019), sample CRL_22_2038 represented a blade bone of a domestic pig (SL-ZA 166/2016) and sample CRL_22_2039 was an ulna of a domestic pig (SL-ZA 162/2019). Although they depicted three contexts within the grave, together they represented only one event without mutual succession and without any relation to other graves. At the same time, the estimated age of the domestic pig individuals was in the range of 9–12 months, with the chicken being even younger. This fact limited the subsequent chronological modelling. On the other hand, in the case of these short-lived animals, the dating episode came closer to the time of their deaths (Barta/Štolc 2007), i.e. the event of this examined burial feast.

Graphitized collagen from the samples in question was measured on AMS in the MILEA system at the CRL workplace of The Nuclear Physics Institute of the Czech Academy of Sciences in Prague (Kučera et al. 2022). Measured $^{14}$C activities and their combined uncertainties are expressed in years before the present (BP) as a conventional radiocarbon age according to the M. Stuiver and H. A. Polach convention (Stuiver/Polach 1977).

Calibration of samples such as R_Combine yielded a wide range due to significant variation in the calibration curve between the years 400 and 200 BC. Based on this, the calibrated dates at 2-$\sigma$ probability range from 356 to 278 cal BC. Due to the limited modelling possibilities, a Bayesian model based on archaeological phasing was used, with the upper limit being the beginning of the Middle La Tène period LT B2/C1 and the end of the Celtic flat grave grounds LT C1c. Through this, the dispersion on the calibration curve was narrowed down (Fig. 9: A) and the sample combination was dated within the range of 236–175 cal BC (Fig. 9: B) with a probability of 2-$\sigma$. 

Fig. 9. Sládkovičovo, grave 3. AMS $^{14}$C dating of three samples from animal bones.
EVALUATION

The reconstruction of the burial practices is based on an analysis of the burial rite. It should be seen as an effort to reach the state of a living culture at the time of its demise. Possible conclusions can be thus achieved only with the help of hypotheses.

The investigated situation in grave 1 represents a specific burial which was minimized in its extent to the basic act of placing human remains and a meat dish in a single vessel. Equally minimalistic was the usage of the grave space, which directly corresponds to the reduction of grave offerings and which is concentrated only in the space of the ceramic vessel. The absence of space as well as the shallowness of this grave indicate a simpler/poorer form of burial, which in addition to the social status of the buried individual may reflect a different identity reflected in burial practices.

Based on the components of the costume as well as the anthropological analysis in grave 2, the grave belonged to an adult woman while the offerings correspond to a wealthier form of burial. The distribution of grave goods and human remains indicates a significant disproportion in the spatial distribution of the grave pit. That is also related to the different location of the recognized grave filling, which was mixed with the surrounding soil and could have arisen secondarily during an additional intervention in the grave. It is in these places at the grave’s bottom level, where a separate concentration of metal offerings – costume’s parts – are found instead of the human remains.

Given the evidence, an individual buried in grave 3 was also of an adult age and was possibly of the female sex. The grave consisted of cremated remains placed on one central pile together with personal belongings and several smaller piles in the area of the grave pit. The latter was defined by a wooden chamber, emphasizing a higher social status of the buried person which also correlates with the quite lavish costume. The more exceptional architecture of the grave is related to its greater depth of up to 130 cm below ground level. Along with the rich meat dish, high-quality ceramics – the bowl containing a chicken dish and an unknown liquid – were placed in the grave as well.

The identity of the buried individuals can be solved on both the social and the personal level. On the personal level, the most decisive element is the observation of the most common costume’s parts, which are associated with social gender and age. They can be observed only in the cases of grave 2 and 3. The pair of bronze knobbed anklets found in the graves can be associated with a burial of adult women (Waldhauser 1979, 57, tab. 2). A chain belt made from links connected by small chains can also be considered as a typical component of the female costume (Bujna 2011, 87–89, 92–94, 121–124). Fragments of which were found in grave 3. Other important indicators are presented by additional grave offerings in the form of distinct objects or certain meat dishes. They enable to carefully characterize the identity and are helpful in avoiding certain norms affecting the composition of the burial costume. One of them is the presence of the caprine remains in the case of graves 2 and 3. Due to the high degree of burning, they were probably placed on the burial (cremation) pyre along with the human body. The aforementioned thus indicates they were not used solely as a meat offering. In the case of identified grave goods, there is a proven association with the buried female individuals (Bučany, graves 5, 6, 8, 11, 19, 27, Hurbanovo-Bohatá, grave 45, Malé Kosiň, grave 459, Palárikovo I, graves 17, 76, Rezi-Rezíčci, grave 64). The only exception in this regard is the male grave 24 from Bučany, which was already mentioned by Z. Říh (2014, 491). This custom was encountered in Central Europe, especially in Germany, since the Hallstatt period (Müller-Scheeff/Trebsche 2007, 80). During this period, it was also much more popular to use caprines in burial rites. It can be assumed that the specific placement of caprine remains in the graves from Sládkovičovo also points to the burials of women. A comparable indicator can be the presence of a flint, which appears only in ‘wealthier’ female graves (see the section Analysis of the burial rite – Grave 3).

The presence of the internal structure of the grave, plentiful equipment in the form of grave offerings, as well as the more lavish costume place graves 2 and 3 in the category of female and child burials of a higher social status (cf. group I according to Bujna 1982). On the contrary, the absence of the above-mentioned attributes ranks the urn burial of grave 1 among the poorest for both the male and female individuals (cf. group IV according to Bujna 1982).

The urn form of cremation in grave 1 is not typical for Slovakia (Ďubíková 2014, 490) and indicates a different cultural environment. Of the 1 054 La Tène graves discovered and published so far, this method of depositing human remains was found only in roughly 2% of them (Repka 2014; 2020, 157, 158). Within Central Europe, most of the urn burials appear in eastern Hungary, north-western Romania and Transylvania (Dietrich/Dietrich 2006, 23, fig. 7; Lorenz 1979, 62). To a lesser extent, the western (south-western Slovakia, Transdanubia, or marginally extending Lower Austria) and southern (the northern part of Croatia, Serbia and the territory of Slovenia) parts of the Carpathian basin are...
represented (the latest on this topic Dizdar 2016, 298, 299, with literature). The region with a larger representation of urn burials is the territory of Moravia (Zetochová 2016, 271, fig. 1). Similar situations where only an urn with human remains was found can be observed here – for example in Jirkovice, grave 1/1955 (Čižmárová 2011, 20, 111,112, tab. 30: 20), Domazlice, grave 1 (Čižmárová 2017, 186, tab. 68: 3), Čelechovice, grave 1/1882 (Hlava 2014, 553), Vicemilice, graves 3 and 4 (Čižmárová 2013, 182), or Brno-Maloměřice, grave 21, where a similar terrina was covered with a bowl (Čižmárová 2005, 80).

A part of the grave inventory from graves 2 and 3 from Sládkovičovo also points to the territory of Moravia. These are primarily bronze knobbed rings with plastic decoration, possibly also a bronze chain belt made from links connected by small chains (see the section Analysis of the burial rite).

Based on these statements, the analysed graves from Sládkovičovo could be assigned to the new wave of settlement, which reached the territory of today’s Slovakia at the end of the early and the beginning of the Middle La Tène period. On the basis of the current state of research, it can be concluded that in this period, after the early La Tène period, i.e. after a hiatus of about 100 years, the area of Záhorie, Bratislava and Trnavská tabuľa Loess Plain is being repopulated. A population growth during this period is observed in Nitra river, Žitava river and Lower Hron river region. On the one hand, the new population is associated with Celtic groups from the West Celtic region, which is evidenced by both the archaeological finds (Repka 2014, 36) and indirectly by the historical, especially ancient written sources, in connection with the Celtic campaign to Macedonia and Greece in 280–279/278 BC. Several Celtic tribes from Western and Central Europe were to participate in the campaign, such as Scordisci, Senones (?), Belgae (?) or Tectosages (Repka 2015, 38–40; 2016, 221–223).

However, some archaeological finds testify to the movement of Celtic groups from the territory of Moravia and Bohemia as well. Perhaps the graves from Sládkovičovo can also be counted among them. The relation to the territory west of SW Slovakia is also proved by the location of the site in relation to the La Tène settlement. The territory of Sládkovičovo can be assigned to the settlement zone in the area of the eastern side of the Little Carpathians and Trnavská tabuľa Loess Plain compare with Březinová 2006, 15, 22, map 1). From the territory between the Váh river and the area of today’s Bratislava (Devínska brána – Devin Gate), the burial evidence of the Celtic flat grave grounds had been lacking so far, with the exception of the grave ground in Galanta-Nebojsa (Chropovský 1958; Repka 2014, 35–37, fig. 4–6).

The grave ground is located at the southernmost tip of the Trnavská tabuľa Loess Plain, just above the foot of the descending loess dune. The choice of this location corresponds both to the characteristic terrain slope and the suitable subsoil which was recorded only in part of the surveyed area (where the outcrop of the loess terrace continues). In terms of settlement structure, it could have belonged to the presumed settlement at the Nové diely site (Březinová 2006, 36), which is situated in the nearby hinterland 0.5 km away. Other settlement components such as Košút or Pusté Úľany are located at a greater distance of 4 km.

CONCLUSION

In 2019, during a rescue excavation of the polycultural site in Sládkovičovo, at the Pri zeleznicí/Malý Diosek location, three La Tène cremation graves were discovered. Graves 2 and 3 represent the burials of adults. Based on the burial rite and grave goods, these adults could be classified as women of a higher social status. Grave 1, with its distinct form of urn burial without any other grave goods, points to a different cultural environment likely in the territory of today’s Moravia. This environment is also indicated by the costume’s parts (plastically decorated anklets, a belt made from links connected by small chains) in graves 2 and 3. Based on the grave goods, these graves are dated to the beginning of the LT C1 stage. The radiocarbon age of the animal offerings in grave 3 was determined to fall within a range of 236–175 cal BC. With that being said, these graves from Sládkovičovo may represent a new wave of settlement which reaches the area of the Trnavská tabuľa Loess Plain at the end of the Early and the beginning of the Middle La Tène period. At the juncture of historical events associated with the campaign of the Celtic tribes into Macedonia and Greece (280–279/278 BC) and the movement of the Moravian Celts, the area between Bratislava and the Váh river has been resettled from the Early La Tène period onwards. Based on the spatial distribution and burial rite, the investigated graves can be assumed to be a part of a larger burial site, which represents the research potential of this area. Further information about the life of the Celtic settlement in the territory of Sládkovičovo may be provided by the analysis of the sampled contents of the graves’ vessels. Their significance in regards to the burial rites’ interpretation will be a subject of further study.


Kremačné hroby z doby laténskej v Sládkovičove


SÚHRN

V roku 2019 sa pri záchrannom výskume v Sládkovičove, na stavbe „Miestna obslužná komunikácia pre IBV Záhradnica, Sládkovičovo“, podarilo na polykultúrnej lokalite Pri železnici/Malý Diosiek.preskúmať tri kremačné hroby z doby laténskej. Trojica kremačných hrobov predstavuje jedinečnú situáciu nie len svojou geografickou polohou, ale aj zistenými prvkanahrobného ritu, ktorým doplňujú obraz o laténskom osídlení juhozápado-slovenskej oblasti v období tzv. plochých keltských pohrebísk. V predloženej štúdií prezentujeme možnosti mikroarcheologie a multidisciplinárnej spolupráce k lepšiemu pochopeniu pohrebných obradov laténskej kultúry.

Lokalita je situovaná na juhozápado-slovenskom okraji infrastruktúry a políctra, v ktorej sa objavujú kultúrne zmienky z doby laténskej, ktoré sú predmetom tohto príspevku.ublehá tretra trojica kremačných hrobov sa nachádzala v hĺbke 145 cm od úrovne súčasného terénu. Uvedené nádoby, ako aj ďalšie hrobové prídavky, boli umiestnené v severozápadnej časti hrobovej jamy. Ľudske ostatky premiešané so zvieracími kostami tura domáceho (obr. 6: 12), stredného prežívanca (ovca/koza; obr. 6: 13) a častou zvierateľnými predmetami, ako fragmentov dvoch zvierateľných spôňov (obr. 6: 2, tab. I: 6, 7) a fragmentov zvierateľného nožíka/nožnic (obr. 6: 6, tab. I: 5), sa nachádzali medzi nádobami. Väčšie množstvo drobných predmetov, bez prítomnosti ľudských ostatkov, bolo uložených južne od misovitej nádoby. Predstavovali ich fragmenty dvoch dvojdielnych bronzových puklicových kruhov s plastickou výzdobou (obr. 6: 3; tab. II: 6, 7a), fragmenty řezáku z řezového opasku (obr. 6: 5; tab. II: 4–7, 6c), fragment kruhu z hladej zvierateľnej tyčinky (obr. 6: 6; tab. III: 6b) a fragmenty neurčiteľných zvierateľných predmetov (obr. 6: 7–9; tab. I: B3, B4, B9).

Posledný z trojice kremačných laténskych hrobov sa v sypkom piesčitom podloží nečrtal takmer vôbec. Jeho výplň tvorila žltá piesčitá zemia, mierne premiešaná s tmavožltou hlinito-piesčitou zemínou. Íšlo o hrob, ktorý mal štvorúholníkový tvar so zobrazenými nárožníkmi (obr. 7; 8). Jeho rozmery dosahovali 154 × 117 cm. Dno hrobu sa nachádzalo v hĺbke 60 cm od úrovne súčasného povrchu. Väčšie množstvo drobných predmetov, ako fragmenty dvoch dvojdielnych bronzových puklicových kruhov s plastickou výzdobou (obr. 6: 2; tab. II: 6, 7a), fragmenty řezáku z řezového opasku (obr. 6: 6; tab. III: 6b) a fragmenty neurčiteľných zvierateľných predmetov (obr. 6: 7–9; tab. I: B3, B4, B9).

Pri železnici/Malý Diosiek preskúmať tri kremačné hroby (hrob 1 – objekt 154, hrob 2 – objekt 161, hrob 3 – objekt 163) boli identifikované v období tzv. plochých keltských pohrebísk. V predloženej štúdií prezentujeme možnosti mikroarcheologie a multidisciplinárnej spolupráce k lepšiemu pochopeniu pohrebných obradov laténskej kultúry.

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Rekonštrukcia pohrebných obradov vychádza z analýzy pohrebného ritu. Treba ju chápať ako snahu dostáť

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