

BRONZE RELIEF FITTING WITH A DEPICTION OF GOD MARS

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Abstract: During systematic research at the site of MMB (Bratislava City Museum) Ancient Gerulata, in trench 13, within the fill of a Roman Period masonry sewer structure, we discovered a coiled bronze elongated object. Trench 13 was located in the civilian part of Gerulata, approximately 20 m from the northern corner of the 2nd, 3rd, and 4th construction phases of the castellum. The vicus (settlement) begins here, spreading northwest from the Gerulata castellum and near the “Via Carnuntina” road. In trench 13, we were looking for the continuation of the Roman masonry channel, which was previously explored by Ján Dekan and is presented in the masonry exhibition space. Klára Kuzmová dated this structure to the era of the Severan dynasty based on findings of terra sigillata. Besides continuing the channel, we uncovered a sewer connection in the northwestern part of trench 13.

The bronze object was found between the walls of the channel, but in a secondary position. Above the sewer in the stratigraphy is a massive wall, numbered 11, which partially corresponds with the late Roman square structure of the 4th construction phase. This wall has been uncovered so far over a length of approximately 30 m, showing a crack directly above the masonry sewer. We associate this crack with the wall and date it to the period of wall 11's existence, which our predecessors dated to the 3rd construction phase of Gerulata. Wall number 11 is currently defined as a protective wall guarding access to the port.

Upon cleaning the bronze fragment, we observed that on three small plates, it depicts a male figure in armor holding a spear. The male figure stands “en face” (facing forward), legs slightly apart, slim and muscular. The figure is depicted in low relief and shows strong musculature. The right arm is incomplete, along the body, while the left hand holds the spear. The head is slightly tilted toward the right shoulder, and the figure wears a helmet with a central crest. The metal fitting is covered in a dark green patina. The object is made of a copper alloy with zinc and tin, with smaller inclusions of iron, lead, and antimony. We presume it is a fragment of decorative armor fitting. The dating of ceremonial cuirasses spans a wide range, but we place this particular fitting in the mid-3rd century.

INTRODUCTION

In the 1960s, during soil excavation from a small elevation known as “Bergl” or “Várdomb”, a medieval fort and the pillars and walls of the Roman castellum Gerulata were discovered (Fig. 1 – Bergl, *Dekan 1966*, 143–149; *Kraskovská 1967*, 37–69). In addition to the camp, the research uncovered the foundations of civilian buildings and a Roman masonry sewer (*Dvořák 1975*, 133–141). These structures were restored and presented as part of Restoration I, during which supplementary archaeological research was also conducted on the site. The supplementary research and restoration were carried out by the Municipal Institute for Monument Care and Nature Protection (MSPS OP). The sewer was presented within a masonry space with a railing (*Snopko et al. 1989*, 80–87). The monument was handed over to the Bratislava City Museum, and in 1987, the Museum of Ancient Gerulata was opened.

In 2006–2007, Restoration II took place in Gerulata, funded by European ERDF funds. One of the goals of Restoration II was the conservation of the walls of the square structure, the well, the sewer, the original Roman floor, and archaeological research. During this research, trench 13 was opened, from which the presented fragment originates. However, due to time constraints and a reduced budget, the trench was not fully explored.

Research in trench 13 resumed in 2019–2020 and yielded unexpected results. We found the continuation of the sewer and discovered a connection. We uncovered a rich collection of artifacts. Therefore, in the following years, we continued the research by opening additional trenches, aiming to gather new information about the direction of both sewer structures as well as findings that would refine the dating of the objects.

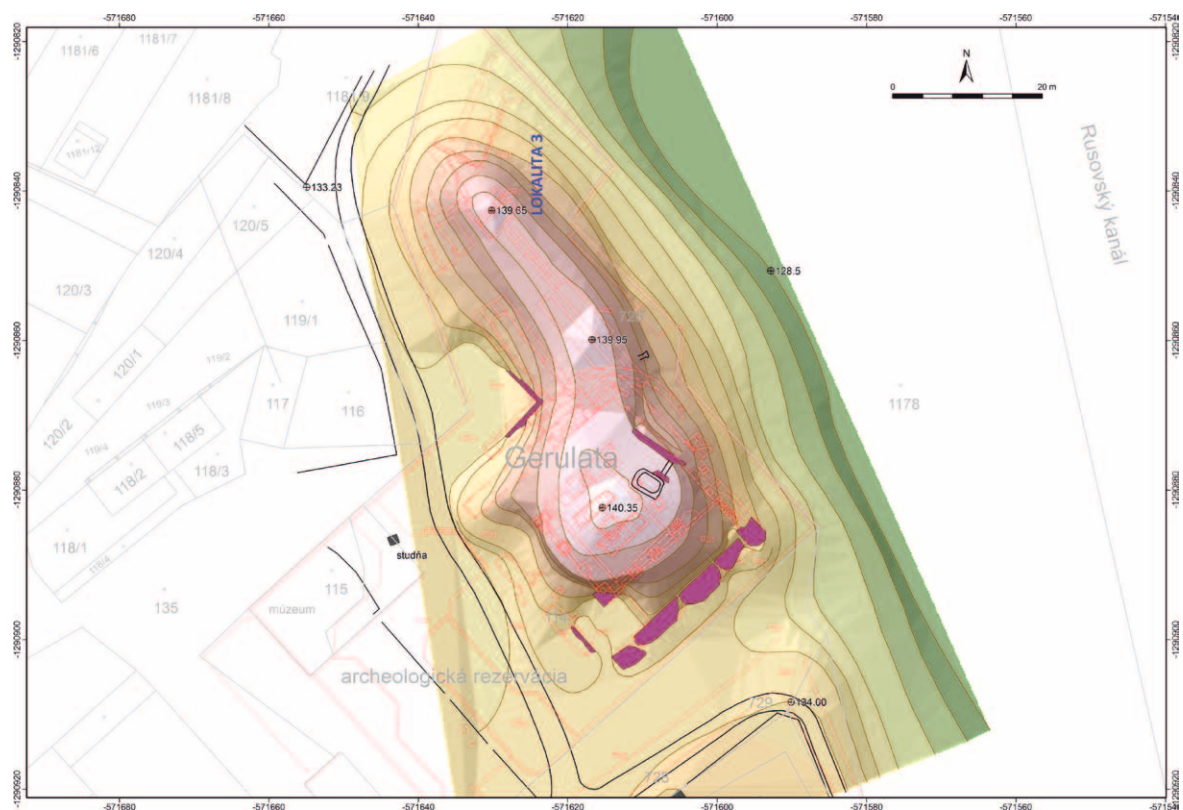


Fig. 1. Bergl hill with Site 3 (authors M. Bartík, E. Blažová, after to L. Kraskovská).

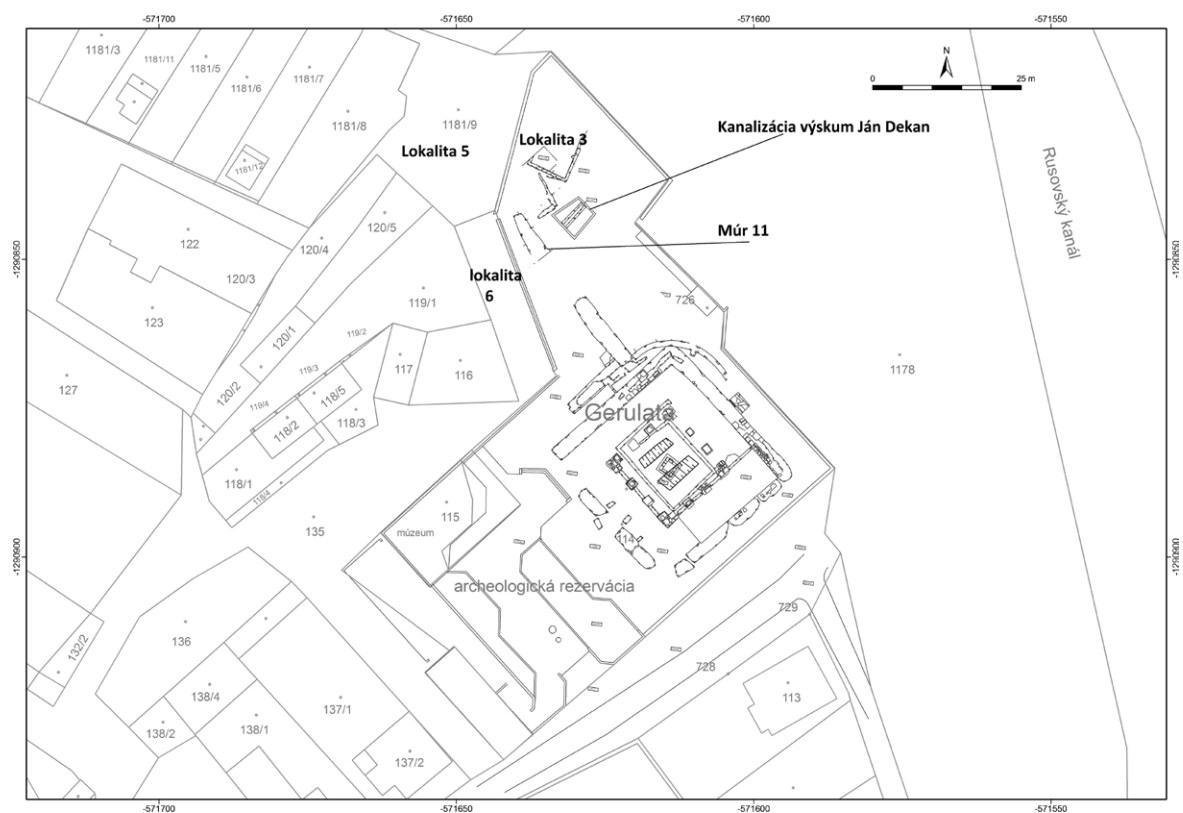


Fig. 2. MMB (Bratislava City Museum) Area. Ancient Gerulata with marked positions Bergl, sites 3, 5, 6 (author J. Schmidtová).

ARCHAEOLOGICAL SITE

Archaeological excavations northwest of the Gerulata castellum (in today's Bratislava-Rusovce district, at Maďarská and Irkutská streets) have begun uncovering a rich settlement located near the road leading to Carnuntum, the so-called *via Carnuntina* (Bazovský/Pichlerová 2015, 211–215; Pichlerová 1986, 194–197; 1990, 140, 141; Schmidtová/Jezná 2003, 19–24; Schmidtová 2006, 133–137; 2012, 263–275; Schmidtová/Jezná 2004, 5–14; Schmidtová/Mathédesz 2020, 85–102). On Irkutská Street, we uncovered an exceptional example of Roman architectural sophistication – a structure with underfloor heating and a cemetery (Schmidtová/Mathédesz 2022, 347–352; Schmidtová/Mathédesz/Jezná 2017, 87–95; Sötér 1898, 240–248;). Another remarkable find along *via Carnuntina* is a large fragment of a tegula stamped by the Cananefates cavalry, who formed the garrison in Gerulata. The tile is the only one of its kind (Schmidtová 2010, 9–17). Based on the findings from these excavations, the rich settlement on Irkutská Street, along with the National Cultural Monument (NKP) house with a hypocaust, was also inscribed on the UNESCO World Heritage List.

The Bergl site 3 (Fig. 1; 2), with trench 13, is situated in a civilian settlement outside the walls of the Gerulata castellum, approximately 20 m from the northern corner of the castellum from the 2nd, 3rd, and 4th construction phases. From an archaeological topography perspective, the explored area marks the beginning of civilian settlement along the *via Carnuntina*. The elevated area, called Bergl, had an elongated shape and covered part of the Gerulata castellum and part of the civilian settlement. The top of the hill above the civilian settlement was at an elevation of 139.65 m above sea level. Today, the terrain is at 134.30 m above sea level, with a difference of 5.35 m. On site 3, we are thus operating on Roman terrain, which in some parts is overlaid with low recent deposits from the last 50 years.



Fig. 3. Sewage system and connection at Site 3 (author P. Brunčák).

Trench 13 was placed southwest of Ján Dekan's trench (Fig. 3). It measures 2.10–2.40 × 4.8 m and has an irregular trapezoidal shape. In 2019, we identified five objects. Object 1 was a sewer body explored by Ján Dekan (Fig. 4). Object 2 was Ján Dekan's exploratory trench. Object 3 was a connection, whose junction with the sewer body has not yet been confirmed by research. Object 4 was a floor and a mortar accumulation at the southern profile of trench 13. Object 5 was an intervention above object 1, i.e., the sewer walls in sectors e and g (Fig. 4; 5).

The sewer runs in a northeast-southwest direction, with a depth of 63 to 70 cm from the top of the wall. The walls were slightly wider, the sewer was deeper, and 40 cm wide. It sloped toward a branch of the Danube, with a gradient of 7 to 10 cm over a length of 230 cm. Some mortar lining was preserved. The connection runs east-west, is 31 to 38 cm deep, and was shallower, with the trench being roughly the same width, and the walls had a lime mortar lining. In trench 13, the connection had a slope 8 cm lower over a length of 1.6 m. The connection ceased to exist earlier, as it is overlain by backfill layers of the depression above the sewer. Only the masonry walls of the sewer and connection were preserved (Fig. 5). The research identified several types of covering, such as flat brick roofs, arches, stone, even spolia (Kremer 2014, 67–78), or wood. Small, covered, and relatively long water and sewage systems are also typical for Carnuntum (Konecny et al. 2018, 4–14).

In subsequent years, we continued exploring the sewer trenches, and the sewer was examined over a total length of 10 m. Behind wall no. 11, we uncovered a semicircular "pool" with a mortar floor (Fig. 6; 7). We assume that it may have served as a water reservoir or to slow down the water



Fig. 4. Bergl, Site 3, Trench 13, Object 1. Fill above the sewage walls. Depth at point B 100 cm, 133.31 m a. s. l. (author J. Schmidtová).



Fig. 5. Bergl, Site 3, Trench 13, sector markings (author J. Schmidtová).

flow. The connection was explored over a length of 13.5 m, and its continuation was terminated by a medieval ditch.

An exceptional find in the sewer backfill was the accumulation of animal bones on the southern side of the depression fill above the sewer (Fig. 8). We requested an archaeozoological analysis from Prof. PhDr. Noemi Beljak Pažinová, PhD., head of the Department of Archaeology at the Faculty of Arts, Constantine the Philosopher University in Nitra, and especially from her young colleague, Mgr. Katarína Šimunková, PhD. She took over and analyzed 85.5 kg of material, representing 8,321 pieces of animal bones, and produced a basic anatomical-taxonomic analysis of animals from the Roman Period in Gerulata. Her work will be published in the near future, along with other information and analyses.

To understand the stratigraphy and the relative positions of the objects, the eastern profile is the most important (Fig. 5; 9; 10). Depressions were formed above both the connection and the sewer. The depression above the connection is 80 cm wide and approximately 30 cm deep, sitting on a speckled sandy-clay loam.

More interesting is the depression above the sewer, where the fill consists of red-burnt as well as gray ash layers rich in finds. These burnt layers are in superposition above the layer with animal bones. During the cleaning of the profiles, we found red burnt layers (2') already at a depth of 20 cm from the surface. Beneath them are gray ash layers (3'). In layer 4', there was a large cluster of the aforementioned animal bones. The lower layer of the backfill, consisting of brown soil with gravel, was designated as layer 6'. It was about 20 cm deep. Below it was the fill of the sewer trench itself, designated as layer 7'.

However, interventions near wall 11 clearly show that we cannot correlate the stratigraphy of the eastern profile with the find spot. A small part of the original foundation trench of the massive wall 11 was preserved only in sector «i» in the southwest corner of trench 13. Above the sewer walls is an intervention, which we believe to be a Roman-Period exploratory trench that was used to verify the break in wall 11. The southern wall of the sewer under wall 11 was even removed (Fig. 11, near the find spot). In the backfill of this intervention, in the section 0–50 cm from wall 11, at a depth of 30 to 50 cm from the top of the sewer walls (132.21 to 132.02 m a.s.l., Fig. 11), we found a coiled bronze object. It should be emphasized that, apart from mortar, bricks, and broken stones, we found no other artefacts in the backfill of the sewer walls or connection.



Fig. 6. Semi-circular pool, continuation of the sewage system (author J. Schmidtová).



Fig. 7. Marked walls of the sewage network in Gerulata (author P. Brunčák).



Fig. 8. Animal bones in the fill of object 1. Bounded by the brown gravel layer no. 5, the left boundary of the sewage connection.

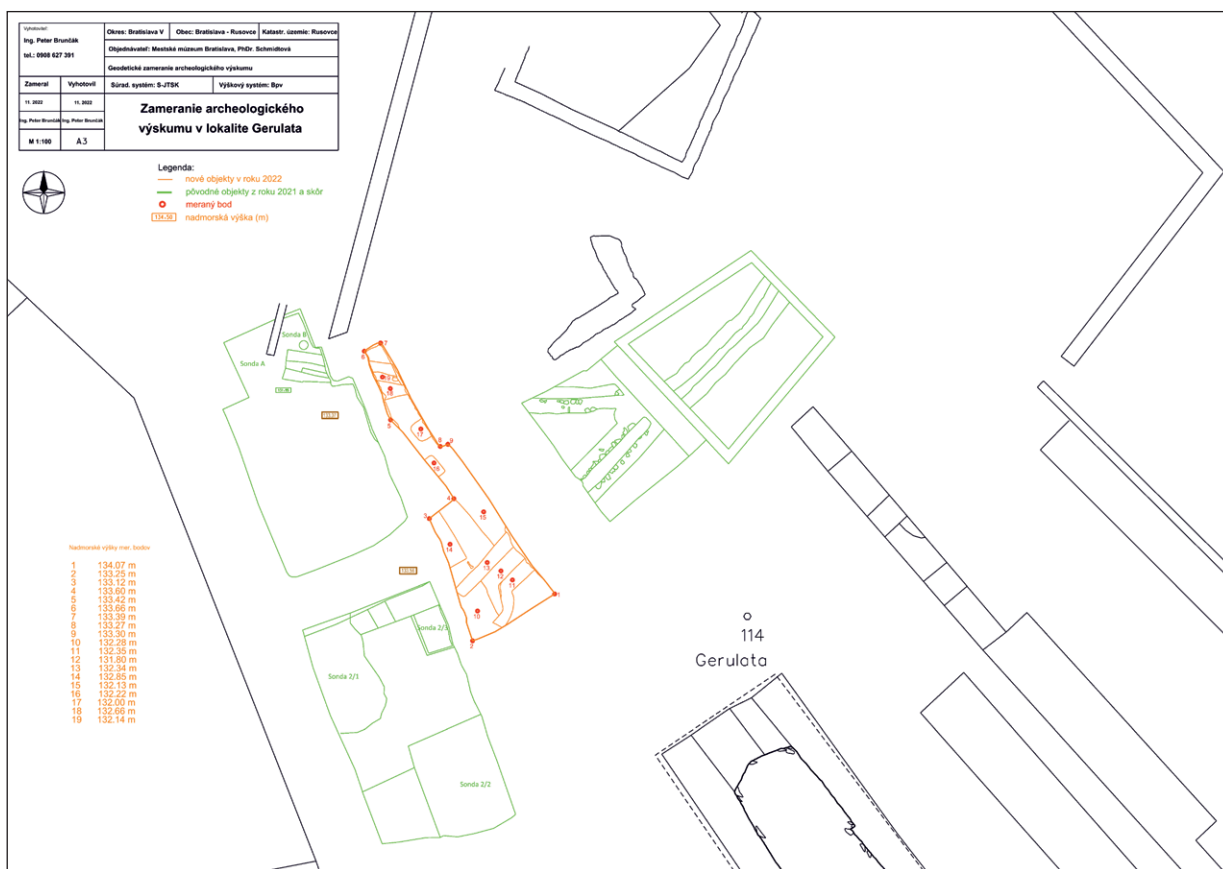


Fig. 9. Bergl, Site 3, trench 13, east profile of the trench (authors J. Schmidtová, L. Mathédesz, N. Gerthoferová).



Fig. 10. Bergl, Site 3, trench 13, east profile of the trench (author P. Brunčák).



Fig. 11. Bergl, Site 3, trench 13. The find is located between the sewage walls (author J. Schmidtová).



Fig. 12. Bronze fitting, condition after discovery (author L. Mathédesz).



Fig. 13. Bronze fitting. Head with helmet and spear tip (author B. Ritterová).

The dating and abandonment horizon in Ján Dekan's research is based on the evaluation of *terra sigillata* pottery, obtained primarily from the depression fill above the masonry sewer (Dekan/Kuzmová 1996, 145–192). The latest finds belong to the Severan Period. Our finds are dated to the 1st, 2nd, and 3rd centuries. Four coins from the 4th century were found around the object – a wall discovered by Ján Dekan – and a layer of mortar on the northern profile. We assume that they ended up here during the construction of this medieval foundation wall.

MATERIALS AND METHODS OF RESTORATION OF THE FIND

The primary goal was to clean the object and determine the type of find, whether a typological identification and dating were possible, and also to determine the elemental composition of the object.

The object, initially discovered as a narrow, deformed, corroded metal strip covered with soil, underwent a meticulous restoration process to identify its nature and preserve its integrity. Below are the detailed steps and methods used in the restoration:

Condition upon discovery

The object was found as a corroded, narrow metal strip, heavily deformed and encrusted with soil (Fig. 12). When it was excavated and delivered to the restoration workshop of the MMB, it was still in a moist state, and its original form was unclear. Initially, it resembled nothing more than a lump of soil.

Initial cleaning

The item was first cleaned using demineralized water and a nylon brush. After this, it was documented. Post-cleaning, it became evident that the object was a piece of deformed metal, covered entirely with a mixture of corrosion products and calcium deposits. The presence of green corrosion indicated copper content.

Advanced cleaning techniques

The nylon brush alone proved insufficient for deeper cleaning, so more aggressive methods were employed. The calcium deposits were removed with wooden tools, and an ultrasonic scalpel, a highly effective cleaning tool with controlled local impact, was also used. However, due to the presumed fragility of the object, cleaning with an ultrasonic bath was avoided. During this phase, a previously indistinct relief began to emerge. The turning point came when, despite careful handling, the object fragmented. One of the separated pieces revealed a previously hidden part of the relief, specifically a head (Fig. 13), confirming that the object represented a figure.

Detailed unveiling of the relief

The uncovering of the relief continued slowly, using a work microscope and various wooden tools. During pauses in the process, the object was desalted by soaking in demineralized water.

Stabilization and preservation

After cleaning, the object was stabilized by immersion in a 3% benzotriazole solution in ethanol, followed by a rinse with ethanol. After drying, it was coated with a 7% solution of Paraloid B-44 in xylene to preserve it. Partial reassembly was performed. The cleaning process revealed the full relief, but due to the earlier fragmentation, it was decided not to restore the object to its original, deformed state after excavation. Doing so would obscure the revealed relief. Only a small fragment near the feet of the figure was glued back using a thick solution of Paraloid B-48 in acetone. To reinforce the bond, Japanese paper moistened with a 10% solution of Paraloid B-44 in xylene was applied to the joint after curing.

Elemental composition analysis

To determine the elemental composition of the object (reference number 2020/2/408DP), an X-ray fluorescence (XRF) analysis was conducted using a handheld NITON XL3t analyzer (Thermo Fisher Scientific, Niton, USA), mounted on a portable protective stand. Although XRF is a non-destructive method, it was necessary to define a suitable area for measurement and prepare the surface, as the patina covering the object could distort the results. Therefore, it was necessary to remove it locally to reveal the metal core. Given the object's significant historical value, the patina was removed only to a small extent on the underside of the object, specifically in an area lacking the green layer formed by copper salts, which revealed a dark red layer of copper oxidation (Fig. 14). Using a rotary tool with a nylon attachment, the copper oxide was mechanically removed, creating a 5×5 mm sample area for XRF analysis.

XRF analysis results

The analysis was conducted for 30 seconds, and the results were expressed as percentage values, focusing only on basic metal elements. Based on the measurement, the object was identified as brass enriched with tin (Cu 86.6%, Zn 6.45%, Sn 5.68%) with smaller amounts of iron (Fe 0.75%), lead (Pb 0.32%), and antimony (Sb 0.18%). This alloy produced a light yellow-brown color. The addition of tin to the brass improved its strength, malleability (both hot and cold), and corrosion resistance compared to pure brass. It remains unclear whether this specific alloy composition was intentionally chosen for these properties or whether it was the result of recycling metal materials.

This comprehensive restoration and analysis process enabled a better understanding of the object's material composition, physical properties, and cultural significance while ensuring its long-term preservation.

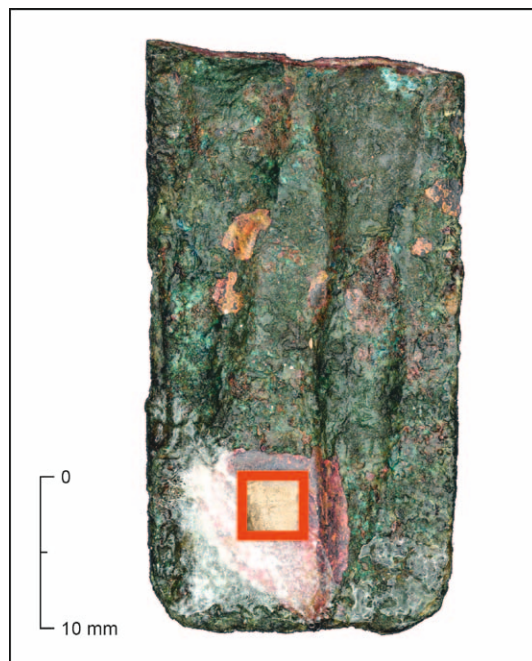


Fig. 14. Bronze fitting. Polished sample (author B. Ritterová).

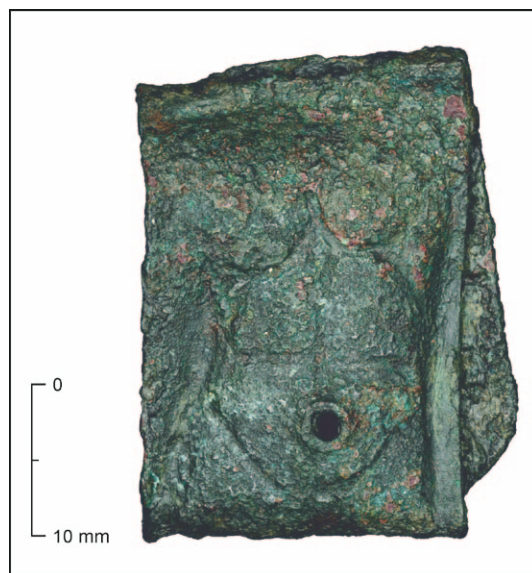


Fig. 15. Bronze fitting. Torso of a character (author B. Ritterová).

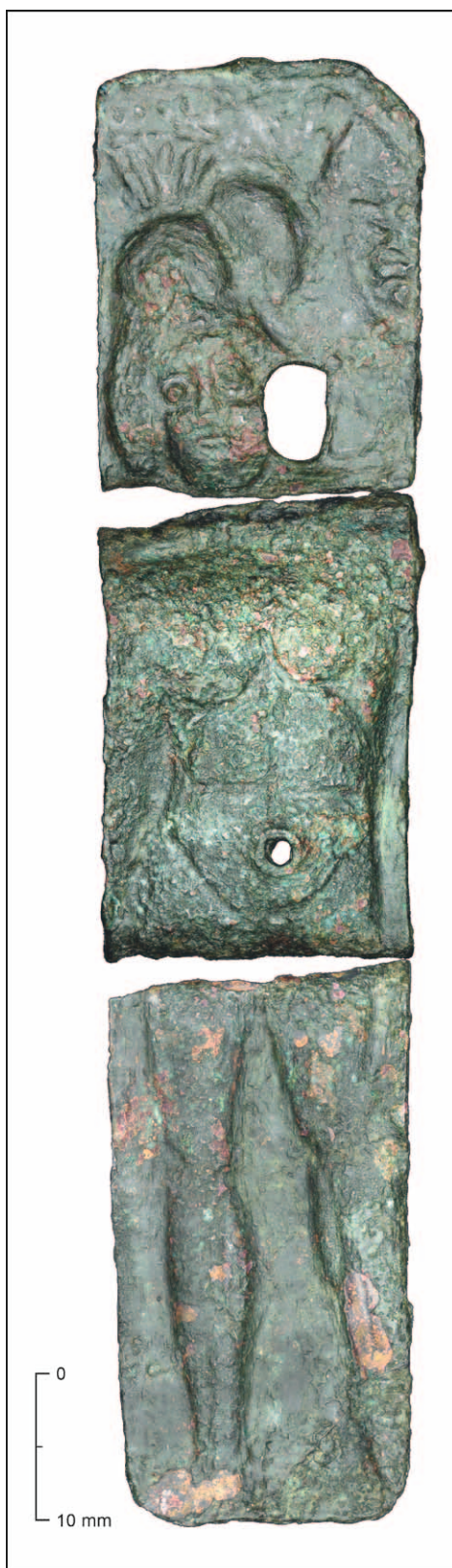


Fig. 16. Bronze fitting with the figure of Mars (author B. Ritterová).

DESCRIPTION OF THE RELIEF, ANALYSIS AND TYPOLOGY

The figure (Nr. VD 2020/2/408DP) is depicted on a narrow strip of bronze fitting, which was folded three times. The figure is presented in low relief, and the fitting is covered with a dark green patina. During cleaning, the object fragmented, and the section containing the figure's legs separated (Fig. 14). The remaining fragment shows the torso on one side (Fig. 15) and the head with a helmet and the tip of a spear on the other. The dimensions of the upper part of the fitting are a maximum width of 2.3 cm and height of 3 cm; the middle part has a maximum width of 2.2 cm and height of 3.2 cm; the lower part has a width of 2.1 cm and height of 3.9 cm. The exact size of the fitting is unknown as it is partially cut off, but its height exceeds 10 cm. The termination of the fitting can be seen above the hand holding the spear, where there is a rounded protruding line continuing above the helmet's crest. Rounded corners are also present near the figure's legs. The height of the three preserved sections combined is 10.2 cm (Fig. 16). The fitting has two holes. The hole to the left of the face measures 0.7×0.4 cm and appears to have been added later. The hole at the navel is regular, with a profiled circular termination and a diameter of 0.2 cm, possibly used for attaching the fitting to a surface.

The male figure is standing "en face" with slightly spread legs, slender yet muscular. It is presumed that the figure is naked, displaying the well-defined musculature of a male body. The head is slightly tilted toward the right shoulder, with a balanced face, eyes indicated by profiled rings, and a plastically represented nose and lips. The figure wears a helmet with a central crest and plume, with what appear to be strands of hair flowing along the face. In the upper left section, fingers can be seen gripping a spear with a leaf-shaped tip. Parts of the arms are missing, with the right arm lost below the elbow, and only the fingers of the left hand remain. The lower part of the right leg is unclear, while the left foot is more distinct, although the toes are missing.

Despite the fragmented state, the torso reveals a well-built figure with visible chest and abdominal muscles, marked by a groove. The absence of the contrapposto type of Doryphoros by Polykleitos¹ is striking. The face features coarse traits, reminiscent of depictions from the late Principate and Dominate Periods.

The relief represents the god Mars. A torso of a Mars figurine from Gerulata, which was described in a recently published work (Mathédesz/Schmidtová/Holičková 2023, 33–37), originates from this context. Mars, known as Maris in Etruscan and Mavors or Marspiter in Old Latin, is one of the oldest Italic deities and was identified with the Greek Ares in *interpretatio graeca*. The original domain of Mars is debated (Hošek 1986, 34). The Roman year initially began in March, the month dedicated to Mars, when agricultural work started, and military campaigns were launched. Another theory posits that Mars was always a war god, with his

¹ Thank you to PhDr. Jan Jílek, Ph.D., for the notification.

agricultural functions serving to prevent the devastation of fields by war. The ancient nature of Mars' cult is evidenced by his association with animals like the wolf and woodpecker and his veneration in the spear. The relic known as Mars' spear was kept in the *sacrarium* in the Regia, the royal residence on the edge of the Roman Forum. The Regia later served as the office of the *pontifex maximus*, the highest religious official. Tradition held that the spear moved, shook, or vibrated in times of war or other threats to the state. Mars' connection to the wolf is also seen in the most famous Roman myth, where a she-wolf nursed his sons, Romulus and Remus, whom Mars fathered with the mortal Rhea Silvia, daughter of King Numitor of Alba Longa.

According to Roman mythology, Mars was the son of Jupiter and Juno. After Jupiter, he was the most venerated Roman deity. Mars was worshiped *extra pomerium* – beyond the city walls. His two oldest temples, the Ara Martis in the Campus Martius and the Temple of Mars near the Capena Gate (*templum Martis extra portam Capenam*), stood outside the city, where the army gathered before campaigns (Hošek 1986, 34).

The fragmentary nature of the narrow fitting with a relief depiction of a male figure in armor holding a spear, which was folded three times and thus further damaged, complicated the evaluation of the fragment. Relief fittings were part of ceremonial breastplates, weapon guards for swords and daggers, furniture fittings, and even horse harness decoration.

This particular relief, due to its size and iconography, likely comes from the breastplate of a ceremonial cuirass. Such ceremonial cuirass was used in triumphal parades and processions. Hannsjörg Ubl mentions equestrian games where riders wore ceremonial cuirass (Ubl 1997, 59). These relief plates were divided into two, right and left, and were cut out and shaped to fit around the neck (Fig. 17; 18). The plates were further divided into three horizontal fields. In the top field, an eagle was typically depicted. The main field usually featured a deity. Ernst Künzl collected 256 fragments of ceremonial cuirass fittings, identifying 755 iconographic depictions, with Mars, Minerva, or Victoria appearing on 309 of them (Künzl 2004, 402; Borhy 2016, 60). The lower field often depicted animals such as bulls and goats, symbolizing legions.

A fragment from Brigetio, stored at the Kunsthistorisches Museum in Vienna, also depicts Mars. The fragment likely comes from the right side of a breastplate. Mars is shown wearing a pseudo-Corinthian helmet, a *lorica musculata* breastplate, and greaves on his legs. He held a spear in his right hand and leaned on a shield with his left hand (Borhy 2016, 38, 39, cat. 10, 131, 10. kép; Garbsch 1978, 77, P4, taf. 34: 4). There is also a find in the Kunsthistorisches Museum in Vienna that originates either from Carnuntum or Brigetio. Mars likely held a spear in his right hand, while holding a shield in his left hand (Borhy 2016, 67, 145, fig. 30).

Another fragment of a ceremonial cuirass depicting Mars is held in the Magyar Nemzeti Múzeum (Hungarian National Museum; Borhy 2016, 67, 82, 83, 144, fig. 28).

A corroded and damaged relief fragment from a ceremonial cuirass originates from Bertholdsheim. It depicts Mars, who likely holds a spear in his right hand and a shield in his left (Borhy 2016, 59, 144, fig. 26; Garbsch 1984, 68, pl. XXXII: 1).



Fig. 17. Soldier in ceremonial cuirass (Ubl 1997, 59).

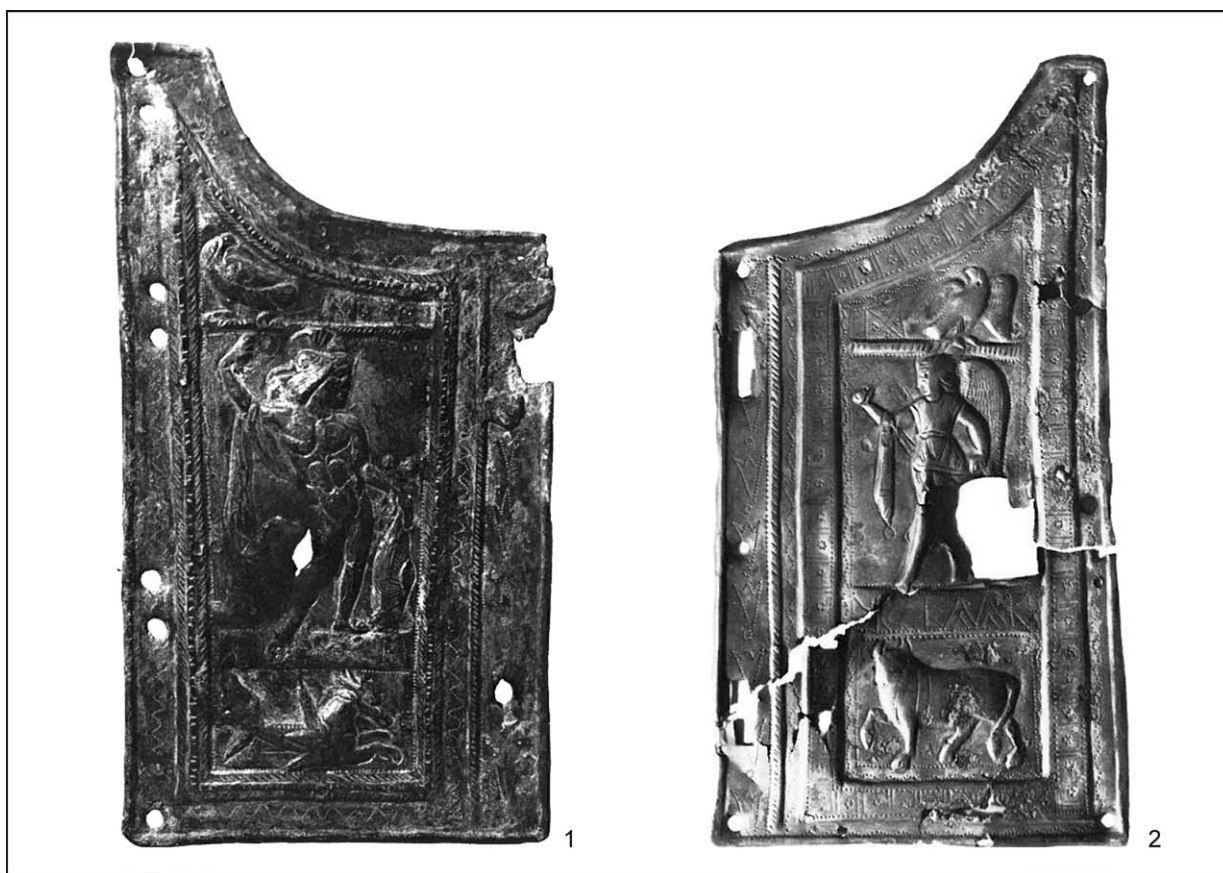


Fig. 18. Relief fittings from the ceremonial cuirass. 1 – Carnuntum or Brigetio; 2 – Orgovány (Garbsch 1978, pl. 34).

A fragment from the left side of a breastplate from the site at Orgovány shows the goddess of victory, Victoria, in the central field (Borhy 2016, 67, 144, fig. 29; Thomas 1976, 27–34). The site is located outside of Pannonia, east of the Danube in Barbaricum.

A breastplate with relief decoration and the inscription of the 10th Legion and the name BRVTI comes from Mušov. In the main pictorial field is Dioscurus, with a bull at the bottom (Borhy 2016, 67, 145, fig. 31; Komoróczy/Vlach 2019, 247–253; Tejral 1986, 398, 464, pl. II; 1986, 398, 464, pl. II).

A rectangular, polished bronze plate with a framed pictorial field from the Lauriacum camp in Enns depicts Mars standing to the left, in armor and with a helmet on his head. His left hand is raised, holding a spear, while his right-hand rests on a shield. The edges of the plate feature several small holes for attachment. The fragment was secondarily used to decorate a chest, which were very popular in the late Roman Period (Ubl 1997, 13, fig. 16, 173, cat. no. IV/H-10).

A similar use is observed in a metal fitting fragment from Brigetio, from the temple of Jupiter Dolichenus. The fragment shows the bust of Mars, looking left, wearing armor and a helmet. Like our fragment, it was cut from the original cuirass fitting. The small holes in the corners of the fragment were used to attach it to a chest, where it served as decoration (Borhy 2016, 37, cat. 8, 129, fig. 8; Garbsch 1978, 78, pl. 14; 36: 2; Láng 1925, 105, fig. 6d; 1941, 180, pl. 30: 2).

In contrast, another fragment was secondarily used on the cheek guard of a Worthing-type helmet. After the helmet was damaged, the cheek guard was repurposed to decorate a ceremonial cuirass. The find is stored in the Hungarian National Museum (Borhy 2016, 77, 78, 146, fig. 34).

CHRONOLOGY, RESULTS, AND DISCUSSION

The chronology of ceremonial cuirasses is broad. Researchers date individual finds from the late 1st–2nd century up to the first half of the 3rd century, associating them with historical events such as the conquest of provinces, military expeditions, the Marcomannic Wars, the Severan Period, raids by the Franks and Alemanni, and the construction or abandonment of camps. The deities and symbols depicted on the armor are often related to victory (*Borhy 2016, 74*).

J. Garbsch developed a theory for dating ceremonial cuirasses. He divided the finds into two groups. The first group includes armor featuring a depiction of a deity, while the second group contains armor decorated with busts. Garbsch considered the first group to be of higher artistic quality, dating it to the transition from the 1st to the 2nd century. The second group he dated to the late 2nd century (*Borhy 2016, 75; Garbsch 1978, 8*). This division, however, does not align with the breastplate from Mušov, which is dated based on finds to the period of the Marcomannic Wars between 170 and 180 AD (*Borhy 2016, 76; Tejral 1986, 464, taf. II*). According to Borhy, both types can be dated to the second half of the 2nd century. Those with a deity are typically found in legionary contexts, while bust depictions are found in auxiliary camps (*Borhy 2016, 76*).

Dating is further complicated by the fact that decorative bronze plates rarely appear in archaeological excavations. Most known fragments of relief armor fittings come from old 19th century collections, obtained through antiquities trading, with no associated discovery context (*Borhy 2016, 75*).

Based on discovered deposits (Straubing, Eining, Künzing), experts date the disappearance of similar armor to the first third or half of the 3rd century. When analyzing the Straubing deposit, they determined the time of burial to be the 3rd century but did not attempt to ascertain when the items were made (*Borhy 2016, 74*).

For dating reliefs, comparisons can be made with fittings from Pannonian chests (*Gáspár 1986*), although these also face similar dating challenges. Only a few items from the found materials come from authentic excavations, leaving very little basis for dating. The main types of chest fittings can be classified more geographically than chronologically (*Gáspár 1986, 71*). The starting point for dating assumes that fashion evolves and does not stagnate for four or five centuries. This evolution is reflected in chest fittings, as in other artistic and functional objects. Around the mid 3rd century, a broader range of chest decorations emerged, with figurative motifs becoming more common by the end of the 3rd century (*Gáspár 1986, part I, 54, 52; part II, 73, tab. XV, no. 791*). The find from Keszthely-Fenékpuszta shows three horizontal bands, two of which represent the seasons, and the third depicts a Thiasos procession (*Gáspár 1986, 212/791*). Another chest fitting from Carnuntum (*Humer/Kremer 2011, 430, cat. 1031*) portrays a Christian scene, with four fittings, two of which are decorated with figurative scenes. One band with a hunting scene arranged from left to right depicts various animals, hunters, and plants, while the other depicts individual images arranged vertically, including a Christian scene amidst pagan motifs like Hercules, Mercury, and Venus. One image shows two male figures, one of whom represents St. Peter, striking a rock with a rod to bring forth water. The other figure is a soldier from Pannonia, and the scene illustrates “Peter’s miracle of spring,” where Peter saves pagan soldiers from thirst, depicting their conversion to Christianity. The spread of Christianity in Noricum and Pannonia dates to the second half of the 3rd century.

The dating of ceremonial cuirass is not consistent. Researchers date individual finds from the 1st–2nd century up to the first half of the 3rd century. Figurative chest fittings appeared by the end of the 3rd century. Caution is needed when changing the dating of ceremonial cuirasses. None of the researchers who studied the fittings of the breastplate dated them to the end of the 3rd century. However, their creation in the mid 3rd century is possible.

Using a professional and precise approach, this deformed and encrusted fragment was cleaned and revealed with the help of nylon brushes, wooden tools, and an ultrasonic scalpel. A significant breakthrough occurred when, despite all precautions, the object fragmented. The separated part revealed a previously hidden portion of the relief, exposing a head and part of the figure. A replica of the object was created, allowing a better view of the relief.

To determine the elemental composition of object 2020/2/408DP, X-ray fluorescence (XRF) analysis was performed using a handheld NITON XL3t X-ray analyzer (Thermo Fisher Scientific, Niton, USA) on an area of approximately 5 × 5 mm (Fig. 14). The measurement was taken from the surface of the sample for 30 seconds, and the results were expressed in percentage values, focusing only on the basic metal elements. Based on the results, the object is a copper alloy with zinc and tin (Cu 86.6%, Zn 6.45%, Sn 5.68%), with minor admixtures

of iron (Fe 0.75%), lead (Pb 0.32%), and antimony (Sb 0.18%). This composition produces a light yellow-brown alloy with good strength, ductility both hot and cold, and corrosion resistance.

The narrow, coiled bronze plate, corroded and encrusted, surprised us all after conservation. The fragment is broken and incomplete, showing a male figure in low relief, standing on face, with legs slightly apart, slim and muscular. We presume the figure is nude and not in contrapposto. On the head is a helmet with a central crest and plume, with hair flowing alongside the face. In the upper left, fingers holding a spear with a leaf-shaped point are visible. The relief likely represents the god Mars.

The size and iconography of this relief resemble the bronze fittings of the chest portion of ceremonial cuirass, which was used for triumphal parades, marches, and cavalry games (Fig. 17; *Ubl* 1997, 59). The armor consisted of two relief plates cut and shaped to fit around the neck (Fig. 18). The plates were divided into three horizontal pictorial fields. The upper field often depicted an eagle, the central field typically featured a deity, and among 755 iconographic depictions, 309 fragments featured Mars, Minerva, or Victoria (*Borhy* 2016, 60; *Künzl* 2004, 402). The lower field displayed animals such as bulls and goats, symbolizing legions.

CONCLUSION

Excavation in the civilian settlement near the northern corner of the Gerulata castellum and the massive Roman wall no. 11 yielded surprising results. In trench 13, a sewer was uncovered, along with a connection leading toward it. We assume the sewer led to quality buildings in the civilian settlement, where the wealthiest inhabitants lived closest to the camp.

Both drainage ditches are stone-built, with the connection having narrower walls and shallower depth, coated with lime mortar. The deeper sewage system lasted longer, and we have yet to determine if both lines were functional simultaneously, but the connection ceased to function earlier.

We speculate that both channels were originally covered, although no traces of roofing were found. Various levels contained clusters of mortar fragments. Above the stone sewer was a depression filled with numerous finds. The fill contained some burnt layers, though only a fraction of the finds was burnt. The accumulation of animal bones lining the southern side of the depression above the sewer is also noteworthy, mixed with broken stones and Roman roof tiles. The fragment of decorative armor fitting we describe was found in secondary deposition in the fill (object 5) of the stone sewer trench near wall 11. We associate this secondary deposit with a break in wall 11. The relief depicts Mars with a helmet on his head and a spear in his left hand. The object is composed of a copper alloy with zinc and tin, with minor traces of iron, lead, and antimony. We date the creation of this fitting to the mid 3rd century.

Translated by Martina Katuščáková

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Bronzové reliéfne kovanie s vyobrazením boha Marsa

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Súhrn

Počas systematického výskumu v areáli MMB antickej Gerulaty sme v sonde 13, v zásype murovaného kanalizačného telesa z doby rímskej našli stočený bronzový podlhovastý predmet. Sonda 13 je umiestnená v areáli MMB Antickej Gerulaty a to v civilnej časti Gerulaty, približne 20 m od severného rohu kastela 2., 3. a 4. stavebnej etapy. Začína tu vicus, ktorý sa rozprestiera severozápadne od kastela Gerulata a pri ceste „Via Carnuntina“. V sonde 13 sme hľadali pokračovanie rímskeho murovaného kanálu, ktorý preskúmal Ján Dekan a je prezentovaný v murovanom výstavnom priestore. Klára Kuzmová datovala tento objekt do obdobia vlády Severovcov na základe nálezov Terry sigillaty. Okrem pokračovania kanálu sme v severozápadnej časti sondy 13 odkryli aj prípojku kanalizácie.

Obe kanalizačné ryhy sú kamenné, prípojka má užšie múry a je plytšia, na stenách má výmaz z vápennej malty. Kanalizácia je hlbšia. Prípojka zanikla skôr a ešte sme nezistili, či boli obe línie funkčné v rovnakom období. Prípojka však zanikla skôr. Predpokladáme, že obe vetvy boli zhora uzatvorené, ale stopy po zastrešení sme nenašli. Na rôznych úrovniach sme zachytili zhľuky maltových fragmentov. Nad murovanou kanalizáciou bola depresia, v ktorej bolo mimoriadne množstvo nálezov. Výplň depresie čiastočne tvorili prepálené vrstvy, ale len zlomok nálezov bol prepálený. Zaujímavá je aj kumulácia zvieracích kostí, ktoré akoby vystielali južnú stranu depresie nad kanalizáciou. Medzi nimi sa nachádzali lomové kamene a rímska strešná krytina. Fragment ozdobného kovania panciera, ktorý popisujeme, sa našiel v sekundárnom zásahu v zásype (objekt 5) murovanej kanalizačnej ryhy pri múre 11. Vznik tohto sekundárneho zásahu spájame s cezúrou na múre 11, ktorý je v superpozícii nad kanalizáciou a ktorý je čiastočne súčasný s neskorootrickou kvadratickou stavbou 4. stavebnej etapy. Tento múr je zatiaľ odkrytý na dĺžke cca 30 m, je prasknutý a cezúra sa nachádza priamo nad murovanou kanalizáciou. Naši predchodcovia ho datujú do 3. stavebnej etapy Gerulaty, t.j. posledná tretina 3. storočia až posledná štvrtina 4. storočia. Múr č. 11 zatiaľ definujeme ako múr, chrániaci prístup do prístavu.

Úzky stočený bronzový plech, skorodovaný a zahľinený, je zlomený, neúplný. Je na ňom znázornená mužská postava v nízkom reliéfe, „en face“, nohy mierne rozkročené, štíhle, svalnaté. Predpokladáme, že postava je nahá a nestojí v kontraposte. Na hlave je prilba so stredovým hrebeňom a chocholom, spod ktorej akoby popri tvári splyvali vlasy. V ľavej hornej časti vidno prsty, ktoré držia kopiju s listovitým hrotom. Reliéf predstavuje boha Marsa. Veľkosťou a ikonografiou sa predmet približuje bronzovým kovaniám náprsnej časti slávnostného panciera. Slávnostný pancier bol určený na triumfálne prehliadky, pochody a jazdecké hry. Pancier tvorili dve reliéfne doštičky, ktoré boli vykrojené a prispôbené tvaru krku. Samotné doštičky boli rozdelené do troch horizontálnych obrázkových polí. V hornom poli bol najčastejšie zobrazený orol. V hlavnom poli bolo zvyčajne zobrazené božstvo. Spomedzi 755 ikonografických vyobrazení sa na 309 fragmentoch nachádzal Mars, Minerva alebo Viktoria. Na spodnom poli sa nachádzali zvieratá, napr. býk a kozorožec, ktorí symbolizovali légie. Vznik reliéfu kladieme do poloviny 3. storočia.

Predmet bol ošetrovaný a konzervovaný v reštaurátorských dielňach MMB. Vápenaté usadeniny boli odstraňované pomocou drevených nástrojov, použitý bol taktiež ultrazvukový skalpel. Nasledovné odkrývanie reliéfu prebiehalo pozvoľna za pomoci pracovného mikroskopu a rôznych drevených nástrojov. Počas pracovných prestojov bol predmet odsolovaný v demineralizovanej vode. Po ukončení čistenia prebehla stabilizácia ponorom do 3 % roztoku benzotriazolu v etanole a následným oplachom etanolom. Po vysušení bol predmet konzervovaný náterom 7 % roztoku paraloidu B-44 v xyléne.

Z dôvodu určenia prvkového zloženia predmetu 2020/2/408DP bola vykonaná röntgenová fluorescenčná analýza (XRF) pomocou ručného röntgenového analyzátoru NITON XL3t (Thermo Fisher Scientific, Niton, USA), ktorý bol ukotvený v prenosnom ochrannom stojane. Meranie bolo realizované na povrchu vzorky s dobou trvania 30 sekúnd. Výsledky boli vyjadrené v percentuálnych hodnotách a brali do úvahy len základné kovové prvky. Na základe výsledkov merania môžeme predmet 2020/2/408DP považovať za mosadz obohatenú o cín (Cu 86,6 %, Zn 6,45 %, Sn 5,68 %) s menšími prímiesami ako železo (Fe 0,75 %), olovo (Pb 0,32 %) a antimón (Sb 0,18 %).

Obr. 1. Kopec Bergl, poloha 3 (autori M. Bartík, E. Blažová, podľa L. Kraskovskej).

Obr. 2. Areál MMB (Múzeum mesta Bratislavy). Staroveká Gerulata s vyznačenými polohami Bergl, polohy 3, 5, 6 (autorka J. Schmidtová).

Obr. 3. Kanalizačný systém a pripojenie na polohu 3 (autor P. Brunčák).

Obr. 4. Bergl, poloha 3, priekopa 13, objekt 1. Výplň nad kanalizačnými stenami. Hĺbka v bode B 100 cm, 133,31 m n. m. (autor J. Schmidtová).

Obr. 5. Bergl, poloha 3, priekopa 13, označenie sektorov (autor J. Schmidtová).

Obr. 6. Polkruhový bazén, pokračovanie kanalizačného systému (autor J. Schmidtová).

- Obr. 7. Vynačené steny kanalizačnej siete v Gerulata (autor P. Brunčák).
Obr. 8. Kosti zvierat v zásype objektu 1. Ohraničené hnedou vrstvou štrku č. 5, ľavá hranica kanalizačného pripojenia.
Obr. 9. Bergl, lokalita 3, priekopa 13, východný profil priekopy (autori J. Schmidtová, L. Mathédesz, N. Gerthoferová).
Obr. 10. Bergl, lokalita 3, priekopa 13, východný profil priekopy (autor P. Brunčák).
Obr. 11. Bergl, lokalita 3, priekopa 13. Nález sa nachádza medzi stenami kanalizácie (autor J. Schmidtová).
Obr. 12. Bronzové kovanie, stav po náleze (autor L. Mathédesz).
Obr. 13. Bronzové kovanie. Hlava s prilbou a hrotom kopije (autor B. Ritterová).
Obr. 14. Bronzové kovanie. Leštená vzorka (autor B. Ritterová).
Obr. 15. Bronzové kovanie. Torzo postavy (autor B. Ritterová).
Obr. 16. Bronzové kovanie s postavou Marsa (autor B. Ritterová).
Obr. 17. Vojak v ceremoniálnej zbroji (*Ubl* 1997, 59).
Obr. 18. Reliéfne ozdoby z ceremoniálnej zbroje. 1 – Carnuntum alebo Brigetio; 2 – Orgovány (*Garbsch* 1978, tab. 34).

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