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30/2

THE ROMAN SPORTS CAVALRY HELMET FROM ISLAZ (TELEORMAN COUNTY, ROMANIA)¹

ALEXANDRU RAȚIU,
MIHAELA SIMION,
LAURENȚIU-MARIAN ANGHELUȚĂ

ABSTRACT:

The topic of this paper is a Roman cavalry sports helmet, or more specifically two halves of the same item, made out of copper alloy. It is part of a category of highly decorated military equipment, designed for parade or, more precisely, used in equestrian games/processions by cavalymen of the Roman army. It was discovered in the area of the Islaz Roman fortifications, on the Olt River Roman frontier, the so-called *limes Alutanus*. The discovery in itself is spectacular. Both parts of the helmet were discovered almost in the same place, in two separate occasions, both accidental, by private citizens, in a time span of four months. The two fragments that form a whole helmet are well preserved and they present a strong point for the Roman presence at Islaz. The item in itself is a rare and beautiful find, this helmet in particular being the second of its kind (type) known to be found in the world. The helmet is from the Vechten Type, or pseudo-Phrygian type, named after its only analogy, the helmet from Vechten (Netherlands).

REZUMAT: COIFUL DE CAVALERIE ROMAN DE PARADĂ DE LA ISLAZ (JUDEȚUL TELEORMAN, ROMÂNIA)

Subiectul lucrării noastre este un coif de cavalerie roman de paradă, sau mai precis două jumătăți ale aceluiași obiect, realizate din aliaj de cupru. Face parte dintr-o categorie de echipament militar cu decor bogat, concepută pentru defilare sau, mai precis, folosită în jocuri/procesiuni evestre de către cavaleriștii armatei romane. A fost descoperit în zona fortificațiilor romane de la Islaz, pe frontiera romană a râului Olt (*limes Alutanus*). Descoperirea în sine este spectaculoasă. Fragmentele piesei au fost descoperite aproximativ în același loc, în două ocazii separate, ambele accidentale, de către cetățeni particulari, într-un interval de timp de patru luni. Cele două fragmente care formează un coif întreg sunt relativ bine conservate și reprezintă un punct forte pentru prezența romană la Islaz. Obiectul în sine este o descoperire rară și frumoasă, acest coif fiind al doilea de acest fel (tip) cunoscut în lumea romană. Coiful este de tipul Vechten sau de tip pseudo-frigian, numit astfel după singura piesă cunoscută până acum, anume coiful de la Vechten (Olanda).

KEYWORDS: Roman Army, Roman Cavalry 'Sports' Helmet, Pseudo-Phrygian Helmet, Vechten type, *limes Alutanus*, *Hippika Gymnasia*.

CUVINTE CHEIE: armata romana, coif roman de cavalerie, coif pseudo-frigian, tipul Vechten, *limes Alutanus*, *Hippika Gymnasia*.

The discovery

The discovery is alas a fortuitous one, the item (items) being discovered by private citizens, in their past time, without any special equipment and without breaking the ground². The place of discovery is Islaz village (Islaz commune, Teleorman county), approx. 500m north, upstream of the bridge over the Olt on the national road DN 54, which passes the north of the village. The helmet, both halves, was discovered in the water, in a branch of the Olt, temporarily formed, with a width of 10-12m and a depth of 0.50m (Fig. 1). The water-flow on this arm is regulated by the amount of water released at the Izbiceni Dam, located 10km upstream.

¹ We, the authors, would like to dedicate the publishing of this discovery from Teleorman County to the memory of our dear departed colleague, dr. Radian-Romus Andreescu. He was an exemplary archaeologist, a true colleague and a gentleman to boot. SIT TIBI TERRA LEVIS.

² As for their own account corroborated with the local museum inquiries.



Fig. 1. Aerial photograph with the point of discovery of the first half of the helmet. In the background, Islaz village (right), the Olt-Danube confluence (left) and Bulgarian height terrace of the Danube. (photo by Ion Torciacă).

The right side of the helmet was discovered on the 12th of March 2023 by a child, Ianis Andrei from Turnu Măgurele, who was enjoying the weekend with his parents at the Islaz “beach”. The object was handed over to the Teleorman County Museum the next day.

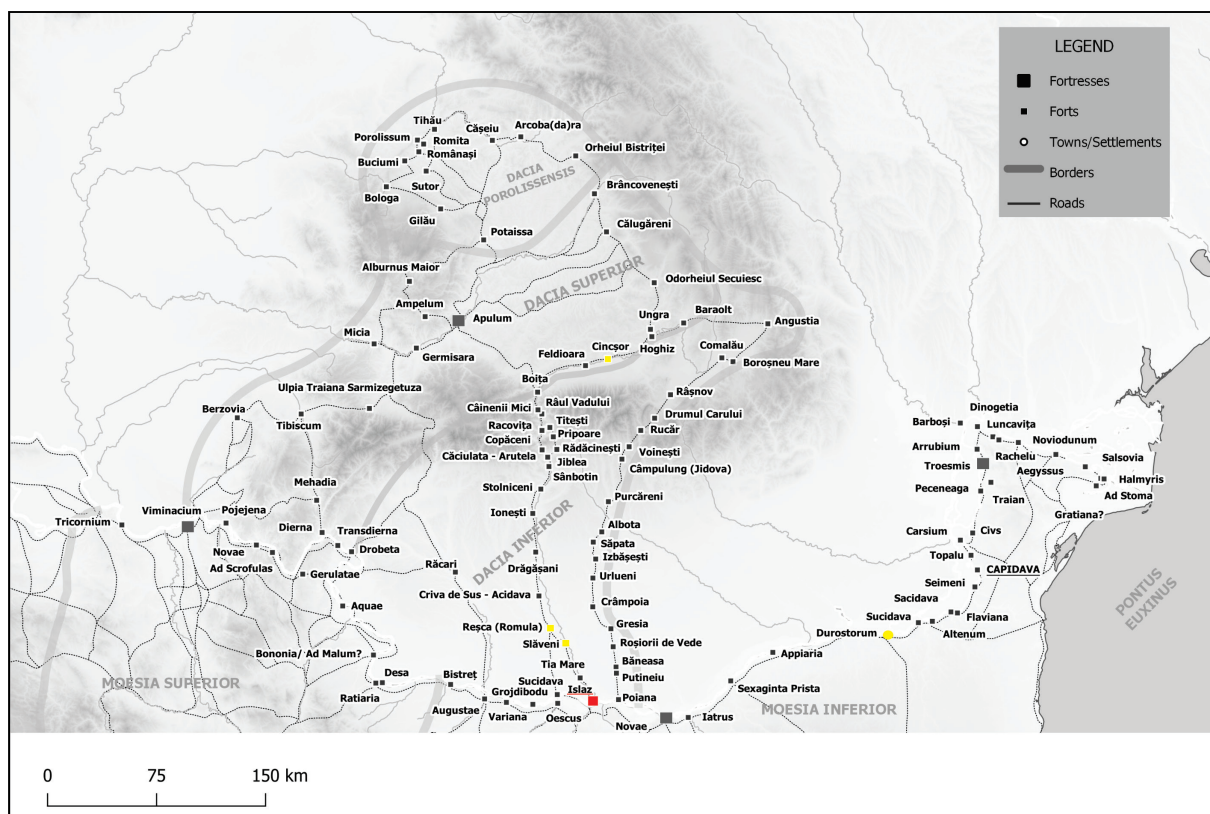


Fig. 2 The Lower Danube provinces in the 1st-3rd c. (after Țentea, Matei-Popescu and Călina 2021, 82, pl. I).

The left side of the helmet was found on 5th of July 2023, approximately in the same place as the other half, by Marinela Dima from Bucharest, originally from Islaz, who came to visit his parents. The object was handed over to the Teleorman County Museum on 10th of July 2023, by Constantin Dima, the father of Marinela Dima, former history teacher at the Islaz School. The discovery was brought to the knowledge of the museum management by Marius Neațu, the current history teacher at the same school. From the same area, on the same occasion, several ceramic fragments (Roman, early medieval, late medieval/modern) and brick fragments (including Roman), were also recovered.



Fig. 3. Detail with the area around the Islaz-Vedea point. (GIS by Ioana Manea).

The Sports Cavalry Helmet

The helmet is 34.5 cm high, 15 cm wide without the eagle and 22 cm wide from the maximum curvature of the helmet to the tip of the eagle's beak. The maximum diameter of the entire helmet is about 23 cm, and the diameter measured at the neck area is of 17 cm³. Its maximum thickness was measured at 0.067 cm, in an area free from deposits of other material. The eagle that decorates the top of the helmet has a width of 6 cm measured in the lower area of its neck, respectively in the area of the last row of decorated feathers and 3 cm at the head. The height of the head is 3 cm, while its width is 6.1 cm.

The state of preservation of the objects (right and left sides) is not particularly good, but considering the environment in which they were found, it is rather acceptable (Fig. 4). The items are sandblasted but retain all the original features, shape decoration, etc. The material from which they are made is a type of copper alloy, with copper and zinc being the most present materials (for the detailed composition see below), specific to most Roman military equipment with embossed artistic decoration. There is no trace that it was gilded or silvered, as is the case with other such items, much rarer finds. There are little traces of green patina specific to bronze, and they have a greenish golden-beige colour.

The shape of the helmet is reminiscent of the Thracian-Phrygian helmets from the Hellenistic period with an ovoid bowl and a raised tip bended forward, much like the Phrygian bonnets. The neck is protected by a neck guard

³ One should note that at the time of this article the helmet was not restored, therefore the measurements were made on the items as they are and projected on the ideal shape of the imagined whole and usable helmet.



Fig. 4. Photograph of both parts of the Islaz Sports Cavalry Helmet (photo by Raluca Dobrogeanu).

reduced in size, barely 3cm wide, and the face area is open. This type of helmet is only functional if paired with a mask; the front opening is too large to have stability and offer protection without the related mask. The only available reconstruction, until its restoration, is the 3D model from Figures 12 and 15.B. The mask that would have been worn with this helmet is most likely a plain one with no detailed anatomical shapes, raised forehead and T-shaped opening for eyes and nose⁴. The helmet was probably made by hammering the two halves separately and then attaching them with rivets and metal solder. In that effect it preserves along its entire dorsal length the bonding area and the perforations related to the fastening rivets (see Fig. 17/3, 5).

The decoration was made in three different techniques, one part by casting, another by moulding-hammering, while some other elements were hallmarked. The eagle that decorates the top of the helmet has been cast in shape, and its interior is filled with lead, probably for better equilibrium. 'The eagle' is actually just the head of a bird of prey with an extended neck, the beak is curved and closed. The eagle's eyebrows are furrowed and expressive, and together with them the deep-set eyes of the bird of prey give a warlike air to the whole ensemble. Both the eagle's head and neck are decorated with stylized feathers, made by hammering (for detailed photographs of the eagle see Fig. 16).

In the area above the neck, there are eight rows of stylized hair curls, beaten in a pattern (Fig. 17/1-2). A ninth row was started, but after beating six of the loops the craftsman stopped, on both sides of the helmet. This area of stylized hair is bordered by a belt of points hammered into the cold metal with a sharp object (hallmarked). The pattern thus created resembles water waves, a decoration that can also be found on the edge of the area where the two halves of the helmet join (Fig. 17/3, 5). The only elements of plant decoration, also hallmarked into the helmet bowl, are four flowers (two for each half, placed symmetrical), and with lanceolate petals interspersed with tendrils. The first two flowers are located in the central area of the helmet, and each has eight petals and seven tendrils, and their approximate diameter is 5 cm (see Fig. 18/1-2). The second pair of flowers, smaller in diameter, has only five petals and four tendrils and are located on the upper side of the helmet, near the neck of the eagle (Fig. 18/3-4).

The left side of the helmet presents a series of reparations, made after massive piercing of the helmet bowl (see Fig. 6). After a series of analyses (described below) we concluded that the soldering for the reparations was made with

⁴ A similar mask was found in the same context with the pseudo-Phrygian helmet from Vechten (see Kalee 1989, 208, no. 9, 210, fig. 15).

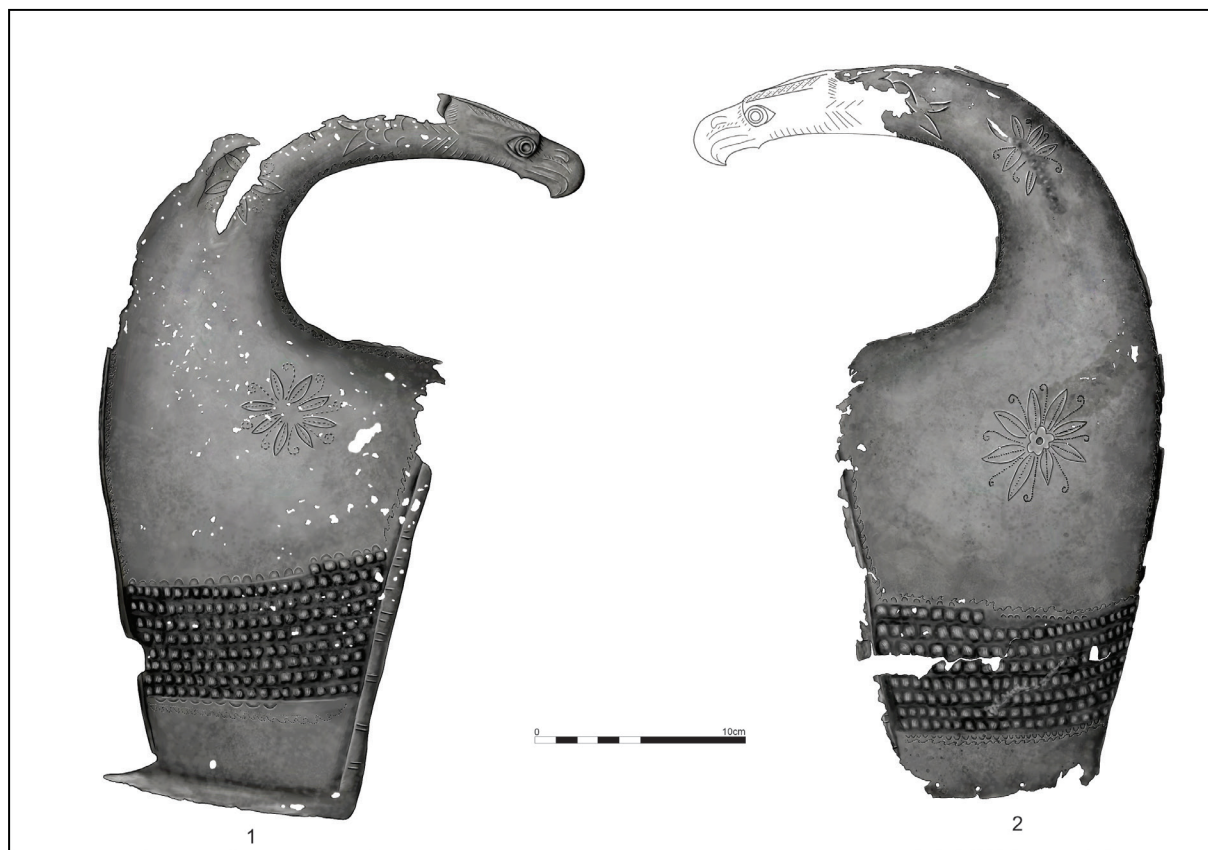


Fig. 5. Drawing of both parts of the Islaz Sports Cavalry Helmet (photo by Raluca Dobrogeanu).

lead. Also, most interestingly, this side of the helmet has no neck-guard, actually the guard, probably deteriorated, was cut off and then reattached by a system of small rivets. All that preserves are the rivet holes and one of the rivets with part of the riveted material (Fig. 18/5-6).

State of conservation. The analysis of the material. 3D digitization

For a better assessment of the conservation and state of the two helmet parts, they were investigated with X-ray imaging at a high resolution. Both were irradiated with similar energy and exposure time (60 KeV, 30 s, 5mA) as they have the same thickness and similar material composition. For this type of objects, X-ray imaging is well-suited for the documentation of metal corrosion and especially hidden cracks⁵ or weak metal areas. In this case, as seen in Figure 1 for the second helmet part, dark areas represent missing or thinner metal that did not absorb radiation. This type of imaging is very useful for the conservation and restoration efforts that will follow.

Another important aspect was the detailed record of the decorations on the surface. The decorations were made using the hallmark method, in this case we are talking about a flower contour (as seen scaled up in Fig. 6 and Fig. 8) and a wavy line (as seen scaled up in Fig. 5), both designed point-by-point.

Also, in Figure 6 and Figure 8 (marked with red dashed line) the filling (reparation) areas are very well highlighted in the image being represented by the whiter areas. The helmet parts were both repaired using a different type of material than the body of the helmet. This material appears to be highly absorbent of X-ray radiation even at higher energies (120 KeV), suggesting the use of lead in the mixture, confirmed by the physico-chemical analyses presented in the next section. Figure 11 also highlights the absorbent characteristic of the filling inside the bird head of the helmet 1.

Laser Induced Breakdown Spectroscopy (LIBS) is a fast diagnosis technique based on the analysis of the spectral emission of a plasma plume generated using an intense laser beam. Although LIBS is a micro-destructive technique (to the order of $10 \div 100$ ng), it doesn't require sampling or sample preparation and provides real-time information

⁵ Angheluță et al. 2022, 185–197 (PDF) The metal vessels from Mălăiești Roman fort. Available from: https://www.researchgate.net/publication/372956942_The_metal_vessels_from_Malaiesti_Roman_fort [accessed Sep 03 2023].

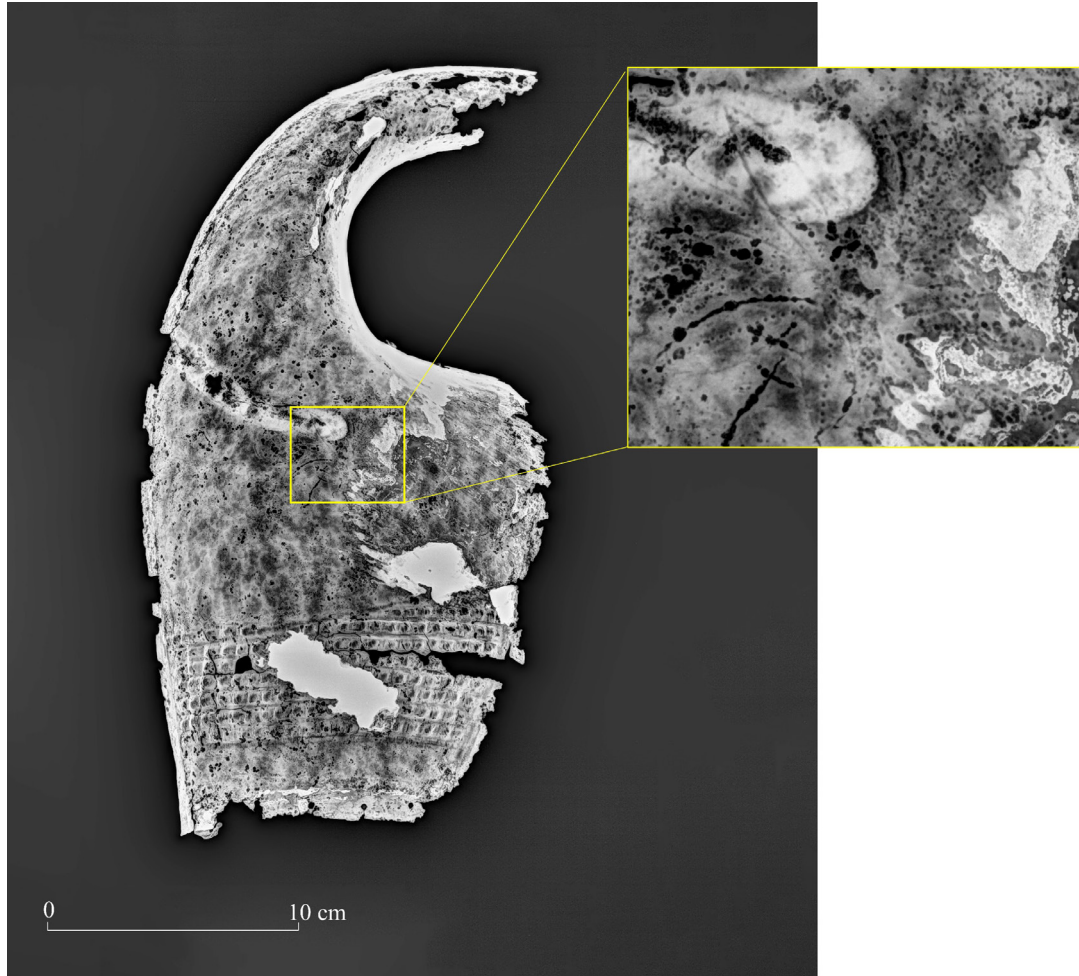


Fig. 6 Helmet (left part) – Radiograph frontal view: fillings (red dashed line), decoration (yellow line) and cracks.

both in lab and *in situ*⁶. Depending on the type of the material investigated, but also on the questions that need answers, LIBS can be applied for single pulse, double pulse or stratigraphy investigations⁷.

The artefacts' elemental composition was analysed using a handheld spectrometer, part of the *ART4art* mobile laboratory⁸. The laser used for irradiation is a Q-switched Nd:YAG emitting at 1064 nm, with an energy of 5 mJ and a laser spot of 50 μm . The system is equipped with three spectrometers that provide a spectral range of 190 nm to 950 nm. The spectra were processed in OriginLab, and the chemical lines were identified using the SciAps software correlated to the NIST database.

The analyses were performed on several areas of interest on both helmet parts, in order to determine the type of alloy, and also on an



Fig. 7 Helmet (right part) Radiograph vertical position – bird head internal structure.

⁶ Simileanu 2016.

⁷ Simileanu and Rădvan 2012.

⁸ Simileanu et al. 2008.

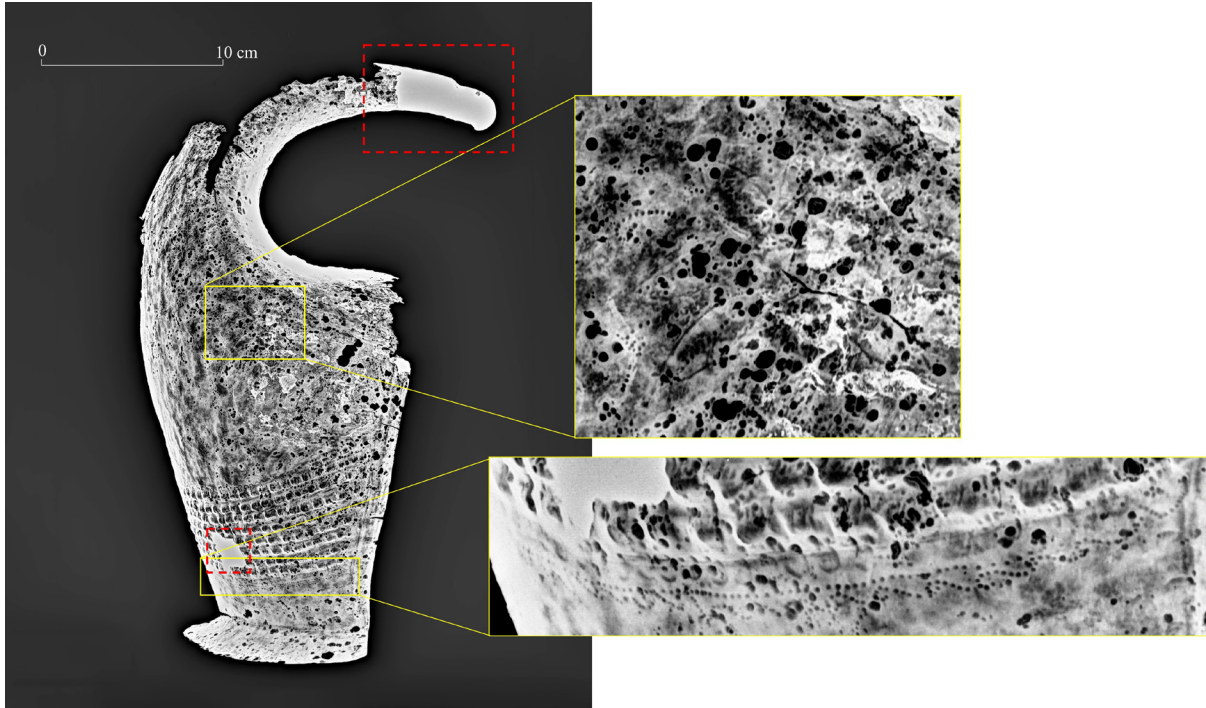


Fig. 8 Helmet (right part) radiograph frontal view: filling and bird head (red dashed line), decorations (yellow line).

inner piece of material that shown a highly absorbance to the X-Ray imaging. The spectra were averaged for each object and the results are presented in Table 1. The elements are ordered based on their relative spectral abundance.

Table 1. Main chemical elements identified using LIBS.

Object	Helm piece 1	Helm piece 2	Inner material
Elements with high relative abundance	Cu, Zn	Cu, Zn	Sn, Pb, Al
Elements with lower relative abundance	Sn, P, Pb	P, Sn, Pb	Cu, Ca, Si

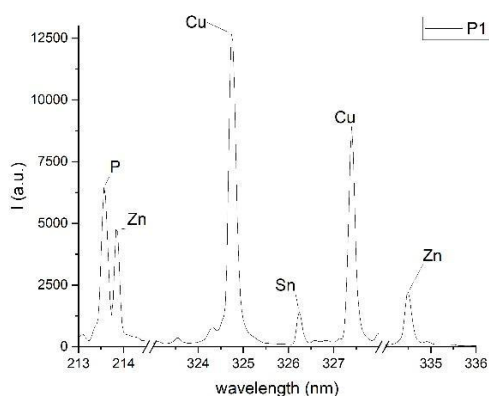


Fig. 9. Selection of LIBS spectra of the Helmet.

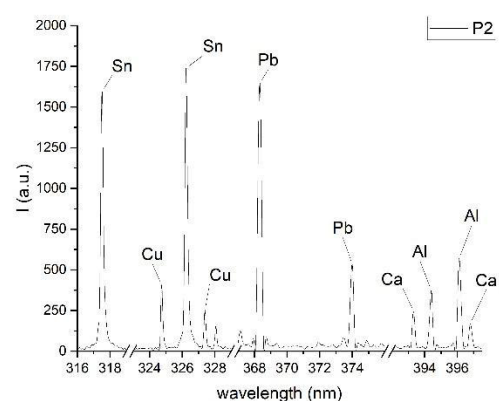


Fig. 10. Selection of LIBS spectra of the inner material.

Figure 9 presents a selection of the main spectral lines identified using LIBS technique and it can be assumed that both helm pieces present similar elemental compositions. As it can be observed in Figure 10, the inner material contains a high amount of lead and tin, along traces of copper.

The LIBS data confirmed the X-Ray images assumptions regarding the inner material Pb abundance of lead. Both helmet parts were digitised in 3D using photogrammetry. The first helmet was digitised from 344 images using the turntable method. The second helmet was digitised in the same way using 394 images. All images

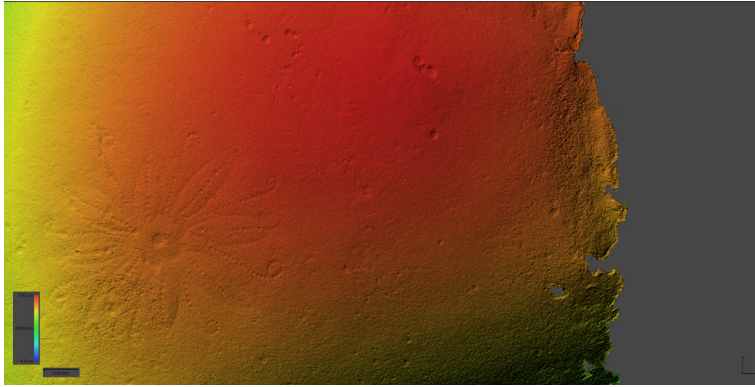


Fig. 11 Detail from the left part of the helmet DEM (0.036 mm/pix).

were recorded in RAW format with a full frame 42 megapixels camera sensor and a 50 mm focal length lens. Photogrammetric reconstruction was carried out using Agisoft Metashape 2.0. There were some issues in the processing part that will be discussed in a forthcoming study. All images were colour corrected using ColorChecker and White Balance cards.

For presentation purposes both digitised models were optimised from their original geometry (32.000.000 respectively 31.000.000 polygons) down to 5.000 polygons, each. To

keep all the geometry details and ensure a realistic lighting interaction for online viewers or static renderings, a PBR workflow was carried out. Original scan geometry was baked into *normal maps* using Adobe Substance Painter while *metalness* and *roughness* maps were generated using Adobe Photoshop from the colour texture. Figure 12 is a preview rendering (with Blender 3.5) while the complete virtual reconstruction and 3D presentation of the reconstruction hypothesis is still in the works.



Fig. 12 Composition render with both helmet parts and their PBR materials detailed.

After the restoration and conservation processes the helmet parts will be digitised again.

Parallels and dating

Among the several masked cavalry helmets that have been discovered in the Roman world, the closest analogy to our type is that of Vechten discovered in The Netherlands (Fig. 13/1). The Vechten helmet is an almost identical one in regards to shape and size, missing only the hair decoration on the lower side of the bowl and the hallmarked flowers. The Vechten helmet is also very thin and fragile, and likewise made by soldering two symmetrical parts. Another similarity is the fact that the neck guard broke also at the Vechten helmet.

The famous Crosby Garrett Helmet might represent an analogy, albeit a more distant one; it imitates the Phrygian bonnet rather than the Phrygian helmet, but an interesting detail is the presence of almost identical floral decorations hallmarked on the helmet's cap. In the province of Dacia, the most frequent discoveries in terms of sports cavalry



Fig. 13. 1. The Vechten helmet (<https://www.livius.org/pictures/netherlands/vechten-fectio/vechten-helmet-decorated-with-a-bird-of-prey>); 2. The decorated Cavalry Helmet from Ostrov (@MINAC); 3. The Helmet from Războieni-Cetate (after Petculescu 1990).

headgear are rather masks than helmets. Thus, three masks belonging to Roman cavalry helmets were discovered, all of them presenting female features, but associated to different types: at Gilău, Cincșor and Romula. The last two were also accidental discoveries in the River Olt.

The cavalry helmets discovered in Dacia are represented by a remarkable Guisborough Type of sports cavalry helmet discovered at Războieni-Cetate (Fig. 13/3) and a cheek piece from Grădiștea Muncelului, which was part of a cavalry helmet belonging to the Teilenhofen Type. Both are cavalry decorated helmets, therefore could have been worn in live action.

In Moesia Inferior there are several helmets, but the only one which bears a resemblance in shape is that from Ostrov (Fig. 13/2), which is dated in the 2nd c. AD and is also a decorated cavalry helmet. The Ostrov helmet resembles a Phrygian cap, also with an eagle's head termination, but has cheek-pieces and was worn probably without a mask.

Analogies for the decorative motifs are related to just two aspects: the Phrygian cap and the eagle head termination. The eagle is a common decoration for this type of parade military equipment. The eagle, representation of *Iupiter*, appears on all types of equipment, helmets, greaves, shield bosses, phalera etc. It marks the military characteristic of the bearer as being a part of the Roman military class. The eagle placed on the top of the helmet's crest is present in all manner of decoration on many cavalry helmets, especially from the pseudo-Attic type: Ostrov, Brigetio,

Theilenhofen, Frankfurt-Heddernheim or Worthing, just to name a few. In addition, the decorative motif of the Phrygian helmet with an eagle's head is also present on other sports cavalry equipment. Ganymede is represented wearing a similar helmet on a chamfron from Straubing and on two medallions (or possible shield-bosses) from Schwarzenaker and Carnuntum. Similar helmets are represented also on sculptural monuments. Maybe the best example is the Ludovisi Battle Sarcophagus, on which there are several sculpted types of cavalry helmets in Phrygian style with an eagle's head ending.

The typology of the decorated Roman cavalry helmets is a matter of great debate among military historians. There are nevertheless a few accepted typologies.

Initially, during the Republic and up to the 1st c. BC, the Roman cavalry was drawn from an emerging 'middle class' of Roman citizens who, as any Roman, had an obligation to defend the *Res publica*, and also could afford to supply their own war horses and equipment. After the reforms made first by Marius, then by Augustus, the cavalry became more professionally recruited from the equestrian order of the native societies from all over the Empire. Although much of their equipment was decorated with Roman traditional decoration, some features remained native, probably to attest one's ethnicity.

The first detailed and rigorous typology for the Roman cavalry helmets was made by H. R. Robinson in 1975, who compiled other typologies available at the time. He identified no less than nineteen different types, divided into two groups: the auxiliary cavalry helmets and the cavalry sports helmets. He was of the opinion that auxiliary cavalrymen, being paid less than the legionary cavalry, were not able to afford the equipment needed for participation in mock fighting in *Hippika Gymnasia* ('horse exercises'). Therefore, the best decorated helmets, many with full masks, were included in the second criteria. In the last almost fifty years from the publishing of Robinson's book more and more discoveries contradicted this theory. Nevertheless, his nineteen types are still valid, but only from an artistic point of view. Only a few years after Robinson, J. Garbsch drew up a simpler, but more comprehensive typology. He determined two categories, the first category 'mask-helmets', with two subtypes: 'two-piece mask-helmets' and 'three-piece mask-helmets' and the second category – 'decorated helmets' – divided in three rather functional subtypes: ellipsoidal-cusped, spherical and pseudo-Attic. He stated that both categories could have been worn by auxiliary or legionary cavalry all the same, the mask-helmets (cavalry sports helmets) being found more often in relation with auxiliary camps. The difference between the two categories was that the former was more functional, stronger and not so cumbersome, therefore helmets of this kind could have been worn in battle.

A more recent approach to the typology of the Roman Cavalry helmets is that of M. Junkelmann. He removed much of the redundancy from Robinson's typology, and thus reduced the number of types to 14 contained in seven categories. In fact, the last category, VII or *Maskenhelme(?) mit phrygischer Kallotenform* Type 14 Vechten, is the actual type of the Islaz helmet. The uniqueness of the Vechten helmet was enough to define for decades its own type and category. The newly discovered helmet from Islaz is almost identical with the Vechten helmet, in shape, size and decoration of the eagle.

Hippika Gymnasia

The generally accepted theory is that cavalry sports helmets together with the related masks were used exclusively in the Roman Cavalry's Horse Tournaments, *hippika gymnasia*, activities accurately described by Flavius Arrianus in *Ars Tactica*. The author, an experienced rider himself, writing in the first half of the 2nd c. AD, describes the various exercises in which teams of riders took part, equipped, among other things, with elaborately decorated helmets and masks (Fig. 14). Masks were both for face protection, but also performed a ritual role. Each mask had a corresponding helmet, to which it was attached by straps, hooks, hinges etc. In general, the decoration of the mask continues on the helmet, the hair for example or tiaras of various types.

Although the cavalry masks were of great stylistic diversity during the 1st and beginning of the 2nd c. AD, they could be simply divided into two large categories: female and male masks. There is no doubt that both types of masks were worn by men, and this division between the sexes is related to the spectacle that the cavalrymen were part of during the cavalcade. Female masks are, in turn, of three types: Amazons, *Mater Castrorum* and Gorgona/Medusa. The male masks are either specific, probably resembling the features of the wearer, or they depict a deity or a hero like Alexander the Great or the god Mithras.

The Pseudo-Phrygian helmet masks make up a more special type and were supposedly provided with T-shaped opening masks, as the one proposed by A. Negin for the Vechten helmet (Fig. 15). Actually such a mask was also discovered at Vechten, near the helmet, but it did not fit with it, therefore was attributed to another helmet. These types of masks appear a little later than the anatomical ones, by the end of the 2nd century and in the first part of the 3rd century AD, and are generally associated with the Pseudo-Attic helmets. The typology of helmets worn by Roman cavalrymen was not uniform within military units, at least we have no archaeological or literary

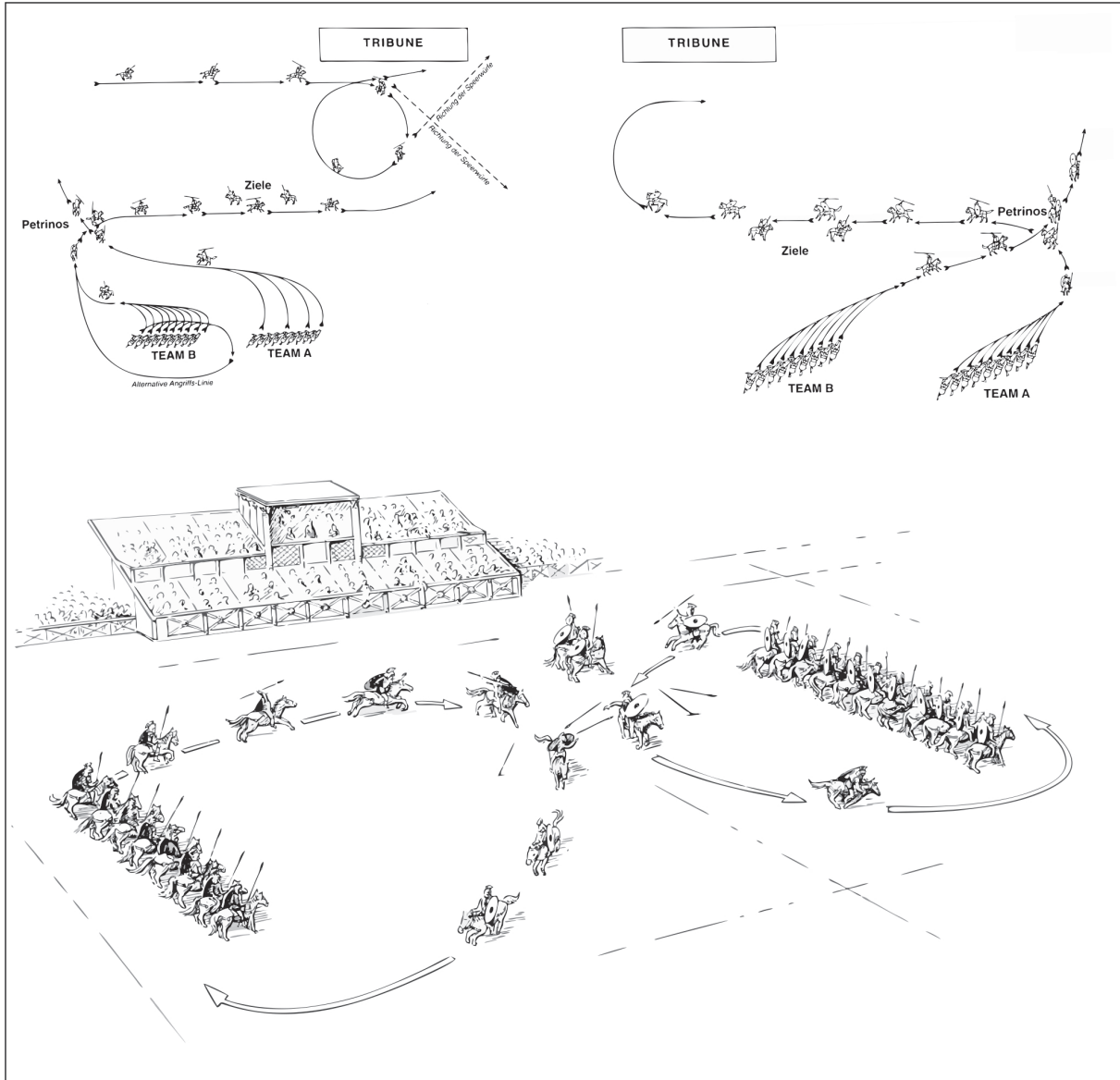


Fig. 14 Cavalry war games, or *Hippika Gymnasia*, as imagined by M. Junkelmann (after Junkelmann 1996, 59, fig. 114, 62, figs. 122-123).

information to support this. We cannot rule out the idea that these outfits could illustrate an ethnic, cultural or other origin of the wearer. In the end the warrior adopted his symbols that were hammered onto his equipment, and he probably chose them to represent him and his ancestry.

Cavalry 'sports' helmets or just plain cavalry helmets?

The battlefield use of the highly decorated helmets, with the respective masks, is debated to this day. The sources are also divided: Arrian⁹ states clearly that they were used only in *Hippika Gymnasia*, although both Ammianus¹⁰ and Heliodorus¹¹ suggest their use also on the battlefield. The only mask ever discovered on a battlefield is the one from Kalkriese¹²; but by being the only one it is considered an exception rather than supporting the first theory. Also, the mask from Kalkriese is made from iron (with a sheet of silver glued on it) and it was attached to the helmet thru a hinge on its upper side¹³. It is smaller in size than all other types of masks and it is provided with cheek

⁹ Arrian, *Ars Tact.*, 34.2.

¹⁰ Ammianus, *Res Gestae*, 16.10.8.

¹¹ Heliodorus, *Aethiopica*, 9.15.

¹² Hanel, Wilber-Rost and Willer 2016, 71-91.

¹³ Hanel, Wilber-Rost and Willer 2016, 87, fig. 14.



Fig. 15. Hypothetical drawing of the Vechten helmet with a mask (left, after D'Amato and Negin 2017, 171, fig. 174) in comparison with the 3D digital model of Islaz helmet (right, by L. Angheluță).

plates, therefore being less constrictive. The helmet was probably an infantry Wiesenaus type helmet, converted for cavalry (or a Nijmegen type), which was also made from iron, thus making it more suitable for combat. Also, it is possible that it was not worn on the battlefield, and was actually a result of looting the baggage train¹⁴.

L. Petculescu¹⁵, based on the Tell Oum Hauran (Nawa)¹⁶ and Ostrov¹⁷ finds, suggested that some of the troopers were issued (or bought) two helmets, a more robust one (decorated or not) and a 'sports' helmet, and they will wear the latter only during ceremonies and in *hippika gymnasia*; the plainer helmet would be used in day-to-day patrols and routine training.

A. Negin and R. D'Amato are of the opinion that many masks, if not all, were suitable to be worn in battle¹⁸. They base their opinion on several different aspects, one being the presence of face masks on the monuments depicting captured military equipment. Another aspect is the several displays of mask helmets in battle action on funerary monuments. Moreover, there are brought into discussion some experimental archaeology tests made on replicas of such equipment, tests that show their battlefield endurance¹⁹. The entire discussion is concentrated around the first century discoveries, like the Kalkriese type of mask and Nijmegen type of helmet. It is important to note that 1st century decorated helmets and masks are a lot different from the 2nd – 3rd c. ones in terms of material, design and manoeuvrability. The former are less artistically, and more on the useful side. The latter are, in some cases, downright fantastical, in terms of usefulness and protection, while some of them probably took a lot of time (and more than one man) to be fastened.

¹⁴ Hanel, Wilber-Rost and Willer 2016, 90-91.

¹⁵ Petculescu 1990, 847.

¹⁶ Abdul-Hak 1954/1955, 175-182.

¹⁷ Rădulescu 1963.

¹⁸ D'Amato and Negin 2017, 149-165.

¹⁹ D'Amato and Negin 2017, 155-157.

As for our opinion we believe that if a decorated helmet was used only in sport ceremonies, the troopers would have had a second (actually main) helmet. The latter would be plainer or highly decorated, depending on the purse of the owner, but would have been more than 1.5 mm in thickness, with hinged cheek-pieces and no mask. On the other hand, it is also obvious that if the troopers trained in mock battles with mask-helmets in an effective manner, they could have just as well worn in battle. While modern warfare tactics scarify appearance over comfort and camouflage, in antiquity soldiers went dressed with their best attire in battle and wore expensive jewellery for all to see. The meaning of this display was to show that they were redoubtable warriors, proven victorious in many battles, that they defeated and looted powerful enemies, therefore were not to be trifled with. In general, in the mind of the ancient people wealth meant power, which incited fear. In this respect it is interesting to mention the Ostrov discovery, from 1960, when two helmets were found in a burial context, close to each other²⁰. Being an accidental find, it is not very clear whether they pertain to the same grave. Nevertheless, it is worth mentioning that one helmet is clearly a cavalry sports helmet with a mask (fragmentary) and the other a highly decorated helmet, with cheek pieces, but without a mask. Both helmets are highly decorated, but one is more suitable to be used in battle, while the other, the one with mask, was clearly worn in *hippika gymnasia*.

Therefore, the idea that some masks were designed for ceremonies and other for battle may be, in the end, true in most cases. It is the same for the decorated cavalry helmets, the degree of their decoration does factor-in for their purpose. As for the Islaz helmet, we strongly believe that it was not designed to be worn in battle. The piece is too thin and fragile (only 0.6 mm in width!), offering thus a reduced protection, much needed in life-and-death situations. We also believe that the helmet had a mask, probably with a T-shaped opening for the nose and mouth (but not necessarily, it could have been a regular anatomical face mask, as well), with a raised forehead and protection for the ears, as was usual for a late 2nd - early 3rd c. A.D. cavalry sports helmet.

Instead of conclusions

The context of the helmet discovery is furthermore very interesting, as it was found in the Olt river-bed. Many such items were found in river-beds²¹, which sprung the idea that they were most probably deposited by cavalrymen in order to give thanks or obtain some sort of protection from the divinity²². The divinity was probably the river itself; most large rivers were worshiped as deities by the ancients. The Vechten Pseudo-Phrygian helmet was found in the Rhein river-bed²³, along with other similar material. The Cincșor²⁴ and Romula²⁵ helmets were also found in the Olt river-bed, therefore are part of the same rhetoric.

Regarding the military unit to which the cavalryman who ritually deposited the helmet in the Olt River bed belonged, we can only assume that it was stationed in one of the Roman fortifications from Islaz.

At Islaz three fortifications are known, massively destroyed and very little documented²⁶, all of which could have been occupied by cavalry units or could have had cavalry detachments. The position of the Islaz fortifications is a key position within the *Alutamus* limes system. The point is next to the junction of the Olt River with the Danube. Any fortification raised in this vantage point would have played an important role in the defensive system of Dacia Inferior.

The closest known Roman cavalry garrison is the one from Slăveni, namely *ala I Hispanorum*²⁷. The troop is attested here from the middle of the 2nd c. until the beginning of the 3rd²⁸. I. Bogdan-Cătănicu believes that the troop probably patrolled the whole southern sector of the *Alutamus* line of defence²⁹, therefore even the territory of Islaz.

Nevertheless, the presence of the helmet in this area could be related to other Roman troops from the south of Dacia Inferior that operated in this region, not necessarily one garrisoned at Islaz. The presence of the helmet in the Olt River bed is not surprising. As we already mentioned, the masks from Reșca and the one from Cincșor were found in similar conditions. It is known that the Romans, especially the military, were superstitious when crossing large rivers, and thus they made donations/sacrifices. To relinquish your prized parade gear (masked helmet) to the

²⁰ Rădulescu 1963, 535-551.

²¹ Oldenstein in 1990 (see next footnote) states that almost 80% of all sports cavalry helmets were found in river-beds. The percentage still stands.

²² Oldenstein 1990, 36; van Enckevort and Willems 1994, 131-134; Bishop and Coulston 2006, 30-31.

²³ Kalee 1989, 219.

²⁴ Dragotă 1987, 276-280.

²⁵ Vlădescu 1981, 195-203.

²⁶ Țentea, Matei-Popescu and Călina 2021, 80-82.

²⁷ Țentea, Matei-Popescu and Călina 2021, 75.

²⁸ Petolescu 2021, 167-169.

²⁹ Bogdan-Cătănicu 1997, 64.

river gods (or other gods, for that matter) for safe crossing is not uncommon. Of course, not every trooper made the sacrifice, probably the commander, or another officer from the troop.

The discovery of the Islaz helmet is very important in itself and sheds new light on the matter of the presence of Roman cavalry units in/near Islaz, at the junction between Olt river and the Danube. The item itself is spectacular, being thus, undoubtedly, a unique piece of Roman military equipment in Dacia. The circumstances of its discovery are much the same with other cases of military equipment deposited in river-beds as a ritual offer. The fact that the two halves of the helmet were brought immediately to the county museum is commendable for the ones that found it.

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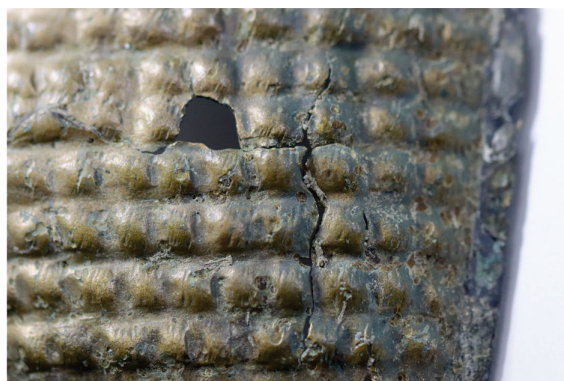


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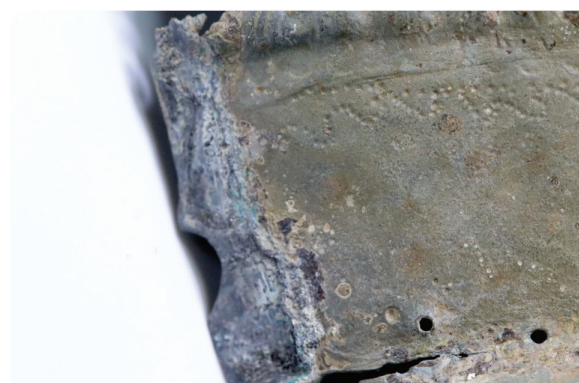
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