

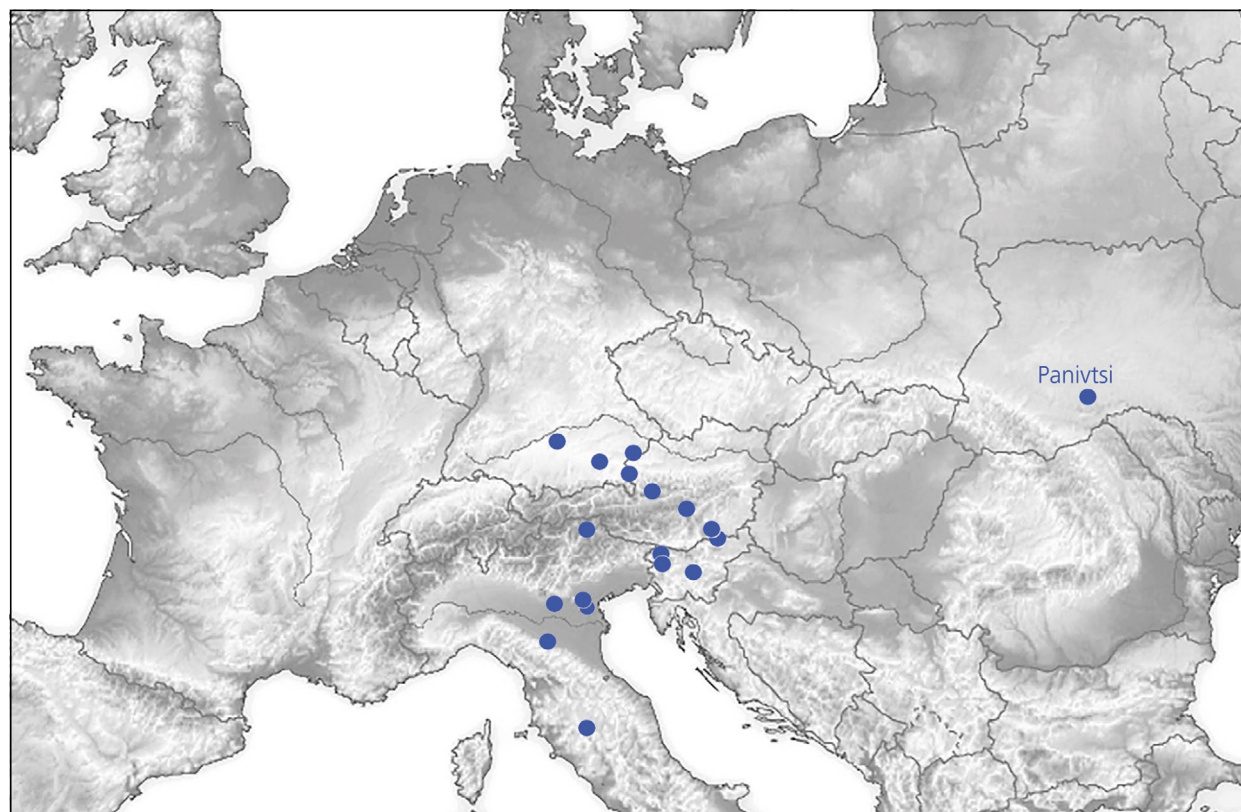
## A NEW LATE HALLSTATT COMPLEX OF METAL WARE FROM PANIVTSI, WESTERN PODOLIA /UA

### PRELIMINARY REPORT

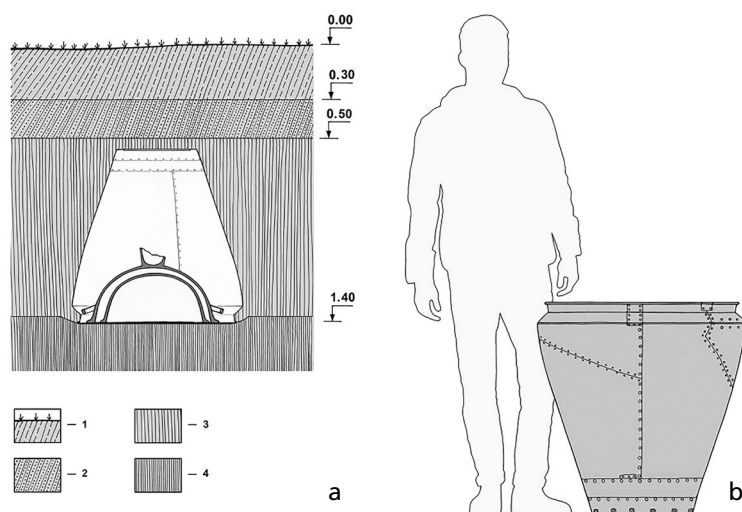
A new complex of metal vessels was discovered at the end of 2014 during cultivation work on the territory of a farm near the village of Panivtsi in the Borshchiv district of the Ternopil oblast in Ukraine (**fig. 1**). The find is located 2.8km east-southeast of the village on the right bank of the Zbruch River at a distance of about 30m from its bed. At this point, the Zbruch River makes a distinct »loop«, flowing around three sides of a broken promontory plateau.

The conditions in which the metal vessels were found, as well as the stages of their cleaning and recovery, were reconstructed on the basis of photographs and detailed information obtained from the finder, who handed over most of the finds to the Museum of the Shevchenko Scientific Society in Lviv.

The authors could document that the bottom of a large upturned bronze situla was first unearthed at a depth of about 0.5m. It was located in the lower part of the modern black soil. The situla covered two bronze cauldrons, one with a foot, which had been stacked one on top of the other. The vessels were set



**Fig. 1** The main finds of sharp-edged bronze situlas with the newly discovered location of Panivtsi (Borshchiv district, Ternopil obl./UA) in Western Ukraine. – (After Egg/Munir 2013, 197 fig. 75).



**Fig. 2** Find location of the deposit near Panivtsi (Borshchiv district, Ternopil obl./UA). – **a** stratigraphic section of the finds situation of the two bronze cauldrons and the situla. Legend: 1 arable layer; 2 top layer of modern black soil; 3 lower layer of modern chernozem; 4 natural layer (yellow loams of the Quaternary period). – **b** graphic reconstruction of the ratio of the bronze situla to the human figure. – (Drawings M. Bilyk).

into a shallow pit approximately 1 m in diameter, which was excavated at a depth of 0.45–0.50 m below the surface and embedded in yellowish quaternary loam. The bottom of the pit lay at a depth of 1.20 m from the present-day surface (fig. 2).

On the flat bottom of the pit, almost in the centre, a nearly complete, decorated bronze cauldron with a missing pallet foot with a slightly deformed, cracked body was lying upside down. The upper surface of the deformed body was covered by another partially preserved bronze cauldron, also placed upside down. This cauldron was larger and in its lower part was part of a pedestal.

## DESCRIPTION OF THE VESSELS

### Cauldron I

Cauldron I has a hemispherical shape without a foot, with two large, almost horizontally placed loop-shaped handles. Due to deformation, the cauldron has a sub-oval shape in plan, measuring approximately 57 cm × 44 cm and weighing about 17 kg (fig. 3). Most of the body of the cauldron is decorated in the form of continuous a zigzag. Seen from below, the lines of the decoration, in the form of »petals«, radially diverge from the place where the foot of the cauldron would have been and, somewhat symmetrically, rise to the rim, tapering evenly to the top. The ends of these »petals« at the top are clearly rounded, which, in general, gives the impression of a continuous wavy zigzag. At the same time, the rim of the cauldron is thickened, has a D-shaped cross-section and is everted.

In five places on the cauldron and near the bottom, there are small amorphous holes which appear to be the result of faulty casting. Possibly due to the appearance of these holes and the deformation of the whole cauldron during casting, it was no longer necessary to weld a hollow foot to the base (as was traditionally done in such cases). And perhaps that is why the product was rejected from the outset after the cauldron body was cast. On the other hand, the existence of distinct casting seams on the bottom of the cauldron (at the very bottom, around the point where it was planned to attach the hollow bottom stem) may indicate that such an attempt was made to weld on the bottom nevertheless. But, for some reason, this did not happen.

The current location of the cauldron I is unknown (the finder did not want to hand it over to the museum).



**Fig. 3** Bronze ornamented cauldron I (views from the bottom and side). Find location of the deposit: near Panivtsi (Borshchiv district, Ternopil obl./UA). – (Photos Archive of the Archaeological Commission of the Shevchenko Scientific Society). – Not to scale.

## Cauldron II

The cauldron (inv. no. A-54/VII 2[1]) is hemispherical (**fig. 4**). The dimensions of the cauldron (together with the handles) are 61 cm, the outside diameter of its rim 54 cm and the inside diameter of the rim about 51 cm. The depth of the cauldron is about 22 cm. The height of the cauldron including that of the surviving foot is about 29 cm. Symmetrically on both sides of the body are solid, 10 cm wide handles that protrude 6.2 cm beyond the sides of the vessel. The handles themselves are 5.5 cm below the rim of the cauldron. The walls of the latter are relatively uniformly thick, varying between 0.5 and 0.7 cm.

The rim of the cauldron has been lost (or broken off?) on one side and short cracks can be seen at the fracture points. The missing rim of the cauldron with the adjacent walls could most likely be the result of one or more deliberate blows. On the opposite side, traces of deliberate(?) blows can be seen, which also came from the rim and top of the cauldron walls. As a consequence of this action, a deep crack appeared in this area, which »ripped« the rim and, tapering, spread in a zigzag towards the base. Only a part of the hollowed foot has been preserved – 6.7 cm in height on the outer side of the bottom, in the very centre (the diameter of the stem, which survived at this spot, is 9 cm). Interestingly, in some places, the thickness of the foot is only 0.3–0.5 cm, i. e. thinner than the walls of the cauldron itself (0.5–0.7 cm on average).

Unlike cauldron I, cauldron II is much better made. Not only was this second vessel larger and heavier, but also the decoration on its body was somewhat different from that of the previous one. For example, instead of the rough and irregular moulded zigzag lines present on cauldron I, the decoration on the specimen in question was applied in thin and neat lines, strands that form a rosette pattern with twelve rays that radially diverge from the centre of the cauldron's base. Each of the twelve rays has a pointed end, which is reminiscent of the rosette representing the goddess Ishtar on the ornamental part of the drawbar from the Krasnoznamensk barrow (Moscow obl./RU), and also of the rosette pattern with eight-pointed rays on a black-clay pot from the barrow of Early Scythian time, discovered in 1999 by Oleksandr Suprunenko near the Western Fortification of the Bilsk (Poltava district, Poltava obl./UA) settlement. Both at the base, but not reaching the base, and at the top, just below the rim, this twelve-petal rosette is deliberately outlined by two single lines.

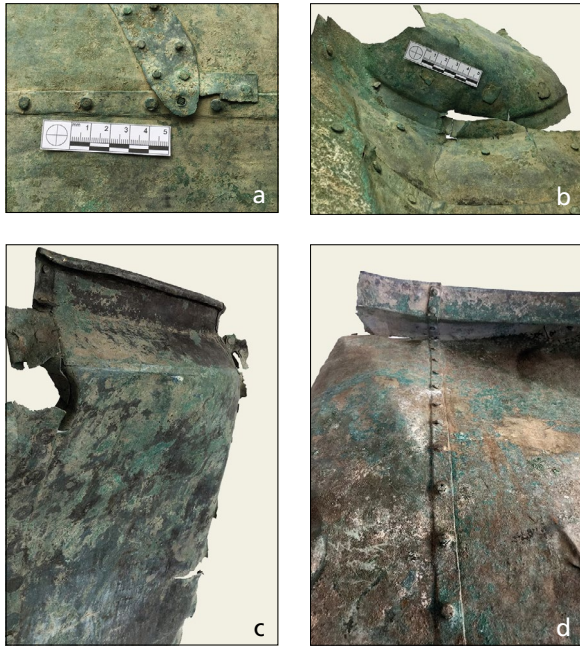


**Fig. 4** Bronze ornamental cauldron II. View from the side (a), top (b) and bottom (c), as well as a view of the cast decoration on the outer surface of the cauldron (d). Find location of the deposit: near Panivtsi (Borshchiv district, Ternopil obl./UA). – (Photos M. Bilyk). – Not to scale.

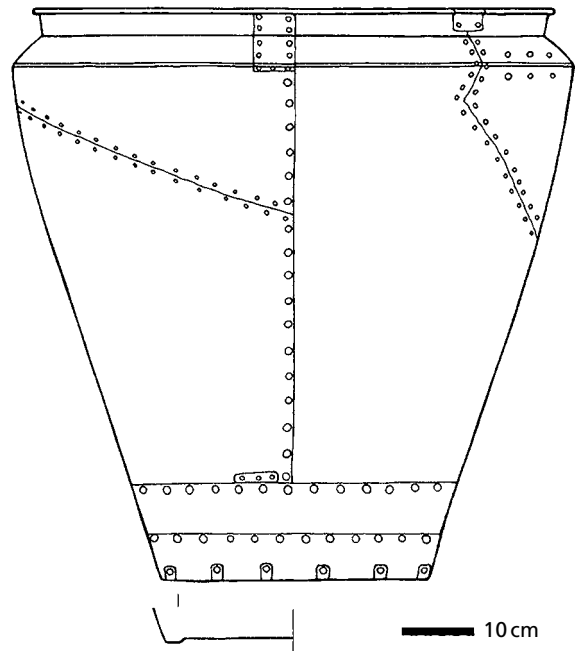
## Situla

The situla (inv. no. A-54/VII 1[1-16]) used to cover the two cauldrons is much larger and, at the time of discovery, was in excellent condition. However, due to unprofessional handling, part of the situla was damaged and split into fragments during the excavation. On the outside of the situla, mainly in its lower part, there are remnants of a layer of soot on the walls, but no strong traces of fire (neither on the bottom nor on the walls) can be traced. In general, the shape of the situla can be characterized as bucket-shaped, which is typical for metal vessels for this purpose. The situla was about 80 cm high, the diameter of the rim 71 cm, the maximum diameter of the vessel about 78 cm and the diameter of the base about 37 cm (figs 5–6).

The situla was made of several sheets of tin-bronze riveted together; the sheets are about 0.5–1.0 mm thick. The situla is formed on a wide, stable base, which has a special footing at the bottom along the edges which gave the situla additional stability. In fact, here we have an example of a specific (and reliable) system of basal reinforcement. At the very top, below the rim, the body of the situla is sharply profiled in



**Fig. 5** Joints of the bronze sheet fragments of the situla. Find location of the deposit: near Panivtsi (Borshchiv district, Ternopil obl./UA). – (Photos M. Bilyk).



**Fig. 6** Graphic reconstruction of the large bronze situla, which covered the two bronze cauldrons. Find location of the deposit: near Panivtsi (Borshchiv district, Ternopil obl./UA). – (Drawing M. Bilyk).

the form of a sharp bend of the bands in the transition to a low neck, which ends with a short, slightly everted rim. To strengthen the latter, a bronze rod in the form of a thick wire up to 0.7 cm in diameter, round in cross-section, is placed there, which is extremely neat and carefully, completely hidden under the rim enveloping it.

The bottom of the situla, and parts of its sides, show signs of having been repaired repeatedly, by different craftsmen with different technical skills. For the patches, small sheets of thin bronze sheets were used (of the right length and configuration) and riveted much less neatly than the situla itself. For example, the edges of the patches are sometimes uneven and there is a lack of symmetry between the rivet heads. In the lower part, the body of the vessel was reinforced in a special way by two sheets of horizontally placed strips, the upper part connected to the rest of the body and the lower part connected to the basal edge on the circular footing.

## CHEMICAL AND METALLOGRAPHIC ANALYSES OF THE BRONZE VESSELS

Besides the sample from Panivtsi, a fragment of an ornamented situla from Rohatyn (Halych district, Ivano-Frankivsk obl./UA) was taken for metallurgical and chemical analysis to be able to compare the metal composition of the situlas considered in this article, since the main distribution area of such situlas as from Rohatyn is the Alpine region and Upper Italy.

The chemical composition of the alloys and single phases were evaluated with an SEM-EDXS at the CNR-SPIN at Genua. The SEM-EDX used was a Thermionic Scanning Electron Microscope (Leica Cambridge S360) with an EDS system consisting of a large area analytical Silicon Drift Detector (Oxford X-Max20). The analyses were performed with an SEM acceleration voltage of 20.0kV and probe current of 220 pA, using an acquisition time of 100 seconds. As standards, pure Co and Cu metals were used for the calibration. The

sample	spectrum	position	S	Fe	Cu	As	Sn	Sb	Ni	Pb
1	1	area	0.4		89.6	1.0	8.3	0.6		
	2	area	0.2		88.0	0.8	8.4	0.7		2.0
	3	area	0.4		88.0	0.7	8.4	0.7		1.8
	4	point; CuPb inclusion			8.2					91.8
	5	point; CuS inclusion	23.7		76.3					
2	1	area	0.4		87.4		12.2			
	2	area	0.5		87.0		12.5			
	3	area	0.5		87.0		12.5			
	4	point; CuFeS inclusion	23.1	0.5	75.8		0.6			
	5	point; CuP inclusion			74.4		10.1			15.6

**Tab. 1** Results of the chemical analyses of the two situla samples.

overall area of the specimen (15–20 mm<sup>2</sup>) was used as the standard of known composition to correct the accuracy of the measurements, which in this way was estimated to be within 0.5–1.0 at% for each element. The analytical software used was AztecEnergy.

All samples studied are tin bronzes with about 8–12.5 wt% Sn. Only sample 1 contains with almost 2 wt% Pb significant amounts of Pb, indicating an intentional addition of Pb to the alloy. The results of the EDXS analyses are reported in **table 1**.

### Metallographic Analyses

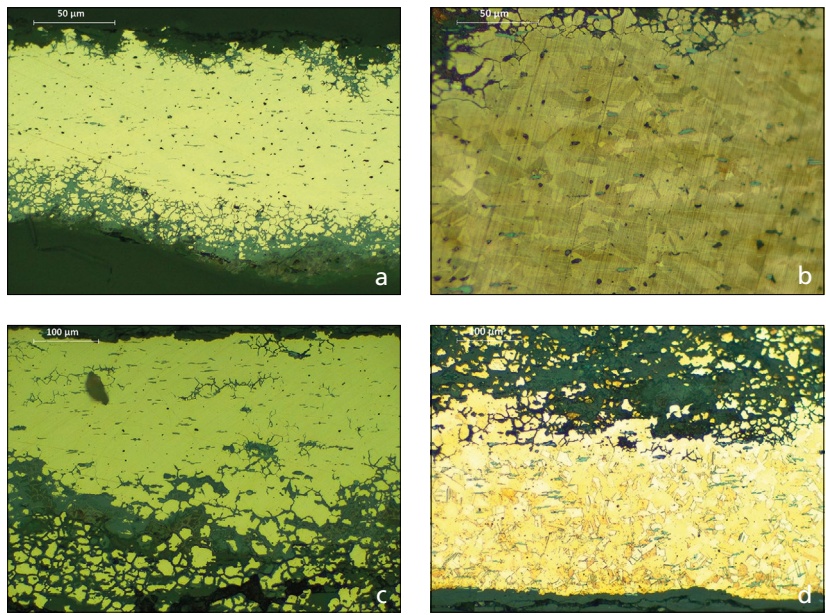
Metallographic samples were embedded in cold mounting acrylic resin (Struers, ClaroCit Kit), grinded with abrasive papers (up to 1200 mesh) and polished with diamond paste down to 1 µm. Microstructure analyses were carried out with a light optical microscope (LOM; Leica DM1750M) with up to 1000× magnification both in bright field and polarized light (**fig. 7**).

#### Sample 1 (situla from Panivtsi)

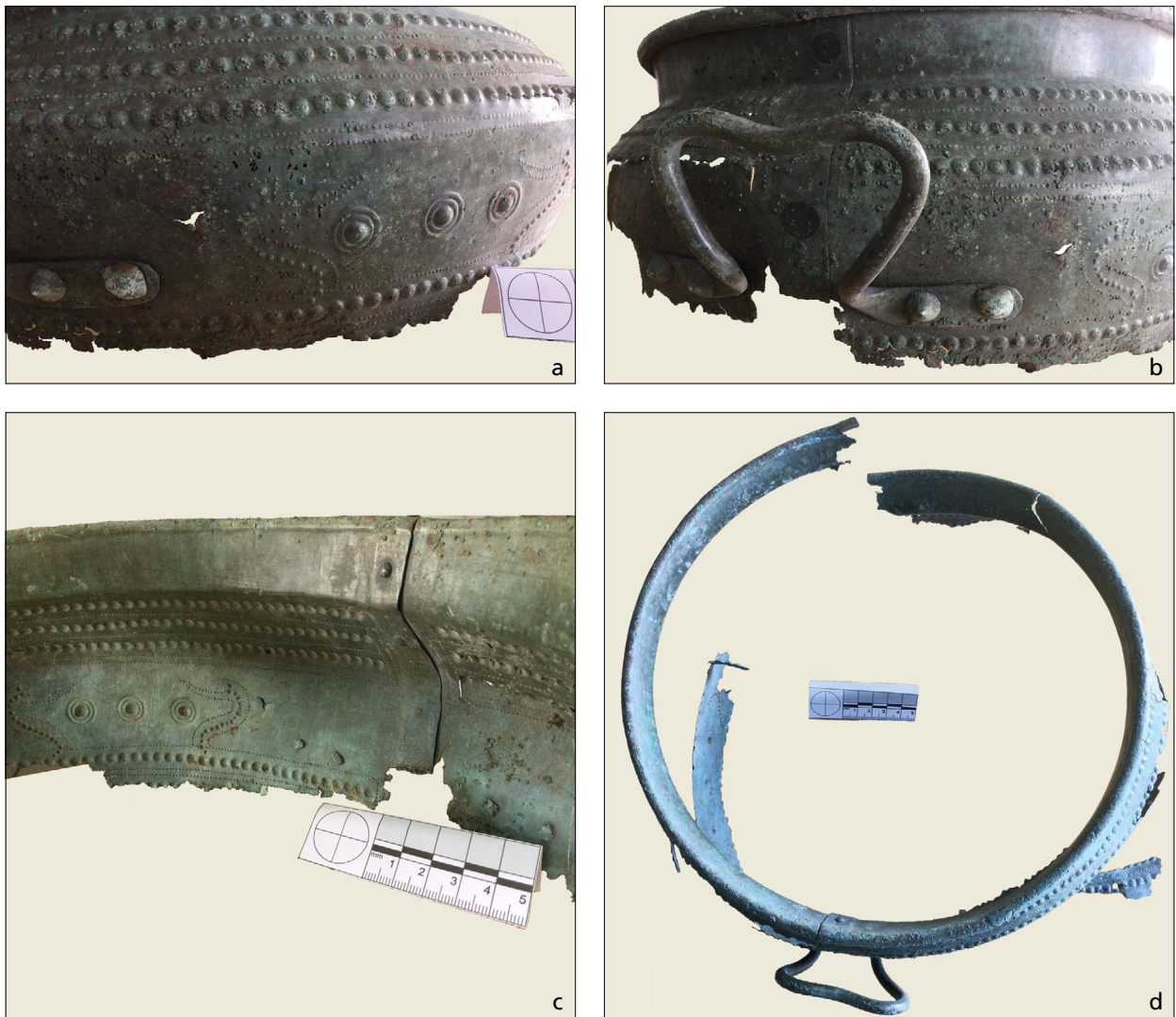
The sample was taken from a less corroded area of the bronze sheet fragment. EDXS analyses revealed an alloy of about 89 wt% Cu, 8.4 wt% Sn, 2 wt% Pb and 0.9 wt% As; S and Sb are present with up to 0.7 wt%. No etching was carried out, as the corrosion outlines the microstructural features in a sufficient way. Etching with ferric chloride revealed the sample's microstructure. Small, equiaxed polyhedral grains with twins and a few strain lines are visible. The grains show no signs of deformation. There is no sign of (α+δ) eutectoid in the matrix. Pb- and CuS-inclusions are present, the latter indicating a total amount of deformation applied of about 60–70%. Cuprite is the main corrosion product inside the metal's matrix; only on the surface copper carbonates (mainly malachite) are visible.

#### Sample 2 (situla from Rohatyn)

The sample from the situla from Rohatyn (inv. no. A-41/VI[1-8]) (**fig. 8**) was taken in a seemingly less corroded area of the bronze sheet fragment. EDXS analyses showed a tin-bronze with 12.5 wt% Sn and



**Fig. 7** Images taken under the light optical microscope of the two situla fragments studied. – **a** sample 1, unetched. – **b** sample 1, etched with ferric chloride. – **c** sample 2, unetched. – **d** sample 2, etched with ferric chloride. – (Photos M. Mödlinger).



**Fig. 8** The bronze situla from Rohatyn (Halych district, Ivano-Frankivsk obl./UA). – (Photos M. Bilyk).

0.5 wt% S. Small, equiaxed polyhedral grains with twins and a few strain lines are visible after etching the sample with ferric chloride. The grains show no signs of deformation. There is no sign of ( $\alpha+\delta$ ) eutectoid in the matrix. CuS-inclusions – actually CuFeS-inclusions with only about 0.5 wt% Fe – are present, the latter indicating a total amount of deformation applied of about 60–70 %. Following the microstructural features such as grain boundaries and dislocations, the corrosion had already reached the centre of the bronze sheet; in the inner core, copper oxides prevail, while in the outer area and the sample's surface copper carbonates are the main corrosion product.

#### Conclusion on the metallographic analyses

The copper used for the production of the bronze sheet of sample 1 was likely made of fahlore, as indicated by the rather high amounts of As and Sb in the alloy. About 2 wt% of Pb were added intentionally to the alloy. Nevertheless, the bronze was annealed several times, full homogenisation of the alloy was not achieved. As indicated by the microstructure, the last working step was a short annealing, which eliminated residual stress in the metal. The microstructure of sample 2 indicates annealing and a final, light deformation of the sample as the last working steps.

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### ANALOGIES AND QUESTIONS OF CHRONOLOGY

The nearest and almost exact analogy to the situla from Panivtsi is a situla with pointed shoulders from the site in Au (Lkr. Freising, Upper Bavaria/DE) in the collection of the National Museum in Munich, which is almost identical in form, main parameters and also carefully riveted from several sheets of thin and strong metal plate (von Merhart 1952, 70 pl. 22, 9; cf. on the type in general: Egg/Munir 2013, 192–199). The situla from Au even has the same perfectly flat vertical seam at the junction of the main plates, which runs almost the entire height of the vessel, as on the example from Panivtsi. Particularly remarkable are the dimensions of the situla from Au: height 80–82 cm, largest diameter about 60 cm, diameter at the base 30 cm – similar measurements to the Ukrainian situla presented here. The similarity between the situlas of Upper Bavaria and those of West Podolia is reinforced by the fact that the first one also has a reinforced base with a circular base, identically shaped shoulders and everted rim corners. The mass production and spread of bronze vessels with sharp-edged shoulders (as of Au and others) on the Apennine Peninsula and Upper Danube as a whole date back to the Bologna IIA period (approximately 800–750 BCE), i. e., parallel with Este IIA and Picenum IIA (Novilara I) (Pare 1998, 326 tab. 2).

In general, the basic morphological features and technological techniques involved in the manufacture of the Panivtsi sharp-edged situla can be traced back to situlas from the eastern Alpine region and Upper Italy (**fig. 1**). For example, the circular bottom on a broad, stable base and the above-mentioned vertical seam at the joints between the metal plates are present in a situla from Aichach (Lkr. Aichach-Friedberg, Upper Bavaria/DE) (von Merhart 1952, 69 pl. 17, 6). The same signs are present on a situla with *Henkel-attaschen*, which, together with similar ones, is attributed to the Bologna IIA period, which mainly occurs during the first half of the 8<sup>th</sup> century BCE (Pare 1998, 303 fig. 2.49). On the distribution map of metal ware with sharp-edged bands, we see that north of the Apennines they compactly cover the territory of the eastern Alpine region and the lands which adjoin it to the north (von Merhart 1952, 37 map 7; Egg/Munir 2013, 197 fig. 75). Vessels of this (bucket-shaped) type have not been found outside this area until quite recently.



The discovery of two bronze cauldrons in the Panivtsi complex raises new questions:

First, as far as dimensions and basic proportions (particularly the wide bowl and low body) are concerned, the Panivtsi cauldrons look similar to the well-known but slightly smaller cauldron from Ivane-Puste (Chortkiv district, Ternopil obl./UA) (Sulimirski 1936, 101 pl. IX, 7). The Panivtsi cauldrons resemble a bronze, spherical cauldron from barrow 3/III (24) of the Kelermes group (Giaginsky district, Republic of Adygea/RU) excavated by Nikolay Ivanovich Veselovsky in 1903–1904 (Galanina 1997, 180–184). Cauldron II from Panivtsi is larger than a bronze cauldron from Iacobeni (jud. Botoșani/RO) of 48.5 cm in diameter (without handles) (Topal 2020, 115 figs 2. 3a–b), which until recently was the biggest in the Carpathian-Dniester region. We can suppose that the foot stem of the Panivtsi cauldron was as tall and slender as the earliest cauldrons from the region: from Shvaikivtsi (Chortkiv raion, Ternopil obl./UA) and Iacobeni.

Secondly, the moulded wavy decoration on the Panivtsi cauldron I and the twelve-ray rosette on cauldron II also find parallels on Castelu (jud. Constanța/RO) bronze vessels from the right bank of the Lower Danube (Topal 2020, 125 fig. 5, 1) and on a tripod cauldron from Scorțaru Vechi (jud. Brăila/RO) in the same area (Topal 2020, 125 fig. 3b). We suppose that this decoration was applied not only for ornamental purposes, but also for practical reasons, i. e. to further strengthen the cauldrons and to prevent them from cracking during heating or minor mechanical shocks (we can trace something similar later on the so-called Hunnish pots, which were also often reinforced with similar plastic braids). It is therefore unlikely that the presence of this kind of decoration on the cauldron (in the form of rosettes and wavy bands around almost the entire body) can be explained simply as a need to decorate it.

Regarding the dating of the Panivtsi bronze ware complex, we should take into account the following circumstances: the latest situla of the Panivtsi type in the indigenous territory and areas of their greatest distribution occurs only until the first half of the 8<sup>th</sup> century BCE. The question is, how could such »early« vessels and, certainly, »late« cauldrons coexist in one complex? This seemingly contradictory situation is not the only one in Western Podolia during the Late Hallstatt period, a similar example is known from the burial mound at Shvaikivtsi, found in 2007. Among twelve other vessels, the bronze cauldron was accompanied by a bronze, one-handled wine strainer (Bandrivskiyi 2009, 202–235). This strainer from Shvaikivtsi is a little older than the cauldron and other, well-dated items from the burial complex. Because the shape and size of the strainer from Shvaikivtsi are similar to the one-eared thin-walled bronze cups of the Val-Hotin group (burial chamber 26, Budapest-Békásmegyer/HU), belonging to the Ha B3 period (Pare 1998, 403 fig. 45, A-7). They are decorated with the same »beads«, and, besides, the punch decoration is similar to that on the strainer from Shvaikivtsi. Similar bowls with similar shapes and ornaments are known from the sites of the Stillfried-Podoli I group, in particular, Klentnice (okr. Břeclav/CZ) (burial 63) and Milovice (okr. Nymburk/CZ), which belong to the period of the IV<sup>th</sup> horizon of the Carpathian hoards, which corresponds to 1050/1020–950/920 (Pare 1998, 387 fig. 37, 6–7).

## CONCLUSIONS

The deposit of the West Podolian group presented here demonstrates the coexistence of metal imports from the eastern Alpine region and Upper Italy with metal products of strictly local manufacture (cauldrons, etc.) in closed complexes. But how can we explain this coexistence of different times? The answer lies in determining the date of the earliest cauldrons within modern Ukraine. As to the time of manufacture of the cauldrons, such as those found earlier in Shvaikivtsi and now in Panivtsi, until recently it was accepted that the use of similar vessels (of the so-called Scythian type) in modern Ukraine began only from the 5<sup>th</sup> century BCE (Olgovskiyi 1987, 81; Kuznetsova 2007, 240–241). However, after the discovery in Shvaikivtsi, where

a similarly shaped cauldron was found from the third quarter of the 8<sup>th</sup> century BCE, and now in Panivtsi as well, the dating of the initial use of this type of cast vessels in the area under investigation moves back at least one and a half centuries. It is all the more significant because it was long believed that the earliest »Scythian« cauldrons from Kelermes which were all intentionally deformed (Galanina 1997, 150–152), represent the first and last »Scythian« cauldrons during the whole 6<sup>th</sup> century BCE (Kuznetsova 2007, 240). Similar deformation is demonstrated by the two cauldrons from Panivtsi discussed here. It is considered that the Kelermes cauldrons for their size correspond to the cauldrons which were associated with small communities, headed by »nomarchs«. The destruction (deformation) and burial of a symbol which united the society, as suggested by the researcher, could indicate the death of the »nomarch« and whole groups of the Scythian population (Kuznetsova 2007, 240). In the Middle Dniester region, until recently this theory about the burial of cauldrons »did not work« (as the cauldron from Shvaikivtsi was found intact, not deformed as in Kelermes). Now, however, after the discovery of two deformed cauldrons in Panivtsi, the situation has begun to become clearer. Apparently, the role of the cauldron in the ritual actions could have been twofold. Either it could have been manipulated to ensure military fortune and divine help; or the burial of the vessels could have been connected with the death of an eminent dignitary or dynast of the time, which (unlike the pre-Caucasian region) did not always imply that the pot itself was deformed.

Thus, we can summarize that the earliest finds of bronze cast cauldrons within modern Ukraine were made in Western Podolia (Shvaikivtsi, Panivtsi). In terms of dating, these finds correlate with the bronze cauldron from Iacobeni, which is also attributed by Denis Topal to the earliest group (Topal 2020, 115 figs 2. 3a–b) and which we consider to belong to the West Podolia (Middle Dniester) group. In the Lower Dniester and Lower Danube regions the bronze cauldrons were found not earlier than the mid-5<sup>th</sup> century BCE (the majority of them being discovered in the third quarter of the 20<sup>th</sup> century) and by the end of the 4<sup>th</sup> century BCE these bronze cauldrons completely disappeared (Topal 2020, 131).

Using the example of the complexes of cauldrons, we see that the connections between the Middle-Dniester region (including West Podolia) and cultures of the Adriatic coast, East-Alpine area and Upper Italy, which were established at the beginning of the Ha B3 period, did not cease in the following period and existed in the 7<sup>th</sup> century BCE. Moreover, these contacts appear more clearly on the eve of the arrival of most barrows of the West-Podolian group in the Middle Dniester area. This is underlined by discoveries of three sites with four combed bronze helmets (Mödlinger et al. 2022) from Early Etruscan metalworkers (two of them were accompanied by parts of horse and chariot harnesses) and a half dozen fibulae and articles of metal mouldings from the same region (including anthropomorphic and zoomorphic metal adornments from decorated situlas). In this context, it is not surprising that the shape of the graceful high foot on pots from Shvaikivtsi and Iacobeni reminds us closely of the hollow base of ritual bronze vessels from the Central Apennines, where they are more widely distributed from the 7<sup>th</sup> century BCE. It is certain that at this stage these are just speculations, which, if new material from the Middle Dniester region is accumulated, can be confirmed or denied. But, in any case, each new find (as well as the newly discovered complex from Panivtsi presented here) brings us closer to a clearer understanding of the processes that eventually led to the creation of a vibrant and distinctive West-Podolian group.

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## Zusammenfassung / Summary / Résumé

### Ein neuer späthallstattzeitlicher Komplex von Metallwaren aus Panivtsi, Westpodolien/UA.

#### Vorläufiger Bericht

Ein neuer Komplex von Metallobjekten wurde Ende 2014 bei landwirtschaftlichen Arbeiten in der Nähe von Panivtsi in der Oblast Ternopil in der Ukraine entdeckt. Die Autoren konnten dokumentieren, dass zunächst der Boden eines großen, auf dem Kopf stehenden Bronzeimers ausgegraben wurde; die Situla bedeckte zwei Bronzekessel, die übereinander gestellt worden waren. Die Gefäße waren in einer flachen Grube von etwa 1 m Durchmesser in einer Tiefe von 0,45–0,50 m unter der Oberfläche aufgestellt worden. Die jüngsten Bronzesitulas des Panivtsi-Typs kommen nur bis zur ersten Hälfte des 8. Jahrhunderts v. Chr. vor. Der hier vorgestellte Depotfund der westpodolischen Gruppe zeigt die Koexistenz von Metallimporten aus dem östlichen Alpenraum und Oberitalien mit Metallprodukten aus rein lokaler Herstellung (Kessel usw.) in geschlossenen Komplexen. Wie konnten solche »frühen« Gefäße und sicher »späte« Kessel in einem Fundkomplex gemeinsam vorkommen? Bis vor kurzem wurde angenommen, dass die Verwendung ähnlicher Gefäße (des »skythischen« Typs) in der modernen Ukraine erst im 5. Jahrhundert v. Chr. begann. Nach der Entdeckung in Shvaikivtsi, wo ein ähnlich geformter Kessel aus dem dritten Viertel des 8. Jahrhunderts v. Chr. gefunden wurde, und nun auch in Panivtsi, verschiebt sich die Datierung der ersten Verwendung dieser Art von gegossenen Gefäßen im untersuchten Gebiet jedoch um mindestens eineinhalb Jahrhunderte nach hinten. Nach der Entdeckung der beiden deformierten Kessel in Panivtsi ist die Funktion der Gefäße klarer geworden. Offenbar konnte der Kessel bei den rituellen Handlungen eine doppelte Rolle spielen: Entweder wurde er manipuliert, um militärisches Glück und göttlichen Beistand zu sichern, oder die Beisetzung der Gefäße stand im Zusammenhang mit dem Tod eines bedeutenden Würdenträgers oder Dynasten der damaligen Zeit. Zusammenfassend lässt sich sagen, dass die frühesten Funde von gegossenen Bronzekesseln in der modernen Ukraine in Westpodolien (Shvaikivtsi, Panivtsi) gemacht wurden. Am Beispiel der Kesselkomplexe sehen wir, dass die Verbindungen zwischen der mittleren Dnjestr-Region (einschließlich Westpodolien) und den Kulturen der Adriaküste, des ostalpinen Raums und Oberitalien, die zu Beginn der Ha-B3-Periode entstanden, in der Folgezeit nicht abbrachen und noch im 7. Jahrhundert v. Chr. existierten.

### A New Late Hallstatt Complex of Metal Ware from Panivtsi, Western Podolia/UA. Preliminary Report

A new complex of metal objects was discovered at the end of 2014 during cultivation work near Panivtsi in the Ternopil oblast in Ukraine. The authors could document that the bottom of a large upside down bronze bucket was first unearthed; the situla covered two bronze cauldrons, which had been placed one on top of the other. The vessels had been placed in a shallow pit approximately 1 m in diameter, at a depth of 0.45–0.50 m below the surface. The

latest bronze situlas of the Panivtsi type occur only until the first half of the 8<sup>th</sup> century BCE. The deposit of the West Podolian group presented here demonstrates the coexistence of metal imports from the eastern Alpine region and Upper Italy with metal products of strictly local manufacture (cauldrons, etc.) in closed complexes. How could such »early« vessels and, certainly, »late« cauldrons coexist in one complex? Until recently, it was accepted that the use of similar vessels (of the »Scythian« type) within modern Ukraine began only in the 5<sup>th</sup> century BCE. However, after the discovery in Shvaikivtsi, where a similarly shaped cauldron from the third quarter of the 8<sup>th</sup> century BCE was found, and now in Panivtsi as well, the dating of the initial use of this type of cast vessels in the area investigated moves back at least one and a half centuries. After the discovery of the two deformed cauldrons in Panivtsi, the function of the vessels has become clearer. Apparently, the role of the cauldron in the ritual actions could have been twofold: either it could have been manipulated to ensure military fortune and divine help; or the burial of the vessels could have been connected with the death of an eminent dignitary or dynast of the time. In summary, the earliest finds of bronze cast cauldrons within modern Ukraine were made in Western Podolia (Shvaikivtsi, Panivtsi). By the example of the complexes of cauldrons we see that the connections between the Middle Dniester region (including West Podolia) and cultures of the Adriatic coast, the East-Alpine area and Upper Italy, which were established in the beginning of the Ha B3 period, did not cease in the following period and still existed in the 7<sup>th</sup> century BCE.

### **Nouvel ensemble hallstattien tardif d'objets en métal de Panivtsi, Podolie occidentale/UA.**

#### **Rapport préliminaire**

Un nouvel ensemble d'objets métalliques fut découvert vers la fin 2014 lors de travaux agricoles près de Panivtsi dans l'oblast de Ternopil en Ukraine. Les auteurs rapportent avoir découvert d'abord le fond d'un grand seau en bronze renversé; la situle recouvrait deux chaudrons en bronze empilés l'un sur l'autre. Les récipients avaient été déposés dans une fosse peu profonde d'environ 1 m de diamètre et d'une profondeur de 0,45–0,50 m. Les dernières situles en bronze du type Panivtsi n'apparaissent pas au-delà de la première moitié du 8<sup>e</sup> siècle av.J.-C. Ce dépôt appartenant au groupe podolien occidental démontre une coexistence d'importations en métal des Alpes orientales et Haute Italie et de produits métalliques locaux (chaudrons etc.) dans des ensembles clos. Mais comment des récipients si »précoces« peuvent coexister avec des chaudrons clairement »tardifs« dans un même ensemble? On pensait jusqu'il y a peu que l'utilisation de récipients similaires (du type »scythe«) avait commencé au 5<sup>e</sup> siècle av.J.-C. en Ukraine d'aujourd'hui. Mais la découverte d'un chaudron similaire à Shvaikivtsi daté du 3<sup>e</sup> quart du 8<sup>e</sup> siècle av.J.-C., puis de celui de Panivtsi, avance d'un siècle et demi au moins la première utilisation de ce type de vases moulés sur le territoire étudié. La découverte des deux chaudrons déformés de Panivtsi a permis de clarifier la fonction de ce type de vases. Le chaudron pourrait apparemment remplir un double rôle dans les activités rituelles: 1. s'assurer la réussite de ses entreprises militaires et la protection des dieux; 2. enfoui dans le sol, il pouvait commémorer le décès d'un éminent dignitaire ou dynaste de l'époque. En somme, les plus anciens exemplaires de chaudrons coulés en bronze trouvés sur le territoire de l'Ukraine actuelle furent fabriqués en Podolie occidentale (Shvaikivtsi, Panivtsi). Les ensembles de chaudrons montrent clairement que les liens établis au début de la période Ha B3 entre la région du Dniestr moyen (y compris la Podolie occidentale) et les cultures de la côte adriatique, des Alpes orientales et de la Haute Italie n'ont pas été rompues et ont perduré au 7<sup>e</sup> siècle av.J.-C.

Traduction: Y. Gautier

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