

The Ljubljana  
— *a River and its  
Past*



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# The Ljubljanica — *a River and its Past*

edited by  
Peter Turk,  
Janka Istenič,  
Timotej Knific and  
Tomaž Nabergoj

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# Roman period

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Milan Lovenjak,

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Timotej Knific

## 44

**Boundary stone;** limestone from Nabrežina (Aurisina, Italy). Dim. 130 × 50 × 16cm. Ljubljana, near Bevke, Podpeški mah. NMS, Inv. No. L 204.

Šašel Kos 2002.

The upper, approx. 30cm-high part of the boundary stone is a square, with elegantly shaped sides: the inscription FINIS can be read on the horizontal panel, and AQUILEIEN/SIVM and EMONEN/SIVM on the larger side panels. The upper part of the stone widens into a 1m-high lower part, the sides of which are only roughly worked, as it is the section that was fixed in the earth. Given the boundary stone's purpose, its strong base is understandable.

It is clear from the inscriptions that the boundary stone delimited the territories of two towns, *Aquileia* and *Emona*. Important for its dating are the lettering and the use of limestone from Nabrežina (Aurisina, near Trieste), suggesting that it was made in the last three decades BC, or perhaps in the first decades AD. Comparison with other Roman boundary stones suggests that neither of the two cities involved was subordinate to the other, and that they both belonged to the same administrative unit, *i.e.* Italy. This is important as, before the discovery of this stone, it was widely accepted that *Emona* and its territory were part of the province of *Pannonia*.

*ji*



**Four inscribed plates;** lead. Vrhnik, Kočevarjev vrt. MM, Acc. Nos. PN 798 (a), PN 1204 (b), PN 1006 (c), PN 1128 (d).

Excavations at Vrhnik in 2005 revealed four rectangular plates of thin lead sheet. Roman cursive writing (*i.e. capitalis cursiva*) incised by a sharp object can be seen on both sides of the plates. This script was in use between the 1<sup>st</sup> and the 3<sup>rd</sup> century for writing on various materials such as pottery, tile and brick, mortar and metal. A small hole in each plate indicates that they were attached to a product or its packaging and were used as a label. According to the inscriptions, at least two of the plates come from a smithy and one, perhaps, from a textile workshop. The characteristics of the lettering suggest that both sides of each of the plates were inscribed by the same person, and that the inscriptions on the four plates were made by four different scribes.

<sup>a</sup>  
Plate (L. 3.9cm, W. 1.4cm, Th. 0.1cm). The bottom left corner is missing; the bottom right corner is slightly bent. Part of the left diagonal line of the first letter (A) of the third line is missing on the first side of the plate. There is a symbol for a Roman silver coin (*denarius*) at the end of the third line, incised as an X with a horizontal above it. On the other side of the plate, perhaps only one letter of the whole inscription is missing; the first letter of the first line on the left side. The symbol for extra weight, four ounces, is inscribed as four horizontal lines, one above the other.

Inscription on one side:       ARIVS  
  NAVPORT  
  ANVS -X- III

*Arius / Nauport / anus - X- (= denarios) III.*  
'Arius from Nauportus (has to pay) three *denarios*'

Inscription on the other side:   VRCIV  
  CLAVLAS  
  NIGROS P.S.III

*Urciu / cla(v)ulos / nigros (libra) p(ondo et) selibra (et) IIII (sc. uncias)*  
'Urciu made iron nails that weigh one pound and a half and four ounces (= 600g).'

The first inscription gives the name of the person who ordered the products and their price. The name Arius occurs very rarely on Roman inscriptions. The addition of *Nauportanus* to his name ('from *Nauportus*') indicates that he was a local. This is the earliest written document which indirectly mentions the name of the Roman settlement at Vrhnik.

The inscription on the other side of the plate reveals the name of a blacksmith, type of product and the full weight of nails, based on which the price was set. The blacksmith's name was *Urciu* or *Murciu*, if the initial letter is missing. Names ending with -u are common on Roman inscriptions from Pannonia

and Noricum (more than 70 names are known), and are of Celtic origin. It is possible, but not likely, that the final letter -S would not have been written, and the name would therefore read *Urcius* or perhaps *Murcius*. The latter is known from Roman inscriptions and also occurs in the neighbouring province of Noricum, but the name *Urcius* has not been found in inscriptions.

According to the inscription, *Urciu* made nails that weighed one and a half pounds and four ounces (600g), and Arius from *Nauportus* was expected to pay three *denarios* for them.

The plate was fastened to, perhaps, a leather sack or wooden box containing nails, by means of wire or string. Such plates served as labels, and were often reworked and used repeatedly; however, this particular plate was used only once, as there are no visible marks of previous inscriptions on the surface.

<sup>b</sup>  
The entirely preserved plate (the L. of the unbent plate is approx. 3.5cm, W. 1.3cm, Th. 0.1cm) is bent, making part of the inscription impossible to read. The lettering is sharply and equally incised, although some letters are in poor condition. The symbol for ounces, as on the first plate, is inscribed by horizontal lines, incised one above the other.

Inscription on the first side:       VARRIVS  
  ---ARVS

*Varrius / [---]arus.*

Inscription on the other side:   A(?) II A(?) P.IIISIII  
  T(?)ANN(?)

*A(?) E(?) A(?) p(ondo libras) III (et) selibra (et) III (sc. uncias) / T(?) ANN(?)*

'...three and a half pounds and three ounces in weight (= 1226g).'

The first inscription suggests the name of the person who ordered products. His *nomen gentile* (second name) was *Varius* (the double R is probably due to pronunciation). The first letters of his *cognomen* (third name) are not visible because the plate is bent, so several options for the latter exist, such as *Clarus*, or *Marus*. The fact that the person's second name is given indicates that he was a Roman citizen (*cives Romanus*). In fact, the full Roman three-name formula (*e.g. Gaius Iulius Caesar*) of Roman citizens included a *praenomen* (first name), usually abbreviated to one letter (*e.g. C* for *Gaius* or *L* for *Lucius*), which was sometimes omitted from inscriptions (as in the case of this plate).

The inscription on the other side of the plate, like the one on the first plate, includes the weight of the (blacksmith's?) product, which is perhaps named at the beginning of the first line, but it cannot be read due to poor preservation. The weight mentioned is slightly more than the double weight mentioned on the first plate. Perhaps the name of the maker was recorded in the second line.

a 1



a 2



b 1



b 2



c

The rectangular plate with slightly rounded edges is entirely preserved (L. 4.4cm, W. 1.2cm, Th. 0.1cm). It is bent, so part of the inscription is not visible. The letters are incised with a slightly wider tip than that used on plates a, b and d. The letter E, occurring twice, has the form of two vertical lines.

Inscription on the first side:     C CAELIVS  
  STATIVS

*C(aius) Caelius / Staius.*  
'Gaius Caelius Staius.'

Inscription on the other side:    M---ER  
  P---

*M(?)(?)er / p(ondo ?) ---.*

The name on the first side probably refers to the person who ordered the product. The triple name (*Gaius Caelius Staius*) indicates that this person was a Roman citizen. The *nomen gentile Caelius* and the *cognomen Staius* are typical Italic names. The inscription on the other side of the plate cannot be reconstructed with certainty. In the first line, one would expect the name of the maker or type of product. The letter P in the second line could be part of the indication of the weight.

d

The rectangular plate is entirely preserved (L. 3.1cm, W. 1.0cm, Th. 0.1cm). The letters, especially in the second lines on both sides, are hard to read due to the damaged surface. It seems that the remains of earlier inscriptions are slightly visible, which makes the legibility even poorer.

Inscription on the first side:     VINICIUS  
  SO---

*Vinicius / So(---).*

Inscription on the other side:    TVNI  
  CVLAS

*Tuni- / culas.*

The inscription on the first side comprises the *nomen gentile Vinicius* and, probably, the first letters of the third name (*cognomen*) of the same person who presumably ordered a product. *Vinicius* was a name used in Italy and the provinces of Dalmatia and Pannonia.

The type of product can be assumed from the inscription on the other side, where part of the word is written on the top line, and the other part below it, although there is enough space for the whole word in one line. It is not possible to read the word with certainty; some of the letters can be interpreted differently (the 'N' appearing in the top line could be read as R, V or A); however, the above interpretation is the most probable. The word *tunicula*, (on the inscription, given in the fourth case, plural) is a diminutive of *tunica* (tunic). The origin of this plate is therefore perhaps a clothing workshop.

*ml*

c 1



c 2

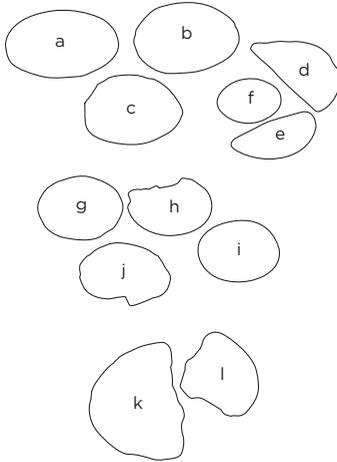


d 1



d 2





#### 46

**Roman Republican and Imperial coins;** silver, bronze, brass. Weight 1.2g–9.12g. Vrhnika, Dolge njive. NMS, Inv. Nos. LJ 4406–4409, 4411, 4419, 4726, 7875, 7880, 9388, 9390, 9395.

At Dolge njive, on terrain on the right bank of the Ljubljanica, more than a hundred Roman coins have been found by chance, or during archaeological research. More than half were made during the Roman Republican and Augustan periods. A selection of these coins is presented in Cat. 46.

Whilst the coins are poorly preserved, they are still important for understanding monetary circulation. The earliest are Roman Republican bronze coins called *asses* (k, l), which were cast and used until the Augustan period. In 211 BC, the mint in Rome started to mint silver coins, with *denarii* being the most frequent. *Denarii* g and h date to the end of the 2<sup>nd</sup> century BC. On them, we see a depiction of a chariot pulled by two horses, driven by the goddess Rome. The latest *denarius* (i) was minted in the name of Mark Antony, in 32 or 31 BC; it comes from a very large coin series. Such *denarii* are the most frequently found coins of the late Republican period in western and central Slovenia, and are associated with Roman military conquest. Coin j is not made of solid silver, but silvered bronze, and was struck to save on silver.

At the beginning of his reign, the Emperor Augustus reformed the monetary system, creating a system which remained in use until the beginning of the 3<sup>rd</sup> century. He initiated *sestertii* (the value of four *asses*) and *dupondii* (the value of two *asses*) made of brass, and *asses*, *semisses* and *quadrantes* (the value of half or a quarter of an *as*) made of bronze. Cat. 46 presents Augustan *asses* (b, d, e), *dupondius* (c) and *quadrans* (f), as well as a Tiberian *as* (a). In general, *asses* and *quadrantes* were the most frequently used, and are the most numerous coin denomination found at Dolge Njive. When low on change, low-value coins, mostly *asses* and *dupondii*, were cut in half (d, e). The use of so-called halved coins is characteristic mainly of the Augustan period.

*am*



**Three coins;** leaded bronze (XRF, on the surface). Diam. 2.6cm, 2.6cm and 2.5–2.65cm, weight 12.78g, 13.63g and 10.18g. Vrhnika, Kočevarjev vrt. MM, Acc. Nos. PN 372, PN 385 and PN 715.

The coins are all of the same type (*RPC* 523), but in varying states of preservation. On the front, they show busts of two men in profile, back to back. IMP is inscribed above them and DIVI F(ilius) below. The left portrait, with laurel wreath, depicts the general Agrippa, Augustus' right-hand man and son-in-law. The portrait on the right is of Augustus himself. The inscription '*divi filius*' (son of a god) is a reference to the relationship between Caesar and Augustus, which was often emphasized by the latter. Augustus was Caesar's adopted son and political heir.

On their reverse, the coins show a crocodile, with a mouth wide open, chained to a palm tree, with the inscription COL NEM above. The depiction is an allusion to Augustus' (Octavian's at the time) subjugation of Egypt and its annexation to the Roman Empire in 30 BC, after Octavian had

defeated Mark Antony and Cleopatra. The intention of this representation was perhaps to commemorate the settlement of veterans discharged, after the victory in 30 BC, in the Roman colony of *Nemausus* (modern Nîmes in southern France).

Coins with an image of a chained crocodile on the reverse were minted in the city of *Nemausus* in the Augustan period, perhaps from its beginning. The production of these coins was immense; they were also widely distributed. Coins such as the ones from Vrhnika were probably minted between 16/15 and 10/8 BC (Berger 1996, 33, 41–44; *RPC* 152–154).

One of the coins bears a circular stamp on the front, depicting DD with a palm tree between, which was struck after the coin was minted (a so-called countermark: Kos 1997, 178–182). The DD countermarks (*i.e. decreto decurionum*) are common on coins of this type. Most have been found in Gaul and date to the late Augustan period. The coins were probably countermarked with this stamp by order of *Nemausus* city council (Chantaine 1982, 36; Majurel 1965, 245–277).

*ji*

## 48

**Ten small Celtic coins;** silver. Average weight 0.57g, average Diam. 0.8cm. Vrhnika, Dolge njive. NMS, Inv. Nos. LJ 51460–51469.

Horvat 1990, 197–198.

A hoard of 24 Celtic coins was discovered during archaeological excavations at Dolge njive at Vrhnika in 1885; the hoard consisted of one large and 23 small silver coins. The National Museum of Slovenia keeps only 10 small coins, which represent all the types present in the hoard, while the remaining coins were dispersed among unknown collections.

With the help of descriptions from previous publications, we can place the large silver coin (*tetradrachm*) in a group having the characteristic inscription NEMET next to the horseman on the reverse. Such coins were minted by the Norici, a Celtic tribe inhabiting the territory of present-day Austria and north-western Slovenia in the last three centuries BC.

The small Celtic silver coins from the hoard are of different types. In the everyday life of the local population, they constituted change worth one sixteenth of a large silver coin.

Large silver coins were used mostly by tribal aristocracy and merchants for substantial trading deals. Coin hoards indicate that the Norici traded with both the neighbouring tribes as well as the Romans. Analyses of written sources allow us to assume that the ratio of value between the Roman silver coin (*denarius*) and contemporary small Celtic silver coins was 6:1 (Graßl 1988, 11–14).

*am*



a



b



**Ink-well**; bronze (XRF). H. 6.7cm, Diam. 5.3cm. Ljubljana, near Vrhnika. NMS, Inv. No. V 2110.

Small cylindrical vessel, decorated with ribs and grooves. The lid is 3.2cm in diameter and attached to the rim by a hinge. On the opposite side of the hinge is a small handle which enabled the movement of a small bolt on the underside of the lid into two positions: one that secured the lid, and another that allowed it to be opened.

The lid with closing/opening mechanism indicates that this is an ink-well (Latin: *atramentarium*). The small plate with a ring attached to the side of the cylindrical vessel suggests that there were originally two vessels, one on each side of the plate, filled with black (*atramentum*) and red ink, respectively. The ring attached to the binding plate was probably to secure the ink-well to the writer's hand. The shape of the ink-well suggests a date in the 1<sup>st</sup> century.

Black and red ink were used for writing on papyrus, parchment or wood with a pen, usually reed or metal (Božič, Feugère 2004, 33–37).

*ji*

## 50

**Proportional divider**; bronze (XRF). L. 28.9cm. Ljubljana, near Vrhnika. FP, ZN 260/7.

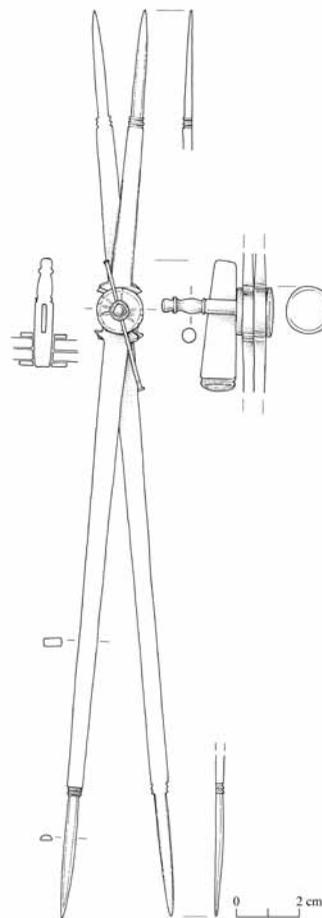
Gaspari 2002a, 224, 286, fig. 81.

The proportional divider has two arms with pointed tips. Where the arms widen circularly, they are fixed together by an axle with a flat head at the rear and a 2.3cm long tip, with relief decoration on the front. There is a narrow gap in the latter, slightly trapezoidal in form. A bolt fitted into the gap tightens the washer and arms against the flat head at the back of the hinge, fixing the arms in the required position. The ratio between the shorter and longer sections of the arms is 1:2.

Roman proportional dividers are rare. Items from an unknown site in southern France (Boucher, Perdu, Feugère 1980, 83, no. 339), from the fortress at *Novaesium* (Neuss) on the Rhine (Simpson 2000, 65, pl. 21: 19) and from the military fort of Saalburg in Germany (Jacobi 1897, 210, 212, fig. 29: 20), are in the ratio of 2:1, whereas the proportional divider found at Pompei is in the ratio of 1:1.5 (Overbeck, Mau 1968, 461, fig. 257). The ends of both arms of the proportional dividers from the fortress at Haltern on the River Lippe (Germany; Müller 2002, 213, pl. 83: 901) have not survived. All the proportional dividers mentioned above are made of a copper alloy. The Ljubljana example, also of a copper alloy, seems to be the best preserved, the biggest and most accurately made.

It is very interesting that the length of the arms of the proportional dividers from the Ljubljana does not fit the multiple of the Roman *digitus* of 18.5mm, but instead, fits very well the Greek *daktylos* of 19.3mm (Hultsch 1971, tab. II, VI) multiplied by 15. It seems that the Greek metric system was used in making this object, which suggests it originated in a Greek environment, perhaps in the Greek part of the Roman Empire.

*ji*





## 51

**Slingshots;** lead. The biggest item: L. 4.96cm, weight 78g. Vrhnika, Dolge njive. NMS, Inv. Nos. R 1854/1-72, R 1888, R 3930, R 14012a, b.

Horvat 1990, 209, 217, 268, 269, cat. 158, pl. 9: 5-7.

A group of people from Vrhnika discovered more than 600 lead slingshots at Dolge njive, to the south of the pier on the northern side of the settlement. Most of the slingshots were in a heap, while some were scattered around nearby (Horvat 1990, 209). The great majority, 433, weighing slightly more than 29kg, are stored in the National Museum of Slovenia.

In the Roman period only the army used lead slingshots. They were usually called *glans* (*glandes* in pl.) and were effective long-range weapons in open-field battles as well as in sieges, used by both attackers and defenders. Slingshots were cast in two-part moulds. Sometimes they bear Roman inscriptions, including slogans, insults aimed at the enemy, or the symbols of military units or their leaders. The type of slingshot from Vrhnika was used mainly in the late Republican and Augustan periods (Horvat 1993; Völling 1990).

The slingshots from Vrhnika do not have inscriptions. They can be interpreted as ammunition stored in the settlement for defence, or as cargo waiting for transportation on the Ljubljana.

*ji*



**Roman Republican coins, collective find;** silver. Average weight 3.55g, average Diam. 1.6cm. Ljubljana, near Bevke, Kamin. NMS, Inv. Nos. LJ 7601-7605, 18324, 18356, 20168.

*FMRSI* IV, 238-239; Rant 1995.

Divers exploring the Ljubljana at Bevke in 1992 came across nineteen Roman Republican coins; the National Museum of Slovenia succeeded in acquiring only eight of them.

All the coins found are *denarii*, *i.e.* silver coins that had a central role in the Roman Republican monetary system; the Roman mint started producing them in 211 BC, and they were in use until the end of the 3<sup>rd</sup> century. The time span of the *denarii* in the hoard is almost two centuries, as the earliest coin was minted in 206 BC, and the latest one in 42 BC. Two are particularly interesting, as they are forgeries of ones minted in Rome. Forgeries were usually made for economic reasons. They are mainly recognisable from the poorer quality of metal and workmanship, and they usually weigh less than the originals.

Given the date of the latest coin, the find was lost or thrown away in *c.* 42 BC. At that time, in western Slovenia, which was part of Cisalpine Gaul (roughly, the northern part of present-day Italy), many Roman soldiers were present, protecting the frontier of the Empire from the incursions of tribes from the Balkans, and also preparing themselves for campaigns of conquest in the east. The collection of *denarii* from the Ljubljana probably belonged to a Roman soldier, but it might also have belonged to a merchant or craftsman.

*am*

## 53

**Hundred coins, collective find;** bronze. Average weight 4.2g, average Diam. 2.34cm. Ljubljana, near Bevke, Kamin. NMS, Inv. Nos. LJ 7612-7711.

*FMRSI* IV, 239-246.

In 1992, a diver exploring the Ljubljana at Bevke found 100 late Roman bronze coins over an area of one square metre. A late Roman iron axe was found next to them.

The earliest coins date to the beginning of the 4<sup>th</sup> century; these are bronze coins of the emperors Maxentius (306-312) and Constantine I. (306-337). The remainder form a homogeneous group, as they were minted from AD 348 to 352. These are coins of the emperors Constans, Constantius II., Constantinus Galus and the self-proclaimed emperor, Magnentius.

The coins are most probably what remained of a purse (*folis*) that was lost or thrown away around AD 352, considering the latest coin. This was a period when Roman Ljubljana (*Emona*) was conquered again during a civil war by the legitimate emperor, Constantinus II, son of Constantine the Great. The army in Gaul was dissatisfied with the reign of Constans and therefore proclaimed the military commander Magnentius emperor at the beginning of AD 350; he quickly attracted the loyalty of the western provinces (Britannia, Gaul and Hispania) and occupied *Emona* in the same year, during his march east. We cannot know which side the owner of the purse took.

*am*



**Small axe with seal;** iron and wood. L. 13cm, H. 5.4cm. Ljubljana, in Ljubljana, Livada. NMS, Inv. No. V 1020.

Bitenc 1997, 10, no. 25; Istenič 2006b, 129, fig. 93: 7.

The object has two work surfaces: the blade, 5.4cm in length on one side, and relief letters and dots between them, in a mirror image, on the other side. The letters are raised up to 0.5cm above the background and grow thinner with the growing distance from the background (at their very top, they are thinner than 0.1cm). This, together with the mirror image of letters, suggests that they were used as a stamp to mark wood or wood products. The blade was perhaps used to smooth the surface before the stamp was struck. Axes with seals from the Roman period are rare (cf. Gaitzsch 1980, 268–269; Gagneux-Granade 2006, 21, fig. 2).

The stamp, up to 1.6cm high, reads L.F.G. It represents the initials of three names, indicating that the person to whom it referred was a Roman citizen. L is an abbreviation of the *praenomen*

(first name) *Lucius*, F of the *nomen* (second name; *Fabius*, *Flavius*, *Fulvius*?) and G is an abbreviation of the *cognomen* (third name). He was probably the owner of the wood, e.g. the owner of the forest or a wood merchant. The wood might have been marked with this seal before being transported on the river (cf. Bauer 2001).

There are different opinions regarding the dating of axes of similar shape, ranging from the 1<sup>st</sup> to the 3<sup>rd</sup> century (cf. Gaitzsch 1993, 83, fig. 68, pl. 63: Ger. 3; Pohanka 1986, 243, 249–252, fig. 16, pl. 46: 201–204).

*ji*

## 55

**Cooking pan** (a); tinned bronze with copper inlay (PIXE). Diam. 17.6cm. Ljubljana, near Bevke. NMS, Inv. No. R 12628.

Breščak 1982, 12, 40, cat. 3, pls. 1: 3, 17: 3; Bras Kernel 2006, 18, cat. 8, fig. 4.

**Cooking pan** (b); tinned bronze (XRF, PIXE). Diam. 13.2cm. Ljubljana, near Bevke. NMS, Inv. No. R 12627.

Breščak 1982, 40, pl. 1: 2, pl. 17: 2; 33, fn. 42; Horvat 1990, 294, cat. 576, pl. 30: 2; Petrovsky 1993, 35, 281, N.15.01, pl. 22 and 41 (In these publications, the Inv. Nos. and find-spots are incorrect; cf. Bras Kernel 2006, 18, cat. 7).

More than thirty bronze cooking pans were found in the Ljubljana, almost half belonging to a group with a decoration of swan-like heads at the end of the handle. They originate from *Campania* (southern Italy), and were made from about the last two decades BC to the first two or three decades AD (Petrovsky 1993, 30–35, 160, 281, 282). The basic form of the cooking pan a was most probably cast, while its surface was finished on a spinning wheel. According to Petrovsky (1993, 30), this is typical of cooking pans with swan-like heads. However, cooking pan b was made dif-

ferently; it was spun (cf. Braun-Feldweg 1988, 165–169). The stamp NORBA (on the handle) indicates that it was manufactured by *Norbanus*, who is the only known north Italic maker of this kind of cooking pan. His products are dated to the last decade BC and the first decade AD (Petrovsky 1993, 160, 281–282).

The distribution of cooking pans with swan-like decoration at the end of the handle shows two major concentrations: one in the Ljubljana, and the other in the Czech Republic, where the Marcomannic Kingdom flourished in the last decade BC and in the first two decades AD, and where Italian products were very popular among the upper class (Petrovsky 1993, 22). Some of the cooking pans from the Ljubljana are perhaps from a cargo destined for the Marcomans. Cooking pans were also part of a Roman soldier's equipment.

Cooking pans were typically tinned. Tinning prevents the food in the pan from coming into contact with the poisonous copper compounds. Moreover, the tinned and polished surface looked like silver (Šmit, Istenič, Knific 2008, 2330–2331).

*ji*

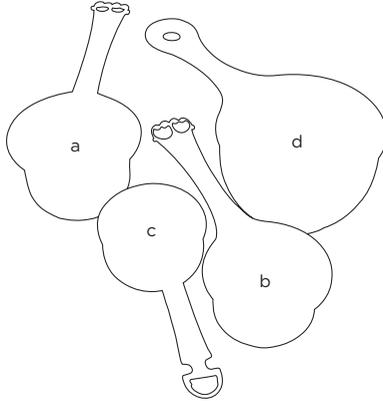


a



b





## 56

**Cooking pan** (a); bronze (XRF). Diam. 12.7cm. Ljubljana, near Vrhnika, Dolge njive. NMS, Inv. No. R 1878.

Breščak 1982, 41, pl. 2: 10; Horvat 1990, 295, cat. 580, pl. 31: 2; Petrovsky 1993, 39, 289, P.09.04, pls. 24 and 41.

**Cooking pan** (b); bronze (XRF). Diam. 11.6cm. Ljubljana, near Vrhnika, Dolge njive. NMS, Inv. No. R 1877.

Breščak 1982, 41, pls. 1: 7, 18: 7; Horvat 1990, 294, cat. 579, pl. 31: 1; Petrovsky 1993, 39, 337, X 46, pl. 36 (the find-spot quoted is incorrect).

**Cooking pan** (c); bronze, probable remains of tinning (XRF). Diam. 9.5cm. Ljubljana, near Blatna Brezovica, Dolnji breg. NMS, Inv. No. V 1882.

**Cooking pan** (d); leaded bronze, remains of tinning on the surface (XRF). Diam. 15.7cm. Ljubljana, near Vrhnika, Dolge njive. NMS, Inv. No. R 1882.

Breščak 1982, 42, pls. 2: 16, 18: 16; Horvat 1990, 295, cat. 583, pl. 31: 5 (with wrong Inv. No.); Šmit, Istenič, Knific 2008, 2330–2331, fig. 2.

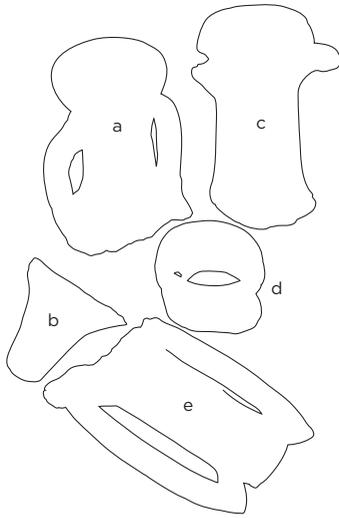
Cat. 56a, b and c are so-called thin-cast cooking pans. They were made in north-eastern Italy, probably in Aquileia or its surroundings, whence they were exported mainly to the east; most can be found in the area of the present-day Czech Republic (cf. Cat. 55). They were probably made from the second decade BC to the third decade AD (Petrovsky 1993, 36–39). Cooking pan Cat. 56a was most likely cast and then finished by spinning (which, according to Petrovsky, is typical of cooking pans of this type). Cooking pans Cat. 56b and c were most probably only spun (cf. Braun-Feldweg 1988, 165–169). Cooking pan Cat. 56c has a chased decoration on the horizontal rim and the handle, where, among other ornaments, there is a charming depiction of a water bird.

The handle of cooking pan Cat. 56a bears the name-stamp POMPE(I)N(I)GER (only the top left corner of the letter N remains; this letter probably had a surmounted right vertical line and represented the letters N and I in ligature). The first name of the maker (*Pompeius*) is known from the name-stamps of three other cooking pans of this category. He was probably working in or near Aquileia in the first three decades AD (Petrovsky 1993, 163, 289). The stamp on cooking pan Cat. 56b is hardly visible and is illegible.

Cooking pan Cat. 56d, which was first cast and then finished by spinning, is of leaded bronze. This was very suitable material for casting, as the added lead improved the casting properties of the alloy. It is one of the very few cooking pans dating to the second half of the 1<sup>st</sup> century AD from the Ljubljana, which is interesting because the production of cooking pans was still flourishing in the period (cf. Petrovsky 1993, 64–91, 123).

*ji*





## 57

**Fragments of five amphorae;** pottery. H. 27.2cm, 25.3cm, 29cm, 9cm and 17cm. Ljubljana, near Vrhnika. NMS, Inv. Nos. V 1675, V 2518 (b, e). Ljubljana, near Bevke. NMS, Inv. No. R 17334 (a). Ljubljana, near Rakova Jelša. FM ZN 261/1 (c). Ljubljana, near Sinja Gorica. NMS, Inv. No. V 2466 (d).

Amphorae were used to transport goods, most commonly olive oil and wine, which were the two basic elements of Mediterranean and Roman cooking. Amphorae were also often used for transporting *garum*, the Roman fish sauce, and relatively rarely for other foodstuffs. They were heavy and therefore suitable mainly for ship transport. The stamps on amphorae often name the owners of large estates where the foodstuffs and amphorae were produced.

About 30 Roman amphorae (or pieces) have been found in the Ljubljana, about half in the area of the Roman settlement at Vrhnika.

The oldest amphora type from the Ljubljana is the Lamboglia 2 type used for storing wine, and made in the Adriatic region from the end of the 2<sup>nd</sup> century to the end of the 1<sup>st</sup> century BC. Only two fragments (Cat. 57 c, d) can reliably be classified as being of this type. Fragments of the later, Dressel 6A amphorae (Cat. 57b), also used for wine, are more common. They were produced in the central and northern area of the Adriatic and in northern Italy from the second half of the 1<sup>st</sup> century BC to the first half of the 1<sup>st</sup> century AD (cf. Horvat 1997, 58; Pesavento Mattioli 2000, 108–109). However, fragments of the Dressel 6B form, which was used for storing olive oil from Istria and northern Italy, are the most common. Forms such as Cat. 57a and Cat. 58 are characteristic of the first two thirds of the 1<sup>st</sup> century AD (see Cat. 58).

A fragment of an amphora with distinctive pointed handles was also found in the Ljubljana (Cat. 57e). Amphorae of this form were made in the eastern Mediterranean, mostly in the Aegean region, with the centre on Rhodes. They were used to store a very popular wine, and were exported to the whole of the Mediterranean and many other parts of the Roman Empire in the 1<sup>st</sup> century (cf. Bezczyk 1994, 109–110).

*ji*



## 58

**Amphora;** pottery. H. 84.2cm. Ljubljana, near Vrhnika. NMS, Inv. No. R 1885.

Horvat 1990, 298–299, cat. 609, pl. 34: 5.

The amphora was found in 1884, during a systematic examination of the Ljubljana in the area of Vrhnika. It belongs to a large group of Dressel 6B amphorae. They were used to transport olive oil, and mostly manufactured on large estates in Istria, and also in northern Italy, from the end of the late Republican period to the beginning of the 3<sup>rd</sup> century AD (Carre, Pesavento Mattioli 2003).

Istrian oil was the most commonly used oil over a wide area from north-eastern Italy, across present-day Austria, Slovenia and Croatia to the central Danube region. Amphorae of this group are the most common type from the early Empire in Slovenia (Vidrih-Perko 2000, 427–428) and also from the Ljubljana. The only two complete amphorae from the Ljubljana are also from this group (Cat. 58 and one from a private collection).

Amphora Cat. 58 probably originates from Istria and dates to the first two thirds of the 1<sup>st</sup> century (*cf.* Carre, Pesavento Mattioli 2003, 462, 467, 468, pl. 2, fig. 3).

*ji*

## 59

**Mortars;** pottery. Diam. 32cm, 36cm and 42.5cm. Ljubljana, near Bevke. NMS, Inv. Nos. R 16895, R 16875, R 16876.

Bras Kernel 2006 (information on the find-spot).

The characteristic shape and gritted inner surface indicate that these vessels were mortars (Lat. *mortarium*). Mortars were closely related to Roman cooking and were often used in kitchen. With a pestle, probably of wood when in a set with pottery mortars, and hard grit on the inner surface, it was possible to crush, grate and crumble various ingredients, *e.g.* popular spices of Roman cuisine.

The mortars from the Ljubljana (Cat. 59; Istenič 2006b, 129, fig. 93: 1) can be compared with one of the two mortar forms found in the cargo of a shipwreck off Cap Dramont (southern France) which dates from *c.* AD 40 to 50. A wide horizontal rim, thickened at the edge, with two

small holes (made prior to firing and used for hanging the vessels) opposite a pouring spout with parallel sides, are characteristic of this form of mortar. They were used mostly from the Augustan period to the middle of the 1<sup>st</sup> century AD. Inclusions of volcanic rock in the pottery indicate that they were made in central Italy (Pallecchi 2002, 42–45). The mortars from the Ljubljana have no visible inclusions of volcanic rock, which suggests that they originate from a different area, perhaps from northern Italy.

*ji*



**Military belt fitting;** silver, partially gilded (XRF, PIXE).

Dim. 5.1 x 5.3cm, weight 34.2g.

Ljubljana, near Blatna Brezovica, Tri lesnice. NMS, Inv. No. V 2019.

Istenič 2003b, 286–289, figs. 4–5, 7: 2, 9, 11.

The belt fitting is made of high-quality silver and very well preserved. The hinges on the sides are purely decorative. The central part of the belt-plate is circular. It has a relief-decoration, embossed from the back and chased on the front, with symmetrically placed plant motifs (two wide acanthus leaves, two narrower leaves and six buds). The background is chased with tiny circles. In the middle of this decoration, there is a separately made rosette fastened to the fitting by a rivet with a round decorative terminal. The front is partly gilded (Fig. 86) with fire-gilding technique, a process by which a liquid mixture of gold and mercury is applied to the surface. The object is then heated until most of the mercury evaporates (Šmit, Istenič, Knific 2008).

The fitting was part of a military belt (see the centurion on Fig. 89), fastened to the belt-leather, c. 4mm thick, with four symmetrically-placed silver rivets, two of which are preserved.

Clear similarities between the belt and scabbard fittings Cat. 61, together with their unique character, would suggest that they were made in the same workshop, and were made and used as a set. Sets of military belts and swords with associated scabbards were quite usual in the early Roman period. For the dating and origin of this object see Cat. 61.

*ji*

## 61

**Sword with the remains of an associated scabbard;** iron and silver with remains of gilding (XRF, PIXE). L. 41.6cm. Ljubljana, near Blatna Brezovica, Tri lesnice. MM, Inv. No. 510:LJU;32617 and FM, ZN 137/7.

Stare 1953, 94–95, figs. 1–2, pls. 1–2; Horvat 1990, 238–239, 293–294, pl. 28; Istenič 2003b, 282–286, figs. 1–3, 8, 10.

Two thirds of an early Roman short sword (*gladius*) and several fittings of the associated scabbard have survived. The scabbard was probably made of leather-covered wood, perhaps with the additional layer of a thin metal (silver?) sheet. The scabbard mouth fitting and both transverse fittings (the lower one found in 1998), with suspension rings used to attach the scabbard to the military belt, are preserved. The fittings were of high-quality silver (c. 95% silver) and were (partially) gilded (see the centurion shown on Fig. 89). It is clear from the original publication of the sword (Stare 1953), that the upper and lower handle terminals were covered with a silver sheet. The central part of the handle may also have been covered by a silver sheet, as in the case of the sword from Rheingönheim on the Rhine (*cf.* Ulbert 1969, 44, pls. 32: 1, 4, 56: 1). It might also have been made of ivory.

The stylistic features, the motifs and the workmanship of the decoration on the scabbard fittings, as well as on the belt fitting Cat. 60 suggest that they are products of the Augustan period and originate in Italian territory. The vine and the exuberant natural foliage were favourite motifs of the Augustan Age. They endorsed the fertility, prosperity and abundance of the new, Golden Age, which was deemed paradise on Earth, its beginning having been proclaimed in the spring of 17 BC. The sword and scabbard are exceptional and prestigious products. It is presumed that only a few soldiers, probably of high rank, could afford such exceptional swords (Istenič 2003b, 282–286).

The sword is not part of the ‘Hoard of Vrhnika’, as mentioned in the original publication (Stare 1953) and quoted several times (Horvat 1990, with cited bibliography; Künzl 1996, 421–423, 458: M 36, pl. 57: 3–4), but was found in the Ljubljana (Istenič 2003b; Bras Kernel 2006).

The presumed original appearance of the sword in the scabbard is shown in Fig. 89 (centurion).

*ji*



## 62

**Sword in a scabbard;** iron, brass, tinned copper, tinned brass (PIXE) and wood. L. of sword 72.3cm, L. of scabbard 58.6cm. Ljubljana, near Bevke, Krajna or Na zrnici. NMS, Inv. No. R 17110.

Istenič 2006a, 101, fig. 79: 4.

A thin brass sheet is tinned on the outer surface and covers the entire front of the scabbard. The wood from which the scabbard's body was made has not survived. The transverse fittings and the chape fitting with openwork decoration are all made of brass. The scabbard was fastened to a military belt by suspension rings on each side of the upper two transverse fittings (cf. Fig. 89). Only fragments of the iron binding that was placed over the whole length of the scabbard and joined its upper and lower plate are preserved. Of the sword hilt, only the iron tang and tinned copper oval that covered the underside of the hand-guard survive.

The sword and its scabbard are excellently preserved examples of an early Roman type of short sword and associated scabbard (type Mainz). It was a typical offensive weapon of the Roman infantry (legionaries and auxiliary units) from the Augustan period to the middle of the 1<sup>st</sup> century (Deschler-Erb 1999, 23; Bishop, Coulston 2006, 78–83). Most of these swords or their scabbards, some of them outstandingly well preserved, have been found in the Rhine at Mainz (11 examples); most fragments have been discovered in a rubbish deposit at the legionary fortress at *Vindonissa* (i.e. Brugg/Windisch), in Switzerland (31 examples; cf. Künzl 1996, 449–460). The Roman swords and scabbards from the Ljubljana are mainly of this type.

Sword scabbards with fittings with openwork decoration date to the Augustan period (Istenič 2003c, 274–275). The sword and its associated scabbard Cat. 62, besides the examples from the Rhine at Mainz (Künzl 1996, 451, OI 11-16, fig. 7: 2.3, pl. 39: 1–5) and the example from the Sava at Dubravica (Vujović 2001, 119–121, pls. 2–5), are among best preserved swords and scabbards of the Mainz Type.

For a reconstruction of the sword in its scabbard see Fig. 89 (the saluting soldier).

*ji*



**Medallion, probably from a military award;** pewter, silvered at the front (XRF, PIXE). Diam. 4.8cm. Ljubljana, near Bevke, Krajna. NMS, Inv. No. V 1881.

Istenič 2003a.

The very well preserved medallion, with a full-face bust of a middle-aged man en face, in relief, was cast in pewter and silvered on the front. The man is dressed in a tunic and toga and is wearing a laurel wreath. A sceptre surmounted by an eagle is depicted to the right of his face, and to the left is a branch with leaves growing on a branch in pairs, with fruit on long stalks.

The characteristics of the face, neck and hairstyle indicate that this is the emperor Augustus. To be precise, the image corresponds to the Prima Porta type, which was used from 27 BC onwards. The laurel wreath, sceptre, tunic and toga are symbols of a triumph, *i.e.* a celebration in Rome in honour of a victorious army commander. The myrtle branch shown on the right symbolises a triumph in a bloodless victory. It alludes to Augustus' victory over the Parthians in 20 BC, which was not achieved by war, but by diplomatic means. This

was represented as a highly significant achievement in Roman propaganda (Istenič 2003a).

The appearance and composition of the back of the medallion indicate that it was fixed to a metal backing. It was probably part of a military award (Istenič 2003a; *cf.* saluting soldier on Fig. 89) called *phalerae*. From the era of Augustus onwards, soldiers up to the rank of centurion were awarded *phalerae*. Depictions on gravestones show that sets of usually nine *phalerae* were attached to leather straps and worn on the chest and stomach area. Most of the soldiers who received them were also given torcs and bracelets (Maxfield 1981, 91–95; Steiner 1906, 14–22; *cf.* Cat. 64).

*ji*

## 64

**Military award;** tin (XRF, PIXE). L. 12.4cm, W. 9.2cm. Ljubljana, near Blatna Brezovica, Bržič. FM, ZN 137/8.

The object is probably a Roman military award called a *torques*. Initially, the Romans used this word (also *torquis*, from: *torqueo* = to twist) for necklets made of spirally twisted wire with expanded terminals, characteristic of the Celts and numerous other barbarian groups. Celtic warriors and nobles wore torcs around their necks as a symbol of power (Beck, Chew 1991, 69).

On the model of torcs seized in battles from the Celts, the Romans named and designed one of their military awards. Images on Roman gravestones show that torcs were of several forms. They were granted, usually as a pair, to legionaries up to, and including, the rank of centurion, and worn over the cuirass, just below the collar bones (Maxfield 1981, 89–91, pls. 6b, 14b; *cf.* Fig. 89: the saluting soldier).

Torcs similar to the one from the Ljubljana are shown on Roman gravestones (*e.g.* Maxfield 1981, pls. 6b, 7b, 11b), but there is no similar item among the extremely rare finds of Roman torcs. The ornament of birds with their heads turned back resembles the decoration on cooking pans

from the Augustan and early Tiberian period (*cf.* Cat. 55), providing a hint to the dating. This corresponds well with the fact that most of the Roman military finds from the Ljubljana stem from the Augustan period (*cf.* Istenič in this volume, p. 86–87; Istenič 2009). The torc was made of tin, which probably resembled more prestigious and expensive silver.

Roman military awards in the form of bracelets (*armillae*) were the same or similar in shape to torcs, yet smaller; they were worn on both wrists (Maxfield 1981, 89–91, fig. 9; *cf.* Fig. 89). Indeed, as to the form, Cat. 64 could be an *armilla*, but it seems to be too big for this.

*ji*



## 65

**Button-and-loop fasteners;** pewter (XRF). Diam. 2.7cm. Ljubljana, near Blatna Brezovica, Tri lesnice and Ljubljana, in Ljubljana, Livada. NMS, Inv. Nos. V 1453 and V 2111.

The relief decoration on the two button-and-loop fasteners show a man in profile. From a comparison with depictions on Roman coins, he can be recognised as Octavian or Emperor Augustus, as he was known after 27 BC. The curved wand (*lituus*) and single-handled jug next to him are priestly symbols. Augurs (priests) observed the signs of gods (*e.g.* by observing birds) and interpreted them as favourable or unfavourable. Augurs had many privileges (*e.g.* they were elected for life) and an important political position – any significant act of the Roman state could be undertaken only after an augur had recognised a propitious sign from a god (Stevenson 1982, 95–96). It seems that the depiction on the button-and-loop fasteners was intended as a reminder that Augustus was not only a secular, but also a religious leader of the Roman state. Indeed, he became an augur in the middle of the 30-ies BC at the latest (*cf.* Trillmich 1988, cat. 309).

Both button-and-loop fasteners probably had a loop fixed at the back (still partly preserved on Inv. No. V 1453), which can also be seen on an almost identical item from an unknown location (Künzl 1996, 433, pl. 50: 7; Künzl 1988, 560–561, cat. 387). The images on these button-and-loop fasteners indicate that they were used in a military milieu, where they could have been used for various purposes, such as on military belts (*cf.* Deschler-Erb 1999, 68; Künzl 1996, l. c.; Fig. 89: the saluting soldier). They were probably used much as buttons are used today (*cf.* Fig. 87).

*ji*

## 66

**Sword;** iron, tinned copper (PIXE) and bone. L. 60cm. Ljubljana, near Blatna Brezovica, Lipavec. NMS, Inv. No. V 444.

Istenič 2006a, 101, fig. 79: 5.

The shape of the sword blade indicates that it is an early (*i.e.* Augustan) example of a short sword with waisted blade and relatively long tapering point (Mainz type; *cf.* Cat. 62); nearly all early Roman swords from the Ljubljana are of this type (*cf.* Istenič 2009).

The handgrip, of bone, survives, with the exception of the fourth segment, where the little finger fitted. It appears that this sword is the only early Roman short sword with a surviving bone handgrip. Many bone handgrips, no longer attached to the swords, were discovered in a rubbish deposit of the fortress at *Vindonissa* in present-day Switzerland (*cf.* Unz, Deschler-Erb 1997, 15, pl. 3: 25–43).

The handgrips of early Roman short swords were made of bone or wood, and rarely, probably in the case of prestigious swords, of ivory (*cf.* Unz, Deschler-Erb 1997, 14–15, pls. 2, 3).

*ji*



## 67

**Sword in a scabbard;** brass (PIXE), iron and wood. L. of sword 69cm, L. of scabbard 65cm. Ljubljana, near Blatna Brezovica, Dolnji breg. NMS, Inv. No. V 1366.

Istenič 2000a; Šmit, Pelicon 2000.

The blade of the sword and the associated scabbard survive, but the handle is missing. The scabbard seems to have been made of two wooden halves, the front and back, which were probably covered with leather. They were fixed together with a U-shaped brass guttering. On the front of the scabbard is a net-like brass fitting, and on the back are two transverse fittings and an unusual mount terminating in four animal-head terminals on the front of the scabbard (only two survive). A substantial rectangular mount with two holes is transversally fitted through the mid-point of this mount and into the wood beneath. The iron sword blade can be seen in several places where the scabbard is damaged: the blade's width is estimated at 4.5cm at most.

The scabbard is unique among Roman weapons; comparing it with slightly similar scabbards, a date between *c.* 60/50 and 30 BC seems probable (Istenič 2000a). The scabbard is the oldest example of a Roman weapon with brass decoration (Istenič 2000a; Šmit, Pelicon 2000). Brass, an alloy of copper and zinc, was not known in western and central Europe prior to the Roman period. The Romans, who presumably encountered brass in Asia Minor, started to use and produce it about 60 BC (Istenič 2005; Istenič, Šmit 2007).

*ji*



## 68

**Dagger and its scabbard;** wood and iron, decorated by brass, enamel and pewter (PIXE, NR). L. of the dagger 34.1cm, L. of the scabbard 26.4cm. Ljubljani-  
ca, near Rakova Jelša, Rakova jelša. NMS, Inv. No. V 417.

Rant *et al.* 1994; Svoljšak *et al.* 1997, 259–260, figs. 32, 33.

The dagger and the scabbard are among the best-preserved Roman daggers and their scabbards (*cf.* Fig. 29).

The handle is of sandwich-like construction, in that the exterior is formed of two iron plates, whereas the interior comprises a flat tang. The two iron plates encased the upper end of the blade and the tang, as well as the wooden parts on both sides. The wood is partly preserved only in the upper disc of the handle, as neutron radiography (Fig. 30) clearly reveals. The front of the iron handle was decorated with red enamel. The gap between the two iron plates of the handle was closed from the side by a strip of brass sheet, surviving only as a small fragment on the upper disc. The front of the iron scabbard was decorated with red enamel and brass inlays, which delimited circular, rectangular and triangular ornamental areas, as well as with red enamel encircled by a shiny silver-like layer of pewter at the tip of the scabbard. The iron must have been darkened (*cf.* Obmann 2000, 7), otherwise the decoration with silver appearance would not have stood out and would not have had a decorative effect.

Fig. 88 shows the presumed original appearance of the dagger in the scabbard, and Figs. 87d and 89 indicate one of the ways in which the scabbard with the dagger may have been fastened to a military belt.

The construction and decoration characteristics of the scabbard and dagger indicate a date from the Augustan period to the middle of the 1<sup>st</sup> century (*cf.* Obmann 2000, 6, 8–9).

*ji*

## 69

**Dagger in a scabbard;** iron, decorated with silver inlay, green enamel and tinning (PIXE). L. of the dagger 31.3cm, L. of the scabbard 26.7cm. Ljubljani-  
ca, near Črna vas. NMS, Inv. No. V 1714.

Most of the dagger handle has been lost. The blade, still in its scabbard, can be seen in an X-ray photograph (Fig. 28). The front of the scabbard is divided into four sections, each decorated with silver inlay and green enamel, which survives only in the second section. The front of the scabbard's circular tip is tinned, with the exception of a small circle in the centre, which was probably enamelled. The silver inlay and tinned surface indicate that the iron was blued by one of various methods, otherwise the decoration would not have been effective (*cf.* Obmann 2000, 7; Istenič 2009a).

The dagger and its scabbard are of the same early Imperial type as Cat. 68 (Mainz-type). The characteristics of the scabbard decoration suggest a date from some time during the reign of Tiberius up to the middle of the 1<sup>st</sup> century (*cf.* Obmann 2000, 6, 9).

Daggers were used by both legionary and auxiliary infantry, and probably also by some cavalymen (Bishop, Coulston 2006, 85). Scabbards were fastened to military belts by suspension rings (*cf.* Cat. 68; Figs. 87d, 88). They were worn at the hip, opposite the sword (*cf.* Fig. 89).

*ji*



**Metal parts of two javelins;** iron. L. 105cm and 96cm. Ljubljana, near Bevke and Ljubljana, near Blatna Brezovica, Tri lesnice. NMS, Inv. Nos. R 8123 and V 1454.

The javelin (*pilum*), a typical Roman close-range weapon, was designed to pierce an enemy shield and body. The shank usually bent after piercing a shield (cf. Cat. 70, right) and consequently became unusable. The javelin was a legionary weapon, in use from at least the 3<sup>rd</sup> century BC onwards (Bishop, Coulston 2006, 50–53, 225–227; Feugère 1993, 166–169; Deschler-Erb 1999, 19).

The Cat. 70 items comprise the main metal parts of javelins with a pyramidal head and narrow, flat tang. Eight other javelins of the same type were found in the Ljubljana.

Javelins of this type have usually been found at Augustan military sites, but they are also known from sites of the 1<sup>st</sup> century AD. Items with surviving wooden parts were found in the fortress at Oberaden on the River Lippe (Germany), which is dated between 11/10 and 8/7 BC (Kühlborn 1992, 123, 133). These show how the iron part of the javelin was riveted into the pyramidal expansion of the shaft (Bishop, Coulston 2006, 73–76, fig. 36).

On one of the javelins Cat. 70, a flat tang with a hole survives; an iron rivet passing through the wooden shaft and the hole in the tang fixed the iron part of the javelin to the wooden shaft. Moreover, on the same javelin the iron pyramidal cullet that reinforced the upper part of the wooden shaft also survives (cf. Radman-Livaja 2004, fig. 1). This type of mount was introduced in the Augustan period and used until the mid 1<sup>st</sup> century (Deschler-Erb 1999, 19–20).

*ji*

**Turf-cutters;** iron. W. 33.8cm, 28.1cm and 38cm, weight 1154g, 1066g and 1644g. Ljubljana. NMS, Inv. Nos. V 1891, V 1892 and V 1927.

Roman soldiers used a special tool for cutting turf. It was of a wide penannular form, with a long, distinctly convex blade and a shaft. It was hafted to a fairly short wooden handle (cf. Junkelmann 1997, fig. 69c), which made it possible for the user to put pressure on it and, with left-right movements parallel to the blade, cut turf 15–20cm deep.

Six tools of this kind are known from the Ljubljana (Cat. 71 and three others). Given their size, one can assume they were all used by soldiers; smaller ones are thought to have been used by civilians (Pietsch 1983, 64).

Cutting turf was a frequent and important job in the Roman army, as turf 'bricks' were used as building material in various defensive structures, e.g. ramparts and walls. For example, the Antonine Wall in Scotland was made of such 'bricks'. Vegetius, who compiled a work on warfare (*Epitoma Rei Militaris*) in the late Roman period, using earlier sources, stated that each turf brick should be half a foot (*pes*) high, one foot wide, and one and a half feet long (Vegetius III, 8; quote from Milner 1996, 80). Such a turf measured 15 × 30 × 45cm.

*ji*

## 72

**Pickaxes;** iron. L. 32cm, 36.7cm and 44.5cm, weight 1510g, 1550g and 1948g. Ljubljana, near Podpeč, Ljubljana, and Ljubljana, near Blatna Brezovica, Lipavec. NMS, Inv. Nos. V 338, V 1941 and FP, ZN 260/4.

Svoljšak *et al.* 1997, 261, pl. 16: 2 (Cat. 72, top); Gaspari 2002a, 120, 298, pl. 25: 1 (Cat. 72, bottom).

The pickaxe (*dolabra*) was a standard Roman military tool. It consisted of an iron section hafted to a long wooden handle. The iron part had a wide axe blade, oriented parallel to the handle, and a (usually opposing) tine or chisel-shaped pick. It was used for breaking up ground, e.g. for entrenching and rampart building, for clearing scrub and cutting trees, for the rough treatment of wood, and removing obstacles such as palisades, or sometimes even for fighting. When not in use, the axe blade was protected by a metal sheath (Grote 2005, 42–44; Pietsch 1983, 15–17; Pohanka 1986, 96–102; Junkelmann 1997, 203–205, figs. 69c, 70b–d; cf. Fig. 89).

A similarly shaped tool, but usually smaller, was used by civilians, most often in agriculture, forestry, the treatment of wood and stonecutting. Of eight pickaxes found in the Ljubljana, four can be classified as military tools, probably dating to the Augustan period or the 1<sup>st</sup> century AD (cf. Franzius 1992, 376–377, fig. 18: 1; Gaitzsch 1993, 88–90, figs. 72–74, 260, pl. 65: Ger 10; Grote 2005, 42–44, figs. 3, 53, 54; Harnecker 1997, 46, pl. 1: 3; Pietsch 1983, 15–17).

*ji*



**Brooches;** brass and iron (XRF). L. 4.7cm and 6.1cm. Ljubljani-  
ca, near Bevke, Trebež. FM, ZN 263/17, 15.

With the Alesia type brooch (Cat. 73, on the left), the Romans introduced a new type of mechanism – a hinge instead of a spring, which had characterised all previous brooches. These were named after a Gaulic settlement (*oppidum*) called Alesia conquered by Julius Caesar after a long siege in 52 BC. Brooches of this type were made of an entirely new alloy, *i.e.* brass (an alloy of copper and zinc), which was not produced in European prehistoric cultures (Istenič 2005; Istenič, Šmit 2007; *cf.* Cat. 67). It appears that the brooches of the Alesia group were in use at least since Caesar's Gallic Wars (58–51 BC), mostly by Roman soldiers, for fastening their cloaks.

Around the early Augustan period, another type of brooch developed from the Alesia-type,

also having a hinge, but differing in details from the earlier type (Cat. 73, right). Sometimes brooches of this type have a stamp on the front of the head. Their name derives from the most frequent stamp (AVCISSA). Aucissa brooches are more common and widespread than the Alesia predecessors; they were worn by Roman soldiers, as well as civilians. Most of them date to the Augustan period, but were made until the mid 1<sup>st</sup> century AD (Eric Lacabe 1995, 111–145). They were usually made of brass. However, the brooch from the Ljubljani-  
ca is iron; only the knobs on each side of the hinge and at the end of the foot are of brass. Before the iron corroded, it had a grey metal shine, which matched well the gleaming gold knob-ends.

*ji*

## 74

**Button-and-loop fastener;** silver, gilded at the front (XRF, PIXE). Diam.  
4.0cm. Ljubljani-  
ca, near Bevke, Kamin. NMS, Inv. No. V 449.

The item has a substantial double loop, and a relatively thin circular head, with a convex round protrusion in the centre. This is decorated with a four-leaf rosette, chased by tiny circles and lines, and a round decorative terminal in the centre. The flat part of the head, which is bordered by two ribs on the inner and outer edges, bears a rosette of 15 triangular petals. This decoration is also chased: the petals with minute lines, and the background with minute dots.

A similar button-and-loop fastener with a double loop, but with simpler decoration, was found in the fortress at Vindonissa (Windisch; Switzerland), together with a sword in its scabbard and parts of a military belt from the Tiberian period. It was probably used for fastening the military belt (Deschler-Erb 1996; Deschler-Erb 2005, 241, fig. 294).

Button-and-loop fasteners with double loops were probably used in the same way as those with single loops (*cf.* Cat. 65). One of the possible uses of the button-and-loop fastener Cat. 74, *i.e.* as one of the two items on the military belt to which the dagger's scabbard was attached, is shown in Figs. 87d and 89. The probable method of attaching the button-and-loop fastener to the military belt is indicated in Fig. 87.

Button-and-loop fasteners with double loops are rare finds, and were only used until the Flavian period (Deschler-Erb 1999, 68). The skilful decoration and minutely chased circles suggest an Augustan date for the button-and-loop fastener Cat. 74 (*cf.* Cat. 60 and 61).

*ji*

## 75

**Buckle with a fitting;** brass, silvered at the front (PIXE). W. 2.6cm, L. 6.9cm.  
Ljubljani-  
ca, near Rakova Jelša, Rakova jelša. NMS, Inv. No. V 1629.

Šmit, Istenič, Knific 2008, fig. 4.

The buckle and the fitting have twin loops, each of which, together with the axis, forms a hinge. The fitting was fixed to a *c.* 4mm thick leather belt with four copper rivets. The fact that the rivets are not visible on the front allows the assumption that it was silvered only after it had been riveted to the leather.

Similar, but usually slightly wider buckles with fittings belong to military belts of the Augustan to the early Flavian period (*cf.* Unz, Deschler-Erb 1997, 34, pl. 41: 1045–1054; Deschler-Erb 1999, 40–41, 43, cat. 276–288, 318–331).

Military belts were used for carrying daggers and swords. The military belt clearly differentiated soldiers from civilians. Soldiers in the Augustan period and in the 1<sup>st</sup> century could wear two belts (one carrying a sword, and the other a dagger) or only one belt, on which both side arms, or only the dagger hung. In the latter case, the sword was carried on a belt over the shoulder (*baldric*). It seems that how belts and side-arms were worn was related to the three different types of cuirass (*cf.* Fig. 89; Deschler-Erb 1999, 40–44; Deschler-Erb 1996, 86).

*ji*



a



b



**Helmet**; bronze, brass and copper (XRF, PIXE). H. 19.3cm. Ljubljana, near Vrhnika, Dolge njive. NMS, Inv. No. V 1950.

The whole helmet, including a crest knob at the apex, was made in one piece. Marks on the interior surface indicate that it was beaten into shape, and the exterior surface suggests that it was smoothed while being turned on a lathe. An upright groove on the top of the crest knob, and holes on its sides, were used to attach the decoration, which was probably also fixed to the back of the helmet, where the remains of a holder survive. Brass plume-tubes were soldered onto the left and right side of the helmet. The bottom of the left plume-tube is relatively well preserved. Cheek-pieces were attached to the helmet by hinges. The hole in the neck-guard indicates that a carrying handle was riveted to it (*cf.* von Detten, Schalles, Schreiter 1993, 178–185). The helmet does not have a brow-guard, and it appears that it never had one. The helmet when polished would have had a golden finish (*cf.* Cat. 35 and Fig. 89).

An inscription executed in punctile work is visible on the underside of the neck-guard: P. OPPI .>. CRACCI. The owner of the helmet, *Publius Oppius*, served as a soldier in a *centuria* under the command of a man with the third name (*cognomen*) *Craccus* or *Graccus*, or, less probably, with the second name (*nomen gentile*) *Craccius* or *Graccius*. The name of the owner indicates that he was a Roman citizen, which implies that he was a legionary (I am grateful to Milan Lovenjak for interpreting the inscription).

The helmet is an early Empire bronze type that originated from the tradition of Etruscan-Italic helmets of the Republican period. The characteristics of the helmet and its manufacturing technique, which are described above, indicate a date from the mid- to late-Augustan period (*cf.* Waurick 1988; Schaaff 1988; Paddock 1985).

*ji*

## 77

**Shield boss**; brass (XRF). Diam. 21.0cm, Th. 0.05–0.1cm. Ljubljana, near Blatna Brezovica, Bistra. FP, ZN 249/9.

The shield boss was made from a brass sheet, on a lathe, probably with the help of a wooden model (*cf.* Braun-Feldweg 1988, 165–166). The central part is convex. The rim is in the shape of an eight-pointed star. Each of the points on the star-shaped flange bears a small raised boss, made by embossing from the back. Concentric grooves can be seen on the passage between the flat rim and convex central part.

The shield boss was riveted to the shield with six rivets. Two semi-circular brass nail heads, with a diameter of 1.5cm, and four rivet holes survive.

The eight-pointed star shape of the shield boss has good parallels only among the finds from the Roman garrisoned town of Dura Europos on the eastern fringe of the Roman Empire, destroyed by the Persians in 256. They come from oval wooden shields, around 1m high and about 0.9m wide, which were painted with lively colours. They are dated to the middle of the 3<sup>rd</sup> century and seem to be typical of Syria. The painted decoration on the shields may have been specific to a particular unit (James 2004, 159–170, 174–175, fig. 95, nos. 603–606).

It was probably a Roman soldier from Syria who, in the 3<sup>rd</sup> century, brought the shield with the shield boss Cat. 77 to the territory of present-day central Slovenia.

*ji*



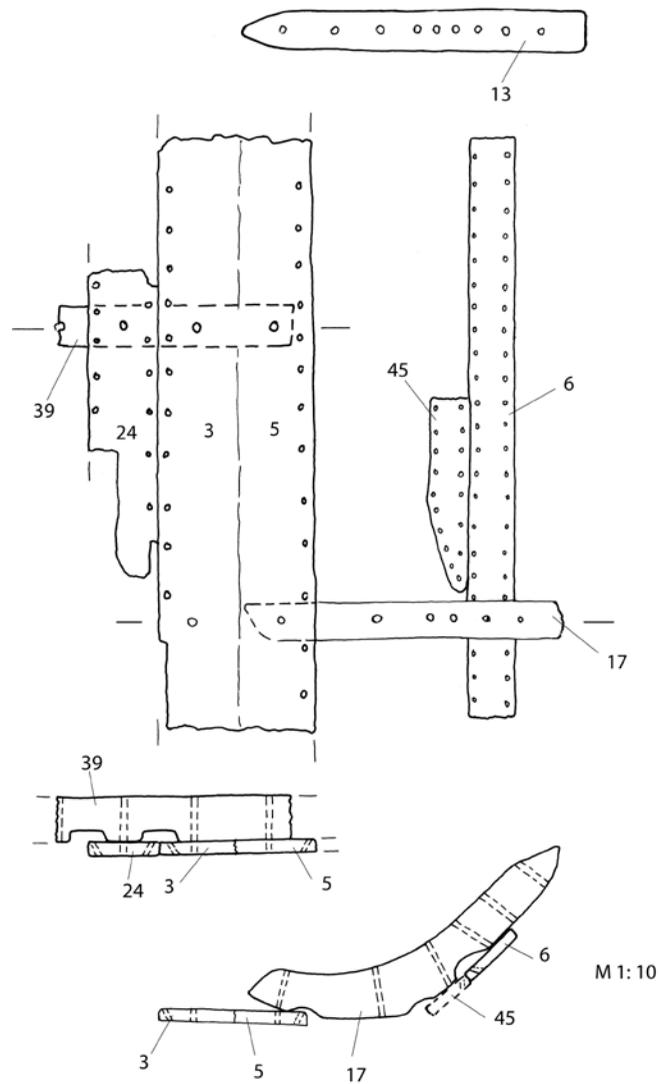
## 78

**Parts of a ship;** wood. L. of the largest part 120cm. Ljubljansko barje, Lipe. NMS, Inv. Nos. P 3881/39, P 3882/13, 17 and P 3883/3, 5, 6, 24, 45.

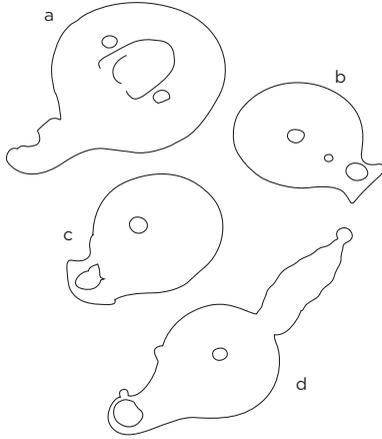
Near Lipe, about 300m from the riverbed of the Ljubljanica, a large Roman ship was found (for a detailed description *cf.* Gaspari in this volume, pp. 116–119).

Cat. 78 comprises fragments of the ship, chosen to show its construction: three fragments of two floor planks (Nos. 3, 5 – fragments of the same floor plank, and No. 24), a fragment of a floor timber (No. 39), two knees (Nos. 13, 17) and two fragments of side planks (Nos. 6, 45). The drawing shows how these parts of the ship (or others, similar to them) related to one another.

*ji*







## 79

**Oil lamp** (a); pottery. L. 14.5cm. Ljubljana, near Črna vas. NMS, Inv. No. V 232.

Logar, Bitenc 1984, 102, pl. 3: 1.

**Oil lamp** (b); pottery with black slip. L. 9cm. Ljubljana, near Bevke, Krajna. NMS, Inv. No. V 2191.

**Oil lamp** (c); pottery with brown-red slip. L. 9.9cm. Ljubljana, near Vrhnika. NMS, Inv. No. R 1860.

Horvat 1990, 304, cat. 686, pl. 37: 2.

**Oil lamp** (d); bronze (XRF). L. 15.6cm. Ljubljana, near Črna vas, Ljubljanske senožeti. NMS, Inv. No. V 1885.

Oil lamps were the characteristic Roman lights. The wick, which protruded through the hole in a nozzle, used olive oil as fuel.

Pottery oil lamps are frequent finds, especially from graves. Thirteen are known from the Ljubljana, most of them from Vrhnika. Bronze oil lamps are rare; in the Ljubljana, two have been discovered so far (d and Fig. 108). Roman lamps from the Ljubljana date from the Augustan period to the 3<sup>rd</sup> century.

The earliest is the lamp with black slip on the surface and an angular nozzle (b; cf. Farka 1977, 29–32), which dates to the (early) Augustan period.

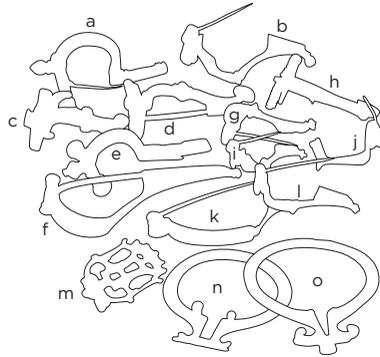
The lamp with relief decoration on the disc and two volutes on the nozzle (c) represents one of the two variants of lamps (Loeschcke I A and B), of which five items were discovered in the Ljubljana. They probably originate from Italy and were manufactured in the 1<sup>st</sup> century AD (Istenič 1999, 160–161).

Six examples of lamps found in the Ljubljana are so-called *Firmalampen* (a) and date from the last third of the 1<sup>st</sup> century to the 3<sup>rd</sup> century (cf. Istenič 1999, 150–153). Their name, which is German, derives from the name-stamp on the base.

The bronze lamp with two volutes and a (laurel?) leaf above the handle (d) was probably made in Italy in the mid-1<sup>st</sup> century AD (cf. Conticello De Spagnolis, De Carolis 1988, 55–62).

*ji*





## 80

**Brooches and belt buckles;** copper alloys. L. of the largest brooch 9.8cm. Ljubljana. FM, ZN 263/19, NMS, Inv. Nos. V 1917, V 1919 (d, e, m). Ljubljana, near Blatna Brezovica, Tri lesnice. FM, ZN 259/15, NMS, Inv. No. V 1975 (j, n). Ljubljana, near Blatna Brezovica, Bistra. NMS, Inv. No. V 2334 (a). Ljubljana, near Bevke, Krajna. FM, ZN 263/18, 22 (f, i). Ljubljana, near Podpeč, Velike senožeti and Deli. FM, ZN 263/26, 20, 21, 259/8 (b, g, l, k), FM, ZN 259/13 (c). Ljubljana, in Ljubljana, Livada. FM, ZN 259/14, NMS, Inv. No. V 2415 (h, o).

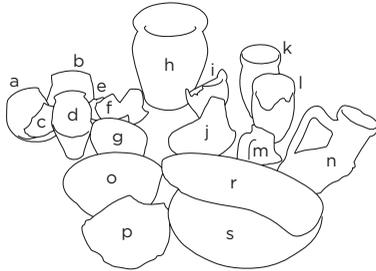
Brooches were part of traditional clothing in the Roman provinces, worn by both men and women. Depictions show that they were used for fastening cloaks and other clothes. They were usually fastened so that the head of the brooch, *i.e.* the side where the spring or the hinge are, was turned downwards. Men usually wore a brooch which fastened the cloak on the right shoulder, while women wore two or more brooches.

The brooches found in the Ljubljana span the era from the Augustan to the late Roman period in roughly equal numbers. Cat. 80 comprises brooches from the last decades BC to the first decades AD (Cat. 80f, k; Demetz 1999, 99–105), mid and second half of the 1<sup>st</sup> century (Cat. 80b, d, g–i; Istenič 1999, 59–60), 2<sup>nd</sup> and 3<sup>rd</sup> centuries (Cat. 80c, h, j, m; Istenič 1999, 61–62; Istenič 2000b, 190, pls. 125: 10, 126: 1; Gugl 1995, pl. 5: 41; Riha 1994, 77) and late 3<sup>rd</sup> to 4<sup>th</sup> century (Cat. 80a, e; Pröttel 1988). Brooch Cat. 80f probably dates to the last two or three decades BC, and has characteristics of more than one type: the hinge of the Aucissa type (*cf.* Cat. 73) and the bow and foot of the Idrija Ia type (*cf.* Demetz 1999, 123–127, pl. 33: 3–4).

Objects Cat. 80n and o were probably belt buckles used for fastening leather belts. They were worn mostly by soldiers in the 3<sup>rd</sup> and early 4<sup>th</sup> centuries (Radman-Livaja 2004, 95, pl. 44, cat. 296).

*ji*





## 81

**Vessels and parts of vessels;** pottery. H. of the largest vessel 16.5cm. Ljubljana. NMS, Inv. Nos. V 113, V 29 (e, s). Ljubljana, near Vrhnika, Dolge njive. NMS, Inv. No. V 1564 (k). Ljubljana, near Verd. NMS, Inv. No. V 825 (p). Ljubljana, near Blatna Brezovica. NMS, Inv. Nos. V 866, V 2303, V 460, V 2386, V 1084, V 1259 (a, f, h, i, j, r). Ljubljana, near Bevke. NMS, Inv. Nos. V 2271, V 2297, V 2279, FP, ZN 260/12, NMS, Inv. Nos. V 2175, V 782 (c, d, g, l, n, o). Ljubljana, near Podpeč. NMS, Inv. No. V 811 (b). Ljubljana, near Rakova Jelša. NMS, Inv. No. V 2522 (m).

*Podvodna arheologija v Sloveniji* II, 109, pl. 14: 12 (Cat. 81s).

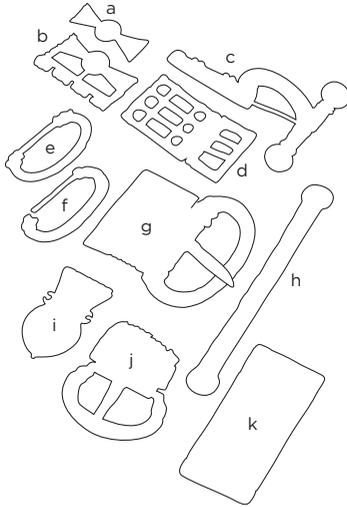
Pottery was widespread and relatively cheap in the Roman period. Moreover, pottery is resistant to environmental factors, so it is not surprising that it comprises the most frequent group of Roman finds from the Ljubljana.

While, for example, amphorae seem to be rare in the Ljubljana (cf. Cat. 57 and 58), fine Italian tableware is relatively abundant. Its oldest examples are cups and dishes, with a black (sometimes dark brown) slip (Cat. 81j, o), and a tall beaker with an everted rim (Cat. 81d), dating from the second half of the 2<sup>nd</sup> century to the middle of the 1<sup>st</sup> century BC (cf. Frontini, 1985, 15, form 28; Ricci 1985, 243–245, pl. 78: 7). Thin-walled cups (Cat. 81 a–c, e–g), small vessels with a glossy red slip, often with name stamps on them (Cat. 81p) and decorated beakers with a red slip are later (Cat. 81k, l), dating to the Augustan period and the first half of the 1<sup>st</sup> century AD. Cat. 81 also comprises a coarse-ware jar (Cat. 81h), a cup with everted rim, probably manufactured at *Emona* (Cat. 81i; Istenič 1999, 114), fragments of two single-handed jugs (Cat. 81m, n) and two platters (Cat. 81r, s). The fabric (*i.e.* the structure of pottery) and the typical groove on the rim of the larger platter (Cat. 81r) indicate that it was made in Italy between the 2<sup>nd</sup> century BC and the 1<sup>st</sup> century AD (Olcese 2003, 86, pl. 15: 1).

A group of mortars of the same type (Cat. 59), as well as the recently discovered shipwreck with Roman tiles in the Ljubljana, at the confluence with the Ljubija stream (Gaspari 2008a), suggest that many Roman finds from the Ljubljana originate from shipping on the river.

*ji*





## 82

**Belt buckles, belt-fittings, strap-terminal and brooch;** bronze. L. 3.9cm (a), 2.6cm (b), 8cm (c), 4.6cm (d), 2.2cm (e, f), 6.2cm (g), 11.6cm (h), 4.4cm (i), 5cm (j) and 6.8cm (k).

Ljubljana, near Vrhnika (h). Ljubljana, near Kamnik pod Krimom, Zornica (j). Ljubljana, near Podpeč, Dolenje senožeti (f). Ljubljana, near Podpeč, Deli (g). Ljubljana, near Lipe (a, b).

Ljubljana (c–e, i, k). NMS, Inv. Nos. V 2622, V 2621, V 1918 (a–c), V 1921, V 2551 (e, f), V 2892, V 1915 (h, i), V 1896 (k), FM, ZN 259/20 (d), ZN 153 (g), ZN 155/1 (j).

Bronze brooches and belt-fittings are among the most frequently found metal objects from the late Roman period. Simple cross-bow brooches were commonly used by soldiers from the end of the 3<sup>rd</sup> century and during the first half of the 4<sup>th</sup> century. One of the brooches from the Ljubljana (Cat. 80a) is among the oldest examples, dating to 280–320, while the other two (Cat. 80e and 82c) are later, dating from the second third of the 4<sup>th</sup> to the beginning of the 5<sup>th</sup> century (cf. Pröttel 1988, 349–353, 357–346). Roman government officials also used such brooches, especially more luxurious versions of them, during the second half of the 4<sup>th</sup> century (Theune-Großkopf 1995, 84, 87).

Soldiers used a variety of belts with metal buckles, strap-terminals and fittings. Rectangular buckles, with a double tongue, hinged to rectangular openwork fitting (Cat. 82d) were used between 350 and 380, mainly in the Upper and Middle Danubian basin (Böhme 1986, 482, fig. 11). Moreover, rectangular belt buckles hinged to propeller stiffeners were often used in the Middle Danubian basin (Böhme 1986, 484, fig. 12: 3); the partly preserved buckle from the Ljubljana was probably of this type (Cat. 82b). The propeller and other stiffeners (Cat. 82a, h), as well as strap-terminals (e.g. Cat. 82i), are also belt parts. Animal heads (Cat. 82e, f, j) are often depicted on mid 4<sup>th</sup> century belt buckles.

During the late 4<sup>th</sup> and at the beginning of the 5<sup>th</sup> century, belt buckles and fittings with punched decoration were common along the Rhine-Danubian frontier. The belt buckle from the Ljubljana, decorated with triangles (Cat. 82g), is an isolated example in Slovenia, but has numerous comparisons from Rhineland sites and the Upper Danube (Böhme 1974, 71, 367, 368, map 15). Contemporary with chip-carved decorations, numerous chased belt fittings occur on Roman territory along the Rhine and the Danube. This decoration is so characteristic, that it is known as ‘military style’. The rectangular chip-carved fitting from the Ljubljana (Cat. 82k) is the mount of a common army belt having five metal parts.

*tk*



