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ORIGINAL RESEARCH PAPER



Norico-Pannonian winged brooches from Brigetio

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ABSTRACT

This paper aims to present twenty-one Norico-Pannonian winged brooches from Brigetio. It focuses on their typological details, distribution areas, and chronology. Wearing habits can also be investigated based on burials and tombstone depictions. This paper also contributes to the manufacturing process and workshops of the variants from Brigetio.

KEYWORDS

Norico-Pannonian winged brooches, brooch workshops, brooch-wearing habits, Roman Period, Brigetio, Pannonia

INTRODUCTION

Several 20th-century monographs studied Roman Period brooches from Pannonia.¹ Since Brigetio is one of the province's most important settlements, a systematic investigation of brooches started in 2023. The project focuses on not just new finds but also old ones. Since 20th-century monographs discussed brooches with various methods and according to modern-day expectations, their presentation was often incomplete. Old finds should be collected and discussed again. Their reevaluation may add multiple details to our knowledge of brooches from Brigetio.

Most 20th-century monographs also discussed Norico-Pannonian winged brooches. This type has an important role due to its representation in burials, various kinds of settlements, and depictions of deceased persons. This paper contributes to our knowledge of this type with a detailed discussion of the typology, chronology, distribution, manufacturing, and wearing.

NORICO-PANNONIAN WINGED BROOCHES FROM BRIGETIO

Norico-Pannonian winged brooches represent a well-studied type. They have characteristic typology elements, are presented in graves and depictions, and their chronology is well-known. Focusing on their form, various characteristics should be presented. Specimens of Norico-Pannonian winged brooches have one- or two-piece construction, i.e. the pin construction and the rest of the brooch were manufactured from the same piece of metal or separately. They have a spring pin with an outer chord held by a hook or a chord cap (*Sehnenhaken*, *Sehnenkappe*) and occasionally fixed by a rod. Their bow is divided by a knob and wing-shaped projections, which are usually decorated with small knobs. The ends of the rod are sometimes decorated with knobs as well. The second part of the bow and the catchplate are merged and occasionally inseparable. The rectangular or trapezoid catchplate

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¹Kovrig (1937); Sellye (1939); Patek (1942); Garbsch (1965).

can be decorated with various techniques like openwork, engraving, and stamping; moreover, figural-shaped knobs and sometimes metal sheets and gemstones enhance the appearance.

Catalogue²

1. Typology: Garbsch A238u (Fig. 1.1)

Copper-base alloy. Pin construction: spring-pin, external chord, 4 + 4 coils. Hook. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented, three-quarters circle-shaped, rectangular knob and two bent wings with 1 + 1 small, cylindrical knobs. Bow (2): simple and undecorated, the high catchplate starts under it. Catchplate: trapezoidal, it turns to the right; decoration: two groups of drop-shaped openwork motives.

L. 13.3 cm, W. 2.1 cm³

Kunsthistorisches Museum, Wien, inv. no. VI 4134.

Szőny

Literature: Garbsch (1965) 73, 215, A238u/1, Abb. 39.

2. Typology: Garbsch A238u (Fig. 1.2)

The two-piece brooch is made of copper-base alloy. Pin construction: spring-pin, external chord, a rod, 4 + 4 coils. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented, three-quarters circle-shaped, rectangular knob and a ring-shaped wing with 1 + 1 casted, cylindrical knobs; the inside of the ring is filled with metal (burr). Bow (2): it has a round cross-section; the high catchplate starts under it. Catchplate: trapezoidal, it turns to the left; decoration: two groups of 8 and 5 fish-scale shaped openwork motives and engraved wolf's teeth-like curves (*Tremolierstich*).

L. 15.1 cm, W (pin construction). 2.4 cm, W (bow 1). 1.3 cm

Hungarian National Museum, Budapest, inv. no. 59.2.6.

Szőny, stray find from the *canabae*

Literature: Garbsch (1965) 73, 215, A238u/Nr. 6.

3. Typology: Garbsch A238u (Fig. 1.3)

The two-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented and rectangular knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 casted, cylindrical knobs. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: trapezoid, it turns to the left; decoration: 5 fish-scale shaped openwork motives.

L. 13 cm, W (bow 1). 3.6 cm

Komáromi Klapka György Múzeum, Komárom, inv. no. 2010.2.001.16.

Szőny, *canabae*, MOL Monitoring, rescue excavation between 2009 and 2010, stray find

Literature: Olasz (2017) Kat. 214, 20.3 tábla.

4. Typology: Garbsch A238u (Fig. 1.4)

The fragmented brooch is made of copper-base alloy. Pin construction, hook, bow (1), dividing parts: missing. Bow (2): it probably had a round cross-section. Catchplate: trapezoid, it turns to the left; decoration: four groups of 5 fish-scale shaped openwork motives and engraved wolf's teeth-like curves (*Tremolierstich*) and zigzag ornaments on the right side.

L. 7 cm, W (bow 1). 0.3 cm

Kuny Domokos Múzeum, Tata, inv. no. 72.46.1.

Szőny, legionary fort, MOLAJ, stray find collected by Jenő Petrovics

Literature: Kartali (2020) Kat. 146, I.4 tábla

5. Typology: Garbsch A238u (Fig. 1.5)

The two-piece brooch is made of copper-base alloy. Pin construction: made of iron, spring-pin, a rod, 4 + 4 coils, the external chord is missing. Hook: narrow, rectangular. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented and rectangular knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 casted, cylindrical knobs; the inside of the ring is filled with metal (burr). Bow (2): it has a round cross-section; the high catchplate starts under it, and the curved right side is decorated with an engraved wolf's teeth-like curve (*Tremolierstich*). Catchplate: broken, it probably turned to the left; decoration: incomplete, two groups of 7 and 1 fish-scale shaped openwork motives and the ending is decorated with an engraved fish-bone shaped motive on the left.

L (1). 10.4 cm, W (pin construction). 1.4 cm, W (bow 1). 1.1 cm; L (2). 4 cm, W. 0.4 cm

Kuny Domokos Múzeum, Tata, inv. no. 72.74.1.

Szőny, the area of the southern railway (west of the civil town), a stray find

6. Typology: Garbsch A238u (Fig. 1.6)

The two-piece brooch is made of copper-based alloy and covered with white metal. Pin construction: spring-pin, external chord, a rod, 4 + 5 coils. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: a knob consisting of two rectangular and plain ribs and two broken wings. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: trapezoidal, it turns to the left, the curved underpart of the catchplate is secondarily applied, probably fixed in the Modern Era; decoration: two groups of 8 and 5 fish-scale shaped openwork motives.

L. 15.4 cm, W (pin-construction): 3 cm, W (bow 1): 1.5 cm, C.s (bow 2): 0.6 × 0.4 + 0.2 × 0.5 cm

Hungarian National Museum, Budapest, inv. no. 27.1894.20–21.

Szőny, stray find, sold by Mihály Weiss

Literature: Patek (1942) 157, T. II.3/Nr. 3; Garbsch (1965) 73, 215, A238u/Nr. 8.

7. Typology: Garbsch A238v2 (Fig. 2.1)

The fragmented one-piece brooch is made of copper-base alloy. Pin construction: spring pin, external chord, a rod, 1 + 0 coils. Hook: cylindrical. Bow (1): it has a

²Abbreviation: L: length, W: width, Th: thickness, C.s: cross-section

³Description and sizes are based on J. Garbsch's monography. The brooch was not yet studied personally.



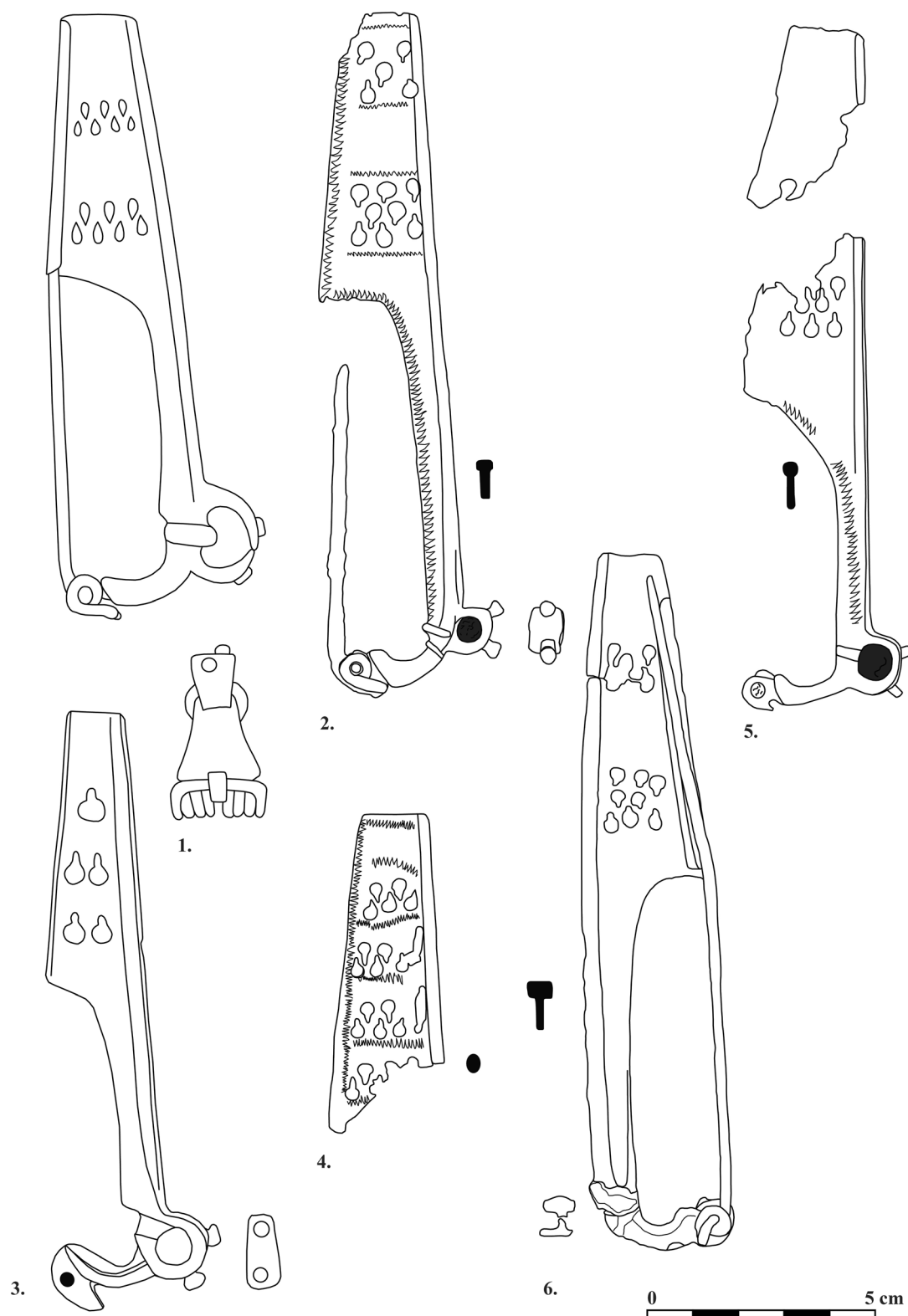


Fig. 1. A238u Norico-Pannonian winged brooches from Brigetio. 1: Cat. 1, 2: Cat. 2, 3: Cat. 3, 4: Cat. 4, 5: Cat. 5, 6: Cat. 6 (drawn by Cs. Sáró; Figs. 7/1 and 3 are based on [Garbsch, 1965, Abb. 39.1](#); [Olasz, 2017, 20.3 tábla](#))

- semi-circle cross-section. Dividing parts: consist of one unsegmented, three-quarters circle-shaped oval knob and two bent wings with 1 + 1 casted, small, cylindrical knobs. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: missing. L. 6.1 cm, W (bow 1). 1.6 cm, C.s (bow 2). $0.5 \times 0.2 + 0.4 - 0.2 \times 0.6$
Hungarian National Museum, Budapest, inv. no. 27.1894.22.
Szöny, stray find, sold by Mihály Weiss
8. Typology: Garbsch A238v5 (Fig. 2.2)
The two-piece brooch is made of copper-base alloy. Pin construction: spring-pin, external chord, a rod, 4 + 0 coils. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of an unsegmented, rectangular knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 small, casted, cylindrical knobs; the inside of the ring is filled with metal (burr). Bow (2): it has a round cross-section; the high catchplate starts under it. Catchplate: big, trapezoid, it turns to the right, decoration: 3 + 1 + 3 + 1 stamped dot circles. L. 12.3 cm, W (pin-construction). 2.1 cm, W (bow 1). 1.2 cm
Kuny Domokos Múzeum, Tata, inv. no. K-522c.
Szöny, civil town cemetery (II.), cremation grave, collected by Ödön Kállay
Grave goods: pottery: grey coarse, egg-shaped baker (Gátfalvi-Delbó, 2019, 238, Kat. 139, 16. tábla; Gátfalvi-Delbó, 2020, Fig. 2. Typ P1.2.), Iványi XVII factory lamp (*Firmalampe*) (inv. no. K-522b.)
9. Typology: A238v6 (Fig. 2.3)
The fragmented two-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented and rectangular knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 casted, small, cylindrical knobs. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: rectangular; decoration: the left side is decorated with punched dots. L (1). 4.6 cm, W (bow 1). 1.7 cm, L (2). 6.8 cm, W. 0.2 cm
Kuny Domokos Múzeum, Tata, inv. no. K-482c.
Szöny, civil town cemetery (II.), cremation grave, collected by Ödön Kállay
Grave goods: pottery: red-coated small jar with a spherical body and one handle (Gátfalvi-Delbó 2019, 328, Kat. 631, 50. tábla; Gátfalvi-Delbó 2020, Fig. 4.1. Typ K3.2.), red-coated *terra sigillata*-imitation, Drag. 54 baker (Gátfalvi-Delbó 2019, 348, Kat. 735, 57. tábla; Gátfalvi-Delbó 2020, Fig. 4.1. Typ P5.)
10. Typology: Garbsch A238v (v7?) (Fig. 2.4)
The fragmented brooch is made of copper-base alloy. Pin construction, hook, bow (1): missing. Dividing parts: consist of one unsegmented, rectangular knob and a ring-shaped wing with 1 + 1 casted, cylindrical knobs; the inside of the ring is filled with metal (burr). Bow (2): it has a round cross-section; the high catchplate starts under it. Catchplate: it is trapezoid, turns to the right; it was not decorated with openwork motives or pointed or stamped ornaments, only with engraved wolf's teeth-like curve (*Tremolierstich*) on the left side. L. 12 cm, W (dividing knob). 0.7 cm
Hungarian National Museum, Budapest, inv. no. 11.1952.
Szöny, Gerhát cemetery, stray find
11. Typology: Garbsch A238v (v7?) (Fig. 2.5)
The fragmented one-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: probably rectangular. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented, rectangular knob and a ring-shaped wing with 1 + 1 dome-shaped knobs. Bow (2): merged with the high catchplate. Catchplate: fragmented, rectangular (?); decoration: unperforated, engraved wolf's teeth-like curve (*Tremolierstich*) on the left side. L. 10.8 cm, W (bow 1). 1.3 cm
Hungarian National Museum, Budapest, inv. no. 52.3.40.
Szöny, *canabae*, Oil Factory, rescue excavation by Aladár Radnóti in 1952, Pit III.3.
12. Typology: Garbsch A238u/v (Fig. 2.6)
Model of a brooch. The two-piece brooch is made of copper-base alloy. Hook: it is broadened and unfinished. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one segmented, plain, oval knob and two broadened wings without buttons. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Four short, chased lines can be observed on the left side of the bow (2). Catchplate: it is rectangular but only an aborted part of the object. L. 13.1 cm, W (broadened hook). 2.1 cm, W (bow 1). 1.9–0.5 cm
Hungarian National Museum, Budapest, inv. no. 76.1880.1.
Szöny, stray find
Literature: Sáró (2021) 167, Cat. 1, Fig. 1.1.
13. Typology: Garbsch A238q variant (Fig. 3)
The two-piece brooch is made of copper-based alloy and covered with white metal. Pin construction: spring-pin, external chord, a rod, 5 + 5 coils. Hook: wide, cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented, three-quarters circle-shaped, oval knob and a cuboid-shaped element with two casted knobs of three segments. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: trapezoidal, it turns to the right, unperforated. L. 7.4 cm, W (pin-construction). 3 cm, W (bow 1). 1.7 cm, C.s (bow 2). $0.4 - 0.3 \times 0.6$ cm
Hungarian National Museum, Budapest, inv. no. 19.1895.10. (54.33.1.)
Szöny, stray find, sold by János Cseley
14. Typology: uncertain, Garbsch A238h/k/n/o/p/s (Fig. 4.1)
The fragmented two-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: wide hook (*Sehnenkappe*) with engraved lines on its curved sides. Bow

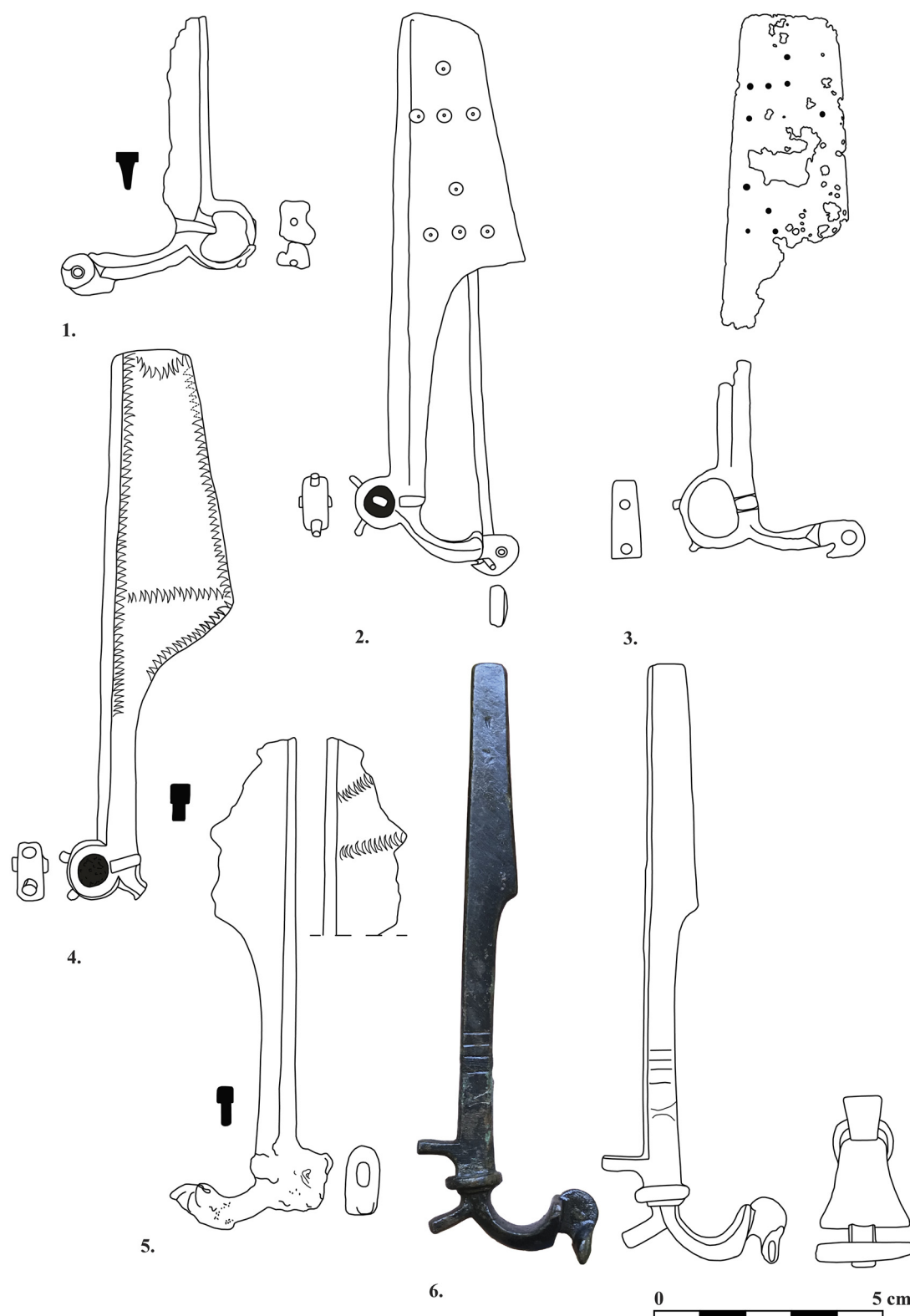


Fig. 2. A238v Norico-Pannonian winged brooches from Brigetio. 1: Cat. 7, 2: Cat. 8, 3: Cat. 9, 4: Cat. 10, 5: Cat. 11. Model of a Norico-Pannonian winged brooch (A238u/v). 6: Cat. 12 (drawn and photographed by Cs. Sáró)

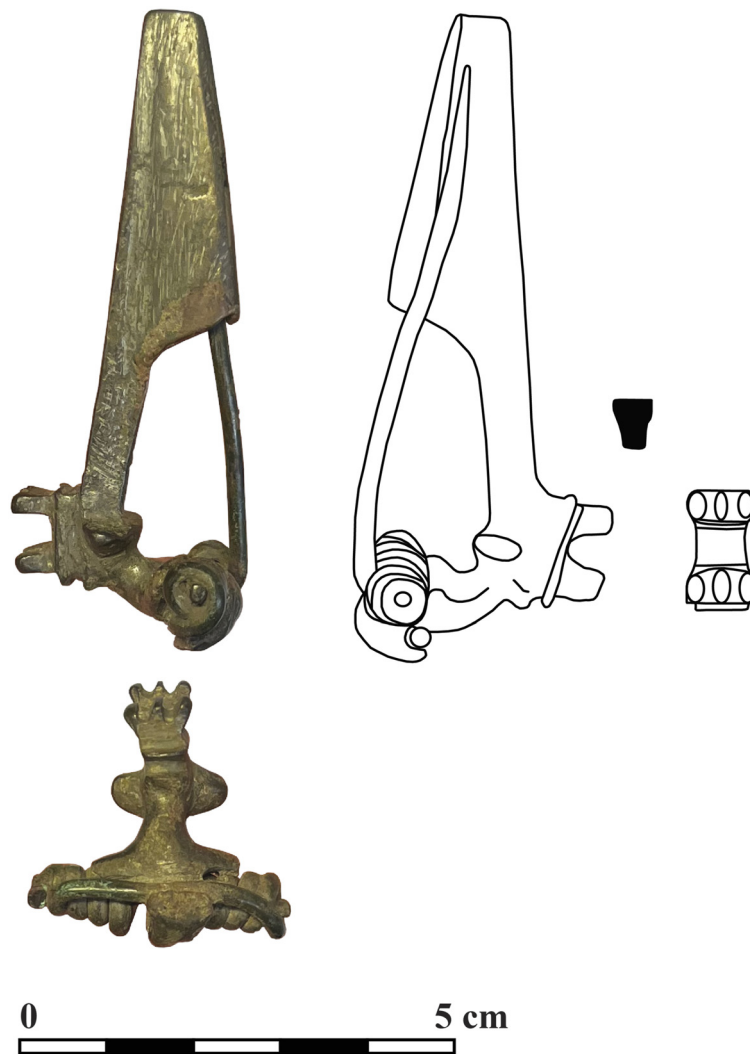


Fig. 3. The A238q variant Norico-Pannonian winged brooch (Cat. 13) from Brigetio (drawn and photographed by Cs. Sáró)

(1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented, three-quarters circle-shaped oval knob and two bent wings with 1 + 2, originally 2 + 2 cylindrical knobs inserted into the wings. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: missing.

L. 10 cm, W (hook). 1.5 cm, W (bow 1). 1.3 cm

Kuny Domokos Múzeum, Tata, inv. no. K-480b.

Szőny, civil town cemetery (II.), cremation grave, collected by Ödön Kállay

Grave goods: pottery: lamp, Iványi II (eagle-shaped relief) Iványi (1935) 9. (inv. no. K-480a.)

15. Typology: Garbsch A238u/A238v4–5 or A238v7 (Fig. 4.2) The fragmented two-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of an unsegmented, triangle-shaped knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 casted cylindrical knobs. Bow (2): it has a round cross-section; the high catchplate starts under it. Catchplate: almost entirely missing; decoration: engraved wolf's teeth-

like curve (*Tremolierstich*) on the right side.

L. 6.9 cm, W (bow 1). 1.5 cm, C.s (bow 2). 0.5–0.2 × 0.8 Kuny Domokos Múzeum, Tata, inv. no. 72.46.2.

Szőny, legionary fort, MOLAJ, stray find collected by Jenő Petrovics

Literature: Kartali (2020) Kat. 147.

16. Typology: Garbsch A238u/A238v4–5 or A238v7 (Fig. 4.3) The fragmented two-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of an unsegmented, rectangular knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 casted cylindrical knobs. Bow (2): it has a round cross-section; the high catchplate starts under it. Catchplate: almost entirely missing; decoration: engraved wolf's teeth-like curve (*Tremolierstich*) on the left side. L. 6.9 cm, W (bow 1). 1.5 cm, C.s (bow 2). 0.6–0.2 × 0.8 cm Kuny Domokos Múzeum, Tata, inv. no. 72.46.2. (2.) Szőny, legionary fort, MOLAJ, stray find collected by Jenő Petrovics Literature: Kartali (2020) Kat. 148, I.5 tábla.

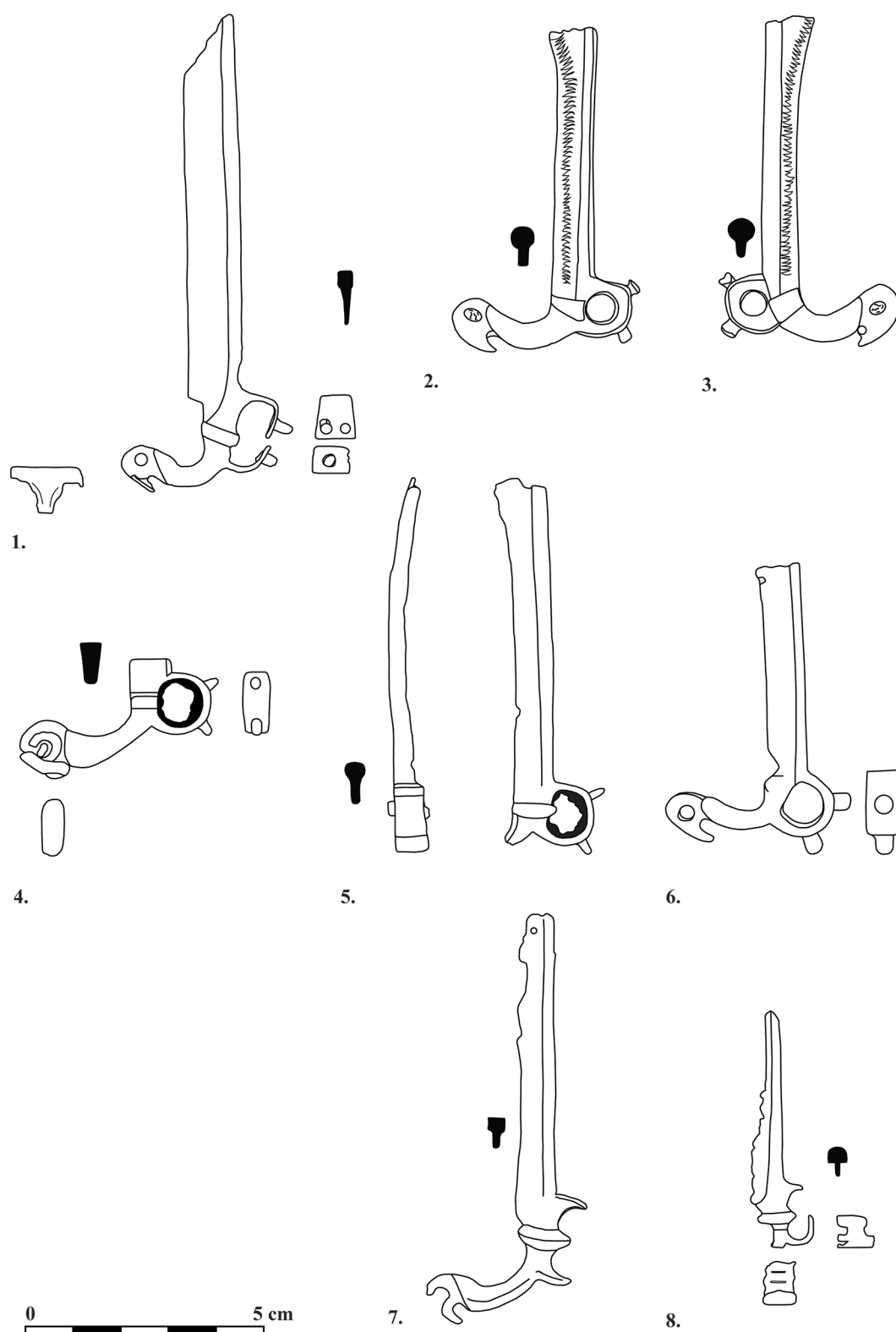


Fig. 4. Fragmented Norico-Pannonian winged brooches from Brigetio. 1: Cat. 14, 2: Cat. 15, 3: Cat. 16, 4: Cat. 17, 5: Cat. 18, 6: Cat. 19 (drawn by Cs. Sáró)

17. Typology: Garbsch A238u/A238v4–5 or A238v7 (Fig. 4.4)
The fragmented two-piece brooch is made of copper-base alloy. Pin construction: spring pin, external chord, a rod, 4 + 1 coils. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of an unsegmented, rectangular knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 casted cylindrical knobs; the inside of the ring is partly filled with metal (burr). Bow (2): broken, it has a rectangular cross-section; the high catchplate starts under it. Catchplate: missing.
L. 2.6 cm, W (pin construction). 1.9 cm, W (bow 1). 1.4 cm
Komáromi Klapka György Múzeum, Komárom, inv. no. 2020.15.1877.3.
Szőny, legionary fort, Main Road no. 1, excavation in 2020., stratigraphic unit: 1877 (filling layer of the 1878 pit)
18. Typology: Garbsch A238u/A238v4–5 or A238v7 (Fig. 4.5)
The fragmented brooch is made of copper-base alloy. Pin construction and hook: missing. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented and rectangular knob which emerges only to two sides; and a ring-shaped wing with 1 + 1 casted, narrow, cylindrical knobs; the inside of the ring is partly filled with metal (burr). Bow (2): it has a round cross-section; the high catchplate starts under it. Catchplate: missing.
L. 7.9 cm, W (dividing knob). 0.9 cm
Kuny Domokos Múzeum, Tata, inv. no. K-485c.
Szőny, civil town cemetery (II.), cremation grave, collected by Ödön Kállay
Grave goods: pottery: red-coated baker with a spherical body (Gátfalvi-Delbó 2019, 346, Kat. 724, 57. tábla; Gátfalvi-Delbó 2020, Fig. 4.1. Typ P2.1.), self-coloured lid (Gátfalvi-Delbó 2019, 321, Kat. 592, 49. tábla; Gátfalvi-Delbó 2020, Fig. 3. Typ Fe1.1.)
19. Typology: Garbsch A238u/A238v (Fig. 4.6)
The fragmented two-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: cylindrical. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of a pseudo knob and a ring-shaped wing with 1 + 1 casted cylindrical knobs. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: missing.
L. 6.1 cm, W (bow 1). 1.9 cm
Kuny Domokos Múzeum, Tata, inv. no. 2013.7.15.
Szőny, Olajtartályok, stray find, bestowal, 1991.
20. Typology: uncertain (Fig. 4.7)
The fragmented one-piece brooch is made of copper-base alloy. Pin construction: missing. Hook: rectangular. Bow (1): it has a semi-circle cross-section. Dividing parts: consist of one unsegmented, three-quarters circle-shaped oval knob and two broken wings without buttons. Bow (2): it has a rectangular cross-section; the high catchplate starts under it. Catchplate: missing.
L. 8.7 cm, W (bow 1). 2.1 cm
Hungarian National Museum, Budapest, inv. no. 76.1880.2.
Szőny, stray find
21. Typology: uncertain (Fig. 4.8)
The fragmented, burnt (?) brooch is made of copper-

base alloy. Pin construction, hook and bow (1): missing. Dividing parts: consist of one segmented and oval knob which emerges to all sides; and two fragmented wings: the first wing is decorated with engraved lines and the fixing holes of two wing knobs. Bow (2): it has a round cross-section; the high catchplate starts under it. Catchplate: missing.

L. 5 cm, W (dividing knob). 1 cm

Kuny Domokos Múzeum, Tata, inv. no. K-2175.

Szőny, civil town (I.), waste pit, collected by Ödön Kállay

Typology, distribution, and chronology

The type is derived from the late La Tène Almgren 65 in the Eastern Alps.⁴ It was well distributed in Noricum, Pannonia and the Northern Barbaricum⁵ but was less common in Raetia.⁶ Moreover, it rarely appears in the territory of Western European provinces,⁷ Dacia and Dalmatia.⁸ Although the earliest variants appeared in the last third of the first century BC, Norico-Pannonian winged brooches were popular during the first–second century AD.⁹

The main typology of the type was created by Jochen Garbsch in 1965. He defined twenty-one subtypes (A238a–v) based on the size, material, construction and decoration.¹⁰ Later, he added further information about the typology and chronology.¹¹ Stefan Demetz studied the earliest subtypes (A238a, b) and the A238f. He divided them into further categories and summarised information about their wearing habits, distribution, chronology and the evolution of the brooch form.¹²

Six brooches (Cat. 1–6) certainly belong to the Garbsch A238u subtype. According to the general description of the subtype, these two-piece brooches are made of copper-base alloy with a small hook (*Sehnenhaken*), two wing knobs and a catchplate with openwork motives. Their size varies between 12 and 15.5 cm. J. Garbsch collected A238u brooches from North Pannonian and unknown sites (Table 1) and dated them to the second century AD.¹³ J. Garbsch listed three A238u brooches from Brigetio. Two belong to the collection of the Hungarian National Museum (Budapest) (Cat. 2, Cat. 6), and a third one to the Kunsthistorisches

⁴Demetz (1999) 46–47.

⁵Garbsch (1965) 49–77, 164–234, Karte 7, Karte 10–12, Karte 14; Demetz (1999) 45.

⁶Garbsch (1965) 219, 221–222; Garbsch (1974) 163–179.

⁷Garbsch (1965) 217–219, 222–223.

⁸Garbsch (1965) 223–224; Cociş (2004) 74–75, Pl. XLI.627–628, Pl. XLII, Pl. XLIII.

⁹Garbsch (1965) 49, 78, Abb. 41; Garbsch (1974) Abb. 4–5; Garbsch (1985) Abb. 4–5; Demetz (1999) 45–46; Sedlmayer (2009) 28–29.

¹⁰Garbsch (1965) 49–77.

¹¹Garbsch (1974).

¹²Demetz (1999) 42–48.

¹³Garbsch (1965) 73.

Table 1. A238u brooches listed by J. Garbsch

Site	Pieces	Garbsch (1965)	Further literature	Openwork decoration variant
Aquincum/Budapest	1	73, 197, Kat. 412.2, A238u/2.	Patek (1942) 157, T. II.3/Nr. 9, with picture	2.1
Arrabona/Győr	1	73, 201, Kat. 430, A238u/7.	Patek (1942) 157, T. II.3/Nr. 8, without picture	?
Brigetio/Szőny	3	73, 215, Kat. 490.1, A238u/1, 6, 8, Abb. 39.	see Cat. 1, 2, 6	1, 2.2, 2.2
Großhöflein	1	73, 200, Kat. 428.2, A238u/10, Abb. 39.	/	3
Tatabánya	1	73, 215, Kat. 491, A238u/9, Abb. 39.	/	2.1
Rába River's area	1	73, 216, Kat. 505, A238u/5.	Pulszky (1880) 65, T. VIII. 5; Patek (1942) 157, T. II.3/Nr. 5, without picture	2.1
Unknown site (supposedly Fejér County)	1	73, 217, Kat. 508, A238u/13.	/	?
Unknown site (supposedly Hungary)	5	73, 217, Kat. 510, A238u/3–4, 11–12, 14	/	?

Museum (Wien) (Cat. 1). These pieces were supplemented with three more brooches (Cat. 3–5).

One of the main characteristics of the A238u is the openwork decoration of the catchplate. One can separate three main groups: 1. drop-shaped motives,¹⁴ 2. fish-scale shaped motives in two or more groups (1. with small dots, 2. without small dots),¹⁵ and 3. a combination of key-hole-shaped and rectangular motives.¹⁶ The first decoration variant is presented by Cat. 1, and the second by Cat. 2–6, but the third is unknown from Brigetio yet.¹⁷ Half of the A238u are stray finds from Szőny (Cat. 1, 5–6), though some pieces were found on the territory of the *canabae* (Cat. 2–3) and the legionary fort (Cat. 4).

Five brooches (Cat. 7–11) are certainly Garbsch A238v. According to J. Garbsch's description, they have two wing knobs, their catchplate is unperforated and alternative decorations appear, their size varies between 10.2 and 14.5 cm, and they were mainly made of copper-base alloy. However, this is a very heterogeneous subtype. J. Garbsch emphasised their distribution in North and Eastern Pannonia and dated them to the second century AD based on their form.¹⁸ J. Garbsch collected only one A238v brooch from Brigetio,

which belongs to the Kuny Domonkos Museum's Kállay Collection,¹⁹ and he also mentioned a piece from an uncertain finding place (Komárom or Leányvár).²⁰

Due to their heterogeneity, A238v brooches should be separated into further variants. M. Merczi and this author work on the topic simultaneously and offer two different methods. M. Merczi separated the Kovrig T. II.11 = Merczi 10.2, 2.2,²¹ the Merczi 2.3,²² and the Merczi 2.4²³ from the A238v,²⁴ while this author is willing to subdivide the A238v into further variants.²⁵ Following this protocol, A238v contains at least six or seven variants (Table 2).

According to the current information, only A238v1 and A238v2 have a one-piece construction. The main difference between these two variants is the shape of the wing knobs. Based on Cat. 7's one-piece construction and cylindrical wing knobs, the brooch is supposedly an A238v2; despite that, the catchplate is missing.

Four A238v brooches from Brigetio have ring-shaped wings and casted cylindrical knobs, but the decoration of their catchplates is different. The catchplate of Cat. 8 is decorated with stamped dot circles (A238v5), and Cat. 9 is with punched dots (A238v6). Cat. 10's decoration is the

¹⁴Garbsch (1965) Abb. 39.1.

¹⁵Garbsch (1965) Abb. 39.9.

¹⁶Garbsch (1965) Abb. 39.10.

¹⁷According to J. Garbsch's picture and description, it is known from Großhöflein (Austria) (Garbsch, 1965, 73, 200, A238u/10, Abb. 39).

¹⁸Garbsch (1965) 75.

¹⁹Garbsch (1965) 75, 215, Kat. 490.1, A238v/16. The present paper's catalogue lists two pieces from the Kuny Domonkos Museum's Kállay Collection, but J. Garbsch's brooch cannot be identified.

²⁰Garbsch (1965) 75, 215, Kat. 490.2, A238v/2.

²¹Kovrig (1937) 35–36, T. II.11; Merczi (2012) 490; Merczi (2016) 445.

²²Merczi (2016) 446.

²³Merczi (2016) 447.

²⁴Merczi (2016) 445; Merczi (2017a) 149–152.

²⁵Sáro (2022) 158.

Table 2. A238v variants

Variant	Typological references	Literature	Description				
			Construction	Wings	Wing knobs	Dividing knob	Decoration of the catchplate
A238v1	Merczi 10.2, 2.2 = Sáró 4.4.1, 1.1	Merczi (2012) 490; Merczi (2016) 445–446; Sáró (2020) II, 158; Sáró (2022) 158.	one-piece	two, separated	1 + 1 embossed, dome-shaped	three-quarters circle-shaped and oval	the catchplate is decorated with pointing
A238v2	Merczi 2.3 = Sáró 4.4.2, 1.2	Merczi (2016) 446; Sáró (2020) II, 159; Sáró (2022) 158.	one-piece	two, separated	1 + 1 cylindrical	three-quarters circle-shaped and oval	the catchplate is decorated with pointing
A238v3	Merczi 2.4 = Sáró 4.4.3, 1.3	Merczi (2016) 447; Sáró (2020) II, 159; Sáró (2022) 158.	two-piece	two, separated	1 + 1 embossed, dome-shaped	three-quarters circle-shaped and oval	the catchplate is decorated with pointing
A238v4	Sáró 4.4.4, 1.4	Sáró (2020) II, 159; Sáró (2022) 158.	two-piece	ring-shaped	1 + 1 cylindrical	three-quarters circle-shaped and oval	the catchplate is decorated with pointing
A238v5	Sáró 1.5	Sáró (2022) 158.	two-piece	ring-shaped	1 + 1 cylindrical	rectangular and emerges only to two sides	the catchplate is decorated with stamped dot-circles
A238v6	Sáró II.1.a.1	Sáró (2014) 161.	two-piece	two, separated	1 + 1 cylindrical	three-quarters circle-shaped and oval	the catchplate is decorated with punched dots
A238v7	/	/	unknown	ring-shaped	1 + 1 cylindrical	rectangular and emerges only to two sides	the catchplate is decorated with chased motives

most unique; the surface is framed with engraved wolf's teeth-like curves, but the inner part remained undecorated. The question is whether this surface is finished or unfinished. The undecorated catchplate is characteristic of only one subtype, the A238r, distributed in the Northern Barbaricum and used during the second half of the first century AD.²⁶ However, Cat. 10 is different, it has two wing knobs instead of three, and the catchplate is not completely undecorated. If this brooch is finished, it represents a new variant (A238v7). The Cat. 11 brooch is in poor condition, and the exact variant it belongs to is uncertain. It has a ring-shaped wing with two dome-shaped knobs and an unperforated catchplate. Based on its engraved decoration, it probably also belongs to one of the A238v variants and is supposed to represent the new variant A238v7. A238v brooches were found in the cemetery of the civil town (Cat. 8–9), the Gerhát cemetery (Cat. 10), the *canabae* (Cat. 11) and as stray finds in Brigetio (Cat. 7).

As it was mentioned, J. Garbsch dated the A238v to the second century AD. However, recently published burials add further information to the chronology of the variants. M. Merczi dated the A238v1 (Merczi 10.2) from the last third of the first century to the middle of the second century AD, the A238v2 (Merczi 2.3) from the Flavian Age to the first

half of the second century AD, and the A238v3 (Merczi 2.4) from the end of the first century to the second half of the second century AD.²⁷ A238v4–7 variants were not presented in well-dated contexts yet, and their precise chronology is uncertain.

Cat. 12 is a model of a Norico-Pannonian winged brooch. Although the main elements can be described, no precise identification is possible. The reason is that the buttons on the wings and the decoration of the catchplate have a significant role in the typology, but they were usually made at the end of the manufacturing process. Despite the missing details, other elements provide some starting points:

- two-piece fibulae were made by this model,
- the finished fibula had a chord-cap, instead of a simple hook,
- the dividing knob is segmented, plain, and oval
- the wings are separated and bent at the end of the manufacturing process rather than having a ring-like shape
- the embossed or riveted buttons on the wings were also made as a final step in the manufacture.

According to the two-piece construction, it is certainly not one of the earliest variations, as the two-piece

²⁶Garbsch (1965) 71, Abb. 36.

²⁷Merczi (2016) 446–447.



construction was characteristic from the second century AD.²⁸ Based on the size and the construction, the two most relevant options are the A238u and the A238v.²⁹

The most special brooch is Cat. 13. Although one of the main characteristics of the type is the wing-shaped projection, Cat. 13 has a pseudo-wing which is composed of a cuboid-shaped element with two casted knobs. The catchplate lacks the openwork technique, stamping, pointing, punching and engraving, and only white metal covers the surface.³⁰

Cat. 13's typological definition is challenging; only one similar piece from Wagna belongs to J. Garbsch's A238q.³¹ However, this brooch has only projections, i.e. pseudo wing knobs without the dividing knob and the joining element between the projections and the bow. This Norico-Pannonian winged brooch form seems uncommon, but scholars have tried to identify and collect further pieces. C. Gugl described brooches with the same characteristics under the Garbsch A238q2 variant and discussed brooches with two and four projections together.³² He collected several pieces from Noricum and Pannonia³³ and one from the Barbaricum.³⁴ A handful of recently published brooches from Noricum, Pannonia, and Barbaricum should be added. Brooches with two projections were published from the *vicus* of Gleisdorf³⁵ and Chornice,³⁶ and two others with four projections from Aelium Cetium³⁷ and Perbál.³⁸ S. Cociş also discussed similar brooches in his 12d subtype. 12d1 variants have two, 12d2 variants have four projections.³⁹ Many pieces of these variants are known from Dacia, especially Porolissum.⁴⁰

Although the A238q2 = Cociş 12d1–2 brooches differ from Cat. 13 in some details, they certainly have a close

connection. However, the closest analogy of Cat. 13 is known from Pannonia, Kesztlőc-Klastrompuszta.⁴¹ The two brooches are tightly related, not just in their structure but also in their size.⁴²

J. Garbsch had limited clues to the chronology, and he carefully dated the heterogenous A238q to the first half of the second century.⁴³ The two A238q2 brooches with four projections from the tumulus Nr. 33 of Kapfenstein and the tumulus Nr. 8 of Zgornja Voličina⁴⁴ are helpful for the dating. The A238q2 brooch was together with an A236n double-knob brooch and two other brooch fragments,⁴⁵ so based on the chronology of the A236n,⁴⁶ the tumulus was dated from the end of the first century to the first half of the second century AD.⁴⁷ Three double-knob brooches, probably A236h subtypes, and among several bronze coins, one of Hadrian's, were found in the tumulus Nr. 33 of Kapfenstein.⁴⁸ The A236h brooch was dated from the end of the first century to approximately AD 180.⁴⁹

Unfortunately, the close analogy of Cat. 13 from Kesztlőc-Klastrompuszta is a stray find. M. Merczi's dating was based on the brooch's two-piece construction, and she suggested the second century AD.⁵⁰

The definition of eight fragmented pieces (Cat. 14–21) is uncertain because their catchplate is missing. Cat. 14 has a two-piece construction, a wide hook (*Sehnenkappe*) and separated wings originally with four cylindrical knobs. Separated wing with four knobs is a characteristic of the Garbsch A238f, h, i, k, l, n, o, p, s, t subtypes.⁵¹ The wide hook characterises all of these subtypes, but the undecorated, straight second bow part without a groove or dot line appears only for the A238h, k, l, n, o, p, s subtypes.⁵² Unfortunately, brooches of these subtypes with plain, unsegmented cylindrical wing knobs are not presented in J. Garbsch's pictures, so the exact subtype remains uncertain.⁵³

Five brooches (Cat. 15–19) have ring-shaped wings with two cylindrical knobs, a characteristic of the A238u subtype and the A238v4–5, A238v7 variants. However, Cat. 19, with its pseudo-dividing knob, probably represents a new variant of the A238u or the A238v.

²⁸Garbsch (1965) 49, Abb. 41.

²⁹Sáró (2021) 158.

³⁰Norico-Pannonian winged brooches with an undecorated catchplate are rare. Only one subtype, the A238r, lacks the typical decorations (Garbsch, 1965, 70–71).

³¹Garbsch (1965) 70, Abb. 35.1

³²Gugl (1995) 24.

³³Noricum: Gleisdorf–*vicus*, Kapfenstein–tumulus Nr. 33, Krennach, Salzburg, Wagna bei Leibnitz, Zollfeld (Gugl, 1995, 24, 67, Fundliste 2, Nr. 1–2, 6a–b, 7–9, Taf. 12.89), Pannonia: Au am Leithagebirge, Bruckneudorf, Drnovo, Loretto, Petronell, Ptuj, Sankt Andrä am Zicksee, Zgornja Voličina–tumulus Nr. 8 (Gugl, 1995, 67, Fundliste 2, Nr. 3–5, 10–14).

³⁴Uherský Brod (Gugl, 1995, 67, Fundliste 2, Nr. 15).

³⁵Hinker (2022) 12, Fig. 3e; Hinker and Bade (2022) 165, Kat. 78, Abb. 16, Taf. 3.78.

³⁶Horník and Jílek (2016) 132, Tab. 1, Obr. 2.2–3

³⁷Stundner (2006) 154, Taf. 2.29.

³⁸Merczi (2017b) 89, 109, Kat. 52, 3.3 tábla.

³⁹Cociş (2004) 74–75.

⁴⁰Four pieces were collected from Porolissum (Cociş, 2004, 183, Cat. 637, 642–644), and further five pieces were found in Cetea, Cluj-Napoca, Földioara, Gherla, and Little Wallachia (Cociş, 2004, 183, Cat. 638, 639, 640).

⁴¹Merczi (2023) 115, Kat. 21, 4.21 tábla, 2. kép

⁴²Size of Cat. 13: L. 7.4 cm, W (bow 1). 1.7 cm. Size of the brooch from Kesztlőc-Klastrompuszta: L. 7.5 cm, W (bow 1). 1.7 cm (Merczi, 2023, 115, Kat. 21).

⁴³Garbsch (1965) 69.

⁴⁴Pahič (1965) 42, tumulus Nr. 8/Nr. 3, Sl. 34.2; Urban (1984) 101, Taf. 59. D23; Gugl (1995) 67, Fundliste 2.

⁴⁵Urban (1984) 18, 100–101, Tabelle 2.

⁴⁶Garbsch (1965) 42.

⁴⁷Urban (1984) Tabelle 11.

⁴⁸Pahič (1965) 42, Sl. 33. 3–5, Sl. 34. 3–5; Gugl (1995) 25.

⁴⁹Garbsch (1965) 37–38.

⁵⁰Merczi (2023) 93.

⁵¹Garbsch (1965) 57, 59–61, 64–65, 68, 71–72.

⁵²Garbsch (1965) Abb. 26, Abb. 28–29, Abb. 31–32, Abb. 34, Abb. 37.

⁵³Although the A238l should probably be excluded because these brooches often have figural-shaped wing knobs (Garbsch, 1965, 60).



The main parts of Cat. 20–21 brooches are missing; for example, their wings and catchplate are broken. Cat. 20 has a one-piece construction, but this information is quite scarce for a typological definition.

WEARING HABITS

Dressing habits can be well analysed through depicted attires and grave goods. Although Norico-Pannonian winged brooches were typical accessories of indigenous women during the Principate, a handful of graves hint at that men probably wore them during the early phases of the type.⁵⁴ Focusing on women, depictions of stone monuments should be discussed first. Indigenous women always wear Norico-Pannonian winged brooches in pairs, and in depictions from Hungary, these are paired with the same type of brooch on their shoulders.⁵⁵ The same habit is well-detectable in the case of numerous graves from North-Eastern Pannonia. Inhumation graves provide exact information on the wearing of brooches. Several graves from Aquincum, Budaörs, Nagyvenyim, Páty, Sárobgárd-Virágresz, and Solymár-Dinnyehegy certainly prove Norico-Pannonian winged brooches were worn on shoulders in pair with the same type.⁵⁶ Cremation graves are less helpful for this investigation because the position of these accessories is unknown. Still, Norico-Pannonian winged brooch pairs from cremation graves may hint at the same wearing habit.⁵⁷ In other cases, Norico-Pannonian winged brooches are paired with another type. For example, inhumation graves I. 18 from the cemetery of the *canabae* of Aquincum with an A238q and an A84, 302 from Páty with an A238c and an A236a2, and 145 from Solymár-Dinnyehegy with an A238v2 and a Merczi 2012/12.1 represent this habit.⁵⁸ Norico-Pannonian wing brooches paired with another type of bow brooch from cremation graves probably also prove the same dressing habit. An Idrija IIa and an A238v1 in Grave 112 from Páty, an A238h variant and a Cociş 21b3a–b Pannonian trumpet brooch in Grave 84 from Solymár-Dinnyehegy, an A238v1 and a Cociş 21b3a–b Pannonian trumpet brooch in Grave 109 from Százhalombatta are good examples of this custom.⁵⁹

Brooches and jewellery from burials are the most useful for reconstructing dressing habits. Unfortunately, only a handful of Norico-Pannonian winged brooches from Brigetio belong to graves.

Roman Period burials and cemeteries of Brigetio are known from various parts of the settlement complex. Big cemeteries with multiple periods lie along the *Limes* Road and the Road leading to Tata. Late Roman Period graves are situated in the close area of the legionary fort and the territory of the *canabae*.⁶⁰ Only four Norico-Pannonian winged brooches (Cat. 8–9, 14, 18) were found in hypothetical graves, and one (Cat. 10) came from the territory of the Gerhát cemetery.

Civil town cemeteries lay around the *municipium*. Although L. Barkóczi called the graveyards west of the *municipium* No. 2 and No. 3 civil town cemeteries, scholars agree that these two parts should be regarded as part of the same graveyard and called the ‘western cemetery of the civil town’. Although numerous graves were disturbed in the first half of the 20th century, the find material was carefully collected by the former greffier of Szőny and kept in the local museum at Tata.⁶¹ No. 1 cemetery is east of the *municipium* and should be named the ‘eastern cemetery of the civil town’. Unfortunately, the lack of systematic archaeological research interferes in defining its exact eastern boundary. Still, L. Barkóczi supposed its limit at the so-called Várhíd. Moreover, a development-led archaeological excavation conducted at the western cemetery of the civil town in 2009 provided further information on this cemetery part.⁶² Unfortunately, none of the recently found graves contained Norico-Pannonian winged brooches and Cat. 8–9, 14, 18 brooches were found during the collecting work in the 20th century. According to the inventory, all brooches belonged to the cremation graves 480, 482, 485, and 522 (Figs 5 and 6). All Norico-Pannonian winged brooches were found without a pair, which may hint at that the repertoire of these graves is probably incomplete. Further dress accessories and jewellery are missing from these graves, and only pottery vessels and lamps were found. The grey-coarse, self-coloured, and red-coated pottery vessels represent various forms of bakers, jars and lids.⁶³ The red-coated *terra sigillata*-imitation Drag. 54 baker from Grave 482 reflects Roman cultural effects, just as the presence of pottery lamps in Graves 480 and 522.⁶⁴ The Drag. 54 baker imitates *terra sigillata ollae* from Rheinzabern, which were produced

⁵⁴Demetz (1999) 44–45.

⁵⁵Sáró (2020) I, 124–125, 130, footnote 766–767.

⁵⁶Sáró (2020) I, 130, footnote 799; Sáró (2020) II, 35, 50, 52, 54–55, 85–87, 102–104, 114, 116–117, 121, 124, 15. tábla, 24–26. tábla, 30–32. tábla, 45–46. tábla, 48. tábla, 50. tábla, 55. tábla, 57–58. tábla, 60. tábla, 63. tábla, 68. tábla, 78. tábla, 82. tábla; Sáró et al. (2024) Nr. 3–4 in Grave 4.

⁵⁷For example, graves from North-Eastern Pannonia are known from Aquincum-Graphisoft Park, Lovasberény, Máty, Solymár-Dinnyehegy, and Szentendre (Sáró, 2020, I, 130, footnote 799; Sáró, 2020, II, 38, 70, 72, 114, 120–121, 153, 17. tábla, 37–38. tábla, 64. tábla, 74–75. tábla, 77. tábla, 88. tábla; Sáró, 2022, 171, 175, Kat. 1–2).

⁵⁸Sáró (2020) I, 130, footnote 800–802; Sáró (2020) II, 16, 88, 122, 5. tábla, 51. tábla, 79. tábla.

⁵⁹Sáró (2020) I, 130, footnote 803–805; Sáró (2020) II, 85, 119, 148, 44. tábla, 72–73. tábla, 86. tábla.

⁶⁰Számadó (2010) 150–151; Gátfalvi-Delbó (2019) 15; Olasz (2020) 8.

⁶¹Barkóczi (1951) 6; Gátfalvi-Delbó (2019) 15–16; Borhy et al. (2018) 100.

⁶²Borhy et al. (2018) 101–181.

⁶³Gátfalvi-Delbó (2019) 238, 321, 328, 346, 348, Kat. 139, Kat. 592, Kat. 631, Kat. 724, Kat. 735, 16. tábla, 49–50. tábla, 57. tábla.

⁶⁴The simultaneous usage of products from the Early Roman period with local and Roman cultural traditions can be well documented. For example, the semi-finished Norico-Pannonian winged brooch from the pit house XXIX at Szakály-Réti-földek should be mentioned. Not just pottery vessels of the La Tène D tradition but *terra sigillata* vessels also came from the pit-house (Gabler, 1982, 78, 89–90, Fig. 11, Fig. 19; Gabler and Horváth, 1996, 134, 151, Kat. 92).



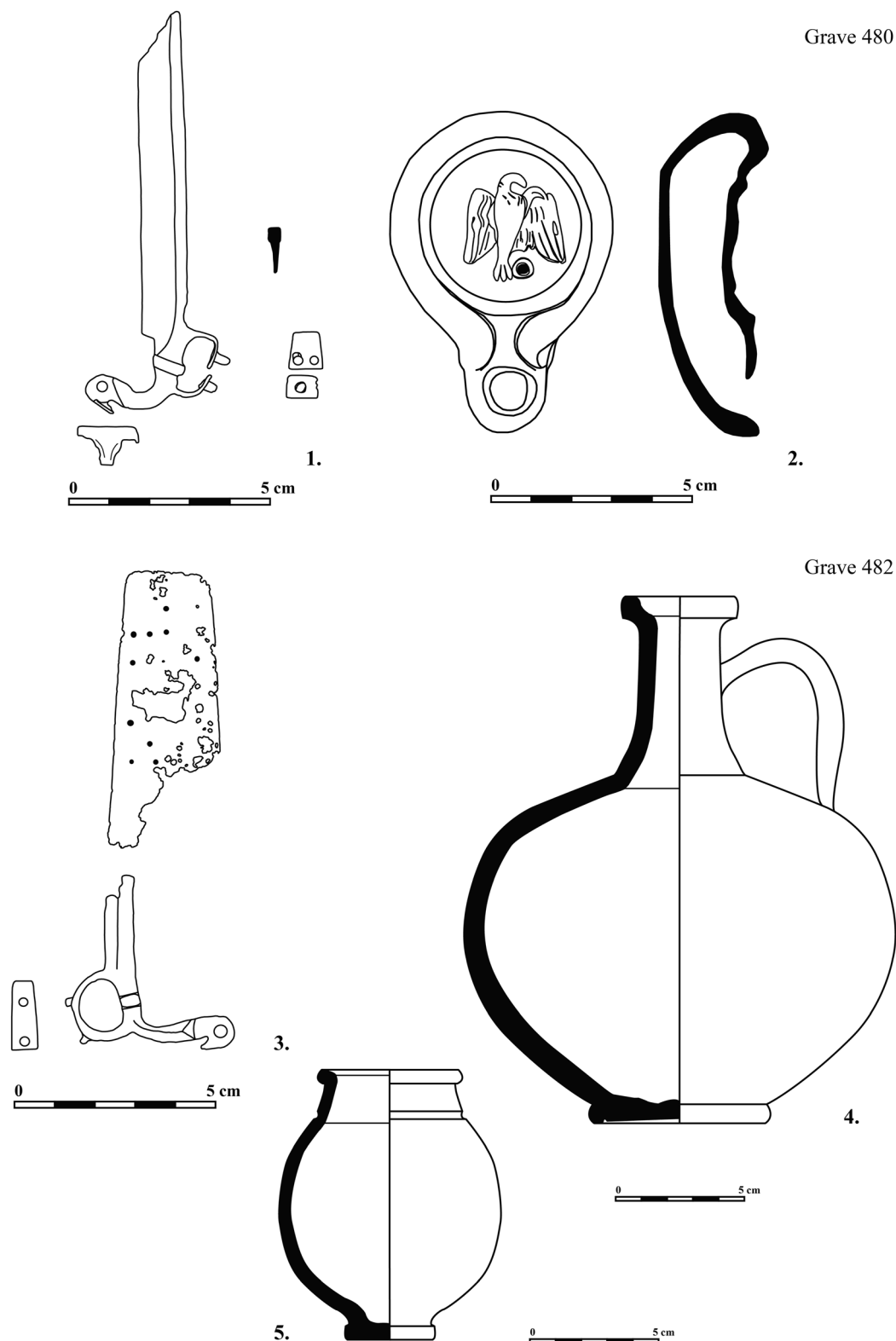


Fig. 5. Norico-Pannonian winged brooches from cremation graves No. 480 and 482. 1: Cat. 14, 2: pottery lamp with a relief decoration (KDM K-480a.), 3: Cat. 9, 4: red-coated small jar (KDM K-482a., [Gátfalvi-Delbó, 2019](#), Kat. 631, 50. tábla), 5: red-coated *terra sigillata*-imitation baker (KDM K-482b., [Gátfalvi-Delbó, 2019](#), Kat. 735, 57. tábla) (drawn by Cs. Sáró; Fig. 5/2 was made by Z. Kis and Figs. 5/4–5 by G. Gátfalvi-Delbó)

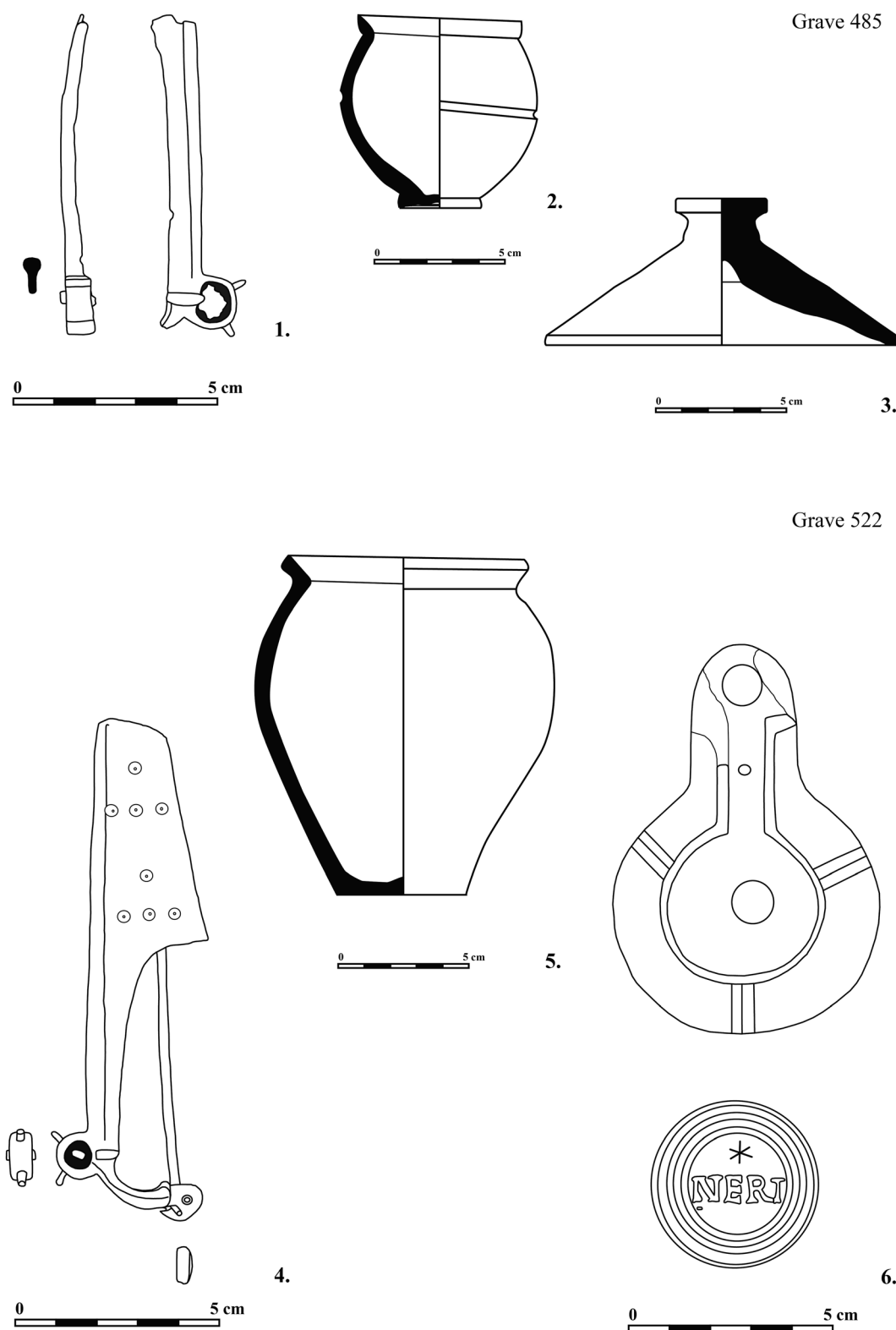


Fig. 6. Norico-Pannonian winged brooches from cremation graves No. 485 and 522. 1: Cat. 18, 2: red-coated baker (KDM K-485a., Gátfalvi-Delbó, 2019, Kat. 724, 57. tábla), 3: self-coloured lid (KDM K-485b., Gátfalvi-Delbó, 2019, Kat. 592, 49. tábla), 4: Cat. 8, 5: grey coarse, egg-shaped baker (KDM K-522a.), 6: Iványi XVII factory lamp (KDM K-522b.) (drawn by Cs. Sáró; Figs. 6/2-3, 5 were made by G. Gátfalvi-Delbó)

during the second half of the second century AD. The baker from Grave 482 was dated to the end of the second–beginning of the third century AD.⁶⁵

The Gerhát cemetery lies east of the *canabae*; its extents are partly known. It is limited by the backwater of the Danube on the North and the Gerhát pottery factory on the West, but the eastern and southern boundaries are unknown.⁶⁶ Cat. 10 brooch was found on the territory of this cemetery, but unfortunately, it is a stray find.

WORKSHOPS AND MANUFACTURING PROCESS

Nowadays, the production process and workshops of Roman Period brooches are well-studied topics. However, technological questions of brooch making have been investigated since the first stages of brooch research. One popular topic is the *chaîne l'opératoire*, which analyses various brooch-making steps. Most of the Roman Period brooches were cast pieces, and their manufacture required multiple phases and accessories. However, only a handful of these accessories prove brooch manufacture at a site since the same tools were also used during the production of other metal objects.⁶⁷ One still has only incomplete information on brooch-making workshops. Exact evidence of brooch production are moulds, models, semi-finished and waste products, and cut-off ingots.

Norico-Pannonian winged brooches were produced at several sites at Noricum (Flavia Solva, Gleisdorf, Kalsdorf bei Graz, Iuvavum, Magdalensberg, Ovilava, Teurnia)⁶⁸ and Dacia (Cluj-Napoca).⁶⁹ Their manufacture is also proven at a handful of Pannonian sites, such as Győr-Ménfőcsanak, Szakály-Réti-földek, and Zurndorf,⁷⁰ moreover in Brigetio.

Cat. 12 copper-base alloy brooch from Brigetio is a model used to make moulds with the brooch's negative pattern.⁷¹ As it was discussed before, Cat. 12 probably belongs to the Garbsch A238u or A238v subtype. An interesting feature is the four parallel lines (IIII) on the left side of the brooch. Its exact role is uncertain, and one can only suppose it was a numeric sign used during the manufacturing process. Only one semi-finished brooch from Zollfeld with a similar mark can be mentioned. On the unfinished cast of the pin construction of an A70/73 strongly

profiled brooch, there is an 'XIV' sign, which is probably a number.⁷²

A significant feature of semi-finished objects is the burr. After the casting process, the raw surface of numerous brooches remained uncleaned, as one can observe on Pannonian trumpet brooches and knee brooches from Brigetio.⁷³ A handful of Norico-Pannonian winged brooches from Brigetio (Cat. 5, 8, 10, 17–18) belong to different variants (A238u, A238v5, A238v7, and A238u/A238v4/v5/v7), but an interesting detail connects them, namely the burr inside of their ring-shaped wings. Cat. 17–18 brooches are fragmented, but the decorated catchplates of the others have remained. Openwork motives and engraved wolf's teeth-like curves (Cat. 5), stamped dot-circles (Cat. 8) and engraved wolf's teeth-like curves (Cat. 10) decorate their surface. As it was discussed before, the engraved wolf's teeth-like curves create a frame on the surface of Cat. 10 without a stamped, cut-out or punched decoration. The question is whether this surface is finished or semi-finished. Besides, Cat. 5, 8, and 17 brooches were certainly finished with a pin construction. How can one evaluate these details? One option is that these Norico-Pannonian winged brooches were ready for use, and the burr was intentionally left inside of the ring. The other is that the burr should have been cleaned after all other manufacturing phases. The former explanation seems less convincing because it is less practical. Still, this less well-elaborated part of these five brooches may hint at their local manufacture in Brigetio.

Since Cat. 13's form is related to the A238q2 = Cociş 12d1–2, their production should also be discussed. One semi-finished A238q2 = Cociş 12d1 brooch from the *vicus* of Gleisdorf clearly proves their production at the site.⁷⁴ Moreover, C. Gugl's list of A238q2⁷⁵ also hints at the manufacture of these brooches in the Alps region. However, one should not ignore the lack of these brooches, which may only reflect the current status of research. Now-unpublished brooches might add further details to the distribution of this variant. Besides, a characteristic of two brooches should be emphasised. The brooches from Sankt Andrä am Zicksee⁷⁶ and Loretto⁷⁷ have a close connection. Their form is very similar; both have four projections, and their ring-shaped wings have a side-hole. As C. Gugl supposed, these two brooches were probably made at the same workshop.⁷⁸ The similarity of the brooches from Brigetio (Cat. 13) and Keszölc-Klastrompuszta also hints at the same hypothesis. Although the exact production centre is undefinable,

⁶⁵Gabler (2006) 83; Gátfalvi-Delbó (2019) 86, 97.

⁶⁶Barkóczi (1951) 9; Gátfalvi-Delbó (2019) 18.

⁶⁷For example, Drescher (1955); Guillaumet (1984) 10–16; Bayley and Butcher (2004) 26–51; Chardron-Picault et al. (2008); Sey (2013) 27–31, 86–97. For the various research methods with connecting literature, see Cociş (2019) 13–15.

⁶⁸Sáro (2021) 159, footnotes Nr. 22–28; Hinker (2022) 12, Fig. 3e; Hinker and Bade (2022) 141, 146–147, 165, Tab. 1, Kat. 78, Taf. 3.

⁶⁹Sáro (2021) 159, footnote Nr. 29.

⁷⁰Sáro (2021) 158, footnotes Nr. 15–16, 21.

⁷¹Further models made of lead were published from Salzburg (Knauseder, 2014, 146, Abb. 2.11–12).

⁷²Gugl (1995) 83, Taf. 7. 67; Cociş (2019) 63, Pl. 145. 134.

⁷³Sáro (2021) 168, Cat. 3, Cat. 8, Fig. 1.3, Fig. 4.2; Sáro (2024) Cat. 1, Fig. 1.1.

⁷⁴Hinker (2022) 12, Fig. 3e; Hinker and Bade (2022) 141, 146–147, 165, Tab. 1, Kat. 78, Taf. 3.

⁷⁵Gugl (1995) 67, Fundliste 2.

⁷⁶Grill and Nowak (1985–1986) 277, Abb. 521; Gugl (1995) 67, Fundliste 2, Nr. 10.

⁷⁷Matouschek (1982) 272, Abb. 696; Gugl (1995) 67, Fundliste 2, Nr. 11.

⁷⁸Gugl (1995) 24.



Brigetio seems a possible option. Based on the current information, brooch production was continuous in Brigetio from the second century to the first half of the third century AD. The latest object is the Keller-Pröttel 1B crossbow (onion-knobbed) brooch from AD 260–320.⁷⁹

Based on the summarised information, most of the listed Norico-Pannonian winged brooches were probably produced locally in Brigetio. Cat. 9 from the Grave 482 was found together with a red-coated *terra sigillata*-imitation Drag. 54 baker. The Rheinzabern workshop produced Drag. 54 *ollae* during the second half of the second century, which means the imitation was made later, probably at the end of the second–beginning of the third century AD. According to the chronological information on the pottery vessel and the Garbsch A238v variation brooch, the workshop(s) in Brigetio supposedly produced Norico-Pannonian winged brooches during the second half of the second century AD.

SUMMARY

Twenty-one Norico-Pannonian winged brooches were presented in this paper. Intact or less fragmented pieces were discussed in detail, and their typology was presented. They belong to the Garbsch A238u, A238v, and A238q variants (Cat. 1–13). Unfortunately, the definition of eight fragmented pieces (Cat. 14–21) was less certain. However, most are probably A238u or A238v (Cat. 15–19). In conclusion, most Norico-Pannonian winged brooches from Brigetio belong to subtypes and variants dating from the last third of the first century to the second century AD.

This paper also discussed dressing habits. Although a handful of brooches were found in burials, their find contexts provided less useful information on their wear. However, grave goods from these burials were informative. The combination of Norico-Pannonian winged brooches with Roman-style pottery suggests that these people preserved their traditional dressing habits but were influenced by other Roman cultural effects.

Workshops and the manufacture of brooches were the third main part of the paper. One of the most important finds is the model of a Garbsch A238u or A238v (Cat. 12). Several brooches (Cat. 5, 8, 10, 17–18) were also discussed in detail because of the appearance of their wings filled with metal remains, i.e. burr. The most unique brooch is Cat. 13, which has an exact analogy from Keszölc-Klastrompuszta. They were supposedly made at the same workshop based on their equal form and size.

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⁷⁹Sáró (2021) 164–165.



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