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CONTENTS

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Martin Lemke

THE ROMAN JEWELLERY FROM NOVAE, SECTOR IV: PRELIMINARY STATISTICS

Abstract: This contribution summarises finds of jewellery (excluding *fibulae*, but including combs) discovered in the almost 50 years of fieldwork in the Roman layers of Sector IV at Novae, most commonly known as the *valetudinarium*. Early medieval jewellery discovered in the cemetery of Sector IV has been excluded, since the author published it earlier, separately.

Keywords: Novae, *legio I Italica*, Roman jewellery, rings, bracelets, combs, glass beads, *lunulae*

Introduction

Between 1966 and 2010, a considerable but then again not all too large quantity of 138 pieces of diverse jewellery was found in fieldwork Sector IV at Novae,[1] that is: the Flavian baths (*thermae*),[2] the subsequent Trajanic military hospital (*valetudinarium*),[3] and the Late Antique civil building complex.[4] Given the nature of these buildings, finds of jewellery from those phases of Sector IV are usually out of context, unlike those from the early medieval graveyard, which was also investigated. The latter however are not discussed here,[5] neither are fibulae.

The present contribution by no means constitutes a complete catalogue of finds. Its purpose instead is twofold: to serve as a basis for a comprehensive publication in the future, and also to establish the statistics of this find category for a military-cum-civilian site as comparative material for investigations at other Roman limes fortifications. In the context of the latter, the present contribution hints at the question of the presence of women in the operational period of the military fort in the first and second centuries, i.e. before civilians started settling *intra muros* after the third century.

Chronology

Most of the finds represent forms which were in use over several centuries and hence are not useful chronological indicators by themselves. In some cases the state of preservation makes a clear

[1] For an overview and further reading on Sector IV see: Dyczek 2008; 2021. I express my gratitude to Piotr Dyczek for his permission to publish the present text.
[2] Dyczek 2009; Lemke 2011.
[3] Dyczek 1997; Dyczek 2004.
[4] One of the buildings is usually referred to as the courtyard house, cf. Dyczek 2005; Lemke 2015.
[5] Lemke 2005; Lemke 2006. The sole exception is, for typological reasons, the *lunula* no. 64/01w.

identification impossible. Either way, the dating of the given archaeological strata often remains the only possibility to establish the chronology of the given piece of jewellery. For the sake of clarity, the finds in the tables below have been appointed to one of the three basic chronological phases[6] by their stratigraphic context, thus establishing their approximate time of production and usage. This was not a difficult task regarding the Flavian bath and the *valetudinarium*, but in several cases objects from Late Antique layers appear to date to earlier periods and simply constitute intrusive finds. This has been marked below.

State of Research

The "Roman" jewellery from Sector IV (first–sixth century) has been researched a number of times, but there are no publications dealing exclusively and holistically with the topic. The most encompassing contributions are two unpublished MA papers by Reneta Kiračina,[7] covering the years 1961–1984 for all fieldwork sectors, and Anna Mróz for Sector IV in 1985–2002.[8] The latter author published a selection from her thesis on glass bracelets and beads.[9] Recently, a BA paper by Anna Jakubowska on jewellery from Novae included several finds from Sector IV, predating the division of the archaeological team from the University of Warsaw into two separate expeditions in the 1990s.[10] Furthermore, some metal jewellery has been published by Włodzimierz Gacuta as part of his contributions on finds made of this material for various timespans.[11] Pavlina Vladkova in turn prepared a contribution on objects made of bone,[12] while Evgenia Genčeva summarised finds of metal;[13] both include jewellery. The first discussion on the presence of such finds on the premises of a legionary fort was published by Agnieszka Tomas[14]. Moreover, there is a number of contributions on jewellery from other fieldwork sections, which need to be taken into account when looking at the presence of this find category across the site in general.[15] A general caveat regarding finds registered as jewellery in the documentation is that, particularly in the case of small, damaged bronze objects, the interpretation may simply be wrong and the ornament of wire in question in fact served a different purpose.

Classification

The presentation of finds in the catalogue below will follow the find categories used by the excavators, as follows:

1) Bracelets
2) Rings
3) Pearls/beads
4) Pendants/amulets
5) Earrings
6) Chains/earrings with chains
7) Hairpins
8) Combs

[6] For a closer look at the 14 specific phases distinguished in Sector IV cf. Dyczek 2011.
[7] Kiračina 1983.
[8] Mróz 2003.
[9] Mróz 2005.
[10] Jakubowska 2024.
[11] Gacuta 1978; Gacuta 1987; Gacuta 1993.
[12] Dyczek 1995; Vladkova 1999; 2005.
[13] Genčeva 1998; Genčeva 2000.
[14] Tomas 2011.
[15] Kiračina 1983; Kiračina 1991.

Within each category the items are sorted by year and number. As a principal comparative source the present paper relies heavily on the contribution by Emilie Riha,[16] which concerns the same categories (except for the combs), from a comparable if not identical context, albeit for a far higher number of finds, making it an excellent source of analogies.

Tables of Finds

The inventory numbers in the tables for each category refer to the small find register prepared each year during excavation. The quality of the finds is diverse and so is the quality of the available documentation. Hence the description, while striving for a common pattern, includes more details on some finds and fewer for others. This does not reflect the opinion of the author, but the state of documentation and should be seen as an incentive to prepare a uniform catalogue in the future. The chronology, as stated above, is based whenever possible upon the dating of a particular form, but when this is not available, the overall dating of the layer was taken into account, within the restrictions mentioned above.

1. Bracelets (Table 1)

A total of 31 bracelets have been found in Sector IV, which makes them the second largest group of finds.
Bracelets made from non-valuable materials (bronze, glass, bone) were often thrown away when damaged. Bronze bracelets could be made from a round rod bent to shape, from sheet bronze or wire, but they could also be cast.[17] Glass bracelets are usually made of "black"-looking glass, which in fact is dark green, but coloured so densely it appears black. The original colour can be seen on splinters, though. The glass can be shiny but is usually matte on the surface.

At Novae, 77% of the bracelets are made of glass and 16% of bronze (of the remaining two specimens, one is made of bone, the other of iron). The variety of forms is proof of the popularity of this sort of trinket, which was probably produced as cheap jewellery and mass wares for mass wear by the poorer population during the principate. The value of the material is an interesting question, since glass vessels are usually perceived as expensive luxury items, while the bracelets, produced through a simple technique using recycled glass, could not have been very expensive and should be perceived on par with the bronze jewellery.

The production technique in the Roman world in general shows a number of variants, stemming partly from Celtic roots.[18]

The glass bracelets were bent either from a glass ribbon or rod, each possibly twisted before bending. Often they are open and in the case of closed bracelets the seam is frequently quite visible. Glass bracelets could be ribbed lengthwise for decoration or adorned with lateral notches. Good examples for this category (including the usual state of preservation) are finds 194/01w (bronze) and 54/02w (glass) [Fig. 1].

[16] Riha 1990.
[17] Riha 1990, p. 52.
[18] Riha 1990, p. 53.

Fig. 1. Bracelets, inv. nos. 194/01 (bronze, left) and 54/02 (glass, right). Photo J. Recław

Table 1. Bracelets from Sector IV

No.	**Inventory Number**	**Type**	**Description, as per find inventory and information on context and publication, if applicable** (measurements in cm)	**Material**	**Dating** (centuries)
1	22/65w	Bracelet	Dark glass, fragment of a ribbon bracelet adorned on the outside with diagonally twisted carvings. Diameter 0.9; length 6.5. Published: Majewski *et alii* 1967, p. 155, fig. 27.	Glass	4th–7th
2	52/65w	Bracelet	Fragment of a glass bracelet. Length 5.0; thickness 0.5 × 0.7.	Glass	3rd–4th
3	26/66w	Bracelet	Fragment of a ribbon bracelet made of glass paste, with a rounded surface bearing a concave meandering ornament in the middle. The bracelet is dark while the ornament was added with white glass paste, partially molten into the surface. Length 2.1; thickness 0.4; width 1.0.	Glass	4th
4	16/67w	Bracelet	Fragment of a glass bracelet, semicircular in section. Length 6.2; width 0.6; height 0.5.	Glass	3rd–4th
5	63/71w	Bracelet	Bracelet with a smooth but corroded surface, made of a circular iron rod. Diameter 6. Published: Majewski *et alii* 1974, p. 132, table II, 8.	Iron	5th–6th
6	60/75w	Bracelet	Fragment of a glass bracelet.	Glass	3rd–4th
7	304/77w	Bracelet	Fragment of a grey and yellow glass bracelet. Length 2.8; width 0.7; thickness 0.6.	Glass	3rd–4th
8	44/79w	Bracelet	Fragments of a bone bracelet, circular in section.	Bone	3rd–4th
9	169/79w	Bracelet	Fragment of a glass bracelet with a spiral-twisted surface. Drawn from a single piece of glass. Diameter 0.4; length 1.8.	Glass	4th–7th

10	35/93w	Bracelet	Light glass, triangular section.	Glass	6th
11	214/93w	Bracelet	From the courtyard house. Diameter 5.6.	Glass	4th
12	87/95w	Bracelet	From a channel or pit above room 45 of the *valetudinarium*. Very dark glass, semicircular in section.	Glass	3rd–4th
13	99/95w	Bracelet	Room 7 of the *valetudinarium*. Semicircular in section. Thickness 0.5.	Glass	first half 4th
14	254/96w	Bracelet	Open bracelet, one end shaped as a snakehead, the other broadened.	Bronze	3rd
15	82/97w	Bracelet	Closed bracelet with a smooth surface and a rectangular section. Diameter 5.1; inner diameter 4.7; width 0.4.	Bronze	4th
16	131/97w	Bracelet	Thickness 0.7.	Glass	3rd
17	75/98w	Bracelet	Black/dark green glass. Thickness 0.8–0.55, length 3.5.	Glass	3rd/4th
18	162/98w	Bracelet	Blue colour. Rubble layer of the *valetudinarium*. Semicircular in section. Length 5.6; diameter 1.1–0.6.	Glass	3rd
19	126/99w	Bracelet	Dark blue glass, semicircular in section. Length 3.7; diameter 0.5.	Glass	6th
20	226/00w	Bracelet	Semicircular in section. Outer diameter 6.0; thickness 1.1.	Glass	3rd/4th
21	343/00w	Bracelet	Diagonally twisted. Length 5.0; thickness 0.3.	Bronze	3rd/4th
22	319/00w	Bracelet	Room 9 of the *valetudinarium*. Blue glass; semicircular in section. Length 6.3; thickness 4.0.	Glass	3rd
23	73/01w	Bracelet	Open bracelet, smooth surface, circular in section. Length 6.0; width 0.5.	Bronze	4th
24	173/01w	Bracelet	Dark blue glass, semicircular in section. Diameter 0.6; length 4.5.	Glass	6th
25	199/01w	Bracelet	Dark blue glass, semicircular in section. Diameter 0.4; length 3.5.	Glass	6th
26	47/02w	Bracelet	Fragment in the shape of an open circle, uneven surface, rectangular in section.	Bronze	6th
27	54/02w	Bracelet	Dark blue glass, ovoid in section. Width 0.6.	Glass	3rd
28	202/03w	Bracelet	Length 6.8; thickness 0.6.	Glass	2nd
29	233/03w	Bracelet	Measurements 2.6 × 1.1 × 0.4.	Glass	3rd/4th
30	22/04w	Bracelet	Black opaque glass. Length 4.0; thickness 0.8.	Glass	3rd
31	55/05w	Bracelet	Milky, colourless glass. Length 4.2; thickness 0.6.	Glass	2nd

2. Rings (Table 2)

A total of 19 finger rings were found in Sector IV. Obviously, this form of trinket is far older than Roman culture itself. However, despite its simplicity, there are certain variations, rooted in the Hellenistic and the Republican cultures, especially those with a protruding small plate. During the second century, the tendency to flatten and enlarge this plate became stronger and the separation from the band more distinct. The separation was further stressed throughout the third century, although the plate became smaller again.[19] Fine examples from Novae Sector IV are the finds 250/01w [Fig. 2, left] and 59/03w [Fig. 2, right].

Fig. 2. Rings, inv. nos. 250/01w (left) and 59/03w (right). Photo J. Recław

Emilie Riha remarks how, in the fourth century, the band and plate were entirely separately produced and then attached to one another. There are also other forms of adornment: etched and stamped motifs, as well as inscriptions, and in some cases decorative key motifs occur. Apart from these, bands of various profiles were in use throughout the principate, and have often been identified as engagement rings.[20]

Table 2. Rings from Sector IV

No.	**Inventory Number**	**Type**	**Description, as per find inventory and information on context and publication, if applicable** (measurements in cm)	**Material**	**Dating** (centuries)
1	14/71w	Band	Copper ribbon band. Flat on the inside and convex on the outside. Diameter 2.5; thickness 0.6.	Copper	3rd–4th
2	277/79w	Ring	Bronze, made of a solid band, circular in diameter. The circle is not closed, the ends are broadened. Diameter 2.0.	Bronze	4th

[19] Riha 1990, p. 26.
[20] Riha 1990, p. 27; cf. Henkel 1913.

3	284/79w	Ring	Bronze ring with a flat band and a rectangular gem.	Bronze	3rd–4th
4	1/85w	Ring	First phase of the civilian settlement. Crafted in a two part mould; a small gem in a setting. Outer diameter 2.29; inner diameter 1.64; thickness 0.6.	Bronze	3rd–4th
5	228/87w	Band	Room 15b of the *valetudinarium*. Smooth closed band of round wire. Diameter 2.5; thickness 0.3.	Bronze	3rd
6	46/89w	Band	Below the floor level of the *valetudinarium*. Band, semicircular in section. Diameter 1.24; thickness 0.31. Published: Press *et alii* 1992, p. 125.	Bronze	1st–2nd
7	217/93w	Ring	Level of the *valetudinarium*. Length 2.1; width 2.7.	Bronze	1st–2nd
8	152/95w	Band	Rubble layer in room 45 of the *valetudinarium*.	Bronze	first half 3rd
9	32/98w	Band	Band made of open bronze sheet. The ends overlap, one is broadened. Outer diameter 1.81; inner diameter 1.35; thickness 0.4.	Bronze	4th
10	53/98w	Ring	Rubble layer of the civilian phase. A convex cobalt glass gemstone wrapped in gold foil. Outer diameter 2.0; thickness of the setting 0.1 × 0.2–0.3. Published: Dyczek 2001, p. 98.	Bronze	early 4th
11	136/98w	Band	Ribbon band, open, the ends overlap. The surface is adorned with elongated carvings. Outer diameter 2.2; width 0.7; thickness 0.8.	Bronze	4th
12	141/98w	Band	Made of wound wire. Diameter 2.0, thickness 0.15–0.35.	Bronze	2nd–3rd
13	149/98w	Band	Outer diameter 2.1; section 0.28–0.09.	Bronze	3rd
14	92/00w	Ring	Ring with a flat shield, which has been hammered out of the band. The band is semicircular in section. Inner diameter 2.15; outer diameter 2.4; thickness 0.15.	Bronze	4th
15	250/01w	Ring	Ring with a round, solid etting attached to a thick wire. Diameter 2.0; height 2.3.	Bronze	4th
16	4/02w	Ring	Ring with a small elongated and smooth setting hammered out of the band.	Bronze	4th
17	31/03w	Ring	Diameter 2.4; thickness 0.3.	Bronze	3rd–4th
18	59/03w	Ring	Diameter 1.8; thickness 0.1.	Bronze	3rd–4th
19	51/07w	Ring	Slightly damaged, secondarily attached ornament. Diameter 2.1; thickness 0.15; width of the ornament 0.4.	Bronze	2nd

3. Pearls/Beads (Table 3)

Pearls and beads constitute the third largest group of jewellery-related finds in sector IV, with 26 specimens. The most common type in this category is the glass bead made of *Kieselkeramik*. Good examples are the finds 95/01w and 58/02w [Fig. 3].

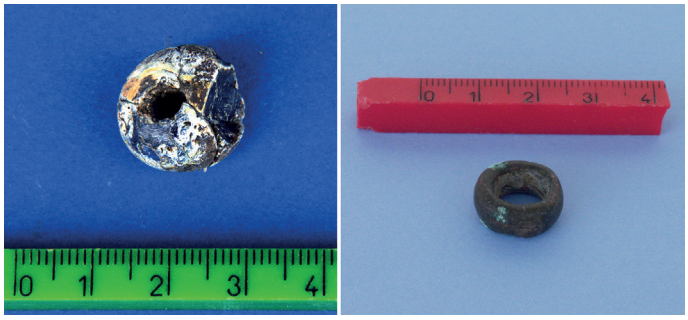

Fig. 3. Glass beads, inv. nos. 95/01w (left) and 58/02w (right). Photo J. Recław

Cobalt blue pearls were not worn as sets, but single pieces were included in a necklace of common beads as an amulet because of their "magic" blue colour.[21] The blue pearls were imported into the provinces since the early principate; they were most common towards the end of the first and early second century, and their number continually decreased into the third century. They are not found as part of necklaces in Late Roman burials, however. Their long continuity makes chronological classification based on their development very difficult, although the category in general can be broken down into more than a dozen different types.[22] The production process, on the other hand, was not very difficult at all, even though it required a certain dexterity, as the pearls were made in a single operation out of a heated glass rod.[23]

Egyptian faience is a easily formable mass consisting of crushed quartz, glass powder, and an organic binding agent which is heated to a temperature of 600–800 °C. The colour of the core is usually light blue/grey, grey/brown or grey/white. The pearls could be coated with a blue/green, cyan or light green colour, a colour dubbed Egyptian blue.[24]

Melon pearls are quite uniform in their appearance; slightly flattened spheres, broader than they are high, with dimensions varying roughly between 1 and 2 cm. The vertical grooves are a characteristic adornment, as seen on find 1/07w [Fig. 4].

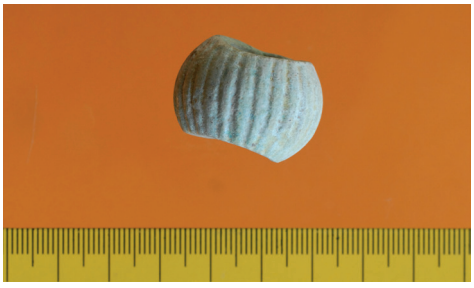

Fig. 4. Melon pearl, inv. no. 1/07w. Photo J. Recław

[21] Riha 1990, p. 80.
[22] Riha 1990, pp. 77–94; cf. Guido 1978.
[23] For details see: Stern 1990, p. 93; Höpken 2003.
[24] Riha 1990, pp. 80–83.

Table 3. Pearls and beads from Sector IV

No.	Inventory Number	Type	Description, as per find inventory and information on context and publication, if applicable (measurements in cm)	Material	Dating (century/ies)
1	212/93w	Glass bead	Rubble layer of Flavian bath. Large round melon glass bead, with a big hole. Max. diameter 1.35.	Glass	end of 1st
2	235/93w	Two glass beads	Surface finds. Flat and spheric shapes. Diameter 2.3 and 1.55.	Glass	3rd–4th
3	46/94w	Glass bead	Found along with an onion-head fibula from the fourth cent. Segmented glass bead from 5 pieces. Diameter 0.6.	Glass	4th
4	244/96w	Glass bead	Melon glass bead with a big round hole.	Glass	2nd–3rd
5	264/96w	Glass bead	Melon glass bead found in room 69, beneath the level of the *valetudinarium*.	Glass	2nd–3rd
6	268/96w	Glass bead	Polysided glass bead.	Glass	3rd–4th
7	286/96w	Glass bead	Elongated glass bead, roller shape.	Glass	3rd
8	352/96w	Glass bead	Glass bead of black glass, melon shape.	Glass	3rd–4th
9	29/99w	Glass bead	Rubble layer of the *valetudinarium*. Melon glass bead, damaged. Thickness 1.1; diameter 1.5. Published: Dyczek 2001, p. 99.	Glass	3rd
10	82/99w	Glass bead	Roller-shaped glass bead, adorned with sideways carvings. Diameter of the opening 0.5.	Glass	2nd–3rd
11	282/00w	Bead (?)	Outer diameter 1.9; inner diameter 0.6; thickness 0.8.	Bone	2nd–3rd
12	371/00w	Glass bead	Rubble layer of the *valetudinarium*. Melon shape; yellow tint. Outer diameter 1.5; inner diameter 0.5.	Glass	3rd
13	95/01w	Glass bead	Spheric glass bead of dark blue glass. Thickness 1.4; diameter 1.8.	Glass	4th
14	204/01w	Glass bead	Glass bead, roller shape. Width 2.1; diameter 0.6.	Glass	6th
15	16/03w	Glass bead	Height 1.2; diameter 1.6.	Glass	4th
16	82/03w	Glass bead	Diameter 0.6.	Glass	3rd
17	84/03w	Ceramic bead	Diameter 1.4; thickness 0.5.	Clay	3rd–4th
18	88/05w	Pearl	Diameter 0.7.	Bronze	2nd
19	74/08w	Glass bead	Cyan tint. Height 1.0; diameter 1.3.	Glass	1st

20	47/09w	Melon glass bead	Found atop the *opus spicatum* of the Flavian *thermae*. Measurements 1.4 × 1.2.	Glass	1st
21	95/09w	Melon glass bead	Glass bead. Opaque. The lengthwise striations have been ground. Circular opening with a diameter of 0.05. Measurements 1.0 × 1.1 × 0.3.	Glass	1st
22	106/09w	Melon glass bead	Glass bead, striated. Opaque. Colour: cyan. The lengthwise striations have been ground. Measurements 1.1 × 1.4.	Glass	1st
23	119/09w	Two melon glass beads	Two striated glass beads. The lengthwise striations have been ground. Measurements 1.4 × 1.4 and 1.1 × 0.3.	Glass	2nd
24	17/10w	Glass bead	Blue, with traces of yellow, rosette-shaped ribbing. Measurements 1.5 × 0.6.	Glass	2nd
25	72/10w	Glass bead	Colour: cyan. Vertical striations. Measurements 1.3 × 1.0 × 0.3.	Glass	1st
26	102/10w	Glass bead	Colour: green-yellow. Vertical striations. Measurements 1.9 × 1.2 × 0.6.	Glass	1st

4. Pendants/Amulets (Table 4)

A moderate number, fourteen finds, classified as pendants or amulets were found in Sector IV. In addition to certain aesthetic attributes, amulets were meant to magically protect the wearer from evil. This includes amulets in the shape of *phalloi*, *lunulae*, and the Hercules club, but also blue glass beads.[25] In this context, it has to be considered that both *lunulae* as well as glass beads were also used for adorning horse gear,[26] which usually—but not always—is visible from the size of the "jewellery", as for find 49/05w [Fig. 5].

Fig. 5. Horse pendant with *lunula*, inv. no. 49/05. Photo J. Recław

[25] Riha 1990, p. 73.
[26] Bishop 1988, *passim*; Van der Veen 2020.

The magic of the *lunula* was based on the connection between woman and moon.[27] They symbolize fertility and are the equivalent to *phalloi* for men. However, in Roman times the original intention was slightly modified, leaving the *lunula* as an apotropaic amulet meant to shield the owner from harm.[28] *Lunula*-shaped pendants can be observed from the first century, but it is hardly possible to establish a precise chronology for these finds, because they did not evolve in a way that could allow the establishing of a typology[29] and could also have been in use for extended periods of time. A point in case is the Roman lunula discovered in an early medieval burial in Sector IV (64/01w) [Fig. 6, left]. Another example is find 286/01w [Fig. 6, right].

Fig. 6. *Lunulae*, inv. nos. 64/01 (left) and 286/01 (right). Photo J. Recław

Table 4. Pendants/amulets from Sector IV

No.	Inventory Number	Type	Description, as per find inventory and information on context and publication, if applicable (measurements in cm)	Material	Dating (centuries)
1	203/87w	Pendant	Floor level of the *valetudinarium*. Solid flat, round pendant with a thick loop Diameter 2.0; height 2.7; thickness 0.2. Published: Press *et alii* 1991, p. 139.	Bronze	2nd–3rd
2	88/89w	Pendant	Level of the Flavian bath. Heart-shaped pendant, elongated, with a loop attached with a pin. Length 5.64; width 3.95; thickness 0.1.	Bronze	late 1st
3	249/96w	Pendant	Flat, oval pendant. Published: Dyczek 1998, p. 48.	Sardony	late 3rd
4	140/98w	Pendant	Heart-shaped pendant, a loop has been made by bending the upper part of the object. Width 3.1; height 3.7; opening diameter 0.65.	Bronze	2nd–3rd
5	64/01w	*Lunula*	Found in a medieval grave, but of earlier manufacture. The surface has been decorated, solid loop, the sides end in small circles that touch.	Bronze	2nd–3rd?

[27] Riha 1990, p. 73; cf. Mihailescu-Bîrliba 2017.
[28] Mihailescu-Bîrliba 2017.
[29] Riha 1990, p. 73. Still, attempts at such typologies have been made, cf. Simniskyte 2002; Mihailescu-Bîrliba 2017.

6	112/01w	Amulet	Donar/Hercules club amulet adorned with concentric circles and carved lines.	Bone	3rd–4th
7	286/01w	*Lunula*	Bronze sheet, the ends do not touch.	Bronze	4th
8	57/02w	Pendant	Heart-shaped pendant, elongated, with a loop.	Bronze	3rd
9	49/05w	Pendant	Length 6.8; width 4.4; thickness 0.15.	Bronze	4th
10	22/07w	Pendant	Pendant made of thin sheet, two ornamental circles are visible on the surface. Severely damaged. Diameter 2.8; thickness 0.05.	Bronze	1st–2nd
11	73/08w	Pendant	Length 2.4; thickness 0.2.	Bronze	1st
12	142/08w	Pendant	Length 4.7; width 4.1; thickness 0.3.	Bronze	1st
13	21/09w	Pendant /locket	Bronze pendant, maybe a locket or small bell. Traces of a locking mechanism are visible. Measurements 2.8 × 1.2; loop diameter 0.4.	Bronze	2nd?
14	36/10w	Pendant	Part of an unfolding medallion. Measurements 1.8 × 0.1.	Bronze	1st–2nd

5. Earrings (Table 5)

Earrings made of gold or silver were among the most popular types of jewellery in the principate. However they are only a small proportion (two specimens) of the jewellery from Sector IV, except for the medieval graves, where bronze earrings constitute the largest group, described elsewhere.[30] E. Riha suspects the danger of contracting an infection when piercing the ear with an earring made of a less inert material than gold or silver could have been one reason why earrings made of bronze were not as popular, while delicate pieces made of gold or silver were expensive and also less resistant to damage.[31] Still, there are examples from the Roman layers of Sector IV, such as finds 266/00w and 51/07w [Fig. 7].

Fig. 7. Earrings, inv. nos. 266/00w (left) and 51/07w (right). Photo J. Recław

[30] Lemke 2006.
[31] Riha 1990, p. 70. For the gold and silver 'high-end' jewellery in Moesia Inferior see: Higgins 1961; Ruseva-Slokoska 1991.

Table 5. Earrings from Sector IV

No.	Inventory Number	Type	Description, as per find inventory and information on context and publication, if applicable (measurements in cm)	Material	Dating (centuries)
1	31/85w	Earring	Discovered below the entrance to the *valetudinarium*. Composite earring. Metal part: length 4.3; width 2.0; thickness 0.14; glass gem: length 1.0; diameter 0.5; thickness 0.4. Published: Press *et alii* 1989, p. 154, fig. 14.	Bronze	4th–6th
2	266/00w	Earring	Band-type earring. Diameter 2.7; thickness 0.1.	Bronze	3rd–4th
3	51/07w	Earring	Bronze band, part of composite earring with hanger. Diameter 2.1; thickness 0.15.	Bronze	2nd

6. Chains/Earrings with Chains (Table 6)

Four small chains were found during fieldwork, all of which were probably pieces of personal jewellery. The best preserved example is 84/05w [Fig. 8]. Chains made of bronze wire, sometimes with attached pearls, were meant to imitate fine chains of gold wire, popular in the second and third centuries. An interesting variation are chains which are part of a composite ornament, such as find 6/64w [Fig. 9, left], not found in Sector IV but rather in the northwestern corner of the fortress, Sector III,[32] or 31/85 [Fig. 9, right], interpreted as an earring. The fine chain fragment 298/01w might have been part of a similar piece, as with the above-mentioned earring 51/07w [Fig. 7, right]. Golden versions of this type of earring are known from Serdica and Ratiaria.[33]

Fig. 8. Small chain, inv. no. 84/05w. Photo J. Recław

Fig. 9. Composite earrings, inv. nos. 6/64w (not from Sector IV, photo J. Recław) and 31/85w (photo T. Biniewski)

[32] Gacuta 1987, p. 164, no. 342.
[33] Ruseva-Slokoska 1991, p. 105, nos. 4 and 5.

Table 6. Chains/earrings with chains from Sector IV

No.	Inventory Number	Type	Description, as per find inventory and information on context and publication, if applicable (measurements in cm)	Material	Dating (centuries)
1	3/87w	Chain	Room 14 of the *valetudinarium*. Four fragments of a chain plaited from four wires. Length 12.10; thickness 0.9.	Bronze	early 3rd
2	150/96w	Chain	Room 9 of the *valetudinarium*. Fragment of a plaited chain.	Bronze	2nd/3rd
3	298/01w	Chain	Three small fragments of a chain, possibly from a fastening.	Bronze	6th
4	84/05w	Chain	Three links. Length 3.7; width 2.0; thickness 0.2.	Bronze	2nd

7. Hairpins (Table 7)

Surprisingly or not, hairpins are the single largest group of jewellery-related finds from Sector IV. E. Riha distinguishes between 27 categories including variant forms for the hairpins from Augst, where hairpins also constitute the largest group of jewellery (48%) based on a total of several hundred specimens. In our case, hairpins are also the largest group, albeit comprising only 25% within the defined categories (which slightly differ from those at Augst). The most complete typology has been prepared by Erwin Ruprechtsberger.[34]

The double function of hairpins as a utility item and jewellery is an old one, the hairpin being an elongated shaft with one pointed end and a head defined by ornamental carvings, holding the hair knot in place, with numerous variations on this basic scheme. The shape of the bone hairpins is comparable to similar objects made of bronze.[35] The development of the *acus crinalis* was obviously closely linked to the changing fashion of women's hairstyle, which had been quite simple in the Republic and became more sophisticated in the principate.[36]

The hairpins were mostly made of bone or horn, and certainly could be produced locally. More than any other form of jewellery, however, hairpins raise the question of to what extent women were present in the legionary fortress. Examples from Sector IV include 99/00w, 218/00w, 292/00w and 51/03w [Fig. 10].

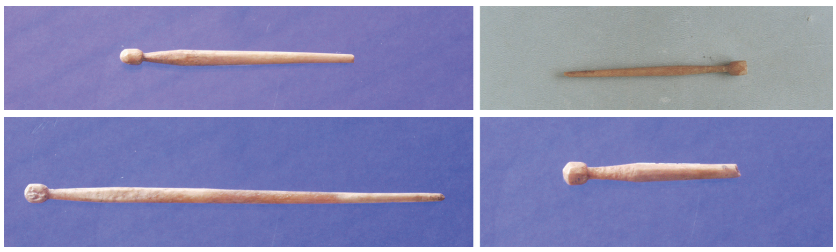

Fig. 10. Bone hairpins, inv. nos. 99/00w (top left), 218/00w (top right), 292/00w (bottom left), and 51/03w (bottom right). Photo J. Recław

[34] Ruprechtsberger 1979.
[35] Dimitrova-Milčeva 2006, pp. 96–98.
[36] Riha 1990, p. 95.

The bronze hairpins were also rather cheap and practically formed, although for a more sophisticated hairstyle requiring several hairpins it seems logical to assume that the lighter bone pins were preferred, while on the other hand bronze specimens could be more elaborately decorated like find 57/08w [Fig. 11].

Fig. 11. Bronze hairpin, inv. no. 57/08w. Photo J. Recław

Table 7. Hairpins from Sector IV

No.	**Inventory Number**	**Type**	**Description, as per find inventory and information on context and publication, if applicable** (measurements in cm)	**Material**	**Dating** (centuries)
1	177/89w	Hairpin	Discovered in a rubble layer of the *valetudinarium*. Ovoid head. Length 10.0; thickness 0.4; head diameter 0.4.	Bone	3rd
2	75/93w	Hairpin	Hairpin with double conic head. Length 8.7.	Bronze	late 3rd–first half 4th
3	121/93w	Hairpin	Hairpin with pinecone-shaped head.	Bone	4th
4	124/93w	Hairpin	Hairpin with dome-shaped head. Length 10.7; head diameter 0.7.	Bone	second half 4th
5	228/93w	Hairpin	Hairpin with dome-shaped head. Length 5.9; head diameter 0.7.	Bone	3rd–4th
6	68/94w	Hairpin	Hairpin with small round head. Length 6.6; diameter 0.45.	Bone	first half 4th
7	87/94w	Hairpin	Hairpin with polygonal head. Length 6.0; diameter 0.4.	Bone	2nd
8	88/94w	Hairpin	Length 9.0; diameter 0.6.	Bone	2nd
9	153/95w	Hairpin	Hairpin with small round head. Length 9.7; thickness 0.3.	Bone	late 3rd
10	348/96w	Hairpin	Hairpin with large round head.	Bone	4th
11	83/97w	Hairpin	Hairpin with polygonal head.	Bone	2nd–3rd
12	110/99w	Hairpin	Hairpin with large round head. Length 9.2.	Bronze	6th
13	99/00w	Hairpin	Hairpin with ovoid head. Length 5.9; thickness 0.3.	Bone	3rd
14	111/00w	Hairpin	Bronze hairpin, broken in two pieces. Length 4.4 and 2.9.	Bronze	4th
15	218/00w	Hairpin	Polygonal head. Length 9.2; thickness 0.3–0.4,	Bone	4th
16	292/00w	Hairpin	Small round head. Length 10.8.	Bone	3rd
17	392/00w	Hairpin	Small round head. Length 6.7; diameter 0.4.	Bone	3rd
18	162/01w	Hairpin	Large round head. Length 7.3; diameter 0.2–0.7.	Bronze	4th
19	206/01w	Hairpin	Two pieces, probably oval head. Length 7.6; diameter 0.4–0.8.	Bronze	6th

20	246/01w	Hairpin	Head not preserved. Length 7.5; diameter 0.3.	Bronze	6th
21	79/03w	Hairpin	Length 6.9; thickness 0.4.	Bone	2nd–3rd
22	91/03w	Hairpin	Length 1.6; thickness 0.6.	Bone	3rd
23	64/04w	Hairpin	Length 5.0; thickness 0.3.	Bone	mid-2nd
24	65/04w	Hairpin	Length 6.0; thickness 0.4.	Bone	3rd–4th
25	71/05w	Hairpin	Length 9.1; thickness 0.3.	Bone	3rd
26	103/05w	Hairpin	Length 8.7; thickness 0.3.	Bone	3rd
27	33/06w	Hairpin	Length 9.7; width 0.9.	Bone	2nd
28	40/06w	Hairpin	Length 8.6; width 0.7.	Bone	3rd
29	37/07w	Hairpin	Length 7.7; thickness 0.5.	Bone	3rd
30	49/07w	Hairpin	Length 11.5; thickness 0.3.	Bronze	2nd
31	57/08w	Hairpin	Length 8.4; thickness 0.3.	Bronze	2nd
32	101/09w	Hairpin	Measurements 10.0 × 0.5.	Bone	1st
33	127/09w	Hairpin	Length 6.9; width 0.5; thickness 0.35.	Bone	1st–2nd
34	37/10w	Hairpin	Measurements 9.8 × 0.2.	Bronze	2nd
35	68/10w	Hairpin	Openings for attaching further elements, carved ornament in the lower part. Measurements 9.2 × 1.2 × 0.92.	Bone	2nd–3rd

8. Combs (Table 8)

Arguably, combs are not jewellery *per se*, even though they can and have been used as accessories in fancy hairstyles, especially specimens with a single row of teeth,[37] so six such objects found in Sector IV are included here (170/00w, 188/00w, 12/03w, 72/03w, 140/08w, 23/09w) [Fig. 12]. Some combs, including those from Sector IV, but also from other findspots at Novae, have been published earlier.[38]

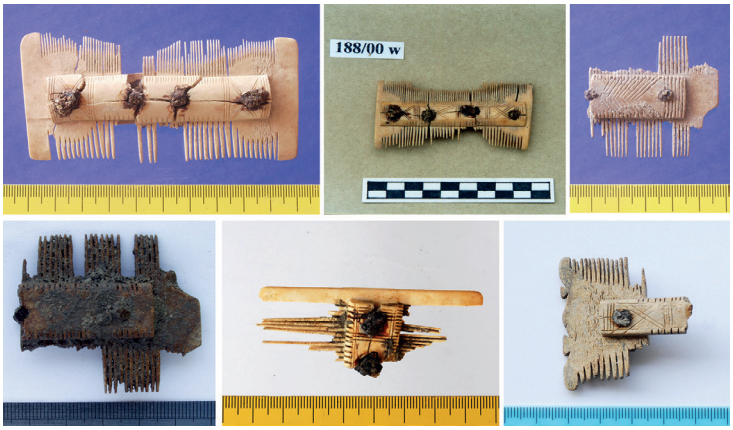

Fig. 12. Combs, inv. nos. 170/00, 188/00, 12/03 (top, left to right), and 72/03, 140/08, 23/09 (bottom, left to right). Photo J. Recław

[37] Mróz 2003, pp. 74–75.
[38] Brzeziński 1992; Vladkova 2005.

Table 8. Combs from Sector IV

No.	Inventory Number	Type	Description, as per find inventory (measurements in cm)	Material	Dating (centuries)
1	170/00w	Comb	Length 10.5; height 4.2; thickness 0.9.	Bone	2nd–3rd
2	188/00w	Comb	Length 9.0; height 4.1; thickness 0.8.	Bone	2nd–3rd
3	12/03w	Comb	Length 4.7; height 4.2; thickness 0.7.	Bone	2nd
4	72/03w	Comb	Length 5.0; width 4.5; thickness 0.8.	Bone	late 3rd
5	140/08w	Comb	Length 7.2; height 3.1; thickness 1.0.	Bone	1st–2nd
6	23/09w	Comb	Damaged two-sided comb. Varying width of the teeth on both sides. One iron pin is preserved joining the layers of the comb. Measurements 4.2 × 4.1 × 0.3.	Bone	1st

Conclusion

A number of glass workshops are attested at Novae, including one in Sector IV itself.[39] We know glass vessels were produced there, but given the rather simple requirements for making either glass bracelets or pearls, we may well assume that in Late Antiquity such inexpensive pieces of jewellery were available at Novae as a 'home-made' version.

It is a rather trivial historical tendency that jewellery was worn by women, albeit not exclusively and certainly Roman military men did not shun trinkets. A long-debated topic in *limes* studies is whether women were allowed on the premises of legionary forts. However, even though the majority of not only jewellery, but also 'feminine-related' finds indeed came from the Late Antique period, we still have examples quite precisely dated to the operational period of the *castra*, providing fuel to the ongoing discussion, whether women would have had entry to the masculine world of a legionary fortress.[40] Naturally, a Roman soldier's armour, even in its simplest functional issue, also could have elements of decoration, which, when discovered in a deteriorated state, may be mistaken for jewellery in certain instances.

Overall, the amount and diversity of finds of Roman jewellery in Sector IV represent a somewhat median value in terms of both quality and quantity in comparison to other legionary forts. However, Novae was a medium-sized legionary fortress in a medium-sized province, initially of medium importance.[41] Water always finds its level, and so does jewellery in a Roman fortress, as it would appear.

Bibliography

Allison 2006 — P. M. Allison, "Mapping for gender. Interpreting artefact distribution inside 1st- and 2nd-century A.D. forts in Roman Germany", *Archaeological Dialogues* 13(), pp. 1–20.

Allison 2007 — P. M. Allison, "Artifact distribution within the auxiliary fort at Ellingen: evidence for building use and for the presence of women and children", *Bericht der Römisch-Germanischen Kommission* 87 (2006), pp. 387–452.

[39] Dyczek 1999; cf. Olczak 1988; Genčeva 1999.

[40] For a discussion on women in Roman military camps, especially Novae see: Tomas 2011; Tomas 2015; cf. Allison 2006; Allison 2007.

[41] On the relative importance of Novae: Lemke 2018; Lemke 2024.

Bishop 1988 — M. C. Bishop, "Cavalry equipment of the Roman army in the first century A.D.", [in:] *Military Equipment and the Identity of Roman Soldiers. Proceedings of the Fourth Roman Military Equipment Conference* (= *B.A.R. International Series* 394), ed. J. C. Coulston, Oxford, pp. 67–195

Brzeziński 1992 — W. Brzeziński, "Grzebienie z Novae z odcinków II, IV, XI" [Combs from Novae found in Sectors II, IV, XI], *Novensia* 4, pp. 29–45.

Dimitrova-Milčeva 2006 — A. Dimitrova-Milčeva, *Die Bronzefunde aus Novae, Moesia Inferior*, Warszawa 2006.

Dyczek 1995 — P. Dyczek, "Bronze Finds from the Site of the Valetudinarium at Novae (Moesia Inferior)", [in:] *Acta of the 12th International Congress on Ancient Bronzes, Nijmegen 1992* (= *Nederlandse Archeologische Rapporten* 18), eds. S. T. A. M. Mols, A. M. Gerhartl-Witteveen, H. Kars, Nijmegen, pp. 365–372.

Dyczek 1997 — P. Dyczek, "The Valetudinarium at Novae – New Components", [in:] *Roman Frontier Studies 1995. Proceedings of the XVIth International Congress of Roman Frontier Studies* (= *Oxbow Monograph* 91), eds. W. Groenman-Van Waateringe, B. L. van Beek, W. J. H. Willems, S. L. Wynia, Oxford, pp. 199–204.

Dyczek 1998 — P. Dyczek, „Novae – Western Sector, 1996. Preliminary Report on the excavations of the Warsaw University Archaeological Expedition", *Archeologia* XLVIII (1997), pp. 43–49.

Dyczek 1999 — P. Dyczek, "A Glass Atelier from Sector IV in Novae", [in:] *Der Limes an der Unteren Donau von Diokletian bis Heraklios. Vorträge der Internationalen Konferenz Svištov, Bulgarien (1.–5. September 1998*, eds. G. von Bülow, A. Dimitrova-Milčeva, Sofia, pp. 99–104.

Dyczek 2001 — P. Dyczek, "Novae – Western Sector (Section IV), 1997–1999. Preliminary Report on the excavations of the Center for Archaeological Research – Novae, Warsaw University", *Archeologia* LI (2000), pp. 89–103.

Dyczek 2004 — P. Dyczek, "Why is the legionary hospital in Novae unique?", *Ephemeris Dacoromana. Serie nuova* 12(1), pp. 159–170.

Dyczek 2005 — P. Dyczek, "The site of the *valetudinarium* in Novae in the third century AD: Remodeling the Architecture", [in:] *Römische Städte und Festungen an der Donau. Akten der regionalen Konferenz, Beograd 16–19. Oktober 2003*, ed. M. Mirković, Beograd, pp. 231–238.

Dyczek 2008 — P. Dyczek, "Archaeological Excavations at Novae. A History of Research with special Consideration of Sector IV (Legionary Baths, *valetudinarium*, Late Architecture)", [in:] *Novae: Legionary Fortress and Late Antique Town*, vol. I: *A Companion on the Study of Novae*, eds. T. Derda, P. Dyczek, J. Kolendo, Warsaw, pp. 31–70.

Dyczek 2009 — P. Dyczek, "Flavian baths of *legio I Italica* from *Castrum Novae*", [in:] *Limes XX. XX Congreso internacional. De estudios sobre la frontera Romana. XXth International Congress of Roman Frontier Studies*, eds. Á. Morillo, N. Hanel, E. Martín, *Gladius* 13, Madrid, pp. 1477–1485.

Dyczek 2011 — P. Dyczek, "Settlement and architectural changes in sector IV", [in:] R. Ciołek, P. Dyczek, *Novae: Legionary Fortress and Late Antique Town*, vol. II: *Coins from Sector IV*, Warsaw, pp. 1–44.

Dyczek 2021 — P. Dyczek, *Novae. Bałkańskie wrota* / *Нове. Порта към Балканите* / *Novae. Gate to the Balkans*, Warszawa.

Gacuta 1978 — W. Gacuta, "Wybrane przedmioty metalowe z Novae (Kampania wykopaliskowa 1975)" [Selected metal objects from Novae (1975 excavation campaign)], *Archeologia* XXVIII (1977), pp. 187–193.

Gacuta 1987 — W. Gacuta, "Przedmioty metalowe z Novae – kampanie wykopaliskowe z lat 1960–1969, 1971, 1973, 1975 i 1977" [Metal objects from Novae

– excavation campaigns of 1960–1969, 1971, 1973, 1975, and 1977], *Novaensia* 1, pp. 75–175

Gacuta 1993 — W. Gacuta, "Przedmioty metalowe z Novae. 6 kampanii wykopaliskowych Ekspedycji Archeologicznej w latach 1977–1987" [Metal objects from Novae. Six campaigns of the Archaeological Expedition in 1977–1987], *Novensia* 5, pp. 7–178.

Genčeva 1998 — E. Genčeva, "Drobne przedmioty metalowe z odcinka IV w Novae. Sprzączki, aplikacje, kolczyki" [Small metal objects from Sector IV at Novae: Buckles, appliques, earrings], *Novensia* 11, pp. 81–97

Genčeva 1999 — E. Genčeva, „La production dans le camp militaire romain Novae pendant la basse Antiquité (à l'instar du scamnum tribunorum)", [in:] *Der Limes an der Unteren Donau von Diokletian bis Heraklios. Vorträge der Internationalen Konferenz Svištov, Bulgarien (1.–5. September 1998)*, eds. G. von Bülow, A. Dimitrova-Milčeva, Sofia, pp. 95–98.

Genčeva 2000 — E. Genčeva, "Metalowe części wyposażenia żołnierskiego z Novae" [Military-issue metal fittings found at Novae], *Novensia* 12, pp. 49–98

Guido 1978 — M. Guido, *The Glass Beads of the Prehistoric and Roman Periods in Britain and Ireland*, London.

Henkel 1913 — F. Henkel, *Die römischen Fingerringe der Rheinlande und der benachbarten Gebiete*, Berlin.

Higgins 1961 — R. A. Higgins, *Greek and Roman Jewellery*, London.

Höpken 2003 — C. Höpken, "Herstellung quarzkeramischer Melonenperlen im römischen Flottenlager Köln Alteburg: Terminologie – Technologie – Befund", Römische Keramik. Herstellung und Handel. Kolloquium Xanten, 15.–17.6.2000 (= *Xantener Berichte* 13), eds. B. Liesen, U. Brandl, Mainz am Rhein, pp. 353–363.

Jakubowska 2024 — A. Jakubowska, *Antyczne ozdoby ciała z Novae (I – VI w.). Znaleziska z wykopalisk Ekspedycji Wydziału Archeologii UW* [Ancient Body Ornaments from Novae (1st–6th centuries). Finds from the Excavations of the University of Warsaw Archaeological Expedition], Warszawa (unpublished BA thesis in the Faculty of Archaeology, University of Warsaw).

Kiračina 1983 — R. Kiračina, *Biżuteria w Novae (Moesia Inferior) na podstawie materiałów z wykopalisk bułgarskich i polskich w latach 1960–1983* [Jewellery in Novae (Moesia Inferior) Based on Materials from Bulgarian and Polish Excavations Conducted in 1960–1983], Warszawa (unpublished MA thesis in the Faculty of Archaeology, University of Warsaw).

Kiračina 1991 — R. Kiračina, „Biżuteria z dwóch grobów rzymskich" [Jewellery from two Roman graves], *Novensia* 2, pp. 12–142.

Lemke 2005 — M. Lemke, "Jewelry for the dead. A few thoughts on finds from the medieval cemetery at Novae, sector IV", *Novensia* 16, pp. 9–16.

Lemke 2006 — M. Lemke, "The earrings from the early medieval cemetery at Novae", *Novensia* 17, pp. 53–61.

Lemke 2011 — M. Lemke, "Fieldwork at Novae (Bulgaria) in 2009 and 2010", *Światowit* VIII (XLIX)/A (2009–2010), pp. 191–194.

Lemke 2015 — M. Lemke, "The Dwindling Legion. Architectural and Administrational Changes in Novae (Moesia inferior) on the Verge of Late Antiquity", [in:] *Roman Military Architecture on the Frontiers in Late Antiquity: Armies and their Architecture*, eds. R. Collins, M. Weber, M. Symonds, London, pp. 90–97.

Lemke 2018 — M. Lemke, "Advocatus diaboli—What if it was not the Eighth Legion that built Novae?", *Novensia* 29, pp. 73–86.

Lemke 2024 — M. Lemke, "From imperial guardians to local patriots. The defenders of Novae (Moesia inferior) in Late Antiquity and their relationship to state, church and neighborhood", [in:] *Living and Dying on the Roman*

Frontier and Beyond. Proceedings of the 25th International Congress of Roman Frontier Studies 3 (= *Archeologische Berichten Nijmegen* 11), eds. H. van Enckevort *et alii*, Leiden, pp. 241–248.

Majewski *et alii* 1967 — K. Majewski, S. Parnicki-Pudełko, L. Press, S. Kołkówna, J. Tryn-kowski, B. Zakrzowska, J. Ziomecki, "Novae – Sektor Zachodni 1965. Sprawozdanie tymczasowe z wykopalisk Ekspedycji Archeologicznej Uniwersytetu Warszawskiego [Novae, Western section 1965. Preliminary report on the excavations of the Archaeological Expedition of the University of Warsaw], *Archeologia* XVII (1966), pp. 143–187.

Majewski *et alii* 1974 — K. Majewski, L. Press, L. Dąbrowski, L. Kajzer, A. Nadolski, T. Sar-nowski, W. Szubert, Z. Tabasz, „Novae – Sektor Zachodni 1971. Spra-wozdanie tymczasowe z wykopalisk Ekspedycji Archeologicznej Uni-wersytetu Warszawskiego" [Novae, Western Sector 1971. Preliminary report on the excavations of the Archaeological Expedition of the Uni-versity of Warsaw], *Archeologia* XXIV (1973), pp. 101–145.

Mihailescu-Bîrliba 2017 — V. Mihailescu-Bîrliba, "Two golden pendants from the 4th century", *Ephemeris Napocensis* 27, pp. 267–278.

Mróz 2003 — A. Mróz, *Ozdoby z odcinka IV w Novae z lat 1985–2002* [Ornaments from Sector IV in Novae from the Years 1985–2002], Warszawa (unpub-lished MA thesis in the Faculty of Archaeology, University of Warsaw).

Mróz 2005 — A. Mróz, "Bransolety i paciorki szklane z odcinka IV w Novae (od I do VI wieku)" [Glass bracelets and beads from Sector IV at Novae (of 1st to 6th century)], *Novensia* 16, pp. 17–39.

Olczak 1988 — J. Olczak, *Produkcja szkła we rzymskim i wczesnobizantyjskim Novae* [Glass Production in Roman and Early Byzantine Novae], Toruń.

Press *et alii* 1989 — L. Press, P. Dyczek, W. Klinger, K. Lewartowski, A. Ładomirski, R. Massalski, T. Sarnowski, W. Szubert, „Novae, Sektor Zachodni 1985. Sprawozdanie tymczasowe z wykopalisk Ekspedycji Archeologi-cznej Uniwersytetu Warszawskiego [Novae, Western Sector 1985. Pre-liminary report on the excavations of the Archaeological Expedition of the University of Warsaw], *Archeologia* XXXVIII (1987), pp. 145–175.

Press *et alii* 1991 — L. Press, P. Dyczek, W. Klinger, J. Kolendo, R. Massalski, T. Sar-nowski, J. Ziomecki, „Novae – Sektor Zachodni, 1987. Sprawozdanie tymczasowe z wykopalisk Ekspedycji Archeologicznej Uniwersytetu Warszawskiego" [Novae, Western Sector 1987. Preliminary report on the excavations of the Archaeological Expedition of the University of Warsaw], *Archeologia* XL (1989), pp. 135–161.

Press *et alii* 1992 — L. Press, P. Dyczek, A. Ładomirski, R. Massalski, K. Piasecki, T. Sar-nowski, „Novae – Western Sector, 1989. Preliminary Report on The Excavations of The Warsaw University Archaeological Expedition", *Archeologia* XLII (1991), pp. 123–136.

Riha 1990 — E. Riha, *Der römische Schmuck aus Augst und Kaiseraugst*, Augst.

Ruprechtsberger 1979 — E. Ruprechtsberger, *Die römischen. Bein- und Bronzenadeln aus den Museen Linz und Enns*, Linz.

Ruseva-Slokoska 1991 — L. Ruseva-Slokoska, *Roman Jewellery*, Sofia.

Stern 1990 — W. Stern, *Exkurs 4: Untersuchungen an einer Melonenperle*, [in:] E. Riha, *Der römische Schmuck aus Augst und Kaiseraugst*, Augst, p. 93.

Simniskyte 2002 — A. Simniskyte, "Roman period metal half-moon shaped pendants with knobs in Eastern Baltic region", *Archaeologia Baltica* 5, pp. 95–122.

Tomas 2011 — A. Tomas, "Reading gender and social life in military spaces", Światowit VIII (XLIX)/A (2009–2010), pp. 139–150.

Tomas 2015 — A. Tomas, "Female family members related to soldiers and officers of the *legio I Italica*. A case study", [in:] *Colonization and Romanization in*

Moesia Inferior. Premises of A Contrastive Approach, ed. L. Mihailescu-Bîrliba, Kaiserslautern, pp. 93–124.

Van der Veen 2020 — V. Van der Veen, *Roman Military Equipment and Horse Gear from the Hunerberg at Nijmegen. Finds from the Augustan Military Base and Flavio-Trajanic* Castra *and* Canabae Legionis, Nijmegen.

Vladkova 1999 — P. Vladkova, "Amulets Made of Bone and Horn from Lower Moesia", [in:] *Der Limes an der unteren Donau von Diokletian bis Heraklios. Vorträge der Internationalen Konferenz Svištov (1.–5. September 1998)*, eds. G. von Bülow, A. Milčeva, Sofia, pp. 285–289.

Vladkova 2005 — P. Vladkova, "Predmeti ot kost i rog ot sektor IV v Nove" [Objects of bone and antler from Sector IV in Novae], *Novensia* 16, pp. 51–104.

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