

# NUMISMATICA PANNONICA

ANTIQUÉ NUMISMATIC WORKSHOP  
CONFERENCE PROCEEDINGS

2018



ACTA NUMISMATICA HUNGARICA  
SUPPLEMENTUM I

# NUMISMATICA PANNONICA

## I

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# NUMISMATICA PANNONICA I

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# Perforated Roman coins from the Aquincum-Graphisoft cemetery

LAJOS JUHÁSZ

*22 perforated coins were excavated in the Aquincum-Graphisoft cemetery, the eastern graveyard of the civil town, primarily found in child graves. This is surprising compared to the general scarcity of these pierced coins in larger numbers. Most peculiar are the coins with three perforations that are difficult to interpret, and are mostly found on the Middle Danubian limes. The closest parallels are from the Viminacian cemeteries in Moesia Superior, where a large number were deposited in child graves. In several cases these perforated coins formed part of a necklace or bracelet that were given as toys and protection to the infants, since they were more exposed to harm.*

Coins as opposed to the modern common opinion are not purely the means of monetary exchange. By paying closer attention we can realise that coins have a far more diverse use in everyday life e.g. as tokens, amulets, tools, decorations or even works of art.<sup>1</sup> This is not a modern phenomenon, it began as early as the invention of coins themselves. The same is also true of the Roman era, when they were used more variably than for mere monetary transaction. A smaller, but not negligible number was employed in a secondary use i.e. they were pierced, cut, halved, marked and deformed in many different ways. The most widespread interpretation for these is the employment as some kind of a pendent, amulet, bracelet, jewellery, ring, box decoration, but the truth is in most cases we simply have no way of knowing for certain. The perforation of coins did not cease in ancient times, it was very widespread in the Middle Ages in Lombardy, Merovingian Gaul and Anglo-Saxon Britain.<sup>2</sup>

Ancient coins in secondary use is not a new topic, though it recently got more attention thanks to the works of Claudia Perassi and Marc Doyen.<sup>3</sup> It is always interesting to come across peculiar coins that raise new questions and require a different approach. However, even if the archaeological find context is known, which is only rarely the case, it is often impossible to tell, why the coins was deformed, since a perishable material usually formed an integral part of.

Coins in secondary use mostly appear individually or in small numbers, therefore it is intriguing to find pierced ones in significant quantity from the same archaeological site. This was the case with the coin finds from the Aquincum-Graphisoft cemetery, located eastern of the civil town (Fig. 1), and contained around 1500 graves with mixed customs.<sup>4</sup> The excavations were carried out in several campaigns the first sarcophagi were found as early as 1830. Recent

1 DOYEN 2013, 2–6; <https://instead.com/blog/coin-art/>

2 FAUDET 1982, 95–96.

3 PERASSI 2011; Doyen 2013.

4 The site is also known as the Gázgyár (Gas factory) cemetery. Due to the numerous excavations during more than 150 years, the exact number of graves is not easy to tell. LASSÁNYI 2006; LASSÁNYI 2007; LASSÁNYI 2008; LASSÁNYI–VASS 2015, 170–172.

excavations, carried out between 2005 and 2010, brought 1330 graves to light.<sup>5</sup> The excavator Dr. Gábor Lassányi approached my colleague, Dr. István Vida (Coin Cabinet of the Hungarian National Museum), and myself with the coin material. We had the opportunity to study the 256 coins discovered during the excavation seasons 2005–2007. The numismatic material from the 2009–2010 excavations were only a few pieces, thus will not alter the statistics greatly.

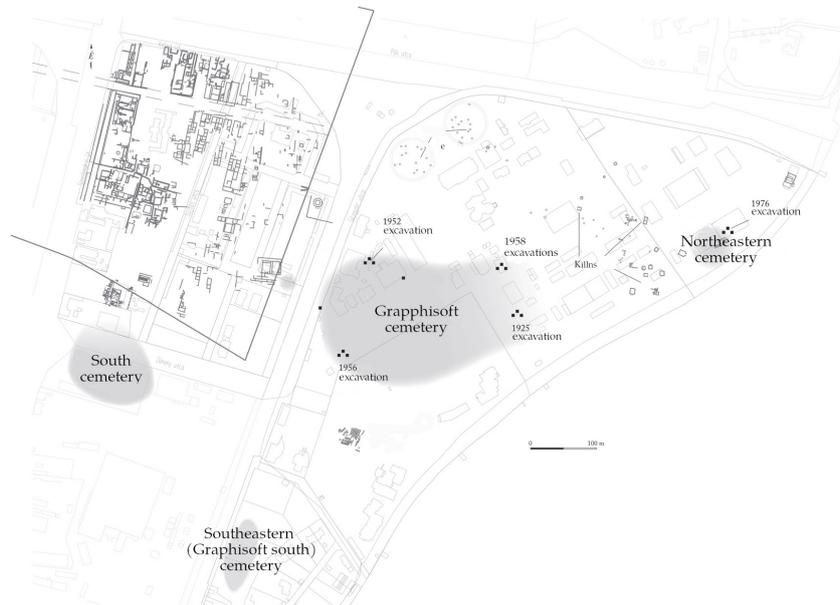


Fig. 1. The civil town of Aquincum and the Grapphisoft cemetery  
(After Lassányi–Vass 2015, 2.kép)

The earliest coins were two legionary denarii of Marc Anthony, the latest were of the Valentinian dynasty, but most of the coins range from the Julio-Claudian dynasty to Gordian III, the most majority belonging to the 2<sup>nd</sup> c. (Fig. 2). Apart from the 2 legionary denarii of Marc Anthony, a denarius of Trajan and three denarii subaerati (Augustus, Antoninus Pius and an illegible), the rest of the coins uncovered were aes. The dominance of low denomination coins is typical in Roman sanctuaries and graves.<sup>6</sup> What was truly peculiar were the 22 perforated

Dating	Number of datable coins
1 <sup>st</sup> c. BC	2
1 <sup>st</sup> c. AD	28
2 <sup>nd</sup> c.	136
3 <sup>rd</sup> c.	21
4 <sup>th</sup> c.	9

Fig. 2. Number of datable coins by century from the Aquincum–Grapphisoft cemetery

<sup>5</sup> The most recent excavations were carried out this year, when about 50 graves were discovered, and will also continue next year. I am thankful for the excavator Barbara Hajdu for the latest information.

<sup>6</sup> DOYEN 2012, 12.

aes coins in this relatively small ensemble, which is a comparatively large proportion (8.6%) and therefore deserves a detailed study. These pieces show a narrower timespan ranging from the Augustan to the Antonine period, all quite worn some beyond recognition. They were all of low denomination: 13 were asses and 2 dupondii. The 3 perforated limesfalsa coins (of Trajan, Hadrian and 1 indeterminable) and the denarius subaeratus of Augustus indicate that these were not distinguished from the genuine imperial ones, these were used because they were of low value and at hand. The same can be supposed about the provincial one from Hermocapelia. Aes coins were also minted on a larger flan, thus having more space to fit the perforations.

Nr.	Perforations	Issuer	Dating	Denomination	Mint	Literature	Grave
1	1	Augustus	2 BC–4 AD	denarius subaeratus	Lugdunum	RIC 207–212	Child
2	3	Caligula	37–41	as	Rome	RIC 58	Child
3	3	Claudius	50–54	as	Rome	RIC 106	Child
4	1	Claudius?	?	as	?	?	Cremation
5	3	Domitian	85–96	as	Rome	?	Child
6	3	Nerva	96–98	as	Rome	?	Child
7	3	Trajan	101–102	as	Rome	RIC 434	
8	3	Trajan	103–111	as	Rome	?	
9	1	Trajan	98–117	limesfalsum	?	?	Woman
10	3	Trajan	98–117	dupondius	?	?	Looted
11	3	Hadrian	121–122	as	Rome	RIC 616b	Child
12	3	Hadrian	117–138	limesfalum	?	?	Child
13	2	Hadrian?	?	dupondius	?	?	Child
14	3	Faustina maior	141–161	as	Rome	RIC 1170	
15	1	Marcus Aurelius?	?	as	?	?	Cremation
16	1	Anonymous	2 <sup>nd</sup> half of 2 <sup>nd</sup> c. AD	AE 17	Hermocapelia (Lydia)	RPC III 1878	Child
17	3	?	?	as	?	?	Cremation
18	3	?	?	limesfalsum	?	?	Child
19	3	?	?	as	?	?	Child
20	3	?	?	as	?	?	Cremation
21	3	?	?	as	?	?	Child
22	3	?	?	as	?	?	

Fig. 3. Perforated coins from the Aquincum-Graphisoft cemetery

## Graves

The 22 perforated coins came from inhumations and cremations as well (Fig. 4). Most of the perforated coins, 12 in total, were found in child inhumations, 1 in an adult inhumation, while 4-4 were found in cremations and between graves respectively and 1 was from a looted grave.

	Inhumation	Cremation	Between graves	Looted inhumation grave
Adult	1	4	4	1
Child	12			

Fig. 4. Number of perforated coins from different types of graves

As already mentioned, only one of the 13 inhumations was an adult (Grave 748). The 30-34 year old woman was laid on her back, hands crossed with a limesfalsum as of Trajan with one perforation placed by the middle of her inner left thigh (Fig. 5-6). The other 12 were child inhumations with varying degree of bone preservation, mostly or even completely consumed by the sandy soil. The identification of the graves without bones, but belonging to children was based on the similar size, coffin nails, structure of the grave and the grave goods.



Fig. 5-6. Grave 748 – Inhumation of a woman with a singly perforated coin at her inner left thigh. (Photo: G. Lassányi)

## Number of perforations

The number of perforations on the coins differ: 5 had one, 1 had two and 16 had three (Fig. 7). This latter is an unusual and rare number of holes on coins, and will be discussed in detail below. 3 of the 5 coins with a single perforation were deposited in inhumations and 2 in cremations. 2 of the 3 cases were children, where beads were found next to the coins. Grave 826 a child inhumation contained the only twice perforated coin, although one is broken, alongside two green glass beads.

		1 perforation	2 perforations	3 perforations
Inhumation	Child	2	1	9
	Adult	1		
Cremation		2		2
Looted				1
Between graves				4
Σ		5	1	16

Fig. 7. Types of perforated coins and their graves

4 thrice perforated coins came from the area in between the graves, while 9 from child inhumations, 1 from a looted inhumation and 2 from cremations. Grave 642 was the only case, where beside a pierced coin an unperforated one, a Hadrianic *limesfalsum*, was also found (Fig. 8). Grave 763 contained a dupondius of Trajan, but was a looted inhumation, thus most of the information is lost. In grave 811 a Hadrianic *limesfalsum* lay underneath the body of the child.<sup>7</sup> The perforated coins from between the graves can testify their role in the ritual practise during or after the funeral.<sup>8</sup> There does not seem to be a specific custom or rule of emplacement of perforated coins in the cemetery, whatever the number of holes. The dominance of child inhumations is visible, but is not exclusive.



Fig. 8. Detail of Grave 642: a thrice perforated and an unperforated coin next to each other. (Photo: G. Lassányi)

As already mentioned the number of perforations ranges from 1 to 3. The coins with one perforation are in some ways easier and at the same time more complicated to interpret. The problem is posed by the extreme versatility of a single hole that could have been used to hang or fasten the coin. A pendent function can reasonably be supposed in cases where the perforation is placed so that either the obverse or the reverse would align correctly while suspended.<sup>9</sup> This could even be upside down, so that the wearer of the necklace would see the favoured image, when looking down at the coin. Attention is usually paid not to pierce the preferred image, often with a hole at the edge or through the legend.<sup>10</sup> More difficult to interpret are the examples, when none of the images align themselves with the perforation. In these cases it is possible that the wearer did not pay attention to the obverse and reverse, maybe because he or she was not familiar with their meaning. Another explanation could be that it simply did not matter, because it was placed somewhere, where only its size, shape, shining material or value mattered. A centred perforation can perhaps be explained by a decorative or a functional purpose. A hole could also be used to tie the coins together with a string instead of using a leather or textile purse.<sup>11</sup>

Twice perforated coins usually have the holes close to each other or at a 180° angle.<sup>12</sup> Both served the same purpose, to prevent the coin from turning to the unwanted side while suspended. The holes on the coin from the Graphisoft cemetery are placed somewhat further away at 2h and 10h, thus not fitting the general pattern. Similar coins are known from the Viminacium Pećine cemetery, where both twice perforated pieces with damaged holes and also two with intact ones are known.<sup>13</sup>

Most perplexing are the coins with three holes, which usually show an interesting pattern, since the holes are usually not distributed evenly. On the coins from Aquincum two holes behind the portrait are closer to each other than the third one before the head, usually paying attention not to damage the imperial portrait. This could have had purely technical reasons,

<sup>7</sup> The emplacement of the rest of the coins could not be observed due to bad preservation of the graves or the bones.

<sup>8</sup> VOJVODA 2015, 54.

<sup>9</sup> DOYEN 2013, 21–22.

<sup>10</sup> Sometimes an O in the legend would be pierced, thus inflicting the minimal damage possible to the coin.

<sup>11</sup> MORRISSON 1980, 242.

<sup>12</sup> PERASSI 2011, 290–293; DOYEN 2013, 23.

<sup>13</sup> Broken: VOJVODA 2018, Pl. II/1, IV/2. cf. intact: Pl. II/3, IV/3.

since these were the thinnest parts of a coin, thus most easily punctured. A perforation too close to the edge of the coin carried the danger of easily breaking while piercing or by subsequent wear.<sup>14</sup> However, the completely worn and very thin flans also show this peculiar distribution of holes. An exception to this pattern is the dupondius of Trajan (Nr. 10) showing the perforations equally dispersed, however on this coin there was not much space between the portrait and the legend, therefore the third hole was moved above the head, trying to avoid damaging it.

### Technique

Two different types of perforations can be observed on the coins found in Aquincum: drilling and punching. The first one is characterised by a regular round edge and a thickening on the backside of the hole along its outline (Nr. 10, 11). In contrast, punching leaves a rectangular hole (Nr. 22), much like a Roman nail, but was most probably executed by a punch, although there are some examples, where the coins are found together with the nails piercing through.<sup>15</sup> Interestingly on some of the thrice perforated coins both techniques occur (Nr. 22), again raising a number of questions. Were these done at the same time at the same place, by the same people, or with some delay? If the latter, then what was the motivation behind the addition of two more holes? Is there a ritual act behind these perforations?<sup>16</sup> Were the additional mutilation done in the living world (workshop, house) or in the cemetery? Does the ritual begin here or only in the cemetery?

In most cases by examining the front and backside of the perforations, it can be concluded, which side was facing the craftsman. In both cases this means protrusions on the rear side, in case of the drill a circular, in case of the punch a four-sided disruption. These were sometimes done from both sides on the same coin, thus the sides were unimportant to the craftsman. Due to considerable wear and corrosion these marks may fade away with time.<sup>17</sup> The question arises whether the two different techniques also have a functional reason. A round hole would be much more practical, when wearing the item on a thread, while piercing would have been easier and less time consuming. The same emplacement of the holes on the thrice perforated pieces point to limited group of craftsmen or a common idea behind it.<sup>18</sup>

General problem of perforated coins is that it is nearly impossible to tell, when the modifications took place. The coins could easily have been in circulation for quite some time, before its owner decided to employ it in a secondary use. The only hint for the duration of the usage of the perforated coin is the wear of the hole itself, but this again can be affected by corrosion and restoration as well.<sup>19</sup> But even then, we only have information on how much the perforation itself was in use prior to being buried, but not when the action took place. Furthermore different function cause different wear, and without knowing its original purpose, it is a hazardous guess. This is especially troubling, because there are evidence of antique

<sup>14</sup> Cf. the twice perforated example mentioned above.

<sup>15</sup> E.g. Argentomagus (Saint-Marcel, Indre). FAUDET 1982, 95. There is also a sestertius in the Coin Cabinet of the Hungarian National Museum that was pierced by a long bronze nail. Since its narrow tip is still perfectly intact, it is reasonable to assume that it was pre-punched with a harder object.

<sup>16</sup> Similar questions were also asked by G. Aubin and J. Meissonier with respect to other mutilated coins. AUBIN-MEISSONIER 1994, 148.

<sup>17</sup> SAUER 2005, 81.

<sup>18</sup> The same was suggested at Martberg. WIGG-WOLF 2017, 25.

<sup>19</sup> FAUDET 1982, 97; SAUER 2005, 81.

coins being modified in post-antique times.<sup>20</sup> However, in the case of completely worn coins with sharp perforation edges it is reasonable to assume that they were pierced immediately prior to their emplacement in the grave. This could also be observed at Bourbonne-les-Bains and Martberg where the cuts on the coins, even on worn pieces were only inflicted just before they were offered.<sup>21</sup>

## Parallels

Coins were perforated before Roman times, although in very limited numbers by the Greeks, the Celts, in the Near-East and North-Africa.<sup>22</sup> The practise only became more common with the spread of Roman coinage across the Empire, and the general monetarisation of the population, but even there perforations are concentrated in the western part of the Empire. Even though the numbers surpass the ones in the previous times, they are still very low compared to the overall number of Roman coins. The perforation of coins extends to all metals: gold, silver and aes. In general the percentage of these does not even reach 1%. According to J-M. Doyen's statistic of the Western part of the Empire the percentage is only 0.32%, just 318 perforated coins out of 98.032.<sup>23</sup> His statistics are based on all the coins from a great ancient site, not just the graves or the inhabited areas. This is why the ratio of perforated coins from Aquincum cannot be compared with these coins, because the full numismatic material from Aquincum is not yet published. But if we look at the sheer number of the 22 perforated coins alone from the Graphisoft cemetery, even this exceeds most other sites, only surpassed by Carnuntum (124 pieces), Augst (78) and Cologne (45).<sup>24</sup> One must also add to this the cemeteries of Viminacium with 92 perforated coins, which will be discussed in detail below.<sup>25</sup>

Amongst the perforated Roman coins there is a clear distinction between the 1-2<sup>nd</sup> c. and the 3-4<sup>th</sup> c. AD pieces. The first ones are usually coins from the reign of Augustus to the Antonine dynasty and are usually confined to within the Empire. The latter ones are more numerous and much more versatile, but there has to be reckoned with a considerable increase in the amount of coins as well as a barbarian impact. These are especially common at the end of the 3<sup>rd</sup> and in the 4<sup>th</sup> c, when the coins are perforated or looped to be used as jewellery, and are often found in barbarian territories.<sup>26</sup>

As mentioned before perforated coins are primarily found in the western part of the Empire: Gaul, Germania and Northern-Italy.<sup>27</sup> Coins with a single hole are widely distributed and cannot be drawn any further conclusions from. However thrice perforated pieces, all aes, show a concentration on the Middle-Danube most prominently in the province of Pannonia and Viminacium in Moesia Superior (Fig. 9). The findspots are all on the limes, with the exception

<sup>20</sup> DOYEN 2013, 2.

<sup>21</sup> SAUER 2005, 79–81; WIGG-WOLF 2017, 17-18.

<sup>22</sup> DOYEN 2013, 7–17.

<sup>23</sup> DOYEN 2013, Fig. 7.

<sup>24</sup> Then again the 22 pieces are only from the Graphisoft cemetery, not taking into account the perforated coins from other parts of Aquincum.

<sup>25</sup> VOJVODA-MRDIĆ 2015, 30; VOJVODA 2018.

<sup>26</sup> According to M. Doyen's table the coins of the 4–5<sup>th</sup> c. from the Empire itself only account for 15% of the pierced coins. DOYEN 2013, 18.

<sup>27</sup> If this is only because of the advanced stage of research and the attention payed to perforations, or if this is a general phenomenon only time will tell. The cases found in tombs from Central France have been collected by I. Faudet from the 1–2<sup>nd</sup> c. AD, although her list does not mention the number of perforations. FAUDET 1982, 96.

of Savaria, nonetheless a direct connection with the military can although not be proven. One also has to bear in mind the more intensive research conducted in these areas, than in the inland. Another problem while working with these coins is the limited attention they have received in the research until recently.



Fig. 9. Distribution of the thrice perforated coins.

From Carnuntum 5 thrice perforated coins are known Augustus to Antoninus Pius and one of Constantius II, but none of them are from graves.<sup>28</sup> Another common characteristic is that the coins were primarily found in graves, mostly in child inhumations. The inhumation grave from Arrabona contained three aes coins: a thrice perforated Nero, a singly perforated Nerva, and an unaltered Trajan.<sup>29</sup> These were thought to have decorated the small wooden box of which bronze parts were preserved. It was presumed, based on the grave goods that the grave belonged to a woman. In Savaria's southern cemetery a thrice perforated Claudius aes was found outside of the early Roman urn.<sup>30</sup> Three thrice perforated coins were also found in Brigetian graves.<sup>31</sup> One was placed in a child's hand alongside a glass bead, a chicken bone with green spots and a crepundia consisting of a snail and a shell joint together by a bronze chain. It is likely that the pierced coin along with the glass bead and possibly also the chicken bone served as a bracelet. Unfortunately the finds have since been dispersed and we are only left with the limited description of the find circumstances. Interesting is the emplacement of the pierced coin in the hand of the child, which is usually interpreted as a payment to Charon.<sup>32</sup> However if it was truly intended as the ferryman's fee, why then was it perforated? Maybe it served two functions at the same time, as a bracelet (in the living world) and as a Charon's fee (in the underworld).

28 FMRO III/1 177, 421, 1190, 1829, 8090. ALRAM-SCHMIDT-DICK 2007, Taf. 5/472, Taf. 24/3319. There are also 4 twice perforated coins one of Gordian II, Maximinus Daia and 2 of Constantine I. FMRO III/1 3783, 6515, 6714–6715.

29 The excavation was carried out at the end of the 19th c. by E. Méry, who also identified the coins. Unfortunately the perforated coins were already too worn to be reidentified in the 1970s, while the Trajan piece was lost. SZÓNYI 1974, 11–12. However, there is no reason to doubt this identification, since it fits in well with the rest of the perforated material.

30 BUÓCZ 1961, 219.

31 GÄZDAC ALFÖLDY-GÄZDAC 2009, 166. Two twice perforated coins with were also found in an inhumation and a cremation grave in Brigetio. FEHÉR 2009–2010, 2–3.

32 DOYEN 2012, 3–6.

Interestingly enough an example is also known from Porolissum, Dacia. This worn as of Antoninus Pius again displays two punched holes closer together and one further away.<sup>33</sup> In this case the reverse with the sacrificing emperor was more important than the portrait itself, as can clearly be seen from the perforation marks. Peculiar is also the coin's findspot, which is the amphitheatre and not a grave.

The most distant thrice perforated coin was found in a child inhumation in Poitiers that is the exception to the rule of the Middle Danube.<sup>34</sup> The grave also contained 3 whole coins: two were placed on the chest, and the two other, including the perforated one, somewhat lower. All coins had traces of textile, which will be discussed in detail below.

The only other cemeteries that had similarly perforated coins in larger numbers were excavated in Viminacium, where 92 pieces were unearthed from the Više Grobalja (47) and the Pećine sites (45).<sup>35</sup> The ratio is still very small compared to the 6233 coins examined, thus resulting in 1.48% for the whole, while it is somewhat higher for Više Grobalja (1.72%) than for Pećine (1.28%).<sup>36</sup> Common in both cases are that perforated coins are primarily found in child inhumations, but the figure is twice as high in Aquincum (54%) as in Viminacium (27%) (Fig. 10). Similarly low is also the proportion of cremation and adult graves at both sites, 18% in Aquincum and 16% in Viminacium. The coins from between the graves make up 40% of all the perforated ones in Viminacium, while under a fifth in Aquincum. On the other hand there are more than twice as many thrice perforated coins in Aquincum, as single-holed, while the latter ones are dominant in Viminacium. This can partly be explained by the 3<sup>rd</sup>-4<sup>th</sup> c. coins from Viminacium that are only pierced once.

		Aquincum Graphisoft				Viminacium Više Grobalja and Pećine				
		256 coins	1 per- fora- tion	2 per- fora- tions	3 per- fora- tions	6223 coins	1 perfo- ration	2 per- fora- tions	3 per- fora- tions	4 per- fora- tions
Inhu- mation	Child	12	2	1	9	25	12	1	12	
	Adult	1	1			15	9		6	
Crema- tion		4	2		2	15	11		4	
Looted		1			1					
Between graves		4			4	37	19	2	15	1
Σ		22	5	1	16	92	51	3	37	1

Fig. 10. The perforated coins from Aquincum-Graphisoft and the Viminacium (Više Grobalja and Pećine) cemeteries

33 GĂZDAC-GUDEA 2006, cat. 690.

34 EYGUN 1932, 87-88.

35 VOJVODA-MRĐIĆ 2015, 30-31; VOJVODA 2018, 66. Nr. 14 with three holes in M. Doyen's catalogue is also from the area of Viminacium. DOYEN 2013, 27/14. The other similar one (Nr. 13) is without findspot.

36 3161 coins were found in total in the Više Grobalja cemetery, but only 2736 were included in the publication. In the Pećine cemetery 3865 coins were discovered, but 3497 were available for examination. VOJVODA-MRĐIĆ 2015, 9-11; VOJVODA 2018, 66.

Despite these observations an overall explanation eludes us. It seems most like in most Roman cemeteries, no explanation fits all graves, since there are quite a variety of customs that are difficult to interpret. The dating of the coins also shows difference. While the majority of the perforated pieces were minted in the 2<sup>nd</sup> c. in Aquincum, it was only a quarter of the total in Viminacium, where over 50% were from the 1<sup>st</sup> c.<sup>37</sup>

If we look at the coins themselves in general they appear to be made following the same idea and techniques. At both sites we find both drilled and punched perforations on quite worn mostly aes coins, although in Viminacium 5 denarii and 1 quinarius were also pierced, unlike in Aquincum.<sup>38</sup> On the other hand only a single denarius subaeratus was found in the Graphisoft cemetery, while there were 2 from Viminacium.<sup>39</sup> Another difference is that a greater number of coins from Viminacium disregard the portrait, and often pierce it. Furthermore, the three holes are often distributed equally, unlike in Aquincum, where two tend to stand closer together. Unique is a coin, where the three perforations are in one row, the middle hole going through the emperor's head.<sup>40</sup> In this case the portrait was not important, since the coin was pierced from the reverse side. From Viminacium even a coin with four perforations is known also executed from the reverse.<sup>41</sup> In Viminacium there is a greater number of perforated provincial coins, compared to the single one from Aquincum, but that only follows the general tendencies of monetary circulation there.<sup>42</sup> In general it can be said that the greater number of perforated coins from Viminacium also show a greater number of variety. In Aquincum more caution is taken not to harm the portrait, except in two cases, where the eyes were also pierced.<sup>43</sup> The greater uniformity in Aquincum could indicate that the perforations were done by a limited number of people or workshops.

### Function

Important observations have been made by the excavators in both Aquincum and Viminacium regarding the function of these coins. In several cases the perforated coins formed part of a necklace, bracelet or earring together with glass beads, lunulae, bullae, pendants, bronze hoops, boar tooth etc.<sup>44</sup> These were predominantly found in child inhumations, but in Viminacium some also occurred in adult graves as well as cremations. In Aquincum-Graphisoft perforated coins with glass or amber beads, bronze pendent, lead disc were found in 5 cases, all child burials. Grave 348 contained an Augustan singly perforated denarius subaeratus (Nr. 1) with 3 glass beads and a perforated lead disc (Fig. 11). An amber bead



Fig. 11. Detail of Grave 348: a perforated Augustan denarius subaeratus, 3 glass beads and a perforated lead disc forming a bracelet or necklace. (Photo: G. Lassányi)

37 VOJVODA 2015, 65–66; VOJVODA 2018, 77.

38 VOJVODA 2015, 54, 58, 65. In Pećine a denarius of Hadrian was converted into an earring. VOJVODA 2018, 72–73.

39 VOJVODA 2015, 63, 69.

40 VOJVODA 2015, Pl. II/18.

41 VOJVODA 2018, 74, 76–77.

42 VOJVODA–MRĐIĆ 2015, 12–17.

43 More on this below.

44 VOJVODA–MRĐIĆ 2015, 31–37; VOJVODA 2015, 54–69; VOJVODA 2018, 68–73.

with a Hermocapelian civic coin (Nr. 16) with one perforation was found on the skull of a child in Grave 365 (Fig. 12). An as with three perforations was found next to a glass bead in Grave 395. Grave 611 contained a thrice perforated coin of Claudius? (Nr. 4) together with two glass beads. From Grave 826 came a twice perforated dupondius of Hadrian? (Nr. 13) and two green beads.



Fig. 12. Detail of Grave 365: a perforated Hermocapelian civic coin next to an amber bead. (Photo: G. Lassányi)

The predominance of these necklaces and bracelets with perforated coins in child graves can be explained by that children being more fragile were in need of more protection than the adults.<sup>45</sup> Beyond their apotropaic function they also possessed a practical one as rattles (*crepundia*, *crepitacula*) or toys to keep the children busy. This is further supported by the inexpensive character by consisting of quite worn aes coins together with mostly glass beads and other readily available materials. The noise of the *crepundia*, various small objects hung strung together by a thread and worn by the children, would keep the evil spirits away as well as keep the infants entertained.<sup>46</sup> Perforated coins were also used as *crepitacula*, larger rattles shaken by the children, as the stunning finds from burials in Rouen show.<sup>47</sup> A number of these objects were most likely used by the children during their lifetime and as such were also buried with them, but a protective function solely in their afterlife can also not be excluded.<sup>48</sup> The number of perforations of these coins differ, thus it does not bring us closer to finding a correlation between the number of holes and a specific function. This is further complicated by that in Viminacium coins with different number of perforations formed part of the same jewellery.<sup>49</sup> This plethora of necklaces and bracelets in Viminacium exceeds the five cases observed in Aquincum in number and variety as well.

A totally different function is suggested by the completely worn thrice perforated *limesfalsum* (Nr. 18) found in the Grave 466 at Aquincum-Graphisoft. This exhibits many irregular small drilled depressions on both sides. A part of the edge is missing raising the possibility of the coin originally having four perforations. On the other hand it is also possible that an extra hole was only added after the edge had broken off. This is also supported by the emplacement of the perforations, two holes closer together, which is the same as on the other coins from the Graphisoft and unlike the one from Pećine. The small depression indicate that the coin could have been used as a pad under another piece of metal that was being drilled. The protrusions are far too numerous and randomly placed for them to be caused by a simple slip of the tool.<sup>50</sup> The fact that it was an ancient forgery could have contributed to it being used as a pad, but it evidently regained its monetary character before or by placing it in a child inhumation grave. It is also likely that the three or at least two perforations were owed to this function. That it was regarded as a coin is supported by that simple pads or other tools were not placed in the graves of the Graphisoft cemetery, especially not pierced three times.

<sup>45</sup> VOJVODA 2015, 67–69; VOJVODA 2018, 74–76.

<sup>46</sup> HORN–MARTENS 2009, 184–185.

<sup>47</sup> MANSON 1970, 487–488; PERASSI 2011, 284–285.

<sup>48</sup> DASEN 2013, 276–277.

<sup>49</sup> VOJVODA 2015, 58, 63.

<sup>50</sup> Cf. SAUER 2005, 81–82. At Bourbonne-les-Bains parallel cuts were observed on the coins along the division line, due to the repeated blows during the halving process.

A thrice perforated coin from between the graves was found in the Graphisoft cemetery with a small bronze rivet that fits nicely into the holes. This suggests that the coin was fastened to some perishable object.

Two extraordinary coins with three perforations each, were also unearthed at the Graphisoft cemetery an Agrippa (Nr. 2) and a Nerva (Nr. 6) from both from child inhumation. They show two larger holes, while a smaller one was drilled through the eye of the emperor. This remarkable feature requires more time, skill, patience as well as more sophisticated tools, since it is a small and thicker part of the flan. This also means that it cannot have been made by accident. In case of the Nerva coin two cuts can also be observed going towards two of the perforations, but not reaching them. Even the flan itself got deformed in a concave way most likely during the drilling process.

### *Ritual mutilation*

This brings us to the question of ritual mutilation of the coins, which was also raised by several scholars previously in connection with the western, Celtic part of the Roman Empire. The ritual killing of the weapons is a well-known phenomenon in the Middle and Late Iron Age sanctuaries in northern France and Britain.<sup>51</sup> This can also be observed on coins and was done by slashing the surface, cutting into the edge, halving<sup>52</sup> or portioning, bending and hammering or a combination of these.<sup>53</sup> Several explanations were offered by various scholars primarily based on coins unearthed in Gallo-Roman sanctuaries and camps on the Rhine.<sup>54</sup> The way of mutilation often varies with some degree of regularity in case of some findspots. There is a quite wide array of differences depending on where the damage was executed (obverse or reverse, centre or edge), the technique and tools (hammering, chisel, burin...) and also how it was done (irregularly, cross-shaped, triangular, single or multiple etc.). This is most likely explained by the number of people or groups participating in the mutilation.<sup>55</sup>

The wide array of mutilated coins in time and space lead to several theories on why they were disfigured.<sup>56</sup> One was that cuts and slashes were made to test whether the coin was a subaeratus or not.<sup>57</sup> This reasoning is troublesome with piercings showing several mutilation marks, and in the case of bronze coins this reasoning cannot be applied.<sup>58</sup> A more intriguing is the political explanation i.e. that the coins were mutilated to express the frustration of the people with the issuing authority or the emperor.<sup>59</sup> In most cases the obverses were damaged of Gallic, British and Roman pieces, but in sometimes also the reverses, which makes this reasoning contradictory.<sup>60</sup> Furthermore, this political theory does also not take into account

51 KIERNAN 2001, 18–19.

52 Halving often occurred because “there was a strong preference for low-value denominations”. SAUER 2005, 79–81.

53 KIERNAN 2001, 21–23.

54 BERGER 1992, 56–58; AUBIN-MEISSONIER 1994, 148.

55 AUBIN-MEISSONIER 1994, 147; WIGG-WOLF 2017, 25.

56 Recently Aubin and Meissonier summed up the different theories with pro- and counterarguments. BOSSARD-AUBIN-MEISSONIER 2016, 32–34.

57 ZEHNACKER 1984, 86; AUBIN-MEISSONIER 1994, 144; BOSSARD-AUBIN-MEISSONIER 2016, 32.

58 Although bronze Roman coins with lead or iron core do exist, but are very rare. KIERNAN 2001, 25.

59 Great number of mutilated coins were found at Port Haliguen at Quiberon, La Villeneuve-au-Châtelot and Juvigné. GIARD 1967, 120–121; AUBIN-MEISSONIER 1994, 144–145, 148–149; BOSSARD-AUBIN-MEISSONIER 2016, 33; Calomino 2016, 192–195. The same explanation was supposed for a quadrans the neck of an eagle was cut. SAUER 2005, 83–85.

60 KIERNAN 2001, 26–27.

the mutilated Celtic coins. This explanation is usually connected with recently conquered territories like Gaul in the early Julio-Claudian period. An important collection of mutilated coins was the second Port-Haliguen hoard, where the head of Augustus was more often targeted than that of Agrippa on the coins from the second Nemausus series.<sup>61</sup> At Alésia 9 out of 10 semisses of Augustus and Tiberius had mutilated busts.<sup>62</sup> At Haltern 20-30% of the Lugdunum coins were mutilated, mostly the portrait with numerous 2-12 piercings and drillings executed with daggers.<sup>63</sup> Similar mutilations could be observed on almost half of the first Lugdunum altar series found at Kalkriese and on half of the asses in Augsburg-Oberhausen, which lead F. Berger to conclude that these were "ein Ausdruck persönlichen individuellen Mißfallens gegenüber dem Herrscher".<sup>64</sup> In case of the Graphisoft coins the uprising of the inhabitants of Pannonia does not seem to be a likely explanation, since these mutilated coins were found in later graves, when the territory has been part of the Empire for quite for more than a century.<sup>65</sup>

A similar explanation is that the coins were mutilated because of the *damnatio memoriae*, but there is no correlation between these, which is most likely due to their primary economic function.<sup>66</sup>

According to a different reasoning the coins were mutilated so as to remove them from the earthly world only serving religious and ritualistic purposes.<sup>67</sup> As E. Sauer puts it "deliberate damage was meant to ensure and visibly demonstrate that they were destined as votive gifts to divine powers, never to be used again for any profane purposes".<sup>68</sup> In some cases the animals on the reverses were mutilated as a substitute for a sacrificial animal or a sacrifice in general.<sup>69</sup> This is strengthened by the intentionally destroyed weapon deposits in Celtic sanctuaries.<sup>70</sup> The mutilated coins are also primarily found at cult sites and graves, they are rare at settlements. This was the case at Martberg, where chopped coins were only found in the temple district, but were completely absent from the adjoining settlement.<sup>71</sup> Here D. Wigg-Wolf offered another explanation to the mutilation of the obverse as opposed to the resentment of the Roman rulers.<sup>72</sup> In his view the emperor guaranteed the value of the coin, thus by defacing it, it lost its monetary value and was transferred from the ordinary world to the divine. This was also supposed at La Villeneuve-au-Châtelot found at a ritual site, where 94,3% of the coins were mutilated, primarily the obverses.<sup>73</sup> At the fanum I at Martigny, Switzerland, 71.70% of the 1330 coins dating from the end of the 1<sup>st</sup> c. BC to the beginning of the 2<sup>nd</sup> c. AD were chopped into halves or even smaller pieces. F. Wibl  sees the explanation in

61 SAUER 2005, 85.

62 BOSSARD-AUBIN-MEISSONIER 2016, 33.

63 BERGER 1992, 56-58.

64 BERGER 1996, 55.

65 Although at the time of the Batavian revolt that territory has also been under Roman rule for a considerable time. Interestingly enough, the coins minted by the Gallic and Germanic insurgents used typical Roman images combined with some unique ones, which also had their roots in Roman art. JUHÁSZ 2015, 157-158; JUHÁSZ 2018, 53-54.

66 SAUER 2005, 85; CALOMINO 2016, 15-17.

67 AUBIN-MEISSONIER 1994, 145-146; BOSSARD-AUBIN-MEISSONIER 2016, 33-34.

68 SAUER 2005, 79-84.

69 This is also supposed in the case of the Nimes coins with pig's leg. AUBIN-MEISSONIER 1994, 146, 150. WIGG-WOLF 2017, 22-24.

70 KIERNAN 2001, 27, 32. At La Villeneuve-au-Châtelot small votive wheels were also mutilated along with the coins. AUBIN-MEISSONIER 1994, 145, 148-149; BOSSARD-AUBIN-MEISSONIER 2016, 33.

71 WIGG-WOLF 2017, 20-21.

72 WIGG-WOLF 2017, 24.

73 ZEHACKER 1984, 87; ZEHACKER 1986, 53; BOSSARD-AUBIN-MEISSONIER 2016, 33.

the demonetization of the coins.<sup>74</sup> E. Sauer in fact proposed a combination of the political and the ritualistic explanations; magic was used to cause harm to the Roman rule.<sup>75</sup> The portrait was often chosen for the emplacement of countermark, but in these cases there is no reason to suppose a mutilation of the coin or an intentional disfigurement of the emperor's image due to revolutionary thoughts. Quite the contrary, the countermark reinforced the validity of the worn coin, obviously very low in weight, and in addition to the imperial portrait, the countermark further ensured its value on the market. However in the case of Juvigné it was also suggested by G. Aubin and J. Meissonnier that the MV ligature countermark only found here had same function as the mutilations, i.e. to transfer the coins to the religious world.<sup>76</sup>

This latter religious explanation brings us closer to the coins in question i.e. the ones found in Aquincum. Sanctuaries and graves are course not the same, but both have strong divine ties, but with different purposes: the sanctuaries are mostly for the living, the graves are for the dead.

### *The textile theory*

A common explanation for the perforated coins is that they were sewn onto clothes or the shroud of the deceased. This theory was originally put forward by J. Gorecki, when mentioning a thrice perforated bronze coin from a grave in Poitiers in a footnote.<sup>77</sup> This has since been generally acknowledged by the scholars, without any criticism, although the grave contained two completely worn bronze coins on the chest, and further one two somewhat lower. All four had textile residues, according to Fr. Eygun "sans doute du linceul", but only one was perforated three times.<sup>78</sup>

Textile rests on a perforated coin was also found in a disturbed inhumation grave of an 18 month old child from Carnuntum. It contained two coins, one on the breast an as of Trajan and a singly perforated denarius of Septimius Severus between the thighs.<sup>79</sup> This latter one had some textile remains with a hole preserved on the averse. The publisher, M. Grünwald reckoned the hole in the textile was due to that the coin was sewn onto the clothing of the child. A more plausible explanation would be that it was purely the lack of the coin flan that caused the linen to disperse. As Grünwald puts it "Der Loch in der Münze (...) stimmt mit dem Loch des darunter gelegenen Gewebes überein".<sup>80</sup> It was apparently not enough for the cloth to be surrounded by the denarius, but had to come in direct contact with it. There were also found two glass beads, which most likely were part of a necklace or bracelet along with the perforated Severus denarius. This explanation is also supported by the numerous other examples. Interestingly enough the date of the grave at the end of the 3<sup>rd</sup> c. means that the coins were deposited 100-200 years after their minting.

<sup>74</sup> Interestingly enough the front half of 5 bronze lamps were also uncovered in the mithraeum. WIBLÉ 2013, 242, 246, 250.

<sup>75</sup> SAUER 2005, 84–85. A similar theory was also put forward by H. Zehnacker, who saw the revolt against the Roman rule joined by the consecration of the coins to a local divinity. ZEHACKER 1986, 53.

<sup>76</sup> The MV in ligature could stand for Mars Mullo, the god of the Juvigné sanctuary. AUBIN–MEISSONNIER 1994, 145, 148; BOSSARD–AUBIN–MEISSONNIER 2016, 34.

<sup>77</sup> GORECKI 1975, 249. n. 275.

<sup>78</sup> EYGUN 1934, 87–88.

<sup>79</sup> GRÜNEWALD 1982, 25–26.

<sup>80</sup> GRÜNEWALD 1982, 28.

Two coins from Viminacium also showed textile traces.<sup>81</sup> Interestingly enough, M. Vojvoda concludes that the coin with one perforation was not necessarily sewn onto the clothes, but was more likely a pendant with the traces of the deceased clothes, while in the case of the coins with three perforations she accepts that at least some of them were sewn onto the textile.<sup>82</sup> The triply perforated coin from a child inhumation in Brigetio was also thought to have been sewn onto clothes, although there were no textile rests found on the coin or any other evidence to support this.<sup>83</sup>

All in all there is no sound evidence to support the theory of coins being sewn onto clothes or the shroud. The textile remains on coins can most likely be explained by the copper content, which in some fortunate cases can preserve perishable material very well. The prime examples are from graves in Rouen and Chalon-sur-Saône the hands of children holding bronze coins that were mummified thanks to the copper.<sup>84</sup> This is not contradicted by the Septimius Severus denarius from Carnuntum, since it also made up more than 50% copper. The coins could simply have been placed on the deceased's clothes or shroud. Furthermore, one can also not help but wonder what the purpose of the sewing coins on textile would have had.

The 22 perforated coins from the Aquincum-Graphisoft cemetery is a relatively high number and reveal a very interesting, but little known segment of the Roman burial customs. Most perplexing are the thrice perforated coins mostly from child graves, which are primarily concentrated on the Middle Danubian limes. The closest parallels are from known from the cemeteries in Viminacium. Their function as bracelets and necklaces for the protection of children seems secure, but others must not be excluded. No general explanation can be accepted for the mutilated cases, but have to be examined in detail each time. It is still not clear, why the Romans took the extra effort to perforate these coins not only once, but twice or thrice. A likely the motivation behind these mutilations was to remove them from the earthly world so that they could only be used in the sepulchral sphere.

81 VOJVODA-MRDIĆ 2015, 36–37; VOJVODA 2015, 60–61; VOJVODA 2018, 71.

82 VOJVODA 2018, 71, 75. n. 63, 78–79; VOJVODA 2015, 61.

83 GAZDAC ALFÖLDY-GAZDAC 2009, 166.

84 RENAUD 1954, 357–359; ARMAND-CAILLAT 1955, 135–137.

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PERFORATED ROMAN COINS



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