Dissertationes Archaeologicae
ex Instituto Archaeologico
Universitatis de Rolando Eötvös nominatae
Ser. 3. No. 5.

Budapest 2017
Dissertationes Archaeologicae ex Instituto Archaeologico
Universitatis de Rolando Eötvös nominatae
Ser. 3. No. 5.

Editor-in-chief:
DÁVID BARTUS

Editorial board:
LÁSZLÓ BARTOSIEWICZ
LÁSZLÓ BORHY
ZOLTÁN CZAJLIK
ISTVÁN FELD
GÁBOR KALLA
PÁL RACZKY
MIKLÓS SZABÓ
TIVADARVIDA

Technical editors:
GÁBOR VÁCZI
DÁVID BARTUS

Proofreading:
SZILVIA SZŐLLÖSI
ZSÓFIA KONDÉ

Available online at http://dissarch.elte.hu
Contact: dissarch@btk.elte.hu

© Eötvös Loránd University, Institute of Archaeological Sciences
Budapest 2017
CONTENTS

ARTICLES

András Fűzesi – Norbert Faragó – Pál Raczky 7

Tiszaug-Railway-station. An archaic Middle Neolithic community on the Great Hungarian Plain

Zsuzsanna Siklósi – Zsuzsanna M. Virág – Viktória Mozgai – Bernadett Bajnóczi 67

The spread of the products and technology of metallurgy in the Carpathian Basin between 5000 and 3000 BC – Current questions

Attila Király 83

Grd-i Tle knapped and ground stone artefacts, excavation seasons 2016–2017

Tamás Dezső 97

The arrowheads from Grd-i Tle (Rania Plain, Iraqi Kurdistan)

Bence Soós 113

Early Iron Age burials from Tihany, Hungary

Abdullah Bakr Othman 207

The Middle Assyrian Ceramics at Sheikhi Choli Tomb

Katalin Vandlik 241

Le renard dans les fables antiques et ses représentations

Lajos Juhász 251

Burning money – a coin hoard from Brigetio

Bence Simon 259

Physical landscape and settlement pattern dynamics around Aquincum and Carnuntum – A socio-economic approach

Anna Herbst – Ágnes Kolláth – Gábor Tomka 287

Beneath the Marketplaces. Árpádian Age (10th–13th century) settlement traces from the city centres of Pápa and Győr, Western Hungary
# Field Reports

Zoltán Czajlik – Saša Kovačević – Georg Tiefengraber et al. 343

*Report on magnetometer geophysical surveys conducted in Hungary, Austria and Croatia in the framework of the Interreg Iron Age Danube project*

Tamás Dezső – Gábor Kalla – Barzan Baiz Ismail et al. 361

*Preliminary Report on the Hungarian Archaeological Mission (Eötvös Loránd University) at Grd-i Tle (Saruchawa) in Iraq. Second Season (2017)*

Márton Szilágyi – Kristóf Fülöp – Eszter Rákos – Nóra Szabó 393

*Rescue excavations in the vicinity of Cserkeszőlő (Jász-Nagykun-Szolnok county, Hungary) in 2017*

Dóra Hegyi – Gergely Szoboszlay 401

*Short report on the excavations in the Castle of Sátoraljaújhely in 2017*

# Thesis Abstracts

András Rajna 413

*Changes in Copper Age Networks of Connections in Light of the Material Excavated in the Danube-Tisza Interfluve*

Anikó Bózsa 423

*Instruments of beauty care from the Hungarian part of Pannonia*

Zsolt Körösfői 439

*Die Marosszentanna-Kultur in Siebenbürgen*
Burning money – a coin hoard from Brigetio

LÁJOS JUHÁSZ
Institute of Archaeological Sciences
Eötvös Loránd University
jlajos3@gmail.com

Abstract
The numismatic material of the second cellar at the municipium of Brigetio yielded a very peculiar set of coins. All of them were severely damaged by heat, most of them beyond recognition, but some in a stacked position. Nonetheless, this unfortunate condition and the fact that they were discovered in a cellar, make it clear that they are to be considered a hoard. A few of the coins can be dated to the Antonine era, which is in accordance with the other datable material from the cellar, which was first cleared and subsequently filled up with debris from the neighbouring territories. This also accounts for the damage of the coins, which were most likely destroyed by a fired that accidentally erupted in the nearby blacksmith’s workshop.

It is always exciting to unearth a cellar that lay untouched for almost two millennia in search of hidden and long forgotten treasures. It was no different in 2015 at Komárom/Szőny-Vásártér i. e. the municipium of Brigetio, where we were eager to uncover a Roman cellar we already had discovered in 2012 (Fig. 1).1 The reason for the long delay was the very fortunate fact that the wooden ceiling was preserved, thus we required professional assistance for its safe removal. The walls of the cellar were completely intact, as were those of a similar cellar discovered in 2009.2 Following the ceiling’s removal we could finally begin to uncover, what was left untouched for centuries.

Our expectations were of course high and these were met with interesting discoveries. The wooden ceiling covering only 2/3 of the cellar, underneath of which the only find was a shattered amphora. Interestingly enough the remaining southern 1/3 however yielded a plethora of finds.3 This latter part was left uncovered by the ceiling, to ensure access most likely via a wooden ladder. Here a Roman bronze parade helmet, various seeds (wheat, millet, date, grape, apple...), ceramics and coins were found. This peculiar distribution of finds led to the conclusion that the cellar was first cleared of everything but the amphora, and was subsequently filled up from above with debris, while the wooden ceiling was still intact. Based on the datable artefacts this was in the Antonine era, after 150 AD.4

Now let us discuss the coins in detail, which we were eager to see following their restoration. Unfortunately, despite the almost 20 pieces found in the cellar, only 4 of them can be securely

1 BARTUS ET AL. 2016, 113.
2 In fact a third cellar was also discovered in 2013, but its vertical walls were missing. BARTUS ET AL. 2017.
3 BARTUS ET AL. 2017.
4 BARTUS ET AL. 2017.

DissArch Ser. 3. No. 5 (2017) 251–258. DOI: 10.17204/dissarch.2017.251
identified due to the heavy deformation. However, exactly this unfortunate fact provided some peculiar details. They all show traces of considerable heat damage, 10 coins even melted together. Out of the 12 denarii only one could be possibly identified as Vespasian (Nr. 1). His coins are rare at the site, but not unknown, although because of the quite deteriorated portrait, we have to consider the identification with caution. The silver coins were far more damaged by the fire than the bronze ones, and are virtually unrecognisable. Of the six aes coins four fortunately enough stuck together with their reverses, thus making their identification possible. A sestertius of Faustina minor melted together with a dupondius of Marcus Aurelius (Nr. 2), while two dupondii of Faustina minor and her daughter Lucilla (Nr. 3) also adhered to one another.

Because of the heavy fire damage to all the 18 coins found in the second cellar, they can be considered a hoard. Hoards found inside of buildings are quite rare, since their main purpose was to be kept hidden, thus keeping them, where no one would look for it. The coins were destroyed in the same fire, proving that they were in use or at least stored and subsequently discarded at the same time. The Lucilla coin sets a *terminus post quem* date of 164 AD for the hoard and the subsequent filling of the cellar. The nice family series of Faustina maior and minor, Marcus Aurelius and Lucilla confirm this date.

Interestingly the coins melted together in their original stacked position, despite the fire. This means that they were so tightly stored that they did not fall apart even in the great fire. They could not have been wrapped in some cloth or leather purse, since it would have

---

5 On the monetary circulation of Komárom/Szőny-Vásártér see Juhász 2018.
6 Gázdac et al. 2016, 63.
deteriorated before the coins had melted. It is possible that they were trapped between the rubble of the burning workshop, but this would have had to have been an extremely luckily set of circumstances. This is especially true for the four denarii (Nr. 4) that indicate a more peculiar storage place, since they had to have kept their position for the time for the silver to melt, which is more than 900°Celsius. Furthermore, the Faustina mai. and Marcus coins (Nr. 2) also melted together with these 4 denarii, although during the restoration they were detached from one another. Judging from the various burnt marks, several other coins were next to each other, although the exact position is impossible to tell. Therefore it is most likely that the coins were kept in some kind of strongbox or some other secret place that was destroyed by the fire. Probably the persons carrying out the salvaging of the ruins were not even aware of the money being amid the debris, otherwise the silver itself would have been worth saving and remelting. But this is no wonder, since even today they are not readily identified as coins, but rather as burnt metal scraps.

What could have caused this fire and where did it originate? It seems as though the flames probably erupted in the neighbouring artisanal area, possibly in a blacksmith’s workshop east of the cellar. It must have been a result of an accident of some sort, since it is confined to a smaller area and cannot be considered a barbarian destruction layer. Here we found three furnaces, burnt finds along with great amounts of iron slags. This debris was scattered around the neighbouring territories during great levelling works at the end of the 2nd – beginning of the 3rd c. These reshaped the whole municipium; the orientation of the buildings changed, previous openings were walled up, old cellars and pits were filled with debris.

Interestingly enough the coins from the neighbouring territory to the east of the cellar were also burnt, but not nearly to a similar degree, since most of them could be identified. This is especially odd, since the most part of the iron slags were found here with considerable amount of iron debris. This also supports the assumption that the coins from the second cellar were stored, damaged and buried together.

Two hoards with similar find circumstances were recently discovered in the civil town of Carnuntum, not far from Brigetio itself. One is a late Roman hoard from Haus I hidden between the pillars of the hypocaustum, but could not be retrieved due to a fire in the heating system. In this case the coins are more than a century younger than the ones from the cellar, but the burnt context inside a residential building is the same. Interestingly enough these coins were not so damaged by the fire as the one in Brigetio. The second is Carnuntum XI hoard found in the south-west tower of the city walls, but originally hidden at an unknown location. The 104 coins found their way to the substructure of the walking level, when the fortification had to be renewed because of an earthquake in the middle of the 4th c. This hoard terminates in 215 with 80% of the total from the Severan family, but also includes coins from the 1-2nd c.

7 The remelting of these coins for their raw material also seems highly unlikely because of the stacked position.
8 These are completely missing from the civilian town of Brigetio.
9 BARTUS ET AL. 2017.
10 BARTUS ET AL. 2016, 114.
11 BARTUS ET AL. 2016, 160–163.
12 GÄZDAC – HUMER 2004, 186–190; GÄZDAC – HUMER 2010, 49–52.
13 GÄZDAC ET AL. 2016, 63–66.
As for the value of the 18 coins consumed by the fire an approximate estimation can be attempted with the limited literary sources at hand. There was 1 sestertius, 3 dupondii, 2 dupondius or as and 12 denarii. Of the latter one was a subaeratus (nr. 4) i.e. an ancient forgery with a copper core, making its purchasing power very difficult to estimate. This leaves us with 11 genuine silver coins, 1 forgery and the rest of the aes coins also amounting to almost a denarius in value. What was this sum worth in the 2nd c.? The Vindolanda tablets tell us that at around 100 AD approximately 8 denarii would have sufficed monthly to buy 5 modii barley, 15 pounds of bacon, 30 eggs, 60 liters of beer and some salt.\(^\text{14}\) A wax tablet from Alburnus Maior (Veresptak/Rosia Montana) records that 5 lambs cost 18 denarii, while 1 piglet 5 denarii.\(^\text{15}\) The dating of the inscription between 131–167 AD roughly corresponds with the coins from the cellar in Brigetio. Even though Dacia is geographically not close to Pannonia, and therefore the prices must certainly have varied somewhat, but this wax tablet gives us at least a rough estimate how much purchasing power the burnt sum had. A further wax tablet inform us that miners earned 70 denarii for half a year’s work at Alburnus Maior, which was higher than the average day labourer’s salary.\(^\text{16}\) The other estimate can be given based on the military payments.\(^\text{17}\) The stipendium for a legionary foot soldier in the 2nd c. was 400 sestertii (100 denarii), i.e. 1200 annually.\(^\text{18}\) This would mean the money in the cellar would equal about half a month’s salary of a soldier, although he would only receive a fraction of it.\(^\text{19}\)

As can be learnt from the sources the burnt money in the cellar could have kept hunger at bay for person or a small family for 3–4 weeks. This sum was more than a month’s wage for hard physical labour. It also equals a legionary foot soldiers half a month’s salary before reduction, so approximately one month’s pay following deduction. This means that the molten money must surely have caused considerable headache to its owner, when seeing it perishing before his eyes.

The 18 coins uncovered in the 2nd cellar in the municipium of Brigetio in 2015 proved to be quite unusual. They were all severely damaged by high heat, some of them were molten together. Only 4 were securely identifiable all from the Antonine dynasty, which is also the most likely date for the fire. The identical condition and that several pieces stuck together indicate that these coins were a stored collectively, thus can be viewed as a hoard. The vast amount of iron slags subsequently scattered around the neighbouring territories, especially in cellar nr. 3, point to a nearby blacksmith’s workshop. This also seems like the most probable cause of the eruption of the fire, causing some serious grief for the hoard’s owner.

\(^{14}\) DREXHAGE ET AL. 2002, 178.
\(^{15}\) CIL III p. 953 (XV); IDR 243-246/46 (TabCerD XVI). The rest of the lists include other items (bread, vinegar, salt) with prices, but without specifying their quantity. Because of frankincense was also bought it is possible that the whole purchase was for a religious event. PUNDT 2012, 68–69.
\(^{16}\) IDR 233-235/41 (TabCerD XI); PUNDT 2012, 73–74. This also corresponds to the wages paid to the quarry workers at the Mons Claudianus in Egypt. CUIGNY 1996, 142–145
\(^{17}\) For a short summary of the problems calculating the military payments see SPEIDEL 2014, 53–55.
\(^{18}\) SPEIDEL 2009, 350.
\(^{19}\) A part of it would be kept back for food and other supplies (e.g. clothing) and for contributions towards the unit (Saturnalia, standards). SPEIDEL 2009, 360.
Catalogue

1. Vespasian (?)  
Inv. nr: KGYM 2015.LM16-17.046.3.  
Av: […]  
?  
Rv: […]  
?  
Weight: 3,57 g  
Denomination: denarius  
Mint: ?  
Literature: ?

2. Faustina mai. and Marcus Aurelius  
(2 coins melted together)  
Inv. nr: KGYM 2015.LM16-17.078.289.  
Av: […] – FAVSTI[NA]  
Dr. bust r.  
Av: [M AN]TONIVS – AVG TR[ ...]  
Rad. bust r.  
Weight: 26,81 g  
Denomination: sestertius (Faustina), dupondius (Marcus Aurelius)  
Mint: Rome  
Literature: ?

3. Faustina iun. and Lucilla  
(2 coins melted together)  
Inv. nr: KGYM 2015.LM16-17.078.290.  
Av: FAVSTINA - [A]GVSTA  
Dr. bust r.  
Av: LVC[IL]LA - AVGVSTA  
Dr. bust r.  
Weight: 20,10 g  
Denomination: dupondius  
Mint: Rome  
Literature: ?

4. ? (4 coins melted together)  
Inv. nr: KGYM 2015.LM16-17.078.288.  
Av: […]  
?  
Rv: […]  
?  
Weight: 24,21 g  
Denomination: denarius  
Mint: ?  
Literature: ?
5. ? (2 coins melted together)
Inv. nr: KGYM 2015.LM16-17.078.291.
Av: […]
?
Rv: […]
?
Weight: 8.59 g
Denomination: denarius
Mint: ?
Literature: ?

6. ?
Inv. nr: KGYM 2015.LM16-17.046.5.
Av: […]
?
Rv: […]
?
Weight: 1.63 g
Denomination: denarius subaeratus
Mint: ?
Literature: ?

7. ?
Inv. nr: KGYM 2015.LM16-17.030.2.
Av: […]
?
Rv: […]
?
Weight: 3.55 g
Denomination: denarius
Mint: ?
Literature: ?

8. ?
Inv. nr: KGYM 2015.LM16-17.030.3.
Av: […]
?
Rv: […]
?
Weight: 3.36 g
Denomination: denarius
Mint: ?
Literature: ?
9. ?
Inv. nr: KGYM 2015.LM16-17.030.4.
Av: […]
?  
Rv: [...]  
?
Weight: 2,02 g
Denomination: denarius
Mint: ?
Literature: ?

10. ?
Inv. nr: KGYM 2015.LM16-17.078.293.
Av: […]
?  
Rv: [...]  
?
Weight: 2,88 g
Denomination: denarius
Mint: ?
Literature: ?

11. ?
Ltsz: KGYM 2015.LM16-17.046.4.
Av: […]
?  
Rv: [...]  
?
Weight: 12,56 g
Denomination: dopundius or as
Mint: ?
Literature: ?

12. ?
Inv. nr: KGYM 2015.LM16-17.078.292.
Av: […]
?  
Rv: [...]  
?
Weight: 12,22 g
Denomination: dopundius or as
Mint: ?
Literature: ?
References

BARTUS, D. – BORHY, L. – DELBÓ, G. – DÉVAI, K. – KIS, Z. – HAJDU, B. – NAGY, A. – SÁRÓ, Cs. – SEY, N. – SZÁMADÓ, E. – JUHÁSZ, L. 2016: Jelentés a Komárom-Szőny, Vásártéren 2014-ben folytatott régészeti feltárások eredményeiről. KDKM 22, 113-191.

BARTUS, D. – BORHY, L. – DELBÓ, G. – DÉVAI, K. – KIS, Z. – HAJDU, B. – NAGY, A. – SÁRÓ, Cs. – SEY, N. – SZÁMADÓ, E. – JUHÁSZ, L. 2017: Jelentés a Komárom-Szőny, Vásártéren 2015-ben folytatott régészeti feltárások eredményeiről. KDKM 23 (in press)

CUVIGNY, H. 1996: The amount of wages paid to the quarry-workers at Mons Claudianus. JRS 86, 139-145.

DREXHAGE, H.-J. – KÖNEN, H. – RUFFING, K. 2002: Die Wirtschaft des Römischen Reiches (1.-3. Jahrhundert). Berlin 2002.

GÁZDAC, C. 2010: Monetary circulation in Dacia and the surrounding provinces from the Middle and Lower Danube in the period from Trajan to Constantine I. Cluj-Napoca.

GÁZDAC, C. – HUMER, F. 2004: Zivilstadt Carnuntum – Haus I. The numismatic approach of an archaeological site. Carnuntum Jahrbuch 2004, 179-240.

GÁZDAC, C. – HUMER, F. 2010: Living by the coins. Roman life in the light of coin finds and archaeology within a residential quarter of Carnuntum. Wien.

GÁZDAC, C. - HUMER, F. - POLLIHAMMER, E. - KONECNY, A. 2016: Walking on a hoard without knowing… The ’007’ hoard from Carnuntum. Wien.

JUHÁSZ, L. 2018: Monetary circulation in the municipium of Brigetio. In: Vojvoda, M. (ed.): Circulation of the antique coins in Southeastern Europe (in press)

PUNDT, H. A. 2012: Mining Culture in Roman Dacia: Empire, Community, and Identity at the Gold Mines of Alburnus Maior ca.107-270 C.E. Portland State University (doctoral thesis/dissertation)

SPEIDEL, M. 2009: Roman army payscales. In: Heer und Herrschaft im Römischen Reich der Hohen Kaiserzeit. Stuttgart.

SPEIDEL, M. 2014: Roman army pay scales revisited: responses and answers. In: Reddé, M. (ed.): De l’or pour les braves! Soldes, armées et circulation monétaire dans le monde romain. actes de la table ronde organisée par l’UMR 8210 (AnHiMa) à l’Institut national d’histoire de l’art (12-13 septembre 2013). Bordeaux, 53-62.