



The  
**Danube Limes**  
in Hungary

ARCHAEOLOGICAL RESEARCH  
CONDUCTED IN 2015–2020

PÉCS 2020

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## EDITORS

Gergő István Farkas – Réka Neményi – Máté Szabó

## TECHNICAL EDITORS

Gergő István Farkas – Máté Szabó

## LINGUISTIC REVISION

Gergő István Farkas – Réka Neményi

## COVER DESIGN

Máté Szabó

## PRESS

Kontraszt Plusz Ltd., Pécs

ISBN 978-963-429-597-6 (print)

ISBN 978-963-429-598-3 (digital)

DOI: 10.15170/CLIR.2020



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The Danube bend at *Lugio* (Dunaszekcső, Baranya county)



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## Foreword

The study of Roman frontiers has been a pivotal subject of the academic hub at Pécs for long decades. Its researchers were pioneers of Hungarian aerial archaeology (*Aerial Archaeological Archive of Pécs*), and have been conducting archaeological excavations and complex non-invasive surveys throughout the Ripa Pannonica. Associate researchers provided the scientific background for the UNESCO World Heritage Nomination of the Hungarian section of the Danube Limes. The Archaeology Department at the University of Pécs has been a prominent agent of Roman provincial archaeology in Hungarian higher education.

This volume is a continuation of the work long begun. We strive to promote Roman frontier studies by organizing workshops, hosting public venues and providing channels to publish recent findings concerning the limes. This publication, available both as a hardcover book and a digital issue, offers insight into exciting and valuable research novities previously unpublished. In the future we aim to continue this tradition and regularly publish recent research results on the Roman limes.

We also aspire to complement traditional publications with flexible and up-to-date online data collection. The Frontiers of the Roman Empire is a unique academic subject. It is a vast historic complex encompassing a multitude of monuments and sites of varying complexities and features, over different social and geological landscapes spanning three continents and more than five centuries. This inherent complexity of Roman frontiers is coupled by a divergent research history, resulting in inevitable bias. These difficulties have been recognized by previous research, but only the digital era brought about a set of solutions to overcome them.

To address and resolve these preexisting conditions, one must treat Roman monuments and sites in an adaptable, complex yet manageable framework, which promotes future redefinitions, meeting the needs of continuously expanding knowledge on its subject of study. Such criteria were kept in mind when creating the CLIR database (<https://clir.hu>), an online data collection and analytics tool tailored to meet the needs of scholars and professionals working with Roman frontiers. This year, the bulk of the work done at CLIR Research Center revolved around creating and fine-tuning the framework of this online platform.

Apart from creating the scientific framework, we also pursue furthering knowledge by conducting research of our own (visit <http://clir-research.hu> to see more of our projects and works).

We kindly thank all authors for their contributions, we look forward to continuing work on the limes as a joint venture.

Pécs, 21 November 2020

Gergő István Farkas  
director

# Thoughts on the numismatic history of the Pannonian limes

István A. VIDA

Hungarian National Museum

Department of Coins and Medals

*vida.istvan@hnm.hu*

## Abstract

*The goal of this paper is not to give a detailed monetary history of Pannonia, but to give a brief description on the tendencies of different periods based on coin finds. The monetary history of northern and southern Pannonia is quite different; I mostly focused on the northern part, but finds from the southern regions are also mentioned when necessary for the broader picture. Recent numismatic research yielded new achievements in some fields and these are discussed below more thoroughly.*

## Keywords

Pannonia, coin hoard, monetary history, limes

## Augustus – Claudius I

The people of northern Transdanubia got into close connection with Rome after the occupation of Siscia in 35 B.C. We may assume that the Romans had some kind of *foedus* with the local tribes,<sup>1</sup> especially with the Eravisci. Granting citizenship<sup>2</sup> and financial donations were well known means of Roman diplomacy. These gifts caused the first large scale inflow of Roman denarii,<sup>3</sup> and initiated local coinage based on Roman standards. The dating of this coinage is not certain,<sup>4</sup> but based on the new finds the reign of Augustus could be the date of the first phase, and the reign of Tiberius (and possibly Caligula) of the second one.<sup>5</sup> The geographical distribution of the hoards clearly marks the new political centre in the north-eastern part of Transdanubia. Hoards to the west probably indicate Eraviscan military presence, as the reason for the coinage was most likely the financing of Eraviscan auxiliary troops, just like in the case of (sometimes debated)<sup>6</sup> western examples.<sup>7</sup> The coinage had played little role in the life of the settlements.<sup>8</sup>

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1 TORBÁGYI 1998a, 14; KOVÁCS 2014, 55; TORBÁGYI – A. VIDA 2020.

2 CIL III, 3377, 10552.

3 TORBÁGYI – A. VIDA 2020.

4 TORBÁGYI – A. VIDA 2020.

5 A. VIDA 2020; TORBÁGYI – A. VIDA 2020.

6 WOLTERS 1998.

7 WIGHTMAN 1974, 481; WIGHTMAN 1977; WIGG 2002, 226; HEESCH 2005, 236–237; LOSCHIEDER 2005, 119–124.

8 TORBÁGYI – A. VIDA 2020.

Findspot <sup>9</sup>	Date	R.	C	A	T	C <sub>1</sub>	C <sub>2</sub>	Other	Total
Abasár <sup>10</sup>	14-37	39	10	2	1			Trai. 1	53
Jászdózsa <sup>11</sup>	14-37	101	6	6				Nero 1	114
Rakamaz <sup>12</sup>	14-37	194		8	1				203+
Sajóőrös <sup>13</sup>	29-27 BC	18		1					42+ (19)
Bajót <sup>14</sup>	86 BC + E	1	14						15?
Biatorbágy 1 <sup>15</sup>	37-41+E	?	80	?	?	1			≈600
Biatorbágy 2 <sup>16</sup>	E	4	7						11+
Biatorbágy 3 <sup>17</sup>	14-37+E	53	4	5	3				65
Biatorbágy 4 <sup>18</sup>	14-37+E	74	7	6	5		1		93
Budapest 1 <sup>19</sup>	10 BC+E	105	365	18					≈500 (488)
Budapest 2 <sup>20</sup>	E	1	3						4+
Budapest 3 <sup>21</sup>	2 BC-AD 11	44		7					500+ (51)
Eszertgom 1 <sup>22</sup>			?						1-2 dozen
Eszertgom 2 <sup>23</sup>			?						2-300
Kesztlőc <sup>24</sup>	64 BC+E	1	3						4?
Komárom- Fejér <sup>25</sup>		?	?						100-150
Környe/ Vértestolna <sup>26</sup>	14-37	65		5	5				75

9 Table headers: R = Republican, C = Celtic, A = Augustus, T = Tiberius, C<sub>1</sub> = Caius, C<sub>2</sub> = Claudius.

10 TORBÁGYI – VIDA 2013.

11 MNM Ét. 397/1905; PROHÁSZKA 2013.

12 Unpublished.

13 SIMON – TORBÁGYI 2013.

14 A. VIDA 2020.

15 ECKHEL 1798; GOHL 1902.

16 A. VIDA 2020.

17 A. VIDA 2020.

18 A. VIDA 2020.

19 GOHL 1902.

20 GOHL 1903a.

21 TORBÁGYI 1998a.

22 A. VIDA 2020.

23 A. VIDA 2020.

24 A. VIDA 2020.

25 A. VIDA 2020.

26 A. VIDA 2020. The first reports on this hoard stated that Környe was the findspot, but now it seems to be certain, that it was found near Vértestolna.

Findspot <sup>9</sup>	Date	R.	C	A	T	C <sub>1</sub>	C <sub>2</sub>	Other	Total
Mogyorós-bánya <sup>27</sup>			?						4-500
Százhalombatta <sup>28</sup>	E		3						3?
Tárnok <sup>29</sup>	11-10 BC+E	29	2159	3					2191
Telki <sup>30</sup>	2 BC- AD 4	94		10					104
Devín <sup>31</sup>	E		70						70
Győr <sup>32</sup>	E		25						72? (25)
Trsztenna <sup>33</sup>	32-29 BC+E	?	?						≈100
Verebély <sup>34</sup>	E		21/22						21/22

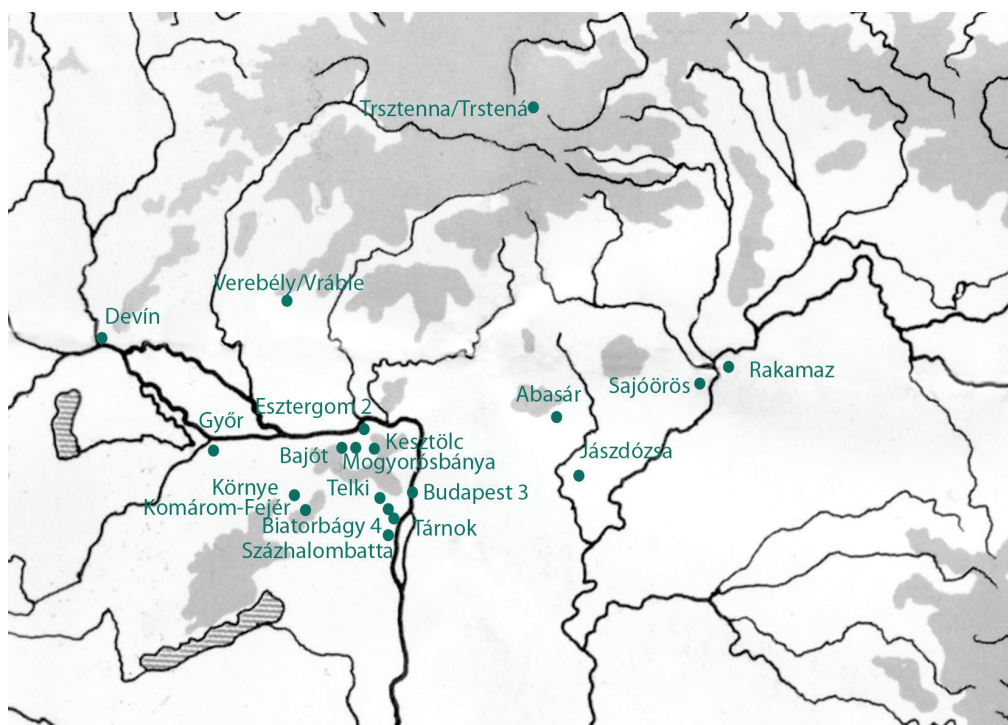


Fig. 1. Hoards dateable to Augustus – Claudius I

27 A. VIDA 2020.

28 GOHL 1902.

29 A. VIDA 2020.

30 A. VIDA 2020.

31 PLACHÁ – FIALA 1998.

32 HAUPT – NICK 1997.

33 NEUDECK 1883.

34 HARSÁNYI 1910; KOLNÍKOVÁ 2005, 76.

The tribes of the Great Plain were subjugated during the campaign of Vinicius, and were forced into *foedus* with the Romans. The similar hoards (but without Eraviscan coins) from the northern edge of the Great Plain suggest, that there was no direct Roman control over any of the tribes, their land was not incorporated into the province, yet Romans dealt with the two regions in the same way.<sup>35</sup>

The *foedera* were still kept during the reign of Tiberius, as his coins are present in the hoards, but later emperors had dealt with the region in a different manner. Probably, this kind of politics was ineffective due to the appearance of Sarmatians.<sup>36</sup>

The end of the independence of the tribes, and the declining leading role of the tribal aristocracy brought about the disappearance of coin hoards. This change is also clear in later hoards: the coin types found in these hoards are absent from the later ones, so there seems to be a discontinuity in the accumulation of the wealth.

### Nero – Domitian

Only two hoards<sup>37</sup> are known from the period, both of them were made up exclusively of gold coins. The Budapest, Medve utca<sup>38</sup> hoard, closing in AD 71, contained 9 aurei from Tiberius to Vespasian. The Szombathely–Herény<sup>39</sup> hoard, closing in AD 62–63, contained 38 aurei from Tiberius to Nero. The date of burial is uncertain for both hoards. The Budapest hoard is a meagre one, while the Szombathely hoard just terminated before the monetary reform of Nero (AD 64) which lowered the weight of aurei. It is highly probable, that earlier, heavier coins were selected for hoarding at a later date.

The presence of such high value coins and the absence of denarius hoards is very strange. Findspots suggest, that the hoards might be linked to Roman military, while the peace in Pannonia, along with the low number of coins in circulation might explain the lack of other hoards.

### Trajan – Antoninus Pius

From the reign of Trajan three hoards are known. The small hoard of Budapest, Laktanya street<sup>40</sup> was hidden in a wall within the military camp. The Szombathely hoard<sup>41</sup> consisting of c. 550 silver coins was found near the Iseum. The latest coins

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35 A. VIDA 2020.

36 TORBÁGYI – VIDA 2013, 14.

37 I have heard rumors about a large (c. 300 pieces) hoard of aurei found some decades ago, allegedly in Veszprém County. The earliest coins were minted in 40's BC, the latest ones under the Flavians. The information on this hoard is unassured, I am not certain, whether a hoard like this was really found.

38 TORBÁGYI 1998b.

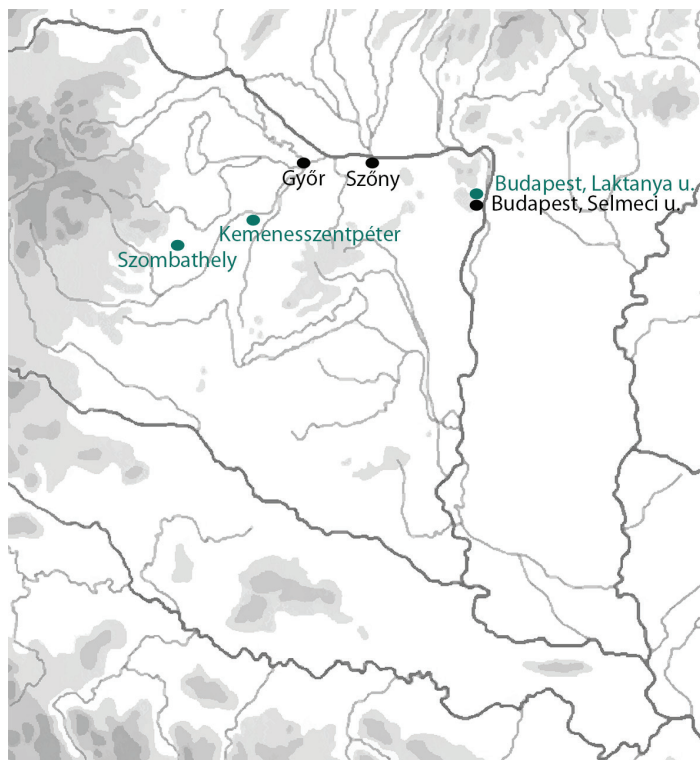
39 TORBÁGYI 1994.

40 MNM ÉT. 212/1935; JÓNÁS 1937.

41 Unpublished.



**Fig. 2.** Hoards dateable to Nero – Domitian



**Fig. 3.** Hoards dateable to Trajan – Antoninus Pius

were minted between AD 114 and 117. We have very little information on the Kemenesszentpéter hoard.<sup>42</sup> Presumably several hundred or several thousand denarii were found, the latest coins were probably those of Trajan, minted late in his reign.

Three hoards terminated under Hadrian, as well. The Budapest, Selmeci utca hoard,<sup>43</sup> that contained 562 denarii and a silver drachm was found by the furnaces of a pottery workshop in a vessel, the latest coins were minted between AD 125 and 128. The Győr hoard<sup>44</sup> consisted of 862 coins: 28 aurei, 831 denarii and three drachms. Its burial is dated to AD 137–138. The small hoard of Szőny<sup>45</sup> – probably a purse-find – contained 17 coins: 1 denarius, 1 quinarius and 15 various bronze coins.

Many authors mention anxiety, the weakening of collective security in Pannonia before the Marcomannic–Sarmatian wars, during the reign of Antoninus Pius, which is also supported by coin hoards:<sup>46</sup> Poetovio<sup>47</sup> (closure: 152) – there were only 11 coins in the hoard; Zalahosszúfalu<sup>48</sup> (closure: 153) – by taking the counterfeit coins into account after 159, but both hoards are incomplete; Bonyhád<sup>49</sup> (closure: 154) – 158 in fact; Szemely<sup>50</sup> (closure: 158) – 161 to 176 in fact; Bara Osatina<sup>51</sup> (closure: 160) – a very fragmentary hoard with more than half of the known coins being unidentifiable. Thus the premonitory signs of the Marcomannic Wars cannot be attested numismatically.

### The Marcomannic–Sarmatian wars

Eleven hoards are known from Pannonia Inferior which were presumably hidden during the Marcomannic Wars of Marcus Aurelius: Alsómocsolád<sup>52</sup> (164), Baranyavár/Branjin Vrh<sup>53</sup> (165), Bonyhád<sup>54</sup> (158), Kurd–Gyulaj<sup>55</sup> (165), Osatina<sup>56</sup> (160?), Osijek<sup>57</sup> (165), Pécs<sup>58</sup> (161), Pellérd<sup>59</sup> (164), Sotin<sup>60</sup> (166),

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42 Unpublished.

43 MNM Ét. 212/1935; JÓNÁS 1937.

44 MNM Ét. 39.A/1925; LOVAS 1916; FMRU II, 84–92.

45 BARKÓCZI 1958; BÍRÓNÉ SEY 1977; FMRU III, 212.

46 MÓCSY – FITZ 1990, 37.

47 SARIA 1922; NOLL 1954; FMRS II, 259; VIDA 2017, 12, 210.

48 ALFÖLDI 1920; RADNÓTI 1941; VIDA 2017, 12, 218–221.

49 MNM Ét. 131/1904; NK III; FARKAS – KŐHEGYI 2000; VIDA 2017, 12, 191.

50 MNM Ét. 127/1950; KERÉNYI 1951; FARKAS – KŐHEGYI 1999; NAGY 2016, 23; VIDA 2017, 12, 197–198.

51 BRUNŠMID 1908–1909; NOLL 1954; MIRNIK 1981; VIDA 2017, 12, 192–193.

52 MNM Ét. 751/1900; GOHL 1905a; VIDA 2017, 189–190.

53 MNM Ét. 292/1905; GOHL 1905b; VIDA 2017, 190.

54 MNM Ét. 131/1904; NK III; FARKAS – KŐHEGYI 2000; VIDA 2017, 12, 191.

55 MÉREY 1936; VIDA 2017, 191–192.

56 BRUNŠMID 1908; NOLL 1954; MIRNIK 1981; VIDA 2017, 192–193.

57 NOE 1937; WRUCK 1938; MIRNIK 1981; VIDA 2017, 193–194.

58 NAGY 2016, 23.

59 MNM Ét. 194/1894; FARKAS – KŐHEGYI 2000; VIDA 2017, 195–196.

60 BRUNŠMID 1911; NOE 1925; KLEMENC 1935; NOE 1937; RAKNIĆ 1970; MIRNIK 1981; VIDA 2017, 196–197.



Szemely<sup>61</sup> (161–176), Szigetcsép<sup>62</sup> (161–176?).

The closure date of these hoards is very early and does not coincide with any known historic events. Furthermore there are no later hoards dateable to the time of the Marcomannic Wars. Earlier research tried explaining this peculiarity by arguing, that during the troubled times prior to the outbreak of the war, freshly minted coins did not reach the region.<sup>63</sup> But coins from later years can be found in the neighbouring Pannonia Superior and Moesia Superior and in the other provinces affected by the Barbarian invasion.

It is more likely that these coin hoards were hidden because of unrecorded Barbarian attacks in the earliest phase of the war in 165 and 166. This is also supported by the *Historia Augusta*:<sup>64</sup>

*“While the Parthian war was still in progress, the Marcomannic war broke out, after having been postponed for a long time by the diplomacy of the men who were in charge there, in order that the Marcomannic war might not be waged until Rome was done with the war in the East.”*

As there are no later hoards known from the region, we may assume that these attacks were devastating the province and great part of the population fled or perished.

28 hoards are known from Pannonia Superior which were presumably hidden during the Marcomannic Wars of Marcus Aurelius. 15 of these (Božjakovina,<sup>65</sup> Drnovo,<sup>66</sup> Ivanovo Selo,<sup>67</sup> Korita,<sup>68</sup> Ladislav,<sup>69</sup> Novoselo,<sup>70</sup> Parndorf,<sup>71</sup> Petronell,<sup>72</sup> Planina pri Sevnici,<sup>73</sup> Ptuj,<sup>74</sup> Sisak,<sup>75</sup> Wien 3. Bezirk 1,<sup>76</sup> Wien 3. Bezirk 2,<sup>77</sup> Zalahosszúfalú 1,<sup>78</sup>

61 MNM Ét. 127/1950; KERÉNYI 1951; FARKAS – KŐHEGYI 1999; NAGY 2016, 23; VIDA 2017, 12, 197–198.

62 VIDA 2017, 198–199.

63 FARKAS 1999, 136.

64 HA v. Marci 12.13. Translated by David Magie.

65 KLEMENC 1938; MIRNIK 1981, 53; VIDA 2017, 201–202.

66 MRS I, 492; VIDA 2017, 204.

67 MIRNIK 1981, 54; VIDA 2017, 205.

68 HITZINGER 1854; PEČNIK 1904; FMRS I, 380; VIDA 2017, 206.

69 MIRNIK 1981, 55; VIDA 2017, 206.

70 KLEMENC 1934; MIRNIK 1981 55–56; VIDA 2017, 206–207.

71 DEMBSKI 2009; RUSKE 2011, 95; VIDA 2017, 208.

72 DEMBSKI 1999, 104; RUSKE 2007, 421; RUSKE 2011, 80; VIDA 2017, 209.

73 OROŽEN 1887; KLEMENC – SARIA 1939; ANSI 1975, 285; MIRNIK 1981; FMRS II, 86; VIDA 2017, 209.

74 SARIA 1922; NOLL 1954; FMRS II, 259; VIDA 2017, 210.

75 MIRNIK 1972; NAĐ 2012, 402; VIDA 2017, 210–211.

76 KUBITSCHKEK 1909a; KUBITSCHKEK 1909b; PINK 1932, 59; NOLL 1954; DEMBSKI 1977, 20; FMRÖ IX, 85; DEMBSKI – ZAVADIL 2004, 96–99; RUSKE 2007, 418; RUSKE 2011, 106; VIDA 2017, 215.

77 KUBITSCHKEK 1909a; KUBITSCHKEK 1909b; BOLIN 1926; PINK 1932, 59; NEUMANN 1972; DEMBSKI 1977, 20; FMRÖ IX 87–89; DEMBSKI – ZAVADIL 2004, 96–99; RUSKE 2007, 426; RUSKE 2011, 106–107; VIDA 2017, 216.

78 ALFÖLDI 1920; RADNÓTI 1941; VIDA 2017, 218–219.

Zalahosszúfalu 2<sup>79</sup>) are either very fragmentary or there is insufficient information available on them to use them for the dating of the events of the war. The coins of the Szőny–Vásártér<sup>80</sup> and Wien–Innenstadt<sup>81</sup> hoards are in appalling condition, thus their identification was not possible.

Thus there are only 11 hoards left for analysis. If we accept the early closing (164 AD) of the incomplete Prugovac hoard,<sup>82</sup> it might indicate, that the earliest Barbarian attacks reached not only Pannonia Inferior, but the central part of Pannonia Superior as well.

The attack of 167 from the north is marked by the Apetlon<sup>83</sup> and Szőny<sup>84</sup> hoards, while the Carnuntum 3<sup>85</sup> hoard was hidden because of the next attack in 169. The dating of the burial of the Carnuntum 2<sup>86</sup> hoards is uncertain due to the small number of coins, although it may be connected to any of these attacks, just as the Neunkirchen<sup>87</sup> hoard. The Illmitz<sup>88</sup> and the Wallern<sup>89</sup> hoards were most likely hidden in this period as well, but due to their structure their closing is uncertain. The dating of the Katafa hoard<sup>90</sup> containing 18 aurei is problematic due to the small number of coins, its closing is 168 AD, but it is unclear whether it pertains to the raid in 169. The Szombathely hoard<sup>91</sup> indicates, that during the second phase of the war, Barbarians reached the interior of the province. Probably this attack was the reason behind the burial of the Wien 3. Bezirk 2<sup>92</sup> hoard as well.

From the reign of Commodus onwards, after the Macomannic there are no known coin hoards from Pannonia.

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79 ALFÖLDI 1920; RADNÓTI 1941; VIDA 2017, 219–221.

80 VIDA 2017, 213–214.

81 DEMBSKI 2006; KRONBERGER 2006; RUSKE 2011, 109; VIDA 2107, 216–217.

82 LJUBIĆ 1888; BRUNŠMID 1910; MIRNIK 1981, 57; VIDA 2017, 209–210.

83 OHRENBERGER 1963; GÖBL 1967; KOCH 1969; DEMBSKI 1977; FMRÖ I/2, 293–302; RUSKE 2007, 395–397; RUSKE 2011, 76–77; VIDA 2017, 201.

84 BARKÓCZI 1944, 16; FEHÉR 2011, 65; VIDA 2017, 212.

85 GROLLER 1901; GROLLER 1903; SCHMIDEL 1905; BORTLIK 1909; KUBITSCHKEK 1909a; KUBITSCHKEK 1909b; PINK 1932, 59; ELMER 1933; NOLL 1954; DEMBSKI 1977; FMRÖ III/1 201–203; RUSKE 2007, 399–401; RUSKE 2011, 79; VIDA 2017, 201.

86 SCHMIDEL 1888a; SCHMIDEL 1888b; GROLLER 1901; GROLLER 1903; BORTLIK 1909; KUBITSCHKEK 1909a; KUBITSCHKEK 1909b; PINK 1932, 58; ELMER 1933; NOLL 1954; DEMBSKI 1977; FMRÖ III/1, 200; RUSKE 2007, 397–399; RUSKE 2011, 78; VIDA 2017, 202.

87 DEMBSKI – HAIDER–BERKY 1990; DEMBSKI 1998; RUSKE 2007, 416; RUSKE 2011, 93–94; VIDA 2017, 206–207.

88 GÖBL 1961; DEMBSKI 1977; FMRÖ I/2; VIDA 2017, 204.

89 BARB 1927; BARB 1931; PASCHER 1949, 160; NOLL 1954; LEXICON 23; KOCH 1969; FMRÖ I/2, 413–416; DEMBSKI 1977, 18; RUSKE 2007, 381–383; RUSKE 2011, 105–106; VIDA 2017, 214.

90 CSERMÉNYI – TÓTH 1982; VIDA 2017, 203.

91 BÍRÓ–SEY 1960; KŐHEGYI 1965; KŐHEGYI 1966; VIDA 2017, 211–212.

92 KUBITSCHKEK 1909a; KUBITSCHKEK 1909b; BOLIN 1926; PINK 1932, 59; DEMBSKI 1977, 20; FMRÖ IX 87–89; DEMBSKI – ZAVADIL 2004, 96–99; RUSKE 2007, 426; RUSKE 2011, 106–107.



**Fig. 4.** Hoards dateable to the Marcomannic–Sarmatian Wars

### Severan dynasty

Eight hoards buried under Severan emperors are known. Four of them were hidden during the reign of Septimius Severus. The earliest one (AD 193–196) is the Szombathely<sup>93</sup> hoard containing 58 denarii. The Szöny<sup>94</sup> hoard of 118 aurei was most likely buried in the late AD 190s, the latest coin is a Julia Domna aureus dated to

93 Sz. CZEGLÉDY 1962.

94 MNM ÉT. 111/1960; BARKÓCZI – BÍRÓNÉ SEY 1964; BÍRÓNÉ SEY 1977; FMRU III, 209–211.

AD 196–211.<sup>95</sup> The Mór–Felsődobos<sup>96</sup> hoard contained 72 denarii and it is dated to AD 203. Very little is known about the Tinnye<sup>97</sup> hoard. 1.5 litre of denarii were found, the latest coins were minted by Septimius Severus.

A small hoard of 38 bronze coins found at Lábatlan,<sup>98</sup> dated to AD 211–217 is the only one from the reign of Caracalla.

Three hoards are known from the reign of Severus Alexander: Kisdém,<sup>99</sup> 35 denarii, AD 223; Ercsi,<sup>100</sup> 386+ silver coins (385 d, 1 ant), AD 228, Börgönd,<sup>101</sup> 587 silver coins (586 d, 1 ant), AD 231–235.

All these hoards are scattered both spatially and temporarily, so it is most likely, that some kind of personal tragedies lie in the background of their burials and not political or military reasons.

### Maximinus I – Trebonianus Gallus

We do not know any hoard from the reigns of Maximus I and Gordian III. Two hoards close under Philip I: Bakonyszombathely,<sup>102</sup> AD 247–249, 2849+ AR; Tác,<sup>103</sup> AD 244–247, 11 AR; one under Trajan Decius: Pilisszántó,<sup>104</sup> AD 249–251, 115 AR; and five under Trebonianus Gallus: Bajót,<sup>105</sup> AD 251–253, 234 AR; Budaörs,<sup>106</sup> AD 251–253, 2236+ AR; Dunajváros,<sup>107</sup> AD 253, 59 AR; Solymár,<sup>108</sup> AD 251–253, 746 AR; Szőny,<sup>109</sup> AD 252, 508 AR. The Philip I hoards are either incomplete or small, so it is

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95 Other Severan coins are: 5 aurei of Septimius Severus from AD 193, 1 aureus of Septimius Severus from AD 194. 1 aureus of Julia Domna from 193–196. The latest Antonine coin is an aureus of Divus Marcus Aurelius struck in AD 180. This hoard also illustrates well the lack of Commodus' coins from the hoards.

96 FITZ 1960; FMRU I, 267–269.

97 VÁSÁRHELYI 1892.

98 BÍRÓNÉ SEY 1968.

99 PROHÁSZKA 2005.

100 SOPRONI 1964.

101 RADNÓTI 1936; SOPRONI 1964; FMRU I, 30–37.

102 FMRU III, 62–79.

103 FITZ 1966; FMRU I, 359.

104 MNM ÉT. 27/1965; BÍRÓNÉ SEY 1966; FITZ 1978, 99–100.

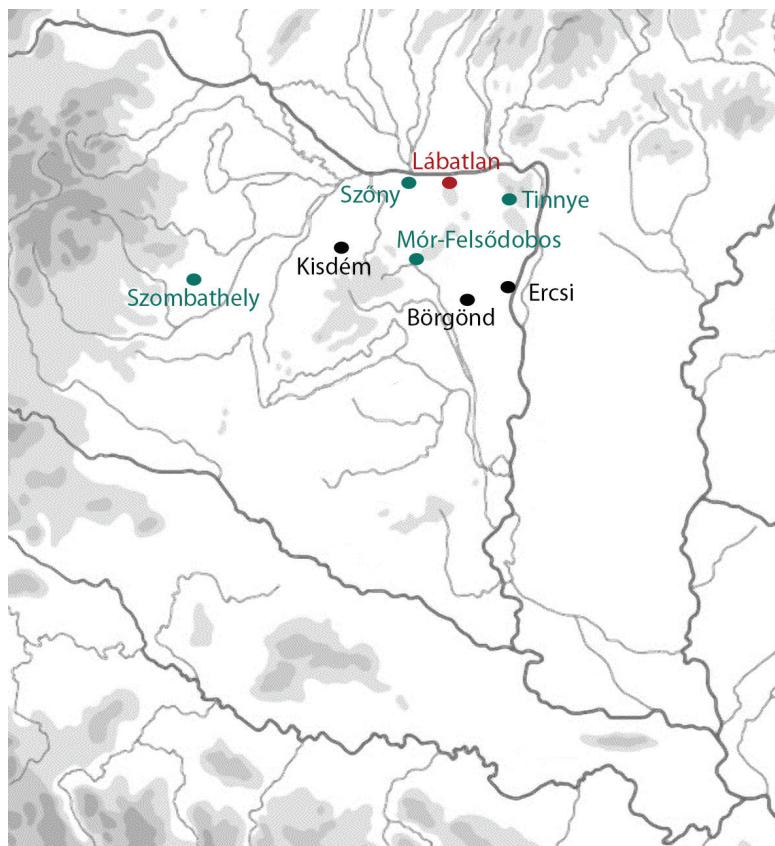
105 FITZ 1978, 137–139; FMRU III, 57–61.

106 KABA 1984.

107 BARKÓCZI 1956; FITZ 1978, 140–141; FMRU I, 179–180.

108 FITZ 1978, 142–143.

109 RADNÓTI 1946; BÍRÓNÉ SEY 1977; FITZ 1978, 139–140; FMRU III, 213. There are two more scattered hoards from Szőny: in the middle of the 1990s, men working on the gas pipeline found a hoard of c. 560 silver coins. Most of the coins were from the 1<sup>st</sup> half of the 3<sup>rd</sup> century; there were many coins from Philip I, the latest coins were minted for Trajan Decius or Trebonianus Gallus. The other hoard was also found within the SW part of the military camp in the 1960s. It contained 4–500 silver coins from Gordian III to the middle of the 3<sup>rd</sup> century.



**Fig. 5.** Hoards dateable to the Severan dynasty

quite possible, that all of these hoards belong to the same horizon. Besides the hoards other coin finds also show, that something happened in this region.

The coins of the Visegrád–Lepence Roman cemetery<sup>110</sup> also terminate at the same time, as well as the coins of the Visegrád–Lepence Spa hotel excavations.<sup>111</sup> The last coin from the Járóka cemetery in Brigetio was minted for Trebonianus Gallus,<sup>112</sup> the last coins from the Sörház-kert cemetery in Brigetio is a Viminacium sestertius of Gordian III,<sup>113</sup> the last coins from the Gerhát cemetery in Brigetio was minted for Philip I,<sup>114</sup> the 4<sup>th</sup> century Cellás cemetery of Brigetio was established atop 3<sup>rd</sup> century ruins. Based on the coin finds of the Szöny–Vásártér excavations, monetary circulation terminated in 251 in the civilian settlement of Brigetio. There are no sign of destruction, but the town was abandoned peacefully.

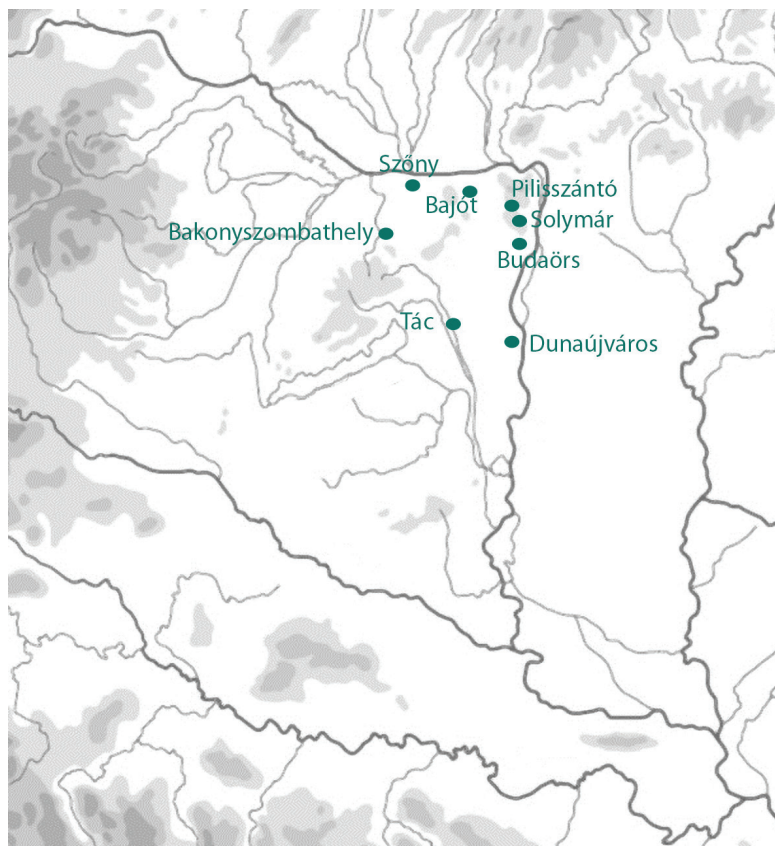
<sup>110</sup> BORUZS 2007, 226.

<sup>111</sup> Unpublished.

<sup>112</sup> FMRU III, 202–205.

<sup>113</sup> FMRU III, 205–209.

<sup>114</sup> FMRU III, 195–197.



**Fig. 6.** Maximinus I – Trebonianus Gallus

There are several archaeological sites along the northern limes, whose coin finds correspond to this phenomenon, including Ács-Vaspuszta,<sup>115</sup> Bajna-Proletárok,<sup>116</sup> Császáz,<sup>117</sup> Környe,<sup>118</sup> Leányvár,<sup>119</sup> Tarján-Héreg,<sup>120</sup> Tata,<sup>121</sup> Tokod,<sup>122</sup> Vértesszőlős,<sup>123</sup> Vértistolna-Malomdűlő.<sup>124</sup> In each case there is a break in the monetary circulation in the middle of the 3<sup>rd</sup> century. In some cases the coin circulation began anew in the late 3<sup>rd</sup> – 4<sup>th</sup> centuries, but in other cases the sites were abandoned permanently. The civil town of Aquincum was also abandoned peacefully in the 2<sup>nd</sup> half of the third century.<sup>125</sup>

115 FMRU III, 43.

116 FMRU III, 44–48.

117 FMRU III, 80.

118 FMRU III, 418–419.

119 FMRU III, 419–420.

120 FMRU III, 439.

121 FMRU III, 441.

122 FMRU III, 457–458.

123 FMRU III, 469–470.

124 FMRU III, 470.

125 LÁNG 2018, 151–164.

The reason for this is presumably the weakening of the Roman military presence on the limes, Pannonian troops – including the vexillations from legion I and II adiutrix – had taken part in the battle of Abritus, in the following fights, and in the civil war of the early 250s. Thus the number of troops on the limes was reduced significantly. The lack of security caused civil population to leave the frontier zone. The consequences of the insufficient defence can be clearly seen during the reigns of Valerian and Gallienus

### Valerian and Gallienus

More than forty hoards were hidden under Valerian and Gallienus: Apetlon<sup>126</sup> 360, Aquincum<sup>127</sup> 41, Baláca<sup>128</sup> 86, Balatonboglár<sup>129</sup> 40, Balozsameggyes<sup>130</sup> 337, Belatinc<sup>131</sup> 34, Berndorf<sup>132</sup> 242, Biatorbágy I<sup>133</sup> 547, Biatorbágy 2<sup>134</sup> 247, Bosna<sup>135</sup> 37, Carnuntum<sup>136</sup> 53, Dunaföldvár–Baracs<sup>137</sup> 100+, Dvorska<sup>138</sup> 471, Enying<sup>139</sup> 2043, Garčin I<sup>140</sup> 227, Garčin II<sup>141</sup> 51, Gecse<sup>142</sup> 12–13 000, Görgeteg<sup>143</sup> 460, Intercisa (Dunaujváros) I<sup>144</sup> 256, Intercisa (Dunaujváros) III<sup>145</sup> 257, Janja<sup>146</sup> 26, Kab-hegy<sup>147</sup> 142, Kemenesszentpéter<sup>148</sup> 502, Kistormás<sup>149</sup> 809+, Korong<sup>150</sup> 2331, Maradik<sup>151</sup> 248, Nagyberki I<sup>152</sup> ?, Nagyberki

126 FITZ 1978, 166–167.

127 JUHÁSZ 2020.

128 RAFMU II, 107–110.

129 MNM Ét. 119/1970; BÍRÓNÉ SEY 1974; FITZ 1978, 167.

130 BÍRÓNÉ SEY et al. 1971, 190–193, 197–203; FITZ 1978, 167–169.

131 MNM Ét. 151/1878; FMRS II 386–388.

132 FITZ 1978, 169–171.

133 Unpublished.

134 Unpublished.

135 FITZ 1978, 171–172.

136 FITZ 1978, 172–173.

137 GOHL 1914a; FMRU I, 27.

138 VULIĆ – FARAC 2014, 48–49.

139 MNM Ét. August 1871; BÍRÓNÉ SEY 1971–1972, 6–7; FITZ 1978, 187–189.

140 VULIĆ – FARAC 2014, 42–43.

141 VULIĆ – FARAC 2014, 43.

142 Unpublished.

143 MNM Ét. 179/1876; FITZ 1978, 174–175.

144 FITZ 1978, 191–192. vö. FMRU I, 174–178.

145 FMRU I, 179–180.

146 VULIĆ – FARAC 2014, 46.

147 RAFMU II, 100–105; KUBITSCHKEK 1903, 107–110; RHÉ 1908; FITZ 1978, 175–176.

148 RAFMU II, 80–91.

149 MNM Ét. 69/1961; BÍRÓNÉ SEY 1963; FITZ 1978, 192–194.

150 MNM Ét. 678/1900; GOHL 1903b; FITZ 1978, 176–178; FMRS II 393–420.

151 NAÐ 2012, 400.

152 HECKLER 1910; JÁRDÁNYI-PAULOVICS 1953.

2<sup>153</sup> 50, Nagyberki 3<sup>154</sup> 200, Nagyberki 4<sup>155</sup> 572, Nagyberki 5<sup>156</sup> 992, Nagyberki 6<sup>157</sup> 21+, Nagyberki 7<sup>158</sup> 11+, Nagyvázsony<sup>159</sup> 41+, Nagyvenyim<sup>160</sup> 1233, Oštra Luka<sup>161</sup> 34, Rábakovácsi<sup>162</sup> 3, Szakcs<sup>163</sup> 875, Sztálinváros (Dunaújváros)<sup>164</sup> 67, Sztálinváros (Dunaújváros)-Kosziderpadlás<sup>165</sup> 278, Tác<sup>166</sup> 3134, Tapolca<sup>167</sup> 118, Tengelic<sup>168</sup> 1089, Tüskeszér<sup>169</sup> 34+ coins. They are scattered all over Pannonia, except for the northern zone, which was mostly abandoned by civilian population earlier, in the middle of the 3<sup>rd</sup> century. The overall destruction clearly marks the collapse of Roman defence.

In most cases it is hard to date hoards, as there is no reliable detailed chronology available on the coinage of Gallienus, and most of the hoards are described insufficiently. Most hoards were plausibly buried due to the attack of the Sarmatians and the Quadi at the end of the 250s devastating the entire province, which is attested by multiple literary evidence.<sup>170</sup>

### Claudius II – Tetrarchy

From this period only nine hoards are known from the northern part of Pannonia. The Szekszárd<sup>171</sup> hoard of 340 antoniniani was buried during the reign of Claudius II, the Mérges<sup>172</sup> hoard containing 439(?)<sup>173</sup> antoniniani was hidden under Probus. Seven hoards known from the Tetrarchy: Esztergom 1,<sup>174</sup> AD 294–313, 1233+ AR, AE; Esztergom 2,<sup>175</sup> AD 294–311, 1900 folles; Kulcs,<sup>176</sup> AD 293–295, 1059 antoniniani; Óbuda,<sup>177</sup> AD

153 MNM Ét. 59A/1908; HARSÁNYI 1908.

154 GOHL 1908.

155 MNM Ét. 278/1934.

156 R. ALFÖLDI 1952; JÁRDÁNYI-PAULOVICS 1953.

157 DARNAY 1911; JÁRDÁNYI-PAULOVICS 1953.

158 DARNAY 1911; JÁRDÁNYI-PAULOVICS 1953.

159 GOHL 1904; RHÉ 1908; FITZ 1978, 180–181.

160 FITZ 1990; FMRU I, 272–279; FITZ 2001.

161 VULIĆ – FARAC 2014, 44–45.

162 MNM Ét. 863-03-8/1953; R. ALFÖLDI 1954a; FITZ 1978, 183.

163 MNM Ét. 189.A/1914; GOHL 1914b; KERÉKES 1914.

164 FITZ 1988.

165 MNM Ét. 863-13-2/1952; R. ALFÖLDI 1954b; FMRU I, 174–178,

166 FMRU I, 343–358.

167 FITZ 1978, 184–185.

168 Ét. 24/1969; ALBEKER – BÍRÓNÉ SEY 1970.

169 FITZ 1978, 185–186.

170 Eutrop. IX, 8, 2; Euseb. Chron. 220; Iord. Rom. 287; Paneg. Constantio Aug. dictus 10,2.

171 MNM Ét. 863-13-4/1952.

172 MNM Ét. 118/1897; BÖRZSÖNYI 1915; FITZ 1978, 180; FMRU II, 121.

173 The data from different descriptions does not match.

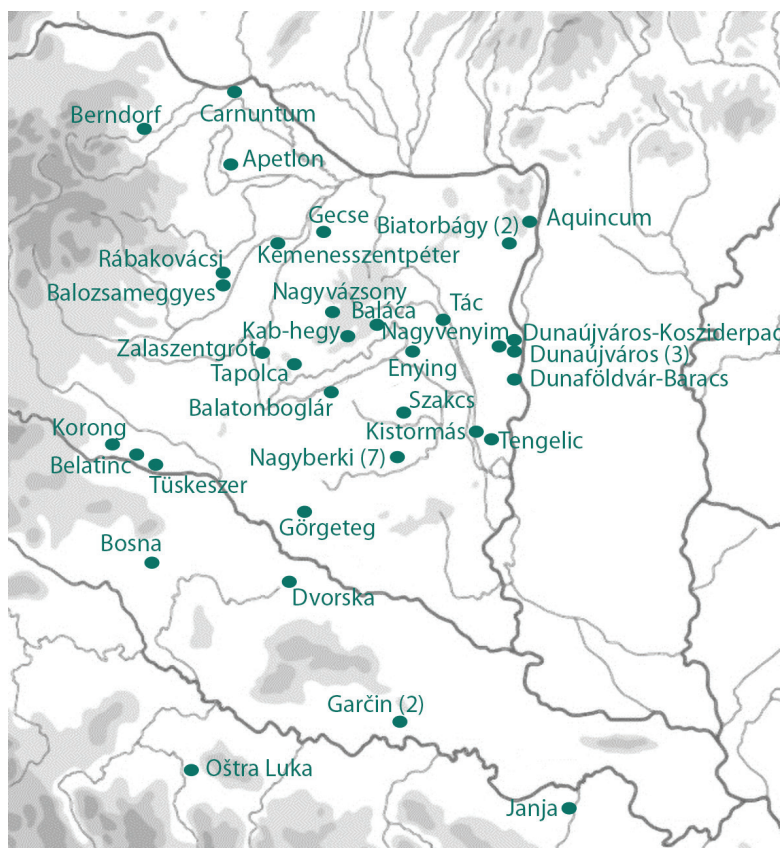
174 FMRU III, 108–112.

175 FMRU III, 112.

176 FMRU I, 247–265.

177 MNM Ét. 81/1900.





**Fig. 7.** Hoards dateable to Valerian and Gallienus

291–292, 29 antoniniani; Zomba–Szent-Gál puszta,<sup>178</sup> AD 293–306, 1158 antoniniani; Szőny 1,<sup>179</sup> AD 294, 55+ (4+ AU medallions, 5+ aurei, 46+ argentei); Szőny 2,<sup>180</sup> AD 286–294, 7 aurei and gold jewels. We cannot connect these few hoards to historical events, but they indicate that life is gradually returning to the province after the devastations of the 3<sup>rd</sup> century, and wealth is primarily concentrated in the limes area.

### Constantinian dynasty

There are several small hoards known from all over Pannonia from this period, but the 5 larger hoards were uncovered on the limes: Aba,<sup>181</sup> AD 337–340, 90 AE; Ács,<sup>182</sup> AD 351–354, 95 AE; Nagytétény,<sup>183</sup> AD 333, 10585+ AE; Perbál,<sup>184</sup> AD 351–354, 736 AE;

<sup>178</sup> HAUGH 1903.

<sup>179</sup> HAMPÉL 1891; BÍRÓNÉ SEY 1977; FMRU III, 214–215.

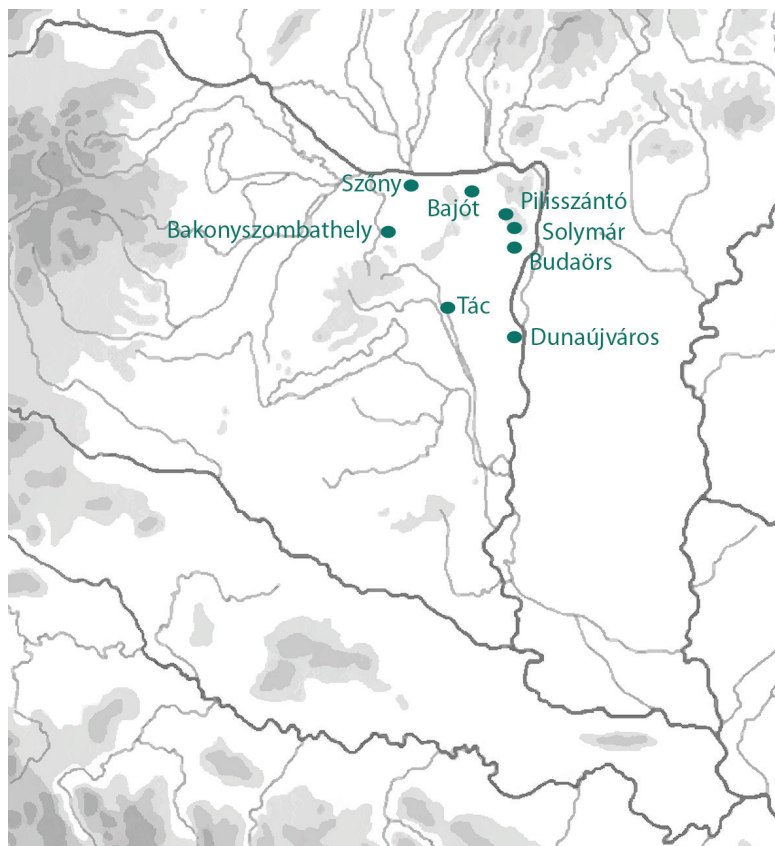
<sup>180</sup> R. ALFÖLDI 1950; BÍRÓNÉ SEY 1977; FMRU III, 214.

<sup>181</sup> CSÁNKY 1936; FMRU I, 22–23.

<sup>182</sup> GABLER 1972; FMRU III, 43.

<sup>183</sup> Y. 1887; ALFÖLDI 1921; MNM ÉT. 117.A/1927.

<sup>184</sup> MNM ÉT. 863-03-6/1953;



**Fig. 8.** Hoards dateable from Claudius II until the Tetrarchy

Szöny,<sup>185</sup> AD 348–350, 163 AE. The reason behind these caches is unknown. It is worth mentioning that hoards consisted exclusively of base billon (bronze) coins of small denominations. For unknown reasons, silver coins were extremely scarce in Pannonia in the 4<sup>th</sup> century, even though the first silver coins reappeared here, in the mint of Sirmium in the early 320s.

### Valentinian dynasty

The last Roman hoards from northern Pannonia – all of them are containing copper coins only – are dated with coins of the Valentinian dynasty. They are mostly dated to AD 367–375: Kzsok,<sup>186</sup> AD 367–375, 748 AE; Mernye,<sup>187</sup> AD 367–375, 115 AE; Mocsa,<sup>188</sup> AD 367–375, 1313 AE; Tác,<sup>189</sup> AD 367–375, c. 3000 AE; Ságvár,<sup>190</sup> AD

185 BÍRÓNÉ SEY 1977; FMRU III, 215–218.

186 SZ. BURGER 1968.

187 SZ. BURGER 1978.

188 RADNÓTI 1942; FMRU III, 183–192.

189 Unpublished.

190 Unpublished.



**Fig. 9.** Hoards dateable to the Constantinian dynasty

367–375, 230 AE; or AD 375–378: Árpás,<sup>191</sup> AD 375–378, 4872+ AE; Döbrönte-Dobogó,<sup>192</sup> AD 367–378, 3447 AE; Márok,<sup>193</sup> AD 375–378, 3509 AE; Pécs,<sup>194</sup> AD 375–378, 364 AE; Takácsi,<sup>195</sup> AD 375–378, 746 AE. The latest one is the Úrkút<sup>196</sup> hoard, AD 387, 5217 AE. In a few cases due to insufficient information the dating is uncertain: Gelse,<sup>197</sup> AD 367–383, 285 AE; Vérteskethely,<sup>198</sup> AD 364–378, 951 AE; Veszprém,<sup>199</sup> AD 367–383, 8700 AE. However the dating of the last coins does not necessarily date the time of their burial. After 375 the inflow of coins to the territory of northern Pannonia is very limited, post 375 coins can be found only on very few archaeological sites.

191 MNM Ét. 277/1934; JÓNÁS 1934; FMRU II, 40–55.

192 MNM Ét. 77/1971; MNM Ét. 63/1972.

193 Sz. BURGER 1978.

194 FÜLEP – Sz. BURGER 1981.

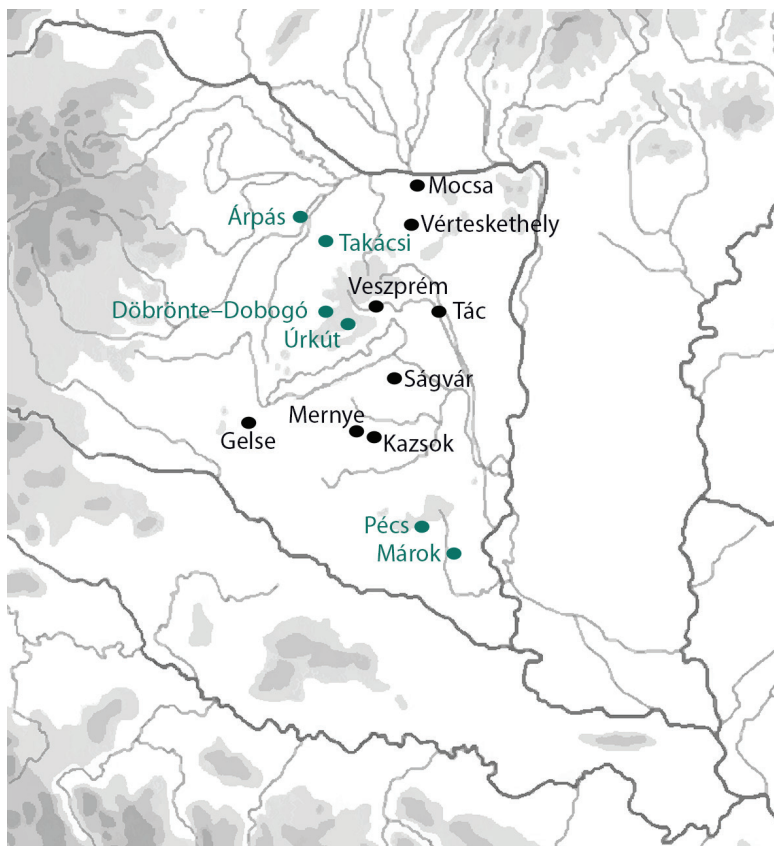
195 MNM Ét. 06-5/1978.

196 Veszprémi M. 3402/1911; RHÉ 1908;

197 MNM Ét. 5/1942; KERÉNYI 1950.

198 FMRU III, 469.

199 Ötvös 1908; GOHL 1910.



**Fig. 10.** Hoards dateable to the Valentinian dynasty

Furthermore it is very peculiar that most of these coins were not minted at Siscia, but at some distant mints, such as Rome or Gallic ones.

There are a few later, 5<sup>th</sup>–6<sup>th</sup> century hoards from Pannonia, like the Esztergom hoard<sup>200</sup> of 32 or 42 solidi of Theodosius I or II, but they already belong to the Migration period.

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## **Gondolatok a pannoniai limes pénztörténetéről**

Jelen cikknek nem célja, hogy részletesen bemutassa Pannonia teljes pénztörténetét, hanem az ismert éremleletek nyomán röviden a különböző időszakok irányvonalait ismerteti. Pannonia északi és déli részének pénztörténete meglehetősen különböző: főként az északi területeknek szenteltem figyelmet, de kitekintés céljából néhány fontosabb déli leletegyüttest is bemutatam, ahol indokolt volt. Az utóbbi évek numizmatikai kutatásai több időszakra vonatkozóan is hoztak új eredményeket (a foglalás kora, a markomann-szarmata háborúk kora, Kr. u. 3. század közepe), ezeket a cikkben részletesebben ismertettem.



## Authors & editors

### **A. VIDA, István**

*archaeologist, numismatist*

Hungarian National Museum  
Department of Coins and Medals  
Budapest

[vida.istvan@hnm.hu](mailto:vida.istvan@hnm.hu)

### **FÁBIÁN, Boglárka**

*archaeologist*

University of Debrecen  
Doctoral School of History and Ethnology  
Debrecen

[fabbogi@gmail.com](mailto:fabbogi@gmail.com)

### **FARKAS, István Gergő PhD**

*archaeologist, director*

University of Pécs  
CLIR Research Center  
Pécs

[farkas.istvan.gergo@pte.hu](mailto:farkas.istvan.gergo@pte.hu)

### **FODOR, Fanni**

*archaeologist*

Budapest History Museum  
Aquincum Museum and Arch. Park  
Budapest

[fodorfanni@aquincum.hu](mailto:fodorfanni@aquincum.hu)

### **GRÓF, Péter**

*archaeologist, senior museologist*

Hungarian National Museum  
King Matthias Museum  
Visegrád

[grofpeter@visegradmuseum.hu](mailto:grofpeter@visegradmuseum.hu)

### **JABLONKAI, Dávid**

*archaeologist*

Hungarian National Museum  
Arch. Heritage Protection Directorate,  
Budapest

[jablonkai.david@hnm.hu](mailto:jablonkai.david@hnm.hu)

### **KISS, Csanád**

*archaeologist, surveyor*

Pannon Geodézia Survey  
and Cartography Ltd.  
Veszprém

[danaacs222@gmail.com](mailto:danaacs222@gmail.com)

### **KOCSIS, Anita**

*archaeologist, director*

Hungarian National Museum  
Bálint Balassa Museum  
Esztergom

[kocsis.anita@balassamuzeum.hu](mailto:kocsis.anita@balassamuzeum.hu)

### **LÓKI, Róbert**

*archaeologist, GIS expert*

Pázmány Péter Catholic University  
Archaeological GIS Laboratory  
Budapest

[loki.robert@btk.ppke.hu](mailto:loki.robert@btk.ppke.hu)

### **NAGY, László**

*archaeologist*

Castle Headquarters IRDC NP PLC  
Dept. of Arch. Prospection  
Budapest

[Nagy.Laszlo.Atila@varkapitanysag.hu](mailto:Nagy.Laszlo.Atila@varkapitanysag.hu)

**NEMÉNYI, Réka***archaeologist*

University of Pécs  
 CLIR Research Center  
 Pécs

[nemenyi.reka@pte.hu](mailto:nemenyi.reka@pte.hu)**NOVÁK, Kristóf***archaeologist*

Hungarian National Museum  
 Arch. Heritage Protection Directorate  
 Budapest

[novak.kristof@hnm.hu](mailto:novak.kristof@hnm.hu)**SCHILLING, László***archaeologist, museologist*

Hungarian National Museum  
 Arch. Heritage Protection Directorate  
 Budapest

[schilling.laszlo@hnm.hu](mailto:schilling.laszlo@hnm.hu)**SÖRÖS, Franciska Zsófia***archaeologist*

Hungarian National Museum  
 Arch. Heritage Protection Directorate  
 Budapest

[soros.zsofia@hnm.hu](mailto:soros.zsofia@hnm.hu)**STIBRÁNYI, Máté***archaeologist, department head*

Castle Headquarters IRDC NP PLC  
 Dept. of Arch. Prospection  
 Budapest

[Stibranyi.Mate@varkapitanysag.hu](mailto:Stibranyi.Mate@varkapitanysag.hu)**SZABÓ, Máté PhD***archaeologist*

University of Pécs  
 CLIR Research Center  
 Pécs

[szabo.mate@pte.hu](mailto:szabo.mate@pte.hu)**TÓTH, János Attila***archaeologist*

Árpád Museum /  
 Argonauts Research Group  
 Ráckeve

[roncsok@yahoo.com](mailto:roncsok@yahoo.com)**VISY, Zsolt Prof. Dr.***archaeologist, professor emeritus*

University of Pécs /  
 HAS Pécs Regional Committee  
 Pécs

[visy.zsolt@pte.hu](mailto:visy.zsolt@pte.hu)

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04-12-2010



Shadow marks of *Quadrata castellum* and the limes-road (Lébény, Győr-Moson-Sopron county)

# Impressum

## OFFICIAL NAME

University of Pécs  
Faculty of Humanities  
Corpus Limitum Imperii Romani (CLIR)  
International Academic Research Center

## POSTAL ADDRESS

Hungary  
7622 Pécs  
Rókus str. 2.

## EMAIL ADDRESS

[clir@pte.hu](mailto:clir@pte.hu)

## PHONE

+36 30 22 77 684

## SCIENTIFIC PUBLICATIONS

<https://m2.mtmt.hu/gui2/?type=institutes&mode=browse&sel=institutes21412>  
[https://pte.academia.edu/Departments/CLIR\\_Research\\_Center/Documents](https://pte.academia.edu/Departments/CLIR_Research_Center/Documents)

## BLOG (HUNGARIAN AND ENGLISH)

<https://clir-research.hu>

## SOCIAL MEDIA

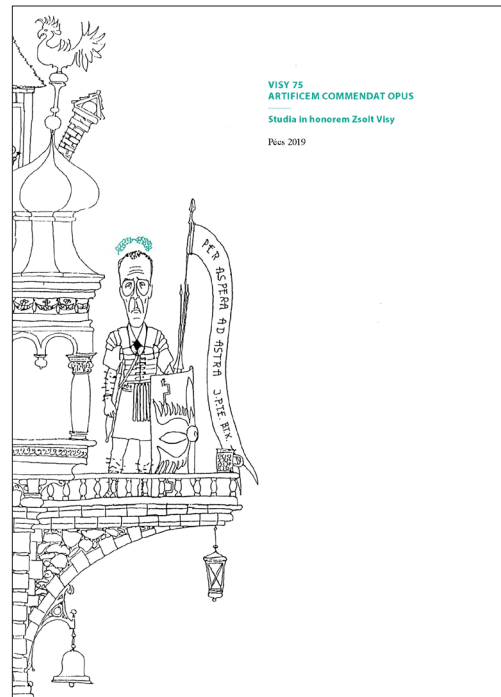
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## VISY75 – Out now

At CLIR Research Center, we consider it our important task to publish recent scientific results otherwise unavailable to the community. Our first publication was dedicated to the founder of the CLIR Academic Programme, the renowned researcher of the Roman frontiers, **Prof. Dr. Zsolt Visy**. The 576 page volume contains 35 articles from the disciplines of History and Archaeology in English, German and Italian, penned by 44 authors. Salutations were written by Prof. Dr. David J. Breeze, Dr. Endre Tóth DSC, Katalin Wollák and the editors.

See table of contents on the following pages.

Farkas, I. G. – Neményi, R. – Szabó, M. (eds.), *Visy75, Artificem commendat opus, Studia in honorem Zsolt Visy* (Pécs, CLIR Research Center, 2019), Kontraszt Plusz Ltd., 576 pp, ISBN 978-963-429-481-8.



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The Roman frontier section of Pannonia has been the subject of extensive studies in recent decades, augmented by constant improvements in digital methodology as well as the pending UNESCO World Heritage Nomination of selected sites and their related touristic development.

Significant discoveries from the last five years have been unpublished so far, thus emerged the idea to collect and present these findings in a standalone volume.

The present book contains eleven articles on the results of recent research conducted on the Hungarian section of Danube limes. Three writings provide overviews on current geophysical prospections and underwater archaeology concerning several sites of the Roman frontiers as well as novities on the monetary history of Pannonia.

The subsequent eight articles present researches from various sites along the Danube, including temporary camps, auxiliary forts, Late Roman fortifications and watchtowers. Seventeen authors contributed to the volume from archaeological institutions and private firms from all over Hungary.