A GOLD HOARD FROM SAVARIA

Abstract: The hoard came to light in Szombathely-Herény in 1992 and contains 38 aurei from the period of the Julio-Claudian dynasty. The hoard terminates with Nero's aureus issued in 62/63, but it may have been buried years, even decades later. **Keywords:** *Nero Monetary Reform, gold coin circulation, coin hoards, military pay, Pannonia.*

THE HOARD

oman aureus hoards are quite rare finds, especially from 1st century Pannonia. This is one of the reasons why the hoard of coins found in Szombathely's Herény quarter in July 1992 caused a sensation. (Fig. 1) The coins came to light while saplings were being planted on the hill overlooking the swamps of the stream Perint, on the territory of ancient Savaria. (Fig. 2) The hoard was originally stored in a ceramic vessel, but the ploughing preceding plantation strew it around an area some 5 metres long. So, the actual place of hiding could not be identified during the control excavation. Scouring the area several times with metal detectors as well, a total of 38 coins were found. According to the archaeologist working on the excavation, this is likely the whole hoard, based on the dimensions of the reconstructed vessel, of which fragments were found.¹

The series of aurei begins with those of Tiberius (RIC 27, 29) and ends with those minted by Nero in AD 62/63 (RIC 38), so before the monetary reform of AD 64. (*Fig. 3*)

I know of only one hoard of the Central Danubian area of which the last coin is Nero's: Emona 1961.² However, this one is composed of denarii and sestertii. It contains merely a single Nero aureus, minted in 56 AD, being the latest coin of the hoard, composed of 48 pieces. Closest in composition to the Herény aureus hoard is the one of Cirkovci.³ Despite

¹ TORBÁGYI 1993, TORBÁGYI/KISS 1993

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DOI: 10.14795/j.v7i1_SI.498 ISSN 2360 – 266X ISSN-L 2360 – 266X

² FMRS I. 207. Nr. 155/22. insula XXX.

³ MIRNIK 1981, 51. Nr.103.=FMRS II. 151–156. Nr. 417.



Fig. 1.

having been hidden in the age of Domitian, 50 out of its 94 known coins are from the time of the Julio-Claudian dynasty, of which 17 were issued before Nero's monetary reform. The latest coin of the aureus hoard of Zemum 1875⁴ is from the reign of Trajan, minted in 98/99 AD. It contains 6 coins from Nero's age, but all of them were produced after his monetary reform, even though the hoard contains ca. 250 pieces. Among the 36 aurei of the Belgrade 1889 find⁵ ending with Hadrian's coin, only one was issued by Nero. The 16 aurei from the Ljubljana 1963 hoard⁶ are dated from Vespasian to Trajan. These hoards provide good evidence that earlier aurei were still in use for a few decades after Nero's monetary reform, but they disappeared from circulation from the 2nd century AD onwards.

NERO'S MONETARY REFORM OF 64 AD⁷

Pliny reported⁸ that Nero reduced the metallic value of gold coins. According to this measure 45 aurei were to be minted from one pound of gold instead of the 40 pieces of the Augustan standard. Augustus's aurei contain 7 scripula of gold (7.96 g), while Nero's ones contain only 6.5 scripula (7.39 g).⁹ Pliny's statement has been fully confirmed by the

⁴ MIRNIK 1981, 52. Nr.112.

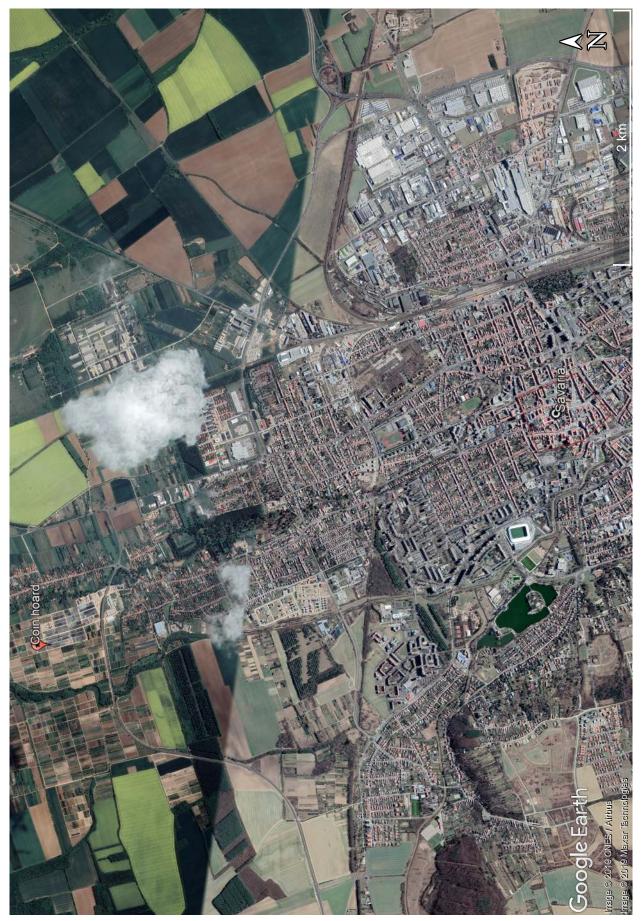
⁵ MIRNIK 1981, 53. Nr.116.

⁶ FMRS I. 197. Nr.155/18 – mentions 13 aurei from the NW part of insula XXIX. from AD 77/78 to AD 103/111.

⁷ MACDOWALL 1979, 135–149; NEWBOLD 1974, RIC I.² 1984, 134–135, BUTCHER/PONTING 2005

⁸ "postea placuit xxxx signari ex auri libris paulatimque principes imminuere pondus et novissime Nero ad xxxxv" (Naturalis Historia 33,3,47).

⁹ RIC I², 135.



	Date	Ref.		Weight (g)
Tiberius PONTIF - MAXIM	14 – 37	RIC ² 27	5	7.76, 7.72, 7.70, 7.66, 7.59
Tiberius PONTIF - MAXIM	14 – 37	RIC ² 29	3	7.76, 7.69, 7.66
Claudius IMPER RECEPT	41 – 42	RIC ² 7	1	7.80
Claudius CONSTANTIAE - AVGVSTI	41 – 42	RIC ² 13	1	7.76
Claudius EX SC / OB CIVES / SERVATOS	41 – 42	RIC ² 15	1	7.75
Claudius IMPER RECEPT	44 – 45	RIC ² 25	1	7.81
Claudius PACI - AVGVSTAE	44 – 45	RIC ² 27	2	7.72, 7.66
Claudius CONSTANTIAE - AVGVSTI	46 - 47	RIC ² 31	1	7.60
Claudius DE BRITANN	46 - 47	RIC ² 33	1	7.69
Claudius IMPER RECEPT	46 – 47	RIC ² 36	1	7.75
Claudius PACI - AVGVSTAE	46 – 47	RIC ² 38	1	7.70
Claudius DE BRITANN	49 – 50	RIC ² 44	2	7.80, 7.71
Claudius PACI - AVGVSTAE	51 – 52	RIC ² 61	1	7.70
Claudius AGRIPPINAE AVGVSTAE	50 – 54	RIC ² 80	5	7.79, 7.70, 7.67, 7.65, 7.63
Claudius - Nero Caesar SACERD COOPT IN OMN CONL SVPRANVM EX SC	51 – 54	RIC ² 76	1	7.63
Claudius - Nero Caesar EQVESTER / OR-DO / PRINCIPI / IVVENT	51 – 54	RIC ² 78	1	7.65
Nero PONTIF MAX TRP V PP / EX SC	58 – 59	RIC ² 16	1	7.74
Nero PONTIF MAX TRP VI COS IIII PP / EX SC	59 - 60	RIC ² 19	1	7.58
Nero PONTIF MAX TRP VII COS IIII PP EX SC Ceres	60 - 61	RIC ² 23	4	7.66, 7.64, 7.58, 7.55
Nero PONTIF MAX TRP VII COS IIII PP / EX SC Virtus	60 - 61	RIC ² 25	1	7.65
Nero PONTIF MAX TRP VIII COS IIII PP / EX SC - Ceres	61 – 62	RIC ² 29	1	7.73
Nero PONTIF MAX TRP VIIII COS IIII PP / EX SC - Roma	62 - 63	RIC ² 38	2	7.71, 7.63

Fig.3. Content of the Hoard Szombathely-Herény 1992

weight of surviving coins. After the aurei dated TRP X, the weight of the gold did in fact change, showing a concentration of around 7.3 g.

Even though Pliny only mentions gold coins, actual pieces recovered show that the loss of weight and fineness mostly affected silver ones. While reduction in aurei was of 2%, it rose to 7% in silver coins. The main reason for the new weight might not have been devaluating aurei, but denarii. The latter played a fundamental role in circulation as the denomination used most extensively. However, in order to keep value ratio, aurei had to be changed too. The reform was necessary to fill up the state treasury, which needed more money to fund Nero's grandiose constructions, the prolonged warfare in Britain and Armenia, and the repairs after the Great Fire of Rome in July 64 AD,¹⁰ which added a further unexpected burden on the budget. Moreover, Nero sent aid of 4 million sestertii to Lugdunum in order to rebuild the town destroyed by another fire in late 64 AD.¹¹ The Neroneia of the following year also needed a lot of money.¹² "The devaluation of the real worth of the coin denominations then in circulation was one of several measures to raise funds for Nero's depleted treasury."13

CONTEMPORARY VALUE OF THE HOARD

For a Roman, 38 aurei (=3800 HS=950 denarii) were not worth much, taking into account that a real "superstar" actor at Nero's time earned 500,000 sestertii (= 5000 aurei) a year in Rome. (*Pliny: N. H. VII, 39*) Meanwhile, a legionary's yearly wage was of only 225 denarii (= 900 HS = 9 aurei). If a legionary veteran was discharged with *missio nummaria* he got generally 12,000 sestertii (= 120 aurei) up until the reign of Caracalla.¹⁴ (There might have been exceptions, though, e.g. Gaius, who <u>halved this sum</u>. (*Suetonius: Caligula, XLIV*))

- ¹¹ Tacitus, Annales 16, 13.
- ¹² Tacitus, Annales 13.
- ¹³ MACDOWALL 1979, 149
- ¹⁴ SCHNEIDER 1977, 239

Savaria was, however, a newly built city in a recently organised province.¹⁵ So, its inhabitants could have seen this sum as of great value as well.

THE OWNER OF THE HOARD

The city was founded by Emperor Claudius and named Colonia Claudia Savaria as a deduction colony for veterans of the Legio XV Apollinaris, as evidenced by the tombstones found nearby.¹⁶ There was no Celtic antecedent to the city, and Celtic archaeological finds were only sparsely found in the area of Szombathely.¹⁷ The ancient Celtic centre used to be the oppidum on the mount of Velem Szent Vid, ca. 10 miles (15 km) from Szombathely. The main northsouth axis of the city was the Amber road, to which the insula-system marked out at the foundation of the colonia was adjusted.¹⁸ The earth-timber remnants of city walls and buildings, however, can be dated only to the Flavian era.¹⁹ The earliest datable stone monuments also come from this time. They are: an architrave-inscription of the temple dedicated to the founder of the city, Divus Claudius,²⁰ a milestone, indicating Savaria's distance from Rome²¹ and two inscriptional panels from 82 AD, which most likely related to the construction of the Forum Provinciae.²² Still, the beginning of the Roman city is probably somewhat older, as new excavations outside the southern city walls indicate that the life in the colony may have started there. Most of the earliest coins, minted by emperors of the Julio-Claudian dynasty, were found in this area²³ – though this might be a result of the usage of modern excavation methods. Remnants of several early buildings were On discussions concerning the province's establishment, see summarised in: KOVÁCS 2014, 15-22, most recently KOVÁCS 2017, KOVÁCS 2018

- ¹⁶ MÓCSY 1974, 76–79, TÓTH 2011, 11–14
- ¹⁷ ILON 2004, 77–85
- ¹⁸ MÓCSY 1965, TÓTH 1971
- ¹⁹ MEDGYES 1998, SOSZTARITS 1994
- ²⁰ MRÁV 1996–1997
- ²¹ KISS/ SOSZTARITS 1996-1997, 101–113.
- ²² TÓTH 2011, 58-60, Nr.2–3.
- ²³ REGESTEN 3, 126–128

¹⁰ Tacitus, Annales 15, 38.

unearthed at the site of the large Isis temple, built in the last third of the 2nd century AD. Most of these are workshops, dating from the era of Claudius or maybe even earlier. Under the reign of the Flavian dynasty, a smaller Isis shrine, built in timber, but with high-quality wall paintings, was already standing.²⁴

Perhaps the most notable segment of the city's population were the veterans. The veterans received a piece of land on the territorium of the colonia. We do not know the size of a veteran's parcel, as their value varied according to the quality of the land. (Hyginus const.limit.Gromatici 204). However, their price was obviously equal to the amount of *missio nummaria* paid to veterans.²⁵ Several of them, though, soon moved to Carnuntum. Their old comrades-in-arms were there, and another reason for moving might have been the better business opportunities near the military camp.²⁶ They were probably the ones let go with a *missio nummaria*, a cash payment regularly in use since the reign of Augustus.²⁷ After Hadrian, it became the usual practice.²⁸

Part of the stone monuments found in Savaria suggests that representatives of merchant houses from Northern Italy (mostly Aquilea) appeared in the region simultaneously with the Roman conquest. One of the earliest evidence of this is a votive stone dedicated to the goddess Aecorna, erected by people from Emona.²⁹ While we may not be sure of the stone dating back to the Tiberian era³⁰, we cannot exclude representatives of Northern Italian and Aquilean merchant houses showing up along the Amber road already after 6 AD, following Tiberius' troops marching against Maroboduus on the Danube front. "Cupido augendi pecuniam", meaning craving for wealth, took merchants even to the lands of enemies.³¹ Immigrant Italian merchants might have had

- ²⁸ FORNI 1953, 41, WATSON 1965, 150
- ²⁹ RIU I. 135, TÓTH 2011, Nr.202.
- ³⁰ KOVÁCS 1998
- ³¹ Tacitus, Annales 2, 62.

their emporia here even before the colony was built, with soldiers as their customers, besides local people. The tombstone of T. Marcius T. f. negotiator from Aquileia came to light in Mischendorf-Oberwart on the territorium of Savaria.³² A military camp was built in Salla already under Tiberius,³³ and the auxiliary fort in Arrabona could be dated to the same period as well.³⁴ However, we can only suppose there was one in Savaria, as no archaeological evidence supports the theory so far. The militaria found in Szombathely also date to the Claudian or, more precisely, the Flavian era, thus belonging to veterans and not active soldiers.³⁵ The oldest objects, such as terra *sigillata*³⁶ or *amphorae*³⁷ could not be predated the Claudian era. However, the denarius hoard of Zarkaháza,³⁸ buried during Tiberius's reign, could already be related to these merchants' activities.

Local, indigenous people did not yet live in the city at the time, but rather to its west, as indicated by the distribution of mound graves³⁹. A few natives may have become involved in commerce, as suggested by a tombstone found at Répceszentgyörgy. It bears the name of Atta, Bataionis f. *negotiator*, from the second half of the 1st century AD.⁴⁰

So, the hoard could have belonged to a veteran, who had hidden his saved money on his land. This hypothesis is reinforced by the location: the *territorium* of the *colonia*, where their land parcels may have been. Around the hoard, there was no trace of any building. Unfortunately, we do not have clear information on what kind of denomination were the soldiers or veterans paid with. Written records indicate the amount in sestertii, but we can only suppose that actual payments took place in silver. Maybe, in

- ³² MÓCSY 1959, Nr.86/1
- ³³ REDŐ 2003, 202–204.
- ³⁴ SZŐNYI 1990, 667–674
- ³⁵ MRÁV 2010–2013, 63–68, 87, MRÁV 2013
- ³⁶ GABLER 1979
- ³⁷ BEZECKY 1981
- ³⁸ TORBÁGYI 1997–1998, 7–10
- ³⁹ GABLER 1994, 380
- ⁴⁰ TÓTH 2011, Nr.190

²⁴ HARSÁNYI/KUROVSZKY 2014

²⁵ SCHNEIDER 1977, 238ff

²⁶ MÓCSY 1959, 37

²⁷ SCHNEIDER 1977, 238ff

the case of *donativa*, they might have used gold. Under the reign of the Julio-Claudian dynasty the donative was regularly paid only to praetorians from AD 42.⁴¹ However, if it was a single payment, such as a soldier's *donativum*, it should have consisted of coins of a single issue or at least of emissions close in time. The ca. 70-100 aurei found in Zvonigrad 1938 allegedly all come from the same ruler, Vespasian.⁴² They were most likely part of a single payment.

In everyday life, people mostly used silver and bronze coins, artisans likely received payment in those. From the time in question, we cannot really envision works such grandiose or refined to be paid in gold.

The gold coins could also have been collected by a merchant who made a fortune on this new and yet undiscovered market. The composition of the coins also suggests a longtime accumulation, especially from 40 AD, up from which we have pieces from nearly each single year.

WHY AND WHEN THE AUREI WERE HIDDEN

The latest coin of the hoard was minted in 62/63. Based on its state of preservation, it could not have been in circulation for very long, so it must have ended up in Savaria fast, where the owner added it to his treasure. At first glance it would be obvious that the coins were hidden due to Nero's monetary reform, with the owner afraid that they would have had to hand back older, more precious pieces. However, Roman historians do not mention any type of compulsory change or forced surrender of earlier coins following the reform. The hoards also reveal that prereform aurei were used up until Domitian, they start missing from hoards only from the 2nd century onwards. The hoards of Brigetio,⁴³ Villach⁴⁴ and Katafa⁴⁵ do not contain any prereform aurei. Even the huge gold treasure of 41 JAHN 1984, 54-55

- ⁴³ FMRU 3. 209–212
- ⁴⁴ FMRÖ II/3. 35–41
- ⁴⁵ REGESTEN 3. 35–36

Trier, of ca. 2,500 pieces, contains only two pre-reform Nero aurei.⁴⁶

We do not know of any war or turmoil in Pannonia dating back to the last years of Nero's reign which could have been a reason for hiding the treasure. We have no notice of any similar hoards from the same era in the surrounding area, either. Of course, it is not necessary for the hoard to have been buried in the few years following its closing. We could also surmise the owner began or continued to collect pre-reform coins already after AD 64. So, this small fortune might have been hidden a long while, maybe even decades later. The Regensburg-Kumpfmühl 1989 hoard contains 25 aurei and 610 denarii. Its content clearly indicates most of the gold coins - except for a single Faustina minor aureus (147-161) were minted 20 years before the last denarii.⁴⁷ We do not know how much Savaria's area was affected by Domitian's Germanic wars of the 80s, during which the Emperor himself visited Pannonia.⁴⁸ However, the military movements could have given enough reason for the owner to keep his money safe. Still, this is just another supposition, as the treasure ended up buried for private reasons, and the owner later had no chance to unearth it again.

REFERENCES

BEZECKY 1981

Bezeczky, T., Amphora findings from Savaria, Savaria 15, 167–198.

BOOS/DALLMEIER/OVERBECK 2000

Boos, A./Dallmeier, L. M. /Overbeck, B., Der römische Schatz von Regensburg-Kumpfmühl (Regensburg)

BURSCHE 2014

Bursche, A., rec. Gilles, K.-J., Der römische Goldmünzschatz aus Feldstrasse in Trier. Triere Zeitschrift, Beiheft 34 (2013), Bonner Jahrbuch 2014, 440–444.

BUTCHER/PONTING 2005

Butcher, K./Ponting, The Egyptian billon tetradrachm under Julio-Claudian emperors

⁴² PEGAN 1964, 75–76; MIRNIK 1981, 52, Nr.112a

⁴⁶ BURSCHE 2014

⁴⁷ BOOS/DALLMEIER/OVERBECK 2000

⁴⁸ KOVÁCS 2014, 75–84

– fiduciary or intrinsic? Schweizerische Numismatische Rundschau 84, 93–123.

FMRÖ II/3.

Schmidt-Dick, Fr., Die Fundmünzen der römischen Zeit in Österreich. Abt. II/3. Kärnten (Wien: Österreichische Akademie der Wissenschaften)

FMRS I.

Kos, P., Die Fundmünzen der römischen Zeit in Slowenien. Teil I. (Berlin: Gebr.Mann)

FMRS II

Kos, P., Die Fundmünzen der römischen Zeit in Slowenien. Teil II. (Berlin: Gebr. Mann)

FMRU 3.

Redő, F. (Hrsg.) Die Fundmünzen der römischen Zeit in Ungarn Bd. 3. Komitat Komárom – Esztergom (Berlin – Budapest: Gebr.Mann - Archaeolingua)

GABLER 1979

Gabler, D., Pannonia megszállásának néhány kérdése a terra sigilláták tükrében – Die Besitznahme Pannoniens im Spiegel der Sigillaten, Archaeologiai Értesítő 106, 199 – 217.

GABLER 1994

Gabler, D., Die ländliche Besiedlung Oberpannoniens. In: Bender, H. /Wolff, H. (Hrsg.), Ländliche Besiedlung und Landwirtschaft in den Rhein-Donau-Provinzen des römischen Reiches (Passau) 377–419. /Passauer Universitäts Schriften zur Archäologie/

HARSÁNYI/KUROVSZKY 2014

Harsányi E./Kurovszky Zs., Savaria korai Iseumának falfestményei. (Murals of the Early Iseum of Savaria) In: Balázs P. (szerk.) Fiatal Római Koros Kutatók III. konferenciakötete (Szombathely), 103–111.

JAHN 1984

Jahn, J., Zur Entwicklung römischer Soldzahlungen von Augustus bis auf Diokletian. In: R.-Alföldi, M. (Hrsg.), Studien zu Fundmünzen der Antike Band II, 53–74.

ILON 2004

Ilon G., Szombathely őskori településtörténetének vázlata (Szombathely)

KISS/SOSZTARITS 1996-1997

Kiss, P./Sosztarits, O., Ein besonderer Meilenstein aus Savaria, Savaria 23/3, 101–113. KOVÁCS 1998

> Kovács, P., The merchants from Emona and the pomerium of Savaria, Münsterische Beiträge zur Antiken Handelsgeschichte 17, 100–120.

KOVÁCS 2014

Kovács, P., A history of Pannonia during the Principate (Bonn: Rudolf Habelt) / Antiquitas Reihe I/65/

KOVÁCS 2017

Kovács, P., Velleius Paterculus on Pannonia. In: Kovács, P. (ed.), Tiberius in Illyricum. Contribution to the history of the Danubian provinces under Tiberius' reign (Budapest – Debrecen), 103–119.

KOVÁCS 2018

Kovács, P., Northern Pannonia and the Roman Conquest. In: Milićević Bradać, M./ Demicheli, D. (eds.), The Century of the Brave. Roman Conquest and Indigenous Resistence in Illyricum during the Time of Augustus and his Heirs, Proceedings of the International Conference Zagreb 2014 (Zagreb), 163–174.

MACDOWALL 1979

MacDowall, D. W., The Western Coinages of Nero, [Numismatic Notes and Monographs 161] (New York: The American Numismatic Society)

MEDGYES 1998

Medgyes, M., The settlement structure and town walls of Savaria as reflected in the latest excavations. In: Németh, M. (ed.) The Roman Town in a Modern City. Aquincum Nostrum II (Budapest), 87–91.

MIRNIK 1981

Mirnik, I., Coin Hoards in Yugoslavia (Oxford) [BAR International Series 95]

MÓCSY 1959

Mócsy, A., Die Bevölkerung von Pannonien bis zu den Markomannenkriegen (Budapest: Akademia Verlag))

MÓCSY 1974

Mócsy, A., Pannonia and Upper Moesia (London – Boston: Routledge and Kegan Paul)

MRÁV 1996-1997

Mráv Zs., Architravfelirat Savariából, a város nevének említésével, (Eine Architrav-Inschrift mit Erwähnung des Stadtnamens aus Savaria) Savaria 23/3, 217–236.

MRÁV 2010-2013

Mráv, Zs., The Roman Army along the Amber Road between Poetovio and Carnuntum in the 1st Century AD – Archaeological Evidence, Communicationes Archaeologicae Hungariae 49–100.

MRÁV 2013

Mráv Zs., Militaria – Kora császárkori katonai felszerelési tárgyak. In: Sosztarits O./Balázs P./Csapláros A. (szerk.) A Savariai Isis szentély – Iseum Savariense (Szombathely), 141–152.

NEWBOLD 1974

Newbold, R. F., Some social and economic consequences of the A.D. 64 Fire at Rome, Latomus 33, 858–869.

PEGAN 1964

Pegan, E., Najdba rimskih aureusov iz Zvonigrada pri Bakovićih (Fojnica), Argo 3, 75–76.

REDŐ 2003

Redő, F., Municipium Aelium Salla. In: Šašel-Kos, M./ Scherrer, P. (eds.), The autonomous towns of Noricum and Pannonia, Pannonia 1. (Ljubljana), 191–235. /Situla 41/

REGESTEN 3

Prohászka, P./Torbágyi, M. Regesten der antiken Fundmünzen und Münzhorte in Ungarn. Bd. 3. Komitat Vas (Budapest: Martin Opitz)

RIC I.² 1984

Sutherland, C. H. V., The Roman Imperial Coinage. Vol. I. (London)

RIU I. 1972

Mócsy, A./Szentléleky, T. (Hrsg.), Die römischen Inschriften Ungarns (Budapest) SCHNEIDER 1977

> Schneider, H.-Chr., Das Problem der Veteranenversorgung in der späteren Republik (Bonn)

SOSZTARITS 1994

Sosztarits, O., Topographische Forschungen im südlichen Teil von Savaria. In: La Pannonia e l'Impero romano. Annuario dell'Academia d'Ungheria (Roma), 233–241. SZŐNYI 1990

> T. Szőnyi, E., Archäologische Daten zur frühesten Besatzunggruppe von Arrabona. In: Vetters, H./Kandler, M. (Hrsg.), Akten des 14. Internationalen Limeskongress 1986 in Carnuntum (Wien: Österreichische Akademie der Wissenschaften), 667–674.

TORBÁGYI 1994

Torbágyi M., A Szombathely-herényi római aranyéremlelet, (Der römische Münzfund von Szombathely-Herény.) Numizmatikai Közlöny 92–93, 27–32.

TORBÁGYI 1997–1998

Torbágyi M., Elfelejtett római éremleletek III. rész, (Im Vergessenheit geratene römische Münzfunde III. Teil) Numizmatikai Közlöny 96–97, 7–15.

TORBÁGYI/KISS 1994

Torbágyi M./Kiss G., Aranykincs Savariából. Római-kori pénzlelet Szombathely határából – Goldschatz aus Savaria. Münzfund aus der römischen Zeit in der Umgebung von Szombathely (Szombathely) /Vas Megyei Múzeumok Katalógusai 150./

TÓTH 1971

Tóth E., Savaria insula-rendszerének rekonstrukciója, (Rekonstrucktion des Insula-Systems in Savaria.) Archaeologiai Értesítő 98, 143–169.

TÓTH 2011

Tóth E., Lapidarium Savariense – Savaria római feliratos kőemlékei (Szombathely)

WATSON 1965

Watson, G. R., Discharge and resettlement in the Roman army. The praemia militae. In: Welskopf, E.C. (Hrsg.), Neue Beiträge zur Geschichte der Alten Welt. Römisches Reich (Berlin: Akademie Verlag), 147–162.