

ANNONA AND TRAJAN'S COINAGE: REVISITING MISIDENTIFICATIONS IN THE CATALOGUES OF *THE ROMAN IMPERIAL COINAGE*¹

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ABSTRACT: For more than two centuries, the Rome mint produced coins featuring the image of Annona, a symbol of the emperor's political and social initiatives. It remains unclear why the *Roman Imperial Coinage* catalogues omit these depictions in its section on Emperor Trajan—possibly due to a misinterpretation by its authors. This article examines how the rulers of Rome, the most powerful men in the empire, emphasised the importance of supplying the city with grain through the imagery featured on ancient coins. It also investigates the absence of documentation for such coins during Trajan's reign. Finally, the article considers the challenges inherent in working with numismatic material and the methodological difficulties involved in using this type of source.

ABSTRAKT (Annona w mennictwie Trajana: ponowne spojrzenie na błędne identyfikacje w katalogu *The Roman Imperial Coinage*): Przez ponad dwa stulecia rzymska mennica produkowała monety z wizerunkiem Annony, symbolizujące polityczną i społeczną działalność cesarza. Nie jest jasne, dlaczego katalog *The Roman Imperial Coinage* pomija te przedstawienia w sekcji poświęconej cesarzowi Trajanowi. Być może powodem była błędna interpretacja autorów. Celem tego artykułu jest zbadanie, w jaki sposób władcy Rzymu, którzy byli najpotężniejszymi ludźmi w Imperium Rzymskim, podkreślali znaczenie zaopatrzenia miasta w zboże za pomocą treści przedstawionych na starożytnych monetach. Ponadto poddano w wątpliwość domniemany brak takich monet za panowania cesarza Trajana. W artykule omówiono również wyzwania związane z pracą z materiałem numizmatycznym oraz trudności metodologiczne związane z wykorzystaniem tego typu źródeł.

KEYWORDS: emperor Trajan, *annona*, imperial coinage, *Roman Imperial Coinage* Catalogues

SŁOWA KLUCZOWE: cesarz Trajan, *annona*, mennictwo imperialne, katalogi *The Roman Imperial Coinage*

The work of a numismatic historian relies on systematic studies that accurately group ancient coins.² Since the publication of the first volume of *Roman Imperial Coinage* (RIC), these catalogues have served as the foundational reference for historians studying Roman imperial coinage. The ten volumes encompass numismatic material from the time of the Battle of Actium and the beginning of the reign of the first *princeps*, Gaius Octavius (known as Augustus from 27 BC), through late antiquity (491 AD). It is worth noting that prominent British numismatists—including Harold Mattingly, Edward Allen Sydenham, and Carol Humphrey Vivian Sutherland—contributed to the development of the RIC catalogues. Despite their monumental influence on several generations of historians—especially considering that the earliest volumes appeared in the 1920s—the RIC catalogues contain errors and have become outdated due to scientific advances and new archaeological discoveries.³

Errors in numismatic catalogues can arise for various reasons, including the sheer volume of material, which can lead to oversights, as well as the misinterpretation of images found on the reverses of Roman coins. This article examines one such interpretative mistake—resulting in the misclassification of certain coins minted during the reign of Emperor Trajan—in the second volume of the RIC (first edition 1926, reprinted 1968).⁴ These coins relate to the grain supply to Rome, a matter of paramount importance for maintaining stability and peace in the capital. Em-

¹ This article presents a revised and supplemented version of the text published by W. Wierzbicki in 2022.

² For a list of such works, see Kluczek 2018, 114–115.

³ Balbuza 2011, 379; Duncan-Jones 1999, 65. In response to errors in previous editions new RIC editions have been released, including the following catalogues: RIC I, RIC II.1, RIC II.3, RIC V.4, RIC X.

⁴ RIC II, *Trajan* 165–167, 478–481, 492–495.

peror Trajan, who contributed significantly to the development of Rome's infrastructure and was the first emperor to receive the title *Optimus* (the best),⁵ was undoubtedly invested in ensuring the supply of grain to Rome for successive emperors.⁶ It is therefore surprising that the editors of RIC did not document any coins depicting the personification of Annona in Trajan's mint.

In this place, it is worth dedicating a few words to the term *annona*.⁷ In the early Roman Empire, *annona* referred to the grain supplies destined for the cosmopolitan capital. The concept has multiple meanings, which is unsurprising given the complexity of the provisioning process. Notably, the imperial administration intervened directly in managing and supervising this system (*cura annonae*, *securitas annonae*).⁸ When attempting to define *annona*, the most precise attempt appears to be that of Catherine Virlouvet, who described it as a 'daily challenge' ('una sfida quotidiana').⁹ There is no doubt that maintaining order in Rome, fundamentally tied to securing adequate food supplies, posed a constant, daily challenge for the entire imperial apparatus.

When conducting research on Annona, as well as on other personifications featured in Roman coinage, scholars frequently encounter methodological challenges and uncertainties regarding the interpretation of specific numismatic elements.¹⁰ The earliest known representation of Annona, dating to the reign of Nero, may be regarded as a model depiction, metaphorically alluding to several key components of the provisioning process.¹¹ For the first time, the imperial mint issued coins depicting the personified image of Annona alongside Ceres, the Roman goddess of fertility. These coins featured the reverse legend ANNONA AVGVSTI CERES.¹² The legends on the obverses of these coins do not provide sufficient information to determine their exact date of issue. However, the minting periods can be narrowed to between 55–66 and 64–68 AD. Based on this, it is likely that these coins were issued during the same time frame, specifically after 64 AD. The propagandistic significance of the scene may be understood as

⁵ The title *Optimus* first appeared on coins minted in 103 AD (RIC II, *Trajan* 91). For more on this subject, see Scardigli 1974; Bennett 1997, 208–216; Fears 1981, 910–924.

⁶ On the subject of Rome's provisioning policy during the reigns of Nerva and Trajan, see Bonacci 2016, 166–174. Among ancient authors, Pliny the Younger referred several times to Emperor Trajan's actions concerning the supply of Rome, calling the grain deliveries to the capital the 'never-ending congiarium' (*perpetui congiarii*) (Plin. *Pan.* 29). For the context behind Pliny's words, see Millar 1963, 40.

⁷ Ermatinger 2018, 254.

⁸ Sirks 1991, 4–5. The term *securitas annonae* was used by Tacitus (Tac. *Ann.* XV 18) to define social order in Rome. Similarly, the Latin term *cura annonae* was used by Suetonius (Suet. *Tib.* 8.1.8; Suet. *Cl.* 18.1.1), Livy (Liv. [Periochae] CX 10), and the aforementioned Tacitus (Tac. *Hist.* IV 38.7), especially in the context of the direct involvement of individual princeps.

⁹ Virlouvet 2000.

¹⁰ As an example of such connections, one can point to the relationship between Annona and the Roman personification of prudence—Providentia (RIC IV, *Severus Alexander* 249b–d, 250a–d), and between Annona and the personification of consent—Concordia (RIC III, *Commodus* 325A, 325B, 344, 350, 416a, 416c, 442). On the subtle differences between the way Abundantia, Annona and Ceres are portrayed, see Stevenson, Smith, Madden 1889, 2–3, 48–51, 195–197.

¹¹ The administration established by Augustus to manage Rome's grain supply, known as the prefecture of the *annona*, had been functioning earlier, as evidenced by sources such as *ex officio annonae* (CIL VI 8473). Scholars do not agree on the precise date of its creation, though it is generally attributed to the final years of Augustus' reign, approximately 7–14 AD. For further discussion, see Demougin 2003, 551.

¹² RIC I, *Nero* 98, 99, 137–142, 372, 389–391, 430, 431, 493–497, 566–572. For more on coins featuring the personification of Annona, see Rickman 1980, 257–267; Pavis d'Escurac 1981, 795–799; Garnsey 1988, 225; Scapini 2016, 230–231.

a response to the supply difficulties that arose in Rome following the fire of 64 AD.¹³ In this depiction, the personification of Annona is accompanied by distinctive attributes, such as sheaves of grain, a horn of plenty (*cornu copiae*), and a *modius*. Due to the complexity of numismatic analysis and the allegorical nature of Roman coins, the *modius* should be regarded as a key attribute of Annona.¹⁴ All of these iconographic elements will serve as reference points for examining the various ways in which Annona was represented during the Principate.

Depictions of Annona became a consistent feature of the imagery disseminated by the imperial mint. After the reign of Nero, subsequent emperors—including Vitellius,¹⁵ Vespasian,¹⁶ Titus,¹⁷ Domitian,¹⁸ and Nerva¹⁹—issued coins bearing Annona on the reverse. Although certain innovations appeared in the iconography over time, the underlying ideological message remained unchanged: the emperor, as the most powerful figure in the empire, was committed to ensuring the provisioning of the city. It is important to emphasise that the ideological narrative of Roman prosperity was not conveyed solely through coins depicting Annona. Ceres, whose image had appeared on coinage since the time of Claudius, as well as the personification of abundance—Abundantia—also played significant roles in communicating this message.²⁰ A major methodological challenge lies in correctly identifying these personifications, particularly when coins lack reverse legends. Additional difficulties arise when multiple personifications appear together, an arrangement that was especially common in the early Empire.

The appearance of Annona imagery on coins minted during Trajan's reign would seem a logical continuation of the tradition established by earlier emperors. It is therefore striking that the editors of the RIC did not include any representations of Annona in Trajan's mint catalogue, especially considering that both his predecessors and his successors employed such imagery to emphasise the necessity of supplying the city with grain.²¹ As noted above, personifications of Annona appeared in the coinage of Nero, Vitellius, the Flavian emperors, and Nerva. After Trajan's death, successive rulers of the Antonine dynasty likewise issued coins depicting Annona. Although not constant, Annona iconography continued to appear in Roman imperial coinage until the reign of Diocletian. The RIC editors likely followed classification methods inherited from

¹³ On the subject of dating Nero's coins, see Awianowicz 2019, 249–252.

¹⁴ Schmidt-Dick 2002b, 23; Noreña 2011, 114–119. It should also be noted that the *modius* appears in imperial coinage as an independent iconographic element, both on the obverse and reverse—for example, on the quarters of Claudius (RIC I, *Claudius* 84, 86–88, 90). For further discussion, see Berg 2020, 79–108. An interesting example is a denarius from the reign of Trajan, which features a *modius* with two ears of grain on the reverse and the senator L(ucius) LIVINEIVS REGVLVS on the obverse (RIC II, *Trajan* 813; PIR² L 291); see Woytek 2010. This coin belongs to the series of so-called 'restored coins' minted during Trajan's reign. For further discussion, see Mattingly 1926.

¹⁵ RIC I, *Vitellius* 131, 144, 155, 166.

¹⁶ RIC II.1, *Vespasian* 876, 923, 963–965, 966, 971, 972, 987–990, 1021–1023, 1040, 1041, 1090, 1097. In Vespasian's coinage, Annona also appears alongside his sons, depicted as Caesars.

¹⁷ RIC II.1, *Titus* 2, 55, 56, 61, 136–140.

¹⁸ RIC II.1, *Domitian* 212, 213, 286, 287, 349, 350, 367, 377, 396, 406, 412, 462, 477, 485, 646.

¹⁹ RIC II, *Nerva* 52, 68, 78.

²⁰ RIC I, *Claudius* 94, 110.

²¹ For a detailed comparison of the similarities and differences between the coinage of Trajan and Hadrian, see Beckmann 2011.

earlier scholarship, such as the catalogue of Henry Cohen.²² By contrast, other numismatists, such as H. Mattingly and Robert Carson,²³ as well as Bernhard Woytek,²⁴ offered differing interpretations and explicitly recognised the presence of Annona imagery in Trajan's coinage.

The section of the RIC catalogue dedicated to the coinage of Emperor Trajan includes fourteen coins that can reasonably be associated with the personification of Annona,²⁵ although the catalogue descriptions do not explicitly identify them as such. The author suggests that some coins depicting Abundantia and Ceres may have been misattributed. On Roman coins, personifications were often depicted differently and could share similar attributes, representing the same virtue or abstract concept. Accurate categorisation was frequently hindered by the poor state of preservation of the specimens in question. In this context, it is useful to first examine the typical 'model' representations of both Ceres and Abundantia. The Roman goddess Ceres was frequently depicted on imperial coins accompanied by ears of grain and a torch.²⁶ This iconography was introduced under Claudius and continued into the early reign of Nero, with a slight modification: the goddess was portrayed in a standing position.²⁷ A notable distinction between coinage featuring Ceres and that depicting Annona or Abundantia lies in its Republican origins, dating back to the 3rd century BC.²⁸ There is little doubt that most representations of Ceres adhered closely to this established iconographic pattern.²⁹ However, examples of innovation can be observed in the use of Ceres imagery in the coinage of Trajan. Two denarii minted between 98–117 AD depict Ceres on the obverse, accompanied by distinctive iconography and reverse legends that merit attention. The first denarius depicts a man leading two oxen, with the legend: IMP(erator) CAES(ar) TRAIAN(us) AVG(ustus) GER(manicus) DAC(icus) P(ater) P(atriciae) REST(ituit) C(aius) MARI(us) C(aii) F(ilius) S(enatus) C(onsultum) LXXV.³⁰ This clearly references Republican coinage, particularly the denarius minted in 42 BC by Q. Cornuficius,³¹ whose coin bore the legend: IMP(erator) CAES(ar) TRAIAN(us) AVG(ustus) GER(manicus) DAC(icus) P(ater) P(atriciae) REST(ituit) CORNVFICI(us) AVGVIR IMP(erator).³² From a styl-

²² For example, no. 367—Ceres, no. 467–475—Abundantia, see Cohen 1883, 57, 65–66.

²³ Mattingly, Carson 1936, 168–174, 468–473.

²⁴ MIR XIV 212 b, c, f, h, x; MIR XIV 354 a, b, d; MIR XIV 395 a, b, h.

²⁵ The fourteen analysed coins included a gold aureus, three silver denarii, and ten bronze coins (six sesterces, two aces, and two dupondii). For more on the relationship between coin imagery and denominations, see Hekster 2003.

²⁶ Schmidt-Dick 2002a, 30–33; Awianowicz 2020, 142.

²⁷ RIC I, Nero 23–24, 29, 30, 35. This is not to suggest that subsequent emperors did not introduce innovations in the depiction of Ceres. For example, during the brief reign of Galba, the caduceus was added as one of the goddess's attributes (RIC I, Galba 291, 292, 324–326). For more on depictions of Ceres in other categories of iconographic sources, see, among others, Spaeth 1994; Magdus 2025. For the context behind the reception and reproduction of depictions of Ceres, see Dunajko 2022, 15–20.

²⁸ RRC 82/1. Marcus Terentius Varro confirmed the Republican tradition of the cult of Ceres in his work on agriculture—*De re rustica*. Warron presented Ceres as one of the twelve gods/goddesses of agriculture—*Dei Consentes* (Var. R. I 1.5–6). Warron's description is a literary construct of his own making, and the deities mentioned played a crucial role in overseeing agricultural care, hence their appointment as 'special guides for farmers' (*maxime agricolarum duces*) (Var. R. I 1.4). For more on the portico dedicated to *Dei Consentes* located near the Capitoline Hill, see Gorski, Packer 2015, 210–224.

²⁹ RIC II, Trajan 109, 151.

³⁰ RIC II, Trajan 781.

³¹ RRC 509/1.

³² RIC II, Trajan 808.

istic perspective, another denarius features Romulus on the obverse with the legend: C(aius) MEMMI(us) C(aii) F(ilius) QVIRINVS, while the reverse depicts Ceres with sheaves of grain and a torch, accompanied by the legend: IMP(erator) CAES(ar) TRAIAN(us) AVG(ustus) GER(manicus) DAC(icus) P(ater) P(atriae) REST(ituit) MEMMIVS AED(ilis) CERIALIA PREMIVS (*sic!*) FECIT.³³ This coin refers to the Roman festival in honour of Ceres, which, according to Titus Livius, took place between 216 BC and 202 BC.³⁴ All three types of coins represent notable deviations from the conventional iconographic scheme typically associated with representations of Ceres.³⁵

Abundantia first appeared on a denarius issued during the reign of Nerva.³⁶ The goddess was depicted seated, holding a sceptre (*sceptrum*). During the early years of Trajan's reign, she was additionally portrayed with two crossed horns of plenty, emphasising her association with abundance.³⁷ A particularly interesting example of how abundance was represented in Trajan's coinage is the reference to his program supporting poor Italian youth, which is reflected on the coins through the inscription ALIM(enta) ITA(liae).³⁸

It is likely that the RIC editors misinterpreted Trajan's coins, attributing them to Abundantia and Ceres instead of Annona. These coins feature a female personification presented in two distinct ways.³⁹ In the first, the figure holds a horn of plenty in her left hand and ears of grain in her right. To her right, a *modius* is depicted, while to her left, a fragment of a ship emerges from her hand⁴⁰—a clear reference to the maritime transport of grain, a motif consistently associated with Annona. On coins from other imperial mints, the connection between Annona and maritime grain transport was indicated through symbols such as an anchor, a rudder, or a lighthouse. The torch, also associated with Ceres, may serve a similar function to a lighthouse in these depictions. It should be emphasised that the term *annona* always referred to the transportation of grain from the provinces—primarily Africa Proconsularis and Egypt—to Rome. Tacitus underscored Rome's dependence on maritime supplies, noting that 'the life of the Roman people was dependent on cargo ships and accidents' and in another passage that 'Rome is dependent on external supplies'.⁴¹ In the second type of depiction, the feminine personification is turned to the left, holding sheaves of grain in her right hand and a torch in her left. Both types of coins feature a reverse legend honouring Trajan: S(enatus) P(opulus) Q(ue) R(omanus) OPTIMO PRINCIPI S(enatus) C(onsulto).⁴²

³³ RIC II, *Trajan* 799.

³⁴ Liv. XXII 56, XXX 39.

³⁵ For more on various aspects related to Roman Ceres, see Spaeth 2020.

³⁶ RIC II, *Nerva* 140.

³⁷ The coins were struck between 98–99, 100 (COS III) and 101 AD (COS IV). See Kienast, Eck, Heil 2017, 116–117.

³⁸ RIC II, *Trajan* 243, 459–460, 604–606.

³⁹ The coins (dated between 103–111 AD) feature the following legend on the obverse: IMP(eratori) TRAIANO AVG(usto) GER(manico) DAC(ico) P(ontifici) M(aximo) TR(ibuniciae) P(otestatis) CO(n)S(uli) V P(atri) P(atriae) lub IMP(eratori) CAES(ari) NERVAE TRAIANO AVG(usto) GER(manico) DAC(ico) P(ontifici) M(aximo) TR(ibuniciae) P(otestatis) CO(n)S(uli) V P(atri) P(atriae).

⁴⁰ RIC II, *Trajan* 165–167, 492–495.

⁴¹ Tac. *Ann.* XII 43, III 54 (transl. W. Wierzbicki).

⁴² RIC II, *Trajan* 478–481.

By reviewing studies on Roman imperial coinage and the divisions proposed by historians, it becomes important to situate representations of Annona within existing interpretive frameworks. In his proposed classification of the ideological content of Roman coinage, Andrzej Kunisz identified three main categories: the ruler's dynastic policy, propaganda highlighting foreign policy successes, and propaganda emphasising internal achievements.⁴³

In this context, Annona should be classified within the third group of ideological representations, given the political significance of Rome's food supply. However, it is important to note that the term *annona* specifically referred to the inhabitants of Rome, and that the responsibility for provisioning the city fell to the prefect of *annona* and his administration.⁴⁴ A different classification of allegorical personifications on Roman coinage was proposed by Aleksandra Kluczek.⁴⁵ This system is based on the metaphorical nature of monetary concepts, while distinguishing between virtues (*virtutes*) and abstract concepts (*abstracta*). Within this framework, Annona is placed in the second group, with a clear emphasis on its reference to a specific 'desirable state' of the Roman state (*res expetendae*).⁴⁶ This approach highlights the practical and ideological functions of certain personifications, including the role of Annona in maintaining social order and promoting the propaganda of successive Roman emperors. While Kluczek's classification provides a valuable reference for analysing numismatic content, determining the boundary between *virtutes* and *abstracta* can present methodological challenges. For example, depictions of Annona accompanied by the legend ANNONA AVG(usti) may be ambiguous, as such inscriptions typically denote the virtues of the emperor or his immediate family rather than a broader abstract concept.

All the coins under analysis lack reverse legends explicitly identifying the figure depicted. Nevertheless, based on the arguments presented above, it is reasonable to interpret these personifications as representations of Annona, despite containing attributes traditionally associated with both Ceres and Abundantia.⁴⁷ Further support for this interpretation comes from the observation that the Annona imagery from Trajan's reign—misidentified as Abundantia and Ceres in the RIC catalogue—closely resemble the depiction of Annona first introduced in imperial coin-

⁴³ Kunisz 1993, 61. According to Carlos Noreña's classification, coin iconography is divided into two categories: imperial virtues, which represent imperial ideals, and imperial benefactions, which depict the benefits of the empire. Noreña pointed out that: 'The Annona type effectively represented the grain supply to the city of Rome and the emperor's role in securing it, but in order to make the type relevant to those outside of Rome, its underlying message had to be universalised', therefore, attributing Annona to the second group, see Noreña 2011, 114. In his research on the content featured on Roman coins in relation to denomination variation, Olivier Hekster concluded: 'Legend types like ANNONA or CERES, which one would expect to be more relevant for people in need of food, appear almost exclusively in lower denominations of coinage from the reigns of Claudius, Nero, Galba, Vitellius, Domitian, and Nerva, but they are prominently displayed on all types of coins (including aurei) during the reigns of Vespasian, Titus, Trajan and Hadrian'. See Hekster 2003, 23.

⁴⁴ The regional (Roman-Italic) character of Annona coinage is further supported by provincial numismatics. Like Annona imagery, these provincial coins alluded to themes of fertility and abundance. A notable example is the depiction of Euthenia (Εὐθηνία), minted in Alexandria. The symbolism of these coins closely parallels that of both Annona and Abundantia, see Fischer 2017, 40. On changes to the *cura annonae* system, see Erdkamp 2013, 266–267.

⁴⁵ Kluczek 2021, 86–90.

⁴⁶ According to the author, Abundantia has also been classified as an abstract concept, which is unsurprising given the correlation between the two ideas discussed above.

⁴⁷ In some studies, authors express uncertainty regarding the identification of the personification depicted on the reverse, which may result from duplicate or ambiguous descriptions in the RIC catalogue. For more on this subject see Cooley 2016, 125.

age during the independent reign of Titus.⁴⁸ The presence of Annona in Trajan's coinage reflects continuity with the imagery issued by his predecessors, thereby justifying its continued appearance in the coinage of subsequent Roman emperors. References to the city's provisioning on Trajan's coins align with his extensive construction initiatives. Of particular note, in the context of Rome's supply concerns, was the construction of a new port for the city, known over time as *Portus Romanus* or *Portus Augusti*.⁴⁹ The depiction of this new port appears on a sestertius minted between 103–111 AD,⁵⁰ and interestingly, coins featuring Annona circulated contemporaneously. The RIC catalogue also contains an error in its description of Nerva's coins, which reproduce a motif already present on Nero's sesterces—the aforementioned scene of Annona accompanied by Ceres.⁵¹ The catalogue incorrectly identified Annona as Abundantia, despite the reverse legend reading: ANNONA AVGVST(i) S(enatus) C(onsulto). In this case, the error is even more apparent than those observed on coins from Trajan's era. Unlike coins depicting Annona alongside Ceres, no imperial coinage features a combination of Annona and Abundantia. Consequently, in the author's view, the denarii minted under Trajan's successor, Hadrian, are also likely misclassified.⁵² Descriptions of these coins in the new, corrected edition of the RIC list the reverse personification as Annona/Abundantia. However, the iconography clearly corresponds to the characteristic presentation of Annona, as outlined above. In such cases, the *modius* remains a key identifying attribute. Representations of Annona on Roman imperial coinage are generally composed of core attributes, such as ears of grain, the cornucopia, and occasionally references to maritime grain transport. Given the differing interpretations among scholars, the errors discussed here may reflect variable readings of the evidence and should therefore be considered as possible variants. It is also important to note that nearly a century has passed since the publication of the RIC catalogue addressed in this article, and numerous subsequent editions and studies of Trajan's coinage have challenged some of its earlier interpretations.⁵³

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⁴⁸ RIC II.1, *Titus* 136–139. In this instance, Annona is depicted in a standing position, accompanied by the cornucopia, *modius*, and the visible bow of a ship. However, it is worth noting that on coins of Titus, the goddess Aequitas is shown in Annona's right hand (RIC II.1, *Titus* 136–138).

⁴⁹ Mannucci 1992; Keay 2006.

⁵⁰ RIC II, *Trajan* 471.

⁵¹ RIC II, *Nerva* 52, 68, 78.

⁵² RIC II.3, *Hadrian* 845, 854–855, 911–913, 3034.

⁵³ Besombes 2008; Woytek 2010. It is noteworthy that similar conclusions were reached in earlier studies, such as the *BMCRE* catalogue and Strack's 1931 work.

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