

# The Bunnik hoard 2023, an initial numismatic analysis of a first-century Roman conquest hoard

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**Summary** – This article discusses the Bunnik hoard, which was discovered in 2023. Consisting of 404 coins, dating from around 211 BCE to 47 CE, it is one of the largest Roman coin hoards ever found in the Netherlands. The hoard comprises 288 silver coins and 116 gold coins. Remarkably, the hoard also includes gold Celtic staters from Britannia – unprecedented in both form and quantity on the European mainland. Its mixed composition, dating and discovery in a former Roman military zone close to the northern frontier of the Empire link the hoard to the early phase of the Roman conquest of Britannia (43–47 CE). In addition to a general overview, the article highlights several notable coins, including previously unknown coin subtypes and a denarius from the Numidian king Juba I (60–46 BCE).

**Samenvatting** – In 2023 werd bij Bunnik een muntschat ontdekt, bestaande uit 404 Romeinse en Keltische gouden en zilveren munten. Hiermee is het een van de grootste muntschatten uit de Romeinse tijd die ooit in Nederland is gevonden. De muntschat bestaat uit 288 zilveren en 116 gouden munten, waaronder een bijzondere groep gouden Keltische staters uit Britannia die in deze vorm en hoeveelheid niet eerder op het Europese vasteland is gevonden. De gemengde samenstelling, de datering en de vindplaats in voormalig Romeins militair gebied nabij de noordgrens van het Rijk wijzen op een verband met de eerste fase van de Romeinse verovering van Britannia (43–47 n.Chr.). Naast een algemene analyse van de vondst worden in dit artikel enkele bijzondere munten belicht, waaronder tot op heden onbekende varianten en een denarius van de Numidische koning Juba I (60–46 v.Chr.).

## Introduction

IN OCTOBER 2023, AN IMPORTANT ROMAN COIN HOARD was discovered in the municipality of Bunnik (province of Utrecht, the Netherlands). It consists of 404 silver and gold coins of both British and Roman origin, with the most recent coins dating from the reign of Emperor Claudius (41–54 CE). It is one of the largest hoard of Roman gold and silver coins discovered in the Netherlands to date, and is the first hoard of both British and Roman coins found in mainland Europe. The coins are thought to be connected with the Roman conquest of Britain. A first publication on the hoard is available online.<sup>1</sup> A detailed report is expected to be published in 2026. This forthcoming publication will

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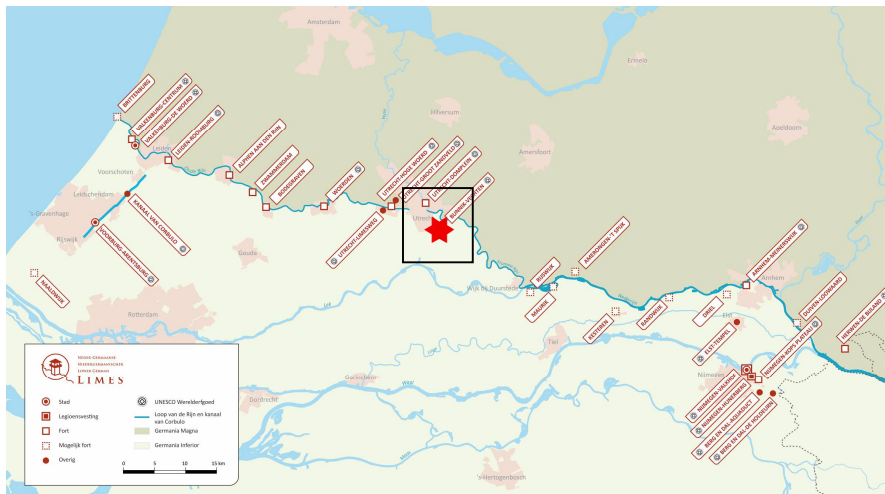
<sup>1</sup> Cruysheer & De Groot, 2025: 1–6.

examine the hoard from an archaeological perspective, in collaboration with the Cultural Heritage Agency of the Netherlands.<sup>2</sup> The report will include the final results of an excavation, a reconstruction of the historical landscape and a synthesis of the reasons for Roman hoarding in the first century. In addition, all the coins will be published in a catalogue with images.

The hoard was acquired by the Dutch National Museum of Antiquities in Leiden and the coins are now on public display in the museum. The hoard is recorded with PAN (Portable Antiquities of the Netherlands, hoard ID: PAN-S-280), NUMIS (Numismatic Information System of De Nederlandsche Bank, hoard ID: numis-1175412), and the Coin Hoards of the Roman Empire project (Ashmolean Museum and Oxford Roman Economy Project, hoard ID: CHRE-21255).

## Method and research question

This study examines the Bunnik 2023 hoard from a numismatic perspective, focusing on the composition and structure of the hoard. The main research question addresses how the typological and chronological composition of the hoard can be characterised and understood. Particular attention will be paid to some noteworthy or unusual coins.



*Fig. 1 – Map with ★ = find Bunnik.  
Source: Beeldbank Romeinse Limes*

<sup>2</sup> The results of this research will be published in the series Dutch Archaeological Reports (Rapportage Archeologische Monumentenzorg – RAM), by the Cultural Heritage Agency of the Netherlands (Rijksdienst voor het Cultureel Erfgoed – RCE).

### Discovery and context<sup>3</sup>

The hoard was discovered by Reinier Koelink and Gert-Jan Messelaar using metal detectors. It was found in the municipality of Bunnik, in a field far from any known Roman sites. Bunnik lies on the former northern border of the Roman Empire, the Lower German Limes (Neder-Germaanse Limes). The coins were discovered less than 30 cm below the surface.

The finders reported the hoard to the Archaeological Reporting Centre of Utrecht Landscape and Heritage Foundation (Landschap Erfgoed Utrecht), which co-operates with the national database and public platform Portable Antiquities of the Netherlands (PAN). The hoard was also reported to the municipality of Bunnik, which issued a formal acknowledgement to both the finders and the landowner.

The National Cultural Heritage Agency investigated the site to assess the archaeological context of the hoard. This included archaeological fieldwork to understand why the coins were deposited in this location. The research included a coring survey to reconstruct the landscape setting, sampling for archaeobotanical, geochemical, and radiocarbon (C<sub>14</sub>) analysis, and an excavation to recover further finds and identify possible features. The work was carried out in collaboration with the finders, who searched the site with their metal detectors.

The initial discovery yielded 381 coins. The subsequent investigation of the site yielded a further 23 coins, bringing the total to 404. No traces of a container were found, nor were any other archaeological features or artefacts recovered. However, the composition and dating of the coins suggest a single, deliberate deposition. It is suggested that the coins were originally buried in a shallow pit, possibly in an organic material such as a cloth or leather pouch, which has since decayed. The pit appears to have been dug in a relatively waterlogged area, close to a watercourse. In Roman times, this area would have been unsuitable for habitation or agriculture.

### Hoard Composition

The Bunnik hoard consists of 404 coins, which can be divided into three categories: gold Celtic staters, gold Roman coins (*aurei*) and silver Roman coins (*denarii*). All the coins could be identified: the 44 gold staters are from the British king Cunobelinus and date from 5-40 CE; the 72 Roman aurei and 288 denarii were struck between about 211 BCE and 47 CE.

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<sup>3</sup> Cruysheer & De Groot, 2025: 1-2.

	n AR	% AR	n AV	% AV	n total	% total
Cunobelinus stater	—	—	42	36.2	42	10.4
Cunobelinus quarter stater	—	—	2	1.7	2	0.5
Roman Republic	179	62.2	—	—	179	44.3
Juba I (60-46 BCE)	1	0.3	—	—	1	0.2
Julius Caesar (49-44 BCE)	12	4.2	—	—	12	3.0
Mark Anthony (43-31 BCE)	30	10.4	—	—	30	7.4
Octavian (43-27 BCE)	3	1.0	—	—	3	0.7
Augustus (27 BCE-14 CE)	28	9.7	22	19.0	50	12.4
Tiberius (14-37 CE)	27	9.4	37	31.0	64	15.8
Gaius / Caligula (37-41 CE)	2	0.7	—	—	2	0.5
Claudius (41-54 CE)	6	2.1	13	11.2	19	4.7
<b>Total</b>	<b>288</b>		<b>116</b>		<b>404</b>	

*Table 1 – Overview of the number of coins and percentages from the Bunnik hoard*

The finders of the hoard indicated that, with the exception of two gold staters found nearby, all the gold coins of the hoard were found together at one find spot, whereas the denarii were found more scattered. This was also evident during the excavation by the National Cultural Heritage Agency: apart from one aureus, all the coins found were silver denarii. This suggests that the coins in the hoard were not mixed together, but were deposited in separate batches, possibly each in a different pouch. It appears that the gold coins were buried deeper than the silver coins, which became more widely scattered as a result of ploughing. The denarii and aurei of Emperor Claudius, struck in 46-47 CE, are the youngest dated coins in the hoard. Two of the aurei are die-linked, suggesting that they were originally part of a single batch, most likely military pay. The unworn condition of these coins also suggests that they were buried relatively soon after being struck and issued, having seen almost no circulation due to their quick deposition.<sup>4</sup> This contrasts with the other aurei in the hoard, which show varying degrees of wear. If the coins represent spoils from the early Roman conquest of

<sup>4</sup> Cruysheer & De Groot, 2025: 2.

Britain, which were subsequently used as military pay, then this payment may have been made in Britain, after the successful first phase of the conquest of Britain, led by Aulus Plautius (43-47 CE). The Helmingham Hall hoard (2019), which has a similar composition and end date for its coins, also supports this interpretation.<sup>5</sup>

The value of the hoard is equivalent to almost an 11-year pay for a legionary soldier. This suggests that it was probably associated with a high-ranking officer, such as a centurion, or possibly a group of soldiers and their families, rather than the personal savings of a single soldier.<sup>6</sup> The exact reason for concealing the hoard remains unclear. Possible explanations include ritual deposition or temporary safeguarding. This question is currently the subject of further analysis, including comparisons with other hoard finds. The results will be included in the forthcoming publication by the Cultural Heritage Agency of the Netherlands, as mentioned above.

### Notable Coins

Although all coins will be described and illustrated in this future publication, several notable coins from the hoard deserve further attention.

A striking feature of the hoard is the 44 gold staters of the British Celtic king Cunobelinus of the Catuvellauni tribe (c. 5-40 CE). Until the discovery of the Bunnik hoard, the only other Cunobelinus stater found in the Netherlands was one discovered on a beach near Katwijk over 350 years ago, near the site of a Roman fort at the mouth of the Rhine, called Brittenburg; it was published as early as 1664.<sup>7</sup>

Analysis of the Cunobelinus staters in the hoard show that these Celtic staters span a wide chronological range, suggesting that his coins were not selectively collected based on factors such as quality, gold content, or weight.<sup>8</sup> This suggests that the staters were removed from circulation in a single event, supporting the hypothesis that the hoard represents spoils from the early Roman conquest of Britain. It is possible that the staters were then distributed to Roman troops as a *donativum*, a customary monetary reward given to soldiers after a successful military campaign. Such imperial cash gifts were distributed according to rank at victory ceremonies and were enormously important, adding to the glory,

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<sup>5</sup> *Ibid.*: 3-5; PAS-SF-8C645E (714 denarii, 1 aureus, 15 Cunobelinus staters and 4 quarter staters). Information about the composition of the Helmingham Hall hoard can be found on the PAS website. It has not yet been published.

<sup>6</sup> *Ibid.*: 4-6.

<sup>7</sup> Oudaan, 1664: 144 and Tab. xxx-7-8; the coin is now part of the Dutch National Numismatic Collection (inv.no. GR-12295).

<sup>8</sup> Sills, 2017; Cruysheer & De Groot, 2025: 2. With thanks to John Sills for the identification of the coins of Cunobelinus.

prestige and honour of the soldiers – as is often proudly displayed on their tomb stones.<sup>9</sup> Written sources provide a few details about these monetary rewards. Of particular interest is a first-century account by the Roman-Jewish historian Flavius Josephus (37-100 CE), who describes in c. 75-79 CE how Titus gave in 70 CE – during the Jewish War, after the destruction of the Temple of Jerusalem – soldiers a share of the spoils in the form of silver, gold, and valuable clothing.<sup>10</sup> In Republican times, too, the promise of rewards to soldiers was very important.<sup>11</sup> In particular the gold staters in the Bunnik hoard have more significance than just their monetary value. As Hoss noted:

*‘Although we have no record of it, it seems more than likely that the amount of booty granted to a soldier and the items it was made up from made a tale often retold by him and his family and friends [...] and the dona militaria and booty would have been used as visual reminders illustrating their increased honour.’<sup>12</sup>*

A die study by John Sills shows that the reverse of two of the 44 staters were struck with hitherto unknown dies (fig. 1 and 2).<sup>13</sup> The legend on the first reads **CVMO** instead of **CVNO** (engraver’s error). For another stater, only one other die is known.<sup>14</sup>



*Fig. 1 – Stater Cunobelinus, c. 33-c. 42 (PAN-143959; CCI-231.164), hitherto unknown reverse die (17 mm – 5.43 g – scale 200%)*

<sup>9</sup> Speidel, 2014: 53; Hoss, 2017: 21-22.

<sup>10</sup> Flavius Josephus, *The Works of Flavius Josephus*, trans. William Whiston (Auburn & Buffalo: John E. Beardsley, 1895), Book 7, §121-132; Hoss, 2017: 22.

<sup>11</sup> Cassius Dio XLIII-5.

<sup>12</sup> Hoss, 2017: 22.

<sup>13</sup> PAN-143922; CCI-231.136 and PAN-143959; CCI-231.164.

<sup>14</sup> PAN-143957; CCI-231.162.



*Fig. 2 – Stater Cunobelinus, c. 33-c. 42 (PAN-143922; CCI no. 231-136)  
hitherto unknown reverse die (20 mm – 5.40 g – scale 200%)*

The youngest British coins are four staters with a horse galloping to the left, that are considered posthumous issues probably struck by Cunobelinus's sons and successors, Togodumnus and/or Caratacus, around 43 CE (fig. 3).<sup>15</sup>



*Fig. 3 – Stater Cunobelinus, c. 43 posthumous issue (PAN-143947;  
CCI no. 231-153) (19 mm – 5.45 g – scale 200%)*



*Fig. 4 – Numidia (Africa), Denarius Juba I, 60-46 BCE  
(PAN-145152), (17 mm – 3.67 g – scale 200%)*

<sup>15</sup> Cruysheer & De Groot, 2025: 2. PAN-143918; CCI no. 231-132, PAN-143919; CCI no. 231-133, PAN-143939; CCI no. 231-147 and PAN-143947; CCI no. 231-153.

Another ‘exotic’ coin that stands out among the Roman denarii, is a silver coin of King Juba I (reigned 60–46 BCE) of Numidia (modern Algeria) (fig. 4).<sup>16</sup> The integration of Numidian coinage into the Roman monetary system occurred as a result of joint military operations between Numidian and Roman forces under Pompey during his war against Caesar, which culminated in the Battle of Thapsus in 46 BCE. Juba I’s coins, minted in Utica, were used for military payments and as a tool of personal propaganda.<sup>17</sup> Juba’s coins were part of the Roman coin circulation and are occasionally found far away from the place they were minted, both during excavations and by metal detectorists. Apart from the specimen in the Bunnik hoard, three other specimens are known to have been found in the Netherlands, with several more discovered in Britain.<sup>18</sup> One of these was found in the Helmingham Hall hoard (2019) in Suffolk. The composition and end date of this hoard are very similar to those of the Bunnik hoard.<sup>19</sup> Several Juba I coins have also been found in present-day Germany, where the Juba I quinarius inspired the imagery of various Celtic coins.<sup>20</sup>

The Bunnik hoard contains 72 aurei dating from 19 BCE to 46/47 CE. Apart from Caligula, all of the emperors who reigned during this period are represented by the gold coins in the hoard. This is not surprising, given that gold and silver coins of Caligula are generally rare finds throughout the Roman Empire.<sup>21</sup> For example, the Dutch coin finds database NUMIS lists 1,194 coins of Caligula, none of which are gold and only eight of which are silver. To these can now be added the two denarii of Caligula from the Bunnik hoard.

A relatively large number of precious metal coins were minted during Caligula’s short reign (37–41 CE), as evidenced by the fact that more obverse dies are known from this period than from Tiberius’s much longer reign (14–37 CE).<sup>22</sup> Most of these dies were used to mint denarii, making up a much higher proportion of the

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<sup>16</sup> *RPC* I, 717B; *SNG* Copenhagen 523.

<sup>17</sup> Crawford, 1985: 246–248; Alexandropoulos, 2007: 174–175. With thanks for the reference to Katharina Huber.

<sup>18</sup> Juba denarii found in the Netherlands: Valkenswaard (NUMIS 1006946); Maasdriel (NUMIS 1113997) and the Roman fortress on the Kops Plateau in Nijmegen (Van der Vin, 2000, *FMRM* III·1 12001–3782).

<sup>19</sup> The relationship between the Helmingham Hall hoard and the Bunnik hoard will be the subject of the forthcoming publication.

<sup>20</sup> Klages *et al.*, 2018: 98 (catalogue no. 1) with other German findspots in footnote 36, page 86; Nieto-Pelletier *et al.*, 2024: 63–75; Günther, 2025: 111–112.

<sup>21</sup> Sutherland, 1984: 108–110; von Kaenel, 1994: 46, note 7. In hoards, Augustan and Tiberian coins of precious metal occur in greater numbers than coins of Caligula and Claudius.

<sup>22</sup> Von Kaenel, 1994: 52.

total number of Caligula's precious metal coins than gold coins.<sup>23</sup> While this may explain why there are two silver coins but no gold coins of Caligula in the hoard, it does not explain why so few of his coins have been found, given the large quantity he minted.

There are several possible explanations for the absence of Caligula's gold coins from the hoard, as well as for the rarity of his silver coins. One possibility is that the small number of Caligula's coins found is the result of his coins being withdrawn after his death.

According to Cassius Dio, Caligula's death was followed by a wave of reprisals carried out by those who had suffered under his rule. Although it is not known if a formal *damnatio memoriae* – condemnation of memory – was decreed by the Senate against Caligula, ancient sources describe actions consistent with it, such as the destruction of his images and the erasure of his name from public monuments.<sup>24</sup> Interestingly, the Utrecht hoard (1933), which contained 50 aurei dating from Augustus to Nero, also contained no gold coins of Caligula.<sup>25</sup> This raises the question of whether the withdrawal of coins was enforced in relation to high-ranking military personnel – those who received gold aurei (and perhaps to a lesser extent denarii)? Alternatively, some of Caligula's gold and silver coins may have ended up in the melting pot after Nero reduced the gold and silver content of his aurei and denarii in 64 AD.<sup>26</sup> The coins from Caligula's last issue, struck between 1 January and his death on 24 January, are rare. The silver coins that belong to this group are scarce, and no gold coins have been found to date.<sup>27</sup> There are two possible reasons for the rarity of this issue. Firstly, production of these coins had only just begun a couple of weeks before Caligula was assassinated. Consequently large numbers of the new issue had not yet been put into circulation. Another possibility is that the newly minted coins were melted down and recirculated as coins bearing the portrait of the new emperor, Claudius, after 24 January.<sup>28</sup> The rarity of Caligula's gold and silver coins may therefore have several possible causes and hoards such as the Bunnik hoard are important for our understanding them.

The 72 Roman aurei also include some unusual variants that have not yet been published. Of interest is a new subtype of an aureus of Augustus, with the head to the left instead of to the right (*RIC* I<sup>2</sup> 60 var.) (fig. 5).

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<sup>23</sup> Von Kaenel, 1994: 52, note 24 and p. 58–59, note 49: At the time of Caligula, on average 1.05 silver denarius obverse die was used for each aureus obverse die, compared with 0.8 for Augustus, 0.15 for Tiberius, and 0.4 for Claudius.

<sup>24</sup> Cassius Dio LIX-30; Varner, 2004: 21–25.

<sup>25</sup> Van Hoorn, 1933: 88–89; Haak & Zadoks-Josephus Jitta, 1960: 1–6.

<sup>26</sup> Von Kaenel, 1994: 46, note 7; Wolters, 2012: 350.

<sup>27</sup> Von Kaenel, 1987: 139.

<sup>28</sup> *Ibid.*



*Fig. 5 – Aureus Augustus, 19 BCE (PAN-144040) with head left (20 mm – 7.16 g – scale 200%)*

Another variant of an aureus of Tiberius, struck in Lyon, has on the reverse Pax/Livia seated on a chair with decorated legs and a double line under the chair (fig. 6). This subtype is not recorded in the *RIC*, but examples can be found online.<sup>29</sup>



*Fig. 6 – Aureus Tiberius, 14-37 (PAN-143975) with decorated chair legs and a double line under the chair (20 mm – 7.60 g – scale 200%)*

Four aurei have marks applied to the coins after they left the mint and entered circulation. These secondary marks are found on one aureus of Augustus and three aurei of Tiberius (figs. 7 and 8).<sup>30</sup> The purpose of these marks is unknown, and various reasons for their application have been suggested. Since Harold Mattingly suggested in 1923 that punch marks on silver denarii (he did not mention aurei) were used for “testing the metal”, this idea has received little further discussion.<sup>31</sup> Recent studies, however, have proposed alternative explanations, such as validation for circulation, identification marks, authorisation marks, administrative marks and counting marks.<sup>32</sup>

<sup>29</sup> [http://numismatics.org/ocre/id/ric.1\(2\).tib.27](http://numismatics.org/ocre/id/ric.1(2).tib.27)

<sup>30</sup> PAN-144023 (*RIC* I<sup>2</sup> Augustus 206), PAN-143996 (*RIC* I<sup>2</sup> Tiberius 25), PAN-143999 (*RIC* I<sup>2</sup> Tiberius 29), PAN-144000 (*RIC* I<sup>2</sup> Tiberius 29).

<sup>31</sup> Mattingly, 1923: xxviii; Thirion, 1972: 66.

<sup>32</sup> Claes, 2024: 201-208; Cruysheer (forthcoming).



*Fig. 7 – Aureus Tiberius, 14-37 (PAN-143996) with mark J  
(22 mm – 7.66 g – scale 200%)*



*Fig. 8 – Aureus Tiberius, 14-37 (PAN-144000) with mark C L  
(22 mm – 7.66 g – scale 200%)*

Contrary to earlier assumptions that they had disappeared by 107 CE, punch marks have been found on aurei dating to the early years of Hadrian's reign (117-118 CE).<sup>33</sup> The practice of applying punch marks on denarii seems to have ended towards the end of Tiberius' reign, the only known exception being two denarii from the reign of Claudius.<sup>34</sup> The most recent marked denarii in the Bunnik hoard date from the reign of Augustus. As is common with Roman coins deposited in the early imperial period, a large proportion, at least 177 (61%) of the 288 denarii, is punched.<sup>35</sup>

Of the 288 denarii, graffiti (intentional scratches or marks) are visible on at least 20 denarii (7%) (fig. 9). In some cases a clear **V** or **X** can be seen, but the function of the graffiti remains unknown, so we can only speculate to their meaning. Perhaps some were added while counting coins or playing games such as dice?

<sup>33</sup> Thirion, 1972: 73; Gilles, 2014: 49-50.

<sup>34</sup> Thirion, 1972: 72, note 91; Kemmers, 2006: 74; Claes, 2024: 202; Cruysheer (forthcoming).

<sup>35</sup> This percentage is probably slightly higher, as many of the denarii in the hoard are quite worn, so some of the punches may not be visible anymore; see also Claes, 2024: 202-203.



*Fig. 9 – Denarius Augustus, 19-15 BCE (PAN-145385), Colonia Patricia, with on the reverse a punch mark C or G and graffito X (on the shield), perhaps for ‘ten’? (18 mm – 3.51 g – scale 200%)*

A few of the coins in the hoard are die linked. Two aurei of Augustus share an obverse die (*RIC* I<sup>2</sup> 198) and two aurei of Claudius share both obverse and reverse dies (*RIC* I<sup>2</sup> 31) (figs. 10 and 11). Together with five Claudian denarii, the two Claudian aurei are the most recent coins in the hoard. The fact that the two youngest Claudian aurei are die linked suggests that they were part of a single batch, probably distributed as military pay. The pristine condition of these coins also suggests that they were buried shortly after being struck, having seen little or no circulation after being paid to a (high-ranking) Roman soldier.



*Figs. 10 (l.)-11 (r.) – Aurei Claudius, 46-47 (PAN-144002 and 144008) obv. and rev. dies match (19 mm – 7.73 g/20 mm – 7.81 g – scale 200%)*

This brief overview provides an insight into the composition of the hoard and some of its unique features. However, research into the coins and their archaeological and historical context is still in its early stages. The results of this research will be published in 2026, in the series Dutch Archaeological Reports (Rapportage Archeologische Monumentenzorg – RAM), by the Cultural Heritage Agency of the Netherlands (Rijksdienst voor het Cultureel Erfgoed – RCE).

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### Abbreviations

CHRE	Coin Hoards of the Roman Empire
NUMIS	Numismatisch Informatiesysteem van De Nederlandsche Bank
PAN	Portable Antiquities of the Netherlands

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