

Aurelian's currency improvement and public image program

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Samenvatting – Numismaten en historici zijn het er algemeen over eens dat keizer Aurelianus (270-275 n.Chr.) in 274 het Romeinse muntstelsel hervormde. De meest gebruikte munt, de antoninianus, is sinds dat jaar zwaarder, bevat meer zilver en wordt met meer zorg geslagen. In de regel zien we voortaan het teken XXI of KA in de afsnede op de keerzijde. Er wordt algemeen aangenomen dat de nieuwe antoninianus, nu ook bekend als de aurelianianus, een waarde kreeg gelijk aan 2 antoniniani van vóór 274. Op basis van de munt zelf, het circulatiepatroon zoals dat blijkt uit muntschatten, de schaarse bronnen uit de tijd, de iconografie van de munt en het nieuwe publieke imago dat Aurelianus wenste op te roepen, beargumenteren we dat de keizer de munten niet hervormde maar verbeterde, terwijl de waarden van de denominaties gelijk bleven. Aurelianus was in de kern een conservatieve keizer die de klok probeerde terug te draaien naar betere tijden – en naar betere munten.

Summary – Numismatists and historians generally agree that emperor Aurelian (AD 270-275) reformed the Roman currency in AD 274. The pivotal radiate coin, the antoninianus, is henceforth heavier, contains more silver and is produced with more care. The coins as a rule display the mark XXI or KA in the reverse exergue. A higher value for the new antoninianus, now also called the aurelianianus, is generally assumed, usually equal to 2 pre-274 antoniniani. However, based on an analysis of the coin itself, its circulation pattern as reflected in hoards, the scarce contemporary sources, the iconography of the coin and the public image campaign launched by Aurelian, we argue that the emperor did not reform but improve the currency, while values remained the same. Aurelian was no reformer but a true conservative at heart, trying to turn back the clock to better times – and better currency.

Numismatists generally agree that Aurelian reformed Roman currency in 274. When we compare *antoniniani* from the last issues for Gallienus or Claudius II (see figure 1) with Aurelian's post-274 issues of this coin (see figure 2), a currency reform seems plausible. The post-274 *antoninianus* (also known as the *aurelianianus*) is heavier, contains more silver and is produced with more care. The coins, as a rule, display the mark XXI or KA in the reverse exergue.

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A currency reform however, is characterized by the introduction of new denominations and/or by changes in the official values of existing ones.¹ A higher value for the *aurelianianus* measured up to the *antoninianus* is generally assumed.

Some aspects of the *aurelianianus*, such as the iconography of the emperor's portrait and the introduction and circulation pattern of the coins do not seem consistent with a currency reform in the strict sense. We will discuss Aurelian's currency policy and we will try to determine the value of the *aurelianianus*. Did Aurelian really reform the Roman currency?

Research problem, *status quaestionis* and methodology²

Aurelian's monetary policy and the coin reform of 274 have been discussed since the mid-19th century.³ Cubelli⁴ summarizes the older literature, post-1990 literature will be mentioned in this review. The assertion that the *aurelianianus* is the result of a currency reform and consequently circulated at a higher value than the *antoninianus* can be considered present orthodoxy. An analysis of the arguments in favor of a coin reform and a higher value for the *aurelianianus* will show that this orthodoxy can be challenged.

Whether or not we will be able to confirm a true currency reform, Aurelian's monetary policy nevertheless improved both the *aureus* and the *antoninianus*. As Roman coins were primarily produced as a means of payment, we will consider the economic and monetary necessity of the currency improvement, *c.q.* currency reform.

As the manufacture and appearance of the *aurelianianus* (quality of flan, engraving, portrait, legends, minting, silvering) is of a higher quality than can be seen in the *antoninianus* and as the vast majority of the *aureliani* show a Sol-related reverse type, we decided on a complementary iconographic analysis.

During the two past decades much has been published on the iconographic aspects of Roman imperial coins and their role in the public image campaigns ('propaganda') of the emperors. Among the centers of this type of research we must mention Nijmegen and Frankfurt, with pivotal publications by Hekster, Manders, Kemmers and Noreña, amongst others. Although the 'propaganda' aspect of coins is of course secondary to the payment function, we will show that the *aurelianianus* played a central role in Aurelian's public image campaign.

Our research question: was the primary goal of the introduction of the *aurelianianus* a currency reform, or just a currency improvement? Was the coin also a medium to legitimize and securely anchor Aurelian's imperial power? We will

¹ Cf. Haklai, 2011: 5, note 22. Throughout this article, the expression 'value (of a denomination)' has to be understood as the official value at which the coins were issued.

² All dates in this article are AD.

³ Misson, 1869.

⁴ Cubelli, 1992: 68-78.

discuss the intrinsic value of the coin and try to determine the value of the *aurelianus*, taking into account the much discussed XXI/KA mark in the reverse exergue. We will also review the introduction and geographical distribution of the *aurelianus* in circulation as far as this is mirrored in hoards and we will compare this evidence with the scarce contemporary literary and epigraphical references. Finally, the iconography of the coin and the public image aspects will be examined.

Debasements, improvements and reforms

During the Roman Empire, true currency reforms were few and far between. Octavian developed the Augustan currency system with fixed exchange rates between gold, silver and copper or bronze coins which would endure virtually unchanged until the introduction of the *antoninianus* by Caracalla in 215.

Diocletian introduced two new denominations (the argentiferous *nummus* and the silver *argenteus*), while a copper post-reform radiate and a small laureate coin continued the *aurelianus*, respectively the *denarius*. Diocletian subsequently determined new values for some of the coins in his currency system on 1 September 301.⁵

Constantine and his sons introduced a new gold coin (*solidus*), a new silver coin (*siliqua*) and a range of copper/bronze fractions.

Although coin reforms were rather scarce, Roman Imperial currency was often adjusted. Very few emperors (temporarily) improved the fineness of the coinage. A pure silver denarius had been the standard until Nero reduced the silver content of the coin to ca. 80% during the period of 64-66, after which the silver content was increased to ca. 90% in 68.⁶ Domitian (81-96) reintroduced the pure silver *denarius* in 82 and reduced the fineness to 90% in 85.⁷ And indeed, most adjustments were debasements, reductions of the gold or silver content of the coins.

During the second century and the first decades of the third century, we see a gradual debasement of the *denarius*. Under Septimius Severus (193-211) the fineness had fallen to 46%.⁸ In 215 Caracalla introduced a new denomination, currently known as the *antoninianus*. At a silver content equal to that of 1 ½ denarii, the value was 2 denarii, a 'hidden' debasement.

During the period 253-270, the silver content of the now pivotal *antoniniani* declined rapidly, to a mere 2.5% or even less in 270.⁹

⁵ Kropff, 2017.

⁶ Butcher & Ponting, 2014: 217, 228.

⁷ *Ibidem*, 379, 383, table 13.2.

⁸ Butcher & Ponting, 2012:77; Estiot, 2012: 540.

⁹ Estiot, 2012: 542; Haklai, 2011: 8, note 42.

Shortly after 270 the *antoninianus* reached its nadir in the consecration issues for Claudius Gothicus, the **DIVO CLAUDIO** emissions from the Rome mint. These coins were produced by defrauding mintworkers, pocketing part of the silver which should have been used for the coins. The fraudulent production ended in 271 when a revolt of the mintworkers (the Felicissimus-revolt) was put down by Aurelian, who consequently temporarily closed the Rome mint, not to reopen until 273.

Aurelian's currency improvements

The contemporary sources are silent on Aurelian's currency modifications¹⁰ of 274, with the exception of Zosimus¹¹. Aurelian's currency policy was of a conservative nature¹²: his *aureus* was no longer struck at 60, but at 50 to the lb. (theoretically 6.45 g) which conforms to Caracalla's standard.

At the Rome mint, Aurelian struck significantly more *denarii* than his predecessors Gallienus and Claudius II. The improved *antoninianus* (the so-called *aurelianianus*) was struck at 84 to the lb.¹³ or circa 3.9 g, and once again equalled the weight of 1 ½ *denarii* of 2.6 g, which had been the weight relation when Caracalla introduced the *antoninianus*.

The *antoninianus* for Gallienus during his sole reign had been minted at a mean weight of 2.61 g (based on 217 specimens¹⁴), which equals the weight of Aurelian's *denarius*.

Also at the capital's mint, *sestertii*, *dupondii* (with Severina) and *asses* were produced for Aurelian, probably more as a homage to Roman monetary tradition than to meet a monetary necessity. The re-introduction of bronze coinage, after its production had been suspended for a decade or more, emphasizes Aurelian's monetary conservatism. The emperor was merely trying to turn back the clock to better times with a better coinage and consequently was an unlikely candidate to introduce a new denomination.

The aurelianianus

The weight increase alone does not characterize the *aurelianianus*. The last *antoninianus* emissions of Gallienus and the *antoniniani* for Claudius II were often produced carelessly: thin, light and often with cracked flans, obverse and reverse dies sometimes off-centre, careless die cutting. The silver content was down to 2.0-2.5% or even less.

¹⁰ Haklai, 2011: 13.

¹¹ Nea Historia 1.61.3., see also p. 4.

¹² Cubelli, 1992: 89-91; Watson, 1999: 140-141, 207.

¹³ Cubelli, 1992: 56-57; Estiot, 1999: 44-45; Bland, 2012: 662; King, 1978: 89.

¹⁴ King, 1978: 89.

The *aureliani* were produced with carefully engraved dies, well-centred on regular round flans. The silver content at production was around 5%, but the fineness of *aureliani* as found after circulation is somewhat lower.¹⁵ The silvery surface finish was more durable than that on the *antoniniani*. As a result, the *aurelianus* differed significantly from the pre-274 *antoninianus*, compare figure 1 and figure 2.



Fig. 1 – Gallienus, *antoninianus*, 20 mm, Rome mint, 267-268, *RIC* v.1 285, © the author (scale 200%)



Fig. 2 – Aurelian, *aurelianus*, 22 mm, Rome mint, 274-275, *RIC* v.1 64, © University of Warwick (scale 200%)

However, was the *aurelianus* a new denomination, with a higher value than the *antoninianus* as is usually assumed?

Between the introduction of the *antoninianus* by Caracalla in 215 and Diocletian's Currency Revaluation Edict of 1 September 301 the values of Roman coins are not known with certainty.¹⁶

¹⁵ Walker, 1999: 128.

¹⁶ Haklai, 2011: 23-24.

Intrinsic value

The intrinsic value of the *aurelianianus* has been calculated at 3.19¹⁷ or 3.97¹⁸ *denarii* in the past, and we calculate the intrinsic value at 3.9 *denarii*.¹⁹ For all calculations the maximum price of silver and copper from the Edict on Maximum Prices of Diocletian²⁰ has been used: 6,000 *denarius communis* (*dc*) for one Roman pound (327.45 g)²¹ of silver, 60 *dc* for one pound of copper (medium price) The divergence of the calculated values is caused by dissimilar coin weights, silver contents and grams to the Roman pound ratio which were used. The Price Edict was published in 301 and the actual metal prices in 274 would have been lower. As we are not aiming for absolutes and just want to demonstrate the relation of the intrinsic values of the *aurelianianus* and the *antoninianus*, this does not present a problem. The last issues of the *antoninianus* (ca. 2.6 g containing ca. 2% of silver) represented an intrinsic value of 1.42 *denarii*. When we accept a value of two *denarii* for the pre-274 *antoninianus*, this would in itself suggest a higher value, for instance four *denarii* or two 'old' *antoniniani* for the *aurelianianus*. This would imply a coin reform, not just a partial coin improvement. The intrinsic value of the *aurelianianus* is the strongest argument in favor of a new and higher value for the *aurelianianus* compared to the *antoninianus*.

The contemporary literary sources and epigraphical sources do not mention a coin reform. The text from Zosimus does not suggest a higher value for the new *antoninianus*. Zosimus stated that the *kibdelon* (false, fraudulent coins) resulted in confusion in trade and new coins were introduced by Aurelian to replace these coins: ἀργύριον νέον δημοσία διέδωκε, τό κίβδηλον ἀποδόσθαι τοὺς ἀπὸ τοῦ δήμου παρασκευάσας, τούτῳ τε τὰ υμβόλαια συγχύσεως ἀπαλλάξας, or, '... [he] made new coins publicly available and called in the *kibdelon* [coins], delivering trade from any confusion'.²²

The proposed values and the XXI/KA mark

At the introduction of the *antoninianus* in 215 the value was set at 2 *denarii*. Gordian III (238–244) was the last emperor to strike *denarii* in substantial numbers until 240.²³ After 244, the *antoninianus* lost its exchange rate in relation to the *denarius*. For some time, a fixed exchange relation to the *aureus* might still have existed; later in the third century, the value of the *aureus* probably was the

¹⁷ Cope, 1977: 226.

¹⁸ Bland, 2012: 661.

¹⁹ Coin weight 3.9 g, silver content 4.5%.

²⁰ Kropff, 2016.

²¹ Lauffer, 1971: 54.

²² *Nea Historia* 1.61.3.

²³ Estiot, 2012: 543.

floating bullion value.²⁴ During the last decades of the third century, the aureus was no longer a circulating coin with a payment function.²⁵

The exchange rate of the *aurelianianus* in relation to the old *antoninianus* has been a topic of discussion for decades. The opinions vary from an identical value for the *aurelianianus* and the *antoninianus* to a (much) higher value for the former coin. We will not present a comprehensive survey of all literature on the proposed value of the *aurelianianus*; see Cubelli²⁶ for the best summary. We will restrict our outline to the lowest and the highest proposed values and a number of proposals published after Cubelli's review.

Cubelli gives both the *aurelianianus* and the *antoninianus* a value of two *denarii*.²⁷ Haklai²⁸ also suggested that the *aurelianianus* and the *antoninianus* circulated at the same value, which would in her opinion however have been higher than the value of the *antoninianus* before 274. Estiot proposed that the *aurelianianus* circulated at a value of two *denarii*, while the *antoninianus* was devalued to the value of one *denarius*.²⁹

Estiot also suggests, that the mark XXI/KA in the reverse exergue would have stood for 'twenty of these coins equals one new silver coin', the *argenteus*, which Aurelian would have planned but did not have the time to actually introduce.³⁰ Estiot consequently explains the XXI implicitly as one coin contains 5% of silver.³¹ However, the planned introduction of the *argenteus* is speculative and in fact not very plausible. The actual introduction of a silver coin by Carausius in the British Empire in 289/290 and of the silver *argenteus* by Diocletian in the Roman Empire in 294 proved that, even then, the Empire was not ready for the re-introduction of a silver coin: the *argenteus* was eventually melted down and in fact may not have circulated.³²

On the other end of the value spectrum, Harl³³, Sutherland³⁴ and Scheidel³⁵ give the *aurelianianus* a value of 5 *denarii*, theoretically equalling 20 *sestertii*, which would, in the view of these authors, explain the mark XXI (one of these equals 20 *sestertii*).

²⁴ Bland (OHGRC), 2012: 515.

²⁵ Kropff, 2017: 174; Abdy, 2012: 589; Scheidel, 2010: 104-105.

²⁶ Cubelli, 1992: 68-78, cf. Haklai, 2011: 17, note 90.

²⁷ Cubelli, 1992: 89.

²⁸ Haklai, 2011: 20-21.

²⁹ Estiot, 1995: 55; Estiot, 1996: 46; Estiot, 2012: 550.

³⁰ Estiot, 2004: 39-48; Estiot, 2012: 547.

³¹ Estiot, 2012: 547, 549.

³² Kropff, 2017: 176-177.

³³ Harl, 1996: 146.

³⁴ Sutherland, 1961: 95.

³⁵ Scheidel, 2009: 174.

In our opinion though, accepting the XXI as a value expressed in another coin does not take into account the fact that numerals on Roman coins as a rule give the weight or fineness of the coin, and between Augustus' reign and 308 never the value expressed in other denominations within the currency system.³⁶ The interpretation of the XXI mark as "one part of silver in 20 parts" or 5% silver should be preferred as is also supported by the radiates produced for Tacitus and Carus with XI/IA in the reverse exergue: these coins, with a weight and size equal to the standard *aurelianus*, upon metallurgic analysis contained on average 9.2% (Tacitus) or 8.8% (Carus) of silver. XI should for these coins be understood as 'one part of silver in ten parts', or 10% of silver.³⁷

The aureliani in circulation

Does the introduction- and circulation pattern of the *aurelianus* give support to the hypothesis that Aurelian's coin improvements imply a currency reform? For an analysis of the introduction and circulation pattern of the *aurelianus* we will compare the coin circulation as mirrored in hoards of the period 270-275 with the circulation as reflected in hoard composition after 283. Table 1 shows hoards from the north-western and central Empire, all closing with a coin for Aurelian.

Table 1 – Composition (in %) of hoards with a closing coin of Aurelianus

	Before 260	Gallienus sole reign (incl. Salonina)	Gallic rulers	Gallic rulers, copies	Claudius Gothicus	Divo Claudio	Quintillus	Aurelianus (incl. Severina)	Undetermined	Hoard size
Italia (Crisafulli 2008)										
①	0.4	15.6	0.4		71.9	1.8	4.8	5.0		499
②	8.7	34.8			51.9	0.6	2.3	2.5		3,408
③	1.6	28.0	0.7		31.8	1.5	2.5	33.9		803
Gallia										
④	1.7	22.8	54.5	4.0	14.3	1.0	1.5	≤ 0.1		1,436
⑤	-	7.4	81.9	2.2	5.6	0.4		0.4	2.2	270
⑥	≤ 0.1	6.0	37.0	46.0	8.5	0.7	0.3	≤ 0.1	1.3	2,506
⑦	0.8	13.2	47.1	36.3	9.4	2.6	0.4	≤ 0.1		757

³⁶ Bland, 2012: 655-662.

³⁷ Cubelli, 1992: 75-76; Haklai, 2011: 17-18; Watson, 1999: 129-130.

Britannia (Robertson 2000)										
⑧	22.0	27.3	43.3	3.0	4.0	≤ 0.1	0.3	≤ 0.1		52,769
⑨	1.5	12.9	70.1	3.3	9.7	1.3	1.1	≤ 0.1		4,758
⑩	3.4	17.0	65.3	?	11.7	1.0	1.3	0.2	≤ 0.1	1,655
⑪	4.9	11.6	72.2	?	9.4	0.6	1.0	0.2		1,220
Pannonia										
⑫	1.2	49.7	≤ 0.1		28.5	3.6	3.6	5.7	7.8	1,774
⑬	6.2	38.7	0.4		38.4	?	5.3	10.9	≤ 0.1	4,318

① = Fossano (270–272); ② = Grumello Ed Uniti (270–271); ③ = Scarnafigi (273–274); ④ = Creil II (270–271; Amandry *et al.*, 1985); ⑤ = Bornel (274; Jouve, 2001); ⑥ = Clamecy (275–280; Giard, 1961); ⑦ = Couddes (275–280; Delétang & Roche, 1987); ⑧ = Cunetio (274); ⑨ = Aldbourne (273–274); ⑩ = Emneth (271); ⑪ = Doncaster (273–274); ⑫ = Vladimirci (270–272, Găzdac, 2010); ⑬ = Komin (274–275; Nad 2012)

We note that many hoards closing with a coin for Aurelian in Gallia and Britannia include only a very limited number of these coins. The coin pool in the area of the independent seceded Gallic empire (260–274) was dominated by the last debased issues of father and son Tetricus, the last rulers of the Gallic Empire and also by the radiate copies of these coins, which were of poor workmanship. The official coins for the Tetrici contained ca. 0.5–1.0% of silver, the copies of these coins contained only traces of silver.³⁸ Circulation in Italia and Pannonia was dominated by the last issues for Gallienus and most of all for Claudius II. These coins were also of inferior workmanship and contained 2.0–2.5% of silver.

Table 2 shows that the *aurelianiani* for Aurelian and successors had driven the *antoniniani* produced before 270 out of the coin circulation in Italy and Pannonia by ca. 283.

Hoards seem to suggest that the *aurelianiani* circulated first and foremost in Italy and the Balkans. Hoards in the ‘italo-balkanique’ area closing with a coin for Probus or Carus contain hardly any *antoniniani* for Gallienus and Claudius II.³⁹ As far as the provinces of the Middle and Lower Danube are concerned, hoards containing *aurelianiani* are found in Pannonia, not in Moesia.⁴⁰

³⁸ Ziegler, 1983: 78, 87–90.

³⁹ Estiot, 1995: 55.

⁴⁰ Găzdac, 2010.

Table 2 – Composition (in %) of hoards, closing after 283 *

	Before 260	Gallienus sole reign (incl. Salonina)	Gallic rulers	Gallic rulers, copies	Claudius Gothicus	<i>Divo Claudio</i>	Quintillus	Aurelianus (incl. Severina)	Tacitus / Florianus	Probus	Carus <i>cum suis</i> **	Diarchy/1 st tetrarchy	Undetermined	Hoard size
Italia (Crisafulli 2008)														
①		7.5			22.7		1.2	42.7	3.1	16.1	0.8		5.9	255
②	≤ 0.1	2.3			2.3	0.5	≤ 0.1	16.7	9.1	55.5	13.4			748
③	0.2	2.1	≤ 0.1		3.6		0.6	2.7	0.6	5.4	2.4	82.3		2,666
④	≤ 0.1	12.4	0.2	≤ 0.1	9.0	1.3	0.8	23.6	6.5	28.9	9.6	7.3		45,705
Gallia														
⑤	0.2		0.6	0.2	26.2	11.1	1.7	4.0	1.9	7.2	2.4	17.4	1.9	3,256
⑥	≤ 0.1	23.8	0.5		11.3	?	0.5	5.6	1.1	5.3	1.3	49.3	1.3	1,511
⑦	0.3	28.4	1.1	1.6	17.9	22.3	0.7	1.7	0.2	4.5	1.5	19.5		5,864
⑧	≤ 0.1	22.3	9.7		18.4	12.7	0.8	2.8	0.8	3.8	1.5	35.8		1,378
⑨	3.8	39.2	7.7	0.4	24.1	1.7	1.8	4.3	1.2	5.3	1.6	8.8		1,726
Britannia (Robertson 2000)														
⑩	0.5	12.1	70.9	?	8.6	1.7	0.8	0.3	0.7	0.5	≤ 0.1		3.9	2,582
⑪	0.2	13.2	70.4	1.4	10.7	3.0	0.8	0.2	≤ 0.1	≤ 0.1		***		47,133
⑫	0.3	6.5	75.7	?	10.5	2.6	0.7	0.7	0.8	1.4	0.2	0.5		21,836
⑬	0.4	44.0	0.3	?	34.6	0.6	3.0	2.7	2.9	6.1	0.7	4.6		3,705
Pannonia														
⑭		28.0	2.0		30.6	?	0.6	37.5	0.3		0.9			1,273
⑮		0.3			0.2	?	?	6.3	3.7	38.1	12.7	26.0	12.8	27,710
⑯	≤ 0.1	0.2						12.0	3.9	52.1	13.2	17.6	1.1	1,094
⑰	≤ 0.1					≤ 0.1		6.2	2.4	61.4	7.3	22.6		1,219
⑱	≤ 0.1	0.8			0.3		≤ 0.1	75.4	5.8	17.4	≤ 0.1			2,634

* Coins for Carausius, Allectus, Quietus and Macrianus as well as cast copies excluded

** Carinus, Numerianus, Magnia Urbica

*** Closes with Carausius, 290

❶ = Cassano Magnago (283); ❷ = Modigliani (283-285); ❸ = Treviglio (294-296); ❹ = La Venera (294); ❺ = Thibouville (298; Bastien & Pflaum 1962); ❻ = Saint-Vincent-de-Mercuze (300; Estiot *et al.* 2001); ❼ = Troussey (303; Estiot 1999a); ❽ = Lyon region (303; Van der Vin 1984); ❾ = Colonne I (294; Estiot 1999b); ❿ = Much Wenlock (283); ⓫ = Normanby (290); ⓬ = Blackmoor (294); ⓭ = East Harnham (293); ⓮ = Monokrog (284; Nad 2012); ⓯ = Petrijanec II (294; Nad 2012); ⓰ = Kulcs (292; *CHRE* 2839); ⓱ = Solva II (294; Găzdac 2010); ⓲ = Sirmium II (283; Găzdac 2010)

In Britannia during this period coin circulation was still dominated by coins of the Gallic rulers, predominantly coins for Tetricus I and Tetricus II, together with the coins for Gallienus and Claudius II.

Table 2 does not show hoards with coins for Aurelian from Germania Superior and Germania Inferior, as hardly any were found. In the past we have published a hoard from Vught (The Netherlands). This hoard (4,778 coins) contained 66 coins for Aurelian, but this hoard was clearly a Gallic import, to judge by the two semi-manufactured and two finished silver spoons which also formed a part of the hoard.⁴¹ Consequently, this hoard is not included in table 2.

In Gallia the coins of Gallienus and Claudius II dominate. The coins for Gallienus and Claudius II did in fact reach the area of the former Gallic Empire in substantial numbers during its period of existence (260-274)⁴² but did not reach their zenith before the end of the seventies and in the eighties of the third century. The chief part of these coins was supplied to the area after the end of the Gallic Empire in 274, many years after the moment of their production.

This secondary coin movement of the coins for Gallienus and Claudius II to Gallia and, in a lesser extent to Britannia originated from the central provinces, notably from Italia and the Balkans. These coins were withdrawn from circulation in the areas and entered wester circulation.⁴³

The *aureliani* hardly circulated in Germania and Britannia as the site finds show, probably because no consignments of these coins had been sent. The fact that Aurelian closed the mints at Trier and Cologne will have had a significant impact and would have contributed to the scarceness of *aureliani* in the area. In Gallia however, especially (but not exclusively) south of the river Loire, *aureliani* and *antoniniani* circulated side by side or at least can be found in the same hoard, as table 2 shows. The *antoniniani* for Gallienus and Claudius II dominate, the share of the coins for Aurelian is rather limited. Here the coins were hoarded together, *aureliani* were not hoarded separately. The fact that the *antoniniani* and *aureliani* were hoarded together seems to suggest that the authorities did not try to demonetize the former coins, nor did the public

⁴¹ Kropff, 1987: 19, cf. Haupt, 2001: 212-213, 293.

⁴² Wigg, 1991: 162-163.

⁴³ Kropff, 2018; Estiot, 2012: 551.

selectively withdraw the latter coins with their higher intrinsic value in order to melt these coins down to part the silver from the alloy. Either the higher intrinsic value of the *aurelianianus* was not recognized, or the cost of parting silver from the alloy (such as fuel for heating, materials) could not be recuperated from the silver yield.

Summarizing we can conclude that the *aurelianianus* hardly circulated in the periphery of the Empire. These coins were not only scarce in large parts of the northwestern Empire, they are furthermore (very) scarce in Africa and parts of Asia Minor.⁴⁴

The geographically relatively limited distribution of the *aureliani* seems to contradict a comprehensive currency reform by Aurelian in 274. Currency reforms usually effect the Empire as a whole, as the introduction of the *antoninianus* by Caracalla demonstrates.

Was the aurelianianus the result of a reform? An interim review

Thus far, we have discussed some coin data which to some extent seem to support the hypothesis that the *aurelianianus* was the result of a coin reform rather than a coin improvement. For instance, the much higher intrinsic value of the *aurelianianus* seems to suggest a higher value compared to the *antoninianus* and consequently a currency reform.

On the other hand, the geographically limited circulation of the *aureliani* does not seem to suggest an all-embracing currency reform, rather the contrary. As a reference point, we turn to an actual currency reform. Diocletian reformed the Roman currency in 294. He had already improved the *aureus* and now introduced two new denominations: the large, heavy argentiferous *nummus* and the silver *argenteus*, while two new copper fractions, a post-reform radiate and a small laureate coin are follow-ups of the *aurelianianus* and the *denarius*. The Currency Revaluation Edict informs us of the values; the Edict on Maximum Prices shows that the coin reform and the revaluation of the currency had failed to curb inflation.⁴⁵ The reform is self-evident and well-documented.

However, the entire burden of proof that Aurelian reformed the currency seems to rest on the *aurelianianus*.

Coin improvement or reform?

One aspect of the *aurelianianus* seems to preclude different values for the *aurelianianus* on the one hand and the *antoninianus* on the other: the obverse iconography and its denominational significance.

After the introduction of the *aurelianianus* in 274, two quite similar coins showing the ruler's portrait with a radiate crown were in circulation, one of which

⁴⁴ Kropff, 2018: 11-15.

⁴⁵ Kropff, 2016.

(the *aurelianianus*) would have represented twice the value of the old *antoninianus*.

The radiate head's iconographic implication in itself was 'double value'. Where the *as* showed a radiate head, the *dupondius* (value 2 *asses*) shows a radiate head. Traianus Decius introduced the double *sestertius* and the Gallic ruler Postumus also minted this denomination. *Sestertii* normally show a laureate head, but the double *sestertius* iconographically correct displays the radiate crown to indicate the double value.⁴⁶ The *denarius* is distinguished by the laureate crown, the *antoninianus* (value two *denarii*) shows the radiate crown.

The same radiate portrait on the *antoninianus* and on the quite similar *aurelianianus* with a different value for each of these coins would lead to confusion in the market place, as individuals were used to this iconographic distinction.

The *aurelianianus* was not a coin to purchase a cow, neither was the *antoninianus*. The coins were used in substantial quantities for buying in the marketplace. A way to quickly identify these coins and to know their values would have been essential.

The authorities could not have hoped to exchange the enormous numbers of *antoniniani* in circulation for *aureliani* within a short period of time. Even in the areas of initial circulation this would take quite some time. Where the two coins circulated together in the west, these coins coexisted for two decades.

The small XXI/KA in the reverse exergue on the *aureliani* would not have been of much help if this was intended as a mark indicating the value of a new denomination, as Gallienus had used very similar exergue inscriptions (XI, XII etc.) on his *antoniniani* as mint or *officina* marks.⁴⁷

The present condition of recovered ancient coins might suggest that, as the vast majority of the *aureliani* shows a silvery surface whereas many *antoniniani* from the last emissions for Gallienus and the emissions for Claudius II look like bronze coins, the coin metal would have been a distinguishing factor, even though the iconography of the two coins was the same. This, however, is not the case. Both the *antoninianus* and the *aurelianianus* looked like silver coins during the period of circulation.⁴⁸ Even late *antoniniani* from a neutral, dry topsoil still look like silver coins. Coins with less than 10-15% of silver in the alloy will not present a silver surface without special treatment.⁴⁹ The coins were not silver plated or chemically silvered but surface enhanced (depletion silvering) using acids and salts to reduce the amount of copper in the surface layer.⁵⁰ The more

⁴⁶ Mattingly, Sydenham & Sutherland, 1949: 115, 126, 135-136.

⁴⁷ Webb, 1933: 171, 172, 179, 181.

⁴⁸ Doménech-Carbó *et al.*, 2018: 7, 9.

⁴⁹ Beck *et al.*, 2004: 158.

⁵⁰ Zwicky-Sobczyk & Stern, 1997: 394; Beck *et al.*, 2004: 158-159.

lasting silver layer on the *aureliani* is probably caused by the higher silver content of the coins or by a better depletion process.

The Roman authorities were evidently still aware of the inextricable iconographic denominational implication of the radiate crown, as is shown by the 'double *aurelianus*' produced for Carus at the Lyon mint, 282–283.⁵¹ The obverse portrait presents a rather awkward double radiate crown with one radiate crown worn on top of the first one.⁵² In conclusion: the iconography of the imperial portrait on the *aurelianus* does not suggest a new denomination, but rather an improved *antoninianus* with the same value.

The Roman authorities may well have judged a coin improvement to be in order. When Aurelian was raised to the purple, circulating currency consisted of the last *antoninianus* issues for Gallienus and the *antoniniani* for Claudius II. The monetary situation was made even worse by the fraudulent **DIVO CLAUDIO** issues from the Rome mint. In the area of the former Gallic Empire the bulk of the circulation consisted of the issues of Tetricus I and II, the last usurpers of that empire, and of local copies (so-called barbarous radiates) which contained no intentionally added silver at all. Aurelian apparently attempted to improve the debased coin pool by introducing a 'new' *antoninianus*, now often referred to as the *aurelianus*, while the debased and fraudulent coins would evidently have to be withdrawn from circulation. In due course, this policy proved to be effective in the Balkans and in Italy, but not in the (western) periphery of the Empire; see table 2. The scarcity of the *aureliani* in the northwestern part of the Empire has been attributed to a supposed punitively high exchange rate between the *antoninianus* and the *aurelianus* in the former Gallic Empire, the 'rebel provinces', which would have been unacceptable for the inhabitants.⁵³ However, table 2 shows that the coin circulation in Italy was also dominated by debased *antoniniani*. From a monetary point of view, a regionally differentiated exchange rate was not required. Moreover, the 'hard' ruler Aurelian (*manu ad ferrum*) showed great *clementia* in dealing with the rebel provinces: the Tetricks had to walk in chains in the victory procession in Rome, but were subsequently treated with respect. The elder Tetricus received the honorary title *corrector Lucaniae*, while officials of the former Gallic Empire retained their posts and memorial inscriptions for the former rulers were not erased following a *damnatio memoriae*.⁵⁴ Discrimination against the Gallic coin pool is not to be expected. A punitively high exchange rate will not have caused the scarcity of the *aureliani* in the west, rather the fact that these coins were not introduced in the area.

⁵¹ Webb, 1933: 135, no. 5, pl. v.18.

⁵² Estiot, 2012: 552.

⁵³ Cf. Lallemand & Thirion, 1979: 15; Estiot, 2014: 551.

⁵⁴ Luther, 2008: 338.

Iconography and Imperial public image program

Coin iconography forms an integral part of the Imperial public image program.⁵⁵ To understand the role of the new *aurelianianus*, we will have to consider Aurelian's claims to power, his powerbase and a number of significant trends and events during the reign of the emperor.

Many emperors, especially during the first century and the beginning of the second century, could claim a blood relation to a deceased and deified predecessor. Later, a designated emperor could be 'adopted' or rather chosen by the reigning Emperor during his lifetime (96-180). Aurelian however, had to establish a solid foundation for his enduring claim to majesty and power by other means.

His powerbase was the army, specifically the elite cavalry armies mainly based in Pannonia and Northern Italy. Aurelian played a part in the plot against Gallienus and was later involved in the downfall of the Emperor Quintillus, during both events relying on his soldiers.⁵⁶ When Aurelian came to power, the army had learned by demonstration how to bestow imperial power and how to take it away. The army was an unpredictable source of imperial power, something Aurelian probably was well aware of.

However, when later confronted with the claims of a group of mutinous soldiers, Aurelian could retort that his rule was given by a deity, not by soldiers, and that the duration of his reign would not be determined by the army, but by the god-head.⁵⁷ By that time, Aurelian could get away with this answer because he had built up a brilliant reputation based on real accomplishments and on an effective public image campaign.

First of all, Aurelian defeated the invading Goths, Vandals and Alemanni in 271⁵⁸ and reunited the Roman Empire, defeating the rulers of the breakaway Palmyrene Empire (in 272) and the Gallic Empire (in 274). The reconquest of the Palmyrene Empire gave the Roman Empire access to the significant tax contributions of Asia Minor and the vital supply of grain from Egypt.⁵⁹ This remarkable achievement was communicated by the reverse legends **RESTITVT ORBIS** and **RESTITVT ORIENTIS**.

Aurelian paid homage to his native region. Before 274, a number of *antoniniani* had honored Pannonia-Illyricum: *RIC* 113 (**PANNONIAE**), *RIC* 172, 204 and 222-224 (**GENIVS ILLVR**) and *RIC* 388 (**VIRTVS ILLVRICI**). Aurelian was born in Pannonia, a province that was the breeding ground of hardy warlike men, many of whom, like Aurelian, enlisted in the Roman legions.

⁵⁵ Kemmers, 2006: 196-197; Noreña, 2011: 14-15, 18-19, 200-210.

⁵⁶ Hartmann, 2008: 298-308.

⁵⁷ Dexippos, Petr. Frag. 10,6; Berrens 2004: 97-98.

⁵⁸ Hartmann, 2008: 312-314.

⁵⁹ Watson, 1999: 70.

The targeted initial distribution of the *aureliani* to Pannonia and Italy should be seen in this context.⁶⁰ In the aftermath of the murder of Commodus in 192, Septimius Severus ultimately came to power with the support of the Danubian army. Troops from the Danube would play a decisive role during the century that followed.⁶¹ Gallienus was murdered in 268 by a clique of Pannonian-Illyrian army commanders, including the later emperors Claudius II and Aurelian.⁶² Aurelian and the later emperors Probus and Diocletian all were born in the area. They were of rather humble origin and had risen through the ranks.⁶³ Some of the emperors had been commander of the elite cavalry corps in which many Pannonian/Illyrian soldiers served.

Another important development is that of the choice of a new imperial tutelary deity. After honoring Jupiter on many of his coin reverses during the first part of his reign, during the second part of his reign the coin reverses confirm that Aurelian had chosen Sol as his new tutelary deity from 273 onwards. During the Palmyrene war, the emperor had an apparition of a divine form (most likely the sun god) when in Emesa. Sol had subsequently rallied the soldiers during the battle against Zenobia, the Palmyrene ruler.⁶⁴ Like many anecdotes from the *Historia Augusta* this story might be apocryphal, but the choice of Sol as Aurelian's tutelary deity certainly was not, as the coin reverses of Sol with a very conspicuous radiate crown in a warlike attire testify. The obverse portrait showed Aurelian also with the radiate crown, as was obligatory on the *antoninianus/aurelianianus*.

Of special interest in this context are three rare coins from the Serdica mint showing the bust of Sol on the obverse (legend **SOL DOMINVS IMPERI ROMANI** or abbreviation) and the emperor sacrificing at an altar on the reverse.⁶⁵ The emperor's identification with his tutelary deity is emphasized unambiguously here.⁶⁶ A special point of interest is the fact that Sol had enjoyed particular attention among the Pannonian military classes for a long time.⁶⁷

The attention Aurelian paid to Sol on his coins is revolutionary: approximately one fourth of his coins feature Sol.⁶⁸ The relationship between Aurelian and Sol as it is presented on his coinage is arguably the most remarkable of all the

⁶⁰ Cf Kemmers, 2006: 240-241.

⁶¹ Watson, 1999: 4.

⁶² *Ibidem*: 40.

⁶³ Hartmann, 2008: 297.

⁶⁴ H.A. Aur. 25, 3,5.

⁶⁵ Webb, 1927: 320-322.

⁶⁶ Watson, 1999: 191

⁶⁷ Berrens, 2004: 23.

⁶⁸ Manders, 2012: 150.

expressions of divine tutelage ever to appear on Imperial coinage.⁶⁹ The soldiers, paid in the new *aurelianiani*, would have understood the message of the coin iconography very well. We will have to bear in mind that ca. 75% of the newly minted coins was used to pay the armies⁷⁰ and Sol, like Mithras was characteristically an army god.⁷¹

We also mention Aurelian's public building program: the damaged infrastructure was restored, a wall around Rome was built and furthermore Aurelian built a magnificent temple for Sol, one of the most impressive temples the city had even seen.⁷² The temple is not featured on the coins however, only hinted at by the Sol reverses.⁷³

The final notable development was Aurelian's relation to the Senate. The emperor had initially antagonized the Senate by executing some of its members, thought to have plotted with the mintworkers and Felicissimus during the revolt of 272, leading to a bloody battle in the streets of Rome at the cost of 7,000 soldier's lives.

During his later reign, he aimed for good relation with the senatorial order, as prosopographical studies have shown.⁷⁴

Aurelian chose many consular colleagues from the Senate. For Sol he instituted a new prestigious priestly college, the *pontifices dei solis*, the membership of which was almost entirely drawn from the senatorial aristocracy.⁷⁵ The fact that Aurelian was seeking good relations with the Senate was not reflected in his coins. The frequent choice of Sol as a reverse type however alluded to this deity's cult, guarded by the new priestly college of members of this senatorial aristocracy.

Many of the developments discussed above are mirrored in the *aurelianiani*. A high-quality silvery coin, very different from the last emissions of Gallienus and Claudius II, carrying a message of majesty, power and piety, appealing to the elite and to the Pannonian legions alike, inviting their further loyalty and at the same time deterring possible contenders. In fact, the message was not exclusively projected by the reverse iconography: the medium *aurelianianus* as such was the message.⁷⁶ The emperor had reunited the Roman Empire, paid tribute to and was protected by a powerful deity, a deity also favoured by all elite army

⁶⁹ Watson, 1999: 200.

⁷⁰ Duncan-Jones, 1994: 33-37, 45-46.

⁷¹ Berrens, 2004: 202.

⁷² H.A. Aur. 25. 4-6, 35. 3; Hijmans, 2009: 484-485.

⁷³ Manders, 2012: 151.

⁷⁴ Watson, 1999: 159, 162, 165; Christol, 1986: 110, 132, 269-271.

⁷⁵ Watson, 1999: 163-165.

⁷⁶ Cf McLuhan, 1964.

units. Aurelian also showed that he was able to pay soldiers in high quality argentiferous coins with a state-guaranteed silver content.

To use the *aureliani* with their powerful message first and foremost as army pay in Pannonia and northern Italy is the obvious choice. The armies in the periphery needed no special numismatic reminder, as these formed neither a power-base, nor a direct potential threat as long as the elite units backed the emperor.

We do not need the hypothesis of a currency reform to explain the nature and objectives of the *aurelianus*.

We cannot determine to what extent Aurelian's public image campaign contributed to the remarkable popularity the emperor attained during his reign. His rule was not terminated by a coup of a high-ranking army commander as had become usual. Rather, his assassination was planned by a personal secretary who had displeased the emperor and feared consequences. The secretary forged an imperial order to execute a number of officers and these, when shown the fake order, were gullible enough to fall for the scheme and murder Aurelian as a preemptive strike. The army was in shock after the assassination and no commander was waiting in the wing to claim the purple. After a short interregnum the Senate followed a suggestion of army circles and chose Tacitus, one of its members as the next emperor.⁷⁷

Summary and conclusion

Aurelian's alleged currency reform of 274 is of an axiomatic character: a reform is not indisputably demonstrated by the coins themselves and is not unambiguously mentioned in literary sources: Zosimus 'new coins' (HN 1.61.3) is very vague. Epigraphical sources and relevant papyri are absent. Yet, the reform is generally accepted, by some even as the groundwork for Diocletian's currency reform of 294.

However, Diocletian's reform is self-evident. After having improved the *aureus*, he introduced four new denominations, two of which (the *nummus* and the *argenteus*) were spectacular new coins. The reform failed, as is testified by the Currency Revaluation Edict (which gives values) and by the Edict on Maximum prices, both from 301.

Aurelian also improved the *aureus* and the *denarius* but the importance of these improvements should not be overestimated: the *aureus* was evolving into a bullion type coin without fixed value and the *denarius* played a very subordinate role.

The entire burden of proof of a currency reform rests on the *aurelianus*. The general assumption is that this coin, in fact an improved *antoninianus*, was a new denomination with a higher value than that of the *antoninianus*.

⁷⁷ Watson, 1999: 105-107.

A number of observations and facts are thought to support this assumption: the XXI/KA mark in the reverse exergue, the improved manufacture but most of all the higher silver content which gives the *aurelianianus* a higher intrinsic value than the *antoninianus*. But did this result in a higher value, and thus a new coin denomination, in other words in a reform?

The coin hoards show that the primary area of circulation would have been northern Italy and Pannonia, while the *aureliani* were rather scarce in many other parts of the Empire, which does not seem compatible with an Empire-wide currency reform.

Coin iconography, until now not discussed in relation to the introduction of the *aurelianianus*, suggests that the *aurelianianus* was not a reformed coin with a higher value. The denominational implication of the radiate crown ('double value') on the *antoninianus* as well as on the *aurelianianus* and the manifest adherence to the denominational implication of the radiate crown throughout Roman numismatic history block the interpretation of the *aurelianianus* as a reformed coin with an increased value. *Restitutor* Aurelian, a true conservative at heart, just wanted to restore the currency to Caracalla's standards. The value of the *aurelianianus* would have been two *denarii*.

The iconography shows that the *aurelianianus* was most likely not produced as the pivotal coin of a currency reform, but rather as an improved coin, primarily produced to replace the fraudulent (*kibdelon*) **DIVO CLAVDIO** coin series, issued by the Rome mint, and in time also the debased emissions for Gallienus and Claudius II. This policy was successful in parts of the central Empire, especially in Pannonia and Italy, but did not take effect in the periphery of the Empire.

Secondary to this monetary goal, the improved *antoniniani* formed an important module in Aurelian's new Imperial public image campaign, launched in 273 which is discussed in detail in this review.

The *aurelianianus* itself, the obverse and reverse legends, and the dominant reverse type project a clear message: 'Your ruler, with the support of the elite army units from his native area and under the guidance and protection of Sol, his tutelary deity, has succeeded to unify the Empire and is in a position to pay his soldiers in good coins with a state-guaranteed silver content'.

Endnote

The author wishes to thank Fleur Kemmers, Liesbeth Claes and the anonymous reviewers for their comments and contributions.

Liesbeth Claes was handling editor.

Biographical note

Antony Kropff studied classical archaeology and antique numismatics in Leiden. He has published a series of articles on the 3rd-century currency circulation in journals such as *JMP*, *RBN* and *EJA*. He has also published on *Forum Hadriani*, on the Rhine Limes in the west of the country, and on the role of Roman transshipment ports.

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