

FROM CONSTANTINOPLE TO CHANG'AN
BYZANTINE GOLD COINS
IN THE WORLD OF LATE ANTIQUITY
PAPERS READ AT THE INTERNATIONAL CONFERENCE
IN CHANGCHUN, CHINA, 23-26 JUNE 2017

edited by
Sven Günther, Li Qiang, Lin Ying, and Claudia Sode

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PREFACE

Byzantine gold coinage was immensely important in the political, social, and cultural life of the Near East and the Western Mediterranean during Late Antiquity and into the Middle Ages. Its significance can be judged from archaeological finds in Italy and Gaul as well as the Balkans, the Levant, and Northern Africa. Furthermore, from the 4th century onwards, Byzantine coins begin to appear along the Silk Roads, soon to be taken to countries in the Far East, including China.

Since the end of the 19th century, over one hundred Byzantine gold coins and coin imitations have been found in China. The findspots are mainly located in the northern areas, in a crescent extending from Xinjiang in the northwest to the province of Liaoning in the northeast. Chronologically, they mainly belong to a period from the late 6th century to the mid-8th century, i.e., from the late Northern Dynasties to the middle of the Tang Dynasty period, and they reflect the prosperity, exchange, and communication which once existed along the Silk Roads.

The international symposium on “Byzantine Gold Coins in the World of Late Antiquity,” held at the Institute for the History of Ancient Civilizations (IHAC) of Northeast Normal University (NENU), Changchun, China, 23–26 June 2017, aimed at delineating the political, economic, social, and cultural-religious conditions behind the flow of Byzantine gold coins not only into China but also within the broader Mediterranean region, into India, Central Asia, and Mongolia, as well as Southeast Asia. Even though some of the papers should be seen as very preliminary considerations on the respective subjects, all the investigations of specific coins in this volume contribute to the current development of building a more integrated and multifaceted picture of the world of Late Antiquity and the Early Middle Ages.

We express our heartfelt thanks to all colleagues, students, and friends who have supported the symposium and its publication in various ways. Our special thanks are due to Dr. Rebecca Darley, Dr. Jonathan Jarrett, and Prof. Dr. David A. Warburton for their painstaking review of drafts of papers. Finally, we acknowledge our debt to the National Social Science Fund of China (Program

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Changchun / Guangzhou / Cologne, in September 2021

The editors

**PROGRAM OF THE INTERNATIONAL SYMPOSIUM
“BYZANTINE GOLD COINS
IN THE WORLD OF LATE ANTIQUITY”
(23–26 JUNE 2017)**

23 June 2017 (Friday): Registration

24 June 2017 (Saturday): Conference Day 1

9:00–9:30: Opening Ceremony and Greeting Words

9:30–9:45: Conference Photo

9:45–11:15: Panel 1 (Chair: Sven Günther, IHAC, NENU)

1. Wan Xiang (Xi’an Jiaotong University, China) & Lin Ying (Sun Yat-sen University, China): The Trade Pattern of the Eastern Part of the Silk Road in the 1st–4th c. AD: With Special Focus on the Kushan Sources and Coins
2. Stefan Heidemann (University of Hamburg, Germany): The Islamic Late Antiquity in Western Asia. Concepts, Transformation and Monetary Organization
3. Stefanos Kordosis (Northwest University, China): Some Remarks on the Term “Fromo” of a Late 7th – Early 8th c. Bactrian Coin Inscription “Fromo Kesarō” (Caesar of Rome)

11:15–11:30: Tea & Coffee

11:30–13:00: Panel 2 (Zhang Xushan, Tsinghua University, China)

1. Sven Günther (IHAC, NENU, China): The Migration of Motifs as a Qualitative Approach to the Question of Connectivity in Late Antiquity
2. Pagona Papadopoulou (Aristotle University, Greece): The Gold of the Emperor: Imitations of Byzantine Coins in Gold in the Mediterranean (5th–8th c. AD)
3. Jonathan Jarrett (University of Leeds, UK): Separated by the Past: Western Coinages from Pseudo-imperial to Quasi-independent, 5th to 7th c. AD

13:00–15:00: Lunch & Break

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15:00–16:30: Panel 3 (Chair: Stefanos Kordosis, Northwest University, China)

1. Aleksandr Naymark (Hofstra University, USA): Roman and Byzantine Coins in Western Central Asia
2. Stefan Heidemann (University of Hamburg, Germany): The Transition of the Monetary Situation of Khurasan and Transoxiana between the Islamic and T'ang Empire between 600 and 800 AD
3. Anwar Abdulkasim (Xinjiang Institute of Archaeology, China): Sasanian Silver Coins in Xinjiang: An Introduction to Finds and Research

16:30–16:45: Tea & Coffee

16:45–17:45: Panel 4 (Li Jinxiu, Chinese Academy of Social Science, China)

1. Li Qiang (IHAC, NENU, China): The Dynamics of the Studies on Byzantine Coins and their Imitations Discovered in China: 2007–2017
2. Guo Yunyan (Hebei University, China): Classification of Byzantine Gold Coins and Imitations Found in China

18:30–20:00: Conference Dinner and Welcome Drink

25 June 2017 (Sunday): Conference Day 2

9:00–11:00: Panel 5 (Chair: Stefan Heidemann, University of Hamburg, Germany)

1. Ankhbayar Batsuuri (Institute of Eurasian Nomadic Culture, Mongolia): Regarding a Coin
2. Lkhagvasuren Erdenebold (Mongolian University of Science and Technology, Mongolia): The Relationship between Early Western and Eastern Culture, and the Nomads
3. Odbaatar Tserendorj (National Museum of Mongolia, Mongolia): Sasanian Silver Coins in Mongolia
4. Yngve Karlsson (Gothenburg Numismatic Society, Sweden): Main Features of Sasanian Silver Coins: With Examples from the Mongolian National Museum

11:00–11:15: Tea & Coffee

11:15–12:45: Panel 6 (Chair: Wang Yongsheng, China Numismatic Museum, China)

1. Rebecca Darley (University of London, UK): Byzantine Gold Coins in India in Late Antiquity
2. Brigitte Borell (University of Heidelberg, Germany): Coins from Western Lands Found in Southeast Asia

3. Li Jinxiu (Chinese Academy of Social Science, China): Silver Coins and Silver Trading Circles: The Differing Destinies of Persian Silver Coins in T'ang Times

12:45–14:30: Lunch & Break

14:30–16:00 Panel 7 (Chair: Shi Yanxin, Xi'an Great Tang Market Museum, China)

1. Wang Yongsheng (Chinese Numismatic Museum, China): Silk Road Coinage: Its Definition and Research Value
2. Wang Bin (Xi'an Great Tang West Market Museum, China): An Introduction to the Silk Road Coin Collection in the Xi'an Great Tang West Market Museum
3. Wang Yue (Shanghai Museum, China): Collection and Research on Ancient Silk Road Coins in the Shanghai Museum

16:00–16:15: Tea & Coffee

16:15–17:45: Panel 8 (Chair: Guo Yunyan, Hebei University, China)

Roundtable Discussion with

1. Zhang Xushan (Tsinghua University, China)
2. Stefan Heidemann (University of Hamburg, Germany)
3. Aleksandr Naymark (Hofstra University, USA)
4. Claudia Sode (University of Cologne, Germany)
5. Lin Ying (Sun Yat-sen University, China)

17:45–18:15: Closing Ceremony (Chair: Lin Ying, Sun Yat-sen University, China) with remarks from Chen Zhiqiang (Nankai University, China)

18:45–20:30: Farewell Dinner

COINAGE IN THE WESTERN WORLD AT THE END
OF THE ROMAN EMPIRE AND AFTER: TRADITION, IMITATION
AND INNOVATION

Jonathan Jarrett
University of Leeds

Introduction

Given the expanding scholarship on Late Antiquity, across an ever greater geographical expanse, one might assume that the monetary systems in the home territory of the late antique paradigm, the Roman Mediterranean and its immediate periphery, were a well-understood basis for comparison with those further flung.¹ In fact, the last few decades of study and discovery have changed the numismatics of the late antique Mediterranean and North Seas as much as any other area, and perhaps more so. Particular progress has come from the huge increase in finds made by metal-detector in some countries in Europe, and by increasing study of the very smallest denominations of post-Roman money, hitherto often discounted due to uncertain dates and origins.² All of this has taken place against a fundamental shift in understanding of the post-Roman period, away from a culturally impoverished “dark age” precipitated by irresistible barbarian assaults, towards a period of political and cultural transformation in which new and old elites alike struggled to preserve aspects of Roman civilisation and to replace those no longer viable, in creative and novel but also nostalgic ways.³ In historical and numismatic terms both, therefore, we have a quite different basis from which to understand monetary change in the late antique period from that of thirty years ago, when our standard syntheses were published.⁴

¹ This expanding scholarship cannot be fully referenced here; every citation could have been multiplied many times. I have not always been able to give reference to opposing views, so scholarly consensus should not be assumed in what follows.

² Metal detecting: Thomas and Stone 2008; small coinage: Guest 2012; Moorhead 2013.

³ Smith 2005, 1–9.

⁴ Most obviously Grierson 1982, here: 43–149, and Grierson and Blackburn 1986, with references to earlier work. On Byzantine coinage more recent syntheses exist, e.g., Morrisson 2002 or 2015. See also Harl 1996, 158–206, or the relevant parts of Kluge 2007, which I have not been able to obtain.

To attempt such synthesis in the space of an article requires a tight methodological focus and much omission.⁵ I focus here especially on the persistence of low-value coinage, on the frequency of imitative coins, and the inadequacy of a view of the Eastern Empire as maintaining a Roman tradition which degenerated in the west.⁶ This last is no truer in numismatic terms than in most others and fails to identify the real processes of change at work. Indeed, study of the coinage perhaps best allows an alternative characterisation to be formulated.

Methodology

From here I give summaries of the monetary systems of the Mediterranean at four points: at the end of united Roman rule in 400 AD, and then at 500, 600, and 700 AD. At each stage I describe the denominations being struck by the various issuers of coinage in each period, the iconography of the coins and the other money in use in those areas. Having done this, I offer conclusions about the nature of the change in the late antique monetary economy, the role of imitative coin in that economy and our problems defining it, and the promised alternative characterisation of the cultural shift of late antiquity.

The arbitrary nature of the 100-year intervals has advantages and disadvantages. They skip over some substantial numismatic changes: emperor Justinian I's enlarged base-metal coins (and Constantine IV's revival of them) are omitted; so is the Heraclian resort to overstriking and cutting-up of old base-metal coins to make new small change; and so are the fascinating syncretic coinages of very early Islam.⁷ They also omit the recently-identified Visigothic silver coinage, as well as some other post-Roman issues.⁸ On the other hand, they prevent us exaggerating the significance of such changes; Justinian's big *folles* were in fact short-lived, and the Heraclian overstriking was brought to an end as soon as stability permitted.⁹ It may therefore be that a hundred-year time-lapse de-emphasises the impressive but insignificant in favour of a more objective periodisation. At any rate, its utility is best seen in its results.

⁵ Among previous article-length treatments Hendy 1988 remains important; Blackburn 2005 is now outdated. Stahl 2012 is current but does not cover the whole period of this article; Depeyrot 1996 has many problems and should not be used.

⁶ E.g., Ward-Perkins 2005, *passim*; Cameron 2012, 39–57.

⁷ For the imperial coins, see Grierson 1982, 60–76 and 105–122, and for introduction to the Arab-Byzantine and Arab-Sasanian ones, see Heidemann 1998.

⁸ Crusafont et al. 2016.

⁹ On Justinian's coins, see now Gândilá 2012.

Chronological conspectus: 400 AD

Arguably, indeed, the political situation of the Roman world in 400 AD was unrepresentative of the trends of its history before or afterwards, since it was more or less at peace.¹⁰ Despite the numerous crises of previous centuries and the imminent submersion of the west under barbarian assault and loss of Britain, in 400 c itself the brother emperors Honorius (at Rome) and Arcadius (at Constantinople) ruled an empire at nearly its fullest extent, and this allows us to begin with the late Roman monetary system in its fullest development.¹¹

That system was a trimetallic one, although more so in the west than in the east. The highest denomination was the *solidus*, a pure gold coin of 4.5 g weight, struck right across the Empire for both emperors (Fig. 1). It also had a one-third fraction, the *tremissis* (Fig. 2). The *siliqua*, the silver component of the system, was mostly struck in western mints, but likewise in the name of both rulers (Fig. 3). Beneath it were three sizes of base-metal coinage, whose names we do not know: numismatists distinguish them as $\text{Æ}2$, $\text{Æ}3$, and $\text{Æ}4$, the smallest also being known simply as the *nummus* (“coin”) or *minimus* (Figs. 4–6). Of these $\text{Æ}2$ s are more common in the west while the $\text{Æ}3$ was used more in the east, but the *nummus*, the base unit of the system, circulated everywhere.

All these coins bore an imperial bust, almost always in profile facing right, though a small proportion had the emperor facing left for reasons we do not know. Eastern *solidi* often carried a three-quarter-face imperial portrait in military gear instead; this originated with fourth-century ceremonial coinage, but along with the western predominance in silver it denoted a slight numismatic cleavage between the two halves of the Empire. Reverse types varied more but usually involved the emperor, the cities of Rome and Constantinople or, most of all, the goddess Victoria, enthroned or performing some celebratory action, with an affirmative legend such as *CONCORDIA AVGG*, “harmony of the emperors,” or *GLORIA ROMANORVM*, “glory of the Romans.” One *solidus* type of obvious signification, common to east and west, showed the two emperors enthroned side by side, together holding a globe with Victoria hovering behind them (Fig. 7); while far from the true state of the Empire, this was the public face of Roman rule c. 400 AD.

While these were the coins then being struck, they were not the only ones in circulation: coins a century old or more were still common. Particularly in the case of base-metal, this included a notable proportion of imitative coinage, despite fierce imperial prohibitions of counterfeiting: bursts of such coinage dating from the late third and mid-fourth centuries still bulked large in

¹⁰ Context: Halsall 2007, 188–219.

¹¹ Harl 1996, 158–180; Moorhead 2012.

circulation, and must have been tolerated as a necessary part of coin supply.¹² This was easier because low-value coin usually circulated bagged up, or even holed and strung together like Chinese cash, into masses of standard weight known as *folles*, allowing poorer specimens to hide among official issues, along with occasional very much older coins.¹³ All such categories of “official,” “unofficial,” and “counterfeit” need more thorough interrogation than they have had, however, and attention is given to this below.

Such, in any case, was the money of the Roman Empire around the year 400 AD, and this therefore was the system that those who replaced Roman power in the west in the following centuries had the option to maintain. As we shall see, most of them tried, but not all found it possible.

Chronological conspectus: 500 AD

Much of this change had taken place by 500 AD.¹⁴ Although emperor Anastasius I ruled over more or less the same territory as had Arcadius, the picture was quite different in the west, although perhaps more so as we see it than as perceived at the time. The Vandal kings who now ruled North Africa, alongside Moorish rulers further south and east who did not usually acknowledge their authority, were certainly active in opposition to Rome and its rulers; despite this, by 500 AD their kingdom existed by treaty with the Empire, a treaty that such aggressive tactics had arguably made possible.¹⁵ Even less separate was the Ostrogothic ruler of Italy and the northern Balkans, Theodoric, who occupied that position, and consular rank, on the authority of Anastasius’ predecessor Zeno, who had sent him to oust the previous, less acceptable, king Odoacer. Theodoric had been educated in Constantinople and remained respectful of, if unconstrained by, the emperors as long as he lived.¹⁶ Likewise, in the kingdom of the Burgundians, an erstwhile fellow general of Odoacer’s, Gundobad, ruled with imperial acceptance: Anastasius would in 516 AD confirm his title of *magister militum*, just as he had earlier conferred the title of consul upon Gundobad’s sometime ally and Theodoric’s opponent, Clovis king of the Franks. Famously portrayed as a dangerous, though reverent, barbarian by Bishop Gregory of Tours, Clovis was

¹² Boon 1988, though cf. Kropff 2007. On prohibition of counterfeiting see Henny 1985, 320–327; base-metal forgery seems to have been prosecuted less urgently than gold.

¹³ Moorhead 2013, 603–605; for coins strung together, see Morrisson 1980, 242, and Mora 2009, 426–427. Older specimens in circulation, e.g., Bijovsky 1998, 77–78, 1st-century BC coins in a 6th-century AD hoard.

¹⁴ Context: Halsall 2007, 284–319; Mitchell 2007, 101–154.

¹⁵ Liebeschuetz 2003.

¹⁶ Moorhead 1992; see also Arnold 2013.

still son of a Roman prefect, who was also a Frank.¹⁷ Even the Visigoths who now ruled the east and south of the Iberian peninsula and the south-west of Gaul did so on an imperial commission that saw them fight and repel the Vandals and the Huns, the latter under imperial command.¹⁸ Less deference can be asserted on the part of the Sueves, erstwhile allies of the Vandals who now held the other part of the Iberian peninsula, but Roman structures seem to have persisted under their rule despite a shift towards hilltop settlement.¹⁹ The situation was most altered in Britain, where authority appears to have fragmented to a tiny degree, leaving rival warlords and a patchy Church beyond imperial reach, although not quite beyond imperial commerce.²⁰

It should be stressed that the various ethnic identifiers used of the new regimes of the west in this discussion have very uncertain meaning. Scholarly opinions vary from seeing them as definite biological entities, identifiable in modern-day genetics or even in the skull-forms of contemporary skeletons, to arguments that barbarian identity was so fluid and uncontrolled that it could be donned or shed by an individual almost as easily as his clothing (which might, indeed, be part of it).²¹ Certainly, any ethnic separation of the so-called barbarians must have been quickly weakened by intermarriage with the locals: the incomers' children would surely have been able to claim whatever ancestry or inheritance suited them, albeit not necessarily without challenge. Separation of Romans and "Germans" in the laws of these kingdoms were presumably necessary precisely because property claims hung on ancestry that had become hard to establish, and all such legal distinctions were gone by 550 AD.²²

Qualifications like these are the fruit of the modern tendency mentioned above to see the end of Roman rule in the west as transformation rather than collapse, which has opponents as well as partisans even if the present author identifies with the latter. That I do so, however, is not least because of the impression of the coinage.

Vandal Africa shows the starkest difference in coinage before and after takeover.²³ Unlike the Romans and most of their own contemporaries, the Vandals did not strike gold coins, and while they did, by 500 AD, issue silver

¹⁷ Burgundians: Wood 2003; Clovis: Halsall 2001.

¹⁸ Collins 2004, 11–37.

¹⁹ Barbero and Loring 2005b, 162–167; Vigil-Escalera and Quirós 2011.

²⁰ A new synthesis incorporating British as well as English zones is badly needed: for now, see Fleming 2010, 1–88.

²¹ Effros 2003, 103–110, provides references to recent work measuring skulls as a guide to ethnicity; at the other end of the spectrum see Amory 1997, with debate in Pohl 1998 and Reuter 2006.

²² Wormald 2003.

²³ Grierson and Blackburn 1986, 17–23; Morrisson 2003, 65–75. Berndt and Steinacher 2008 is misleading; Depeyrot 1996, 132, denies the existence of Vandal coinage!

and base-metal coins in the names of their kings, they used new denominations, silver of 50 and 25 *denarii* (Figs. 8 and 9), and regal base-metal *nummi* alongside anonymous multiples of 42, 21, 12, and 2½ *nummi* and anonymous single *nummi* (Figs. 10–14). There are also known large imperial bronzes of the first and second centuries, countermarked or just inscribed with numerals to make them into 42- or, oddly, 83-*nummi* coins as if to make up a denominational gap.²⁴ All of these peculiar denominations can be explained as divisions of a *solidus* of 15,000 *nummi*, however, which could have required units of 83⅓, 41⅓ and 20% *nummi*, and actual imperial *solidi* continued to arrive and be lost in Africa.²⁵ The *nummus*, also, as the base unit of both systems, remained in heavy circulation, in new Vandal, and in old and new imperial examples. It is thus possible to see the Vandal coinage as intended to fit distinctively within the imperial system, not to replace it, as has been argued of the kingdom itself.

The unusual design of Vandal money can also be explained in these terms. Coins in the kings' names also bore their portrait in right-facing profile, and some of the reverses of these coins showed Victoria as did imperial ones, but others either bore a denomination mark, a cross on a globe or the personification of the city of Carthage, identified as *FELIX KARTHAGO*, which also occurred on the obverse of some of the base-metal multiples. She was identified in Latin, however, and can be seen as a counterpart to imperial personifications of Rome or Constantinople on coins, even if the Vandal iconography drew on more local, Punic, prototypes.²⁶

The Vandals' coins can thus be explained within an imperial framework, despite local differentiation, but even less deviation from prototype occurs in the coins of their contemporaries. In Italy, the Ostrogothic kingdom struck *solidi* and *tremisses* in the name of emperor Anastasius I (Figs. 15 and 16); a few bear a Θ that has been held to indicate Theodoric, but they are mainly distinguishable as Italian issues by marks indicating issue in Rome or Ravenna, and whether they should be called pseudo-imperial or just imperial hinges on the status of the Italian kingdom, rather than on the coins themselves.²⁷ Theodoric's half- and quarter-*siliquae* are more ambivalent, with the emperor on the obverse and his own name on the reverse in a wreath (Figs. 17 and 18), but this is hardly rejection of imperial precedent. Perhaps most interesting are the base-metal multiples that the Ostrogothic kingdom issued, anonymous like the Vandals'. These coins bore a helmeted head of Rome, paired with either an eagle or the wolf and twins, all

²⁴ Morrisson 1983b.

²⁵ Hendy 1985, 478–484, is the clearest explanation of the mathematics.

²⁶ Morrisson 2003, 72–74.

²⁷ Kent 1971; Grierson and Blackburn 1986, 24–38.

types going back centuries to Republican coinage, with the legend *INVICTA ROMA* plus a denomination mark: 40-, 20-, 10-, and 2-*nummi* coins were struck (Figs. 19–22). The Vandal and Ostrogothic series are so clearly related that they have attracted much scholarly speculation.²⁸ Imperial coinage in both gold and base-metal also continued to circulate in the Ostrogothic kingdom, and in general the coinage gives a strong impression of a government intended to operate with the Empire, not against it.²⁹

Though finds are fewer as one moves away from the Mediterranean, post-Roman Burgundy's apparently lower monetisation may well be genuine: its kings issued imperial *solidi* and *tremisses* distinct from eastern issues only through letters and marks in their reverse fields, and while attribution of these coins can be uncertain, they seem to have been very few (Figs. 23 and 24). The Burgundian kings also issued even rarer silver *denarii*, showing Victoria dancing with a wreath, as on imperial *tremisses*, and a royal monogram in the style of imperial *nummi* (Fig. 25). Silver $\frac{1}{6}$ -*siliquae* are also attested, as are a very few royal *nummi* (Figs. 26 and 27).³⁰ As far as is known, the Frankish kingdoms had not yet begun to issue coinage, although imperial *tremisses* may have been imitated and Roman coins of previous decades and indeed centuries continued in use; hoards make this latter especially clear in the Low Countries, and indeed on the other side of the Channel in England. In both of those areas it is likely that production of imitative coins began again, if it had ever stopped, imitating not just fourth-century base-metal coins (Fig. 28) but, surprisingly, radiate coins of the late third century as well.³¹ In this way some areas, albeit in Britain perhaps very few – some archaeologists there insist that by 500 AD there were none – could maintain a localised monetary system, probably backed by bullion stored in the form of clipped silver *siliquae* of the previous century or just in plate.³² This also seems to have been the pattern in the Moorish territories of North Africa, though the study of monetary circulation in these areas has barely begun.³³

²⁸ Hendy 1985, 487–490; Morrisson 2003, 72. Depuyrot 1996, 132, ignores both coinages.

²⁹ *Ibid.*, 133; Arslan 1994.

³⁰ Grierson and Blackburn 1986, 74–77.

³¹ Gold imitation: Pol 2006. Base-metal imitation was older and more widespread: see Zeepvat 1994, Kropff 2005, Williams 2006, and Kropff 2007, among others.

³² Hill 1949, Abdy 2006, Williams 2006; cf. King 1988, Boon 1988, Moorhead 2006. Boon's corrections to Hill's attributions and datings (Hill 1949, 166–167) are just, and Abdy arguably overloads his evidence as Moorhead shows, but the insistence by King (1988, esp. 228) and Boon (1988, 115–116) that no ongoing circulation is conceivable was always likely to be disproved by finds. Moorhead is right to contrast the volume of that circulation unfavourably with the Mediterranean, but this does not negate it. Cf. now Astill 2011, and Walton and Moorhead 2016.

³³ Note that the Aïn Kelba hoard came from such an area: Morrisson 1980, 239–240, n. 1.

The Iberian Peninsula had two opposed regimes. The Sueves in the north-west issued anonymous *tremisses* of several sorts, usually bearing a profile bust paired with a cross within a double wreath (Fig. 29); these coins are rare, but were issued from numerous new mints known to us from local documentation.³⁴ There is no known Suevic coinage in silver or base-metal, and residual imperial coin is not well attested here either.³⁵ It is better evidenced in the Visigothic area of the peninsula, but there were there also *solidi* and *tremisses* minted in the names of emperors, if not always current ones (Figs. 30 and 31), and there are signs of unofficial *minimi* being made in urban contexts here too.³⁶ In this respect, the new rulers of the western Mediterranean economy did not necessarily have to supplement imperial gold and base-metal coinages with their own issues. That this was done in Africa and Italy, in more complexity than elsewhere, indicates the importance in those regions of maritime imports and exports and the systems of exchange that these required.

This leaves the Empire itself.³⁷ Much remained the same here: Anastasius I struck *solidi* which Arcadius could have mistaken for his own, using the three-quarter-face portrait paired with Victoria and a long cross, though a half-denomination, the *semissis*, had now joined the *tremissis* (Figs. 32–34). Both of these used the profile bust and differing figures of Victoria. *Siliqua* issues were vestigial but continued (Fig. 35). Most change had occurred in the base-metal coinage. In 498 AD, Anastasius initiated a series of multiples like the Ostrogothic ones, with coins in 40, 20, and 10 *nummi* (Figs. 36–38). No western mint seems to have struck these new multiples. All the denominations showed a right-facing profile bust of the emperor, often very poorly cut, and a reverse dominated by a Greek letter representing the number of *nummi* for which the coin should pass. The use of Greek was a novelty for the previously Latinate imperial coinage. These coins were also effectively pure copper, whereas previous imperial large-denomination small change had theoretically had a very low silver content.³⁸ With this reform, therefore, the Empire took its first steps away from the imperial monetary system of 400 AD, and it has been seen by many as the starting point of a truly Byzantine coinage.³⁹

³⁴ Grierson and Blackburn 1986, 77–80; Martín 2011, 215–228; Cebreiro 2012.

³⁵ Nuñez 2016, 173–174.

³⁶ Marot 1997, 159–164. I have not been able to obtain an image of a Visigothic-period imitative *minimus*, but one is visible on Mapila, “Imitaciones de Roma,” *Tesorillo.com: Numismática antigua*, 2012, accessible under: http://tesorillo.com/oca/oca_frame.htm (20.12.2017), no. 69.

³⁷ Hendy 1985, 475–491; Guest 2012.

³⁸ Cope 1968; King et al. 1992.

³⁹ E.g., Grierson 1982, 1–3.

There is dispute over whether *nummi* continued to be struck in the east once these new coins were issued.⁴⁰ Many *nummi* of Anastasius are preserved, identified by his monogram, but they are undated (Fig. 39). They indubitably continued in use, along with the residue of coin with which they had travelled hitherto; later hoards and assemblages still contain Anastasius's *nummi* with fourth- and fifth-century material.⁴¹ There is also dispute over whether the imperial base-metal multiples preceded the Vandal and Ostrogothic ones or not, and indeed which of those came first.⁴² Anastasius' can be dated by contemporary testimony to the disquiet they caused among the populace, which may have been because the 40-*nummi* coin did not in fact weigh as much as 40 of Anastasius' *nummi*.⁴³ The new denomination was in effect a fiduciary one, and since *nummi* had no intrinsic metallic value this could also have been said of them. As long as they were being exchanged in weighed bags, however, which we have seen above, there must have been a conflict when value by weight met value by tale, which may explain why Anastasius soon doubled the size of the multiple coins and added a 5-*nummi* denomination to the system. Rare 2-*nummi* coins are also known, though these may be older.⁴⁴ The Vandal and Ostrogothic coins, meanwhile, bear no dates or even identifying rulers, and although some scholars have set out apparently convincing reasons for Ostrogothic or Vandal priority with the large coins, these arguments have not been accepted everywhere.⁴⁵ The fact that Anastasius' multiples were not struck in Egypt, however, suggests to me that that area was already using the western coins.⁴⁶

⁴⁰ Continuing manufacture: Morrisson 1980; cessation: Grierson 1982, 59 (except at Carthage, *ibid.*, 70). Bijovsky 1998, 85, reports an earlier and abandoned theory of Grierson's that *nummus* production was halted at Constantinople only until Anastasius I's second reform of 512 AD, which seems over-complicated to imagine as policy.

⁴¹ E.g., Adelson and Kustas 1964, Morrisson 1980, Bijovsky 1998, Mora 2009, and Moorhead 2013, all with reference to others.

⁴² See n. 28 above.

⁴³ Grierson 1982, 59. The contemporary testimony is the *Chronicon* of Marcellinus Comes, *MGH AA XI*, 95: *Nummis, quos Romani Terentianos vocant, Graeci follares, Anastasius princeps suo nomine figuratis placibilem plebi commutationem distraxit*. Note that the numismatic literature to exclusion translates this in the sense that Hendy 1985, 476, does: "By means of the coins called *Terentiani* by the Romans and *follares* by the Greeks, each marked with its own name, the emperor Anastasius sold an exchange that was pleasing to the people." Cf. Morrisson 2015, 19: "un change favorable au peuple." The verb "*distrahere*," however, is much more likely to mean that he took a favourable system from them; cf. Sarris 2006, 200–201, for context, though even he retains the awkward reading.

⁴⁴ Grierson 1982, 70; Morrisson 1996, 189 and 191.

⁴⁵ Grierson and Blackburn 1986, 31–33: Italy first, with the coins beginning under Odoacer. Hendy 1985, 475–491: Africa first, because the peculiar Vandal denominations could not be a revision of the more practical divisions of the Ostrogoths, followed by Morrisson 2003; cf. Grierson and Blackburn, 1986, 28–31, disputing Morrisson 1983b.

⁴⁶ For other links between Egypt and the Vandal monetary system, see Hendy 1985, 497–498.

Chronological conspectus: 600 AD

By 600 AD the political situation in the old Roman world had in some ways simplified. The Franks had absorbed the Burgundians and pushed the Visigoths out of much of southern Gaul, but the Visigoths had eliminated their Suevic rivals and also converted to Catholic Christianity from Arianism, bringing the kingdom to a high point of unity and definition.⁴⁷ In Britain, more definite kingdoms had begun to emerge, especially along the eastern and western seaboard, where these new rulers identified as English and British respectively, while Scottish and Pictish polities were taking shape further north.⁴⁸ In the Mediterranean, however, armies dispatched by the emperor Justinian I had quickly demolished the Vandal kingdom and slowly conquered the Ostrogothic one, although Lombard invaders had then taken much of Italy, breaking Byzantine rule into disjointed patches around Rome, Ravenna, Naples, and Sicily. The Balkans had also come under increasing pressure from the Avars, a nomadic confederacy similar to the Huns, and from groups historians call Slavs, although this is arguably an invented category for a variety of non-Avar enemies. The Empire was, however, at peace (though only for now) with its ancient rival Persia, and the east was relatively calm.⁴⁹

The Empire's coinage remained similar except in detail.⁵⁰ The imperial portrait on the *solidus* now faced the viewer, and the reverse type was an angel rather than the pagan Victoria (Fig. 40). Tiberius II had used a cross on steps as reverse type, echoed as a cross on globe on the *semissis* and a cross potent on the *tremissis*, allowing these coins more easily to be distinguished, although the emperor of 600 AD, Maurice, restored Victoria – not Justinian I's angel – to his *semisses* (Figs. 41 and 42). *Siliquae* and their halves were still struck in Byzantine Italy and in recovered Carthage, but not in the east; these mostly used the old profile portrait and a cross in a wreath (Fig. 43). The base-metal coins had also adopted the facing portrait and shrunk somewhat, and they now featured regnal dating, though this was a feature only of the larger denominations (Figs. 44–47). Maurice still issued some *nummi*, but mostly in Carthage, where they remained common, alongside multiple issues rather heavier than those of the east, perhaps because a weight relationship with *nummi* was still needed here. In the east, however, a century seems to have overcome the initial problems with the multiples, and they were now a real face-value coinage. Alexandria had

⁴⁷ Fouracre 2005; Barbero and Loring 2005a.

⁴⁸ Fleming 2010, 89–151; Fraser 2009, 121–154.

⁴⁹ Mitchell 2007, 371–408; Sarris 2011, 169–182, and on the historiography of the Balkans, see Curta 2001.

⁵⁰ Grierson 1982, 43–77; Morrisson 2015, 19–21.

developed a special 12-*nummi* coin, in size and fabric much like the far older billon tetrachms of Egypt that had been out of use since 294 AD (Fig. 48), and there were other local variations here and there, but the imperial system had arguably consolidated the situation of a century before.

The situation in the west was naturally less simple. As far as we know, the economy of the Avars and Slavs was not monetised, and while imitative *solidi* have been hypothetically attributed to the Avars and other coins to the Balkan cities now under Slavic control, these attributions are too tentative to consider here (Fig. 49).⁵¹ The Lombards, however, had followed precedent in minting gold *solidi* and *tremisses* in the name of the emperor, with a stylised Victoria – not the newer angel – and a cross, respectively, on the reverse (Fig. 50). At this stage we know of no Lombard base-metal coinage, and the monetisation of the Lombard economy is much debated, but some residual use of older coinage is hard to deny.⁵² Meanwhile the Franks and Visigoths had both begun to use the kings' names on their gold coins, something to which, the Byzantine chronicler Procopius noted in a denunciation of Frankish hubris, even the Persians did not aspire.⁵³

As this implies, the Franks had by now begun a gold coinage: *solidi* are known, but are rare, and the *tremissis* was far more usual (Fig. 51). It was issued from a bewildering number of mints: hundreds have been identified, many tiny places responsible for only a few surviving coins.⁵⁴ Hendy's explanation of this as the result of granting out tax collection remains plausible.⁵⁵ With so many issuers the iconography of these coins is naturally diverse. Profile busts and figures of Victory or crosses are frequent, but so are types borrowed from older Roman coinage or freshly invented; they cannot all be described here. The coins were imitated in the new kingdom of Kent, however, where the Franks may have had some political control.⁵⁶ Again, *solidi* are rare among them, and the *tremissis* denomination is better known in the English context as a *thrymsa* or shilling (Figs. 52 and 53).⁵⁷ There were also a few base-metal issues in Frankish territories, largely from Marseilles where Mediterranean commerce continued to drive the economy; the best known, still rare, carry a christogram and a cross in a wreath and might have

⁵¹ Whitting 1973, 111.

⁵² Rovelli 2015–2016.

⁵³ Grierson 1982, 80–82; the source is Procop. *Goth.* 33.5–6, on which see Cameron 1985, 210–212 although she does not consider this passage. This sentence of Greek is, it should be said, the only source for the idea that only emperors could issue gold, and it does not explicitly say this, or mention the Visigoths.

⁵⁴ Grierson and Blackburn 1986, 81–154, and here esp. 97–138.

⁵⁵ Hendy 1988, 59–70.

⁵⁶ Wood 1983.

⁵⁷ Grierson and Blackburn 1986, 155–164; Williams 2006.

been worth 4 or 5 *nummi*, though they specify no value (Fig. 54).⁵⁸ No such issues are known from England of this period, and it is no longer thought that imitation of old imperial base-metal coins continued this long, although the possibility of continuing circulation in lowland Britain has recently been revived by some British scholars.⁵⁹

Lastly, in the Iberian Peninsula the Visigothic kings, as mentioned, had also begun a gold coinage in their own names.⁶⁰ This coinage was composed only of *tremisses*, with a profile or facing bust of the king and either another facing bust on the reverse, a cross or a very stylised representation of Victoria (Fig. 55). These were not the only Visigothic coins, however: despite obstinate opposition it is now clear that, alongside old imperial, Vandal, Ostrogothic, and Byzantine base-metal issues, including some struck within the short-lived Byzantine enclave in the Peninsula, some Visigothic cities also issued base-metal coin. There is general agreement that these included Seville, where many have been found, and tentative consensus that Mérida was another; in all other cases the verdict remains uncertain. None of these issues bear royal names, although a few show profile busts; ten or more iconographic types are known, using crosses, monograms, and wreaths in various combinations (Fig. 56). Their weights have led to suggestions of 4- or 5-*nummi*, 2- or 2½-*nummi*, and single *nummus* denominations, but these are only guesswork.⁶¹ Coinage clearly did more than just enable royal taxation here by now, however.⁶²

The Iberian context also makes evident that the so-called *nummus* economy had yet to ebb in the west in the way that it may have now been doing in the east. Finds from Africa and the Iberian Peninsula show an ephemeral presence of new *nummi* amid a still-dense wash of Anastasian and fifth-century coin from all of the Mediterranean issuers of this era, while multiples remain rare. This phenomenon was by now coming to an end but in 600 AD that end had not yet arrived.⁶³

Chronological conspectus: 700 AD

The step from 600 AD to 700 AD in the history of the Mediterranean is a gap between worlds, or so it is often presented.⁶⁴ The Empire of 600 AD had been

⁵⁸ Grierson and Blackburn 1986, 115–116.

⁵⁹ Williams 2006; see the debate in n. 32 above.

⁶⁰ Grierson and Blackburn 1986, 39–51, though many new types are now known; see Pliego 2009 for details.

⁶¹ See now ead. 2015–2016 with references to earlier work, including Marot 1997 and Mora 2009.

⁶² On that, see Martin 2013.

⁶³ Mora 2009; Moorhead 2013, 608–611.

⁶⁴ Cameron 2012, 191–207; cf. now Sarris 2011, 226–306.

hugely cut down by 700 AD, with losses to the Lombards in Italy and to Slavic expansion in the Balkans but most of all to the new Islamic Caliphate that by 700 AD occupied the Middle East up to Asia Minor and the whole of the old Persian Empire, Egypt, and North Africa, and was still expanding.⁶⁵ Elsewhere the Avar Khaganate remained a factor in Central European politics, the Frankish kingdoms now abutted several new German formations, and the new principedom of Frisia on their eastern edge and the English kingdoms had effectively limited British political identity to the western and northern highlands of Britain; several large English kingdoms had coalesced, which now vied for superiority.⁶⁶ A new kingdom is also visible in Denmark.⁶⁷ Coinage is only one of the signs that the North Sea area was now separating from the Mediterranean to begin its own development of specialised production and exchange, and the impact of Islam in the Mediterranean has been debated since the 1930s and remains hard to evaluate.⁶⁸

Change is very apparent in the coinage. The Islamic Caliphate represented a new set of political and numismatic possibilities, and by 700 AD these were being expressed in a trimetallic system of caliphal gold and silver and locally-issued base-metal.⁶⁹ This system was extremely new in 700 AD, the result of a reform by Caliph ‘Abd al-Mālik, which united what had previously been legacy coinages derived from the separate Byzantine and Persian ones used in the now-combined territory of Islam. The new coins were entirely epigraphic, bearing theo-logical sentiments and details of issue in Arabic script on both obverse and reverse. The gold dinar borrowed the name of an old Roman denomination but not its metal, weight or appearance (Fig. 57). The silver dirham owed more in terms of both name and fabric to the Sasanian drachms that had preceded it (Fig. 58) and which, indeed, still circulated alongside the new fully-Islamic coins as several Scandinavian hoards show.⁷⁰ Base-metal coins, meanwhile, were much more variable in weight and appearance, and while we now use the Greek loanword *fulūs* for them we know little of what they were called by their users or where they were struck (Fig. 59). Unreformed Arab-Byzantine, and indeed Byzantine and Roman, base-metal coinage remained in circulation too, as we can tell from hoards of such material with Islamic countermarks, and it seems that small change passed substantially by weight in some Islamic territories

⁶⁵ Kennedy 2007.

⁶⁶ Wood 1994, 140–180, esp. 160–164, and on Frisia, see Heidinga 1999; for England, see Bassett 1989 and various of the other papers in Dickinson and Griffiths 1999.

⁶⁷ Axboe 1999.

⁶⁸ Effros 2017 is the latest review.

⁶⁹ Heidemann 2010.

⁷⁰ E.g., the Spillings Hoard; see Waugh 2011, 165 and 168.

(Fig. 60).⁷¹ While there was continuity here, therefore, it was more pronounced in the old Persian territories, whereas if there was continuity in ex-Byzantine areas it was with the crisis and breakdown of the early seventh century, and with the local post-imperial solutions adopted by coin issuers then, not with the Empire of 600 AD.⁷²

The Empire itself projected more by way of continuity in its coinage, but this had recent political significance. Emperor Tiberius III was the second ruler to follow emperor Justinian II, whose gold coinage had been radically innovative, relegating himself to the reverse in full figure portrait while placing a bust of Christ on the obverse.⁷³ Tiberius III's predecessor Leontius had reverted this to the prior facing bust and a cross potent on steps, and the weight and fineness of the *solidus* remained unaffected throughout except in the beleaguered Italian and Sicilian mints, but Tiberius III's *solidi* resumed the portrayal of the emperor in military gear that had its roots in 400 AD, although now facing rather than three-quarter-face, distinguishing him from Leontius; these coins thus projected a return to a less disturbed time (Fig. 61).⁷⁴ The *semissis* and *tremissis* also bore this portrait but otherwise continued as before, distinguished by their differing reverse crosses (Figs. 62 and 63). Tiberius III also minted in silver, both rare ceremonial issues akin to double- or treble-weight *siliquae* and heavy *hexagrammata*, coins which imitated the *solidus* but on a larger, but roughly cut, flan, new since 600 AD but only just (Fig. 64). In this respect, Tiberius' practice was as traditional as living memory could recall, and this was true of his base-metal coins too, except again that it stood distinct from Justinian II's whose *folles* had shown him as a standing figure (Fig. 65). Nonetheless, from the perspective of 600 AD we also notice that by now all denominations of small change below the *folles* had ceased to be struck; the desperate Heraclian production techniques had finally under-cut the *nummus* economy.

Outside imperial and caliphal territory, the picture of change or continuity differs very much from area to area. In Lombard Italy the principal coinage remained the gold *tremissis*, bearing a profile bust to the right still, matched with St Michael advancing left, replicating the earlier Victoria type visually but updating the legends to recognise the Byzantine shift towards a male figure. The visual continuity was also belied by the obverse legend, because king Cunincpert (r. 688–700 AD) was the first Lombard ruler to use his own name on coins (Fig. 66). Cunincpert's reign also probably saw the issue of small

⁷¹ Lowick et al. 1977.

⁷² On these, see Foss 2008, although with caution over chronology.

⁷³ Grierson 1982, 84–149, for the period's coinage as a whole.

⁷⁴ Morriison 1983a on the Italian coinages.

uniface silver coins, bearing only an uncertain monogram (Fig. 67), but in general the Lombard kingdom seems to have made little coin, and finds suggest that its territories were much less monetised than those of its imperial or papal neighbours.⁷⁵ In Visigothic Spain, meanwhile, gold *tremisses* also continued, although their metal was no longer as pure as before, and the coins, while lighter, were now considerably broader. A range of types were in use, all derived from Roman or Byzantine prototypes but by now very abstracted (Fig. 68).⁷⁶ Although archaeological finds indicate that older base-metal coinage remained in use even beyond this period, there is no sign that anywhere in Spain still produced new base-metal coinage.⁷⁷ Both these post-Roman monetary economies were thus apparently shrinking.

A quite alternative picture is presented by the kingdoms of the Franks and English, although in part because similar changes had already occurred. Both sides of the English Channel seem to have found a gold coinage impossible to maintain by the final decades of the seventh century, and “pale” gold issues, more silver than gold, had been replaced by entirely silver coins, known on the Frankish side as deniers and on the English as pennies, although many English numismatists favour the inaccurate but historical term *sceattas* (Figs. 69 and 70).⁷⁸ By processes that scholarship is only beginning to elucidate, but in which traders rather than rulers seem to have been paramount, the whole North Sea zone was now operating on a roughly similar standard of these new silver coins even though their issuers, almost never identifiable, seem to have been highly diverse. Zones, rather than centres, of production can be identified in England, outnumbering the kingdoms to which one might be tempted to assign the coins, and circulation was in any case much boosted by Frisian issues, which travelled far inland (Fig. 71).⁷⁹ There are even coins which have been attributed to the nascent kingdom of Denmark, although this is disputed.⁸⁰ In Francia, Frisian coins are less apparent, and the Frankish issues are more often attributable to mints, often those which had struck *tremisses* a century before.⁸¹ The types of these coins are hugely diverse, and while many Frankish ones do display a profile bust or cross, these are far from universal. The iconography of the English and Frisian issues, meanwhile, cannot be summarised here: they abound in Roman and Frankish points of reference, but separating these from pagan and other non-

⁷⁵ Grierson and Blackburn 1986, 64–66; Rovelli 2009.

⁷⁶ Pliego 2015.

⁷⁷ Ead. 2015–2016.

⁷⁸ Grierson and Blackburn 1986, 138–154; on metal content: Metcalf 1983.

⁷⁹ Metcalf 2011.

⁸⁰ Feveile 2008.

⁸¹ Grierson and Blackburn 1986, 164–189.

Roman ones is a subjective exercise, and their interpretation is highly debatable.⁸² It should be noted that although local issues in gold had ceased, imperial gold coins are still attested in finds and were obviously welcome objects, although perhaps more as bullion – they are frequently converted to jewellery – than as money.⁸³ There is, by now, no sign of base-metal coinage circulating in the North Sea area; the kind of exchange happening apparently no longer required such low-value money.

Coinage and the Pirenne thesis

By 700 AD, therefore, the so-called *nummus* economy that had continued, primarily in the Mediterranean, from 400 AD until at least early in the seventh century AD was over. In the North Sea area it had already been replaced by a new silver economy whose purpose was primarily private, not public, although the Carolingian rulers would turn it to their purposes.⁸⁴ In the Mediterranean, however, the worlds of Islam and the Empire were monetarily separate, and those areas part of neither were suffering contraction of their coinage and its use. This does not, however, revalidate the now-venerable Pirenne thesis as it might seem, if that could even be done from numismatic evidence alone.⁸⁵ In previous centuries the monetary economy of these zones had still been imperial, or at least post-imperial, and was shared at least at some level by all participants. A Byzantine *solidus* was a viable coin in all these areas, and many of them also kept exchange active with a residue of imperial or equivalent base-metal coinage that was usable in most other areas of the Mediterranean. By 700 AD, however, the Mediterranean, and to an extent the North Sea, included polities for whom such money was not acceptable, because they maintained their own. The end of monetary transmission through these apparent boundaries does not, however, preclude exchange across them, any more than the existence of monopolistic national currencies today precludes international trade. By the 780s AD, for example, we can see that English and Frankish coinage must have been converted one to the other at points of entry into their respective kingdoms, since they hardly occur in each other's territories, but we also have good textual and archaeological evidence for not just trade but trade agreements between the kingdoms concerned.⁸⁶ What we observe in the Mediterranean zone from 600

⁸² Gannon 2003 is the most comprehensive, but also most speculative, treatment.

⁸³ Morrisson 2014.

⁸⁴ Hendy 1988, 37–40.

⁸⁵ Pirenne 1939; see n. 68 above.

⁸⁶ Story 2005.

to 700 AD is not, therefore, necessarily a Pirenian breakdown but a change in exchange systems that went with the new political configuration of that world.

Continuity considered

It is not, of course, new to observe that between 400 and 700 AD a great deal of change had taken place but some things remained the same, or at least echoed the past, but when studying the coinage it is worth considering where change and continuity are strongest. Let us consider the perspective of a Roman of 400 AD, somehow transported to 700 AD and faced with the money now in circulation across the post-Roman world. We can guess that he would find Islamic coinage alien and unfamiliar, and Anglo-Saxon and Frisian coin perhaps no less alien although sometimes recognisably derived from things he knew. Visigothic and Frankish coinage alike would probably strike him as thoroughly barbarous and unacceptable, but recognisably attempts at Roman money.

What, however, would he make of the coinage of the continuing Empire? Its big base-metal coins with Greek numerals bore no resemblance at all to the *nummi* with which he would be familiar, and would certainly not have weighed the same as their equivalent in those small coins. They would have looked like coins from another country. The hexagram, especially, was arguably no less barbarous-looking than the Visigothic or Frankish coins in terms of execution, and was much bigger than silver coins of 400 AD. The gold denominations, meanwhile, while more recognisable in size and fabric, use reverse types he would never have seen – clearly Christian but not so clearly Roman – and an imperial portrait that might seem less a replication and more an avoidance of the three-quarter-face portrait of 400 AD, in favour of something artistically simpler in lower relief. Perhaps our time-travelling Roman would not care about this as much as we, scholars in a partly artistic tradition, do, but one may still imagine that Byzantine coin of 700 AD would have struck him as imitative rather than legitimate.

Paradoxically, therefore, until our Roman read the legend, it is the *tremissis* of king Cunincpert of the Lombards which would have resembled coins with which he would be familiar, with their profile bust and winged figure with a long cross, types more correct on a *solidus* of 400 AD than its fraction but still more or less accurately echoed from three centuries before, unlike any other coin still in production within the Empire's old expanse. Continuity was not necessarily the preserve of the continuators.

Official, unofficial, and imitative coin

That we can thus conceive terms in which imperial coinage could seem “imitative” presses upon us a deeper consideration of that word and how it is used in

scholarship. While imitation is a neutral word in itself, in numismatic terms it is most often deployed as an antonym to “official” or “legitimate” coin: coin that is only like the real thing. However, while it is possible to theorise a hierarchy of coinage that runs from official, i.e., issued by an authority claiming a monopoly on minting, through unofficial, i.e., issued by some other entity but tolerated by authority – and here we may place token or “emergency” coinage – to counterfeit, i.e., issued against authority’s wishes and removed from circulation by authority if possible, “counterfeit” or even “unofficial” are not necessarily the same as “imitative.” Indeed, some unofficial issues of coin have deliberately been made unlike official money so as to avoid charges of counterfeiting.⁸⁷ Almost all coinage of the post-Roman world was, in design, imitative of its Roman predecessors to a greater or lesser degree, official issues as much as unofficial ones, but this is not the sense in which the term is usually deployed.⁸⁸

Nonetheless, coinage of the sort that scholarship classes as “imitative” was as we have seen an ever-present feature of monetary circulation, even at the high points of imperial control, and still more so when that control was withdrawn. A sample of six British hoards makes this point. Without questioning the excavators’ or editors’ judgements as to what was regular and what imitative coinage, the so-called *Cunetio* Treasure, probably deposited in 274 AD and the largest combined deposit of Roman coins ever found in Britain, was 96 % regular issues and 4 % imitative.⁸⁹ The Meare Heath, Somerset, hoard of c. 284 AD, on the other hand, mustered 27 % regular coins to 73 % imitations, 150 of which were as-yet-unstruck blanks.⁹⁰ The recently-discovered Frome hoard of c. 305 AD, also from Somerset, one of the British homes of Roman-period coin imitation, ran 94 % regular to 6 % imitative; a hoard discovered much longer ago in Caerwent in Wales ran 86 % regular to 14 % imitative, and the Weymouth Bay hoard from the very south coast, deposited c. 460 AD, ran 99 % regular to 1 % imitative even though new imperial coins should have stopped reaching Britain in 410 AD or shortly before; but one of several hoards from Richborough in Kent, this one probably deposited around 550 AD, was the other way round with 4 % regular coins and 96 % imitative, including some apparently of recent manufacture (cf. Fig. 72).⁹¹

Two things can be taken from these data and others which could have been

⁸⁷ E.g., Foss 2008, 6, non-standard emergency coinage at Caesarea probably struck during the earliest Byzantine wars with Islam.

⁸⁸ Gannon 2006 offers an alternative.

⁸⁹ Besly and Bland 1983.

⁹⁰ Davies 1986; see also id. 1987.

⁹¹ Moorhead et al. 2010; Hill 1949, 29, 26 and 28, respectively; see Williams 2006, 102–106 for dating of the Richborough IV hoard, cf. Hill 1949, 16–17.

added. One is that the larger the hoard, irrespective of period, the lower the proportion of imitative pieces: Richborough IV was a hoard of 563 coins and Mere Heath 1,404, whereas *Cunetio* and Frome numbered more than 50,000 each. Evidently the supply of imitative coins was not so high that many thousands could be amassed, unlike regular issues, even when those had had to be imported. But the other necessary deduction is that in all these cases, not only were imitative coins available for use alongside regular ones but someone chose to hoard them as if they might still be usable in future. In short, we cannot argue that imitative coins were not a real part of the currency, here, in Gaul where finds show the same picture, or in the *nummus* economy of the Mediterranean either.⁹²

There is an inherent problem in our identification of imitative coinage, however, which is that we do so substantially on aesthetic grounds: we think real coins should be better-looking than what we sometimes see. While Roman and Byzantine authorities certainly recognised the category of counterfeit coinage, and punished it harshly, still we cannot be sure that we identify as counterfeit or imitative the same coins that they would have.⁹³ Even in the Roman period suggestions are sometimes made that an issue we have previously thought too poorly-executed to be legitimate was in fact official, but in the post-Roman world such criteria become almost unusable in places.⁹⁴ Given the extremely worn state of most *nummi* in preservation, the expedients to which the seventh-century Empire went in the recycling, countermarking, cutting up and overstriking of older small change, and the extreme stylisation of the Roman prototypes behind some later western issues, what basis can we have for imposing a criterion of accurate, naturalistic replication of a coin type onto the increasingly decentralised and disconnected monetary landscape of the post-Roman world? How can we, now, tell if a Sicilian-countermarked cut quarter of an Anastasian *folles* was “genuine” or “imitative,” and how indeed could the imperial authorities have after it was circulated? Could anyone have decided the authenticity of an anonymous African *nummus* with a stylised Victory reverse, or even a slightly light-weight or off-colour “Porcupine” *sceatta*? Likewise, consider the allegedly Avar *solidus* mentioned above. If that is indeed what it was, it would have been “official” in the eyes of its issuers, “counterfeit” in the eyes of the Empire and very hard for anyone else to decide upon. A more sensible criterion, therefore, is whether such coins were acceptable in circulation or not, and the hoard evidence repeatedly tells us that they were.

This has implications for the development of coinage over time that are

⁹² *Ibid.*, 19–21 and 35–38; Lallemand 1983; Kropff 2007; Moorhead 2013.

⁹³ See n. 12 above.

⁹⁴ Kropff 2005, 90–93, offers one such case for rehabilitation.

not generally appreciated. Evidently the tolerance in this period for money that deviated from precise replication of its prototypes was higher than our modern one; after all, at the lowest level of exchange (but also, note, in one of the richest burials yet excavated in Anglo-Saxon England), even blank discs would sometimes do.⁹⁵ What this means, of course, is that the general stock of circulating coinage included coins that for us seem outside acceptable ranges, but which evidently were acceptable.

Let us therefore consider the position of the maker of unofficial or even counterfeit coins.⁹⁶ Two priorities pressed upon him or her: firstly, that his or her coins be of a standard that allowed them to pass into circulation without reprisal; and secondly, that they be cheaper to produce than the cost of obtaining official coins, otherwise there would be no gain in making them. The former factor implies maintenance of a certain standard of weight, fineness, and appearance, but the latter militates against it: whatever metal could be saved, whatever efforts did not need to be made, were the issuer's profit margin. But the issuer did not need to produce money of the highest artistic accuracy: coin below that standard was almost always in circulation already, and passing acceptably from hand to hand. It was this lower margin of production quality which limited the issuer of unofficial or imitative coin, not the upper one.

As long as regular coin at a well-maintained standard continued also to enter circulation, that lower margin could not slip too far; shoddy coins would look too little like what people expected to see. When the supply of regular coin dropped, however, not only was the demand for substitutes naturally higher but the prototypes available to the imitator would come to include more and more coins that were themselves imitations. This would broaden the range of current coinage's appearance, both in types and in the accuracy of their replication. The situation would also place considerable downward pressure on the size and weight, and to an extent therefore the standard, of the imitative coin, however, because now its makers needed to undercut their own costs, rather than the Empire's, in order to manufacture new coins at a profit. The natural tendency was to make more coins from the same amount of metal, making coins a little smaller each batch. Study of English hoards suggests that the resulting shrinkage could be extremely rapid.⁹⁷

Even where such profiteering was to an extent contained, however, the available models for imitation, the current stock of coinage into which a successful imitation must pass, would have altered and become more distant from their

⁹⁵ Blanks: Davies 1986; Zeepvat 1994; Williams 2006, 173–179, for the Sutton Hoo burial.

⁹⁶ The premises here are based on Boon 1988.

⁹⁷ *Ibid.*, 113–115.

prototypes, not least because those prototypes would be getting harder to obtain. How easily, after all, could a die-cutter of 700 AD obtain a coin of 400 AD to imitate, and why would he or she when it was coins of 700 AD he or she needed to match? The assumption that so-called barbarians simply could not produce such objects, even though we marvel at metalwork from these cultures and a Roman or Byzantine smith would have been little more educated than a barbarian one, should be replaced by consideration of these economic and monetary pressures and processes in order to explain the apparent “degeneration” of coinage at various times and places in this period.

Conclusions

As we can now understand better where continuity with Roman coinage really lay, and to some extent why, and also what the pressures that meant even imitation of Roman coinage entailed money becoming less and less like it over time, we can re-evaluate the transitions which money underwent in the post-Roman world. It seems clear that while Byzantium was indubitably the continuator of the Roman Empire, indeed was still the Roman Empire, its coinage underwent no less change than that of its contemporaries. Indeed, the western kings, needing to engage with the legacy administrative and fiscal structures of Roman rule if they were to raise themselves above the level of small-time warlords, arguably worked harder to maintain the Roman coinage of 400 AD, or at least something that looked like it, than did the Byzantines. Both the Empire and, when it emerged, the Caliphate, had the strength of government to change their coinage and have it still undeniably be theirs, even if such change was more feasible at times of crisis when dynamic action was clearly needed. The western kingdoms, apart perhaps from the Vandals and Ostrogoths whose strong positions permitted some innovation, were compelled by their reliance on the trappings of Roman rule to maintain currency in the old Roman style until that currency reached crisis point, and then, in the North Sea world, it seems that commercial interests took action, not kings. Politics aiming for coinage like that of 400 AD became increasingly unable to accomplish this feat of memorialisation, however. The paradox that it may, in the end, be the Lombards who did so most effectively, not the Empire, only goes to show that there are more informative and significant ways to understand the changes of the post-Roman world than a narrative of continuity versus barbarous degeneration. The coinage allows us instead to understand the changes of the time in the time's own terms.

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Illustrations



Fig. 1: Gold *solidus* of emperor Arcadius struck in Thessaloniki, 395–408 AD. Birmingham, Barber Institute of Fine Arts, LR0392. Reproduced by kind permission of the Henry Barber Trust.



Fig. 2: Gold *tremissis* of emperor Honorius struck in Milan, 395–423 AD. Birmingham, Barber Institute of Fine Arts, LR0458. Reproduced by kind permission of the Henry Barber Trust.



Fig. 3: Silver *siliqua* of emperor Arcadius struck in Trier, 395–408 AD. Birmingham, Barber Institute of Fine Arts, LR0303. Reproduced by kind permission of the Henry Barber Trust.



Fig. 4: Copper-alloy *Æ2* of emperor Honorius struck in Antioch, 395–423 AD. Birmingham, Barber Institute of Fine Arts, LR0456. Reproduced by kind permission of the Henry Barber Trust.



Fig. 5: Copper-alloy *Æ3* of empress Eudoxia struck in Antioch, 395–404 AD. Birmingham, Barber Institute of Fine Arts, LR0432. Reproduced by kind permission of the Henry Barber Trust.



Fig. 6: Copper-alloy *Æ4/nummus* of emperor Arcadius struck in Lyon, 395–408 AD. Birmingham, Barber Institute of Fine Arts, LR0304. Reproduced by kind permission of the Henry Barber Trust.



Fig. 7: Gold *solidus* of emperor Arcadius struck in Trier, 395–408 AD. Birmingham, Barber Institute of Fine Arts, LR0302. Reproduced by kind permission of the Henry Barber Trust.



Fig. 8: Silver 50-*denarii* of king Gunthamund struck probably in Carthage, 484–496 AD. Birmingham, Barber Institute of Fine Arts, VV0062. Reproduced by kind permission of the Henry Barber Trust.



Fig. 9: Silver 25-*denarii*/250-*nummi* of king Gunthamund struck probably in Carthage, 484–496 AD. London, British Museum, Coins and Medals 1854,1227.22. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 10: Copper-alloy 42-*nummi* struck in Carthage, 474–534 AD. Birmingham, Barber Institute of Fine Arts, VV0065. Reproduced by kind permission of the Henry Barber Trust.



Fig. 11: Copper-alloy 21-*nummi* struck in Carthage, 474–534 AD. Birmingham, Barber Institute of Fine Arts, VV0066. Reproduced by kind permission of the Henry Barber Trust.



Fig. 12: Copper-alloy 12-*nummi* struck in Carthage, 474–534 AD. Birmingham, Barber Institute of Fine Arts, VV0067. Reproduced by kind permission of the Henry Barber Trust.



Fig. 13: Copper-alloy 2½-*nummi* struck probably in Carthage, 474–534 AD. Birmingham, Barber Institute of Fine Arts, VV0063. Reproduced by kind permission of the Henry Barber Trust.



Fig. 14: Copper-alloy *nummus* of king Gunthamund struck probably in Carthage, 484–496 AD. Leeds, Brotherton Library, University of Leeds, CC-TH-MED-VAN-2. Reproduced with the permission of Special Collections, Leeds University Library.



Fig. 15: Gold *solidus* in the name of emperor Anastasius I struck in Rome, 491–518 AD. Birmingham, Barber Institute of Fine Arts, VV0007. Reproduced by kind permission of the Henry Barber Trust.



Fig. 16: Gold *tremissis* in the name of emperor Anastasius I struck in Rome, 491–518 AD. Birmingham, Barber Institute of Fine Arts, VV0008. Reproduced by kind permission of the Henry Barber Trust.



Fig. 17: Silver half-*siliqua* in the name of emperor Anastasius I struck probably in Rome, 491–518 AD. Birmingham, Barber Institute of Fine Arts, VV0011. Reproduced by kind permission of the Henry Barber Trust.



Fig. 18: Silver quarter-*siliqua* of king Theodoric of Italy struck in the name of emperor Anastasius I in Rome, 491–507 AD. Birmingham, Barber Institute of Fine Arts, VV0013. Reproduced by kind permission of the Henry Barber Trust.



Fig. 19: Copper-alloy 40-*nummi* struck in Rome, 476–542 AD. Birmingham, Barber Institute of Fine Arts, VV0050. Reproduced by kind permission of the Henry Barber Trust.



Fig. 20: Copper-alloy 20-*nummi* struck in Rome, 476–542 AD. Birmingham, Barber Institute of Fine Arts, VV0053B. Reproduced by kind permission of the Henry Barber Trust.



Fig. 21: Copper-alloy 10-*nummi* struck in Ravenna, 476–554 AD. Birmingham, Barber Institute of Fine Arts, VV0014. Reproduced by kind permission of the Henry Barber Trust.



Fig. 22: Copper-alloy 2-*nummi* of king Athalaric of Italy struck in the name of emperor Justinian I in Rome, 526–534 AD. Birmingham, Barber Institute of Fine Arts, VV0024. Reproduced by kind permission of the Henry Barber Trust.



Fig. 23: Gold *solidus* of king Sigismund of the Burgundians struck in the name of emperor Anastasius I probably at Lyon, 516–524 AD. Birmingham, Barber Institute of Fine Arts, BUR0002. Reproduced by kind permission of the Henry Barber Trust.



Fig. 24: Gold *tremissis* of king Gundobad of the Burgundians struck in the name of emperor Anastasius I probably at Lyon, 491–516 AD. Birmingham, Barber Institute of Fine Arts, BUR0001. Reproduced by kind permission of the Henry Barber Trust.



Fig. 25: Silver *denarius* of King Gundobad of the Burgundians struck at Lyon, 480–516 AD. CGB Monnaies, Monnaies sale 11, 2002, lot 579. Reproduced by kind permission.



Fig. 26: Silver sixth-*siliqua* of King Gundobad of the Burgundians struck in the name of emperor Anastasius I probably at Lyon, 491–516 AD. London, British Museum, Coins and Medals 1925,0704.15. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 27: Copper-alloy *nummus* of king Gundobald of the Burgundians struck at Lyon, 480–516 AD. London, British Museum, Coins and Medals 1860,0330.1012. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 28: Copper-alloy *nummus*, imitating a coin of emperors Constantine II, Constans I, or Constantius II, struck in Antioch 324–361 AD (cf. RIC VIII 187A), struck probably in Britain or Northern Gaul, 348–550 AD. Birmingham, Barber Institute of Fine Arts, R3558. Reproduced by kind permission of the Henry Barber Trust.



Fig. 29: Gold *tremissis* struck in the name of emperor Valentinian III in north-eastern Spain, c. 435 – c. 560 AD. Inscriptions retrograde. Paris, Bibliothèque nationale de France, Cabinet des Médailles, un-catalogued. Photograph by Ruth Pliego and reproduced with her kind permission.



Fig. 30: Gold *solidus*, imitating a coin of emperor Valentinian III struck at Ravenna 426–455 AD (cf. RIC X 2020–2024), struck probably in Spain, 426 – c. 570 AD. Rome mintmark. Birmingham, Barber Institute of Fine Arts, VV0004. Reproduced by kind permission of the Henry Barber Trust.



Fig. 31: Gold *tremissis*, imitating a coin of emperor Libius Severus struck at Rome, 461–465 AD (cf. RIC X 2706), struck probably in Spain, 461 – c. 570 AD. Birmingham, Barber Institute of Fine Arts, VV0006. Reproduced by kind permission of the Henry Barber Trust.



Fig. 32: Gold *solidus* of emperor Anastasius I struck at Constantinople, 491–518 AD. Birmingham, Barber Institute of Fine Arts, B0005. Reproduced by kind permission of the Henry Barber Trust.



Fig. 33: Gold *semissis* of emperor Anastasius I struck at Constantinople, 491–518 AD. Birmingham, Barber Institute of Fine Arts, B0021. Reproduced by kind permission of the Henry Barber Trust.



Fig. 34: Gold *tremissis* of emperor Anastasius I struck at Constantinople, 491–518 AD. Birmingham, Barber Institute of Fine Arts, B0032. Reproduced by kind permission of the Henry Barber Trust.



Fig. 35: Silver *siliqua* of emperor Anastasius I struck at Constantinople, 491–518 AD. Washington, D.C., Dumbarton Oaks Research Library and Collection, BZC.1948.17.1287.D2017. © Dumbarton Oaks, Byzantine Collection, Washington, D.C. Reproduced by kind permission.



Fig. 36: Copper-alloy 40-*nummi* of emperor Anastasius I struck at Constantinople, 498–512 AD. Birmingham, Barber Institute of Fine Arts, B0044. Reproduced by kind permission of the Henry Barber Trust.



Fig. 37: Copper-alloy 20-*nummi* of emperor Anastasius I struck at Constantinople, 498–512 AD. Birmingham, Barber Institute of Fine Arts, B0060. Reproduced by kind permission of the Henry Barber Trust.



Fig. 38: Copper-alloy 10-*nummi* of emperor Anastasius I struck at Constantinople, 498–512 AD. Birmingham, Barber Institute of Fine Arts, B0074. Reproduced by kind permission of the Henry Barber Trust.



Fig. 39: Copper-alloy *nummus* of emperor Anastasius I struck probably at Constantinople, 491–518 AD. Birmingham, Barber Institute of Fine Arts, B0032. Reproduced by kind permission of the Henry Barber Trust.



Fig. 40: Gold *solidus* of emperor Maurice struck at Constantinople, 582–601 AD. Birmingham, Barber Institute of Fine Arts, B1767. Reproduced by kind permission of the Henry Barber Trust.



Fig. 41: Gold *semissis* of emperor Maurice struck at Constantinople, 582–601 AD. Birmingham, Barber Institute of Fine Arts, B1873. Reproduced by kind permission of the Henry Barber Trust.



Fig. 42: Gold *tremissis* of emperor Maurice struck at Constantinople, 582–601 AD. Birmingham, Barber Institute of Fine Arts, B1880. Reproduced by kind permission of the Henry Barber Trust.



Fig. 43: Silver *siliqua* of emperor Maurice struck at Constantinople, 582–601 AD. Birmingham, Barber Institute of Fine Arts, B1881. Reproduced by kind permission of the Henry Barber Trust.



Fig. 44: Copper-alloy 40-*nummi* of emperor Maurice struck at Antioch, 590–591 AD. Birmingham, Barber Institute of Fine Arts, B2182. Reproduced by kind permission of the Henry Barber Trust.



Fig. 45: Copper-alloy 20-*nummi* of emperor Maurice struck at Cyzicus, 601 AD. Birmingham, Barber Institute of Fine Arts, B2148. Reproduced by kind permission of the Henry Barber Trust.



Fig. 46: Copper-alloy 10-*nummi* of emperor Maurice struck at Constantinople, 582–601 AD. Birmingham, Barber Institute of Fine Arts, B2018. Reproduced by kind permission of the Henry Barber Trust.



Fig. 47: Copper-alloy 5-*nummi* of emperor Maurice struck probably at Antioch, 582–601 AD. Birmingham, Barber Institute of Fine Arts, B2291. Reproduced by kind permission of the Henry Barber Trust.



Fig. 48: Copper-alloy 12-*nummi* of emperor Maurice struck at Alexandria, 582–601 AD. Birmingham, Barber Institute of Fine Arts, B2299. Reproduced by kind permission of the Henry Barber Trust.



Fig. 49: Gold *solidus*, imitating a coin of emperor Phocas struck at Constantinople in 601–610 AD, possibly struck in Avar territories, 601–793 AD. Birmingham, Barber Institute of Fine Arts, AV0001. Reproduced by kind permission of the Henry Barber Trust.



Fig. 50: Gold *tremissis* struck in the name of emperor Maurice perhaps in Pavia, 582–601 AD. London, British Museum, Coins and Medals B.12431. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 51: Gold *tremissis* struck in the name of emperor Justin I at an uncertain Frankish mint, 518 – c. 580 AD. Birmingham, Barber Institute of Fine Arts, M0001. Reproduced by kind permission of the Henry Barber Trust.



Fig. 52: Gold *solidus*, imitating a copper-alloy coin of empress Helena, struck probably in England c. 570 – c. 620 AD. London, British Museum, 1864,1128.195. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 53: Gold *thrymsa* of king Eadbald of Kent struck probably at Canterbury 616–640 AD. London, British Museum, 1999,0105.1. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 54: Copper alloy *nummus* struck probably at Marseille in 558 – c. 629 AD. CGB Monnaies, Monnaies sale 45, 2010, lot 986. Reproduced by kind permission.



Fig. 55: Gold *tremissis* of king Reccared of the Visigoths struck at Tarragona in 582–601 AD. London, British Museum, 1849,0621.18. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 56: Copper-alloy *nummus* multiple probably struck in Seville in c. 584 – c. 653 AD. Seville, De la Oliva Collection. Photograph by Ruth Pliego and reproduced with her kind permission.



Fig. 57: Gold *dinar* struck at an uncertain mint in 700 AD. London, British Museum, 1876,1004.1 © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 58: Silver *dirham* struck at Wasit in 734/735 AD. Birmingham, Barber Institute of Fine Arts, A-B0073. Reproduced by kind permission of the Henry Barber Trust. My thanks to Yngve Karlsson for help with identification.



Fig. 59: Copper-alloy *fals* struck at an uncertain mint, probably 700–718 AD, excavated at Wadi Sarga, Egypt, 1918. London, British Museum, 1919,0505.793. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 60: Copper-alloy half-*follis* of emperor Justinian I struck at Antioch, 555/556 AD, found with a hoard of copper-alloy coins of the 6th to 13th centuries, some bearing Arabic countermarks, at Mardin, Turkey, 1972. Birmingham, Barber Institute of Fine Arts, MH0003. Reproduced by kind permission of the Henry Barber Trust.



Fig. 61: Gold *solidus* of emperor Tiberius III struck at Constantinople, 698–705 AD. Birmingham, Barber Institute of Fine Arts, B4438. Reproduced by kind permission of the Henry Barber Trust.



Fig. 62: Gold *semissis* of emperor Tiberius III struck at Constantinople, 698–705 AD. Birmingham, Barber Institute of Fine Arts, B4442. Reproduced by kind permission of the Henry Barber Trust.



Fig. 63: Gold *tremissis* of emperor Tiberius III struck at Ravenna, 698–705 AD. Birmingham, Barber Institute of Fine Arts, B4459. Reproduced by kind permission of the Henry Barber Trust.



Fig. 64: Silver hexagram of emperor Tiberius III struck at Constantinople, 698–705 AD. Cambridge, MA, Harvard Art Museum, Bequest of Thomas Whittemore, 1951.31.4.1029. Image © President and Fellows of Harvard College; used by kind permission.



Fig. 65: Copper-alloy *follis* of emperor Tiberius III struck at Constantinople, 698–705 AD. Birmingham, Barber Institute of Fine Arts, B4449. Reproduced by kind permission of the Henry Barber Trust.



Fig. 66: Gold *tremissis* of king Cunincpert of the Lombards struck at Pavia, 680–700 AD. London, British Museum, B.12426. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 67: Uniface silver coin of king Perctarit or king Cuninepert of the Lombards struck at Pavia, 672–700 AD. London, British Museum, 1855,0612.486. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 68: Gold *tremissis* of kings Egica and Witiza of the Visigoths struck at Seville, 695–700 AD. London, British Museum, 1863,1110.13. © The Trustees of the British Museum. All rights reserved. Used by permission.



Fig. 69: Silver denier struck at Paris, c. 670–750 AD. CGB Monnaies, e-Monnaies auction June 2015, BMV_347890. Reproduced by kind permission.



Fig. 70: Silver penny struck probably in East Anglia, c. 700–735 AD. Leeds, Brotherton Library, University of Leeds, uncatalogued; Sylloge of Coins of the British Isles 1021.0946. Reproduced with the permission of Special Collections, Leeds University Library.



Fig. 71: Silver penny struck probably in Frisia, c. 710–740 AD. Leeds, Brotherton Library, University of Leeds, uncatalogued; Sylloge of Coins of the British Isles 1021.0942. Reproduced with the permission of Special Collections, Leeds University Library.

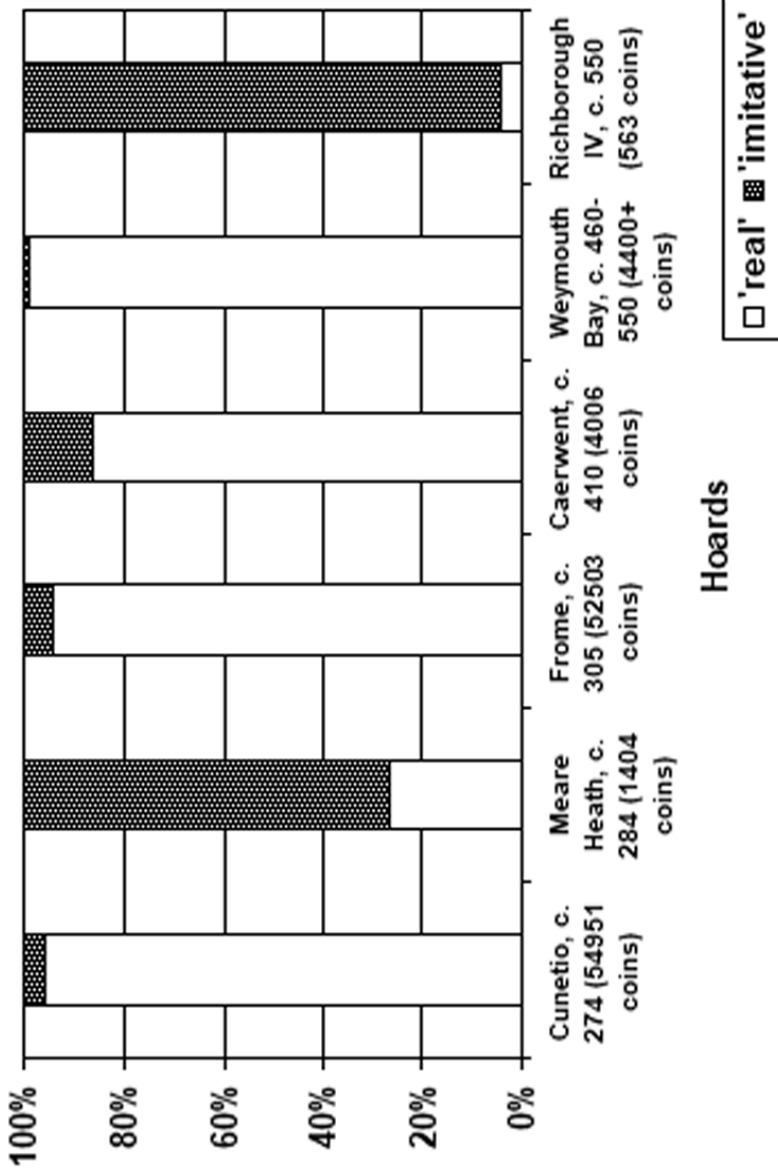


Fig. 72: Graph of contents of six hoards of regular and imitative Roman coinage from Britain. Graphic by the author.