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Pliny's dating of the first Roman gold coins¹

John Melville Jones

This article reviews a passage in Pliny's *Natural History* in which two different dates are suggested in different manuscripts for the first Roman coins. Modern scholars have tended to dismiss one or even both of these dates as simple errors of transcription, but it is suggested here that it is possible that they can be explained, because it is not only the numbers that are different, but the surrounding text is not the same in each case.

Numismatists are by now agreed that the first gold coins that were issued by the Romans can be dated to the Second Punic War (218–201 B.C.). The coins that show a scene on the reverse in which a Roman and a non-Roman stand with a figure holding a pig kneeling between them, about to slaughter it, are clearly the earlier of the two groups, because they seem to be contemporary with the later issues of the coins that are called *quadrigati*². The coins that combine an obverse type of a bearded Mars with the reverse type of an eagle are later³.



Fig. 1: Gold half-stater, diameter 12 mm, weight 3.3 g, Münzkabinett der Staatlichen Museen zu Berlin
Inv. no. 18201071, provided by Karsten Dahmen, photographs by Dirk Sonnenwald.



Fig. 2: Silver *quadrigatus*, diameter 22.7 mm, weight 6.21 g, Münzkabinett Winterthur
Inv. no. R4718, provided by Christian Schinzel, photographed by Lübke + Wiedemann, Leonberg.

The earlier coins have an obverse type of two youthful janiform heads. This is similar to the reverse type of the Roman silver didrachms that pair this with the reverse type of a four-horse chariot or *quadriga*; this is why they are called *quadrigati*. The gold coins must be regarded as having been inspired by the silver ones, which were issued from a time in the 240s B.C. until just before the introduction of the denarius a few years before 211 B.C. The latest issues of the *quadrigati* are slightly lighter, with a lower silver content than the earlier ones. This suggests that the Romans had less silver than they needed, and it may have been one of the reasons for issuing gold coins at this time.

Crawford suggested (*RRC* Vol. II, p. 715) that the obverse type might have been intended to represent the Dioscuri, rather than a youthful Janus, or any of the other interpretations that have been offered. This would have been appropriate in a time of war, because of the Roman belief that the gods Castor and Pollux had assisted them at the Battle of Lake Regillus in 495 B.C. We may wonder why the die engravers decided on jugate heads, rather than the overlapping

- 1 I am grateful to Andrew Meadows, who read an earlier and shorter draft of this article, and although not entirely convinced by my arguments, made several useful comments.
- 2 M. H. CRAWFORD, *Roman Republican Coinage* (Cambridge 1974), Vol. I, p. 144, 28, 1–2.
- 3 CRAWFORD (n. 2), Vol. I, p. 154, 44, 2–4.

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heads that sometimes appeared on Ptolemaic coins from the time of Ptolemy II onwards, but that is a question that cannot be answered.

The reverse type of a *quadriga* may, as Hubert Zehnacker has suggested⁴, have been inspired by a similar statue, probably in bronze, that had been erected on the ridge of the temple of Jupiter Capitolinus in Rome at some time after 296 B. C. On the other hand, since these coins were probably intended to be used to make payments in the south of Italy, it is more likely that the type was chosen, even if it was inspired by the statue, because its message of a victorious charioteer would have been familiar there, after it had been used on many Greek coins.

These types were replicated on some bronze coins of two Campanian cities, Atella and Capua. Capua defected from the Roman alliance after the Romans had been defeated in the Battle of Cannae, which took place in August 216. This provides a *terminus ante quem* for the Capuan coins, and also for the first Roman gold coins.

In his book *Coinage in the Roman Economy*, which combines numismatics and economic analysis⁵, Kenneth Harl describes the *quadrigati* as heavy *denarii*, reduced in weight when a new system of coins began to be minted during the Second Punic War. This is wrong. Their weights, together with the reverse type which has a history in Greek coinage, show that they were tariffed as didrachms on the sort of weight standard that was common among the Greek cities in southern Italy (about 8.6 grams, although the last issues were reduced in weight and fineness). The only evidence in ancient authors that suggests that they were ever called *denarii* is unsatisfactory. It comes from a reconstructed passage in Festus (*sestertii notam*) and an emendation that has been suggested for a passage in Varro's *Lingua Latina* (5.174).



Fig. 3: 60-as gold coin, diameter 14.8 mm, weight 3.37 g, Münzkabinett Winterthur
Inv. no. R1, provided by Christian Schinzel, photographed by Lübke + Wiedemann, Leonberg.

- 4 H. ZEHNACKER, *Moneta* (Rome 1973), Vol. 1, p. 300).
- 5 K. W. HARL, *Coinage in the Roman economy, 300 B. C. to A. D. 700* (Baltimore and London 1996), pp. 29–32. It is also stated on p. 49 that the Romans considered gold unsuitable for coinage because it was 'a regal metal better dedicated to the gods', and that individual members of the aristocracy should not be allowed to exalt themselves over other members of their class by distributing gold coins as largess to the people and thus obtaining 'regal fame'. There is no evidence to support either of these suppositions.

Some of the Mars/Eagle gold coins that came later show symbols that are similar to symbols on the earliest *denarii*. This suggests that they began to be produced a few years after the beginning of the Second Punic War. The significance of these types will be discussed later (see Note 22).

For a full analysis of both these issues, including a review of earlier theories concerning their dating and significance, see Rudi Thomsen, *Early Roman Coinage. A Study of the Chronology*, Copenhagen 1957 (Vol. I) and 1961 (Vols II and III). This work, and Michael Crawford's *Roman Republican Coinage* (2 vols, Cambridge 1974), have made earlier studies mostly irrelevant, particularly those written before 1835, the year when the only manuscript of Pliny's work that gives the date of the gold coinage as 51 years before the first silver coins was published. Nevertheless, the first part of Max von Bahrfeldt's work, *Die römische Goldmünzenprägung während der Republik und unter Augustus* remains a useful collection of material, although, because it was pub-

lished in 1923, the dating of the early gold is incorrect. Similarly, two articles by H. Willers⁶ and O. Leuze⁷ present the ancient literary evidence in a useful way, although they have been overtaken by later studies and archaeological evidence. Unfortunately, *Moneta*, the monumental 2-volume work of Hubert Zehnacker, was published in 1973, so close to the date of Crawford's catalogue of Republican coins that its opinions could not be taken into account there.

In his seminal work on early Roman coinage, Rudi Thomsen (in Chapter VII of Vol. II (pp. 243–319) discussed these issues of gold coins exhaustively. He dismissed many earlier theories and suggested fairly close dates for the different groups, placing what are generally called the Oath Scene coins before 214 B.C. He favoured a date of 216 B.C., because he suggested that of the different possible interpretations, he preferred one that identified the scene as representing a new form of oath to serve taken by allies of the Romans in that year, which is reported by Livy⁸. Livy's report follows another which mentions the second consulship of Lucius Aemilius Paullus. This took place in 216 B.C., and Paullus died in August of that year, according to paragraph 49 of Livy's account of these events. The modification of the manner of swearing the military oath therefore belongs to the first half of that year, probably in spring when the campaign was beginning.

However, there is no reason to suppose that the Oath Scene gold could not have been produced earlier. It would have been just as appropriate for earlier swearings of the oath to be represented in this way at the time that they occurred, and therefore the reverse type could just as easily refer to what was happening soon after the Second Punic War began in 218 B.C.

Thomsen placed the Mars/Eagle gold in 209 B.C., a year in which, as Livy also tells us, gold that had been collected through a special tax was taken from the *aerarium sanctius*, the 'very inviolate *aerarium*', a special reserve fund, originally established to support the war against Hannibal, which could be drawn upon only in 'extraordinary circumstances'⁹. Livy's account is illuminating: five hundred and fifty pounds of gold were distributed among the consuls and proconsuls, and a special grant of one hundred pounds was handed over to one of the consuls, Quintus Fabius, to be sent to the city of Tarentum. This may have helped the Romans to retake the city from Hannibal, if it was paid to Hannibal's Italian allies as a bribe. The praetor Lucius Veturius, to whom the province of Gaul had been allotted, was given the same amount as had been given to the consuls and proconsuls, and what was left was used to pay for clothing for the army in Spain in 'hard cash' (*praesenti pecunia*). It is possible that some of these transactions were made in bullion.

Because gold coins would not have been suitable to be paid to ordinary soldiers unless they were being honourably discharged, it seems likely that Livy's information makes clear to us how those of the second series of Roman gold coins that were minted in 209 B.C. were actually used. It is clear that this series began to be minted several years before 211 B.C., but here we have an explanation at least for the later Mars/Eagle coins.

This article will differ from what Thomsen wrote in one respect, because, like many others, he rejected the ancient literary evidence relating to the dating of these coins. When discussing the two different dates that the manuscripts of

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6 H. WILLERS, Die römische Goldprägung vom Jahre 209 v. Chr., in: *Corolla Numismatica*. Numismatic Essays in Honour of Barclay V. Head (London 1906), pp. 310–324.

7 O. LEUZE, Die plinianische Datierung der ersten Goldprägung in Rom, *Zeitschrift für Numismatik* 32, 1920, pp. 37–46.

8 22.38.1, reporting a formal *iurandum* (R. THOMSEN, Early Roman coinage. A study of the chronology (København 1957–1961), Vol. II, pp. 256–8). According to this account, the oath of allegiance to Rome that had been sworn in the past was now modified so that it was sworn in the presence of military tribunes.

9 Liv. 27.10–13: *aurum vicesimarium quod in sancto aerario ad ultimos casus servabatur promi placuit*. The *aurum vicesimarium* or 'twentieth (five per cent) gold' was a tax that was collected regularly when slaves were manumitted and became *liberti* or freedmen. The tax would probably have been paid in silver coins, but these would then have been exchanged for gold bullion, which took up less space.

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Pliny's *Natural History* give us for the introduction of gold coinage at Rome (51 and 62 years after the first silver coinage, the different manuscript readings being presented on pp. 19–20 of the first volume of his work), he wrote on p. 255 of Volume II:

“Deducting both fifty-one and sixty-two years from 269 B. C., we arrive at the period of the Second Punic War, to which the Mars/Eagle gold belongs with certainty. In view of the *terminus post quem* established above, 215 B. C., the former number, which appears in the Codex Bambergensis, cannot be taken into consideration; then on the basis of Pliny's account, it would be an obvious assumption that the Mars/Eagle gold was introduced sixty-two years after 269 B. C., in 207, or, in the event that LXII is corrupt, just like LI, in an adjacent year. Palaeographically, it would not be unreasonable to assume that both LI and LXII go back to either LX or LXI in the original text; then we would arrive at 209 and 208 B. C., respectively.”

It will be claimed in what follows that he was wrong about the possibility that LI and LXII were simply corrupted in this way in the manuscripts. Instead, it will be suggested that what we have actually consists of two statements, one of which was selected by one mediaeval copyist and the other by another. It should also be noted that the Roman concept of the length of time between two different years was sometimes slightly different from ours (see the explanation later in this article).

The principal literary source for the dating of these coins is, as has been already stated, a passage in Book 33 of Pliny's *Natural History*¹⁰. This book describes mining, the minerals that are produced from mines, and the uses to which they are put. The production of coins, since they are made in metals of different kinds, is one of the things that are included in his account. Since we do not have any complete or nearly complete texts of the *Natural History* that are earlier than the 10th century, it is not surprising that by that time, after copying and recopying, there are sometimes small differences in words or the spelling of words in the manuscripts. But two very different versions of the first sentence of this paragraph survive, so different that simple miscopying does not seem to be a sufficient explanation.

The two versions are as follows. In the 10th century *Codex Bambergensis*, held in the Staatsbibliothek Bamberg, Germany¹¹, we read ‘A *denarius nummus* was struck 51 years after the silver one’¹².

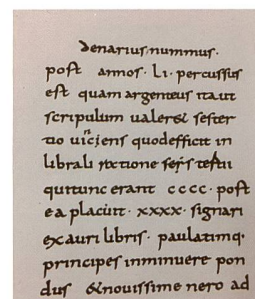


Fig. 4: Illustration of the section of the Bamberg manuscript of Pliny's *Natural History* that mentions the first Roman gold coinage and clearly gives the date in the second line as 51 years after the first *denarius*.

10 Plin. *Nat.* 33.13.47.

11 Staatsbibliothek Bamberg, Msc. Class. 42 (formerly M.v.10), containing Books XXXII–XXXVII of Pliny's work. On the general subject of the manuscripts of the *Natural History*, see the chapter by L. D. REYNOLDS, *The Elder Pliny*, in: idem (ed.), *Texts and Transmission. A Survey of the Latin Classics* (Oxford 1983), pp. 307–16. In the 1897 edition of the *Natural History* by C. MAYHOFF (Leipzig, Teubner), the *Conspectus Codicum* on pp. IV–IX begins by separating out the *Codex Bambergensis* and describing it on pp. IV–V, following this by listing the later ones and separating them into an earlier and a later group, which follow different archetypes.

12 *Denarius nummus post annos LI percussus est quam argenteus*. Modern editors refuse to accept the reading *denarius*, as opposed to the *aureus* that appears in the later manuscripts, because it gives us an impossibly early date for the introduction of the *denarius* (an attempt by J. D. Milne to defend *denarius*, in his article ‘Pliny on the First Coinages at Rome’ in *Classical Review* 50/6 1939, 215–7, has been rightly rejected, particularly after the date of c. 211 B. C., or two or three years earlier, for the introduction of the *denarius* came to be accepted).

In later manuscripts we read 'A gold *nummus* was struck in the 62nd year after the silver one'¹³. When we look at the Latin texts, it is important to note that they differ not only in the numbers used, but in the neighbouring words, and these differences have been followed in the English translations that are offered here.

It is perhaps worth noting that in two and perhaps three passages in Pliny's *Natural History* a 'golden *denarius*' is mentioned. He states that no one knows who first committed the crime of striking a *denarius* from gold¹⁴; and that the number of statues made by the sculptor Lysippus was known because when he was paid for each one, he would put aside a single golden *denarius* (what the Greeks would have called a 'stater') each time¹⁵. He also writes that a *smaragdus* (a green stone, perhaps an emerald, carved with a mythical figure, was sold in a place on Cyprus for six *aurei*, and some inferior manuscripts have *denariis aureis*, not the simple *aureis*)¹⁶. In addition, in the *Satyrica* of Petronius¹⁷, composed at about the same time, the *nouveau riche* character Trimalchio is described as having a board game of some kind in which the white and black stones that were normally used were replaced by more expensive 'gold and silver *denarii*'. These are all literary passages, and cannot be used to show that 'gold *denarius*' was ever the official name of a Roman coin. It is of course possible that for these two writers '*denarius*' might sometimes have been used in some contexts in the same way as '*nummus*', meaning only 'coin' in a general way. However, this does not solve the problem caused by the different readings in the manuscripts of the *Natural History*.

Returning to the different dates preserved in these manuscripts, they should in the first place be interpreted in relation to the statement made earlier, in Pliny's short description of early Roman coinage, that silver coinage was first struck in 269 B.C. Here he writes, using a consular dating that allows us to be precise, 'Silver was stamped (*i. e.*, coined) in year 485 of the City, in the consulships of Quintus Ogulnius and Gaius Fabius, five years before the First Punic War, and it was decided that the *denarius* should be worth 10 pounds of bronze, the *quinarius* 5, the *sestertius* a *dupondius* and a half'¹⁸. These words led many scholars in the past to assume that the *denarius* and its fractions were first coined in 269 B.C., but it is now clear that it must have been issued for the first time a few years before 211 B.C. Pliny or his source must have confused the beginning of this coinage with the beginning of the production of the first pre-*denarius* silver coinage at Rome, for which 269 B.C. is an acceptable date. This is understandable, but 268 B.C. is also possible, because the sixth entry in the *Periocha* or Epitome of the lost fifteenth book of Livy's *Ab Urbe condita libri*, 'Books from the Founding of the City', has an entry, 'At that time the Roman people first began to use silver (coinage)', *Tunc primum populus R. argento uti coepit*. This entry immediately follows one which notes the establishment of colonies of veteran soldiers at Ariminum and Beneventum, which certainly occurred in 268 B.C. This gives us an alternative date for the first production of silver coins at Rome by the Romans, but it is possible that both these dates are correct, because the legislation for producing these coins might have been enacted late in 269, while the coins were not actually minted until the following year¹⁹.

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- 13 *Aureus nummus post annum LXII percussus est quam argenteus*. THOMSEN (n. 8), on p. 20 of the first volume of his monumental work, expands this number correctly to *post annum sexagesimum secundum*, perhaps to show that the wording is different from what appears in the other manuscripts, although after that he sticks to the simple digits found in all the manuscripts.
- 14 Plin. Nat. 33.13.42, *denarium qui primus ex auro signavit incertum*.
- 15 Ibid. 34.17.37, *Lysippum solitum ex manipretio cuiusque signi denarius separare aureos singulos*.
- 16 Ibid. 37.3.6, *indicato in Cypro sex aureis (denariis) smaragdo*.
- 17 Petron. §33, *pro calculis albis ac nigris aureos argenteosque habebat denarius*.
- 18 Plin. Nat. 33.13.34, *argentum signatum anno urbis CCCCLXXXV Q. Ogulnio C. Fabio coss. quinque annis ante primum Punicum, et placuit denarium pro X libris aeris valere, quinarium pro V, sestertium pro dupondio et semisse*.
- 19 The later date seems also to be supported by an entry in the *Chronicle* composed by Eusebius at the beginning of the fourth century A.D., where it is stated that 'in the year 1746 of Abraham, and in the 127th Olympiad, a silver coin was first formed in the City (*argenteus nummus primum in Urbe figuratus*). Since there are various ways of calculating the 'years of Abraham', that dating may be disregarded, but the 127th Olympiad began in 268 B.C., so it looks as if Eusebius's source was using the same dating as Livy.

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So, starting from 269 or 268 B. C., we now have two dates from which Roman gold coinage might have begun. We should not insist on simple arithmetic when calculating the period of time described in the manuscripts, since the Romans sometimes calculated this slightly differently from the way in which most of us do now. The most obvious example of this is the Greek and Roman way of sometimes counting both the first and last year or day 'inclusively' to express a period of time; so Jesus is said to have risen 'on the third day', not 'on the second day' after the crucifixion (which is what would now be the normal way of expressing this period of time). This means that if the year when silver coinage began to be issued was either 269 or 268 B. C., the date for the first series of gold coins might be between 219 and 217 B. C. (according to the Bamberg manuscript), and the second series between 208 and 206 B. C., if we use the date that appears in the other manuscripts²⁰.

Where should we go from here? First, we should ignore the report preserved by Livy²¹, that in 218 B. C. Hannibal bribed Dasius of Brundisium to hand over Clastidium, whose garrison he was commanding, to him for what would have been a modest payment of four hundred *aurei* is not relevant to this question. Even if some Roman gold had started to be minted as early in the war as this, Hannibal would have paid Dasius with Carthaginian gold coins.

We now have the periods of 219–217 and 208–206 to consider if we are trying to fit the coinage to the dates suggested by the manuscripts. In the first place, the dating of the Oath Scene gold in the first of these periods does not quite fit Thomsen's suggestion that it might have been struck to commemorate an event that took place early in 216 B. C. According to Livy, at this time Rome's allies, particularly those who bore the 'Latin name' (*nomen Latinum*) swore an oath of loyalty in a much more binding form than previously. This would explain the reverse type of these coins more satisfactorily than the other interpretations that have been offered. But there is no reason to suggest that they were struck only when the manner of taking the oath of loyalty had been modified. They might have begun to be struck early in the Second Punic War (which began in 218 B. C.), and the reverse type would have been just as appropriate then. In that case the date suggested in the earliest surviving manuscript of Pliny's *Natural History* might be correct – 218 or 217 B. C., depending on how the interval was calculated.

We should also consider what the purpose of coining in the higher value metal might have been, and who the recipients (probably not ordinary soldiers) might have been. It is easy to say that there was an economic crisis of some kind; that gold was used simply because silver was in short supply, and gold was available. This may well be true²². But as has already been said, it would not have been useful to give gold coins to soldiers on campaign, because they would have had difficulty in using coins of such high value to cover their daily expenses; also, because of the difficulty of preventing it from being stolen, or used in ways that would not benefit them in the long term, it would have been appropriate to give it to them only at the time when they were decommissioned. There are of course other possibilities; for instance, large payments may have been made to the leaders of the allies, to induce them to support the Romans, and not to desert to Hannibal.

20 In Chapter IV ('L'oro del giuramento', pp. 83–102) of Filippo COARELLI's *Argentum Signatum* (Rome 2013) this difference between ancient and modern ways of describing the time between events is noted, but the author does not allow for the possibility that 268 B. C. might have been the year when the first silver coinage was produced for the Romans.

21 Liv. 21.48.8: *nummis aureis quadringentis Dasio Brundisio praefecto praesidii corrupto traditur Hannibali Clastidium*.

22 In 218 B. C., according to Livy (21.62.8), the Romans were able to send forty pounds of gold to Lanuvium, to be offered to Juno there as part of a purificatory rite: *donum ex auri pondo quadraginta Lanuvium Iunoni portatum est*. So gold was certainly available to them.

A date between 208 and 206 B.C. for the later Mars/Eagle coins might have seemed reasonable to Thomsen, because it fitted well with the suggestion that the raiding of the *aerarium sanctius* in 209 B.C. to provide gold to support the war led to the production soon afterwards of this coinage. However, since a specimen of one of the earliest issues of this series (marked with the numeral XX which indicated that it was valued at 20 asses) was discovered in the Morgantina excavations (see below), these must have begun to be issued a few years before 211 B.C., even if metal was provided for some later issues from this source²³.

An alternative dating proposed by Andrew Meadows²⁴, that the metal for the earliest of the Mars/Eagle coins was provided by Ptolemy IV, perhaps in 214 B.C. must also be considered. This is believable, since Egypt was a gold-producing country with little or no silver, although a slightly different dating will be suggested here. The basis for the suggestion is the possibility that assistance was sought by the Romans from Ptolemy in 214 B.C. because they would then have been able to reward him by countering what seemed to be a budding alliance between the Macedonian ruler Philip V and Hannibal, an alliance that would cause problems for Ptolemaic trade, and that this assistance took the form of gold given to the Romans, which allowed them to coin in that metal at that time or soon after. This is possible, although it avoids the question of who the recipients of these high-value coins might have been; as has already been said, they were probably not suitable for payment to individual soldiers except at the time of their discharge.

If the suggestion made by Meadows is correct, the first series of the Mars/Eagle coins, which can be differentiated from the later series by several mint marks²⁵, and was certainly in circulation by 211 B.C. (because, as has already been stated, a specimen was found in a destruction layer at Morgantina which can be confidently dated to that year)²⁶, might be placed in 214 or 213 B.C.

With this background, let us look at the different versions of the dating that Pliny's text provides. In the *Codex Bambergensis*, the word *aureus*, which makes good sense in a passage which is otherwise concerned with gold coinage, seems to have been replaced by *denarius*, which is certainly wrong. This looks like the sort of incorrect 'correction' that might have been made by a copyist who thought that he knew what he was doing. Fortunately, the later manuscripts (which may have had a different line of descent) have all preserved the right reading, *aureus nummus*. The important point that then needs to be discussed is the difference in dates: fifty-one years or sixty-two years after 269 or 268 B.C., which would give us dates within the periods 219–217 or 208–206 for the first coining of gold by the Romans.

If we look at these dates as alternatives, it seems that the one that appears in the later manuscripts, 208–206 B.C., should be dismissed immediately. As has already been made clear, the first Roman gold coins, those with the oath scene as a reverse type, were certainly issued before 211 B.C. because they have features in common with the last stages of the *quadrigati*. A date of 218 or 217 B.C., at the beginning of the Second Punic War, for the introduction of these coins seems to be a possibility, as has already been shown, and this would fit the dating suggested in the Bamberg manuscript. This dating of 208–206 B.C., however, seems to be untenable for the Mars/Eagle gold. In the first place, the weight

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23 The other denominations which were issued in this series bore marks indicating that they were valued at LX and XXXX asses. Some similar coins survive marked with XXX to show that they were valued at thirty asses, but their authenticity has been questioned.

24 A. R. MEADOWS, The Mars/Eagle and thunderbolt gold and Ptolemaic involvement in the Second Punic War, in: A. BURNETT – U. WARTENBERG – R. WITSCHONKE, Coins of Macedonia and Rome: Essays in Honour of Charles Hersh (London 1998), pp. 125–34. This important study makes it clear that the reverse type of an eagle standing on a thunderbolt clearly refers to a relationship with Egypt, where this design regularly appears on the reverses of Ptolemaic coins (it does not discuss the question of the different readings in Pliny's manuscripts, perhaps because it was assumed that there was no way of making sense of them). The head of Mars, of course, was a purely Roman design, so the message of the coins might have been to express solidarity between the Romans and the reigning Ptolemy.

25 CRAWFORD (n. 2), p. 34, at footnote 4, suggests that these mint marks may be associated with events in different locations, and proposes that there was a distribution of the gold that was received in 209 B.C. from the *aerarium sanctius* in a mixture of bullion and coinage. He describes this proposal as 'tentative', but it is surely right in principle, because it should never be assumed that all the metal that was paid out at this time was in the form of coinage.

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standard of these coins seems to have been fixed so that they could be tarified in *asses* on the sextantal standard (weighing only one-sixth of the original weight for an *as* of one Roman pound), a standard which all numismatists now believe was introduced at about the same time as the *denarius* began to be minted, a few years before 211 B. C. Also, one specimen was discovered at Morgantina.

There is, however, a way in which this later dating can perhaps be salvaged. The Mars/Eagle gold falls into two groups. One of them appeared first with no special mint marks. The issues that followed were distinguished by marks which match mint marks on early *denarii* (the 20-*as* piece which was discovered in the destruction layers at Morgantina was marked with an ear of corn (wheat) like some other coins assigned by Crawford to a mint in Sicily just before the introduction of the *denarius*)²⁷. It is therefore possible that these coins were struck at different times over a number of years, and perhaps produced or at least circulated in more than one place; that because of this, Pliny's source had not noticed the first minting of them, and that the date that is preserved here refers to the later, more abundant, group.

We have here a slightly more believable dating for the first issues of Roman gold coins than we had previously. But if that is correct, how can the manuscript readings be explained? The earliest manuscript of this part of the *Natural History* contains a statement which, after the clearly erroneous *denarius* has been corrected, seems to refer to the very first gold coinage issued by the Romans. The later manuscripts offer a different date, which, if it is not completely erroneous, may refer to the bulk of the second issue of Roman gold.

Is it possible that we have here two different statements, one of which has been preserved in a single manuscript, while the second is preserved in another branch of the manuscript tradition? This would be unusual, although it could have happened. I cannot find a good example of this kind of situation in any Latin author, but there is an unusual textual problem in Greek literature which scholars since Dindorf have noticed and discussed. In lines 1437–1438 and 1440–1441, 1443–1448 and 1463–1465 of the *Frogs* of Aristophanes, the total of three recommendations that Aeschylus and Euripides make for saving Athens cannot all have been in the original manuscript, because each of the speakers should have been allowed to make only one recommendation in this contested debate. So it has been suggested that what we have now may be a combination of two different versions, the first of which was performed in 405 B. C., when Athens still had a functioning navy. This would have made the recommendation that the state should engage to make a new method of waging naval warfare reasonable. The second, created at a later date for a repeat performance, at a time when the Athenian navy had lost its strength, offered an alternative proposal. A later copyist, noticing the two different versions, might very well have decided that something had been omitted from a manuscript, and combined both versions into one²⁸.

It is conceivable that the reverse of this may have happened in the course of the copying and recopying over the centuries of the manuscript of the *Natural History*. The original version might have had a sentence that described the two kinds of gold coin that were issued by the Romans during the Second Punic War,

26 See T. V. BUTTREY, The Morgantina Excavations and the Date of the Roman Denarius, in: Congresso Internazionale di Numismatica, Roma 11–16 settembre 1961 (Rome 1965), Vol. II (*Atti*), pp. 261–73, at p. 263. This article remains as a fundamental study relating to the introduction of this coinage, although subsequent work has refined it, for example the study by D. A. WALTHALL, Numismatic Material from Late Third-Century Contexts at Morgantina (Sicily), *American Journal of Numismatics* 29, 2018, pp. 101–124. In this article it is made clear that the discovery of an early *sestertius* showing some signs of wear in a destruction layer which could be confidently dated to 211 B. C. strongly supports the dating of the first coins of the *denarius* system to a few years before that date.

27 CRAWFORD (n. 2), Vol. I, pp. 150–154.

28 This question, including the historical background and the repeat performance of the play, is discussed by Kenneth DOVER in his edition of the *Frogs* (Oxford 1993), pp. 73–6 and 373–8.

using slightly different wordings, for example, writing *Aureus nummus post annos LI & post annum LXII percussus est quam argenteus*. Then the scribe who produced the Bamberg manuscript (or one of his predecessors) may have decided that two different dates were one too many, and selected the earlier one, omitting the other. Another scribe may, for some reason, have decided that the later date was preferable.

If this explanation is accepted as a possibility, we may be able to date the introduction of the first issues of gold coins by the mint of Rome more closely. We can say that Pliny's datings should not be entirely disregarded, and that the Oath Scene gold was issued early in the Second Punic War, in 218–216 B. C., the first group of Mars/Eagle coins was produced a few years before 211 B. C., and the second group began to be produced in 208–206 B. C. So although what Pliny writes can often be shown to be incorrect, in this case it is possible to suggest why what he wrote may have been only partly wrong.

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