



The Use of Celtic Coinage in Early Roman London: A Re-interpretation of Bloomberg Wax Tablet 31

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ABSTRACT

The reference to ‘victoriati’ in Bloomberg Wax Tablet 31 has been interpreted as a request for 52 Roman quinarii. This paper argues that quinarii were not available in significant enough quantities to make such a payment and that a more credible alternative is to see these ‘victoriati’ as a reference to local, Celtic coinage, specifically the silver issues of Epaticcus or Cunobelin. This identification, supported by recent metallurgic studies, alongside data from hoards, excavations and the Portable Antiquities Scheme, suggests a more prolonged use of Celtic coinage in Roman London than has previously been appreciated. Supplementary material is available online and provides data supporting the assertions made.

Keywords: Bloomberg Tablets; *victoriati*; *quinarii*; Celtic coinage; Epaticcus; Cunobelin

INTRODUCTION

Written in the 60s A.D., Bloomberg Wax Tablet 31 displays four readable lines of text in which two sums of money are requested:

*rogo [te] per panem et sal-
em ut quam primum mit-
tas (denarios) uiginti sex in uictoriat(is)
et (denarios) decem Paterionis*

I ask you by bread and salt that you send as soon as possible the 26 *denarii* in *victoriati* and the 10 *denarii* of Paterio.¹

The second of these sums presents little by way of surprise – the ‘ten *denarii* of Paterio’. The first, however – the ‘twenty-six *denarii* in *victoriati*’ – can justifiably be labelled ‘puzzling’.² Minted from the late third century until the 170s B.C., the *victoriat* was a silver coin struck to

¹ Tomlin 2016, 126.

² Bland 2018, 30.

facilitate transactions with the *drachma*-based systems of south Italy.³ Two centuries had elapsed between the final minting of the *victoriatus* and its appearance on Wax Tablet 31. Unsurprisingly, the denomination's appearance in Britain is exceptionally rare.⁴ Various solutions to this problem will be considered.

THE *QUINARIUS* SOLUTION

Tomlin, in his publication of the Bloomberg Tablets, rightly seeks an alternative identification.⁵ His solution is to read the term 'victoriatus' as a reference to another Roman silver coin – the *quinarius*.⁶ Having the value of half a *denarius*, the *quinarius* was originally produced briefly during the late third century B.C. It was revived at the end of the second century B.C. and made sporadic reappearances after this time, most notably during the early first century B.C.⁷ The equation of the Bloomberg 'victoriatus' with the revived *quinarius* is at first sight unproblematic. When *quinarii* were once again struck around 102 B.C. they did not reproduce the types of the earlier *quinarii*, but rather of the *victoriatii*, supporting the view that these two coins had become assimilated by this time.⁸ Furthermore, Pliny tells us that the *quinarius*, due to its Victory reverse-type, was indeed known by the name *victoriatus*.⁹

The problem with Tomlin's reading is the length of time which had elapsed between the writing of the Bloomberg tablet and the last significant *quinarius* issues. These had been between 29 and c. 23 B.C. – the ASIA RECEPTA type of Octavian (*RIC* 1² 276) and the issue of Publius Carisius for Augustus (*RIC* 1² 001). Lack of recent issues alone does not rule out Tomlin's interpretation, since Roman silver coinage could circulate in Britain for significant periods of time – even 250 years in extreme cases.¹⁰ Reece estimates that in the 50s A.D. around half of the province's silver coinage was Republican.¹¹ That this might have remained the case until the reign of Vespasian (A.D. 69–79) is suggested by Butcher and Ponting's study of empire-wide hoard data.¹² Examples of *quinarii* of any period are, however, uncommon in Britain. Data from the Portable Antiquities Scheme (henceforth PAS) and hoards record just ten Republican and three Augustan specimens.¹³ Of these, only two are from hoards: Selby (N. Yorks.) and Charlwood (Surrey), a clear illustration of Ghey's assertion that '*quinarii* are not common finds in hoards'.¹⁴ This scarcity does not appear to be a result of their dates of issue. With the exception of *RRC* 449/6 and *RIC* 1² 276, *quinarii* are found in smaller numbers than their

³ Sydenham 1932, 92; Crawford 1975, 628.

⁴ PAS records a single example (BH-1DD9E4); Allen *et al.* 2013, 282.

⁵ Tomlin also notes two references to *victoriatii* among the later Vindolanda tablets, both written 30–40 years after the example from the Bloomberg site. Due to the uncertain nature of these references they cannot be relied upon to assist in the interpretation of Bloomberg Wax Tablet 31. Tomlin comments that the use of '*ternis victoriatis*' in *Tab. Vindol.* 323 'may only be proverbial' rather than recording a specific sum of money. The reference made in *Tab. Vindol.* 694 ('*mittere vic-*') is more likely to refer to a specific sum, but depends entirely upon the restoration of 'uic[toriatos], not "Victor" or a cognate name.': Tomlin 2016, 126.

⁶ Tomlin 2016, 126.

⁷ Crawford 1975, 628.

⁸ Sydenham 1932, 92.

⁹ Maecianus, *Distributio* xlv.

¹⁰ Brickstock 2000, 28.

¹¹ Reece 1987, 15.

¹² Butcher and Ponting 2014, 157, 321.

¹³ T.R. Volk (pers. comm. August 2020) suggests that the *quinarius* from the Charlwood assemblage (IARCH-49F573) may be Augustan (?*RIC* 1² 001) and that the 'Roman contemporary copy' (WMID-0AD9B8) is an issue of the early second century B.C., perhaps of Egnatuleius (*RRC* 333/1). These identifications have been used here. Two (YORYM-5C6AA4; YORYM-5C3625), discovered together in a garden in York, look unlikely to be ancient imports.

¹⁴ Selby: IARCH-6487B0 (Barclay 2001, 58); Charlwood: SUR-49A7D3 (Ghey 2019).

matching *denarii* (where these exist) (TABLE. 1). Even *quinarius* issues which die-studies or Crawford's estimates indicate were minted in large numbers are poorly represented in Britain, while *denarii* contemporary with 'absent' *quinarii* do occur in British finds.¹⁵

COMPARATIVE WEAR AND WEIGHT LOSS

By the nature of their discovery, objects recorded by PAS often lack an archaeological context from which a probable date of loss can be inferred. In the absence of securely dated loss-horizons for these few isolated finds of *quinarii*, a surrogate procedure is to match the weight loss exhibited by British finds with examples of the same issue from dated deposits from elsewhere in the empire. This method does not pretend exactitude,¹⁶ yet its results make clear that four of our thirteen *quinarii* had ceased to circulate well before the 60s A.D. (see online supplementary material Section 1 for full data).

Of the three examples of *RRC* 333/1 recorded by PAS, two certainly left circulation before the writing of Bloomberg Tablet 31. LVPL-D19795 has no weight recorded, but its lack of wear clearly demonstrates that it did not remain in circulation for over 150 years. The similar condition of this example to specimens from the Sustinenza (closing date 51 B.C.) and Cisterna di Latina (closing date 40 B.C.) assemblages strongly suggests a similar date of deposition.¹⁷ The weight of YORYM-5C6AA4 (1.8 g) when compared with the weight of datable examples suggests an even earlier date at which it left circulation. The same is true of one of the two examples of the issues of M. Cato (*RRC* 343/2), the weight of which suggests a deposition date of c. 70 B.C. The scarcity of issues of M. Antonius (*RRC* 489/6) makes the use of comparative weights even less reliable, but suggests that in all likelihood the two examples recorded by PAS would have fallen out of circulation decades before the 60s A.D.

Table 1 summarises the results of the procedure, where possible giving rough estimations of the deposition date of each *quinarius* recoded by PAS.

These results are supported by the fact that few western hoards closing after A.D. 10 contain *quinarii*. At Pompeii, for example, they are scarce, particularly in the destruction level of A.D. 79, from which only two specimens have been recorded – single examples of Augustus' ASIA RECEPTA (*RIC* 1² 276) and Victory on Prow (*RIC* 1² 474).¹⁸

HALVED AND QUARTERED *DENARII*

The presence of halved *denarii* in Britain further suggests that *quinarii* were uncommon and that their absence drove inhabitants of the province to create their own fractions, with quartering also evident. The creation of fractions when 'small change' was in short supply is well attested in the Roman world.¹⁹ We must be cautious, however, since halving could also be an action related to ritual. At Piercebridge, for example, around 8 per cent of the coins deposited in the River Tees were deliberately mutilated, with more than 30 cut *denarii* among their number.²⁰ We can compare the evidence of coin mutilation in watery votive contexts from Gaul and Switzerland –

¹⁵ Crawford 1975; examples of such *quinarii* minted in large quantities include *RRC* 326; *RRC* 343; *RRC* 462.

¹⁶ Butcher and Ponting 2014, 98; particularly true given the problematic dating of the CL CAESARES issues. The traditional latest date (A.D. 4) is used here, but it was potentially minted from 2 B.C.–A.D. 12: Giard 1983.

¹⁷ Sustinenza: Modonesi 2001; Cisterna: Nicolai 2000.

¹⁸ Pardini 2017, 5 (*RIC* 1² 276); Cantilena 2008, 281 (*RIC* 1² 474). Talercio Mensistieri 2005; Giove 2013; Hobbs 2013; Vitale 2015.

¹⁹ Hobbs 2013, 57.

²⁰ Walton 2016, 192.

TABLE 1. EQUIVALENT *DENARII* OF *QUINARII* IN BRITAIN

	Issuer	Selby	Skellow	Needham	Old Buck.	Woolland	Raydon	Warminster	Howe	Scole	Woodham M.	Membury	Wanborough	N. Subcourse	Lakenheath	PAS Denarii	Total Denarii	PAS Quinarii
RRC																		
326	C FVNDAN Q	0	1	0	0	0	0	0	0	0	1	0	0	0	0	6	8	0
331	P SABIN Q [no denarii]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
332	T CLOVLI Q [no denarii]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
333	C EGNATVLEI C F Q [no denarii]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2+?1
337	D SILANVS F [sestertius]	0	0	0	0	1	0	1	0	1	0	3	0	1	0	20	27	0
340	L PISO L F L N FRVGI	0	1	0	0	0	1	0	1	0	1	5	2	0	0	17	28	0
341	Q TITI	0	0	0	0	0	0	0	0	1	0	6	1	2	0	18	28	1
343	M CATO	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2
345	CN LENTVL	0	0	1	0	0	0	1	0	0	0	0	1	1	0	11	15	0
348	L RVBRI DOSSENI	1	1	0	0	0	0	0	0	0	0	1	1	1	0	15	20	0
352	L LVLI BVRSIO [quinarius/sestertius]	0	0	0	0	0	0	0	0	0	0	3	0	2	0	15	20	0
373	anonymous [no denarii]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
449	C VIBIVS C F C N PANSA [sestertius]	0	0	0	0	0	0	0	0	2	0	2	1	1	0	10	16	0
452	CAESAR LII	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0
454	A LICINIVS NERVA IIIVIR [sestertius]	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5	7	0
455	C ANTVS C F RESTIO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0
462	M CATO PROPR	1	0	0	0	1	0	0	0	0	0	0	0	1	0	5	8	2
463	MN CORDIVS RVFVS IIIVIR	0	1	0	2	0	0	0	0	0	0	3	1	5	0	32	44	0

Continued

464	T CARISIVS IIIIVIR	0	0	0	0	0	0	0	0	1	0	0	2	2	0	2	25	32	0
465	C CONSIDIVS PAETVS	0	2	0	0	0	0	0	0	0	0	0	2	0	2	0	16	22	0
472	L PAPIVS CELSVS IIIIVIR	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	6	0
473	PALAKANVS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
474	L VALERIVS ACISCVLVS	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	5	10	0
480	L AEMILIVS BVCA IIIIVIR	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4	6	0
480	M METTIVS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	0
480	P SEPVLLIVS MACER	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	7	10	0
489	M ANT IMP, LEP IMP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
489	LVGDVNI A XL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
489	ANTONI IMP III VIR R P C XLI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
502	Q CAEPIO BRVTVS PROCOS, L SESTI PROQ	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
506	[M BRVTVS IMP, COSTA LEG] [no denarii]	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	3	0	0
529	M ANT, C CAESAR IMP IIIIVIR R P C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
–	IMP CAESAR DIVI F [no denarii]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
546	CAESARI DIVI F, SCARPVS IMP	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0
RIC																			
276	CAESAR IMP VII/ [275 CAESAR COS VI]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1	AVGVST, P CARISI LEG	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	5	1+?1	0
474	AVGVSTVS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0

regions from which soldiers at Piercebridge hailed.²¹ Examples of ritual cutting elsewhere in Britain are, however, rare, and at other sites of ritual deposition, such as Bath or Coventina's Well, halved coins are conspicuous by their absence.²² Cut coins in Britain cannot, then, simply be assumed to represent ritual mutilation. Indeed, their economic function is suggested by the presence of four cut *denarii* in the Leigh hoard – an otherwise unremarkable assemblage of the late second century A.D. and reflective of contemporary circulation.²³ Such coins are also found on sites, with cut Severan *denarii* recorded at Heybridge.²⁴ The 31 halved and quartered *denarii* (up until the end of the Flavian period) recorded by PAS (see supplementary online material Section 2) reveal a broad and relatively even distribution of examples throughout the area of Roman control (FIG. 1).²⁵ This suggests a practice that was widespread and far from limited to locations of obvious ritual significance or areas associated with particular cultural influence. Moreover, while many coins – particularly those from ploughland – are undoubtedly broken post-deposition, the tendency to assume that this is the case has obscured what may have been a not uncommon practice.²⁶

To summarise, the long period since the minting of the last *quinarii* had ceased, the small number of recorded finds of even the large issues of the early first century B.C. and evidence for cutting of coinage as surrogates for fractional denominations suggest that it is extremely unlikely that sufficient stock would be available in the 60s A.D. for individuals to request even a modest payment (52 examples) be made in that denomination.

METAL QUALITY

Tomlin seeks to explain a request for *quinarii* by suggesting that payment in older coins, rather than with contemporary issues, would be advantageous in terms of silver quantity. He suggests that 'the writer or his partner had been deliberately withdrawing the rare examples they encountered in circulation, whether to serve as convenient "small change" in silver, or as a store of value when Nero reduced the silver content of the *denarius* in A.D. 64'.²⁷ The first of these suggestions, that an extremely rare denomination would be withdrawn from circulation for later use as 'small change', is unconvincing. A shortage of *quinarii* could be compensated for through physical halving of *denarii* (as seen above) or, alternatively, the (admittedly cumbersome) substitution of *aes* coinage (eight *asses*, four *dupondii*, or two *sestertii*.)

The focus here is on Tomlin's second suggestion, relating to the Neronian reform of A.D. 64. It is, however, far from clear that the new issues resulting from this reform would have had any appreciable impact upon coin circulation in Britain during the 60s. While there certainly was debasement and reduction in weight of *denarii* during Nero's reign (see below), these coins do not appear to have entered Britain in quantity. PAS records only 89 post-reform Neronian *denarii* compared with, for example, 1,144 *denarii* of Vespasian and 2,017 classed as 'Republican' issues.²⁸ This is not peculiar to Britain – in western hoards ending in the Flavian

²¹ Eckardt and Walton 2021, 34; A small number of coins from Bourbonne-les-Bains were deliberately broken prior to deposition (Sauer 2005, 79–86), while almost half of the coins dedicated at fanum I at Martigny (CH) were cut (Wiblé 2013, 242).

²² Kiernan 2001, 22, 27.

²³ Abdy 2005, 259–60.

²⁴ Guest 2015.

²⁵ The data collected are necessarily limited to photographed coins. It is also probable that such 'incomplete' coins are more likely to be judged as not worth the effort of reporting to PAS and that large numbers therefore go unrecorded.

²⁶ Recent discussion has focused almost exclusively upon the halving of *asses*, among which: Crawford 1970, 44–5; Buttrey 1972; Kiernan 2001, 30; Martin 2017.

²⁷ Tomlin 2016, 126.

²⁸ Accessed 1 December 2020.



FIG. 1. Distribution of cut *denarii* recorded by PAS.

period the post-reform Neronian *denarii* ‘play only a minor role’,²⁹ while Duncan-Jones estimates that only 1.9 per cent of coins found at Pompeii were Neronian.³⁰ It may be that Nero’s debasement was not employed in order to increase output significantly, or that this coinage was

²⁹ Butcher and Ponting 2014, 208.

³⁰ Duncan-Jones 1994, 201: this includes both pre- and post-reform issues.

directed more towards the eastern provinces, since higher proportions of post-reform Neronian issues are present in two late first-century Greek hoards.³¹ The evidence supporting either interpretation is, however, very limited. Whatever the case, it appears that relatively few post-reform *denarii* entered Britain and that these, at most, would have served only to ‘top-up’ the circulating pool of ‘old’ coins – just as the *denarii* of Tiberius, Caligula and Claudius had done previously. Such issues did little to dilute the mass of those already circulating.³² If this is the case, it is likely that the majority of the population of Britain would have been unaware of the reform. Owing to the variable weight of Roman silver coinage, it would not be clear from individual examples of Nero’s new issues that there had been any reduction in weight, while the fineness of individual coins was difficult to determine with any degree of accuracy, particularly given the processes employed during minting to give silver-copper alloy the appearance of pure silver (see below).³³

Even if an individual did wish to select particular coins as a store of value, given the availability of late republican and earlier imperial coinage circulating in Britain it would be surprising if they were to seek out *quinarii* for this purpose. This is not only due to their rarity, but also because fractional coinage such as *quinarii* was struck at a lower fineness than larger denominations. This phenomenon, also seen in medieval silver coinage, was employed in order to compensate for the greater relative time and expense needed to convert raw materials into smaller denominations than into larger ones.³⁴ Due to this complication it is worth examining metallurgic and metrological data regarding the various relevant coins in order to identify whether any hypothetical advantage existed in storing *quinarii* over post-reform *denarii*.

METALLURGIC STUDIES

Destructive wet chemical analysis is the most accurate method for metallurgic analysis, but its practicality for large studies is limited by the understandable reluctance of museums to sacrifice their collections. More practical are so-called ‘non-destructive’ techniques such as the X-ray fluorescence spectrometry (XRF) employed by Walker.³⁵ This method provides accurate results for coins of high silver content (90 per cent and above), since such alloys form a single homogenous phase.³⁶ In alloys containing greater quantities of copper, however, XRF’s readings can be unreliable due to the alloy’s separation into two distinct phases – one copper-rich and one (at the coin’s surface) silver-rich. This ‘surface enrichment’ happens naturally but was also achieved artificially in Roman mints through ‘depletion silvering’ to give an appearance of pure silver.³⁷ This treatment resulted in enrichment to a greater depth than the natural process, usually ranging from 100 to 300 microns, but sometimes more.³⁸ In order to penetrate beyond this layer in their own study, Butcher and Ponting sampled drilled cores, thereby obtaining a more representative sample of the metal throughout the coin.³⁹ With this in mind, the data of Butcher and Ponting will be preferred where available,⁴⁰ while those of

³¹ Five per cent in the Patras and Acharnia hoards (Butcher and Ponting 2014, 208, 211).

³² Reece 1987, 15.

³³ Duncan-Jones 1994, 102; Butcher and Ponting 2014, 228.

³⁴ Butcher and Ponting 2014, 516; Icenian half-units were struck at a maximum weight lower than half of a unit for the same reason (Talbot 2017, 71).

³⁵ Walker 1976; 1980.

³⁶ Talbot 2017, 74.

³⁷ Butcher and Ponting 2014, 108, 173.

³⁸ Butcher and Ponting 2014, 110.

³⁹ Butcher and Ponting 2005; 2014, 110.

⁴⁰ Raw data hosted by ADS: https://archaeologydataservice.ac.uk/archives/view/coins_It_2005/.

Walker will be used only in relation to coins of high purity, for which XRF should have provided accurate results.

Walker's data suggest the fineness of the post-*c.* 100 B.C. *quinarius* was on average around 93.2 per cent.⁴¹ That of Augustan *quinarii* seems to be similar, and his data show a mean silver content of 92.75 per cent for the ASIA RECEPTA, being 4.09 per cent less fine than the *denarius* issues of the IMP CAESAR(CAESAR DIVI F series,⁴² which are 'to be associated with [it] on the grounds of type-content, style, and specific dating.'⁴³ The Neronian reform involved a marked reduction in the silver content of *denarii*. Owing to both a lower fineness of around 80 per cent and a reduction in weight of around 0.2 g (from 3.65 g to 3.45 g), the *denarius*' silver content dropped by around a quarter, from roughly 3.55 g to 2.76 g.⁴⁴ Since the theoretical weight of the late Republican *quinarius* was exactly half that of a contemporary *denarius* (1.93 g), its silver content was roughly 1.85 g.⁴⁵ Two Republican *quinarii* would, therefore, theoretically contain markedly more silver than a single post-reform *denarius*. That is to discount, however, the reduction in weight of, for example, an early first-century B.C. *quinarius* that had been in circulation for over 150 years.

Applying Duncan-Jones' approximate annual weight loss for silver *denarii* of 0.002025 g (1/1659) to selected *quinarii* suggests that in the 60s A.D. a weight of roughly 1.81 g would be expected for reasonably late issues such as those of M. Cato Propr.⁴⁶ (*RRC* 462/2; 47–46 B.C.) or M. Antonius (*RRC* 489/6; 43–42 B.C.). For earlier issues such as those of Q. Titius (*RRC* 341/3; 90 B.C.) or C. Egnatuleius (*RRC* 333; 100–97 B.C.) this would fall to roughly 1.75 g. In fact, these figures bear little resemblance to the weights of *quinarii* found in hoards, either because the formula is itself unsatisfactory or because *quinarii* circulated with a greater velocity than did *denarii*.⁴⁷ Either way, the issues of Egnatuleius are shown to have fallen below 1.75 g even during the first century B.C. in the Gallarate and Vico Pisano assemblages.⁴⁸ There is a further notable reduction by the beginning of the following century, with the 12 complete examples from Villeneuve-au-Chatelot (down to *c.* A.D. 4) averaging only 1.48 g.⁴⁹ A conservative and rough estimate based on an admittedly small number of *quinarii* from later hoards suggests that in A.D. 60 the least worn examples might sit between 1.5 and 1.6 g, although, as hoard data show, they could drop to significantly lower weights. In sum, by the 60s A.D. two pre-Augustan *quinarii* in relatively good condition and of 93.2 per cent fineness would be expected to have a silver content of around 2.80–2.98 g in contrast to the 2.76 g of a fresh post-reform Neronian *denarius*. The picture is slightly different for Augustan *quinarii*. Walker's average weight for the ASIA RECEPTA issue (*RIC* I² 276) is given as 1.59 g,⁵⁰ and while this is skewed by the generally high wear of the examples studied, Augustan *quinarii* do seem to be of a lower weight than those of the early first century B.C., with a sample of 34 examples from museum collections showing a mean of 1.64 g (see online supplementary material Section 3). While some of these examples show significant wear, the average weight of those with minimal wear stands only slightly higher at 1.69 g.⁵¹ When this figure is

⁴¹ Walker 1980, 61–2.

⁴² Walker 1976, 5.

⁴³ Sutherland 1984, 61.

⁴⁴ Butcher and Ponting 2014, 204, 215; their examples show a mean of 79.28 per cent elemental silver, 80.58 per cent silver bullion (Butcher and Ponting 2005, 179). It therefore seems reasonable to retain their given round number of 80 per cent.

⁴⁵ Crawford 1975, 594–5.

⁴⁶ Duncan-Jones 1994, 191.

⁴⁷ Lockyear 1996, 77–8 discusses Duncan-Jones' problematic methodology.

⁴⁸ Dibbernardi 2013 (Gallarate); Sorge *et al.* 2008 (Vico Pisano).

⁴⁹ Zehnacker *et al.* 1984.

⁵⁰ Walker 1976, 13.

⁵¹ The worn nature of some examples in British collections suggests British finds.

compared with the mean weight of the near-related IMP CAESAR)(CAESAR DIVI F series (3.67 g) it would appear that the weight of *quinarii* was by this time less than half that of the average *denarius* (FIG. 2).⁵² These figures may be compared with Meadows's study of *quinarii* between 101 and 31 B.C., which indicates a reduction of around 0.10 g over the course of this period.⁵³ His mean weight of 1.74 g for 308 examples from 48 to 31 B.C. suggests that an average weight of 1.69 g for the later ASIA RECEPTA issue would not be unrealistic. Any issues remaining in circulation in the 60s A.D., however, would be expected to have lost significantly more weight. The extremely limited evidence of the two examples from Lunghezza (closing date A.D. 37) and one from the destruction level at Pompeii would suggest that the weight of the least-worn issues might have dropped to between 1.4 and 1.5 g. Based on a figure of 92.75 per cent fineness, in the 60s A.D. two examples of the ASIA RECEPTA issue might be expected to contain between 2.60 and 2.78 g of silver bullion – extremely close to the silver content of a post-reform *denarius*' 2.76 g.

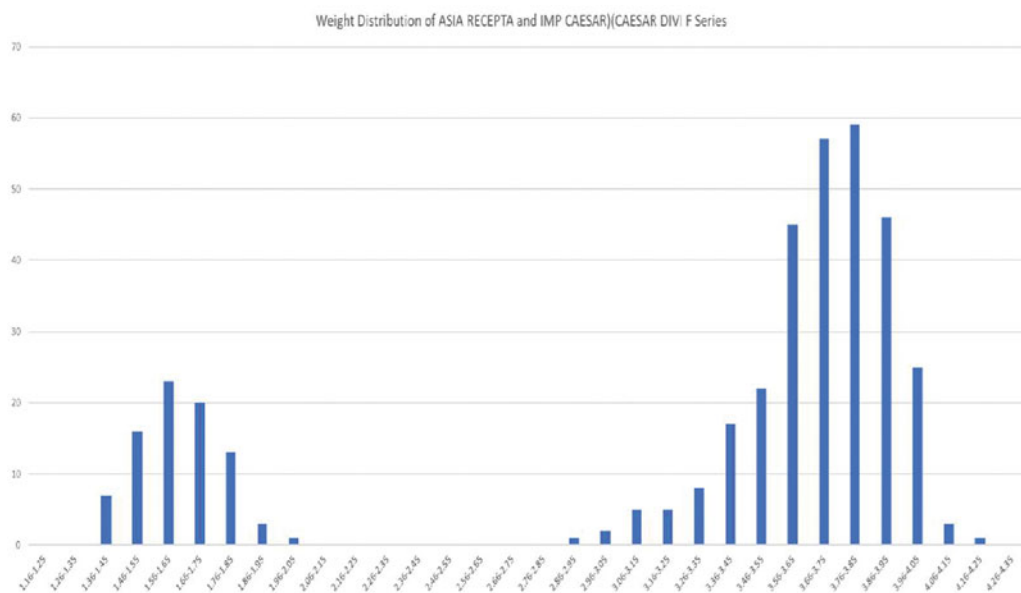


FIG. 2. Weight distribution of ASIA RECEPTA and IMP CAESAR/CAESAR DIVI F series.

These results offer little support for Tomlin's theory. As a store of wealth, the most recent *quinarius* issues of Augustus were likely to offer no benefit over the post-reform *denarii*. Although the heavier early to mid first-century *quinarii* may have contained more silver, this would have been limited to the least-worn examples still in circulation, and even with these the benefit would have been slight (probably less than an eighth of a gram of silver per *quinarius*).

Hoarding patterns of Roman coinage in India – where Nero's pre-reform coinage is present but his reformed issues, as well as the similarly debased *denarii* of Mark Antony, are absent – do suggest a contemporary awareness of the fineness of coinage.⁵⁴ Such evidence is, however,

⁵² Mean weight calculated from 270 museum specimens (data supplied in online supplementary material Section 3).

⁵³ Meadows 2021, 131.

⁵⁴ Butcher and Ponting 2014 226. See also the unique case of apparent rejection of debased coins in the Fuente de Cantos hoard (closing date 45 B.C.): Crawford 1985.

some way from demonstrating that, within the empire, this extended to the pursuit of such minor gains as ‘squirrelling away’ *quinarii* might have provided. When even relatively fresh *denarii* of the same issue could show significant variations in weight,⁵⁵ it seems implausible in the extreme that any individual would have preferred *quinarii* for gains on a scale so minute that they were unlikely to have even been detectable. In any case, during the 60s A.D. pre-Augustan and pre-reform imperial *denarii* were both more readily available and of greater fineness. In the unlikely event that the small number of post-reform *denarii* to enter Britain affected coin use in province at this early stage, other coins were far more appropriate as stores of wealth than *quinarii*.

THE HEMIDRACHM SOLUTION

Since the identification of the ‘victoriati’ in the tablet as *quinarii* seems extremely improbable, alternative identifications should be considered. Given that the term had come to refer to *quinarii* due to their shared imagery of Victory, this process could have taken place for other coins depicting the goddess. The *hemidrachms* of Nero minted in Caesarea in Cappadocia were struck in large quantities,⁵⁶ and Meadows suggests that a number of *hemidrachms* were ‘viewed as compatible with *quinarii*’ due to their similar weights and Victory designs.⁵⁷ Unfortunately this identification would be even more problematic than that of *quinarii*. The shortage of *hemidrachms* (and Caesarean coinage as a whole) in Britain is greater than that even of *quinarii*. Only one *hemidrachm* minted earlier than A.D. 70 is recorded by PAS.⁵⁸ The absence of any other Caesarean issues of this date or earlier, in either PAS or hoard data,⁵⁹ suggests that Caesarean *hemidrachms* would not have been available in quantities sufficient for the writer of the tablet to request 52 examples. Given their low silver content, any use as a ‘store of wealth’ is no more likely for *hemidrachms* than for *quinarii*. Owing to their thinness, Butcher and Ponting were unable to sample a *hemidrachm* using their drilling technique, but they are rightly suspicious of Walker’s results (77.5 per cent) since they suggest a higher fineness than their own results for even *didrachms* of Nero, (72.04 per cent), let alone the significantly baser *drachms* (58.77 per cent).⁶⁰ They are surely correct to presume that *hemidrachms* were at least as base, if not baser, than the *drachm*.⁶¹ At most, then, at 58.77 per cent fineness, and a mean weight of 1.68 g,⁶² two *hemidrachms* would contain only 1.97 g of silver – far lower than the 2.76 g of a post-reform *denarius*.

THE INDIGENOUS (CELTIC) COINAGE SOLUTION

There remains the possibility that reference is being made to native coinage. This is suggested to Bland by Burnett, who is himself echoing a proposal advanced by Volk in 2017 and during his Cambridge classes.⁶³ By asking for the ‘victoriati’ in a sum tariffed in *denarii*, the tablet makes clear that the coins to which it refers were compatible with the Roman currency system. There

⁵⁵ For example those of Lentulus (*RRC* 345/1) in the Policoro hoard ranging from 3.5 to 4.0 g (Siciliano 1974–75, 112).

⁵⁶ Butcher and Ponting 2014, 505.

⁵⁷ Meadows 2021, 150, 176

⁵⁸ DENO-02ADD3.

⁵⁹ Robertson 2000, 438.

⁶⁰ Butcher and Ponting 2014, 515 (ADS data).

⁶¹ Butcher and Ponting 2014, 522.

⁶² From the seven complete examples from the British Museum.

⁶³ Bland 2018, 30.

is strong evidence that during the first century A.D. local and Roman coinage did indeed circulate alongside each other in Britain. This is demonstrated most clearly by mixed hoards of Iron Age and Roman coins, of which 55 examples are known from Roman Britain.⁶⁴ The latest Roman issues in these hoards show that Celtic coins were still being deposited during the 60s, the decade during which Bloomberg Tablet 31 was written. The Scole (Norfolk) Treasure Trove, for example, contained 289 silver coins, of which 87 were Roman and 202 Icenian, with its latest coin a Neronian *denarius* of A.D. 60/61.⁶⁵ There are even later examples outside Icenian territory. A rare hoard from Cornwall (Saint Levan V) contained 19 Celtic gold coins and one of bronze alongside 18 Roman *denarii*, the latest of which was an issue of Galba dating to A.D. 68–9.⁶⁶ Other assemblages, albeit generally with a smaller component of local coinage, close with issues of Vespasian,⁶⁷ Domitian, Hadrian, and even later emperors.⁶⁸ The evidence of site finds from Saham Toney (Norfolk) reveals that native and early Roman silver coins display a virtually identical spatial distribution, suggesting that both series were not only hoarded together, but also lost, and therefore used, together.⁶⁹ Haselgrove's study of rates of coin loss in south-east England indicates that indigenous coin usage, far from declining with the Roman invasion, was actually intensified until the Flavian period.⁷⁰ Reece has argued that the replacement of native coinage by that of Rome was rapid, yet the evidence makes clear that by the 60s, when Bloomberg Tablet 31 was written, it was certainly not complete.⁷¹

LOCAL COINAGE IN THE ROMAN EMPIRE

Britain is not unusual in displaying the use of local coinage alongside Roman issues. The presence of Celtic bronze coinage at military sites not only in Britain,⁷² but also the Rhineland, suggests its widespread use in compensating for the lack of official Roman bronze issues, with around 550 AVAVCIA bronzes found at Nijmegen (Netherlands) alone.⁷³ Presumably passing as the equivalent of the Roman *quadrans*,⁷⁴ they may even have been officially tolerated,⁷⁵ but were certainly more than the 'curiosities' which Harl labels them.⁷⁶ If the tablet's 'victoriati' is to be understood as representing native coinage it would be best explained as similarly satisfying a need for fractional coinage insufficiently met by Rome. Even in Pompeii, 'which was close to Rome and had an important and dynamic economic life', there is clear evidence of a shortage of small change.⁷⁷ Compensating for this, issues from Ebusus and Massalia are commonly found, and were even locally imitated during the late Republic.⁷⁸ The large number of 'Claudian copies' in Britain during the reigns of Claudius and Nero – whether officially sanctioned or not – similarly speaks of an insufficient quantity of standard issues.⁷⁹ Creighton

⁶⁴ Bland 2018, 38.

⁶⁵ Burnett 1986.

⁶⁶ Bland 2018, 39.

⁶⁷ Hill 1897.

⁶⁸ Bland 2018, 40–2.

⁶⁹ Brown 1986.

⁷⁰ Haselgrove 2006, 107–9.

⁷¹ Reece 1979, 211; Creighton 1992, 209; Bland 2018, 43.

⁷² Haselgrove 2006, 107–8.

⁷³ Van de Vin 2002, 167.

⁷⁴ Roymans 2014, 125.

⁷⁵ Haselgrove 2006, 104.

⁷⁶ Harl 1996, 16.

⁷⁷ Depeyrot 2016, 157.

⁷⁸ Hobbs 2013, 17.

⁷⁹ Boon 1974; Casey 1980, 32.

suggests that there was a particular shortage of coinage in Britain during the period in which Bloomberg Tablet 31 was written, with a significant drop in the supply around A.D. 60.⁸⁰ Dio's comments that Seneca suddenly demanded the repayment of loans totalling 40,000,000 *sestertii* that he had made to the leading Britons may, if repayment was made in cash, explain a scarcity of *denarii*.⁸¹

ICENI SILVER UNITS

If the 'victoriati' of the tablet represent local Iron Age silver units, which of the several candidates is the most likely? The sheer quantity of Iceni silver units produced makes them an attractive possibility, with Chadburn offering a 'conservative estimate' of an output of around 77,000 coins per year between c. 20 B.C. and A.D. 45.⁸² Furthermore, their minting probably continued until the Boudiccan revolt of A.D. 60/61.⁸³ Another factor in their favour is their presence in mixed hoards,⁸⁴ particularly in the example from Barway (Cambs.), for which Bland suggests that the presence of an Iceni silver unit is to be explained as a surrogate *quinarius* ('the Icenian coin was accepted as a *quinarius*').⁸⁵ Yet there is also much to caution against identifying the tablet's 'victoriati' as Iceni silver units. The Barway unit's association with the wider hoard is far from secure – it is recorded by neither Robertson nor Barrowclough.⁸⁶ In addition, the lack of Icenian coins on post-A.D. 61 sites and their absence from hoards containing Neronian coins minted after that date might suggest that they were 'demonetised' after the Boudiccan revolt.⁸⁷

The target-weight of Iceni silver units c. A.D. 25 seems to have been 1.24 g.⁸⁸ On the assumption that the weight of a pre-reform Neronian *denarius* of the period 'appears to have been about 3.65 g',⁸⁹ Allen's suggestion of an 'effective equivalence' of 3:1 between Icenian units and *denarii* seems an attractive one.⁹⁰ A judgement based on weight alone is, however, not sufficient. In contrast to the high fineness of *denarii*, late Icenian units were, at around 50 per cent silver, significantly debased.⁹¹ On the basis of silver content this would require an 'exchange rate' of 6:1. While not implausible, given that the two coinages circulated together, this makes the identification of the Iceni units with the Bloomberg tablet's 'victoriati' yet more implausible. The requirement for 156 units is, at worst, an inconvenience – they were, as has been shown, produced in large numbers – but Iceni silver units do not justify the label of 'victoriati'. Not only is the relationship of intrinsic value significantly different to that of the *denarius/quinarius*, but no Iceni type bears the image of a Victory. By way of explanation we would be reduced to an optimistic (and altogether unconvincing) suggestion that linguistic conservatism might lead to the retention of the term 'victoriatus' for any fraction of the *denarius*.

⁸⁰ Creighton 1992, 176.

⁸¹ Cass. Dio 62.2.1.

⁸² Chadburn 2006, 404.

⁸³ Talbot 2017, 60.

⁸⁴ Creighton 1994, 326.

⁸⁵ Bland 2018, 42.

⁸⁶ Robertson 2000, 66 no. 317; Barrowclough 2014.

⁸⁷ Orna-Ornstein 1997, 27.

⁸⁸ Talbot 2017, 68.

⁸⁹ Butcher and Ponting 2014, 203.

⁹⁰ Allen 1970, 24.

⁹¹ Northover 1992, 290–2; Talbot 2017, 212–16.

LOCAL COINAGE WITH VICTORY ICONOGRAPHY

There is no such problem with a second group of coins – three issues of silver units which bear the image of Victory upon them and might, therefore, have aptly received the name ‘victoriati’. Roman imagery appears on British coinage long before the Claudian invasion, with the Roman practice of holding high-status non-Roman children as *obsides* (diplomatic hostages) likely a factor in this.⁹² Educating such hostages in a Roman manner ensured that when they returned to their homelands to rule these youths took with them Roman ideas, including those about coinage. Tincomarus, perhaps the first British *obses*, issued a gold coin (VA375-376:S7) showing an equestrian image possibly based on a *denarius* of P. Crepusius of 82 B.C. (*RRC* 361).⁹³ Later British rulers echoed the visual language of Augustus on their coinage, including the representation of Victory herself, with winged deities previously unknown in British iconography.⁹⁴

Four British rulers minted silver units with a Victory type, but the issues of two of these are of such rarity that they cannot plausibly be identified with the ‘victoriati’ of the Bloomberg tablet.⁹⁵ The issue of Tincomarus (AB.C 1130) appears to be known only through a single example,⁹⁶ while that of his brother Eppillus (VA 442-01) is scarcely more common. Only eight examples are recorded by PAS.⁹⁷ No specimens were found at either Waltham St Lawrence (Berks.) or among the 97 examples of his silver units from Wanborough (Surrey).⁹⁸

THE SILVER UNITS OF CUNOBELIN

The Victory on Eppillus’ coinage may represent his military victory over the Eastern dynasty but this success was short-lived.⁹⁹ He died in A.D. 10 and was succeeded by Cunobelin, who in turn employed a Victory type for two silver issues, neither of which is especially rare (VA 2045; BMC 1883).¹⁰⁰ PAS records 26 examples of VA 2045, of which 23 are from the Celtic Coin Index (CCI), leading Van Arsdell to observe that the issue is ‘commoner than previously thought’.¹⁰¹ BMC 1883 appears in even greater numbers, with 36 examples recorded by PAS, of which 26 are from the CCI (see online supplementary material Section 4). No Victory units of Cunobelin have been subject to metal analysis, but two other silver units of Cunobelin have been analysed by Northover: an example of VA 2057 containing 96.55 per cent elemental silver, and one of VA 2067 containing 95.95 per cent.¹⁰² The weights of VA 2045 recorded by de Jersey’s Gazetteer are remarkably uniform, with their mean weight 1.24 g and the standard deviation only 0.05, while the mean weight of his recorded examples of BMC 1883 is 1.21 g.¹⁰³ Frequency tables demonstrate the consistency of both issues (FIGS 3 and 4). These weights,

⁹² Caes., *BGall.* 5.4.

⁹³ Creighton 2000, 103–4, 107.

⁹⁴ Creighton 2000, 107–10; Rowan and Swan 2015, 75.

⁹⁵ The so-called ‘Victory’ issues of Verica (VA 531 and 532) copy the reverse of Tiberius *RIC* P 25 (Van Arsdell 1989, 170). This shows a seated female figure, possibly Livia as Pax, but not Victory.

⁹⁶ Celtic Coin Index, CCI-00072.

⁹⁷ Seven of which are from the Celtic Coin Index (accessed 1 December 2020).

⁹⁸ Van Arsdell 1989, 543–5; O’Connell and Bird 1994, 35.

⁹⁹ Van Arsdell 1989, 142; Creighton 2000, 108.

¹⁰⁰ The exact nature of Cunobelin’s succession is unclear: de Jersey 2001, 30.

¹⁰¹ https://www.vanarsdellcelticcoinageofbritain.com/plates-catalog-listings_ccb3/plate_84_ccb3.html (accessed 1 December 2020).

¹⁰² Northover 1992, 294. Using EPMA which is, like XRF, a surface testing method.

¹⁰³ The exception is VA 2045:72.0124, omitted due to de Jersey’s uncertainty over its type: de Jersey 2001, 35–6, 40.

while lower than might be expected of a fresh *quinarius*, correspond almost exactly to a third of the expected weight of a Neronian pre-reform *denarius* (3.65 g). Given the similarity of their silver contents, an ‘exchange rate’ of three silver units to one *denarius* seems plausible.¹⁰⁴ On this identification, the ‘twenty-six *denarii* in “victoriati”’ of the Bloomberg tablet would amount to 78 silver Victory units of Cunobelin. This identification is bolstered by Leins’ demonstration that the silver coinage of Cunobelin circulated in and around London.¹⁰⁵

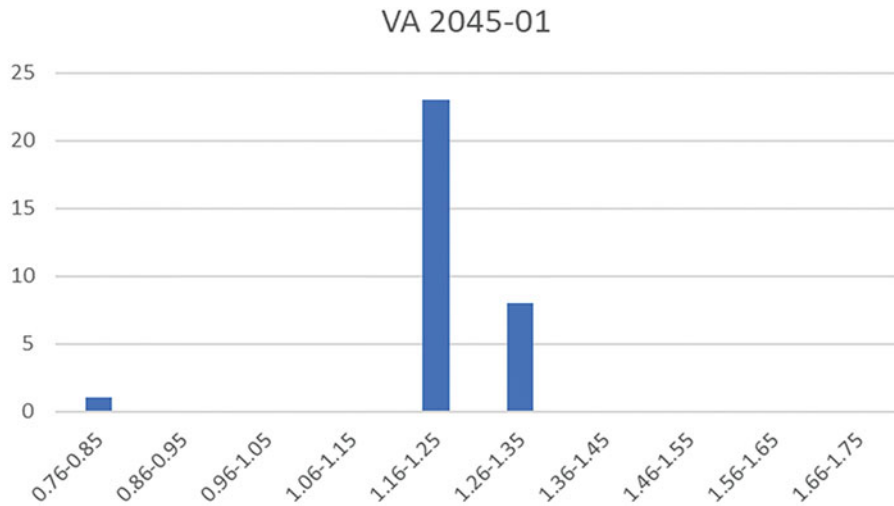


FIG. 3. Weight frequency of VA 2045.

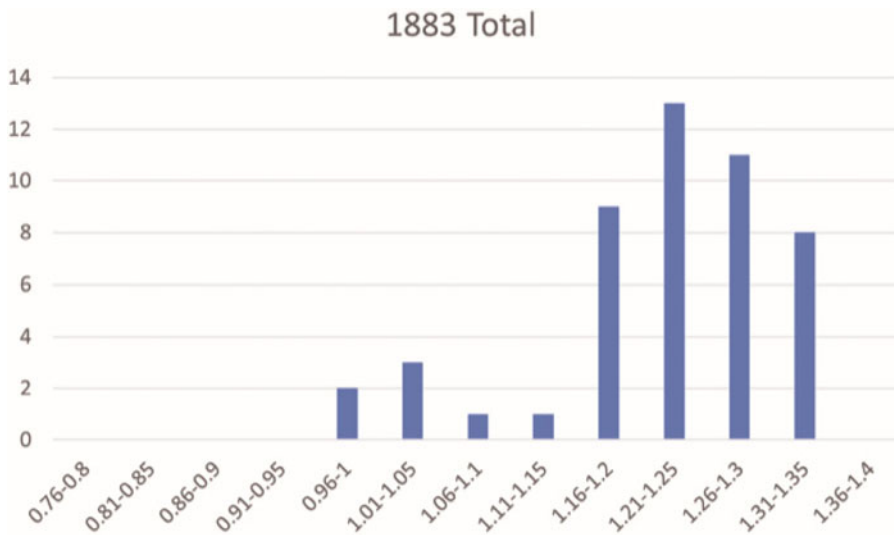


FIG. 4. Weight frequency of BMC 1883.

¹⁰⁴ This is also suggested by Burnett 1990, 18.

¹⁰⁵ Leins 2012, 99–108.

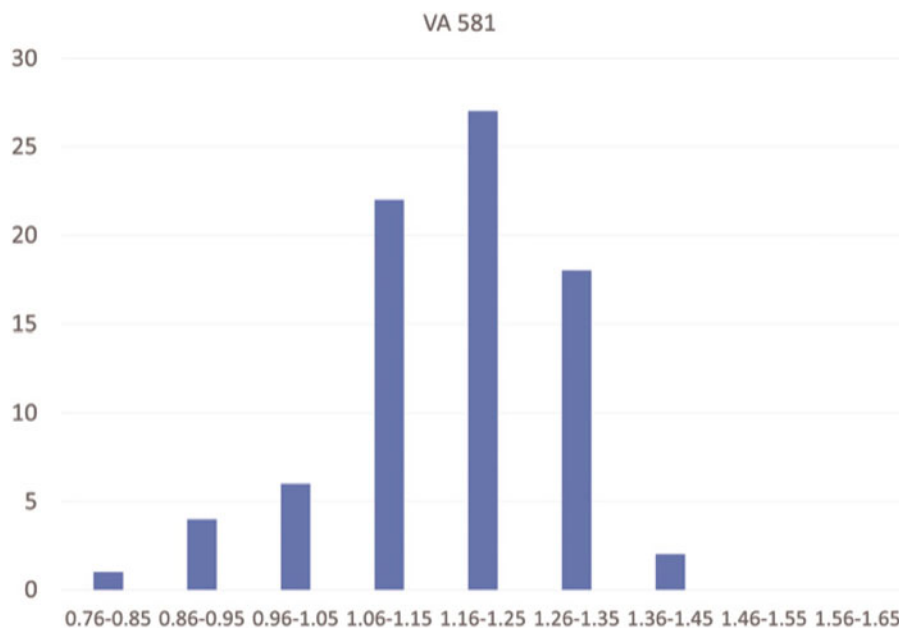


FIG. 5. Weight frequency of VA 581.

THE SILVER UNITS OF EPATICCUS

The silver Victory unit of Epaticcus – king of the Catuvellauni and perhaps the brother of Cunobelin – offers a second plausible candidate for the Bloomberg ‘victoriatus’ (VA 581). The obverse of this coin shows a seated Victory adapted from a *denarius* issue of M. Cato (*RRC* 462/1b).¹⁰⁶ The mean weight of 80 recorded examples is 1.18 g, which is again roughly a third of the expected weight of a *denarius* (FIG. 5: see online supplementary material Section 5 for data). Based on two examples analysed by Northover, they, too, are of high fineness: 96.60 per cent and 97.50 per cent elemental silver.¹⁰⁷ The admittedly tiny sample size is extremely close to the average 96.49 per cent fineness of five other Epaticcus silver units of type VA 580.

Where the unit of Epaticcus stands apart as an attractive solution to the ‘victoriati’ puzzle is in its frequency. It is the most numerous Victory unit on PAS (with 68 examples), and has a significant presence in the two mixed assemblages of Roman and Iron Age coinage from Wanborough (Surrey) and Waltham St Lawrence (Berks.), the latter being less than 35 miles from the Walbrook site where the Bloomberg tablets were discovered. The deposition date of Waltham St Lawrence is not entirely clear owing to the uncertain circumstances of its discovery and the loss of a great number of unrecorded specimens. Based on its contents and wear, a date of *c.* A.D. 69 is suggested by Burnett as the most plausible. This, if correct, would indicate that these issues were in circulation when Tablet 31 was written.¹⁰⁸ Quite how many specimens of this issue were found at either Waltham St Lawrence or Wanborough is uncertain. Eleven Epaticcus Victory units were acquired by the British Museum from Waltham St Lawrence and two by the National Museum of Wales, but many more were likely dispersed

¹⁰⁶ Woods 2012, 6; from an African mint, but PAS attests to its presence in Britain (LVPL-64A5C1).

¹⁰⁷ Northover 1992, 290.

¹⁰⁸ Burnett 1990, 19–20.

without being recorded.¹⁰⁹ This is also the case with the Wanborough assemblage, infamous for the large-scale looting which took place after the site's location was publicly revealed. Van Arsdell offers a very rough estimate that the hoard might originally have contained 281 Victory issues against the 21 which were officially recorded.¹¹⁰

It is possible that by a form of synecdoche the term 'victoriat' could have referred more widely to all of Epaticcus' silver units,¹¹¹ especially given that his issues show a consistently high silver content.¹¹² Taken together, the silver units amount to a significant coinage – the British Museum collection contains 310 examples of his silver units and PAS has recorded 352.¹¹³ For his part, Van Arsdell estimates the number of bust/eagle silver units of Epaticcus to have been 5,000 specimens from the Wanborough assemblage alone.¹¹⁴

CONCLUSION

The silver units of Epaticcus or Cunobelin offer a credible solution to the problem presented by the 'victoriati' of Bloomberg Tablet 31. Which, if either, of the two is correct remains undecided, but the foregoing strongly suggests that the tablet is referring to a payment of a value expressed in terms of Roman currency to be effected in non-Roman coins. The Bloomberg tablet may prove, therefore, to be the earliest known non-literary reference to Roman payments in 'local' currency.¹¹⁵ More importantly, the tablet suggests that as late as the 60s A.D. Celtic coinage was an accepted supplement to state currency, even in areas such as London, where it has conventionally been seen as playing little role and 'very unlikely to have [been circulating] much after c. A.D. 60.'¹¹⁶ This has significant implications for our understanding of the role of Celtic coinage in Roman Britain, suggesting that its use endured in post-invasion Britain for longer than has previously been appreciated.

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SUPPLEMENTARY MATERIAL

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¹⁰⁹ Burnett 1990, 28.

¹¹⁰ Van Arsdell 1989, 543–4.

¹¹¹ This could, of course, also apply to the units of Cunobelin.

¹¹² Northover 1992, 290.

¹¹³ Accessed 1 November 2020.

¹¹⁴ Van Arsdell 1989, 543–4.

¹¹⁵ For the earliest literary reference to payments in 'local' currency, see the 24,000 *nummi* extracted from Certima during the second Punic war (*Livy* 40.47.2–10). *Livy* never uses the term *nummus* to refer to Roman coins and these *nummi* are likely native Iberian issues: Knapp 1977, 7. See also *Livy's* references to *argentum oscense* (34.10, 34.46, 40.43): Seltman 1944; for later Egyptian papyri recording prices in *denarii* and *obols*, see e.g. ChLA X 446 (third century A.D.).

¹¹⁶ Bowsher and Marshall 2013, 3.

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