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REVIEW ARTICLE

Money and mid-republican Rome*

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Abstract

Rome's mid-republican period is back in the centre of attention. Roman money and coinage, however, are largely absent from the debate. As this field has seen important developments in recent years, this paper surveys recent research in order to explore how numismatic sources can contribute to our understanding of this formative period in Roman history. First, we present an overview of these new developments, which we then contextualise in the framework of the Roman economy, Roman state formation and the development of a distinct Roman identity. We argue for a development from coinage irregularly commissioned by individual Roman magistrates to a regular Roman state coinage; from haphazard production often outside Rome to large-scale and more regular coordinated production clearly institutionalised within the Roman state, with a distinct Roman appearance. We propose to recognise two principal moments of acceleration in this process: around 240 and, above all, 210 B.C.E., and show how these insights relate to broader debates on mid-republican Rome.

Keywords: mid-republican Rome; numismatics; economy; state formation; Roman identity

I Introduction

The mid-republican period 'cannot … help being a central problem in Roman history', in the words of Fergus Millar.[1] Broadly defined here as the period from the early fourth until the mid-second centuries B.C.E.,[2] it is a period in which many of the defining features of

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[1] Millar 1989: 140.

[2] We are aware that there is no consensus about the exact definition. This is the broadest definition (from earliest to latest) which allows us to discuss relevant changes in coin production and use.

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Roman politics, economy and identity took shape and Rome became an increasingly important player on the Mediterranean stage. Although the sources at our disposal are relatively limited, the transformative nature of the period has received renewed attention in recent research. This has involved the creation, publication and analysis of new archaeological data,[3] the formulation of new questions and interpretative frameworks[4] and a re-thinking of existing chronologies and their implications for our understanding of the period.[5] Rather than being seen primarily as an in-between period — after the formation of the Roman Republic and its institutions and before the growing internal political tensions of the later second century — the Mid Republic is increasingly interpreted as a crucial phase in Rome's political and cultural formation.[6] In this discussion, we aim to show that current debates about politics, economy and identity in this period can and should profit from a more profound consideration of money and coinage.

One of the major changes in this period was the introduction of coinage to Roman society, around 300. It is important to note that other forms of money already existed in Roman society, both virtual (credit and debt) and physical (mainly weighed out bronze), and coinage co-existed with these other forms throughout the mid-republican period.[7] At the same time, coinage was something new. Not only did coins clearly look different from earlier forms of money, as round metal objects stamped with image and text, the concept behind them was new as well: in theory at least, the image and text with which the coin was stamped represent the authority that guarantees the value of the coin.[8] Coinage was also a successful new introduction: after a relatively slow start, it was produced in very large numbers and thus became an important part of everyday life in the Roman world.

From a Mediterranean perspective, the introduction of coinage into Roman society came relatively late, since it had already been in use in the Aegean, and increasingly in the rest of the Mediterranean, for about three centuries. Why was coinage introduced at this point, what was its impact, and how does its early development relate to broader political, economic and societal developments? These questions have been raised before, of course. In his foundational work, Michael Crawford argued that coinage arose out of the fiscal and military needs of the Roman state, while Andrew Burnett saw its introduction mainly as a cultural phenomenon adopted from the Greek world.[9] More recently, Filippo Coarelli has argued for a strongly monetised Roman state soon after the introduction of coinage, while Seth Bernard has drawn attention to the social significance of coinage in mid-republican society.[10]

Current developments in the study of the empirical material combined with new questions and interpretative frameworks now offer further insights with important implications for broader historical problems. Recent publications already unlocked some of this potential,[11] but the impact of numismatic research on broader debates on the Mid Republic is still

[3] E.g. D'Alessio *et al.* 2020.

[4] E.g. Bernard 2018b; Terrenato 2019; Padilla Peralta and Bernard 2022.

[5] Flower 2010.

[6] Bernard *et al.* 2023.

[7] As money is notoriously difficult to define in general terms, it is usually defined in terms of its functions: it is a store of wealth, a unit of account, a means of payment and a medium of exchange. Based on this definition, money certainly existed in Roman society before the introduction of coinage; see Section II, *What and when*.

[8] Schaps 2004, 28.

[9] Crawford 1974; 1985; Burnett 1989; cf. Armstrong and Termeer 2024, who see early Roman coinage as a military phenomenon related to a broader Mediterranean military economy.

[10] Coarelli 2013; Bernard 2018a. Note that Coarelli's argument rests to a large extent on a dating of the quadrigatus that is not generally accepted; see n. 43.

[11] In addition to Bernard 2018a: 2018b, ch. 5; Termeer 2023a.

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relatively limited.[12] The various sources for the mid-republican period, including numerous recent advances in numismatic research, have yet to be fully integrated. In part, this seems to be the result of limited familiarity in the wider scholarly community with current research on early Roman money and numismatics. Interpretation of the historical implications of numismatic research has often been restricted to identifying the immediate purpose of individual coin issues against the background of the historical narrative.[13] Furthermore, the conceptualisation of early Roman money has been affected by teleological and evolutionary assumptions that societies 'progress' from more 'primitive' concepts of money to more 'sophisticated' ones.[14] Such assumptions hinder a serious discussion of the significance of different forms of money in mid-republican Roman society.

There are several reasons why money, and specifically coinage, has much to offer these discussions. While the literary evidence is often problematic,[15] the coins themselves offer opportunities as both historical and contemporary documents and as archaeological objects. Their production and design are the result of choices made by authorities regarding payments, fiscal concerns and self-representation, which take place against a specific cultural and political setting. Their circulation and use provide insight in the connectedness of economic networks, monetary behaviour and perceptions of value. Besides this dual nature of coinage — linked to the structures of a society and the agency of individuals — the sheer abundance of coins (compared to the written sources) allows for quantitative analyses.[16]

For the mid-republican period, new research has given us a better grasp of chronologies and typologies,[17] partly due to new material being uncovered and to more attention being given to archaeological contexts.[18] This applies not only to Roman monetary instruments but equally to the many coinages that circulated on the Italian peninsula in this period, which strongly influenced Rome's coin production. Furthermore, archaeometallurgical studies have become more sophisticated and are applied on a large scale, revealing the geopolitics of bullion procurement.[19] Digital technologies allow for the fast handling and integration of large datasets, like die studies and coin hoard analyses.[20] Last but not least,

[12] Note, for example, that the recent volume on *Roma Medio Repubblicana* (D'Alessio *et al.* 2020), explicitly presented as successor to the important catalogue to the 1973 exhibition *Roma Medio Repubblicana. Aspetti culturali di Roma e del Lazio nei secoli IV e III a.C.* (AA.VV. 1973, reprinted for wider circulation in 1977), does not include any contribution on coinage and money — in striking contrast to the 1973 catalogue, where the chapter on coinage is one of the first in the book.

[13] E.g. Crawford 1985: 29; Cornell 1995: 396; Coarelli 2013: 54.

[14] Cf. Viglietti 2021.

[15] For a discussion of the problems of Pliny´s account of the start and development of Roman coinage, see Burnett and Crawford 2014: 259–62.

[16] Kemmers 2019.

[17] Crawford 1974 still provides the standard typology for Republican coinage, but changes in chronology have been suggested for various issues, and in some cases the typology has been refined; the main changes for the mid-republican period are discussed in Section II, *What and when*. See now Debernardi 2024 for a more detailed typology of the quadrigati, victoriati and early denarii. His very detailed chronology and mint attributions are not easily verified.

[18] The main new finds are included in the discussion in Section II.

[19] See Section II, *Metallurgy*; the last couple of years have seen a number of large-scale metal analyses projects. Kemmers and her team focused explicitly on the mid-Republican period (Birch *et al.* 2020; Westner, Birch, *et al.* 2020; Westner, Kemmers and Klein 2020). At the IRAMAT laboratory in Orléans, at which metal analyses on a large variety of coins are being conducted, Parisot-Sillon has worked on Roman and affiliated coinages of the second and first centuries (Parisot-Sillon and Sarah 2018). Still ongoing is the project led by Butcher and Ponting on Roman and Mediterranean coinages of the second century B.C.E. to first century C.E. (https://warwick.ac.uk/fac/arts/classics/research/dept_projects/racom/).

[20] Based on linked open data (see https://nomisma.org/), three interlinked datasets for Roman Republican Coinage are now available online. Coinage of the Roman Republic Online (CRRO) (https://numismatics.org/crro/) offers Crawford's typology, augmented by specimens from many large and small collections; The Roman

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theoretical approaches inspired by economic anthropology allow for a broad understanding of money as a complex social and cultural phenomenon, rather than a simple economic tool.[21]

This article aims to show the potential of integrating numismatic research, and especially its more recent insights, into broader historical discussions of the period. First, in Section II, we present the current state of scholarship with special attention to recent developments. In Section III, we move on to discuss the implications of those new insights for the larger debates about this pivotal period in Roman history. We finish with an overview of where the integration of numismatic sources underpins theories derived from other sources and indeed may help to develop them further, and where the numismatic sources show insights hitherto not observed elsewhere.

II The numismatic material: current state of scholarship

What and when

It has long been recognised that when coinage was introduced in the late fourth century, other kinds of money already existed in the Roman world.[22] It has recently been argued that Romans from the early Republic, if not even earlier, conceived of value in terms of prices.[23] The laws of the Twelve Tables show a society in which credit and debt played an important role. This 'virtual money' was accompanied by different forms of cash, most importantly weighed out bronze, either unformed ('aes rude') or ingots with intentional shapes, often discs or bars, with occasional designs such as dolphins or branch motifs.[24] A relatively coherent tradition concerning the use of cattle as a form of money may also find some reflection in early republican monetary practices.[25]

While our knowledge about these early forms of money is not very detailed, the resolution of information improves with the introduction of coinage. The coins offer enough clues to develop relatively fine-grained chronologies, and the denominational structure of the coin system as a whole provides insights into its functions and use: we can assume that a limited range of denominations prohibited an easy handling of coinage in the full range of payment obligations and exchange relationships, while a more complex denominational system widened coinage's usability. In order to integrate the earliest coinage in the Roman world in broader historical debates, then, it is vital to have a firm grasp of the most recent insights into its chronology, general characteristics and denominational structure.

Early Roman coinage consists of three distinct components: struck bronze, struck silver and cast bronze. The cast bronze can be further divided into coins, commonly known as 'aes grave', and bars.[26] The coins were produced on an irregular basis, and although attempts

Republican Die Project (RRDP) (http://numismatics.org/rrdp/) offers die-studies and now allows for various mid-republican issues to be analysed on the level of dies. Information about hoards is gathered on the website Coin Hoards of the Roman Republic Online (CHRRO) (https://numismatics.org/chrr/).

[21] See Section II, *Theoretical perspectives*.

[22] E.g. Crawford 1985: ch. 2; see also Parise 1989 on the broader Italian context. See recently Tan 2023 setting out how an institution like *tributum* can exist in a society without coinage. For the Greek world, recent research also argues that prior to coinage other forms of money existed: Kroll 2011; Heymans 2021.

[23] Viglietti 2017.

[24] These ingots with intentional shapes are sometimes dubbed 'aes formatum'.

[25] Thomsen 1957–61: I.20–5 gives an overview of the written sources which mention the use of bronze and other forms of money prior to coinage.

[26] Haeberlin 1910 remains the standard; Vecchi 2013 offers a more recent overview. In the past, the cast bars were referred to as 'aes signatum', but see Crawford 2009 for a rejection of this term and a case for the more neutral term 'currency bar' instead. Within the cast bronze, a value relationship of 5:1 between coins and bars seems to exist (Burnett 1977: 94).

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have been made to connect the various components to each other,[27] it is most likely that they were initially unrelated.[28] The different components circulated together only to a limited extent: the early silver aligns with weight standards current in southern Italy and circulated predominantly in that region, while cast and struck bronzes are mainly found in central Italy (see *Circulation* below).

Although the exact chronology of the first issues of Roman coinage is not entirely settled, there is consensus on some important points. First, coin production started with a small issue of struck bronze with the Greek legend ΡΩΜΑΙΩΝ, followed some years later by the first silver issue of didrachms with the legend ROMANO.[29] While seemingly unrelated to each other, both strikes were made probably in Naples around the turn of the fourth century.

These first issues are quite isolated. In bronze, there is a second small struck issue — known from only a single specimen — with the legend ROMANO, probably produced not too long after the first. Larger struck bronze issues were only produced between 270 and 250, and probably associated with the First Punic War if they are correctly dated, although some may have been produced as late as 240.[30] In silver, there was a significant gap in time after the first series: the next issue with the legend ROMANO was produced at least 20 years later, and the period between *c.* 270 and 240 saw the production of only three silver issues.[31] Although the place of production of these issues is unclear, Rome seems an unlikely candidate, as silver was in only very limited use in the city in this period (see *Circulation* below).[32] Both the early struck bronze issues and the silver issues are usually just one denomination, or they have limited fractions.

Some time after this branch of struck coinage had been set in motion, casting of the heavy bronze coins began, most likely in Rome. The hoard evidence points strongly to a date for this beginning after the Pyrrhic war and just prior to the First Punic War.[33] There are three separate series that make up the first phase of this material.[34] These coins are found in the same hoards and, contrary to some earlier views, they also seem to conform to

[27] See e.g. Thomsen 1978: 18-19 for an attempt to connect the weights of the silver and bronze, as '[i]t can scarcely be doubted that there was from the beginning a certain fixed ratio between the values of the silver and the bronze coinage of Rome' (18). However, Burnett 1977: 95 suggests that the weights were only connected from RRC 22 onwards. Lo Cascio 1980–81 maintains that during the entire third century there was a fixed value relationship between silver and bronze of 1:120.

[28] Burnett 2012 for a concise overview of the various components.

[29] In the standard typology for Roman Republican Coinage (RRC), which was developed by Crawford 1974, these are types RRC 1 and RRC 13 respectively. A date of the first Roman silver (RRC 13) before 300 is now widely accepted. For the state of the question, see Burnett 2012; Bernard 2018a: 4–5; Vitale 2019; Yarrow 2021a: 8–20. The most recently published hoard to contain RRC 13/1 from San Chirico Nuovo tends to reinforce the picture of an isolated initial ROMANO issue: Barbato 2019.

[30] RRC 16, 17, 23. Taliercio Mensitieri 1998; Burnett 2006; 2012. Burnett places the advent of struck bronze (RRC 1/1 and 1/2) *c.* 320, and the ROMANO issues (RRC 16/1, 17/1 and 23/1) between 264 (RRC 16/1) and 255 (RRC 17/1 and RRC 23/1). Burnett and McCabe 2016 suggest a date around 240 for RRC 23, based on a detailed die-study and a comparison with its Ptolemaic prototype.

[31] RRC 15, 20, 22. See the recent overview by Vitale 2019. Based on the San Martino in Pensilis hoard (Ceglia 1999), Burnett 2006 suggests that the latest ROMANO silver issues (RRC 20 and 22) may have been produced as late as the end of the First Punic War or even after its end.

[32] Burnett 1998: 32–3 attributes the later ROMANO silver to Rome, but stresses that production outside Rome is 'quite possible'. More recently, he has labelled the mint of these issues as 'uncertain' (Burnett 2016: 11). Termeer 2023b: 196 argues for production outside Rome.

[33] Important in this regard has been the discovery of foundation deposits at Lanuvium. See Jaia and Molinari 2011; cf. discussion in Yarrow 2021b.

[34] RRC 14, 18, 19.

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a single weight standard.[35] This makes it difficult to establish their chronological relation to each other.[36] At the current state of our knowledge, it seems that these heavy aes grave were still produced in the 240s, and we can no longer insist that the different series formed distinct phases of production.[37] Hoard evidence strongly suggests the cast currency bars were made at about the same time as the first series of aes grave and through the First Punic War.[38]

These early series of cast bronze consist of coins of different denominations in a duodecimal system, ranging from the as (the main unit) to the uncia (one twelfth of the as) or even the semuncia (one twenty-fourth). All issues are marked with distinctive denomination marks that clearly show their value relationship. This complexity of denominational structure is unprecedented in our surviving evidence for ancient coinages, and the duodecimal system and its denomination markings would remain features of Roman bronze coinage for centuries.[39] However, in this early phase, this interest in denominational structure is restricted to the cast bronze; there is no explicit value relationship with the other components of early Roman coinage, the silver and struck bronze.[40]

In the course of the second half of the third century, these separate components of Roman coinage merged into a single system, now most likely produced in Rome. By the 240s the silver didrachms, struck bronze (now both reading ROMA rather than ROMANO) and cast bronze displayed the same small side-symbols — a sickle and a club on the first and second series. These symbols functioned to unite struck and cast coinage into a single system, although indications of their relative values are still lacking. Still, the emergence of a single system suggests a cognitive shift in Rome's attitude towards the relationship of these monetary objects of very different manufacture. The recently discovered Nora hoard, deposited shortly after Rome's acquisition of Sardinia in 237, helps fix this shift to the period between the first two Punic Wars.[41] This unification of (struck) silver and (cast) bronze coins set the stage for the production of the interconnected gold, silver and bronze coinage around the start of the Second Punic War,[42] and eventually for the denarius system to follow.

In the last phase before the introduction of the denarius, the silver didrachms (quadrigati) were produced in much larger volume than earlier Roman silver coinage and to an increasingly debased standard. The chronology of the quadrigati and related coinages and the denarius system is not as clear-cut as often thought. While they are conventionally dated to the period 225–212, new die studies and hoard analyses suggest that it is more likely that the quadrigati were produced in a briefer period (*c.* 219–211), with accordingly

[35] Yarrow 2023 correcting the view of Thomsen endorsed by Crawford that RRC 18 was of a 'supralibral' weight standard. This supposed difference in weight standard was used as a justification in the past for assigning a relative chronology to these issues.

[36] Perhaps some circumstantial evidence to suggest that RRC 14 preceded RRC 18 comes from the repetition of their types on the later series RRC 25 and 27 respectively, while didrachms of RRC 25/1 (but not 27/1) are found with both ROMANO and ROMA legends, suggesting they form the earlier, transitional issue. See Thomsen 1957–61: III.73 n. 134 for a variant of RRC 25/1 with ROMANO legend.

[37] Molinari's analysis of the Carbognano hoard indicates that heavy bronzes of the RRC 14 series were still produced down to the 240s (Jaia and Molinari 2020: 15).

[38] Molinari 2011; Yarrow 2021b arguing that an association with the Pyrrhic war is unlikely.

[39] Yarrow 2023: 111. Note that some later Italic aes grave, even some made by Roman colonies, occasionally used a decimal denomination system (see Termeer 2015a: 219–33).

[40] Burnett 1977: 95 suggested that from RRC 22 the weights of the silver and bronze were adjusted for a 'merged' system, so that one didrachm was equivalent to 3 asses.

[41] The hoard contains both ROMANO and ROMA didrachms, and the specimens of the sickle and club series are in mint state (Gorini 2015); cf. Burnett and Crawford 2014: 249–50, and Bernard 2017: 510 for the hoard's chronological implications.

[42] With the oath scene gold (RRC 28/1–2; 29/1–2), the silver quadrigati (RRC 28/3–4; 29/3–4; 30/1–2; 31/1–2: 32/1; 33/1; 34/1; 42/1) and the bronzes with a prow on the reverse (RRC 35, 36, 38, 41–43).

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even higher output rates per annum.[43] A clear-cut break between the pre-denarius system and the denarius is also under debate. Rather than one big simultaneous overhaul of the currency in 212/211, some voices have been raised to see a gradual development playing out over the period 215–211, with perhaps the so-called victoriati coming first,[44] the bronze coins not necessarily in step with the rest and much greater regional variation than previously assumed.[45] Rather than there being a single mint, coin production during the Hannibalic war took place in its different theatres in parallel.[46]

In terms of denominational structure, however, the denarius system is a watershed. Each denomination within this system, be it in gold, silver or bronze, carries a mark of value expressing its worth in asses, so that all parts of the system are now clearly and explicitly interrelated.[47] The only exception is the victoriatus, which also deviates in other ways.[48]

Finally, the chronology of the early second-century denarii remains contested. Crawford assigned certain series of silver coins only broadly to the first, second or third decades of the second century respectively. [49] Debernardi has suggested that this whole sequence should be assigned to the Second Punic War, which implies Rome would not have produced any silver in the first decades of the second century.[50] This is still an unresolved problem, but at any rate it is clear that little silver was minted during this time, which is in sharp contrast to the amount of booty and indemnities reported in the literary sources.

Volume of production

Insights into how much coinage was actually produced in the various stages of Roman monetary development may help us understand the impact or significance of this material in relation to the monetary obligations or needs of the Roman Republic. Recent work confirms that, based on the numbers of dies used for striking, the early silver didrachms (both ROMANO and ROMA) were produced in relatively low numbers. The early didrachms were produced with between roughly 4 and 50 dies per issue; the later quadrigati used at least 1200.[51] When compared with the contemporary production of Carthage in the First Punic War, Rome minted around 70 times less silver.[52] The hoard evidence shows that in the first half of the third century, Roman silver was relatively insignificant in quantity compared to

[43] Debernardi and Legrand 2014; 2015; Bernard 2017. The suggestion by Filippo Coarelli (2013) to date the quadrigatus to 269 is problematic; see Burnett and Crawford 2014; Bernard 2018a, 6.

[44] Debased silver coins at ¼ of the weight of a denarius displaying Victoria on the reverse (RRC 44/1 as the earliest emission). See Marra 2001; Parisot-Sillon 2018.

[45] Debernardi and Lippi 2019; McCabe 2013; Parisot-Sillon 2023: 124–7; Walthall and Truetzel 2020.

[46] Examples include production in central Italy, Sardinia, Sicily, Apulia, Campania and Spain (Crawford 1974: 12–24; see McCabe 2013: 224–7 and Walthall and Truetzel 2020: 150–1 on the bronze mints).

[47] Gold (with Mars/Eagle): 20, 40 and 60 asses. Silver: the 10 asses denarius, the 5 asses quinarius and the 2.5 asses sestertius. Bronze: the as and its fractions down to the semuncia in a duodecimal system.

[48] Its silver-fineness is well below that of the denarius and its main area of circulation is also quite specific (see below).

[49] RRC 112–187, Crawford 1974: 198–238.

[50] Debernardi 2021. Cf. Crawford 1974: 74, who allows for 'a long intermission' (but less drastic than Debernardi).

[51] Compare Crawford 1974: tables LIII (p. 676) and LIV (pp. 677–87). Note that Crawford's numbers for the quadrigati and denarii have now been shown to be too low (see n. 56). Burnett 1989: 41–8 provides die counts for all the early didrachms (some of which were fully published in Burnett 1978, 1980 and 1998). His numbers have been broadly confirmed as part of the Roman Republican Die Project; data can be accessed through https://numismatics.org/crro/. In general, the picture of low production until the Second Punic War stands. For an estimate of the size of production of the quadrigati, Debernardi and Legrand 2014: 224–5.

[52] Burnett 1989: 41–8 offers a rough quantification of the early Roman silver in comparison to contemporary silver production by Carthage and cities in southern Italy. He uses the die-study for Herakleia, which was a relatively minor coin producer, but had an around four times greater production than Rome in the period 280–270.

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the silver coins of Taras, Neapolis and other south Italian cities, which are generally more abundantly present than the Roman material.[53] For Rome's early cast and struck bronze coins, quantifications are much harder to make. The earliest struck bronze issues seem to have been very small,[54] but the issues produced in the period of the first Punic War were much larger, of the same order of magnitude as contemporary Neapolitan bronze coin production.[55]

All this changed rapidly towards the end of the third century. In terms of output, the unprecedented volume of minting carried out during the Hannibalic war cannot be overstated: recent die studies have led to the conclusion that Crawford's die estimates may have greatly underestimated the total volume of gold and silver issues struck during those years.[56] This production, however, was split between a variety of mints in Italy and elsewhere. Conversely, during the first half of the second century, the minting of silver coinage — if there was any — was centralised in Rome, with a remarkably small output.[57] This may partly be explained by the fact that the Hannibalic war had led to so many coins being put into circulation that it was deemed unnecessary to issue substantial volumes of new silver coins; indeed, the aerarium could easily recover perfectly fine silver coins thanks to the *tributum* mechanism, which was suspended only in 167. Whether or not the production of denarii took place each year is still debated, but it seems reasonable to assume that they were struck on a regular basis, following the same routine procedure that is well attested for later periods. In contrast, it has been suggested that issues of victoriati were produced less often, but in high numbers.[58]

In the first half of the second century, bronze was produced in large quantities, but thereafter production collapsed; when bronze was produced it was less than half of the size of previous emissions, but in many years it was not produced at all.[59] Particularly in Campania (Pompeii, Minturnae) in the last decades of the second century, 'blocks' of small change were imported from overseas and local copies made in huge numbers, presumably to make up for this lack of centrally produced small change.[60] In the Republican layers at Pompeii, Roman bronze coins amount to less than 20% of total coin finds. Even in Rome itself, imported coins and local copies make up one third of the circulation pool.[61] An alternative to the use of imported bronze coins and subsequent derivative types was the local production of imitations of Roman bronze coins, such as attested at Minturnae and possibly Rome itself.[62]

[53] As illustrated for example by the San Martino in Pensilis hoard (Ceglia 1999) and the San Chirico Nuovo hoard (Barbato 2019). See Carbone 2020: 106–13.

[54] See most recently Sheedy 2024 on RRC 1/1. RRC 2 is known from only a single specimen.

[55] The Roman Republican Die Project shows that especially RRC 17 was produced with a large number of dies, showing many differences in style; data can be accessed through http://numismatics.org/crro/id/rrc-17.1; Taliercio 1986 gives die-counts for the Neapolitan material, with her group III being contemporary to RRC 17.

[56] Debernardi 2016: 43–4 concludes that some 6,000 obverse dies were used to strike gold and silver series from RRC 44 to 111, a figure two-and-a-half times greater than the estimates presented in Crawford 1974. For an impression of the numbers of dies used for the production of the quadrigati, see Debernardi and Legrand 2014: 210–15.

[57] See above, n. 50, for the view that there was, in fact, no silver production at all during this period.

[58] Parisot-Sillon 2018.

[59] Stannard 2018: 102–4 provides an estimate of the number of bronze coins produced in Rome in the second century.

[60] Stannard 2018; we borrow the term 'blocks' from him. Doubts have been expressed by Pardini 2013: 120–30 and 2017: 174–6 arguing in favour of Ebusan merchants bringing these coins from abroad. But see further arguments in favour of imported blocks in Frey-Kupper and Stannard 2019: 168–81.

[61] Stannard and Frey-Kupper 2008; Stannard 2018: 141.

[62] Stannard 2024: 181–3.

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Circulation

Further information about the uses and functions of money in mid-republican Rome can be derived from circulation patterns: where did these coins actually circulate, where not, and in which archaeological contexts are they found?

An important recent observation in this regard is the conspicuous absence of silver as a medium for money in the city of Rome down to the later third century. Based on a wide-ranging inventory of coin finds and literary references to silver in third-century Rome, a convincing case has been made that early Roman silver coinage was not used in the city of Rome itself.[63] This absence appears in stark contrast to the Greek city states, Carthage and the Hellenistic monarchies, where precious metals (uncoined or coined) were the primary choice for money. Communities in central and northern Italy, however, probably due to the lack of natural silver sources on the mainland, had value regimes based on copper alloys. In addition, as noted above, in the areas where these coins did circulate, Roman silver was relatively insignificant compared to the silver of other cities. It formed a small part of the silver coins in circulation, which included the production of Greek towns and Italic communities, including colonies and allies of Rome.[64] Against this background, it is important to note that there is some evidence for links between the production of the silver coinage of the colonies of Cales and Suessa, the allied town of Teanum, and the fourth issue of Roman silver.[65] In order to understand the function of the Roman silver issues, therefore, we need to take into account its relation to contemporary silver production by other mints in Italy.

Roman cast and struck bronze coinage circulated mainly in central Italy, although their distribution patterns do not overlap completely.[66] Here too, we often find the Roman material together with bronze coins of other communities on the Italian peninsula, mostly located south of Rome.[67] The Roman material is dominant in votive deposits and hoards close to Rome, but this changes rapidly as distance from Rome increases.[68] An important question which remains unanswered is whether these Roman struck bronzes circulated together with other coinages already in the first half of the third century. Based on our current knowledge, this may be a later development that started only in the second half of the century.[69]

The archaeological find contexts of this material provide us with information about their deposition. It is striking that many of the known archaeological contexts of these

[63] Burnett and Molinari 2015.

[64] For issues of funding the First Punic War, see Tan 2017, 93–117. Some of the mints included in this possibly coordinated striking included Cora (HN Italy 343), Cales (HN Italy 434), Suessa (HN Italy 447) and Teanum Sidicinum (HN Italy 451–2); Yarrow 2021a: 34 Map 1.4. For the circulation patterns of these issues, especially relative to the silver coinage issued in the name of the Romans, see Burnett 2006.

[65] RRC 22 (the so-called Roma-Victory didrachm), see Hollstein 2000; Burnett 2016: 19–26. See also Termeer 2016: 171.

[66] For the distribution of the struck material, see the inventory by Vitale 1998, updated in Vitale 2001. See now also Vitale 2019. For differences in distribution of the struck and cast bronze in Etruria, see Naiman and Termeer 2020: 215–16.

[67] Both Rome and the other Italian communities seem to have produced struck bronze coinage on a rather *ad hoc* basis. The exact chronology of the Italic bronze coinages is matter of debate. Most of them probably date to the period of the First Punic War (e.g. Crawford 1985: 47–8), although an earlier, Pyrrhic date is also possible (e.g. Vitale 2009: 66). See the discussion of a group of Campanian bronzes by Termeer 2015b: 64–7.

[68] See Prins and Termeer 2021: figs. 2 and 3 for a comparison of votive deposits around Rome. Note, for example, the complete absence of early Roman bronze coins (RRC 16 and RRC 17) in the site finds of Pietrabbondante, recently published in Boccardi 2023.

[69] Naiman and Termeer 2020; Carbone 2020: 113–15.

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early coins are sanctuaries, where coins were given as votive objects, or can sometimes be found as part of a foundation deposit or in an offertory box (thesaurus).[70] An example is the immense Vicarello deposit, where early Roman coins were deposited alongside other metallic and monetary objects.[71] Roman cast and struck coins, aes rude and at least one currency bar were all found together, as well as non-Roman bronze coins.[72] This co-occurrence of different types of bronze coins is typical of many votive contexts.[73]

More information about the potential use of these early bronze coins can be derived from the so-called Pratica di Mare hoard.[74] In this hoard, which exceptionally is not from a sanctuary, struck bronze coins, cast bronze currency bars and aes rude were again buried together. Interestingly, the total weight of the material in this hoard adds up to a light libral as. This suggests that the nominal value of the struck coins was not considered to be relevant, but that they were valued according to their weight — together with the bars and aes rude. These different monetary objects could thus be used together in a monetary system based on weight.

Thus, in terms of both circulation and use, there were clear differences between the different components of Rome's earliest coinage. The struck silver circulated mainly in the south and seems to have been interchangeable with many of the coinages that were produced by its allies and colonies. Bronze coinage circulated closer to Rome, and was — at least in some cases — still treated as bullion.

The new denarius coinage was different from all of this. The new system did not spread out evenly across Rome's nascent empire. In Italy and in Sicily denarii replaced all older silver coinages in circulation after the Hannibalic war so swiftly and comprehensively that state intervention must have been responsible.[75] Yet in Iberia they remain largely confined to Roman military contexts and the south/south-east, usually in combination with non-Roman silver coins; here too, the earlier Carthaginian coins disappear. Nevertheless, despite major campaigning in Iberia, the Balkans and Greece, Roman denarii of the late third and second century circulated mainly in central and southern Italy.[76] The distribution of victoriati seems to show some correlation with the presence of veteran colonies, especially in Northern Italy and Samnium. [77] Roman bronze coins appear in modest numbers in Roman military installations in Iberia and in central Italy. As discussed above, from the later decades of the second century onwards, the southern part of the Italian peninsula was awash with bronze coins imported from overseas and imitations thereof.[78]

Metallurgy

Archaeometallurgical work can provide information on different aspects of monetary production. For example, a standardisation of the alloy used to make coins is an indication of standardised and coordinated production, while more variability may suggest dispersed

[70] Crawford 2003.

[71] Note, however, that this large number of coins and other monetary objects in the Vicarello deposit is exceptional: generally, coins are quite rare in mid-republican sanctuaries compared to other votive types such as figurines, anatomical votives or pottery.

[72] Panvini Rosati 1967–68.

[73] Discussion of bronzes in votive deposits in Jaia and Molinari 2020. Examples around Rome are discussed by Prins and Termeer 2021.

[74] Molinari 2011. The hoard was found under a third-century destruction layer in a large public building in the city's forum.

[75] Rowan 2014; Kemmers 2016.

[76] Rowan 2014; Kemmers 2016, 2023.

[77] Parisot-Sillon 2018.

[78] Stannard 2018.

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production in time or space. More broadly, metallurgical studies offer insights into the availability of bullion, and the supply lines and geopolitics surrounding its procurement. In addition, comparative analysis of the metal composition of specific issues can help us understand how they relate to each other and establish, for example, whether or not they were made at the same mint.

Recent metallurgical research gives insights into all three components of the earliest phase of Roman coinage — cast bronze, struck bronze and struck silver. Firstly, it allows us to see clear differences between Rome's earliest cast bronze coins and bars, and the aes rude and other bronze objects with which they are often found. The Roman cast coins and bars are heavily leaded and contain substantial amounts of tin, in contrast to the aes rude. In addition, the coins and bars have a more stable composition than that observed so far in the rest of the material, indicating that already in this early phase, important steps were taken to standardise the alloy.[79]

The early struck bronze typically has a different alloy from the cast bronze: it also contains tin in quite large amounts, but hardly any lead. This means that its metal composition is very similar to the struck bronze coinages circulating in southern Italy and Sicily.[80] This may mean that a conscious effort was made to produce coins of a similar alloy, or, perhaps more likely, that the producers of the coins were able to tap into technology and know-how from southern Italy, or perhaps even originated from there. This similarity of early Roman struck bronze to the coinages produced in southern Italy is echoed in the Roman silver didrachms. Like the silver coinages of Magna Graecia, the silver used to mint them largely derives from heavily recycled silver originating in the Aegean.[81] Also in this case, the most likely explanation is that the metal for Rome's earliest silver coinage was procured by re-using metal already circulating in southern Italy.

The earliest silver didrachms were about 93% fine, made to the same standard of fineness as contemporary silver coins of Neapolis (from where they also borrowed their weight standard). The same level of fineness was maintained for the second and third didrachm series (RRC 15 and 20), although they declined in weight. Thereafter, with the fourth didrachm (RRC 22), the purity of the silver was increased to 98–99% fine and it remained at that level until the period of the quadrigati. At the same time, the weight standard was established at a new level of 6.6 g, and so together these changes to the fineness and weight marked the first step in the establishment of a distinctively Roman system.[82]

For the early period of the Hannibalic War, the metal composition of the quadrigati gives insights into the production process. Late issues of quadrigati struck in Spain and Apulia were more debased than the Sicilian ones, showing that there was only a loose degree of coordination between mints.[83] The same applies to victoriati struck in various mints during the conflict.[84] In the case of the denarii, there is less difference in alloy between mints, indicating a more closely controlled production, even though it took place in multiple locations.

Finally, important changes in production took place in the denarius system. The struck bronze from this phase has the same high lead/high tin content as the cast bronze in the previous period. In this respect, the struck bronze becomes less 'Greek'. For the denarius

[79] Private correspondence with Yarrow regarding ISIS Neutron and Muon Source experiment RB2410477 (March, May 2025) and preparatory pXRF readings. These analyses are continuing, and publication is anticipated in 2026. For analyses of aes rude, see Baldassari *et al.* 2007; Ingo *et al.* 2004; De Caro *et al.* 2005.

[80] Westner, Kemmers and Klein 2020.

[81] Birch *et al.* 2020.

[82] For metal analyses of Roman didrachms, see Burnett and Hook 1989; Burnett 2000; Westner, Birch, *et al.* 2020. For metal analyses of Tarentine coins, see Buccolieri *et al.* 2014 and Birch *et al.* 2020.

[83] Debernardi and Legrand 2014; for a general overview, Burnett 2000.

[84] Burnett 2000: 108–9.

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silver, stable supply sources from provincial mining districts (notably Spain) were used only from the mid-second century onwards.[85] For most of the period under review, new silver coins were often struck using recycled bullion.[86] That this recycled bullion largely derived from war booty and indemnities is made plausible by the clear Iberian ore signatures in denarii produced from 209 (the sack of Carthago Nova) onwards.[87] Early second-century denarii have recently been found to contain high and generally heterogeneous levels of trace elements, especially gold and bismuth, implying the use of mixed sources of silver bullion, the properties of which are reminiscent of those found in Carthaginian, Macedonian or Aitolian coins from earlier periods, depending on the case.[88] This can be used as new evidence, alongside written sources, to assess the scale of the unprecedented transfers of riches in precious metals, which accompanied the early stages of Roman conquests outside Italy.[89]

The relevance of booty for coinage production has now been clearly demonstrated for Rome's earliest gold coins as well. The two main series, dating to the last two decades of the third century, were made from an alloy that is extremely similar to Carthaginian and Syracusan gold coins produced around the First Punic War.[90]

Theoretical perspectives

Finally, we wish to emphasise a more historiographical shift in the study of money and coinage in the mid Republic: increasing engagement with economic anthropological theory, especially to understand the relationship between coinage and other forms of money.[91] As we have seen, coinage was a new addition to a society in which other forms of money already existed. This raises important questions: How did they relate to each other? Were they interchangeable, or was the use of different forms of money restricted to certain kinds of transactions? And more specifically for the period of the Mid Republic: what was the impact of the introduction of coinage on a society that — to a certain extent — was already using money?

With its general focus on money as a socio-cultural phenomenon, economic anthropological theory draws attention to the ways in which money was socially embedded. It offers various conceptual tools that help draw attention to different ways in which various kinds of money could be used, including the potential existence of different spheres of exchange. For example, rather than seeing the use of cattle-money as an episode that preceded the use of weighed-out bronze, it has been argued that both forms of money co-existed and were used for different kinds of transactions, and that cattle even continued to be used in specific transactions long after the introduction of coinage.[92]

In addition, it is increasingly recognised that there is a conceptual difference between credit (virtual money) and cash (physical money). The distinction is one of social

[85] Westner, Birch, *et al.* 2020: 88–9.

[86] Most recently, Parisot-Sillon and Sarah 2018; Wood *et al.* 2023.

[87] Westner, Birch, *et al.* 2020: 88–9.

[88] Comparative analytical data from Greek coinages can be found in Olivier *et al.* 2018; Papaefthymiou and Blet-Lemarquand 2021.

[89] Parisot-Sillon and Sarah 2018: 140–2; Parisot-Sillon forthcoming.

[90] Suspène *et al.* 2023. We know from the *elogium Duilianum* (*ILLRP* 319) that Carthaginian gold (as well as silver) coins were captured at the Battle of Mylae.

[91] E.g. Viglietti 2011; Bernard 2018a. Cf. for the Greek world Von Reden 1995; Kurke 1999; Seaford 2004; Heymans 2021 (ch. 2 for an overview of the debate). See also Aarts 2005 on a later period of Roman history.

[92] Viglietti 2021. A helpful synthesis of both the anthropological, historical and economic literature attempting to explaining the origins of coinage is provided by Paul 2014: 14–99. See also Hollander 2007 on the existence of multiple forms of money in the Roman Republic.

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familiarity: whereas debt and indebtedness often serve to build or maintain social relationships, cash can operate anonymously. Cash transfers the issue of trust onto the medium of exchange itself, or onto the third party responsible for that medium.[93] As Parry and Bloch observed, the distinction implies different temporalities, as debt transactions assume a futurity to social relationships that cash does not necessarily do.[94] Meanwhile, anthropologists understand cash as more closely linked to markets and marketplaces where economic encounters happened apart from other sources of trust-building such as family structures or religion.[95]

In this context, it may be argued that coinage was particularly suitable for short-term exchanges that do not rely on long-term social ties.[96] In addition, at least in theory, coins offered a more accessible 'financial technology' compared to the bullion bronze that was previously used as cash money, as coins could be counted rather than weighed and their value was not strictly dependent on their metal composition, but also on their nominal value, guaranteed by the authority that produced them. Thus, coinage had the capacity to change the ways in which money was used, and hence how it was socially embedded.

III Implications

Coinage was not the only form of money in mid-republican Rome, but it clearly was an increasingly important form of money. From the moment coinage was first introduced, we can see three developments: (1) from a haphazard to a coherent coinage system, (2) from coinage minted in various places to centralised production, and (3) from irregular and small-scale coin production and circulation to staggering volumes and widespread circulation. The first two developments took off in the years just after the First Punic War. The leap in volumes of production and intensive circulation can be dated to the final years of the third century.

In this section, we discuss how this current state of knowledge about mid-republican money and coinage can be brought into fruitful dialogue with broader debates about Roman society in this period. On the one hand, new insights about money can add to our understanding of Roman society at large, while on the other, recent ideas about the economy and politics of the Mid Republic also affect our understanding of Roman money. Of course, we cannot offer a full discussion of all aspects here. Instead, we refer to work that has already been done, offer our own thoughts and suggest avenues for further research.

Economy

Rome´s expansion in the mid-republican period led to a range of important socio-economic developments. The influx of booty, tribute and enslaved persons at an accelerating pace was accompanied by the seizure of land for agricultural purposes and/or the extraction of metallic resources. Whereas initially the additional human labour was most likely invested in freeing up manpower for warfare and allowing surplus production for *tributum* payments,[97] the later third and second centuries saw large-scale enslaved labour employed

[93] Simmel [1900] 1989: 393–6; Paul 2014: 59–62.

[94] Parry and Bloch 1989. For debt's futurity, see Peebles 2010, who notes that temporal horizons of debt were already discussed by Marx and Weber.

[95] Graeber 2011; Hirth 2020: 314–15.

[96] See Bernard 2018a for an application of this idea to early Roman coinage.

[97] Scheidel 2023; Tan 2023.

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in private and public enterprises — notably production of cash crops and consumer products on the one hand, and building projects on the other.[98] Not only Rome itself but also Italy at large witnessed an economic boom: increasing settlement density, cash-crop production and integration into Mediterranean-wide trade networks.[99] Already prior to the mass enslavements the Romans had invested in large-scale building projects. Presumably they initially drew on corvée labour but moved towards contracting out these endeavours under the direction of the censors, increasingly involved in public building projects.[100] The growth of Rome as a city, brought about largely by migrants and enslaved persons, necessitated the development of urban infrastructure, but also provided the workforce to do this.[101] Increased urbanisation and non-agricultural labour in turn led to the development of retail trade, made tangible in the rise of the taberna in Rome and Roman colonies.[102]

In this context, the introduction of coinage was not an immediate game-changer for economic practices in late fourth-century Rome. As briefly discussed above in Section II, *Theoretical perspectives*, the more accessible 'financial technology' of coins is theoretically capable of changing the ways in which money was socially embedded and used. However, such changes are not yet apparent in the earliest phase of Roman coinage. Due to the relatively small size of both the silver and bronze issues, these coins do not seem to have been systematically utilised for everyday transactions, and a convincing argument has been made recently that no banking activity was yet taking place in Rome in the late fourth and early third centuries.[103]

Rather, it seems that for two or three generations after the introduction of coinage, coined bronze served as a store of wealth in the same way as other forms of bronze. As discussed above, we find large accumulations of bronze — in the form of aes rude, currency bars and aes grave — in hoards and votive contexts, and the Pratica di Mare hoard seems to indicate that the 'technological' potential of coinage was not automatically exploited to the full. Likewise, the significant amounts of these early bronze coins — often together with aes rude — in temples indicate on the one hand the conservative nature of ritual practices, but on the other hand the continued wish for an environment under divine protection for transactions.[104] Potentially this lack of trust — or persistence of old practices — was a reaction to the fact that both the denominational system and the large amounts of cheap lead in the cast coins made Roman currency from the start based not only on metal value. Another potential reason could have been the not yet fully formed state character of the coinage (see *Politics* below), making its acceptance dependent on personal or situational contexts, analogous to the findings of anthropological research on pre-modern societies.[105]

Wider use of coinage rapidly took over the Roman economy in the final decade of the third century, and particularly in the early second century. There is a marked increase in the amount of coinage in circulation, especially silver coinage. We have seen that silver was hardly present in the city of Rome until the later third century, and that Rome's earliest silver coinages mainly circulated outside the city. Only towards the end of the third century did silver become a more widely used and socially accepted means of payment and saving. Bronze coins were topped up further by local measures to augment the supply of small

[98] Kay 2014.
[99] Kay 2014; Roselaar 2019; Padilla Peralta and Bernard 2022.
[100] Bernard 2018b.
[101] Kay 2014: 286.
[102] Ellis 2018; Flohr 2022.
[103] Kay 2024.
[104] See a recent overview of aes rude in votive contexts in Drago Troccoli 2018: 276–9. For the role of sanctuaries in economic exchange in early Rome, see Bernard 2022.
[105] Parry and Bloch 1989; Maurer 2006.

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change, such as the importation of 'blocks' of foreign bronze coins, implying that the monetisation process accelerated faster than the state-produced Roman coinage in circulation could accommodate. This acceleration took place in the same period that saw the emergence of the taberna, widespread retail trade and deposit banking, and thus seems to point at an increasing importance of market-oriented economic encounters in Roman society as a whole.[106] Although this was certainly necessitated by urbanisation and wage labour, the cash to make this run smoothly was available because of state payments to veterans and contractors. Apparently, the 'technology of coin use' had now caught on. Simultaneously, silver had become an acceptable money medium for storing wealth.

Thus, while Rome had been a monetised society for centuries, it seems to have moved — and moved suddenly — to being an intensively coin-using society only in the very late third century. While other cash traditions did not disappear completely, coinage now played an increasingly important role, to the extent that this particular form of money started to affect contemporary views on money in general and seems to have invited more explicit reflections on money in societal debates. The comic plays of Plautus, staged in the very decades around 200 that saw the introduction of a unified and prolific system of coinage and its widespread use in Roman Italy, give us a vivid (if comically distorted) picture of the excitement and anxieties raised by this new stage of monetisation.[107]

Politics

Recent research on the political organisation of mid-republican Rome has increasingly drawn attention to the dynamic character and development of the Roman state in this period. This includes the conceptual degree of 'state-ness' of the Roman Republic and the ways in which the community organised itself and formed its institutions.[108] This results in a dynamic picture: in a process of trial and error, the Roman political community and its institutions developed as a result both of internal political processes and interaction with external players, most importantly the local elites in other Italian communities.[109] In this process, we can recognise the continuing relevance of individuals and clans within the Roman state, and their divergent, sometimes even conflicting interests.[110]

The first intermittent and small-scale attempts at Roman coinage fit well with this conceptualisation of the mid-republican state.[111] They can be explained as the result of individual magistrates deciding to mint, based on their family´s interests or experiences, rather than in relation to a broader state policy.[112] The period in which we situate this, the earliest decades of the third century, was a phase in which increasingly clans originating from outside Rome could reach influential positions. Especially families with ties to Campania would have already known coinage and seen it in action.[113]

In addition to these internal dynamics, the small scale of early Roman coinage can be explained with reference to Rome's network of alliances in this period. Compared to other

[106] Flohr 2022 on tabernae and retail trade; Kay 2024 on banking activity.

[107] De Callataÿ 2015; Hinsch 2024.

[108] On the '*Staatlichkeit*' of the Roman Republic: Lundgreen 2014. See Padilla Peralta 2020 for an alternative take on the development of state institutions.

[109] See recently Helm 2021. Eich and Eich 2005 stress the relationship between warfare and the development of state institutions, as does Scheidel 2019, ch. 2, who notes that Rome did not create a monopoly on violence in Italy (67). See also Moatti 2018 on social conflict as a driving force for political change.

[110] E.g. Hölkeskamp 2010; Wright and Terrenato 2023 specifically on Roman magistrates from Italian descent. See also Terrenato 2019, 155–93 on non-Roman players involved.

[111] As noted briefly by Terrenato 2020, 65.

[112] Bernard 2018a.

[113] Terrenato 2019: 155–93 discussing how elite families from outside of Rome became part of Roman power structures in the course of the fourth century.

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coin producers in (southern) Italy, Rome's earliest emissions, especially those in silver, were small. These other coinages were still widely used: until the late third century there is no attempt whatsoever to either monopolise the production of coinage or enforce the use of Roman coinage in Roman territory or in transactions that involved Romans.[114] In contrast, many Roman colonies and allies actually started to produce coinage when Rome was increasingly establishing its power on the Italian peninsula. Rather than interpreting these coinages as local phenomena, relevant only to the communities that produced them, we are better off interpreting them together as the coinage used in a fragmented but interconnected 'Roman Italy' that was taking shape in this period.[115] Thus, local elites outside Rome actively contributed to the spread of coinage in a developing Roman world.

This contextualisation helps us understand the fragmented and small-scale nature of the ROMANO silver: it would only have been produced if payments needed to be made in coin, and no other coinage was available, or when there were other political or perhaps even ideological reasons for coin production.[116] On which occasions this need for coinage occurred remains up for debate. While many scholars have identified the Roman army as an important context of production, it is clear that the volume of production is too low for these coins to have been used as regular military pay. However, the coins may still have been used for smaller-scale military expenses, and non-military explanations are also possible.[117]

Over the third century, coin production was gradually institutionalised and became part of standard state activities. After the First Punic War, centralisation and coordination of production increased, but given its still irregular nature, it was more a matter of *ad hoc* decisions to produce coinage in a particular year than a regular part of government. This changed only with the Hannibalic war, although we should be aware of the exceptional nature of coin production during the war. On the one hand, it undoubtedly marked the beginning of a new era, with the introduction of the denarius, and the total volume of silver coinage in circulation in Italy must have hugely increased. On the other hand, this high volume of production was not continued after the war: the fact that Rome issued rather small quantities of silver coins after *c.* 200, and must have proceeded to make large public payments with uncoined silver (or other kinds of commodified metal), may be interpreted as a return to the procedures it was accustomed to use in the third century. Dramatic changes in this regard only took place in the 150s–130s.

Indeed, Crawford's average estimates for the issues of silver coins normally attributed to the period *c.* 200–*c.* 167 amount to fewer than thirty obverse dies, a figure which, even if not taken at face value,[118] stands in sharp contrast to the impressive volume of silver bullion obtained from booty and war indemnities. Thus the total volume of such issues may only be worth 5–10% of Rome's total silver income,[119] a similar figure to those found for other, Hellenistic states.[120] Considering the huge scale of public expenditures in the same

[114] See Stannard 2021. It has regularly been noted that the haphazard and small-scale nature of early Roman coinage is difficult to reconcile with traditional conceptualisations of a 'state coinage'; see Heymans and Termeer 2020.

[115] See Carbone 2020: 106–13; Armstrong and Termeer 2024: 207–10 stress the (Roman) military context in which many of these silver coins were initially used.

[116] In this light, note the rare Neapolitan coins which bear, besides the ethnic (the text identifying the people that produced the coin), the name of what is quite likely a Roman individual, Villius (Cantilena *et al.* 1986: nos 30-1 and 49). Apparently, some Romans commissioned coinage in Naples. This underlines that the decision to issue coins referring to Rome is ultimately a political or even ideological decision.

[117] See recent discussion in Bernard 2018a (for non-military explanations); Armstrong and Termeer 2024 (putting the military argument in the broader Mediterranean context).

[118] As regards using the die estimates featured in Crawford 1974 as proxies for relative fluctuations in coin production in Rome, see Lockyear 1999.

[119] Parisot-Sillon forthcoming.

[120] De Callataÿ 2006: 64–7; Olivier 2012, 874–91.

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period,[121] and the fact that the Senate tended to dispose of most of its revenues on an annual basis,[122] the mass-produced coinage of the last decade of the third century must still have played a role in state payments. We should also consider the possibility that the aerarium was frequently asked to make public payments with uncoined metal.

Even though the scale of coin production increased enormously during the Second Punic War, the distribution and the output patterns of the denarius coinage in the first half of the second century show that the annual pay of the stipend to legionaries in the field still cannot have been the primary function of newly minted coinage. More feasible is a bookkeeping system, with soldiers receiving pocket-money (perhaps partly consisting of local coinages) during campaigns and a full settlement of accounts after discharge in Rome. Another major recipient of state payments must have been contractors charged with the large-scale infrastructural works which were carried out in Rome and Italy partly at the behest of the censors.[123]

Identity

The Mid Republic is a period in which the question of what it meant to be Roman clearly presented itself. As Rome expanded its political and military power in Italy, the Roman community needed to define itself as an entity larger than a city-state, in relation to both subjugated groups in Italy and peers in the Mediterranean.[124] This means that Roman identity developed in relation both to an increasing awareness of the concept of 'Italia' and to the broader history and mythology of the Mediterranean.[125] It is not a coincidence, therefore, that myths about Rome's origin developed in this period, and that Rome started to write itself into the history of the Mediterranean world.[126] The adoption and development of coinage is another example of the way in which Rome was carving out its own position in the broader Mediterranean, especially in relation to the Greek world.

On the pre-denarius struck issues the legends ROMANO and (at a later stage) ROMA appear. Thus these coins present some of the very earliest epigraphic attestations of the name of Rome, paralleled in Latin epigraphy only by the locative *Romai* or *Romae* in two inscriptions. The coins are thus exceedingly rare and important witnesses to this early substrate of Roman identity-formation.[127]

Whereas the reference to Rome in the legend is there from the start, the designs of the first phase of Roman coinage show a less univocal frame of reference. These designs are varied and have often been seen as emphatically Hellenistic in nature — evoking the prowess of Alexander the Great and his coin narratives of triumph and victory.[128] Others argue that these images refer to affairs much closer to home: specific types would evoke achievements and legends related to the families of individual magistrates.[129] This interpretation gains additional significance in light of the possibility that individual magistrates initiated production. In this rather dynamic context, we may also recognise the first attempts at creating

[121] Kay 2014: 21–58; Taylor 2020; Berrendonner 2022.

[122] Crawford 1985: 143.

[123] Kemmers 2023.

[124] E.g. Roselaar 2012; Smith and Yarrow 2012; cf. Padilla Peralta and Bernard 2022 on the various connectivities relevant to mid-republican Rome.

[125] On 'Italia', Russo 2012; for the creation of Italian identity, see Carlà 2017: esp. 164–74.

[126] E.g. Hölkeskamp 2006; Rodriguez-Mayorgas 2010.

[127] The inscriptions are found on the Ficoroni Cista (*CIL* I 561) and the recently discovered sword blade from San Vittore (*AE* 2015.308). The importance to Roman identity of these two inscriptions' epigraphic claims is now discussed by Hopkins 2024: 139–40, although without reference to the contemporary coin legends.

[128] Burnett 1986.

[129] Hollstein 1998, 2008.

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an iconography for the goddess Roma, who has been plausibly identified on several coin designs before the introduction of the denarius.[130]

More generally, we should note that the sheer variety of designs is at odds with common Greek and south Italian practice, where designs were much more stable.[131] As a result, no uniform Roman public identity was communicated through the earliest Roman coinage.[132] Even when cast and struck bronze were united into single series in the 240s and the Roman mint began to issue its own silver and struck bronze coinage instead of relying on the Campanian and other southern Italian mints, this variety of designs remained. Only about 15–20 years later did the minting of the quadrigatus and subsequently the denarius see a much larger-scale production of coins with uniform designs, thus finally providing Rome with a recognisable public identity on its coins.

Some interesting parallels may be drawn between these developments in coinage and the beginnings of Latin literature.[133] The Roman conquest of Magna Graecia enabled increasing cultural and economic interaction with the Greek communities of central and southern Italy, but this interaction initially took place through intermediaries. In our source material, this becomes tangible from the 240s onwards. The fact that the Tarentine Livius Andronicus, the first attested author writing in Latin, was an outsider allowed Rome to appropriate the Greek literary tradition, while at the same time distancing itself from the negative values still attached to southern Italian Greeks and offering a safe space for the acceptance of new cultural practices.[134] Tarentum and Campania, the places of origin of Andronicus and Naevius, the first poets of Roman literature, were also the regions that provided a 'model' for Roman coinage and, in the case of the Campanian mints, actually produced it.[135] As a result, silver coinage that still may have had negative associations for at least part of the Roman elite[136] was not introduced directly into Rome, but into an environment where it was more easily accepted.[137] Thus both coinage and literature were new media that could be used to articulate what being Roman meant in the new world of a rising Mediterranean hegemony. Literary texts and numismatic sources concur in indicating the aftermath of the First Punic War (specifically 240) as a transformative moment for Roman identity.[138]

The Roman monetary system further evolved in the Second Punic War, leading to the introduction of the denarius and standardised types, available on a massive scale.[139] This new system not only facilitated economic transactions but also provided a more consistent visual and cultural framing for these transactions. Monetary types and the fiduciary value of coins represented a constant reminder to those who received and used them of the larger group they belonged to and the authorities they put their trust in. When Roman coinage was used to pay for temples or games financed by the spoils of victory, it also reminded the many contractors, labourers, actors and poets involved of what it meant to be part of the Roman *populus*. The shift to a coinage with distinctively Roman types and denominations that came

[130] Burnett 1986: 67–71.

[131] Woytek 2012.

[132] See Termeer 2023a: 88–91.

[133] Carbone 2020; see Feeney 2016 on the beginnings of Latin literature.

[134] Carlà 2017: 186–9 (with bibliography).

[135] For the production of Campanian coinage in the name of the Romans in Neapolis, see Crawford 1985: 26–8; Catalli 1995: 42; Rutter 2012: 138–9; Carlà 2017: 255–6.

[136] Bernard 2018a.

[137] Termeer 2023b: 197.

[138] For the full argument, see Carbone 2020.

[139] Yarrow 2021a: 27–46 (with previous bibliography).

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to full completion during the Hannibalic war signified the coherence of the Roman Republic not only in economic and political terms, but in ideological terms as well.[140]

IV Conclusions

In recent scholarship on coinage and money in mid-republican Rome, there is increasing attention to the conceptual relationship between coinage and other forms of money, and the early development of Roman coinage is becoming clearer. We can recognise a development from coinage irregularly commissioned by individual Roman magistrates to a regular Roman state coinage. The first phase is characterised by haphazard production often outside of Rome following largely Greek models, and probably linked to individual initiatives. This develops into large-scale and more regular coordinated production now clearly institutionalised within the Roman state and with a distinct Roman appearance. We have proposed the recognition of two principal moments of acceleration in this process, first in the direct aftermath of the First Punic War and then above all around the introduction of the denarius.

Much can be gained from a more sustained integration of these insights into broader debates on mid-republican Rome. First of all, the numismatic sources, when brought into dialogue with these broader debates, can strengthen and further develop new approaches and ideas about this period. We have shown some of this potential in Section III. For example, as discussed above in Section III, *Politics*, the coin evidence aligns well with recent conceptualisations of the Roman state. While the small-scale, haphazard nature of the earliest Roman coinage has always been something of a mystery, it can now be connected to different choices made by individual magistrates.[141] Against this background, the numismatic material also offers opportunities for additional research. It can be used to further map interconnections between Rome and various colonies and allies in Italy and thus develop our understanding of the role of non-Roman players within the larger framework of a developing Roman state. In addition, it would be worthwhile investigating how the increasing institutionalisation of coin production in the course of the third century — with the two key moments of acceleration noted above — relates to other institutional developments.

Likewise, in Section III, *Identity*, we showed how the coin evidence provides additional information about the process of demarcating a specifically Roman identity in a Mediterranean context. The relatively fine-grained chronology of the coins allows us to see the development of clearly recognisable Roman symbols on the coins over the third century, thus adding substance and chronological precision to observations based on the literary sources. While we have suggested a parallelism between these developments in coinage and the beginnings of Latin literature,[142] the relationship with expressions of Romanness in other media would be another potential path of analysis.

Whereas in these cases the numismatic material can be integrated to more effect into existing debates about Roman politics and identity, in the field of social and economic history it provides insights that cannot be clearly observed elsewhere. The introduction and subsequent development of coinage in Roman society changed the way in which money was used and perceived, and hence the social and cultural codes and practices connected to it. As discussed in Section III, *Economy*, coinage played an increasingly important role as the main instrument of payment and exchange in the course of the third century and into the second. This seems to be connected to an increasing importance of market-oriented economic encounters in Roman society, meaning that personal ties and trust were no longer

[140] For this, see now Termeer 2023a.
[141] Bernard 2018a; Terrenato 2020.
[142] Carbone 2020.

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the primary social institutions surrounding economic exchange. It is tempting to relate this broad societal development to the rapid demographic growth of Roman society in this period.[143] This demographic growth would have led to an increasing complexity of Roman society at large, which can explain the acceleration in the production and use of monetary instruments.

An important avenue for further research is how exactly the market developed in importance, and how this relates to the increasing institutionalisation of coinage. Important in this regard is the fact that the introduction of coinage did not immediately or automatically lead to different forms of money use or a decrease in the importance of personal social ties in economic exchange.[144] We suggested above that the earliest bronze coins may have been used in much the same way as pre-coinage aes rude — being weighed and mainly used in the context of sanctuaries, perhaps as a result of a wish for divine protection of transactions. This means that any authorisation by the state — if we can even talk of such a thing in this early period — had little immediate effect. The advantages of the 'financial technology' of coinage only became apparent in the later third and second centuries, when higher volumes of production led to a much wider use of coinage, and hence a much deeper monetisation of Roman society.

Finally, in this same period, silver rather than bronze became the anchoring point of the whole system. This process also deserves closer examination. It shows that a new regime of value came to be broadly accepted in Roman society. It is perhaps difficult to trace the process of acceptance — and the societal tensions potentially related to it — in detail. However, the socio-cultural impact of this increasing importance of silver in the Roman value system is another promising path of research.[145]

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[143] Bernard 2018b, 163–75.
[144] Cf. Heymans and Termeer forthcoming.
[145] Rowan 2013 already touches upon this.

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