

The Monetization of Temperate Europe*

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ABSTRACT

By considering monetization across the Iron Age and Roman periods and across the whole of Temperate Europe some major developments become apparent. The spread of coinage in the Iron Age bears some relationship to the eventual extent of the Roman Empire. Coins stand in the archaeological record for systems of doing things, for ways people relate to each other and to things, and for ways of conceptualizing the world. They provide a useful way to approach the meeting of the worlds of the Iron Age and of Rome. Material forms of being Roman became increasingly important as a dimension of Roman identity. The commercialization implicit in Rome's 'Cultural Revolution' was underpinned by the extension of Roman-style monetization. In this light the monetization of Temperate Europe emerges as a process of considerable importance.

Keywords: Roman Empire; Roman Cultural Revolution; Roman coins; Iron Age coins; commercialization; monetization; money; primitive valuables; regimes of value; ritual deposition

I MONEY, COINAGE AND CULTURE

Money was central to the Roman world. It mediated not only the state redistributive cycle but also a high level of commoditization. The widespread provision of good-quality consumer goods beyond the élite was a distinctively Roman phenomenon. The creation of this material complexity has been variously analysed as the Roman Consumer Revolution or the Roman Cultural Revolution, and the end of it is central to models of the Decline and Fall of the Roman Empire and of the transition to the Middle Ages.¹

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¹ Consumer Revolution: G. Woolf, *Becoming Roman. The Origins of Provincial Civilization in Gaul* (1998), 96–8; 169–205 'Consuming Rome', especially 181–5 'The consumer revolution'; 238–41. Cultural Revolution: A. Wallace-Hadrill, *Rome's Cultural Revolution* (2008); on which R. Osborne and C. Vout, 'A revolution in Roman history?', *JRS* 100 (2010), 233–45. Decline, fall, and transition: B. Ward-Perkins, *The Fall of Rome and the End of Civilization* (2005); review by W. Pohl, *English Historical Review* 124 (2009), 109–11. Wickham sees the dramatic post-Roman simplification of material culture as a direct consequence of the collapse of the fiscal motor of taxation and military pay, itself the key change brought about by the break-up of the Western Empire: C. Wickham, *Framing the Early Middle Ages: Europe and the Mediterranean*,

There was an intimate link between the creation of this material complexity and the liquidity boom of the second and first centuries B.C., consequent upon imperial expansion and exploitation.² The effects were cultural as much as economic. Material forms of being Roman became increasingly important as a dimension of Roman identity.³ A consumer boom was driven by an aspiration to social status in a hierarchically ordered society. The debris of this economic and cultural change is found scattered across the Roman world in the form of buildings and monuments, container amphorae, fine pottery, lamps, glass, metalwork, and the like. This new Roman provincial culture should not be seen as a ‘Roman’ phenomenon exported to the provinces; its creation was a process in which the provinces were complicit.⁴

The commercialization of Rome’s Cultural Revolution was critically underpinned by the extension of monetization. Indeed the eventual demise of Roman material culture has been linked to the fate of the distinctively Roman provision of small change.⁵ So the spread of Roman-style monetization to Temperate Europe is a major phenomenon. Without it, the northern provinces could not have participated in a whole complex of changes which have often been grouped under the problematic heading of ‘Romanization’.⁶

Roman expansion into Temperate Europe saw the meeting of societies constructed in very different ways, that is with different *regimes of value*, ‘where value is primarily defined not in economic or monetary terms, but rather through the broadest range of social and cultural links people have to the material world’.⁷ Contexts where different regimes of value meet bring out the importance of the cultural dimension to money. The approach puts the focus on forms of monetization and commoditization (the assignment of economic value to things, a process not confined to monetized exchange) rather than on neo-classical economics.⁸

What is money? It can be characterized by its multiple functions: as a means of payment, a means of exchange, a measure of value, a unit of account, and a store of wealth. Some would confine the word to all-purpose money, which combines all these functions. No definition is sufficient without consideration of context. The use of certain types of money may be confined with narrow spheres of exchange (say, bride-price), and in no context is it universal (we do not buy and sell people as such). The extent of commoditization is a variable in itself. It is unhelpful to define money

400–800 (2005), 57–8; 145; 829; idem, *The Inheritance of Rome: a History of Europe from 400 to 1000* (2009), 9; 102–5; 216–31.

² P. Kay, *The Economic Impact of Rome’s Imperial Expansion from the Second Punic War to Mithridates VI of Pontus*, D.Phil. thesis, University of Oxford (2008), ch. 10: ‘The Creation of “Material Complexity”’; idem, *Rome’s Economic Revolution* (forthcoming).

³ Wallace-Hadrill, op. cit. (n. 1); cf. Woolf, op. cit. (n. 1).

⁴ G. Woolf, ‘The formation of Roman provincial cultures’, in J. Metzler, M. Millett, N. Roymans and J. Slofstra (eds), *Integration in the Early Roman West. The Role of Culture and Ideology* (1995), 9–18; Woolf, op. cit. (n. 1); J. Creighton, *Britannia: The Creation of a Roman Province* (2006).

⁵ Ward-Perkins, op. cit. (n. 1), 110–17 ‘A world without small change’.

⁶ D. Mattingly, *JRA* 15 (2002), 536–40; idem, ‘Being Roman: expressing identity in a provincial setting’, *JRA* 17 (2004), 5–25; idem, *Imperialism, Power, and Identity: Experiencing the Roman Empire* (2011).

⁷ C. Gosden, *Archaeology and Colonialism* (2004), 18; for regimes of value in Iron Age Europe: Woolf, op. cit. (n. 1), 176–7; 185 ‘the replacement of a series of local regimes of value with those of the new imperial culture of consumption’.

⁸ Commoditization: A. Appadurai, ‘Introduction. Commodities and the politics of value’, in A. Appadurai (ed.), *The Social Life of Things. Commodities in Cultural Perspective* (1986), 3–63; at 10–11 and 19 for non-monetized commodity exchange; I. Kopytoff, ‘The cultural biography of things: commoditization as process’, *ibid.*, 64–91, at 68–9 for non-monetized commodity exchange; N. Thomas, *Entangled Objects: Exchange, Material Culture, and Colonialism in the Pacific* (1991), 14–15; 27–30; 38–9 ‘Commodities are here understood as objects, persons, or elements of persons, which are placed in a context in which they have exchange value and can be alienated’; 50; 81–2.

too precisely here as the aim is to consider from a historical perspective how money develops.⁹

It is desirable to look at money in all its aspects, but that is scarcely possible. To take an obvious example, credit may be an important part of the money supply, the significance of which is rightly acknowledged and debated for the Roman world.¹⁰ The evidence for credit is essentially documentary so it is not possible to trace whatever rôles it may have had in prehistoric societies.¹¹ The extension of monetized credit to Temperate Europe might well have been one of the major developments in the confrontation of different societies. There is a tantalizing hint that this might have been the case. According to Dio, insistence by the procurator that grants to the British élite by Claudius had to be repaid provided one of the reasons for the Boudiccan revolt.¹² This is exactly the kind of ‘misunderstanding’ to be expected when a regime of value embracing commoditized credit meets one where forms of gift exchange fulfil some of the same needs. Unfortunately it is not possible to progress from the anecdotal to the testable.

There is a similar problem when trying to look for forms of money which are not familiar. The identification of money-use is largely dependent on documentary sources. For non-literate societies it can be virtually impossible to know from archaeology alone whether certain artefacts were used as money or not. For example, Caesar noted that the Britons used iron bars of standard weights as money, but from archaeological evidence it is hard to be sure whether such iron bars, which are found across France, Belgium, Germany, and Switzerland, as well as in Britain, were indeed used as money and, if so, in what way.¹³

There is a huge anthropological literature on ‘primitive money’ and ‘primitive valuables’ (prestige gifts exchanged in a ceremonial way), but that is precisely because there have been anthropologists, ethnologists, colonial administrators, and travellers present to observe and record money in action.¹⁴ There is little by way of external observation recorded in Greek or Latin which might provide a surrogate anthropology of money in Iron Age Europe, and what there is tends to conform to Graeco-Roman stereotypes, may not be accurate, and cannot be verified. All anthropology can do is to raise the possibility that objects like

⁹ As persuasively argued by D. Schaps, *The Invention of Coinage and the Monetization of Ancient Greece* (2004), 1–17.

¹⁰ C. Howgego, ‘The supply and use of money in the Roman world 200 B.C. to A.D. 300’, *JRS* 82 (1992), 1–31, at 27–8; E. Lo Cascio (ed.), *Credito e moneta nel mondo romano: atti degli Incontri capresi di storia dell’economia antica Capri, 12–14 ottobre 2000* (2003); W. Harris, ‘A revisionist view of Roman money’, *JRS* 96 (2006), 1–24 = idem, *Rome’s Imperial Economy: Twelve Essays* (2011), 223–54; D. Rathbone and P. Temin, ‘Financial intermediation in first-century A.D. Rome and eighteenth-century England’, in K. Verboven, K. Vandorpe and V. Chankowski (eds), *Pistoi dia tèn technèn. Bankers, Loans and Archives in the Ancient World: Studies in Honour of Raymond Bogaert* (2008), 371–419; Kay, op. cit. (n. 2, 2008), ch. 6: ‘Credit and Financial Intermediation’; idem, op. cit. (n. 2, forthcoming).

¹¹ For what it is worth Caes., *B.G.* 6.13; cf. 1.4 refers to a form of debt slavery in the Iron Age world. Forms of debt may be very varied and are by no means confined to market contexts: cf. Thomas, op. cit. (n. 8), ch. 2: ‘The Permutations of Debt: Exchange Systems in the Pacific’.

¹² Dio 62.2.1.

¹³ Caes., *B.G.* 5.12; R. Hingley, ‘Iron Age “currency bars” in Britain: items of exchange in liminal contexts?’, in C. Haselgrove and D. Wigg-Wolf (eds), *Iron Age Coinage and Ritual Practices* (2005), 183–205; J. Koch, *An Atlas for Celtic Studies: Archaeology and Names in Ancient Europe and Early Medieval Ireland, Britain, and Brittany* (2007), 149.

¹⁴ G. Dalton, ‘Aboriginal economies in stateless societies’, in T. K. Earle and J. E. Ericson (eds), *Exchange Systems in Prehistory* (1977), 191–212; Appadurai, op. cit. (n. 8), 24–5 (defining primitive valuables); J. Parry and M. Bloch, *Money and the Morality of Exchange* (1989); Thomas, op. cit. (n. 8), 12 (problematizing primitive valuables); 38 (indigenous perspective on primitive money); B. Maurer, ‘The anthropology of money’, *Annual Review of Anthropology* 35 (2006), 15–36; C. Eagleton, H. Fuller and J. Perkins (eds), *Money in Africa* (2009); M. Bolt, C. Eagleton and L. Gardner, ‘Money in Africa: New historical and anthropological approaches’, in B. Cook (ed.), *The British Museum and the Future of UK Numismatics* (2011).

iron bars might have been used as limited-purpose monies in Iron Age societies, alongside who knows what else.¹⁵

Although there are important areas which cannot be investigated satisfactorily there is much that can be done. We recognize coin as a form of money in the Roman world, and know a lot about how it was used. As a means of exchange and measure of value coinage is particularly important in the archaeological record. It stands for systems of doing things, for ways people relate to each other and to things, and for ways of conceptualizing the world.¹⁶ In other words it helps to signify *regimes of value*, the confrontation of which we are attempting to understand. As coinage was also a feature of Temperate Europe in the Iron Age, it can in principle be used to compare different ways of doing things.

The increased emphasis on materiality within archaeology offers new ways to look at coins. Some archaeologists now stress the effect of the material world on human relations, provocatively reversing traditional descriptions of agency.¹⁷ ‘Styles of objects set up universes of their own into which people need to fit.’ Artefacts bring about ‘repeated sets of actions implemented by type’. ‘Those who embraced new forms found themselves over time created as social beings with new sensibilities and forms of relatedness.’ Objects create peoples. Not all historians or anthropologists will be ready to cede agency to things, but it is easy to see how this approach is particularly illuminating for coinage.¹⁸ It also helps to bring out how much is at stake. Coinage was not simply a reflection of identities; it was active in creating them.¹⁹ And that applies to the use of coins, as well as to the designs and inscriptions which they display.

The scope for using numismatic evidence to address major issues of cultural history in this way is considerable, and has not gone unnoticed. There have been calls by Aarts to apply an anthropological approach to coinage in the Roman world,²⁰ and by Kemmers and Myrberg to reintegrate coins into material-culture studies.²¹ This paper is one attempt to answer these calls, although it does not do so in terms advocated by either. Ideally all coinages should be interpreted in their full material-culture context, including patterns of settlement.²² The scope and aims of this paper do not permit that level of

¹⁵ It appears that torcs were sometimes made to a weight standard. The torc in the Tayac hoard weighed 100 times the mean weight of a local gold coin: J. H. Kellner, ‘Der Fund von Tayac, ein Zeugnis des Cimbernzuges’, *Jahrbuch für Numismatik und Geldgeschichte* 20 (1970), 13–47; C. Haselgrove, ‘Warfare and its aftermath as reflected in the precious metal coinage of Belgic Gaul’, *Oxford Journal of Archaeology* 3.1 (1984), 81–105, at 86. For a sceptical view of the metrology of torcs and of the possibility that they functioned as some kind of special purpose money: A. Fitzpatrick, ‘Gifts for the golden gods: Iron Age hoards of torques and coins’, in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 157–82, at 170.

¹⁶ cf. S. von Reden, *Money in Classical Antiquity* (2010), 186: ‘But it is well known that money does not just affect economies but is a collective signifier through which individuals and societies construe their identities and lives.’

¹⁷ C. Gosden, ‘What do objects want?’, *Journal of Archaeological Method and Theory* 12 (2005), 193–211.

¹⁸ cf. Thomas, op. cit. (n. 8), 208: ‘If there is one commonsense theory which this book has been directed against, it is this curious idea that artifacts are subjects rather than objects, things which produce or express cultural change while standing as fixed and stable entities themselves.’

¹⁹ For the active rôle of coinage in creating identity: C. Howgego, ‘Coinage and identity in the Roman provinces’, in C. Howgego, V. Heuchert and A. Burnett (eds), *Coinage and Identity in the Roman Provinces* (2005), 1–17, at 17; F. Kemmers and N. Myrberg, ‘Rethinking numismatics. The archaeology of coins’, *Archaeological Dialogues* 18 (2011), 87–108.

²⁰ J. Aarts, ‘Coins, money and exchange in the Roman world. A cultural economic perspective’, *Archaeological Dialogues* 12.1 (2005), 1–28.

²¹ Kemmers and Myrberg, op. cit. (n. 19).

²² M. Nick, ‘Social and economic patterns in Celtic coin use’, in H.-M. von Kaenel and F. Kemmers, *Coins in Context I: New Perspectives for the Interpretation of Coin Finds* (2009), 173–86, provides a good example of how to characterize regions based on settlement patterns and the full archaeological record. The current project based at Leicester, looking at coins from selected sites in their full archaeological context, provides an important way forward: C. Haselgrove and S. Krnčnick, *Mint Condition: Coinage and the Development of*

detail. The point argued here is that monetization also needs a higher-level treatment, embracing the Iron Age and Roman periods as a whole and geographically both the East and West of Temperate Europe. In this way some major structures and developments become apparent, and it is possible to think about them.

II THE STRUCTURE OF COINAGES IN TEMPERATE EUROPE

Rome expanded into a world which already had coinage. The Iron Age coinages of Temperate Europe, the earliest of which date to the late fourth or early third century B.C., had their origins in an adaptive borrowing from the Greek and Roman worlds long before the Roman conquest.²³ Iron Age societies incorporated Graeco-Roman iconography in their own terms, making incremental changes to it: initially they rendered images less 'realistic' and more ambiguous, with a greater emphasis on pattern, in conformity with the rest of their material culture, which is known especially from metalwork.²⁴ Coinage was also put to different uses within Iron Age societies, as will be explored in more detail in the next section. The key feature is that the idea of coinage was borrowed and internalized to produce something new. If Graeco-Roman coins were imported in quantity they were presumably melted down, perhaps in part to produce local coinages. At any rate most regions are not characterized by numerous finds of imported coin prior to conquest by Rome.

This model of coinage is in marked contrast to the reaction of the peoples who lay to the north of the Roman Empire under the Principate and Dominate. Coinage there was characterized by the sporadic influx and deposition of quantities of Roman silver coin from the second half of the second century A.D. onwards, and then of gold coin beginning in the second half of the third century A.D.²⁵ The pattern of finds is patchy but with significant concentrations in certain regions, including the valley of the Vistula in Poland, north-western Ukraine, Denmark, and the Baltic islands of Gotland and Bornholm. Denarii are often found in assemblages which date a few centuries later than when the coins were minted, including fourth-, fifth-, and even sixth-century contexts. What little coin was struck to the north of the Roman Empire during the imperial period consisted mostly of imitations of denarii, which are found from Scandinavia to the Crimea, and from the Rhine to the Danube. In some cases these coins were copied directly by taking impressions for the dies from original Roman coins.²⁶ Roman coin

Technological, Economic and Social Networks in the Mediterranean http://www.tracingnetworks.org/content/web/mint_condition.jsp.

²³ D. Nash, *Coinage in the Celtic World* (1987); brief summary in von Reden, op. cit. (n. 16), 55–63. The term 'Iron Age' is used in place of the 'Celtic' found in much earlier literature to avoid imputations of ethnicity: J. Williams, *Beyond the Rubicon. Romans and Gauls in Republican Italy* (2001), 5–14; S. James, *The Atlantic Celts: Ancient People or Modern Invention?* (1999); J. Collis, *The Celts: Origins, Myths and Inventions* (2003). For the case on the other side: P. Sims-Williams, 'Celtomania and Celtoscepticism', *Cambrian Medieval Celtic Studies* 36 (1998), 1–35; J. Koch, *An Atlas for Celtic Studies: Archaeology and Names in Ancient Europe and Early Medieval Ireland, Britain, and Brittany* (2007), 1.

²⁴ P. Jacobsthal, *Early Celtic Art* (1944); E. Jope, *Early Celtic Art in the British Isles* (2000).

²⁵ A. Bursche, 'Function of Roman coins in *Barbaricum* of Later Antiquity. An anthropological essay', in A. Bursche, R. Ciolek and R. Wolters (eds), *Roman Coins outside the Empire. Ways and Phases, Contexts and Functions* (2008), 395–416.

²⁶ D. Wigg, 'Coinage on the periphery', in Bursche, Ciolek and Wolters, op. cit. (n. 25), 35–47; M. Peter, 'Imitations of Roman coins in non-Roman contexts: some remarks', *ibid.*, 389–94; Bursche, *ibid.*, 399 n. 30 (references); K. Stribrny, *Funktionsanalyse barbarisierter, barbarischer Denare mittels numismatischer und metallurgischer Methoden: zur Erforschung der sarmatisch-germanischen Kontakte im 3. Jahrhundert n. Chr.* (2003).

was incorporated in a way quite different from the Iron Age model of adaptation and transformation seen earlier.

The pattern of coinage to the north of the Roman Empire during the imperial period is remarkably consistent. The most significant variation is the import of base-metal sestertii into the West Balt Circle.²⁷ This is likely to reflect the targeted export of this denomination from the Roman world as well as a culturally defined local requirement, both of which deserve greater consideration. Here it is sufficient to note that it is still a case of the import and use — whatever that was — of Roman coin. This variation also serves to emphasize the remarkable consistency elsewhere north of the Roman Empire.

The contrast between the Iron Age model of coinage and the pattern outside the Roman Empire from the second century A.D. onwards is important because the area of adoption of the Iron Age model seems to delimit, in a very general way, the eventual expansion of the Roman Empire in the north (Figs 1–2). The comparison between the maps is all the more enticing as a partial mismatch — the more northerly high-water mark of Iron Age coinages in western Central Europe — is something of an illusion. The ‘Germanic’ expansion from the north-east which put an end to the *oppida* culture across much of Central Europe had already caused a retraction of Iron Age coinages from the Middle Rhine to the Upper Danube in Bavaria and Bohemia during the first half of the first century B.C.²⁸ The correlation between the extent of coinage on the Iron Age model and the Roman Empire has been noticed before.²⁹ But is it significant?

Obviously no single phenomenon will account for the limits to growth of direct Roman rule and there are many different ways of approaching the question. These might include geographical features, ecology, agricultural productivity, demography, local cultures, and political, social, and economic development in the north, and the internal dynamics of the Empire itself, not least the need for military glory.³⁰ So was coinage, or perhaps rather money, relevant? In order to test this it is best to look at the margin, where the limits to direct Roman rule were challenged. Britain and Dacia provide suitable test cases, as the last provinces to be added to the Roman Empire in the north and as marking the limits to the west and east within Temperate Europe.

²⁷ A. Bursche, ‘Roman coinage in the Westbalt circle’, *Barbaricum (Studien zur Archäologie der barbarischen Völker aus der Ostseeküste und aus dem Weichselgebiet, Universität Warschau, Institut für Archäologie)* 2 (1992), 231–44; A. Zapolska, ‘Römische Münzen im westbaltische Kulturkreis – Kontexte und Funktionen’, in Bursche, Ciolek and Wolters, op. cit. (n. 25), 179–94. The similarity of the colour of sestertii to amber might be a factor.

²⁸ Iron Age coinage was re-established again later only in the west of this area. Nash, op. cit. (n. 23), 67; D. Wigg, ‘Das Ende der keltischen Münzgeldwirtschaft am Mittelrhein’, *Germania* 74 (1996), 377–97; idem, ‘The development of a monetary economy in N. Gaul in the Late La Tène and Early Roman periods’, in J. Creighton and R. Wilson (eds), *Roman Germany. Studies in Cultural Interaction* (1999), 99–124; D. Wigg-Wolf in Bursche, Ciolek and Wolters, op. cit. (n. 25), 39; idem, ‘The function of Celtic coinages in northern Gaul’, in M. P. García-Bellido, L. Callegarin and A. Jiménez Díaz (eds), *Barter, Money and Coinage in the Ancient Mediterranean (10th–1st Centuries BC)* (2011), 301–14, at 307–8; B. Overbeck, ‘Celtic chronology in South Germany’, in A. Burnett and M. Crawford (eds), *The Coinage of the Roman World in the Late Republic* (1987), 1–17; M. Nick, ‘Zum Ende der keltischen Münzgeldwirtschaft in Südwestdeutschland’, in J. Metzler and D. Wigg-Wolf (eds), *Die Kelten und Rom: neue numismatische Forschungen* (2005), 147–58; idem, *Gabe, Opfer, Zahlungsmittel. Strukturen keltischen Münzgebrauchs im westlichen Mitteleuropa* (2006).

²⁹ e.g. D. Allen, *Catalogue of the Celtic Coins in the British Museum. Vol. 1: Silver Coins of the East Celts and Balkan Peoples*, edited by J. Kent and M. Mays (1987), 7.

³⁰ C. R. Whittaker, *Frontiers of the Roman Empire: a Social and Economic Study* (1994), ch. 3 ‘Why Did the Frontiers Stop Where They Did?’; W. Groenmann van-Waateringe, ‘Urbanization and the north-west frontier of the Roman Empire’, in W. S. Hanson and L. J. F. Keppie (eds), *Roman Frontier Studies 1979* (1980), 1037–44; idem, ‘Food for soldiers, food for thought’, in J. C. Barrett, A. P. Fitzpatrick and L. Macinnes (eds), *Barbarians and Romans in North-West Europe from the Later Republic to Late Antiquity* (1989), 96–107; B. Cunliffe, *Greeks, Romans and Barbarians: Spheres of Interaction* (1988), 174; idem, *Europe between the Oceans 9000 BC–AD 1000* (2008), 365.

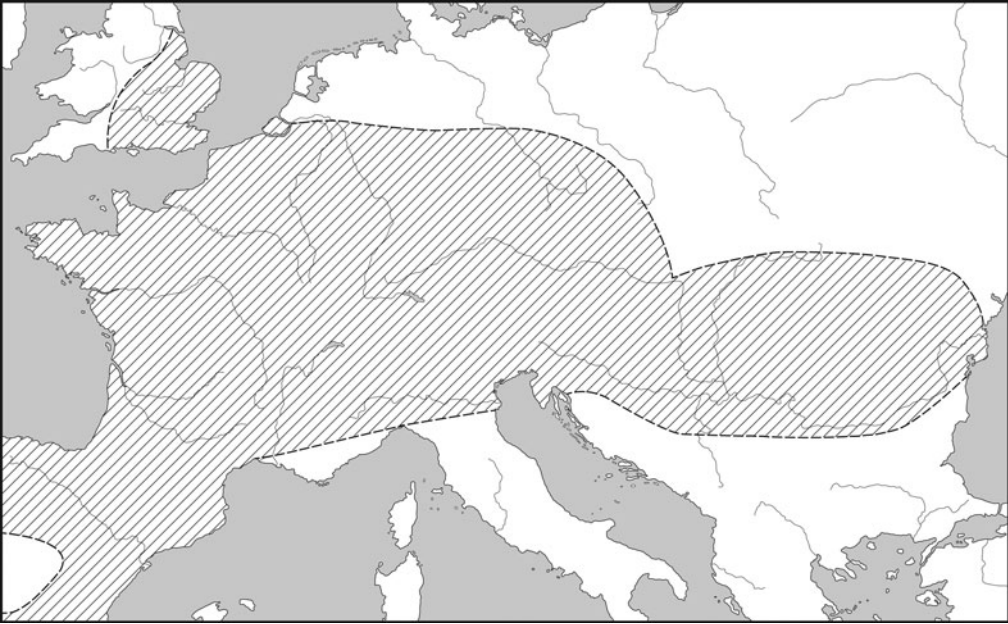


FIG. 1. Iron Age coinages c. 100 B.C. (Based on D. Allen, *The Coins of the Ancient Celts*, edited by D. Nash (1980), 7).



FIG. 2. The Roman Empire at the death of Trajan (A.D. 117). (Based on R. Talbert (ed.), *Barrington Atlas of the Greek and Roman World* (2000), map 100).

The evidence for Britain is particularly propitious as it allows comparisons of coin distributions generated by the Portable Antiquities Scheme with evidence for settlement patterns derived from developer-funded archaeology.³¹ Coin-use in the Iron Age was confined to the south-east of the line from the Severn to East Yorkshire, roughly along the Fosse Way (Fig. 3).³² It is perhaps safer to speak more neutrally of non-use of coin in the North-West rather than of ‘resistance’ to it.³³ There is, however, a hint from Wales to support the idea that the Fosse Way line in some way marked a cultural limit to coinage. Wales had no locally-produced coinage in the Iron Age and coins from outside were not used there.³⁴ The few finds of Iron Age coins may well have been imported in the Roman period. There is, however, a distinctive pattern of single finds of gold coins from the hills above the River Wye on the border. This is suggestive of deliberate selection for deposition as a reaction to a culturally defined barrier along the Wye. Such patterns might reflect different regimes of value or different exchange systems on either side of the coin-using/non-coin-using boundary. The plausibility of this geographical divide is increased by its appearance in other aspects of material culture, including the definition of settlement territories, building types, burial traditions, ritual deposition, and pottery styles.³⁵

After the Roman conquest coin-finds are recorded across the whole province of Britannia (Fig. 4). The division either side of the Fosse Way persisted but in a different way. The North-West had a relatively higher incidence of silver coin as opposed to bronze.³⁶ This does not necessarily mean that such areas were not ‘properly’ monetized under Rome — the English Middle Ages had a monetized economy with the silver penny as the lowest regular denomination — but rather that areas where silver dominated were monetized in a different way. It may also be significant that the pattern of coin finds in the North-West is similar in some ways to that to the north of the Roman Empire, and to Scotland in particular.³⁷

Why should regional patterns of coin-use under Rome have echoed Iron Age patterns? The answer seems to be that both reflected the underlying geographical realities and cultural differences of a persistent ‘North–South divide’.³⁸ To some extent the line of the Fosse Way marked the division between highland and lowland, and military and civilian. Proximity to the coin-using Continent will have promoted the use of coinage in the South-East. Cultural differences between the two regions were manifested in differing forms of rural settlement and different architecture. In the Roman period the region to the north and west of the Fosse Way, where coinage had not been used in the

³¹ Portable Antiquities Scheme: <http://finds.org.uk/>; S. Moorhead, ‘Expanding the frontiers: how the Portable Antiquities Scheme database increases knowledge of Roman coin use in England’, in S. Worrell *et al.*, *A Decade of Discovery: Proceedings of the Portable Antiquities Scheme Conference 2007* (2010), 143–60.

³² C. Haselgrove, ‘The impact of the Roman conquest on indigenous coinages in Belgic Gaul and southern Britain’, in P. de Jersey (ed.), *Celtic Coinage: New Discoveries, New Discussions* (2006), 97–115, at 97.

³³ For resistance as a post-colonial concept: Gosden, *op. cit.* (n. 7), 18.

³⁴ P. Guest and N. Wells, *Iron Age & Roman Coins from Wales* (2007); P. Guest, ‘The early monetary history of Roman Wales: identity, conquest and acculturation on the imperial fringe’, *Britannia* 39 (2008), 33–58.

³⁵ C. Haselgrove, ‘Society and polity in late Iron Age Britain’, in M. Todd (ed.), *A Companion to Roman Britain* (2004), 12–29; Mattingly, *op. cit.* (n. 6, 2011), 82–5.

³⁶ P. Walton, *Rethinking Roman Britain: Coinage and Archaeology* (2012), 50–6; 167–8; Guest, *op. cit.* (n. 34), at 56. But note the substantial quantity of bronze from the — no doubt military — votive deposits at Coventina’s Well on Hadrian’s Wall: L. Allason-Jones and B. McKay, *Coventina’s Well. A Shrine on Hadrian’s Wall* (1985), 50–76.

³⁷ Walton, *op. cit.* (n. 36), 55. For Scotland: F. Hunter, ‘Silver for the barbarians: interpreting denarii hoards in north Britain and beyond’, in R. Hingley and S. Willis (eds), *Roman Finds: Context and Theory. Proceedings of a Conference held at the University of Durham* (2007), 214–24.

³⁸ *cf.*, with a different emphasis, Mattingly, *op. cit.* (n. 6, 2011), 222–3, under Rome ‘the economic and social evolution of large areas of northern Britain seems to have been stymied’. For the similarity of the Iron Age pattern to that in Anglo-Saxon England see Walton, *op. cit.* (n. 36), 169.



FIG. 3. Finds of Iron Age coins. (Courtesy of John Naylor. Based on data from the Portable Antiquities Scheme 2010).



FIG. 4. Finds of Roman coins. (Courtesy of John Naylor. Based on data from the Portable Antiquities Scheme 2010).

Iron Age, was characterized by small, dispersed farmsteads or clusters of farmsteads. The South-East, by contrast, had a developed rural settlement hierarchy which included villages, villas, and complex farmsteads. Rectilinear buildings in general, not just villas, were also largely confined to the South-East.³⁹ These contrasts imply a different way of organizing life (a different regime of value?) and hence a different need for money. This was materialized in differing patterns of coin finds either side of the same geographical divide in both periods. The North-West had no need for coinage in the Iron Age, and only for a relatively unsophisticated one in the Roman period.

So the argument might be that in Britain Rome pushed on beyond a culturally defined boundary marked by Iron Age coin-use to find an easily controllable frontier, but that there were costs attached to the creation of a militarized zone and limits to what could be achieved. Dacia is interesting in a different way, as prior to Roman conquest it was characterized by a unique mixture of the Iron Age model of coinage with the pattern found later to the north of the Roman Empire during the imperial period. It is surely relevant that it was also marginal to the Roman Empire, in that it was the last province to be gained by Rome in the north, after several savage wars, and the first to be lost.

Dacia had an adaptive coinage on the Iron Age model, beginning in the third century B.C.⁴⁰ The region had a long-standing tradition of the ritual deposition of precious metals, which was dominated by silverwork in the La Tène period, at least when coinage was introduced.⁴¹ This may explain why it was silver rather than gold coinage which was adopted in the region, and coins are indeed found in some of the same hoards as silverwork. Following periods of import of Greek coins and the adaptive imitation of them, but still long before conquest by Rome, there was a substantial switch towards using Roman coin in Dacia.⁴² There was a major influx of Roman denarii over a relatively short period, about 75–65 B.C.⁴³ These denarii then continued to circulate, supplemented by locally-made copies. The start of copying may plausibly be linked to the cessation of supply of denarii. These were true copies, sometimes very hard to tell from genuine Roman coins. In some cases the dies for them were made by taking impressions in bronze directly from original Roman coins. This is not at all the type of creative adaptation seen elsewhere in the Iron Age world or in Dacia earlier, and foreshadows the pattern seen later to the north of the Roman Empire from the second century A.D. onwards. The choice by the Dacians to copy an external form might be

³⁹ J. Taylor, *An Atlas of Roman Rural Settlement in England* (2007), 19; 23–34. There are gaps in the distribution of villas in the South-East, including the Fens, but these are largely filled by other rectilinear building forms.

⁴⁰ Dacia imported Greek coins and produced imitations of Greek coins, principally tetradrachms of Philip II and Alexander: C. Preda, *Monedele Geto-Dacilor* (1973); Allen, op. cit. (n. 29); Nash, op. cit. (n. 23), 58–60.

⁴¹ K. Lockyear, 'The Late Iron Age background to Roman Dacia', in W. S. Hanson and I. P. Haynes (eds), *Roman Dacia. The Making of a Provincial Society* (2004), 33–74, at 66–9.

⁴² Lockyear, op. cit. (n. 41); K. Lockyear, *Patterns and Process in Late Roman Republican Coin Hoards, 157–2 B.C.* (2007), 200–1; 223–4; idem, 'Aspects of Roman Republican coins found in late Iron Age Dacia', in V. Spinei and L. Munteanu (eds), *Miscellanea Numismatica Antiquitatis. In Honorem Septagenarii Magistri Virgilio Mihalescu-Bîrliba Oblate* (2008), 147–76. Arguably the models of coinage in Dacia remained mixed. There is a later group of locally produced gold coins in the name of Koson, presumably a powerful individual, which must be later than 54 B.C. but might be later still. They incorporated Roman iconography in a way which may plausibly be interpreted to reflect the changing nature of power within Dacia, although other interpretations are possible. In other words, they are like coins on the later Iron Age model produced elsewhere, in Britain for example, in the run-up to conquest. These coins are currently the subject of a study by Adrian Popescu (Fitzwilliam Museum), to whom I am grateful for sharing his ideas. See also O. Iliescu, 'Sur les monnaies d'or à la légende ΚΟΣΩΝ', *Quaderni ticinesi di numismatica e antichità classiche* 19 (1990), 185–214.

⁴³ The area of import of denarii extended further south into what was to become Moesia Inferior (especially in north-west Bulgaria): E. Paunov and I. Prokopov, *An Inventory of Roman Republican Coin Hoards and Coins from Bulgaria* (2002); Lockyear, op. cit. (n. 42, 2007), 167–8.

compared with their decisions to employ Hellenistic fortification techniques and to monumentalize their sacred places in stone.⁴⁴

So Dacia is marginal both to models of coinage and to the Roman Empire. To some extent this marginality for the Romans was geographical: the Carpathian mountains served to isolate the region, with the consequent problems of communication, supply, and defence. But there was surely a cultural dimension too. The province of Dacia was not like those which developed elsewhere in the North in important respects.⁴⁵ Onomastic evidence indicates the substantial transplantation of a population from outside. There is no evidence that the Dacian élite was co-opted into running the province, or even that it continued to exist, or for the persistence of local gods. Such differences will have been caused in part by the putative extermination (or suicide) of the élite and general depopulation as a result of the wars against Rome, along with the destruction of Dacian religious centres. But it is doubtful that massacre could have been on a scale sufficient to account for such dramatic and long-lasting variations from the norm. Excavated undefended rural sites display continuity into the Roman period.⁴⁶ Differences were rooted in the structure of Dacian society and the ideology of its élite.

That the examples of Britain and Dacia both prove highly interesting when viewed in this way suggests that the general approach is worth pursuing. Iron Age Britain was characterized by a boundary between the use of coin on the Iron Age model and non-coin-use, and Dacia by a unique mixture of coinages on the Iron Age model and on the pattern seen later to the north of the Roman Empire under the Principate. The marginality of both provinces in relation to Roman rule supports the idea that there might be something in the connection between the spread of the Iron Age model of coinage and the later limits to empire. There are hints at the complexity of how this might have worked in relation to settlement patterns in Britain and the rôle and ideology of the élite in Dacia. So it is worth exploring the Iron Age model of coinage a bit further.

III IRON AGE COIN-USE

In some ways it is paradoxical to generalize about Iron Age coinage as regional and local variation is characteristic.⁴⁷ Such diversity is not surprising. It is apparent in almost every aspect of material culture in the Iron Age. Political and social fragmentation was characteristic, with communities distinguished by distinctive combinations drawn from a common stock of technologies and cultural resources.⁴⁸ Generalization puts the emphasis on the common stock to allow broader comparisons to be made.

⁴⁴ Hanson and Haynes, *op. cit.* (n. 41); G. Florea, *Dava et oppidum: débuts de la genèse urbaine en Europe au deuxième âge du Fer* (2011).

⁴⁵ I. Haynes and W. Hanson, 'An introduction to Roman Dacia', in Hanson and Haynes, *op. cit.* (n. 41), 11–31; A. Diaonescu, 'The towns of Roman Dacia: an overview of recent archaeological research', *ibid.*, 87–142, at 126; D. Ruscu, 'The supposed extermination of the Dacians: the literary tradition', *ibid.*, 75–85; L. Ellis, "'Terra Deserta": population, politics, and the [de]colonization of Dacia', *World Archaeology* 30 (1998), 220–37; I. Oltean, *Dacia. Landscape, Colonisation and Romanisation* (2007).

⁴⁶ Lockyear, *op. cit.* (n. 41), 40.

⁴⁷ Exemplary studies of regional/local variation: I. Wellington, 'Placing coinage and ritual sites in their archaeological contexts: the example of northern France', in Haselgrove and Wigg-Wolf, *op. cit.* (n. 13), 227–45; Nick, *op. cit.* (n. 22), 173–86.

⁴⁸ G. Woolf, 'The social significance of trade in Late Iron Age Europe', in C. Scarre and F. Healey (eds), *Trade and Exchange in Prehistoric Europe* (1993), 211–18; *idem*, 'Rethinking the oppida', *Oxford Journal of Archaeology* 19 (1993), 223–34; *idem*, 'Beyond Romans and natives', *World Archaeology* 28 (1997), 339–50, at 342–3; *idem*, *op. cit.* (n. 1), 181.

The challenge is to discern the function of coinages on the Iron Age model. The use of Celts as mercenaries has a significant part to play in the conventional story of the spread of coinage in Iron Age Europe.⁴⁹ The iconographies of the earliest Iron Age coinages were almost all derived from coinages struck by known employers of ‘Celtic’ mercenaries. Macedonia was particularly prominent. Mercenary pay may have played an important rôle in the early contact of Iron Age peoples with coinage, but it is quite inadequate in itself to explain the spread of coin production across Temperate Europe.

It is worth asking why Iron Age peoples were able to adopt coinage. The explanation which emerges most naturally from the archaeology is that they were able to internalize it because it could be incorporated into their existing cultural patterns involving the social circulation and structured deposition of metalwork.⁵⁰ Torcs, as symbols of high-status individuals and of divinity, are one of the classic expressions of that world. The argument is reinforced by the fact that coins are found in conjunction with torcs across Central and Western Europe.⁵¹ In other words adaptation applied to the use of coins as much as to the imagery. Just because the coinage of Iron Age Europe was superficially similar to Graeco-Roman coinage does not necessarily mean that it was used in the same way.⁵² The initial incorporation of coins as primitive valuables might have been driven by the convenience of their small size, their capacity to carry iconography, and by the tendency for Iron Age deposits to become more stereotyped and standardized.⁵³ Such incorporation fits into a widely observed pattern of mimicry and adaptation in material entanglements.⁵⁴

The social circulation and structured deposition of metalwork in the Iron Age was located in a much earlier tradition.⁵⁵ The circulation and ritual deposition of bronze artefacts, including axes, were significant features of the Bronze Age.⁵⁶ Purely utilitarian explanations will not do: the high-tin bronze composition of axes in some Late Bronze Age hoards gave them a silvery patina but also left them highly brittle and unsuitable for functional tasks such as woodworking.⁵⁷ The ‘materialization’ of social relations through social circulation and ritual deposition may be traced earlier with stone artefacts.⁵⁸

⁴⁹ e.g. Nash, *op. cit.* (n. 23), 16; 48; Wigg-Wolf, *op. cit.* (n. 28, 2011), 304–5.

⁵⁰ cf. Nick, *op. cit.* (n. 28, 2006).

⁵¹ A. Fitzpatrick, ‘Gifts for the golden gods: Iron Age hoards of torques and coins’, in Haselgrove and Wigg-Wolf, *op. cit.* (n. 13), 157–82; D. Wigg-Wolf, ‘Coins and cult at the Martberg: a case study’, in Metzler and Wigg-Wolf, *op. cit.* (n. 28), 297–311, at 298–9.

⁵² J. Parry and M. Bloch, *Money and the Morality of Exchange* (1989), 20–1; cf. Thomas, *op. cit.* (n. 8), e.g. p. 108.

⁵³ Stereotyping and standardizing of deposits: R. Bradley, *The Passage of Arms: An Archaeological Analysis of Prehistoric Hoard and Votive Deposits* (2nd edn, 1998), xxx; 171–89; 197.

⁵⁴ Thomas, *op. cit.* (n. 8), e.g. p. 108; Appadurai, *op. cit.* (n. 8), 52 (mimicry in cargo cults); P. van Dommelen and A. Jiménez, ‘Colonial exchanges: exploring numismatics and postcolonial theory’, paper given at the Roman Archaeology Conference, Frankfurt am Main, 2012.

⁵⁵ Bradley, *op. cit.* (n. 53); J. D. Hill, *Ritual and Rubbish in the Iron Age of Wessex: A Study on the Formation of a Specific Archaeological Record* (1995).

⁵⁶ R. Bradley, *Ritual and Domestic Life in Prehistoric Europe* (2005), ch. 5; D. Yates and R. Bradley, ‘The siting of metalwork hoards in the Bronze Age of South-East England’, *The Antiquaries Journal* 90 (2010), 41–72; C. Sommerfeld, *Gerätgeld Sichel. Studien zur monetären Struktur bronzzeitlicher Horte im nördlichen Mitteleuropa* (1994); A. Hänsel and B. Hänsel, *Gaben an die Götter. Schätze der Bronzezeit Europas* (1997); H. Meller (ed.), *Der geschmiedete Himmel. Die weite Welt im Herzen Europas vor 3600 Jahren* (2004).

⁵⁷ Bradley, *op. cit.* (n. 53), 89; 96: standard units of metal; 119: non-functional axes from the end of the Bronze Age. For example the Langton Matravers hoard: <http://finds.org.uk/database/artefacts/record/id/222420>; Portable Antiquities Scheme Unique ID: HAMP-2865F1.

⁵⁸ Bradley, *op. cit.* (n. 56), ch. 7. It was in essence a development of the Neolithic, although it had roots in the Mesolithic, and has been associated with either sedentarism or, more recently, with the adoption of domesticates. E. Thirault, ‘The politics of supply: the Neolithic axe industry in Alpine Europe’, *Antiquity* 79 (2005), 34–50.

A key feature of such behaviour in the Iron Age is *structured deposition*, ‘the placing of artefacts or combinations of artefacts (or other archaeological material) in particular contexts as part of ritual acts and following prescribed rules’.⁵⁹ The shift of deposition from weaponry and human remains to coins and items such as brooches brings out the tradition to which coin deposition belonged.⁶⁰ Spatial analysis of coin finds reveals a strong pattern of ritual deposition, with finds being associated with wet places (stream beds, wetlands), boundaries (entrances, ditches, pits), and sacred places, including sanctuaries and temples.⁶¹ Such ritual sites and practices served to create and maintain identities.

Ritual behaviour in relation to coinage was not confined to deposition. Coins were defaced with cut-marks in particular contexts in Britain and on the Continent.⁶² Although this has sometimes been explained as a monetary phenomenon, it is part of a wider practice which included the breaking of weapons, torcs, and the like. Such ‘ritual killing’ may have its origins in substitution for human sacrifices. Analysis of ritual deposition and chop-marks on coins in the sanctuaries of the Treveri has drawn attention to the placing of defaced coins and damaged fibulae in the same context at the Martberg.⁶³ The similar treatment of coins and brooches argues strongly for a ritual rather than a monetary explanation.

Archaeology allows us to trace phenomena such as ritual deposition and ritual killing. These features need not define coin-use, which was presumably diverse. No doubt coins also fitted into other patterns of cultural, social, and economic exchange. Mundane and ritual are not mutually exclusive categories — indeed the power of ritual deposition ultimately derives from function.⁶⁴ The ritualization of coin might even be taken as positive evidence of its functional importance, if the ritualization of weapons is anything to go by.⁶⁵ Economic functionality is suggested by the fact that coins were made to weight standards and might be struck in different denominations and on a considerable scale.⁶⁶ Just because a coin ended its life as a ritual deposit does not mean it spent its whole life as a ritual object.⁶⁷

So a key question is whether coinage in the Iron Age was routinely used in exchange for goods and services. The problem is that it is difficult to define prehistoric coin-use in the absence — by definition — of internal documentary evidence. Nor is there much by way

⁵⁹ Definition taken from Wellington in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 228.

⁶⁰ Haselgrove and Wigg-Wolf, op. cit. (n. 13), 18; C. Haselgrove, ‘The incidence of Iron Age coins on archaeological sites in Belgic Gaul’, in Metzler and Wigg-Wolf, op. cit. (n. 28), 247–96, at 290–1 (citing Gournay sur Aronde and Ribemont-sur-Ancre) = idem, ‘A new approach to analysing the circulation of Iron Age coinage’, *NC* 165 (2005), 129–74; 169.

⁶¹ Haselgrove and Wigg-Wolf, op. cit. (n. 13); Haselgrove, op. cit. (n. 60), on Belgic Gaul; Woolf, op. cit. (n. 1), 209–11; V. Score, *Hoards, Hounds and Helmets: a Conquest-period Ritual Site at Hallaton, Leicestershire* (2011); I. Leins, ‘Coins in context: coinage and votive deposition in Iron Age south-east Leicestershire’, *British Numismatic Journal* 77 (2007), 22–48.

⁶² P. de Jersey, ‘Deliberate defacement of British Iron Age coinage’, in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 85–113; D. Wigg-Wolf, ‘Coins and ritual in the late Iron Age and early Roman sanctuaries in the territory of the Treveri’, in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 361–79. One wonders whether similar considerations may also apply to the deep cuts found on early silver coinages of the third century B.C. in the region around Moldavia, which have traditionally been explained in purely monetary terms: Allen, op. cit. (n. 29), 24; C. Preda, *Monedele Geto-Dacilor* (1973), 111–31 (Romanian); 444–5 (German); pls XXI–XXVII.

⁶³ Wigg-Wolf in Metzler and Wigg-Wolf, op. cit. (n. 28), 310.

⁶⁴ cf. Hingley in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 188 on currency bars.

⁶⁵ P. Wells, ‘Weapons, ritual and communication in Late Iron Age northern Europe’, in C. Haselgrove and T. Moore (eds), *The Later Iron Age in Britain and Beyond* (2007), 468–77.

⁶⁶ For example the coinage traditionally attributed to the Iceni from the mid-first century B.C. until about A.D. 43 was tightly controlled, in gold and silver and with fractions, and struck from a total of 1,597 known separate (obverse and reverse) dies: J. Talbot, ‘Iceni coin production’, in J. A. Davies (ed.), *The Iron Age in Northern East Anglia: New Work in the Land of the Iceni* (2011), 69–82.

⁶⁷ Appadurai, op. cit. (n. 8); Kemmers and Myrberg, op. cit. (n. 19), at 89–91.

of external Greek or Roman observation of money in Iron Age societies.⁶⁸ There are references to the use of gold or money in the mustering of military forces in Iron Age contexts, although it is not always clear if coins were involved.⁶⁹ In any case, external observations may, of course, be misreported or misunderstood.⁷⁰ There is not much to go on.

Statements such as ‘the use of coinage spread among the Celts themselves primarily in the context of their own military relationships’ and ‘Celtic coinage was used primarily for payments by nobles to dependents in their capacity as warriors’ are hard to prove or disprove.⁷¹ The concentration and substantial scale of Iron Age gold coinages in Belgic Gaul and Britain at the time of Caesar’s Gallic Wars support a connection with warfare, although reviews of chronology based on archaeological context make the case less clear.⁷² Analysis of the evidence from Bibracte also demonstrates an increase in the volume of silver coinage in Central Gaul at the time of the Gallic Wars.⁷³ However, the force of the general argument rests not on occasional external references or on the Gallic War associations, but primarily on the observation that the Mediterranean prototypes for the earliest Iron Age coinages almost all belonged to known employers of ‘Celtic’ mercenaries.⁷⁴ This is an argument worth taking seriously, but it is not mandatory. Later coinages are less easy to interpret in this way, as the Romans did not normally use mercenaries, although pay for native units may well explain some silver coinages in the first century B.C.⁷⁵

The inter-regional movement of Iron Age coins, particularly on the Continent, may sometimes be linked to military activity, but it is hard not to ascribe a rôle to trade as well, in some form. Certainly a broadening of circulation correlates with Caesar’s Gallic Wars, as can be seen from the finds at Bibracte.⁷⁶ On the other hand the long distance movement of Iron Age coinage was already a feature of some of the earliest gold

⁶⁸ D. F. Allen, ‘Wealth, money and coinage in a Celtic society’, in J. V. S. Megaw (ed.), *To Illustrate the Monuments: Essays on Archaeology Presented to Stuart Piggott* (1976), 199–208, gathers literary references. See also Wigg-Wolf, op. cit. (n. 28, 2011), 305–6.

⁶⁹ Nash, op. cit. (n. 23), 43; 45 on passages in Polybius and Caesar.

⁷⁰ For example, Posidonius reported that the Arvernian king Louernios scattered gold and silver among a crowd of followers from his chariot, and Strabo at least took the report to refer to coins (Athenaeus 4.152d=4.37 quoting Posidonius ‘gold and silver’; Strabo 4.2.3 ‘gold and silver coins’). The passage has been taken as evidence of the use of coins in distributions in the mid-second century B.C. (Allen, op. cit. (n. 68), 100–1), but the Arverni appear to have had no coinage in this period. For the lack of coins D. Nash, ‘Coinage and state development in central Gaul’, in B. Cunliffe (ed.), *Coinage and Society in Britain and Gaul: Some Current Problems* (1981), 14; V. Guichard, P. Pion, F. Malacher and J. Collis, ‘À propos de la circulation monétaire en Gaule chevelue aux II^e et I^{er} siècles a.v. J.C.’, *Revue Archéologique du Centre de la France* 32 (1993), 25–55, at 31–4.

⁷¹ Nash, op. cit. (n. 23), 16; 41.

⁷² J. Sills, *Gaulish and Early British Gold Coinage* (2003) for a strongly historicizing view. C. Haselgrove, ‘The development of British Iron Age coinage’, *NC* 153 (1993), 31–64; and idem, ‘The development of Iron Age coinage in Belgic Gaul’, *NC* 159 (1999), 111–68 for a more sceptical approach based on careful appraisal of the archaeological evidence. See also Wigg-Wolf, op. cit. (n. 28, 2011), 302.

⁷³ K. Gruel and L. Popovitch, *Les monnaies gauloises et romaines de l’oppidum de Bibracte* (2007), 65–6; 104–5; Wigg-Wolf, op. cit. (n. 28, 2011), 307.

⁷⁴ Nash, op. cit. (n. 23), 16.

⁷⁵ L.-P. Delestrée, C. Boisard and D. Boulenger, ‘Les monnaies gauloises du site fortifié de La Chaussée-Tirancourt (Somme): coexistence d’un faciès militaire et d’un faciès indigène’, in D. Hollard (ed.), *L’armée et la monnaie. Actes de la journée d’études du 10 décembre 2005 à la Monnaie de Paris* (2006), 7–25; M. Nick, ‘New coin finds from the two late Iron Age settlements of Altenburg (Germany) and Rheinau (Switzerland): a military coin series on the German-Swiss border?’, in N. Holmes (ed.), *Proceedings of the 14th International Numismatic Congress, Glasgow 2009* (2011), vol. 2, 1207–16; N. Roymans and J. Aarts, ‘Coins, soldiers and the Batavian Hercules cult. Coin deposition at the sanctuary of Empel in the Lower Rhine region’, in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 337–59, at 353–4; Gruel and Popovitch, op. cit. (n. 73), 39–42; Wigg-Wolf, op. cit. (n. 28, 2011), 307.

⁷⁶ Gruel and Popovitch, op. cit. (n. 73), 36–7; Wigg-Wolf, op. cit. (n. 28, 2011), 307.

coinages of western Temperate Europe in the third century B.C., and some silver and potin coinages circulated widely already in the second century.⁷⁷ Troop movements associated with Caesar's Gallic Wars cannot be used as a catch-all explanation, although that does not exclude earlier military explanations. Perhaps more significantly, stratified deposits show that low-value coins from Gallia Comata began to reach the Celtic-speaking trading settlement at Lattara on the Mediterranean from about 100 B.C.⁷⁸

Material evidence provides the only viable path to progress. The quality of the archaeology of Iron Age coin-use in some areas is impressive.⁷⁹ There does seem to be some correlation between the development of *oppida* and of the use of silver and bronze coinage.⁸⁰ On the other hand, where it has been studied, more specific spatial analysis of coin finds does not give much encouragement to a strongly market-oriented view. In Britain and Belgic Gaul there is a significant concentration of coin finds on religious sites. A study of the South Midlands of Britain shows coins largely absent from domestic sites. Nor are they concentrated at sites which might have been markets, whatever that means in an Iron Age context.⁸¹ Belgic Gaul has little coin at production sites.⁸² Coins cannot be found in shops as there were none. 'Shops' (*tabernae*, which were often places of production too) were a Roman locus for monetized exchange which spread only later.⁸³ Of course, it is always possible to speculate that monetized exchange took place largely at religious sites, but, as will become apparent, it is noteworthy that coin finds in the Roman world look distinctly different. Moreover, at the transitional Iron Age and Roman *oppida* at Bibracte in Central Gaul and on the Magdalensburg in Noricum ritual deposition is a distinctive feature but coins are also found in workshops and homes.⁸⁴ It will be interesting to see if future contextual studies suggest correlations of any kind between coin finds on production and domestic sites and increasing proximity to the Graeco-Roman world.

So there is a major question here which remains open. It is best stated by quoting from two judicious summaries:

There is now a significant amount of evidence to suggest that Iron Age coinages — unlike their Mediterranean prototypes — remained largely bound up in various kinds of ceremonial and religious usage quite distinct from those with which we are familiar today, never breaking out from the confines of traditional societies and their existing value systems. (Haselgrove and Wigg-Wolf)⁸⁵

⁷⁷ Sills, *op. cit.* (n. 72), chs 1–2; Wigg-Wolf, *op. cit.* (n. 28, 2011), 301–2.

⁷⁸ M. Py, *Les monnaies préaugustéennes de Lattes et la circulation monétaire protohistorique en Gaule méridionale* (2006), vol. 2, 1195–6.

⁷⁹ Much of it stands on the shoulders of the pioneering work of Haselgrove on the archaeological context of coinage in the Iron Age: C. Haselgrove, *Iron Age Coinage in South-East England: The Archaeological Context* (1987).

⁸⁰ Wigg-Wolf, *op. cit.* (n. 28, 2011), 307–11. But for a critique of *oppida* as proto-towns: G. Woolf, 'Rethinking the oppida', *Oxford Journal of Archaeology* 19 (1993), 223–34; C. Haselgrove and T. Moore, 'New narratives of the Later Iron Age', in Haselgrove and Moore, *op. cit.* (n. 65), 1–15, at 3–4.

⁸¹ M. Curteis, 'Ritual coin deposition on Iron Age settlements in the South Midlands', in Haselgrove and Wigg-Wolf, *op. cit.* (n. 13), 207–25, at 221; 224; *idem*, 'Distribution and ritual deposition of Iron Age coins in the South Midlands', in de Jersey, *op. cit.* (n. 32), 61–79, at 77.

⁸² Haselgrove in Metzler and Wigg-Wolf, *op. cit.* (n. 28), 264–5 = Haselgrove, *op. cit.* (n. 60, 2005), 146–7.

⁸³ C. Holleran, *Shopping in Ancient Rome. The Retail Trade in the Late Republic and the Principate* (2012), ch. 3: 'The Form and Function of *Tabernae*'; N. Purcell, 'The city of Rome and the *plebs urbana* in the late Republic', in J. Crook, A. Lintott and E. Rawson, *Cambridge Ancient History* vol. 9 (2nd edn, 1994), 644–88, at 659–73, note p. 661 'the hallmark of Roman urbanism'.

⁸⁴ Gruel and Popovitch, *op. cit.* (n. 73), 57–80; S. Krmnicek, *Münze und Geld im frühromischen Ostalpenraum: Studien zum Münzumschlag und zur Funktion von Münzgeld anhand der Funde und Befunde vom Magdalensberg* (2010); C. Haselgrove and S. Krmnicek, 'The archaeology of money', *Annual Review of Anthropology* 41 (2012) (posted online), 235–50, at 241–2.

⁸⁵ Haselgrove and Wigg-Wolf, *op. cit.* (n. 13), 9.

We must first rethink our notions of trade and its connection with social exchange, power, authority and ritual before social purposes of Celtic coinages are separated from economic functions. (von Reden)⁸⁶

It is not so much that Iron Age coinage was socially embedded — even modern money is — but that it was embedded in societies very different to the Roman one.⁸⁷ It is easy to imagine coins used as a store of wealth, for gift exchange of various kinds, including diplomatic gifts, for payments to military retainers, distributions to dependents, bridewealth, tribute, compensations, and the like.⁸⁸ Coin might also have been used in market exchange in some contexts, perhaps initially with outsiders.⁸⁹ It may well be that Iron Age coinage is best seen as limited-purpose money with different metals sometimes operating in different spheres of exchange.⁹⁰ Whatever view one takes, it is probably common ground that money-use in the Iron Age was more involved with reproducing social and religious orders and Roman money-use more involved with market exchange, relative to each other.⁹¹ A significant extension of market exchange is in any case a plausible consequence of Roman peace and the need to pay taxes.⁹²

IV ROMAN COIN-USE

To see the force of the contrast with Iron Age practice it is necessary to characterize the Roman style of money-use which was spreading throughout Europe. This was grounded in the use of coin, and the Romans certainly viewed coinage as characteristic of their world. Absence of coinage was something the Romans alleged of ‘others’, from the past, from distant lands, or from idealized primitive contexts.⁹³ Money was not, however, confined to coin; credit played a significant rôle in extending liquidity.⁹⁴

Documentary sources, admittedly with a very uneven geographical coverage, allow us to establish a normative model of money-use in the Roman world.⁹⁵ Money was the

⁸⁶ von Reden, op. cit. (n. 16), 55–63, at 63.

⁸⁷ For the social embedding of modern money: V. A. Zelizer, *The Social Meaning of Money* (1994).

⁸⁸ For such social circulation see Nash, op. cit. (n. 23), ch. 3: ‘Coinage in Celtic Society’; cf. Dalton, op. cit. (n. 14). For a differentiated and locally-particular approach to gift exchange: Thomas, op. cit. (n. 8), 206.

⁸⁹ As argued on the basis of contextual archaeology for the Celtic-speaking trading settlement at Lattara on the Mediterranean: Haselgrove and Krmnicek, op. cit. (n. 84), 240–1.

⁹⁰ Good discussion in I. Wellington, ‘The role of Iron Age coinage in archaeological contexts’, in de Jersey, op. cit. (n. 32), 81–95. For gold operating in a different sphere of exchange: Nick, op. cit. (n. 22), 177–9; Haselgrove, op. cit. (n. 72, 1993), 48 (on South-East England) suggesting that gold and bronze were possibly used for separate purposes.

⁹¹ cf. Aarts, drawing on Parry and Bloch, who seeks to describe transformation into the Roman period in terms of the changing balance between the sphere of long-term exchange, involved with the reproduction of the social and cosmic order, and short-term exchange, characterized as exchange in the domain of the individual, where social relations play a limited part and where acquisition is paramount. Aarts, op. cit. (n. 20); J. Parry and M. Bloch, *Money and the Morality of Exchange* (1989), 2.

⁹² For a minimizing view of market exchange in the Iron Age: I. Hodder, ‘Pre-Roman and Romano-British tribal economies’, in B. C. Burnham and H. B. Johnson, *Invasion and Response. The Case of Roman Britain* (1979), 189–96. For market exchange as developing under Roman influence: B. Cunliffe, *Iron Age Communities in Britain: An Account of England, Scotland and Wales from the Seventh Century BC until the Roman Conquest*, (4th edn, 2005), 600–6; note the conceptual development since the 2nd edition (1978), 337–42. For the connection between ‘colonial’ peace and market exchange see Dalton, op. cit. (n. 14), 201–4. For taxation and market exchange: K. Hopkins, ‘Taxes and trade in the Roman Empire (200 B.C.–A.D. 400)’, *JRS* 70 (1980), 101–25; idem, ‘Rome, taxes, rents and trade’, *Kodai: Journal of Ancient History* 6/7 (1995/96), 41–75 = W. Scheidel and S. von Reden, *The Ancient Economy* (2002), 190–230. But note that any simple dichotomy between gift and commodity economies is misleading and that a shift in balance is historically contingent rather than evolutionary: Thomas, op. cit. (n. 8), 33–4; 78.

⁹³ Howgego, op. cit. (n. 10), 16 with n. 148 cites a number such passages.

⁹⁴ Above, n. 10.

⁹⁵ Howgego, op. cit. (n. 10). The substantial truth of this normative picture has been reaffirmed by Rathbone for Egypt: D. Rathbone, ‘Roman Egypt’, in W. Scheidel, I. Morris and R. Saller (eds), *The Cambridge Economic*

dominant means of exchange for goods in all provinces, and was used in rural as well as urban settings. Money was embedded in the structure of the economy: it played a rôle alongside agricultural produce, particularly corn, in taxation, rents, wages, and credit. Money was critically linked to the Roman state redistributive cycle of taxation and expenditure, as can be seen from the fate of coinage when that cycle disappeared.⁹⁶ Clearly there is a need to generate a more differentiated approach to variations in monetization by time and place within the Roman world, a project for which archaeology supplies the only common denominator, but this is the model against which data need to be tested.

Our ability to characterize Roman money-use through documentary sources and structural arguments presents a problem in trying to compare Roman with Iron Age practice. In default of documentary sources, the use of coin in the Iron Age has to be approached archaeologically, but there is a distinct lack of comparable contextual archaeological studies of the Roman material for comparison. Roman coins have often been published as a list in excavation reports, rather than with contextual information and analysis. Some major sites with huge quantities of coin for which the contexts have been recorded would lend themselves to this type of study, among them Augusta Raurica and Carnuntum, but sufficiently detailed analysis remains to be done.⁹⁷

The potential for such work has been demonstrated by an important study of the *canabae* of X Gemina at Nijmegen of A.D. 71–104.⁹⁸ The spatial distribution of coin finds was generally in line with the distribution of all finds. Coins were spread over the whole site, without any social differentiation. They were principally found associated with waste disposal sites or with roads and road ditches. In other words the coin finds reflected the cleaning up after people and the location of shops on roads. This was a community based on trade and production for a legion, which may not have been typical even of urban sites. Nonetheless, the Roman pattern identified for the *canabae* of X Gemina at Nijmegen is strikingly different from that found in the northern world of the Iron Age, where ritual disposition of coin in special places is characteristic.

To be provocative, it is tempting to compare the finds at Nijmegen with those at Pompeii.⁹⁹ Pompeii is the nearest to a snap-shot that survives, although it is important not to over-state this: the coins on bodies may reflect attempts at salvage rather than normal use, and a good proportion of the population escaped.¹⁰⁰ But perhaps the

History of the Greco-Roman World (2007), 698–719, at 709; 714–15; idem, 'Prices and price formation in Roman Egypt', in J. Andreau, P. Briant and R. Descat (eds), *Économie antique: prix et formation des prix dans les économies antiques* (1997), 183–244, at 211.

⁹⁶ M. Hendy, 'From public to private: the western barbarian coinages as a mirror of the disintegration of late Roman state structures', *Viator. Medieval and Renaissance Studies* 19 (1988), 29–78; idem, 'East and West: divergent models of coinage and its use', *Settimane di studio del Centro italiano di studi sull'alto medioevo* 38 (1991), 637–79; Ward-Perkins, op. cit. (n. 1), 42–3 (demise of tax revenues); 110–17 ('A World without Small-change').

⁹⁷ M. Peter, *Augusta Raurica I–II, Inventar der Fundmünzen der Schweiz* 3–4 (1996); idem, *Untersuchungen zu den Fundmünzen aus Augst und Kaiseraugst* (2001), 202–11 analyses denominations by location; M. Alram and F. Schmidt-Dick, *Die antiken Fundmünzen im Museum Carnuntinum: Numismata Carnuntina: Forschungen und Material* (2007), especially section 2.3 'Die Einzelfunde in der Fundlandschaft Carnuntums'; W. Hahn, *Die Fundmünzen der römischen Zeit in Österreich III. Niederösterreich, Band 1: Carnuntum* (1976).

⁹⁸ F. Kemmers, *Coins for a Legion: an Analysis of the Coin Finds from the Augustan Legionary Fortress and Flavian Canabae Legionis at Nijmegen* (2006), 141–51.

⁹⁹ R. Duncan-Jones, 'Roman coin circulation and the cities of Vesuvius', in E. Lo Cascio (ed.), *Credito e moneta nel mondo romano* (2003), 161–80; J. Andreau, 'The use and survival of coins and of gold and silver in the Vesuvian cities', in W. Harris (ed.), *The Monetary Systems of the Greeks and Romans* (2008), 208–25; *Presenza e circolazione della moneta in area vesuviana: atti del XIII Convegno organizzato dal Centro internazionale di studi numismatici e dall'Università di Napoli Federico II, Napoli, 30 maggio–1 giugno 2003* (2007); Haselgrove and Krmnicek, op. cit. (n. 84), 242.

¹⁰⁰ A. Cooley, *Pompeii* (2003), 37–8 salvage; 48 escape.

frozen-in-time Roman association of coins with houses, shops, inns, and bodies at Pompeii would have left archaeological traces different in scale, to be sure, but not so very different in kind from those at Nijmegen, if the Vesuvian city had been abandoned in a more gradual way? A detailed study of one insula does indeed show the heaviest coin loss in areas of commercial transactions (bars, workshops, shops), with coins present, but in smaller numbers, in domestic spaces.¹⁰¹ There is huge potential to use such contrasts between Iron Age and Roman patterns to trace the spread of Roman-style money-use archaeologically, instead of relying on the mere presence of Roman coin as an indicator.

That said, we must beware of our almost subliminal desire to ‘other’ the Iron Age world and to ‘familiarize’ the Roman. Ritual deposition has been seen as characteristic of the Iron Age and has been used as an example of the location of money in the long-term transactional order. But ritual deposition was practised by the Romans too. The Romans deposited coins in rivers, springs, temples, and human burials.¹⁰² Some of this ritual behaviour was distinctively Roman. The deposition of coins in graves, for example, was a practice which grew under Roman influence. It was not generally a feature of the Iron Age.¹⁰³ The offering of coins at hot and cold springs was again an Italian custom which was only later imported into the provinces.¹⁰⁴ The deposition of large numbers of coins at spas associated with springs in the North-West tracked the spread of Roman bathing culture.¹⁰⁵

It is probably wise to resist the temptation to dismiss such Roman offerings as casual, like throwing coins into a fountain now.¹⁰⁶ After all curse tablets were also thrown into springs, as at Bath.¹⁰⁷ At Rome itself, in the Lacus Curtius in the Forum, people of all classes threw coins down a monumental shaft over a former swamp every year for the welfare (*Salus*) of Augustus.¹⁰⁸ The Romans made offerings of coins in temples too. The word *stips* denoted a monetary offering which was testament to an agreement with a deity, a distinctively Roman formulation of the relationship with the divine.¹⁰⁹ Our

¹⁰¹ R. Hobbs, ‘Coinage and currency in ancient Pompeii’, in Holmes, op. cit. (n. 75), vol. 1, 732–41.

¹⁰² E. Sauer, *Coins, Cult and Cultural Identity: Augustan Coins, Hot Springs and the Early Roman Baths at Bourbonne-les-Bains* (2005), *passim*, and 97 for rivers; A. Bursche, ‘Münzen der römischen Kaiserzeit aus Flüssen, ein Beitrag zur Quellenkritik’, in Cl. von Carnap-Bornheim and H. Friesinger (eds), *Wasserwege: Lebensadern – Trennungslinien* (2004), 123–39 (but with a primary focus on finds north of the Roman Empire); Walton, op. cit. (n. 36), 152–66 (Piercebridge); 173; E. Sauer, ‘Not just small change – coins in *Mithraea*’, in M. Martens and G. de Boe (eds), *Roman Mithraism: the Evidence of the Small Finds* (2004), 327–53 (coin offerings in *Mithraea* up to the A.D. 390s); Kemmers, op. cit. (n. 98), 136–8; idem, ‘Sender or receiver? Contexts of coin supply and coin use’, in von Kaenel and Kemmers, op. cit. (n. 22), 137–56; Haselgrove in Metzler and Wigg-Wolf, op. cit. (n. 28), 262–4 = Haselgrove, op. cit. (n. 60, 2005), 144–7.

¹⁰³ Only one instance from a primary burial context in a careful survey of the south Midlands: Curteis in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 208; Curteis in de Jersey, op. cit. (n. 32), 69. Belgic Gaul: Haselgrove in Metzler and Wigg-Wolf, op. cit. (n. 28), 264; 291 = Haselgrove, op. cit. (n. 60, 2005), 146; 169; Haselgrove in de Jersey, op. cit. (n. 32), 104; practice seen as reflecting Roman influence in southern and eastern Belgic Gaul; 108: Britain saw an increase in cemetery finds after the conquest; they had previously been very rare.

¹⁰⁴ Vicarello, a spa with a hot spring north-west of Rome, produced 5,200 coins of the Roman Republic and pre-Roman Italy, together with 400 kg of *aes rude*: Sauer, op. cit. (n. 102, 2005), 115; F. Panvini-Rosati, ‘Monete della stipe di Vicarello nel Museo Nazionale Romano’, *Rendiconti della Pontificia Accademia di Archeologia* ser. 3, 40 (1967–8), 57–74.

¹⁰⁵ Sauer, op. cit. (n. 102, 2005) on the phenomenon as a whole and in detail on Bourbonne-les-Bains, a hot spring complex in eastern Central Gaul. In Britain, Coventina’s Well provides a good example of the deposition of coins at a cold spring (Sauer, op. cit. (n. 102), 116); and Bath of deposition at a hot spring (D. Walker, *Roman Coins from the Sacred Spring at Bath* (1988)).

¹⁰⁶ Sauer, op. cit. (n. 102, 2005), 94–5.

¹⁰⁷ Sauer, op. cit. (n. 102, 2005), 96; 120; R. Tomlin, *Tabellae Sulis: Roman Inscribed Tablets of Tin and Lead from the Sacred Spring at Bath* (1988); Mattingly, op. cit. (n. 6, 2011), 228–30 has an interesting analysis of curse tablets in Britain.

¹⁰⁸ Suetonius, *Aug.* 57.1; Sauer, op. cit. (n. 102, 2005), 119–21.

¹⁰⁹ J.-L. Desnier, ‘Stips’, *Revue de l’histoire des religions* 204 (1987), 219–30. Cf. Varro, *de L.L.* 5.182.3.

ability to trace such practices archaeologically is limited by the practice of the re-use of the coins for religious expenditure, which was facilitated by the introduction of collecting boxes.¹¹⁰

It is a matter for debate whether some Roman coin hoards represent depositions of a sacred nature, and, if so, whether or not this should be located in the Iron Age tradition.¹¹¹ Whatever may be the case with hoards, it is certain that ritual deposition of coins continued in the West as long as the supply of low-value Roman coins.¹¹² Ritual deposition may have been rather different in Iron Age and Roman contexts, but there was some commonality of practice. We need to be aware of how much our interpretation is influenced by our preconceptions.

On the other hand, there is also a danger of going too far in the other direction. It has been suggested that Roman coinage in different metals represented limited money within defined spheres of exchange, as has been argued more widely for Iron Age coinages.¹¹³ Obviously different coins were used for different purposes: one could not use a gold coin everywhere.¹¹⁴ Nonetheless, Roman gold, silver and bronze operated as an integrated system with a hierarchy of value. The bringing together into a single system of discrete elements in the Roman currency system operating in different spheres of exchange is the story of the middle of the third century B.C.¹¹⁵ By the time of the introduction of the denarius system c. 214–212 B.C., or a little later, the value marks on the denarius system indicate clearly that gold, silver and bronze coins belong to the same system. The correct Roman term for their principal gold coin introduced in the late Republic was, after all, *denarius aureus* ('gold denarius': the denarius was a silver coin, its underlying meaning is ten bronze coins).¹¹⁶ Moreover, there is abundant evidence for the circulation of Roman gold, silver and bronze alongside each other.¹¹⁷

While it is important to bear in mind the issues outlined above, the transition to Roman money-use marked a significant change. The argument is that the adoption of the Iron Age model of coinage was characteristic of an area which became viable for direct Roman rule, that one can see the merging of the different regimes of value by tracking the spread of Roman-style coin-use prior to conquest, and that there is at some level a meaningful link between these two things.

¹¹⁰ Wigg-Wolf in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 378–9; Sauer, op. cit. (n. 102, 2005), 12–15. Arrian, *Cyn.* 34 for offertory boxes used by 'Celts' for contributions after successful hunts which were then used to purchase a sacrificial animal for the festival of Artemis, which was followed by a feast. The author claims that he and his fellow hunters follow this practice. See A. Phillips, and M. Willcock, *Xenophon & Arrian, On Hunting (Kynēgetikos)* (1999).

¹¹¹ N. Aitchison, 'Roman wealth, native ritual: coin hoards within and beyond Roman Britain', *World Archaeology* 20. 2 (1988), 270–84; M. Millett, 'Treasure: interpreting Roman hoards', in S. Cottam et al. (eds), *Proceedings of the 4th Annual Theoretical Roman Archaeology Conference* (1994), 99–106. By way of example it has been demonstrated that the recent Frome Hoard, which ended c. A.D. 290, was deposited in a way which was not conducive to recovery: S. Moorhead, A. Booth and R. Bland, *The Frome Hoard* (2010).

¹¹² The practice has been traced to the end of the fourth century A.D. in Mithraea and at springs: Sauer, op. cit. (n. 102, 2004); idem, 'Religious rituals at springs in the late antique and early medieval world', in L. Lavan and M. Mulryan, *The Archaeology of Late Antique 'Paganism'* (2011), 505–50.

¹¹³ J. Creighton, 'Gold, ritual and kingship', in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 69–83, at 81.

¹¹⁴ Howgego, op. cit. (n. 10), 11.

¹¹⁵ A. Burnett, *Coinage in the Roman World* (1987), 1–16; idem, 'The beginnings of Roman coinage', *Annali: Istituto Italiano di Numismatica* 36 (1989), 33–64.

¹¹⁶ B. Woytek, 'Denarius aureus oder nummus aureus zum Namen der klassischen römischen Goldmünze', *Revue Belge de Numismatique et de Sigillographie* 155 (2009), 177–208.

¹¹⁷ J. van Heesch, 'Providing markets with small change in the early Roman Empire: Italy and Gaul', *Revue Belge de Numismatique* 155 (2009), 125–41, at 135–6.

V THE MERGING OF REGIMES OF VALUE

Did the internalization of coinage on the Iron Age model simply imply, or itself help to create, the cultural and social complex which permitted provincialization?¹¹⁸ It is plausible that the production of such coinages correlated with the existence of larger socio-political groupings with a structured social hierarchy, on varied scales and models, of the kind the Romans needed for direct rule.¹¹⁹ The relative slimness of the Roman provincial administrative apparatus normally required reliance on local élites. The emergence of a more pronounced structure of élite control may well itself have been promoted by the spread of Rome. But a case can be made that familiarity with the form of coins also helped to merge regimes of value and so facilitated Roman imperial expansion. The Roman Empire was limited by regions where such merging did not, and arguably could not, take place.¹²⁰

Rome was expanding in northern Europe into worlds which were changing massively. The Late Iron Age in Britain saw the redefinition of the Sacred from distribution across the landscape towards a focus on architecturally-defined centres for cult and ritual, the appearance of territorial *oppida*, and the rise of a new kind of powerful individual.¹²¹ The power of the kings was based partly on their ability to manipulate local and external forms of material culture, of which coinage was certainly one.¹²² It is of significance that this categorization of change in Britain would probably also be broadly acceptable as a description of what was happening in Dacia in the first century B.C. and the first century A.D., although its manifestations were different and appropriate to the distinctive Dacian culture emerging there.¹²³ In neither Britain nor Dacia were developments fully autonomous. In both they were consequent upon the merging of regimes of value.

These changes were manifested in both the iconography and the use of coins. Britain provides one of the most dramatic and best-studied patterns of iconographic change. From about 20/15 B.C. onwards the coinage borrowed increasingly from Roman iconography and presented its imagery in a more realistic, Roman, way. One view stresses the adoption of the language of power from the Augustan court and the agency

¹¹⁸ The discussion here is influenced by the concept of a Middle Ground, developed by Richard White in his study of the Great Lakes area in the period between initial contact between Europeans and Indians and the westward expansion of colonial states (R. White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650–1815* (1991, anniversary edn 2011)), as applied to Roman imperialism by Gosden, *op. cit.* (n. 7). Gosden (p. 31) defines the Middle Ground as ‘a process that brings systems of value together to create a working relationship between them’. Under this process ‘interaction created new cultural structures, influenced by both sets of cultural logic, but not identical to either’. On Gosden’s analysis see Mattingly, *op. cit.* (n. 6, 2011), 30–7. Cf. G. Woolf, ‘Beyond Romans and natives’, *World Archaeology* 28 (1997), 339–50; G. Woolf, *Tales of the Barbarians: Ethnography and Empire in the Roman West* (2011), 17–19.

¹¹⁹ C. Haselgrove and T. Moore, ‘New narratives of the Later Iron Age’, in Haselgrove and Moore, *op. cit.* (n. 65), 1–15, at 10 (larger groupings: ‘States and Tribes’) and 11 (emergence of élites). The case for a connection between coinage and state formation was argued by D. Nash, *Settlement and Coinage in Central Gaul c.200–50 B.C.* (1978); *idem*, *op. cit.* (n. 70).

¹²⁰ Gosden, *op. cit.* (n. 7), 32; 110 argued that the Roman Empire was limited by regions where the Middle Ground was refused and could not be fabricated. For the failure of ‘Germanic’ society to assimilate Roman material culture, including coinage, in contrast to the behaviour of Late La Tène society, see Wigg in Bursche, Ciolek and Wolters, *op. cit.* (n. 25), 42–3.

¹²¹ Haselgrove and Moore in Haselgrove and Moore, *op. cit.* (n. 65), 1–15; J. D. Hill, ‘The dynamics of social change in Later Iron Age eastern and south-eastern England c. 300 B.C.–A.D. 43’, *ibid.*, 16–40. For these changes in the context of coinage see J. Williams, ‘“The newer rite is here”: vinous symbolism on British Iron Age coins’, in Haselgrove and Wigg-Wolf, *op. cit.* (n. 13), 25–41, at 36–7.

¹²² Gosden, *op. cit.* (n. 7), 109.

¹²³ Hanson and Haynes, *op. cit.* (n. 41); Florea, *op. cit.* (n. 44); Oltean, *op. cit.* (n. 45), 114–18. We may think of leaders such as Burebista, Koson (named on gold and silver coins) and Decebalus, and of the Dacian ‘citadels’ with their hellenistic fortification techniques and associated sacred structures.

of British client kings.¹²⁴ Another approach demonstrates how Roman imagery was appropriated selectively to express changes within the Iron Age societies themselves.¹²⁵ This can be seen from the structured nature of the borrowings, which relate to ritual, sacrifice, and dynastic kingship — reflecting key areas of change. These two views are not formally incompatible. Rome ‘provided a model for other élites to make their power more concrete and material’.¹²⁶

A critical development was the introduction of writing. The earliest evidence of writing of any kind in Britain is found on coins from the 30s and 20s B.C., and subsequently inscriptions became widespread on the coinage.¹²⁷ Writing was surely a key development in the merging of regimes of value, and it is instructive to witness it first introduced in the context of coinage, at least as far as the evidence allows us to see. These developments in Britain broadly, if rather more spectacularly, track those found on the Continent earlier.¹²⁸ Belgic Gaul, for example, saw the occasional use of inscriptions on coins between 125 and 60 B.C. and their more general use from 60 to 20 B.C.¹²⁹

Changes in the use of coin are perhaps even more germane to the argument here. It will be interesting to see if these can be traced from future contextual studies, which will allow the testing, *inter alia*, of the putative correlation between coin finds on production or domestic sites and the approach of Rome. For the moment the nature of change must largely be inferred from the nature of the coinage itself. Iron Age peoples adapted their forms of coinage to the changing structure of their societies and changing ways of doing things, partly under the influence of Rome. Proximity to Rome correlated with increased complexity, in the form of a coinage in multiple metals and structured denominations, and with a tendency for gold to give way to silver. These are both Roman features. In the Roman world of the time the high-value coinage was silver. A few issues apart, Rome had a gold coinage only from the 40s B.C., and it took time for it to become a regular and important component of the coinage. So increases in complexity and in the prevalence of silver trace some incorporation of ‘the Roman way of doing things’, or regime of value, prior to annexation.¹³⁰

To trace these processes in any detail it is essential to have sound reviews of the chronology grounded in archaeological evidence, such as that for Central Gaul based on the finds from Bibracte and those which have been performed systematically for Belgic Gaul, Western Central Europe, and Britain. Stylistic analysis and *a priori* assumptions have been shown to be quite misleading.

At Bibracte coinages in gold, silver and potin (cast high-tin bronze, sometimes with a significant amount of lead) were all being used by *c.* 120 B.C., and were joined by struck bronze from *c.* 60 B.C.¹³¹ Gold had ceased to be the preferred metal for coinage in most of Central Gaul before the Roman conquest.¹³² Silver was more prevalent in the south,

¹²⁴ J. Creighton, *Coins and Power in Late Iron Age Britain* (2000).

¹²⁵ Williams in Haselgrove and Wigg-Wolf, *op. cit.* (n. 13), 25–41.

¹²⁶ Cited from Gosden, *op. cit.* (n. 7), 33 (on the Greeks).

¹²⁷ J. Williams, ‘Coin inscriptions and the origins of writing in pre-Roman Britain’, *British Numismatic Journal* 71 (2001), 1–19; *idem*, ‘Pottery stamps, coin designs, and writing in Late Iron Age Britain’, in A. Cooley (ed.), *Becoming Roman, Writing Latin?: Literacy and Epigraphy in the Roman West* (2002), 135–49. Revised chronology: I. Leins, ‘The coins’, in Score, *op. cit.* (n. 61), 39–60, at 56–7.

¹²⁸ For Gaulish inscriptions on coins see J.-B. Colbert de Beaulieu and B. Fischer, *Recueil des inscriptions gauloises. IV. Les légendes monétaires* (1998).

¹²⁹ Haselgrove in Metzler and Wigg-Wolf, *op. cit.* (n. 28), 250 = Haselgrove, *op. cit.* (n. 60, 2005), 132; Haselgrove, *op. cit.* (n. 72, 1999), 164.

¹³⁰ *cf.* Nick, *op. cit.* (n. 22), 177–8.

¹³¹ Gruel and Popovitch, *op. cit.* (n. 73), 103.

¹³² D. Nash, ‘Plus ça change: currency in Central Gaul from Julius Caesar to Nero’, in R. Carson and C. Kraay (eds), *Scripta Nummaria Romana: Essays Presented to Humphrey Sutherland* (1978), 12–31, at 20–1.

reflecting the proximity of Rome; to the north of Burgundy both the minting and the use of silver were patchy.¹³³ In the first century B.C. the standard of the silver was widely aligned to the Roman quinarius.¹³⁴ The transition from potin to struck bronze is a further Roman feature.¹³⁵

To the north, the revised chronology for Belgic Gaul shows that there was no longer just gold coinage before the conquest.¹³⁶ There was gold from the third century B.C. and potin from the second, with some peoples beginning to strike silver or bronze already in the late second century. The period between 60 and 20 B.C. saw the introduction of trimetallic sets and the replacement of potin by bronze. Western Central Europe, that is southern Germany and the adjacent regions of Switzerland, followed the same general trajectory — gold coin only from the end of the third century B.C. to the middle of the second century, with silver and potin from the second half of the second century B.C., and bronze from the second half of the first century B.C. — except that the progression was put into reverse or ended in places by the ‘Germanic’ expansion from the north-east beginning in the first half of the first century B.C.¹³⁷

Britain too re-ran the story with some variations, but rather later.¹³⁸ Gallo-Belgic gold coins reached Britain in quantity c. 150–100 B.C., British potin began in the late second century B.C. (or possibly earlier),¹³⁹ and an indigenous gold coinage commenced between 80 and 60 B.C.¹⁴⁰ The period from 50 to 20 B.C. saw the end of potin, and the introduction of struck bronze and silver.¹⁴¹ Trimetallic sets appeared early in the first century A.D.¹⁴² There was even some coinage in brass, recently introduced as a coinage metal to Rome from the East.¹⁴³ In addition, it now appears that there was some limited and episodic import of Roman coins during the Iron Age, although it was not a regular feature before conquest (unless it was all melted down or traded back).¹⁴⁴

A clear pattern emerges in relation to Central and Belgic Gaul, Western Central Europe, and Britain: the selective appropriation of Roman iconography and of writing, the tendency for gold coinage to give way to silver, and greater complexity in the form of coinages in multiple metals and structured denominations. These features bear witness to the merging of regimes of value prior to conquest and form part of a wider pattern of social change which underpinned subsequent incorporation into the Roman Empire.

¹³³ Wellington in de Jersey, op. cit. (n. 32), 89.

¹³⁴ K. Gruel, ‘L’alignement du denier gaulois sur l’étalon romain: Datation et impact économique’, in Metzler and Wigg-Wolf, op. cit. (n. 28), 29–37.

¹³⁵ Wellington in de Jersey, op. cit. (n. 32), 89.

¹³⁶ Haselgrove, op. cit. (n. 72, 1999); idem, in Metzler and Wigg-Wolf, op. cit. (n. 28), especially the table on p. 250 = Haselgrove, op. cit. (n. 60, 2005), 132.

¹³⁷ Nick, op. cit. (n. 28, 2006), tabulated on p. 84; Wigg-Wolf, op. cit. (n. 28, 2011). ‘Germanic’ expansion: above, n. 28.

¹³⁸ Haselgrove, op. cit. (n. 72, 1993).

¹³⁹ C. Haselgrove, ‘Early potin coinage in Britain: an update’, in de Jersey, op. cit. (n. 32), 17–28, at 25.

¹⁴⁰ The start of the production of gold coin may be connected with a decline in supplies from the Continent: Haselgrove, op. cit. (n. 72, 1993), 41.

¹⁴¹ Some silver may be pre-Caesar: Haselgrove, op. cit. (n. 72, 1993), 42–3; 60 (proliferation primarily post-Gallic War). Bronze was rare until the late first century B.C.: Haselgrove, 60.

¹⁴² Wellington in de Jersey, op. cit. (n. 32), 91.

¹⁴³ Haselgrove, op. cit. (n. 72, 1993), 45–6; P. Craddock, A. Burnett and K. Preston, ‘Hellenistic copper-base coinage and the origins of brass’, in W. Oddy (ed.), *Scientific Studies in Numismatics* (1980), 53–64; A. Burnett, M. Amandry and P. P. Ripollés, *Roman Provincial Coinage Vol. 1: From the Death of Caesar to the Death of Vitellius (44 BC–AD 69)* (1992), 34; for brass used in the West in imitation of Rome: A. Burnett, ‘The Roman West and the Roman East’, in Howgego, Heuchert and Burnett, op. cit. (n. 19), 171–80, at 177.

¹⁴⁴ Hayling Island: C. Haselgrove, ‘A trio of temples: a reassessment of Iron Age coin deposition at Hayling Island, Harlow and Wanborough’, in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 381–418, at 384–400. Leicestershire: Leins, op. cit. (n. 61), 22–48; idem, in Score, op. cit. (n. 61), 39–60, at 42–3; Haselgrove in Score, op. cit. (n. 61), 170; Walton, op. cit. (n. 36), 57–78.

VI SYSTEMATIC MONETIZATION UNDER ROME

In the imperial period Roman coin proper was introduced within a generation or two following conquest, no matter what the context. This had not been the case earlier, for example in Spain or Gallia Transalpina.¹⁴⁵ The timing of the change is important to the argument here. It is revealed by the contrasting trajectories of coinage in Gaul and Britain after conquest: broadly the continuity of Iron Age coinage and a slow influx of Roman coin in the former, the cessation of Iron Age coinage and the rapid influx of Roman coin in the latter.¹⁴⁶ The differences between Gaul and Britain are only in part to do with narratives of annexation.¹⁴⁷ They belong within a wider chronological pattern of change bound up with Rome's Cultural Revolution.¹⁴⁸ The Triumviral and Augustan periods saw the creation and dissemination of a compelling model of Roman material culture, driven by colonization, the settlement of veterans, and the sheer strength of Augustan imperial ideology.¹⁴⁹ The dissemination of Roman coinage in the West was a part of that process. It is hard not to see the spread of Roman coinage as a broad indicator of the definitive spread of Roman-style money-use, which was required by the commercialization implicit in Rome's Cultural Revolution, although it is certainly possible to have the one without the other.

The introduction of Roman coinage proper has been studied in great detail for the Rhine and Gallia Belgica, helped by the precise chronology of coin assemblages from accurately-dated military contexts.¹⁵⁰ Obviously there was some variation between regions but the overall picture is that coin circulation intensified between 50 and 15 B.C., but with minimal penetration of Roman coin itself.¹⁵¹ Iron Age coinages continued after the conquest, in precious metal at first, followed by large quantities of bronze. Roman influence had a real impact on the iconography of these coinages from 30 to 20 B.C. However, the decisive change came with the permanent stationing of substantial numbers of Roman troops on the Rhine from 19 B.C. onwards.¹⁵² This period saw a large influx of Roman base metal coinage, its composition rapidly changing. Gold and silver are under-represented in ordinary losses, but the Varus disaster site at Kalkriese, where gold and silver amounted to 98 per cent of the total coin by value, demonstrates

¹⁴⁵ On Spain: Ripollès in Howgego, Heuchert and Burnett, op. cit. (n. 19), 79–93; no regular supply of denarii between the end of the Second Punic War and 125–100 B.C. On Gallia Transalpina: Nash, op. cit. (n. 23), 26–7; M. Crawford, *Coinage and Money under the Roman Republic* (1985), 161–72; no systematic supply of Roman coinage before Caesar; Py, op. cit. (n. 78), vol. 2, 1186–7.

¹⁴⁶ Gaul (see Nash, op. cit. (n. 132)): production of coinage in the Iron Age tradition continued for some decades after the conquest. Silver came to an end before Augustus. There was high production of bronze in the 40s and 30s B.C., dwindling under Augustus. Britain (see Haselgrove in de Jersey, op. cit. (n. 32), 105–6): there were possibly a few more post-conquest Celtic coinages in Britain than previously thought, but the contrast with Gaul is still marked.

¹⁴⁷ Pace Haselgrove in de Jersey, op. cit. (n. 32), 98–9.

¹⁴⁸ C. Howgego, 'Coinage and identity in the Roman provinces', in Howgego, Heuchert and Burnett, op. cit. (n. 19), 1–17, at 13.

¹⁴⁹ P. Zanker, *The Power of Images in the Age of Augustus* (1988); above, n. 1.

¹⁵⁰ J. Aarts, *Coins or Money? Exploring the Monetization and Functions of Roman Coinage in Belgic Gaul and Lower Germany 50 B.C.–A.D. 450*, PhD thesis, VU University Amsterdam (2000); Roymans and Aarts, in Haselgrove and Wigg-Wolf, op. cit. (n. 13); Kemmers, op. cit. (n. 98); J. van Heesch, *De muntcirculatie tijdens de Romeinse tijd in het noordwesten van Gallia Belgica: de Civitates van de Nerviers en de Menapiërs (ca. 50 v.C.–450 n.C.)* (1998); D. Wigg, 'The development of a monetary economy in N. Gaul in the Late La Tène and Early Roman periods', in J. Creighton and R. Wilson (eds), *Roman Germany. Studies in Cultural Interaction* (1999), 99–124.

¹⁵¹ Haselgrove in de Jersey, op. cit. (n. 32), 101 contrasts the large mixed hoards of Gaulish and Roman silver of the 40s and 30s B.C. in central and north-west Gaul.

¹⁵² The early Augustan legionary fort of 19/18–15/12 B.C. at Nijmegen shows the beginning of the supply of Roman coinage, which was supplemented by Iron Age coins belonging to the Augustan phase: Kemmers, op. cit. (n. 98).

the importance of precious metal coinage.¹⁵³ Iron Age bronze disappeared from military sites by about A.D. 40, and from native contexts by the Flavian period. Both military and urban centres had functioning monetary systems at an early stage.¹⁵⁴ In some areas even rural settlements became acquainted with Roman coins in the Augustan period, but this may be a reflection of army service by the local population.¹⁵⁵

In Britain very few Iron Age coinages were produced after the conquest (although they again continued to circulate into the Flavian period) and there was a rapid influx of Roman coinage into new areas as the conquest proceeded.¹⁵⁶ Wales provides the limiting case: there had been no coin-use there before the Roman conquest. If there were cultural limits to Roman coin it should have been there. But again the army brought Roman coinage. Wales became coin-using within one or two generations after the conquest.¹⁵⁷ At the other end of Europe, notwithstanding its different trajectory earlier, Dacia also saw Roman coin flood in with the army after conquest in A.D. 106.¹⁵⁸

Accounts of the supply of Roman coin to Temperate Europe put heavy emphasis on the army, and rightly so. Rome's expansion was not driven by commercial considerations, unlike the imperialism of eighteenth- and nineteenth-century European empires.¹⁵⁹ Analyses of the coin supply in the northern military provinces in the early Empire consistently and persuasively argue that the supply of coinage to the army was critical, although it is worth emphasizing that most such work is confined to base metal coinages.¹⁶⁰ The huge quantities of coin recovered from army camps along the Rhine are hard to ignore. Countermarks applied by the army along the Rhine and Danube show the regulation of base metal coinages within camps, and the localized circulation of such coins away from the camps.¹⁶¹ Where the presence of the army was not continuous its effect on coin supply to the surrounding region may be demonstrated. Thus the withdrawal of Legion XI from Vindonissa in A.D. 101 ended the supply of

¹⁵³ H.-M. von Kaenel, 'Zum Münzumlaf im augusteischen Rom anhand der Funde aus dem Tiber. Mit einem Nachtrag zur geldgeschichtlichen Bedeutung der Münzfunde in Kalkriese', in W. Schlüter and R. Wiegels (eds), *Rom, Germanien und die Ausgrabungen von Kalkriese* (1999), 363–79; Kemmers, op. cit. (n. 98), 144–6; F. Berger, 'The key to the Varus defeat: the Roman coin finds from Kalkriese', in Holmes, op. cit. (n. 75), vol. 1, 527–37; R. Wolters, 'Bronze, silver or gold?: coin finds and the pay of the Roman army', *Zephyrus* 53–4 (2000–2001), 579–88.

¹⁵⁴ Kemmers, op. cit. (n. 98), 148 citing Aarts, op. cit. (n. 150).

¹⁵⁵ Aarts, op. cit. (n. 20), 11; Roymans and Aarts in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 340–1; Haselgrove, *Archaeological Dialogues* 12.1 (2005), 30 notes that the Batavian region might have been precocious in the early penetration of coin into native societies. Cf. Mattingly, op. cit. (n. 6, 2011), 228 for the Batavians as closer to military norms. Slower penetration of Roman coins into the countryside elsewhere: van Heesch, op. cit. (n. 150), 190 (French resumé).

¹⁵⁶ Haselgrove in de Jersey, op. cit. (n. 32), especially 105–9.

¹⁵⁷ Above, n. 34. This monetization was never total: few coins have been recovered from the highlands (defined as land above 240 m) — beyond auxiliary forts and extramural civilian settlements — and few or none from some coastal regions, for example the Lleyn Peninsula. Still, the Roman monetization of Wales is impressive.

¹⁵⁸ C. Găzdac, *Monetary Circulation in Dacia and the Provinces from the Middle and Lower Danube from Trajan to Constantine I: (AD 106–337)* (2nd edn, 2010).

¹⁵⁹ Woolf, op. cit. (n. 1), 176.

¹⁶⁰ D. Wigg, 'Coin supply and the Roman army', in W. Groenman-van Waateringe et al. (eds), *Roman Frontier Studies 1995* (1997), 281–8; H. Chantraine, *Novaesium VIII. Die antiken Fundmünzen von Neuss, Gesamtkatalog der Ausgrabungen 1955–1978* (1982); M. Peter, *Untersuchungen zu den Fundmünzen aus Augst und Kaiseraugst* (2001); Kemmers, op. cit. (n. 98), 187–244. For the importance of gold and silver, above n. 153.

¹⁶¹ C. Kraay, 'The behavior of early imperial countermarks', in R. Carson and C. H. V. Sutherland (eds), *Essays in Roman Coinage Presented to Harold Mattingly* (1956), 113–36; Kemmers, op. cit. (n. 98), 95–9. Danube: R. Martini and E. Paunov, 'Early Roman countermarked coins from Moesia: first critical observations (typology, frequency, chronology and analysis of distribution)', *Acta Musei Varnaensis* 2 (2004), 159–74; A. Miškec, 'Some aspects of countermarked coins from the time of the Julio-Claudian dynasty in Pannonia', in C. Alfaro Asíns, C. Marcos and P. Otero (eds), *XIII Congreso Internacional de Numismática, Madrid, 2003* (2005), 1005–12.

bronze coinage to much of Upper Germany and Raetia.¹⁶² The relative importance of the army may also be seen by contrasting the rapid importation of coinage in military zones with the generally slower penetration of Roman coins elsewhere, for example in Southern and Central Gaul and western Belgic Gaul.¹⁶³ Importantly, this time in relation to silver coins, it has been argued from the age structure within hoards that when denarii were injected into circulation in Roman Britain during the first century after annexation they were released mainly in military zones.¹⁶⁴ The behaviour of coinage thus falls into a broader pattern of Roman material goods following the army.¹⁶⁵ The influence of the army on coin supply was variable in time as well as in place. Fresh supplies of coin to the army appear less important from the Flavian period onwards, perhaps because there were now more adequate quantities in circulation and hence more scope for local recycling.¹⁶⁶ The key rôle of the army in the initial supply of Roman coin, however, seems assured.

But is that a balanced picture? After all the military is highly visible archaeologically through its camps. Perhaps the army has been over-emphasized owing to the excellent work on the Rhine?¹⁶⁷ Arguably the military and official versus the commercial and private dichotomy is somewhat misleading given the way the Roman state worked.¹⁶⁸ Urbanization and trading activities have been advanced as explanations for the monetization of Spain and for the extensions of monetization in the Roman East.¹⁶⁹ What about Temperate Europe? How can one begin to get at the rôles of merchants,

¹⁶² M. Peter, 'Bemerkungen zur Kleingeldversorgung der westlichen Provinzen im 2. Jahrhundert', in C. King and D. Wigg (eds), *Coin Finds and Coin Use in the Roman World* (1996), 309–20; idem, op. cit. (n. 160), 91–2; cf. the effect on its hinterland of the departure of the Legion X Gemina from Nijmegen: Kemmers, op. cit. (n. 98), 187; 193 n. 625 (summarizing Peter); but note that whereas the supply of bronze to the legion determined supply to the *civitas Batavorum*, it did not do so to the *civitas Cananefatium*: F. Kemmers, 'From bronze to silver. Coin circulation in the early third century AD', *Revue Belge de Numismatique et de Sigillographie* 155 (2009), 143–58, at 146; idem, 'Interaction or indifference? The Roman coin finds from the Lower Rhine delta', in Bursche, Ciolek and Wolters, op. cit. (n. 25), 93–103.

¹⁶³ Haselgrove, *Archaeological Dialogues* 12.1 (2005), 30. In Central Gaul Roman coins took longer to penetrate and displace Gaulish coinages and imitations of Roman than in the North. The presence of Roman coins was minimal prior to Tiberius, the transition to purely Roman coinage took place in the Flavian period. Exceptional early concentrations of Roman coins at Alesia siege sites and at Bibracte may be associated with the presence of the Roman army: Gruel and Popovitch, op. cit. (n. 73); Nash, op. cit. (n. 132), 22–3. The concentration of Augustan bronze at Bourbonne-les-Bains is likely also to be military: Sauer, op. cit. (n. 102, 2005). Gallia Transalpina: Py, op. cit. (n. 78), vol. 2, 1205 for a *decline* in the supply of coin in the early imperial period. For Belgic Gaul: Haselgrove in de Jersey, op. cit. (n. 32), 101–5. Slow penetration in the non-military region of Luxembourg: Roymans and Aarts in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 340.

¹⁶⁴ J. Creighton, *The Circulation of Money in Roman Britain from the First to the Third Century*, Ph.D. thesis, University of Durham (1992). I am grateful to John Creighton for permission to cite his unpublished thesis. The key evidence will be published in J. Creighton, 'The supply and movement of denarii in Roman Britain', *Britannia* (forthcoming).

¹⁶⁵ Wallace-Hadrill, op. cit. (n. 1), 416.

¹⁶⁶ Wigg, op. cit. (n. 160), 281–8; Kemmers, op. cit. (n. 98), 253–4.

¹⁶⁷ cf. (in a different context) von Reden, op. cit. (n. 16), 134: 'The demand of urban élites, civic religious life, imperial governments and administrations, located in urban areas, stimulated the monetized distribution process in the Mediterranean, and provided a dynamic for increasing market exchange.' Accounts of the process in Britain tend to be more balanced: Haselgrove in de Jersey, op. cit. (n. 32), 106.

¹⁶⁸ On the interdependence between the state and the 'private economy' of their leaders and élites as a background for the development and circulation of money see von Reden, op. cit. (n. 16), 14; cf. J. Creighton, *Britannia: The Creation of a Roman Province* (2006), 94.

¹⁶⁹ P. P. Ripollès, 'Coinage and identity in the Roman provinces: Spain', in Howgego, Heuchert and Burnett, op. cit. (n. 19), 79–93 argues that the motors of monetization were urbanization, the Roman army, colonists, craftsmen, and businessmen. For the East: C. Katsari, 'The monetisation of Rome's frontier provinces', in W. Harris (ed.), *The Monetary Systems of the Greeks and the Romans* (2008), 242–66. Her case is distorted by the miserable state of evidence for the East and underestimates the extent to which the Roman army operated in the same way everywhere. Nonetheless, she makes a good case for the importance of urbanization and trading activities in the extension of monetization.

money-lenders, tax collectors, and local élites? While variations or changes in the rôle of the army might be visible from the material evidence, agency beyond the army is not easy to specify in this way. In the circumstances it would be unwise to disregard some key literary evidence.

The classic text on the rôle of Roman businessmen in a relatively new province relates to Gallia Transalpina in the late 70s B.C.:

Gaul is packed with businessmen, full of Roman citizens. No Gaul is able to transact business without the involvement of a Roman citizen; no coin in Gaul changes hands without being recorded in the account books of Roman citizens. (Cicero, *Pro Fonteio* 11)

For all its rhetorical exaggeration, the passage serves to bring out the rôle of commercial activity in monetization, in this context presumably involving a mixture of Roman and local silver coinages.¹⁷⁰ The fate of merchants, businessmen, and supply-contractors at the time of revolts suggests that their rôle was not seen as entirely benign.¹⁷¹ The revolt of Vercingetorix in 52 B.C. included the killing of Romans who had settled for commerce and that of Florus and Sacrovir in A.D. 21 the massacre of Roman businessmen. In A.D. 61 Boudicca sacked Londinium, the business centre, and in A.D. 69–70 the Batavians fell upon Roman supply-contractors and merchants. It is possible to dismiss these events in a variety of ways: these groups were simply in the wrong place at the wrong time, they were strategic targets involved with supply, or they were victims of looting by those who had been taught to value the new Roman material goods but not how to afford them. These motives are not to be excluded, but the simplest explanation may be the best. The process of commercialization (with associated debts?) was not necessarily comfortable: such figures might be hated. It would probably be wrong to take the further step of arguing that such attacks demonstrate defence of traditional regimes of value, except in the general sense that tensions created by rapid cultural change can provide a context for revolt.¹⁷² After all, large numbers of Roman businessmen were massacred in Asia too, by Mithridates in 88 B.C., despite long-established Graeco-Roman-style monetization.¹⁷³

The same line of reasoning applies to money-lending.¹⁷⁴ Here the key text relates to Seneca in Britain:

Seneca, in the hope of receiving a good rate of interest, had lent to the islanders 40,000,000 sesterterii that they did not want,¹⁷⁵ and had afterwards called in this loan all at once and had resorted to severe measures in exacting it. (Dio 62.2.1)

The sum said to be involved was enormous. 40 million sesterterii was equivalent to 10,000 pounds of gold, enough to pay nearly nine legions for a year.¹⁷⁶ Some models have built *nummularii* into the picture of the supply of coinage, but money-lending on this scale was surely far more important, even if not all the money loaned was physically

¹⁷⁰ For the context: Woolf, *op. cit.* (n. 1), 61–2; S. Dyson, ‘Native revolt-patterns in the Roman Empire’, in *Aufstieg und Niedergang in der römischen Welt* II.3 (1975), 138–75, at 153. It is unclear what coins would have been used. Denarii were struck for the *colonia* at Narbo *c.* 118 B.C. and at Massalia *c.* 82 B.C. Some denarii and quinarii were also imported from Italy, but the civic issues of Massalia and Gallic quinarii seem to have provided the principal silver coinages for southern Gaul: Crawford, *op. cit.* (n. 145), 161–72; Py, *op. cit.* (n. 78), vol. 2, 1186–7.

¹⁷¹ Aarts, *op. cit.* (n. 20), 20; Vercingetorix: Caes., *B.G.* 7.2.3; Florus and Sacrovir: Tac., *Ann.* 3.42; Batavian Revolt: Tac., *Hist.* 4.15; Boudicca: Tac., *Ann.* 14. 31–3.

¹⁷² As Haselgrove, *Archaeological Dialogues* 12.1 (2005), 30; *pace* Aarts, *op. cit.* (n. 20), 20; S. Dyson, ‘Native revolts in the Roman Empire’, *Historia* 20 (1971), 239–74 for tensions caused by ‘acculturation’.

¹⁷³ Mithridates: Val. Max. 9.2 ext. 3.

¹⁷⁴ Dyson, *op. cit.* (n. 170), at 171.

¹⁷⁵ Text not certain.

¹⁷⁶ M. Millett, *Roman Britain* (2nd edn, 2005), 55–6.

delivered.¹⁷⁷ Again this does not sound like a benign process. According to Dio, Seneca's harsh recovery of his loans, alongside the insistence by the procurator that grants to the élite by Claudius had to be repaid, provided the reasons for the Boudiccan revolt.¹⁷⁸ And rates of interest are mentioned by Tacitus as one cause of the revolt under Florus and Sacrovir.¹⁷⁹

It is not surprising that taxation is also linked to revolt.¹⁸⁰ The issue here would be to try to estimate the rôle of taxation in monetization. That is not easy to do without documentation, or any clear understanding of how taxation actually worked on the ground, or of the extent of money taxes in the period concerned. But it is perhaps worth bearing in mind that on the basis of documentary evidence the Ptolemaic state's demand for tax payments in coin has been seen as the principal engine of Ptolemaic monetization.¹⁸¹ That was a very different context, but it draws attention to the possibilities.

So far intrusive, and possibly unpopular, agents of Roman-style monetization have been considered, but things will not have been as simple as that. There is a need to write back a rôle for local élites. The creation of Roman provincial culture was something in which local élites were active agents. They surely had a rôle in Roman-style monetization, just as they had in Iron Age coinages.¹⁸² At the very least it is worth asking who was borrowing the money and who was initially buying the new consumer goods and forming the new local tastes and fashions. In addition the élites needed money for new styles of euergetism, including building projects, which arguably replaced ritual deposition in the creation and maintenance of status. All of this reinforced local hierarchy and control.¹⁸³ It is also worth asking to what extent the local élites themselves became involved as principals in the activities discussed, that is in military service, in money-lending, in trade, and in tax collecting. There is much that will be difficult to test in this picture, but by combining different sources a more balanced picture emerges of the drivers of Roman-style monetization.

It is also worth considering the impact and timescale of associated cultural change. The period of transition to the use of Roman coin saw some continuity in the ritual deposition of coin. In Britain the practice continued at some of the same places after annexation, and might now include Roman coins.¹⁸⁴ Indeed an intensification of deposition of Iron Age coins on religious sites in Belgic Gaul and Britain after conquest may have been a reaction to annexation in itself, representing a need to reinforce identity, rather than evidence for the demonetization of Iron Age coin.¹⁸⁵ In Britain the deposition of coin at

¹⁷⁷ *Nummularii*: Kemmers, op. cit. (n. 98), 193 n. 627 citing Wolters on the rôle of private initiative in supply; 195–6 suggesting the possibility that *nummularii* were contracted by the state to transport coins; 253–6 concluding that the government was key.

¹⁷⁸ Claudius: Dio 62.2.1.

¹⁷⁹ Tac., *Ann.*, 3.40; Woolf, op. cit. (n. 1), 44 n. 78 (debt and unrest).

¹⁸⁰ Dyson, op. cit. (n. 170), 171; Mattingly, op. cit. (n. 6, 2011), 137.

¹⁸¹ J. Manning, 'Coinage as "code" in Ptolemaic Egypt', in W. Harris (ed.), *The Monetary Systems of the Greeks and Romans* (2008), 84–111.

¹⁸² J. Creighton, *Coins and Power in Late Iron Age Britain* (2000); Nick, op. cit. (n. 28, 2006), 233–7. The inscriptions on the coins largely refer to individuals rather than to political or tribal entities (Wigg-Wolf, op. cit. (n. 28, 2011), 304–5), although this might also be seen as reflecting the influence of Roman coinage.

¹⁸³ As Aarts, op. cit. (n. 20), 26.

¹⁸⁴ J. Williams, 'Coinage and identity in pre-conquest Britain: 50 B.C.–A.D. 50', in Howgego, Heuchert and Burnett, op. cit. (n. 19), 69–78, at 77–8. Roman coins were incorporated into ritual deposition at a transitional Iron Age/Roman site in East Leicestershire: Leins, op. cit. (n. 61).

¹⁸⁵ Haselgrove, op. cit. (n. 72, 1993), 54; idem in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 417 (Britain); idem in de Jersey, op. cit. (n. 32), 103 (Belgic Gaul); 106–8 (Britain). For two hoards of Roman hoards from eastern England found close to a spring and a prehistoric long barrow: Haselgrove in de Jersey, op. cit. (n. 32), 106. Wigg-Wolf in Metzler and Wigg-Wolf, op. cit. (n. 28), 298–9 (deposition of coin in sanctuaries began in the late third century B.C.); 311 (at the Martberg deposition of coin began before the Roman invasion); Aarts, op. cit. (n. 20), 26 (continuity of deposition in the Meuse-Demer-Scheldt area). Roymans and Aarts in Haselgrove

religious sites with an Iron Age tradition finally fell off only in the Flavian to Hadrianic period.¹⁸⁶ On the other hand the increasing tendency to deposit base metal coins at temples may be seen as a Romanizing feature.¹⁸⁷ Too simplistic a dichotomy between Iron Age and Roman may be unhelpful here. There was sufficient commonality of practice to permit a shift in meaning. The shift towards base metal may be the trace of a change between Iron Age deposition as a form of conspicuous consumption and the Roman conception of offering as payment for services rendered.¹⁸⁸ Alongside ritual deposition, there was also some continuation in defacement.¹⁸⁹ Of course, as possibly with ritual deposition too, the practice may have come to be regarded as a 'Roman' one, especially where there was no earlier Iron Age tradition.

There were also cross-overs between traditions. In Upper Germany copies of Roman coins were produced in former native *oppida*. Such copies might be very light and of poor quality. In some sense they represent a late Iron Age imitative coinage.¹⁹⁰ On the other hand Iron Age coins were used as small denominations in Roman military contexts on the Rhine and in Britain.¹⁹¹ Such cultural cross-overs had parallels in complexity on the ground, for example in the stationing of Roman troops in native *oppida* before the main camps were established and in the use of 'native' troops as *auxilia*.¹⁹²

It is plausible that in some contexts, notably in rural areas, Roman coins were for some time used in Iron Age ways, say as limited purpose currencies and in ritual spheres.¹⁹³ The same people may have used coins in different ways in different contexts.¹⁹⁴ But evidence of resistance to coinage in itself after conquest is hard to find, although it may lie behind remaining gaps on distribution maps and behind the fact that in some areas the use of small change outside military contexts is very limited.¹⁹⁵ But one way or another Roman coin was introduced within a generation or two following conquest.

and Wigg-Wolf, op. cit. (n. 13), 242–56 (deposition of coin at the sanctuary at Empel from c. 50 B.C. to A.D. 40, possibly representing votive gifts of soldiers in connection with ritual initiations).

¹⁸⁶ Haselgrove in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 417. There is evidence that the ritual site at Hallaton continued into the Hadrianic period: Leins and Haselgrove in Score, op. cit. (n. 61), 43–5; 169.

¹⁸⁷ Aarts, op. cit. (n. 20), 24–7 traces the shift towards the deposition of bronze at different times in different places and has an important discussion of its significance; Haselgrove in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 415–16 (Harlow); Roymans and Aarts in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 350–1 (sanctuary at Empel).

¹⁸⁸ Along the lines suggested by Bradley, op. cit. (n. 53), xxx.

¹⁸⁹ At the Martberg the latest defaced coin is Hadrianic, although it is rare on coins after Claudius: Wigg in Haselgrove and Wigg-Wolf, op. cit. (n. 13); Wigg-Wolf in Metzler and Wigg-Wolf, op. cit. (n. 28). At Bourbonne-les-Bains in east Central Gaul (now Germania Superior) ritual mutilation continued throughout the first two centuries A.D.: Sauer, op. cit. (n. 102, 2005), 79–86 (the latest mutilated coin is of Caracalla under Septimius Severus). At Piercebridge the latest mutilated coins are Severan: Walton, op. cit. (n. 36), 164.

¹⁹⁰ D. Wigg, 'The function of the last Celtic coinages in Northern Gaul', in C. King and D. Wigg (eds), *Coin Finds and Coin Use in the Ancient World* (1996), 415–36, at 431.

¹⁹¹ Kemmers, op. cit. (n. 98), 52–4; 162 (Nijmegen); J. Aarts and N. Roymans, 'Tribal emission or imperial coinage? Ideas about the production and circulation of the so-called AVAVCIA coinages in the Rhineland', in J. van Heesch and I. Heeren (eds), *Coinage in the Iron Age. Essays in Honour of Simone Scheers* (2009), 1–17; Roymans and Aarts in Haselgrove and Wigg-Wolf, op. cit. (n. 13), 347; Wigg, op. cit. (n. 150), at 111–13; Haselgrove in Metzler and Wigg-Wolf, op. cit. (n. 28), 293 = Haselgrove, op. cit. (n. 60, 2005), 171; Haselgrove in de Jersey, op. cit. (n. 32), 99–105; P. Beliën, 'From coins to comprehensive narrative? The coin finds from the Roman army camp on Kops Plateau at Nijmegen: problems and opportunities', in von Kaenel and Kemmers, op. cit. (n. 22), 61–80, at 78 (AVAVCIA coins associated with stables). Britain: Haselgrove in de Jersey, op. cit. (n. 32), 107–8.

¹⁹² Roman soldiers in *oppida* before c. 15 B.C.: e.g. Sauer, op. cit. (n. 102, 2005), 63 with references; C. Haselgrove, 'The age of enclosure: Later Iron Age settlement and society in northern France', in Haselgrove and Moore, op. cit. (n. 65), 492–522, at 512.

¹⁹³ Kemmers, op. cit. (n. 98), 148.

¹⁹⁴ cf. Aarts, op. cit. (n. 20), 11–12.

¹⁹⁵ cf. above, nn. 36 (north–south divide for small-change in Britain) and 157 (areas of non-coin use in Wales).

In principle later developments can be documented from coin finds and validated statistically, as they have been for Roman Britain.¹⁹⁶ Military sites in Britain have an above-average percentage of early coin, reflecting the initial import of coins to pay the army. The earliest coinage did not generally reach the countryside, but was concentrated in *civitas* capitals and military sites. There followed a pattern of expansion of the use of coinage from 'towns' to 'villas' and then to 'rural sites'. This pattern is more or less as expected, but it remains important as a validated trajectory of change. It also helps to bring out the place and importance of urbanization in the process of Roman monetization.

VII CONCLUSION

The processes considered here have been studied in detail by anthropologists in very different contexts, such as the introduction of colonial currencies into Africa. Anthropologists have the advantages of being able to observe money in action and to draw on detailed colonial and ethnographic records. By contrast, some aspects of Iron Age societies are now largely opaque, such as forms of debt or non-coined money. On the other hand both Iron Age societies and Rome had coinages, so that the material evidence may be used to make comparisons between them. And the archaeological and historical approach has its own advantage, that of time depth.

The traditions of social circulation and structured deposition within Temperate Europe going back to the Bronze Age and beyond are important. It is argued here that they provided a way by which Iron Age peoples were able to adopt and internalize the form of coinage with which they came into contact as mercenary pay in the Mediterranean world. Iron Age coin-use was meaningfully different from Roman coin-use, not least because it was embedded in very different societies, but there is no simple contrast between pristine Iron Age and Roman practices. Iron Age peoples had connections with the Mediterranean at all periods, and coinage itself was one form of borrowing.

The geographical spread of Iron Age coinages had a relationship to the eventual extent of the Roman Empire. The production of coinage implied the existence of a structured social hierarchy of the kind the Romans needed for direct rule. More than that, familiarity with the form of coins allowed the partial adoption of Roman styles of coin-use prior to annexation, and also the borrowing and adaptation of elements of the Roman iconography of power and of writing. These are features of the merging of regimes of value which facilitated eventual incorporation into the Roman Empire. From the Triumviral period onwards Roman coinage proper was systematically introduced to new provinces within a generation or two after annexation. Roman-style monetization became crucial not only to the fiscal cycle of state expenditure and taxation but also to the commercialization implicit in Rome's Cultural Revolution and to the creation of Roman provincial culture. One can also discern some aspects of transformation in regimes of value through changes in the ritualization of coin. Arguably the deliberate destruction of wealth itself gave way to euergetism and Roman materialism as a way to construct and maintain elite status.

The army had a demonstrably important rôle in the introduction of Roman coin proper, a reflection of the nature of Roman imperialism and its distance from the commercially-driven imperialisms of eighteenth- and nineteenth-century European empires. It has been argued that nonetheless there is a need to write back a rôle in monetization and the associated cultural changes for merchants, money-lenders, tax collectors, and importantly also for the local élites, who had played a key rôle in

¹⁹⁶ K. Lockyear, 'Site finds in Roman Britain: a comparison of techniques', *Oxford Journal of Archaeology* 19, 4 (2000), 397–423.

coinage in the Iron Age. Coins provide important evidence for the confrontation of Rome with the very different regimes of value to the north. Emphasis on materiality has drawn out the cultural importance of the Roman consumer boom. Without Roman-style monetization the provinces could not have participated in Becoming Roman.

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