

# The Adoption of Coinage by Non-State Societies. Two Case Studies from Iron-Age Northern Europe

David Wigg-Wolf

## Abstract

This paper considers the adoption and use of coinage in two very different environments on the northern perimeter of the Mediterranean world: on the one hand the peoples who entered the literary record of the ancient world as the *Celtae* or *Κελτοί*; on the other hand the groupings of the Roman Iron Age who lived to the north of the Rhine-Danube limes and are described by Tacitus in his *Germania*. The two scenarios provide contrasting examples of the ways in which the peoples from the north could react to and adopt (or not) coinage upon coming into contact with Mediterranean coin-producing and coin-using societies. The contrasts and similarities between the two scenarios serve to throw light on the differing social, political and economic environments of the *Κελτοί* and *Germani*.

## Introduction

In this paper, the author revisits a topic that he worked on some ten years ago, revising and extending the conclusions presented there in the light of new evidence.<sup>1</sup> It considers the adoption and use of coinage in two very different environments on the northern perimeter of the Mediterranean world where the kind of state structures that are found in the Graeco-Roman world did not exist: on the one hand the peoples who entered the literary record of the ancient world as the *Celtae* or *Κελτοί*; on the other hand the groupings of the Roman Iron Age who lived to the north of the Rhine-Danube limes and are described by Tacitus in his *Germania*, and who are referred to here as *Germani*.

The paper is divided into three parts: after a review of the role of Roman coinage of AD 14 to 238 among the peoples living beyond the limes during the Roman Iron Age, developments in the Celtic world, in particular in northern Gaul, will be presented. A comparison follows of the way in which coinage was used and developed in the two environments, as well as how the new medium was incorporated, while a consideration of what this can tell us about the social, political and economic structures and constraints of the two worlds forms the conclusion.

## Coinage and the *Germani*

In the past, evaluations of coin finds from the Roman Iron Age in northern Europe have tended to concentrate on coin hoards, neglecting single or stray finds, since there was no comprehensive inventory of all coin finds from the region.<sup>2</sup> This situation has

changed with the publication of large-scale corpora, which allow us to look in detail at the evidence of spatial and temporal patterns across an extensive area of northwest and central Europe.<sup>3</sup> The availability of figures for stray or single finds, and not just hoards, is important since, although single finds are themselves subject to a number of taphonomic filters between use, deposition and recovery, hoards are by their very nature a deliberate selection and are therefore a less representative cross-section of the spectrum of coinage.<sup>4</sup> The focus of the first part of this paper lies on the part of the *Barbaricum* within the borders of the Federal Republic of Germany, for which there is optimal coverage of the coin finds.

A frequently quoted ancient text concerning the use of Roman coin by those living beyond the *limes* is provided by Tacitus in his *Germania*.<sup>5</sup> The main points Tacitus makes are:

- The *proximi* (those who inhabited areas closer to the frontier) used gold and silver for commerce.
- The *interiores*, who lived further away, relied on barter rather than coins for their transactions.
- The *Germani* preferred silver to gold, as it was better for everyday, small-scale transactions.

But to what extent are ancient ethnological texts such as this, with their colonial perspective, reliable? Is it a sound summary of the situation in central-northern Europe in the second century AD or not? Looking first at Tacitus' claim that the *Germani* preferred silver: for this study nearly 2000 single/stray finds (excluding the hoards) from the German *Barbaricum* were analysed. The proportions of the various coin denominations and metals indicate that, just as the historian says, there is indeed a strong preference for silver, in this case denarii (fig. 1a). In the hoards the dominance of silver is particularly extreme (fig. 1b). But what about the claim that there was a difference in coin use across the *Barbaricum*? This can be checked by looking at coin finds from two areas: Thüringen, which is closer to the *limes* and represents the *proximi*, and Mecklenburg-Vorpommern on the Baltic coast representing the *interiores* (fig. 2). While there are some differences in the spectrum of denominations in the coin finds from the late first to the mid-third century AD in the two areas, in particular in the proportion of sestertii, such differences are relatively small. Overall the two areas are remarkably similar.

The proportion of denominations among the single finds is significant as it can reveal something about how coins were being used: in a market economy based on the regular use of low-value coins for everyday, small-scale transactions, we might expect the finds to include large numbers of smaller denomination coins. However, when the figures for the *Barbaricum* are compared with the neighbouring province of *Germania Inferior* (fig. 3) a very different picture emerges.<sup>6</sup> Looking at different contexts in *Germania Inferior*, low denomination coins are more common in the towns, less common in the smaller towns, and even less common in rural

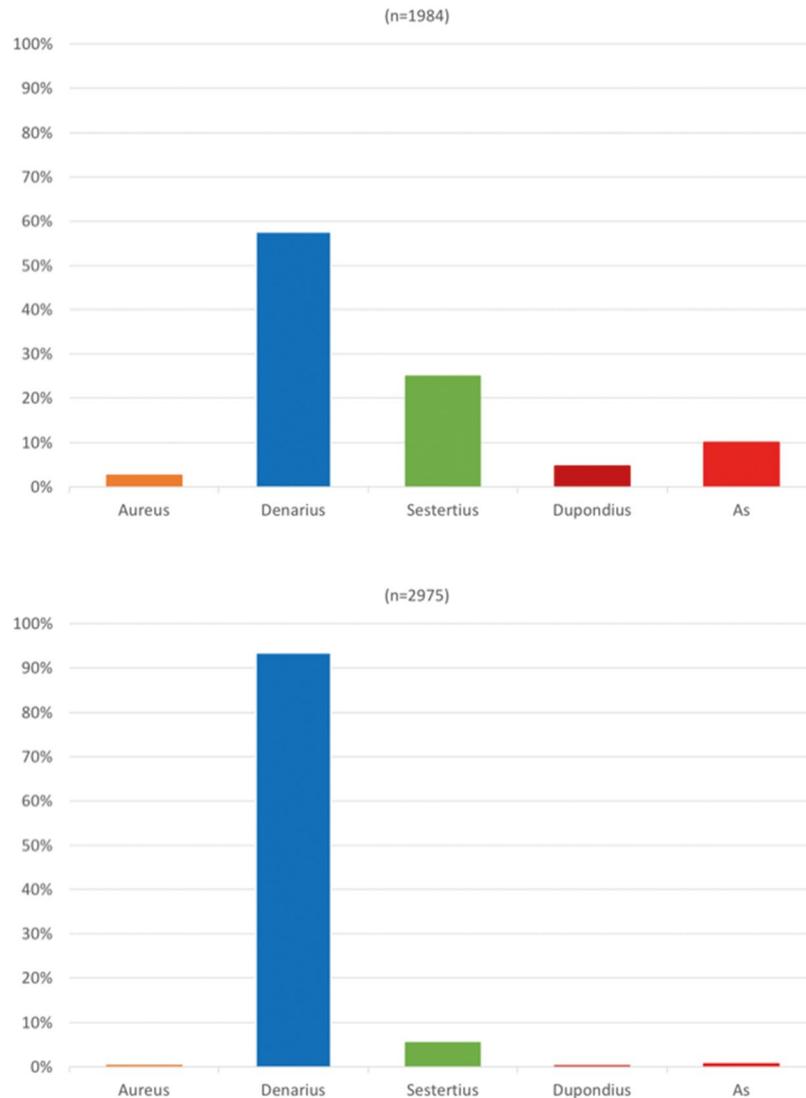


Fig. 1: The proportion of denominations in coin finds of AD 14–238 in the German *Barbaricum*; a (top): single finds – b (bottom): hoards.

settlements and villas.<sup>7</sup> Clearly, within the Empire the smaller denominations were being more widely used, and therefore more frequently lost, in the market environment of towns than in the countryside. However, in the *Barbaricum* low-value coins are significantly rarer than even in rural areas of the northwestern provinces, indicating that the intensity of the use of small denominations was much lower outside the Empire, and that there was by no means a monetized economy in any sense of the phrase that might be understood today. When the coins left the Roman Empire, their function underwent a transformation and they were used very differently.

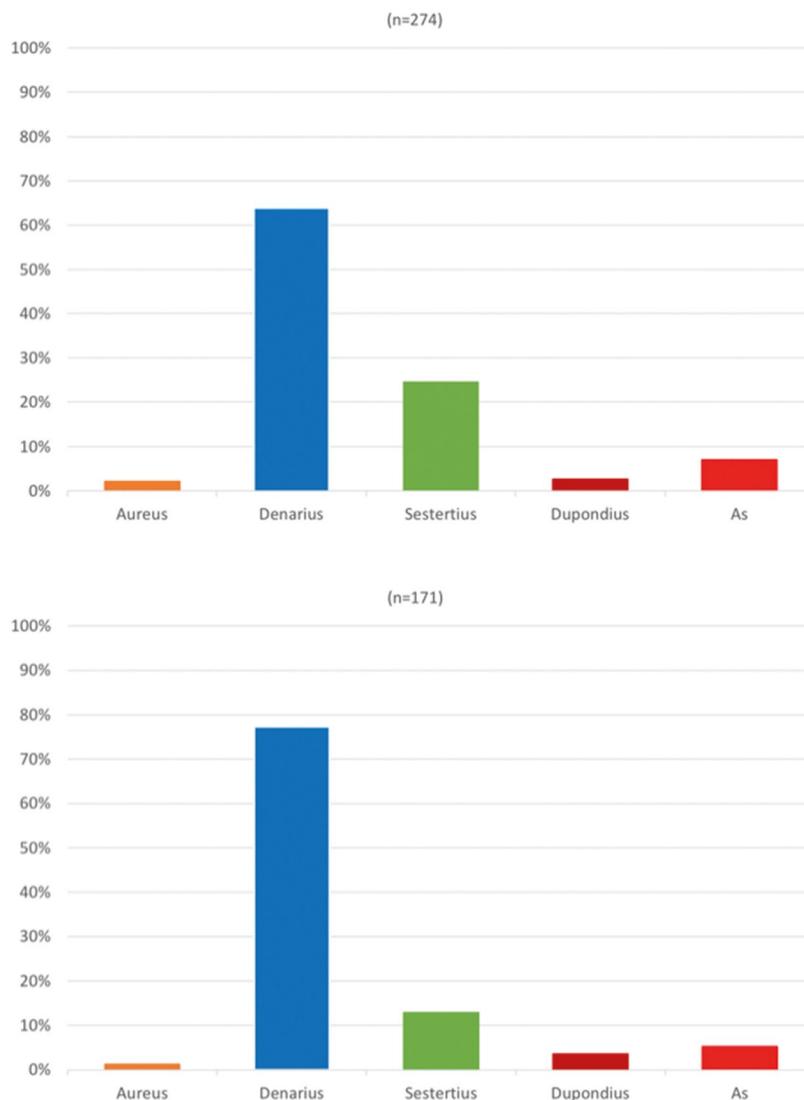


Fig. 2: The proportion of denominations in coin finds of AD 14–238; a (top): Thüringen – b (bottom): Mecklenburg-Vorpommern.

The coins from the bog deposit of Illerup Ådal in Denmark can provide an insight into this transformation. Here, in the early third century AD, the equipment of a defeated Germanic war band was offered to the gods and deposited in the bog by the victors. This equipment included 198 denarii (including four imitations) and one sestertius, which were generally found in groups that had probably been contained in small purses (fig. 4).<sup>8</sup> As Aleksander Bursche has convincingly argued, the coins are evidence not for commercial activity, but for the redistribution of wealth within the structures of barbarian martial elites and war bands.

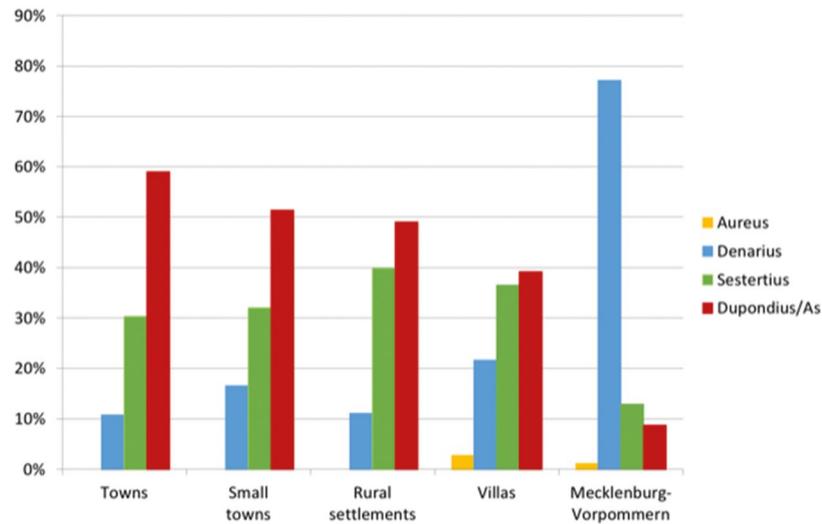


Fig. 3: The proportion of denominations in coin finds of the 1<sup>st</sup> to mid-3<sup>rd</sup> century AD from different environments in *Germania Inferior*.

Further light on how the denarii were used is reflected in the large number of denarius hoards that are known from northwestern Germany indicating that they functioned extensively as a store of wealth.<sup>9</sup> It is also clear from the presence of denarii in hoards of the mid- to late-fourth century AD, such as Laatzten and Lengerich, that outside the Empire in the North silver coins were still available for a very long time, for well over a century after they had disappeared from circulation within the Empire.<sup>10</sup> The most extreme example of this longevity is provided by the grave of Childerich, the Frankish king who was buried in Tournai in Belgium in AD 481 or 482, which included 41 denarii among the coins it contained.<sup>11</sup> That the denarii survived so long and in such numbers indicates that they were not circulating intensively; if they had been passing more often from hand to hand in everyday transactions, then we would expect them to have been subjected to more intensive loss, and so to have disappeared from circulation more quickly. Such slow circulation is exactly what is to be expected of the kind of high-status exchange that is indicated by the evidence of the coins from Illerup-Ådal. It was not as a medium for market exchange in a monetized economy that the *Germani* employed Roman silver coins.

Tacitus also noted that gold was not the metal of choice for the *Germani*, and in this context it is significant that gold coins could be treated differently to silver. Once they left the Empire they were frequently used as jewellery, and were often pierced or mounted in order to be worn as personal adornments (fig. 5). Interestingly, silver coins were rarely used in this way during the Roman Iron Age, suggesting that the two metals



Fig. 4: Illerup-Ådal: Concentration 41/73 with denarii and the remains of a purse.

were circulating in different spheres: silver as an object of material value, gold more as a prestige good and marker of status.

Thus, the denarii were no longer the ‘general-purpose money’ of the Empire that could be used across a wide range of transactions and functions, from the market place and tavern to the purchase of the imperial throne. In the *Barbaricum* their role was more restricted: silver was now used primarily as a means of storing and transferring wealth within a specific milieu and will have been used mainly in high-status exchange, for example as diplomatic payments, tribute, dowries, etc. Gold, on the other hand, could be used as a visible badge of status. As such, coins became an integral element of the power structures of Germanic society, and will have played a significant part in maintaining and transforming them.

The use of coins and their role within Germanic power structures is closely related to the question of why and when the denarii left the Empire. The long-standing view was that the influx was a commercial or economic phenomenon with the denarii leaving mainly as a result of trade, very much as Tacitus saw the use of coins outside the Empire in market terms.<sup>12</sup> However, more recently scholars such as Aleksander Bursche and Peter Kehne have emphasized the role of Rome’s external politics, and in particular diplomatic payments and subsidies.<sup>13</sup> They see the coins as payments by Rome to Germanic groupings to ensure the security of the northern frontier, and thus as an important tool of Rome’s external politics. In this way, the coins would have entered the *Barbaricum* as payments to build and cement alliances with Rome as the active agent.



Fig. 5: Aureus of Antoninus Pius from a mid-3<sup>rd</sup> cent. AD burial at Hasleben, Thüringen.

### Coinage and the *Κελτοί*

The situation with the *Κελτοί* of northwestern and southern central Europe was very different. Whereas in the period and region under consideration here the *Germani* relied almost exclusively on imported Roman coin, producing only a few imitations and not initiating a coinage of their own, the inhabitants of pre-Roman Iron Age Europe north of the Alps produced a series of quite characteristic coinages. Inspired initially by contacts with the Mediterranean world, these coinages underwent intensive changes in material, iconography and use during the three centuries or so that they were produced.

Close contacts had existed between the Celts and the Mediterranean world long before the former adopted the use and production of coins. In areas of direct contact at the edge of the Mediterranean coins will already have been known from the fourth century BC and employed to a limited extent as a medium of exchange in contacts with Mediterranean traders.<sup>14</sup> Further north it is clear that virtually no coins at all reached the area.<sup>15</sup> Here it was probably in the course of service as mercenaries in the armies of the major powers in the Mediterranean world that Celtic warriors experienced their first contacts with the use of coinage. Within this context coinage had a very specific meaning: it functioned as a means of cementing the relationship between a leader and his entourage – in this case between a group of mercenaries and the person who had engaged them.<sup>16</sup> A leader's ability to secure such employment ensured his position within his entourage, and coinage became a new means of securing his position and power. This mechanism was then to become a central feature of the manner in which coinage functioned north of the Alps.

The earliest Celtic coins to be produced were faithful imitations of Hellenistic gold coins. They were produced soon after their prototypes at the end of the fourth and the beginning of the third centuries BC.<sup>17</sup> During the third and early second

centuries BC mainly large denominations were produced: gold staters and their fractions. They are relatively rare and were struck only in small numbers. Such small quantities of high-value coins were not intended as a medium of exchange in a monetized economy involving frequent low-value transactions. Rather, they were ‘special-purpose money’, the primary purpose of which was to fulfill the needs of the martial elites: either for exchange between elite groups in the form of tribute, diplomatic payments, dowries etc., or in order to secure the loyalty to a leader of a following of warriors, just as the Celtic mercenaries in their forays to the south had experienced coinage as a means of securing their loyalty to their employers. The presence in numerous hoards of gold coins together with torques and other objects of prestige and value indicates that the coins were integrated into existing traditional spheres of exchange that involved such items.<sup>18</sup>

The second half of the second century BC then saw an important development in the form and function of coinage in Gaul. Although the earliest imitations often enjoyed very widespread distribution, soon coinages of a more regional nature developed. They had their own imagery, which had little to do with the original Hellenistic prototypes. Smaller denominations also appeared alongside the high-value gold issues, first of all in silver and cast tin-bronze (potin), later in struck bronze. The emergence of smaller denominations coincided with the emergence of the proto-urban oppida such as the Titelberg, where the low-value coins appear in huge numbers (table 1). The nature of this final phase of Celtic coinages was very different to the exclusively high-value coinage of the first century and a half of their production, for the low-value coins could now fulfil a broader spectrum of functions than the large gold units, including trade and exchange involving smaller values.

	Gold	Silver	Cast bronze (potin)	Struck bronze
c. 125–80 BC	1 <i>0.63 %</i>	15 <i>9.38 %</i>	137 <i>85.63 %</i>	7 <i>4.38 %</i>
c. 80–50 BC	7 <i>1.34 %</i>	217 <i>41.57 %</i>	275 <i>52.68 %</i>	23 <i>4.41 %</i>
c. 50–20 BC	5 <i>0.27 %</i>	22 <i>1.21 %</i>	4 <i>0.22 %</i>	1788 <i>98.30 %</i>

Table 1: Number/percentage of gold, silver, potin and struck bronze coins found at the Titelberg oppidum by period.

But even if coins were now available to a wider social spectrum and their economic use was more extended, the coinage itself still remained an instrument of the self-representation and exercise of power for the aristocratic elites. This is best illustrated by the legends found on coins in Gaul from the late second century, which on the whole refer to individuals.<sup>19</sup> Although for the most part we do not know who the individuals concerned were, generally they will have been *nobiles*, members of the aristocratic elite.

Apart from such references to individuals in the legends found on the coins, the iconography of the last Celtic coinages in northern Gaul also tells us a great deal about the ways in which coinage could be used for self-representation by individuals and elites in order to cement their claims to power. After the Gallic War, bronze coinages started to appear in large numbers, many of which incorporate classical 'Roman' elements in their iconography or directly imitate Roman coin types.<sup>20</sup> This use of Roman elements was an important aspect of the language of power following the Roman conquest whereby the Gallic elites demonstrated their loyalty to Rome and so secured their own position within their tribal groupings, a position that depended to a great extent on Rome's favor.

A picture of the late Iron Age world of Gaul emerges, in which coinage was much more than just a measure of value that could be useful in exchange or for the storage of wealth. It was also a potent medium of the exercise of power and the formation of identity on the part of the elites.

### Conclusions

Although coins were used in both the Germanic and Celtic environments, there were clearly significant differences. The two societies were introduced to coinage in different ways, and the subsequent development of how coinage was employed took very different courses. The most striking difference is in the use of imported coin. Whereas the coin in use in the *Barbaricum* consisted almost exclusively of Roman coin with very few locally produced imitations, the situation in pre-Roman Gaul was different: coins from the Mediterranean powers hardly reached the area during the first three centuries BC,<sup>21</sup> and Roman coins only made an impact in north Gaul with the stationing of the Roman army along the Rhine in preparation for the German campaigns of Augustus.<sup>22</sup>

The role of the indigenous societies in the mechanisms and events that led to them encountering and using coinage was also very different. In the environment of contact between Rome and her northern neighbours, Rome can be seen very much as the active partner: while a certain amount of coinage will have left the Empire as a result of commercial exchange and direct cross-border contacts, in some cases even as booty from Germanic raids, most of the coins of the first two and a half centuries AD entered Germania in the form of payments made by Rome to ensure the security of her northern frontier. This contrasts with the situation in the pre-Roman Iron Age. Although on the margins of the Mediterranean world commercial contacts will have played a role,

for the inhabitants of more northerly regions it will have been as mercenaries in the Mediterranean that they first encountered coinage. Their role was more active than that of their Germanic counterparts.

Significant differences are also to be seen in the ways in which coinage evolved within the two environments. The *Germani* of northwestern Europe never developed their own coinage beyond mere imitation, and even then only in small numbers in the period under consideration here. No original imagery appeared comparable to that of the Celtic coinages. Nor did the use of coinage among the *Germani* lead to the level of monetization that can be seen in the milieu of the oppida of Gaul in the first century BC. To some extent this reflects differences in social and political organisation: the kind of centralized communities and polities that we find in Gaul, and which found their ultimate expression in the oppida, are not to be found north of the limes during the Early and High Empire. As a result, Germanic society did not feature the sort of power structures that led to the adoption and production of coinage visible in late La Tène communities.

A similar contrast between the two environments can be seen in the use of coins to create tribal or local identities. Within the context of La Tène communities we find regional coinages that can be associated with individual polities. The spectrum of coin across the North German *Barbaricum* during the first two and a half centuries AD, on the other hand, was remarkably homogenous, with few differences between regions. Nor can the limited imitation of Roman coins by the *Germani* be compared with the subtle use of iconography by Gallic elites subsequent to Caesar's conquest of Gaul in order to proclaim loyalties and to cement their position within their own communities.

The use of Roman coin north of the limes was more similar to that of the early stages of Celtic coinage, centered on elite exchange and the storage of wealth rather than market exchange. There is, however, one significant difference: while the hoards combining Celtic gold coins with torques indicate that the coins were integrated into existing traditional spheres of exchange,<sup>23</sup> the denarius hoards of the first two and a half centuries AD in northern Germany consist almost exclusively of coins. The Roman coinage provided a new, even intrusive element into the sphere of exchange and power structures. The *Germani* seem also to have differentiated between silver and gold: the two metals assumed different functions and were not integrated into the kind of complex monetary system evidenced by the tri-metallic coinages of late-first century BC Gaul.

## Notes

<sup>1</sup> Wigg-Wolf 2008.

<sup>2</sup> An exception is Bolin 1926, who included single finds.

<sup>3</sup> E.g. FMRD; CRFB.

<sup>4</sup> On the filters involved in the formation of coin finds Noeske 1979, Wigg-Wolf 2019.

<sup>5</sup> Tacitus, *Germania* 5, 3–5.

<sup>6</sup> The data are taken from Aarts 2000.

<sup>7</sup> Aarts 2000.

<sup>8</sup> Bursche 2011.

<sup>9</sup> From Germany outside the limes alone some 48 hoards containing 10 or more denarii are known.

<sup>10</sup> E.g. Laatz: FMRD VII 4033, Lengerich: VII 1033.

<sup>11</sup> R.-Alföldi – Stribrny 1998; Martin 2004; Fischer – Lind 2015.

<sup>12</sup> Eggers 1951; Wheeler 1954.

<sup>13</sup> Bursche 1996, 105; 2011, 85–87; Kehne 2008; Dymowski – Myzgin 2014.

<sup>14</sup> See, for example, Bats 2011; García-Bellido 2011.

<sup>15</sup> For example, John Sills, in his exhaustive study of early Celtic gold coinage in Gaul and Britain, records only twelve Macedonian Philippos staters of the late fourth century BC in all of Gaul, only two to the north of the Loire: Sills 2003, 7, map 1.

<sup>16</sup> Wigg-Wolf 2011.

<sup>17</sup> Polenz 1982; Sills 2003, 123, fig. 26.

<sup>18</sup> Fitzpatrick 2005; Nick 2005.

<sup>19</sup> Colbert de Beaulieu et al. 1998.

<sup>20</sup> Creighton 2005; Loscheider 2005; Wigg-Wolf 2011.

<sup>21</sup> See note 15.

<sup>22</sup> Wigg 1999; Martin 2016.

<sup>23</sup> Fitzpatrick 2005; Nick 2005.

## Image Credits

Fig. 1–2: by the author. – Fig. 3: Aarts 2000. – Fig. 4: Bursche 2001 Abb. 66. – Fig. 5: Landesamt für Denkmalpflege, Thüringen. – Table 1: Reding 1972.

## References

### Aarts 2000

J. Aarts, *Coins or Money? Exploring the Monetization and Functions of Roman Coinage in Belgic Gaul and Lower Germany 50 BC–AD 450* (Ph.D. diss. Vrije Universiteit te Amsterdam, Amsterdam 2000).

### Bolin 1926

S. Bolin, *Fynden av romerska mynt i det fria Germanien: Studier i romersk och äldre germansk historia* (Lund 1926).

### Bats 2011

M. Bats, *Métal, objets précieux et monnaie dans les échanges en Gaule méridionale protohistorique (7e-2e s. a.C.)*, in: M. P. García-Bellido – L. Callegarin – A. Jiménez Díez (eds.), *Barter, Money and*

Coinage in the Ancient Mediterranean (10<sup>th</sup>–1<sup>st</sup> centuries BC), Actas del IV Encuentro peninsular de Numismática antigua (EPNA) Madrid 2010 (Madrid 2011) 97–109.

**Bursche 1996**

A. Bursche, Later Roman-barbarian Contacts in Central Europe, Numismatic Evidence: Spätromische Münzfunde aus Mitteleuropa. Ein Beitrag zur Geschichte der Beziehungen zwischen Rom und den Barbaricum im 3. und 4. Jh. n. Chr. Studien zu Fundmünzen der Antike 11 (Berlin 1996).

**Bursche 2011**

A. Bursche, Illerup Ådal 14. Die Münzen, Jutland Archaeological Society Publications 25 (Århus 2011).

**Creighton 2005**

J. Creighton, Links Between the Classical Imagery in Post-Caesarean Belgica and the Rest of the Roman World, in: J. Metzler – D. Wigg-Wolf (eds.), Die Kelten und Rom: neue numismatische Forschungen (Fond de Gras/Titelberg, Luxemburg, 30.4.–3.5.1998), Studien zu Fundmünzen der Antike 19 (Mainz 2005) 87–107.

**Colbert de Beaulieu et al. 1998**

J.-B. Colbert Beaulieu – B. Fischer – P.-M. Duval, Les légendes monétaires, Gallia Suppl. 45 (Paris 1998).

**CRFB**

Corpus der römischen Funde im europäischen Barbaricum (Bonn 1994).

**Dymowski – Myzgin 2014**

A. Dymowski – K. Myzgin, Inflow and Redistribution of Roman Imperial Denarii in the Area of Przeworsk, Wielbark and Chernyakhiv Cultures and in the Baltic Islands in the Light of Chronological Structure of Coin Hoards, Notae Numismaticae 9, 2014, 39–69.

**Eggers 1951**

H.J. Eggers, Der römische Import im freien Germanien, Atlas der Urgeschichte 1 (Hamburg 1951).

**Fischer – Lind 2015**

S. Fischer – L. Lind, The Coins in the Grave of King Childeric, Journal of Archaeology and Ancient History 14, 2015, 1–36.

**Fitzpatrick 2005**

A. P. Fitzpatrick, Gifts for the Golden Gods: Iron Age Hoards of Torques and Coins, in: C. C. Haselgrove – D. Wigg-Wolf (eds.), Iron Age Coinage and Ritual Practices, Studien zu Fundmünzen der Antike 20 (Mainz 2005) 157–182.

**FMRD**

Die Fundmünzen der römischen Zeit in Deutschland (Berlin/Mainz/Bonn 1960–2015).

**García-Bellido 2011**

M. P. García-Bellido, Hackgold and Hacksilber in Protomonetary Iberia, in: M. P. García-Bellido – L. Callegarin – A. Jiménez Díez (eds.), Barter, Money and Coinage in the Ancient Mediterranean (10<sup>th</sup>–1<sup>st</sup> centuries BC), Actas del IV Encuentro peninsular de Numismática antigua (EPNA) Madrid 2010 (Madrid 2011) 121–135.

**Kehne 2008**

P. Kehne, Auskünfte antiker Schriftquellen zu Umständen und Größenordnungen des Abflusses

römischer Münzen ins "Barbaricum" vom 1.–5. Jahrhundert n. Chr. Eine Problemskizze, in: A. Bursche – R. Ciolek (eds.), *Roman Coins Outside the Empire. Ways and Phases, Contexts and Functions: Proceedings of the ESF/SCH Exploratory Workshop Radziwill Palace, Nieborów (Poland) 3–6 September 2005*, *Moneta* 82 (Wetteren 2008) 75–88.

**Loscheider 2005**

R. Loscheider, *Militär und Romanisierung. Zum Münzwesen der Treverer nach dem Gallischen Krieg*, in: J. Metzler – D. Wigg-Wolf (eds.), *Die Kelten und Rom. Neue numismatische Forschungen (Fond de Gras/Titelberg, Luxemburg, 30.4.–3.5.1998)*, *Studien zu Fundmünzen der Antike* 19 (Mainz 2005) 109–127.

**Martin 2004**

M. Martin, *Childerichs Denare. Zum Rückstrom römischer Silbermünzen ins Merowingerreich*, in: H. Friesinger – A. Stuppner (eds.), *Zentrum und Peripherie. Gesellschaftliche Phänomene in der Frühgeschichte. Materialien des 13. Internationalen Symposiums 'Grundprobleme der frühgeschichtlichen Entwicklung im mittleren Donauraum' Zwettl, 4.–8. Dezember 2000 (Vienna 2004)* 241–278.

**Martin 2016**

S. Martin, *Du statère au sesterce: monnaie et romanisation dans la Gaule du Nord et de l'Est ( IIIe s. a.C. / Ier s. p.C.)*, *Scripta antiqua* 8 (Bordeaux 2016).

**Nick 2005**

M. Nick, *Am Ende des Regenbogens...Ein Interpretationsversuch von Hortfunden mit keltischen Goldmünzen*, in: C. C. Haselgrove – D. Wigg-Wolf (eds.), *Iron Age Coinage and Ritual Practices, Studien zu Fundmünzen der Antike* 20 (Mainz 2005) 115–155.

**Noeske 1979**

H.-C. Noeske, *Bemerkungen zur Problematik der Siedlungsfunde*, in: M. R.-Alföldi (ed.), *Ergebnisse des FMRD-Colloquiums vom 8.–13. Februar 1976 in Frankfurt am Main und Bad Homburg v.d.H.*, *Studien zu Fundmünzen der Antike* 1 (Berlin 1979) 157–165.

**Polenz 1982**

H. Polenz, *Münzen in latènezeitlichen Gräbern Mitteleuropas aus der Zeit zwischen 300 und 50 vor Christi Geburt*, *BayVgBl.* 45, 1982, 27–222.

**R.-Alföldi – Stribrny 1998**

M. R.-Alföldi – K. Stribrny, *Zu den Münzbeigaben im Childerichgrab*, in: M. Müller-Wille, *Zwei religiöse Welten: Bestattungen der fränkischen Könige Childerich und Chlodwig (Stuttgart 1998)* 37–45.

**Reding 1972**

L. Reding, *Les monnaies gauloises du Tetelberg (Luxemburg 1972)*.

**Sills 2003**

J. Sills, *Gaulish and Early British Gold Coinage (London 2003)*.

**Wheeler 1954**

M. Wheeler, *Rome Beyond the Imperial Frontiers (London 1954)*.

**Wigg 1999**

D. G. Wigg, *The Development of the Monetary Economy in N. Gaul in the Late La Tène and Early*

Roman Periods, in: J. D. Creighton – R. J. A. Wilson (eds.), *Roman Germany, Studies in Cultural Interaction*, JRA Suppl. 32 (Portsmouth 1999) 99–124.

**Wigg-Wolf 2008**

D. Wigg-Wolf, *Coinage on the periphery*, in: A. Bursche – R. Ciolek (eds.), *Roman Coins Outside the Empire. Ways and Phases, Contexts and Functions: Proceedings of the ESF/SCH Exploratory Workshop Radziwill Palace, Nieborów (Poland) 3–6 September 2005*, *Moneta* 82 (Wetteren 2008) 35–47.

**Wigg-Wolf 2011**

D. Wigg-Wolf, *The Function of Celtic Coinages in Northern Gaul*, in: M. P. García-Bellido – L. Callegarin – A. Jiménez Díez (eds.), *Barter, Money and Coinage in the Ancient Mediterranean (10<sup>th</sup>–1<sup>st</sup> centuries BC)*, *Actas del IV Encuentro peninsular de Numismática antigua (EPNA) Madrid 2010* (Madrid 2011) 301–314.

**Wigg-Wolf 2019**

D. Wigg-Wolf, *Rethinking Coin Finds as a Process*, in: S. Krmnicek – J. Chameroy (eds.), *Fundmünzen - Trouvailles monétaires - Coin Finds: Aktuelle Forschungen zu Geld in der antiken Welt*, *Tübinger Numismatische Studien* 2 (Tübingen 2019).