Pierced, looped and framed: the (re)use of gold coins in jewellery in sixth- and seventh-century England

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The early medieval coin-using economy is traditionally conceptualized as a masculine sphere with minimal female involvement. This article examines a corpus of 135 gold and pale gold coins of the later sixth and seventh centuries that underwent modification as coin-pendants, a form of jewellery that belongs almost exclusively to feminine contexts. Analysis of this corpus reveals that these coins were valued as coins*, with their attendant symbolic and economic significance, and that this transformation into jewellery did not irreversibly remove them from circulation, offering important evidence for female engagement in the seventh-century coin-based economy.*

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Introduction

The early medieval coin-using economy of the later sixth and seventh centuries is traditionally conceptualized as a masculine sphere. The individuals who have previously been identified as those engaged in mercantile trade and payment with coin, for example, are inevitably male.[1] Women's interactions with coins and monetary exchange in an early Anglo-Saxon context have been largely overlooked. This is especially surprising given that one of the very few mentions of coins in contemporary historical sources specifically concerns a woman.[2] Bede directly compares the seventh-century princess Eorcengota of Kent to a gold coin (*aureum nomisma*) brought to the monastery at Faremoutiers; in this material metaphor, Eorcengota effectively *is* the coin.[3] One way in which women actively engaged with coins was through the wearing of modified coins as pendant jewellery. Numismatic scholarship has traditionally presented modified coins as the inferior relative of coinage per se.[4] Coin-jewellery has been viewed as permanently detached from economic considerations, fulfilling no economic function.[5] In contemporary England and Wales, even legislation draws a firm distinction between coin-pendants and coins: legally the former constitute Treasure, while single finds of the latter do not.[6] This article focuses on a corpus of 135 modified gold and pale gold coins of the later sixth and seventh centuries to demonstrate that coins were not simply repurposed because they were a convenient source of precious metal, but that they were valued *as coins*, and this is what lay behind their secondary use as jewellery. In addition, it shows

1 E.g. C. Scull, 'Scales and Weights in Anglo-Saxon England', *Archaeological Journal* 147 (1990), pp. 183–215; C. Scull, 'Foreign Identities in Burials at the Seventh-Century English *Emporia*', in S. Brookes *et al.* (eds), *Studies in Early Anglo-Saxon Art and Archaeology* (Oxford, 2011), pp. 82–7, at p. 85.

2 R. Naismith, 'The Social Significance of Monetization in the Early Middle Ages', *Past and Present* 223 (2014), pp. 3–39, at p. 3.

3 Bede, *Historia ecclesiastica*, III.8, ed. and trans. B. Colgrave and R.A.B. Mynors, *Bede's Ecclesiastical History of the English People* (Oxford, 1969), pp. 238–9; see K. Clarke-Neish, 'The (Re-)making of the Southern North Sea World: Politics, Trade and Long-distance Interactions between the Anglo-Saxon Kingdoms and Merovingian Gaul in the Seventh Century AD', Ph.D. thesis, Durham University (2021), pp. 170–1.

4 A.N. Zadoks-Jitta, 'Notes and Queries on Coin Ornaments', in J. Babelon and J. Lafaurie (eds), *Congrès International de Numismatique, Paris, 6–11 Juillet, 1953* (Paris, 1957), pp. 453–9, at p. 453.

5 G. Williams, 'The Circulation, Minting and Use of Coins in East Anglia, c. AD 580–675', in D. Bates and R. Liddiard (eds), *East Anglia and Its North Sea World in the Middle Ages* (Woodbridge, 2013), pp. 120–36, at p. 125.

6 Department for Culture, Media and Sport, 'Treasure Act 1996: Code of Practice (3rd Revision)', (2023), pp. 11–12, available at: https://www.gov.uk/government/publications/treasure-act-1996-code-of-practice-3rd-revision (accessed: 7 Feb 2024).

that these modified coins were not irreversibly removed from economic use, and instead could and did re-enter circulation as coins. Coin-pendants drew their significance from the prestige attached to gold coins and this in turn offers important insights for understanding the gold coin economy – and gendered access to it – in the later sixth and seventh centuries.

There is perhaps no better illustration of the fundamental conceptual distinction between modified coins and coins than the case of the Liudhard *tremissis*, a gold coin furnished with a loop, probably recovered from a grave in the vicinity of St Martin's church, Canterbury in the nineteenth century.[7] Its retrograde legend, LEV·DAR·VS EPS, is generally agreed to refer to the clergyman Liudhard, part of the retinue of the Frankish princess Bertha following her marriage to Æthelberht of Kent.[8] The Liudhard pendant is usually described as a 'medalet', reflecting a pervasive assumption that the whole object was made in a single episode and was merely imitative of a coin, even though it very likely adheres to the contemporary weight standard for *tremisses* and was found alongside six other Merovingian and pseudo-imperial gold coins, all of them also looped.[9] Only recently has the Liudhard coin been rehabilitated as a genuine example of one of the earliest English gold issues, subsequently transformed for use as a pendant.[10] Acknowledging that this coin was undoubtedly produced and circulated as a coin prior to its transformation is essential in understanding the object itself. As this article demonstrates, coin-pendants relied on the significance of the coins for their impact, and the choices made in the production of these items were complex and multivalent.

Coin-pendants can only be understood through an interdisciplinary approach which sets them within their numismatic, archaeological and historical contexts, and which seeks to evaluate these artefacts as objects

7 P. Grierson, 'The Canterbury (St. Martin's) Hoard of Frankish and Anglo-Saxon Coin-Ornaments', *British Numismatic Journal* 27 (1954), pp. 39–51. In the collections of National Museums Liverpool.

8 Bede, *Historia ecclesiastica*, I.25, ed. Colgrave and Mynors, pp. 74–5.

9 E.g. B. Yorke, '"The Weight of Necklaces": Some Insights into the Wearing of Women's Jewellery from Middle Saxon Written Sources', in Brookes *et al.* (eds), *Studies in Early Anglo-Saxon Art and Archaeology*, pp. 106–11, at p. 108; G. Williams, 'The Circulation and Function of Coinage in Conversion Period England, c. AD 580–675', in B. Cook and G. Williams (eds), *Coinage and History in the North Sea World, c. AD 500–1250* (Leiden, 2006), pp. 145–92, at pp. 164–5; M. Werner, 'The Liudhard Medalet', *Anglo-Saxon England* 20 (1990), pp. 27–43; A. Evans, 'Notes on Early Anglo-Saxon Gold Coins', *Numismatic Chronicle* 2 (1942), pp. 19–41, at pp. 25–9.

10 R. Naismith, *Medieval European Coinage 8: Britain and Ireland, c. 400–1066* (Cambridge, 2017), pp. 50–1. Hereafter *MEC8*.

in their own right, firstly as coins and subsequently as jewellery.[11] Based on a new corpus of 135 modified gold and pale gold coins of the later sixth and seventh centuries (see Appendix below), we interrogate the decision-making processes that underpinned the transformation of coins, addressing questions such as which coins were used, how they were worn and modified and in which contexts they were repurposed, and setting these considerations against the background of contemporary coin production, use and circulation.

Although numismatic and archaeological scholarship has tended to draw firm distinctions between modified and non-modified coins, it is likely that early medieval owners and wearers of coin-jewellery saw these objects as important precisely because of the prestige attached to coinage. Any understanding of coin-pendants must therefore accommodate their full life-history: the deliberate act of transforming a coin into a pendant can thus reveal important insights into contemporary attitudes towards coins, for example how they were understood, valued and used by communities for whom coins (as money) were a relative novelty.[12] The evidence of coin-pendants in the latest phase of high-status furnished burials suggests that coin-pendants were worn and used almost exclusively by women. Modified coins are therefore highly significant for exploring female engagement with the early medieval coin-using economy. Importantly, they also offer a means to explore both coins and gold as a medium during the Conversion Period.

Gold coinage in the Conversion Period

Coin-pendants must be understood in the context of the presence and use of coinage in the sixth and seventh centuries. The sudden influx of imported gold coins on a substantial scale and the reintroduction of minting of coinage in southern and eastern parts of England from the final decades of the sixth century onwards marked a seismic socio-economic shift.[13] A vibrant, trimetallic, coin-based economy had been one of the casualties of the end of Roman Britain.[14] The regular clipping of *siliquae* suggests the circulation of an increasingly restricted supply of silver coins for perhaps only the first few decades of the fifth

[11] F. Kemmers and N. Myrberg, 'Rethinking Numismatics: The Archaeology of Coins', *Archaeological Dialogues* 18 (2011), pp. 87–108.
[12] N.M. Burström, 'Money, Coins and Archaeology', in R. Naismith (ed.), *Money and Coinage in the Middle Ages* (Leiden, 2018), pp. 231–63.
[13] G. Williams, 'Anglo-Saxon Gold Coinage Part I: The Transition from Roman to Anglo-Saxon Coinage', *British Numismatic Journal* 80 (2010), pp. 51–75.
[14] Williams, 'Anglo-Saxon Gold Coinage'; Naismith, *MEC8*, pp. 28–37.

century.[15] Gold coins continued to arrive in Britain as imports, but in extremely limited numbers.[16] It was not until the second half of the sixth century that gold coins – imperial issues minted in the eastern Mediterranean that moved westwards into Europe as tribute payments and via long-distance exchange – began to circulate in more significant quantities.[17] Kingdoms in the post-Roman west began to produce their own coins from these melted-down supplies of Byzantine gold, the earliest being pseudo-imperial issues, which continued to name the eastern Roman emperor and followed established weight standards of the *solidus* (nominally 4.5g) and, subsequently, the *tremissis* (1.4–1.5g).[18] These issues gave rise to the production of independent coinages at the end of the sixth century, including the mint-and-moneyer *tremisses* in Merovingian Gaul.[19] A small minority of Merovingian coins, notably the *solidi*, were minted under royal authority.[20] Meanwhile, the earliest English gold *solidi* are dated to the end of the sixth century. Coins of a reduced weight, commonly known as *thrymsas*, superseded the production of *solidi* by the early seventh century.[21] As the supply of Byzantine gold coins faltered in the middle of the seventh century, there was a general debasement of coinage across western Europe, with silver added in increasing quantities to stretch supplies.[22] The coins in circulation at the end of the seventh century contain only a small percentage of gold.[23] Around 665–75, a full shift to the production of silver coins (*sceattas* and *deniers*) occurred largely concurrently across the North Sea region.[24] The later sixth and seventh centuries represent around a century

[15] S. Moorhead and P. Walton, 'Coinage at the End of Roman Britain', in F.K. Haarer (ed.), *AD410: The History and Archaeology of Late and Post-Roman Britain* (London, 2014), pp. 99–116.
[16] R. Bland and X. Loriot, *Roman and Early Byzantine Gold Coins Found in Britain and Ireland* (London, 2010), pp. 86–8.
[17] R. Naismith, 'Gold Coinage and Its Use in the Post-Roman West', *Speculum* 89 (2014), pp. 273–306, at pp. 273–80.
[18] Naismith, 'Gold Coinage', pp. 284–6.
[19] For the purposes of this article, coins which are described as 'Merovingian' are the royal issues and the mint-and-moneyer coins; imitative *solidi* and *tremisses* produced within the Merovingian kingdoms are classified as 'pseudo-imperial'.
[20] J. Lafaurie and J. Pilet-Lemière, *Monnaies du haut Moyen Âge Découvertes en France (Ve–VIIIe Siècle)* (Paris, 2003), pp. 10–1, 20–3.
[21] Naismith, *MEC8*, p. 45.
[22] Naismith, 'Gold Coinage', pp. 273–80.
[23] G. Williams and D. Hook, 'Analysis of Gold Content and its Implications for the Chronology of Early Anglo-Saxon Coinage', in A. Gannon (ed.), *British Museum Anglo-Saxon Coins Vol. 1: Early Anglo-Saxon Gold and Continental Silver Coinage of the North Sea Area, c. 600–760* (London, 2013), pp. 55–70, at pp. 62–3.
[24] M. Archibald, 'Numismatics and the Chronological Models', in J. Hines and A. Bayliss (eds), *Anglo-Saxon Graves and Grave Goods of the 6th and 7th Centuries AD* (London, 2013), pp. 493–516; C. Loveluck *et al.*, 'Alpine Ice-Core Evidence for the Transformation of the European Monetary System, AD640–670', *Antiquity* 92 (2018), pp. 1571–85.

of considerable economic development; how people understood and interacted with coins during this period is therefore of particular interest.

The economic function and scale of coin use during this later sixth- and seventh-century gold phase have undergone radical reassessment in recent years as the corpus of finds has increased exponentially through the discovery and systematic recording of metal-detected finds.[25] When S.E. Rigold published his 1975 catalogue of single finds of post-Roman gold coins, as part of the discussion of the purse-collection from the Sutton Hoo ship burial, the total number of gold coins known was 142, and over a third of them were modified, many recovered from funerary contexts.[26] The apparent combination of extremely restricted circulation of coins (particularly since very few stray finds were known at this time) and the high frequency of modification led many scholars to argue that gold coinage played no economic role in sixth- and seventh-century society beyond its intrinsic material value, and that where coins were used, this was for symbolic gift-payments among elites.[27]

It was much easier, prior to the explosion of metal-detected single finds, to dismiss modified coins as merely ornaments, worn by and buried with women.[28] For example, in Philip Grierson's imagining of the process by which the Crondall hoard was assembled, the unmodified coins were supplied by their (male) owner, while the *tremissis* of Phocas (602–10), removed from a pendant frame, was the only contribution made by his wife, from her own jewellery, and represented an unfortunate compromise required to bring the total number of coins in the hoard to one hundred, a number that seemingly corresponds to a *wergild* listed in late sixth- or early seventh-century Kentish law codes.[29] Within this vignette lurk several then-contemporary assumptions about coins and coin-pendants: that the use of coins was restricted to special-purpose payments, that modified coins no longer fulfilled even this limited function, and

[25] Naismith, *MEC8*, pp. 59–62.

[26] S.E. Rigold, 'The Sutton Hoo Coins in the Light of the Contemporary Background of Coinage in England', in R.L.S. Bruce-Mitford (ed.), *The Sutton Hoo Ship-Burial Vol. 1: Excavations, Background, the Ship, Dating and Inventory* (London, 1975), pp. 653–77.

[27] Notably, P. Grierson, 'The Purpose of the Sutton Hoo Coins', *Antiquity* 44 (1970), pp. 14–18; see also M. Gaimster, 'Scandinavian Gold Bracteates in Britain: Money and Media in the Dark Ages', *Medieval Archaeology* 36 (1992), pp. 1–28, at pp. 7–8.

[28] E.g. J.P.C. Kent, 'From Roman Britain to Saxon England', in R.H M. Dolley (ed.) *Anglo-Saxon Coins* (London, 1961), pp. 1–22, at p. 9; P. Grierson and M. Blackburn, *Medieval European Coinage: Volume 1, The Early Middle Ages (5th to 10th Centuries)* (Cambridge, 1986), at p. 157.

[29] Grierson, 'Purpose', p. 15; *The Laws of Æthelberht*, cl. 24, ed. and trans. L. Oliver, *The Beginnings of English Law* (Toronto, 2002), p. 53. On the problematic link with the *wergild*, see Clarke-Neish, '(Re-)making', pp. 128–9.

that women's agency extended only to coins-as-jewellery and not coins in their unmodified form.

It is becoming increasingly clear, however, that gold coins did function as money during the seventh century.[30] The extant single finds represent just a tiny fraction of the original number of coins in circulation.[31] There is also important evidence suggestive of monetary exchange at sites including (but not limited to) the proto-urban emporia, coastal markets, rural settlements and administrative centres.[32] Modified coins no longer represent as significant a proportion of the overall corpus as they once did. Gareth Williams's 2010 corpus of 306 imported gold *solidi* and *tremisses* listed 62 (20 per cent) that showed evidence of secondary use as pendants.[33] Of the complete corpus of 1105 gold coins (of all types) known to the authors at the time of writing, modified examples (135) comprise just 12 per cent. Given the significant new evidence available, which has led to a dramatic reassessment of the scale and nature of the seventh-century coin economy, our comprehensive re-examination of coin-pendants is essential: other than some important, but brief, remarks within recent catalogues and syntheses, there is no detailed analysis of modified coins which takes into account these developments.[34]

The transformation of coins into jewellery is not inconsistent with the existence of an advanced coin-based economy, as demonstrated by numerous parallels from other historical contexts, including the Roman Empire and the Crusader states.[35] Even in England, two hundred years after the gold coins discussed here, silver coins of the ninth century onwards continued to be transformed into nummular brooches and related coin-jewellery.[36] Nevertheless, the sixth- and seventh-century

[30] D.M. Metcalf, 'Merovingian and Frisian Gold in England: Was There a Money Economy in the Sixth and Seventh Centuries?', in T. Abramson (ed.), *Studies in Early Medieval Coinage 3: Sifting the Evidence* (London, 2014), pp. 47–67; Williams, 'Circulation and Function'.

[31] D.M. Metcalf, '*Thrymsas* and *Sceattas* and the Balance of Payments', in R. Naismith *et al.* (eds), *Early Medieval Monetary History* (Farnham, 2014), pp. 243–56.

[32] E.g. C. Scull *et al.*, 'Social and Economic Complexity in Early Medieval England: A Central Place Complex of the East Anglian Kingdom at Rendlesham, Suffolk', *Antiquity* 90 (2016), pp. 1594–612; D.M. Metcalf, 'Tremisses and Sceattas from the South Lincolnshire Productive Site', *British Numismatic Journal* 86 (2016), pp. 96–117; C. Loveluck and D. Tys, 'Coastal Societies, Exchange and Identity along the Channel and Southern North Sea Shores of Europe, AD 600–1000', *Journal of Maritime Archaeology* 1 (2006), pp. 140–69.

[33] Williams, 'Anglo-Saxon Gold Coinage'.

[34] Williams, 'Circulation and Function', pp. 162–4; Naismith, *MEC8*, p. 35.

[35] J.-A. Bruhn, *Coins and Costume in Late Antiquity* (Washington, DC, 1993); R. Weetch, '"Ineffable Power": Pierced Coins and Belief in the Latin East', *Material Religion* 14 (2018), pp. 469–84.

[36] K. Leahy, 'Anglo-Saxon Coin Brooches', in Cook and Williams (eds), *Coinage and History in the North Sea World*, pp. 267–85; R. Kelleher, 'The Re-use of Coins in Medieval England and Wales c. 1050–1550: An Introductory Survey', *The Yorkshire Numismatist* 4 (2012), pp. 183–200.

modified gold coins continue to be treated as somehow incompatible with a coin-using economy. For example, Scull and Naylor cite the presence of looped and pierced pale gold *thrymsas* in their sample of coins from furnished graves as a key part of their argument that a true coin-based economy only emerged with the transition to silver coinage in the final decades of the seventh century.[37] This argument is problematic not only in the assumptions it makes about the implications of coin-modification as a practice, but also that it overlooks evidence for the continued transformation of the primary phase *sceattas* (series A, B and C) into pendants.[38] Modified coins in themselves cannot and should not be used as evidence for the nature and scale of the early medieval coin-using economy. They can, however, shed valuable light on people's active engagement with coins when contextualized against the evidence of single finds.

In setting the sixth- and seventh-century gold coin-pendants against the background of the contemporary mixed economy, in which coins of various origins circulated, a particularly useful parallel is the treatment of modified silver coinage in Viking Age Scandinavia. These Viking Age coins have recently been the subject of detailed examination by Florent Audy.[39] Studies of coin-pendants from other historical and geographic contexts frequently blend numismatic and archaeological approaches, and draw on the concept of object biographies to acknowledge the full life-cycle of coin-pendants first as coins and subsequently as jewellery.[40] Here we adopt a similar approach in order to fully contextualize coin-jewellery against the background of wider coin production, use and circulation.

Archaeological and art historical scholarship which does address early medieval English modified coins has frequently considered them primarily in relation to their potential for offering a *terminus post quem* for furnished burials.[41] Without careful consideration of their specific numismatic context, there is also a tendency for sixth- and seventh-century gold coin-pendants to be problematically conflated with other types of material culture, with the result that interpretations of the latter can colour the former. Within archaeological discussion, gold coin-pendants are sometimes subsumed into the same category of

[37] C. Scull and J. Naylor, 'Sceattas in Anglo-Saxon Graves', *Medieval Archaeology* 60 (2016), pp. 205–41.
[38] The Portable Antiquities Scheme (PAS) has recorded numerous pierced silver *sceattas* of types A, B and C, e.g. NMS-A6853C, KENT-72A8F7 and PUBLIC-594DB1.
[39] F. Audy, 'Suspended Value: Using Coins as Pendants in Viking-Age Scandinavia', Ph.D. thesis, Stockholm University (2018).
[40] I. Kopytoff, 'The Cultural Biography of Things', in A. Appadurai (ed.), *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge, 1986), pp. 64–92.
[41] E.g. Archibald, 'Numismatics'.

modified coins as pierced Roman copper-alloy issues, which are much more common in fifth- and sixth-century graves than in those of the seventh.[42] These antique coins have a specific context of recovery, probably via the deliberate scavenging of Roman sites.[43] In conflating the pierced Roman coins with the modified sixth- and seventh-century gold issues there is a risk of the various interpretations that have been put forward for the former – that they were scrap, amulets or keepsakes – being extended to the latter.[44] Equally, gold coin-pendants have sometimes been considered as analogous to other forms of gold pendant-jewellery, especially bracteates, although again there are significant differences, particularly since bracteates belong chiefly to an earlier fifth- and sixth-century context.[45] Although the iconography of bracteates draws ultimately from late Roman gold coins, in England they belong to a wider suite of material culture of Scandinavian derivation and some may indeed be imports.[46] Crucially, however, all bracteates were produced as pendants. The same is emphatically not the case for the modified seventh-century gold coins, which had circulated as coins through direct and redistributive networks of exchange, even if only for a short time, prior to their modification.[47]

The dataset

We have identified 135 modified early medieval gold coins belonging to the later sixth and seventh centuries (Appendix below). Only those coins modified to function as pendants – that is, either looped, pierced at one edge or set into a pendant frame – are considered here; generally coins modified for other purposes are extremely rare.[48] Data was

[42] A. Gannon, *The Iconography of Early Anglo-Saxon Coinage: Sixth to Eighth Centuries* (Oxford, 2003), p. 8; H. Geake, *The Use of Grave-Goods in Conversion Period England, c. 600–c. 850* (Oxford, 1997), pp. 32, 37–9.

[43] R.H. White, *Roman and Celtic Objects from Anglo-Saxon Graves* (Oxford, 1988), pp. 62–101; H. Eckhardt and H. Williams, 'Objects Without a Past? The Use of Roman Objects in Early Anglo-Saxon Graves', in H. Williams (ed.), *Objects Without a Past?* (Boston, 2003), pp. 141–70.

[44] A.L. Meaney, *Anglo-Saxon Amulets and Curing Stones* (Oxford, 1981), pp. 213–21.

[45] Bracteates also describes a small group of early seventh-century stamped gold pendants decorated with Style II zoomorphic interlace, an example of which was found in the West Norfolk hoard. M. Gaimster, 'Image and Power in the Early Saxon Period', in H. Hamerow *et al.* (eds), *The Oxford Handbook of Anglo-Saxon Archaeology* (Oxford, 2011), pp. 865–91; C. Behr, 'New Bracteate Finds from Early Anglo-Saxon England', *Medieval Archaeology* 54 (2010), pp. 34–88, at pp. 38–9; G. Speake, *Anglo-Saxon Animal Art and Its Germanic Background* (Oxford, 1980), pp. 67–72; A. Marsden, 'Recent Archaeology', *Norfolk Archaeology* 48 (2020), pp. 394–422.

[46] J. Hines, *The Scandinavian Character of Anglian England in the Pre-Viking Period* (Oxford, 1984), pp. 199–220.

[47] D.M. Metcalf, 'Monetary Circulation in Merovingian Gaul, 561–674', *Revue Numismatique* 162 (2006), pp. 337–93.

[48] E.g. S. West, *A Corpus of Anglo-Saxon Material from Suffolk* (Ipswich, 1998), p. 4.

Table 1 The breakdown of coin-pendants by coin type and method of modification

Coin type	Mounted	Looped	Pierced	Formerly looped/mounted	Total
Imperial and pseudo-imperial	**9**	**31**	**6**	**7**	**53**
Solidus	3	5	1		9
Tremissis		2		3	5
Solidus (imitative)	6	12	1	3	22
Tremissis (imitative)		12	4	1	17
Merovingian issues	**7**	**31**	**15**	**4**	**57**
Solidus	1	11	2	1	15
Tremissis	6	20	13	3	42
Early English	**1**	**8**	**14**	**2**	**25**
Solidus	1	2		2	5
Thrymsa		6	14		20
	17	70	35	13	**135**

collected from published catalogues of early medieval coins, primarily those published by C.H.V. Sutherland (1948), Rigold (1975), Richard Abdy and Gareth Williams (2006), and Williams (2010), supplemented by Roger Bland and Xavier Loriot's 2010 catalogue of imperial and pseudo-imperial gold coins and Christopher Scull and John Naylor's list of pre-Primary *thrymsas*.[49] The Portable Antiquities Scheme (PAS) and Corpus of Early Medieval Coin Finds (EMC) databases also provided numerous additional records. Imperial and pseudo-Imperial coins from the reign of Anastasius (491–518) onwards are included in the corpus, following the cut-off point used by Bland and Loriot.[50]

In total, there are fourteen imperial coin-pendants and thirty-nine pseudo-imperial coin-pendants including Ostrogothic, Visigothic, Gallic and Merovingian imitations (Table 1). The largest group of the catalogued coin-pendants are Merovingian issues, with fifteen *solidi* and forty-two *tremisses*. All but two of the Merovingian *solidi* were issued under royal authority.[51] A range of minting places from across Merovingian Gaul is represented amongst the coin-pendants (Appendix), which mirrors the range of mints represented in the corpus

[49] C.H.V. Sutherland, *Anglo-Saxon Coinage in the Light of the Crondall Hoard* (Oxford, 1948); Rigold, 'Sutton Hoo Coins'; R. Abdy and G. Williams, 'A Catalogue of Hoards and Single Finds from the British Isles c. AD 410–675', in Cook and Williams (eds), *Coinage and History in the North Sea World*, pp. 11–73; Williams, 'Anglo-Saxon Gold Coinage'; Bland and Loriot, *Roman and Early Byzantine Gold Coins*; Scull and Naylor, 'Sceattas'.

[50] Bland and Loriot, *Roman and Early Byzantine Gold Coins*, p. 85.

[51] Cf. Clarke-Neish, '(Re-)making', p. 160.

of non-modified Merovingian coin finds.[52] Finally, there are five early English *solidi* and twenty *thrymsas*. The latest modified gold coins are the extremely debased pale gold *thrymsas*, also known as pre-Primary phase *sceattas*. Only coins from certain or probable English findspots are included in the corpus, although the practice of transforming gold coins into pendants is well attested across the wider North Sea littoral.[53] The spectacular seventh-century gold hoard from Wieuwerd in the Netherlands, for example, included twenty-nine coin-pendants.[54]

Of the 135 coin-pendants identified, the bulk of the corpus, ninety-one pendants (67 per cent), is made up of stray or unprovenanced finds. Only a small number derive from secure funerary contexts (twenty-five pendants from seventeen graves: see Table 2). This number does not include fifteen unassociated coin-pendants from known cemetery sites, including the rich but poorly recorded cemetery at Faversham (nos. 14–17, 70–2, 120), as well as the 'hoard' from St Martin's churchyard in Canterbury (nos. 38–9, 94–7, 132). Despite their relatively small number, the grave-finds span the whole period in which gold coin-pendants were in use and include examples of the three major gold coin-types (imperial and pseudo-imperial coins, Merovingian *solidi* and *tremisses*, and early English issues). The earliest graves with modified coins belong to the turn of the seventh century and contained pseudo-imperial *tremisses* of Justinian I (527–65) (no. 8) and Justin I (518–27) (no. 10).[55] The latest burials are a series of graves containing pre-Primary phase *sceattas* (nos. 111–12, 115, 121), which have been discussed by Scull and Naylor, and which are among the latest furnished burials before the apparently rapid abandonment of this practice in the final decades of the seventh century.[56]

The grave finds provide valuable contextual data for understanding how coin-pendants were used. The adult individuals buried with modified coins are all osteologically female. The presence of coin-pendants in the graves of children and adolescents, likely female children, is not at all unusual in a seventh-century context, since by this point social status and familial connections had superseded age in structuring societal norms around female dress.[57] The associated objects in the burials without available osteological data also strongly suggest

[52] Metcalf, 'Monetary Circulation'; Clarke-Neish, '(Re-)making', pp. 155–61.
[53] E.g. F. Codine-Trécourt, 'Les monnaies mérovingiennes modifies à des fins non monétaires', *Revue Numismatique* 171 (2014), pp. 497–547.
[54] J.A.W. Nicolay, *The Splendour of Power: Early Medieval Kingship and the Use of Gold and Silver in the Southern North Sea Area (5th to 7th Century AD)* (Eelde, 2014), pp. 71–2, 85–6.
[55] Archibald, 'Numismatics', pp. 500–1.
[56] Scull and Naylor, 'Sceattas'.
[57] K.D. Haworth, '"Most Precious Ornaments": Necklaces in Seventh-Century England', Ph.D. thesis, Durham University (2021), pp. 196–7.

Table 2 Gold coin-pendants from secure funerary contexts

Grave	No. of coin-pendants	Coin	Osteological info	Associated objects
Bloodmoor Hill (Suff.), barrow	1	Mounted and looped *tremissis* of Justinian (no. 6)	-	Onyx pendant
Buckland Dover (Kent), grave 29	1	Looped plated imitation *tremissis* of Justinian (no. 8)	Female, 20–30	Gold Style II bracteate, gold cabochon pendant, 3 silver lunate pendants, silver wire rings, 95 amber and glass beads
Buckland Dover, grave 232	1	Looped *tremissis* of Justin I (no. 10)	-	24 glass beads
Gilton (Kent), grave 41	1	Pierced pseudo-imperial *tremissis* of Justinian (no. 18)	-	None
Saltwood (Kent), grave C6421	1	Looped *solidus* of Maurice Tiberius (no. 31)	Adolescent, >13 years	Gold cabochon pendant, silver cabochon pendant
Sarre (Kent), barrow A	4	Looped *solidus* of Maurice Tiberius (no. 32), looped *solidus* of Heraclius (no. 33), looped *solidus* of Maurice Tiberius (no. 34), looped *solidus* of Chlothar (no. 90)	-	Gold millefiori inlaid pendant, 18 amethyst and glass beads

Table 2. (Continued)

Grave	No. of coin-pendants	Coin	Osteological info	Associated objects
Sarre, grave 286	1	Looped *tremissis* of Justinian (no. 35)	Adult	Silver glass inlaid pendant, 40 amber and glass beads
Boss Hall (Suff.), grave 93	1	Looped *solidus* of Sigebehrt III (no. 62)	-	4 gold composite disc pendants, 2 gold cabochon pendants, 5 silver beads, 8 glass beads
Coddenham (Suff.), grave 30	1	Looped *tremissis* of Dagobert I (no. 65)	Female, mature adult	2 silver scutiform pendants, 1 silver bulla pendant, 6 silver wire rings, 2 copper-alloy wire beads, 23 amethyst, cowrie shell and glass beads
Finglesham (Kent), grave 7	2	Looped *solidus* of Sigeberht II/III (no. 74); looped Pada *thrmysa* (no. 121)	Subadult, 2–5	4 gold wire beads, 2 silver bulla pendants, 3 silver wire rings, 15 glass beads
Sibertswold (Kent), grave 172	2	Looped mint-and-moneyer *tremissis* of Verdun (no. 91); looped mint-and-moneyer *tremissis* of Marsal (no. 92)	-	Gold composite disc pendant, gold millefiori inlaid pendant, 2 gold reticella inlaid pendants, gold intaglio cabochon pendant, garnet cabochon pendant, 2 gold amethyst cabochon pendants, 29 amethyst, jet and glass beads

Table 2. (Continued)

Grave	No. of coin-pendants	Coin	Osteological info	Associated objects
St Peter's Tip, Broadstairs (Kent), grave 134	1	Looped *solidus* of Sigeberht III (no. 98)	Subadult, 7–15	3 glass beads
Updown, Eastry (Kent), grave 36	1	Looped mint-and-moneyer *tremissis* of Chalon-sur-Saone (no. 99)	-	None
Winfarthing (Norf.)	2	Looped *solidus* of Sigeberht III (no. 101); looped *solidus* of Sigeberht III (no. 102)	Young adult, female	Gold-and-garnet composite disc pendant, gold scutiform pendant, 2 gold wire beads
Buckland Dover, grave 110	2	Rivetted looped Pada *thrymsa* (no. 111); rivetted looped Pada *thrymsa* (no. 112)	Female, 20–30	Silver wire ring, 13 monochrome glass beads
Butler's Field, Lechlade (Glos.), grave 179	1	Pierced Vanimundus *thrymsa*, forged (no. 113)	Female, 35–40	Gold composite disc pendant, 5 silver wire rings, 1 glass bead
Buttermarket, Ipswich (Suff.), grave 4275	2	Looped Constantine *thyrmsa* (no. 114); looped Pada *thrymsa* (no. 115)	Adult, female	14 silver bulla pendants, 2 silver wire rings, 1 glass bead

that these are female graves. Many coin-pendants formed part of necklaces, alongside other precious metal pendants and beads.[58] Although the stray finds of coin-pendants lack contextual information, their original use as jewellery in an exclusively feminine context, as suggested by the grave-finds, likely applies to the corpus as a whole.

Modification technology

There were three techniques by which a coin might be modified to serve as a pendant.[59] By far the most common was the addition of a suspension loop (Figs 1.1, 1.2). Of the 135 coin-pendants in the current corpus, 87 were looped. Of these looped coins, seventeen feature additional applied elements forming a pendant frame around the edge of the coin, comprised of either beaded wire or cloisonné garnet cellwork (Figs 1.3, 1.4). These coins are classified here as mounted. Thirty-five of the coins are pierced (Figs 1.5, 1.6). As a modification technique, piercing appears to have become more common as the seventh century progressed: just over half of the modified early English gold coins are pierced, compared to only 11 per cent of the imperial and pseudo-imperial coins and 26 per cent of Merovingian coins.

Implicit in the different methods of modification are varying levels of both technical skill and material investment involved in the making of these objects. While piercing a coin might require little else than a simple punch or awl, the soldering (or in rare cases riveting) of suspension loops and pendant frames to coins falls within the remit of specialist non-ferrous metalworkers.[60] Such individuals likely produced other types of gold jewellery, and indeed, the reeded shape of many coin-pendant loops connects these objects to other seventh-century pendant-types.[61] It is possible that the same craftworkers engaged in jewellery production were also involved in the minting of coins; the seventh-century *Vita Sancti Eligii* hints at the involvement of the skilled goldsmith Eligius (later bishop of Noyon) in the production of coinage in Merovingian Gaul, and a number of *tremisses* minted in Marseilles, Arles and Paris were struck under this name.[62]

[58] Haworth, 'Most Precious Ornaments'.

[59] On the technologies of coin-modification, see M. Blackburn, 'The Loops as a Guide to How and When the Coins Were Acquired', in S.H. Fuglesang and D.M. Wilson (eds), *The Hoen Hoard: A Viking Gold Treasure of the Ninth Century* (Rome, 2006), pp. 181–99.

[60] E. Coatsworth and M. Pinder, *The Art of the Anglo-Saxon Goldsmith* (Woodbridge, 2002).

[61] M. Pinder, 'An Aspect of Seventh-Century Anglo-Saxon Goldsmithing', in M. Redknap *et al.* (eds), *Pattern and Purpose in Insular Art* (Oxford, 2001), pp. 133–7.

[62] Dado of Rouen, *Vita Sancti Eligii*, I.3, I.15, trans. J. McNamara, in T.F. Head (ed.), *Medieval Hagiography: An Anthology* (New York, 2000), pp. 137–68; M. Heinzelmann, 'Eligius monetarius: Norm oder Sonderfall?', in J. Jarnut and J. Strothmann (eds), *Die*

Fig. 1 Early medieval gold coin-pendants; 1) Ashford (no. 57); 2) Billericay (no. 5); 3) Hoath (no. 19); 4) near Bishop Auckland (no. 61); 5) Marlow (no. 21); 6) Castle Hedingham (no. 116); 7) Old Buckenham (no. 26); 8) Hoo (no. 122). Images sourced from the Portable Antiquities Scheme and reproduced under Creative Commons licences (2.0 and 4.0). Note that images 1.2, 1.4, 1.5 and 1.6 have been rotated to show the orientation of the pendant as worn. Scale 1:1 [Colour figure can be viewed at wileyonlinelibrary.com]

Evidence for the deliberate clipping of modified coins as a source of metal for making a suspension loop is very rare, so in the majority of cases additional gold from an alternative source must have been used.[63]

Merowingischen Monetarmünzen als Quelle zum Verständnis des 7. Jahrhunderts in Gallien (Paderborn, 2013), pp. 243–91; J. Lafaurie, 'Eligius Monetarius', *Revue Numismatique* 19 (1977), pp. 111–51.

[63] A rare exception appears to be a Lombardic *tremissis* of Maurice Tiberius (no. 13).

Compositional analysis has also demonstrated the use of multiple gold sources in the production of coin-pendants, primarily in the form of coins furnished with loops of a lower gold content, including three of the coin-pendants from the St Martin's, Canterbury hoard (nos. 94–6) and the two looped coins from grave 172 at Sibertswold (nos. 91–2).[64] In a smaller number of cases, the gold content of the loop exceeds that of the coin (e.g. no. 126), reflecting the contemporary circulation of gold alloys of variable fineness during the seventh century.[65] Viewed in this light, the higher frequency of piercing among the pale gold early English coins could plausibly be a product of the dwindling gold supplies in the second half of the seventh century, necessitating ways of transforming coins into pendants that did not require additional gold.

Distribution patterns

The distribution of coin-pendants, both stray- and grave-finds, clusters predominantly in southern and eastern parts of England, in Kent and East Anglia (Fig. 2). A smaller number of coin-pendants are found further north, particularly in Humberside, with the most northerly find being a mounted *tremissis* from County Durham (no. 61). To contextualize the distribution of coin-pendants fully, however, it is important to compare the distribution of non-modified gold coins, as a proxy for the circulation of coinage more generally. While stray-finds might be subject to retrieval biases, such as the areas in which detectorists are able to freely search and the relationships between detectorists and recording bodies that facilitate recording of finds, for the purposes of comparison at least, these biases can be expected to affect coin-pendants and non-modified coins to a reasonably similar degree.[66]

The distribution of all gold coin-types (Imperial and pseudo-Imperial *solidi* and *tremisses*, Merovingian issues, and the early English *solidi* and gold and pale gold *thrymsas*) appears to have been broadly comparable. Southern and eastern Britain saw the most intense usage and loss of coins, reflecting broader cross-Channel and North Sea connectivity during the period.[67] Further north, areas of Lincolnshire and Humberside have also produced numerous non-modified single finds, a

[64] S.C. Hawkes *et al.*, 'X-Ray Fluorescent Analysis of Some Dark Age Coins and Jewellery', *Archaeometry* 9 (1966), pp. 98–138, at pp. 101–16.
[65] C.S.S. Lyon, 'A Seventh-Century Anglo-Saxon Solidus Coin Pendant of the Cross-on-Steps Type Found in Kent', in Naismith *et al.* (eds), *Early Medieval Monetary History*, pp. 399–408.
[66] K.J. Robbins, 'Balancing the Scales: Exploring the Variable Effects of Collection Bias on Data Collected by the Portable Antiquities Scheme', *Landscapes* 14 (2014), pp. 54–72.
[67] Clarke-Neish, '(Re-)making'.

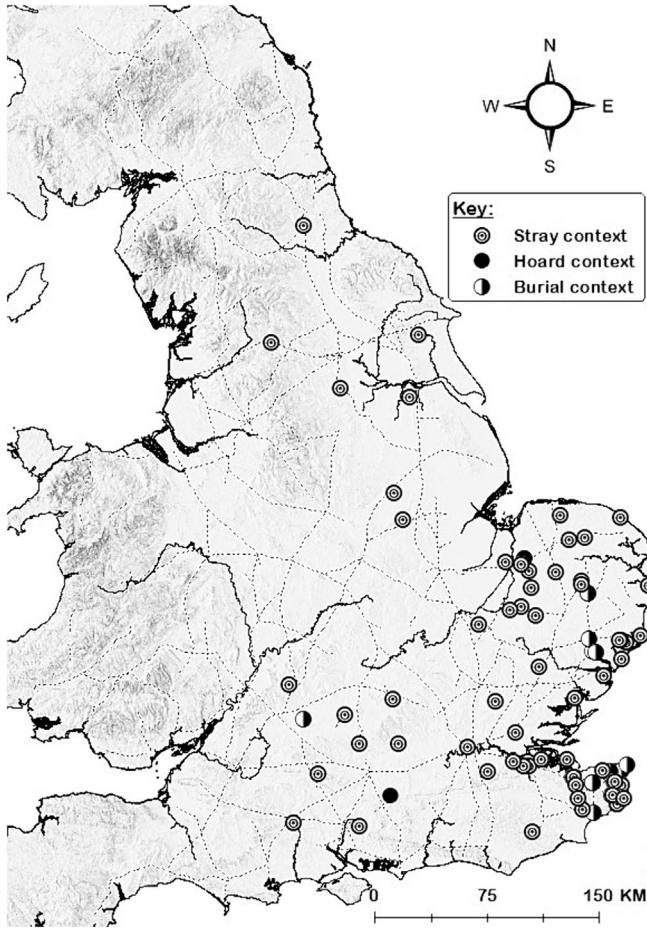

Fig. 2 The distribution of all later sixth- and seventh-century gold coin-pendants, including stray finds, grave-goods and hoards

reflection of the important economic and trading connections centred on the Humber estuary.[68] The distribution maps provide an illustration of the broad chronological developments across the seventh century, since the imperial and pseudo-imperial *solidi* and *tremisses* do not appear to have penetrated inland in the way that Merovingian or early English coins did, especially into the upper Thames valley. Instead, the distribution of these coins is strongly coastal and riverine, and the

[68] J. Naylor, 'The Circulation of Early Medieval European Coinage: A Case Study from Yorkshire, c. 650–c. 867', *Medieval Archaeology* 51 (2007), pp. 41–61; C. Loveluck, *Northwest Europe in the Early Middle Ages: A Comparative Archaeology c. 600–1150* (Cambridge, 2013), pp. 178–212.

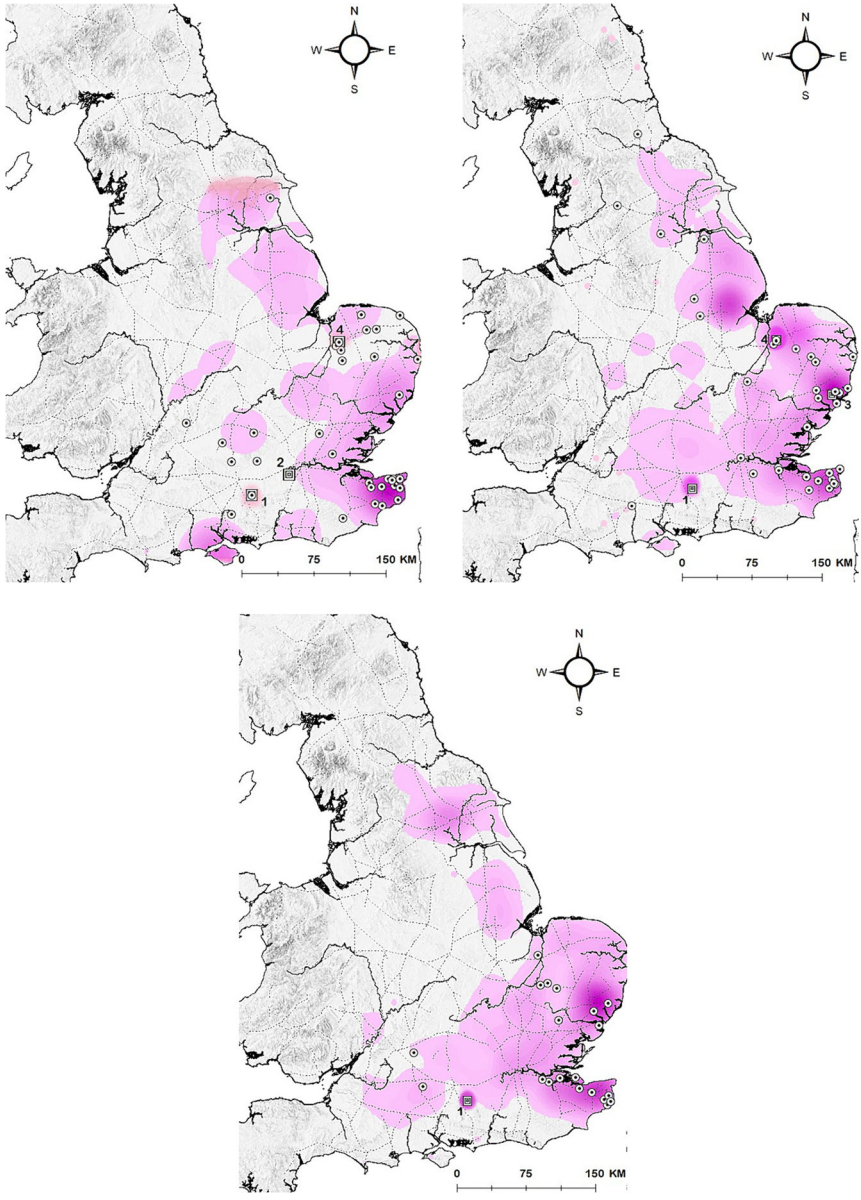

Fig. 3 The distribution of coin-pendants of the three main types, imperial and pseudo-imperial (top left), Merovingian (top right) and early English (bottom), mapped against the underlying intensity of coin use revealed by stray finds of non-modified coins. Square symbols mark the major coin-hoards of the period: 1) Crondall; 2) Kingston; 3) Sutton Hoo; and 4) West Norfolk. Data underpinning the kernel density analysis can be found in the Supplementary Material [Colour figure can be viewed at wileyonlinelibrary.com]

Solent and Isle of Wight appear to have been areas of particularly intense early coin circulation.[69]

The distribution patterns of non-modified stray finds provide valuable context in understanding the distribution patterns of coin-pendants, and their similarity suggests that modified coins were being utilized as coin-pendants in precisely the same regions where coin loss (and therefore presumably also circulation) was most intense. Particularly in the case of the Merovingian gold coins and the earliest English coins, very few of the findspots of modified coins fall outside the coin-using regions revealed by kernel density analysis (Fig. 3). In one sense, this is, of course, unsurprising: the production of coin jewellery presupposes the availability of coinage to be transformed. What is important, however, is that coin-pendants do not seem to have formed an element of female jewellery outside the areas where coins were at least reasonably common. In other words, coin-pendants appear to have been worn by women within communities who were most likely to be familiar with coins in their unmodified form.

Orientation and iconography

Despite the diminutive size of many early gold coins, they are iconographically dense objects.[70] While almost all of the coins catalogued here follow the established Roman tradition of the bust on the obverse of the coins, their reverse features varying designs, including figures, crosses and monograms. The iconography and associated symbolism of coins would have been appreciated by the seventh-century wearers of modified coin-jewellery. The dense and complex Style II animal interlace that decorated a good deal of contemporary high-status metalwork attests to the ability of the seventh-century consumers to appreciate, and also to 'read', fine detail on material culture.[71] The ways in which coins were modified and how the modification interacted with the iconography can (and indeed should) be understood as a deliberate decision-making process, on the part of the maker of the pendant and perhaps also on the part of the wearers of this jewellery, who may have commissioned its modification and perhaps also aspects of design.[72] This thus provides a tangible and

[69] K. Ulmschneider, 'Markets around the Solent: Unravelling a "Productive" Site on the Isle of Wight', in K. Ulmschneider and T. Pestell (eds), *Markets in Early Medieval Europe: Trading and 'Productive' Sites, 650–850* (Cheshire, 2003), pp. 73–83.

[70] Gannon, *Iconography*.

[71] E.g. C. Fern, 'Styles of Display and Revelation', in C. Fern *et al.* (eds), *The Staffordshire Hoard: An Anglo-Saxon Treasure* (London, 2019), pp. 208–55.

[72] Haworth, 'Most Precious Ornaments', pp. 94–5.

hugely valuable insight into the ways early medieval people used and understood coins which came into their possession as part of monetary circulation.

The transformation of coins into jewellery appears to have prioritized the physical integrity of the coin itself as much as possible.[73] Suspension loops and pendant frames only rarely markedly obscure the iconography of either the obverse or reverse of the coins. Perforations also seem to have been deliberately positioned so as to minimize disturbance to the coins' design. The craftworker who made two perforations in a pseudo-imperial *tremissis* found at Worth in Kent (no. 45) took care to locate them either side of the head of the Victory striding across the reverse of the coin. Similarly, on a Merovingian or Frisian *tremissis* found near Marlow (Bucks.) the perforation passes neatly through the upper half of the 'B' that begins the legend on the reverse (Fig. 1.5).

Surprisingly, there has been no systematic study of the orientation of coin-pendants in relation to their iconography. Instead, conclusions drawn from single better-known case studies are applied to the wider corpus of coin-pendants: the Wilton Cross (no. 44), with its obviously Christian iconography, has received particular attention in this regard.[74] The Wilton Cross consists of a *solidus* of Heraclius (minted 613–32) set within a garnet cloisonné cruciform pendant mount.[75] While it has much in common with other seventh-century gold-and-garnet cruciform pendants, the Wilton Cross is distinguished by its central coin-setting.[76] The pendant frame clearly indicates which face of the coin was visible when worn, in this case the reverse with its cross-on-steps. The frame is open on the underside, so as not to permanently obscure the facing imperial busts. In an early discussion of the Wilton Cross, Kendrick saw the upside-down coin as having been 'unintelligently' incorporated into an existing pendant frame, as a repair, presumably by a metalworker unfamiliar with coinage and its iconography.[77] However, more recent reassessment, in particular by Marion Archibald, has argued that the orientation of the coin is deliberate, to facilitate viewing from the wearer's point of view, and that the shape of the frame is a subtle visual echo of the cross-on-steps motif of the reverse.[78] Clearly, therefore, the

[73] Cf. Bruhn, *Coins and Costume*, p. 4.
[74] C.E. Karkov, *The Art of Anglo-Saxon England* (Woodbridge, 2011), pp. 26–9; Gannon, *Iconography*, p. 9.
[75] A. Care Evans, 'The Wilton Cross', in L. Webster and J. Backhouse, *The Making of England: Anglo-Saxon Art and Culture AD 600–900* (London, 1991), pp. 27–8.
[76] S. Lucy, 'The Trumpington Cross in Context', *Anglo-Saxon England* 45 (2016), pp. 7–37.
[77] T.D. Kendrick, 'St Cuthbert's Pectoral Cross, and the Wilton and Ixworth Crosses', *The Antiquaries Journal* 17 (1936), pp. 283–93, at p. 290.
[78] M. Archibald, 'The Wilton Cross Coin Pendant: Numismatic Aspects and Implications', in A. Reynolds and L. Webster (eds), *Early Medieval Art and Archaeology in the Northern World*

orientation of the coin was intentional and the iconography of its reverse was both understood and valued by whoever commissioned and later wore the pendant. Although the Wilton Cross demonstrates the potential for examination of coin-pendants in terms of their manufacturing technology to understand how they were worn and viewed, this is an exceptional object, and should not be used as a proxy for the corpus as a whole.

Close examination of the corpus of coin-pendants either first hand, using photographs or – in a small number of cases – drawings has allowed the approach that has proved so profitable in the case of the Wilton Cross to be applied more broadly. Of the total corpus of 135 coin-pendants, it is possible to draw conclusions about which face of the coin, obverse or reverse, was likely intended to be displayed as the 'front' of the pendant in the majority of cases (107; 79 per cent). There are four coin-pendants, which, like the Wilton Cross, have been furnished with a mount, including garnet or beaded-wire pendant frames (nos. 4 and 110), indicating which face of the coin was displayed when worn, or, unusually, elements applied to the face of the coin itself, such as a cabochon garnet (no. 14) or gold granules (see Fig. 1.3). In each of these cases, it is the obverse of the coin, showing either a bust in profile or facing bust, that is displayed.

Another important physical indicator of the 'front', or display side, of a coin-pendant is the projection of the suspension loop onto one face of the coin.[79] While many suspension loops were soldered to the very edges of coins, in twenty cases the loop encroaches noticeably onto one face of the coin.[80] While this was primarily done for practical reasons, to affix the loop more firmly to the coin, it also provides a valuable indicator that the opposite side was considered the front. For example, the projection of the undecorated loop onto the obverse of a *tremissis* minted at Metz and discovered at Ashford (Kent) indicates that the reverse, a cross-in-wreath, was visible when worn (Fig. 1.1). Of these twenty coin-pendants, the obverse seems to have been intended for display in thirteen cases and the reverse in seven cases. A similar argument can also be made for a looped *solidus* of Justinian I found at Old Buckenham, which displays extremely heavy wear to one side of the suspension loop, almost certainly the result of repeated use (Fig. 1.7). This identifies the reverse, with its Victory and long cross, as the front of the pendant.

(Leiden, 2013), pp. 51–72, at p. 61; Care Evans, 'Wilton Cross'.

79 Cf. Codine-Trécourt, 'Monnaies', p. 500.

80 Blackburn's type II loops; Blackburn, 'Loops as a Guide', p. 184.

The remaining eighty-one coin-pendants show no physical evidence that conclusively indicates which side of the coin was considered the front of the pendant, but these coins can nonetheless be examined on the basis of their orientation when worn. Coin production involves hammering the flan between two dies, and the die-axis results from the position of the two dies relative to one another as the coin was struck.[81] A die-axis of 0 degrees describes a coin in which the obverse and reverse have exactly the same vertical orientation, while a coin with a die-axis of 180 degrees has the reverse upside-down in relation to the obverse when the coin is flipped. The die-axis of early medieval gold coins is not systematically recorded, but there are indications that many moneyers at least attempted to maintain a regular orientation of either 0 or 180 degrees. Of the twenty-four Merovingian gold issues in the Crondall Hoard, for example, Sutherland recorded a die-axis of either 0 or 180 degrees for sixteen of the coins.[82] Of the sixty early English coins in the hoard, exactly half have these regular die-axes, which perhaps suggests that there was less careful control over the minting process.[83]

Twenty-three coins in our dataset lack a regular die-axis of either 0 or 180 degrees, and in these cases it is possible to determine which side of the coin was the front of the pendant based on which face is aligned with the loop in an aesthetically coherent manner. In the case of a 'Two-Emperors' type *thrymsa* found at Castle Hedingham, for example, the perforation is located at 12 o'clock on the reverse, and 10 o'clock on the obverse, suggesting the former with its stylized Victory enfolding the heads of two smaller busts was the front of the pendant (Fig. 1.6). Of the modified coins with an irregular die-axis, the obverse showing the bust seems to have been the front of the pendant in eight cases, and the reverse (bearing a range of Victory, various cross-types, Trophy and Two Emperors iconography) in fifteen. There are also four coin-pendants with an irregular die-axis that we have classified as ambiguous because the iconography of their reverse, either a cross or runic letters in a wreath, lacks an obvious vertical alignment.

There are forty-three coin-pendants that we label ambiguous in terms of which side of the coin was considered the front of the pendant. Nine have a die-axis of 0 degrees, meaning the suspension loop or perforation is aligned vertically with the iconography of both the obverse and reverse. For example, in the case of a looped solidus found at Hoo (Kent) the loop

[81] Gannon, *Iconography*, p. 14.
[82] Sutherland, *Crondall Hoard*.
[83] Sutherland, *Crondall Hoard*.

is attached at the 12 o'clock position relative to both the obverse, showing a bust in profile, and the reverse with a cross-on-steps design (Fig. 1.8). A die-axis of 180 degrees is more common, present in thirty-four cases (Figs 1.2, 1.3). While all but four of this latter group have the suspension loop or perforation placed correctly in relation to the iconography of the obverse, therefore showing the bust, the Wilton Cross serves as a reminder that the most important viewpoint might sometimes have been that of the wearer. It is worth noting that for many of the coin-pendants with a regular die-axis of either 0 or 180 degrees, it would be quite possible for the wearer to alternate which face, and therefore which iconography, to display. Without more comparative data regarding minting practices more generally, it is not possible to say whether there was a preferential selection of coins with a regular die-axis for transformation into pendants.

Finally, there are eleven coin-pendants for which there is no obvious visual relationship between the position of the loop or perforation and the iconography of the coin. One example is the blundered Merovingian or Frisian *solidus* found near Marlow already mentioned (Fig. 1.5); although care was taken in locating the perforation, its position means that neither face of the coin is orientated correctly when worn. A *tremissis* found near Bishop Auckland (Co. Durham) with a die-axis of 180 degrees features a loop positioned at 9 o'clock relative to the obverse and 3 o'clock on the reverse, meaning that when worn, either face would have appeared horizontal to both wearer and onlooker (Fig. 1.4).

The absence of any consistency in the way in which coins were modified and displayed as jewellery provides a valuable insight into why they were transformed. In the case of the two looped coins from grave 4275 at Buttermarket, Ipswich, the obverse of the 'Constantine' type *thrymsa* (no. 114) and the reverse of the Pada *thrymsa* (no. 115) appear to have been displayed, based on the projection of the suspension loops onto the opposite sides, suggesting that such variability could exist within a single necklace. Across the corpus as a whole, there is no consistency in the patterning of which face of the coin was intended for display. There are twenty-five coin-pendants in which the obverse seems to have been considered the front of the pendant, twenty-four which display the reverse, forty-seven potentially ambiguous cases, and eleven for which there is no relationship between the orientation of the perforation and the iconography. This does not appear to vary significantly according to coin type (Fig. 4). This is not to say that people were entirely uninterested in the iconography of the coins; quite clearly care was taken to preserve and respect this in most cases, even if not in all. What this variability indicates is that the

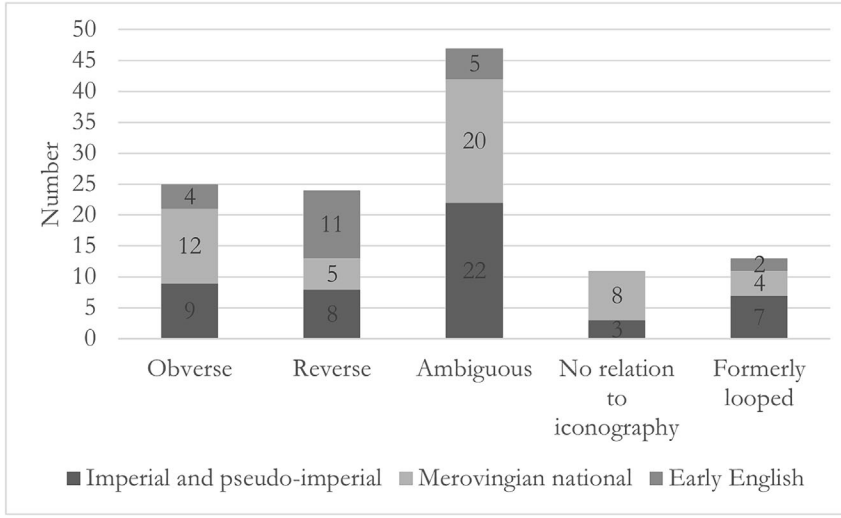

Fig. 4 Summary of the patterning regarding which side of the coin served as the front of the pendant, broken down according to coin type

inherent symbolism attached to the iconography of the obverse and reverse of the coins was not the only, or perhaps even the primary, reason that these objects were modified and worn. Instead, this variability suggests that coins were valued *as coins*, and that this was the main motivation for their modification; this appears to be confirmed by the parallels in the geographical distribution of coin-pendants with the areas of intense coin use and coin loss previously noted.

From coins to pendants and back again

The blurring of the categories of coins and pendants can be observed in the treatment of a small group of coins which appear to have been formerly looped or mounted: in thirteen cases the transformation of a coin into a pendant can be shown to have been intentionally reversed. A number of features identify coins as formerly looped or mounted. Removal of suspension loops results in areas of damage to both faces of the coin at the very edge, as is seen on a mint-and-moneyer *tremissis* found at Louth (Lincs.; no. 77), or the retention of a stump of the loop on one or both faces (e.g. nos. 29, 30, 42 and 135). Other coins show a distortion of the edges and a smaller-than-usual diameter (e.g. no. 48), suggesting that they have been prised or clipped from a mount. Similar distortion of the *solidus* of Heraclius and Heraclius Constantine at the centre of the Wilton Cross (no. 44) has been noted

and this, coupled with the comparatively heavy wear to the coin (relative to the loop or pendant frame), indicates that it too had re-entered circulation as a coin for a time prior to the addition of the current cruciform mount.[84] Formerly mounted coins can also retain elements of the pendant frame: in the case of a *solidus* of Dagobert I (629–39) found at Merton (Surr.; no. 80) a short section of beaded wire adheres to one edge of the coin.

Where it has been possible to examine the coins in question, it is clear that the loss of material or damage resulting from the removal of loops or mounts affects *only* the areas of the coins that were in direct contact with these elements. Therefore we can be confident that this is indeed intentional removal, rather than post-depositional damage, which would affect the object as a whole (e.g. no. 37). Even the survival of substantial elements of loops or pendant frames does not necessarily rule out intentional reworking, since these could plausibly have been retained to bring the coin into line with contemporary weight standards. Gold granules or fragments of other coins, for example, were occasionally utilized in this way to adjust the weight of contemporary non-modified coins.[85]

The practice of reversing the transformation of coins into pendants is evidenced across coins of all types, including imperial and pseudo-imperial, Merovingian and early English issues, as well as by both antiquarian finds and more recent discoveries. It is also clear that this treatment of modified coins extended around the wider North Sea zone, as no fewer than thirteen formerly looped or mounted gold coins are known from the coastal region of the Netherlands, an area with a similarly intense level of coin use and loss during the seventh century.[86] The intentional removal of loops or mounts from coin-pendants appears to have been more common than has previously been recognized, and this is significant since quite clearly the transformation of coins into pendants did not necessarily remove coins permanently from economic circulation, as some more traditional numismatic views would hold.

Of particular interest is the presence of formerly modified coins in both of the major coin-hoards of the period, from Crondall (no. 12) and West Norfolk (no. 42); the latter also contained two looped coin-pendants.[87] Although a reassessment of coin-hoards as they relate to the seventh-century economy is undoubtedly forthcoming as research on the West Norfolk find continues, for our purposes, the presence of

[84] Archibald, 'Wilton Cross', pp. 58–9.
[85] Clarke-Neish, '(Re-)making', pp. 132–3.
[86] Nicolay, *Splendour*, p. 62.
[87] Grierson, 'Purpose', p. 15; Marsden, 'Recent Archaeology'.

formerly looped coins at both West Norfolk and Crondall provides a further indication that these coins were freely able to re-enter the economy and circulate once more as genuine currency. In other words, a two-way passage between coins to pendants and back again always remained an option.

That coins were not irreversibly demonetized through their transformation for use as jewellery, and instead could and did re-enter circulation, is also consistent with our observations about the way that they were modified. Within the present corpus there is no evidence of destructive modification, in the form of cutting or folding of coins, as is seen in some Viking Age and later medieval coin-jewellery.[88] This, in turn, has implications for understanding coin-pendants more generally, since it suggests that they also served as a store of wealth in coined form that could be returned to circulation if circumstances required. There are ethnographic parallels for coin-jewellery functioning in this way: the coins worn by eighteenth- and nineteenth-century Bedouin women as part of their headdresses were made to be easily removable and reusable as currency when required.[89]

The seventh-century Golden Age

The uses and distribution of gold during the later sixth and seventh centuries more generally also provides valuable context in examining how coin-pendants were conceptualized and perceived. Gold pendants and beads that formed part of the necklaces worn by high-status women represent perhaps the greatest regular investment in gold as material during this period.[90] Imported coins ultimately provided the source of much of the gold used for seventh-century jewellery, as a series of compositional analyses have demonstrated, consistently showing a close and sustained relationship in the gold and silver contents of coins and contemporary material culture.[91] Levels of copper in seventh-century gold jewellery remain consistently low, rarely exceeding 5 per cent, which indicates that the supplies of precious metal for jewellery production remained relatively closely tied to the availability of gold in coined form.[92]

[88] E.g. Audy, 'Suspended Value', p. 45; Kelleher, 'Re-use', p. 188, fig. 4.
[89] Weetch, '"Ineffable Power"', p. 4.
[90] Haworth, 'Most Precious Ornaments', p. 26.
[91] Hawkes *et al.*, 'X-Ray Fluorescent Analysis'; P.D.C. Brown and F. Schweizer, 'X-Ray Fluorescent Analysis of Anglo-Saxon Jewellery', *Archaeometry* 15.2 (1973), pp. 175–92.
[92] E. Blakelock *et al.*, 'Secrets of the Anglo-Saxon Goldsmiths: Analysis of Gold Objects from the Staffordshire Hoard', *Journal of Archaeological Science* 72 (2016), pp. 44–56.

Almost all of the coin-pendants from furnished burials examined here were found alongside other precious-metal jewellery elements; over half contained at least one other gold element (see Table 2). At least as far as the grave-finds are concerned, many of the women who owned and wore coin-pendants could also access and possess gold as a material in jewellery form. Despite the frequency with which coin-pendants appear alongside other types of gold jewellery, however, there are several important factors that distinguish the two, and these observations in turn shed more light on the particular significance of modified coins.

Firstly, there are intriguing differences in the geographical distribution of gold necklace elements, both from excavated graves and stray finds, compared to the distribution of coinage generally. Gold as a material, at least in these feminine contexts, was used across a wider area during the seventh century (Fig. 5). There are areas where gold jewellery is present, represented by several finds, but in which coins are rare, including the West Midlands, the south-west and Teesside. Indeed, there are indications that some women in these areas may have deliberately imitated the fashion for wearing coin-pendants through alternative means. The occupant of grave 21 at Street House (N. Yorks., for example, wore a pair of pierced Iron Age gold *staters* as part of a necklace.[93] While this repurposing of ancient coins fits into a broader context of reuse of antique materials during the seventh century, it is plausible that the reuse of these Iron Age *staters* in particular was an innovative way of echoing the fashion for contemporary coin-pendants, in a region where gold coins appear to have been less readily available.[94] Late Roman gold coins or imitations thereof appear to have fulfilled the same function in other areas outside the zone of intensive coin use in the seventh century. The Forsbrook (Staffs.) pendant, a *solidus* of Valentinian II (375–92) set in a cloisonné garnet frame, and the eight looped mirror-image casts of Theodosian *solidi* that form part of the spectacular necklace recently discovered at Harpole (Northants.) represent further examples of this phenomenon.[95] The observation that gold objects circulated more widely than the coins from which much of

[93] S.J. Sherlock, *A Royal Anglo-Saxon Cemetery at Street House, Loftus, North East Yorkshire* (Hartlepool, 2012), p. 28, pl. 2.3.

[94] S.J. Sherlock, 'The Reuse of "Antiques" in Conversion-Period Cemeteries', *Medieval Archaeology* 60 (2016), pp. 242–66; A. Gannon, 'Insular Numismatics: The Relationship between Ancient British and Early Anglo-Saxon Coins', in T.F. Martin and W.A. Morrison (eds), *Barbaric Splendour: The Use of Image Before and After Rome* (Oxford, 2020), pp. 121–39, at p. 122.

[95] G. Speake, 'A Seventh-Century Coin-Pendant from Bacton, Norfolk, and its Ornament', *Medieval Archaeology* 14 (1970), pp. 1–16, at pp. 6–7; C. Hilts, 'Harpole's Hidden Gem: Excavating Early Medieval Britain's Most Significant Female Burial', *Current Archaeology* 395 (2023), pp. 14–17, at p. 15.

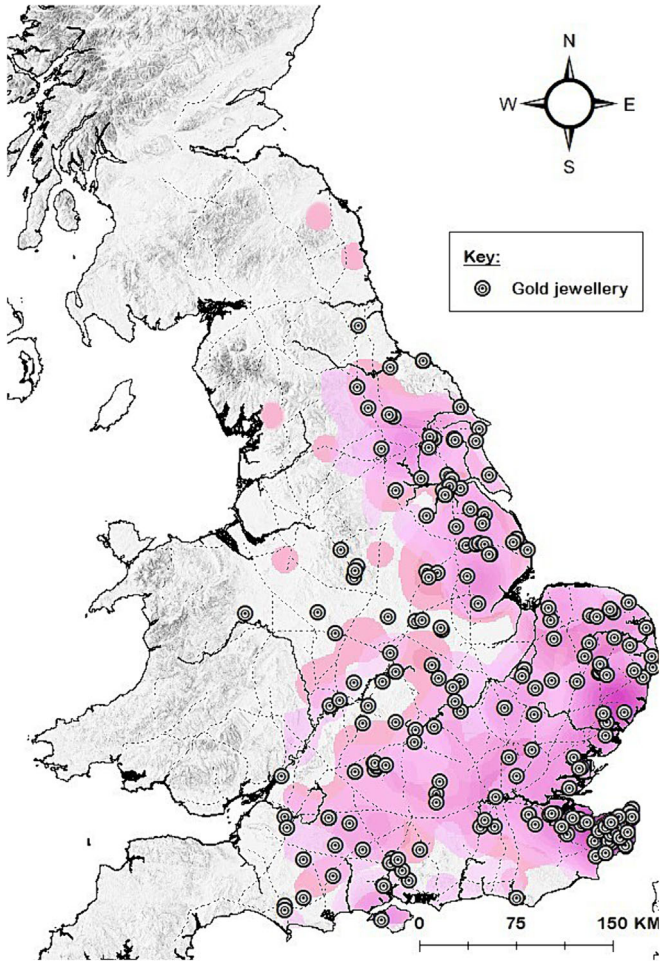

Fig. 5 Distribution of seventh-century gold necklace jewellery mapped against the underlying intensity of coin use revealed by stray finds of non-modified gold coins. Underlying data can be found in the Supplementary Material [Colour figure can be viewed at wileyonlinelibrary.com]

this material ultimately derived has previously been made by Gareth Williams, in the context of the Staffordshire Hoard. The absence of coins from this hoard is not unusual, given that, geographically, its findspot sits outside the regions in which coins were in regular circulation.[96]

[96] G. Williams, 'Why Are There No Coins in the Staffordshire Hoard?', *British Numismatic Journal* 84 (2014), pp. 39–51.

Against this context of the use and circulation of gold, the prestige that was attached to coins becomes clearer. While gold was relatively readily available within elite circles at least, the wearing of modified coins in particular signalled the ability of the wearer to access gold in its coined form and to participate in the coin-based element of a multi-currency economy operating in the seventh century. Multiple factors point to the importance of coins-as-coins in understanding their repurposing as elements of female jewellery. A comparison of the varying distribution patterns of coin-pendants, non-modified coins and other contemporary gold jewellery reveals that coin-pendants were used within communities for whom coinage was a reasonably familiar sight. Even if the majority of people in Kent, East Anglia and Humberside had not themselves used or owned coinage during their lifetimes, the prominent context of display of the coin-jewellery suggests that many were immediately familiar with it.

Considering modified coins alongside the jewellery with which they were frequently worn also emphasizes myriad possibilities for which melted-down coins could have been utilized during the period.[97] The decision to retain the form of the coin when producing the pendant was in no way a technological compromise, but a deliberate decision. While piercing might have required minimal skill and non-specialized tools, the much more common practice of furnishing coins with loops or pendant frames required both the skills of specialist workers in precious metals and supplies of additional gold, and thus the potential to melt down a coin (or multiple coins) to make other types of pendant jewellery was always possible. That the form of the coin was consciously retained also challenges the notion that coins were exclusively or even primarily valued for their iconographic content. Cruciform decoration features prominently on much of the contemporary pendant-jewellery, so the idea that coins were merely a convenient disc-shaped object already bearing a cross can be dismissed.[98] Instead, there are a number of pseudo-coin-pendants that suggest the coin form was deliberately imitated. An unusual cast-gold disc pendant from a burial at Compton Verney (Warks.) depicts (on both faces) two standing figures flanking a long cross, clearly in imitation of the reverse of some contemporary gold coins.[99] Die-stamped uniface pseudo-coin-pendants imitating genuine seventh-century issues are also known from Faversham (Kent), probably

[97] Cf. Gaimster, 'Scandinavian Gold Bracteates', p. 2.
[98] Haworth, 'Most Precious Ornaments', p. 225.
[99] A. Macgregor and E. Bolick, *A Summary Catalogue of the Anglo-Saxon Collections (Non-Ferrous Metals)* (Oxford, 1993), p. 156.

originally from a burial, and Holton-le-Moor (Lincs.), a stray find.[100] Presumably a compromise necessary when a coin was not available to be modified, these pseudo-coin-pendants also speak to the prestige associated with money in coined form.

Conclusions

The coins that were transformed into jewellery during the later sixth and seventh centuries undoubtedly drew their significance from the fact that they were coins. The range of coins that were transformed into pendants are a good representative sample of the various types which were in circulation as currency during the seventh-century Conversion Period. We find no evidence of the deliberate selection of coins from a particular origin or bearing particular iconography; instead, they genuinely seem to reflect the underlying available pool of coinage. Mapping the geographic distribution of coin-pendants reveals that they were worn in the areas where the use – and subsequent loss – of non-modified coins was most intensive, among communities who were familiar with coins as currency. There appears to have been no consistency in the way in which women wore their coin-pendants; while the iconography of either side might have accrued a particular individual significance to the wearer, influencing which face was regularly displayed in individual cases, this meaning was secondary to the nature of the coin itself.

Coins formed part of a multi-currency economy during the seventh century, with bullion, ingots and coin-blanks also in use.[101] Setting the coin-pendants against the corpus of contemporary gold feminine jewellery provides a further valuable illustration of the fact that gold in uncoined form clearly circulated across a much wider area than coins themselves, even if melted-down coinage was the ultimate source of almost all of the precious metal. Such a complex multi-currency economy invites a comparison with Viking Age silver economies.[102] However, in Conversion Period England, evidence for the deliberate manipulation of coinage in order to test the metal itself, in the form of either cutting, nicking, pecking or bending, is scarce, suggesting a much greater degree of trust in the nominal value of coins, as well as

[100] Macgregor and Bolick, *A Summary Catalogue*, p. 155; PAS: NLM-211E22.
[101] Clarke-Neish, '(Re-)making', pp. 131–8; Naismith, *MEC8*, pp. 61–2.
[102] For an overview, see J. Kershaw, 'An Early Medieval Dual-Currency Economy: Bullion and Coin in the Danelaw', *Antiquity* 91 (2017), pp. 173–90; G. Williams, 'Hack-Silver and Precious Metal Economies: A View from the Viking Age', in F. Hunter and K. Painter (eds), *Late Roman Silver: The Traprain Treasure in Context* (Edinburgh, 2013), pp. 381–94; cf. Williams, 'Staffordshire Hoard', pp. 39–41.

possibly a conceptual distinction between coins and gold bullion in other forms.[103] We argue that the same symbolic prestige attached to coins underpins the ways in which they were modified as pendants, foregrounding above all their physical integrity and allowing for the possibility of modified coins to be returned once more into circulation.

Understanding how coin-pendants drew their significance from their 'lives' as coins sheds valuable light on women's interactions with the contemporary economy. We argue that the wearing of modified coins signalled the ability of the wearer to access and possess precious metal in its prestigious coined form. Coin-pendants served as a store of portable wealth that could be, and indeed sometimes were, returned to circulation if required. The intensity of coin use and loss during the period indicates the widespread and varied functions of coinage, ranging from high-value commercial exchange to more socially embedded transactions and legal payments. The production and consumption of luxury textiles by elite women, for example, best evidenced at female monastic centres but almost certainly a more widespread practice, is one context in which coins may have played an important role as a medium of exchange.[104] That the high-status women of the Conversion Period possessed the agency to own and use coins in the ways discussed here is entirely consistent with their generally prominent role in seventh-century society, as revealed by written sources and archaeological evidence.[105] Indeed, however one understands the nature of the early medieval coin-using economy, it is clear that women could, and indeed did, participate meaningfully in it. Once outdated ideas about coin-pendants as mere ornaments are discarded, the corpus of coin-pendants provides one of the most important sources of evidence for attitudes to, and engagement with, early medieval gold coins, crucially from a feminine context.

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[103] Clarke-Neish, '(Re-)making', pp. 132–4.
[104] Bede, *Historia ecclesiastica*, IV.25, ed. Colgrave and Mynors, pp. 424–7; Aldhelm, *De virginitate*, LVIII, ed. and trans. M. Lapidge and M. Herren, *Aldhelm: The Prose Works* (Ipswich, 1979), pp. 127–8; P. Walton Rogers, 'In Search of Hild: A Review of the Context of Abbess Hild's Life, Her Religious Establishment, and the Relevance of Recent Archaeological Finds from Whitby Abbey', in G.R. Owen-Crocker and M. Clegg Hyer (eds), *Art and Worship in the Insular World* (Leiden, 2021), pp. 121–53, at pp. 142–8.
[105] H. Hamerow, 'Furnished Female Burial in Seventh-Century England: Gender and Sacral Authority in the Conversion Period', *EME* 24 (2016), pp. 423–47.

Appendix
Later sixth- and seventh-century gold and pale gold coin-pendants from England

Imperial and pseudo-imperial gold coins[106]

No.	Findspot	Denomination	Emperor	Mint	Suspension	Weight	Display	B&L	EMC/PAS
1	Ashford (Kent)	*Solidus* (Visigothic imitation)	Justinian I (527–65)		Looped	4.68g	Ambiguous, die-axis 180°		PAS: KENT-E5C9B7
2	Aylesbury (Bucks.)	*Solidus*	Maurice Tiberius (582–602)	Constantinople	Pierced		Ambiguous, die-axis 180°	773	
3	Aylsham (Norf.)[107]	*Solidus* (Ostrogothic imitation in the name of Theodoric)	Anastasius (491–518)	Rome	Looped	4.51g	Reverse, loop projects on obverse		
4	Bacton (Norf.)[108]	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Arles	Looped	12.4g	Obverse, pendant frame	828	
5	Billericay (Ess.)	*Solidus* (Visigothic imitation)	Anastasius (491–518)		Looped	4.72g	Ambiguous, die-axis 180°	883	PAS: ESS-10F463
6	Bloodmoor Hill, Pakefield (Suff.)	*Solidus* (Visigothic imitation)	Justinian I (527–65)		Mounted, looped		Ambiguous, die axis 180°	837	EMC ref: 1758.0001

(Continued)

No.	Findspot	Denomination	Emperor	Mint	Suspension	Weight	Display	B&L	EMC/PAS
7	Boar's Hill (Oxon.)	*Solidus* (Provençal imitation)	Heraclius (610–41)	Marseilles	Formerly looped		-	864	
8	Buckland, Dover (Kent), grave 29	*Tremissis* (Burgundian imitation, plated forgery)	Justinian I (527–65)		Looped	0.73g	Obverse, loop projects on reverse	795	
9	Buckland, Dover (Kent)[109]	*Tremissis* (Visigothic imitation)	Justinian I (527–65)		Looped	1.44g	Ambiguous, die-axis 180°		
10	Buckland, Dover (Kent), grave 232[110]	*Tremissis* (Visigothic imitation, plated forgery)	Justin I (518–27)		Riveted loop	1.20g	No relation to iconography		
11	Cheriton (Hants.)	Solidus (Gallic imitation)	Anastasius (491–518)	Gallic mint	Looped	4.69g	Ambiguous, die-axis 180°	782	EMC ref.: 1 995.0061
12	Crondall (Hants.), hoard	*Tremissis*	Phocas (602–7)	Ravenna	Formerly looped	1.5g	-	858	
13	Driffield, near (E. Yorks.)	*Tremissis* (Lombardic imitation)	Maurice Tiberius (582–602)		Looped	0.91g	Reverse, loop projects on obverse		PAS: YORYM-701955
14	Faversham (Kent)	*Solidus* (Provençal imitation)	Justin II (575–8)	Marseilles	Looped		Obverse, garnet cabochon inlay	798	

(Continued)

No.	Findspot	Denomination	Emperor	Mint	Suspension	Weight	Display	B&L	EMC/PAS
15	Faversham (Kent)	*Tremissis* (Provençal imitation)	Justin II or Tiberius II (?575–82)		Looped	1.5g	Ambiguous, die-axis 180°	799	
16	Faversham (Kent)	*Tremissis* (Provençal imitation)	Justin II (575–8)	Arles	Looped	1.2g	Ambiguous, die-axis 180°	800	
17	Faversham (Kent)	*Tremissis* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Looped	1.0g	Ambiguous, die-axis 180°	801	
18	Gilton (Kent), grave 41	*Tremissis* (Visigothic imitation)	Justinian I (527–65)		Pierced	1.44g	Ambiguous, die-axis 180°	786	EMC ref: 1 982.9014
19	Hoath (Kent)	*Solidus* (Gallic imitation)	Maurice Tiberius (582–602)	Marseilles	Mounted and looped	5.02g	Obverse, gold granule		PAS: KENT-AC7E52
20	Little Walsingham (Norf.)	*Tremissis* (Visigothic or Gallic imitation)	uncertain		Looped		Reverse, orientation	829	
21	near Marlow (Berks.)	*Solidus* (Merovingian or Frisian imitation)	uncertain		Pierced	4.16g	No relation to iconography		PAS: BUC-C36274
22	Matching (Ess.)	*Solidus*	Heraclius and Heraclius Constantine (610–41)	Constantinople	Looped	4.07g	Reverse, loop projects on obverse		PAS: ESS-8 81CD6

(Continued)

No.	Findspot	Denomination	Emperor	Mint	Suspension	Weight	Display	B&L	EMC/PAS
23	Naunton (Glos.)	*Tremissis* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Pierced twice	1.1g	Obverse, orientation	781	PAS: WMID265; EMC ref.: 1 999.0001
24	North Elmham (Norf.)	*Solidus* (Merovingian imitation)	Maurice Tiberius (582–602)		Looped	4.06g	Ambiguous, die-axis 180°		PAS: NMS-9 8E733
25	Northwold (Norf.)	*Solidus*	Tiberius II (578–82)	Constantinople	Mounted and looped	5.18g	Obverse, loop projects on reverse	830	
26	Old Buckenham (Norf.)	*Solidus*	Justinian I (527–65)	Constantinople	Looped	5.78g	Reverse, wear patterning on loop		PAS: NMS-EB4A16
27	Rainham (Greater London)	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Mounted and looped		Ambiguous, die-axis 180°	827	
28	Reepham (Norf.)	*Solidus* (Ostrogothic imitation)	Anastasius (491–518)	Rome	Mounted and looped	5.51g	Reverse, loop projects on obverse	831	
29	Rendlesham (Suff.)	*Tremissis*		Marseilles	Formerly looped	1.36g	-		EMC ref.: 2 010.0123
30	Salehurst and Robertsbridge (Suss.)	*Tremissis*	Maurice Tiberius (582–602)	Constantinople	Formerly mounted	1.37g	-	844	PAS: KENT8
31	Saltwood (Kent), grave C6421[III]	*Solidus*	Maurice Tiberius (582–602)	Marseilles	Looped		Ambiguous, die-axis 180°		

(Continued)

No.	Findspot	Denomination	Emperor	Mint	Suspension	Weight	Display	B&L	EMC/PAS
32	Sarre (Kent), grave A	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Arles	Looped		Ambiguous, die-axis 180°	810	
33	Sarre (Kent), grave A	*Solidus* (Provençal imitation)	Heraclius (610–41)	Marseilles	Looped		Ambiguous, die-axis 180°	865	
34	Sarre (Kent), grave A	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Looped		Ambiguous, die-axis 180°	809	
35	Sarre (Kent), grave 286	*Tremissis* (Provençal imitation)	Justinian I (527–65)		Looped	1.63g	Ambiguous, die-axis 180°	811	EMC ref.: 1 990.0165
36	Sedgeford (Norf.)[112]	*Tremissis* (Merovingian imitation)	Anastasius (491–518)		Pierced	1.18g	No relation to iconography		
37	Selling (Kent)	*Solidus*	Maurice Tiberius (582–602)	Constantinople	Looped	3.63g	Ambiguous, die-axis 180°	812	PAS: KENT-EF4810
38	St Martin's, Canterbury (Kent), hoard	*Tremissis*	Justin II (565–78)	Ravenna	Looped	1.37g	Obverse, loop projects on reverse	789	EMC ref.: 1 029.0005
39	St Martin's, Canterbury (Kent), hoard	*Tremissis* (Alamannic imitation)	Justinian I (527–65)		Looped (19th cent. replacement)		-	790	EMC ref.: 1 029.0007
40	Thetford (Norf.)	*Tremissis* (Gallic imitation)	uncertain		Pierced twice	1.19g	Unknown	832	EMC ref.: 2 001.1153
41	Thorne Farm (Kent)[113]	*Solidus* (Provençal imitation)	uncertain	Marseilles	Looped	4.58g	Reverse, orientation		

(Continued)

No.	Findspot	Denomination	Emperor	Mint	Suspension	Weight	Display	B&L	EMC/PAS
42	West Norfolk, hoard	*Solidus* (imitation)	Justinian (527-65)		Formerly looped	4.19g	-		PAS: NMS-9 34673
43	West Norfolk, hoard	*Tremissis*	Justinian (527-65)		Looped	1.28g	Unknown, very heavy wear		PAS: NMS-9 34673
44	Wilton	*Solidus*	Heraclius and Heraclius Constantine (613–32)	Constantinople	Mounted and looped		Reverse, pendant frame	861	
45	Worth (Kent)	*Tremissis* (Visigothic imitation)	Anastasius (491–518)	Gallic mint	Looped	1.39g	Ambiguous, die-axis 180°	816	PAS: KENT-C37138; EMC ref.: 2007.0274
46	East Kent	*Solidus*	Heraclius and Heraclius Constantine (613–32)	Constantinople	Mounted and looped	4.49g	Ambiguous, die-axis 180°	862	EMC ref.: 1 982.9015
47	Kent	*Tremissis* (Merovingian imitation)	uncertain		Looped	1.50g	Ambiguous, die-axis 180°		EMC ref.: 2 018.0002
48	Norfolk or north Suffolk	*Tremissis* (Gallic imitation)	Anastasius (491–518)		Formerly mounted	2.17g	-	835	
49	Suffolk/Essex border	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Mounted and looped		Ambiguous, die-axis 180°	843	EMC ref.: 2 000.0110
50	unknown	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Looped		Obverse, orientation	853	

(Continued)

No.	Findspot	Denomination	Emperor	Mint	Suspension	Weight	Display	B&L	EMC/PAS
51	unknown	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Formerly mounted and looped	4.82g	-	854	
52	unknown	*Solidus* (Provençal imitation)	Maurice Tiberius (582–602)	Marseilles	Mounted and looped	4.06g	Obverse, loop projects on reverse	855	
53	unknown	*Solidus*	Heraclius and Heraclius Constantine (613–32)		Looped		unknown	863	

[106]B&L refers to R. Bland and X. Loriot, *Roman and Early Byzantine Gold Coins Found in Britain and Ireland* (London, 2010). EMC and PAS refer to the Early Medieval Coin Finds and Portable Antiquities Scheme databases, respectively.

[107]Department for Culture, Media and Sport, *Treasure Annual Report 2005/6* (2006), p. 92, Fig. 269, available at: https://finds.org.uk/documents/treasurereports/20052006.pdf (accessed 7 Feb 2024).

[108]G. Speake, 'A Seventh-Century Coin-Pendant from Bacton, Norfolk, and its Ornament', *Medieval Archaeology* 14 (1970), pp. 1–16.

[109]J.P.C. Kent, 'Coins', in V.I. Evison (ed.) *Dover: The Buckland Anglo-Saxon Cemetery* (London, 1987), pp. 180–1.

[110]G. Williams, 'Coin Pendant from Grave 232', in K. Parfitt and T. Anderson (eds), *Buckland Anglo-Saxon Cemetery, Dover, Excavations 1994* (Canterbury, 2012), pp. 88–9.

[111]P. Walton Rogers, 'Costume in the Early Anglo-Saxon Cemetery at Saltwood, Kent: Part 1 Women's Costume Accessories', in J. Mckinley *et al*. (eds), *The Prehistoric, Roman and Anglo-Saxon Funerary Landscape at Saltwood Tunnel, Kent* (Oxford, 2006).

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[113]D.N. Metcalf, 'A Seventh-Century Looped Solidus from the Isle of Thanet', in D.R.J. Perkins, 'The Monkton Gas Pipeline: Phase III and IV, 1983–84', *Archaeologia Cantiana* 102 (1985), pp. 66–9.

Merovingian 'national' coinage[114]

No.	Findspot	Denomination	Mint	Moneyer/Ruler	Suspension	Weight	Display	W	EMC/PAS
54	Aldeburgh (Suff.)	*Tremissis*	Quentovic	Dutta	Mounted and looped		unknown	257	EMC ref.: 1 840.0001
55	Ash (Kent)	*Tremissis*	Rodez	Vendemius	Looped	1.3g	Obverse, loop projects on reverse	219	EMC ref.: 1 994.0111
56	Ash (Kent)	*Tremissis*	Maastricht		Mounted and looped	1.33g	Ambiguous, die-axis 0°		EMC ref.: 1 996.0060
57	Ashford (Kent)	*Tremissis*	Metz	Leudoaldus	Looped	1.29g	Reverse, loop projects on obverse		PAS: KENT-DD91AA
58	Balderton (Notts.)	*Solidus*		Chlothar II	Looped		No relation to iconography	130	
59	Bawdsey (Suff.)	*Tremissis*	Clermont-Ferrand	Aditus II	Looped	1.26g	Obverse, loop projects on reverse		EMC ref.: 1 998.2034
60	Billingsgate (City of London)	*Tremissis*	Brioux	Chadulfus	Pierced twice	1.24g	Ambiguous, die-axis 0°	150	EMC ref.: 1 989.0060
61	Bishop Auckland, near (County Durham)	*Tremissis*	Huy	Gandolonus	Mounted and looped		No relation to iconography		PAS: DUR-EFD9E4
62	Boss Hall, Ipswich (Suff.), grave 93	*Solidus*	Marseilles	Sigeberht III	Riveted loop	3.68g	No relation to iconography	134	

(Continued)

No.	Findspot	Denomination	Mint	Moneyer/Ruler	Suspension	Weight	Display	W	EMC/PAS
63	Butley (Suff.)	*Tremissis*	Dorestad	pseudo-Madelinus	Pierced	1.10g	Obverse, orientation		EMC: 2022.0065
64	Carlton Colville (Suff.)[115]	*Solidus*	Marseilles	Chlothar II	Looped		Ambiguous, die-axis 180°		
65	Coddenham (Suff.), grave 30[116]	*Tremissis*	Arles	Dagobert I	Looped	4.08g	Ambiguous, die-axis 180°		
66	Crimplesham (Norf.)	*Tremissis*			Pierced	1.01g	No relation to iconography		PAS: NMS-0 F87A2; EMC ref.: 2011.0106
67	Dartford (Kent)	*Solidus*	Marseilles	Sigeberht III	Looped		Obverse, loop projects on reverse		PAS: KENT-22CA70; EMC ref.: 2005.0212
68	Dry Drayton (Cambs.)	*Tremissis*	Paris	Landegiselus	Looped	1.45g	Ambiguous, reverse has no obvious vertical alignment		PAS: CAM-9 287C0; EMC ref.: 2018.0173
69	Farnborough (Greater London)	*Tremissis*	Metz	Audoaldus	Pierced	1.15g	Obverse, orientation		EMC ref.: 1 987.0035
70	Faversham (Kent)	*Tremissis*	Campbon	Francio	Looped		Ambiguous, die-axis 0°	158	

(Continued)

No.	Findspot	Denomination	Mint	Moneyer/Ruler	Suspension	Weight	Display	W	EMC/PAS
71	Faversham (Kent)	*Tremissis*	Agen		Looped		Obverse, orientation		
72	Faversham (Kent)	*Tremissis*	Lisieux		Looped		Obverse, orientation		
73	Felstead (Ess.)	*Tremissis*			Pierced	1.06g	Reverse, orientation		PAS: ESS-8 8DB07; EMC ref.: 2022.0011
74	Finglesham (Kent), grave 7[117]	*Solidus*	Marseilles	Sigeberht II/III	Looped		Ambiguous, die-axis 180°		
75	Harlaxton (Lincs.)	*Tremissis*			Pierced	1.26g	No relation to iconography		PAS: LIN-3A74DD
76	Higham (Kent)	*Tremissis*	Metz	Theudelenus	Mounted and looped	2.02g	unknown	196	EMC ref.: 2 003.0222
77	Louth (Lincs.)	*Tremissis*	Treveri	Launovios	Formerly looped	1.20g	-		EMC ref.: 2 019.0132
78	Maidstone (Kent)	*Tremissis* (plated forgery)			Pierced	0.60	No relation to iconography		EMC ref.: 2 009.0343
79	Mersea Island (Ess.)	*Tremissis*	Dorestad	pseudo-Madelinus	Looped	1.32g	Obverse, loop projects on reverse		PAS: ESS-5D63D4; EMC ref.: 2015.0084
80	Merton Priory (Suff.)	*Solidus*	Limoges	Dagobert I	Formerly mounted and looped		-	132	

(Continued)

No.	Findspot	Denomination	Mint	Moneyer/Ruler	Suspension	Weight	Display	W	EMC/PAS
81	Old Buckenham (Norf.)	*Solidus*	Marseilles	Sigeberht III	Pierced	1.8g	Ambiguous, die-axis 180°		PAS: SUR-0 9EA44
82	Pontefract (W. Yorks.)	*Tremissis*	Dorestad	pseudo-Madelinus	Pierced		unknown	177	
83	Rendlesham (Suff.)	*Tremissis*	Campbon	Francio	Looped	1.49g	Ambiguous, die-axis 0°		EMC ref.: 2 013.0342
84	Rendlesham (Suff.)	*Tremissis* (imitation)	Dorestad	pseudo-Madelinus	Pierced	1.03g	Reverse, orientation		PAS: SF-5 9659C; EMC ref.: 2016.0280
85	Rendlesham (Suff.)	*Tremissis* (plated forgery)			Riveted loop	0.84g	Ambiguous, die-axis 0°		EMC ref.: 2 015.0376
86	Rendlesham (Suff.)	*Tremissis*	Dorestad	Madelinus	Pierced	0.78g	Ambiguous, die-axis 180°		PAS: BM-1 8A1C4; EMC ref.: 2009.0250
87	Rochester (Kent)	*Tremissis*	Saint-Denis	Ebregisilo	Formerly mounted	1.24g	-	160	EMC ref.: 1 989.0061
88	Roxby-cum-Risby (Lincs.)	*Tremissis*	Metz	Ansoaldus	Pierced	1.23g	No relation to iconography		PAS: NLM-BE8DC8
89	Salisbury (Wilts.)	*Solidus*	Marseilles	Sigeberht III	Pierced	3.61g	No relation to iconography		EMC ref.: 2 011.0256
90	Sarre (Kent), grave A^{118}	*Solidus*	Marseilles	Chlothar II	Looped		Ambiguous, die-axis 180°		
91	Sibertswold (Kent), grave 172	*Tremissis*	Verdun	[ ]iseleno	Looped	1.46g	Obverse, loop projects on reverse		EMC ref.: 1 982.9017

(Continued)

No.	Findspot	Denomination	Mint	Moneyer/Ruler	Suspension	Weight	Display	W	EMC/PAS
92	Sibertswold (Kent), grave 172	*Tremissis*	Marsal	Toto	Looped	1.37g	Obverse, orientation		EMC ref.: 1 982.9018
93	Skipton (N. Yorks.)	*Tremissis*	unknown	unknown	Pierced	1.25g	Ambiguous, die-axis 0°	238	EMC ref.: 1 997.9920
94	St Martin's, Canterbury (Kent), hoard	*Solidus*	IVEGIO VICO	unknown	Mounted and looped	5.5g	Ambiguous, die-axis 180°		EMC ref.: 1 029.0008
95	St Martin's, Canterbury (Kent), hoard	*Tremissis*	St Bertrand-de-Comminges	Nonnitus	Looped	1.72g	Ambiguous, die-axis 180°		EMC ref.: 1 029.0009
96	St Martin's, Canterbury (Kent), hoard	*Tremissis*	Agen	Leonardo	Looped	1.49g	Reverse, loop projects on obverse		EMC ref.: 1 029.0010
97	St Martin's, Canterbury (Kent), hoard	*Tremissis*	Oloron	Launebo	Looped	1.52g	Ambiguous, die-axis 180°	179	
98	St Peter's Tip, Broadstairs (Kent), grave 1 34[119]	*Solidus*		Sigeberht III	Looped		unknown		
99	Updown, Eastry (Kent), grave 3 6[120]	*Tremissis* (plated forgery)	Chalon-sur-Saône		Riveted loop	0.93g	unknown		

(Continued)

No.	Findspot	Denomination	Mint	Moneyer/Ruler	Suspension	Weight	Display	W	EMC/PAS
100	West Norfolk, hoard	*Tremissis*	Grenoble	Acus	Looped	1.322g	Ambiguous, die-axis 180°		PAS: NMS-9 34673
101	Winfarthing (Norf.)	*Solidus*	Marseilles	Sigeberht III	Riveted loop	3.69g	Ambiguous, die-axis 0°		PAS: NMS-E95041
102	Winfarthing (Norf.)	*Solidus*	Marseilles	Sigeberht III	Riveted loop	4.27g	Obverse, loop projects on reverse		PAS: NMS-E95041
103	Cambridgeshire	*Tremissis*	Dorestad	pseudo-Madelinus	Looped	1.15g	Reverse, orientation		PAS: SF-7 8C948
104	East Anglia	*Solidus*	Marseilles	Chlothar II	Looped	4.08g	Ambiguous, die-axis 180°	131	EMC ref.: 1 990.0166
105	East Kent	*Solidus*	Marseilles	Chlothar II	Looped	4.64g	Ambiguous, die-axis 180°	191	EMC ref.: 1 982.9016
106	Surrey	*Tremissis*	Vienne-en-Val		Looped	1.35g	unknown	237	
107	unknown	*Tremissis*	Dorestad	pseudo-Madelinus	Pierced	1.12g	unknown	176	
108	unknown	*Tremissis*	Metz	Theudelenus	Formerly looped	1.29g	-	201	
109	unknown	*Tremissis*	Dronrijp		Mounted		-	290	
110	unknown[121]	*Tremissis*			Mounted		Obverse, pendant frame		

[114]W refers to G. Williams, 'Anglo-Saxon Gold Coinage Part I: The Transition from Roman to Anglo-Saxon Coinage', *British Numismatic Journal* 80 (2010), pp. 51–75.

[115]S. West, *A Corpus of Anglo-Saxon Material from Suffolk* (Ipswich, 1998), p. 40.

[116]K. Penn, *The Anglo-Saxon Cemetery at Shrubland Hall Quarry, Coddenham, Suffolk*, East Anglian Archaeology 139 (Bury St Edmunds, 2011), pp. 61–2, pl. 9.

[117]S.C. Hawkes *et al.*, 'X-Ray Fluorescent Analysis of Some Dark Age Coins and Jewellery', *Archaeometry* 9 (1966), pp. 98–138, at p. 115.

[118]C. Haith, 'Composite Disc Brooch and Necklace', in L. Webster and J. Backhouse (eds), *The Making of England: Anglo-Saxon Art and Culture AD600–900*.

[119]H. Geake, *The Use of Grave-Goods in Conversion Period England, c. 600–c.850* (Oxford, 1997), pp. 161–2.

[120]G. Williams, 'Report on Two Coin-Like Pendants from the Updown Cemetery, Eastry, Kent (1976)', in M. Welch, 'Report on Excavations of the Anglo-Saxon Cemetery at Updown, Eastry, Kent', *Anglo-Saxon Studies in Archaeology and History* 15 (2008), pp. 60–1.

[121]A. Macgregor and E. Bolick, *A Summary Catalogue of the Anglo-Saxon Collections (Non-Ferrous Metals)* (Oxford, 1993), p. 155.

No.	Findspot	Denomination	Type	Suspension	Weight	Display	EMC/PAS
111	Buckland, Dover (Kent), grave 110[122]	*Thrymsa*	Pada IIb	Riveted loop	1.08g	Reverse, orientation	
112	Buckland, Dover (Kent), grave 110[123]	*Thrymsa*	Pada III	Riveted loop	1.22g	Reverse, orientation	
113	Butler's Field, Lechlade (Glos.), grave 179[124]	*Thrymsa* (plated forgery)	Vanimundus	Pierced	0.42g	Reverse, orientation	
114	Buttermarket, Ipswich (Suff.), grave 4275[125]	*Thrymsa* (plated forgery)	Constantine	Looped	0.83g	Obverse, loop projects on reverse	
115	Buttermarket, Ipswich (Suff.), grave 4275[126]	*Thrymsa* (plated forgery)	Pada III	Looped	0.71g	Reverse, loop projects on obverse	
116	Castle Hedingham (Ess.)	*Thrymsa*	Two emperors	Pierced	1.21g	Reverse, orientation	PAS: LEIC-E1C167; EMC ref.: 2014.0241
117	Cavenham (Suff.)	*Thrymsa*	Vanimundus Bi	Pierced	1.18g	Reverse, orientation	EMC ref.: 2015.0006
118	Cobham Park (Kent)	*Thrymsa*	Pada III	Pierced	1.14g	unknown	EMC ref.: 1988.0103
119	Eythorne (Kent)	*Thrymsa*	Pada III	Pierced		Reverse, orientation	EMC ref.: 2005.0160
120	Faversham (Kent)[127]	*Thrymsa*	Concordia	Pierced		-	
121	Finglesham (Kent), grave 7[128]	*Thrymsa*	Pada Ia	Looped		Reverse, orientation	

(Continued)

No.	Findspot	Denomination	Type	Suspension	Weight	Display	EMC/PAS
122	Hoo peninsula (Kent)	*Solidus*	Cross-on-steps	Looped	3.2g	Ambiguous, die-axis 0°	PAS: KENT-5E6A92; EMC ref.: 2020.0123
123	Little Oakley (Ess.)	*Thrymsa*	Pada III	Pierced	1.18g	Ambiguous, reverse has no obvious vertical alignment	PAS: SF4049
124	Manchester (Lancs.)[129]	*Solidus*	Ciolh	Formerly mounted	4.12g	-	
125	Mildenhall (Suff.)	*Thrymsa*	Constantine	Pierced	1.2g	Obverse, orientation	PAS: SF-4AA4E3
126	Minster-on-Sheppey (Kent)	*Solidus*	Cross-on-steps	Mounted and looped	4.67g	Obverse, loop projects on reverse	EMC ref.: 2004.0198
127	Rendlesham (Suff.)	*Thrymsa*	Pada IIa	Pierced	1.27g	Ambiguous, reverse has no obvious vertical alignment	PAS: SF-E21854; EMC ref.: 2016.0190
128	Shalbourne (Wilts.)	*Thrymsa*	Pada III	Pierced	1.15g	Ambiguous, reverse has no obvious vertical alignment	EMC ref.: 1993.9083
129	Soham (Cambs.)	*Thrymsa*	Vanimundus Bii	Pierced	1.23g	-	EMC ref.: 1999.0094
130	Southfleet (Kent)	*Thrymsa*	Pada III	Pierced	1.0g	Reverse, orientation	EMC ref.: 1997.0042
131	St Margaret's at Cliffe (Kent)	*Thrymsa*	Pada III	Pierced	0.80g	Reverse, orientation	PAS: KENT-4F879A
132	St Martin's, Canterbury (Kent), hoard	*Thrymsa*	Liudhard	Looped	1.57g	Ambiguous, die-axis 0°	EMC ref.: 1029.0006
133	Stradsett (Norf.)	*Thrymsa*	Constantine	Pierced	1.15g	Reverse, orientation	EMC ref.: 2006.0244
134	unknown[130]	*Solidus*	Cross-on-steps	Looped	3.96g	Obverse, loop projects on reverse	
135	unknown[131]	*Solidus*	[s]canomodu	Formerly looped		-	

[122]Kent, 'Coins'.

[123]Kent, 'Coins'.

[124]D.M. Metcalf, 'An Imitative Vanimundus Sceat', in A. Boyle *et al.*, *The Anglo-Saxon Cemetery at Butler's Field, Lechlade, Gloucestershire Vol. 2* (Oxford, 2011), pp. 85–6.

[125]M. Archibald, 'Coins', in C. Scull, *Early Medieval (Late 5th–Early 8th Centuries AD) Cemeteries at Boss Hall and Buttermarket, Ipswich, Suffolk* (Leeds, 2009), pp. 241–2.

[126]Archibald, 'Coins'.

[127]S.E. Rigold, 'The Sutton Hoo Coins in the Light of the Contemporary Background of Coinage in England', in R.L.S. Bruce-Mitford (ed.), *The Sutton Hoo Ship-Burial Vol. 1: Excavations, Background, the Ship, Dating and Inventory* (London, 1975), pp. 653–77, no. 137.

[128]Hawkes *et al.*, 'X-Ray Fluorescent Analysis', pp. 115–16.

[129]C.H.V. Sutherland, *Anglo-Saxon Coinage in the Light of the Crondall Hoard* (Oxford, 1948), no. 76.

[130]P. Grierson, 'A New Anglo-Saxon Solidus', *Numismatic Chronicle* 13 (1953), pp. 88–91.

[131]Rigold, 'Sutton Hoo Coins', no. 116.