



Research Article

Where is everybody? The unburied dead in late Roman and early medieval England

Emma Brownlee^{1,*}  & Alison Klevnäs² 

¹ McDonald Institute for Archaeological Research, University of Cambridge, UK

² Department of Archaeology and Ancient History, Uppsala University, Sweden

* Author for correspondence ✉ ecb58@cam.ac.uk



Substantial debate surrounds the relative lack of formal burials in Britain during the fifth century AD, which was a key period of social and economic transition following the withdrawal of the Roman army. Here, the authors argue that the ‘missing fifth century’ may be explained, in part, by the continuation of archaeologically invisible mortuary treatments practised in the preceding Iron Age and Roman period. Compilation of published radiocarbon dates from human remains found in cave and riverine contexts demonstrates that a variety of methods for the disposal of the dead—outside of formal cemeteries—existed in the first millennium AD.

Keywords: England, Wales, early medieval, mortuary practices, archaeologically invisible practices, rivers, caves

Introduction

The disposal of corpses through means that leave little or no archaeological trace is recognised as a component of mortuary pathways in Iron Age Britain (e.g. Carr & Knüsel 1997; Harding 2016; Armit 2017; Legge 2022). For the Roman period, a comprehensive survey of material evidence has recently shown that formal burial remained rare away from urban areas: the rural population never substantially adopted the urban custom of gathering the dead in cemeteries, but instead maintained largely invisible funerary rites (Smith 2017; Smith *et al.* 2018: 275–77).

In this article, we make the case that the treatment of the dead without burial persisted beyond the end of the Roman period in Britain, into the fifth century AD and beyond,

Received: 23 August 2023; Revised: 16 April 2024; Accepted: 8 May 2024

© The Author(s), 2024. Published by Cambridge University Press on behalf of Antiquity Publications Ltd. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

and that this has critical implications for our understanding of cultural developments in lowland England in particular. A scarcity of mortuary material from the fifth century AD, especially its first half, has long been noted in areas of eastern and southern England. Here, we bring together new strands of evidence to argue that this low level of visible burials should be explained, at least in part, in the same way as the under-representation of Romano-British rural funerary remains: formal burial was not a predominant rite.

Although non-burial disposal is intrinsically hard to see archaeologically, it may be glimpsed in the Iron Age and Roman period in finds of disarticulated skeletal remains outside of formal cemeteries. We present a review of radiocarbon-dated material from riverine and cave contexts in England and Wales showing that alternative forms of disposal of the dead continued into the early medieval period.

Lasting non-burial funerary customs have significant implications for understanding the transition from the Roman to the early medieval period in lowland England. Until now, persistence of Roman-period mortuary practices, and thus continuity of population, have been sought only in formal burials (Lucy 2000: 170–73). By contrast, we show that the older, non-burial funerary rites fall outside current frameworks for interrogating the changes seen in the archaeological record.

The missing dead of the fifth century

The fifth century AD is a period of significant cultural change in the archaeological and historical record of lowland Britain. By the time of the Roman withdrawal, usually dated to AD 410, southern and eastern England had already seen the Romano-British way of life decline. A significant drop in population is likely, although debated. Palaeoenvironmental evidence suggests that some regions remained intensively occupied (Rippon *et al.* 2015), with recent work tending to emphasise that elements of Roman-period culture were maintained longer than was once thought (e.g. Dark 2002: 97–103; Hinton 2005: 7–38; Fleming 2021: 60).

New forms of material culture appeared, most distinctively in the establishment of rural cemeteries made up of furnished cremations and inhumations. Both the rituals and the artefacts seen in these show associations with regions across the North Sea and have traditionally been explained by the ‘*Adventus Saxonum*’—the arrival of the Angles, Saxons and Jutes in the mid-fifth century—as described in written sources; the nature and extent of this settlement is one of the most heated debates in British archaeology (e.g. Dark 2002; Hills 2003; Oosthuizen 2019; Harland 2021). Much discussion focuses on the dead in the new cemeteries and to what degree they represent new and intrusive populations, based on artefactual, ritual, isotopic and ancient DNA evidence (e.g. Lucy 2000; Gretzinger *et al.* 2022; Leggett *et al.* 2022). Both isotopes and ancient DNA indicate considerable mobility within and into lowland England in the early medieval period, consistent with high individual and small group mobility seen across Europe at this time (Depaermentier 2023).

Two underlying problems in the mortuary record hamper these discussions. First, although the novel burial and artefactual forms that appear in the fifth century can readily be compared with examples from the northern continent, it has proved harder to compare them with local graves from the preceding centuries. For example, Spong Hill in Norfolk, a cremation cemetery with over 2300 graves, demonstrates material culture connections to

several regions on the other side of the North Sea from the first quarter of the fifth century. Yet, despite the density of recorded Roman-period settlements, rural burial evidence—against which the early medieval material can be placed—has proved sparse, with only some 245 burials dating to the Roman period excavated in Norfolk by 2013 (Hills & Lucy 2013: 297–331).

A strong contrast is often drawn between the new funerary forms of the fifth century and late Roman customs typified by unfurnished inhumations with uniform orientation in large, managed cemeteries. This distinction depends on a limited number of mainly urban cemetery excavations around Romano-British towns, whereas late Roman rural burials display a great deal of diversity, with much variation in burial positioning and orientation, use of grave-goods and occasionally cremation (Smith 2017). More than that, a key conclusion from work in the last few years mapping mortuary activity in the Romano-British countryside is that a substantial component of these activities remained archaeologically invisible (Smith *et al.* 2018: 275–77). Late Roman funerary finds are in short supply for comparison with fifth-century remains because burial was not the normative rural rite.

The second difficulty is that the new material forms, despite their importance as new cultural introductions, are seen at markedly low levels before the sixth century. Robin Fleming (2021: 180) has recently drawn attention to how little Anglo-Saxon-style pottery and metalwork dates to the fifth century. The number of graves providing a window directly on the fifth century are also low; just one individual out of nearly 500 and 20 out of 2000 in recent syntheses of ancient DNA and isotopic data, respectively, could be definitively dated to the fifth century (Leggett *et al.* 2021; Gretzinger *et al.* 2022). Large fifth-century cremation cemeteries along the lines of Spong Hill are concentrated in an area around the Wash, in Norfolk and Lincolnshire, with just under a dozen examples (Hills & Lucy 2013: 335–39). The contributing population for the fifth-century phase at Spong Hill is estimated at 826 (Hills & Lucy 2013: 294), and although the records of the other cemeteries are limited, most are smaller. Mucking, near the Thames in Essex, is an outlying early site, with cremation burial thought to have started in the early fifth century (Hirst & Clark 2009: 626).

Elsewhere in lowland England the mortuary record for the century, especially its first half, is much more limited. In the county of Kent, for example, the dearth of fifth-century burials led to a suggestion that the first post-Roman settlers practised cremation and that their graves have been destroyed by subsequent ploughing, although this is unlikely as cremations from other periods survive (Richardson 2005: 91). In a comprehensive analysis of early medieval mortuary material from the county, Andrew Richardson (2005: 64) could list just 38 locations of either fifth-century graves or material likely to come from them. Finds from early in the century appear to be isolated and include a weapon burial from the Roman fort at Richborough and a pit in the Roman town of Canterbury containing four human bodies and a dog (Bennett 1980). Formal cemeteries date from the mid- and later fifth century, with the cremation cemetery at Ringlemere one of the earliest (Marzinzik 2011), although the first grave at Lyminge might be as early as AD 425. Only about 20 of the approximately 120 known fifth- to seventh-century burial places in Kent include graves that date (or possibly date) to the fifth century and almost all of these are from the later decades (Richardson 2005: 64).

Current chronologies probably miss some material that belongs in the fifth century, especially its first half. James Gerrard (2015) has argued that some burials assigned to the late Roman period could be placed in the fifth or even sixth centuries. A plateau in the radiocarbon calibration curve can make the fifth century difficult to distinguish from the early sixth century (Hines & Bayliss 2013: 35–37). Conversely some novel material may be placed too late: in England, as in other areas of Europe (e.g. Koncz 2015), historical dates have directed archaeological dating, so that material thought to indicate ‘Germanic’ arrivals has often been assigned to after the mid-fifth century. The publication of Spong Hill (Hills & Lucy 2013) shows decisively that new burial and artefactual forms may date several decades earlier. Re-dating of specific sites—for example, two close-lying, Roman-style and early medieval cemeteries in Oxfordshire at Berinsfield and Queenford Farm (Hills & O’Connell 2009)—has raised the possibility that some early medieval artefact chronologies from inhumation graves may also begin earlier in the fifth century, and thus that the new style of cemetery may immediately succeed the old. At Wasperton in Warwickshire, six cremations initially thought to be late fifth or sixth century were radiocarbon dated to the fifth century and possibly earlier (Carver *et al.* 2009: 49, 90); there may also be a phase of fifth-century unfurnished inhumation at the site (Carver *et al.* 2009: 92, 122). Similarly, there are hints from areas of the continent where fifth-century sites are also under-represented, that some unfurnished graves may date to this phase (e.g. Sebrich 2019). The fifth century in Wales, meanwhile, is poorly understood due to poor bone preservation and a tendency towards unfurnished burials, which hampers dating (Edwards 2023: 3).

Nevertheless, the overwhelming scarcity of fifth-century finds becomes only more evident as growing numbers of regional overviews and databases are delivered. A recent landscape study of Essex showed only a handful of burial sites that could be placed in the fifth century, mostly single graves or small groups (Rippon 2022). Known cemeteries from this time are found exclusively on the coast or along major rivers, yet palaeoenvironmental data and place-name evidence shows that inland regions were inhabited (Rippon 2022: 25). An argument is made for two distinct populations: an incoming group who settled primarily on the coast, and a Romano-British population who continued to cultivate inland. Yet where are the dead of that inland group?

Alternative mortuary pathways in first millennium Europe

For the Romano-British period, the thousands of graves around towns have tended to draw attention away from the scarcity of contemporaneous rural burials. A decade ago, John Pearce (2013: 25) quantified the problem, calculating that the ratio of excavated burials to the predicted original burial population was over forty times lower in rural than urban areas. He suggested that ‘invisible’ funerary traditions, well-known from the Iron Age, probably continued into the Roman period. Collation of evidence from Romano-British rural contexts indicates the persistence of this lack of formal interment across the majority of England and Wales, even within the Romanised heartland of south-east England (Smith *et al.* 2018). Burying the dead in graves, whether cremated or unburnt, appears to have been part of the cultural shift of moving into towns, rather than a custom adopted across the population.

Iron Age non-burial traditions are thus argued to have persisted in rural mortuary pathways through to at least the end of the Roman period (Smith 2017; Smith *et al.* 2018: 275–77). Current evidence points to a variety of practices for the treatment of human remains in prehistory, including sheltered exposure, primary burial and exhumation, and various further processing, use and sometimes careful deposition of bone (e.g. Booth & Madgwick 2016; Armit 2017; Brück & Booth 2022; Legge 2022). Activities are witnessed through finds of disarticulated skeletal parts, discarded or deposited in a range of contexts all over Britain (Armit 2017: 162). Such finds are now known to continue through the Roman period, with disarticulated human remains recorded at 462 rural Roman sites. Almost half of these places were farmsteads, and at 30 per cent of these, there was no formal burial at all (Smith *et al.* 2018: 277). Further examples of non-burial treatment are coming to light now that alternative funerary practices are an increasingly accepted possibility (Buck *et al.* 2019).

Turning to the early medieval period, it has long been observed that the buried dead do not fully represent the living population, even in the well-documented furnished cemeteries in sixth- and seventh-century lowland England. The numbers of infants and children in particular are far too low (e.g. Crawford 1999: 24–25). Newborns are occasionally found in settlement contexts, but not in large enough numbers to account for the missing infants (Sofield 2015: 369, 378). Sally Crawford (1999: 24, 76) therefore suggests that “dead children may have been disposed of in other ways”, perhaps including cremation without subsequent burial. Other demographic imbalances have also been noted (e.g. Hines 2002), as has the idea that those formally buried may have been a specific subset of the population (Carver 2019: 347). It is thus likely, and by no means a new suggestion, that even communities who established and maintained cemeteries also practised alternative forms of mortuary disposal.

Yet awareness of the likelihood of non-burial rites in the Early Middle Ages has not translated into further investigation of possible clues about the nature of these rites, nor the tracing of their presence back in time. In research from all periods, the unburied dead are typically sidelined (Weiss-Krejci 2013) and, until the 2010s, archaeologically invisible mortuary practices were largely relegated to prehistory in Britain. It is only a growing understanding of Roman non-burial that makes it possible to recognise the probability of non-burial practices in the Early Middle Ages.

Other recent research elsewhere in northern and western Europe has drawn attention to a variety of non-burial treatments throughout the first millennium AD. These include retention and modification of skeletal parts through the long Iron Age of Atlantic Scotland and into the Norse period (Shapland & Armit 2012), and practices involving processing, display and deposition of crania into the Viking period in Scandinavia (Eriksen 2020). In Sweden, customs involving scattering and depositing cremated human remains in non-mortuary contexts persist to the end of the millennium (Thérus 2019). Finds of cremated remains meaningfully deposited outside dedicated funerary contexts have been highlighted in Scotland, and the absence of cemeteries in western Scotland has been taken as evidence that the population in this area practised exposure (Maldonado 2013: 12; Maldonado *in press*). Work on bog bodies in northern Europe has shown that when disarticulated remains are included, the timeframe in which deposition of isolated corpses in wetland environments took place is

hugely extended, continuing beyond its peak in the Iron Age and Roman periods into the Early Middle Ages (van Beek *et al.* 2023).

Non-burial disposal of the dead can also be found in caves. At Źarska Cave, Poland, disarticulated remains have been radiocarbon dated to the third–fifth centuries (Wojenka *et al.* 2016). In Cantabria, multiple caves contain human remains deposited in short phases of use in the seventh and eighth centuries (Arias *et al.* 2018), while in Ireland mortuary cave use stretches from the Mesolithic to the seventeenth century AD (Dowd *et al.* 2006: 17).

In Scandinavia it is particularly apparent that the population is not fully represented in the mortuary record. As late as the Viking Age, more than half of the population may not have received a visible burial (Price 2020: 869–70). Across the first millennium AD, both the absolute number and the representative proportions of the dead rose gradually, as increasing quantities of bone from each cremation were deposited in graves (Bennett 1987). Even so, children and females were significantly under-represented until the last phases of grave fields and the first churchyards (Mejsholm 2009: 141–43).

A general absence of the dead in the late Roman and early medieval period is observed more widely in the North Sea zone (e.g. Siegmund 2003: 80–83). In the Frisian coastal area, there is ample evidence for settlement in the Roman period, but the only mortuary finds are occasional burials scattered across the landscape and unburnt skeletal remains in dwelling contexts. There, Annet Nieuwhof (2015) argues for an archaeologically invisible mortuary custom before the introduction of formal cemeteries in the fifth century.

These examples illustrate that complex non-burial treatment of human remains did not end with prehistory. Yet, even considering disarticulated finds, there is an ‘invisible cohort’ of the dead across substantial areas of Europe, which can only imply that the normative rite was true non-burial that left no archaeological deposits. Such low visibility of the dead implies highly effective forms of disposal. For the British Iron Age, cremation with scattering of remains is rejected as a major practice because pyre sites have not been found (Armit 2017: 163). Yet even where cremation burials are seen in England in the early medieval period, pyres are rare (Lucy 2000: 106). In the cemetery of Liebenau in northern Germany, rapid windborne deposition of sand preserved the fourth- and fifth-century phases of shallow pyre and cremation deposits, which in normal circumstances would have been lost (Siegmund 2003: 81–83). The absence of pyre sites should not, therefore, automatically discount cremation without subsequent burial as a means of disposal for the invisible cohort in regions around the North Sea in the early medieval period, and perhaps in the longer term in northern and western Europe.

Making the invisible visible

While full dispersal of human remains leaves little or no archaeological trace, signs may be found of related practices that, due to their nature or location, resulted in incomplete dispersal. Here, we present an analysis of disarticulated human bone recovered from riverine or cave contexts in England and Wales. These provide evidence that a range of forms of non-cemetery disposal of the dead persisted across the first millennium AD.

Since stray finds of disarticulated remains by definition lack archaeological context, the only way to assign them to a specific period is through radiocarbon dating. We draw on a

comprehensive survey of all radiocarbon data published up to 2016 (Bevan *et al.* 2017), in which we identify 19 finds of disarticulated remains in rivers and caves or of inhumations in watery landscapes in England and Wales between 1950 and 950 BP. We also include seven additional finds sourced from a literature review (Figure 2; see online supplementary material (OSM) Table S1). Some of these dates were produced in the early days of radiocarbon dating and have large margins of error. The majority date to the third–seventh centuries and around one-third of the dataset could feasibly date to the fifth century.

In the karst limestone regions of the north and west of England and Wales, caves provide a specific environment in which exposure could be practised in a way that increased the chance of archaeological recovery. Few caves are found across lowland England (Figure 1, Wilford 2016: 138), but the finds in rivers indicate that alternative means of disposing of the dead outside cemeteries were practised here as well. Four samples from a Neolithic barrow at Coldrum, Kent, which were recently radiocarbon dated to the fifth–seventh centuries (Neil *et al.* 2023), give a further indication of possible customs in lowland regions.

The significance of human remains in marginal places has been noted in the Roman period; for example, Alex Smith (2017: 48) draws attention to disarticulated remains found around settlements as potential evidence for excarnation. However, the use of marginal environments has not hitherto drawn the attention of early medievalists (Bergsvik & Dowd 2018: 1), whose focus lies with furnished formal burials, to the explicit exclusion of disarticulate remains (e.g. Sofield 2015: 355–6). Many of the radiocarbon dates included here were generated by prehistorians, for whom cave disposal is an expected occurrence; in such cases, obtaining these late results represents an anomaly that rarely warrants further discussion (e.g. Schulting & Richards 2002; Meiklejohn *et al.* 2011).

The numbers of dated remains are relatively small, but disposal in water and caves is on the boundary between what is archaeologically visible and invisible, and what is recovered is likely to be a tiny fraction of what was originally deposited. The necessary reliance on scientific dating further reduces the identifiable sample. For example, Schulting and Bradley (2013) studied 150 Thames skulls but acquired radiocarbon dates on only eight, and of the human remains identified at 462 rural Roman sites by Smith and colleagues (2018: 208), only 13 per cent had associated radiocarbon dates. The finds analysed here also include several where a Roman or early medieval date may be indicated by associated material culture (Table S2). At Dog Hole cave in Cumbria, for example, four bone samples were radiocarbon dated to the first–fourth centuries, but beads intermingled with the remains suggest continued deposition into the fifth–seventh centuries (Benson & Bland 1963: 74; O’Regan *et al.* 2020). Many caves have much longer histories of use for corpse disposal, perhaps indicating the same desire to create ancestral links as motivated the reuse of prehistoric burial mounds for early medieval inhumation (Wilford 2016: 327).

Remains found in caves are likely to be related to exposure practices, with large quantities of disarticulated bone indicating disposal in the cave itself. This appears to have been the case at Wookey Hole in Somerset, where the recovery of semi-articulated remains, some showing gnaw marks, indicates in-cave deposition that continued to be practised until at least the end of the fourth century, according to radiocarbon dating and coin typologies (Balch & Troup 1911: 583–84, 591–92; Hawkes *et al.* 1978: 26). In contrast, fragmentary and isolated

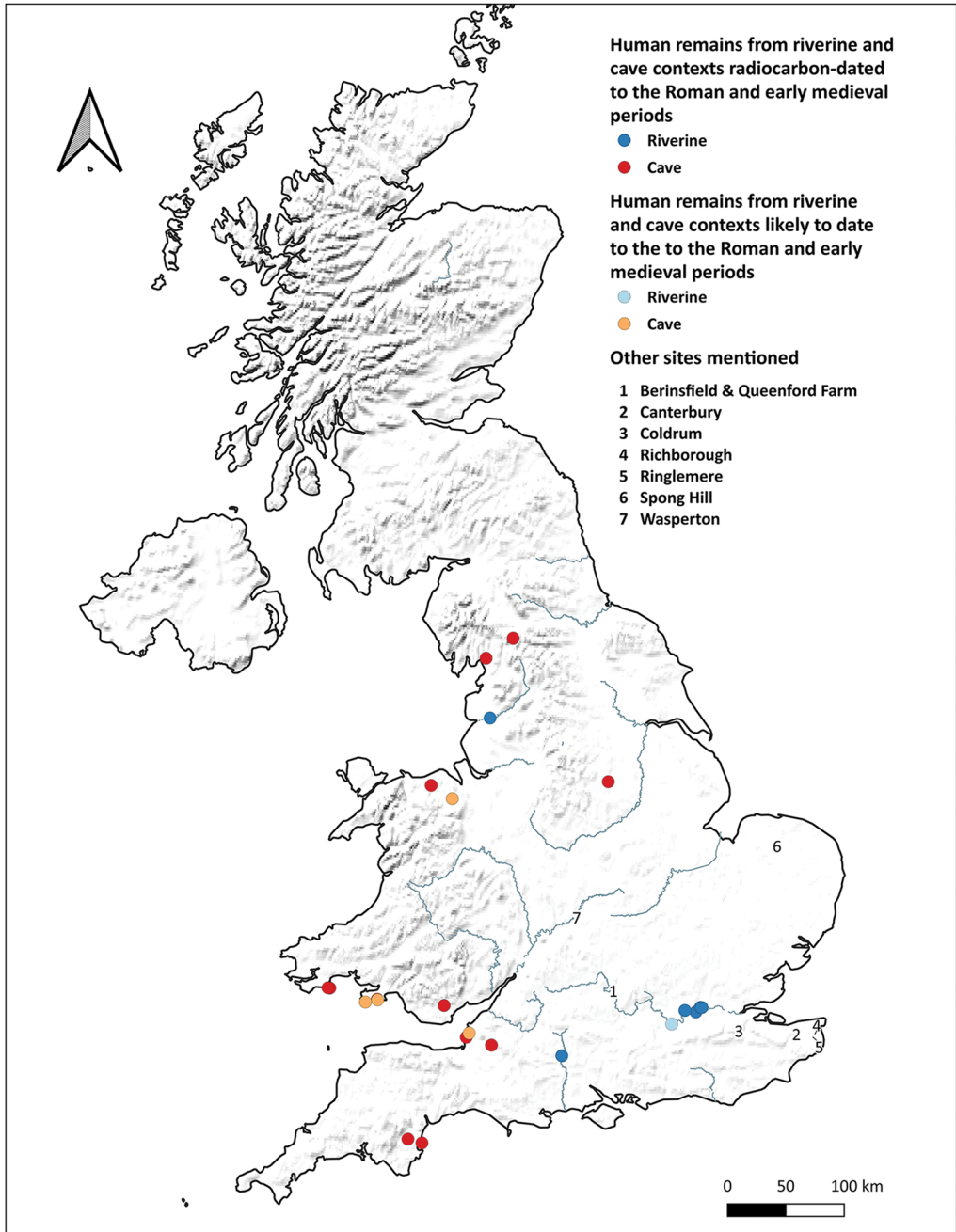


Figure 1. Map of human remains from riverine or cave contexts dated to, or likely to date to, the Roman and early medieval periods (figure by authors).

skeletal elements may indicate that bodies had been exposed elsewhere and token fragments retrieved and deposited in caves, such as at Robin Hood's Cave in Derbyshire, where a single mandible was radiocarbon dated to the second–fourth centuries (Wilford 2016: 302). Some

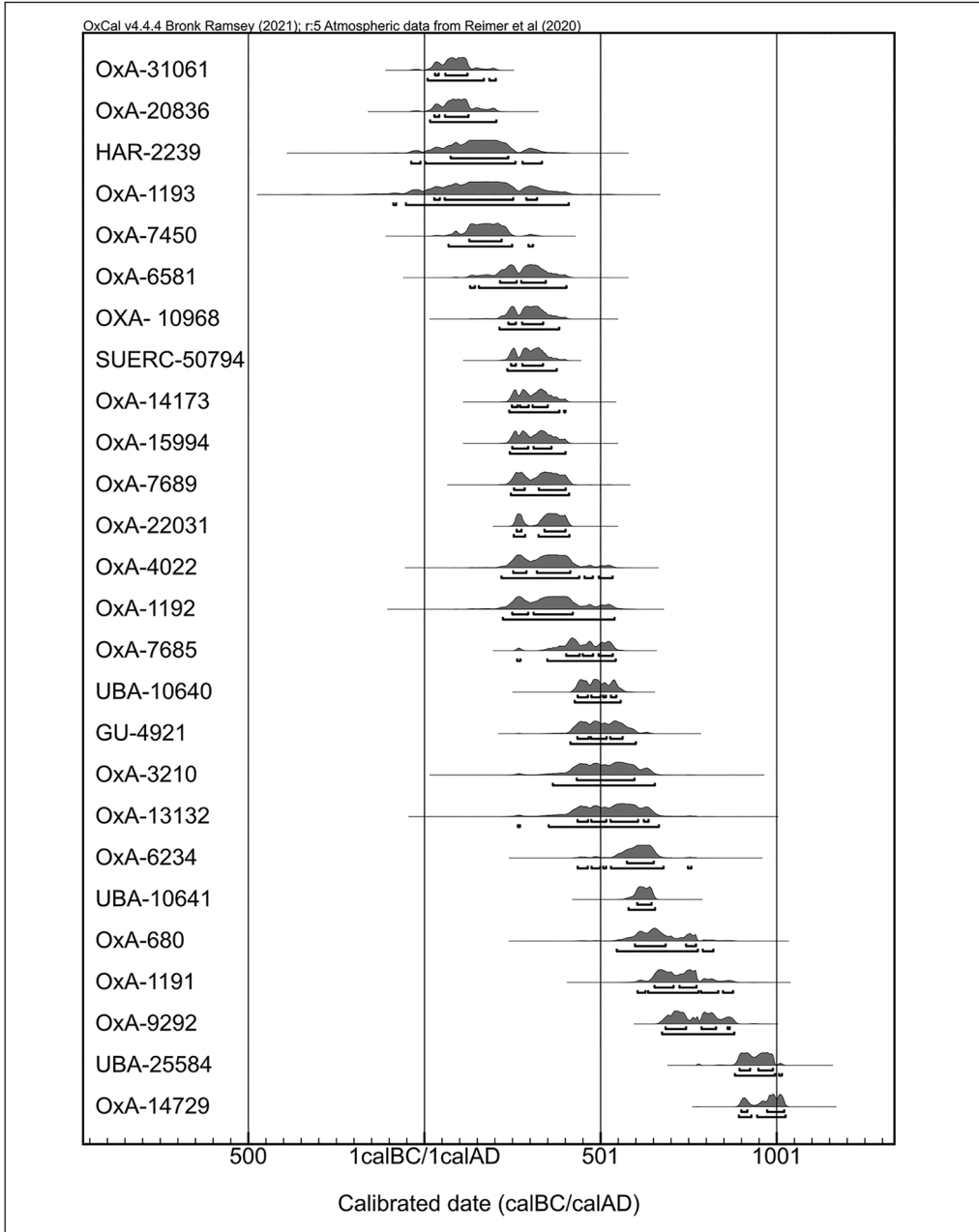


Figure 2. Calibrated radiocarbon dates of human remains from riverine or cave contexts (figure by authors).

bones may also have been dragged into caves by scavengers, having been exposed elsewhere (Madgwick *et al.* 2016: 220).

Skulls, which most readily sink to be preserved in sediment (Turner *et al.* 2002: 429–30), have been recovered from riverine contexts, particularly along the Thames and the River

Ribble in Preston (Turner *et al.* 2002). Most of the Thames skulls date from the first millennium BC but some are Roman or medieval (Schulting & Bradley 2013: 43). Another possible riverine context is a fishing weir on the River Wey, radiocarbon dated to the fourth–seventh centuries, where disarticulated human remains were found in silt (Bird 1999: 116). Cave and riverine contexts are also not entirely separate; there is evidence from Wookey Hole of late Roman disposal of human remains in the river that flowed through the cave (Wilford 2016: 315).

One example that blurs the boundaries between riverine disposal and inhumation burial is a ‘bog body’ found beside the River Avon in Wiltshire and radiocarbon dated to the fifth or sixth century (McKinley 2003). This was a 20–25-year-old female, originally buried prone in waterlogged conditions under a wooden cover. McKinley interprets this as an individual who required confinement in a marginal burial, but this grave could also be seen as part of a broader spectrum of deposition in water.

Human remains may, of course, end up in caves or water as a result of accidents (Edwards *et al.* 2009: 44; van Beek *et al.* 2022: 137). Remains found in rivers may also have eroded out of adjacent banks, rather than having been deliberately deposited in the water (Schulting & Bradley 2013: 32; Harward *et al.* 2015). A skull from the River Ribble in Preston, dated to the seventh–ninth centuries AD, has indications of sharp-force trauma, and may have ended up in a marginal place as the consequence of violence (Turner *et al.* 2002: 428). However, skulls with obvious trauma have been preferentially selected for radiocarbon dating, and so form a disproportionate number of known examples (e.g. Schulting & Bradley 2013).

The riverine and cave remains identified in this article cannot represent the entirety of non-cemetery disposal, and nor are they argued to represent a norm. Rather, these finds come from specific environments in which practices that are usually archaeologically invisible become visible. Persistence of such finds into the early medieval period indicates that a spectrum of funerary activity was maintained, and, as contended above, it is likely that this included practices that are truly invisible, such as the scattering of cremated remains.

Conclusion

The *longue durée* of non-burial mortuary treatment in northern and western Europe probably included much of the first millennium AD. Earlier mortuary practices, including cremation without burial, and perhaps exposure and deposition in water, remained significant components of funerary pathways into at least the fifth century in England.

Low levels of fifth-century mortuary visibility means that the use of burials to understand migration and identity around the *Adventus Saxonum* frequently relies on sixth- and seventh-century graves. Systematic bias is introduced if the dead treated in the most locally rooted traditions in rural lowland England do not appear in cemetery-based datasets at all.

More widely, increasing awareness of the variety of mortuary behaviours in first millennium northern and western Europe renews the need for consideration of the ontologies of body and person which may relate to changing treatment of the dead over time. Until recently, the key distinction drawn in mortuary rites in the Early Middle Ages was between cremation and inhumation, with the different corpse treatments thought to indicate divergent understandings of relationships between bodies and persons. Now it is widely recognised

that cremation and inhumation were often practised alongside each other (Lippok 2020) and could be closely analogous, with the corpse and accompanying artefacts arranged on the cremation pyre in a manner similar to inhumation displays (Nugent 2017). We suggest that the more profound separation in mortuary pathways is found between readily visible rites, which first present the corpse and its accoutrements and then create a grave as a preserving space, and rites that aimed to disperse the physical presence of the dead.

Acknowledgements

We are grateful to Sophie Bergerbrant, Catherine Hills and Cecilia Ljung for their advice.

Funding statement

This research received no specific grant from any funding agency or from commercial and not-for-profit sectors.

Online supplementary materials (OSM)

To view supplementary material for this article, please visit <https://doi.org/10.15184/aqy.2024.147> and select the supplementary materials tab.

References

- ARIAS, P., R. ONTANON, E. GUTIÉRREZ CUENCA, J.A.H. GÁRATE, F. ETXEBERRIA, L. HERRASTI & P. UZQUIANO. 2018. Hidden in the depths, far from people, in K.A. Bergsvik & M. Dowd (ed.) *Caves and ritual in medieval Europe, AD 500–1500*: 133–51. Oxford: Oxbow.
- ARMIT, I. 2017. The visible dead, in J. Bradbury & C. Scarre (ed.) *Engaging with the dead*: 163–73. Oxford: Oxbow.
- BALCH, H.E. & R.D.R. TROUP. 1911. XXVI.—A late-Celtic and Romano-British Cave-dwelling at Wookey-Hole, near Wells, Somerset. *Archaeologia* 62(2): 565–92. <https://doi.org/10.1017/S0261340900008316>
- BENNETT, A. 1987. Graven - religiös och social symbol. Unpublished PhD dissertation, Stockholms Universitet.
- BENNETT, P. 1980. Interim report on excavations in 1980 by the Canterbury Archaeological Trust. *Archaeologia Cantiana* 96: 406–10.
- BENSON, D. & K. BLAND. 1963. The Dog Hole, Haverbrack. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 63: 61–67.
- BERGSVIK, K.A. & M. DOWD (ed.). 2018. Caves and rockshelters in medieval Europe, in *Caves and ritual in medieval Europe, AD 500–1500*: 1–12. Oxford: Oxbow.
- BEVAN, A., S. COLLEDGE, D. FULLER, R. FYFE, S. SHENNAN & C. STEVENS. 2017. Holocene fluctuations in human population demonstrate repeated links to food production and climate. *Proceedings of the National Academy of Sciences USA* 114: E10524–31. <https://doi.org/10.1073/pnas.1709190114>
- BIRD, D.G. 1999. Possible late Roman or early Saxon fish weirs at Ferry Lane, Shepperton. *Surrey Archaeological Collections* 86: 105–23. <https://doi.org/10.5284/1000221>
- BOOTH, T.J. & R. MADGWICK. 2016. New evidence for diverse secondary burial practices in Iron Age Britain. *Journal of Archaeological Science* 67: 14–24. <https://doi.org/10.1016/j.jas.2016.01.010>
- BUCK, T., E.M. GREENE, A. MEYER, V. BARLOW & E. GRAHAM. 2019. The body in the ditch: alternative funerary practices on the northern frontier of the Roman Empire? *Britannia* 50: 203–24. <https://doi.org/10.1017/S0068113X1900014X>
- BRÜCK, J. & T.J. BOOTH. 2022. The ambivalent dead: curation, excarnation and complex post-mortem trajectories in Middle and Late

- Bronze Age Britain. *Proceedings of the Prehistoric Society* 88: 193–220.
<https://doi.org/10.1017/ppr.2022.8>
- CARR, G. & C. KNÜSEL. 1997. The ritual framework of exhumation by exposure as the mortuary practice of the Early and Middle Iron Ages of central southern Britain, in A. Gwilt & C. Haselgrove (ed.) *Reconstructing Iron Age societies*: 167–73. Oxford: Oxbow.
- CARVER, M. 2019. *Formative Britain*. London: Routledge.
- CARVER, M., C. HILLS & J. SCHESCHWITZ. 2009. *Wasperton: a Roman, British and Anglo-Saxon community in central England*. Woodbridge: Boydell & Brewer.
- CRAWFORD, S. 1999. *Childhood in Anglo-Saxon England*. Stroud: Sutton.
- DARK, K.R. 2002. *Britain and the end of the Roman Empire*. Stroud: Tempus.
- DEPAERMENTIER, M.L.C. 2023. Isotope data in Migration Period archaeology: critical review and future directions. *Archaeological and Anthropological Sciences* 15.
<https://doi.org/10.1007/s12520-023-01739-y>
- DOWD, M., L. FIBIGER & L.G. LYNCH. 2006. The human remains from Irish Caves Project. *Archaeology Ireland* 77(3): 16–19.
- EDWARDS, N. 2023. *Life in early medieval Wales*. Oxford: Oxford University Press.
- EDWARDS, Y.H., A. WEISSKOPF & D. HAMILTON. 2009. Age, taphonomic history and mode of deposition of human skulls in the River Thames. *Transactions of the London and Middlesex Archaeological Society* 60: 35–51.
<https://doi.org/10.5284/1086996>
- ERIKSEN, M.H. 2020. ‘Body-objects’ and personhood in the Iron and Viking Ages: processing, curating, and depositing skulls in domestic space. *World Archaeology* 52: 103–19.
<https://doi.org/10.1080/00438243.2019.1741439>
- FLEMING, R. 2021. *The material fall of Roman Britain, 300–525 CE*. Philadelphia: University of Pennsylvania Press.
- GERRARD, J. 2015. Synthesis, chronology, and ‘late Roman’ cemeteries in Britain. *American Journal of Archaeology* 119: 565–72.
<https://doi.org/10.3764/aja.119.4.0565>
- GRETZINGER, J. *et al.* 2022. The Anglo-Saxon migration and the formation of the early English gene pool. *Nature* 610: 112–19.
<https://doi.org/10.1038/s41586-022-05247-2>
- HARDING, D.W. 2016. *Death and burial in Iron Age Britain*. Oxford: Oxford University Press.
- HARLAND, J.M. 2021 *Ethnic identity and the archaeology of the Aduentus Saxonum: a modern framework and its problems*. Amsterdam: Amsterdam University Press.
- HARWARD, C., N. POWERS & S. WATSON. 2015. *The Upper Walbrook Valley cemetery of Roman London*. London: Museum of London Archaeology.
- HAWKES, C.J., J.M. ROGERS & E.K. TRATMAN. 1978. Romano-British cemetery in the fourth chamber of Wookey Hole Cave, Somerset. *Proceedings of the University of Bristol Speleological Society* 15(1): 23–52.
- HILLS, C. 2003. *Origins of the English*. London: Duckworth.
- HILLS, C. & S. LUCY. 2013. *Spong Hill. Part IX: chronology and synthesis*. Cambridge: McDonald Institute.
- HILLS, C.M. & T.C. O’CONNELL. 2009. New light on the Anglo-Saxon succession: two cemeteries and their dates. *Antiquity* 83: 1096–108.
<https://doi.org/10.1017/S0003598X00099385>
- HINES, J. 2002. Lies, damned lies and the Curriculum Vitae, in S. Lucy & A.J. Reynolds (ed.) *Burial in early medieval England and Wales*: 88–102. London: Society for Medieval Archaeology.
- HINES, J. & A. BAYLISS. 2013. *Anglo-Saxon graves and grave goods of the 6th and 7th centuries AD*. London: Society for Medieval Archaeology.
- HINTON, D.A. 2005. *Gold and gilt, pots and pins: possessions and people in medieval Britain*. Oxford: Oxford University Press.
- HIRST, S. & CLARK, D. 2009. *Excavations at Mucking, Volume 3: The Anglo-Saxon Cemeteries*. London: Museum of London Archaeology.
- KONCZ, I. 2015. 568 — A historical date and its archaeological consequences*. *Acta Archaeologica Academiae Scientiarum Hungaricae* 66: 315–40.
<https://doi.org/10.1556/072.2015.66.2.4>
- LEGG, M. 2022. *Death in the Iron Age of Eastern England*. Oxford: British Archaeological Reports.
- LEGGETT, S., A. ROSE, E. PRAET & P. LE ROUX. 2021. Multi-tissue and multi-isotope ($\delta^{13}\text{C}$, $\delta^{15}\text{N}$, $\delta^{18}\text{O}$ and $^{87/86}\text{Sr}$) data for early medieval human and animal palaeoecology. *Ecology* 102.
<https://doi.org/10.1002/ecy.3349>
- LEGGETT, S., S. HAKENBECK & T. O’CONNELL. 2022. Large-scale isotopic data reveal gendered migration into early medieval England c AD

- 400–1100. *OSF Preprints*
<https://doi.org/10.31219/osf.io/jzfv6>
- LIPPOK, F.E. 2020. The pyre and the grave: early medieval cremation burials in the Netherlands, the German Rhineland and Belgium. *World Archaeology* 52: 147–62.
<https://doi.org/10.1080/00438243.2020.1769297>
- LUCY, S. 2000. *The Anglo-Saxon way of death*. Stroud: Sutton.
- MADGWICK, R., M. REDKNAP & B. DAVIES. 2016. Illuminating Lesser Garth Cave, Cardiff: the human remains and post-Roman archaeology in context. *Archaeologia Cambrensis*, 165: 201–29.
- MALDONADO, A. 2013. Burial in early medieval Scotland: new questions. *Medieval Archaeology* 57: 1–34.
<https://doi.org/10.1179/0076609713Z.00000000013>
- in press. Burning questions: learning to see cremation in the long Iron Age of northern Britain, in H. Williams & F. Lippok (ed.) *Cremation in the Early Middle Ages*. Leiden: Sidestone.
- MARZINZIK, S. 2011. The earliest Anglo-Saxons? The burial site at Ringlemere Farm, East Kent, and early cross-Channel migration, in S. Brookes, S. Harrington & A. Reynolds (ed.) *Studies in early Anglo-Saxon art and archaeology* (British Archaeological Reports British Series 527): 55–61. Oxford: BAR.
- McKINLEY, J. 2003. A Wiltshire bog body? Discussion of a fifth/sixth century AD burial in the Woodford Valley. *The Wiltshire Archaeological and Natural History Magazine* 96: 7–18.
- MEIKLEJOHN, C., A.T. CHAMBERLAIN & R.J. SCHULTING. 2011. Radiocarbon dating of Mesolithic human remains in Great Britain. *Mesolithic Miscellany* 21(2): 20–58.
- MEJSHOLM, L. 2009. Gränsland: Konstruktion av tidig barndom och begravningsritual vid tiden för kristandet i Skandinavien. Unpublished PhD dissertation, Uppsala Universitet.
- NEIL, S., J. EVANS, J. MONTGOMERY, R. SCHULTING & C. SCARRE. 2023. Provenancing antiquarian museum collections using multi-isotope analysis. *Royal Society Open Science* 10.
<https://doi.org/10.1098/rsos.220798>
- NIEUWHOF, A. 2015. *Eight human skulls in a dung heap and more. Ritual practice in the Terp Region of the northern Netherlands 600 BC–AD 300*. Groningen: Thesis Rijksuniversiteit Groningen.
- NUGENT, R. 2017. Two of a kind. Conceptual similarities between cremation and inhumation in Anglo-Saxon England, in J. Cerezo-Román, A. Wessman & H. Williams (ed.) *Cremation and the archaeology of death*: 72–87. Oxford: Oxford University Press.
- OOSTHUIZEN, S. 2019. *The emergence of the English*. York: Arc Humanities.
- O'REGAN, H.J., K. BLAND, J. EVANS, M. HOLMES, K. MCLEOD, R. PHILPOTT, I. SMITH, J. THORP & D.M. WILKINSON 2020. Rural life, Roman ways? Examination of Late Iron Age to Late Romano-British burial practice and mobility at Dog Hole Cave, Cumbria. *Britannia* 51: 83–116.
<https://doi.org/10.1017/S0068113X20000136>
- PEARCE, J. 2013. *Contextual archaeology of burial practice* (British Archaeological Reports British Series 588). Oxford: BAR.
- PRICE, N. 2020. Death ritual and mortuary behaviour, in J.P. Schjødt, J. Lindow & A. Andrén (ed.) *The pre-Christian religions of the North*: 853–96. Turnhout: Brepols.
- RICHARDSON, A. 2005. *The Anglo-Saxon cemeteries of Kent* (British Archaeological Reports British Series 391). Oxford: BAR.
- RIPPON, S. 2022. *Territoriality and the early medieval landscape*. Woodbridge: Boydell.
- RIPPON, S., C. SMART & B. PEARS. 2015. *The fields of Britannia: continuity and change in the late Roman and early medieval landscape*. Oxford: Oxford University Press.
- SEBRICH, J. 2019. *Das spätantik-frühmittelalterliche Gräberfeld von Essenbach-Altheim*. Lassleben: Kallmünz.
- SCHULTING, R.J. & R. BRADLEY. 2013. 'Of human remains and weapons in the neighbourhood of London': new AMS 14C dates on Thames 'river skulls' and their European context. *Archaeological Journal* 170: 30–77.
<https://doi.org/10.1080/00665983.2013.11021001>
- SCHULTING, R.J. & M.P. RICHARDS. 2002. Finding the coastal Mesolithic in southwest Britain. *Antiquity* 76: 1011–25.
<https://doi.org/10.1017/S0003598X00091821>
- SHAPLAND, F. & I. ARMIT. 2012. The useful dead: bodies as objects in Iron Age and Norse Atlantic Scotland. *European Journal of Archaeology* 15: 98–116.

- <https://doi.org/10.1179/1461957112Y.0000000004>
- SIEGMUND, F. 2003. Social relations among the Old Saxons, in D.H. Green & F. Siegmund (ed.) *The continental Saxons from the migration period to the tenth century*: 77–112. Rochester (NY): Boydell.
- SMITH, A. 2017. Romano-British rural burial practices in south-east England, in J. Bradbury & C. Scarre (ed.) *Engaging with the dead*: 40–50. Oxford: Oxbow.
<https://doi.org/10.2307/j.ctt1vgw6s0.6>
- SMITH, A., M. ALLEN, T. BRINDLE, M. FULFORD, L. LODWICK & A. ROHNBÖGNER. 2018. *Life and death in the countryside of Roman Britain*. London: Society for the Promotion of Roman Studies.
- SOFIELD, C.M. 2015. Living with the dead: human burials in Anglo-Saxon settlement contexts. *Archaeological Journal* 172: 351–88.
<https://doi.org/10.1080/00665983.2015.1038688>
- THÉRUS, J. 2019. Den yngre järnålderns gravskick i Uppland. Unpublished PhD dissertation, Uppsala Universitet.
- TURNER, A., S. GONZALEZ & J.C. OHMAN. 2002. Prehistoric human and ungulate remains from Preston Docks, Lancashire, UK: problems of river finds. *Journal of Archaeological Science* 29: 423–33. <https://doi.org/10.1006/jasc.2002.0730>
- VAN BEEK, R., C. QUIK, S. BERGERBRANT, F. HUISMAN & P. KAMA. 2023. Bogs, bones and bodies: the deposition of human remains in northern European mires (9000 BC–AD 1900). *Antiquity* 97: 120–40.
<https://doi.org/10.15184/aqy.2022.163>
- WEISS-KREJCI, E. 2013. The unburied dead, in S. Tarlow & L.N. Stutz (ed.) *The Oxford handbook of the archaeology of death and burial*: 281–99. Oxford: Oxford University Press.
- WILFORD, S.M. 2016. Riddles in the dark? The human use of caves during the 1st millennia BC and AD across the British Isles. Unpublished PhD dissertation, Durham University.
- WOJENKA, M., J. WILCZYŃSKI & A. ZASTAWNY. 2016. Archaeological excavations in Żarska Cave in Żary, Kraków district, 2012–2015. *Recherches Archéologiques Nouvelle Serie* 8: 185–204.