

Archaeology International

Research Article

Living with the dead: mummification and post-mortem treatment in Bronze Age Britain

Mike Parker Pearson ^{1,*}

How to cite: Parker Pearson, M. 'Living with the dead: mummification and post-mortem treatment in Bronze Age Britain'. *Archaeology International*, 2023, 26 (1), pp. 145–66 • DOI: <https://doi.org/10.14324/AI.26.1.10>

Published: 30 December 2023

Peer review:

This article has been peer-reviewed through the journal's standard double-blind peer-review process, where both the reviewers and authors are anonymised during review.

Copyright:

© 2023, Mike Parker Pearson. This is an open-access article distributed under the terms of the Creative Commons Attribution Licence (CC-BY) 4.0 <https://creativecommons.org/licenses/by/4.0/>, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited • DOI: <https://doi.org/10.14324/AI.26.1.10>

Open access:

Archaeology International is a peer-reviewed open-access journal.

*Correspondence: m.parker-pearson@ucl.ac.uk

¹UCL Institute of Archaeology, UK

Living with the dead: mummification and post-mortem treatment in Bronze Age Britain

Mike Parker Pearson

Abstract

A long-recognised problem in British prehistory is the replacement of formal cemeteries and burials from 1600 BCE onwards by deposits with disarticulated human remains, many of them found on settlements. At the Bronze Age settlement site of Cladh Hallan in the Outer Hebrides the human remains include cremation deposits, inhumations, disarticulated bones and body parts of formerly mummified remains recombined as composite skeletons. These mortuary practices, including exhumation, curation and reburial, reveal an intimate relationship between the living and the dead. The burial of mummies beneath house floors and the deposition of other human remains within Cladh Hallan's roundhouses demonstrate how dwellings were places of spiritual and cosmological meaning as well as practical utility. While later Bronze Age mortuary practices generally provide little indication of the social inequalities apparent in other lines of evidence, the practice of mummification may have served as an indicator of social status.

Keywords: Britain, Bronze Age, mummification, prehistory

Introduction

Burial was a relatively rare event in British prehistory, with the majority of the population having left little or no archaeological trace (Parker Pearson 2016). For the vast majority, we can only guess at their fate, whether buried at sea or in rivers, exposed as ‘sky burials’ or cremated and their ashes scattered. We know from ethnographic and historical studies of mortuary practices that many more possibilities exist, including cannibalism, curation and secondary rites of excarnation and mummification (Metcalf and Huntington 1993; Parker Pearson 1999).

Burial practices in Britain’s Bronze Age (2200–750 BCE) are certainly well known, notably the inhumation and cremation rites of the Beaker period (2450–1800 BCE) (Parker Pearson et al. 2019; Bloxam and Parker Pearson 2022) and the burial of cremated remains in ceramic urns during the Early and Middle Bronze Age (2200–1150 BCE) (Caswell and Roberts 2018). Even so, the archaeologically visible dead must represent only a tiny proportion of the population; by the Late Bronze Age (1150–750 BCE) the vast majority of the dead are archaeologically invisible. Evidence for mortuary practices declines in the Middle Bronze Age (1600–1150 BCE) and is sparse for the Late Bronze Age, with fewer cremation burials or inhumations. Human remains of this later period tend to be partial, consisting of unburnt single bones or body parts, or token handfuls of cremated bone. With few formal cemeteries, the majority of Late Bronze Age human remains have been recovered from settlement pits, ditches and house foundations, field systems, rivers and other wet places, caves and metalwork hoards (Bradley and Gordon 1988; Brück 1995: 247–51, fig. 1; Schulting and Bradley 2013; Caswell and Roberts 2018: 343; Booth and Brück 2020).

Cladh Hallan: life and death in the Bronze Age

A remarkable opportunity to explore these elusive mortuary practices arose during excavation of the Bronze Age site of Cladh Hallan on the island of South Uist in the Outer Hebrides (or Western Isles) of Scotland (Parker Pearson et al. 2021). Within its exceptionally well-preserved and deeply stratified deposits of calcareous sand – circumstances of survival

rarely encountered elsewhere in Britain – Cladh Hallan provides a thousand-year sequence of Bronze Age activity, in which Middle Bronze Age burials were buried in Beaker-period fields. Their graves were subsequently built on by a row of Late Bronze Age roundhouses, beneath which the inhabitants buried some highly unusual inhumations.

Dispersing and exhuming cremated remains

The first burials at Cladh Hallan were cremation deposits, buried in small pits or covered by small cairns surrounded by single rings of stones (Parker Pearson et al. 2021: 38–47). One of these ringed cairns was constructed on the site of a funeral pyre in 1740–1530 BCE, with cremated bone fragments, charred wood and burnt peat heaped on top of the pyre to form a small mound (Figure 1). The bones of the adult buried here weighed just 177 g (Willis forthcoming), far short of the average weight for Bronze Age cremation deposits of 800 g and well below the actual average weight of 1,626 g for the remains that survive after cremation in a modern crematorium (McKinley 1997). Even though the underlying pyre implies that the corpse was cremated on this spot, most of the bones must have been removed from the pyre site after the cremation.

Cladh Hallan's other three cremation burials – of two adults and a child – contained similarly tiny quantities of cremated bone. There was also a second pyre, 15 m to the north of this small cemetery. The burials had become covered by windblown sand before a small oval house with stake-built walls was built on top of them in 1380–1175 BCE. The house's hearth was positioned directly over the child's grave in what may have been an act of remembrance. The preserved floor deposits in this small shack, just 6.7 m × 4.1 m, show that it was used as a dwelling where people ate and slept, cooking their food directly on top of the small grave. After the house was demolished and the ground ploughed over, someone dug a hole (pit 2837) through its abandoned floor to extract bones from this grave (Figure 2), spilling some of the smaller fragments in the pit (Parker Pearson et al. 2021, 65–6).

The hole to extract the child's bones was just one of five pits dug into the cremation cemetery at this time. Although these pits were

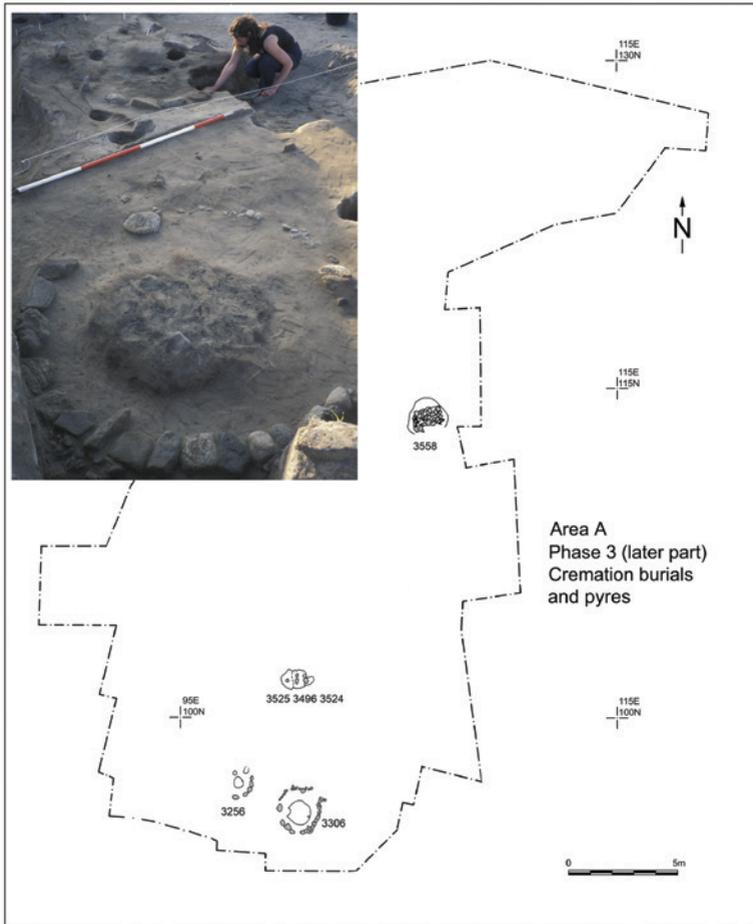


Figure 1 Plan of the Middle Bronze Age cremation cemetery and cremation pyres at Cladh Hallan. Inset: cremation burial 3307 (in the foreground), viewed from the southeast

largely devoid of other finds, all but one contained small quantities of human remains, some of them cremated and others unburnt disarticulated bones (Parker Pearson et al. 2021, 73–80). Just why these pits were dug is something of a mystery. Were they dug to explore the depth of groundwater as a prelude to later house-building? Or were they, like

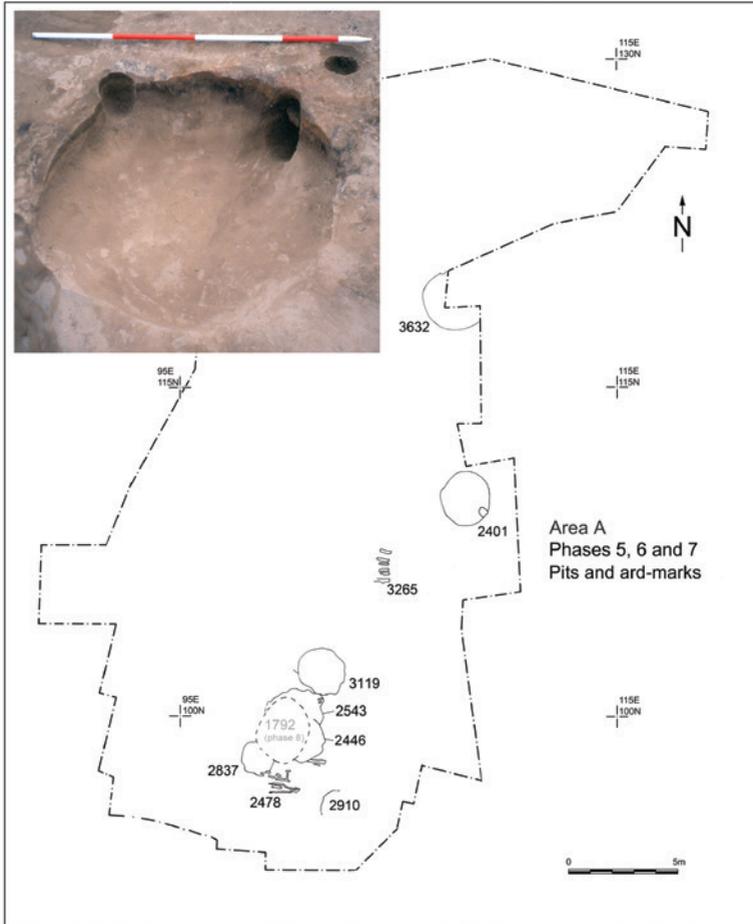


Figure 2 Plan of pits dug prior to the construction of the north–south round-house row at Cladh Hallan. Inset: pit 2837 and its extension hole dug into the child’s cremation burial, viewed from the northwest

pit 2837, dug to locate and even remove burials, incidentally leaving behind bones from both cremations and inhumations?

Another four large pits, two of them containing human bones, were dug in the initial stages of constructing a row of three round-houses. One of these was a double pit (2551; Figure 3) in which the

broken-off femur and tibia of a human knee lay in an articulated position close to a bone pin at the bottom of the pit. The other feature (pit 1792) that contained fragments of unburnt human bone was dug into one of the earlier pits.

Mummies and other burials under roundhouse floors

The roundhouses were built in a north-northeast–south-southwest row with east-facing entrances in a single act of construction in 1095–15 BCE. Each consisted of an excavated hollow in which the floor was sunk below ground level, and the three houses shared party walls of consolidated sand with dry-stone wall faces. The central roundhouse was the largest and deepest, 8.3 m × 9.7 m across its interior in a hollow 0.6 m deep with walls up to 2.5 m thick. A small porch-like room was later added in front of its entrance passage. Many pits were dug into the ground beneath each roundhouse hollow but four had extraordinary contents (Figure 3).

The central roundhouse remained in use for 335–455 years (at 68 per cent probability). Its neighbours were more short-lived, and the northern house was used increasingly for non-domestic purposes in its later phases. In a shallow pit under the northeast quadrant of the large central house lay the skeleton of a child, probably female, aged 10–12 years. Her date of death is consistent with the date of the houses' foundation, so she probably died at the time that the houses were being laid out. It is possible that she was a human sacrifice, offered to the spirit world to ensure the successful founding and future prosperity of the settlement.

Another inhumation was buried beneath the northeast quadrant of the small southern roundhouse. This was the body of a 1½–3-year-old, which was disarticulated except for the pelvis and spinal column, indicating that the child had been dead for some time before burial. The body's radiocarbon date of 1445–1195 BCE indicates that death occurred at least a century before the house was built.

The most surprising burials lay beneath the northern roundhouse. As in the other two houses, one inhumation was buried beneath the northeast quadrant but the other was placed beneath the floor on the

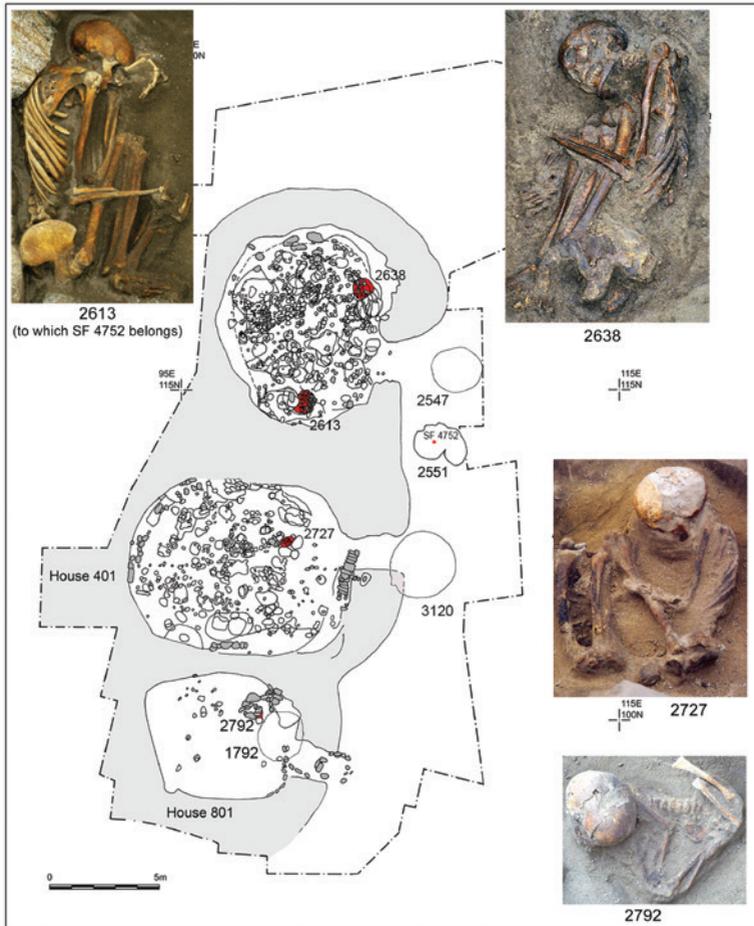


Figure 3 Plan of human burials (red) beneath the three roundhouses, including the articulated knee in pit 2551. The house walls are shaded grey. Inset top left: female/male composite mummy. Inset top right: male composite mummy. Inset middle right: older child skeleton. Inset lower right: younger child skeleton

house's south side. The skeleton in the northeast was that of three males assembled to create one 'body' – the skull of one individual, the mandible of another and the torso and limbs of a third. These were arranged in anatomically correct positions in a tightly contracted body bundle. Analysis of patterns of diagenesis, including bacterial attack within the

bone microstructure, revealed that the body's post-mortem decay had been arrested, consistent with the preservation of soft tissue for some time after death (Parker Pearson et al. 2005). In addition, evidence of demineralisation and loss of calcium from the bones' surface indicated that all three skeletal parts, each of them deeply stained, had previously been exposed to an acidic environment prior to their burial in Cladh Hallan's calcareous sand (Parker Pearson et al. 2005). The most likely location where this could have happened is one of South Uist's many peat bogs which were already being cut for peat by this time (Branigan et al. 2002).

The second burial within the northern roundhouse was similarly a composite skeleton, consisting of a male head on the torso of a female (Parker Pearson et al. 2005, 2007). In addition, ancient DNA analysis revealed that the right arm belonged to a third individual (Hanna et al. 2012). The skeleton was in an anatomically correct position, not quite as tightly contracted as the other and not as heavily stained. With the head dating to 1435–1260 BCE and the body to 1300–1125 BCE, it is probable that the head was many decades older than the other body parts. The composite male's skull from the burial in the northeast quadrant dates to 1495–1275 BCE, similar to the date of the accompanying mandible, while the torso is likely to be older, dating to 1615–1420 BCE.

The two composite skeletons beneath the northern house are composed collectively of body parts from six separate formerly mummified individuals whose other remains are unaccounted for. While archaeologists normally identify mummies from their soft tissue, which can survive in arid, frozen or anaerobic environments (Cockburn et al. 1980; Aufderheide 2003), the Cladh Hallan skeletons – in a temperate climate with no likelihood of organic preservation – provided an opportunity to develop techniques for identifying former evidence of mummification from skeletal remains (Parker Pearson et al. 2005).

Unravelling the sequence of post-mortem treatment

One of the puzzling questions raised by these burials at Cladh Hallan is why they were so much older than the deposits in which they were buried during foundation works for the roundhouse row. It couldn't

be simply because they were mummified and were kept for a long time above ground before being interred because the 1½–3-year-old child buried beneath the southern house showed no evidence of post-mortem soft-tissue preservation. Five scenarios are possible:

1. All the people in the four inhumation graves, including the older child beneath the central roundhouse, were buried soon after death as part of the pre-existing cemetery and the burials are thus unrelated to roundhouse construction. In this scenario, the varying depths of the hollows of the three roundhouses were determined by when the house-builders reached the tops of the graves.
2. Three of the burials took place soon after the individuals' death as part of the use of the cemetery, the exception being the older child who was buried after the roundhouse hollows were dug out. In this scenario, the three other burials would be undisturbed graves within the earlier cemetery.
3. All four of the burials were interred after the roundhouses' hollows were dug out but before the house floors were laid. In this scenario, only the older child's corpse would have been fresh and fully articulated whereas the other bodies would have been retrieved from elsewhere (either above or below ground) and (re)buried.
4. Three of the bodies in the inhumation graves, but not the older child, were buried after the roundhouses' hollows were dug out. In this scenario, the older child would have been buried in a very deep grave shortly before the digging-out of the house hollow which would then have been dug to a depth just above the top of the body, truncating the upper part of her burial pit.
5. All the burials were interred before the start of the digging-out of the roundhouse hollows but only shortly before. In this scenario, the older child would have been buried soon after death, but the ancient remains of the other four would have to have been retrieved or exhumed from elsewhere. The older child's grave would have to have been dug much deeper than all the others since the central roundhouse's hollow was by far the deepest of the three houses.

A key piece of evidence for deciding between these alternatives comes from the double pit (2551) outside the northern house. The articulated

knee joint from its basal layer conjoins with the left leg of the male/female composite under the floor in the south of the northern house. The biscuit-like fractures of the long bones reveal that this individual was long dead when this happened, contrasting with the manner of a green fracture in the collagen-rich bone of someone recently dead (Parker Pearson et al. 2007). Furthermore, the moment of breakage must have occurred prior to the composite mummy being buried beneath the northern roundhouse because the right leg was placed over the knee-less left leg and would have been disturbed if the knee had been broken off and removed after the body was laid in the grave pit.

The double pit contained not only the articulated knee (dating to 1300–1125 BCE) but also carbonised grains of barley of similar date. It also included a large cow bone dating to the same period as the construction of the roundhouses in the eleventh century BCE. With a bone pin as a possible, discarded grave good, this double pit is best interpreted as an emptied grave with the broken-off knee left behind when the thirteenth–twelfth century BCE mummified body was exhumed in the eleventh century BCE.

In summary, the most likely trajectory for the female/male composite mummy is that the female was mummified, then buried in an oval pit, then exhumed about a century later (causing the pit to become a double pit), then her head was replaced by that of an even more ancient mummified male head and the right arm substituted from a third mummy. This sequence is incompatible with Scenarios 1 and 2. Scenario 5 can also be considered unlikely because it requires a source of multiple bodies and body parts for which one of the most obvious sources is surely the large volumes of fill removed for the sunken roundhouses in and around the earlier cemetery. For Scenario 4, it would seem odd to dig the older child's grave from the ground surface and then, knowing it was there, dig out the central house's sunken floor down to the top of it. Scenario 3 is thus the most likely, though Scenario 4 cannot be entirely ruled out (see Parker Pearson et al. 2021, 116–20, for a more detailed discussion).

Placing the dead in the roundhouse

The four burials placed in the foundations of the roundhouses were not the last instances of the manipulation of the dead at Cladh Hallan.

Human bones were incorporated into the houses' wall cores and floors, and the remains of two infants were buried inside the houses, one in the northeast quadrant of the northern house in 1065–975 BCE and the other lying disarticulated on the floor of the central house in 755–595 BCE.

The northeast quadrant's association with the dead continued throughout the houses' use. Although it is extremely unusual to find burials under the floors of Bronze Age roundhouses – Cladh Hallan is exceptional in this regard – the association of this quadrant with the dead was expected even before excavation began. A major aspect of the research design from the beginning was to test the hypothesis that Bronze Age and Iron Age roundhouses in Britain incorporated cosmological and ritual aspects within the domestic and everyday practicalities of life.

This hypothesis was proposed by Andrew Fitzpatrick (1994, 1997), extrapolated from the distribution of different kinds of artefacts in the postholes around the walls of an Iron Age roundhouse at Thatcham in southern England. Recognising that the majority of excavated roundhouses have broadly east-facing doorways, Fitzpatrick proposed that this was linked symbolically to the rising sun and that the day's indoor activities progressed sunrise (or clockwise) around the house and its central hearth, with food-preparation and cooking activities in the southeast, living activities in the south and southwest and sleeping in the north. Thus the practicalities of daily life mirrored the passage of the sun daily across the sky in the south and nightly below the horizon to the north (Figure 4).

It might seem odd that houses incorporated aspects of ritual, religion and symbolism alongside their necessary practical functions, and some archaeologists have found this hard to accept, arguing in favour of meteorological determinism: doorways faced east and southeast to avoid the prevailing westerly winds (Pope 2007; Harding 2009). Yet such arguments fail to account for why a small but significant minority of British roundhouses face into those westerlies. Such oppositional organisation may be more satisfactorily explained as demonstrating difference from the norm of the otherwise 'oriented' (that is, east-facing) worldview of later prehistoric Britons. Furthermore, the Late Bronze Age landscape is strangely devoid of temples or similar sites of public worship and ritual that are so familiar from the Neolithic and

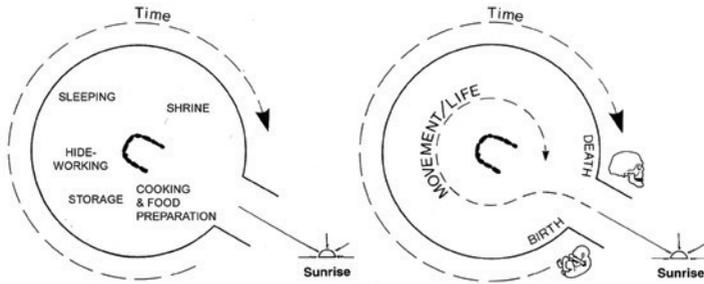
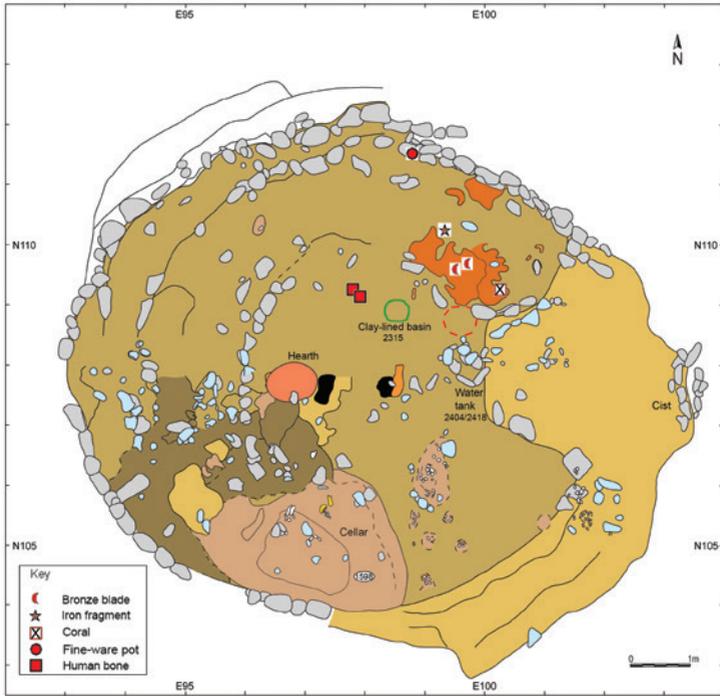


Figure 4 Top: Plan of the floor of the central roundhouse at Cladh Hallan during its initial phase of occupation, showing the locations of artefacts found in the northeast quadrant (see key) and the burial pit of the older child under the floor (dashed red line). The plan shows the central hearth and other peat ash and charcoal (orange), areas of charcoal and black sediment (black), the clay-lined basin (edged in green) and the various brown sand layers in and around the small cellar on its south side. Lower left: locations of activity areas within the central roundhouse following the diurnal cycle. Lower right: the roundhouse's embodiment of the life cycle

Early Bronze Age. It seems likely that ritual and religious practices were now largely relocated to the privacy of the dwelling (Bradley 2005).

Testing the sunwise hypothesis has been difficult because the combination of a rich material culture and preserved floor layers in prehistoric roundhouses is rare in Britain. This is why Cladh Hallan is so important: its deep sequences of well-preserved floor layers, one on top of another in multiple long-lived houses, offer the perfect opportunity to test Fitzpatrick's model. Incorporating it into our pre-excavation research design, we also proposed a second hypothesis that the roundhouse might also have embodied a homology of the life passage from birth to death, with birth associated with the southeast and death with the northeast (Parker Pearson et al. 2021, 16–17, fig. 1.20).

Our detailed studies of spatial distributions of artefacts and debris within the floor layers of Cladh Hallan's roundhouses strongly support the sunwise hypothesis for diurnal activities, including raised sleeping platforms in the north and northwest, craft-working debris in the southwest and sherds of cooking pots in the southeast (Parker Pearson et al. 2021). The central house at Cladh Hallan is probably the longest-lived roundhouse in British prehistory, in use from the eleventh to the sixth century BCE during eight phases of occupation, and its floor layers reveal a consistent pattern that fits the sunwise model until the building was no longer used as a dwelling.

To test this life-cycle hypothesis, it seems impossible to find archaeological evidence for birthing; other than possible metaphorical references such as the preparing of food or the making of pots, both of which occurred in the southeast quadrant, little more can be said. In contrast, there is plenty of evidence for the dead and their association with the northeast. Their association with the northeast quadrant continued not only with the infant buried in the north house but also with the burial of two dogs in that quadrant within the central roundhouse in the ninth–early eighth century BCE.

Perhaps the most intriguing evidence for the house as a locus of ritual activity comes from the floor layer of the central roundhouse's first phase of occupation in the eleventh century BCE. The northeast quadrant was bare floor, bounded on its west by the edge of the sleeping platform and on its south by the doorway and a stone-lined water tank. Within this quadrant a small clay-lined basin was set into the floor

which was partly covered with thin spreads of ash, charcoal and carbonised barley grains.

Artefacts and other micro-debris were rare in this part of the house other than pieces of white quartz and a group of unusual items. These included sherds from a fine-ware pot, two bronze blades, a piece of coral, a piece of iron and two adult human hand bones, one cremated and the other unburnt (Parker Pearson et al. 2021, 149–62). The bronzes, left on the floor prior to the house's renewal, appear to have been a deliberate 'closing' deposit of a kind known from other Bronze Age roundhouses (Drewett 1982; Brück 2001; Nowakowski 2001; Ladle and Woodward 2003, 2009).

The iron fragment is exceptional since it would have been an exotic material with distant origins, especially because this is the earliest piece of iron yet found in Britain, from a time when ironworking was unknown there (Collard et al. 2006). Even the dense spread of burnt grain is unusual, away from the hearth and the storage area in the south of the house. It might have derived from a crop-processing accident but, given its presence in the northeast part of the house, another possibility is that it derived from ritual acts of burning. The most persuasive interpretation of the activities leading to all these curious items being deposited in the northeast is that this was a shrine area where the household engaged with the supernatural realm of deities, spirits and the dead.

The fragmented and missing dead

In summary, the presence of human remains at Cladh Hallan reveals a greater absence. The vast majority are incomplete and partial, from single stray bones and fragments to portions of former mummies. Even the cremation burials of the Middle Bronze Age are missing most of their bone fragments, all the more puzzling given that one of the burials was placed on top of a funerary pyre. The other notable aspect is the long-term process of separation and substitution as bodies were broken down and recombined and graves were reopened to remove both cremated and inhumed remains. Clearly, what ultimately ended up preserved in the ground was only a tiny proportion of the community's dead, whose

remains were divided, circulated and, for the most part, disposed of in circumstances that have left no archaeological trace.

The exceptional conditions of preservation and survival at Cladh Hallan provide insights into a variety and complexity of mortuary practices rarely seen elsewhere in Middle–Late Bronze Age Britain. Like the tip of an iceberg, the fragmented human remains are all that is visible of a complex network of above-ground treatments, transformations, divisions, exchanges, veneration and disposal methods that can be inferred through detailed archaeological analysis. If it were possible to go back in time, we might be surprised at the extent to which the living shared their domestic everyday world with the dead, in physical embodiment as mummies, as parcels of sub-divided cremated and unburnt remains and as incorporeal spirits interacting with the living.

Cladh Hallan in wider context

Before the Cladh Hallan mummies' discovery, the idea that mummification might have been employed in prehistoric Britain or anywhere else in northwest Europe might have seemed unthinkable. They provided the impetus to look for other examples using a 'mummification identification kit' of scientific methods developed specifically for the study of the Cladh Hallan skeletons (Parker Pearson et al. 2005). Histological analysis of bone thin-sections to identify bacterial bioerosion of internal bone microstructures proved to be one of the most effective methods, allowing Tom Booth and colleagues to identify further instances throughout Britain (Booth et al. 2015). This study of a large sample of human remains revealed that, of all the periods from the Neolithic to the early medieval, only during the Bronze Age is there evidence for post-mortem preservation of soft tissue.

The earliest instance is from Canada Farm, Dorset, where an adult male was buried c. 2300 BCE with a Beaker pot likely to be a century or more younger than the date of death (Smith et al. 2016). However, more recent histotaphonomic studies of bone bioerosion reveal the need for caution when relying on histological analysis of bone thin-sections alone for assessing ancient funerary practices (Haddow et al. 2023; Mavroudas et al. 2023). Only when additional methods and evidence

are available, as at Cladh Hallan and Canada Farm, can firm characterisations be made.

Booth and Brück's study of unburnt disarticulated bones from Bronze Age and Early Iron Age contexts (c. 2500–600 BCE) identified a high proportion showing evidence of exhumation and either excarnation or mummification. These disarticulated bones are on average older than their contexts of deposition by a couple of generations and by as much as 200 years (Booth and Brück 2020). The Cladh Hallan material thus fits in well with this evidence of widespread practices of short-term curation of remains from likely remembered individuals.

Why did mortuary practices become transformed during the Bronze Age, to leave the majority of the dead without a grave: why were they exhumed, excarnated, fragmented, dispersed, mixed or reincorporated? These questions have led Joanna Brück (1995, 1999, 2006a, 2006b, 2017, 2019) to propose practical and metaphorical relationships between people's life cycles and those of the settlements, roundhouses and material equipment of daily life. The corpse could be fragmented and dispersed, as were objects such as pots and quernstones, to facilitate cyclical rebirth and regeneration as new life emerged from death (Brück 2006a). As discussed earlier, the roundhouse provided the embodiment and enactment of time as cyclical, both diurnally and from birth to death.

These processes of fragmentation and disintegration played their part in the production of the self in a relational rather than an individualised sense of personhood, formed of substances that could be combined, reordered and dispersed in exchanges among the living (Brück 2006a, 87–93). It is possible that beliefs such as reincarnation accompanied such practices of disintegration and dispersal: with the body entirely gone, the deceased could be reborn as new.

Various broad transformations in daily life during the second millennium BCE may have fostered the development of such practices and beliefs. Within Britain and northwest Europe more widely, settlement evidence suggests a new attachment to place (Bradley et al. 2016, 210–12). The building of monuments for the dead declined as communities defined themselves increasingly in terms of their ties to the land rather than to their kin groups' descent from illustrious ancestors (Thomas 1997). The house replaced the grave and funerary

monument as the seat of ancestry and belonging. The more mobile pastoralist-based communities of the Early Bronze Age were tethered to place by their round barrows and other funerary markers in the landscape, whereas the more sedentary, mixed farmers of the Middle and Late Bronze Age constructed permanence out of their field systems and settlements. Now it was the living who were fixed in the land and the dead who had become mobile and mutable.

With multiple mortuary rites of cremation, excarnation, inhumation, exhumation, fragmentation and mummification evident in the Middle–Late Bronze Age, we might ask who received these different treatments. There is little evidence for the display of social status in death even though social hierarchy and inequality are evident in the settlement record and metalwork assemblages. It would seem that funerary and mortuary rites were muted and unrepresentative of the actual social order in which some controlled production and exchange of bronze weaponry and precious gold ornaments and lived in defended or substantial houses and settlements.

Cladh Hallan provides insights into that social order and how it might have linked to mortuary practices, at least from the eleventh century BCE onwards. The group of three roundhouses appears to have constituted a single modular unit which later reformed into a unit of two, a type common elsewhere in Britain (see Ellison 1978, 1981, 1987; Woodward 2002, 66). With its central dwelling and two dependent houses, one a dwelling (the southern house) and the other a multi-purpose ancillary house (the northern house), Cladh Hallan was a multiple household with substantial wealth, power and long-distance exchange connections, judging by its imported gold, bronze and polished-stone dress ornaments and by its substantial assemblage of mould fragments for casting swords, spearheads, tools and ornaments (Parker Pearson et al. 2021). We cannot say whether it was the home of a chieftain but it is most persuasively interpreted as the residence of a powerful family served by dependants (Parker Pearson et al. 2021, 201–4).

Within this social context reconstructed from the settlement evidence lies the question of whether mummification was widely practised and whether it was a means of demonstrating elevated social status, as much of the living as of the dead. Although widespread across Britain from northern Scotland to southern England, it was clearly not

hugely common, given the results so far of histological analysis (Booth et al. 2015; Booth and Brück 2020). Even though mummification can be a relatively simple technical process of inhibiting decay by various means such as drying, smoking or peatbog-tanning, it may have been chosen for those dead considered worthy of display long after death or where their continued presence and agency among the living was necessary for the continued exercise of power.

The Cladh Hallan mummies also raise questions about the reason for their recombination from dismantled individuals. While the process of dismantling fits well with Brück and others' notion of personhood as relational rather than individual (Brück 2006a; Rebay-Salisbury et al. 2010), the mummies' rebuilding from multiple body parts is exceptional. Perhaps this recombination served as a metaphor and embodiment of shared ancestry, providing visible and tangible testimony of the entwined histories of those living at Cladh Hallan and demonstrating their wider network of kinship and ancestral ties, again emphasising the inhabitants' power, prestige and renown.

Conclusion

The mortuary evidence from Cladh Hallan provides a fine-grained view of social and funerary practices which complements the broader picture elsewhere in Bronze Age Britain. During this period, formal burial rites of inhumation and cremation declined as bodies became substances for fragmentation and dispersal as excarnated, exhumed and divided-up burnt and unburnt remains for curation and eventual disposal, mostly in ways that are archaeologically invisible. Middle Bronze Age funerary rites at Cladh Hallan included cremation followed by division of cremated remains, burial of token portions and even exhumation of those remains.

Similar treatments were accorded to the inhumations, with the added feature that some of these had been mummified before burial, their partial body portions subsequently being recombined as composite bodies (re)buried under one of Cladh Hallan's roundhouses. One of these mummies was certainly buried and then exhumed before recombination and reburial. Such practices of dividing up, dismantling

and fragmenting the dead can be interpreted as expressing a relational as opposed to individual concept of personhood. It may also imply a cyclical understanding of birth, death and rebirth which was immanent in the architecture and internal use of the roundhouses beneath which certain of the dead were buried.

Although other examples of mummification are now known from across Bronze Age Britain, this unusual post-mortem treatment may have been restricted to a minority of the population. The presence of mummies at the wealthy Late Bronze Age settlement of Cladh Hallan raises the possibility that mummification was one of the few indicators by which social status was represented in death in Bronze Age Britain.

Acknowledgements

I thank Jacqui Mulville, Helen Smith and Peter Marshall, fellow co-directors of the Cladh Hallan project, of which the first of two volumes is now published. Thanks are also due to the many archaeological researchers and students who worked on this long-running excavation and its post-excavation.

Funding

Historic Environment Scotland provided matching funding to complement the contributions made by the university teams involved, principally the University of Sheffield, Bournemouth University, Cardiff University, University of Southampton, Oxford University and King Alfred's College Winchester.

Declarations and conflicts of interest

Research ethics statement

Not applicable to this article.

Consent for publication statement

Not applicable to this article.

Conflicts of interest statement

The author declares no conflicts of interest with this article. All efforts to sufficiently anonymise the author during peer review of this article have been made. The author declares no further conflicts with this article.

References

- Aufderheide, A. C. 2003. *The Scientific Study of Mummies*. Cambridge: Cambridge University Press.
- Bloxam, A. and Parker Pearson, M. 2022. 'Funerary diversity and cultural continuity: The British Beaker phenomenon beyond the stereotype', *Proceedings of the Prehistoric Society* 88: 261–84. <https://doi.org/10.1017/ppr.2022.2>
- Booth, T. J. and Brück, J. 2020. 'Death is not the end: Radiocarbon and histotaphonomic evidence for the curation and exhumation of human remains in Bronze Age Britain', *Antiquity* 94: 1186–203. <https://doi.org/10.15184/aqy.2020.152>.
- Booth, T. J., Chamberlain, A. and Parker Pearson, M. 2015. 'Mummification in Bronze Age Britain', *Antiquity* 89: 1155–73.
- Bradley, R. J. 2005. *Ritual and Domestic Life in Prehistoric Europe*. London: Routledge.
- Bradley, R. J. and Gordon, K. 1988. 'Human skulls from the River Thames: Their dating and significance', *Antiquity* 62: 503–9. <https://doi.org/10.1017/S0003598X00074603>.
- Bradley, R. J., Haselgrove, C., Vander Linden, M. and Webley, L. 2016. *The Later Prehistory of North-West Europe: The evidence of development-led fieldwork*. Oxford: Oxford University Press.
- Branigan, K., Edwards, K. J. and Merrony, C. 2002. 'Bronze Age fuel: The oldest direct evidence for peat cutting and stack construction', *Antiquity* 76: 849–55. <https://doi.org/10.1017/S0003598X0009133X>.
- Brück, J. 1995. 'A place for the dead: The role of human remains in the Late Bronze Age', *Proceedings of the Prehistoric Society* 61: 245–77. <https://doi.org/10.1017/S0079497X00003091>.
- Brück, J. 1999. 'Houses, lifecycles and deposition on Middle Bronze Age settlements in southern England', *Proceedings of the Prehistoric Society* 65: 145–66.
- Brück, J. 2001. 'Body metaphors and technologies of transformation in the English Middle and Late Bronze Age'. In *Bronze Age Landscapes: Tradition and transformation*, edited by J. Brück, 149–60. Oxford: Oxbow.
- Brück, J. 2006a. 'Death, exchange and reproduction in the British Bronze Age', *European Journal of Archaeology* 9: 73–101. <https://doi.org/10.1177/1461957107077707>.
- Brück, J. 2006b. 'Fragmentation, personhood and the social construction of technology in Middle and Bronze Age Britain', *Cambridge Archaeological Journal* 16: 297–315. <https://doi.org/10.1017/S0959774306000187>.
- Brück, J. 2017. 'Reanimating the dead: The circulation of human bone in the British Later Bronze Age'. In *Engaging with the Dead: Exploring changing human beliefs about death, mortality and the human*

- body, edited by J. Bradbury and C. Scarre, 138–48. Oxford: Oxbow.
- Brück, J. 2019. *Personifying Prehistory: Relational ontologies in Bronze Age Britain and Ireland*. Oxford: Oxford University Press.
- Caswell, E. and Roberts, B. W. 2018. 'Reassessing community cemeteries: Cremation burials in Britain during the Middle Bronze Age (c. 1600–1150 cal BC)', *Proceedings of the Prehistoric Society* 84: 329–57.
- Cockburn, T. A., Cockburn, E. and Reyman, T. A., eds. 1980. *Mummies, Disease and Ancient Cultures*. Cambridge: Cambridge University Press.
- Collard, M., Darvill, T. and Watts, M. 2006. 'Ironworking in the Bronze Age? Evidence from a 10th century BC settlement at Hartshill Copse, Upper Bucklebury, West Berkshire', *Proceedings of the Prehistoric Society* 72: 367–421.
- Drewett, P. 1982. 'Later Bronze Age downland economy and excavations at Black Patch, East Sussex', *Proceedings of the Prehistoric Society* 48: 321–400.
- Ellison, A. 1978. 'The Bronze Age of Sussex'. In *Archaeology in Sussex to AD 1500*, edited by P. Drewett, 30–7. London: Council for British Archaeology.
- Ellison, A. 1981. 'Towards a socioeconomic model for the Middle Bronze Age in southern England'. In *Pattern of the Past: Studies in honour of David Clarke*, edited by I. Hodder, G. Isaac and N. Hammond, 413–38. Cambridge: Cambridge University Press.
- Ellison, A. 1987. 'The Bronze Age settlement at Thorny Down: Pots, post-holes and patterning', *Proceedings of the Prehistoric Society* 53: 385–92.
- Fitzpatrick, A. P. 1994. 'Outside in: The structure of an Early Iron Age house at Dunston Park, Thatcham, Berkshire'. In *The Iron Age in Wessex: Recent work*, edited by A. Fitzpatrick and E. Morris, 68–72. Salisbury: Trust for Wessex Archaeology and AFEAF.
- Fitzpatrick, A. P. 1997. 'Everyday life in Iron Age Wessex'. In *Reconstructing Iron Age Societies: New approaches to the British Iron Age*, edited by A. Gwilt and C. Haselgrove, 73–86. Oxford: Oxbow.
- Haddow, S. D., Mazzucato, C., Mangaloğlu-Votruba, S., Yağcı, B., Booth, T., Schotsmans, M. J. and Knüsel, C. J. 2023. 'Scratching the surface? A histotaphonomic study of human remains at Neolithic Çatalhöyük', *Archaeological and Anthropological Sciences* 15 (6): 1–18. <https://doi.org/10.1007/s12520-023-01756-x>.
- Hanna, J., Bouwman, A. S., Brown, K. A., Parker Pearson, M. and Brown, T. A. 2012. 'Ancient DNA typing shows that a Bronze Age mummy is a composite of different skeletons', *Journal of Archaeological Science* 39: 2774–9.
- Harding, D. W. 2009. *The Iron Age Round-House: Later prehistoric building in Britain and beyond*. Oxford: Oxford University Press.
- Ladle, L. and Woodward, A. 2003. 'A Middle Bronze Age house and burnt mound at Bestwall, Wareham, Dorset: An interim report', *Proceedings of the Prehistoric Society* 69: 265–77.
- Ladle, L. and Woodward, A. 2009. *Excavations at Bestwall Quarry, Wareham 1992–2005, Volume 1: The prehistoric landscape*. Dorchester: Dorset Natural History and Archaeology Society.
- Mavroudas, S. R., Alfsdotter, C., Bricking, A. and Madgwick, R. 2023. 'Experimental investigation of histotaphonomic changes in human bone from whole-body donors demonstrates limited effects of early post-mortem change in bone', *Journal of Archaeological Science* 154, 105789. <https://doi.org/10.1016/j.jas.2023.105789>.
- McKinley, J. I. 1997. 'Bronze Age "barrows" and funerary rites and rituals of cremation', *Proceedings of the Prehistoric Society* 63: 129–45.
- Metcalf, P. and Huntington, R. 1993. *Celebrations of Death: The anthropology of mortuary ritual*. Second edition. Cambridge: Cambridge University Press.
- Nowakowski, J. 2001. 'Leaving home in the Cornish Bronze Age: Insights into planned abandonment processes'. In *Bronze Age Landscapes: Tradition and transformation*, edited by J. Brück, 139–48. Oxford: Oxbow.

- Parker Pearson, M. 1999. *The Archaeology of Death and Burial*. Stroud: Sutton.
- Parker Pearson, M. 2016. 'From corpse to skeleton: Dealing with the dead in prehistory', *Bulletins et Mémoires de la Société d'Anthropologie de Paris* 28: 4–16. <https://doi.org/10.1007/s13219-016-0144-y>.
- Parker Pearson, M., Chamberlain, A. T., Collins, M. J., Cox, C., Craig, G., Craig, O. E., Hiller, J., Marshall, P., Mulville, J. and Smith, H. 2007. 'Further evidence for mummification in Bronze Age Britain', *Antiquity* 81: 312–22.
- Parker Pearson, M., Chamberlain, A. T., Collins, M. J., Craig, O. E., Marshall, P., Mulville, J., Smith, H., Chenery, C., Cook, G., Craig, G., Evans, J., Hiller, J., Montgomery, J., Schwenninger, J.-L., Taylor, G. and Wess, T. 2005. 'Evidence for mummification in Bronze Age Britain', *Antiquity* 79: 529–46.
- Parker Pearson, M., Mulville, J., Smith, H. and Marshall, P. 2021. *Cladh Hallan: Roundhouses and the dead in the Hebridean Bronze Age and Iron Age, Part 1: Stratigraphy, spatial organisation and chronology*. Oxford: Oxbow.
- Parker Pearson, M., Sheridan, A., Jay, M., Chamberlain, A., Richards, M. P. and Evans, J., eds. 2019. *The Beaker People: Isotopes, mobility and diet in Prehistoric Britain*. Oxford: Oxbow.
- Pope, R. 2007. 'Ritual and the roundhouse: A critique of recent ideas on domestic space in British later prehistory'. In *The Earlier Iron Age in Britain and the Near Continent*, edited by C. Haselgrove and R. Pope, 204–28. Oxford: Oxbow.
- Rebay-Salisbury, K., Stig Sørensen, M.-L. and Hughes, J., eds. 2010. *Body Parts and Bodies Whole: Changing relations and meanings*. Oxford: Oxbow.
- Schulting, R. and Bradley, R. J. 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>.
- Smith, M. J., Allen, M. J., Delbarre, G., Booth, T. J., Cheetham, P., Bailey, L., O'Malley, F., Parker Pearson, M. and Green, M. 2016. 'Holding on to the past: Curation, imitation and veneration of the dead in a British prehistoric landscape', *Journal of Archaeological Science: Reports* 10: 744–56.
- Thomas, R. M. 1997. 'Land, kinship relations and the rise of enclosed settlement in first millennium BC Britain', *Oxford Journal of Archaeology* 16: 211–18.
- Willis, C. Forthcoming. 'The human remains'. In *Cladh Hallan: Roundhouses and the dead in the Hebridean Bronze Age and Iron Age, Part 2: Material culture, subsistence, skeletons and synthesis*, by M. Parker Pearson, J. Mulville, H. Smith and P. Marshall. Oxford: Oxbow.
- Woodward, A. 2002. 'Sherds in space: Pottery and the analysis of site organization'. In *Prehistoric Britain: The ceramic basis*, edited by A. Woodward and J. D. Hill, 62–74. Oxford: Oxbow.