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## Creating a research agenda for the Bronze Age in Britain

For the first volume of the Bronze Age Review, the editor invited senior scholars to draw on their experience and expertise and write on what they would like to see happening in Bronze Age research in Britain in the future. They were asked to look as broadly as they can and explore issues and areas of study that they feel are currently missing or underdeveloped. The aim is to provide a period of open consultation until 31 January 2009 with suggestions, comments and proposed new chapters to the editor who can be contacted at [broberts@thebritishmuseum.ac.uk](mailto:broberts@thebritishmuseum.ac.uk). The authors will subsequently revise their articles for inclusion in a volume published by the British Museum Press.

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# Towards a fuller, more nuanced narrative of Chalcolithic and Early Bronze Age Britain 2500–1500 BC

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## Abstract

This contribution considers some of the many recent advances in our understanding of Chalcolithic and Bronze Age Britain and uses these to highlight the weak points in our current state of knowledge. Focusing mainly on the period 2500–1500 BC, it concentrates on issues of chronology, human movement, the role of metal and monuments as 'drivers' of action, and the potential offered by current studies of artefact manufacture, use and deposition.

## Introduction

The last decade has seen substantial advances in our understanding of the period 2500–500 BC in Britain, particularly its first millennium, with some significant reformulations of parts of the narrative by Stuart Needham (e.g. Needham 2000a; 2004; 2005; Needham *et al.* 2006), and with major research and fieldwork programmes – several of them funded by the AHRC and Leverhulme Trust, and most of them still ongoing – producing large amounts of new data. The latter include the *Beaker People Project*, led by Mike Parker Pearson of Sheffield University (Jay & Richards 2007; Jay & Montgomery 2008; Parker Pearson *et al.* 2006; 2007); the *Beakers and Bodies Project*, led by Neil Curtis of Marischal Museum (Curtis *et al.* 2007); the *Ritual in Early Bronze Age Grave Goods Project*, led by John Hunter and Ann Woodward of the University of Birmingham (Woodward *et al.* 2006); various radiocarbon dating programmes (e.g. Sheridan 2004a; 2007a; 2007b); the *Stonehenge Riverside Project* (Parker Pearson *et al.* 2006; Pitts 2008; [www.shef.ac.uk/archaeology/research/stonehenge](http://www.shef.ac.uk/archaeology/research/stonehenge)), the *Longstones Project* (Gillings *et al.* 2008), and Richard Bradley's fieldwork programmes in Scotland (e.g. Bradley 2000; 2005). Other new information, such as the results of new metal analyses (e.g. Needham 2002; Northover 2003a; 2003b; 2004), has emerged from routine commercial work and from smaller-scale research projects. This dizzying array of new information and new insights – some of it so fresh that it needs time to be published fully, processed and assimilated – makes it easier for us to identify the weak points in our overall narrative, and to frame the next set of questions. This contribution will focus mainly on the period 2500–1500 BC, since that is where the author's own research – principally on jewellery, ceramics and systematic radiocarbon dating – has been concentrated. It will also show a Scottish bias in the choice of examples used. In accord with the main aim of this volume, the emphasis will not be on presenting an overall narrative as such, but on identifying key questions and issues; this will be structured around a critical review of the main advances.

## Chronology

Establishing a firm chronological framework is a necessary basis for building narratives about

the past. Since the publication of Needham's 1996 'Chronology and periodisation in the British Bronze Age', several major research initiatives, as well as new discoveries, have allowed some parts of that framework to be fleshed out and others to be amended. Needham's own programme of dating hafts and shafts from Bronze Age metal objects clarified and updated the chronology of metalworking traditions (Needham 1997), and further details have been provided from additional dates: see, for example, Baker *et al.* 2003 for a round-up of Scottish dagger and knife-dagger dates (updated and corrected in Sheridan 2004b and Sheridan & Higham 2007). Other systematic radiocarbon dating programmes, undertaken by National Museums Scotland (NMS), mostly using unburnt or cremated human bone, have produced many new dates relating to Beakers, Food Vessels, cinerary urns, non-ceramic artefacts and certain monument types in Scotland (Sheridan 2004a; 2004b; 2005; 2006; 2007a; 2007b). A further NMS programme, undertaken partly in collaboration with Jan Lanting of the University of Groningen, has produced dates relating to the use of faience jewellery on a nationwide basis (Haveman & Sheridan 2006; Sheridan & Shortland 2004; Brindley 2007, 313–315). The various NMS dating programmes have incidentally shed new light on the dating of 'Wessex series' graves (of which more below), on Early Bronze Age knives, and on various kinds of Early Bronze Age funerary pottery in southern England, as demonstrated in Table 1.

*Recently-obtained dates, commissioned by or arranged through NMS, for faience-associated human bone in England (cf. Brindley 2007, fig. 144; Sheridan & Shortland 2004, fig. 21.1 Haveman & Sheridan 2006)*

Findspot	Lab code	Date BP	Date cal BC at 1 $\sigma$	Date cal BC at 2 $\sigma$	Artefactual associations	References & comments
Gallows Hill barrow, Arreton Down, Isle of Wight (inhumation 1)	SUERC-18310 (GU-16651)	3555±35	1953–1783	2016–1771	Segmented faience bead	Unburnt human bone (female). Alexander & Ozanne 1960
Barrow Hills (barrow 16, pit E), Radley, Oxfordshire	GrA-26608	3455±40	1874–1695	1881–1689	Composite necklace, with beads of faience (segmented), amber and jet or shale; bronze knife; bronze awl	Adult female. Leeds 1938; Barclay 1999, 165, fig. 5.12
Hurst Park, East Molesey, Surrey	GrA-28740	3425±40	1866–1669	1879–1627	Segmented faience beads (3); Collared urn	Two adults, including one female Andrews 1996
Amesbury barrow 61a, Wiltshire	GrA-24853	3365±40	1736–1612	1746–1531	Collection of beads, probably from composite necklace: beads of amber, steatite and segmented faience; cowrie shells; fossil crinoid. Also beaver incisor; 2 flint flakes; accessory vessel	Adult, indeterminate sex Ashbee 1985, 73–75, figs 38, 39
East Tilbury, Essex	GrA-28739	3365±40	1736–1612	1746–1531	Segmented faience bead; Biconical urn (Nigel Brown pers comm)	Two adults. Urn inverted over saddle quern, in cylindrical flint 'cist' inside double ring ditch. Bannister 1961; Crouchman 1980, 40.
Long Ash Lane, Frampton, Dorset (barrow	GrA-24867	3315±35	1629–1531	1687–1513	Necklace of segmented faience beads; undecorated	Forde-Johnson 1958

2)						Food Vessel	
Little Chesterford, Essex	GrA-28632	3310±35	1623–1530	1683–1509		Composite necklace comprising quoit-shaped faience bead, squat, rounded-biconical ?ceramic bead, bone bead and one and a half animal tooth beads; urn most comparable with biconical urns. Urn atypical of Essex; more characteristic of further north and west in East Anglia (Nigel Brown pers comm)	Neonate. Collins 1980
Flixton Park Quarry (urn 0050), Suffolk	GrA-34775	3305±35	1619–1529	1681–1503		Faience beads, copper alloy wire ornaments, Wessex biconical urn	Suffolk County Council Archaeology Service Annual Report 2005/6 (available on <a href="http://www.suffolk.gov.uk">www.suffolk.gov.uk</a> )
Flixton Park Quarry (urn 0039), Suffolk	GrA-34774	3285±35	1609–1521	1664–1461		Faience beads, Wessex biconical urn	As above
Amesbury Solstice Park, Wiltshire	GrA-22371	3240±40	1603–1450	1612–1433		Composite necklace comprising at least 105 beads and toggle-like ornaments of Whitby jet, Kimmeridge shale, stone (including ?calcite), faience and amber; traces of gold on surface of spherical faience bead. Trevisker Urn; accessory vessel	Senior adult (aged 45+; sex indeterminate) Unpublished excavation by AC Archaeology

*Recently-obtained dates, commissioned by or arranged through NMS, for human bone associated with other artefacts in England*

Findspot	Lab code	Date BP	Date cal BC at 1σ	Date cal BC at 2σ	Associations	References & comments
Gallows Hill barrow, Arreton Down, Isle of Wight (cremated bone deposit no 8)	SUERC-18311 (GU-16652)	3460±35	1876–1696	1882–1691	Probably associated with bronze knife (Alexander & Ozanne 1960, fig. 6.1) and bone belt hook	Alexander & Ozanne 1960
Callis Wold 114, East Riding of Yorkshire	GrA-22385	3495±40	1881–1770	1923–1695	Collared Urn	Brindley 2007, 310
Stainsby barrow, Lincolnshire: Urn 7 Urn 5 Urn 3	GrA-28610 GrA-28609 GrA-28607	3345±35 3330±35 3305±35	1688–1541 1665–1535 1619–1529	1736–1527 1728–1520 1681–1503	Bucket urns of characteristic east English type (Carol Allen and David Knight pers comm)	A further urn from the same barrow contained a star-shaped faience bead; it is likely to be contemporary with the dated urns May J 1976; Petch 1958

**Table 1.** Dates relating to English Early Bronze Age material (mostly faience), obtained as part of a National Museums' Scotland dating programme. Some of these are published here for the first time. All from cremated bone unless specified otherwise. Some dates obtained courtesy of Jan Lanting, University of Groningen. Calibrated using OxCal v.4.0.

Further dates for Beaker use in Scotland, and also in England and Wales, have been produced as part of the *Beaker People Project* (with most of the Scottish dates presented in Sheridan 2007a), while yet more dates for Scottish Beakers have been produced for the *Beakers and Bodies Project* (Curtis *et al.* 2007); as a result, north-east Scotland is arguably now the best-dated region of Beaker use anywhere in Europe. These projects have also produced useful dates relating to Food Vessels, daggers, jet and jet-like jewellery and artefact-free Early Bronze Age graves in various parts of Britain. New dates for Welsh Early Bronze Age material have been produced by the *Beaker People Project* and by Jan Lanting, working in collaboration with the National Museum Wales (Brindley 2007, Appendix B). Anna Brindley's major, long-term programme of dating Food Vessels, cinerary urns and accessory vessels in Ireland has produced a mass of dates that are relevant to the dating of comparable ceramic traditions in Britain (Brindley 2007; see Sheridan and Bayliss 2008 for a critique of her interpretation of these dates).

The dating of specific monument types, particularly in Wessex and Scotland, has also helped to produce a step-change in our understanding of what happened when. In Wessex, the recent re-dating of the construction of Silbury Hill (Bayliss *et al.* 2007), and of other monuments as part of the *Stonehenge Riverside Project* and *Longstones Project*, has revealed that the Late Neolithic tradition of investing large amounts of labour on the construction of conspicuous monuments continued after the appearance of the Beaker 'package' of novelties. This revelation allows us to explore the nature, and social dynamics, of events in Wessex during the third quarter of the third millennium - the Chalcolithic, in other words - when the use of Beakers and other Continental novelties appeared, in Needham's terms, as 'a circumscribed, exclusive culture' (Needham 2005, 209). This interaction, it would appear, took the form of a mutual fascination between small numbers of Continental immigrants, perhaps drawn to the major ceremonial centres of Wessex by the legendary nature of the monuments and festivities there, and of the indigenous communities, who appreciated the exotic novelties as offering new ways of gaining and expressing power (Needham 2007). Elsewhere in southern England, the dating of activities at Grimes Graves flint mines provides additional confirmation that the use of the traditional, indigenous Grooved Ware style of pottery - with all that that implies in terms of world view and beliefs - continued for some time after the appearance of Beaker pottery (Healy pers comm; Needham 2008a).

Meanwhile, in Scotland, Richard Bradley's programmes of fieldwork targeting Clava cairns and recumbent stone circles in north-east Scotland (Bradley 2000; 2005) has led to the realisation that these were not Neolithic monuments of the fourth or early third millennium BC, as had previously been widely assumed, but belonged to the second half of the third millennium, and represent one aspect of a diverse range of Beaker-associated funerary practices. Here, as in Wessex, we gain some insight into local responses to the Beaker 'package' of novelties: having assimilated Beaker pottery into their lives, the local communities picked out certain individuals for burial within particularly elaborate forms of monumental grave that owed nothing to Continental Beaker-associated funerary traditions.

Bradley's subsequent excavation of the small henge at Broomend of Crichtie in Aberdeenshire (Sheridan & Bradley 2007) has confirmed that the banks and ditches of at least some Class II henges were constructed in the centuries around 2000 BC - an impression already obtained by the dating of an Early Bronze Age grave underlying the henge bank at North Mains, Perth & Kinross (Barclay 1985, 86-88; Sheridan 2003). (Elsewhere in Britain, Alex Gibson's excavations

at Dyffryn Lane henge in Powys have produced *termini post quos* dates for bank construction of 2500 BC: Gibson pers. comm.). Bradley's most recent excavation, of a 'mini-henge' at Pullyhour in Caithness, has confirmed that people were constructing roughly circular or oval ceremonial enclosures as late as the mid-second millennium BC (Bradley pers comm and forthcoming). When combined with the recently-obtained AMS dates for the Stones of Stenness in Orkney (Sheridan & Higham 2006) and for cremated remains at Stonehenge (Pitts 2008), dating to the first centuries of the third millennium, this means that the construction of monuments within the broad category of 'henge' or 'hengiform' spans around 1500 years. This lends support to Gordon Barclay's misgivings (2005) about the utility of discussing henges and hengiform monuments as if they represent a unified tradition. The same is true of stone (and indeed timber) circles, and of other settings of stone and timber (reviewed by Bradley 2006). The re-evaluation of the structural sequence at Croft Moraig (Bradley & Sheridan 2005), with its conclusion that at least some small, oval stone 'circles' in Scotland were constructed as late as the early first millennium BC, means that the construction of stone circles spans an even greater time range than that of henges/hengiforms.

To round off this brief review of advances in monument dating, mention should be made of three further examples. Firstly, the date of 2970±40 BP (GrA-28613, 1370–1040 cal BC at 2σ: Sheridan 2005), obtained for cremated bone contemporary with the erection of one of the short stone rows at Ballymeanoch in the Kilmartin Glen, Argyll & Bute, confirms other dating evidence (from Ardnacross, Mull: Martlew & Ruggles 1996) indicating that west Scottish short stone rows were constructed during the second half of the second millennium BC. The second example concerns the dating of kerb cairns in Scotland, where a recent Historic Scotland-funded NMS dating programme (Sheridan forthcoming) has confirmed earlier views (e.g. Bradley 2000, Ritchie *et al.* 1975) that this distinctive type of funerary monument also dates to the second half of the second millennium BC. Indeed, in the west of Scotland, both monument types may well have been built by the same communities; the orientations of both show a concern with cosmology, and the proximity of the Ballymeanoch kerb cairn to the short stone rows, and of kerb cairns to the rows at Ardnacross, may indicate a desire to appropriate the power of the moon at its southern standstill setting for the illustrious dead buried under the kerb cairns. The third example, which also relates to monumental practices around the same time, is the recently-obtained dates for the re-use of pre-existing monuments in Scotland for the deposition of cremated human remains. This can be seen, for example, in the construction and successive use of kerb cairns within Temple Wood stone circle in Kilmartin Glen (Sheridan forthcoming a), and in the re-use of several recumbent stone circles in north-east Scotland in this way (Bradley 2005; Bradley & Sheridan 2005, 277–278).

So much for the advances: what of the issues and questions? One obvious issue – apart from the challenge of integrating this mass of dating evidence, along with all other kinds of information, into coherent narratives – is the glaring geographical imbalance in the number of high quality AMS dates available, with England and Wales lagging behind Scotland. Part of the reason for this is the early investment, in Scotland, in dates obtained from structural carbonate in cremated bone – a dating technique that had been refined at the University of Groningen in the 1990s (Lanting *et al.* 2001), and used to such effect by Anna Brindley and Jan Lanting on dating Irish material (Brindley 2007). Dedicated programmes of radiocarbon dating, similar to those already undertaken in Scotland and begun in Wales, would go a long way in clarifying questions such as the currency of English Food Vessels and of other kinds of pottery; the degree of overlap in the use of various ceramic traditions; the diversity of contemporary traditions of funerary practice and monument use; and the temporality of change in material culture, beliefs and practices on a regional and supra-regional basis.

One very specific area where dates are badly needed concerns the famous 'Wessex' series of rich graves. Debate over the dating of these graves has extended over several decades (e.g.

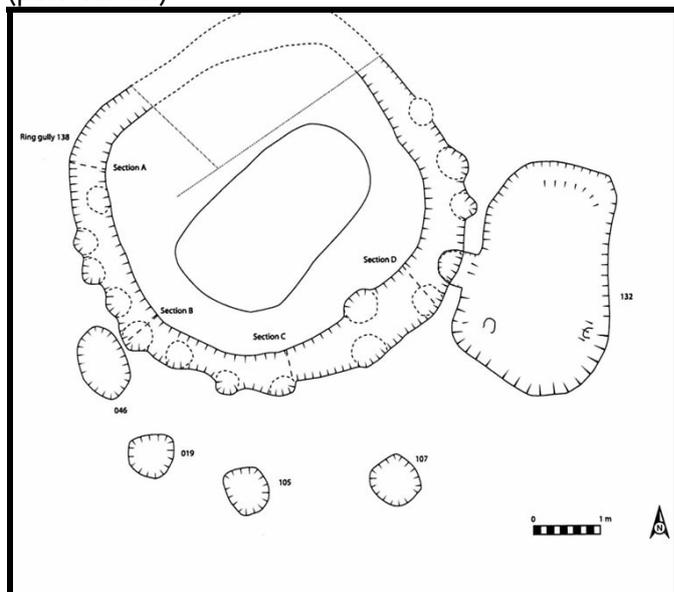
Piggott 1938; Gerloff 1975; 1996; Garwood & Barclay 1998). A bid by Lanting and van der Plicht for a 'start date' as late as *c* 1825 BC, first published in Dutch (Lanting & van der Plicht 2002) and subsequently translated into English (Brindley 2007, Appendix D), has so far found little support. Ironically, relevant information has been obtained from outside Wessex, where artefacts comparable with those from 'Wessex series' graves have been dated from graves elsewhere in England (e.g. the Farway cemetery, Devon: Andy Jones pers. comm., and see Table 1 for dates obtained from the NMS/Groningen faience dating project); from Wales (e.g. Bedd Branwen H, 3540±60 BP, GrA-19652: Brindley 2007, 363); and from Scotland (Sheridan 2007b). A round-up of all such dates is overdue. The Scottish dates include one for cremated bone from a cist at the Knowes of Trotty, Orkney, associated with fragments of an old amber spacer plate necklace and other amber artefacts that must, like the necklace pieces, have been imported from Wessex. At 3575±35 BP (GrA-34776, 1975–1880 cal BC at 1σ, 2030–1770 cal BC at 2σ), the Knowes of Trotty evidence contradicts Lanting and van der Plicht's model of a late start for Wessex series graves (Sheridan 2007c; Sheridan *et al.* 2003). The chronological division, proposed by ApSimon (1954) and refined by Gerloff (1975), between 'Wessex 1' and 'Wessex 2' graves is beginning to break down somewhat in the light of these new dates (especially those relating to faience use); indeed, Joan Taylor has recently argued for the same batch of gold having been used to make 'Wessex 1', transitional and 'Wessex 2' objects by a single master goldworker or workshop (Taylor 2005) – although this claim has not been universally accepted. The recent, meticulous re-evaluation of certain key Wessex assemblages and object types by Stuart Needham and Ann Woodward (e.g. Needham & Woodward in press, on the Clanton assemblage, and Needham *et al.* 2006 on precious cups), has used all the currently-available dating evidence to refine our chronological picture. At the end of the day, however, it is only through the disinterment and direct dating of the human remains from the many graves in Wessex excavated by (and for) Colt Hoare that we can address the remaining uncertainties.

In addition to the general need for more dates (and for rigour in their generation and assessment), there is the issue of how best to interpret them, and here the technique of Bayesian statistical analysis has recently been promoted vigorously by Alex Bayliss and colleagues as an essential tool (e.g. Bayliss *et al.* 2006; Bayliss & Whittle 2007. Cf. Brindley 2007 on the similar practice of wiggle-matching, and Sheridan & Bayliss 2008 on its specific application to Irish Early Bronze Age dates). While it is accepted that 'raw' calibrated radiocarbon dates for a given phenomenon are likely to give the false impression that it started earlier, ended later and lasted longer than was actually the case (Bayliss *et al.* 2007), nevertheless the powerful tool of Bayesian modelling needs to be used with caution. As its promoters acknowledge, the method is only as good as the sets of dates to which it is applied, and assumptions made about those dates are crucial to the results produced. The fact that the modelling requires one to declare a beginning and an end point to the phenomenon being studied may not pose a major problem when the technique is used to assess the temporality of activities at a single stratified site (as was the case, for instance, with the Neolithic chamber tombs in southern England: Bayliss & Whittle 2007, or Silbury Hill: Bayliss *et al.* 2006). However, with a more diffuse phenomenon such as the use of Beaker pottery, problems may arise. The earliest radiocarbon-dated material relating to Beaker use may not represent the earliest actual use – and indeed, in Scotland, many of the earliest Beaker graves (e.g. Newmill: Watkins & Shepherd 1980) were dug in gravel, whose groundwater has destroyed all traces of the body. How does one build in uncertainty regarding the length of unrecorded time at the start of the phenomenon? And, in the fuzzy world of real-life practice, where does one declare an end to the Beaker phenomenon? In Scotland, it is clear that there was late style drift, with 'hybridisation' of Beaker and Food Vessel design (Sheridan 2007a). Including dates for such vessels will produce a different result, using Bayesian modelling, from that obtained by excluding them. It is for these reasons that the current author has expressed scepticism with Bayliss *et al.*'s claims (2006), based on the modelling of Scottish and English Beaker dates, that Beaker use started later in Scotland than in England. As with the

initial introduction of the radiocarbon technique – another development hailed as a 'magic bullet' at the time – it is clear that while this is an extremely useful tool, there may well be 'teething troubles' that will need to be sorted out.

### Isotopic aliens and the question of human movement

The revelation that the 'Amesbury Archer' had travelled from the Continent, perhaps from southern Germany or thereabouts (Fitzpatrick 2002), served to re-open the debate about the role of human immigration in the introduction of the Beaker 'package' to Britain and Ireland. Other 'isotopic aliens' (to use Needham's term, 2007) were to follow, in the form of the 'Boscombe Bowmen' (Evans *et al.* 2006) and an individual from Sorisdale on Coll in the Hebrides, the latter discovered as part of the *Beaker People Project* (Sheridan 2008); it is possible that the same project will produce further examples. Other clear signs of immigrant presence include the Beaker-using copper miners who established the mine at Ross Island, in south-west Ireland and who, according to its excavator, could have originated in Atlantic Europe (O'Brien 2004, 558); and also a recently-discovered Dutch-style grave, with a set of three early Beakers that could easily be lost among Dutch Beakers of the 25th century BC, at Upper Largie in the Kilmartin Glen, west Scotland (Fig. 1. See Sheridan 2008 for other examples of possible Dutch immigrants in Scotland). All this lends support to Needham's argument – following some previous commentators such as Humphrey Case (2001) – that we are indeed dealing with small-scale movements, from various parts of the Continent to different areas within Britain and Ireland, as the key vector for the introduction of novel Continental practices and concerns (Needham 2005; 2007). This impression is strengthened by the fact that the pre-existing interaction networks in Ireland and Britain were focused on Insular links and movements – some of them no doubt long-distance, as in Boyne Valley to Wessex links (Sheridan 2004c). A recent attempt to play down the alien and novel character of the Beaker 'package' by claiming indigenous precursors for Beaker funerary practices (Gibson 2007) is unconvincing – or rather needs to be qualified, as its author acknowledges (*pers comm*).





**Figure 1.** Dutch-style grave plus two of the three Beakers found in it, Upper Largie, Argyll & Bute. Images: plan and excavation photos: AOC; pottery photos: author.

The questions that flow from these discoveries include the following: how many immigrants were involved? Did some come as individuals, and others as small groups? (The Amesbury Archer and the Upper Largie 'Flying Dutchman' cannot have been alone, since they were buried by other people, according to their Continental funerary tradition, and were accompanied by Beakers made locally (at least in the Upper Largie case), but in the Continental manner and according to a tradition that was wholly novel in the British context.) How extensive was this putative 25th century diaspora? Was the Atlantic element as minimal in Britain as Needham argued (2005, 179; cf. Case 2001) – bearing in mind that Brittany is arguably a more plausible area of origin for the Boscombe Bowmen than Wales, given the nature of the funerary practice and artefact assemblage? What were the motives for coming, and was it intended to return to the Continent (and, in the case of the Ross Island miners, to send copper back to the Continent)? How did indigenous communities react? And there are other loose ends to tie up: how were the imported domesticated horses (as attested at Newgrange: van Wijngaarden Bakker 1974) used, and what was their impact? Were they the Ferrari vehicles of their day, ridden bareback by proud owners to wow onlookers, and lovingly tended? How extensive *was* the Beaker use of horses in Britain?

Current research is beginning to provide answers to some of these questions, but much more work is needed. Regarding the extent of the 'diaspora', it may have extended as far as Shetland, to judge from the distribution of All-Over-Cord Beakers (Clarke 1970). Whether the distinctive oval houses found in the Hebrides (Parker Pearson *et al.* 2004, fig. 19), with their distant echoes of some Continental Beaker houses (e.g. Fokkens 2005, fig. 18.1) represent settlements of descendants of immigrant communities, remains to be resolved. As a general issue relating to the whole of the Beaker-using period, the evidence of non-funerary Beaker use (Gibson 1982) needs to be integrated more fully within considerations of the Beaker ceramic tradition, just as the settlement and palaeoenvironmental evidence (e.g. Allen 2005) needs to be integrated within overall narratives. This, in turn, demands far better dating of non-funerary Beaker sites.

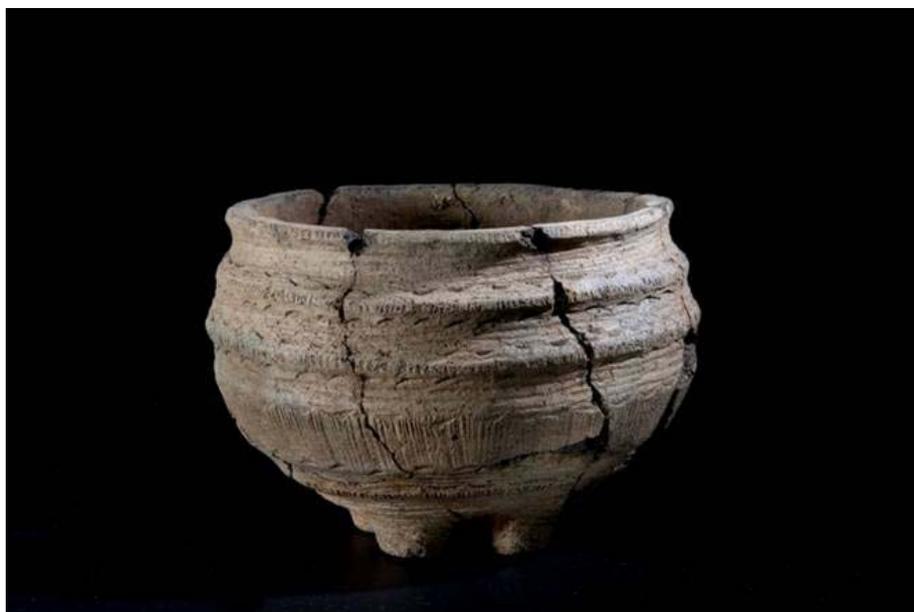
As regards motives for the arrival of immigrants, prospecting for metal would account for the presence of the Ross Island miners, and might also account – at least in part – for the Dutch

presence in northern Britain (with copper sources existing near Kilmartin Glen, for example. Whether they were exploited at this time is unknown). The renown and sacred significance of the major Wessex monuments and their midwinter festivities – which could have been one of the wonders of the prehistoric world – may well have attracted people from far and wide, including the Continent, perhaps as pilgrims (Needham 2008b). Furthermore, as Needham (2005) and others have suggested, there may also have been an element of 'heroic voyaging' in some cases, with high-status adventurers gaining prestige from undertaking long-distance journeys, Odysseus-like. Visits to sacred places – either as a form of pilgrimage, or out of curiosity – would fit within the range of activities involved in such adventures. The existence of such high-ranking roving hunter-warriors – whose equipment of 'dagger' (actually more likely to be a knife, as Case has pointed out), archery equipment and Beaker was so evocatively described by Case (2004) – is gaining acceptance on the Continent, not least because it accounts for the very widespread fashion of using this particular set of items, and for the existence of certain male graves that stand out as being different from indigenous graves (e.g. Salanova 2007). The Amesbury Archer may indeed have been one such individual, voyaging around Europe with his retinue and picking up prestigious possessions – an Atlantic copper knife here, a pair of gold hair ornaments there, and not one but two valuable wristguards – on his travels. Less a conquistador, more an adventurer, the noble Amesbury Archer could have regaled the Wessex locals (having learnt their language) with marvellous traveller's tales, and impressed them with his arcane knowledge of metalworking. When he died, he was accorded all the pomp that would have been due to a man who had probably been a legend in his own lifetime.

The question of human movement following the initial arrival of the Beaker 'package' is another area where recent developments have greatly enhanced our understanding, and where future research will no doubt help to clarify details. It is clear that various networks of contacts flourished during the late third and second millennia, largely (but not exclusively) fuelled by the desire for metal, and these must have involved some human movement, as well as movement of objects, materials and ideas. Stuart Needham's critical review of the evidence for southern England during the first half of the second millennium has explored the geography and 'motors' for such networks, as well as identifying some individuals who had probably moved from their areas of origin, some through marriage exchanges (Needham 2000a; 2008b, 321–325; Needham *et al.* 2006). His major contributions in these studies have been to deconstruct the idea of a unitary 'Wessex Culture' (by revealing a south-coast interaction network, operating away from the heart of Wessex, in which the vocabulary of prestige included the use of precious cups); to clarify the nature of the relationship between Wessex and Breton elites during the first quarter of the second millennium; and to introduce the useful concept of 'maritories' – spheres of privileged interaction and influence that operated along and across the sea. Needham has also identified a change in the nature and intensity of interactions over the course of the millennium, with the intensification of contact and exchange over the period 1750–1500 BC leading to the emergence of a culturally relatively homogeneous 'Channel Bronze Age', extending over a large area on both sides of the Channel and extending into the southern part of the North Sea (Needham *et al.* 2006, 75).

Current and future work will add detail to this picture; indeed, the current isotopic work undertaken by Mandy Jay and colleagues for the *Beaker People Project* is already revealing details of human movements, including probable reciprocal movement between Scotland and Yorkshire, during the late third and early second millennia (Jay, Montgomery & Evans pers comm). The isotope evidence accords with the abundant evidence from artefacts and funerary practices for links between these areas. Some of the complexities of inter-area movements during the late third millennium BC are neatly encapsulated in a single, unique Food Vessel pot, recently found in a probable grave next to the Dutch Beaker grave at Upper Largie (Fig. 2). With its Irish-style body and Yorkshire legs, this symbolises two of the main external areas

of contact involving the Early Bronze Age elite of Kilmartin Glen, whose wealth was probably based on controlling the flow of Irish copper to the flourishing Migdale-Marnoch metalworking industry in north-east Scotland, at the other end of the Great Glen (Cook *et al.* forthcoming; Needham 2004; Sheridan 2008; forthcoming b).



**Figure 2.** Unique footed Irish Bowl Food Vessel from Upper Largie, from the grave immediately beside the Dutch Beaker grave. Photo: NMS.

That north-east Scotland was not only linked to the Kilmartin area (and thence to Ireland: Cressey & Sheridan 2003) at this time, but also to the Netherlands, has been claimed by Ian Shepherd (1986) on both ceramic and metal artefact grounds. This suggestion can and should be tested by an in-depth comparison of the ceramic evidence (focusing on Dutch early Veluwe Beakers, dating from c 2200 BC), if not also by strontium and oxygen isotope data from the Scottish skeletons (there being precious little skeletal material surviving in the Netherlands). The strong links between East Anglia and the Netherlands, as suggested by Barbed-wire Beakers (Clarke 1970), can be interrogated further against the Dutch record, which suggests a date in the range 2000–1800 BC (Butler & Fokkens 2005). Similarly, the human contact implications of the shared use of the distinctive, large domestic 'pot beakers' (Gibson 1980; Lanting 1973; Lehmann 1965) in Britain and Ireland and on the Lower and Middle Rhine need to be teased out.

Finally, the evidence from the aforementioned Knowes of Trotty barrow in Orkney (Sheridan *et al.* 2003) suggests that some long-distance, sea- and riverborne movement of individuals or small groups was taking place around the beginning of the second millennium BC. The motivation could have been the same as that which brought the Amesbury Archer there a few centuries before: the lure of the legendary sacred place (and its ceremonies), together with a desire to demonstrate and enhance social standing through undertaking adventurous journeys. The range of other evidence suggesting Orkney-Wessex links was reviewed in the same publication, and it included the suggestion that the Ring of Brodgar henge – the largest henge in Scotland, with its deep rock-cut ditch and large stone circle – may represent an attempt to recreate the grandeur of Avebury in an Orcadian setting, siting it right at the heart of a sacred landscape of long standing. The results of the dating work that is currently underway, following this summer's small-scale excavations there by Colin Richards and Jane Downes ([www.orkneyjar.com/archaeology/ringofbrodgar](http://www.orkneyjar.com/archaeology/ringofbrodgar)), may reveal whether this

monument was indeed constructed around the time when the Knowes of Troty individual was buried, during the 20th or early 19th century BC.

The (presumed) Orcadian buried at the Knowes of Troty was not the last person to make a long-distance journey, or pilgrimage, to Wessex: among the evidence for other potential distant visitors is that from a high-status Bronze Age cemetery at the Mound of the Hostages, Tara, in eastern Ireland, where a young man was buried wearing a composite necklace – an unmistakably Wessex fashion between 1871 and 1519 cal BC (3370± 60 BP, GrA-19180 O'Sullivan 2005, 177–182). Imminent isotopic analysis of this man's dental enamel, by Jane Evans and colleagues, may help to tell us whether he had been brought up in eastern Ireland or had been an incomer from Wessex.

Clearly, then, there is much that can already be said about movements and about networks of contacts, and more that could be found out. A useful step towards enhancing our understanding would be the production of a set of maps (or even better, a dynamic model), encompassing the whole of the Chalcolithic and Bronze Age and showing the location and geographical extent of the networks, the direction of movement of people, objects, materials and ideas, and the way they evolved. These in turn may shed light on the factors that lay behind these interactions.

### **Metal: perennial object of desire and a key driver of behaviour**

The role of monuments and of sacred landscapes as attractors has already been touched upon; indeed, the location of the Dutch Beaker grave in the midst of a 'busy' and long-established sacred landscape in Kilmartin Glen (Cook *et al.* forthcoming) is unlikely to be coincidental, irrespective of whether there had also been interest in (or even knowledge of) the local copper sources. However, an even greater influence on behaviour from the 25th century BC onwards was the desire for metal. This, and the need to organise its movement from source areas to where it was needed, clearly constituted a major 'engine' driving much interaction and facilitating social inequalities throughout the whole of the period 2500–500 BC.

There have been major advances in our understanding of where and how copper and gold was extracted and worked, with Billy O'Brien's excavations at the Ross Island copper mine (2004) solving the puzzle of the source of 'A' type copper, and with microchemical characterization of gold making the provenancing of gold artefacts simpler, not only in Ireland (Chapman *et al.* 2006) but also in Scotland (Chapman pers comm). Tin remains harder to source, but it is questionable whether any minor sources were utilised, given the presence of major sources in Cornwall and Devon. The increasing number of analyses of copper and bronze artefacts, and the use of lead isotope analysis (Rohl & Needham 1998) has allowed a clearer sense to be gained of the complex nature of the circulating pool of metal, and its diverse sources (see Needham 2002 on the composition of 'Bell Beaker metal'). Characterisation of metalworking traditions, such as the 'Migdale-Marnoch' tradition of earliest bronze manufacture in north-east Scotland (Needham 2004), have enhanced our understanding of the range of artefacts being made in various parts of Britain.

The key developments now seem well-established. The realisation that Britain and Ireland switched to a full bronze-using tradition as soon as the existence of abundant tin in the south-west was realised (during the 22nd century), and earlier than on the Continent, allows us to explore the social and economic implications of this development (Pare 2000). It is at this time, for instance, that we see the 'golden age' of Kilmartin Glen, with its conspicuous consumption of effort on creating prominent funerary monuments for the well-connected

elite. The last two centuries of the third millennium see many other rich elite graves, particularly in northern Britain, with grave goods including daggers for the men and elaborate jet necklaces for the women (Fig. 3). It may well be that the scale of copper production increased with increasing demand for metal goods; and the necessity of moving not only copper but also tin around Ireland and Britain will have strengthened some pre-existing networks of contact (e.g. the Yorkshire-Scotland link), and will have encouraged others to develop. That tin was being moved around in ingot form is suggested by its liberal use in Scotland, as shown in the tinned flat axeheads of the Migdale-Marnoch tradition (Needham 2004) and in the enhancement of a button of imported Whitby jet, found at Rameldry Farm in Fife, by inlaying metallic tin into its surface, (Baker *et al.* 2003).



**Figure 3.** Spacer plate necklace of jet and jet-like materials from Inchmarnock, Argyll & Bute. Photo: NMS.

The further realisation, that there was a re-organisation and enhancement of the production and supply of copper and tin around 2000 BC (Needham 2004), with new mines opening up (e.g. Great Orme: James 1990), arguably goes a long way to explaining the southward shift in 'hot spots' of wealth at that time – although whether the area around Stonehenge, with its concentration of wealthy graves, became enriched by controlling the flow of metals or by its continuing pre-eminence as a holy centre (Needham 2008b), or by both of these factors, will remain a topic for debate. It also helps to account for the appearance, around this time, of certain Continental novelties such as faience jewellery (Fig. 4) and the know-how to make it: the central European demand for tin may well have led to contact between central European metalworkers (who were already familiar with making faience beads) and their counterparts in Britain (Sheridan & Shortland 2004).



**Figure. 4.** Star-shaped faience beads from Culbin Sands, Moray and segmented beads from Glenluce Sands, Dumfries & Galloway. Photo: NMS.

Among the questions that remain to be answered are: were people using sources of copper other than the ones of which we are already aware? There is tantalising evidence – both from lead isotope analysis of some 'Bell Beaker' metal artefacts (Needham 2002), and from the recent discovery of a Beaker period gold disc, possibly from a grave (Timberlake *et al.* 2004), that copper at Cwmystwyth may have been mined during the third quarter of the third millennium. Current fieldwork by John Picken at Tonderghie, near Whithorn in south-west Scotland, may produce evidence for early mining; much more field survey is needed in copper-bearing areas.

Other outstanding questions concern the sources of gold used in different parts of Britain and Ireland. The microchemical approach of Chapman *et al.*, used to such effect in Ireland, has much to offer the study of British gold artefacts, and initial work on Scottish objects (such as the Knowes of Trotty gold discs) is yielding much intriguing information. The many other metalwork-related research questions will no doubt be covered in greater detail by other contributions to this volume.

### **Overhearing past conversations: traditions of artefact manufacture, use and deposition**

A whole new depth of understanding about people's choices, beliefs and preoccupations has been opened up by recent and current material culture studies, and by the general vogue for investigating materiality. Principal among these is the detailed work that has been undertaken by Ann Woodward and her team of specialists for the *Ritual in Early Bronze Age Grave Goods*

*Project*, on recreating artefact biographies through sourcing raw materials and examining evidence of manufacture, use and recycling (e.g. Woodward *et al.* 2006). This builds on foundations already laid in Woodward's work on 'heirloom' objects (Woodward 2002), and complements author's own projects on on jewellery of jet and jet-like material (e.g. Sheridan & Davis 1998; 2002), of faience (e.g. Haveman & Sheridan 2006; Sheridan & Shortland 2004) and of amber (Sheridan *et al.* 2003). This research, in turn, owes much to the earlier work on reading Chalcolithic and Bronze Age material culture, by Ian Shepherd and colleagues in the 1980s (Clarke *et al.* 1985; Shepherd 1973; 1981; forthcoming).

The main trends in adorning the body, 2500–1000 BC, are now well established, so that we are now in a position to build a fairly detailed narrative of how design evolved over this time (and why it changed in the way it did), and how geographical shifts occurred in the hot-spots for innovation and conspicuous consumption (see, for example, Needham 2000c and Roberts 2007). We can also understand the active agency of artefacts and materials, with amuletic possessions (such as spacer plate and composite necklaces) prominent among grave goods of the late third millennium and first half of the second (Sheridan & Shortland 2003). The term 'supernatural power dressing' has been coined to express the way in which such items may have been used.

There are still avenues that can usefully be explored: Catherine Frieman's current research on skeuomorphism is one, and the symbolism of artefact form is another. This has been touched upon by Stuart Needham in his recent discussion of miniature halberds in Wessex, and of the old idea that 'slotted cup' accessory vessels may be a representation of the sarsen trilithons at Stonehenge (Needham 2008b). There is more provenancing work that can be done. Having established that some wristguards were made of tuff from Great Langdale (Woodward *et al.* 2006), Woodward and her team are now focusing on a set of pale blue wristguards, of which one (from Sonning, Berkshire) had previously been identified as of 'nephrite' through petrological thin-sectioning. In an example of inter-project cross-fertilisation, the French-led *Projet JADE* team will have just analysed several of these and initial indications are that the rock is an amphibolite, which need not have any Alpine connections.

## Conclusions

It is clear from the examples cited here that there remain many questions to answer, and some areas of continuing debate. But the advances of the last decade have made this a 'golden age' of research into the British Chalcolithic and Bronze Age; the most pressing challenge in the immediate future will be to assimilate all the new information that is being produced, and to ensure its efficient and widespread dissemination. The future of our prehistoric past is looking good.

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