

## An Early Bronze Age short-cist burial at Abbey Mains Farm, Haddington, East Lothian

John A Lawson\*, David Henderson\* & Alison Sheridan‡

### ABSTRACT

*A short cist was discovered during ploughing in January 1999. It was aligned WSW/ENE, and contained the crouched skeleton of an adult female aged 22–25, laid on her right side with her head to the WSW. A 'step 4' (Clarke's 'N2 or N3') Beaker, not dissimilar to the one found at Ruchlaw Mains a few kilometres away, had been placed at the small of her back, and the remains of a joint of pork were found behind her shoulders. A radiocarbon date of 2570–2300 cal BC was obtained from one of the human bones. There were no traces of a covering mound.*

### INTRODUCTION

John A Lawson

The cist was discovered when the capstone was lifted during ploughing, in a field belonging to Abbey Mains Farm to the south of the A1, near Haddington (illus 1). On investigation by the farmer, Mr D Playfair, a human femur was observed and the find was reported to Historic Scotland. The City of Edinburgh Council Archaeology Service was subsequently asked to conduct a rescue excavation. This was done between 19 and 22 January 1999.

The cist was located approximately 2.5km east of Haddington, East Lothian (illus 1: NGR NT 536 751), within a field situated between the River Tyne and the southern side of the A1. The cist was positioned on the western end of a glacial knoll (just to the north of its highest point) which formed a prominent skyline feature when viewed from the River Tyne to the south. The underlying subsoil was a sandy gravel and clay glacial till. The cist appears to be an isolated example, with no

record of any other cist being found in the immediate vicinity.

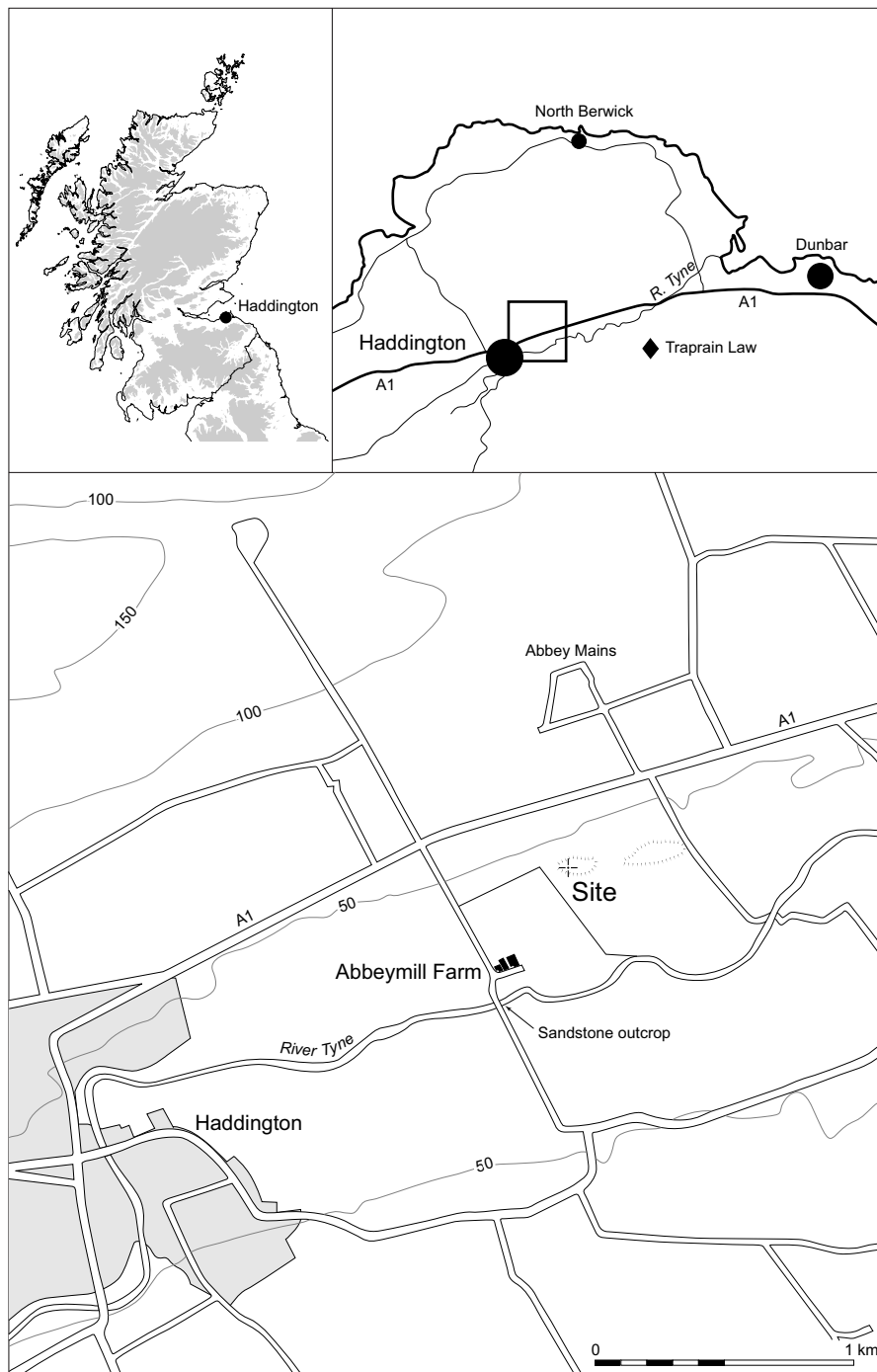
### THE CIST

A sub-circular pit (context 11 on illus 2), 2.10m in diameter and 0.65m deep, was dug with near-vertical sides and a gradual break of slope at its base forming a nearly flat bottom, slightly deeper to the east. (Numbers in brackets refer to context numbers on illus 2.) The cist (9) was constructed from slabs of a medium-grained, micaceous, Carboniferous sandstone, forming a rectangular box measuring internally 1.0m long by 0.68m wide and 0.30m deep. The nearest source for the stone used is to be found 600m to the SSW of the cist (illus 1), where it outcrops on the southern bank of the River Tyne near Abbey Bridge (R Steedman, pers comm).

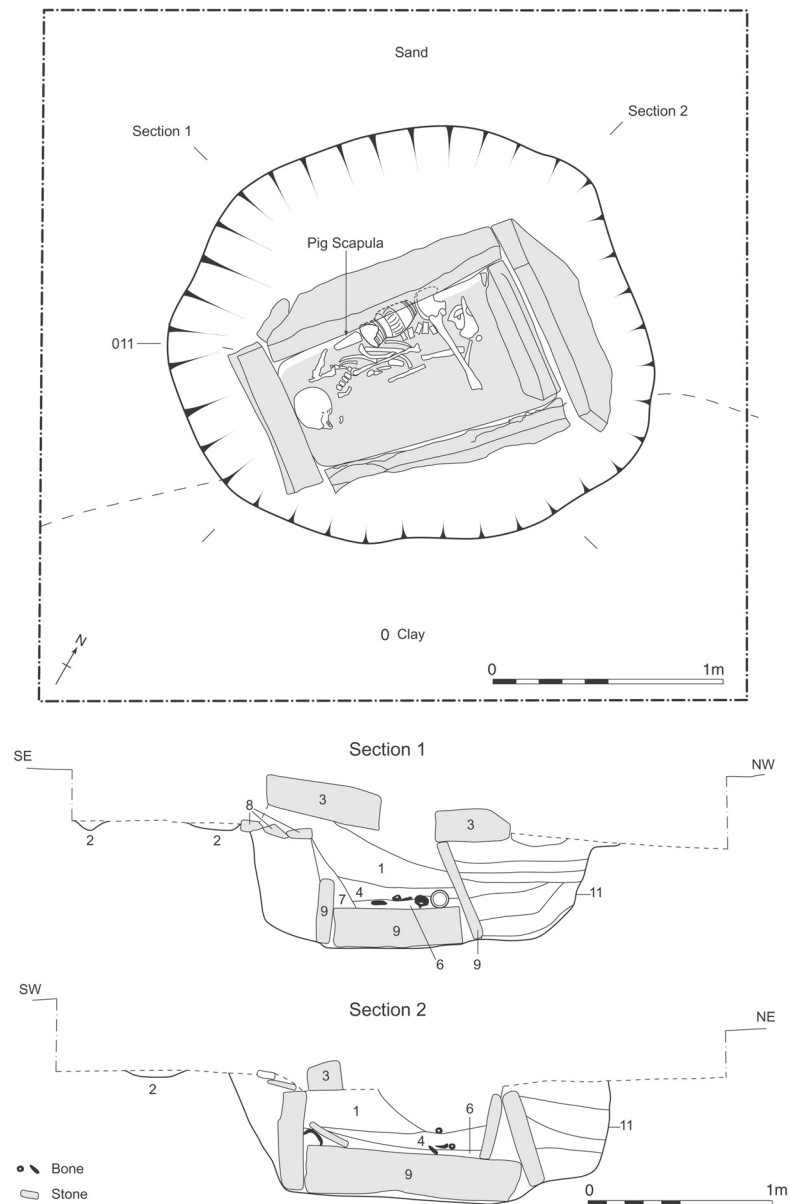
A single large rectangular flagstone formed the base of the stone cist, aligned WSW/ENE. At the western end of the base was an upright slab, its eastern and top surfaces being flat and the edges possibly deliberately squared where they stood above the level of the base slab. Below this level and on the western (outer) face, the stone was unshaped. The northern and southern side-slabs were placed leaning against the base-slab. Similarly the eastern

\* City of Edinburgh Council Archaeology Service (CECAS), 10 Broughton Market, Edinburgh EH3 6NU

‡ Archaeology Department, National Museums of Scotland, Chambers St, Edinburgh EH1 1JF



ILLUS 1 Location of Abbey Mains Farm cist site. (Based on the Ordnance Survey map © Crown copyright)



ILLUS 2 Plan and section of the cist

slab was placed to lean against the sides and base. On the inner side of the eastern end slab, a further small slab sat on the base-slab and helped to hold the north and south slabs apart. The gap between these two eastern slabs was in-filled with a mix of soil and small packing stones. There was no evidence of clay luting of the joints of the cist, even

though plastic clay is readily available in the vicinity.

The pit fill surrounding the cist showed evidence that the spoil from the pit's excavation had been kept apart in two separate piles. To the north and east the backfill showed clear tip-lines of gravel, gravelly clay, and sand in contrast to the south and

west, where the fill was a homogeneous deposit of gravelly clay reflecting the surrounding subsoil.

The occupant of the cist, a young woman, was interred in a tightly crouched position on her right side with her head to the WSW. A joint of pork, represented by a pig scapula, was found behind her shoulders, and a Beaker was found resting on its side at the small of her back, its mouth facing towards the upper body. It is debatable whether this Beaker had originally been deposited upright (and had then toppled over, perhaps as the body decayed), or had been placed on its side; all that can be said is that the 'tide line' left by its original contents indicates that it must have been on its side while some of this substance had still been within. The authors prefer, but cannot prove, the 'upright then toppled over' interpretation.

A single slab of sandstone, roughly square in shape (0.95m by 0.98m and 0.19m thick), formed the capstone of the cist, laid at an angle of about 45° to the long axis of the cist. A layer of angular fragments of sandstone (8) occurred along the southern side of the cist, with a double layer occurring in the south-eastern corner. No evidence for the remains of a cairn or enclosing ditch was found within 10m of the cist.

The southern side-slab of the cist had begun to degrade in antiquity. Weathering of the bedding planes exposed along its top edge resulted in small angular flakes of stone up to 30mm thick falling into the cist interior. As the stone degraded, clay from the pit backfill (7) filtered into the cist. Recent disturbance during agricultural activity had already cracked and perhaps slightly shifted the capstone prior to discovery, allowing topsoil (4) to penetrate the cist, silting it to a depth of between 0.05m and 0.15m, with the bottom-most silting (6) mixed with the eroding clay (7). In the process of discovery, the ploughshare had lifted the south-eastern half of the capstone and deposited a further, considerable, quantity of topsoil (1) into the cist.

## THE HUMAN AND ANIMAL REMAINS

David Henderson

### HUMAN

#### *Position and preservation*

The individual was lying on her right-hand side, with the head to the WSW, facing ESE. Preservation was mixed, with good survival of the left femur,

scapula, humerus, the spinal column, and some of the left ribs. The back of the cranium from behind the right ear to the outer corner of the left eye was also in good condition. However most of the rest of the skeleton had suffered from severe erosion. All the bones are lightly etched by fine plant-roots.

The in situ remains indicated that the right thigh was tightly flexed against the chest. The left femur was disturbed on discovery of the cist but an in situ fragment of fibula suggests that the left thigh was arranged at right-angles to the trunk, with the knee tightly flexed. The left humerus was parallel to the trunk. With the exception of a fragment of the head of the right radius and the fibula fragment, no bones distal to the elbows or knees had survived. The mandible was represented by a collection of three eroded tooth enamels from the left side. Because the stone floor of the cist sloped down from the head end, it appears that acidic rain-water percolating into the cist had flowed towards the feet, carrying bone fragments as they eroded, with some of the larger fragments becoming trapped under the left femur.

#### *The individual*

The skeleton was of a female, based on pelvic morphology (Bass 1994, 200–6) and aged 22 to 25 years old, based on dental wear (Brothwell 1981, 72). The individual was between 1.54m and 1.62m tall, based on the length of the humerus (Trotter 1970). Although the facial bones and the front part of the skull were missing, the skull presented a very spherical (brachycranial) appearance. The muscle attachments on the bones were not strongly marked. The femurs were both markedly platymeric, a shape much more common in pre-industrial than in modern populations, where the lateral side of the femur shaft develops an extra flange of bone, possibly in response to the stress of a more robust lifestyle. The skull exhibited scaphocephaly, where the sagittal suture is obliterated prematurely. This condition can affect the skull shape if it occurs before growth has stopped (Aufderheide & Rodríguez-Martín 1998, 52) but in this case appears to have had little effect except for producing a slight asymmetry in the basal part of the skull. The sagittal suture does not normally close fully until after the fifth or sixth decade of life. Many large Wormian ossicles were present in the lambdoid suture, especially on the right side. This condition, particularly

the asymmetry, has been linked to nutritional stress in childhood, although with a strong genetic predisposition (Mays 1998, 103–16). The humerus displayed a septal aperture. The form of the pubic tubercle and the fossa below it may indicate that the woman had had at least one child. The three left upper molars were recovered in situ, and the lower left third molar crown was recovered intact, beside the broken remains of at least two other teeth. Both third molars were very slightly worn.

#### *Radiocarbon date*

In order to date the burial a radiocarbon date was obtained from the sternum bone. The result, calibrated using OxCal version 3.5, is presented in Table 1; the  $\delta^{13}\text{C}$  value indicates that the individual had had a diet in which protein came exclusively from terrestrial, rather than marine, resources (Richards & van Klinken 1997).

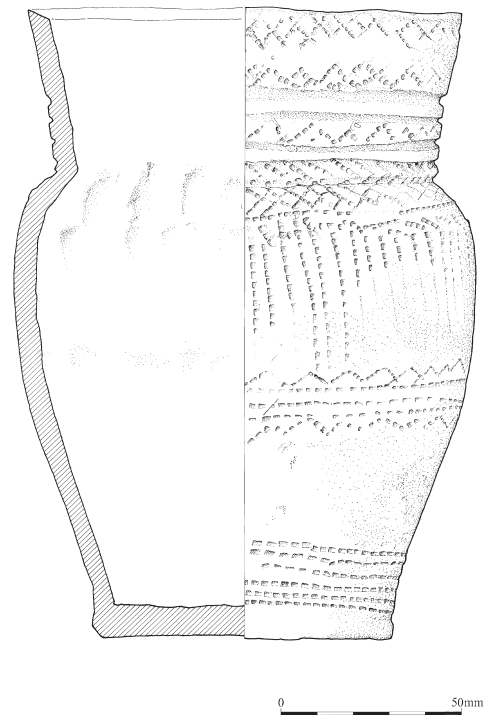
#### THE PIG BONE

One item of animal bone was recovered from the site, the left scapula of an adult pig (*Sus scrofa*). Essentially intact, the bone had been eroded around the margins by acidic ground-water, and was etched by plant-root action over most of the surviving surface. No convincing butchery marks were discernible under these conditions, but a transverse linear nick on the medio-inferior margin of the scapular neck is a possible candidate. No measurements could be taken on the bone, but it is visually very similar in size to the medieval pig population of Edinburgh and Leith, and so was most probably domestic rather than wild. It is very possible that the scapula was originally deposited as part of a larger joint of meat, for example a whole foreleg, but the post-deposition environment has eroded all other bones; this patchy preservation has certainly occurred in the adjacent human skeleton.

TABLE 1

The radiocarbon date for human bone from the cist

Lab no	Years BP	$\delta^{13}\text{C}$ (‰)	Cal BC (1 $\sigma$ )	Cal BC (2 $\sigma$ )
OxA-10254	3945 $\pm$ 40	-21.0	2560–2540 (4.5%) 2500–2400 (49.6%) 2380–2340 (14.1%)	2570–2510 (14.3%) 2500–2300 (81.1%)



ILLUS 3 The Beaker from the cist

#### THE BEAKER

Alison Sheridan

The Beaker (illus 3) is virtually intact, with a sherd missing from the rim (as the result of recent damage), and fairly extensive surface spalling on the side on which the pot had been resting. (This spalling had probably occurred in antiquity; see above on whether or not the pot might originally have been deposited upright.) It is 177mm high, with diameters at the rim, belly, and base of 117, 122, and 84mm respectively and a wall thickness of c 8.5mm. The rim is squared off and slopes towards the interior; the neck is short and splays slightly; the belly is high and fairly narrow, meeting the neck at

a sharp angle; and the base is flat inside and out, with a slight pedestal. The exterior, from the rim to just above the base, is decorated with bands of impressions made by two square-toothed combs, one around 40mm long, and the other c 7mm. These are interspersed with plain areas, and on the neck and the top of the belly there are also five horizontal grooves. From top to bottom, the decorative scheme is as follows: *neck and top of belly*: band of short, criss-cross strokes; plain band; narrow running chevron of short strokes, criss-cross in places; groove, plain band, groove; wide running chevron, short strokes; groove; plain band; groove-ridge-groove with short herringbone strokes; band of short herringbone (in places, criss-cross). *Rest of belly*: panel of roughly vertical long-comb strokes, with short-stroke running chevrons at top and bottom, framed by one horizontal long-comb line at the top and three at the bottom; below this, fringe of short running chevron, then broad plain band, then five untidy horizontal lines of long comb impressions, then plain band.

The exterior is a mottled buff/reddish-brown/orange brown; the interior a slightly darker, more greyish colour, and core is blackish-grey. This indicates that, like many other Beakers, this pot had been fired relatively rapidly, and probably in an inverted position. There are traces of a thin, blackish encrustation on parts of the interior – the upper belly and neck – on the side of the pot where the exterior surface had spalled away. This may well represent the remains of the pot's former liquid contents, which had gathered on one side of the pot (if, say, the pot had fallen on its side), and then evaporated. There is another kind of encrustation, present on parts of the exterior: this is a pale buff, slightly granular accretion, probably from mineral-rich groundwater, which had percolated into the cist.

Visible in the fracture surfaces and where the surface has spalled away are the numerous stone grits that had been added to the clay as temper. These had been obscured when the surface of the pot was carefully smoothed and coated with a slip prior to decoration. They consist of crushed, crystalline stone, up to c 4x3.5 mm, and are present in a density of c 15% (as calculated using charts developed by Matthew et al 1991).

The Beaker shares formal and decorative traits in common with some of Clarke's Developed and

Late Northern (N2 & N3) Beakers. The sharp neck-belly junction and the use of neck grooves can be seen, for example, on Beakers from Huggate & Warterwold, Humberside and Bellingham, Northumberland (Clarke 1970, figs 508, 594); less distant examples of neck grooves include the N2 Beaker from Skateraw, East Lothian (Close-Brooks 1979). According to Lanting & van der Waals's classification (1972), the Abbey Mains Beaker would fall within their 'step 4'. Its closest parallel is also geographically close – the Beaker from Ruchlaw Mains, around 8km to the ESE.

## DISCUSSION

Alison Sheridan & John A Lawson

At present the cist found at Abbey Mains Farm seems to be an isolated example and not part of a cemetery. Nevertheless the cist's location would appear to have been deliberately chosen and is characteristic of Early Bronze Age burial sites, on a prominent gravel knoll. Furthermore it may not be coincidental that the body faces Traprain Law, an important centre for prehistoric occupation in East Lothian.

The site is one of around 30 Beaker-associated burials from the rich agricultural lands of East Lothian and (former) Berwickshire, and its Beaker joins some 50 or so others from this part of Scotland, including three associated with radiocarbon dates (of varying reliability: see below). As Ashmore et al (1982) observed in their report on the similar Beaker from a cist at nearby Ruchlaw Mains, such numbers are not sufficiently large to permit the construction of a regional Beaker typochronology. This is particularly unfortunate, as the radiocarbon date of 2570–2300 cal BC obtained from the Abbey Mains skeleton appears to be relatively early for a step 4 Beaker (see Table 2), and indeed places it among the earliest dated Beakers in Britain and Ireland (cf Kinnes et al 1991, for results of the British Museum Beaker dating programme, and also Garwood & Barclay 1998, 281–6 for a more recent discussion). Some 12 dates<sup>1</sup> are currently available for step 4 Beakers

TABLE 2

Radiocarbon dates associated with step 4 Beakers. All the dates have been calibrated using OxCal v3.5. The standard deviations used in the calibrations include adjustments made by Patrick Ashmore, as given in the Historic Scotland Radiocarbon Datelist ([www.historic-scotland.gov.uk/sw-frame.htm](http://www.historic-scotland.gov.uk/sw-frame.htm)); adjusted dates are marked #, with the original standard deviation in brackets. Dates with standard deviations above 100 years are marked \*, and are listed at the end, along with the obviously anomalous date from Skateraw and the Chatton Sandford date, rejected by Kinnes et al. Further references are given in Kinnes et al 1991 and in the HS Datelist. Where there are discrepancies between the dates as cited by Kinnes et al and the HS Datelist, these have been verified with the relevant laboratory. Also note: a previous datelist for step 4 Beakers (Sheridan 1999) had included dates from Dryburn Bridge; these are now omitted, because the Beaker in question has more affinities with step 5 than step 4 examples, and because one of the dates cited (GU-1406) was not associated with a Beaker.

Site	Material dated	Lab no.	Date BP	Cal BC (2σ)	Reference
Abbey Mains Farm, East Lothian	Human bone	OxA-10254	3945 ± 40	2570–2510 (14.3%), 2500–2300 (81.1%)	This paper
Bractullo, Perth & Kinross	Human bone	BM-2515	3780 ± 60	2460–2420 (1.5%), 2410–2020 (93.9%)	Kinnes et al 1991, 50
Tavelty, Aberdeenshire	Human bone	GU-2169	3710 ± 70	2300–1880	ibid., 54
Doons Law, Whitsome, Scottish Borders	Human bone	AA-29066	3645 ± 65	2200–1870 (92.7%), 1850–1810 (1.6%), 1800–1770 (1.1%)	Clarke & Hamilton 1999
Chealamy, Highland	Human bone	BM-2512	3630 ± 50	2140–1870 (94.1%), 1840–1820 (1.3%)	Kinnes et al 1991, 50
Shrewton 5a, Wiltshire	Human bone	BM-2517	3560 ± 50	2030–1740	ibid., 50
Boysack Mills, Angus	Human bone	BM-2513	3460 ± 50	1920–1630	ibid., 50
'Problem/reject' dates Boatbridge Quarry (cist 2), Thankerton, South Lanarkshire	Human bone	GU-1117	3835 ± 110(75)#*	2600–1950	ibid., 52
Ruchlaw Mains, East Lothian	Human bone	GU-1356	3720 ± 110(80)#*	2500–1750	ibid., 54
Keabog (cist 2), Aberdeenshire	Human bone	GU-1123	3675 ± 135(95)#*	2500–1650	ibid., 53
Skateraw, East Lothian	Human bone	SRR-453	4420 ± 180(130)#*	3700–2500	ibid., 54
Chatton Sandford, Northumberland	Charcoal from stake-holes	GaK-800	3620 ± 50 <i>terminus post quem</i>	2140–1870 (93.5%), 1840–1820 (1.9%)	ibid., 65 Note: rejected because of insecure association of dated structure and grave

TABLE 3  
Examples of pig bones associated with Bronze Age burials. Key: SC = short cist; CI = crouched inhumation; crem = cremation; b&t arr = barbed and tanged arrowheads; OLS = old land surface. This table does not purport to be exhaustive and excludes numerous generalized references to 'animal bones' in barrows (eg Grinsell 1957, 246; Bateman 1861, *passim*; Barnatt and Collis 1996, 180–263; Greenwell 1890), which may or may not include pig. See Barclay and Halpin 1998 for additional examples of pig bone deposition at Barrow Hills, Radley 3).

Location	Site type, human remains	Pig remains	Other grave goods	References	Comments
<i>With inhumations, demonstrably or presumably</i>					
<i>Early Bronze Age</i>					
Uppermill, Cruden, Aberdeenshire	SC, CI male 20–25 & child 8–12, sex indet.	L humerus & radius; est. age 3–3.5	2 beakers, step 4; bracer, 7b&t flint arr's; 2 flint flake knives	Harman 1977; Shepherd 1986, illus 19	
Parkhill, Aberdeenshire	SC, CI adult male	L humerus, radius, 3rd metacarpal, age – cf. Uppermill	Beaker, step 4	Ferguson 1882, Shepherd 1986, 36 (ABDUA 14235)	
Gairneybank, Perth & Kinross	SC, CI male c21	R humerus, radius & ulna	None	Cowie & Ritchie 1991	Dated to 3575 ± 70 BP (GU-1120)
Muirhall, Perth & Kinross	SC, CI adult 18–24	R radius, ulna, distal end of R humerus	Flint knife	Stewart 1970, 36; <i>Discovery Excav Scot 1997</i> , 116	Dated to 3440 ± 55 BP (GU-4758)
Aberdour Rd (cist 1), Dunfermline, Fife	SC, CI female 12–16	At least 4 lower fore-limbs (L & R) from 3 pigs, all under 2 years; poss. skull frag	None	Close-Brooks et al 1972	
Abbey Mains Farm, East Lothian	SC, CI adult female	Scapula; may have been an entire fore-leg	Beaker, step 4	This paper	Dated to 3945 ± 40 BP (OxA-10254)
Whitemuirhaugh Farm (cist 2), Sprouston, Scottish Borders	SC, CI female c40	R humerus & radius, young	None	Craw 1933	
Wetwang Slack, Humberside	Wooden cist, originally under barrow, CI, male, 20s	Foreleg	Stone battle axehead (Roe type IIIA)	Dent 1983	Dated to 3780 ± 70 BP (HAR-4427)
Barrow Hills, Radley (pond barrow 4866, grave 4969), Oxfordshire	Coffin in pond barrow, CI, subadult 9–10	Fragmentary calcaneum	Flint piercer, 6(?) antlers, cattle skull, charcoal	Barclay 1998, 119	Dated to 3490 ± 80 BP (OxA-1880)
Long Cricchel (barrow 11), Dorset	Deep oval grave-shaft under bowl barrow, CI, adult	Humerus and radius of nearly adult pig	None but beaker sherds in covering mound	Piggott & Piggott 1944, 73–4; Grinsell 1959, 119 (No 23)	
<i>With late-dated crouched inhumations</i>					
Grainfoot, Longniddry, East Lothian	SC, CI male 25–40 & female 45–60	L humerus, radius & ulna, age – cf. Uppermill	None	Dalland 1991	Dated to 2930 ± 50 BP (GU-2762)
Barrow Hills, Radley (pond barrow 4583), Oxfordshire	Pit, CI, subadult 14–16	Fragmentary mandible of large, possibly wild pig	None	Barclay 1998, 53	Dated to 2760 ± 50 BP (BM-2702)



*With cremations or in mound material etc*

Brackmont Mill (burial XII), Fife	Pit, crem in collared urn	Part of occipital bone	Collared urn, flint flake	Mears 1937, 261–2; Longworth 1984, 300, no 1844
Dalmeun (small cist), Lorn, Argyll & Bute	SC, crem, adult F (?) & immature (sex indet.)	Phalanges	None	Ritchie 1972, 52, 60
Top Low, Swinscoe, Derbyshire	Elliptical barrow covering CIs and crem	'Skeleton of a young hog, inside a roughly built cist'	None with pig	Bateman 1861, 133–8
Monsal Dale, Derbyshire	Barrow with primary and secondary inhumations and secondary cremation	'Skeleton of a small hog' in barrow material	None with pig	ibid, 74–9
Carneddau cairn II (context 29), Powys	Pit under cairn, crem 2 children	Trotter and forelimb of second pig	None; pit fill included charcoal-rich soil	Gibson 1993, 25
Aldbourne (Greenwell No. 279), Wiltshire	Pit under bowl barrow, crem adult	'Bones of young pig' above stones covering grave; also bones of pig, sheep/goat and ox in barrow	Plain sherd with crem	Greenwell 1890, 49; Grinsell 1957, 147 (no 4)
Aldbourne (Greenwell no. 276), Wiltshire	Bell barrow with primary and secondary crem	'Many bones of ox and pig . . . in a broken condition, done designedly in order to extract the marrow', in the barrow	In barrow: beaker sherds, flint scraper, flint chips	Greenwell 1890, 46–8; Grinsell 1957, 206 (no 1)
Berwick St. John (no 9), Wiltshire	Bowl barrow with primary cist, empty, and secondary crem	Bones of pig, ox, roe-deer and calf in barrow	None associated with bones	ibid, 156
Lammy Down, Bishopstone (North), Wiltshire	Crem, ?primary, under bowl barrow	Broken leg bone above crem	Lump of iron pyrites	ibid, 159
Ogbourne St George (no 1), Wiltshire	Crem, ?primary, in charcoal patch under bowl barrow	Leg bone above crem	None	ibid, 186
Davidstow Moor (site III(8)), Cornwall	crem in disc barrow, ?male 25–35	9 fragments (of which 6 burnt), including burnt frag. scapula, poss. from newborn piglet	None	Christie 1988

OLS in central area of barrow dated to 3740 ± 90 BP (HAR-6640)

in Britain. Although several of these need to be discounted (as being obviously anomalous and/or having unacceptably large standard deviations, cf Kinnes et al 1991), the generally accepted determinations calibrate, at  $2\sigma$ , to between 2460–2020 cal BC, for an example from Bractullo, Perth & Kinross, and 1915–1675 cal BC for that from Boysack Mills, Angus. There is clearly a need for more, and more reliable, dates to be obtained; until then, we cannot be certain whether the Abbey Mains date is anomalously early, as appears to be the case at present.

The presence of the pig scapula, suggestive of a deposit of (presumably cooked) pork as food for the afterlife, is not unparalleled in Bronze Age burials. In their discussion of the pig bones found at Gairneybank, Perth & Kinross, Cowie & Ritchie (1991) cited Early Bronze Age examples from Dalineun, Argyll & Bute, Aberdour Road (cist 1), Dunfermline, Fife and Muirhall, Perth & Kinross. They also mentioned a later example from a short cist at Grainfoot, East Lothian (dating to 1305–940 cal BC), and pointed out that the practice had also been observed in an Iron Age context at Catch-a-Penny, Burnmouth, Scottish Borders (Craw 1924; cf Smith 2000).

Further Bronze Age examples from Scotland and elsewhere in Britain could be added to the list; these are enumerated in Table 3. It appears that the deposition of pork in the grave – usually as joints of meat, and most commonly involving the fore-limbs – was just one of a range of practices involving pigs in Bronze Age funerals. Sometimes pig (and other animal) remains were incorporated into the barrow covering a grave (as at Berwick St John, Wiltshire, for example: Grinsell 1957, 156). In some cases, parts of a pig's head have been found inside a grave (as at Brackmont Mill and Barrow Hills, Radley: Mears 1937; Barclay 1998); these are analogous to the cattle heads, or heads and hooves, that have occasionally been found in Bronze Age graves (eg at Hemp Knoll Wiltshire: Robertson-Mackay 1980), and which seem to signify token deposits. At

two Derbyshire barrows, entire pig skeletons were found: at Monsal Low, the pig was in the body of the mound, while at Top Low it had been placed under the barrow, together with an antler tine, in a small cist of its own, beside several human interments (Bateman 1861, 133–8). All of these practices could arguably relate to funeral feasting, in which animals were sacrificed and parts of the feast were consigned to the 'other world', as actual or token deposits of food for the deceased. In this context, the incorporation of the remains of the feast into the covering mound would form part of the closure of the funerary ceremonies, underlining their sacredness.

As indicated above, pigs were not the only animals to be used in this way. For example, a singled cattle bone was found with a Food Vessel-associated crouched inhumation at Kintyre Nurseries, Campbeltown (Sheridan 1992), while burnt sheep bones have been noted from a multiple cremation pit grave at Horsburgh Castle Farm, Scottish Borders (Denston 1974, 57), and at Wetwang Slack, Humberside a deer scapula accompanied a burial (Dent 1979). However, these instances of animal deposits are far rarer than the practice of depositing Beakers or Food Vessels in graves, with their presumably (and sometimes demonstrably) liquid contents.

In discussing the use of pig remains in Bronze Age burials, a distinction should arguably be drawn between the use of domestic pig as food offerings, and the incorporation of wild boar remains. The latter usually occur as boar tusks (and sometimes other teeth), not as other parts of the body, and these are more likely to represent prestigious hunting trophies. The not infrequent association of antlers (or parts thereof) with boar teeth – as at Bincombe, Dorset (Grinsell 1959, 25) – may strengthen the case for this 'trophy' interpretation.

#### ACKNOWLEDGEMENTS

The project was funded jointly by the City of Edinburgh Council and Historic Scotland and

the authors would like to thank in particular Patrick Ashmore and Olwyn Owen of Historic Scotland for their support. They would also like to thank Dick Beck and David Playfair of Abbeymains Farm for reporting the cist so promptly and for allowing time and access to the site, and also Bert Steedman of Abbeymill Farm for imparting his local knowledge. The assistance of DC MacFarlane of Musselburgh CID is also acknowledged. Alison Sheridan wishes to thank David Clarke, John Dent, Trevor Cowie, and Gordon Cook for their assistance and advice. Illustrations 1 and 2 were drawn by Laura Speed, and illus 3 by Caitlin Evans; the finds were allocated to East Lothian Museums Service (Crown Office Treasure Trove case TT 150/98), and the documentary archive will be deposited in the National Monuments Record for Scotland (NMRS no NT57NW 115).

#### NOTE

1 More dates may have been determined, but no comprehensive digest of British Beaker dates has been produced since Kinnes et al's 1991 list.

#### REFERENCES

- Ashmore, P J, Brooks, M, Maté, I & Strong, P 1982 'A cist at Ruchlaw Mains, East Lothian (NT 616742)', *Proc Soc Antiq Scot*, 112, 542–8.
- Aufderheide, A C & Rodríguez-Martin, C 1998 *The Cambridge Encyclopaedia of Human Paleopathology*. Cambridge.
- Barclay, A 1998 'Final Neolithic and Bronze Age', in Barclay, A & Halpin, C, 35–148.
- Barclay, A & Halpin, C 1988 *Excavations at Barrow Hills, Radley, Oxfordshire. Volume I: The Neolithic and Bronze Age Monument Complex*. Oxford.
- Barnatt, J & Collis, J 1996 *Barrows in the Peak District: Recent Research*. Sheffield.
- Bass, W M 1994 *Human Osteology: A Laboratory and Field Manual*, 3rd edn. Columbia.
- Bateman, T 1861 *Ten Years' Diggings in Celtic and Saxon Grave Hills, in the Counties of Derby, Stafford, and York, from 1848 to 1858*. London.
- Brothwell, D 1981 *Digging up Bones*, 3rd edn. London.
- Christie, P M 1988 'A barrow cemetery on Davidstow Moor, Cornwall. Wartime excavations by C K Croft Andrew', *Cornish Archaeol*, 27, 27–169.
- Clarke, C M & Hamilton, J 1999 'Excavation of a cist burial on Doons Law, Leetside Farm, Whitsome, Berwickshire', *Proc Soc Antiq Scot*, 129, 189–201.
- Close-Brooks, J 1979 'A Beaker cist at Skateraw, East Lothian', *Trans E Lothian Antiq Soc*, 16, 1–5.
- Close-Brooks, J, Norgate, M & Ritchie, J N G 1972 'A Bronze Age cemetery at Aberdour Road, Dunfermline, Fife', *Proc Soc Antiq Scot*, 104 (1971–2), 121–36.
- Cowie, T G & Ritchie, J N G 1991 'Bronze Age burials at Gairneybank, Kinross-shire', *Proc Soc Antiq Scot*, 121, 95–109.
- Craw, J H 1924 'On two bronze spoons from an early Iron Age grave near Burnmouth, Berwickshire', *Proc Soc Antiq Scot*, 58 (1923–4), 143–60.
- Craw, J H 1933 'On two Bronze Age cists at Sprouston, Roxburghshire', *Proc Soc Antiq Scot*, 67 (1932–3), 308–11.
- Dalland, M 1991 'A short cist at Grainfoot, Longniddry, East Lothian', *Proc Soc Antiq Scot*, 121, 111–5.
- Denston, C B 1974 'Cremated remains from Horsbrugh Castle Farm, 1974', in Petersen, F, Shepherd, I A G & Tuckwell, A N, 'A short cist at Horsbrugh Castle Farm, Peeblesshire', *Proc Soc Antiq Scot*, 106 (1972–4), 56–7.
- Dent, J 1979 'Bronze Age burials from Wetwang Slack', *Yorkshire Archaeol J*, 51, 23–39.
- Dent, J 1983 'A summary of the excavations carried out in Garton Slack and Wetwang Slack 1964–1980', *E Riding Archaeol*, 7, 1–14.
- Ferguson, W 1882 'Note on a cist, with an urn, discovered at Parkhill, near Aberdeen, in October 1881', *Proc Soc Antiq Scot*, 16 (1881–2), 69–72.
- Garwood, P & Barclay, A 1998 'The chronology of depositional contexts and monuments', in Barclay, A & Halpin, C, 275–93.
- Gibson, A 1993 'The excavation of two cairns and associated features at Carneddau, Carno, Powys, 1989–90', *Archaeol J*, 150, 1–41.

- Greenwell, W 1890 'Recent researches in barrows in Yorkshire, Wiltshire, Berkshire, etc', *Archaeologia*, 52.1, 1–72.
- Grinsell, L V 1957 'Archaeological gazetteer', in Pugh, R B & Crittall, E (eds) *A History of Wiltshire*, 21–279. London.
- Grinsell, L V 1959 *Dorset Barrows*. Dorchester.
- Harman, M 1977 'Appendix A: The bones from Uppermill', in Kenworthy, J B, 'A reconsideration of the 'Ardiffery' finds, Cruden, Aberdeenshire', *Proc Soc Antiq Scot*, 108 (1976–7), 89–90.
- Kinnes, I A, Gibson, A, Ambers, J, Bowman, S, Leese, M & Boast, R 1991 'Radiocarbon dating and British Beakers: the British Museum Programme', *Scott Archaeol Rev*, 8, 35–68.
- Longworth, I H 1984 *Collared Urns of the Bronze Age in Great Britain and Ireland*. Cambridge.
- Matthew, A J, Woods, A J & Oliver, C 1991 'Spots before the eyes: new comparison charts for visual percentage estimation in archaeological material', in Middleton, A & Freestone, I (eds) *Recent Developments in Ceramic Petrology*, 211–63. London.
- Mays S 1998 *The Archaeology of Human Bone*. London.
- Mears, J B 1937 'Urn burials of the Bronze Age at Brackmont Mill, Leuchars, Fife', *Proc Soc Antiq Scot*, 71 (1936–7), 252–78.
- Piggott, S & Piggott, C M 1944 'Excavation of barrows on Crichel and Launceston Downs, Dorset', *Archaeologia*, 90, 47–80.
- Richards, M P & van Klinken, G J 1998 'A survey of European human bone stable carbon and nitrogen isotope values', in Sinclair, A G M, Slater, E A & Gowlett, J A J (eds) *Archaeological Sciences 1995*, 363–8. Oxford.
- Ritchie, J N G 1972 'Excavation of a chambered cairn at Dalineun, Lorn, Argyll', *Proc Soc Antiq Scot*, 104 (1971–2), 48–62.
- Robertson-Mackay, R 1980 'A "head and hooves" burial beneath a round barrow, with other Neolithic and Bronze Age sites, on Hemp Knoll, near Avebury, Wiltshire', *Proc Prehist Soc*, 46, 123–76.
- Shepherd, I A G 1986 *Powerful Pots: Beakers in North-east Prehistory*. Aberdeen.
- Sheridan, J A 1992 'Kintyre Nurseries (Limecraigs hospital site), Campbeltown (Campbeltown parish): Early Bronze Age short cist', *Discovery Excav Scotland 1992*, 58–9.
- Sheridan, J A 1999 'Beaker', in Clarke, C M & Hamilton, J, 195–6.
- Smith, C 2000 'Grumphie in the sty: an archaeological view of pigs in Scotland, from their earliest domestication to the agricultural revolution', *Proc Soc Antiq Scot*, 130, 705–24.
- Stewart, M E C 1970 'Muirhall Farm short cist', *Discovery Excav Scotland 1970*, 36–7.
- Trotter, M 1970 'Estimation of stature from intact long limb bones', in Stewart, T D (ed) *Personal Identification in Mass Disasters*, 71–83. Washington.

*This paper is published with the aid of a grant from Historic Scotland*