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An Iron Age burial with weapons, on a site with evidence of medieval and post-medieval occupation from Dunbar, East Lothian

Mike Roy*

with contributions by F Hunter,[†] P Walton Rogers,[§] R Ives,*
J Evans,[‡] V Pashley,[‡] J Robertson* and D Hall[¶]

ABSTRACT

In September and October 2005, an archaeological excavation was undertaken on the site of the former Empire Cinema on Dunbar High Street. In addition to late medieval and post-medieval remains, a cist grave of pre-Roman or Roman Iron Age date was excavated and recorded. Two adult males occupied the cist grave, one of whom was equipped with a sword and a spear, representing a rare example of an Iron Age burial with weapons in Scotland. Partial skeletal remains of two further individuals were also present. This paper describes the cist grave and its contents, and places these in the context of similar remains in Scotland and wider afield, as well as considering the medieval and post-medieval remains, which included a north/south-aligned ditch that may have marked a boundary line to the west of Dunbar's High Street. Rubble walls forming a corner of a structure to the west of this ditch may mark the remains of a building of late medieval date, while a relatively homogeneous deposit of considerable depth, built up over a relatively short period, may represent intentional levelling of the Empire site between the late medieval and early post-medieval periods.

INTRODUCTION

A programme of archaeological works was undertaken prior to development of a plot to the rear of 40 and 44 High Street, Dunbar, East Lothian (centred on NGR: NT 6789 7882), at the site of the former Empire Cinema in Dunbar (illus 1).

The site lies between the medieval High Street and the former grounds of the medieval Trinitarian Friary. The present-day ground surface lay at between 16.1m OD in the east of the site and 15.3m in the north-west, with a noticeable fall in the ground level from east (towards the High Street) to west. The visible

sub-soil was generally red clay silt, probably alluvial.

Evaluation work in 2002 (Ellis 2002) had identified a limited number of features of likely medieval date, including upstanding walls, a post-hole and part of a large pit. Within the development area, but to the south of the area later excavated, further post-medieval features were identified during evaluation works in early 2005 (Roy 2005).

The presence of significant archaeological features and deposits led to excavation in September and October 2005, in the north-western part of the development area, where deep piling was proposed. The location and

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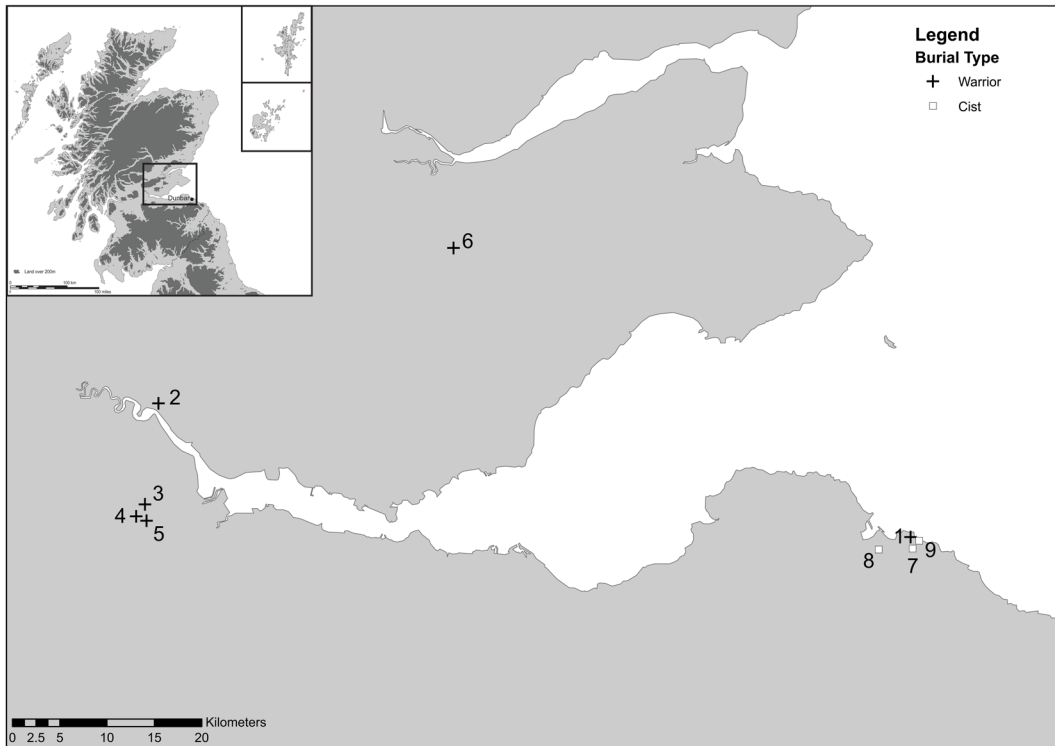
extent of these works was determined by Bidy Simpson, Heritage Officer of East Lothian Council. The development site covered an area of approximately 0.2ha, divided into northern and southern plots by an east/west-aligned rubble wall. The northern plot was the location of the present excavation, which comprised a stepped trench covering an area measuring roughly 17m north/south by 39m east/west (illus 2). The excavation revealed remains dating to between the 13th/14th and 15th/16th centuries, but of significance was an Iron Age cist grave underneath the deep medieval deposits. Following a summary of the historical and archaeological background of the area, the report will focus on the Iron Age cist and its associated burial remains, which have been dated to the Scottish pre-Roman or Roman Iron Age, broadly the first centuries BC and AD, before summarising the medieval and post-medieval evidence.

HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

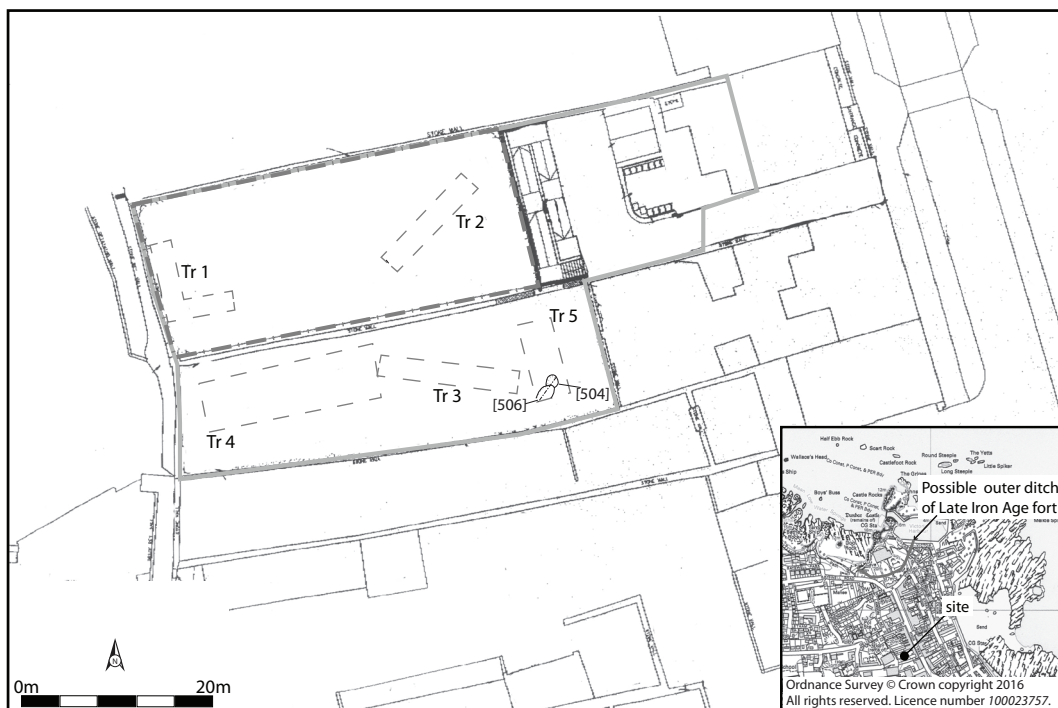
PRE-ROMAN AND ROMAN IRON AGE

Fieldwork at Castle Park, around Dunbar Castle and north of the present excavations suggests that a promontory fort existed on this rocky headland in the Iron Age (Perry 2000: 27–9). Excavations to the south-west of the castle in 1998 suggest that an area of over 2ha was enclosed by an outer ditch; its upper fill provided a calibrated radiocarbon date of between 50 BC and AD 70 (Moloney 2001: 285–6).

Burial sites of Iron Age and Roman Iron Age date in the Dunbar area include a cist containing 21 or more inhumations at Lochend (Longworth 1966), a cist with two skeletons at North Belton Farm (Crone 1992) and a short cist containing a child burial at Dunbar Golf Course (Baker 2002).



ILLUS 1 Location of Empire, Dunbar, showing cist burials in East Lothian and warrior burials near the Forth Estuary



ILLUS 2 Plan showing evaluation trenches and excavation area

EARLY HISTORIC AND MEDIEVAL

Documentary evidence indicates that Dunbar was part of the kingdom of Northumbria by AD 680 (Perry 2000: 5). The Anglian stronghold or *urbs regis* was on the site of the former Iron Age defended area (Perry 2000: 312). The settlement became a baronial burgh in AD 1370 and a royal burgh in AD 1445 (Dennison et al 2006: 2). The town follows the classic medieval ‘herring bone’ layout of Scottish medieval towns, with linear burgage plots laid out at right angles from the main thoroughfare. Its original nucleus would have been adjacent to the castle walls (Dennison et al 2006: 25).

The Empire site consists of two linear plots of land behind properties fronting on the High Street and is situated behind the north/south-aligned High Street, which runs south from the castle area. Rubble-built walls that define the western end of the site (illus 3) delimit a former lane, ‘Friar’s Walk’, which is now infilled with

rubbish from the High Street. These walls formed the curving boundary with Friarscroft, the lands of the Trinitarian Friary, which pre-dated the setting out of this part of the High Street, having been founded in the mid 13th century (Wordsworth 1983: 479–80; Dennison et al 2006: 74–5). The burgh survey indicates that the excavation area was undeveloped until the later medieval period (Dennison et al 2006: 29).

POST-MEDIEVAL AND MODERN

From the late 16th century, the southern end of the High Street developed; it appears that following the Reformation, lands formerly owned by ecclesiastical establishments were brought into secular use. The burgh survey suggests that both the extensive length and width (8.4m) of the plot of 36–8 High Street, just to the south of the present excavation area, may indicate the re-use of former ecclesiastical lands. A nearby section



ILLUS 3 Western end of excavation area, showing wall associated with Friars' Walk

of wall may be a remnant of the post-medieval town defences (Dennison et al 2006: 75).

Wood's map of 1830 (not illustrated) shows the excavation area as part of an exceptionally wide plot occupied by 'Rev'd. John Jaffray', the minister of Dunbar parish in the mid 19th century and the author of the description of the parish in the *New Statistical Account* (1845). Both Wood's map and the Ordnance Survey Six Inch to the Mile map of 1854 (illus 4) show the gardens behind the properties fronting on the High Street to be undeveloped.

In the 1960s, the Empire Cinema was built over much of the plot of land, behind 44 High Street. The cinema was demolished in the mid 1990s (Ewart & Triscott 1996).

THE IRON AGE CIST

FIELDWORK

Overlying sub-soil was a compact dark greyish-black clay silt deposit (1006), between 0.2m and 0.3m deep, interpreted as a buried topsoil. Over most of the site this soil was covered by a thin (0.1m deep) interface layer of reddish-brown silty sand (1019), which lay underneath a clean windblown deposit of light yellowish-brown sand (1005), generally 0.2m deep.

In the south-east of the excavation, a cist grave of pre-Roman or Roman Iron Age date had

been cut into layer (1019). The sub-rectangular cut (1020) for this feature measured 3.1m east/west by 1.9m north/south and was 1.0m deep. It had near vertical sides and a flat base. The cist was formed with a composite of orthostatic side slabs and coursed masonry. The base (1022) consisted of irregular sandstone side slabs (1051), up to 0.60m×0.60m×0.16m in size. These had been topped with smaller sandstone blocks (1050), forming a coursed construction which lined the cut; coursing was most evident on the south side of the cist and least evident to the west (illus 7 and 8). The internal cell formed by the masonry was 2.2m in length, east/west, and was between 0.5m and 0.6m wide. Small packing stones (1049) bonded with clay around the top of the cist structure formed a relatively flat surface over which the three flat sandstone capstones (1052), up to 1.2m×0.9m×0.2m, were placed.

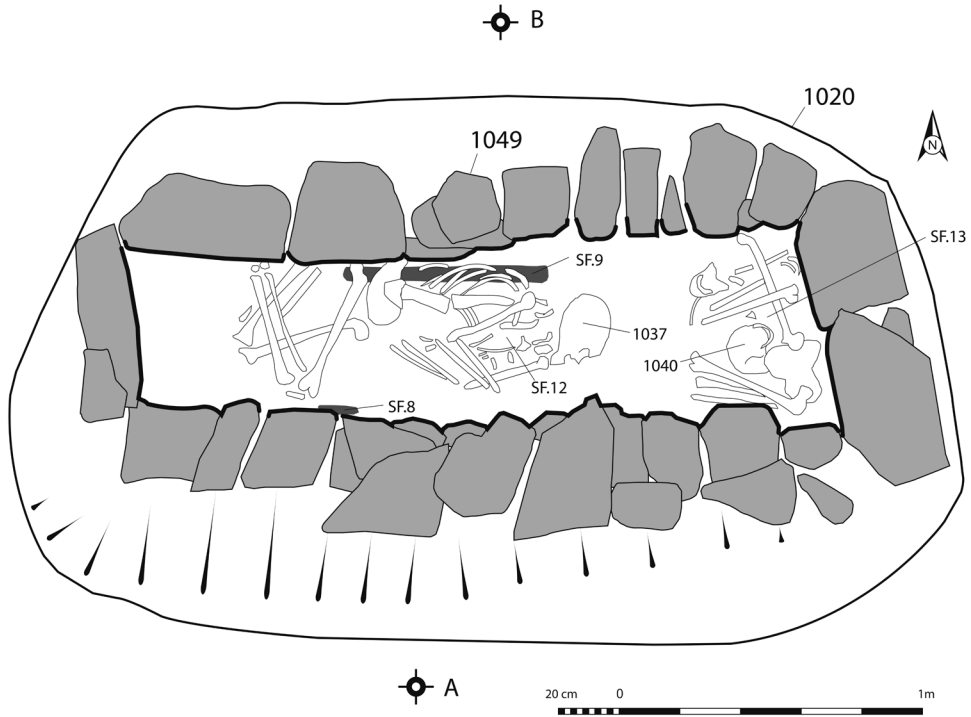
On excavation, the cist contained clear evidence for two burials (illus 9); partial remains from a further two burials were identified during post-excavation analysis. At the east end of the cist, a floor deposit of yellowish-brown silty sand contained the largely disarticulated skeletal remains of an adult (1040). During excavation, the arrangement of the ribs and vertebrae suggested that this skeleton was at least partially articulated – it is likely that this represents a disturbed primary inhumation, though it may be a rare example of a seated burial, given the



ILLUS 4 Extract from Six Inch to the Mile Ordnance Survey Haddingtonshire Sheet 6 (1854) (reproduced by permission of the National Library of Scotland)

disposition of femora and tibiae (illus 10). This burial was associated with a brooch (SF13) and the shank of a pin (SF37). A second inhumation (1037) lay in the west part of the cist in a flexed position on its left side with arms and legs bent, though the legs were not brought up to the chest, and the head, located to the east, faced south (illus 11). The toe bones were dispersed and the bones

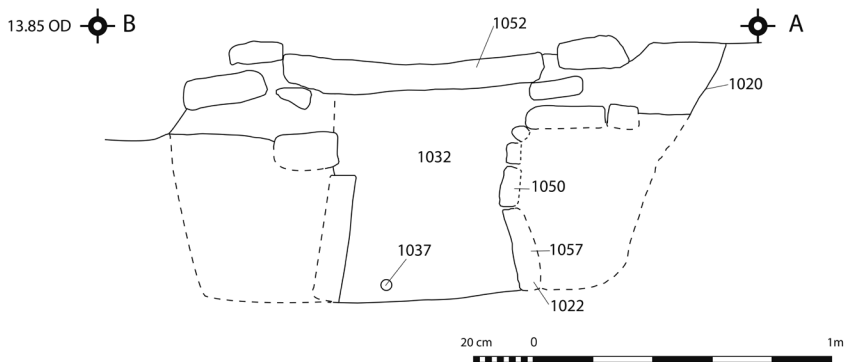
of the left hand were absent. This inhumation was associated with several grave goods, including a spearhead (SF8), a sword (SF9) and a pin (SF12). The sword lay underneath the body, roughly along the line of the backbone while the spearhead was located at the side of the body, adjacent to a flexed knee. The calibrated 1-sigma ^{14}C dates for both individuals lay in the first centuries BC and AD.



ILLUS 5 Plan of cist

A dark yellowish-brown silty sand (1038) deposit in the east of the cist covered inhumation (1040) and was sealed by the main cist fill, a light reddish-brown sand (1032), which was

associated with inhumation (1037). These fairly homogenous and clean deposits appeared to have entered the cist through natural processes such as silting and aeolian action.



ILLUS 6 West-facing section of cist



ILLUS 7 North-facing elevation of south wall of cist structure

METAL FINDS FROM THE IRON AGE BURIAL

Fraser Hunter

INTRODUCTION

Both articulated individuals in the cist had iron clothes-fasteners, with traces of textile giving an indication of costume. Burial (1037) was equipped with a range of weaponry as well, making him a rare example of a warrior burial. Table 1 summarises the material.

CLOTHES-FASTENERS AND COSTUME

Iron Age burials are rare in Scotland, and ones with grave goods even rarer: only some 50 accompanied burials are known. Among this small corpus, personal ornaments and dress accessories are the commonest category; around

18 individuals wore clothes-fasteners to the grave, and about the same number bore other ornaments (beads, bangles, rings, pendants and so forth). The fasteners (brooches and pins) reflect a tradition of clothed burial, as the textile remains here indicate. Other burials have not been assessed for preserved textile traces, but study of the Dunbar finds by Penelope Walton Rogers (below) shows that the two fasteners in burial (1040) relate to two separate items of clothing: a finer linen textile fastened by a pin (illus 13c) underneath a coarser woollen textile, probably a cloak, held by a bow brooch (illus 13e). Burial (1037) wore a coarse woollen textile, probably a cloak, held by a projecting ring-headed pin (illus 13d); any other garments did not require metal fasteners. The occurrence of two clothes fasteners with the same burial is paralleled at Moredun, Midlothian, where a penannular brooch and



ILLUS 8 South-facing elevation of north wall of cist structure

projecting ring-headed pin were found with a young adult, probably female (Coles 1904). The second burial from this grave was accompanied by the only other example of an Iron Age bow brooch, again of a La Tène D1 type (perhaps an iron Colchester brooch, though definitive identification has not yet proved possible owing to corrosion).

Table 2 summarises the clothes fasteners known from Scottish Iron Age burials, while *illus 14* breaks this down by type and origin. Penannular brooches dominate, mostly of local types but with a small number of Romano-British imports. The pins are all of the projecting ring-headed type where identifiable, and all but one are of iron. Bow brooches are notably rare, with only two Iron Age and two Roman examples. Iron Age bow brooches are generally rare in Scotland; while one can argue that their apparent lack is biased by the rarity of burial evidence (Hunter 2009: 151–2), their low occurrence compared to other forms of clothes fastener in the limited burial record does suggest they were never common.

The bow brooch from Dunbar (*illus 13e*) is an unusual type: it is a variant (probably British) of the classic late Iron Age brooch on the Continent, the Nauheim. The triangular bow shape, raised marginal decoration and spring

system are closely similar to the originals but the almost right-angled bend of the head is rarer. The floruit of the type on the Continent was c 120–50



ILLUS 9 View of cist from west, showing Skeleton (1037) and deposit containing Skeleton (1040)

TABLE 1
Summary of finds from the cist. All are of iron

<i>Burial 1040</i>	<i>Burial 1037</i>
La Tène D1 Nauheim-type bow brooch with remains of coarse woollen textile (SF13)	Projecting ring-headed pin with traces of coarse woollen textile, probably a cloak (SF12)
Shank of a pin (intact when buried) with traces of linen textile (SF37)	Sword with traces of coarse woollen textile, probably a cloak (SF9)
	Spear (SF8)
	Rivet or tack (SF36) with organic traces

BC, though the brooch could have been in use for some time. Sadly the pin associated with the same burial cannot be closely identified owing to recent breakage, but the projecting ring-headed pin linked to burial (1037) is typical of the Scottish Iron Age (Clarke 1971).

Too few burials have been reliably sexed to allow any discussion of gender associations, but it seems that both males and females were accompanied by all kinds of brooch, while

children have been found with a penannular brooch (a notably small, child-sized example) and a Romano-British disc brooch.

WEAPONRY AND WARRIORS

The other material with burial (1037) is altogether more unusual: the deceased was buried with a sword (illus 15) lying behind his back and a spear (illus 13a) in front of him along the edge of the cist. A further metal tack or rivet (illus 13b), broken during excavation, has unidentified organic traces on its shank, perhaps from a wooden component in the grave, or perhaps from a leather item such as a suspension fitting for the sword.

Organic preservation in this part of the burial was not good – there were no traces of the sword hilt, for instance, and this makes it difficult to assess whether the sword was sheathed when it was buried, although the presence of cloak traces directly against the blade suggests it was not. Its position reflects the predominant north British tradition, worn strapped to the back. This is seen in a number of sources of evidence: the near-central carrying loops on scabbards; the iconographic evidence of east Yorkshire warrior figurines; and sword burials where the weapon was clearly worn behind the back when the deceased was buried (Stead 1988: esp 23–4; Stead 2006: 61–3). The sword itself is notably short, even by north British standards where relatively short swords were the norm, but parallels are noted in the catalogue; it falls into Stead’s (2006) type E.



ILLUS 10 Skeleton (1040) from west



ILLUS 11 Skeleton (1037) from above

The spear is also a small weapon, suitable for throwing or thrusting; there is no overall typology of spearheads, but it would fall into type A1 of Stead's Yorkshire spearheads (1991: 74–5), although unlike these, it has a mid rib on one side only. The available space in the burial suggests an overall length around 1.7m, if it was buried intact. It was riveted to the wooden shaft; an additional rivet below the shaft suggests that some form of organic binding or decoration was once attached.

There has been considerable debate over the terminology of these burials with weapons. Some authors argue for a neutral descriptive term on the basis that the deceased was not necessarily an active warrior (summarised in Hunter 2005: 50). The writer has argued elsewhere that this is to miss the point: the identity being conveyed, and thus the socially important role attributed to the deceased, was that of a warrior. The

sword, the epitome of the warrior, was the key symbol. Warrior burials are scattered in time and space across Iron Age Britain, but there are some notable clusters. The Dunbar burial is a valuable addition to a cluster of warrior burials around the Firth of Forth, with examples from Marshall (Alloa, Clackmannanshire), Camelon and Goshen (Stirlingshire) and Merlsford (Fife) (Mills 2004; Hunter 2005: fig 4, appendix). All date to between the later 1st century BC and the first/early 2nd century AD. Dunbar is the first example from East Lothian, despite the area's relatively rich Iron Age burial record, although one may note the tantalising find of a spear in a disturbed cist grave at Easter Ferrygate gardens, North Berwick (DES 1960: 27).

CONCLUSION

The very fact of burial and the presence of grave goods mark the two men from Dunbar as people of substance in their community. The clothes fasteners not only testify to aspects of costume, with (1040) adorned differently from (1037), but the use of a bow brooch, locally unusual, connects to traditions of southern Britain; the form is ultimately of Continental inspiration. (1037) was buried not only in costume, but with the tools of his trade; whether he was really a warrior or whether this was a symbol of his status or role in the community, this tied him in to much wider patterns of status expression in burial, and extends the distribution of Scottish warrior burials around the southern side of the Firth of Forth. All the Scottish examples are pre-Roman or Roman Iron Age in date; it would be misreading the evidence to see this as evidence of a more warlike society at this time, but it does indicate that the social role of 'warrior' had become one of significance. The Dunbar burials add both significant new finds and a valuable context to debates over the meaning of dress and weaponry in the Iron Age.

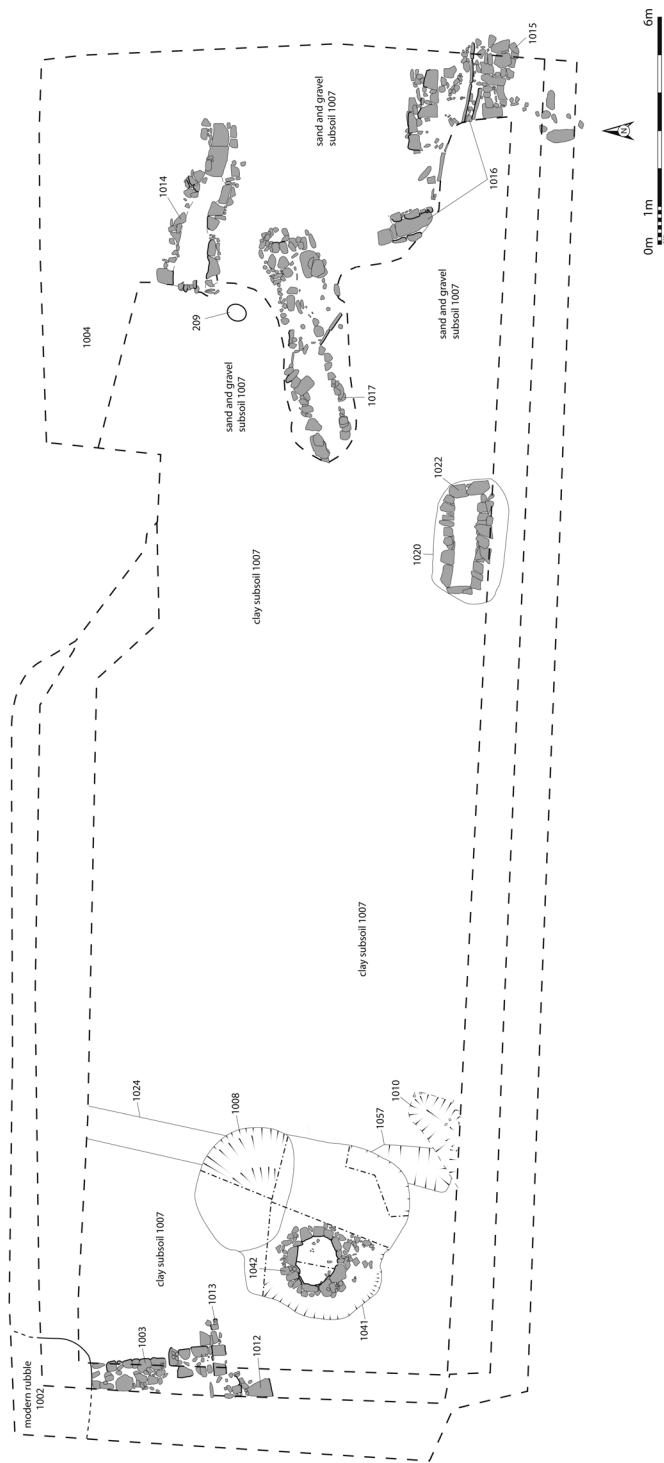
CATALOGUE

Burial (1040)

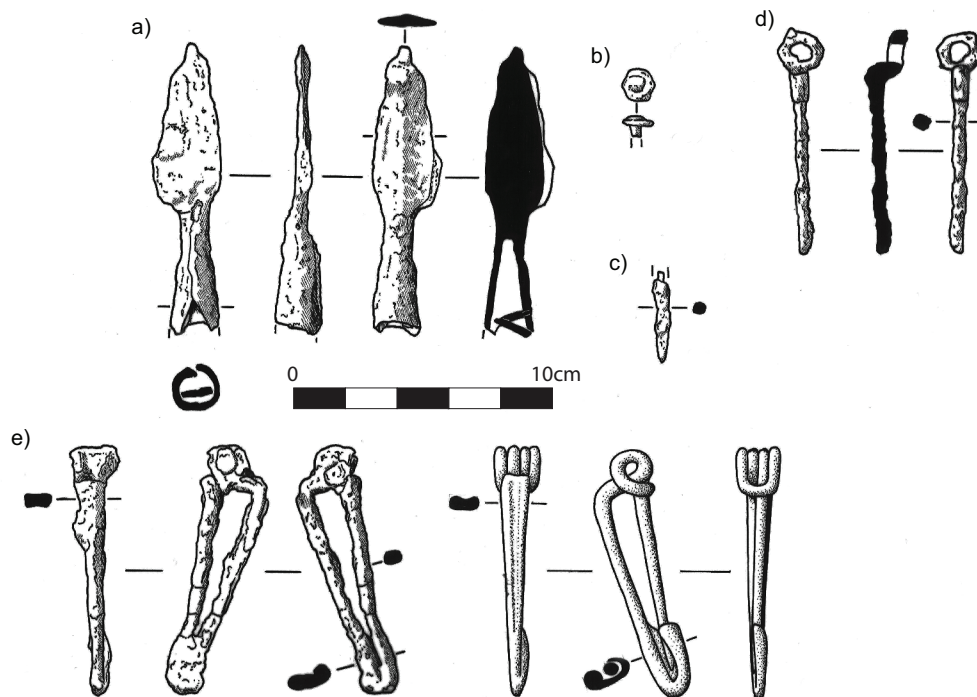
SF13 (illus 13e): one-piece iron La Tène D1 bow brooch, a variant of the Nauheim type.

TABLE 2
 Burials with personal ornaments and clothes fasteners, ordered northwards from East Lothian. Penannular brooch types follow Fowler 1960.
 CuA = copper alloy

<i>Site</i>	<i>Region</i>	<i>Fastener</i>	<i>Sex/age</i>	<i>Reference</i>
Dunbar Empire 1037	East Lothian	Ring-headed pin (iron)	Male/26–35	This paper
Dunbar Empire 1040	East Lothian	Bow brooch (iron, La Tène D1/Nauheim) Pin (iron, unidentified)	Male/26–35	This paper
Dunbar Golf Course	East Lothian	Penannular brooch (CuA, Romano-British type A3)	Child	Baker 2002
Lochend, Dunbar	East Lothian	Penannular brooch × 2 (iron, type Aa)	Collective burial	Longworth 1966: 180–1
Law Road, North Berwick	East Lothian	Penannular brooch (iron)	?	DES 2005: 55
Luffness	East Lothian	Penannular brooch (CuA, Romano-British type A1 variant)	?	PSAS 80 (1945–6): 152, fig 1
Moredun	Midlothian	Penannular brooch, iron (type B) Ring-headed pin (iron)	Young adult, ?female	Coles 1904
Moredun	Midlothian	La Tène D1 bow brooch (iron, ?Colchester)	Adolescent (around 21), probably female	Coles 1904
Granton	Midlothian	Penannular brooch (CuA, type D4)	Adult	Wilson 1863, vol 1: 474
Marshall	Clackmannanshire	Ring-headed pin (CuA)	Adult male	S Mills, pers comm
Goshen, Camelon	Stirling	Bow brooch (Romano-British trumpet brooch)	Adult	Hunter 2001: 114–17
Merisford	Fife	Bow brooch (Roman, Langton Down)	Warrior burial	Hunter 1996: 120
Hallow Hill (grave 54)	Fife	Disc brooch (Romano-British, CuA) – perhaps used to fasten bag in grave	Child	Proudfoot 1996, 417–18: illus 21
Boysack Mills	Angus	Ring-headed pin (iron)	Adult	Murray and Ralston 1997: 364–6
Craigie	Angus	Penannular brooch (iron, type Aa)	Adult	Hutcheson 1903
Tarland, Waulkmill	Aberdeenshire	Penannular brooch (silver, Romano-British)	?	Callander 1915
Loch Borralie	Sutherland	Ring-headed pin (iron)	Adult male	MacGregor 2003
Cralson	Lewis	Penannular brooch (iron, type D)	Adult male	Neighbour et al 2000



ILLUS 12 Plan of main features in excavation area



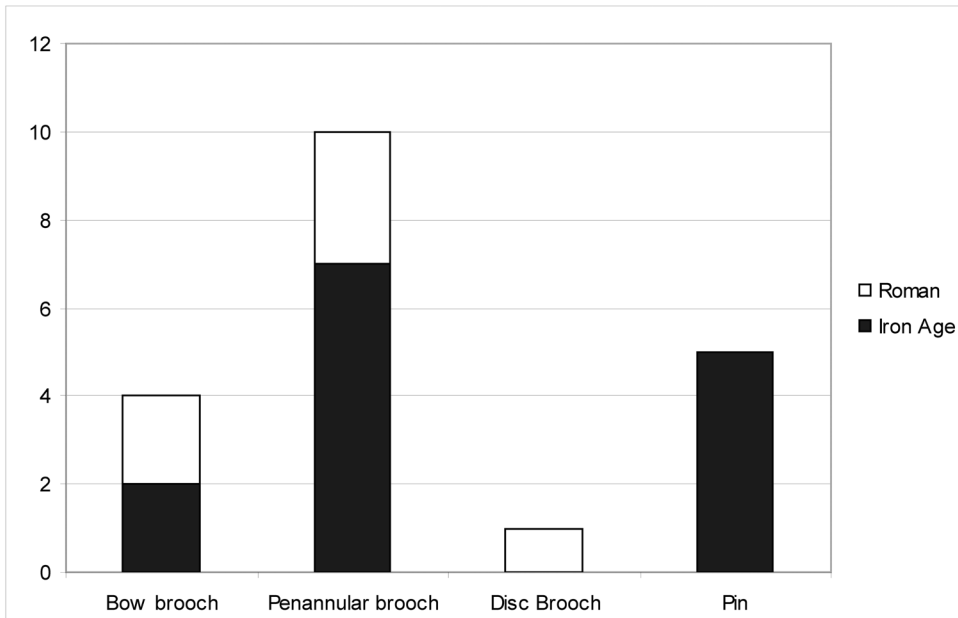
ILLUS 13 Metal finds from the Iron Age burials

The four-coil spring has an internal chord. The flat rectangular-sectioned bow has a sharp, near-right-angled bend into a long straight tapering bow; two raised marginal ribs decorate it, merging into one towards the tip. The foot is solid, with the catchplate return 21mm long, and the footplate angled slightly forward from this. The pin is circular in section (Diam: 4.5mm). There are extensive traces of woollen textile all over the surface (Walton Rogers, below). L: 96mm; W: 16mm, H: 21mm. (1040): near-central to the pile of bones, and probably originally once fastening a woollen cloak.

The spring system and long, tapering triangular bow relate this brooch to the Nauheim type, a classic of the Continental late Iron Age. It is not the typical form, as the bow is angled and the catchplate apparently solid, but parallels for both features can be found among a minority of Nauheim brooches in Striewe's authoritative corpus (Striewe

1996: Abb 7, profile C, foot 7). Her listing of iron examples (1996: 67–9, type I) provides no precise parallels for the form, although some have similar ornament (ibid: Abb 20.6). However, there are British parallels for the overall shape, notably from Aylesford, Kent, which Stead (1984: 59, fig 20.6) described as a British variety and Mackreth (2011: 14) classes with Nauheims. The size of this and the Dunbar example also differentiate them from most of the early 1st century AD so-called 'Nauheim derivatives'. It falls into Feugère's type 4a1b (1985: 200), which he separates from Nauheims, but in a British context it can readily be seen as a Nauheim variant. Striewe dates the parent type and variants to c 120–50 BC (1996: 161–9); this is not inconsistent with Mackreth's summary of the British dating evidence (2011: 14), although there are hints of longer lives.

SF37 (illus 13c): Circular-sectioned iron pin shank with remains of linen textile



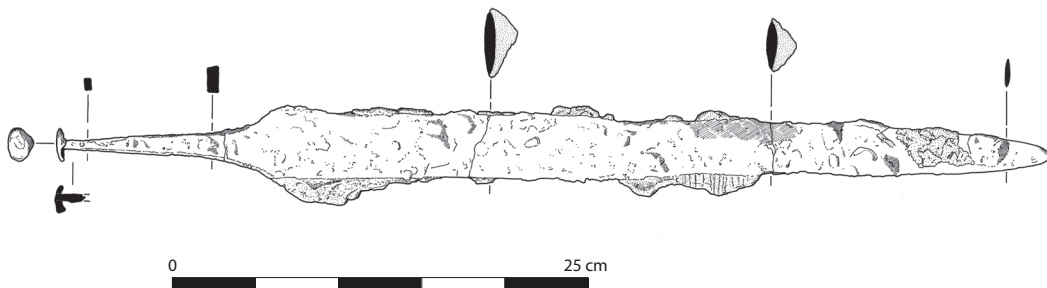
ILLUS 14 Fastener types in Scottish Iron Age burials, split into Iron Age and Roman objects

(Walton Rogers, below). Found in sample of (1040), so exact position unknown; intact when buried, but the head is now lost (the break is recent). L: 35mm; Diam: 2.5mm.

Burial (1037)

SF9 (illus 15): intact iron sword. The lentoid-sectioned blade tapers gradually from steeply sloping shoulders to a fine pointed tip. The rectangular-sectioned tang (max 16mm x 7mm), tapering over its length (120mm), finished in an irregular sub-

square washer (17mm x 15.5mm x 1.5mm), retained by burring over the end of the tang; it is slightly domed, reflecting the form of the lost pommel. No traces of the hilt assembly survive; the hilt-guard, and indeed all other components, must have been organic. There is no trace of any weld lines or complex constructional features on the surface or in the X-rays; this seems to be a single piece of iron. Overall length: 593mm; blade length (from base of shoulders): 463mm; W: 39mm; Th: 5.5mm.



ILLUS 15 Sword (SF 9) from alongside Skeleton (1037)

There is very little trace of organic remains in the corrosion products. There is no trace at all of the hilt assembly, and no convincing trace of a scabbard; occasional patches of skin remains in the corrosion are not in direct contact with the blade, and the presence of bone fragments suggests both skin and bone derive from the body. The absence of hilt traces suggests survival was poor, although crumpled folds of what is probably a woollen cloak (Walton Rogers, below) from the deceased's clothing in direct contact with the blade argue it was not sheathed (1032). Grave fill, lying behind the skeleton's back; detailed orientation not clear in the field, but it is suspected the point was towards the feet. The blade length lies towards the lower end of the spectrum for northern Britain (Stead 2006: fig 2). The campanulate hilt puts it in Stead's type vi (ibid: 13) and Group E; only three other blades of this group are as small (ibid: 58). The form, tapering markedly at the tip, is similar to one of these, from Rudston (Stead 2006: 58, fig 96 no 187). It also finds parallels in the double-burial from Camelon, where the campanulate blade is also notably short, although the detailed morphology differs as the taper is less marked. Camelon is best seen as an Iron Age burial rather than as a Roman one – as originally published (Breeze et al 1976; Hunter 2001: 121).

SF8 (illus 13a): small iron spearhead. Traces of wood in the socket indicate it was hafted when buried; the available space would allow a maximum length of *c* 1.7m (longer if the shaft was broken). There was no ferrule. It lay against the south side of the grave, tip to the west beside the deceased's knee. One side has been badly affected by corrosion, but X-rays allow it to be reconstructed as a slender blade with a mid rib on one side only, and a low rounded belly (the point of maximum width) at 23% of its length, from where it tapers smoothly to the tip. The folded socket joint is open at the base. Wood only survives in the centre of the socket, and seems to have formed around an iron rivet; heavy corrosion obscures matters, but there seems to be a rectangular hole on one side only; X-rays

indicate a rivet (L: 13mm; Diam: 2mm) passed through this to secure the shaft. A second rivet (L: 17mm; Diam: 2mm) was inserted from the same side but just below the socket, angled up into the shaft. Since this does not pass through the head, it would not serve to secure it; perhaps it held some decorative element or leather strengthening strip, now lost. L: 112mm; blade length: 65mm, W: 22mm; Th: 5mm. Socket length: 47mm; external Diam: 20mm, internal Diam: 14mm.

(1032) (grave fill)

SF12 (illus 13d): iron projecting ring-headed pin (two joining fragments). Made from a circular or oval-sectioned wire (Diam: 3–4.5mm), wound clockwise (seen from the front) into a plain circular head with a neat butt joint at the base of the loop. The shank is straight, the tip rounded rather than sharp. Traces of woollen textile on shank (Walton Rogers, below). L: 84mm; head W 17mm; H: 14mm. Found near the centre of the chest of the skeleton, and probably fastened a woollen cloak.

SF36 (illus 13b): broken rivet or tack. Circular-sectioned shank (Diam: 4mm) with flat hexagonal head (13mm × 12mm × 1mm; a misleading corrosion blister on the upper surface creates a falsely domed impression). Ginger-coloured organic traces, probably wood, perpendicular to the shank. L: 7mm. Found in sample from (1032).

TEXTILES FROM THE IRON AGE CIST GRAVE

Penelope Walton Rogers

Traces of organic materials survived in association with the metal artefacts from both bodies, although they were in a very poor state of preservation and it was rarely possible to record technical details.

In the case of the sword, SF9, with skeleton (1037), crumpled folds of a material resembling textile could be seen running diagonally across the blade. Close to the tip, the folds were visible on both faces. Further along the blade, where

fragments of human bones had been left attached to the metal, the organic remains appeared to run between the bone and the sword. On the iron pin (SF2/12) from the same skeleton, the line of a similar textile twisted around the shank and here it was possible to record the thread-count as 7/Z×5/Z per cm, although the weave structure was still not clear. The fibres were hollow casts, but their general appearance and the range of diameters, 20–37 microns, suggests wool. This, then, is likely to represent a coarse wool garment such as a cloak, fastened by the pin and caught between the body and the sword.

The brooch (SF13) with body (1040) had similar remains both on its outer face and twisting around the brooch pin. The textile was again relatively coarse and spun Z×Z, and the hollow fibres were 15–42 microns diameter, which once more suggests wool. However, there was a different textile on a thin iron shank (SF37) found with the same body. The spin and weave could not be recorded, but the fibres proved to be mostly around 10 microns diameter and, when viewed with polarised light, they showed faint cross-markings. This suggests that they have come from a plant-stem fibre such as flax, hemp or nettle – linen in the loosest sense.

Textiles of the British Iron Age have not been recovered in any great quantity, but the coarse wool remains are similar to those on iron brooches in the Iron Age cemeteries of East Yorkshire. At Burton Fleming and Rudston, where a single iron brooch was the most commonly recorded artefact in Stead's Type A burials (Stead 1991: 179–80), there were wool textiles, mainly 2/2 twill though sometimes tabby, mostly Z×Z spin, with thread-counts ranging from 5×4 to 11×10 per cm (Crowfoot 1991). Traces of finer linens were noted in the Wetwang cart burials (Crowfoot 1991: 120), a better preserved example, confidently identified as flax, was recorded on a patera from an English late Iron Age burial at Westhawk Farm, Ashford, Kent (Walton Rogers 2008), and further examples of mineral-preserved linen were found with a sword in a late Iron Age burial at St Peter's Port, Guernsey (Watkins & Cameron 1987).

HUMAN BONE

Rachel Ives

INTRODUCTION

Two inhumations and a quantity of disarticulated bone were excavated from the cist burial. A small amount of bone was also retrieved from sieving of bulk samples taken from the cist. This analysis aimed to clarify the minimum number of individuals present and to identify and record any demographic and pathological evidence present.

BACKGROUND

The cist (1022) contained at least two adult inhumation burials; disturbed remains (1040) were found at the east end in a deposit of yellowish-brown silty sand. The position of the ribs and vertebrae appeared on excavation to have been largely articulated. The skull was found between the bones of the left leg to the south of the cist and the bones of the right leg and torso and arms to the north of the skull (illus 10). A key question is whether the burial had been moved from the centre of the cist to allow space for the second inhumation, or represented a collapsed seated burial.

The second burial (1037) was found largely in the centre and west of the cist in a flexed position. It was on its left side with the head at the east, its arms raised and crossed in front of the chest and lying towards the south. The spine was aligned along the north wall of the cist and the legs were flexed (illus 11). Sword (SF9) lay underneath skeleton (1037) roughly along the line of the spine and was probably slung over the individual's back at the time of burial as has also been observed in a burial from Alloa near Stirling (Duffy 2010). The presence of a projecting ring-headed pin indicates the individual wore a cloak or shroud.

METHODS

Analysis of the inhumation burials followed recent guidance recommended by BABAO/IFA (Brickley & McKinley 2004). A full description of methodology can be found in the archive report.

Preservation and completeness

Bone preservation was evaluated according to the guidance suggested by McKinley (2004), which assigns grades (0–5) to the bone surface according to damage by taphonomic variables, such as root damage and bone abrasion. In addition, bone surface preservation was categorised according to the Museum of London recording schema (Connell & Rauxloh 2003; Powers 2007). Various methods of determining skeletal completeness have been previously reported. The Museum of London recording protocol calculates skeletal completeness on the basis that that the skull equates to 20% of the skeleton, the upper limbs 20%, the torso 40%, and the lower limbs 20%. This method was adopted in the current study.

RESULTS

The human remains comprised two largely complete adult individuals as well as a quantity of co-mingled bone.

Completeness and preservation

Burial (1037) was 90% complete with bone preservation of Grade 2, indicating some damage to the ends of the bones and the joints. There was some flaking of the external cortical bone surface and damage by root etching between Grades 2 and 3 (McKinley 2004). The burial was found in a flexed position lying on the left side. Burial (1040) was 65% complete and was also of Grade 2 preservation, with evidence of root etching over the bone surface and particularly poor survival of the torso due to taphonomic processes.

Minimum number of individuals

Two relatively complete adult burials were represented in the cist by (1037) and (1040). Some of the bone fragments from the wet-sieved bulk samples could be re-associated to both individuals, including hand bones, vertebrae and a patella. A small quantity of unidentified animal bone was also observed from these samples, while a horn fragment, a 3rd phalange and a small fragment of long bone shaft, not identifiable to species, were present in the upper cist fill (1032), likely representing intrusive material.

A quantity of human bone, labelled as from context (1037), could not be accurately associated with skeleton (1037). Four ribs (two left and two right) were much thinner and more gracile than the ribs from (1037). They also differ in bone colouration, size and surface preservation. This disarticulated bone must have derived from an additional burial.

Bone recovered from context (1037) also included an adult left clavicle, scapulae and ribs. The left clavicle and left scapula are small, and the degree of bone surface weathering was different. These differences suggest that the left bones cannot be re-articulated with any certainty to individual (1040). They also duplicate elements present in (1037). It is therefore likely that they represent an additional burial in the cist.

Demography

All four of the probable individuals in the cist were adults. Both (1037) and (1040) were males aged 26–35 years. The remaining individuals indicated by the disarticulated bone from (1037) were adult (fused clavicles, scapulae and rib heads) but could not be aged or sexed more accurately based on the bone present.

Stature and health

The stature of (1040) could be gauged as 167.8cm (range 163.8 to 171.7cm) from the maximum length of the complete left femur (length 44.1cm). The estimated stature of (1037) was 169cm (range 165.6 to 172.3cm), based on the length of the tibia (35.9cm).

There was only slight evidence for degenerative joint changes with slight porosity in the acetabulum and acromio-clavicular joint of (1040), together with slight marginal osteophyte formation in the vertebral body apophyseal facets of (1040). The rib fracture in (1037) was healed, but clearly involved bleeding or inflammation, ossification and fusion of the soft tissues between the fracture rib and the adjacent rib below. There was no evidence for weapon-related trauma.

The bones of the males were robust with well developed muscle attachment sites (enthesophytes). The insertion sites for the deltoid

and pectoralis major of the proximal humerus were particularly marked, as was the brachialis insertion of (1037). In addition, the linear aspera of the femur, ligamentum teres inserton at the fovea capitis of the femoral head, the anterior tuberosity, soleal line and tibio-fibula line on the tibia were pronounced in both individuals.

There was no evidence for any bone reactions to infectious processes in individual (1037) or (1040).

Both (1037) and (1040) showed evidence of mineralised plaque (calculus) on the dentition; 20/31 in (1037) and 30/31 in (1040). The expression of calculus was quite minor, but the third molars showed marked accumulations. Some deposits may have been removed during post-excavation processing of the remains. Slight bone resorption (periodontal disease) was present over the third molars in both burials. This is likely to be related to the bacterial presence and probable inflammatory-related changes in the gum and subsequently bone, linked to the plaque deposits. There was no evidence for caries, periapical abscesses or infection throughout the maxilla or mandible in either individual.

Individual (1040) displayed small bilateral foramina through the orbital roof surface indicating mild cribra orbitalia. Burial (1037) showed an increased thickening and weight of the cranial bones, particularly the frontal bone. There was no clear evidence for any layers of new bone formation on the external or internal aspect of the cranium. There was no evidence of coarsening or coral-like formation of the exposed diploe (Roberts & Manchester 2005; Brickley & Ives 2008), indicating the changes are unlikely to be due to Paget's disease of the bone. It is likely that the increased weight and thickening indicated a benign condition called *hyperostosis frontalis interna*. The cause of this condition is not known but may be related to a pituitary disturbance, but is unlikely to have resulted in any adverse effects (Aufderheide & Rodríguez-Martín 1998: 419). The endocranial aspect of the frontal bone did display quite marked and coalescing pitting caused by arachnoid granulations. Whilst visually striking, these are also unlikely to have resulted in any notable changes for the individual.

Non-metric traits and anomalies

Lambdoid bones were present in (1037) with three in the left and one in the right suture. The presence of wormian bones could not be determined from the fragmented remains from (1040). Neither burial presented a retained metopic suture. The only remaining cranial non-metric traits present were a right supra-orbital groove, left and right foramen of Huscke and right parietal foramen in (1040) and a right mastoid foramen and multiple mandibular mental foramen in (1037). Neither individual from the Empire site displayed mandibular tori, which were observed in six of eight mandibles from Lochend. Lambdoid wormians were present in two of the five skulls available for analysis from Lochend (Brothwell & Powers 1966: 193) and no cases of retained metopic suture or inca bones were observed.

Burial (1040) displayed several dental anomalies caused by minor variations during the normal development of the dentition during foetal and early childhood. In (1037) these included a slight 45° distal rotation of the left maxillary incisor, which resulted in crowding of the lateral left maxillary canine. There was a small vertical spur of enamel formation at the cemento-enamel junction of the lingual aspect of the left maxillary canine, as well as 45° distal rotation of the first left premolar. In the right maxilla, there was crowding of the lateral incisor on the canine and also 45° distal rotation of the first premolar.

The lumbar vertebrae of (1040) showed slight variation in the size of the apophyseal facets, alternating between the right and left facets through L1 to L5. The size differences between the facets were mild and had not resulted in any wedging or other torsional reactionary changes in the morphology of the vertebrae and are unlikely to have caused any detectable changes in the individual.

DISCUSSION

Burial practice

At least two complete individuals were interred in the cist at the Empire site. Parallels for double inhumation burials in cists exist at North Belton

Farm (Crone 1992) and Moredun (Bryce 1904), while 21 individuals were present in one cist at Lochend (Longworth 1966). The burials from North Belton were interred in one simultaneous event, whereas the burials at Lochend appear to represent a succession of burials where early interments were cleared to one side in order to make space for subsequent burials (Brothwell & Powers 1966; Crone 1992). Additionally, a young woman and a child of 9–10 years, perhaps a mother and child, were interred together in a grave of the Phase 5 cemetery, dated to around 200 cal BC, at Broxmouth; this grave contained capping stones though not side slabs (Armit et al 2013a: 104).

Inhumation (1037) was stratigraphically later than inhumation (1040), though the process by which the earlier burial came to be located at one end of the cist structure is not clear. It is possible that inhumation burial (1040) was cleared towards the east of the cist in order to create space for the subsequent burial of (1037). Alternatively, the disturbed bones of (1040) may represent a burial, perhaps originally seated, deliberately placed at the east end of the cist. Observations in the field suggest that the vertebrae and ribs of the burial were articulated, suggesting that this inhumation was not moved for a considerable period after its interment. A seated burial could have resulted in some collapse of the legs when soft tissues had fully degraded, as well as slumping of the torso to one side. This could account for the position of the torso and arms of (1040) being slumped to the north of the cist, and the location of the skull between the bones of the legs and close to the pelvis (illus 5 and 10) but osteological analysis cannot determine whether (1040) was a seated burial rather than a disturbed burial moved aside to accommodate another inhumation.

Skeleton representivity

Burials made in the early Iron Age may have been subject to excarnation, or outside exposure prior to burial (Roberts & Cox 2003: 90). Burial following excarnation can result in incomplete burials. Burials (1037) and (1040) were largely complete adult skeletons. Bones from most of the skeleton were represented either completely or in part. Displacement of bones from the left foot

of (1037) and an absence of the left hand (1037) was noted during the excavation. The bones were damaged to some extent by post-mortem deterioration. There was no evidence for the deliberate selection of body parts for inclusion or exclusion from burial in the cist. The analysis of the 21 burials from Lochend argues against the deliberate selection of specific body parts for inclusion (Brothwell & Powers 1966: 185). There was no evidence for animal gnawing or scavenging marks on the bone from the Empire site, although the poor bone preservation may be a factor limiting the identification of small rodent gnawing. It is perhaps unlikely that the bones were excarnated in the open air for a period prior to burial.

The disarticulated bone potentially representing two other burials from the fill of burial (1037) were represented by incomplete remains of the torso in both cases, and the upper left arm (clavicle and scapula) in one case. The bone preservation of the torso in (1037) and (1040) was quite poor with lots of fragmentation of the rib shafts. There was also bone surface removal through weathering processes such as root etching, and the breakdown or disintegration of the trabecular bone of the vertebral bodies. It is therefore more likely that taphonomic processes such as root action significantly affected the burial composition and disarticulated nature of the remains rather than the disarticulation resulting from a specific or intended burial practice based on the selection of specific body parts for burial. However, partial disarticulation of the skeletal remains of a woman (Grave 2), aged between 18 and 25 years, from Phase 1 – which ended around the 5th century cal BC – of the Broxmouth excavations, is a close geographical example of the potential reordering of remains post-inhumation or of the curation of skeletal material prior to inhumation (Armit et al 2013: 38).

Demography

The two relatively complete burials in the cist are both males. It is not possible to determine whether the burials were kin-related or were of discrete individuals with no familial connection. Parallels for double burials of two males made in one cist exist at the site at North Belton Farm

(Crone 1992), where the individuals were aged 20–21 years and 33–45 years. The double burial from Moredun comprised of one young adult and one adolescent. Both individuals were postulated to be female, but Bryce (1904: 442) considered the sex-determination was tentative. The results from the Empire site and other Dunbar sites suggest a tendency for males to be buried in cist structures, but the sample is small. Similarly, the tendency for young adult (18–25 years) to young middle adults (26–35 years) to be buried in cists is likely to be a product of the small number of individuals excavated, rather than deliberate selection. A study of the burials from Lochend

tentatively identified 12 adult males and eight adult females.

Lifestyle and health

Stature estimates from the region (Table 3) indicate a range of heights.

There was very little evidence for degenerative joint disease in the burials from Empire site. Very slight marginal lipping in the spine, shoulder and hip of (1040) was not severe and would not have impacted on the life of the individual. There was no evidence for eburnation as definite evidence for osteoarthritis in either burial. The bone preservation of joint surfaces was significantly affected by taphonomic abrasion, which limited the potential to identify joint disease.

Both burials were rugged and well-developed. Enthesophyte formation indicated prolonged or repetitive physical activity or stress at the muscle insertion sites.

The Iron Age has been contextualised as a violent period and evidence of weapon-related trauma are clearly demonstrable on skeletal remains from various sites (Roberts & Cox 2003: 98). Evidence of trauma was identified at Lochend as sharp-edged damage to a cervical vertebra, indicating a deep sword cut to the neck at the time of death (Brothwell & Powers 1966: 197). There was no evidence of weapon-related trauma in either burial from the Empire site, despite the indications from the grave goods that at least one individual was associated with a weapon.

Dietary quality and dental disease

One burial (1040) displayed very mild *cribra orbitalia*, long considered indicative of iron-deficiency anaemia, but Walker et al (2009) suggest causative factors are more likely to be broadly indicative of possible dietary deficiencies of vitamin B, particularly B₁₂ which can derive from animal protein, together with contributions from parasitic infections and illnesses from poor or unsanitary environmental conditions. It is difficult to accurately interpret the presence of this trait and it is clear that the expression of it in (1040) was very mild. Calculus deposits at the Empire site were more severe over the third molars. It is likely that food debris accumulated at the back of the mouth without thorough

TABLE 3

Stature estimation from Empire site and comparable Iron Age assemblages. Stature for Moredun calculated as female from reported femur length (Bryce 1904). Stature for Lochend converted from feet and inches reported by Brothwell and Powers (1966: 191). Stature range reported in brackets where known

<i>Site</i>	<i>Male stature (cm)</i>
Empire Site, Dunbar (1040)	167.8 (163.8–171.1)
Empire Site, Dunbar (1037)	169.0 (165.6–172.3)
Lochend	163.8 (162.6–172.7)
	174.6
	174.6
	168.3
	168.9
	165.7
	170.2
	167.6
North Belton Farm	173
	165
	Female
Lochend	161.9
	153.7
Moredun	167.2 (163.4–170.9)

cleaning, and enabled the spread of bacterial activity particularly linked to carbohydrates in the diet.

Isotope samples

A key question is whether the burials were local to Dunbar or if they had travelled to the region from further afield. The analysis of oxygen and strontium stable isotopes can identify the geographic background in which the individual spent his childhood through analysis of dental enamel that was formed in the teeth during childhood. As enamel does not remodel during life, the childhood signal of isotope concentrations remains unmodified during adulthood. It is also possible to apply carbon and nitrogen stable isotope analysis to teeth samples to investigate past diet. Two adult teeth were selected for stable isotope investigation. Both were adult maxillary molars; M1 from (1040) and M2 from (1037).

STRONTIUM AND OXYGEN ISOTOPE ANALYSIS

Jane Evans and Vanessa Pashley

Strontium and oxygen isotope analysis was undertaken on two M2 teeth (Table 4). The methodology is described in detail in the archive report. The two teeth from skeletons (1037) and (1040) give similar Sr isotope values of 0.71061 and 0.70134 respectively. The values are within the error of the strontium isotope value of the dentine which is used as a proxy for local bio-available Sr and are also within the predicted range of Sr isotope values for this area based on regional biosphere Sr mapping (Evans et al 2010). The strontium isotope values therefore provide no evidence to support a non-local origin for either individual. The predicted oxygen isotope range for the Dunbar area is -7 to -8 and hence the oxygen isotope values also support a local origin as both are within 1-sigma error of this range.

The data from both samples is consistent with a childhood origin in the Dunbar region, although it should be noted that isotope analysis does not provide a unique solution and other areas

could provide a similar combination of isotope signatures.

RADIOCARBON DATING

Rachel Ives and Mike Roy

Samples from human bone underwent accelerator mass spectrometry (AMS) ^{14}C dating at the Scottish Universities Environmental Research Centre in East Kilbride. The calibrated age ranges were determined from the University of Oxford Radiocarbon Accelerator Unit calibration program (OxCal3). Samples of adult fibula shaft from (1040) and tibia shaft from (1037) were collected along with fragments of adult acromion process and of rib shaft from the additional burial from (1037). No suitable bone was present for radiocarbon dating from the remaining disarticulated rib fragments identified from (1037).

The calibrated dates from the skeletal samples (Table 5) were consistent with the dating of associated grave goods in the first centuries BC and AD (illus 16). The ^{14}C samples from Skeletons 1 and 2, the largely complete skeletons associated with contexts (1037) and (1040), provided roughly contemporary 1-sigma calibrated dates, ranging from the 1st century BC to the early 1st century AD, though broadly indicating that inhumation (1037) post-dated (1040), in accord with the stratigraphic sequence. The partial remains associated with (1037), Skeleton 3, provided a broadly contemporary though generally slightly later range, with a 1-sigma calibrated date between the early and late 1st century AD.

ANIMAL BONE

Jackaline Robertson

INTRODUCTION

Three animal bone fragments were recovered from the Iron Age cist burial and were identified to element but not to species.

DESCRIPTION AND INTERPRETATION

The bone fragments recovered from the cist deposit consisted of a horn fragment, a 3rd

TABLE 4

Strontium, oxygen and carbon isotope composition of tooth enamel from two M2 teeth and the strontium isotope composition of associated dentine. Drinking water values are calculated using the equation of Daux et al 2008. The 1-sigma errors on the drinking water values are estimated at ±0.2 (1-sigma) based on the reproducibility of the KCM standard (± 0.09%, 1–ma)

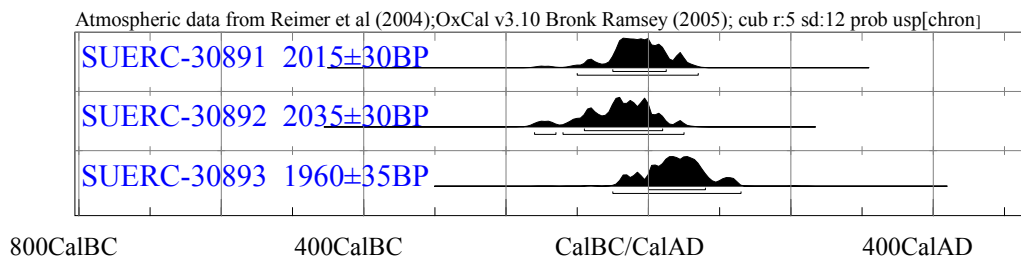
Batch	Code			Sr ppm	87Sr/86Sr	δ ¹³ C PDB	δ ¹⁸ O PDB	δ ¹⁸ Ocarb SMOW	δ ¹⁸ Ophos SMOW	Drinking water
P553	7	SK 1037	Enamel	109	0.710614	-14.27	-5.17	+25.59	16.58	-8.2
P553	9	SK 1040	Enamel	112	0.710344	-14.22	-4.62	+26.16	17.14	-7.3

P553	8	SK1037	Dentine	231	0.710008
P553	10	SK 1040	Dentine	190	0.709929

TABLE 5
Radiocarbon samples

Site	Sample	Material	Context (Skeleton)	Description	Depositional context	Uncal BP	Calibrated 1-sigma	Calibrated 2-sigma	δ ¹³ C (‰)
Empire Dunbar	SUERC-30891 (GU-22164)	Bone: human adult left tibia	(1037) (Skel 1)	Largely complete skeleton within cist grave	Primary	2015 ± 30	50 BC–AD 25	100 BC–AD 70	-20.9‰
	SUERC-30892 (GU-22165)	Bone: human adult right fibula	(1040) (Skel 2)	Largely complete skeleton within cist grave	Primary?	2035 ± 30	90 BC–AD 20	160 BC–130 BC; 120 BC–AD 50	-20.8‰
	SUERC-30893 (GU-22166)	Bone: human adult rib and scapula	(1037) (Skel 3)	Bone of separate individual from vicinity of Skeleton (1037)	Secondary	1960 ± 35	AD 0–80	50 BC–AD 130	-20.7‰

* Where two date ranges occur, this is a result of the calibration plot.



ILLUS 16 Calibrated radiocarbon dates from skeletal remains

phalange and a small fragment of a long bone shaft which could not be identified to species as they were poorly preserved. There is no evidence to suggest that these animal remains represent a grave good. It is more likely these animal remains are intrusive, following the interring of the second inhumation.

DISCUSSION

THE CIST

The pre-Roman or Roman Iron Age cist at Dunbar contained one of only a handful of such burials with weapons in Scotland, all of which lie close to the River Forth and its estuary. In its form of construction, mixing orthostatic and coursed masonry, it closely resembles the nearby Iron Age cist excavated at North Belton Farm (Crone 1992), which also contained a double inhumation. However, the latter grave was dissimilar in its north/south orientation; its noticeable corbelling, and its more square form, measuring internally 1.6m × 1.1m (Crone 1992: 161) against the 2.2m × c0.6m of the Empire cist. The Empire grave is one of a small group of cists with coursed and orthostatic masonry from the East Lothian and Berwickshire area (Halliday & Ritchie 1982: 535), part of a wider group of coursed masonry cists concentrated in the Tyne/Forth province (Crone 1992: 165 and 169). Crone notes that a similar mixture of orthostatic and coursed masonry was present at Kelloe Mains, Berwickshire (Halliday & Ritchie 1982); Middlefield Farm, Berwickshire (Forrest 1953); Lochend, East Lothian (Longworth 1966)

and Hopes Sandpit, Berwickshire (Stevenson 1966), and further afield at Castleton Muir, Roxburghshire (Smith 1982: 2) and Golspie, Sutherland (Woodham & Mackenzie 1957).

THE WARRIOR

An iron spearhead and the remains of a sword associated with skeleton (1037) identify the individual as a 'warrior', though as Hunter notes above, this may have been a sign of his status within a community, rather than an actual role. Parker Pearson notes that, 'there are enough ethnographic examples of funerary dress forming a skewed representation of that which is worn in life to make the archaeologist wary of interpreting the adornment of the corpse as representative of the person's possessions and dress style in life' (Parker Pearson 2003: 85). Giles, discussing the 'sword, shield and spear burials' of East Yorkshire, notes that they may not represent a permanent warrior elite, and that 'a sword in a burial does not make someone a warrior, even though a warrior may need a sword' (Giles 2012: 242). Burials with weapons of the late pre-Roman and Roman Iron Age are a relatively rare phenomenon in a British context, and until recently were almost unknown in Scotland. 'Warrior burials', characterised by Collis as male inhumation burials with weapons, 'sword, shield, spear, knife and exceptionally helmet', are present in inhumation cemeteries in Early and Middle La Tène Europe, but are rare in Britain until the Late La Tène (Collis 1973: 121). Cunliffe (2005: 546) notes that in the 1st century BC and early 1st century AD, 'inhumation

and occasionally cremation burials, accompanied by swords and shields or by mirrors, are found sparsely distributed over most of the south and east of the country [Britain].

Cunliffe (2005: 555–8) notes that such burials are rare outside a regional concentration in Yorkshire. He notes that in this area the warrior burial is likely to have grown out of the elite burial tradition of the Arras culture of the 4th and 3rd century BC, but prefers to see this new burial rite as part of a more widespread phenomenon, due to the presence of similar burials in other parts of Britain, suggesting that, while it may be ‘little more than a change in fashion’, it may also signify ‘a more warlike tendency in society’ (2005: 214–15). Giles, discussing pre-Roman Iron Age grave goods in East and North Yorkshire (2012: 168), notes that ‘in a funerary setting weapons evoked qualities of power related to brute strength as well as martial skill’ and ‘spoke of ideals related to masculine power, to both attack and defend, which may have been vital to the reproduction of the community’s honour and the creation of a prestigious, armed ancestry’. More generally in this period, an increase in the deposition of grave goods indicative of social status (including separate male and female grave sets) represents an increase in the significance of status in society (Cunliffe 2005: 561).

The relative paucity of recognised inhumations of earlier Iron Age date in Scotland may be explained by a lack of radiocarbon dating of burials lacking in grave goods, perhaps skewing the actual picture of the development of inhumation practices (Greig et al 2000: 606). As well as a few examples dating to between c 1000 and 500 BC in Orkney, and Longniddry, East Lothian (Dalland 1991), Greig et al (2000: 607) identify up to 17 inhumations in Scotland dated to between 500 BC and AD 1; it is perhaps remarkable that 14 of these are from East Lothian, suggesting that this may have been a focal area for the development of an inhumation tradition. The recent publication of the results of the Broxmouth Hillfort excavations, where both individual graves and an inhumation cemetery were recorded, adds to this corpus (Armit & McKenzie 2013), the authors identifying 35 Iron Age burial sites in south-east

Scotland and noting the presence of a long-lived tradition of inhumation throughout the Iron Age of East Lothian (Armit, Neale et al 2013: 431).

It is tempting to see the warrior burials in the Forth area of Scotland as developing from earlier traditions present in the area, rather than appearing unheralded. The range of inhumation forms in the Iron Age Forth area included unlined pit graves, eg at the cemetery of Dryburn Bridge (Dunwell 2007) and at Broxmouth (Hill 1982; Armit & McKenzie 2013) in East Lothian (though the latter site also contained stone-lined burial features). Later, multiple cist burials, eg North Belton (Crone 1992) and Lochend (Longworth 1966) and warrior burials appeared. An exceptionally early Scottish burial with a clear expression of status (though not necessarily warrior status) is the 5th century BC Newbridge chariot burial (Carter et al 2010), located to the west of Edinburgh. Though at present a unique Scottish example, it provides clear parallels with Continental chariot burials, and with the concentration of chariot burials in North and East Yorkshire (Giles 2012: 190–3).

The Dunbar warrior is one of a small group of Scottish warrior burials concentrated around the Forth estuary: inhumations recorded at Camelon and Goshen, Stirlingshire (Hunter 2005), and Marshall, Alloa (Mills 2004). The cairn burial at Merlsford, Fife (Hunter 1996: 120–2), can also tentatively be added to this group, on the basis of its late 1st century BC/early 1st century AD Roman brooch and iron spear or javelin head.

At Camelon, a cist grave recorded in 1922 contained a sword originally identified as a Roman gladius (Buchanan & Callander 1923: 248), and was at the time of publication identified as the sepulchre of a Roman soldier. A further cist grave excavated in 1975 was found to contain a sword, two spearheads and a shield boss, as well as bones of two male inhumations. Nearby, a sword was also found, possibly derived from a second grave (Close-Brooks et al 1975; Breeze et al 1976). Hunter notes that all the inhumation burials in the Camelon area are likely to be native Iron Age rather than Roman (Hunter 1996: 121; Hunter 2001 and pers comm).

As noted by Hunter, above, the Marshall warrior burial demonstrates clear parallels in

its grave goods with the Dunbar warrior. These inhumations also share an east/west alignment, though the Marshall body was extended rather than flexed. The Dunbar warrior follows the more common local ritual form of flexed rather than extended inhumation within coursed masonry cists (Crone 1992: 169).

The extensive funerary evidence of the Yorkshire Wolds has been described by Giles (2012); many of these inhumation burials were interred in groups within cemeteries, such as Danes Graves, Wetwang Slack and Rudston, rather than within discrete single monuments, as identified at Dunbar (Giles 2012: 68). Quoting Stead (1991), Giles describes four Iron Age burial rites ('A'–'D') practised in the Great Wolds Valley of Yorkshire, and the flexed burial at Dunbar bears some resemblance to Stead's rite B, which is 'characterised by flexed or extended burials, often orientated with their long axis east–west' and, 'where they include grave goods, these are often characteristic of the latest phases of this burial rite, c 1st century BC–early 1st century AD. A higher proportion of these graves contained tools ... or weapons ... than rite A graves' (Giles 2012: 69–70). It is unlikely, in spite of the similar date range of this rite to the complete Dunbar inhumations, that this represents cultural contact. However, another notable similarity with some Yorkshire inhumations is the placing at Dunbar of a spear tip down, adjacent to the limbs of a body, a common occurrence, for example at Rudston, according to Giles, and perhaps one of several unusual treatments of weaponry representing an inversion of norms and finality (2012: 210–11). However, at Dunbar the spearhead was located adjacent to a knee, rather than towards the left foot, as commonly found in Yorkshire.

Beyond Scotland and Yorkshire, burials with weapons comparable with the Dunbar warrior demonstrate a diversity in form and location (cf Collis 1977: 10 and 12–13). Another significant group of burials with weapons in the later Iron Age existed in the south-east of England, within the Aylesford-Swarling Culture. Collis (1977) has noted that the predominant burial rite throughout this area was cremation, but with examples of inhumation such as Owslebury (Collis 1973: 126–9 and 1977: 4). Within this complex, he

notes that, 'the occurrence of weapons in burials shows strong regional variation. In Britain, there is a vogue at the beginning of Late La Tène for warrior burials with complete sets of equipment, but later, in the Aylesford-Swarling Culture proper, only four possible graves can be quoted ... Each one contains only a protective weapon ... and its presence is clearly highly symbolic' (Collis 1977: 5). He notes a similar tendency for burials with weapons, with swords, spears and shields being most common, on the Rhine and Moselle rivers at the beginning of the Late La Tène and continuing in that area beyond the Roman conquest.

Examples in southern England of warrior burial inhumations associated with the burial of further, unarmed, individuals include those excavated in Hampshire by Collis at Owslebury (Collis 1973: 126–9) and by Leivers and Gibson (forthcoming) at Adanac Park, Nursling. A pit inhumation (lacking an extant skeleton), dated to between 75 and 25 BC (Sealey 2007) was excavated at Kelvedon, Essex; this contained a ritually bent iron sword, an iron shield boss, two spearheads and a scabbard. These individual warrior burials were associated with further Iron Age burials, ranging in nature from a single, possible satellite, inhumation at Kelvedon, to a relatively large group of 19 cremations surrounding the 1st century BC warrior at Owslebury.

Thus it is clear that the inhumed burial with weapons can be seen as a burial form existing as an element within a diverse pattern of later Iron Age burial rites. It is only rarely possible to see specific concentrations of warrior burials, most clearly in eastern Yorkshire, and now perhaps in east central Scotland.

The position of the cist, well beyond the ditches of the Iron Age promontory fort identified by Perry (2000: 21–4) and the outer enclosure ditch recorded by Moloney (2001: 285–6), is intriguing. It is tempting to view the fort and the warrior burial as contemporary physical manifestations of a period when the symbolism of conflict was important. The calibrated radiocarbon dates from the fill of the enclosure ditch (Moloney 2001: 285) are comparable with those of the skeletal remains. However,

it is possible that the promontory fort and its associated enclosure post-date the cist grave, and they may not be contemporary reference points.

THE POSSIBLE SEATED BURIAL

There are several examples of Iron Age multiple inhumations in the vicinity of Dunbar, most notably the double inhumations at North Belton (Crone 1992) and Moredun (Coles 1904), and Lochend with its 21 inhumations (Longworth 1966). However, the Dunbar cist is unusual in that one of the inhumations might potentially represent a seated burial. While it is possible that, as at Lochend (Longworth 1966: 178), the remains of (1040) represent the clearance of human remains to permit a later burial, the pattern of the remains – for example the location of the skull between the leg bones and close to the pelvis (illus 5 and 10) – suggests they may represent a collapsed, seated burial. The radiocarbon dates for these two skeletons are almost contemporary, though inhumation (1037) is of somewhat later date, according to stratigraphic evidence. It is therefore most likely that the original inhumation, whatever its posture, was moved in order to make way for the warrior burial, though given the position of the bones of inhumation (1040), the potential for the earlier inhumation to have been a seated burial cannot be entirely discounted.

Excavations at Crosskirk, Caithness, have provided a secure example of seated burial in a Scottish Iron Age context, though one markedly different in nature, and, in all likelihood, date. There the seated inhumation of an arthritic elderly man, facing the Old Man of Hoy, was found in a cist in the floor of Enclosure I of the broch (Fairhurst 1984: 86–8 and 171; Young 1984: 157–9; Heald & Barber 2015: 95–6). This has recently been given a calibrated 2-sigma radiocarbon date of 330–540 AD (Tucker & Armit 2010: 215), and thus appears to be considerably later than any of the Empire inhumations, though Armit and Ginn (2007: 118) note that a rib provided a calibrated 2-sigma radiocarbon date of 390 BC–AD 80. It has been interpreted as being intentionally placed ‘in such a way as to be in communication with the living’ (Armit

& Ginn 2007: 118). Daniel Wilson (1851: 327) tantalisingly describes another possible seated burial in the Lothians, located within a cist on the site of ‘a new road leading from Granton Pier to Edinburgh’, which contained ‘two skeletons, which ... appeared to have been interred in a sitting posture’.

The occurrence of seated burial is evidenced further afield in later Iron Age Gaul across France and Switzerland. Green (2004: 32) lists several Gallic later Iron Age sites with evidence for seated burial: Acy-Romance, Fesques and Geneva. She notes ‘the seated posture of the bodies, the head folded forward onto the knees, the arms bent beneath the body and the legs sharply flexed’.

At Reviers, in Calvados, north-west France, three adults skeletons were identified in 2000, which had been sealed individually in circular pits, in a seated position, with the limbs flexed, the torso inclined to the left and the top of the body leaning forward. These Iron Age pit burials were aligned roughly NNW/SSE, with the bodies positioned to face down a valley. Study of the positions of the limbs suggests it is possible that the bodies were bound or that there was temporary support for the bodies at the time of the infilling of the pits. It has been postulated that the unnatural position of the three bodies appears ritualistic and may represent punishment, and that these may be linked to cult or sacrificial activity, though the skulls and other skeletal remains show no signs of special treatment (such as defleshing) or trauma (Oudry-Braillon & Billard 2009). A pit containing the unmistakably seated skeleton of a man aged around 20 years, dated to between 400 and 180 BC, was excavated at the prison of Saint-Antoine, in Geneva; again this may be associated with human sacrifice (Collections des MAH en Ligne). In contrast to the only partial articulation of the Dunbar inhumation (1040), this individual appears to have been found largely articulated in situ.

Lambot has described the excavation of 19 unusually treated seated inhumations at Acy-Romance (Lambot & Méniel 1993; Lambot et al 1994). This has been summarised in a description of 1st century BC funerary practices (Lambot et al 1996: 332–3), which describes ‘the

nineteen inhumations in a seated position, the skulls above the feet, laid out in an esplanade in front of a temple in the centre of the village of Acy-Romance. These burials, unique in Gaul, evidence inhumations at a period when cremation is usual; the total absence of grave furniture and the positions of the skeletons, packed into circular pits, 1m in diameter and 0.3m in depth only add to the out-of-the-ordinary character of these deposits'. Lambot notes that taphonomic study of the seated burials indicates the treatment of the bodies prior to their interment, probably 'séchage' or drying. Two of the burials provide evidence to confirm this hypothesis: the toes of one body are absent, representing the loss of toe bones prior to inhumation, while an additional hip bone was located between the feet and the head of another body, representing the recovery of a bone from another body,

Writing in 2003, Lambot (2003: 46) labels the 19 seated Acy-Romance burials as human sacrifices. The identity of these individuals is unknown, though Lambot notes that at this time the well-to-do were usually cremated. Lambot suggests that these sacrificed individuals were perhaps guilty of some crime, or may have been chosen from the poorer elements of the population. The treatment of the 19 bodies is summarised by Lambot, 'Each of these men, after his death, has been placed in a box of wood and lowered into deep shafts of the great temple'. Their prolonged placement in a confined cool space led to natural mummification – the ceremony likely occurring in winter. In spite of the loss of most of the skulls from these seated burials, Lambot suggests that the means of death is evidenced in the skeleton of one young man, discovered in the vicinity, who had been killed by an axe blow on the right side of the skull, the hands being tied behind the back.

The lack of evidence for trauma on the remains of skeleton (1040) from Dunbar tend to suggest that this individual did not meet a violent end, and adds further to the likelihood that the position of this individual within the cist was caused by movement of an existing burial, rather than representing an originally seated burial. However, the possibility that this skeleton represents an originally seated individual cannot be dismissed entirely. Arguably, whether or

not this individual was originally seated, its treatment, placed at one end of the cist, indicates a perceived lesser status of this individual (perhaps no longer recognised as such) in comparison with the extended burial with weapons, at the time of the burial of the latter individual.

THE PARTIAL SKELETAL REMAINS

While the Dunbar cist contained two largely complete adult males, the association of partial remains of two further adults with skeleton (1037) is intriguing. The radiocarbon date retrieved from one set of these remains could either be contemporary with or slightly later than the largely complete inhumations (1037) and (1040). In the former case, this may be evidence for post-mortem treatment of the body of the Dunbar warrior in proximity to other human remains, perhaps excarnation or the process of 'séchage' or drying noted by Lambot at Acy-Romance, where a bone from an additional body was recovered with one of the seated burials (Lambot et al 1996: 333). While the means are unknown by which partial human remains would have entered the cist following the two main inhumations, it can be speculated that, if intentional, they might represent a form of metonymic offering.

Thus variation may be present in the post-mortem treatment of the two individuals, potentially with variability in the placement of the bodies, and possibly either the excarnation of (1037) or the incorporation of remains from separate individuals into his tomb. At Broxmouth, disarticulated human remains have been tentatively identified as the remains of human trophies, though retained within domestic spaces rather than placed in funerary contexts (Armit, Neale et al 2013: 428). Parker Pearson notes that the 'disaggregation of the body may be an ideological imperative by which the individual is denied and the collective asserted', but notes that destructive rites may have different significances in different cultural contexts (Parker Pearson 2003: 52). It could be argued that the presence of partial human remains may mark out the loss or lack of individual identity, and perhaps perceived inferiority, of the humans represented, in contrast to the individuals interred complete.

MEDIEVAL AND POST-MEDIEVAL REMAINS

FIELDWORK

The excavation in late 2005 (illus 2) confirmed the general stratigraphy of the site identified during evaluation works, with late medieval/post-medieval levelling, containing ceramic material dated between the 12th and 15th centuries, overlying sub-soil and underlying modern demolition deposits. The series of deposits overlying the sub-soil was up to *c* 3.5m deep in the west of the site and *c* 1.2m in the east.

Late medieval–post-medieval (13th to 16th century) (illus 12)

Several features cut through prehistoric buried soil (1006) and overlying deposits were dated by pottery and stratigraphic evidence to the late medieval period, no earlier than the 13th/14th century.

In the west of the excavation area, a north/south-aligned ditch (1024)/(1057), *c* 1.3m wide and 0.5m deep, truncated interface layer (1019). This may be the earliest medieval feature present, though dating evidence is lacking. Its location, broadly parallel to the boundary of the Trinitarian Friary to the west and the High Street to the east, suggests that it is a boundary conforming to the pattern of the late medieval settlement. However, the presence of overlying medieval cuts (1008) and (1041) demonstrates that it predated much of the later medieval activity, and if it was a boundary feature, this role is unlikely to have been long-lasting.

A steep-sided sub-circular cut (1041) in the west of the site (4.5m east/west by at least 3.3m north/south) was the construction cut for a stone-built well (1042) of sandstone blocks, which had no bonding visible in the three courses exposed during excavation. Its outer diameter was *c* 2m, while its internal diameter was *c* 1.1m. Its fill (1043), was a dark reddish-grey silty clay with common animal bone fragments and late medieval pottery. This feature was adjacent to a *c* 3.2m diameter circular pit (1008), which probably functioned as a gravel extraction pit or a rubbish pit. Ditch (1024) had also been

truncated by an irregular pit to the east (1010) that contained 13th or 14th century Yorkshire Type pottery.

On the western edge of the site, a north/south-aligned sandstone wall (1003), with a width of 0.85m and a height of at least 0.9m in four courses, appeared to form a corner of a structure with the east/west wall (1013), which extended from the excavation edge. Both walls had evidence for roughly squared facing stones and a crude rubble interior with eroded clay bonding. The corner of these walls was covered by a rubble demolition deposit (1012) within a later levelling deposit (1004), indicating that these walls were broadly contemporary with the 13th/14th-century cut features. Wall (1013) formed the corner of a stone structure, perhaps connected to an element of the nearby walls of the ‘Friars’ Walk’.

In the centre and west of the site, a homogeneous reddish-brown sandy silt levelling deposit (1004) overlay windblown sand (1005). It was up to 2.5m in depth in the west of the site, but petered out to the east. It contained pottery dated to between the 12th and 15th century and animal bone, but sealed 13th/14th-century features and was cut by drainage structures that contained 15th/16th-century pottery deposited towards the end of the medieval period.

In the east of the excavation area, White Gritty Ware ceramic was identified in the fill of likely post-hole (209), indicating a late medieval date. A system of sandstone drainage structures included a drain (1016), lined with sandstone blocks and with a base of sandstone flagstones, that ran westwards from a rough stone surface (1015), which turned north into a stone-built and clay-bonded rectangular sump (1017), 1.2m deep. Both this sump and a similar but smaller feature to the immediate north (1014) had near vertical construction cuts into levelling layer (1004). Pottery from infill deposits dates to the 15th/16th century.

In the southern plot, in evaluation Trench 5, there were two sub-oval refuse pits, (504) and (506), which contained sherds of Scottish post-medieval reduced pottery and post-medieval metalwork.

POTTERY

Derek Hall

INTRODUCTION

The assemblage of 330 sherds has been examined by eye with a ×10 hand lens and where possible identified to a recognised fabric type.

SCOTTISH WHITE GRITTY WARE

This assemblage is dominated by this fabric type (230 sherds), which is probably locally produced. The largest group (169 sherds) comes from context (1009), the fill of pit (1008) and is dominated by sherds from glazed jugs. These vessels are produced by a highly developed pottery industry and exhibit decorative styles that have strong affinities with Yorkshire Type Wares from England (Jennings 1992). The nearest known production site is at Colstoun, some 22km to the west (Jones et al 2006; Hall 2007), but the vessels in this group possess a style of basal angle that is not known from either Colstoun or other Lothian assemblages. Based on the much greater number of jugs to cooking vessels and their highly decorated style, the group from context (1009) would seem to date to the 13th or 14th centuries. Context (1030) (fill of drain 1017) contains sherds that belong to the later, thicker, end of this industry and probably date to the 15th or 16th centuries (Jones et al 2006).

SCOTTISH REDWARE

Two sherds in the later version of this Scottish industry probably date to the 15th or 16th centuries. Recent chemical sourcing has suggested that this was a very widespread industry with many different production centres (Haggarty et al 2010). A red firing clay source has been previously identified in close proximity to the whiteware pottery kilns at Colstoun, although there is no excavated evidence that it was being used by the potters (Hall 2007).

SCOTTISH POST-MEDIEVAL REDUCED WARES

Two sherds from this later post-medieval pottery industry are present in the fills of pits (504) and

(506). This fabric is often described as Throsk-type ware although there were probably many more potteries manufacturing this type from the 16th century onwards (Haggarty 1980; Haggarty et al 2010).

YORKSHIRE TYPE WARES

There are 17 sherds from vessels in these very distinctively lustrous green glazed vessels, one sherd, from the fill of pit (1010), is from a highly glazed vessel decorated with applied strips. These fabrics are the most common import present in excavations on the Scottish east coast and date to the 13th and 14th centuries (McCarthy & Brooks 1988).

UNIDENTIFIED

A single sherd from context (1009) is in an unrecognisable glazed Red gritty fabric. Context (107), a fill of well cut (1041), includes a rimsherd and handle junction which may be from a vessel in Grimston ware from East Anglia.

CONCLUSIONS

There is no evidence to suggest that any medieval activity on this site predates the 13th or 14th centuries. The Scottish White Gritty Wares present are from well made glazed vessels whose decorative styles owe close affinities to the Yorkshire Type ware pottery industries. The rarity of imported vessels confirms the strength of the Scottish Whiteware industry in the high medieval period (Hall 1997).

ANIMAL BONE

Jackaline Robertson

INTRODUCTION

A total of 327 bone fragments collected from 16 contexts were submitted for faunal analysis. The majority of the assemblage was concentrated in the late medieval and post-medieval pits, backfilled ditches, drains and a well. There were 147 bone fragments identified either to element or species. This relatively small sample of animal bone limits its potential archaeological value. Many of the late medieval/post-medieval features

appear to have been disturbed by later activity, which has probably resulted in the remixing and re-deposition of material. A description of the analytical methodology and a full catalogue can be found in the archive report.

The overall preservation of the bone was good. The only evidence of bone modification was nine small fragments of burnt bone collected from the wet sieving retents.

RESULTS

The species recovered from the later deposits were sheep/goat (19), horse (15), cattle (14), pig (1), dog (3), cat (3) and rodent (4). A further 78 fragments could only be described as large mammal and 10 as small mammal. The assemblage was dominated by skull fragments, loose teeth, foot bones, ribs and vertebrae. No bone fragments were identified as belonging to wild mammal species. The animal assemblage was spread throughout the site with no clear evidence of deliberate or selective disposal.

Fusion rate

Fusion rates and tooth wear were only available for the material dated to the late medieval and post-medieval. Examination of the fusion rates and tooth wear for the cattle and sheep remains suggests that most were adult at time of death. The one exception is a sheep's 2nd phalange, which had an unfused proximal end, indicating that this animal died before 13 months. There was no available age of death for the pig remains. There is no evidence of neonates or senile remains.

Pathology

A horse ulna from pit (1008) displayed evidence of bone growth along the surface. This could be indicative of the very early signs of arthritis. The absence of eburnation and porosity makes it unlikely that it had developed beyond the preliminary stage. A horse mandible from the backfill (1055) of feature (1017) had misaligned teeth and several circular holes affect the bone surrounding the teeth. This could be indicative of tooth and gum infections during the lifetime of this animal, which would have made eating uncomfortable. A rib identified as small mammal

appears to have been broken and then healed prior to death.

Butchery/bone modification

Nine fragments of burnt bone were recovered from the wet sieving residues from late medieval contexts. A single small, shallow cut mark was observed on a vertebra. There was no evidence of any bone working.

Taphonomy

The faunal material recovered from the late medieval and post-medieval deposits was present in the backfills of the well, drainage ditches and sumps located around the site.

CONCLUSION

The late medieval and post-medieval period is typical of this era with low quality cuts of meat of mutton and beef dominating the assemblage. The presence of low quality meat such as foot bones and skull fragments could also be indicative of butchery and industrial waste from tanning and glue making.

MACROPLANT ANALYSIS

Jackaline Robertson

Twenty-seven bulk soil samples were submitted for environmental analysis. Charcoal fragments 4mm and larger were collected for identification. Identifications were confirmed using modern reference material and seed atlases (Cappers et al 2006; Jacomet 2006). The methodology is described in detail in the archive report.

RESULTS

Charred macroplant remains were recovered from 18 samples. The small macroplant assemblage was dominated by cereal caryopses such as bread/club wheat, wheat/rye, barley and oat. The assemblage was concentrated in the later medieval and post-medieval deposits

The plant assemblage was concentrated in particular in well fill (1043) and fill (1011) of pit (1010). The macroplants were dominated by cereal caryopses and the only other food residues present were field pea and hazel. The weed

taxa recovered consisted of *Glebionis segetum* L (chrysanthemum), *carex* sp(p) (sedge), *chenopodium* sp(p) (goosefoot), *Persicaria* and *Spergula arvensis* L (corn spurrey), *raphanus raphanistrum* L (wild radish). These weeds are commonly associated with agriculture and waste ground. The plant materials are typical of this period, and appear to have accumulated in these features as part of domestic rubbish used as backfill.

DISCUSSION

THE MEDIEVAL AND POST-MEDIEVAL EVIDENCE

In the west of the site, a north/south-aligned ditch may have marked a boundary line to the west of the High Street in the medieval period. Although not clearly dated, this ditch was overlain by late medieval features including a stone-built well, with backfills dated by ceramic evidence to the 13th/14th century. Rubble walls forming a corner of a structure to the west of the ditch were originally interpreted as relating to medieval property boundaries, though it is perhaps more likely that they mark the remains of a building of late medieval date, towards the back of the burgage plot. The present western boundary wall of the site is likely to be, at least in part, of post-medieval date, forming ‘Friars’ Walk’ and marking the boundary between the backlands of the burgage plot and the former Trinitarian Friary (Dennison et al 2006: 75). It is likely that the structure at the Empire represents late medieval occupation of the backlands of the property, although as the building lay on the limit of excavation, it was not possible to characterise its function, whether domestic, industrial or other.

An apparent levelling deposit, found to be relatively inorganic, sealed the features dated by ceramic evidence to the late medieval period. In the east of the site, a group of late medieval/early post-medieval rubble-built drainage features was encountered above this deposit. As has been noted by Carter (2001), with reference to medieval backlands in Scotland, it is possible that

deep homogeneous deposits identified in Scottish burghs, such as St Andrews, as imported medieval ‘garden soils’ may in actuality be derived from intensive occupation of backlands, the product of processes including weathering, decay and building replacement, with decomposition of turf and timber material from structures. However, the great depth of material encountered in the present excavations, apparently built up over a relatively short period between the 13th/14th and 15th/16th centuries, and its relative poverty in artefactual material, suggest intentional levelling at the Empire site. It is also possible that this deposit developed, at least in part, through aeolian action (cf Perry 2000: 35).

CONCLUSION

The excavations at the Empire, Dunbar, have a significant impact in our understanding of the late pre-Roman/Roman Iron Age of this area. Commenting on the Iron Age cists of the east of Scotland, Crone (1992: 166) notes that, ‘the presence within the Tyne/Forth area of Iron Age burials of varying constructional form and rite, even within the same cemetery, implies a diversity of burial ritual, which ... makes the detection of local and regional patterns difficult’. The Empire, Dunbar cist both clarifies and adds complexity to the picture of later Iron Age burial in this area. The Dunbar warrior adds clarity to the impression of a recognisable group, distinct in time and place, of inhumed burials in the Forth area in the decades around 1 AD, defined by their warrior status, and part of a widespread, if dispersed, group within the British Isles.

The presence of partial human remains with the skeleton of the Dunbar warrior presents the possibility of unusual treatment of human remains prior to the interment of this individual, perhaps excarnation, or the intentional inclusion with the warrior of body elements. Additionally, the presence of a primary inhumation at an end of the cist, potentially a seated burial, though likely disturbed in the process of interring the warrior, suggests that this individual was, at least at the time of the burial of the warrior, viewed as being of lesser status than the warrior, who

took centre stage within this burial monument. Thus the funerary rites represent an individual whose status, apparently as a warrior, was made clearly apparent by their treatment after death, in juxtaposition with the apparent lesser status of the individual located at the edge of the cist, and those individuals only represented by partial remains.

Additionally, the works at the site have also elucidated an element of the backlands of historic Dunbar, specifically an area which appears to have been intentionally levelled between the late medieval and early post-medieval periods.

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CARTOGRAPHIC

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