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A Cairn on Birkside Fell — Excavations in 1996 and 1997

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SUMMARY

A small cairn was discovered during field work on Birkside Fell in the North Pennines. The physical characteristics of the monument, as revealed by excavation, suggest that it should be classified as a ring cairn. Two cremations were found within a single collared urn. Radiocarbon dates place the burial within the earlier part of the 2nd millennium BC. The results of the excavation are discussed within the wider context of similar sites in the region.

INTRODUCTION

On Sunday September 10th 1995 my wife, Myra Tolan-Smith, and I were walking our dog Penny along the Carriers' Way, an ancient pack-horse route in the North Pennines linking the lead mines of the North Pennine ore field with the coalfield of Tyneside. The Way follows a NNE-SSW route across the heather grouse moor of Birkside Fell and, at an altitude of about 380 m (AOD), we came across a substantial area of exposed subsoil, the result of the overlying heather and peaty topsoil having been burnt off. Although it was commented on at the time that this was just the sort of area that elsewhere in the Pennines we might expect to find a Mesolithic site (Smith 1997, 133–7), it still came as a surprise when we began to notice a significant scattering of worked flint lying on the surface of the mineral subsoil (fig. 1.1). Although no classic diagnostic pieces were noticed on this first visit, the presence of core fragments exhibiting bladelet removals, and several proximal and medial blade segments including one with abrupt, 'microlithic', retouch suggested that this was indeed a

Mesolithic site; an initial interpretation subsequently confirmed by excavation.

The patch of exposed subsoil was about 20 m wide on an east-west axis and extended intermittently for about 150 m from north to south. Many loose stones and boulders lay scattered across this surface but towards the northern end there was a marked concentration, roughly round in shape, rising to about 0.7 m above the surrounding area. Although the mound had been disturbed by the construction of a walkers' cairn, or 'currick', it retained sufficient of its original form to suggest an interpretation as a prehistoric burial cairn (fig. 1.5).

For several years we had been involved in a fieldwalking programme in the Tyne Valley, known as the 'Stone Age Tynedale Survey'. This work was concentrated in the main valley of the River Tyne and we had become conscious of the need to place our findings in a wider context. In particular, we felt a better understanding of the surrounding uplands was needed. The uplands present few opportunities for fieldwalking so permission was sought to excavate the sites on Birkside Fell. This permission was granted and the two sites were excavated during the course of short seasons of fieldwork in the summers of 1996 and 1997. This report deals with the excavation of the burial cairn. The Mesolithic site is to be the subject of a separate report.

EXCAVATIONS 1996 AND 1997

The cairn is situated (NGR NY 9342 5118) at the northwest end of the slight shoulder that lies between Birkside Fell to the northeast and Newbigging Fell to the southwest. It is situated at 388 m AOD and the land rises gently to the

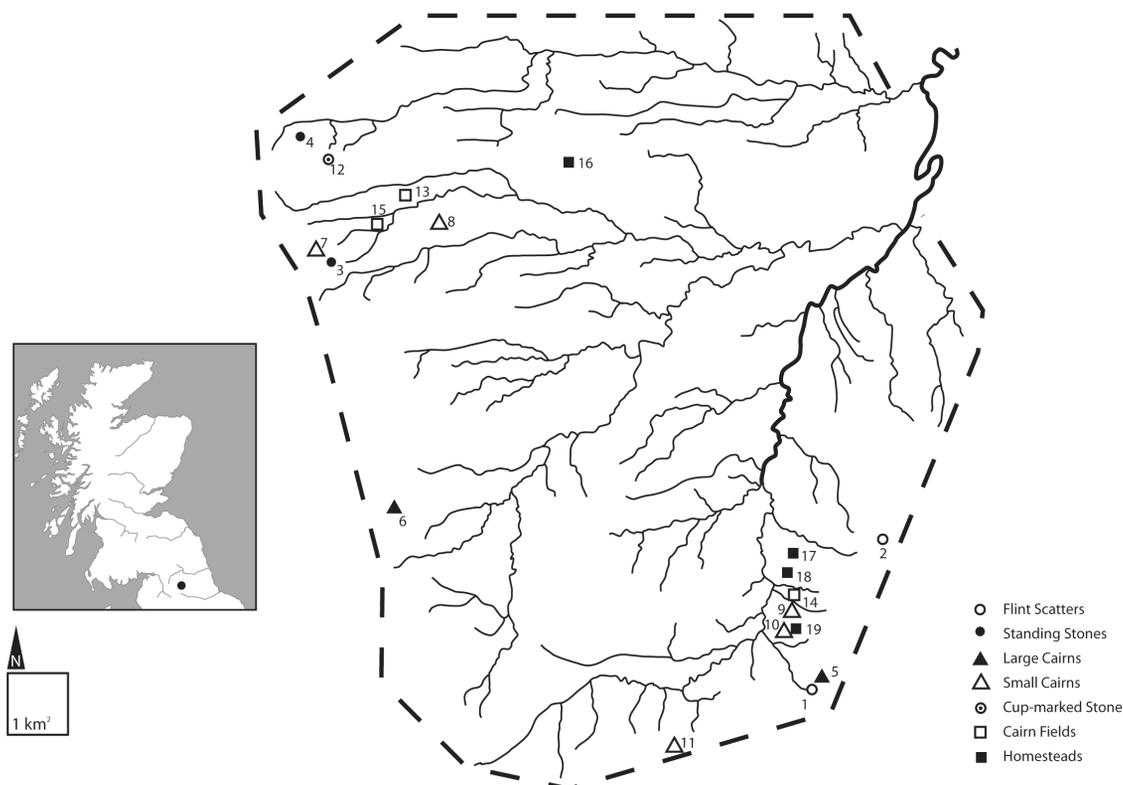


Fig. 1 Prehistoric sites within the Devil's water Catchment; flint scatters (1-2), standing stones (3-4), large cairns (5-6), small cairns (7-11), cup-marked stone (12), cairn fields (13-15), homesteads (16-19).

north, east and south but begins to fall more steeply towards the west. In this direction lies the Devil's Water, a major south bank tributary of the River Tyne that drains a substantial area of the North Pennines between the valleys of the rivers Allen and Derwent (fig. 1). The cairn commands wide views across the catchment of the Devil's Water and north towards the Cheviots and the Scottish Border.

The excavations at Birkside Fell were carried out within seven areas designated A to F. Each excavated context was given a unique number within the area and full details of each context are available in the site archive. Horizontal control was provided by the site grid with each one metre square being given a

number allocated according to the area under investigation, while each square was further subdivided for finds recording purposes into twenty-five 200 mm by 200 mm units. Vertical control was obtained by reference to an on-site temporary benchmark.

The cairn lay within Area A. When opened in 1996 this area was seven metres north-south by 11 metres east-west. In 1997 this was extended to the north by a further three metres over a front seven metres wide in order to expose the full extent of the cairn (fig. 2).

The first phase in the excavation of the cairn involved the removal of the remaining fragments of turf, topsoil and loose stones to

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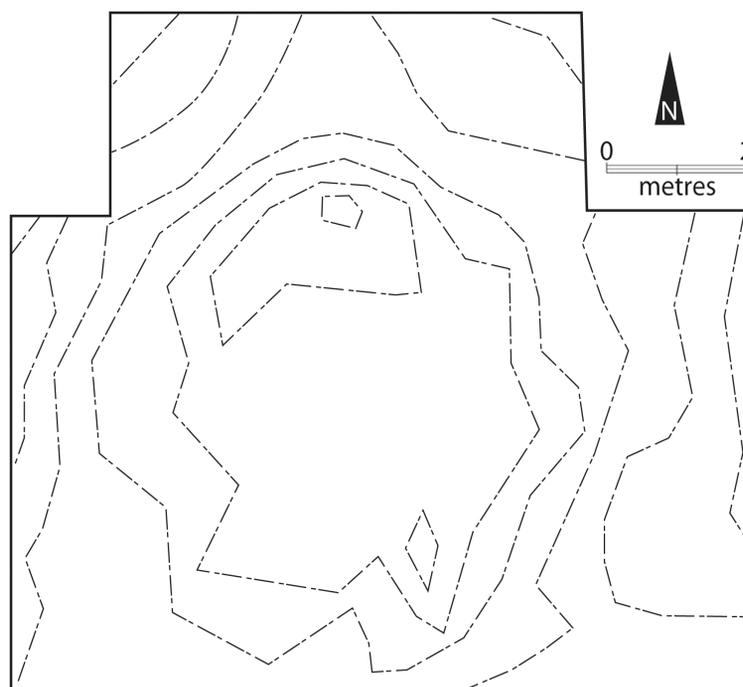


Fig. 2 Pre-excitation contour plan of the Birkside Fell ring cairn, contours at 100 mm intervals.

expose the compacted surface of the cairn (fig. 3). This consisted of two major components. The most obvious feature was a ring of substantial sandstone boulders, discontinuous on the north, probably through robbing, and incorporating two blocks of white quartz on the south side. These two blocks lay to the southwest and southeast as viewed from the centre of the cairn and marked either end of a relatively flattened 2.5 m arc of the boulder ring. This focusing towards the south may be considered significant. The boulder ring defined an area about 4 m across. Immediately within the ring the cairn material comprised somewhat smaller, slab-like, stones, some of which lay on edge, propped against their neighbours. This, and the fact that in places they also lay in arcs roughly parallel to the boulder ring, suggested that they had collapsed inwards and that the boulder ring was originally several courses high. This observation is important for

the interpretation of the original form of the cairn. Elsewhere within the interior, and especially towards the centre, the surface was covered with small stones laid horizontally and giving the appearance of paving. A stone-free area towards the west of the centre was probably the result of robbing. Beyond the boulder ring were random spreads of stone extending in most directions. These are also interpreted as collapse from the cairn.

The second phase of the excavation involved the removal of the collapsed stone from both within and outside the cairn. During the course of this operation, at a point slightly to the southeast of the centre of cairn, the removal of several flat stones revealed the top of a collared urn exposed amid a spread of charcoal and stones (fig. 4.1). As excavation proceeded the initial, rather diffuse, charcoal spread became more clearly defined and markedly rectilinear in outline (fig. 4.2). The

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Fig. 3 Birkside Fell ring cairn; kerb blocks shaded and white quartz blocks emphasised (1:50).

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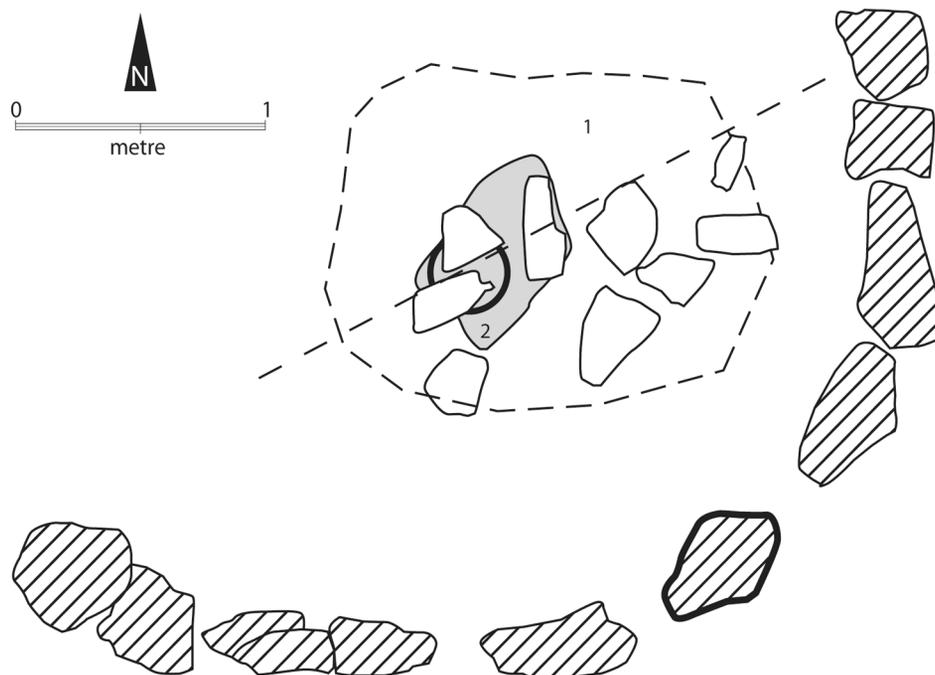


Fig. 4 South east quadrant of the Birkside Fell ring cairn showing the location of the pit containing the collared urn and the charcoal and subsoil spread (1) and the putative charred board or plank (2). White quartz block emphasised; the black ring is the rim of the urn (1:30).

rim of the collared protruded through this suggesting that the charcoal represented the remains of a heavily burnt and charred board or plank that had originally been placed over the urn and had decayed *in situ*. Further excavation showed that the bottom portion of the urn, below the collar, was sitting tightly within a shallow pit (fig. 5).

In addition to the cremated remains of two individuals, described below, the urn and the pit also contained a quantity of *Fraxinus*

charcoal. Samples for radiocarbon dating were taken from within both the urn and the pit. These samples were processed at Beta Analytic; the results are shown in Table 1. The two dates are not significantly different, confirming that the burial occurred during the earlier part of the 2nd millennium BC.

The first 40 mm of fill were removed from the urn on site as part of the process of exposing the urn. When this had been done a rectangular area 0.6 m by 0.6 m was excavated

Table 1 Radiocarbon dates.

Sample	Laboratory code	Measured age	C14 C13/C12 Ratio	Conventional C14 Age	Calibrated range
BFAP032	Beta-119667	3570+60 BP	-25.0 0/00	3570+60 BP	cal BC 2035 to 1745
BFAP1	Beta-119668	3510+60 BP	-25.0 0/00	3510+60 BP	cal BC 1965 to 1675

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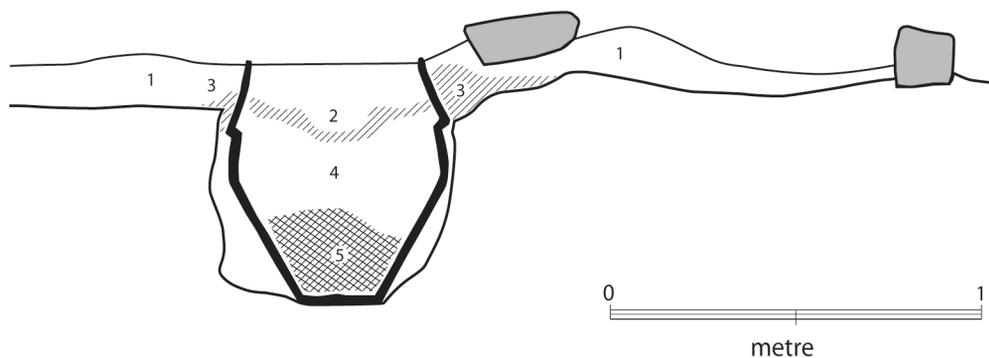


Fig. 5 Section through the collared urn and pit at Birkside Fell; charcoal and subsoil (1), compacted mass of subsoil (2), putative charred board or plank (3), cremated bone and charcoal (4), cremations (5) (1:20).

around the urn so that it could be removed intact and the rest of its contents excavated off-site. The uppermost surviving deposit consisted of 140 mm of grey-brown soil with charcoal fragments and lenses of sand, the latter probably re-deposited subsoil that had been dumped around the pit (fig. 5.1). At the centre of the vessel, at a depth of between 60 mm and 140 mm, lay a compacted mass of sandy soil, charcoal and cremated bone about 120 mm in diameter (fig. 5.2). The bottom of this deposit was marked by a conspicuous zone of charcoal (fig. 5.3). This compacted mass can be tentatively interpreted as the scrapings of the funeral pyre which, having been originally placed on the charred board or plank that covered the urn, had subsequently collapsed into the urn as the board or plank decayed.

From 140 mm to 270 mm the urn was filled with a matrix of grey/brown charcoal rich soil containing many fragments of cremated bone (fig. 5.4). This deposit also included, near its bottom, the only artefact from the urn: an elongated flake of ginger-brown flint (no.800; discussed below). From below the flint flake to the base of the urn at 420 mm lay the compacted cremated remains of two individuals (fig. 5.5).

The cremation was the only feature of note within the interior of the area defined by the bank. Given the intention to restore the monument it was not felt appropriate to

remove this bank in its entirety; instead four sections were cut through it, aligned approximately NE-SW, NW-SE. These revealed that the bank had been erected on a brown-black sandy loam with high peat content, a soil very similar to that found on Birkside Fell at the present day. The same soil had also formed amongst the stones of the cairn and over them. The soil formation processes on Birkside Fell were the subject of a further detailed study in 1997, the results of which are summarised below (p. 62).

THE FORM OF THE CAIRN

The quantity of stone on the site, even allowing for the robbing to build the walkers' cairn, is not great and it is unlikely that the original monument was ever a prominent feature. The surviving remains suggest that it originally consisted of an annular bank of stone, several courses high and with an inward-facing vertical face, defining a roughly circular paved area. Funerary monuments consisting of an open area enclosed solely by an annular bank of earth and/or stone are common throughout the upland areas of England, Scotland and Wales. Approaches to their study have varied between treating them as a single, unified but rather disparate category or subdividing them into a number of distinct classes

(Lynch 1979; Barclay 1989). The most extensive treatment is that provided by Lynch (1979, 1). She refers to the group as a whole as Variant Circles within which Ring Cairns form one of the major subdivisions: 'monuments with an open central area enclosed by a bank of stone, sometimes with a single entrance, ...'. As such, the Birkside Fell cairn can be classified as a ring cairn. While it lacks a formal entrance, the 2.5 m flattened arc defined by quartz boulders on the southern segment of the perimeter might have provided an alternative focus. In August 1997 the cairn was reconstructed in this form.

THE WIDER CONTEXT

Following the discoveries on Birkside Fell a record was compiled of the antiquities in the Devil's Water catchment (fig. 1). This comprises nineteen entries and includes two flint scatter sites (fig. 1.1–2), two standing stones (fig. 1.3–4), two large cairns (fig. 1.5–6), five small cairns (fig. 1.7–11), three cairnfields (fig. 1.12–14), a cup-marked-stone turned into a medieval cross base (fig. 1.15) and four homesteads of prehistoric or Romano-British date (fig. 1.16–19). Three homesteads, two small cairns and a cairnfield lie within 2.5 km of the sites on Birkside Fell.

The cairnfield and small cairns can probably be attributed to field clearance associated with as yet undated episodes of agriculture, though one of the latter, the small cairn at Beldon Cleugh (fig. 1.11) may be funerary in character. This monument is more substantial than the others being 4 m in diameter, 0.4 m high and exhibiting traces of a formally built kerb. Even so, it is significantly smaller than the Birkside Fell cairn.

The homesteads are of two distinct types. Sites 18 and 19 are marked by substantial earthwork enclosures, oval in shape and of a type generally attributed in northern England to the Iron Age or Romano-British period. Site 17 is different, consisting of a series of stone built hut-circles and irregular enclosures. The construction is partly orthostatic and parallels

elsewhere in upland areas of northern England suggest a date rather earlier than that proposed for homesteads 17 and 19 and perhaps attributable to the earliest phases of settlement in the uplands during the Bronze Age.

Adopting a rather wider perspective than that confined to the catchment of the Devil's Water attention may be drawn to a number of other sites in the region which might offer parallels to the Birkside Fell ring cairn. The most convincing candidate consists of the remains of the cairn at Stobb Cross (fig. 1.6), approximately 8 km to the north-west of Birkside Fell. This consists of a roughly circular spread of stones 8 m in diameter. Within the north-east quadrant of this spread an arc of larger boulders suggests that the original monument was about 5.25 m in diameter. The cairn is approximately 0.3 m high and the amount of stone present, even allowing for the construction of a modern cairn, is insufficient for the monument ever to have been a prominent feature. In respect of both this and its diameter the Stobb Cross cairn is very similar, as a field monument, to the cairn on Birkside Fell. It is only with excavation that its formal identification as a ring cairn could be substantiated.

A search of the county Sites and Monuments Records for Northumberland and County Durham led to the identification of a number of other candidates, though these lists are known not to be exhaustive. Entries for Northumberland consist of a 4 m diameter ring of stones at Ray Fell (NY 956 857), an oval ring 19 m by 13 m at West Hill, Kirknewton (NT 911 292), a putative ring-cairn identified on aerial photographs at Wideopen Head, Kirknewton (NT 860 264), and further putative examples at Greenhaugh Allotment (NY 657 506) and Limestone Fell (NY 653 510). The County Durham record consists of entries for Cotherstone Moor (NY 955 177), Barningham Moor (NZ 060 091) and Scale Knoll (NZ 050 092). These monuments vary widely in size, with diameters ranging from 4 m to 13 m but, in the absence of excavation, their similarity to the Birkside Fell cairn need be no more than superficial.

Ring cairns have a number of features in common with Enclosed Cremation Cemeteries, several of which have been identified in Northumberland. The only example within the North Pennines is the recently excavated site at Kellah Burn (NY 640 605) where a stone lined pit containing cremated remains and an Enlarged Food Vessel was found within an oval enclosure 15 m by 10 m (Johnston and Pollard 1998, 22).

Details are available of four sites north of the Tyne-Solway corridor. At Gibb's Hill (NY 750 703) an oval bank of earth and stones 30 m by 25 m appears to have a continuous inner facing of flat slabs. Trial excavations failed to produce any evidence of funerary activity, though only a small part of the site was examined (Frodsham 1994–5, 33). Three other examples lie within the Otterburn Training Area, at Todlaw Pike (NY 899 960), Quicken-ing Cote (NT 873 066) and Turf Hill (NT 864 074) (Charlton 1996, 25, 28–9). These sites are defined by earth and stone banks 1–2 m wide and are about 10 m in diameter. Each has a slight central mound under which, in the case of Todlaw Pike, Bronze Age cremations were found.

This is not the place to undertake a review of Bronze Age funerary practices in the north east of England but this brief survey does show that ring cairns and enclosed cremation cemeteries were part of the suite of monument types used within the region in the 3rd and 2nd millennia cal BC.

GEOARCHAEOLOGICAL INVESTIGATIONS

Although the immediate vicinity of the Birkside Fell site offered little scope for palaeoenvironmental studies the area has been the subject of a detailed geoarchaeological investigation (Ivory 1997). This study shed considerable light on the development of the landscape in the Devil's Water catchment throughout the Holocene. The following account only refers to points of relevance

to the archaeology of the Bronze Age cairn; further details will be found in Ivory's thesis.

The soil profile at the site consisted of a mineral soil over which lay a peaty *mor humus* and below which lay Late Devensian till. Mesolithic finds were confined to the mineral soil and thus provide a *terminus post quem* for the start of soil degradation leading to the formation of the *mor humus* (Ivory 1997, 50). The Mesolithic finds can only be dated on typological grounds but as such can be ascribed to the Late Mesolithic period (8000–6000 BP).

In the North Pennines such soil degradation and *mor humus* formation is generally attributed to anthropogenic deforestation exacerbated by climatic deterioration. This was, however, a diachronic and long drawn-out process. Ivory's study of the soil profile below the cairn has shown that it was built on top of a humic layer (Ivory 1997, 35 and 40–1) and, accordingly, its construction provides a *terminus ante quem* for the initiation of *mor humus* formation at Birkside Fell. As was noted above, the cremation in the collared urn is dated to approximately 3500 BP and we may assume that this date also applies to the construction of the cairn. Most areas in the North Pennines appear to have remained relatively well wooded into the Iron Age or even the Roman Period but anthropogenically initiated soil degradation appears to have been under way at Birkside Fell significantly earlier, by the middle of the fourth millennium BP. This may well have been a very localised phenomenon, the cairn having been built in a clearing originally made by the Mesolithic hunter-gatherers perhaps two millennia earlier. However, the slopes to the north and west preserve extensive traces of ancient field systems and settlements and a putative Bronze Age date was proposed above for at least one of the latter. It seems likely that forest clearance and soil degradation began somewhat earlier and was rather more widespread than regional pollen diagrams have been taken to indicate.

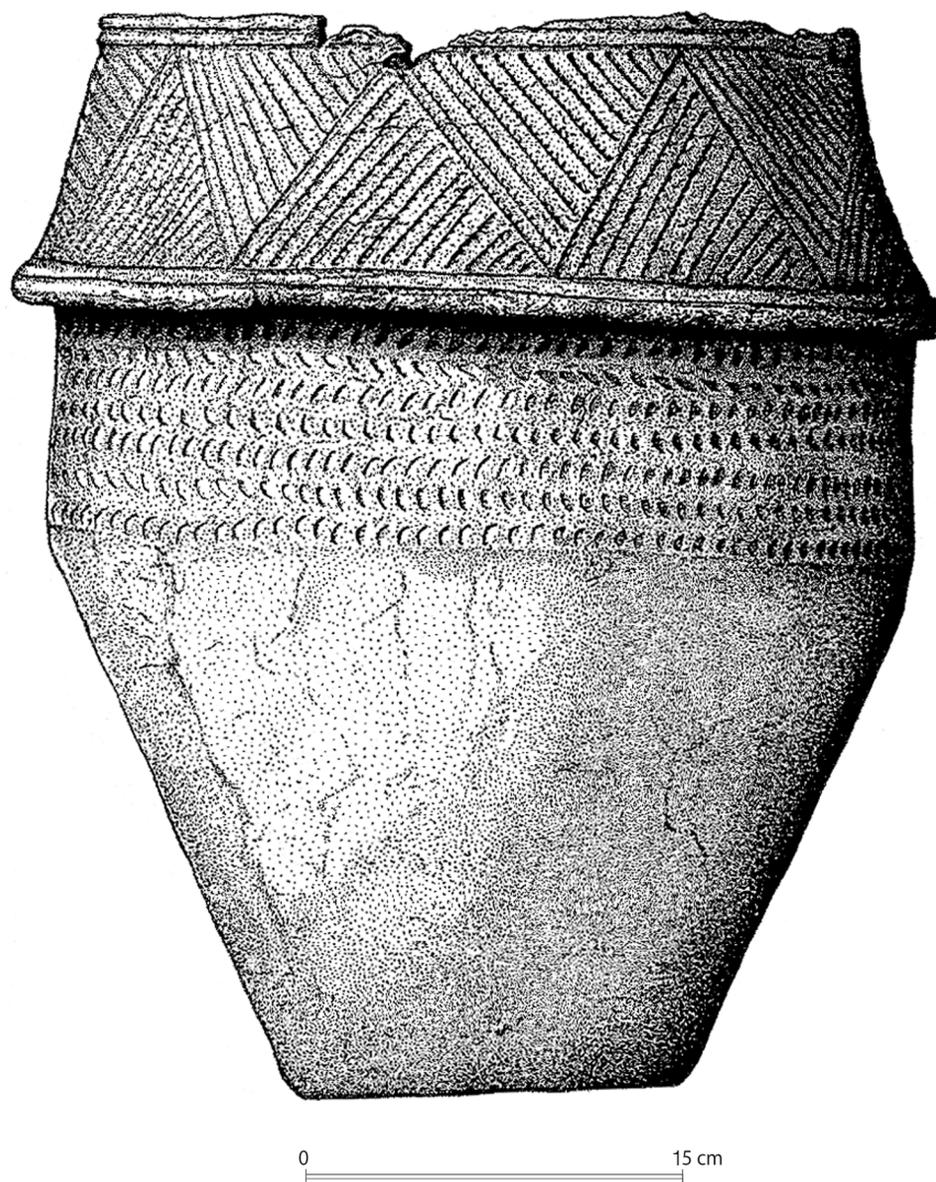


Fig 6 Collared urn (1:3)

THE CREMATED REMAINS

The cremated remains were submitted for analysis to Drs E. Smits of the Instituut voor Prae- en Protohistorische Archeologie Albert Egges van Giffen, Amsterdam. Drs Smits'

report forms part of the site archive and only its main findings are summarised here.

Most of the cremated remains belong to a single, robust, male with a stature of about 1.76 m. However, some cranial fragments of a second individual are also present. There are

fragments of the mandible, the orbit and the base of the skull. The bones of this second individual are less robust but a sex diagnosis is not possible on the basis of the small amount of the bone fragments.

Both individuals are adult, based on the closed epiphyses and cranial suture closure. One individual had reached an age of *circa* 35–44 years and the other approximately 20–40 years. It is not possible to ascribe a certain age to a certain individual.

FINDS

Pottery

The collared urn was the only item of pottery found during the excavations. It stands 430 mm high and is 310 mm wide at the brim and its detailed characteristics are best appreciated from the accompanying drawings (figs. 6 and 7). Dr Ian Longworth has kindly provided the following comment:

‘I would classify the Birkside pot as of the North Western style, Secondary Series on grounds of form (IIIA) though the decoration is atypical. While filled triangles are often employed as decorations on the collar, they are more frequently combined with all over or irregular jabbed decoration on the neck; e.g. in my corpus (Longworth 1984) 155, East, N. Yorks.; 253, Beeley and 291 Stanton Moor, Derbys.; or 810, Cliviger, Lancs.; or in Scotland, 1975, Muirkirk, Ayr.; rather than herringbone.’

Collared urns are uncommon north of the River Tees and east of the Pennine watershed and the Birkside Fell urn is the only example known from this part of Northumberland. The vessel from Hepple (Longworth 1984 236, no.1054 and plate 172(a)) in the middle of the county does provide parallels for both the filled triangles on the collar and the herringbone pattern below this. However, this vessel is much smaller with a height of 380 mm and a rim diameter of 265 mm, and the decoration is more crudely executed while the published radiocarbon date of 3242–90 BP

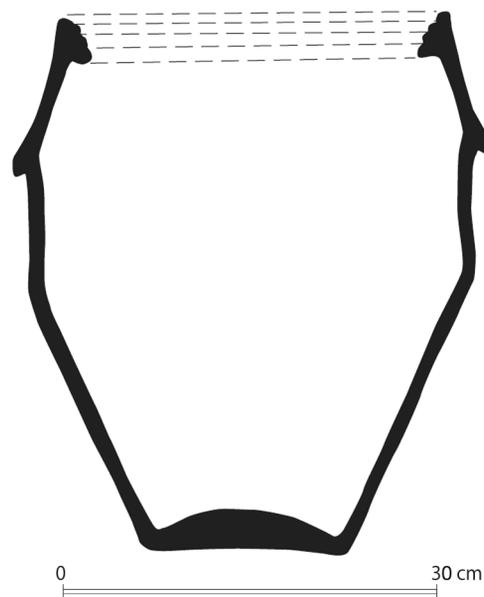


Fig. 7 Collared urn sectional view (1:6)

(SRR–133) is significantly later than that associated with the Birkside Fell vessel.

Flint

During the course of the excavation of the cairn a total of 60 pieces of struck flint were recovered from stratified contexts, all but one of which came from the soil matrix of the cairn or the old ground surface on which it had been built. Fifty-five of these items are unclassified chips, spalls and flakes while four exhibit characteristics which enable them to be attributed to the Mesolithic phase of activity at Birkside Fell.

In her geoarchaeological study Ivory has noted that the cairn, as well as being built primarily out of stone, also included a humic element (Ivory 1997,35). This material was presumably disturbed during the construction of the cairn, in the course of which Mesolithic flints in the topsoil became incorporated in the cairn matrix. Accordingly, consideration of this material is deferred until the report on the Mesolithic site.

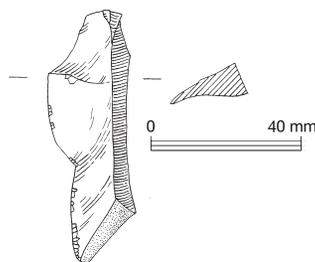


Fig. 8 Flint 800 (1:2)

The context of the one remaining item enables it to be attributed to the Bronze Age:

Find 800: The Bronze Age date of this item is not in any doubt given that it was found within the collared urn, sitting on top of the cremation. It is an elongated flake of ginger-brown flint with a large grey inclusion and cortex on a distal facet (fig. 8). It is steeply ridged and of blade-like proportions but lacks the parallel edges to allow classification as a true blade. The distal half of the right lateral margin exhibits traces of utilization and rather crude retouch. We can only speculate as to the significance of its presence within the urn. If the cremations had been within a bag this flint would have laid near the top and it is large enough to have formed part of a fastening. Alternatively, it may have been used during the funeral rituals or perhaps was specifically associated with one of the individuals interred. This latter seems unlikely as it is a rather mundane example of the flint knapper's craft.

ACKNOWLEDGEMENTS

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Mr Michael Kennedy the tenant farmer and to Messrs Colclough and Robson, keepers, for facilitating access to the site and use of the Newbiggin Lunch Shelter as a site office. The excavation of the cairn was supervised by Dr Robert Johnston who has also kindly read and commented on a draft of this report. Ms Christine Ivory undertook geoarchaeological work on site as part of the research for her MA while the digging was undertaken by students from the Department of Archaeology at Newcastle University and volunteers from the Stone Age Tyne Survey. Thanks also to Drs Smits and Longworth for their respective comments on the cremations and the cinerary urn. I am grateful to Roger Miket for drawing my attention to the urn from Hepple. The author and editors would also like to thank Mark Hoyle for preparing figs. 1–5 and 7 for the press.

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