EXCAVATIONS OF A BRONZE AGE CREMATION BURIAL AND MULTI-PERIOD ARTEFACT SCATTERS AT HORSE PASTURES, BEELEY, DERBYSHIRE; 1994

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SUMMARY

This report describes the investigation of a Bronze Age cremation burial found accidentally on a spur-like section of river terrace adjacent to the River Derwent. The cremated bones were within a Collared Urn and were accompanied by a copper alloy knife-dagger, bone beads, bone pins, other fragmentary bone objects and a flint flake. While the knife-dagger was certainly purposefully placed within the urn, some of the other objects may well have been accidentally included at the time the bones were collected from the pyre. Subsequent remote sensing and evaluation trenches failed to find further burials, and although burnt subsoil patches and burnt material were found these could be the result of non-funerary activity. The trenches also produced artefacts that span a period from Later Mesolithic to modern times and suggest this part of the Derwent Valley was used at least intermittently over much of the prehistoric and historic periods. This material includes a significant Later Mesolithic lithic assemblage and evidence for Medieval cultivation and manuring from the 11th to 13th centuries.

INTRODUCTION

In 1994 a Bronze Age Collared Urn containing a cremation burial and pyre/grave goods was found accidentally on a river terrace next to the east bank of the River Derwent close to Beeley, at SK 26276751. The excavation of this and the results from two further evaluation trenches give a rare glimpse of prehistoric and later activity in the Derwent Valley. Much of what we know currently about the prehistory of the Peak District is

Fig. 1: Horse Pastures, Beeley: location.

derived from the gritstone uplands east of the valley and the limestone plateau to the west.

Location

The terrace upon which the investigations took place comprises mostly sandy material with relatively, locally-derived, coarse components consisting of gritstones and sandstones brought down the river and tributary streams from the north and east, but also including occasional pieces of chert from the limestone plateau. It lies *c.* 100m east of the present course of the River Derwent (Fig. 1). Immediately to the north the terrace is cut by Beeley Brook which takes a meandering course across the lower part of the main valley to join the river, leaving the part of the terrace investigated as a narrow north-pointing spur which is flat-topped, steep-sided and rising *c.* 3.5m above the flood plain. The field in which this section of the terrace lies has for many years been permanent pasture, but slight ridge and furrow is visible with the 'eye of faith'. The terrace lies west of Beeley village, the Medieval core of which is sited on the north side of Beeley Brook and the village lies at the heart of a relatively wide stretch of the Derwent Valley between Calver and Matlock. This is the main valley in the area between the gritstone uplands, which rise steeply immediately to the east, and further upland gritstone outliers to the west and the limestone plateau beyond. This valley has been an important population focus in historic times, with Medieval villages strung along it, but its status in prehistoric times is open to debate.

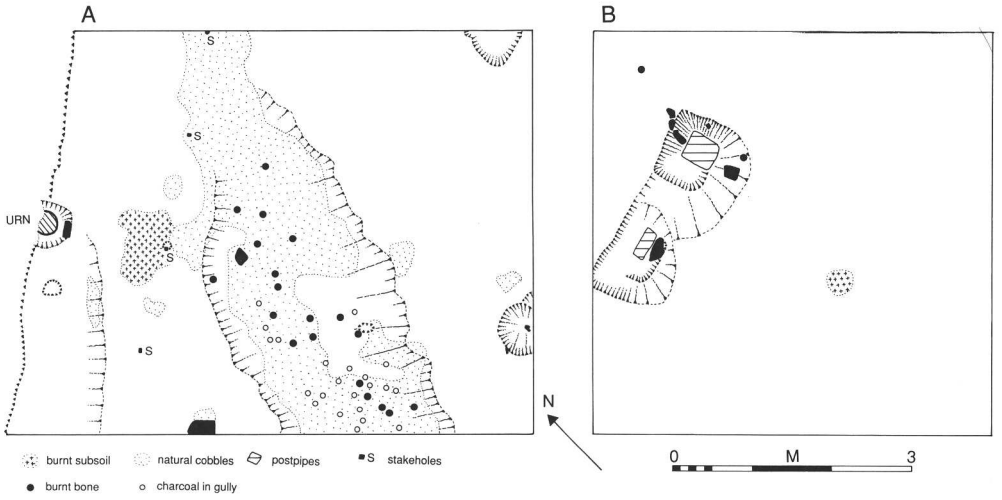

Fig. 2: Horse Pastures, Beeley: the excavation trenches, the burial, features, and the distribution of calcined bone and charcoal.

Discovery and Investigation

The urned burial was found in April 1994 by a local person, Lawrence Wetton, while out walking. He noticed fragments of cremated bone and sherds of pottery spilling out of, and exposed in the section of, a small livestock scrape at the top of the western edge of the terrace. He reported this to Frank Robinson, knowing he had a keen interest in archaeology and because he and his family farmed this land. Later the same week, in pouring rain, a small rescue excavation was carried out to recover the urn as prolonged exposure may well have led to significant deterioration. The lower part of the pot was recovered intact, together with broken pieces of much of the upper part. The contents of the intact portion were later excavated under laboratory conditions by Alison Walster of Sheffield City Museum.

In subsequent months further work was carried out, the primary aims being to understand more about the context of the burial and to explore the possibility that further burials existed here. The first stage was to carry out remote sensing. This was carried out by Colin Merrony and Anna Badcock in May 1994 and the top of the terrace as far south as the hedge which crosses the 'spur' was examined using a resistivity meter, a magnetometer and a magnetic susceptibility meter. The only positive result which highlighted a potential localised anomaly, not explained by predicted subsoil variation and differences in drainage characteristics at the terrace edge, was derived from the magnetic susceptibility readings which showed a strong localised anomaly at about 19.5m SSW of the site of the urn (Fig. 1). This was interpreted as possibly indicating burnt deposits within 0.20m of the surface (Merrony and Badcock 1994).

In the light of the remote sensing results it was decided to test the site further by digging two evaluation trenches in September 1994, each roughly square and in total comprising *c.* 55m^2 (Fig. 2). Trench A was sited around the earlier keyhole rescue trench with the aim of putting the urn in its local context. Trench B was designed to half-section

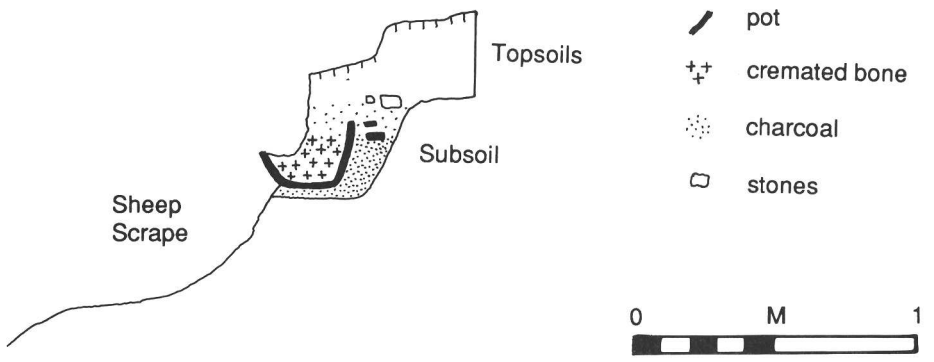

Fig. 3: Horse Pastures, Beeley: the urn and pit in section.

the large magnetic susceptibility anomaly; in the event nothing was found by excavation which could explain this anomaly.

The Site Archive

It is intended that the site archive, together with all small finds and samples, will be deposited in Sheffield City Museum, Weston Park, Sheffield.

THE CREMATION BURIAL

The Urned Burial

The Collared Urn containing human cremated bone was placed upright in a relatively small and shallow pit with unburnt sides. The pit penetrated the subsoil by only *c.* 0.35m and measured *c.* 0.58m across at the subsoil surface. This was just large enough to receive the pot comfortably (Figs. 2, 3). Before being broken the top of the pot must have come close to the original ground surface (0.15–0.20m from the present surface). The smashed sherds from the upper part of the pot were found in the pit at a level below the surrounding top of the subsoil, which suggests it was smashed when the pit was backfilled rather than later as a result of agricultural activity. A stone measuring *c.* 0.20× 0.10×0.10m was found in the fill of the pit and may have been the object responsible for the breakage.

The lower part of the urn, found cracked to the base but still retaining its shape and integrity, had a *c.* 90–105mm deep fill. This comprised predominantly cremated bone, mixed with some soil and a few fragments of charcoal, carbonised plant material and a fragment of a mineralised fruit stone, together with a number of pyre and grave goods. The upper *c.* 20–25mm of this bone-rich fill was mixed with greater amounts of charcoal and soil. Reconstruction of the urn (see Fig. 4) indicates only the lower third was taken up by the cremated bones.

The lower pit fill comprised a soil heavily mixed with charcoal which was almost certainly pyre debris. The wood used was predominantly oak, mixed with Pomoideae (probably hawthorn, rowan or possibly whitebeam — see Appendix 3), the lack of other species suggesting these two types of wood had been deliberately chosen as a fuel for the pyre. The pyre debris ran as a *c.* 10–30mm thick layer beneath the urn which indicates that some of this had been placed in the pit before the urn was inserted.

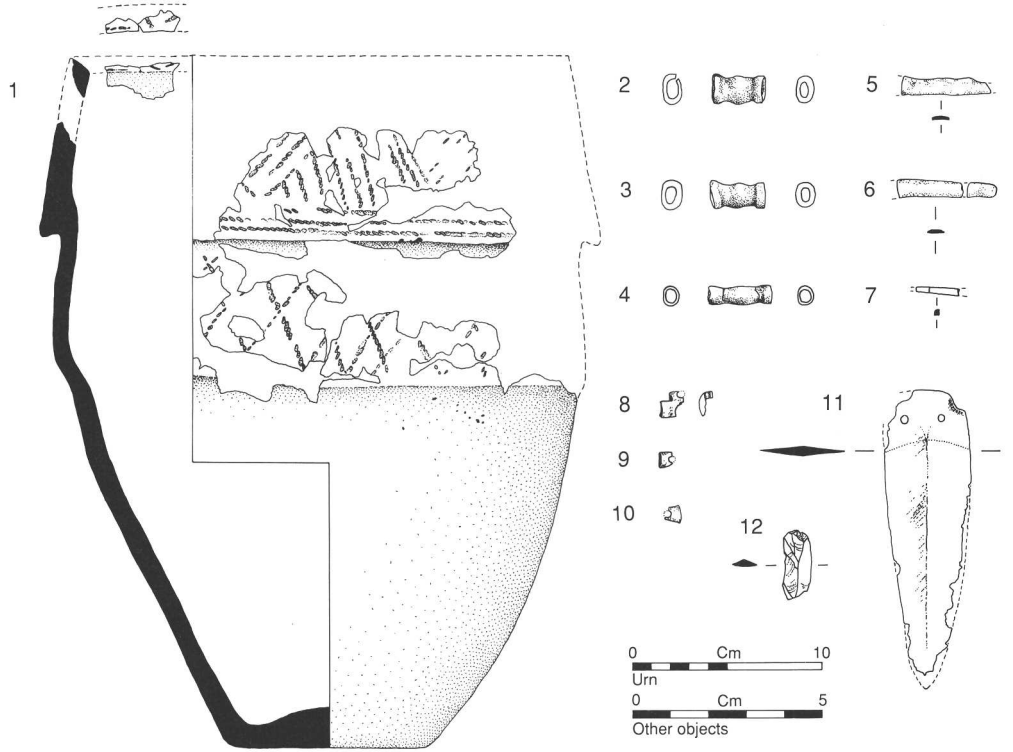

Fig. 4: Horse Pastures, Beeley: the Collared Urn and associated finds.

Between *c.* 40% and 55% of the urn height had been lost upon breakage. A small patch of cremated bone near the top of the lower pit fill to the north-east may have spilled out of the pot when it broke, and there were sherds at this horizon within and all around the urn. The upper pit fill comprised soil mixed with charcoal (of the same species mix as below) and urn sherds, while (as noted above) the upper *c.* 20–25mm of the cremated bone deposit in the intact lower part of the urn had charcoal mixed with the bones. The distribution of sherds, charcoal and bone within and at the base of the upper fills are best explained by a mixing of deposits resulting from the pot breaking. The upper parts of the vessel collapsed due to its original contents only filling its lower part and the upper part being empty. Although the breaking of the pot may well have been accidental (i.e. the result of a stone hitting it as the pit was backfilled with soil after the pot and pyre debris had been placed in the pit) the possibility that it was smashed purposefully and the upper fills deliberately mixed cannot be discounted.

Two samples of charcoal from the urn pit gave a radiocarbon date of 2012–1704 cal. BC as a weighted mean. This fits comfortably with other radiocarbon determinations from the region (Barnatt 1995), including those for two other Collared Urns, one found in a barrow at Hognaston (BM-2420: 1950–1530 cal. BC), the other from the Barbrook II stone circle (BM-179: 2192–1430 cal. BC). A third Collared Urn, from the Brown Edge ringcairn, is significantly later (BM-177: 1608–840 cal. BC).

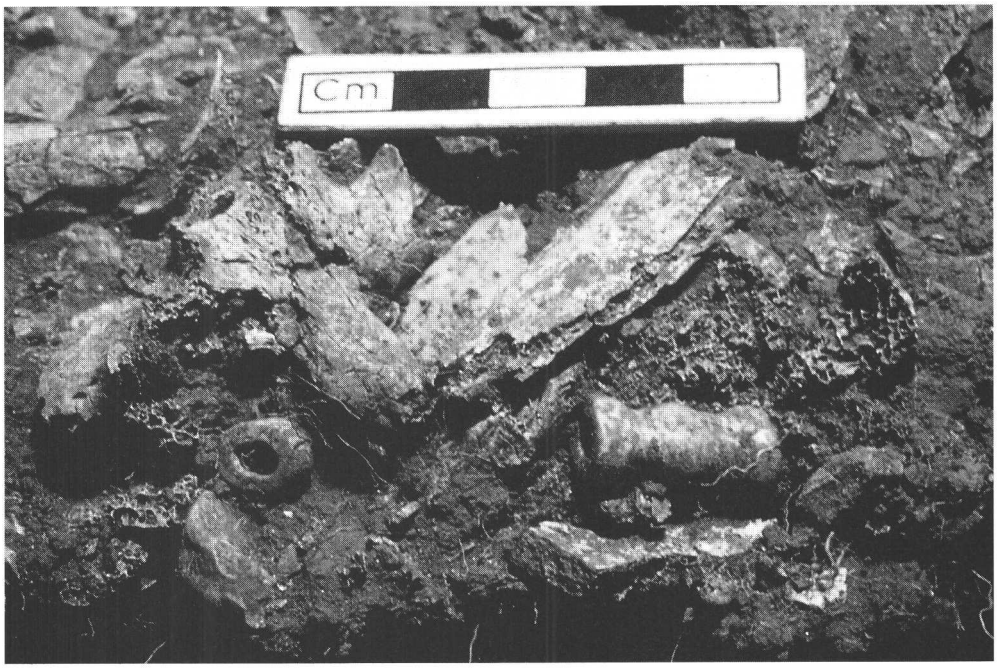

Plate 1: The cluster of artefacts recovered as a group at *c.* 95–100mm depth: two collared beads (that to the left viewed end on) and the flint scraper (above centre). It is likely that this group of artefacts was gathered and deposited deliberately within the urn.

The cremated bones within the urn at Horse Pastures were those of an adult male of 30–45 years. The bones had been carefully picked off the pyre and, given the quantity present, it is clear little was missed. The burnt fragments of several bone objects, which were presumably placed with the body for the pyre ritual, had also been collected. These comprise three collared/winged bone beads, pieces of three bone pins and four bone fragments with perforations (Fig. 4: 2–10). The inclusion within the urn at burial of some or possibly all of these objects may well have been accidental as they are not readily distinguished from the calcined human bone without careful examination. Similarly, the one flint object within the urn, a carefully prepared blade which had been calcined (Fig. 4: 12), may be of Mesolithic or Earlier Neolithic date and may have been at the pyre site prior to the funeral, perhaps picked up by accident and placed in the urn because of its white colour. However, this flint and two collared bone beads were found close together about half way down the deposit of cremated bones near the side of the urn (Plate 1). This raises the possibility these were recognised when the burnt bones were being collected and that they were purposefully included, perhaps placed in the urn as a single handful of objects.

The urn is a North Western style Collared Urn decorated with twisted cord in triangular and lattice motifs (Fig. 4: 1), which is closely comparable with some of the other collared urns found in the region, as for example at Stanton Moor nearby. It may well have been made purposefully to contain the bones at burial.

Plate 2: The copper alloy knife-dagger *in situ* during excavation. (The urn sides had been dismantled at this stage to prevent further deterioration and breakage.)

Within the urn, at its base and surrounded by cremated bone (Plate 2), was a small copper-alloy knife-dagger of slender ogival form (Fig. 4: 11). This has not been burnt and thus is a purposefully placed grave object. It was put within the urn at the time of burial, probably as the first bones were inserted rather than accompanying the body when it was burnt on the pyre during the funeral ritual. The knife-dagger blade was damaged at the hilt end which suggests it could have been deposited minus its handle.

It is debatable whether the presence of the urn and knife-dagger indicate that the cremation burial at Horse Pastures is that of someone of status. While traditionally archaeologists have interpreted burials with objects such as the knife-dagger in this way, more recently the correlation between grave goods and status has been questioned. While some objects may well have been symbols of status, using these as relative indicators of the importance of buried individuals is fraught with irresolvable problems; people buried without grave goods may be of equal status (Barnatt 1996a, 40–41). Even burials within barrows in the Peak District have no demonstrable indicators of status above that of local farming families (Barnatt 1996a, 41–46, 67–80). At Eaglestone Flat, for example, differences in the treatment of bones at cremation burials with urns compared with those without can be interpreted as an indicator of relative prestige (as suggested by Beswick below), but such patterning is open to alternative explanation (Barnatt 1994, 352).

Single grave or cemetery

The possibility that the excavated burial at Horse Pastures is one of several at this site cannot be discounted, as only a relatively small proportion of the terrace spur has been

investigated. However, neither remote sensing nor excavation has found any positive indication of further burials.

While two small burnt patches of subsoil (Fig. 2) may indicate that pyres existed, this is open to alternative interpretation. Although the largest of these lies close to the urn pit, it is midway between this and a shallow gully containing charcoal and burnt bone (Fig. 2). The charcoal here was of significantly different species composition to that in the urn pit, with oak still most frequent but including alder, birch, hazel and blackthorn, indicating that this burnt wood does not derive from the pyre used for burning the body contained within the urn. Further, some of the burnt bone associated with the charcoal is animal, the rest undiagnostic, which suggests that the charcoal in the gully is not derived from a pyre for an unidentified burial elsewhere on site. Given the artefactual evidence for the presence of people on site from Mesolithic times onwards (see below), it may well be the charcoal and calcined bone in the gully are the result of non-funerary activity. Similarly, the two burnt patches of subsoil could be interpreted with equal plausibility as being the result of either large 'domestic' fires or funerary pyres.

Thus, while McKinley suggests below that the pyre for the excavated burial was somewhere on site on the basis of the burnt patches, this need not be the case. Although close spatial correlation between pyre and burial site has been demonstrated occasionally elsewhere, this is not always the case. At Eaglestone Flat the evidence pointed to a dichotomy between those burials next to pyres comprising calcined bones placed directly into pits whilst hot, and those within pots which may well have been brought from a distance. If one of the main functions of the pot was to transport burnt bones, then the person buried at Horse Pastures may have been cremated elsewhere.

Subsequent to the excavations fragments of bone have been brought to the surface by rabbits at a point near the hedge which crosses the site. However, it is not known if this bone is human or animal.

Bronze Age Flat Graves in the Peak District

Few flat graves are known in the Peak District (Table 1), perhaps because of the predominantly pastoral farming of recent times and the lack of development resulting in evaluation or rescue excavations. The clearest evidence for flat graves comes from the cremation cemetery at Eaglestone Flat on the East Moors above Baslow, with further probable examples at New Park Quarry on Stanton Moor and in the Derwent Valley at Stancliffe Park, Darley. The Horse Pastures burial is a probable addition to this list, although in this case it may comprise only one grave. While the possibility that it was once covered by a barrow removed long ago cannot be dismissed, no trace of such a structure was found. More ambiguous because they are inadequately recorded are burials found at Matlock Bridge and Kirk Ireton. Similarly, three sites with inhumation burials are uncertainly interpreted (Table 1).

While Bronze Age interment in barrows was clearly not the norm for many of the region's inhabitants (Barnatt 1996a, 79–80), how the bulk of the population at this time were buried is unclear. Flat cemeteries may have been relatively common, although it is somewhat suspicious that more sites have not been found by accident, despite the predominantly pastoral agriculture. The cemetery at Eaglestone Flat is instructive in that the burials here were found in a variety of contexts, including some associated with small purpose-built cairns and under clearance features, all within a small stony area

Site	Location	Number of burials	Notes	Main references
Cremation Burials				
Eaglestone Flat	SK26657406	16–18	Cremation cemetery adjacent to and within small cairns and clearance features. Some graves with urns and minor grave goods.	Barnatt 1994
New Park Quarry	SK24226275	11	Probable flat cremation cemetery or possibly under a destroyed barrow. Some graves with urns and minor grave goods.	Storrs-Fox 1927
Stancliffe Park	SK267640	5	Probably a flat cremation cemetery or possibly under a barrow. Cremation burials within urns, with minor grave goods.	Jewitt 1864
Horse Pastures	SK26276751	1	Appears to be a flat grave. Cremation burial in an urn	This paper
Kirk Ireton	SK251497	2–5	On a small 'platform' near the top of a steep-sided ridge. Two cremation burials in pits, with three urns nearby not recorded as accompanying cremated bones.	Childe *et al.* 1948
Matlock Bridge	*c.* SK30.60	1	Possibly originally under a destroyed barrow. Cremation burial and pygmy cup in collared urn within crude cist. Food vessel nearby.	Bateman 1861, 244
Inhumation Burials				
Bradwell	SK17598091	3	Possibly originally under a destroyed barrow. Two crouched skeletons and one extended skeleton, all in a cist.	Evans 1902, 2
Mootlow Bank	SK20166331	1	Possibly originally under a destroyed barrow. Contracted skeleton and animal bones in a natural fissure.	Bateman 1848, 99
High Low	SK14456547	?	Possibly originally under a destroyed barrow. Disturbed human and animal bones found when levelling round a quarry.	Bateman 1861, 244

Table 1: Bronze Age flat graves in the Peak District.

surrounded by land cultivated in prehistory. Small clearance cairns are plentiful amongst the Bronze Age field systems of the East Moors (Barnatt 1986; 1987). However, the extent to which burial took place within them is debatable. While the large cairnfield at Stanton Moor has produced plentiful evidence for burial (Heathcote 1930; 1936; 1939;

1954), this may be a special case, as may the small cairnfield at Ravens Tor on the East Moors above Beeley, which has also produced burials (Radley 1969). On topographical and morphological grounds these cairnfields can be suggested to be different from most others in the region and while they may well be funerary in character others may not (Barnatt 1986; 1987; in prep.). This contrast is emphasised by the recent excavations on Gardom's Edge above Baslow where to date ten small cairns have been investigated but no burials found (Barnatt, Bevan and Edmonds ongoing). It may be that specific places within many agricultural areas were set aside for burial rather than all cairns being seen as potential burial places. Whether or not the burial at Horse Pastures was adjacent to Bronze Age agricultural land remains unknown.

THE ARTEFACT SCATTERS

Prehistoric Artefacts and Non-Funerary Features

Prehistoric artefacts of a variety of dates and types were found in the soils of both trenches. These comprise both stone tools/debitage (Figs. 5, 8) and pottery (Figs. 6, 7).

Much of the lithic assemblage is probably of Later Mesolithic date. This includes a microlith, two microburins and blade cores. The debitage has a relatively high blade/flake ratio and includes pieces representing a number of stages of preparation, suggesting the lithics were put to a variety of uses.

There were also some Later Neolithic/Early Bronze Age pieces, including a possible thumbnail-type scraper and a possible button-type scraper. The bimodal distribution of the breadth/length index for blades and flakes suggests some of the debitage belongs to this later assemblage. This material represents a non-intensive scatter but at least indicates the creation or redeposition of debitage and loss or discard of at least one artefact at this time.

The prehistoric sherds are not as plentiful as the lithics and have more specific distributions. Three Earlier Neolithic sherds were found in Trench B, all probably from one smashed Grimston Ware vessel. This is the only positive indicator of activity on site at this period and thus use does not seem to have been intensive.

Eleven sherds of Bronze Age or Early Iron Age pottery were found, all but one from Trench A. Some of these at least are most probably of Earlier Bronze Age date and thus may be roughly contemporary with the later component of the lithics assemblage and with the urned burial. All were abraded and may well be redeposited rubbish rather than evidence for further burial deposits subsequently disturbed. However, the possibility that they represent ritual as opposed to domestic deposits cannot be ignored.

A broad but shallow gully crossed Trench A from north to south. This may well be a natural feature, being the result of an uneven surface to the natural make-up of the terrace which elsewhere may have been truncated by ploughing. The soil of the gully stood out from that elsewhere in that it contained, as well as sherds and lithics, an increased quantity of scattered fragments of charcoal and fragments of calcined bone. These presumably survived here due to a lack of subsequent ploughing. The bone fragments in most cases were undiagnostic, but where identifiable they were always animal rather than human. The charcoal was a mixture of oak, hazel, alder, birch, blackthorn and Pomoideae (probably hawthorn, rowan or whitebeam — see Appendix

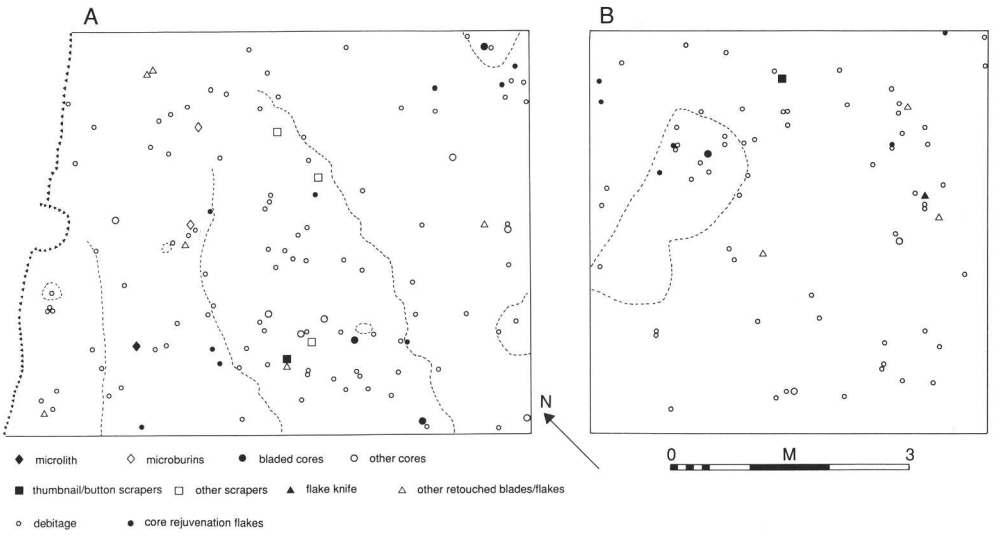

Fig. 5: Horse Pastures, Beeley: the distribution of lithics within the two excavation trenches by artefact type.

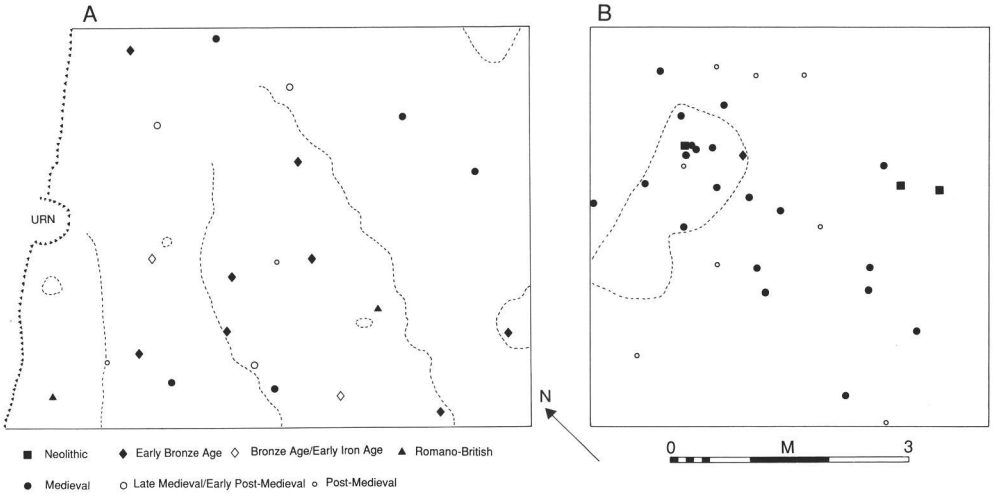

Fig. 6: Horse Pastures, Beeley: sherd distributions within the two excavation trenches by period.

3). Thus, both the bone and charcoal contrasted with those associated with the human burial deposit nearby and may well derive from non-funerary activity. The artefacts in the gully included lithics of Mesolithic and Later Neolithic/Earlier Bronze Age date and one Earlier Bronze Age sherd, but no Medieval sherds were present. While the bone and charcoal in the gully remain uncertainly dated from these observations, it would not be surprising if these were of prehistoric date.

Elsewhere in Trench A there were five small amorphous pit-like features containing clean soils and no finds except occasional sherds and lithics, as in the soils elsewhere. It

was far from clear if these features were anthropogenic in origin or whether they were natural anomalies.

Romano-British Pottery

Only two sherds of this date were found in Trench A, both unabraded, one of White Ware, the other Grey Ware (Figs. 6, 7). Together they indicate a mid-2nd to mid-3rd century presence somewhere in the vicinity. It is worth noting that no sherds of the ubiquitous Derbyshire Ware were recovered.

Medieval and Post-Medieval Artefacts and Features

The excavation recovered 25 sherds of domestic coarse wares of 11th to 13th century date (Figs. 6, 7) which probably derive from Beeley village, deposited on site through manuring of cultivated areas. That they concentrated in Trench B suggests that the end of the terrace spur, including trench A, was not as frequently ploughed, which may in turn explain the survival of the prehistoric urned burial. However, trench A had been ploughed at some period because a plough-scratched stone was found with the scratches face downwards. Pottery deposition had ceased around the end of the 13th century but 13 sherds found distributed through both trenches, dating from the 15th or 16th century onwards, suggests revival of arable activity in less intensive form, which peaked in the 17th-18th centuries.

A number of pieces of lead waste were recovered from both trenches. Most were irregularly-formed elongated ribbon-like pieces. The general impression is of waste from secondary melting of lead, the molten material spilling to the ground whilst being poured into moulds and perhaps running down worm holes, as suggested by the vertical disposition of many of the recovered pieces. It is known that Beeley had a rifle club in the first decade of the 20th century and the lead waste found may be associated with the casting of lead bullets during shooting sessions. A Chatsworth estate map shows that the range, the butts and a small brick building lay immediately below the terrace towards the river.

Post-Medieval features were found, comprising a line of four regularly-spaced stakeholes, following but set back from the terrace edge in Trench A, and two substantial post-holes in Trench B. The former were found in the topsoil. The latter also penetrated the subsoil with overlapping pits which appeared to have been dug at the same time. The posts they contained were set *c.* 1m apart in a north-east/south-west line and the rectangular post pipes were clearly defined, that to the north-east measuring 0.40×0.38m across, the other 0.37×0.15m. While the stakeholes probably mark a fenceline, the purpose of the large posts remains unknown. No features or fence lines are marked on available detailed maps which date from the early 19th century onwards (Potter 1831; Unwin 1832; O.S. 1879 onwards). Local tradition tells that this field was used for pasturing the Chatsworth Estate cart horses which may offer a clue, if an obscure one, to explain two substantial posts set close together.

Beeley from Prehistory to Recent Times

While the excavated artefacts from Beeley are not of great archaeological consequence in the general scheme of things, they take on added significance because we know so little about the Derwent Valley, there having been so little archaeological work carried out here.

The picture which emerges is of intermittent use of this site over a long period. In the Later Mesolithic the terrace spur was used on at least one occasion and lithic debitage and discarded tools were left. The camp(s) took advantage of both the shelter of the Derwent Valley and a good view of the nearby river and the good hunting opportunity this would provide. The lithics from Horse Pastures add another example of Later Mesolithic sites in the region, and lying close to the River Derwent, complement those known on the limestone plateau and the gritstone uplands (Myers 1991; Barnatt *et al.* in prep.).

The small numbers of Neolithic to Romano-British artefacts again tell of people in the vicinity but the nature of activities at or near the site remains obscure, with the exception of the cremation burial discussed above. The provisional results of artefact collection along a transect including the Derwent Valley suggest that Later Neolithic/Earlier Bronze Age activity was restricted in the valley, compared with the adjacent limestone plateau and eastern gritstone uplands (Myers 1991; Barnatt *et al.* in prep.), where we have better survival of monuments and settlements (Barnatt 1986; 1987; 1996a; 1996c; in prep.). However, until more data becomes available this conclusion should be treated with caution. The recent discovery of two or possibly three barrows within Chatsworth Park, and another nearby at Pilsley (Barnatt in prep.), may illustrate that the presence of people in the valley has been underestimated. Similarly, within the transect noted above, the only concentration of Romano-British sherds came from the Derwent Valley near Bubnell (Beswick in Barnatt *et al.* in prep.).

Beeley village has been in existence since at least late Saxon times, appearing in Domesday Book as a small manor held by the crown with six bovates of taxable land, land for six oxen, three villagers and five smallholders with land for one plough, and one acre of meadow (Morgan 1978). Documentation, Post-Medieval field patterns and surviving earthworks indicate that Medieval Beeley was surrounded by three open fields (Doe 1973; Robinson 1993). Traces of broad ridge and furrow within South Field survives in the field immediately south of where the excavations took place, and as noted above, Medieval cultivation may well also once have extended onto the terrace spur north of the present hedge. It is known that the enclosure of these open fields was a gradual process which had certainly started by the 17th century, the first period for which we have documentation (Doe 1973; Robinson 1993). It may have been in progress from at least the 14th century. However, the first detailed map of the parish dates to 1785, by which date much was enclosed (anon. 1785). Between 1785 and the early 1830s (Potter 1831; Unwin 1832), the field in which the terrace lay was subdivided with the creation of the boundary crossing the terrace spur immediately south of the excavation. The uneven topography within the field created north of the boundary suggests that the terrace spur has been under permanent pasture since the boundary was established. Prior to this there may well have been cultivation on the terrace spur, given the 17th and 18th century material recovered during excavation.

The excavations at Horse Pastures have demonstrated the potential for archaeological investigation within the Derwent Valley. Even within an area of relatively intense Medieval and later agricultural exploitation, when compared with other parts of the Peak District, earlier features and deposits survive. It is hoped that this will encourage future excavators to elucidate further this inadequately understood part of the region.

APPENDIX 1: THE EXCAVATIONS

The Rescue Excavation

When the urn was first discovered a keyhole trench was dug by hand measuring 1.0m across and was cut back from the terrace edge by 0.72–0.61m. The urn was at the centre and its pit and contents have been described above with further details given below. The soils associated with the urn pit and the smashed upper parts of the deposit were bagged and later wet-sieved. A 1mm sieve was used to remove all coarser components and the finer material was retained. Parts of the subsoil surrounding the pit were removed during excavation in order to recover the intact part of the urn without breakage. The soils surrounding the feature were identical to those elsewhere in Trench A and are described below.

Trench A

This measured 5.0m by *c.* 6.5m. The soils were *c.* 0.40–0.45m thick from root-mat to subsoil, becoming shallower near the terrace edge where they were as shallow as *c.* 0.20–0.30m. The upper soil comprised a dark brown sandy loam, with very occasional small subangular to rounded sandstone river cobbles. The soil became paler and more orange from a depth of *c.* 0.10–0.15m. Below *c.* 0.25–0.30m from the surface it appeared to become softer and somewhat browner, but this may reflect increased moisture at depth. Here the soil contained occasional fragments of charcoal and artefacts of different types and dates were found scattered throughout (Appendix 4).

The subsoil was a yellow-orange silty-sand, which was somewhat clayey, with occasional water-worn sandstones up to *c.* 0.35m across. At one point there was also a small decomposed shale 'boulder'. The surface of the subsoil may have been truncated over much of the trench except where there were two gullies (see below), one associated with a layer of sandstone cobbles in the same subsoil matrix.

A small irregular area of the subsoil surface close to the urned burial had been altered by burning and was a distinctive red-brown colour. This area measured *c.* 1.00×0.70m across and was up to 0.15m in depth. There was no associated charcoal.

Nearby was a broad shallow gully which became shallower and narrower to the north-east to a point where it became indistinguishable. To the south-west it was 0.18m deep. Its soils were identical to those immediately above and the scattered finds within it are described in Appendix 4. In general terms the gully corresponded with a band of naturally-placed sandstone cobbles which sat in the subsoil, but which also extended to the trench edge to the north-east, beyond the point where the gully had faded to nothing. A similar dip in the subsoil surface occurred at the edge of the terrace edge, running parallel to the main gully, where again the subsoil surface dropped away slightly. However, here there were few cobbles.

The four Post-Medieval stakeholes cutting the topsoil and following the edge of the terrace measured 0.06–0.09m across, 0.07–0.20m deep, became narrower at depth and were distinguished by their loose grey-brown fill.

Five small pit-like features penetrated the subsoil. The small feature penetrating the area of burnt subsoil near the cremation burial pit had a grey-brown fill and the change in soil colour here may have been simply the result of increased drainage down one of the Post-Medieval stakeholes which lay directly above it. The other four features had fills

which were identical to the soils above. That near the terrace edge widened slightly at depth and had a rounded base which was 0.35m below the subsoil surface. That at the eastern corner of the trench was of similar depth and had an irregular but steep-sided profile. Immediately to the south, the area had been heavily disturbed by rabbits. The pit-like feature bisected by the south-eastern trench edge was 0.40m deep, had a rounded base but was again irregular in profile. That within the gully was only 0.12m deep. The interpretation of these features remains obscure.

Trench B

This measured 5.0×5.0m. The soils throughout were *c.* 0.40–0.60m thick from root-mat to subsoil and, like Trench A, the upper part comprised a dark brown sandy loam, with very occasional small subangular to rounded sandstones river cobbles. In some areas the lower part of this upper soil was paler in colour and mostly stone free. The soil became generally paler and more orange from about *c.* 0.10–0.20m depth. It had river cobbles in somewhat greater quantities than Trench A and throughout there were occasional flecks of charcoal. Also artefacts of different types and dates were found scattered throughout (Appendix 4).

The surface of the subsoil was an orange-brown silty-sand which was somewhat clayey, with occasional sandstone cobbles. The boundary between this and the soils above occurred at very irregular depths and the lowermost part of the latter had clearly never been ploughed, although an interface between this and ploughed material above was not discernible.

A small irregular area of the subsoil surface near the centre of the trench had been altered by burning and was a distinctive red-brown colour. This measured *c.* 0.35m across and was up to 0.05m in depth. There was no associated charcoal.

In the north-western quadrant of the trench there were two conjoined postholes cutting the subsoil. At this level they formed a sub-rectangular feature which measured *c.* 2.50×1.10m. Both had a common steep north-western side, while to the south-east the upper parts of the pits were gentle-sided suggesting the post were erected from this direction. Lower down the south-eastern sides, the pits became steep, each posthole here being rectangular/square. That to the north-east measured here *c.* 0.65×0.90m and cut the subsoil by *c.* 0.40m. The other measured *c.* 0.65×0.65m and was *c.* 0.20m deep. Each was filled with an orange-brown soil which probably comprised a mixture of soil and topsoil; there was a single packing stone to the south-east side of the south-western post. Within each pit was a clearly defined post-pipe (dimensions given above), each filled by a loose brown soil similar to the topsoil above. At the base of each post-pipe was a thin layer of grey silty-clay which appears to have formed because of waterlogging. During excavation of the topsoil above, the postholes were not clearly defined, although in retrospect it was noted there were a few larger stones planned here which may have been used for packing.

Nothing was found to explain the anomaly found by remote sensing at the south-east side of the trench. There was a heavy concentration of charcoal, *c.* 0.10–0.15m below the surface, in the southern corner of the trench which remote sensing had failed to detect and was presumed to be the remains of a relatively recent fire, perhaps the result of burning hedge trimmings.

Excavation of the Urned Burial (AW)

As previously mentioned, the urned burial was rescued from further deterioration in inclement weather, prior to its transfer to Sheffield City Museum for conservation.

The urn was damaged and incomplete. The lower part was received carefully wrapped in cotton bandages to retain both the urn and its fill intact. The associated sherds, recovered from the surrounding soil, had been bagged separately. The urn itself was initially too damp and fragile to work on. It was, therefore, partially unwrapped and left to dry-out for several days prior to the commencement of micro-excavation.

Using the same technique developed during the conservation of the Eaglestone Flat urns (Beswick in Barnatt 1994, 314), the 'Beeley' urn was excavated methodically using a variety of hand tools including soft brushes, spatulas, a scalpel and spoons. The objective of micro-excavation was to retrieve the cremated bones and grave goods, whilst looking for any evidence of deliberate sorting or placement of the urn contents.

The urn contents were initially removed in 10–20mm spits, the work being recorded photographically as it progressed. As such fine divisions were not necessary for the bone specialist (McKinley in Barnatt 1994, 335), these spits were later grouped into five larger spits (Appendix 2, Table 2). In total, there was *c.* 140–150mm of fill in the urn, allowing for differences in the thickness of the urn base which had a pronounced rise at the centre. The lower *c.* 90–105mm contained the bulk of the cremated material.

A small amount of upper pit fill was removed prior to micro-excavation as it was badly disturbed. This had a maximum depth of 30mm where the urn side was highest, which was the datum point for all measurements given below (*c.* 30mm below the reconstructed shoulder). A fairly high charcoal content was noticed in this fill. At a depth of about 10–20mm, several regular holes *c.* 4mm in diameter began to appear. These continued down to an average depth of *c.* 40–50mm below datum and were identified as the tunnels of about five 'solitary' bees, complete with live occupants! Fortunately, these do not appear to have caused much disturbance to the urn contents as the main body of cremated bone began to appear at a depth of *c.* 45–50mm. From this evidence, it would appear that the bones only ever filled the lower third of the complete vessel at the time of burial. The excavators suggest the damage to the vessel seems to have occurred in antiquity, when the pit was backfilled. The massive structural damage would support this theory. In fact, the fabric was so badly damaged that eventually it became necessary to dismantle the urn sides during the course of excavation, to prevent further deterioration of the vessel.

The fill, from a depth of *c.* 45–50mm down from the datum, consisted mainly of well-compacted, cremated bone fragments, with soil filling the interstices. Most of the charcoal came from the disturbed upper pit fill and the first 30–40mm of soil removed during micro-excavation, with varying smaller amounts scattered throughout the fill below this level.

The final spits submitted for bone and charcoal analysis were as follows:

Disturbed upper fill:	0–30mm — soil and charcoal with a small amount of cremated bone.
Spit 1:	30–70mm — soil and charcoal with a small amount of bone in upper part. In the lower half the soil and charcoal was mixed with large amounts of cremated bone.

Spit 2: 70–95mm — Cremated bone with small amounts of soil and charcoal.
Spit 3: 95–110mm — as spit 2.
Spit 4: 110–130mm — as spit 2.
Spit 5: 120–150mm — as spit 2.
This spit overlapped with spit 4 at the centre where material under the knife-dagger was kept *in situ* until this point in the excavation. The measurement of 150mm is to the outer parts of the urn's interior, whereas at its centre the pot base rises significantly to *c.* 140mm.

As the soil was removed in spits, it was passed through sieves of 5mm and 2mm mesh size to ensure recovery of the maximum amount of cremated bone for analysis. The soil was also inspected using a binocular microscope (×100) for other inclusions, organic and inorganic. During this process, three samples of plant remains (Appendix 3) were recovered at depths of *c.* 50mm (spit 1), *c.* 70mm (spit 1/2 interface) and *c.* 100mm (spit 3).

All of the small finds were excavated from the lower portion of the broken vessel. The first to be revealed was a winged bead (4.4), deposited beneath a long bone towards the urn side at *c.* 50–55mm depth (spit 1). The bead was burnt, distorted and fragmented but complete. It is uncertain whether this was a deliberate or accidental inclusion in the urn. Next, a flint blade (4.12) and two collared beads (4.2 and 4.3) were recovered in a group at a depth of *c.* 95–100mm (spit 3) (Plate 1), in a position *c.* 35–40mm directly below the winged bead. All three were burnt and although there is some discussion that the flint, being possibly of an earlier date, may have been accidentally included in the pyre (Appendix 4), it seems likely that it was deliberately gathered and placed in the urn with the two beads. Some smaller worked bone fragments were recovered from the lower part of spit 1. One of the perforated fragments was found during superficial cleaning of the cremated bones. This led to the entire cremated bone deposit being re-examined under the binocular microscope for further fragments. Altogether eleven fragments of charred, worked bone were recovered, comprising five pin fragments (4.5–4.7), four perforated fragments (4.8–4.10) and two other fragments, possibly from the same artefact (Appendix 4). These were almost impossible to distinguish from the cremated human bone, suggesting they were gathered at the pyre site and included in the urn incidentally, with the other burnt material.

A copper alloy knife-dagger blade (4.11) was recovered at a depth of *c.* 110–125mm (spit 4), towards the base of the urn. The blade was flat, with the butt end almost touching the inner wall of the vessel and the point tapering at a slight slant towards the centre (Plate 2). Here there was only *c.* 15mm of fill below the blade. On both sides, the patina is interrupted by patches of hard, warty corrosion products and small active corrosion pits. Although unburnt, its condition is very fragile, especially around the edges where the blade is very thin and mineralised. Post-depositional factors have left the blade with a 'nibbled' outline. In the more robust areas along the central spine (especially on one side), the original surface has survived particularly well exhibiting a fine, polished yellow-metal surface after conservation. The butt end with the two rivet holes exhibits a paler blue/green matt patina than the blade which has a darker grey/green polished

surface, with a distinct division between the two (see 4.11). It is likely that this division represents the hilt-line (Appendix 4). No evidence of the remains of a hilt was found within the urned burial. Given its position within the urn and the fact that it is unburnt, it is safe to assume that the knife-dagger was deliberately placed.

McKinley's analysis (Appendix 2), demonstrates the cremated bone, unlike the grave goods, shows no evidence of sorting or placement, being evenly distributed throughout the lower part of the vessel.

After excavation, the urn was reconstructed for drawing and the finds conserved. A full written and photographic record of the conservation process is held in the archive in Sheffield City Museum.

APPENDIX 2: THE CREMATED BONE (JM)

Cremated bone was received for examination, comprising one urned cremation burial, a further small amount of bone found spilled into the urn pit, and small fragments of bone recovered from a gully adjacent to an area of burnt subsoil which may have been a pyre site (Fig. 2). The bone within the urn had been excavated in spits by Alison Walster of Sheffield City Museum (Appendix 1).

Methods

Analysis followed the writer's standard procedure for the examination of cremated bone (McKinley 1989, 1994a). The cremated bone was passed through a sieve stack of 10, 5 and 2mm mesh size. The relative weights of bone from each sieve and the maximum skull and long bone fragments, illustrates the degree of bone fragmentation in each context (Table 2).

Identifiable bone was separated for further examination being divided into skull, axial, upper and lower limb (Table 2). This may demonstrate any deliberate bias in the skeletal elements collected for burial.

Age was assessed from the stage of ephiphyseal (McMinn and Hutchings 1985, Webb and Suchey 1985) and cranial suture fusion, and other age-related degenerative changes to the bone (Bass 1987). Sex was ascertained from the sexually dimorphic traits of the skeleton (Bass 1987), including the maximum cranial vault thickness '1a' according to Gejvall (1981).

Pathological lesions and morphological variations were recorded and diagnoses suggested where appropriate. Anatomical terminology is according to Gray (1977) and McMinn and Hutchings (1985).

Full details of all identified bone are presented in the archive report, including:

— the number of identified bone fragments with descriptions of morphology and pathological lesions.

— bone measurements taken in addition to those presented in Table 2.

— variations in the colour of individual bone fragments from the buff/white of full oxidation.

Results

The 1681.4g of bone recovered from the urned burial represents the remains of an older mature adult male (30–45 years). The 2.8g of cremated bone in the urn pit are assumed

Context	Total weight	10mm sieve	% of total weight	5mm sieve	% of total weight	2mm sieve	% of total weight	Max. skull weight	Max. long bone weight	Identified long bone weight	% of total weight	Skull weight	% of identified bone	Axial weight	% of identified bone	Upper Limbs weight	% of identified weight	Lower Limbs weight	% of identified weight
Disturbed top	22.7	19.7	86.78	3.0	13.22	0.0	0.00			7.7	33.92	0.7	9.09	7.0	90.91	0.0	0.00	0.0	0.00
Spit 1–40mm	420.1	182.0	43.54	165.6	39.42	71.6	17.04	32	47	98.1	23.35	26.4	26.91	31.3	31.91	8.4	8.56	32.0	32.62
Spit 2–25mm	430.1	231.7	53.87	135.5	31.50	62.9	14.62		72	140.3	32.62	10.7	7.63	32.6	23.24	18.3	13.04	78.7	56.09
Spit 3–15mm	363.9	192.6	52.93	120.0	32.98	51.3	14.10	36	71	127.0	34.90	33.3	26.22	38.9	30.63	16.1	12.68	38.7	30.47
Spit 4–20mm	193.2	104.4	54.02	60.3	31.20	28.5	14.77		76	71.9	37.21	12.4	17.25	26.0	36.16	9.1	12.66	24.4	33.94
Spit 5–10–30mm	248.6	150.3	60.46	61.3	24.66	37.0	14.88		76	111.6	44.89	16.0	14.34	25.6	22.94	23.1	20.70	46.9	42.03
Outside urn	2.8	1.5	53.57	1.3	46.43	0.0	0.00			0.0	0.00								
TOTAL	1681.4	883.1	52.52	547.0	32.53	251.3	14.95	36	76	556.6	33.10	99.5	17.88	161.4	29.00	75.0	13.47	220.7	39.65

Table 2: Horse Pastures, Beeley: The urned cremation burial — cremated bone weights (in grams), percentages and maximum fragment size.

to be from the same individual but there are no diagnostic fragments that confirm this. Pathological conditions included degenerative disc disease in three cervical and two lumbar vertebrae, and slight osteoarthritis in one shoulder joint. Other pathological lesions noted include osteophytes (new bone) on the proximal articular surface margins of a distal finger phalanx and the apex of the odontoid process, a destructive lesion in the superior surface of the first sacral vertebra, and exostoses (new bone) on the margins of the iliac crest.

The cremated/burnt bone fragments analysed from the gully, weighing 5.4g in total, were identified as:

— animal in one case.
— possibly animal in three cases.
— undiagnostic in six cases.

A further 10 pieces from the gully were not supplied for analysis as they comprised only tiny fragments. One burnt bone fragment analysed from Trench B was animal. Two other tiny fragments were not supplied for analysis. The bone from all these non-burial contexts comprised small fragments (maximum weight 2.1g) that were slightly or moderately worn and chalky in texture which hindered identification.

Pyre Technology and Ritual

All the bone from the urned cremation burial was well cremated, being almost universally the buff white colour indicative of full oxidation (Shipman *et al.* 1984).

The average weight of bone from an adult cremation has been recorded as *c.* 1650g (McKinley 1993), though weights of up to 3600g have been noted (Evans 1963). Although by no means all the bone has been included in the burial in this instance, a large proportion was present, possibly up to *c.* 90–95%.

The maximum fragment size recorded in the burial was 76mm and *c.* 52% of the bone was recovered from the 10mm fraction. A variety of factors may affect the size of bone fragments within a cremation burial (McKinley 1994b), including post-depositional disturbance — indicated to a slight degree in this instance. There is nothing to suggest deliberate fragmentation of bone prior to burial.

The bone from the burial was excavated by the conservator in five spits (not of equal depth — see Table 2). Identification of the bone from the constituent spits shows no evidence of any ordered deposition by bone element, fragments from the same bones being spread through the vessel fill.

The presence of large quantities of carbonised wood (pyre debris) in the backfill of the burial pit would suggest the proximity of the pyre site to the place of burial. The possibility of the area of burnt subsoil near to the burial being the pyre site and the problems with this interpretation are discussed above.

APPENDIX 3: CHARCOAL, PLANT MATERIAL AND RADIOCARBON DATING

Charcoal (RG)

The urn and urn pit contained charcoal and fragments of charcoal were scattered throughout a nearby gully (Fig. 2). Further fragments of charcoal from the soils elsewhere on site were not analysed. The charcoal was examined to identify the type of

wood and to indicate differences or similarities between the burial and what may have been the remains of the cremation pyre in the gully.

Materials and Methods

The charcoal was mainly well preserved. The large number of fragments in the samples from the urn and urn pit were examined using a X20 handlens and sorted into groups based on the anatomical features observed on a freshly fractured transverse surface. Representative fragments were selected for further examination. These fragments and those from the gully were prepared for examination by fracturing to expose transverse, tangential and radial surfaces which were supported in sand. The anatomical structure was examined using an incident-light microscope at magnifications of up to X400 and matched to reference material.

Where possible the maturity of the wood (i.e. narrow stem, sapwood or heartwood) was noted.

Results

The results are summarised in Table 3. The taxa identified are listed below:

Alnus sp.	alder
Betula sp.	birch
Corylus sp.	hazel
Pomoideae	a subfamily of the Rosaceae, which includes Crateagus sp. – hawthorn, Malus sp. – apple, Pyrus sp. – pear, Sorbus spp. – rowan, whitebeam and wild service. These genera are anatomically similar.
Prunus spinosa	blackthorn. The unusually broad rays suggested this species in favour of P. avium – cherry or P. padus – bird cherry.
Quercus sp.	oak

Discussion

The charcoal from the cremation urn and the urn pit was more or less similar in species content. The samples included relatively large numbers of fragments which consisted predominantly of oak (*Quercus*) but also Pomoideae (hawthorn, apple, rowan, whitebeam and service tree). While it is not possible to specify from the anatomical structure of the charcoal which member/s of the Pomoideae were present, hawthorn, rowan or possibly whitebeam were probably the most likely to have grown in the environment of the site. The lower fill of the urn pit also included 1 fragment of hazel (*Corylus*) — a minimal quantity in comparison to the large amounts of oak (*Quercus*) and Pomoideae (see Table 3). The oak (*Quercus*) included a mixture of sapwood and heartwood.

The charcoal spread through the gully comprised dispersed small numbers of fragments, mainly large (measuring 4–8mm^2 on the transverse surface). This may reflect the lack of sieving of the soils from the gully, whereas that from the urn was sieved. Here again oak (*Quercus*) was most frequently identified but Pomoideae type charcoal was less evident and a wider range of species was present, including alder (*Alnus*), birch (*Betula*), hazel (*Corylus*) and blackthorn (*Prunus spinosa*). The oak included a mixture of stem and heartwood.

Unless charcoal from a source separate from the pyre was later added to the collection of bone and artefacts in the cremation urn and the urn pit, the oak (*Quercus*) and

The number of fragments identified from each sample is indicated.
Abbreviations — r: roundwood (diameter <2cm)
s: sapwood
h: heartwood

Sample	*Alnus*	*Betula*	*Corylus*	Pomoideae	*Prunus*	*Quercus*	
Cremation Urn							
Upper fill (disturbed top)				23		76	s
Upper fill —(spit 1)				40		208	s/h
Lower fill (spits 2–5)				1		16	
Urn Pit							
Upper fill				43		162	h
Lower fill			1	109		153	h
TOTAL			1	216		615	
Scatter in Gully							
	5–7	2–3	12–13	10	1	60–63	1–3r 50h 6–9?

Table 3: Horse Pastures, Beeley: charcoal by species and context.

Pomoideae must have originated from fuel used on the pyre. The consistency in species content in these large samples, when compared with the wider range present in the much smaller sample from the gully indicated significant differences; by implication the scatter of charcoal in the gully did not originate from the pyre (or, at least not the pyre associated with the cremated remains deposited in this particular urn).

The species identified at Horse Pastures, Beeley were more or less similar to those from the cremation urns and pits at Eaglestone Flat (Barnatt 1994), but at the latter birch (*Betula*) and oak (*Quercus*) were dominant, reflecting the frequency of these species in the environment as indicated by pollen analysis. Parallel practicalities in the selection of fuel woods may be inferred at Horse Pastures, Beeley.

Plant Material (JB)

Three samples from within the cremation deposit within the urn were identified by Glynis Jones of Sheffield University. Two of these, one found well within the deposit, the other near its top, were charred bulbs from the base of stems of onion couch grass (*Arrhenatherium elatius var. bulbosum*). Today this species is not tolerant of grazing but is often found as an arable weed (Rhodri Thomas *pers. comm.*). The third sample, from near the top of the deposit, was a mineralised, not charred, fragment of a fruit stone of uncertain type. Fruits such as sloe may well have been present in the vicinity and blackthorn charcoal was present in the gully in Trench A.

Lab. Reference	Context	Material	Result BP	Result bc	Calibrated Age Ranges cal. BC (Washington Method A) Confidence Levels 68%	95%
Beta–84770	Upper pit fill	Pomoideae charcoal	3620±70	1670±70	2131–2074 2045–1893	2196–2155 2150–1870 1843–1811 1808–1776
Beta–84771	Lower pit fill	Pomoideae charcoal	3400±70	1450±70	1867–1845 1773–1627	1890–1520
weighted average			3510±49.5	1560± 49.5	1909–1760	2012–2008 1970–1740 1715–1704

Table 4: Horse Pastures, Beeley: radiocarbon dates.

Radiocarbon Dates (JB)

Two charcoal samples were submitted for analysis to Beta Analytic, Florida. They were both derived from charcoal in the pit which contained the cremation urn. The sample from the lower fill came from deposited pyre debris surrounding the urn. The sample from the upper fill comprised charcoal from the soil mixed with charcoal and sherds presumably deposited at the time the top of the urn had been smashed. Both samples comprised Pomoideae charcoal to avoid problems of using long-lived species. The results are summarised in Table 4. The calibrated dates presented here have all been processed using the Washington Programme (Suiver and Riemer 1986; 1987) applying the bidecadel curves for atmospheric samples (Pearson and Stuiver 1986; Pearson *et al.* 1986), following the direct intercept technique (method A). All calibrated data will be discussed in summary form at two sigma or 95% confidence level because of significant uncertainties in attempting closer definition (Pearson 1987).

The two dates are closely comparable which is to be expected as they both came from the same cremation pit, presumably placed here during the same funeral ceremony. As this is the case, then it is valid to use a more closely defined date by applying a weighted average. At two sigma this gives a date of 2012–1704 cal. BC for the urn and cremation burial.

APPENDIX 4: THE SMALL FINDS

The Collared Urn (PB)

The Urn

Secondary Series, North Western Style, Form IIIA (Longworth 1984) (Fig. 4: 1).

Base, lower body and part of shoulder, neck and collar survive but rim largely missing. Diameter of omphalos shaped base 11cm; diameter of shoulder *c.* 31cm; diameter of collar base *c.* 34cm; surviving height *c.* 33cm; weight 2.74kg.

Well fired, soft, soapy fabric tempered mainly with black iron and occasional grog, average size 3 to 5mm. External surface red (2.5YR 5/6), internal reddish brown (nr.

5YR 5/4) and core light brown (nr. 7.5YR 6/4). Surfaces smoothed and external lightly burnished.

Decoration all twisted cord forming filled triangles on collar, bordered by horizontal lines; lattice on neck; and open triangles or zigzags on rim bevel. Cord loosely twisted (*c.* 3 twists per cm) and carelessly applied.

Context and Date

Collared Urn burials are noted for the variety of their sites and burial practices. The use of prominent natural sites, such as the gravel terrace used here, is not uncommon and single burials such as this perhaps reflect Beaker influence within the tradition (Longworth 1984, 48). The urn, grave goods and location may all signify what traditionally is interpreted as an individual of status. Recent analysis, for instance of burials from Eaglestone Flat, 6.5km to the north, revealed that greater care and attention was given to urned cremation burials than unurned cremation burials, in the writers view supporting the view that a cinerary urn indicates prestigious and privileged burial (Beswick, in Barnatt 1994, 320–21). The copper alloy knife-dagger placed unburnt in the base of the urn is also evidence of special status. Longworth found (1984, 48), although dealing with antiquarian data, that grave goods in association with Collared Urns were recorded in only 39% of cases (367 of 942) and only 8% (75) included bronze items. These views on status are debated in the main discussion above.

In 1984 twenty-five radiocarbon dates were available, showing a time range from 1800 to 1100bc for Collared Urns (Longworth 1984, 140). Six additional dates from Ewanrigg, Cumbria, range from 1750 to 1450 bc uncalibrated, or 2460 to 1520 cal. BC at 2 standard deviations or 95% confidence (Bewley *et al.* 1992, 351–52); these may well represent a time span of several hundred years. Clearly more radiocarbon dates from individual burials, particularly where grave goods are associated, would be of value for assessing Collared Urn development and complex relationships. A Secondary Series, North Western Style urn from Ewanrigg, with similar decoration to the urn from Beeley and associated with bone pins and a toggle, was calibrated to 2020–1620 cal. BC at 2 standard deviations (Bewley *et al.* 1992, 335, 351). This is very close to the range of 2012–1704 cal. BC for the Beeley urn, discussed above.

Comment

This is a classic North Western Style Collared Urn. Form III is found in 16% of cases and is one of the two most characteristic forms. Each of the decorative motifs in their respective positions are those most preferred on this style of vessel (Longworth 1984, 30, 35, Fig. 28). Taking the 462 North Western Style urns listed in Longworth's Appendix 3, 9% (40) have zigzag decoration on rims; 24% (113) have filled triangles on collars; and 31% (144) have lattice decoration on necks. In general the type is distributed through central and northern England, central and north-east Scotland, coastal Wales and eastern Ireland. However, the core area with the largest number and strongest tradition lies in north-west England (Longworth 1984, 31–32, Figs. 23, 24), which is taken to include the southern Pennines and the Peak District. The latter, with its high number of primary and secondary urns, should perhaps be considered a special focal area, although it must be remembered that the distribution is mainly of finds from 19th- and 20th-century barrow diggings by the Batemans (1848, 1861) and their successors (e.g. Heathcote 1930; 1936;

1939; 1954; Radley 1965; 1969; Riley 1966; 1981) into upstanding monuments on open moorland and unploughed land. The fact that the urns found recently by chance at Ewanrigg increased by almost 26% the Collared Urns recorded in the 1984 corpus from Cumbria is a salutary warning (Bewley *et al.* 1992, 352). This new find from Beeley, therefore, is a particularly welcome addition to the Peak District distribution principally because of its low-lying, riverine location and the chance nature of its discovery.

Collared Urns form the majority of Bronze Age urns found in the Peak District. Generally their distribution is peripheral to the central limestone plateau and is concentrated on the surrounding gritstones and sandstones, especially on the east side, on Stanton Moor and other eastern moors flanking the Derwent corridor. North Western Style urns totalled 53 of the 102 urns recorded by Longworth from Derbyshire (1984, 110, 115–16) and of these 16 were classed as Primary Series and 33 as Secondary. Interestingly 75% of them came from Stanton Moor (34) and 4km to the north on the moors above Beeley (5). Three of those from Stanton (Longworth 1984, Corpus nos 293, 322, 323) and one from Beeley (no. 256) have the same combination of neck and collar decoration as on the new urn from Beeley. Other local examples in Longworth's Corpus, combining the same decorative designs, include urns from Sheldon, Derbyshire (no. 285); Bradfield, South Yorkshire (no. 1405); Lodge Moor, Sheffield (no. 1412); and Blore, Staffordshire (no. 1414). Parallels for this choice of motifs, however, can be found in all areas where North Western Style urns occur and, apart from showing common identity within the tradition, the meaning of the designs, if any, unfortunately is not known. Their ancestry probably lies in the rich repertoire of geometric motifs in Late Neolithic art, expressed in pottery (e.g. Grooved Ware, Beakers), portable items (e.g. maceheads, plaques, bronze weapons) and last but not least in rock art.

Similar types of associated grave goods, comprising 'trinkets' in bone or other materials along with metal and flint tools/weapons are found in many Collared Urn burials in northern Britain and locally again on Stanton Moor in particular (examples from Stanton with two or more of these items include Corpus nos 292, 308–09, 310, 311, 324, 339). None of these types of artefacts is exclusive to Collared Urn users, but Longworth (1984, 58) did draw attention to certain Collared Urn associations, confined largely to north and west Britain, which included metal blades often accompanied by bone pins. South of a line from the Severn to the Wash no more than three knives, daggers or razors were recorded with Collared Urns. It is perhaps of interest in this context that one of the only two direct links between metalworking and the Collared Urn tradition, in the form of clay connecting tubes for furnaces, comes from Gawsworth in Cheshire, on the western edge of the Peak District, and the other is from Ewanrigg, Cumbria (Bewley *et al.* 1992, 343–46).

In conclusion, this urn and its associations epitomises the Collared Urn tradition in north and west Britain.

The Copper Alloy Knife-Dagger (JP)

Flat riveted knife-dagger of slender, ogival form (Fig. 4: 11).

Butt end with two rivet holes; blade cross-section of symmetrical form, medially thickened to give the knife-dagger a characteristic ridge along its length. At both butt end and point the blade assumes a flat section. Blade length 105mm; maximum width 32mm; maximum thickness 3mm.

Only the blade of the knife-dagger survives. Despite being unburnt its condition is very fragile (Appendix 1). Part of the butt end is bent out of shape and this presumably occurred prior to being placed in the urn.

The butt end has a pale, bright green patina in contrast to most of the rest of the blade which is dark grey/green. The interface between these patina zones runs transversely across the blade some 20mm from the butt end and is slightly curved in form. It seems legitimate to interpret this as a hilt line, a term used by some to describe the shadow left by the decayed handle on daggers of the Bronze Age (for examples Kinnes and Longworth 1985, nos 282.1 and 277.2).

On one area of the blade surface preservation is particularly fine, exhibiting a bright yellow/brown colour. Low magnification (×10) of this area reveals numerous fine linear scratches parallel to the medial ridge which probably relate to polishing the blade in antiquity.

Discussion

In Gerloff's study of British bronze age daggers (1975) she identifies a number of forms which are classified as knife-daggers. The Beeley example relates most closely to Gerloff's flat riveted form. Longworth has eschewed the term knife-dagger preferring flat riveted knife (1984, 57), however, the majority of writers have accepted Gerloff's usage. It is unfortunate that debate has concentrated on classificatory issues rather than more social aspects such as their use as tools, weapons, or personal items like razors.

The Beeley knife-dagger can be added to the ten already identified by Vine in his regional study, and all have been found in association with cremation burials (1981, table 17, 130). Included in this group are two examples from burials on Stanton Moor. One recovered in an excavation of 1927 (Heathcote 1930, 2) is heavily burnt with a distinct mid-rib (Gerloff 1975, no. 303; Vine 1982, no. 721) which separates it typologically from the flat riveted example from Beeley. The other example, also burnt, is tanged in form (Gerloff 1975, no. 335; Vine 1982, no. 723). Confining the parallels to flat riveted knife-daggers in the Peak District reveals examples from barrows at Bee Low, Mare Hill and Minninglow Hill. The Bee Low knife-dagger is smaller and more elegant than the Beeley example with distinctly bevelled edges (Vine 1982, no. 715). The unburnt Bee Low blade was found in association with a cremation deposit but no pottery (Marsden 1970, 206; Barnatt 1996b, site 8.13), a pattern of association repeated by the examples from Mare Hill and Minninglow Hill, excavated by Samuel Carrington and Thomas Bateman respectively (Bateman 1861, 57 and 113; Barnatt 1996b, sites 13.3 and 10.6). The Mare Hill example has a more triangular blade (Gerloff 1975, no. 293; Vine 1982, no. 719) than the Beeley knife-dagger while the Minninglow Hill example is so heavily burnt that typological comparison is virtually impossible (Gerloff 1975, no. 289; Vine 1982, no. 718).

The position of the knife-dagger suggests deliberate placement in the base of the urn. Furthermore the proximity of the dagger to the inner wall of the vessel (Plate 2) and the damage suffered at the butt end of the blade, mentioned above, both hint at the possibility of the knife-dagger being deposited without a handle. The complexity of post-depositional processes within the urn, however, mean this can only be a speculative suggestion.

In his discussion of Collared Urn burial assemblages Longworth has emphasised the north western bias of metalwork inclusion in funerary contexts. He notes two possible

and two more certain occurrences of flat riveted knife-daggers in Collared Urns (1984, 58). The possible occurrences are from Hellifield, North Yorkshire, where a knife-dagger may be associated with a Collared Urn which is now lost (Longworth 1984, no. 1173a) and at Creggan, Co. Antrim, where either a Primary or Secondary Series Collared Urn contained a flat riveted knife-dagger (Longworth 1984, nos 2205–07). More certain associations are from urn burial assemblages at Todmorden, West Yorkshire and Bradley, east of Ashbourne in Derbyshire. The Todmorden cremation burial contained a flat riveted knife-dagger, of more triangular form than the Beeley example, as well as bone, jet and faience beads in a Collared Urn of Primary Series Form II (Longworth 1984, no. 1607). The Bradley knife-dagger (Gerloff 1975, no. 261), which is in a poor state of preservation, was the only artefact found within a Collared Urn of Secondary Series Form 1A (Longworth 1984, no. 260).

In summary, knife-daggers occur in funerary contexts of the Earlier Bronze Age over large parts of Britain and four examples similar to that at Beeley have been noted above. Indeed excavations at Stanton Moor near Beeley have provided two examples which are both burnt and associated with urn burials, although neither fits typologically into the flat riveted form of the Beeley dagger. The closest known parallels of this form found with Collared Urns come from Todmorden and from Bradley, a round barrow site some miles to the south of Beeley (Barnatt 1996b, site 16.1).

Segmented Bone Beads (JP)

Collared bead (Fig. 4: 2) cut from long bone shaft of medium sized mammal. Cylinder of ovoid section waisted in two places to give a central bulbous section and terminal collars; length 20mm; maximum diameter 12mm.

Collared bead (Fig. 4: 3) of very similar form to the last; length 21mm; maximum diameter 11mm.

Both beads are burnt and cracked, but intact.

Winged bead (Fig. 4: 4) cut from a long bone shaft of smaller size than the collared beads. Cylinder of sub-circular section slightly waisted towards either end. Shallow transverse cuts on one face; length 24mm; maximum diameter 8mm.

The winged bead consists of three joined fragments of heavily burnt bone.

Discussion

Piggott (1958) used the term segmented bead to cover a wide range of related artefacts of the Earlier Bronze Age in Britain, their similarity to faience beads and continental beads from megalithic tombs has been discussed by Daniel (1958, 11). The division between winged, segmented and collared beads is a matter of degree, dependent on the amount and form of the waisting. The categorisation is clearly very subjective. The distinct form of the terminals on two of the beads (Fig. 4: 2 and 4: 3) has led the writer to use the term collared, while the more gently waisted bead (Fig. 4: 4) is termed winged. Beads with a transverse perforation in addition to the natural axial cavity are called toggles, although it is unclear whether this group of artefacts are dress fasteners, decorative pieces from necklaces or objects with an undiscovered purpose.

Close parallels for the Beeley beads come from Seggiecrook, Grampian and Dalmore, Highland (Callander 1930, 31, Figs. 7 and 8). The Seggiecrook toggle is of collared form and shows a strong resemblance to the Derbyshire finds despite its transverse perforation.

Local examples of segmented beads, both in bone and faience, come once more from burials on Stanton Moor (Vine 1982, nos 950, 951 and 993), the closest comparison being a segmented bone toggle with three circumferential grooves and a transverse perforation found in association with an adult burial, probably cremated, and urn fragments (Heathcote 1936, 29–33). The data set of bone beads and toggles associated with Collared Urn burials is small (Longworth 1984, 62–63). As stated in Appendix 1, the two collared beads were found in close proximity to each other and the flint blade (Plate 1). This distribution combined with the difficulty of recovering these small artefacts from a mass of cremated bone suggest that their placement in the urn was deliberate. The winged bead, however, was found outside of this artefact cluster. Its inclusion may well have been deliberate. Longworth notes the vast majority of bone beads from Bronze Age cremation burials are burnt, suggesting they were purposefully picked up from the funeral pyre and placed with the dead (in Bewley *et al.* 1992, 343).

The instances of segmented bone beads from Collared Urn burials are rare. At Milngavie, Strathclyde, two segmented bone beads and two toggles come from a vessel of Secondary Series Form IC (Longworth 1984, no. 1973), while at Ewanrigg, Cumbria, a segmented toggle of a similar form to the Beeley collared beads was included in a cremation burial from a Collared Urn of Secondary Series Form IA. A winged toggle, also from this site, came from a Collared Urn of Secondary Series North Western Style Form 1A (Longworth 1992, 335).

Bone Pins (JP)

Pin fragment (Fig. 4: 5). Splinter of compact bone with traces of cancellous tissue on the flat face; of flat cross-section; broken away at both ends; length 34mm; width 7mm.

Pin fragments (Fig. 4: 6). Two joining fragments very similar to the last; tapers slightly to one end which is rounded; length 36mm; width 12mm.

Pin fragments (Fig. 4: 7). Two joined fragments of compact tissue; of sub-rectangular cross-section tapering to one end; length 17mm; width 3mm.

The pin fragments are all heavily burnt. They appear to be parts of three separate objects.

Discussion

Pins fashioned from splinters of long bone shaft are common finds in burials of the Earlier Bronze Age. In his regional study of Later Neolithic and Bronze Age material culture, Vine has identified seventeen from barrows in the Trent basin. They have been found in association with inhumation and cremation burials as well as Food Vessels, Urns and Beakers (Vine 1982, table 20, 67). Bone pins are likely to have been used as dress fasteners, hair pins or decoration, however, the fragmentary nature of pins from the Beeley urn suggest their inclusion here may well have been accidental, although they were presumably purposefully placed with the body for the pyre ritual.

Other Worked Bone (JP)

Perforated fragment (Fig. 4: 8). Probably from tubular artefact. Compact bone with traces of cancellous tissue on interior. One end broken through circular perforation; other broken through rectangular slot. Slight ridge running circumferentially around object; length 9mm; width 10mm.

Perforated fragments (Fig. 4: 9 and 4: 10). Compact bone with cancellous tissue on interior. Ends cut away; the other broken through perforations. One fragment 6mm by 5mm; the other 6mm by 6mm.

Perforated fragment (not illustrated). Compact bone. One end cut away; the other broken through a perforation; length 7mm; width 4mm.

All these fragments are heavily burnt. It is unclear how many separate objects are represented. Some may be from artefacts with more than one perforation.

Discussion

The remaining worked bone is too fragmentary to identify. The perforated objects may be the remains of toggles, such as the simple pierced tube recovered by Carrington at Throwley, Staffordshire (Bateman 1861, 154–55; Vine 1982, no. 992) or the single-holed whistle recovered from Urn 2 at Eaglestone Flat (Walster in Barnatt 1994). Some of the fragments could come from the pierced heads of pins or other pierced objects such as the bone ornament from Gourlaw, Midlothian, which is of D-shaped cross-section with three holes in triangular fashion, the fourth above the apex (Callander 1930, 31 Fig. 5). The fragmentary nature of these pieces again suggests accidental inclusion in the Beeley urn.

The Pottery Sherds (PB)

A total of 54 sherds weighing 350.5g (Table 5) was found scattered around both trenches (Fig. 6). All are abraded and small, except some of the more resistant, hard-fired Medieval rim sherds. Their condition, therefore, suggests that none was likely to be *in situ* and all, including those found in feature fills, had been disturbed and redeposited to some degree during their depositional history.

The fabrics were examined macroscopically with a hand lens (×10) and detailed records are in the site archive.

Neolithic

Three sherds of Early Neolithic Grimston Ware were found in Trench B. From their bright red colour and thickness (4–6mm) all are likely to be from the same vessel. Identification is on the basis of the vesticular fabric which is identical to that from Lismore Fields, Buxton (Garton 1991, 18) and is probably the result of limestone or calcite tempering leaching out in acid soil conditions. The ware is particularly soft and does not survive well in plough soils (Garton and Beswick 1983, 21) and, therefore, it is likely that these sherds have been protected within a closed context for the greater part of their history.

This find extends the known distribution of Grimston Ware in the Peak eastwards (Garton 1991, 18) and into a valley location comparable with that of Lismore Fields, settled by the fourth millennium BC (Garton 1991, 15, 19).

Bronze Age/Early Iron Age

Of a total of eleven undiagnostic sherds, all except one are from Trench A. Only two could have been from the cremation urn, on the basis of their fabric. Another (Fig. 7, 65), with vestiges of a probable twisted cord imprint, is also likely to be of Early Bronze Age date and the hard-fired, iron-rich fabric is similar to that of one further sherd. Two

PERIOD	CONTEXT			TOTALS	
	Upper Soil	Lower Soil	Feature Fill	Sherds	Weights
Trench A					
Neo.	–	–	–	–	–
BA/EIA	2	4	4	10	47.5g
RB	–	2	–	2	5.5g
Med.	3	2	–	5	28.5g
LM/EPM	3	–	–	3	7.5g
PM	1	1	–	2	6.0g
Total	9	9	4	22	95.0g
Trench B					
Neo.	1	2	–	3	4.0g
BA/EIA	–	1	–	1	0.5g
RB	–	–	–	–	–
Med.	14	5	1	20	207.0g
LM/EPM	–	–	–	–	–
PM	7	1	–	8	44.0g
Total	22	9	1	32	255.5g
Totals A&B	31	18	5	54	350.5g

Table 5: Horse Pastures, Beeley: pottery sherd count and weight by period and context (Neo. = Neolothic; BA/EIA = Bronze Age/Early Iron Age; RB = Romano-British; Med. = Medieval; LM/EPM = Late Medieval/Early Post-Medieval; PM = Post-Medieval)

other sherds with oxidised external surfaces, grog tempering and occasional chips of chert, are probably also of this date as are three further fragments. The fabric of two sherds, with rotted sandstone tempering and lumpy surfaces, resembles a fabric from the Swine Sty enclosure on the East Moors, *c.* 7.5km north of Beeley (Garton and Beswick in prep.), which includes both Early Bronze Age and Late Bronze Age/Early Iron Age forms.

The variety of fabrics present, the small quantities of each and their abraded condition, implies the redeposition of rubbish on a small scale and perhaps spasmodically during the second and possibly into the early first millennium BC. Many different activities could account for this type of deposition, ranging from ritual to agricultural.

Romano-British

Two sherds (Fig. 7: 195, 235) were found in Trench A. One is part of the rim of a White Ware flagon (195), probably of mid to late 2nd century date, and the other is from the rim of a Grey Ware flat-rimmed dish (235) dating from the late 2nd century or first half of the 3rd. Both are relatively unabraded, perhaps suggesting some short-lived activity in the late 2nd century AD, which probably did not involve cultivation.

The absence of Romano-British Derbyshire Ware is worthy of comment. Sherds in this ware are such a common find on Romano-British sites in the Peak from the mid-2nd

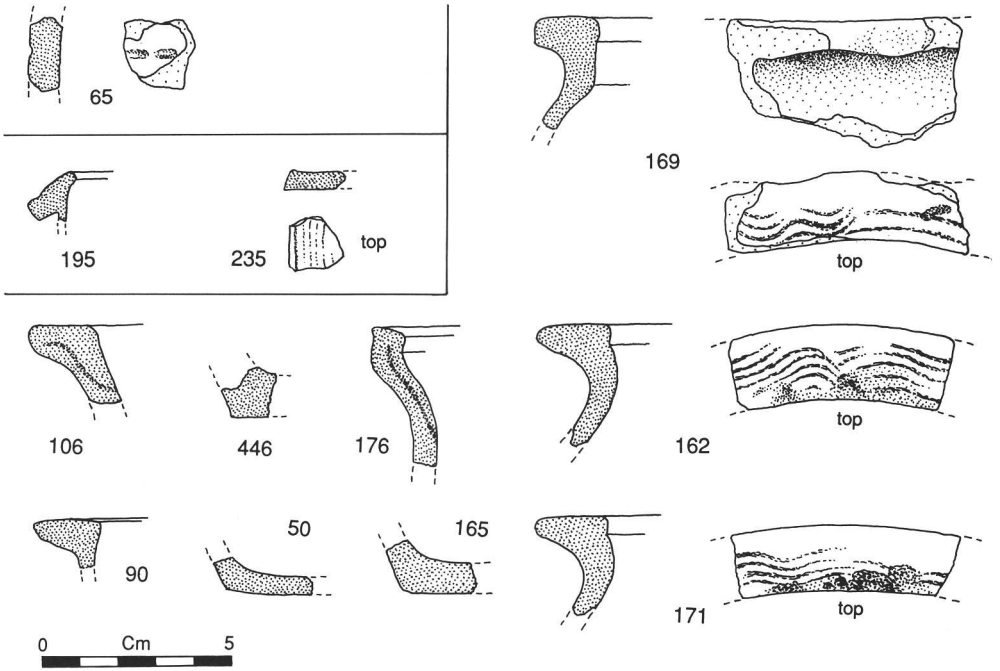

Fig. 7: Horse Pastures, Beeley: Bronze Age (65), Romano-British (195, 235) and Medieval (remainder) pottery.

century onwards that a special check was made of 'gritty' sherds in the collection. While acknowledging that certain identification of small abraded sherds is difficult, in the writer's opinion all were more likely to be of Medieval date. Either they had been fired to lower temperatures and had smoother surfaces, where surviving, than is normal for Derbyshire Ware or were closer to Late Medieval gritty wares.

Medieval

Sherds of this period form the largest group and comprise a range of domestic coarse wares of 11th to 13th century date, found mainly in Trench B. Fabrics are chiefly gritty, with a clear angular or subrounded quartz temper often mixed with coarse sand, giving rough surface textures. Occasionally a finer sand was used. The majority show no evidence for glazing and where present it is usually of the splashed variety. Because Derbyshire types are poorly understood and insecurely dated as yet (McCarthy and Brooks 1988, 279–80), no attempt has been made to source the pottery and dating is tentative, being based on typologies for the Midlands and northern England generally.

Illustrated sherds (Fig. 7):

1. Rim sherd (106); bowl; medium fine sandy ware; reduced; no glaze. Trench B. 11th-early 12th century.
2. Base sherd (446); gritty ware; oxidised; no glaze. Trench B. 12th to 13th century.
3. Rim sherd (176); jug; gritty ware; oxidised (orange); no glaze. Trench B. 13th century.

4. Rim sherd (90); bowl; gritty ware; oxidised; no glaze. Trench B. Early 12th century.

5. Rim sherd (169); decorated on top with stamped semi-circles and thumbed on edge; cooking pot; fine sandy ware; reduced; splash glazed. Trench B. 12th century.

6. Two rim sherds (162, 171) of same vessel *c.* 22cm diam. and decorated with combed wavy lines; cooking pot; gritty ware; oxidised (orange); splashed green glaze. Trench B. Late 12th–mid 13th century.

7. Base sherd (50); gritty ware; oxidised; green glaze. Trench A. Late 12th–13th century.

8. Base sherd (165); gritty ware; oxidised; green glaze. Trench B. Late 12th–13th century.

In addition, there is a variety of body sherds in both hand-made and wheel-thrown wares. The presence of hand-made vessels is not surprising as it would appear that before the 15th century coil building existed alongside wheel throwing in much of the Medieval pottery industry (Hayfield 1985, 403). The body sherds comprise:

— Two sherds; hand-made gritty ware, hard black fabric. Trench B. 11th–12th century or earlier.

— One sherd; hand-made gritty ware, pimply cream buff fabric. Trench B. 11th–13th century.

— Nine sherds; unglazed gritty ware. Four sherds from Trench A and five from Trench B. 11th–13th century.

— Four sherds; splash glazed gritty ware. Trench B. Late 11th–13th century.

Apart from five, the location of most of the sherds in Trench B would suggest that this area was used fairly intensively in Medieval times. The wide range in both fabrics and vessels and the small quantities of each would suggest manuring for cultivation as the most likely cause of deposition. The date range suggests cessation of activity around the end of the 13th century. This may reflect changing farming practice; or shrinkage of the village following widespread population decline in the 14th century accompanied by contraction in pottery production (McCarthy and Brooks 1988, 89); or alternatively the explanation may lie in a combination of such factors. Of interest in this connection is Frank Robinson's earlier discovery of a rim sherd from a cooking pot in an early form of Late Medieval gritty ware, found two fields to the south (Sheffield City Museums 1987, 293). The fabric is pinkish purple with surface blisters caused by cintering of the iron inclusions during high temperature firing. It could date from the later 13th or 14th century, the time when pottery deposition at Horse Pastures appears to have temporarily ceased.

Late Medieval/Early Post-Medieval

Three small sherds from Trench A are in coarse Late Medieval gritty wares, characterised by reduced, purplish, oven-fired fabrics, partly vitrified. The exterior of one has an olive glaze. Such developed wares do not become common until the later 15th century and continue into the 16th. The small number here does not suggest intensive activity.

Post-Medieval

Eight sherds, all but one from Trench B, are in local earthenwares. These are oxidised coarsewares with sand and grog inclusions and colour-washed in preparation for a slip,

though none survives. This technique began late in the 17th century and continued into the early 20th for utilitarian kitchen wares. All are small and very abraded and suggest occasional redeposition of rubbish, possibly in connection with agricultural activities.

Two other sherds from Trench B are in late Midlands Purple fabrics. One is in the butter pot tradition of large vessels used to transport butter from market and also used as storage pots (Greaves 1976, 6). They are well-known in Staffordshire and the Midlands in deposits ranging in date from the mid-17th to mid-18th centuries.

Undatable

A roof tile fragment was found in Trench B. The hard, oxidised, heavy sand tempered fabric could date either from the Medieval or Post-Medieval periods.

Comment

Overall, in date range and quantity, the sherds from each trench are different in character (Table 5; Fig. 6), which would suggest that their histories are not the same. In Trench A Bronze Age/Early Iron Age fabrics are dominant but well mixed in the soil profile with pottery from all periods except the Neolithic. In contrast, Medieval and, to a lesser extent, Post-Medieval types dominate Trench B, almost to the exclusion of others, apart from three small Neolithic sherds. In addition, in Trench B a larger proportion of sherds are in the upper part of the soil profile than is the case in Trench A.

Although the excavated area is too small to fully represent all aspects of the history of this piece of gravel terrace, the pottery evidence hints at a surprising number of intrusions over a long time span. In microcosm it implies an interest in the terrace top in the Neolithic, a shift to the terrace edge, perhaps because of the burial site, in later prehistory and the Roman period; and a greater emphasis on the terrace top with agricultural activity in the Medieval period. This ceases around the end of the 13th century but is revived, probably in less intensive form, around the late 17th to 18th century.

The Lithics (AM)

A total of 207 worked lithic pieces was recovered from the two excavated trenches, A and B (Fig. 5), including the burnt blade from within the cremation urn itself (Fig. 4.12). The total excavated area was *c.* 56m^2 giving an overall density of *c.* 3.7 per m^2. Trench A yielded the highest density at an average of *c.* 4.2 per m^2 whilst the average density for Trench B was *c.* 3 per m^2. The density of flintwork recovered in Trench A is certainly higher than that which might be expected as part of the general 'background' level for excavation in the North Derbyshire region (Myers 1992; Torrence and Edmonds 1988). However, our knowledge concerning levels of scatter density to be anticipated on sites of more concentrated or prolonged activity involving lithic technology in differing periods and in varying topographical locations, is still very limited.

Raw Materials

The assemblage is dominated by varieties of flint (63.7%) of which translucent or semi-translucent flint are the most common forms (49.7%). Much of this material is a light brown or brownish grey colour with very few inclusions and, where present, a sharp thin and very smooth cortex. An origin in boulder clay deposits seems most likely for this material, but such potential sources exist in both East Yorkshire and to the west of the

Raw Material	Number	Percentage
Translucent/Semi-Translucent flint	103	49.7
Wolds flint	5	2.4
Opaque/Miscellaneous flint	24	11.6
Black Derbyshire chert	28	13.5
Grey chert	23	11.1
Other chert	6	2.9
Uncertain	18	8.7
Total	207	100.0

Table 6: Horse Pastures, Beeley: lithics — raw material composition of the assemblage.

Pennines. Some of this material may also have come from the flint-bearing Trent Valley gravels.

The distinctive white, opaque, mottled flint with parent sources in the Burnham and Welton chalk beds of the Lincolnshire Wolds, and secondary sources in the chalky till deposits to be found well to the west of the Lincolnshire Edge, is only represented by some five pieces.

The bulk of the remainder of the assemblage consists of varieties of chert (27.5%). This includes some 28 pieces of the distinctive black material which has known, accessible sources in Derbyshire amongst the Carboniferous limestone exposures of the Wye and Lathkill valleys between Monyash and Ashford (Cox and Bridge 1977).

Typological Composition

The assemblage (Table 7) contains some 20 pieces showing deliberate secondary retouch and at least one piece which may have edge modification as a result of use. This figure includes two micro-burins and a single microlith, typologically characteristic of the Mesolithic. The microlith (Fig. 8; 42) is a small rhomboid form characteristic of the Later Mesolithic (*c.* 6700–3400 bc). It is made of flint and measures just 11 × 10.2mm. The micro-burins are both distal removals notched on the right-hand side, one made of chert (Fig. 8; 243), the other of brown translucent flint (Fig. 8; 314). The latter has a slightly 'perverse' facet.

Amongst the other retouched tool forms there is only one, a possible thumbnail scraper made of flint (Fig. 8: 338), which might be considered to be particularly chronologically sensitive. Such scrapers are generally associated with the Later Neolithic/Early Bronze Age period and would accord well with the cremation urn. The remaining scrapers are either undiagnostic in form or are fragmentary. One (Fig. 8: 228), might be classified as a button scraper, another Later Neolithic/Early Bronze Age type. However, this piece is tiny, measuring 11 × 10.2mm, and is difficult to classify.

The notched flake knife (Fig. 8: 293) is actually made on a blade of opaque grey flint. The retouch is shallow and runs from the notch to the distal end on the left hand margin. Such notched pieces are sometimes numerous on Mesolithic sites, but this is not particularly diagnostic.

The single lithic find from within the cremation deposit (Fig. 4: 12) is a burnt blade with evidence for platform isolation scars on the dorsal face. Such a piece is not, itself,

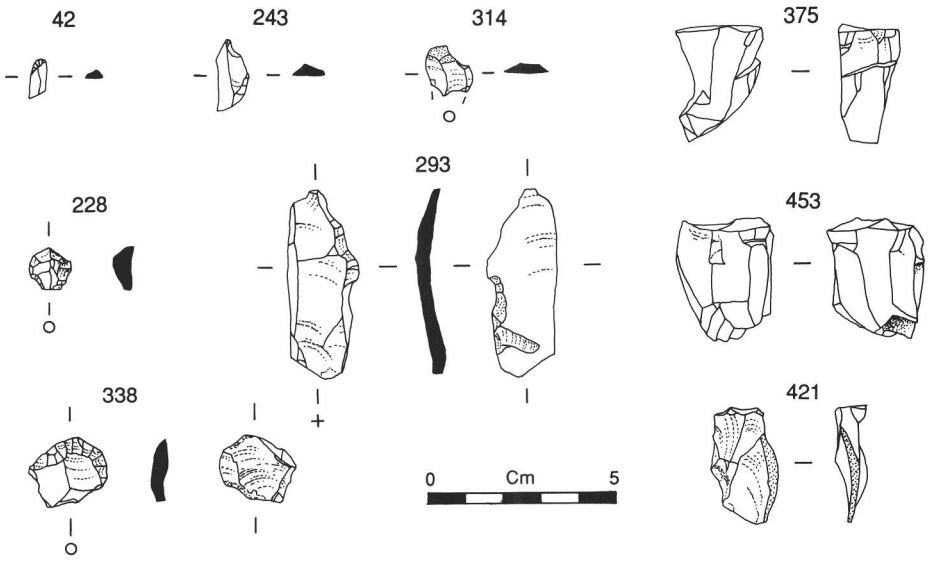

Fig. 8: Horse Pastures, Beeley: lithics.

Artefact Type	Number
Chips/chunks	40
Blades	*37
Flakes	83
Microlith	1
Scrapers	5
Notched flake knife	1
Retouched blades	2
Retouched flakes	6
Micro-burins	2
Cores	**12
Core rejuvenation flakes	***18
Total	207

* = one probably utilised.
** = includes three fragments and two that are retouched (one of which is a core fragment).
*** = includes one retouched.

Table 7: Horse Pastures, Beeley: lithics — typological composition of the assemblage.

chronologically indicative. However, such careful blade production is more usually associated with Mesolithic and Earlier Neolithic assemblages. It is possible that this piece predates the cremation and was incidentally burnt and then gathered up with the cremation remains for burial in the urn.

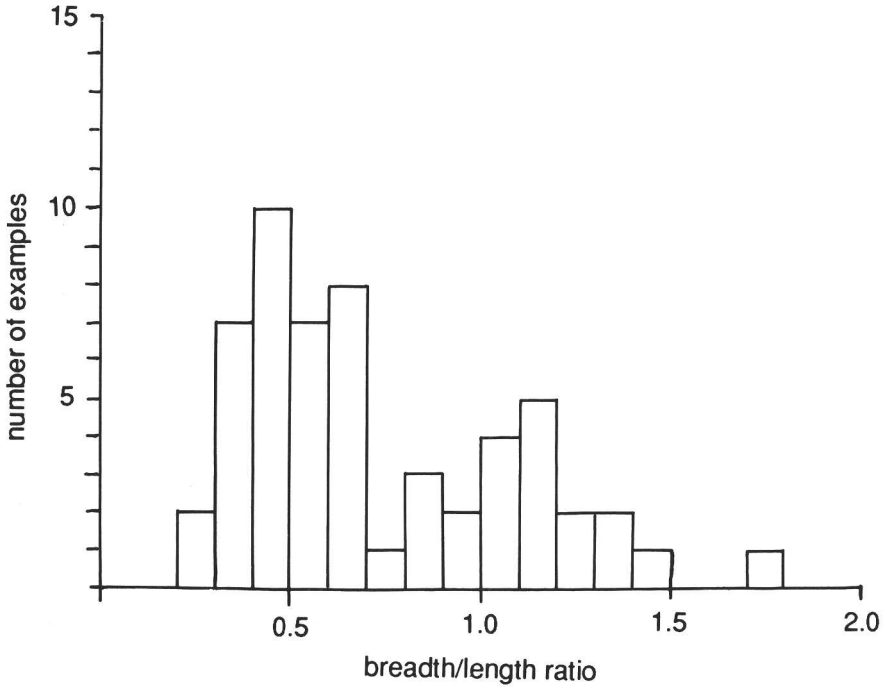

Fig. 9: Horse Pastures, Beeley: breadth/length index for the lithic assemblage.

The cores and core rejuvenation evidence does, however, suggest a strong emphasis on the careful production of blades, as do the number of unretouched blades in the assemblage. Blade cores characteristic of the Later Mesolithic (Fig. 8: 375, 453) are complemented by the number of ridge flakes and blades, core platform overhang removals and plunging blades. One core (Fig. 8: 421) is made on tabular black Derbyshire chert which has been carefully worked for blade production across one narrow face and using natural fracture surfaces for the platform. Identical forms are known from Later Mesolithic sites elsewhere in the Pennines using the same raw material (Myers 1986, 371–72). The ratio of blades to flakes (1: 2.24) is relatively high, and is born out by the analysis of bladedness for complete unretouched blades and flakes (Pitts and Jacobi 1979). Whilst the mean breadth/length index of 0.727 is not indicative of a particularly bladed assemblage it is clear on visual inspection (Fig. 9) that there is a bimodal distribution to values with one peak at approximately 1.1 and another at approximately 0.5. This could indicate that the debitage assemblage represents at least two periods, with one characterised by an emphasis on blade production and the other by the production of more squat flakes. This evidence could support the typological indications found amongst the retouched lithics for a strong Later Mesolithic contribution with some Later Neolithic/Early Bronze Age material in the assemblage.

Discussion

The assemblage appears to be derived from at least two main periods, the Later Mesolithic and the Later Neolithic/Early Bronze Age, of which the former appears to

	Primary	Secondary	Tertiary
Flint	8 (10.6%)	18 (24.0%)	49 (65.3%)
Chert	4 (11.1%)	9 (25.0%)	23 (63.9%)
Total	12 (10.1%)	29 (24.4%)	77 (65.6%)

Table 8: Horse Pastures, Beeley: lithics — stage analysis of the assemblage.

have made the greatest contribution numerically. There is, however, no clear indication of any particular chronological influence in the use of raw materials. As discussed above, Later Mesolithic retouched pieces are in both flint and chert. The chert unretouched complete flakes and blades show a breadth/length index of 0.7264 which is, in all practical terms, identical to that of 0.7261 for the flint pieces.

Spatially there did not appear to be any correlation between the locations of 'burnt' areas identified during the excavations and observations of heat modification of the lithics. The assemblage does vary in density both within and between the two trenches (see Fig. 5), although in neither is there a concentration which might compare with the densities found on some Later Mesolithic sites excavated in the region (Radley *et al.* 1974; Stonehouse 1976; 1980). However, the densities found here are more comparable with those found during test pitting of a Later Mesolithic scatter at Minninglow Car Park (McElearney 1992; Myers 1992). As our understanding of variations in scatter density encountered over the Peak District landscape improves it may become possible to relate densities found here and at Minninglow to the higher density locations.

What can be said is that the Later Mesolithic activity at Horse Pastures appears to have left evidence for a number of stages in the use of lithics, including the preparation of core platforms and ridges, the production of blades and flakes, the deposition of some cores with hinge fractured faces, and the deposition of at least one microlith and the manufacture of at least two new microliths. Furthermore, stage analysis of the unretouched flakes and blades (Table 8) shows that over 34% bore some cortex, and that over 10% were completely corticated. This does suggest a very broad range of stages in the reduction of cores on the site, Interestingly there is virtually no difference in the stage analysis for the flint and chert components and that found for the whole assemblage, including pieces whose raw material classification was uncertain (see Table 6). This all suggests that there was no particular contrast in the balance of raw material use between the various periods represented here.

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