A PREHISTORIC PIT WITH POSSIBLE BURIAL AT HOLLINS CROSS, HOPE VALLEY

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SUMMARY

The chance discovery of a burnt discoidal scraper by the path at Hollins Cross led to a small archaeological investigation of the immediately surrounding area of ground. The flint was on the surface of a small, heavily truncated pit which was later excavated and found to be filled almost entirely with burnt organic material. Three other chipped stone tools along with two very rare, fired clay disc beads, one grain of wheat, burnt hazelnut shells, four tiny fragments of bone and 163 very small flakes of flint were also present. Radiocarbon dating of two hazelnut shell fragments has dated the fill of the pit to around the 20th century cal BC. Isolated pits dating from this period are rare and this pit was situated within an eroded and much reduced earthen mound the remnants of which can still be seen on the site. The presence of tiny burnt bone fragments and perforated clay beads suggests the pit is the basal remains of a heavily truncated secondary grave pit inserted into the mound, and possibly that of a woman.

INTRODUCTION

In 2008 a scraper was found by chance (by the first-named author) on the surface of a discrete area of darkened soil on an erosion scar close to the commemoration pillar at Hollins Cross, Derbyshire, at SK1358384513. Hollins Cross is the name given to a prominent 'nick' on the 'Great Ridge' that divides the Hope Valley to the south and the Vale of Edale to the north (Fig. 1, Plate 1). During a second visit to the site a further two pieces of burnt and worked flint were found on the surface of the discoloured soil. The finds, associated with an area of burning, suggested the presence of a truncated and eroding prehistoric pit. Unfortunately, the erosion scar borders the paved, well-used path and is vulnerable to further damage by

footfall and weathering, so the remains would not have survived for long and its contents were in imminent danger of being lost. Therefore, excavation of the pit was undertaken by three members of Arteamus (a volunteer archaeological research group working in the Peak District) under the direction of Arthur Wilson.

Hollins Cross is situated at a low point (388m OD) on the Great Ridge between the promontories of Mam Tor and Barker Bank. The bedrock is Kinderscout Grit-Sandstone on the site itself with superficial deposits of glacial sand, gravel and till lower down the slope. The pit was observed in an erosion scar in an area of bare soil with sparse patches of grazed grass.

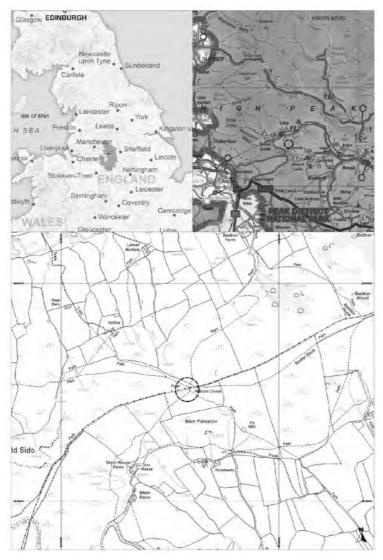


Fig. 1: Location of Hollins Cross pit site. Contains Ordnance Survey data. © Crown copyright and database right 2015.



Plate 1: Location of Hollins Cross pit looking south-west. The burnt flint scraper is in the foreground, on the surface of the discoloured soil.

From Hollins Cross there are extensive views over Blackden and Ashop Moor to the Derwent catchment to the north and to the Kinder Plateau to the north-west. The late prehistoric hillfort of Mam Tor can be seen along the Ridge to the south-west. Eldon Hill, Bradwell Moor, Abney Moor and Offerton Moor are all visible to the south and west. Views to the north-east, of Barker Bank and Lose Hill, are obscured by the Great Ridge itself. A prehistoric trackway is believed to have passed along this ridge (Dodd and Dodd 1974) and prior to the licencing of burials at Edale Chapel in 1633 Hollins Cross was on the "coffin road" - the route taken by funeral processions - between Edale and Castleton Church. Cotton workers from Castleton used the path to walk to Edale Mill. In modern times it is much visited as it is situated at the junction of six well-used paths and the Great Ridge was voted tenth of 'Britain's Favourite Walks Top 100' in 2018 (Ordnance Survey website 2018).

Bronze Age activity, in the form of burial mounds, settlement sites and artefact find spots, has been recorded in the Historic Environment Record at several places along the Great Ridge and its environs. The region's largest hillfort at Mam Tor is likely to have a long history of activity, with Bronze Age finds recorded in past excavations (Coombs and Thompson 1979). A settlement site is postulated at Back Tor, Edale, based on the discovery of pottery, lithics, ash, burnt stones and charcoal (Makepeace 1994). Bronze Age burial mounds are recorded on the Great Ridge at Mam Tor (two), at Lose Hill and at Yemans Bridge on the floor of the Edale Valley. Isolated surface finds of chipped lithics within 1km of Hollins Cross have been discovered at Barker Bank and Little Mam Tor, and within 2km at Back Tor and Lose Hill, where a possible scraper was described as "eroding out of the soil adjacent to the main path" (Historic Environment Record).

EXCAVATION RESULTS

On 8 November 2008, the area was photographed and then its location was planned with distances measured offset from Hollins Cross commemoration pillar. Levels were also recorded. A 60cm by 60cm excavation area was marked out exposing the blackened area and its surroundings. The blackened area had been eroded away on its north side for an unknown distance. Once the remaining edge of the pit had been identified the pit was sectioned, removing the eastern half first. No sequence of deposition was observed in the section and there was no apparent placing of objects in an ordered manner in the fill. The fill comprised a black soil containing a high proportion of charcoal. Some pieces were as large as 2cm by 2cm. and a large amount of the charcoal was separated from the fill at this time. There was a small amount of burnt sandstone present in small pieces typically up to 1cm across within the fill. No ceramic was found. A burnt retouched blade, the fourth collected from the pit, was found in the eastern half of the section and a flint blade fragment was collected on the soil surface about 50cm from the pit itself. The pit fill was completely removed to expose the pit's cut and 100% of the fill was retained for analysis. The interface of the pit with the natural weathered sandstone was a pale yellow with no evidence of having been scorched or fire-reddened, and so the pit had not been used for burning. The pit was clearly defined and had been dug out of the eroding brash layer in a bowl shape, with the surviving portion measuring about 40cm by 30cm by 20cm although it had clearly been wider to the north. A small stone in the base and south side of the pit was excavated further and proved to be an earthfast sandstone slab, extending into the natural brash on two sides of the pit. There was no evidence of silting in the

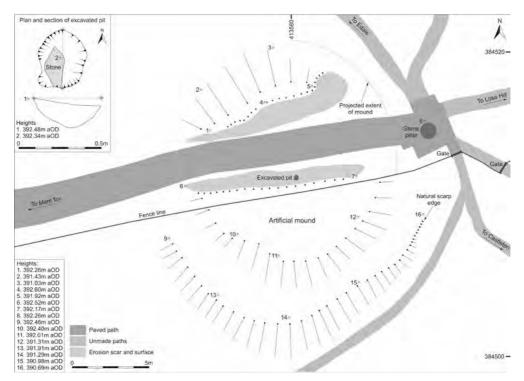


Fig. 2: Plan of Hollins Cross pit excavation.



Plate 2: Site of possible mound at Hollins Cross. The figure on the left is standing on the southern part and the northern part is marked by the eroded area. The paved path passes through the centre of the mound, west from Mam Tor via the commemoration pillar to the east.

sides of the pit suggesting that the pit had been filled shortly after it had been dug. A plan and section of the empty pit was drawn. (Fig. 2).

The pit was discovered in an erosion scar set into an eroded face within a heavily eroded, broadly circular, man-made earthen mound (Plate 2). The main footpath along the Great Ridge runs straight through the mound and it is paved with large, heavy flags in this section. There is considerable erosion in and around the mound and it is constantly scuffed by walkers' shoes and there are also sheep scrapes on the sides of the mound. The remains of a low dome-shaped mound, approximately 15m in diameter, can be observed covering the area where the pit was found and through which the main ridge-top path has been cut. The remaining mound is of earth, making it an unusual feature as the rest of the ridge top is composed of bedrock, exposed or close to the surface with only a shallow mineral soil above it. A detailed survey was beyond the scope of this work but is an important next step in the recording and management of this fragile and badly mutilated monument.

Radiocarbon dates

Two separate burnt hazelnut shell fragments from the pit fill were selected for radiocarbon dating. They were submitted to the Scottish Universities Environmental Research Centre (SUERC), under the Community Archaeology Radiocarbon Dating Fund (CARD) scheme, funded and administered by Archaeological Research Services and SUERC (http://www.cardfund.org/).

The methods used to analyse the samples are described by Dunbar (2016). The two dates (Table 1) produced a weighted mean of 2015–1785 cal BC at 95.4% confidence.

Laboratory code Sample code	Context	Material	δ13C (0/00)	Radiocarbon Age BP	Calibrated date range (68.2% confidence) cal BC	Calibrated date range (95.4% confidence) cal BC
SUERC-77820 (GU46673) HC1	Charred fill of pit <i>Corylus</i> <i>avellana</i> L. (hazel)	Burnt nutshell fragment	-23.5	3620±32	2026–1942	2121–1892
SUERC-77821 (GU46674) HC2	Charred fill of pit <i>Corylus</i> <i>avellana</i> L. (hazel)	Burnt nutshell fragment	-23.3	3517±32	1892–1774	1928–1750
Weighted Mean	X2- Test:df=1 T=5.2 (5% 3.8)					2015–1785

Table 1: Radiocarbon dates.

Lithics

By Benjamin T-Y Chan

Three pieces of flint and one piece of black chert or burnt flint were found within the pit fill (Plate 3) together with 163 tiny chips of flint. A single further chipped flint was found 50cm to the west (Plate 4).

The piece of flint originally discovered eroding out of the pit is a burnt discoidal scraper. It is white and cracked and the most heavily burnt of the pieces, making it impossible to identify the original raw material. Two parts of its edge, one on either side, had cracked so deeply that they had been lost. All the remaining edges are steeply retouched on the dorsal face. The scraper is likely to be from the Neolithic-Bronze Age and this corresponds with the radiocarbon dating results.

The second piece of flint was found close to the surface of the fill in the north of the pit and near to the scraper. It is identified as a retouched blade or possibly a small flint knife. It is also heavily burnt with fine lines and some pitting within the blackened fabric. This made it impossible to identify the raw material. A part of the proximal end is lost meaning that the bulb of percussion and butt are missing. There are two parallel ridges on the dorsal side. One edge is almost complete and is retouched along its length.

The third piece of flint was found in the fill close to the retouched blade. It is very heavily burnt and of the same appearance as the scraper with retouching on one edge. These similarities suggest that it is part of the scraper's missing edge.



Plate 3: Lithics found within the pit. Left to right: retouched blade with triangular cross section, retouched blade, fragment of scraper's missing edge and discoidal scraper.



Plate 4: Trimmed blade segment found 50cm from pit.

The piece of black chert was found in the east of the pit fill, lower down than the three pieces of flint and is a small retouched blade with triangular cross section and flat ventral surface. It is slightly burnt with fine lines on the ventral side and a greying of the chert in two areas on the dorsal side. It has finer steep retouching on the full length of one edge and coarser steep retouching down the other edge. A small amount of both the proximal and distal ends is broken off.

The piece of flint found 50cm to the west of the pit is an unburnt edge-trimmed blade segment made of Wolds flint.

A further 163 tiny chips averaging just a few mm across were recovered during flotation of the pit fill. None of these chips was diagnostic and all comprise debitage or shatter from the burnt pieces. Not all chips showed signs of burning but some did.

The lithic types found within the pit support the radiocarbon dating of the pit fill. The pieces are processing tools and their evidence for burning is consistent with the burning evidenced by the large quantity of charcoal also within the pit fill.

Charred Remains

By Luke Parker

Palaeoenvironmental analysis was undertaken on the entire pit fill which contained very high concentrations of charred material.

The bulk fill sample was processed via water flotation at Sheffield University with advice from Ellen Simmons. Flots were first scanned using a low-power binocular microscope (x40) and separated out into charcoal and plant macrofossils.

100 fragments of charcoal were selected for identification (Table 2). The sample was drysieved through 10mm, 500 μ m and 300 μ m sieves and fragments were taken in turn from each size fraction. Charcoal with a size of >2mm was fractured to obtain clean sections on the tangential, transverse, and radial planes. These could then be identified using a high-power Leica GXML3030 binocular microscope (up to x600). Species identification of the charcoal was undertaken using plates and guides from Scoch *et al.* (2004) as well as comparison with a modern reference library held by ARS Ltd.

Plant macrofossil identification was undertaken using a low-power binocular microscope (x40). Plant macrofossil identification utilised plates and guides from Cappers *et al.* (2006) and nomenclature follows Stace (1997). Cereal identification utilised the guide by Jacomet (2006). All plant macrofossils present were assessed. Non-charred macrofossils were discounted as being modern contamination and were excluded from this analysis.

The pit contained an abundant charcoal assemblage with a wide variety of charcoal from different deciduous tree species present. In addition, four very tiny fragments of burnt bone were also recovered from the flotation measuring little more than 1mm across. The latter are so small that identification is impossible.

The charcoal assemblage contains a dominance of *Sambucus nigra L.* (elder) (37%) and *Maloideae* (stony fruits) (26%) wood. The *Maloideae* species of *Pirus* malus (apple), *P. communis* (pear), *Crataegus sp.* (hawthorn) and *Cydonia oblonga* (quince) are very difficult to distinguish based on wood anatomy, however the likelihood is that in this case it is *Crataegus monogyna* (hawthorn) which is present as charcoal. Smaller proportions of the assemblage are composed of *Fraxinus excelsior L.* (ash) (11%), *Salix sp.* (willow) (7%), and *Quercus sp.* (oak) (10%). An even smaller minority is made up *Corylus avellana* (hazel) (4%), *Acer campestre L.* (field maple) (2%), *Alnus glutinosa L.* (alder) (2%), and *Cornus sp.* (dogwood) (1%).

	Total	Roundwood
Charcoal		
Alnus glutinosa L. (alder)	2	1
Acer campestre L. (field maple)	2	1
Corylus avellana L. (hazel)	4	3
Quercus sp. (oak)	10	10
Salix sp. (willow)	7	7
Fraxinus excelsior L. (ash)	11	10
Sambucus nigra L. (elder)	37	21
Maloideae (stony fruits; most likely hawthorn)	26	1
Cornus spp. (dogwood)	1	
Botanical Macrofossils	1	
Vicus sp. (vetch)	1	
cf. Corylus avellana L. nut shell	2 ★	
Triticum sp. grain	1	
Burnt bone		
Indet.	4	

Table 2: Charred remains from the Hollins Cross pit. \bigstar indicates material chosen for ¹⁴C dating.

The wide variety of charcoal species is indicative of deciduous woodland, small pieces of which had been collected for firewood. The charcoal assemblage is predominantly composed of roundwood fragments. This is indicative of opportunistic firewood collection, rather than active felling and/or timber processing. Smaller, easily acquired branches from trees or from easily accessible shrubs (i.e. the hawthorn) were taken. The variety makes it likely that ease of acquisition and transport was given priority over the burning characteristics of the wood. For instance, alder or willow wood is generally not particularly efficient as firewood. It is unlikely that well-developed woodland, particularly woodland based near to wet environments (as suggested by alder and willow), would be encountered at the relatively high-altitude location of Hollins Cross. It is likely that this wood was imported to the site from surrounding woodland at lower altitudes, necessitating the choice of easily transported wood.

A single charred grain of wheat was recovered from the pit fill. This grain could not be identified to the species level. The grain appears to be of the hulled variety (either *Triticum dicoccum* or *Triticum spelta*); the lack of a distinctive dorsal ridge may suggest that this grain could be spelt wheat rather than emmer. However, this lack of a dorsal ridge itself is not universally definitive in enabling spelt identification. Given the date for the pit, the likelihood is that this wheat grain is emmer (on the assumption that it does not represent much later intrusive material).

A single charred *Vicus sp.* (vetch) seed was recovered from the assemblage although it could not be identified to species level. The very small size of the seed suggests it is a wild species of vetch rather than a domesticated form.

The fired clay disc beads

By Alison Sheridan

Two small disc beads made from fired clay were found among the material filling the pit. Both are roughly circular, and the edges of each are gently convex; one is slightly thicker than the other. One measures 5.8–6mm in diameter and 2.2mm in maximum thickness, with a narrow, slightly eccentric perforation around 0.6–0.7mm in diameter (Plate 5). In profile it is slightly wedge-shaped. The other measures 6.2–6.65mm in diameter and 2.4mm in maximum thickness, with a similarly narrow, slightly eccentric perforation around 0.6–0.7mm in diameter (Plate 5). A spall has become detached from the latter, revealing the texture of the subsurface of the clay. While the beads may have been made by wrapping clay around a very narrow piece of organic material, there are no obvious signs of a seam where the ends joined. The perforations are parallel-sided (with their slightly uneven shape being partly due to some sediment from the pit fill still lodged in them), and it is clear that they were created when the beads were being formed, rather than being drilled after the beads had been fired. Microscopic examination makes it clear that the beads have been made by firing clay, but their black colour throughout might be due to post-firing burning in a reducing atmosphere. There are no signs of thread-wear in the perforations.

Finds of disc beads of fired clay are very rare, but *comparanda* of Early Bronze Age date can be found in southern England. At least 109 such beads formed part of a composite necklace of fired clay, Kimmeridge shale, amber and tin that was found in a waterlogged cist on Whitehorse Hill, Dartmoor, Devon (Sheridan 2016); this cist's contents have been dated to 1730–1600 cal BC at 95.4% probability (Bayesian-modelled dates: Marshall *et al.* 2016). Further examples are known from another composite necklace from Winterbourne



Plate 5: Bead 1, front and side views. The area of the detached spall on the right has a tiny rootlet fragment lodged in the fabric of the bead.

Plate 6: Bead 2, front and side views. The area of the detached spall on the right has a tiny rootlet fragment lodged in the fabric of the bead. Photo: Alison Sheridan.

Photo: Alison Sheridan.

Stoke G64(a), Wiltshire (17 beads: Woodward and Hunter 2015, 411–2 and fig. 8.2.2) and from a pit at Radley, Berkshire that contained cremated remains of an adult, possibly female, dated (by oak charcoal) to 1970–1600 cal BC at 85.4% probability (3450±70 BP, OxA-1888: Barclay and Halpin 1999, 49 and fig. 4.9). Other Early Bronze Age beads of fired clay are known from elsewhere - fusiform and chunky annular beads have been found in a cinerary urn at Altanagh, Co. Tyrone in Northern Ireland, for example (Williams 1986) - but the southern English examples provide the closest *comparanda* to the Hollins Cross examples. While the sex of the cremated individual in the Whitehorse Hill cist could not be established (and indeed the four bone fragments were too small and undiagnostic to permit any reliable identification to be made), Early Bronze Age composite necklaces are consistently found with females, and so it is likely that the Hollins Cross beads had been the property of a female. The dates obtained from burnt hazelnut shell from the pit appear to be somewhat earlier than that for Whitehorse Hill, but the Radley date overlaps at 95.4% probability with the later of the two Hollins Cross dates (SUERC-77821).

DISCUSSION

The investigation at Hollins Cross recorded the basal remains of a truncated pit that contained heavily charred debris including abundant roundwood charcoal, 167 flints (of which 163 are tiny chips/shatter), two small perforated beads and four tiny fragments of indeterminate burnt

bone. Two hazelnut shell fragments have dated the pit fill to 2015–1785 cal BC.

Although we cannot be certain what this pit represents it is highly likely to be the truncated remains of a secondary grave containing pyre debris, inserted into the mound and since mutilated by the main footpath. This conclusion is supported by the abundance of burnt material, including roundwood charcoal from wood that had clearly been selected for use as firewood, present in the fill. There was no evidence for burning *in situ*, which indicates that the burnt fill was introduced to the pit as already burnt material. The presence of some tiny fragments of burnt bone and the two clay perforated beads are suggestive of the presence of human cremated remains (although this cannot be confirmed due to the small size and undiagnostic nature of the fragments); if this had been a deposit of cremated human remains, then to judge from the beads found in the pit and the age of the deposit, then the deceased is likely to have been female. The topographic location is consistent with the location of a burial mound as it occupies the natural north-south crossing point of the 'Great Ridge' and is prominent for many miles. There are prehistoric burial mounds at other prominent places along the Great Ridge, including on Rushup Edge, on the crest of Mam Tor and on Lose Hill, and so the presence of a burial mound at Hollins Cross would fit into this pattern.

Furthermore, Peak District Park rangers confirmed that very little excavation or transportation of soil took place during the paving of the path in 2000–1, so these works cannot explain the presence of this mound of soil.

If this pit is the vestigial and truncated remains of an Early Bronze Age grave, inserted into a burial mound, it is possible that the individual/s had been interred with or within a Beaker, Food Vessel or cinerary urn, all traces of which had been removed or destroyed, and this could account for why so little burnt bone was found in the basal fill.

The pit at Hollins Cross differs to some extent from other pits excavated on Eyam Moor (Wilson and Barnatt 2004) and at Howden reservoir (Bevan 2003), which are both within 10km of the site.

On Eyam Moor, three pits were identified beneath a surviving clearance cairn, all of which contained stratified deposits that included a saddle quern, Beaker sherds, flint scrapers, calcined bone, a chert block and placed stones, within a charcoal-rich fill, although they dated to broadly the same time as the Hollins Cross pit at around 2050 BC. The Eyam Moor pits were interpreted as pits dug as ritual acts. However, they did appear more complex in construction when compared to the Hollins Cross pit. The heavy truncation of the Hollins Cross pit has meant that only the basal remains of its fill have survived. The four pits found at Howden reservoir contained mainly river-worn fire-cracked cobbles and charcoal placed within shallow bowls in unweathered bedrock unaffected by heat. In contrast to the pit found at Hollins Cross pit, at 2870–2210 cal BC at 95.4% probability (Beta-139758, Beta-137042 and Beta-137043 using Intercal98 data by Beta Analytic) and have been interpreted as having been associated with the cooking of food or heating of water, rather than as funerary features.

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The archive is to be deposited in Buxton Museum, Acquisition number DERSB:2017.104.

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