

Archaeological investigation and analysis of Bronze Age funerary monuments on Brackenber Moor, Appleby-in-Westmorland, Cumbria

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This paper presents the results of two seasons of archaeological investigation focusing on earthwork monuments at Brackenber Moor, near Appleby-in-Westmorland, one of which was previously recorded as the site of a possible Roman signal station or tower. The work revealed evidence for Bronze Age funerary activity in the form of an embanked cremation cemetery, forming part of a more extensive prehistoric funerary landscape. Analysis of the cremated remains, and the results of radiocarbon dating, indicate a period of use for the monument in the early Bronze Age. A nearby cairn of likely Bronze Age date was also investigated, revealing an assemblage of Mesolithic and early Neolithic flint tools. These are believed to pre-date the monument, and demonstrate that Brackenber Moor has been utilised for a considerable period. The results of this work have also cast doubt over the extent of the postulated chain of Roman towers previously believed to follow the route of the High Street Roman Road (A66) over Stainmore into the Eden Valley.

Introduction

BRACKENBER Moor is situated *c* 3km to the east of Appleby-in-Westmorland, between Hilton and Coupland Beck. It comprises 11ha of unenclosed moorland, bounded by the Hilton Beck to the north, enclosed fields to the east and west, and the A66 to the south (Fig. 1). Brackenber Moor is an open common, with local farmers exercising grazing rights. Parts of the moor are used as a golf course managed by Appleby Golf Club.

The geology of the area comprises New Red Sandstone, overlain by boulder clay. The topography is undulating, with elevations ranging between *c* 150m and *c* 230m AOD. The north and west of Brackenber Moor are defined by Hilton Beck.

The archaeological work presented in this report follows an investigation, by Appleby Archaeology Group, of an Iron Age enclosure on the south-east side of the moor, known as The Druidical Judgement Seat. This is a D-shaped enclosure, comprising an outer bank and inner ditch, with a single entrance on the north-west side (NY 7206 1884). The earthwork occupies a natural headland on the south-east side of the moor close to several scheduled cairns thought to be Bronze Age barrows (Fig. 1). Archaeological evaluation demonstrated occupation of the site in the late Bronze Age/ Iron Age, with earlier activity on the headland dating to the late Neolithic/early Bronze Age (Railton 2011a).

In March 2009, Appleby Archaeology Group undertook geophysical surveys of two possible Roman sites at Brackenber Moor. This included an earth resistance survey of an earthwork on the west side of the moor interpreted as the site of a possible Roman signal station (Cumbria HER 3473; NY 7083 1982). The geophysical survey

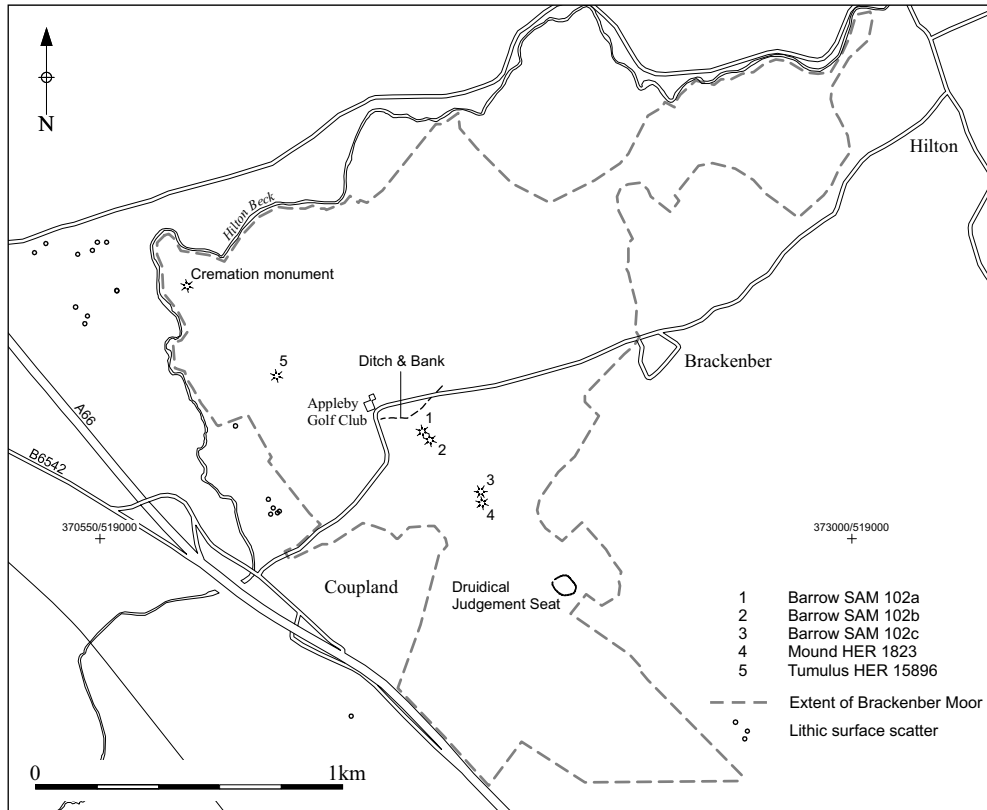


FIG. 1. Overall location plan of the subject area (scale 1:25,000).

supported the interpretation that the earthwork was the site of a Roman tower or signal station, based on the accepted morphology for similar sites in the area. The survey recorded a central mound, containing a sub-square sunken area, surrounded by a ditch and outer bank. This was similar to other earthworks in the Upper Eden Valley identified as Roman signal station or tower sites (Railton 2009).

In May 2011, an archaeological evaluation of the earthwork was undertaken as part of the Altogether Archaeology Project organised by the North Pennines AONB Partnership. One of the primary objectives of the project, which comprised a topographic survey and the excavation of three archaeological trenches, was to establish the date and function of the earthwork. Trench A was positioned to investigate the earthwork enclosure, including a complete section across an outer bank and ditch, to sample part of the central platform and investigate part of a possible southern entrance (Fig. 2). Trench B was positioned to investigate the east side of the earthwork, which appeared to have been removed by later activity. Trench C was positioned over a ditched feature to the west of the earthwork enclosure.

In October 2013 a further archaeological investigation was undertaken on a cairn on the west side of the moor (NY 716 193). The site comprised one of four possibly Bronze Age burial cairns on a ridge between the Appleby Golf Club House and The

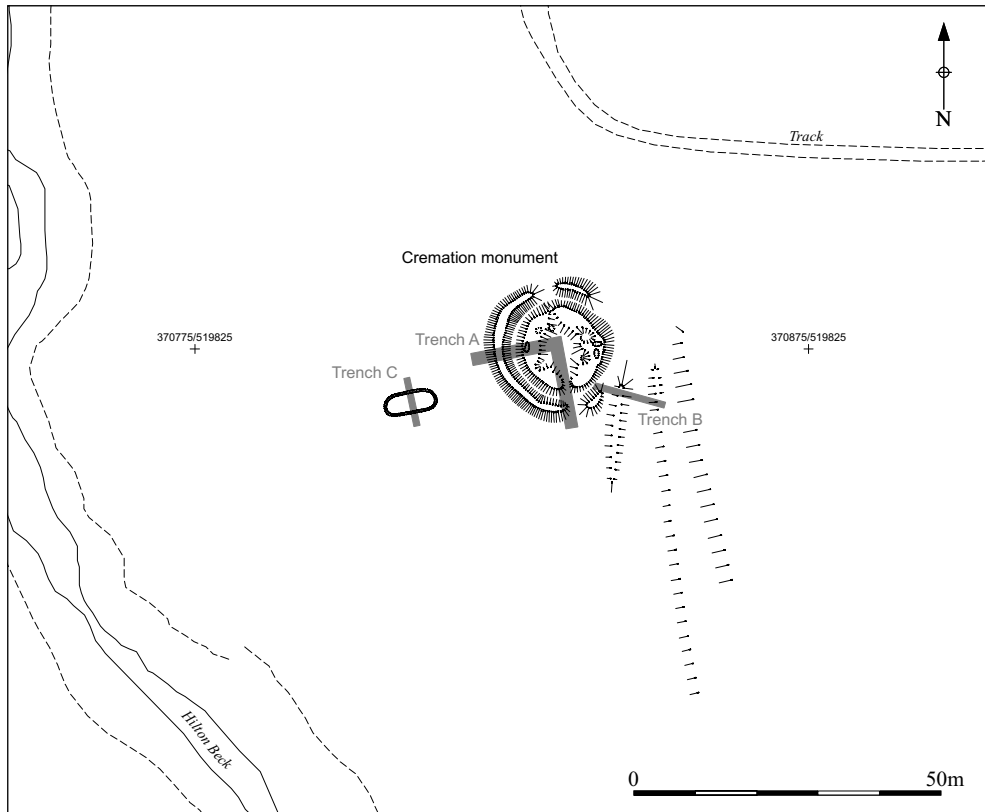


FIG. 2. Overall plan of the cremation monument and associated earthworks (scale 1:1250).

Druidical Judgment Seat at Espland Farm (Fig. 1, Sites 1-4). The site is a Scheduled Monument (SAM 102a), disturbed in antiquity and more recently by illicit metal detecting. The investigation involved the excavation of two trenches to investigate the cairn (Trench D and Trench E), and a further trench (Trench F) across an undated bank and ditch to the north-west (Slater 2013).

Fieldwalking over four arable fields to the south and west of Brackenber Moor was also undertaken by members of the Appleby Archaeology Group in 2012, with the objective of obtaining further evidence for prehistoric activity in the wider area (Fig. 1). Lithic artefacts of early Neolithic and later date were recovered.

Previous Interpretations

The A66 to the south of Brackenber Moor is known to follow the course of the High Street Roman Road across Stainmore, linking the forts of Bowes (Lavatris) and Brough (Verterae), and forming part of a larger, strategically important route between York (Brovacum) and Carlisle (Luguvalium). The forts, camps and other Roman features along the route were investigated between 1989 and 1991 associated with the widening of the A66. The published report includes a discussion of all known and suspected signal stations or towers along the route (Vyner 2001). The excavation of the Bowes

Moor tower site revealed a substantial timber tower on a rectangular platform leading to the belief that there may have been a chain of such towers between Brough and Bowes, perhaps extending further east and west and including the Brackenber Moor site (Annis 2001).

Extending westwards from Stainmore, the possible Roman tower sites identified previously are Johnson's Plain (NY 844 149), the Punchbowl (NY 829 148), Augill Bridge (NY 818 146), Augill Castle (NY 806 143) and the Brackenber Moor site. The Brackenber Moor earthwork is comparable in size and shape to the signal stations at Johnson's Plain, the Punchbowl, and Augill Bridge, and it has been suggested that this site was used to signal direct through a natural line of sight between Castrigg, near Crackenthorpe, and Brough (Higham and Jones 1975, 48). However, the location of the earthwork is problematic, as visibility is restricted by nearby hills, and there are more suitable locations for a signal station nearby. It is also notable that the limited excavations that have taken place at the other Eden Valley locations have revealed no dating evidence for any of these postulated Roman tower sites (Higham and Jones 1975, 48). For example, excavated in 1988/9, Johnson's Plain revealed a circular platform 8.5m in diameter surrounded by twin ring-ditches, within an external palisade. On the central platform, 12 postholes were identified, suggestive of a timber tower which seems convincing, but no dating evidence was recovered (Woolliscroft and Swain 1991).

Previous authors have also suggested that the Brackenber Moor earthwork may be a prehistoric monument (Clare 2007, 2) and it has been noted that in size and form, it is comparable to the henge monuments near Milfield in Northumberland (Harding 1981). However, there are inherent difficulties in interpreting sites on morphological grounds alone, and it is clear from the archaeological investigation that the primary function of the site was for burial, although it does not fall into any of the burial monument categories previously identified in Cumbria (Barrowclough 2010, 154). However, the classification of Bronze Age funerary monuments in Cumbria has been discussed by Evans, who identified various problems with previous schema that are based solely on morphology (Evans 2008, 47).

The earthworks

The main earthwork comprised a sub-circular central mound or platform, surrounded by a ditch and outer bank, pierced by entrances to the north and south (Fig 2). The diameter of the earthwork was *c* 23.5m north-to-south. Part of the earthwork appeared to have been removed by later activity on the east side. A 30m-long western section of the outer bank survived relatively intact, with only two short sections of the bank remaining on the east side of the enclosure. Two 1.2m-wide openings on the north and south sides of the enclosure appeared to be the original entrances through the bank and ditch. The central circular platform measured *c* 13m in diameter, being approximately 0.3m high in relation to the southern enclosure entrance.

A north-to-south running linear bank was identified immediately to the south-east of the enclosure, which was interpreted as a possible field boundary, or an earthen bank

associated with later cultivation practices. Two parallel ridges were identified to the east of the bank, on the same alignment. The ridges, visible on air photographs, were interpreted as cultivation ridges of possible medieval or post-medieval date.

To the west of the earthwork enclosure was a straight-sided elongated ditched feature with rounded ends, aligned approximately east-to-west, and measuring 8.8m long and 3.8m wide. The ditch was 0.4m wide and 0.3m deep, defining a level internal platform. No other topographic features were visible and the nature of the earthwork was uncertain.

Trench A

Trench A was positioned to investigate the earthwork enclosure, and comprised an L-shaped trench located to sample the outer bank and ditch, part of the central platform, and part of the southern entrance (Fig. 3).

The excavated ditch was *c* 2m wide, with a rounded profile and base, being no more than 0.25m deep. The upper layer of sand lining the bottom and sides of the ditch was blackened and compacted as though it had been burned and was found to contain charcoal fragments. Above this were two layers of grey silty sand containing occasional rounded cobbles. Immediately to the west of the ditch was the outer bank of the enclosure, which was *c* 3m wide and 0.6m high, with a rounded profile (Fig. 3).

The southern terminus of the western ditch was revealed in the southern arm of Trench A. The rounded cut for a stone setting was identified on its north side, measuring *c* 0.5m in diameter and *c* 0.3m deep. A boulder, which exactly fit the shape of this cut, sat within the enclosure ditch, and may have originally stood upright at the entrance. Overlying the orange sand within the interior was a layer of fine orange sand, which was hard and compacted, appearing black in places, as though it had been subjected to intense heat. Cutting both this surface and the sand beneath it, were a series of rounded pits and shallow hollows or scoops, between 0.3m and 0.6m in diameter (Fig. 3).

A low bank of material was also identified running around the edge of the earthwork interior. A similar bank was identified in the southern extent of Trench A, however it was uncertain whether this had originally covered the whole of the interior, the centre of the monument having been truncated. The stratigraphic relationship between this layer and the pits was not determined.

A cluster of seven closely-spaced pits was revealed near the centre of the earthwork within Trench A, which were easily identified by their charcoal-rich fills. Four of the pits contained cremated human remains. All were truncated to some degree, most likely by antiquarian investigations, and it is possible that the three other pits had also originally contained cremations.

Running into the eastern section of Trench A, a shallow circular pit [116], 0.5m in diameter and 0.18m in depth, contained the complete rim of an inverted measuring

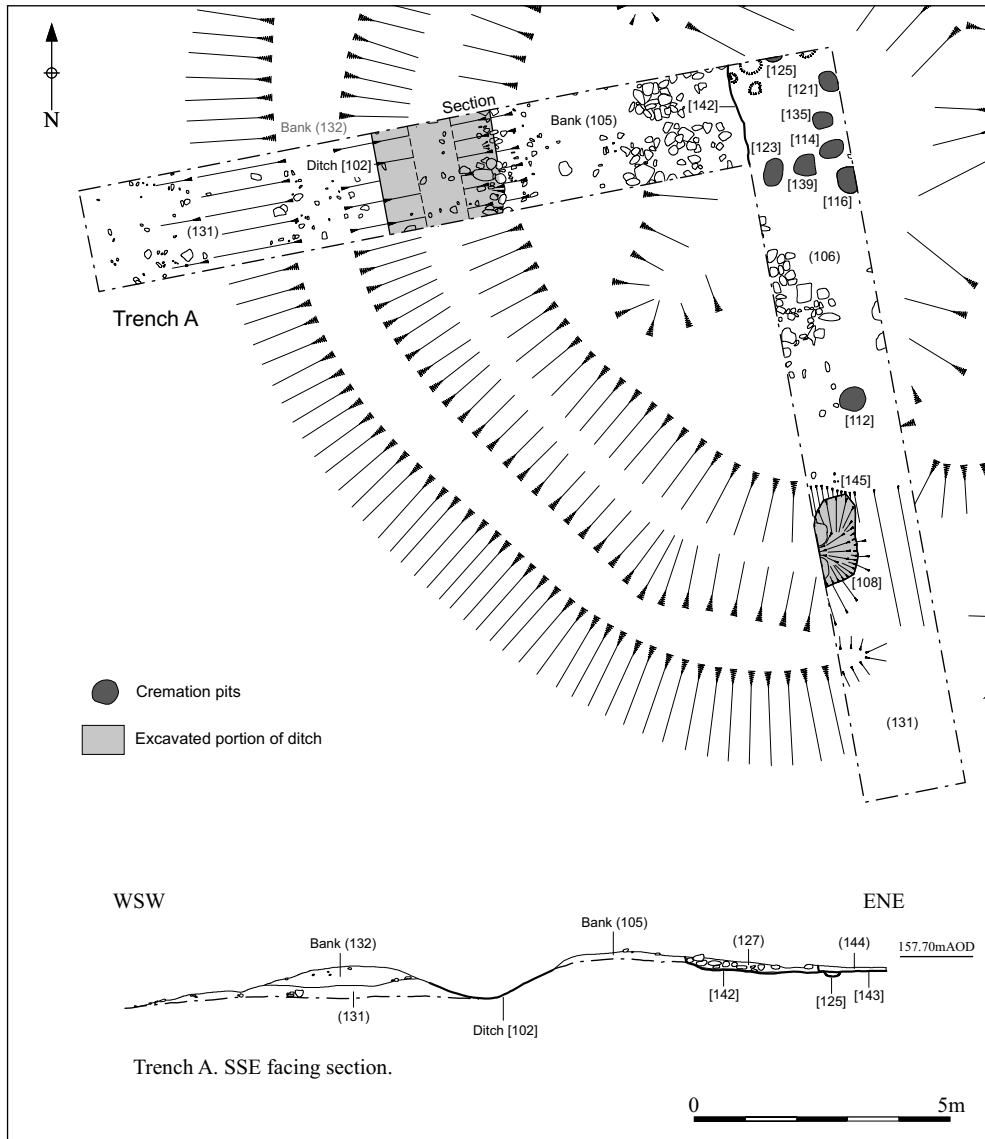


FIG. 3. Trench A; plan and section of the cremation monument (scale 1:150).

vessel containing burnt bone and charcoal (Vessel 1). The base of this vessel was missing, the top of the pit having been heavily truncated. Upon analysis, the human remains were found to be those of an infant.

To the west of pit 116 was an oval pit [123] filled by a deposit of grey/black silty sand containing frequent inclusions of charcoal and a mass of burnt bone in the upper edge of the pit. This material was found to be the cremated remains of an adult. Adjacent to this, a sub-circular pit [139] contained frequent inclusions of charcoal and burnt bone from another adult. To the north, a circular pit [135] also contained the cremated

remains of an adult. Close to the southern entrance of the enclosure, the deepest of the excavated pits [112] had a diameter of 0.45m and was 0.65m deep. The pit contained large quantities of charcoal and the cremated bone of a single adult female accompanied by an accessory vessel (Vessel 2).

In the western portion of Trench A, a deposit of rounded cobbles and boulders, 1.8m-wide and 0.2m-deep, was identified immediately within and to the east of the inner bank of the earthwork. The deposit was immediately above the burnt surface and is interpreted a later cairn. In the southern portion of Trench A, the cairn material covered pit 112 and blocked the southern entrance into the enclosure. The cairn material had originally covered the centre of the enclosure, but had been robbed out, probably as a result of antiquarian investigation. This activity had also truncated the central cluster of cremation pits, which were sealed by a layer of dark brown/black silty sand, interpreted as re-deposited robbed-out material. This layer, and the cairn material in both sections of Trench A, was in turn sealed by a layer of light grey/brown silty sand subsoil, and a 0.03m-deep burnt layer (interpreted as evidence for heather burning) above which was topsoil and turf.

Trench B

Following the removal of turf and topsoil, Trench B revealed the remains of a linear bank, two possible cultivation ridges, and a section of the truncated eastern enclosure bank and ditch (Fig. 4).

A section of the eastern enclosure ditch was revealed in the west end of the trench. This was 1.4m wide and 0.6m deep within the trench, with a curving west side and a flat base. Above the sandstone bedrock revealed at the bottom of the ditch was an upper layer of sand lining the bottom and sides of the ditch. This was blackened and compacted as though it had been subjected to intense heat, similar to a layer covering the earthwork in Trench A.

Filling the bottom of the enclosure ditch were rounded cobbles and some larger boulders, which appeared to have been re-deposited from the earthwork interior. Immediately to the east of the enclosure ditch was a truncated deposit of material forming the eastern enclosure bank, probably cut by later ploughing activity. The secondary fill of the enclosure ditch, which also overlay the enclosure bank, comprised two layers of sand, the upper layer containing a fragment of an early 20th century golf ball.

Immediately to the east of the enclosure ditch and bank in Trench B was a low linear bank, aligned north-to-south, interpreted as a possible former field boundary bank or cultivation ridge. Between this and the enclosure bank was a plough furrow, and at the east end of the trench was a low plough ridge, aligned north-to-south. Cutting the west side of the plough ridge and the west side of the linear bank, was a shallow feature, interpreted as a possible plough furrow or eroded trackway.

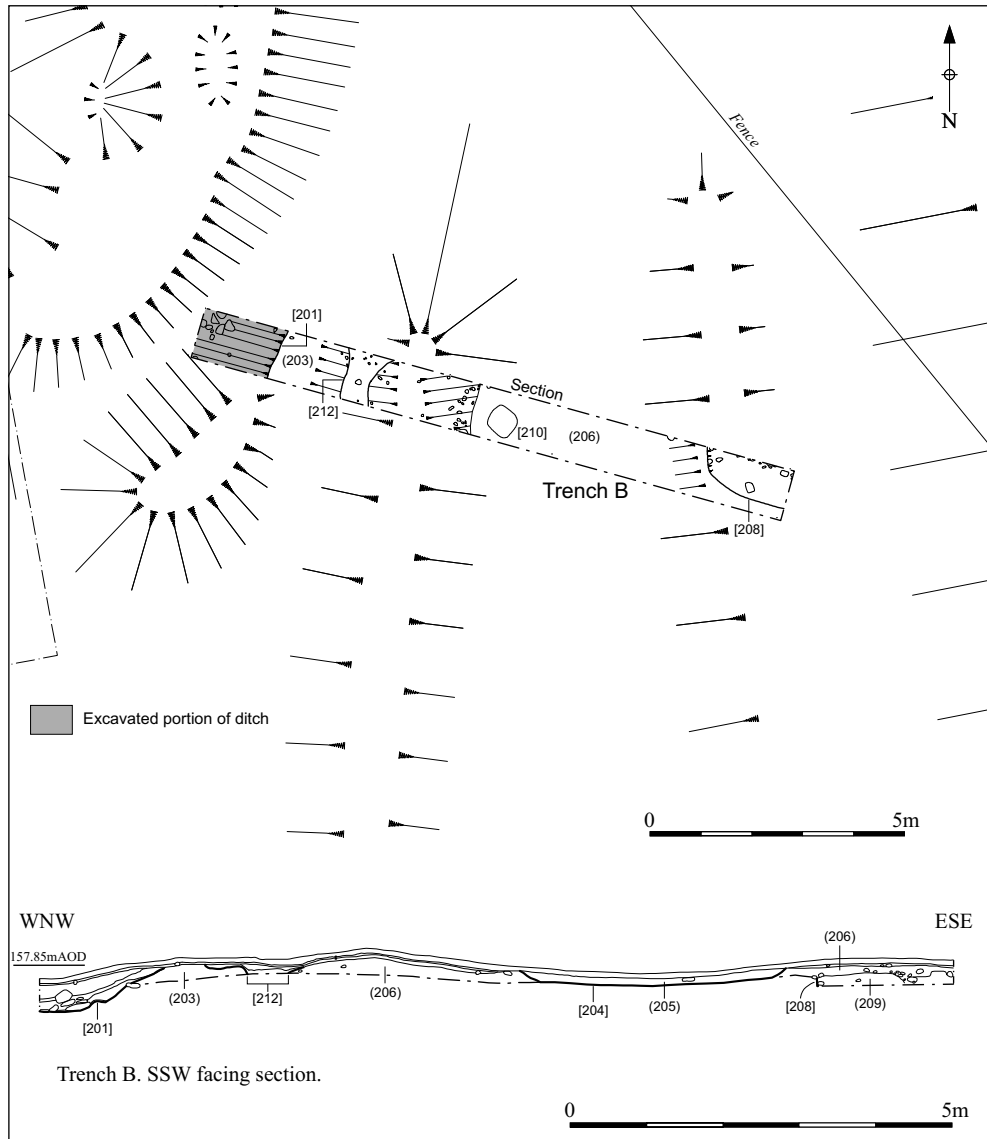


FIG. 4. Trench B; Plan and section of the earthworks east of the cremation monument (scale plan 1:150, section 1:100).

Trench C

Trench C revealed, following the removal of turf and topsoil, a 1m-wide section of the central platform and ditch of the feature to the east of the main enclosure (Fig. 5). Full excavation was not feasible due to time limitations, but a sample section was examined.

Cutting the sand at the north end of the trench was a section of the northern ditch, being 0.8m wide, and 0.15m deep with a U-shaped profile, and rounded sides and

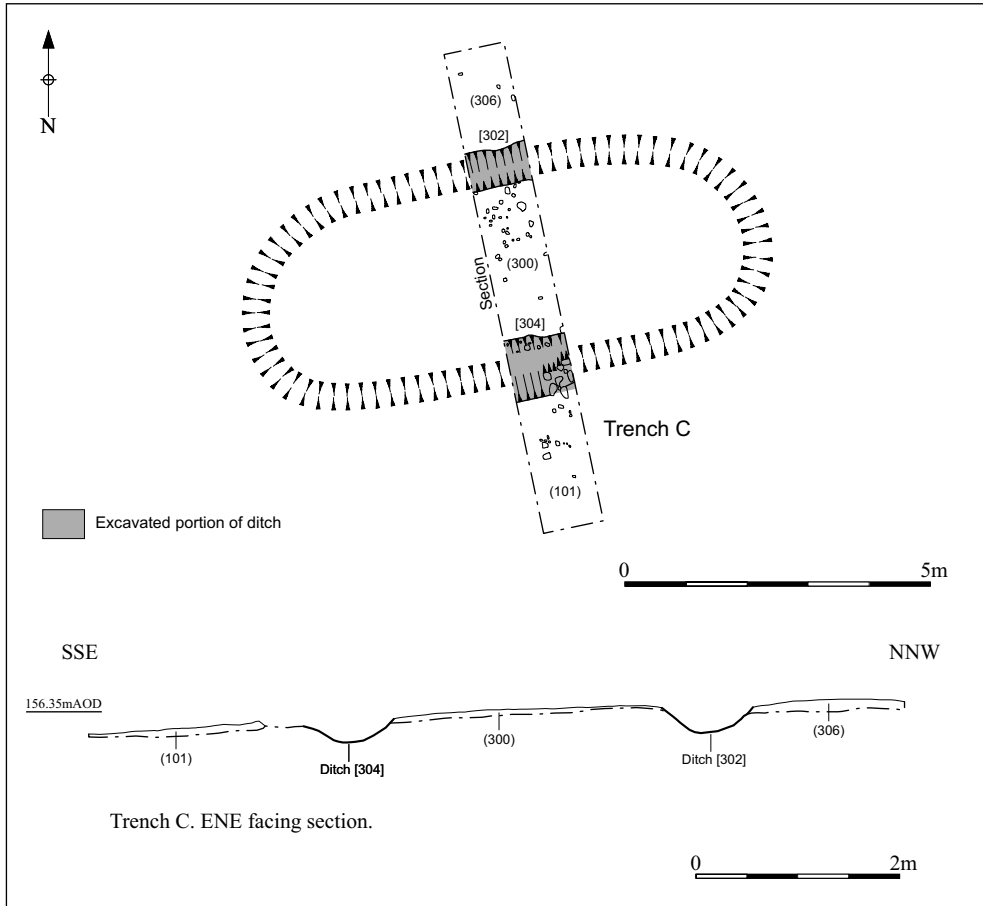


FIG. 5. Trench C; plan and section of the earthworks west of the cremation monument (scale plan 1:1250, section 1:75).

base. To the north of the ditch was a layer of orange-brown silty sand, containing occasional rounded stones, which was interpreted as the eroded material excavated from the ditch. Cutting the sand at the south end of the trench was a section of the southern ditch with a similar U-shaped profile. To the south of this was a low bank, its north side revetted with rounded cobbles. The centre of the ditched feature formed a level oval platform, which was devoid of archaeological features. No finds or environmental material were recovered.

Discussion: the excavated evidence indicates that the primary purpose of the larger enclosure was to define an area for cremation burials and that the site is an embanked cremation cemetery. A slightly elevated platform of land was first cleared of vegetation and possibly raised by mounding sand from the adjacent area. This was enhanced by the creation of a circular bank and ditch, with entrances to the north and south, at least one of which may have been flanked by large boulders. The monument was evidently subjected to intense heat on at least one occasion, and its interior was subsequently used for the deposition of cremated human remains.

Eight pits were revealed, five of which contained cremated remains. The central pit cluster was heavily truncated, the best preserved of the burial pits being an isolated example near to the southern enclosure entrance [112]. It is possible that the other three pits had contained cremated remains, which have since been lost, although the practice of depositing pyre debris is also known from flat cremation cemeteries elsewhere (e.g. Jackson and Churchill 2017). Of the central pit cluster, four pits contained obvious deposits of burnt bone, and one, the remains of an early Bronze Age Collared urn (Vessel 1). The pit near to the southern enclosure entrance contained the greatest concentration of bone and large quantities of charcoal, accompanied by an accessory vessel (Vessel 2). This was sealed by a stone deposit, and appears to have escaped later disturbance. At the end of use the monument was apparently covered by a stone cairn to symbolically ‘close’ the cremation cemetery.

Human remains: the human remains represented a minimum of five individuals, of which there were four adults and one juvenile, each being buried in an individual pit. Of the adults it was possible to estimate the sex of three individuals; there was one probable male and two probable females, the other deposit was too fragmented for sex estimation. One of the females was an adult in the middle to older adult range (30+) and one the middle adult age range (30–45). It was not possible to estimate a more specific age for the other adults. From its dentition, the juvenile was an infant, aged between six and 18 months.

Pit 112 contained the remains of a probably female middle–older adult. While it is rare to find pathology on cremated bone, analysis suggested that this woman probably had osteoarthritis. From the fragmentation and survival of the cranial fragments it was possible to suggest she was placed on her left side on the pyre. Other individuals include an infant from pit 116, whose remains were placed in a vessel (Vessel 1). Also identified were an adult male and a middle adult female, and an adult of indeterminate sex. The female may have been carrying out activities which caused enthesopathies to the teres major and pectoralis major insertions on this bone. This is caused by the repeated extension and flexion of the arm. The scraping of animal hides or rowing as activities are known to cause such markers.

Environmental analysis: samples were taken to extract material that may aid the understanding of the excavated contexts. Although no botanical remains apart from charcoal were registered, the charcoal was of a size that made it suitable for species identification. The species were identified as oak and hazel, the dominant species being oak, with hazel in two samples. Of note was the infrequency of roundwood, and the clear differentiation between the species in each sample, suggesting mature wood was used as part of the cremation process. The differentiation between the species may be linked to different processes or patterns of cremation. The remains from this site largely conform to charcoal from similar contexts within Broomrigg stone circle, near Ainstable, Carlisle (Orr 1950).

Radiocarbon dating: five samples of human bone were radiocarbon dated using the Chrono Centre, Queen’s University Belfast (Table 1). The calibration dataset utilises Intcal13.14c. The radiocarbon dates cluster between *c* 1740–1620 cal BC, providing

chronological phasing for the site as well as dating the individual cremations. They have also provided independent dating for the pottery assemblage and should further assist in refining the stylistic ceramic chronology for the region.

TABLE 1: Results of the radiocarbon dating.

Lab Ref	Context and Feature	Material	C14 Age	Cal age (at 95% confidence)
UBA-31313	(120) Cremation	Cremated bone	3409 +/- 27 BP	1770-1630 BC
UBA-31314	(124) Cremation	Cremated bone	3460 +/- 27 BP	1880-1690 BC
UBA-31315	(136) Cremation	Cremated bone	3374 +/- 26 BP	1740-1620 BC
UBA-31316	(140) Cremation	Cremated bone	3481 +/- 36 BP	1890-1690 BC
UBA-31317	(113) Cremation	Cremated bone	3355 +/- 26 BP	1740-1550 BC

Bronze Age pottery: Vessel 1 comprised the rim of a Collared urn and was recovered from pit 116 in Trench A, the rim surviving complete as the vessel was buried inverted (Fig. 9.1). Little of the vessel body was present. The collar thickness was 8mm and the wall thickness typically 10mm, the collar exterior being decorated with a perfunctorily-impressed lattice of impressed cord lines with no upper or lower border. The vessel rim had an external diameter of *c* 140mm; the upper surface of the rim was plain and it is not known whether the vessel body was decorated. The fragmentary nature of the Collared urn made it difficult to place it with any confidence in either of Longworth's (1984) primary or secondary series Collared urn categories. It appears to have features that align it with the primary series, namely a fairly straight sided collar, a simple internal rim bevel, the use of a twisted cord lattice decoration on the external surfaces of the collar (Longworth motif repertoire L1) and decoration of the internal rim bevel with what appears to be Longworth's rim motif 31. More data on the full form of the vessel would be needed to make a definitive classification. Cremated bone (120) associated with this vessel returned a radiocarbon date of 1770-1630 cal BC (Table 1).

Vessel 2 was recovered from pit 112 in Trench A and comprised an early Bronze Age miniature food vessel. Roughly 80 per cent of the vessel was complete and all of the rim survived, albeit fragmented (Fig. 9.2). The vessel had buff-orange surfaces with a dark grey reduced core evident in some of the base sherds. Rare, poorly sorted blackstone grit inclusions, *c* 3mm in diameter, were evident in some of the sherds. The wall thickness was fairly uniform at *c* 70mm with the rim sherd thickness measuring *c* 50mm and the base sherd thickness measuring 110mm. The overall shape comprised a small biconical vessel standing 500mm high with a broad beveled, everted rim. Although no decoration was evident on the internal body sherds, there was tri-zone decoration on the external surfaces of the shoulder and the internal surfaces on the rim, comprising two cordons of fine, single-strand twisted cord. The vessel also had an unusual bulging base.

There were two small circular perforations on one side of the miniature food vessel. These were located between 11mm and 13mm below the rim, horizontally of each

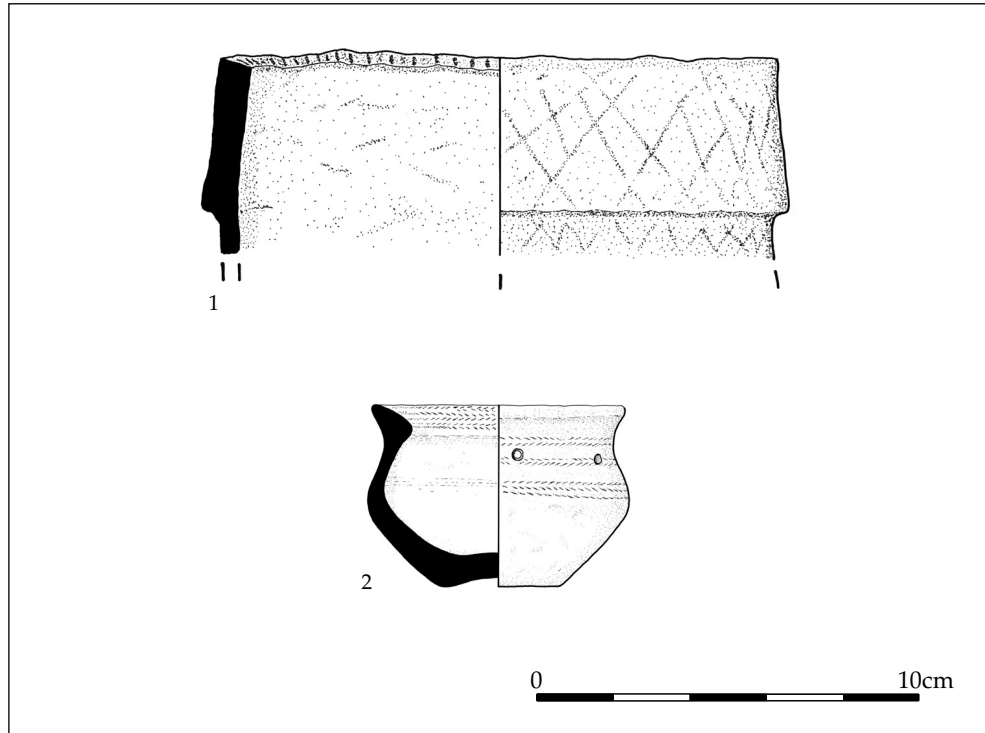


FIG. 9. Prehistoric pottery. 1) Collared urn recovered from cremation pit [116], Trench A. 2) Miniaturised vase type food vessel recovered from pit [114], Trench A (scale 1:2).

other. Located on the shoulder section and measuring 2.6mm in diameter, they appear to have been inserted through the clay body before being fired. There were no holes on the other side of the vessel. The presence of these perforations is curious; they may have been holes for a small handle or thong/cord to hang the vessel, or to hold some sort of lid. It is possible that these vessels may have contained substances to burn (e.g. incense) to mask unpleasant smells (Allen and Hopkins 2000, 308) although alternative uses are possible, including smoking rituals (Needham 2008; Allen and Hopkins 2000, 308). The perforations are a common feature of these accessory vessels/pygmy cups and have been the subject of several major reviews (Scott 1951; Morrison 1968; Kavanagh 1977; Longworth 1984; Gibson 2004; Wilkin 2013). Radiocarbon analysis of cremated bone (113) associated with this vessel returned a date of 1740-1550 cal BC.

Later activity: later activity around the enclosed cremation cemetery includes medieval or post-medieval ridge and furrow cultivation, which appears to have removed the outer bank on the east side of the monument. The monument had also been disturbed, possibly by antiquarian investigation. Much of the stone cairn appears to have been removed from the centre of the monument, truncating the central pit cluster and removing the base of the Collared urn, meaning only the rim survived. Some later disturbance of the earthwork may also be due to activity associated with the Appleby Golf Course (established in 1903).

The ditched feature to the west of the cremation monument remains something of an enigma. However, similar features have been excavated elsewhere, including on Fylingdales Moor, where they are associated with prehistoric round houses (Blaise Vyner pers. com.). Here, field survey identified around 10 gullied features on Stoupe Brow Moor. These features comprised similar shallow gullies, around 0.35m to 0.40m wide, enclosing sub-rectangular areas ranging from 2m square up to 8m long and 4m wide. Interpretations for their function range from tent sites and peat and turf stack stands to the foundation trenches of prehistoric timber structures (Vyner 2005, 21-22). The features are notable for the apparent absence of any entrance break across the gullies, although they are narrow enough to have been readily crossed. Excavation of one of these structures produced no definitive dating evidence (Blaise Vyner pers. com.).

The cairn

The cairn site, comprising one of the four possible burial cairns on a ridge between the Appleby Golf Club House and The Druidical Judgment Seat, was located to the southeast of the cremation monument (Fig. 1, Sites 1-4). Two opposing ‘quadrants’ were excavated through the cairn (Trenches D and E) and a 5.5m-long trench (Trench F) was excavated crossing an undated ditch and bank to the north-west (Fig. 6).

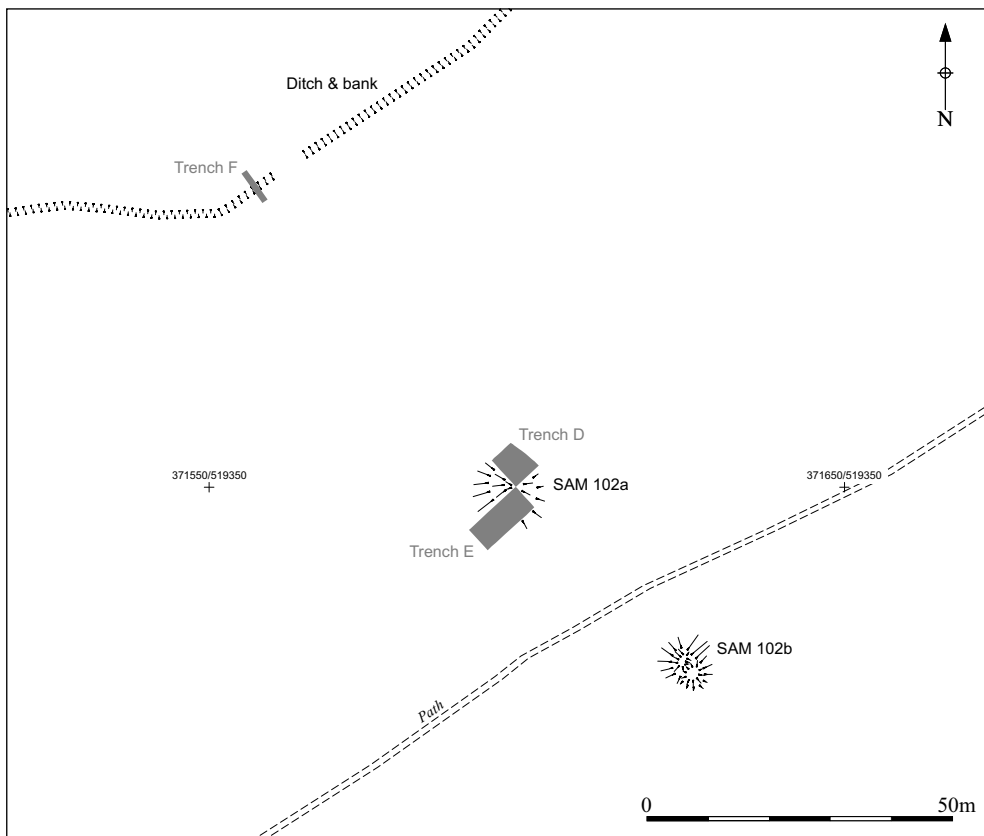


FIG. 6. Overall plan of barrows SAM102a & SAM102b and the ditch and bank (scale 1:1250).

Trenches D and E

A similar developmental sequence was identified in both trenches, which exhibited that the cairn had a maximum diameter of 2.35m and it was 0.65m high (Fig. 7). A lower deposit of large rounded and sub-rounded stones (up to 0.3m in diameter) of varied geologies was identified in Trench A, forming a relatively flat platform. This was overlain by a deposit of sandy silt and then sealed by a second deposit of rounded and sub-rounded stones, forming the curved top of the cairn. No distinction between cairn deposits was clear in Trench B, where the cairn was formed of a single deposit of sub-rounded and rounded stones.

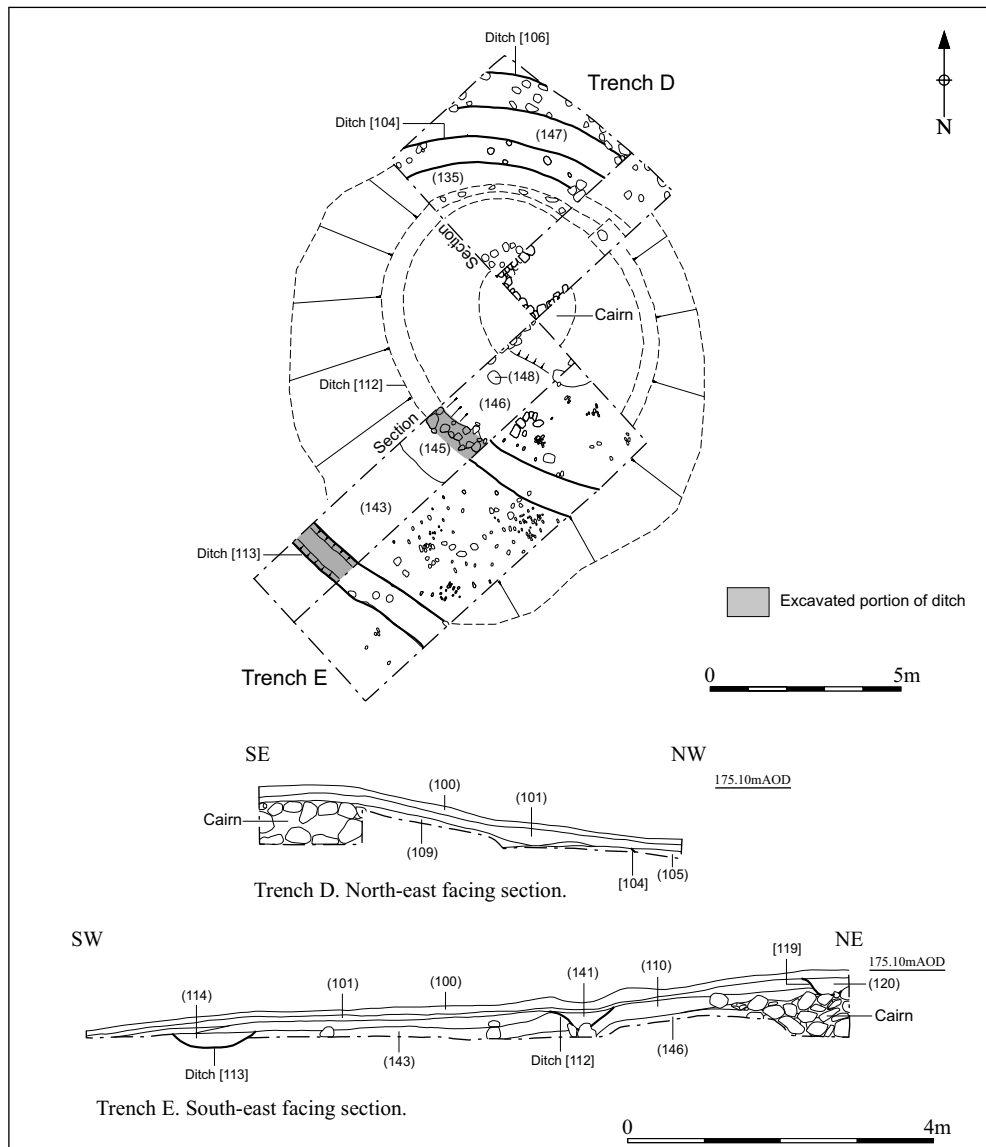


FIG. 7. Plan and section of barrow SAM102a (scale plan 1:200, section 1:100).

Probably contemporary with the erection of the central cairn was a possible kerb. This was identified in both trenches suggesting a overall diameter of 8.8m for the monument. The kerb seems likely to have been employed to contain the up-cast deposits of the monument; piled up against and over the central stone cairn. Only the uppermost kerbstones were exposed; these were sub-angular and rounded stones (maximum diameter of 0.23m). The deposits covering the central cairn were largely made up of layers of compacted sand, with a high degree of post-depositional slumping. Four flint flakes were recovered from these layers. A localised deposit of dark grey silt (148) contained at the horizon of these layers contained seven flint objects, including two modified pieces (Fig. 10).

To the north of the cairn, two shallow curvilinear ditches were identified within Trench D, the fills of which produced several flint flakes. The deposits identified were likely to represent either an accumulation of sand up against the cairn, or slumping of the softer barrow deposits sealing the ditches. These ditches may either relate to the construction of the cairn, being a source of up cast material, or they may represent an earlier phase of activity at the site prior to the construction of the cairn.

To the south of the cairn, two ditches were also identified within Trench E. The outer ditch was aligned roughly north-west/south-east. The inner ditch was located immediately adjacent to the probable kerbstones of the cairn. Although the relationship was unclear, both ditches appeared to be stratigraphically later than the monument, probably relating to agricultural activity.

A thin subsoil was present throughout the entirety of Trenches D and E, from which fragments of flint, and small fragments of prehistoric pottery were recovered. This soil was truncated by several plough-scars providing evidence of post-medieval cultivation. Irregular truncation of the subsoil, and disturbance to the upper deposits of the cairn, was also identified, probably due to modern metal detecting.

Trench F

Trench F crossed a ditch and bank 150m to the north-west of the cairn, and was aligned north-west to south-east (Fig. 8). It revealed a single ditch with an up-cast bank on either side. The ditch had a maximum depth of 0.37m, with moderately steeply sloping concave sides and a concave base. The ditch was filled by sandy silt with large rounded stones in the base; these may have been placed within the ditch or were tumble from the banks.

No evidence was recovered to date the ditch and bank, which continue down both sides the ridge for *c* 225m. These do not appear to be drainage features, but most-likely represent a former boundary feature, which predates the existing road to Brackenber.

Discussion: Trenches D and E revealed a central stone cairn with a probable outer stone kerb and possibly associated ditches. These were overlain by several layers of sandy material, some of which may have been up-cast from the ditches and later activity at the site. Unfortunately, the base of the cairn was not reached in either trench due to time constraints, so the full extent of the monument was not determined, and the

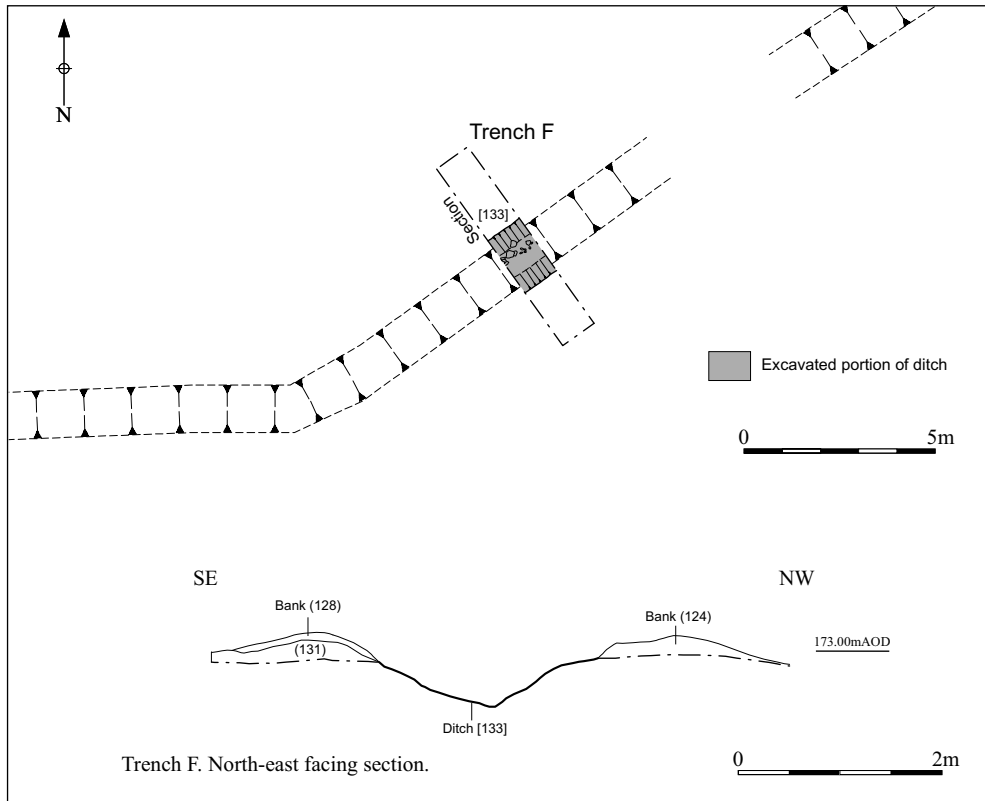


FIG. 8. Plan and section of the ditch & bank (scale plan 1:200, section 1:75).

possible presence of primary funerary deposits could not be ascertained. Nevertheless, the investigation has provided information on the form and construction of the cairn and later modification.

The lithic assemblage: an assemblage of Mesolithic or early Neolithic lithic material was recovered from deposits overlying the cairn, which may indicate disturbed material from an earlier phase of activity. Two fragments of prehistoric pottery were also recovered from the soil covering the cairn; these were small and highly abraded, with thin walls and a dark grey/brown temper, and could have been either Neolithic or Iron Age.

In total 48 lithic artefacts were recovered during investigations at Brackenber Moor, a large proportion of which were identified during field walking. Surface-collected lithic assemblages are often comprised of dispersed material deposited over several different periods. The main focus of the analysis concentrated upon the assemblage of 16 artefacts recovered from the excavation of the cairn. The assemblage comprised three modified pieces, as well as a flake displaying signs of possible use-wear. The remaining pieces within the assemblage, including two bladelets, were classified as debitage.

The assemblage included the distal end of a modified translucent grey flint, identified as a retouched bladelet, from deposit 148, which was 29.8mm long, 12.5mm wide and 4.2mm thick (Fig. 10.2). The debitage included a complete bladelet and a bladelet fragment from deposit 148. The complete bladelet was produced from mottled grey flint and was 44.8mm long, 13mm wide and 7.3mm thick. The bladelet fragment was also produced from mottled grey flint and measured 33mm in length, 10.3mm in width and 3.7mm thick. The fragment had lost its distal end and retained heavily rolled cortex along its left lateral margin (Fig. 10.1). Also included within the assemblage was the distal end of a probable blade.

The presence of bladelet technology would suggest that activity at the site was occurring from at least the Mesolithic period. However, whilst bladelet technology is one of the most typologically diagnostic bi-products of Mesolithic stone-tool production, the transition between period-specific stone-tool technologies within Cumbria is far from clear, especially since much of the lithic evidence from the region has come from surface scatters (Cherry and Cherry 1987; 1996; 2002), small, incomplete assemblages, or mixed assemblages from multi-period sites (Hodgson and Brennand 2006).

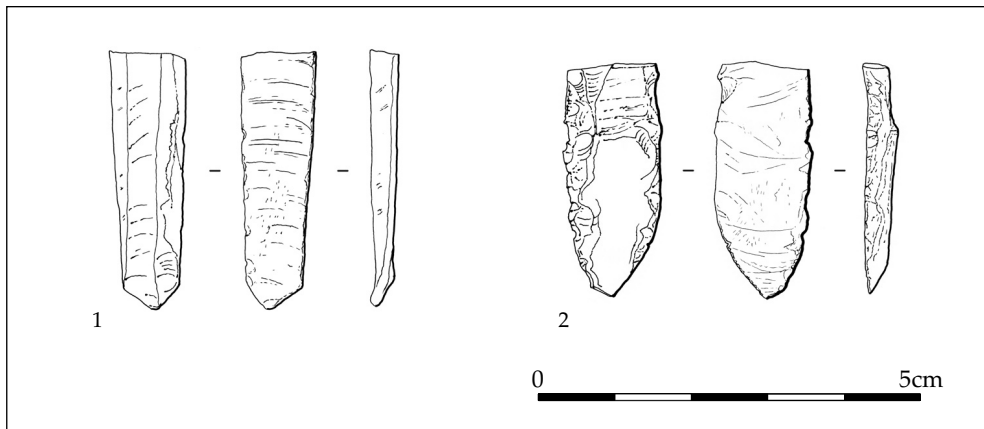


FIG. 10. Flint tools recovered from deposit (148) in Trench E (scale 1:1).

Conclusions

The archaeological work at Brackenber Moor has established the presence of an extensive Bronze Age funerary landscape, and revealed tentative evidence for earlier periods of activity. Although the embanked cremation does not fall into an established category, it is recognised that this belongs to a tradition of circular monuments incorporating burials, and later sealed by funerary or ring cairns, which appear to have been a relatively common form in northern England during the later Neolithic and early Bronze Age.

Round funerary cairns represent the higher proportion of the prehistoric sites identified in Cumbria, being relatively common, and likely to be located in prominent positions

with respect to topography. Certainly, this is the case with the scheduled round cairns recorded at Brackenber Moor, which are located on the summit of a ridge running approximately east-west across the moor, with a commanding aspect to the north and south.

Although the cremation monument and the recorded round cairns at Brackenber may be associated, the earthwork appears unique in terms of its construction and use. It is not situated in a prominent location as with majority of the cairns, but rather to the west of the ridge in a loop of Hilton Beck. The presence of cremations within the monument and its outer form also appear set it apart from the other monuments at Brackenber Moor.

In Cumbria urned and unurned cremations are more commonly associated with ceremonial complexes (Evans 2008, 111), although several flat cremation cemeteries are known, including the recently published example from Overby Quarry, where burial deposits included early Bronze Age cremation urns and accessory vessels (Jackson and Churchill 2017). At Ewanrigg, Maryport several early and middle Bronze Age cremation vessels were recovered, including Collared Urns and part of an enlarged food vessel (Bewley 1992). Evans (2008, 112) also notes the association of flat cremation monuments with water courses, a feature that is shared by the Brackenber Moor cremation monument.

It is evident from the excavated evidence that at least one funerary pyre was constructed at the centre of the Brackenber Moor monument following the raising of the banks and ditches. Pyre material, including quantities of human bone, was subsequently gathered up and buried within a series of pits cutting into the central platform of the monument.

The analysis of the human remains has demonstrated that the monument was used for the burial of cremated individuals of all ages, which included an infant buried within a Collared urn, and a middle-older female interred with an accessory vessel. The total number of individuals contained within the monument is unknown, since only approximately 20 per cent of the central platform has been investigated. However, based on the number of individual pits within this sample it can be estimated that as many as *c* 40 individual cremations could have been interred within the monument, which could have served a small community. The radiocarbon dating suggests the cremation burials were concentrated around the period 1740 to 1630 BC, providing a later early Bronze Age to middle Bronze Age date for the funerary activity. The closure of the monument appears to have been represented by the creation of a cairn covering the central platform, which was partially removed by later activity, which also truncated many of the cremation pits.

The limited investigation of the scheduled cairn site failed to confirm or deny the presence of funerary activity, although the cairn does appear to fall into to an established tradition of Bronze Age round funerary cairns. The identification of possible early Neolithic blades and pottery fragments, and Mesolithic bladelets within the up-cast cairn material is significant, and suggests the importance of the ridge in earlier periods. This activity was hinted at by previous work at The Druidical Judgement Seat

earthwork, which is interpreted as an Iron Age defended farmstead. Analysis of the lithic assemblage recovered from The Druidical Judgement Seat indicated that part of it at least was deposited sometime during the late Neolithic/early Bronze Age, the majority of the lithic finds from the evaluation being interpreted as residual (Railton 2011a). A single sherd of possible Neolithic pottery was also recovered.

The extent of the postulated chain of Roman signal stations running westwards from Stainmoor has also been challenged by the results of the Brackenber investigation and calls into question some of the other sites in the Eden Valley recorded as Roman, which are currently unproven.

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