



ALTOGETHER ARCHAEOLOGY Fieldwork Module 8a

RAVENSHEUGH CRAGS NORTHUMBERLAND

Community Landscape Survey

Northumberland National Park Authority 



Oxford Archaeology North

January 2015

Issue No: 2013-14/1415

OAN Job No: L10619

NGR: NY 830 750 (centred)



Document Title: ALTOGETHER ARCHAEOLOGY: FIELDWORK MODULE 8A –
RAVENSHEUGH CRAGS, NORTHUMBERLAND

Document Type: Community Landscape Survey Report

Client Name: Northumberland National Park Authority and
North Pennines AONB

Issue Number: 2013-14/1415
OA Job Number: L10619

National Grid Reference: NY 830 750 (centred)

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SUMMARY

Oxford Archaeology North (OA North) was invited by Northumberland National Park Authority and the North Pennines AONB Partnership to provide supervision and enablement for a community project at Ravensheugh, Northumberland (NY 830 750 centred) as part of Module 8 'North of the Wall' of the Altogether Archaeology Community Programme. The Altogether Archaeology project was funded by the Heritage Lottery Fund, and was intended to enable volunteers to undertake practical archaeological projects with appropriate professional supervision and training. The present investigation was intended to undertake a detailed community survey of the multi-period archaeological landscape at Ravensheugh Crags, Simonburn, Northumberland. The detailed survey was 0.22sqkm in extent and was undertaken between 17th and 23rd June 2013.

Ravensheugh Crags has an extremely rich and diverse range of monuments extending across a relatively small area, and comprises a large agglomeration of rock art sites, burial monuments, that include a very rare four poster stone circle, a series of cairnfields and elements of a primitive field system, burnt mounds, a platform house, a stone-founded round house, cord rig cultivation, stock enclosures and later extraction activity. These diverse monuments seemingly also exhibit a broad range of dates and it would appear that the study area exhibits a palimpsest of activity over an extended period which encompasses much of later prehistory and to a lesser extent more recent periods.

The earliest element of the study area would appear to be a ritual / funerary landscape represented by the rock art and funerary monuments, which appear to be linked and may have been broadly contemporary. The cup marks are, for the most part, found on earthfast stones or outcrops scattered across the central part of the area, and there is seemingly a relationship between the rock art and what may be perceived to be funerary monuments. The most characteristic funerary monument identified was a four poster stone circle which has cup marks on all four stones. These relatively rare stone circles are typically dated to the middle of the second millennium BC.

Subsequent to the phase of activity associated with the funerary monuments, there was a move to exploit the land more intensively for basic pastoral-type farming, represented by a series of cairnfields, which reflect the taking of waste stones from the land and placing them in piles to improve the agricultural viability of the land. There were two cairnfields and the eastern example was associated with a single round house. This cairnfield included a lynchet bank extending between cairns that reflects a limited and localised area of kitchen garden-type horticulture. This lynchet, and other short banks, appear to reflect a localised, proto-field system. To the south of the cairnfield, were two burnt mounds adjacent to the burn that defines the edge of the area. These were probably contemporary with the cairnfield and the round house.

At the northern part of the site were three stock enclosures that reflect a subsequent phase of pastoral farming, of which one potentially had a small domestic structure. Overlain on the area of both the western and eastern cairnfields were three areas of cord rig, which reflect a later period of arable agriculture; although cord rig can have a broad chronology, in this instance it is considered that it was most probably of later Iron Age or Roman date.

Later phases of activity included a series of possible medieval stack stands and then, subsequently, there was an episode of post-medieval mineral and rock extraction, which may

have served mainly domestic rather than commercial needs. This included a single bellpit to extract coal and an area of quarrying at the northern and western part of the site.

ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank both North Pennines AONB Partnership and Northumberland National Park Authority (NNPA) for commissioning the project as part of the wider Altogether Archaeology community project, with the latter providing the funding for the this module. In particular, thanks must go to Paul Frodsham and Chris Jones for their considerable involvement and support. We would also like to thank Jane Lamb of the Nunwick Estate and Mr and Mrs Lee the current farmers/tenants of Goatstones Farm for allowing us to undertake the survey. We must also thank Chris Jones and Ed Huspeth at NNPA for providing Historic Environment Record data, Ordnance Survey mapping and aerial photographic data.

In particular, we wish to thank the volunteers taking part in the survey as part of this module of the Altogether Archaeology Community Project. They include: Dave Tuck; Graham Brooks; Roy Lawson; Isla; Ritchie, Zoe and Rosalind Ballard; Hils Hawkins; Fransje and Peter Samson; Stuart White; Gail; Alexandra and Thomas Hildreth; Michelle Arthy; Colin Goodfellow; Philip Benzie; Jan Hicks; Yvonne Ritchie; Cathy Aynsley; Roe and Thea Baker; Rachel Orange; Ian and Elaine Reedman; Ian Turnbull; Michael Hall; Freda Lodge; Liz Bregazzi; Gabriel Damaszk; Martin Green; Janet and Brian Stirk; Dot Coe; Kate Sharpe; A Wright; Rebecca Jones; Mike Green and Cezary Namirski. All must be thanked for their considerable help and boundless enthusiasm and for their assistance throughout the project (Plate 1).



Plate 1: Volunteers surveying the sites

Special mention must go to Phil and Anne Bowyer for instigating the project, and to Gemma Stewart at NNPA for organising the logistics and overseeing the running of the project. Thanks must also go to Stan Beckensall for undertaking rubbings of the rock art and providing

much useful contextual information, along with Kate Sharpe regarding Englands Rock Art (ERA) data and current rock art research in Northumberland. In addition, thanks must go to Anne Bowyer for illustrating two of the cup-marked panels, along with Cezary Namirski who undertook the night time photography of the rock art.

The primary documentary research was undertaken by Peter Schofield and Phil and Anne Bowyer. The survey was undertaken by local volunteers who were aided by Peter Schofield, Gemma Stewart, Phil and Anne Bowyer, Chris Jones, Paul Frodsham and Jamie Quartermaine. The report was written by Phil and Anne Bowyer, Peter Schofield, and the illustrations were by Anne Stewardson. The report was edited by Jamie Quartermaine, who also managed the project.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Oxford Archaeology North (OA North) was invited by Northumberland National Park Authority and the North Pennines AONB Partnership to provide supervision and enablement for a community project at Ravensheugh, Northumberland (NY 830 750 centred (Fig 1)) as part of Module 8 'North of the Wall' of the Altogether Archaeology Community Programme. The Altogether Archaeology project was funded by the Heritage Lottery Fund, and was intended to enable volunteers to undertake practical archaeological projects with appropriate professional supervision and training. It was hoped that by this process it would enable local groups to undertake further work independent of the professional support.
- 1.1.2 The present investigation was intended to undertake a detailed community survey of the multi-period archaeological landscape at Ravensheugh Crags, Simonburn. It built on preliminary survey work carried out in 2012 by Phil and Anne Bowyer (2012), using skills they had learned through participation in earlier Altogether Archaeology projects. This survey focused on a core area of about 1km around Ravensheugh Crags, including Haggie Rigg, and is an area of unimproved moorland. The site has a rich resource of prehistoric remains, which includes cairnfield groups, that are spatially associated with a rich array of rock art. There was no requirement to undertake documentary research into the area, and all preparatory work for the survey was undertaken by Phil and Anne Bowyer (2012).
- 1.1.3 The project has been undertaken in accordance with a project design prepared by Northumberland National Park Authority (*Appendix 1*), and entailed a detailed Level 3 survey of the study area (Ainsworth *et al* 2007) which was 0.22sqkm in extent; the survey was undertaken between 17th and 23rd June 2013.

1.2 RESEARCH AIMS AND OBJECTIVES

- 1.2.1 The research aims and objectives are as defined within the project design (*Appendix 1*); The primary aim of the project was to carry out an analytical field survey of the project area at Ravensheugh Crags, to be achieved through the training of local volunteers. Participants were intended to learn the techniques of archaeological field survey and recording that will, in turn, equip them to carry out further work beyond the life of the project. Through undertaking detailed analytical field survey, the aim was to raise awareness and appreciation of the rich cultural heritage in local landscapes. The survey will entail a detailed Level 3 analytical earthwork survey (Ainsworth *et al* 2007) and introduced a broad range of survey and recording techniques, ranging from basic techniques to the more advanced.
- 1.2.2 This project at Ravensheugh will contribute directly or indirectly to the following objectives within *The Northumberland National Park Archaeological Research Framework* (Young 2005);
- ***Neolithic - Outcome 4: Rock Art in context***
Prehistoric rock art, most notably cup and ring marked outcrops and stones, represent some of the earliest confirmed evidence for artistic impression in

England. Recent research has not only highlighted the importance and vulnerability of this resource, but it has also demonstrated the existence of gaps in our understanding of fundamental issues, such as dating of rock art panels, and the relationship of rock art to society, economy, land use and ritual. Attempts should also be made to relate the art to its landscape context;

- ***Bronze Age - Outcome 1: Boundaries and cairnfields***

More work is required to understand the chronology, form and function of settlement sites and related features, including field boundaries and cairnfields;

- ***Bronze Age - Outcome 4: The distribution of barrows and cairns***

Further research should be carried out on the distribution, form and siting of round barrows and cairns within the National Park. Geographic Information Systems could be used to examine the significance of recurrent patterns of barrow and cairn location.

1.2.3 General questions which the project may help to address include the following:

- Is the current land management regime resulting in serious damage to the site (for example, from sheep trampling). If so, can any realistic suggestions be made to improve site management? If any risks are identified mitigation measures would be to stop the sheep poaching the monument - ie make sure their paths are away from it by moving gateways or feed troughs so they are not encouraged near it. If damage is severe this may necessitate reinstating the ground and adding a mesh for the grass to grow through to prevent further damage;
- Is there potential for low key public interpretation of the site, either direct access or from a viewing point on an adjacent public right of way?
- Is there any other previously unrecorded archaeological sites or features, of any date, surviving on the vicinity of Ravensheugh Crags?

2. METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 **Project Design:** a project design was submitted by Northumberland National Park Authority and North Pennines AONB (*Appendix 1*) and was used as the basis for this investigation. It was adhered to in full and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), and generally accepted best practice (IfA 2008; 2010; English Heritage 2006).
- 2.1.2 The work programme was divided into two elements: detailed field survey and reporting. The survey area was defined as comprising a core area of about 1km around Ravensheugh Crags, including Haggie Rigg. However, in practice the extent of the survey was dependant upon the density of the remains and the availability of volunteer resources. In the event, although a wider area was examined, the area covered by the detailed survey was 0.22sqkm in extent.

2.2 DETAILED SURVEY

- 2.2.1 A detailed topographic survey of each of the sites was undertaken to English Heritage Level 3 (Ainsworth *et al* 2007), and included contours generated by LiDAR.
- 2.2.2 **Survey Methods:** the survey was intended primarily to serve as a training exercise for the volunteers (Plates 2 and 3), and the survey techniques employed were devised to be easy to understand, allow for plotting in the field and to be easily affordable by volunteers, but at the same time to provide teaching of a comprehensive range of techniques. This included the use of some outdated technologies, which had a significant impact on productivity, but were off-set by the use of more current techniques that enabled detailed 3D recording.
- 2.2.3 Where appropriate, photographic methods were employed using high level photography, with respect to survey control established by GPS/ total station. In general, the detailed survey was undertaken using the theodolite / disto survey, but the more remote monuments, and general topographic features were recorded using the GPS.
- **Theodolite / Disto Survey:** the use of a theodolite/ disto was found to be very effective during the earlier surveys. The theodolite measured angles and the disto measured the distances, with the data then drawn up in the field by volunteers using a film-based protractor and ruler. This allowed the volunteers to be involved in all stages of the process;
 - **GPS Survey:** where possible, a satellite Global Positioning System (GPS) was utilised to record the general background topography. This used a Leica 1200 differential system which used Ordnance Survey base stations in conjunction with a roving station to correct the raw data with corrections transmitted by mobile phone. The accuracy of the OA North GPS system is capable of +/- 0.03m and provided for a quick and effective means of recording the detail of the features;

- **Photogrammetric Recording:** where possible, the sites and immediate environs were recorded by means of aerial photography, which, using specialist photogrammetric software, allowed the creation of accurate three dimensional models of the site and topographic surfaces. This was achieved using a UAV, a small multi-engined model helicopter, that provided photography from any altitude up to approximately 80m height. Survey control was introduced to the photographs by the placement of survey control targets across the site which were located by means of survey grade GPS or total station;
- The photogrammetric processing was undertaken using Agisoft software which provides detailed modelling using the overlap of up to 120 photographs, and created a very detailed Digital Terrain Model (DTM) across the site. The photographs were then digitally draped over the model to create an accurate three-dimensional model of the ground surface. The primary output, however, was an accurate two-dimensional image which was used to generate accurate plans or profiles.
- **LiDAR plotting:** LiDAR at 1m resolution is available for the study area, and was of sufficient resolution to be able to inform the survey, and provided for the overall contour coverage. Two one sqkm tiles of data were acquired for the project.



Plate 2: Volunteers measuring and recording clearance cairns on Ravensheugh Crags



Plate 3: Volunteers surveying clearance cairns on Ravensheugh Crags (© NNPA)

- 2.2.4 **Detailed Survey:** survey control was introduced to the sites by means of a high accuracy survey-type differential GPS. The detail survey by theodolite / total station recorded all structural and earthwork components, which were drawn up using hachures. Survey points were marked on the ground using spray paint and the survey drawing was manually drawn up with respect to them. On completion of the survey, the field drawings were digitised into a CAD system. The survey recorded all archaeological features, earthworks and elements. The survey aimed to identify, locate and record all built elements of the landscape.
- 2.2.5 **Gazetteer:** a descriptive record of all features was compiled using standard *pro-forma*, and, where possible, incorporated both a provisional interpretation of the function of the site / feature and a provisional interpretation of the site's chronology. The digital gazetteer so collated was subsequently edited, formatted as an Access Report and then inputted directly into a Microsoft Word format. This has produced a gazetteer that is compatible with the Northumberland Historic Environment Record.
- 2.2.6 **Photographic Record:** a photographic archive was generated in the course of the field project, comprising landscape and detailed photography. Detailed photographs were taken of the archaeological features using a scale bar. All photography was recorded on photographic *pro-forma* sheets which show the subject, orientation and date. The photography was typically undertaken using a digital SLR camera with 12 megapixel resolution.

2.3 ROCK ART RECORDING

- 2.3.1 The site had a wealth of rock art and it was decided to explore a number of options for recording the rock art. This included rubbing the stones, night time photography and photogrammetric recording of the stones.
- 2.3.2 **Stone Rubbing:** the project team was privileged to have had the support of Stan Beckensall to provide us with his considerable advice and expertise about all matters relating to rock art. He was able to demonstrate the technique of rubbing the stones to provide an effective drawing. It was agreed to record the cup-marked stone, Site **36**, as it was the most complex of all the stones, and also Site **117**. This entailed the use of waxed crayons over paper secured to the stone (Plate 4). The resultant rubbing (Plate 5) was then used to create a final inked drawing (Plate 16).



Plate 4: Stan Beckensall creating a rubbing of the large cup-marked panel (Site **36**)



Plate 5: The completed rubbing of the large cup-marked panel (Site 36)

- 2.3.3 **Night-time Photography:** night time photography was undertaken because this meant that it was possible to control the illumination sources and, in particular, it allowed the photography to be taken using very oblique lighting intended to enhance the more subtle engraved features by providing exaggerated shadows. The technique was applied to the recording of Sites 91, 106 and 109 (Plate 6), and was found to be very effective. Stone 106 was also recorded by photogrammetry to enable a direct comparison.



Plate 6: Cup-marked stone 109 photographed in low light conditions at night (© Cezary Namirski)

- 2.3.4 **Photogrammetry:** photogrammetry was undertaken to record a select number of cup-marked stones. This entailed the same process of recording that was undertaken for the wider landscape (*Section 2.2.3*) except that the photography was taken from the ground. It entailed the production, in Agisoft software, of a series of digital terrain models (Plate 7).

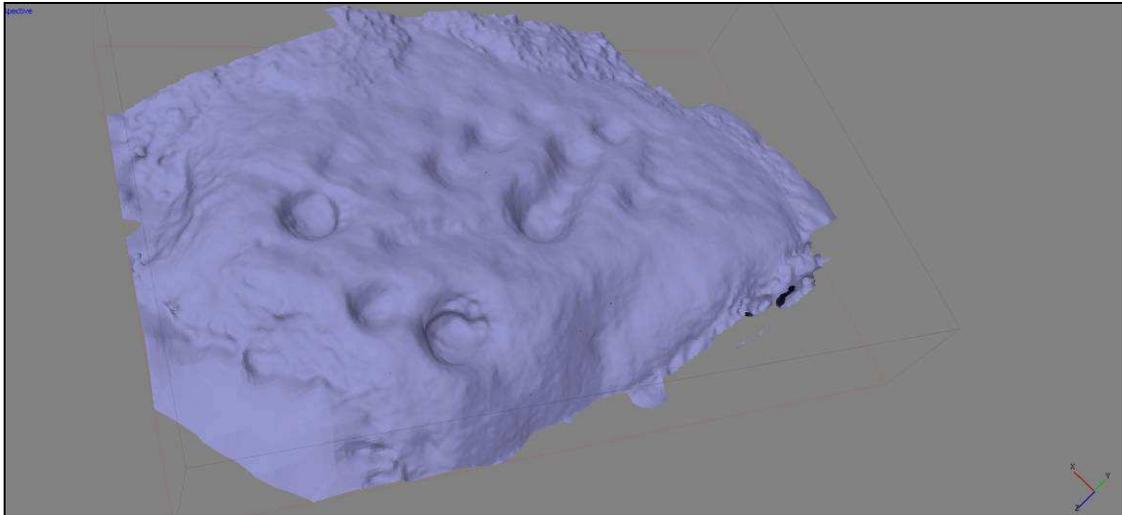


Plate 7: An isometric view of the photogrammetrically modelled cup-marked stone
106

2.4 ARCHIVE

- 2.4.1 An archive for the project was prepared during and immediately following the fieldwork programme and a summary forwarded to the Northumberland Historic Environment Record. The results of the survey forms the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (2006). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly quantified, ordered, and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the Institute for Archaeologists.

3. ARCHAEOLOGICAL BACKGROUND

3.1 INTRODUCTION

3.1.1 The present archaeological background is a summary of a report compiled by Phil and Anne Bowyer (2012). It is intended to set the context for the description of the Ravensheugh prehistoric landscape, and examines the topography, the palaeoenvironment of the area, the archaeological remains in the wider area, and a brief summary of those within the study area. The detailed description of the Ravensheugh landscape, however, is presented within the main results section (*Section 4*). The background summary is the result of an identification survey that was undertaken between January and March 2012 and the areas of investigation are shown in Plate 8 (Fig 2).

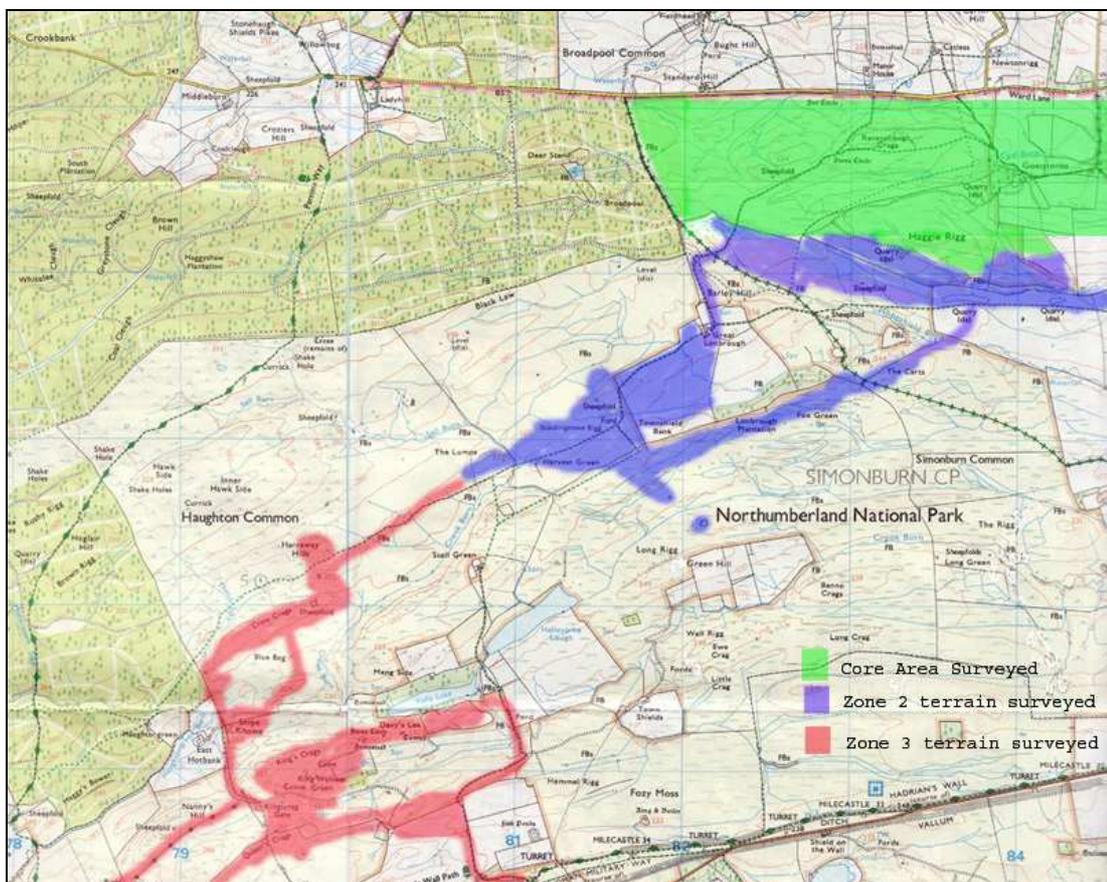


Plate 8: Areas surveyed (to EH Level 1 standards) in the landscape surrounding Ravensheugh Crags (after Bowyer and Bowyer 2012)

3.2 TOPOGRAPHY AND GEOLOGY

3.2.1 The survey area is centred on Ravensheugh Crags (NY 830 750) on Broadpool Common and Simonburn Common. It is characterised by a rough terrain with a series of north-facing, and occasionally craggy, sandstone or limestone ridges, at altitudes of 240m to 280m, with gentler south-facing slopes that are interspersed with extensive boggy areas. The study area is situated on a limestone scarp, centred on NY 830750 (Fig 1; Plates 10 and 11), and is distinctive in that it is a localised, elevated,

topographic feature within an area of generally, undulating but lower and poorly drained ground. As such, the ridge would have been better agricultural ground than that around it and its topographic form would consequently have encouraged occupation and subsequent re-use.

- 3.2.2 There are the visible remains of extensive quarrying and possible coal mining towards the scarp edge, and the main quarry has been fenced off with no public access. The land is presently unenclosed land and is used as rough grazing for sheep.



Plate 9: The scarped landscape of Ravensheugh Crag looking west

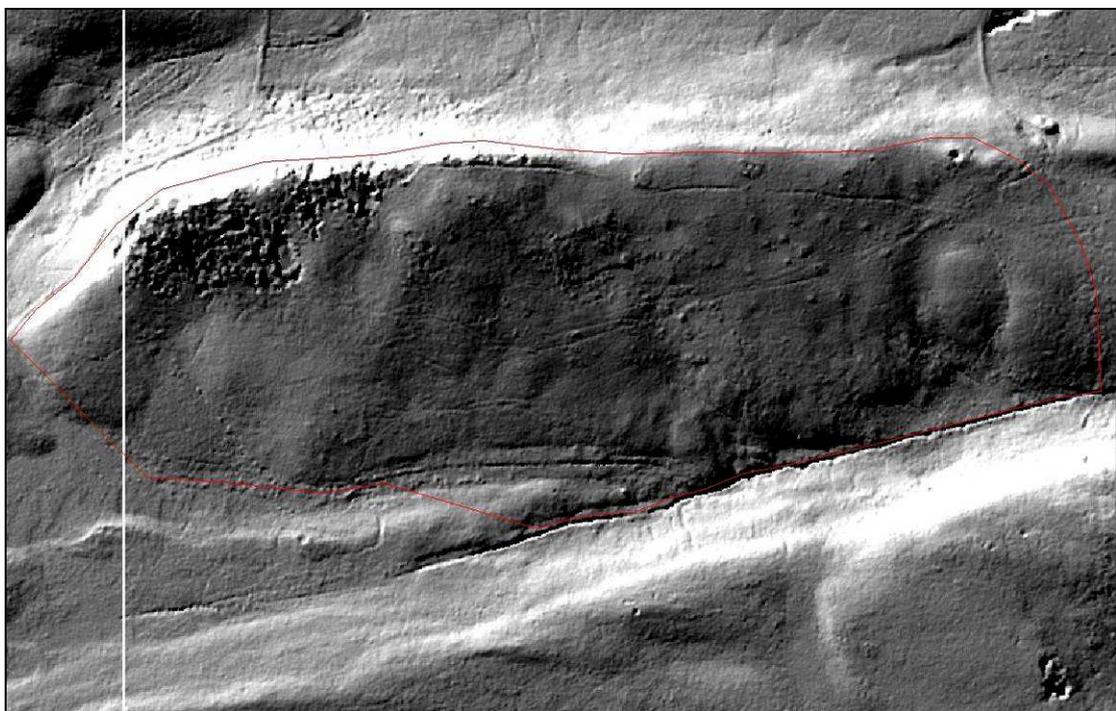


Plate 10: LiDAR image of Ravensheugh Crag (1m resolution)

3.3 PALAEOENVIRONMENTAL CONTEXT

- 3.3.1 The following palaeoenvironmental assessment is based on AJ Moores (1998) palynological data from Sells Burn, which is *c* 3km west-south-west of Ravensheugh Crags, and provides a palaeoenvironmental context for the development of the vegetation across the wider area. The present summary was extracted from Rob Young's account in the Northumberland National Park Archaeological Research Framework 2005 (Young 2005; Bowyer and Bowyer 2012).
- 3.3.2 At Sells Burn (at *c* 260m OD) the onset of peat development occurred at *c* 3975 cal BC (Young 2005; Moores 1998), and Moores suggests that the palynological record of the site is comparable to others with human-influenced peat initiation, and would imply that human agencies were involved in localised deforestation, affecting the local hydrology, and leading to paludification (1998, 193). He therefore suggests that Mesolithic anthropogenic activity in the area may have been a factor in the initiation of peat formation (*op cit*, 191). Areas of forest may have been subject to local clearance to promote the growth of hazel for nuts and to create clearings which would have encouraged animals that could then be hunted. However, any woodland clearance was limited as the tree cover was considerable despite the onset of peat growth.
- 3.3.3 The data from Sells Burn does not provide any indication of significant Neolithic human activity in the area, but, from the earlier part of the Bronze Age, there was an increase of heathland species at the Sells Burn site (Young 2005). This may reflect localised woodland clearance, but could also be related to climatic amelioration that may have encouraged increased stock grazing in the locale (Moores 1998, 218). The pattern of increased woodland clearances and exploitation of the marginal lands during the Bronze Age is potentially an indication of both improved climatic conditions, coupled with increased population pressure, resulting in an expansion of populations out from lowland areas, and is reflected in other parts of Northern England (Quartermaine and Leech 2012). The evidence from Sells Moss suggests continued clearance activity through the later Bronze Age and into the Iron Age (Moores 1998, 226; Young 2005).
- 3.3.4 At Sells Burn there were massive increases in grass pollen during the latter part of the Iron Age and into the Roman period including *Ranunculaceae*, *Rumex* spp, *Potentilla*, *Chenopodiaceae*, and *Plantago lanceolata*, which are typically perceived as 'weeds' associated with pastoralism (Moores 1998, 229; Young 2005). Despite these indications of pastoral farming, there was no significant increase in cereal pollen until the latter part of the Roman period. However, this was evidently short-lived because in the immediate post-Roman period there was a marked increase, albeit short-lived, of woodland, reflecting a regeneration of scrubland trees, with hazel being the dominant species, but also including birch and alder (Moores 1998, 245). After this episode, there was an increase in grass and cereal pollen and no subsequent indication of forest regeneration through the early-medieval and following medieval periods. The presence of cereal pollen would indicate cultivation practices and is reinforced by quite extensive areas of ridge and furrow, across the wider area, as indicated by LiDAR evidence.

3.4 RAVENSHEUGH - THE ARCHAEOLOGICAL CONTEXT

- 3.4.1 Ravensheugh Crag is a site of rich archaeological character, that includes a well-documented four poster stone circle, a large number of cup-marked stones, which

have been closely studied by Stan Beckensall (Beckensall 2001), three cairnfield groups and areas of cord rig that had been identified from aerial photography by Tim Gates (2004). While this localised landscape is undoubtedly significant, it is not isolated as there is a diverse character of prehistoric monuments within the wider locality, of which two areas, Standing Stones Rigg and Sewingshields (Fig 3), have been subject to detailed survey as part of the Altogether Archaeology programme and will be disseminated in separate reports.

- 3.4.2 **Stone Row:** two kilometres to the south-west of the study area is a double stone alignment at Standingstone Rigg, which was recorded as part of the Altogether Archaeology project. The stone row consists of 37 visible stones running roughly 134m north/south up and over the scarp of Standingstone Rigg (Fig 4). There are three sections still extant; the northern section has 12 stones extending for a distance of 27m (Plate 11). Following this there is a 26m gap, there is then a section containing 10 stones (25.7m long) (Plate 12), a further gap of 27.5m and then the southernmost section of 15 visible stones which extends for 28.5m. Of the extant stones, the largest gap between parallel stones is 1.7m, although the narrowest is just 0.6m. All the stones in the row appear to be limestone, and there are small several quarry pits in the vicinity. Despite considerable surface investigation, it was not possible to identify any further extensions of the rows either to the south or north, and there were no definitive burial mounds associated with the double row which is typical on other such monuments, although there are two small mound features on the ridgeline to the immediate east of the row. Other associated features include a single alignment of pits extending out from the southern end of the feature.



Plate 11: The northern section of the stone row looking south



Plate 12: The alignment of stones of the Standingstone row, looking north

- 3.4.3 It is possible that it is part of an extended territorial boundary feature extending across waste ground and what is most significant is that part of the line of the boundary is defined by a series of pit alignments. Such territorial boundaries have considerable parallels with sites in North Yorkshire, for example a series of earthwork boundaries that extend across waste land at Skipwith Common (OA North 2010), where they were often aligned with funerary monuments. More pertinently such boundaries have been found to be superimposed on top of pit alignments; the assumption being that these boundaries had an extended life, and in their earliest phase comprised a pit alignment and which was then modified into a substantial earthwork feature. This is effectively demonstrated at the Cleave / Casten Dyke complex on the North York Moors. A section of the Cleave Dyke was subject to excavation in 1989 (Vyner 1989), which revealed that the present Cleave Dyke is in part the later recutting of an earlier boundary alignment that was originally part embanked and part pit alignment (*ibid*). Casten Dyke crosses and cuts Cleave Dyke and comprises a 3.5m wide ditch with banks on either side, which were extremely prominent in places, which very obviously diverts around a substantial Bronze Age tumulus. Casten Dyke was a documented boundary in the medieval period (Spratt 1982, 36), and, as it evidently post-dated the other dykes and the tumulus, it has been argued (English Heritage 2001) that it was of medieval origin. However, it evidently has had a long, and continuous use as a boundary, even to the present day as it now serves as a district boundary. While the present form may well have been created in the medieval period, it almost certainly followed an earlier line that extended between a line of Bronze Age

burial mounds, and, on the evidence of the excavations on Cleave Dyke (Vyner 1989), may have taken the form of a pit alignment extending directly between the centres of the barrows. The implication is that these territorial boundaries can take many different forms, depending upon the terrain being crossed and in an area of outcropping rock, there may well be a tendency to create stone alignments rather than earthen banks.

- 3.4.4 **Unenclosed Settlements:** just to the west of the study area was an unenclosed settlement (identified by Gates (2004)) on Broadpool Common at NY 827747. This consisted of a single round house (5.4m in diameter) associated with fragmentary field walls, linear clearance banks and three tracts of cord rig, together extending across an area of *c* 0.4 ha. At 200m to the north-west of the study area is a further unenclosed settlement on the top of a small knoll (SM 25104 (HER 7701); NY 8293 7501), comprising a round house, 4.5m in diameter, defined by a 1.3m wide and 0.3m high outer bank, and possibly adjacent are two further round houses, as well as an associated oval enclosure that is 27m x 24m in size. To the south-east of the study area, just west of Goatstones Wood (NY 83624 744930), on the northern ridge of Haggie Rigg, is a group of three putative round houses, of which the most clearly defined has an internal diameter of 5m and a possible south-west facing entrance.
- 3.4.5 **Enclosed Settlements:** to the east of the study area, at Pit Wood (NY 8465 7413), is an enclosed settlement comprising a polygonal enclosure, which was up to 49m across, and had a 8.3m wide gap in its western boundary and a 6.5m gap in its southern boundary. Tim Gates (2004) reports three or four round house foundations within the enclosure, and these appear to be confirmed by probing during the 2012 field survey (Bowyer and Bowyer 2012).
- 3.4.6 A further enclosed settlement was recorded at Haggie Rigg 500m to the south of the study area at NY 8345 7413. This was identified from aerial photos as a sub-triangular enclosure with a south-east-facing entrance, a scooped interior and the remains of a possible round house.
- 3.4.7 At a distance of 1.3km to the south of the study area was the Carts enclosed settlement at NY 8329 7346, which was located on a prominent ridge. It was identified from aerial photography as a sub-rectangular enclosed settlement with an entrance in its north eastern side. It has one internal round house, and a further round house just beyond the eastern side of the enclosure. There are fragmentary field walls and patches of cord rig in the surrounding area.
- 3.4.8 Such enclosed settlements are typically of Iron Age or Roman date and they often have substantial hollows (scoops) within the enclosed settlement boundary. These hollowed areas were used to accommodate stock and the manure was removed to put on the surrounding fields; over time this resulted in the formation of hollows and have led to them being called Scooped Settlements.
- 3.4.9 **Quarrying:** towards the north-western end of Ravensheugh Crags is an extensive area of quarrying, which was first depicted on the OS First Edition map 6" to 1 mile map (1866), but had evidently expanded by the time of the 1896 OS 1:2500 map, indicating that it was active during this period. Limestone, and sandstone were quarried here, and quarry markers are visible scattered throughout the area.

4. SURVEY RESULTS

4.1 INTRODUCTION

- 4.1.1 The detailed topographic survey was undertaken across an area of moorland at Ravensheugh Crags measuring 912m long (east/west) by 330m wide, on the landholding of Goatstones Farm and to the west of the farm itself (NY 830 750 – centred). The survey area consisted of open pasture on a shallow south-facing slope (between 255m and 220m aOD) which is defined in the south by Coal Burn and to the north by the steep north-facing scarp slope of Ravensheugh Crags (Figs 6-10). The survey area did not extend over the drove road to the west or the enclosure walls at Goatstones Farm to the east.
- 4.1.2 The present survey added many additional sites to those previously identified from aerial photographic interpretation (Gates 2004, 17 and NMP), and it provided much finer detail to the results of the Level 1 survey that had previously been undertaken by Phil and Anne Bowyer (2012). Further cup-marked stones were also identified which complement the work undertaken at the site by both Stan Beckensall (<http://rockart.ncl.ac.uk>) and Northumberland and Durham Rock Art Pilot Project (NADRAP) volunteers as part of the England's Rock Art project (<http://archaeologydataservice.ac.uk/era/>).
- 4.1.3 The detailed survey results are set out thematically in the following sections, but in summary the survey identified and recorded over 70 cairns, which were predominantly clearance cairns and were split into two discrete cairnfield groups, although some of the larger examples may possibly be funerary cairns. In addition, there were two definite kerbed cairns and a total of 38 sites that comprised rock art panels, in the form of simple cup-marked stones. The Goatstones Four Poster stone circle also contained cup-marks on each of the four stones and a portable rock art stone was located on the easternmost kerbed cairn. Most other features identified were indicative of prehistoric settlement/agriculture dating between the Bronze Age and Romano-British periods, and include several fragmentary linear sections of boundary bank/lynchet; three stock enclosures; two burnt mounds; a round house and a platform house; and three large areas of cord rig cultivation. Later features dating to the medieval/post-medieval periods include four possible stack stands; large areas of freestone quarrying (including one quarry boundary marker stone); at least one bellpit; a hollow way and a large sheepfold.
- 4.1.4 Only one site in the survey area, the Goatstones Four Poster stone circle, is presently statutorily protected as a Scheduled Monument (25065).

4.2 EASTERN CAIRNFIELD GROUP (HER 12647)

- 4.2.1 This loose cairnfield group consists of at least 44 clearance cairns spread over an area of some 400m by 175m (Figs 9 and 10) and is located around, and predominantly to the east of, the drystone sheepfold (Site 16); the cairnfield is constrained by the edge of Ravensheugh Crags to the north and tapers out to the south where the ground becomes boggy towards Coal Burn. The cairns are fairly well dispersed and are often approximately 10m apart in the centre of the area. They are almost all sub-circular or oval in shape and most show no evidence for internal structure such as a

kerb or cist. The concentration of cairns becomes more diffuse towards the edge of the grouping but in the centre most are large, well-defined, turf-covered cairns with some stones visible on the surface (Plates 8 and 9). Several of the cairns in the eastern half of the group have been disturbed either by antiquarian digging or by modern drainage operations.

- 4.2.2 The group is overlain by two areas of later cord rig cultivation which are both on different alignments and are interspersed with numerous earthfast cup-marked stones. There is little evidence for a field-system or defined field plots associated with this group of cairns, but there are vestiges of some small field banks (Sites **13**, **20**, **21** and **44**). These contain clearance cairns in their alignment, in particular the large west-south-west/east-north-east orientated lynchet (Site **20**) incorporates two small clearance cairns and a larger, probable funerary, cairn.
- 4.2.3 The cairnfield group contained several cairns with additional attributes of more complex construction, that are suggestive of funerary or ritual practices. The largest cairn (Site **1**; Plate 13) was incorporated into a lynchet boundary (Site **20**) and although there is no visible kerb or cist, the relative size of it may imply a funerary function. The cairn incorporates three small cup-marked stones in its fabric on its south-eastern flank (Sites **116-8**). The lynchet would appear to link a number of other more conventional clearance cairns (Sites **6** and **7**). Several other cairns within the group also incorporated earthfast cup-marked stones (Sites **1**, **4** and **25**).



Plate 13: Funerary cairn (Site **1**) within the Cairnfield I on Ravensheugh Crags

- 4.2.4 The cairnfield may reflect field clearance associated with a single domestic round house located in the centre of the grouping (Site **11**; Plate 14). It has a well-defined double thickness stone foundation wall on its western side but the east side has collapsed leaving only a slight embanked turf-covered platform with several visible stones. The round house is unenclosed and has neither surrounding field banks or field clearance concentrated up against the structure, nor does it have any association with

other elements of field system. The only other domestic structure in the area is a platform house located at the extreme eastern edge of the group (Site **137**), which comprises a lenticular-shaped platform cut into the south-facing hillside (it measures 12.4m long by 7.3m wide and is up to 0.5m high). Such platforms would have provided the base for a timber domestic structure and are typically interpreted as being of an earlier date than the stone-founded type of round house, such as Site **11**; the two probable domestic structures were not necessarily contemporary.

- 4.2.5 The cairnfield is associated with a single burnt mound (Site **53**) which is located on the southern edge of the group; it is located on the edge of boggy ground to the north of Coal Burn and is near to a natural spring, which issues forth from the opposing slope to the south.



Plate 14: Round house (Site **11**) within the eastern cairnfield I on Ravensheugh Crags

4.3 WESTERN CAIRNFIELD GROUP II (HER 12646 AND NMP No. 1475212)

- 4.3.1 This cairnfield group contains at least 30 clearance cairns spread over an area of approximately 405m by 160m but with a main concentration nearer to the western end of the study area (Figs 6 and 8). The group is located further towards the base of the scarp and nearer the boggy ground at Coal Burn than the other cairnfield group. It is to the south-west of the other cairnfield grouping but has outlying cairns that extend almost as far as the other group. The cairns are all turf-covered and are similar in size and shape and density to those of the Cairnfield I; however, they are often less well-defined or are of smaller height and contain fewer visible stones poking through the turf cover. There is evidence for two small sections of field bank in the main concentration of cairns (Sites **67** and **83**), with the former incorporating a single clearance cairn (Site **68**).

- 4.3.2 There is evidence for two parallel field banks (Sites **31** and **32**), 24m apart and running in a roughly north-north-east/south-south-west orientation to the east of the cairnfield group. One of the field banks incorporates a single clearance cairn in its length (Site **31**). The individual field banks suggest some complexity and maybe parts of a proto-field system in this area although there is no well-defined clearance for individual field plots. All but the western end of the group is overlain by later cord rig cultivation but the greatest concentration of cairns survive to the west of this cultivated area. The parallel field banks are probably fragmentary remnants of prehistoric field boundaries, and, by virtue of the fact that they incorporate cairns, were probably broadly contemporary with the cairnfield.
- 4.3.3 The cairnfield is associated with a single burnt mound (Site **65**; Plate 15) which is located on the edge of the group. It is located on the north bank of Coal Burn and is opposite a natural spring head which issues forth from the southern bank of the burn.



Plate 15: Burnt mound (Site **65**) located on the north bank of Coal Burn

4.4 ROCK ART

- 4.4.1 There is an extremely rich array of rock art extending across the Ravensheugh Crags area, and comprises 41 panels or portable stones (Figs 6 and 9). The rock art constitutes only simple cup-marks, and these are almost all on earthfast panels of outcropping or large stones and there was only one definite portable stone (Site **107**) which was located on top of a kerbed cairn (Site **47**). Many of the rock art panels comprised only one or two cup marks, but there were a limited number with significantly larger, and seemingly more complex, designs. Notable amongst these

was the Site **36** panel (Plate 16), which had at least 37 cup-marks and panel Site**106**, which had 16 cup marks.

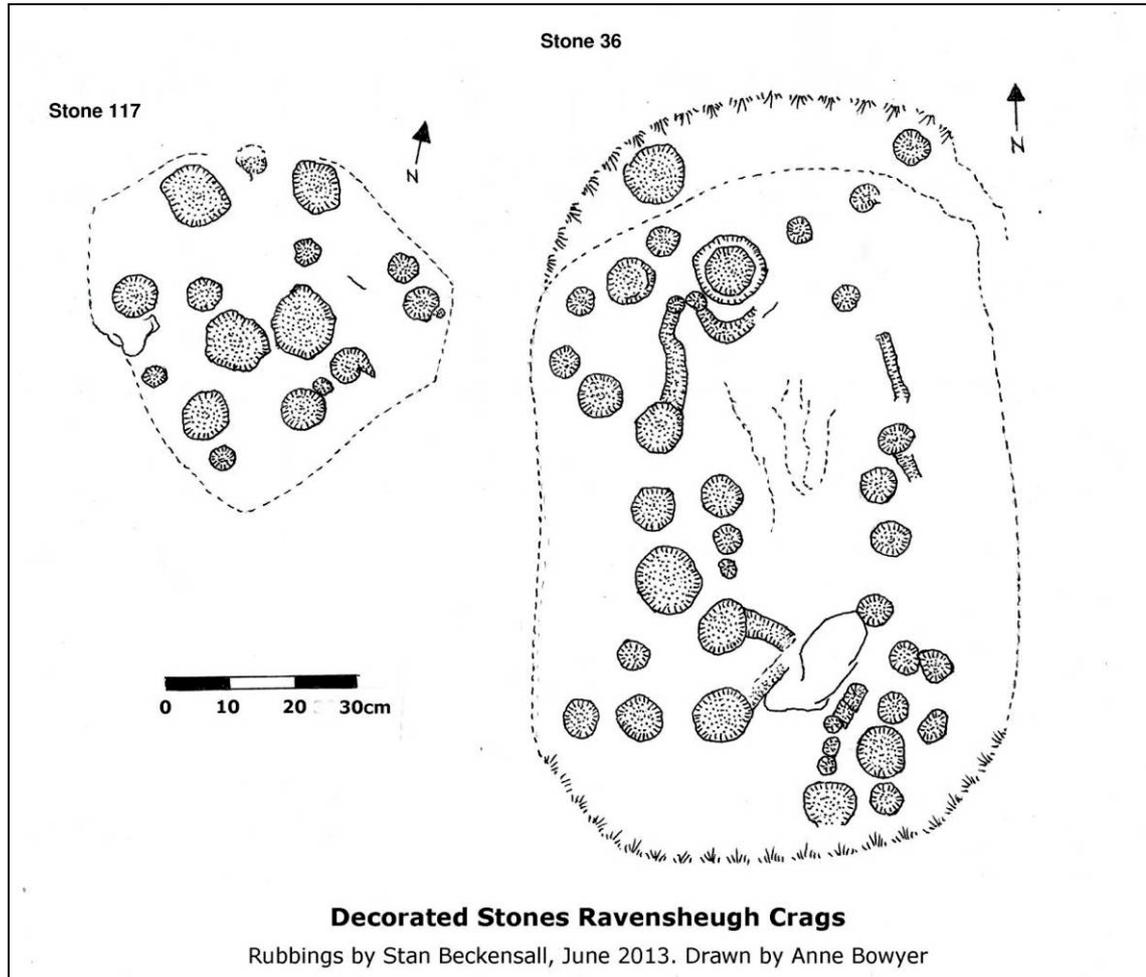


Plate 16: Scaled drawings of two newly discovered cup-marked stones (Sites **117** and **36**) (© Anne Bowyer)

- 4.4.2 Ravensheugh Crag had previously been examined and 21 of the sites had already been recorded either by Stan Beckensall or the NADRAP project volunteers and were incorporated into the England's Rock Art (ERA) database (<http://archaeologydataservice.ac.uk/era/>). There was one portable stone identified from the database (Site **148**) which is now missing. There were three very uncertain rock art sites near to Goatstones four poster circle (Sites **145-7**), which have not been recorded by the present survey but which are within the ERA database. Thirteen new sites have been recorded by the present survey and, overall, this comprises a total of 41 panels or portable rock art stones.
- 4.4.3 The distribution of the panels is potentially significant; there is a notable cluster of seventeen rock art sites to the south-west of, and partly including, the Cairnfield I group of cairns. Although there is overlap between the cairnfield and the rock art distribution, this could be more coincidental than deliberate. Of the 41 rock art sites relatively few are actually within the fabric of cairns, and those cairns that do have rock art panels or portable stones, for the most part have characteristics typical of funerary monuments. All four stones of the four poster circle (Site **35**) have cup marks; the funerary cairn (Site **1**) has three rock art panels (Plate 17); there is a portable rock art stone on top of a kerbed cairn (Site **47**), and there are two rock art

panels on a possible funerary cairn (Site **25**), which is in a prominent location at the north edge of Ravensheugh Crags. This coincides with a small group of four rock art sites (Sites **97-100**) which exploit the same prominent location. Only two probable non-funerary cairns have rock art sites associated; this includes the very small cairn (Site **4**), which has a series of parallel linear incisions, rather than cup marks and there exists the possibility that these reflect the action of a plough rather than being a carved rock art site. The lynchet bank (Site **20**) also has two rock art panels at its western most tip.

- 4.4.4 Statistically, there is a high correlation between the rock art panels and cairns that are purported to be funerary monuments and it is considered that this is not coincidental. The coincidence of rock art with funerary monuments is well established (Jobey 1968; 1981; Deakin 2007) and has been demonstrated by Vyner (2005, 40) at Fylingdales on the North York Moors where ‘decorated stones of this type are known from the mound make up of around 25 burial mounds and burial cairns The cup-mark is the most commonly found decorative motif, so frequent and so often unweathered as to confirm the direct and deliberate association between the cup-marked stones and the funerary ritual.’



Plate 17: One of three cup-marked stones (Site **117**) set into the eastern side of funerary cairn **1**

- 4.4.5 **Detailed Recording:** detailed recording of selected panels was undertaken to trial methodologies and to explore the possibility of features that were not evident from initial examination. This included night time photography where the light conditions could be controlled, and, by using oblique light conditions to significantly enhance the surface features (Plates 18 and 19). Also photogrammetry was used (Plate 20; *Section 2.3.4*) to provide a detailed model of the stones surface. Both techniques recorded cup-marked stone Site **106** and both brought out the subtle features; however, the photogrammetry provided a metrically accurate record of the stone sufficient to be used for draughting.



Plate 18: Cup-marked stone **91**, taken in low light conditions at night (© Cezary Namirski)



Plate 19: Cup-marked stone **106** taken in low light conditions at night (© Cezary Namirski)

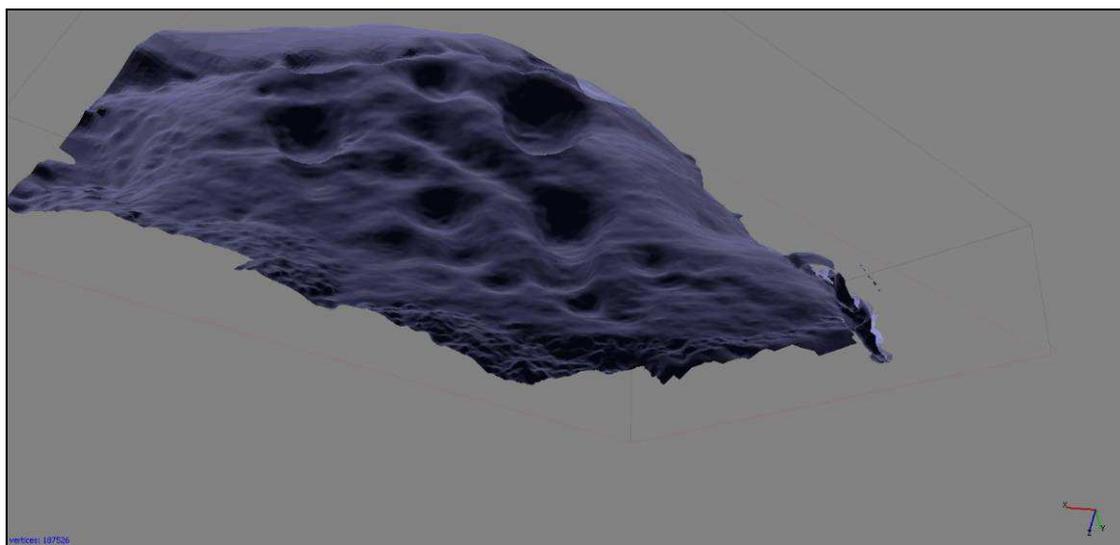


Plate 20: An isometric view of the photogrammetrically modelled cup-marked stone
106

- 4.4.6 **Assessment of Rock Art Cluster:** the distribution of the rock art shows two, possibly distinct, patterns. The first appears to follow a line along the top of the ridge, and relatively close to the scarp edge (Sites **101-2**, **97-9**, **100**, **95-6**, **92-4** and **35**). The second is an intense concentration at the western edge of Cairnfield I. Some of the panels are within the area of the cairns, but the majority are just beyond and to the west. There is a separate, and much smaller, group of three rock art panels (Sites **104-6**) just to the east of the cairnfield. The relationship between the distributions of the cairns and the rock art panels, can be best described as uncertain, as it is not apparent whether there are two independent distributions, or whether there was an attempt to use rock art to define the edges of the cairns (Deakin 2007, 113).
- 4.4.7 The numbers of rock art sites at Ravensheugh Crags would appear to be fairly typical in terms of size and density for the Northumberland 'clusters' of rock art (Kate Sharpe pers comm). There are though other markedly larger clusters such as that at Lordenshaw, where there is as much as 127 rock art sites, and Snook Bank where there are 78 rock art sites and Millstone Burn where there are 76 rock art sites. In general, the essential cup-mark character and the spatial association with a cairnfield and funerary monuments makes this site most comparable to the Chatton Sandyford site, which had 14 rock art sites (Kate Sharpe pers comm).

4.5 FUNERARY MONUMENTS

- 4.5.1 **Goatstones Four Poster (Site 35):** the Goatstones four poster stone circle is a distinctive, and relatively rare, type of funerary monument, situated on a small knoll at the south-west end of Ravensheugh Crags, and which has a good outward vista to the north-west and south-east (Plate 21; Figs 5-7); it is a Scheduled Monument (SM 25065). It comprises four squat stones set in a c 4.5m quadrilateral (Plate 22); the stones are variable in height, from 0.8m high on the south side to 0.4m on the east side. However, in addition to the most very evident cup-marks on top of the eastern stone (Plates 23 and 24), examination by Stan Beckinsall has revealed that all of the stones have cup-marks (Bowyer and Bowyer 2012):

- **East Stone:** 12 large cup-marks and 13 smaller ones on the top surface;

- **North Stone:** three, possibly four, cup-marks among the natural grooves;
- **West Stone:** four cups on top and 12 small, faint ones on the side;
- **South Stone:** four cups and two grooves that may have been slightly enhanced by pecking.

4.5.2 Within the circle were the reported traces of a low mound, inspected in 1931 by a Mr Honeyman (Burl 1971, 37), who reported an undisturbed low mound which was potentially a former central burial cairn. The mound had been removed by 1970 when Burl reported indications of internal disturbance and a cairn of spoil just outside the north-west side of the circle (*op cit*, 40) which is still extant today as a small poorly-defined sub-circular mound (6m long by 2.3m wide and 0.2m high).

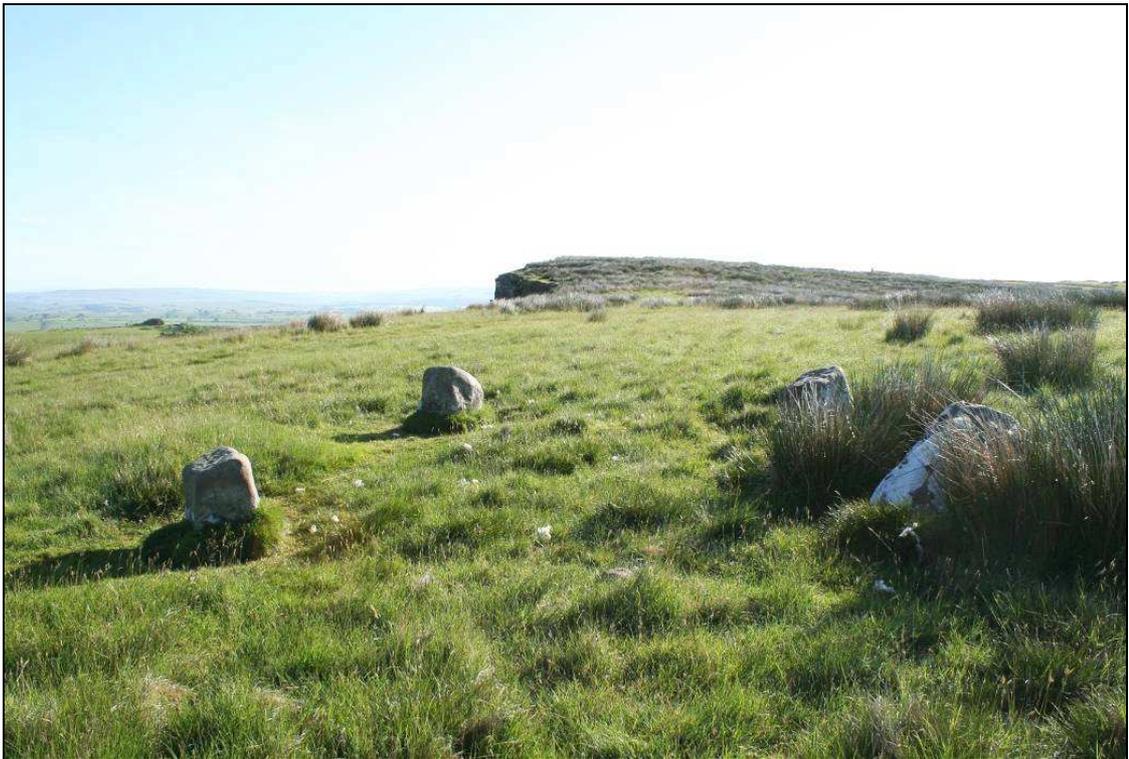


Plate 21: The view looking east along Ravensheugh Crags through the Goatstones four poster stone circle (Site 35)



Plate 22: Aerial view of the four poster stone circle (Site 35)



Plate 23: The upper surface of the eastern stone of the four poster (Site 35) showing the cup marks

- 4.5.3 The name Goatstones may be derived from 'Gyet-Stones', meaning 'wayside stones', and may reflect its proximity to an old drove way to the north leading up from a natural col within the line of the Ravensheugh crags (Burl 2005, 71). There is also a smaller, narrow path / erosion scar that is orientated east/west, and extends through the northern side of the monument, a further off-shoot of this pathway extends around the south-west side of the monument.
- 4.5.4 The Goatstones monument is a southern outlier of the Scottish 'four-poster' circles which predominate in Aberdeenshire, and to a lesser extent Perthshire (Burl 1971). The Goatstones example is one of the few identified south of Scotland (Burl 1976); and is one of two in the region, the other being the excavated example called the Three Kings in the Kielder forest (Burl and Jones 1972). Burl tentatively suggested that the nearby village of Fourstones may also have once had such a monument (Burl 1993, 160), hence the name. The most characteristic features of the four poster are that they have a rectangular setting, the grading of stone heights, and a sepulchral function. Only a limited number of four posters have been excavated, and in four of the five excavated examples cremations, sometimes with urns, were found, but there was also one, at Dunmoid, which had an inhumation (Burl 1976, 192). The other Northumberland four poster, the Three Kings, was also found to have had a low cairn in the centre, and, although the site had been disturbed prior to the excavation by Burl, there was an implication that this formerly had an original central hollow for the internment of a cremation (Burl and Jones 1972, 10). These four poster stone circles would appear to be simple sepulchral monuments, and the ceramics revealed by these excavations, and links with the Clava cairns (Burl 1971,41), suggest that they have a date range within the mid-second millennium BC.



Plate 24: Goatstones four poster stone circle with cup-marks visible on the southern stone (Site 35)

- 4.5.5 **Kerbed Cairns (Site 33):** near to the four poster, and located on the same small knoll, is a small kerbed cairn (Site 33), which is 5.3m x 3.9m in extent, but only 0.3m high (Plate 25; Figs 5, 6 and 7). There are eight prominent kerb stones protruding from the

grass, with the stones measuring on average 0.4m by 0.2m in size. They have an approximate rectangular arrangement, and this does not precisely match the shape of the cairn which has an oval shape. It is interesting to note that when the site was visited in the early 1980s there were no stones visible, but these have emerged as the site dried out as a result of a number of dry summers (Bowyer and Bowyer 2012). The cairn has a slightly undulating, but essentially flat top, and well-defined sloping edges, giving it a characteristic kerbed cairn-type profile.



Plate 25: Aerial view of the kerbed cairn (Site **33**) at the western end of Ravensheugh Crags

- 4.5.6 A further kerbed cairn was located in the eastern half of Cairnfield I (Site **47**; Plate 26; Fig 9)), and was a sub-circular, partially turf-covered, mound measuring 5m long by 4.2m wide and 0.6m high. It had very definite kerb stones on the north side, but has seemingly been disturbed or has slipped on the south-east side, and there are no kerb stones visible here. The cairn was similar in size and shape to the surrounding cairns but, perhaps significantly, it was the only cairn to contain a small portable cup-marked stone on top of it (Site **107**). Several other cairns did, however, incorporate earthfast cup-marked stones (Sites **1**, **4** and **25**). Site **25** is located at a high point on the Ravensheugh ridge, is well defined, and is spatially remote from the cairnfield and, although it is relatively small, being only 4m across, it has the potential to have been a funerary monument.



Plate 26: Kerbed cairn (Site **47**) within Cairnfield I with portable rock art stone on top (Site **107**) (© Phil Bowyer)

4.6 CORD RIG CULTIVATION

- 4.6.1 Three areas of cord rigg (Sites **142-4**) have been recorded across the extent of the study area mainly from aerial photography by Tim Gates, which was taken in very low light conditions, and was able to enhance these very subtle earthwork features (Plate 27) (Figs 6, 9 and 10). They were, however, also identified in localised patches on the ground (Plates 28 and 29), and similarly from the UAV photogrammetry and were found to be on average 1m in width (ridge to ridge). They extend across much of the area (Site **142**: 308m by 122m in extent; Site **43**: 375m by 175m in extent; Site **43**: 375m by 175m in extent), and include the area of Cairnfield Group I. The cord riggs stop short of the individual cairns, before continuing on the other side; the implication is that these cultivation features avoided the cairns and were seemingly established after the construction of the cairns. Cord rigg cultivation has been found commonly across the Northumberland uplands and is an indication of ridge ploughing, that was typically undertaken using an ard (Topping 1989a; 1989b, 164). This type of cultivation tends to be dated to the Iron Age (Quartermaine and Leech 2012, 31); examples have been identified beneath Hadrian's Wall, for instance at Tarraby Lane, near Stanwix (Smith 1978), but there is little evidence of it continuing into the Roman period (Topping 1989b, 171). The cord rigg in each area shows that it was, for the most part, regular in form, had a uniform width and had a consistent orientation; this would suggest that it had been formed and developed over a number of seasons, but essentially was part of a single episode of cultivation. If, however, there had been multiple episodes of working of the cord rigg, separated by periods when the land was

allowed to lie fallow, there can be a situation where, on return, a different alignment of cord rigg was adopted, which would result in multiple alignments, which would be most noticeable around the margins (Topping 1989b, 167). At Ravensheugh Crags there is a small area of cord rigg at the north-eastern part of the site (Site **144b**), which has an east/west orientation that is seemingly truncated by cord rigg **143**. So although, for the most part, the cord rigg seems to represent single episode working, there is at least in one location, an indication that there had been an earlier phase of working. As such, this may suggest a more extended period of cultivation.



Plate 27: Aerial photograph of Cairnfield I area showing areas of cord rigg (Site **143**)
(© Tim Gates)



Plate 28: Well-defined cord rig cultivation at the eastern end Ravensheugh Crag (Site **144**) (© Phil Bowyer)



Plate 29: Cord rig cultivation (Site **143**) (© Phil Bowyer)

4.7 STOCK ENCLOSURES

- 4.7.1 To the north of Cairnfield I group, and at the northern end of the study area, are three stock enclosures (Sites **12**, **26** and **46**). The smallest (Site **12**; 16.6m x 13.3m) is overlain by the wall of a stock wind break (Site **16**), that has resulted in considerable disturbance and truncation (Fig 9). The south-western side of the enclosure is well-defined, but that section on the northern side of the wind break is disturbed and poorly defined. It may be that some of the stone of this part of the stock enclosure has been used for the construction of the wind break.
- 4.7.2 The easternmost stock enclosure (Site **26**) is on the edge of the Ravensheugh Scarp slope, and it is possible that part of the enclosure has been lost down the slope. It consists of a curvilinear section of earth and stone boundary bank defining the perimeter of the enclosure which is 24m long by 15m wide in size. The enclosure has been heavily truncated by at least three later extraction scars and upcast material is scattered over the site.
- 4.7.3 The stock enclosure that is in the best condition is Site **46**, and comprises an oval enclosure with earth and stone enclosing banks extant on all but the eastern side; measures 23m long by 21m wide, with banks that are up to 0.6m high. There is a sub-rectangular structure on the external western side of the enclosure which measures 13m by 8.5m. Such a structure would typically be a domestic structure for the stockman and is attached to the outside of the stock pound; however, it does not have a levelled interior, which is typical for a domestic structure and there is a case for suggesting that it was a smaller fold. Alternatively, the irregular interior may potentially reflect disturbance and some collapse of the outer walls.
- 4.7.4 These stock enclosures typically have an Iron Age date (Quartermaine and Leech 2012). The stock enclosures are slightly removed from the cairnfield, although there is one small cairn (Site **135**) surviving inside the Site **46** enclosure. While they can be spatially associated with cairnfields (such as the Hesk Fell example in West Cumbria (*ibid*)), they were not necessarily contemporary with the establishment of the cairnfield and there is a likelihood that these reflect a later episode of exploitation of the land.

4.8 POST-PREHISTORIC FEATURES

- 4.8.1 **Medieval Activity:** although the overall site is a predominantly prehistoric landscape, there are a number of later medieval and post-medieval features that reflect subsequent activity, and which, significantly, are likely to have impacted upon parts of the earlier landscape, such as a number of the quarries. Extending around the northern edge of Ravensheugh Crags and converging towards Goatstones Farm is a holloway (Site **64**), which is 2.5-3m wide and up to 0.4m deep. Such features are typically of medieval date and certainly this one post-dates stock enclosure Site **46**, as it can be seen to divert around it. However, it was also cut by the large nineteenth century quarry (Site **89**), although it may also subsequently have been used to transport stone away from the quarry. At the eastern end of the study area, and about 300m from Goatstones Farm, are a series of four probable rectangular stack stands (Sites **138-141**) that were identified by Tim Gates from aerial photography, but only one (Site **140**) could be confirmed by the present field survey (Fig 10).
- 4.8.2 **Post-medieval Sheepfold:** in the centre of the study area is a well-constructed, two-celled, rectangular drystone sheepfold (15.7m long by 7.2m wide) with an internal

division in the smaller northern cell, and which has long shelter walls running south-east from the south end and both west and east from the north end. The fold is partially collapsed but has some surviving vertical coping stones. It is clearly a later insertion into the prehistoric landscape, overlying an early stock enclosure (Site 12) and having cairns on either side of the shelter walls.

- 4.8.3 **Quarrying and Mining:** the area has been subject to some intensive stone and mineral extraction evidenced by bell pits and quarries. The bell pit (Site 62) comprises a large, sub-circular, turf-covered mound with a sunken interior and is 12m long by 10m wide and 3m deep, and has some upcast stones around the edge. Its date is uncertain but it is not depicted on any of the late nineteenth century Ordnance Survey maps, and probably predated them. It would have served as a source of coal, and is reflected in the local name of the stream (Coal Burn) that extends past Ravensheugh Crags.
- 4.8.4 The north-western end of the scarp at Ravensheugh Crags is dominated by a large quarry (Site 89) which measures 265m by 91m. The centre is heavily disturbed where the stone has been cleaved up and was probably intended to provide a source of limestone, possibly for a limekiln just to the east of the study area (HER 12652), which was described as an 'Old Limekiln' on the OS First Edition map 6" to 1 mile map (1866). The same map showed the quarry, but this had evidently been abandoned by the time of the 1896 OS 1:2500 map, as it was then described as an 'Old Quarry'. There is a boundary stone (along with several others outside of the study area) that served to delineate the limit of the quarry workings (Site 120). In addition, there are a number of smaller areas of quarrying, which include a diffuse area of shallow quarrying leaving undulating ground with some upcast banking (Site 30), just to the east of the larger quarry, and which, significantly, includes three cup-marked stones (Sites 92-4) which suggests that the area has not been extensively disturbed. Further to the north-east are a series of quarry hollows (Sites 28 and 29). These smaller quarry pits are likely to have predated the larger quarry (Site 89), as the small scale workings would have been superseded by the larger quarry once it was established.

5. DISCUSSION

5.1 DEVELOPMENT OF THE LANDSCAPE

- 5.1.1 **Introduction:** Ravensheugh Crags has an extremely rich and diverse range of monuments extending across a relatively small area, and comprises an enormous agglomeration of rock art sites, burial monuments that include a very rare four poster stone circle, a series of cairnfields and elements of a primitive field system, burnt mounds, a platform house, a stone-founded round house, cord rigg cultivation, stock enclosures and later extraction activity. As such, there are similarities between this and other cairnfields from Northumberland, such as Chatton Sandyford (Jobey 1968), where there are elements of small clearance-type cairns interspersed with lynchets, stone banks and round houses, but also with larger, or kerbed, funerary-type cairns and rock art panels around the periphery of the cairnfields (Deakin 2007).
- 5.1.2 These diverse monuments seemingly also exhibit a broad range of dates and it would appear that the study area exhibits a palimpsest of activity over an extended period which encompasses much of later prehistory and, to a lesser extent, more recent periods. It would appear, therefore, that the area is a favoured place, that is an area that has either seen long periods of continuous activity or has been subject to repeated reuse. This reflects that topographically this is an island of relatively well-drained and elevated land with a shallow south-facing aspect, set within an area of undulating and lower, poorly drained, ground. Interestingly, other raised scarp slopes within this landscape provide similar conditions, and they too are also occupied by prehistoric remains, which include The Carts, Townshield Bank, and Kings Crags, and these also reflect islands of preferred land within areas of poorer land.
- 5.1.3 Given this potential for an extended occupation / periods of activity of Ravensheugh Crags, it is possible to put forward a proposal for how the landscape has developed. This must of course be extremely tentative as it is based solely on surface evidence, an absence of any hard dating evidence, and a corresponding over reliance on typological dating. But, given such caveats, it is possible to explore a proposal for development, which saw the landscape as initially having a ritual or burial function, but which migrated into agricultural use, initially for pastoral farming (two phases), then subsequently to arable, and then ultimately for mineral and stone extraction.

5.2 RITUAL / FUNERARY LANDSCAPE

- 5.2.1 The earliest element of the study area would appear to be a ritual or funerary landscape represented by the rock art and funerary monuments, which appear to be linked and may have been broadly contemporary. The cup marks are, for the most part, found on earthfast stones or outcrops scattered across the central part of the area or in a line along the ridge, and have relatively little direct relationship with the clearance cairns; however, there is seemingly a relationship between the rock art and, what may be perceived to be, funerary monuments. There are six cairns which also have cup-mark stones, and of these, four are either definite or probable funerary monuments, or to express it another way of the five suspected or confirmed funerary monument, four (Sites **1**, **25**, **35**, and **47**) (Plate 30) have cup marks on them, and only kerbed cairn **33** does not. This relatively close correlation would suggest that there was a relationship between the two traditions, and that they were broadly

contemporary; there was a period when this area was used for burial and an activity, either for ritual or entailing the use of route markers, which necessitated the use of cup marks. This may potentially reflect that the crags, being elevated, were a very visible part of the landscape and were treated with respect as a burial or ritual area or simply as a routeway. Analysis by Bradley (1997, 88) has demonstrated that the siting of rock art was not positioned at random, but was instead sited at local vantage points, and some were distributed along natural routeways. Brown and Brown (2008, 210) have demonstrated that there is a propensity to find rock art concentrated along the lines of major natural routeways across the Pennines, and the rock art could therefore have been used as route markers. Certainly, the lines of communications at this period are likely to have followed the higher ground, above the areas of mire, where there would have been reduced tree cover, and this may perhaps have favoured the line of Ravensheugh Crag. It may be significant that there is a linear distribution of rock art that follows the northern edge of Ravensheugh Crag (Sites **101-2**, **97-9**, **100**, **95-6**, **92-4** and **35**) and includes the four poster stone circle, which is also close to the ridge line. It is possible, therefore, that this line of rock art was used to mark a routeway.



Plate 30: Portable cup-marked stone (Site **107**) in kerbed cairn **47** (© Phil Bowyer)

5.2.2 While the elevated line of the crag is an appropriate line for a routeway, it is also a typical location for Bronze Age funerary monuments, where the emphasis is upon the open vista, such that the burial monuments are located either on summits or where they can be seen from distance, and sometimes on a shoulder below the summit. This is reinforced by the analysis of funerary cairn locations by David Field, who suggests that 'while many cairns are prominently sited on low eminences ... or on bluffs, ridges or ledges above rivers, they invariably lie in the lee of higher ground, the slope often

being the important landscape factor' (Field 1999, 38). At Ravensheugh, the funerary cairns are either on the top of the ridge, such as the putative cairn **28**, the Goatstones four poster (Site **35**), and kerbed cairn **33**, or just below the ridge, such as the Site **1** round cairn.

- 5.2.3 **Relationship between Rock Art and Cairnfield:** the relationship between the rock art and the cairnfield is uncertain. At one level, the rock art distribution has a tightly packed concentration only partly coinciding with the cairnfield I cairn distribution, which could suggest that they reflect two, chronologically distinct, patterns. However, it could also be argued that the panels are in part marking the edge of the cairnfield, hence the rough linear band of rock art panels (Sites **108-15**) that follows an approximate line beyond the western edge of the cairnfield. Similarly, there is also a number of rock art panels (Sites **102, 104-6**) beyond the eastern edge of Cairnfield I. It has been argued by Deakin (2007, 113) that at Chatton Sandyford there were distinct groups of cairns, and that rock art panels were located towards the perimeter of these groups; he therefore suggests that these were in effect demarcating an area of land, possibly for agriculture. There has been no statistical analysis to reinforce this possible relationship, but there exists the possibility that the rock art was serving to define ownership. This would, however, seem somewhat unnecessary once the cairnfields were established, as the cairns themselves would define the area of agricultural land, so perhaps these rock art panels served to define the land before it was subsequently improved.
- 5.2.4 This perception that rock art is earlier than the cairnfield is reinforced by an excavation undertaken at Hunterheugh Crag, Northumberland, of a rock art panel that was overlain by a clearance-type cairn (Waddington 2004). The rock art was found to have at least two distinct phases of carving, and then it was overlain by the cairn. Lithic tool finds from around the site were generally of Neolithic / early Bronze Age date. This would indicate that the rock art panel had an extended period of use even before the final cairnfield phase. Even accepting the possibility of a relationship between rock art and areas of cairnfield, the probability is that the rock art tradition was generally earlier, albeit partly overlapping, with the episode of farming represented by the cairnfield.
- 5.2.5 **Dating of Rock Art:** the chronology of rock art is somewhat uncertain; the cup and ring mark stones have typically been dated by their association with funerary monuments, which have themselves been dated. This can be unreliable as the rock art can have either been on a portable stone which was subsequently inserted into the funerary monument or carved after the construction of the funerary monument. Also this does not necessarily provide a date for carvings on isolated rocks, possibly serving as route markers, which may belong to a separate tradition. However, given the inevitable limitations of the dataset, and the difficulty of acquiring direct dates for the carvings, they do appear to belong to a broadly consistent date range. Bradley (1997, 65) suggests that they first appeared in the late fourth millennium BC and extended through the later part of the Neolithic, and were still in use in the early Bronze Age, and while there is limited evidence of use in middle Bronze Age, there is no evidence that the rock art extended into the first millennium BC. Where the examples from Ravensheugh fit within the broad date range of *c* 3200-1700BC is uncertain; however, Beckensall and Frodsham (1998) have argued that, it is not possible to assign all earthfast rock art to the Neolithic and that there is a case for early Bronze Age dating for some art types.

- 5.2.6 The conventional round cairn, such as represented by Site 1, are an extremely common tradition across the uplands and they at one level have a very broad date range. There are examples of round cairns in Britain, which date to the Neolithic period (Kinnes 1979), including one from Crosby Garrett in east Cumbria (Greenwell 1877, 389-91), and another from the Caldbeck Fells (Barker 1934). By the same token, there are round cairns that date to the Iron Age (*eg* Alnham; Jobey and Tait 1966), attesting to the longevity of this most basic form of funerary monument. However, of the dateable cairns from south-west Scotland, 95% can be ascribed to the early Bronze Age, primarily on the basis of ceramic finds (Yates 1984, 2-3), and the few dateable cairns from Cumbria reinforce this chronology (Grinsell 1953, 240-7).
- 5.2.7 The most characteristic funerary monument identified was the four post stone circle and, on the basis of sherds of collared and cordoned urns revealed in the course of a limited number of excavations of Scottish examples, and the Three Kings four poster, and also links with Clava cairns (Burl and Jones 1972), the date for this monument type would appear to be the middle of the second millennium BC (Burl 1971, 41). Assuming that the funerary monuments and the rock art were broadly contemporary, then the collective date for these varied monument types would suggest an overlap in the early Bronze Age.
- 5.2.8 ***Relationship between Rock Art and Springs:*** as well as the spatial association with cairnfields there is also an association between rock art and springs; Tim Laurie has reported that a survey of the area between the Rivers Reeth and Tees in the Northern Pennines (Laurie 2004; Beckensall and Laurie 1998) has revealed that, with a few exceptions, all the rock art was in the vicinity of springs. This reflects in part that the majority of rock art is found at an altitude of 300-400m, which is where the majority of springs rise. At Ravensheugh there are two springs on the southern side of Coal Burn, which are spatially close to the two burnt mounds, and also to the rock art. It is uncertain, however, as to the significance of this, as springs are a common feature of the upland environment and particularly within this broad altitude. It may be that, as with most settlement remains, there is a need for proximity to water supplies which can take the form of streams or springs, or, as in the present instance, both.

5.3 EARLY FARMING

- 5.3.1 The probability is that the Ravensheugh Crags landscape was initially characterised by mainly burial activity and as a routeway, but was not farmed; however, at some juncture there was a move to exploit the land more intensively for basic pastoral-type farming. This is represented by the cairnfields, which reflect the taking of waste stones from the land and placing them in piles, so as to improve the agricultural viability of the land. Such practices can be associated with arable farming where stone brought up by the plough is placed into cairns at the edges of fields and is characterised by alignments of cairns. However, there is a more fundamental form of cairnfield, where the cairns are randomly distributed such as in Ravensheugh Cairnfield II, and in this instance the practice would appear to be associated with early pastoral farming.
- 5.3.2 Basic random cairnfields are one of the most common prehistoric agricultural features of the uplands, but despite this, they appear to be an incongruous and almost unnecessary feature within the open upland agricultural landscapes with which they are associated. Their component cairns restrict the plough / ard and the slight

improvement in grazing potential does not seem to justify the considerable effort of removing surface stones. The explanation for this apparent dichotomy must be that, in reality, their origin is associated not with the open moorland of today, but with the locally and recently cleared forest lands, most typically of the Bronze Age. The landscape within this context would have comprised localised forest clearings, the ground surface would have been uneven, pock-marked with surface rock (Askew *et al* 1985, 19), and there would have been large craters following the removal of tree stumps. Considerable land improvement would have been necessary to make the land usable for even basic agriculture and any works that improved the grazing potential would be considerably less labour intensive than further forest clearance. It seems to have been within this context that the primary cairnfields were constructed. Palaeobotanical analysis from beneath excavated cairns of Barnscar, which is a large cairnfield in West Cumbria, by Walker (1965; Quartermaine and Leech 2012, 317) has shown that the construction of the cairns was integral with the process of forest clearance; indeed, considerable forest clearance took place after the construction of the excavated cairns. The excavations showed that the original ground surface had been burned in parts, therefore implying that fire was used as part of the forest clearance process. There were pits left following this process, which were potentially tree throws, and raises the possibility that either the tree stumps were dug out, a very laborious process, or the trees were felled by cutting the roots, in which case the root ball would have come out with the tree. In either instance, the resultant pits were then filled with soil and charred rocks, and a cairn was constructed over the top from surface stone. From this, it is apparent that in part the cairn distribution, in the most basic form of cairnfield, was largely dictated by the position of the original trees, hence the random distribution, and that the construction of the cairn was the final stage of a land improvement process which was primarily concerned with the levelling of the disturbed forest floor.

- 5.3.3 Pastoral activity would have taken place during and shortly after the forest clearance process. As there would not have been sufficient time for worm action to produce a topsoil to cover the exposed surface stone (Yates 1983, 342), there was a need for this stone to be removed. In this overall context, it is indeed credible that stone clearance should be practised within localised clearings to enable basic pastoral agriculture. Many of the areas of primary cairnfield have discrete limits that do not correspond to any changes in present-day topography, and their extent possibly relates to the size and shape of the original forest clearing.
- 5.3.4 At Ravensheugh Cairnfield II there is a distribution of cairns which would appear to reflect a more disordered arrangement of cairns, where there is little sense of cairn alignment, and the only bank is Site **67**, which seems to emerge from cairn Site **68**. In this area at least there appears to be an area of pioneer clearance and improvement of the land, and, more importantly, was not subsequently developed into a more rationalised field system, such that it survives to the present in its primary form. As such, there is a very clear distinction between the form of Cairnfield II, with that of Cairnfield I, where there are more marked elements of field system, and settlement remains. That is not to say that both cairnfields did not have the same basic origin, more that Cairnfield I has seen a process of further development that was not implemented at Cairnfield II. Similarly, there is a spatial association between the distribution of rock art and Cairnfield I, but there are no rock art panels in the area of Cairnfield II. This may suggest again that Cairnfield I has seen a further stage of

development beyond that exhibited at Cairnfield II or that the distribution of rock art and Cairnfield I is more coincidental than deliberate.

- 5.3.5 **Funerary or Clearance:** typically cairns are defined as funerary or clearance on the basis of their physical form, be it size, profile or the existence of a kerb, and, for the most part, the excavations of cairns have reinforced this distinction. However, a limited number of excavations of small cairns have also demonstrated the presence of cremated bone beneath the cairns or have identified burials inserted into clearance cairns or have revealed kerbs not evident from the surface evidence (Johnston 2000; 2001). This highlights that the distinction between funerary and clearance is not as clear cut as would initially be perceived (*ibid*). While some of the features identified beneath cairns, such as charcoal and pits, are likely to be a part of the woodland clearance process (*Section 5.3.2*), there also exists the possibility that a limited number of the small cairns may have had either funerary or ritual functions. These limited number of funerary cairns were not necessarily distinct in form from the other cairns of the cairnfield and so it can be very difficult to identify such cairns without the benefit of excavation.
- 5.3.6 **Dating of the Primary Cairnfield:** the characteristics of the basic form of cairnfield are largely attributable to its origin in forest clearings and its chronology will similarly relate to periods of most intensive forest clearance activity. Radiocarbon dating appears to confirm that many of these basic cairnfields originated during the Bronze Age; material from beneath a clearance cairn on Millstone Hill in Northumberland (Jobey 1981) produced a date of 2283-1754 cal BC (3640±90 BP; HAR-1942), and excavated clearance cairns from Shaugh Moor, Dartmoor, produced radiocarbon dates of 1875-1459 cal BC (3350±70 BP; HAR-2221), 1932-1497 cal BC (3400±90 BP; HAR-2285) and 1933-1529 cal BC (3430±80 BP; HAR-2219; Wainwright *et al* 1979). From the Lake District, a small cairn excavated at Birrel Sike, between Town Bank and Stockdale Moor (Richardson 1982), produced a date of 2299-1740 cal BC (3640±100 BP; BIRM-1063). Similarly, the association of funerary round and ring cairns in many of the Lake District cairnfields suggests that they also had a second millennium chronology. A single radiocarbon date from a clearance cairn at Chatton Sandyford, Northumberland (Jobey 1968) of 3896-3373 cal BC (4840±90 BP; GAK-1507), however, provides evidence that limited forest and stone clearance activity pre-dated the Bronze Age in some parts of the country. Overall, the most intensive period of primary clearance activity would appear to have been in the early to middle Bronze Age and may suggest some overlap with the funerary landscape.
- 5.3.7 **Proto-Field System:** while Cairnfield II does not display significant indications of field rationalisation, the same can not be said of Cairnfield I. Here there are indications that a primary cairnfield has been modified by continuing use, such that cairns have been linked by stone banks and new cairns have been located on alignments with other cairns. While this can not be said to have the characteristics of a designed field system, it does have the indications of a burgeoning one, and has been described as a proto-field system (Quartermaine and Leech 2012, 329). The most evident indication of an emerging field boundary is a lynchet / stone bank (Site **20**) which extends between cairns **1**, **6** and **7** and is orientated north-east / south-west towards cairns **39**, **42** and **24**. Following a similar orientation is a parallel alignment of Cairns **5**, **41**, **127** and **23**, and yet further to the south is another parallel line of cairns (Sites **37**, **44**, **61** and **59**). This would appear to reflect a rationalisation of the cairns into lines.

- 5.3.8 This may be a product of continued improvement of the land, such that as it was worked, stone was brought to the surface which, for improved agricultural efficiency, needed to be removed. At the same time as the land was worked there would also have been a need to rationalise the land into different areas to enable the growing of grass for hay (for instance), and initially this may have only entailed temporary boundary markers, such as occasional posts, to define the areas. However, as the surface stone was removed from the land, so it was inevitably deposited at the edge of the temporarily defined areas; over time these then become permanently defined by mounds and banks of stone.
- 5.3.9 A further indication of a small agricultural area is to the west of the main area of Cairnfield I, where there are two parallel stone banks (Sites **31** and **32** (and possibly cairn **22**)) which are orientated north/south, and may reflect the edges of a small farmed plot. There are fewer clearance cairns around the two parallel boundaries, by comparison with Cairnfield I, and there is only one (Site **130**) within the plot. This may reflect a later expansion of the farming land into an area away from the initial area of cairnfield.
- 5.3.10 The agricultural techniques practised within these proto-fields appear to have been similar to those of the primary cairnfield, albeit with a more organised and rationalised approach, and may have related to the procurement of winter feed. However, the presence of lynchet **20** is potentially significant, as it could indicate soil slippage through cultivation from a perishable field boundary such as a fence or hedge and is a typical indicator of ploughing or at least hand tillage of the soil and may be an indication of a small 'garden' plot. This may reflect the introduction of basic, small scale, arable or horticultural techniques within an overall pastoral economy. It indicates that the settlement was more permanent and established in nature, a logical progression from the original pioneer-style agriculture, such as represented by Cairnfield II.
- 5.3.11 It should be emphasised that this very basic form of proto-field system, exhibited by the Lynchet **20** and the plot **31/32** is very different from the complexity of field systems seen in relation to other cairnfields. Elsewhere in the wider region complex cairnfields and field-systems have previously been surveyed on Haughton Common/Crow Crags (about 3.5km to the south-west of Ravensheugh Crags (Sellars 1990) and putative prehistoric field-systems are widely evident from aerial photo interpretation (National Monument Programme (NMP) Fig 3). These field systems exhibit a much more formalised, and regular arrangement with parallel coaxial boundaries that are often over 400m apart but contain smaller field plots on many of the gentle south-facing scarp slopes beneath the crags. By contrast, there is no surviving surface evidence at Ravensheugh Crags for any of these larger coaxial boundaries and, as such, they may reflect an earlier, and more basic form of agriculture.
- 5.3.12 **Domestic Structures:** there are rarely domestic structures associated with primary cairnfields, perhaps reflecting that this was a short lived, primary agricultural working of the land. However, it is not uncommon to find houses or house platforms associated with the proto-field systems reflecting that these have a greater degree of permanence (Quartermaine and Leech 2012). At Ravensheugh Crags Cairnfield I there are two possible house structures, while at the primary Cairnfield II there are no domestic structures. Typologically, the earliest of the Cairnfield I houses was the possible house platform (Site **137**) at the far eastern end of the study area, which

potentially had a small timber structure on top. The house platform-type bridges the gap between the most basic agricultural exploitation and the most sophisticated field system and overlaps in chronology with the stone-founded round house. Dated examples of this monument type include the excavation of an unenclosed platform site at Green Knowe, Peebleshire, by Jobey, which produced a series of radiocarbon dates with calibrated means between the twelfth and fourteenth centuries BC (Jobey 1980) and the excavations at Standrop Rigg, Northumberland, which produced a single date of 1050±80 BC (3000±80 BP; HAR-3538; Jobey 1983). These dates fall within the broad range for unenclosed settlements (1500-100BC (Jobey 1985; Haselgrove 2002)). By contrast the dating evidence for stone-founded round houses would suggest that there was an extended occupation of such settlements between *c* 1500 cal BC and *c* 100 cal BC (*op cit*, 60-3), and it would appear that there is an overlap between the stone and timber houses; however, the stone-founded houses continued in use for a longer period.

- 5.3.13 The Ravensheugh Crags round house (Site **11**) is within the main area of Cairnfield I, close to a number of cairns, and is just downslope of the potential garden plot, defined by the lynchet (Site **20**); there is a probability that it was broadly contemporary with the proto-field system phase of activity at the site.
- 5.3.14 **Burnt Mounds:** the survey has recorded two burnt mounds (Sites **53** and **65**), which are both at the southern part of the study area adjacent to Coal Burn. Burnt mounds are anomalous features comprising mounds of burnt stone, within a charcoal-rich soil. They usually have kidney-shaped plans and are typically located adjacent to a watercourse or spring. At one level, the function of these monuments appears relatively straight forward as excavations have revealed that the mounds were constructed around troughs, often made of timber planks (Heawood and Huckerby 2002; OA North 2014). The stones forming the mounds are cracked from having been cooled rapidly, and the implication is that the mounds comprised waste stone, which had been first heated up and then immersed into the water-filled trough in order to heat the water. The much-disputed question, though, is as to why there should be a need to heat troughs of water, and there have been numerous theories revolving around cooking, saunas, clothes washing, or bathing (*cf* Barfield and Hodder 1987). The cooking theory is somewhat confused by the fact that these are typically remote from settlement sites, as demonstrated at Ravensheugh Crags, and excavations have not identified any marked deposits of animal bone (*ibid*; Heawood and Huckerby 2002). The alternative that they were saunas is an exciting possibility, but to create steam there is a need for a small amount of water to be placed on hot stones, rather than the situation exhibited at burnt mounds with troughs, where hot stones were inserted into large basins of water, which would have resulted in warm water rather than steam.
- 5.3.15 The key aspect of their location is the proximity to a water source, and invariably they are always located close to a water source; however, it is interesting to note that they are also quite commonly close to springs. Laurie has demonstrated, from surveys undertaken between the Reeth and Tees valleys in Northern Pennines, that all identified burnt mounds 'were close to springs or on the brink of low energy streams' (Laurie 2004, 96). This matches with the observed evidence at Ravensheugh Crags, where both burnt mounds were opposite springs on the opposite side of the burn.
- 5.3.16 **Burnt Mound Chronology:** in the past, these monuments were generally considered to be a product of middle to late Bronze Age activity, as many have been found to date

to 1600-1000 cal BC. Indeed, this is typified by the example from Sparrowmire Farm, Kendal, which contained material dating from 1678-1410 cal BC (AA 34789/GU-8449) to 1408-1126 cal BC (AA-34791/GU-8447) (Heawood and Huckerby 2002). More recently, however, excavated Cumbrian examples have extended this date range into the late Neolithic/early Bronze Age; notable examples include one at Drigg (Brown 2014) (*c* 2430-2210 cal BC) and one at Aldingham, Low Furness (SD 2780 7070) which has produced dates of 2290-2020 cal BC (SUERC-1855) and 2140-1910 cal BC (SUERC-1856) (Hodgson 2007), and more recently there has been one at Sizergh Castle (OA North 2014) 2575-2460 cal BC (3980±29 BP; SUERC-50357).

- 5.3.17 The current view is that burnt mounds have an extended date range which encompasses the whole of the Bronze Age and the Ravensheugh examples, therefore, could potentially have been contemporary with the proto-field system and the associated settlement. If both of these monuments at Ravensheugh Crag were confirmed as burnt mounds, then this is potentially significant as it indicates that the settlement may have had an extended period of occupation as the burnt mounds would not have been in contemporary use. This is reinforced by excavations at Stainton West (OA North 2014) which recorded six burnt mounds extending over a *c* 1400-year period, between 2890 cal BC (4178±26 BP; SUERC-42008) and 1430 cal BC (3240±26 BP; SUERC-42014), reflecting an extremely long duration for the parent settlement.

5.4 LATER FARMING

- 5.4.1 Superimposed onto the cairnfield are two sets of later farming features, comprising extensive areas of cord rig, reflecting intensive cultivation, and also a series of stock enclosures at the northern end of the Ravensheugh Crags which reflect pastoral farming. Given that they reflect very different types of farming it is probable that they were not contemporary.
- 5.4.2 **Cord Rigg:** the areas of cord rig extend across parts of the areas of both Cairnfields I and II, and have been identified by the aerial photography of Tim Gates. The cord rig stops short on either side of the cairns and there is a small penumbra around each cairn where there is no cord rig; this would indicate that the cord rig was imposed onto a cairnfield rather than the other way round. The cord rig does not extend up to the area of the three stock enclosures and, consequently, there is no direct relationship that would indicate a relative chronology. Cord rig is very distinct in approach from the small-scale cultivation that was exhibited at the Site 20 garden plot, and reflects an intensive type of cultivation, and was most commonly ploughed using an ard (Topping 1989b, 164). Cord rig typically dates to the Iron Age / early Roman period (*Section 4.6.1*) and has been found underneath Hadrian's Wall. At Ravensheugh Crags, there are adjacent areas of cord rig with different orientations (*Section 4.6.1*) which may be an indication of renewed ploughing after a period of fallow, suggesting a more extended period of cultivation activity.
- 5.4.3 **Stock Enclosures:** the three stock enclosures (Sites 12, 26, and 46) are at the northern end of Cairnfield I, where there are few cairns; however, there is one cairn (Site 135) within stock enclosure Site 46, which may possibly suggest that the enclosure post-dated the cairn, as it is more likely that the enclosure was constructed around an existing cairn, rather than a clearance cairn being constructed inside a functional enclosure. However, this does not exclude the possibility that Site 135 was not a

clearance cairn and was instead of unknown function. There is considerable uncertainty as to the date of these stock enclosures, and in the absence of reliable excavation data, are typically ascribed dates of Late Bronze Age to Later Iron Age.

- 5.4.4 At Ravensheugh there are exhibited two very different types of archaeological feature relating to two very different agricultural economies, and were not necessarily contemporary; however, the broad date ranges of both types clearly overlap and as there is no direct relationship between the two monument types it is difficult to determine their relative chronologies. However, it may perhaps be relevant that there was a well documented climatic decline from the end of the Bronze Age and into the early Iron Age (Lamb 1981, 5); this resulted in a colder and wetter climate, whereby mean temperatures dropped by up to 2^oc, and is likely to have reduced the growing season by as much as five weeks in the uplands. In Cumbria this was reflected in the abandonment of settlements and a regeneration of woodland across the uplands (Wimble *et al* 2000; Coombes *et al* 2009). By contrast, there was a marked climatic improvement in the latter part of the Iron Age and into the Roman period, which resulted in a return to the uplands with a corresponding renewed period of woodland clearance (Wimble *et al* 2000; Wells 2003). The pollen record for the Northumberland National Park shows that there was not the same woodland regeneration that was experienced in the west side of the country in the early Iron Age, but there was not an increase in cereals and arable farming until the end of the Iron Age and into the Roman Period (Young 2005, 41).
- 5.4.5 On the basis of the palaeoenvironmental / climatic evidence in Northumberland there was a period of climatic decline in the early Iron Age, but not sufficient to result in the abandonment of settlement across the Northumberland uplands and a resurgence of woodland. However, this would undoubtedly have been sufficient to discourage arable farming, and certainly there is not evidence of a significant increase in cereal pollen until the end of the Iron Age. On this basis, it is probable that the change of emphasis in pastoral farming, represented by the stock enclosures, is more likely to be in the earlier part of the Iron Age and the move towards arable farming, represented by the cord rigg was more likely to have occurred from the latter part of the Iron Age and into the Roman period.

5.5 LATER ACTIVITY

- 5.5.1 Later activity (ie post-Roman) on the site is marked as much by its absence as by its presence. There is no evidence of medieval / post-medieval ridge and furrow at the site and the only possible medieval activity is represented by a limited number of putative stack stands at the extreme eastern end of the study area (Sites **138-40**). There was, however, an episode of post-medieval mineral and stone extraction which may have served mainly domestic rather than commercial needs. The presence of a single bell pit to extract coal is likely to have served domestic needs, perhaps only for local farms. Similarly, there is a number of very small quarries at the western end of the area which would have served only local needs. The large quarry Site **89**, was evidently producing stone on a much larger scale, but may also have been supplying limestone for a limekiln that was shown on the OS first edition map (1863). Although the quarry was significantly larger, it and the kiln, may still have been serving principally local needs.

5.6 RECOMMENDATIONS FOR FURTHER ARCHAEOLOGICAL WORK

- 5.6.1 The survey has highlighted an extremely significant prehistoric landscape which reflects activity over an extended period and may be an indication of continuity of settlement or at least a palimpsest of reoccupation. The relationship between the rock art, the funerary monuments and the cairnfield is of considerable importance not only from the perspective of the present site, but also at a national level. There is a need for on going management to protect the valuable heritage resource, but also to undertake further investigations into the archaeological remains.
- 5.6.2 **Management:** Phil and Anne Bowyer have identified that Kerbed Cairn **33** had no visible kerb stones when visited in the 1980s but that the stones started becoming visible following a series of dry summers (Bowyer and Bowyer 2012). While the enhanced site visibility undoubtedly improves our understanding of the site, the increased exposure of the monument, and by implication all monuments within the cairnfield, is a warning sign of shrinking peat. It would appear that the ground conditions are increasingly drying out and that these features are becoming vulnerable to erosion and, consequently, any waterlogged deposits will be subject to decay. There is a need to monitor the condition of the monuments within the landscape, and to identify if grazing, and any dewatering of the land, is affecting them and to respond with appropriate strategies in the event that significant degradation of the area and heritage resource is identified. In particular, the present survey has identified a number of new rock art panels following clearance of vegetation and there is a need to determine if the turf cover is being maintained or if it is receding.
- 5.6.3 **Further Archaeological Investigation:** the present survey has raised a number of questions that could be resolved by further investigation. While it is presently considered that there is an interval between the establishment of the cairns and the cord rig (Section 5.4.2), this is a supposition that would benefit from further investigation. It is therefore recommended that additional survey work be undertaken, focused upon the areas of cord rig; this should entail additional ground survey and also detailed photogrammetry targeted upon these areas.
- 5.6.4 A model of the development of the landscape has been proposed which makes tentative proposals for its chronological development, but this has not been tested by any hard dating. A process of investigation at various parts of the site would be able to test the chronology and enable a refinement of the landscape model. A series of localised key hole excavations could be undertaken at selected sites, which should include a selection of clearance cairns, the long lynchet (Site **20**), the stock enclosures (eg Site **46**), and the buried soil of the cord rig. These key-hole excavations should also examine the palaeoenvironment beneath the banks and cairns, and would provide an indication of the vegetation prior to the construction of these features.
- 5.6.5 One of the more interesting monuments is the cairn Site **25**; it has two rock art panels and is in a prominent location at the northern edge of the site. The possibility exists that this was funerary monument, and it would benefit from localised, key-hole excavation to test the possible form of the cairn and its chronology. Given that the cairn has two rock art panels, there exists the possibility that careful siting of the key-hole excavations could also provide dating evidence that would provide some indication of the dates of the rock art.

- 5.6.6 More detailed palaeoenvironmental work should be undertaken from a core taken from the area of mire on the northern side of Coal Burn. Depending upon the condition of these deposits it may be possible to reconstruct the development of the vegetation throughout the period of activity across the site and provide an indication as to how the episodes of site activity, represented by the archaeological monuments, impacted upon the local environment.
- 5.6.7 **Rock Art Recording:** the present survey has successfully trialled the recording of rock art panels by photogrammetry and it is considered that the same technique can be effectively applied to the other panels across the site. These would then need to be used to generate detailed drawings of the panels

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APPENDIX 1: PROJECT DESIGN



Altogether Archaeology Theme 8 'North of the Wall' Fieldwork module 8a Landscape Survey at Ravensheugh Crags

Project Design



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Appendices (bound as separate documents)

Appendix 1. Altogether Archaeology Generic Risk Assessment

Appendix 2. Module 8 Project Specific Risk Assessment

Appendix 3. Risk Log

Appendix 4. Oxford Archaeology Company Information

1. GENERAL INTRODUCTION

- 1.1 Altogether Archaeology, largely funded by the Heritage Lottery Fund, is the North Pennines AONB Partnership's community archaeology project. Some project work, including this module, is being delivered in partnership with the Northumberland National Park Authority. The project enables volunteers to undertake practical archaeological projects with appropriate professional supervision and training. As well as raising the capacity of local groups to undertake research, the project makes a genuine contribution to our understanding of the local historic environment, thus contributing to future landscape management.
- 1.2 Over an initial 18 month period ending in December 2011, the project attracted 400 volunteers and completed a range of fieldwork modules including survey and excavation of prehistoric, Roman, mediaeval and post-medieval sites, and the survey of complex multi-period archaeological landscapes. Details of work completed during the pilot phase can be found on the North Pennines AONB website.
- 1.2 The current Altogether Archaeology programme runs from September 2012 – September 2015. It involves a range of professional and academic partners, and participation is open to all. Work is arranged according to ten themes, ranging from Early Farming to 20th-Century Industrial Archaeology. Further information, including details of how to register as a volunteer, are available on the AONB website.
- 1.3 As part of the Altogether Archaeology project, Northumberland National Park Authority has provided funding to enable volunteers to undertake practical archaeological projects within the National Park. The aim of the project is to provide appropriate professional supervision and training in order to build the capacity of local groups to actively research little studied or poorly understood elements of the archaeology of the National Park.
- 1.4 The programme of field survey proposed in this project design is being delivered as part of Altogether Archaeology, Module 8 "North of the Wall", which includes all of the fieldwork within the National Park.
- 1.5 The purpose is the investigation of the fascinating multi-period archaeological landscape at Ravensheugh Crags, Simonburn. It aims to build on preliminary survey work carried out in 2012 by Phil and Anne Bowyer, using skills they had learned through participation in earlier Altogether Archaeology fieldwork, to create a series of detailed plans of key features.

2. SUMMARY DESCRIPTION

- 2.1 The area around Ravensheugh Crags has a number of known prehistoric features that include:
 - Goatstones Four Poster, which is the most southern four poster in Britain (HER 7833; SAM No. 25065). It is thought to be of Bronze Age in date, each stone being decorated with cup-marks.
 - 16 cup-marked stones in addition to the Four Poster stones – more than have been discovered at any other Northumberland rock art site. These are recorded in the Stan Beckensall Archives, online at: <http://rockart.ncl.ac.uk/>
 - Numerous low cairns, some of which appear to be sepulchral, while others are probably the result of field clearance.
 - Scheduled Monument Hut Circles (NY 827751; SAM No. 25104)
- 2.2 The survey area is characterised by rough terrain with a series of north facing, sometimes craggy, Fell Sandstone or Limestone ridges with gentler south facing slopes interspersed with extensive boggy areas. The archaeological landscape here is in many ways typical of the upland 'Bronze Age landscapes' containing numerous small cairns that exist in many places throughout the National Park and the North Pennines (Frodsham 2004).
- 2.3 In 2004 Stan Beckensall and Aron Mazel visited the area as part of the Beckensall On-line Archive project. They discovered a greater number of additional cup-marked stones than at any other Northumberland rock art site, bringing the total to 16 in addition to the Four-Poster. Recent work by Phil and Anne Bowyer has further added numerous previously unrecorded features not previously recorded.

- 2.4 The Project Directors will be Phil and Anne Bowyer and Gemma Stewart with fieldwork training and technical assistance provided by Peter Schofield (Oxford Archaeology North). The survey will produce an accurate measured survey of the project area at 1:10,000, with more detailed plans of identified features at 1:2500 or greater.
- 2.5 The results of the survey will be presented in an illustrated report, which will include any recommendations for management of the archaeological features and further investigations, if appropriate.
- 2.6 The results will be presented in due course to the local community at a public meeting/workshop. A summary of the results along with the full project report will be available on the Northumberland National Park Authority and North Pennines AONB Partnership websites.
- 2.7 In addition to providing the necessary Project Design for the work, this document is also intended to function as an introduction to the site and the project for all participants.

3. SITE DESCRIPTION & PREVIOUS WORK

- 3.1 The project area is situated on a limestone scarp and is centred on NY 830750 (see Figure 3.1). There are the visible remains of extensive quarrying and possible coal mining towards the scarp edge, the area of which has been fenced off with no public access. The land is presently used as rough grazing by sheep and is owned by Nunwick Estates.
- 3.2 There has been very little previous work carried out at Ravensheugh Crag, what has been carried out has focused on the four post structure. Stan Beckensall was the first to identify cup-marked stones and cairns in the area, and in 2004 Tim Gates produced a report based on his archaeological aerial survey which identified extensive archaeological remains including cairnfields and cord rig. Other areas of interest highlighted by Gates were Broadpool Common at NY 827747; a probable unenclosed settlement consisting of a single round house associated with fragmentary field walls linear clearance banks and three tracts of cord rig together extending c 0.4 ha. Plus two medieval stack stands at NY 825826 and NY 826747. More recently, a level one field survey has been carried out by Phil and Anne Bowyer which identified further cairns and cup-marked stones and the need to record the whole archaeological landscape in greater detail.
- 3.3 The cairns form into two groupings, the cairns in the westernmost cairn field show little sign of structure and appear most likely to be the remains of field clearance. The eastern cluster more closely resembles funerary cairns. One cairn contains a single cup-marked portable stone and contains evidence for a kerb surrounding the cairn.
- 3.4 Phil and Anne Bowyer's work suggests that the eastern cairnfield is overlooked from the west by a natural rise along which there is a concentration of earth-fast cup-marked stones. It is near the eastern extreme of this cairnfield where the most decorated of the earth-fast stones is located (Beckensall and Mazel's Stone K). Decorated stones L and M might have been interpreted as marking, along with K the eastern edge of the cairn field territory. There is a further grouping of earth-fast decorated stones (Beckensall and Mazel's F, G, H and the new U) on the ridge running east from the crags, possibly delineating the northern edge of the eastern cairn field.
- 3.5 In the wider landscape, approximately two kilometres from Ravensheugh there are the remains of a stone row which appears Neolithic in character, several unenclosed and enclosed settlements and various possible boundaries that offer the potential of revealing a better and more integrated picture of human activity within a few square kilometres immediately north of Hadrian's Wall throughout prehistory and into the Romano-British era. It is hoped that these will also be investigated by the Altogether Archaeology project, but not as part of this module.
- 3.7 Towards the north of the crags there has been an extensive amount of quarrying. Limestone, sandstone and coal were all quarried here. Quarry markers are still visible scattered throughout the area.

4. RESEARCH AIMS AND OBJECTIVES

4.1 The primary aim of the project is to carry out analytical field survey of the project area. This will be achieved through training local volunteers. Participants will learn the techniques of archaeological field survey and recording that will in turn equip them to carry out further work beyond the life of the project. Through undertaking detailed analytical field survey the aim is to raise awareness and appreciation of the rich cultural heritage in local landscapes. It is intended to use the present project as a means of training volunteers with the techniques of archaeological field survey. By focusing on these skills the project will result in a legacy of skilled field surveyors enabled to carry out further archaeological and historical research in the area.

4.2 This project at Ravensheugh will contribute directly or indirectly to the following objectives within *The Northumberland National Park Archaeological Research Framework 2005*.

- Neolithic. Outcome 4. *Rock Art in context*

Prehistoric rock art, most notably cup and ring marked outcrops and stones, represent some of the earliest confirmed evidence for artistic impression in England. Recent research has not only highlighted the importance and vulnerability of this resource, but it has also demonstrated the existence of gaps in our understanding of fundamental issues, such as dating of rock art panels, and the relationship of rock art to society, economy, land use and ritual. Attempts should also be made to relate the art to its landscape context.

- Bronze Age. Outcome 1. *Boundaries and cairnfields*

More work is required to understand the chronology, form and function of settlement sites and related features including field boundaries and cairnfields.

- Bronze Age. Outcome 4. *The distribution of barrows and cairns*

Further research should be carried out on the distribution, form and siting of round barrows and cairns within the Park. Geographic Information Systems could be used to examine the significance of recurrent patterns of barrow and cairn location.

4.3 General questions which the project may help to address include the following:

- Is the current land management regime resulting in serious damage to the site (for example, from sheep trampling). If so, can any realistic suggestions be made to improve site management? If any risks are identified mitigation measures would be to stop the sheep poaching the monument - i.e. make sure their paths are away from it by moving gateways or feed troughs so they are not encouraged near it. If damage is severe may want to reinstate ground and add a mesh for the grass to grow through to prevent further damage.
- Is there potential for low key public interpretation of the site, either direct access or from a viewing point on an adjacent public right of way?
- Are there any other previously unrecorded archaeological sites or features, of any date, surviving on the vicinity of Ravensheugh Crags?

5. BUSINESS CASE

5.1 The project has been developed as a practical partnership between the Northumberland National Park Authority and North Pennines AONB Partnership to deliver elements of the Altogether Archaeology project in the National Park.

5.2 As well as contributing to Altogether Archaeology theme 8, 'North of the Wall' (which includes fieldwork at a range of sites in the National Park), this work also relates to Altogether Archaeology themes 1 ('Early Farmers') and 2 ('Round Cairns and Round Houses – the Bronze Age').

5.3 The project will also contribute towards achieving the following objectives within the Northumberland National Park Authority Management Plan 2009-2014:

- Objective 3.1, Outcome 1.3 A more diverse range of learning opportunities will be available to help understand, value and contribute to conserving, enhancing and enjoying the National Park's distinctive natural and cultural qualities.
 - Objective 3.2, Outcome 2.3 The rich historic environment and archaeological heritage will be understood, valued and cared for. Specifically: 3.2.1 To protect the historic environment and archaeological sites within the National Park and 3.2.2 To develop further understanding of the cultural heritage of the National Park.
- 5.4 The project will deliver the National Park Business Plan (2013-16) to “Deliver a ‘Community Archaeology’ project to engage communities with their local heritage.”

6. PROJECT SCOPE

- 6.1 This module focuses on a core area of about 1km around Ravensheugh Crag, including Haggie Rigg. Depending on the results of the survey and resources permitting, consideration will be given to a wider hinterland which extends further for approximately 2km and includes Standingstone Rigg, Townshield Bank, Fox Green, The Carts and Pit Wood.
- 6.2 Although beyond the scope of this module, it is hoped that, as part of the Altogether Archaeology project, the survey can be extended to a wider zone extending south as far as Sewingshields Crag encompassing Crow Crag, Kings Crag and Queens Crag.
- 6.3 It aims to build on survey work carried out by Phil and Anne Bowyer. The detailed plans of the key features might be used to target further investigation of particular sites to better understand their character and chronology.
- 6.4 The results of this field survey may be used to inform the subsequent management of the site, leading to the formulation of a set of management proposals.

7. INTERFACES

- 7.1 This project links to the wider work of the wider Northumberland National Park Authority community archaeology programme aimed at improving understanding of and promoting public engagement with the archaeology and heritage within the National Park. Links between the Ravensheugh module and the wider Altogether Archaeology project will be maintained through the project web pages.
- 7.2 The project also has potential links with other rock art initiatives. An article about Ravensheugh has been written by Phil Bowyer and will be included in *Rock Articles* Magazine. The project report will be available on the National Park and AONB websites.

8. PROJECT TEAM STRUCTURE

- 8.1 This is a small scale project and has a simple management structure, with a small project team. The Project Core Team will consist of:
- Gemma Stewart, Northumberland National Park Authority, Community Archaeology Officer.
 - Chris Jones, Northumberland National Park Authority, Historic Environment Officer.
 - Paul Frodsham, North Pennines AONB Partnership, Historic Environment Officer and Altogether Archaeology Project Manager.
 - Peter Schofield, Oxford Archaeology North, Project Officer
 - Rob Young, English Heritage, Inspector of Ancient Monuments.
 - Paget Lazzari, Northumberland National Park Authority, Senior Ranger.

- 8.2 In addition, rock art experts Stan Beckensall and Aron Mazel will provide advice and expertise. Although not officially part of the Project Team, their involvement is most welcome and potentially very important. Their opinions will be taken fully on board and reflected in the project report.
- 8.3 Overall Project Management will be by Chris Jones and Paul Frodsham and co-ordinated by Gemma Stewart. Gemma Stewart and Paul Frodsham will be responsible for co-ordinating volunteer involvement in the project, and preparatory work including liaison with tenant farmers and the provision of site facilities. Direction of fieldwork on site will be the responsibility of the appointed contractor (Oxford Archaeology North). Oxford Archaeology North will supervise all fieldwork on site, including training of volunteers and will also be responsible for on-site health and safety. Oxford Archaeology North will also be responsible for the writing up of the project report.
- 8.5 Fieldwork will be done by *Altogether Archaeology* volunteers. The project has a pool of some 500 volunteers, of whom up to 30 are expected to participate in this module. Although there must be some flexibility with regard to volunteer involvement, up to a dozen volunteers are expected on site each day. Gemma Stewart and Paul Frodsham will draw up a rota showing which volunteers should attend each day and fieldwork will be planned accordingly. Some volunteers are more able and experienced than others, while some have particular interests in certain aspects of the work, but where possible all volunteers will be given a varied workload, receiving training and experience in all aspects of fieldwork.
- 8.6 Although the proposed work requires no official consent, this project design will be submitted to English Heritage for approval in accordance with standard *Altogether Archaeology* project procedures. Once approved, and changes will require the approval of Rob Young, acting on behalf of English Heritage and the *Altogether Archaeology*

9. COMMUNICATIONS

- 9.1 Paul Frodsham maintains a volunteer database of all *Altogether Archaeology* volunteers, and information about the project will generally be disseminated by email using contact details contained within this database. For ease of communication, any local people wishing to take part in the project who have not registered with the *Altogether Archaeology* project will be asked to do so, at least temporarily. All communication with volunteers will then be via the *Altogether Archaeology* volunteer database.
- 9.2 Gemma Stewart, Paul Frodsham and Peter Schofield will be in daily contact during the fieldwork phase and will communicate as necessary by e mail, telephone and face to face meetings as necessary during project planning and post excavation phases.
- 9.3 The North Pennines AONB HEWG (the project advisory group) meets quarterly. A draft report on the results of this project will be presented by Paul Frodsham for discussion at the first meeting following completion of the project.

10. METHODS STATEMENT

10.1 General

- All work will be completed according to relevant professional standards and guidelines. Fieldwork will be undertaken by volunteers from the *Altogether Archaeology* Project, with training and constant on site supervision provided by Oxford Archaeology North. The work will be undertaken under the overall direction of Oxford Archaeology North, assisted by Gemma Stewart and Paul Frodsham.
- Volunteers will be encouraged to take part in discussion and debate about the nature and purpose of rock art while work is in progress and during lunch breaks.
- In addition to the fieldwork proposed here, discussions will take place with local people in order to record any local knowledge of the Goatstones Four Poster, the Ravensheugh cup-marked stones and cairns and the Broadpool Common unenclosed settlement, that may to date have gone unrecorded. It is hoped that such discussions will provide information about the area. Any local legends of potential

relevance to the sites will also be recorded. All relevant information will be included within the project report.

10.2 Site Preparation

- Prior to the commencement of fieldwork and following consultation with the tenant farmer, any potentially dangerous stock will be removed from the site containing the archaeology.
- The NNPA Rangers will erect a marquee, which will be located by the access road. This will provide adequate shelter for volunteers during lunch breaks and any periods when work has to be temporarily halted (for example due to heavy rain). It will also act as a site office and equipment store for the duration of fieldwork.
- Oxford Archaeology North will arrive on site on Saturday June 15th to set up and mark out the survey parameters. Fieldwork will commence with an onsite meeting on the morning of Saturday June 15th. This will involve an introduction to the archaeology of the site, a discussion of the project and a comprehensive health and safety briefing.

10.3 Survey

- The site has never been surveyed; the only plan of it ever produced is the QGIS printout (Fig 10.1) based on the data collected by Phil and Anne Bowyer. A comprehensive topographic survey will be produced by volunteers as part of this project. All volunteers will have the opportunity to participate in the survey, with full training provided to all, even if this means repeating some of the work. The survey will record the site within its immediate landscape context.

10.4 Survey Training / Outreach

- It is proposed to undertake a programme of survey training for members of the public on the cairnfield at Ravensheugh Crags (Fig 3.1). This will entail detailed Level 3 analytical earthwork survey, as defined by English Heritage (2007).
- The survey programme will introduce a broad range of survey and recording techniques, ranging from basic techniques to the more advanced. It would include tapes, theodolites, plane tables, a survey grade GPS, and a UAV (small model helicopter capable of carrying a lightweight camera).
- In the course of the survey work the volunteers will work closely with professional archaeologists, who will provide training and on-the-job experience. The volunteers would undertake survey work under close supervision from the OA North project supervisor, and learn how to identify archaeological features/monuments, and how to use the survey instruments and the general principles of survey. The character and significance of the archaeological landscape will be explained.

10.5 Field Survey

- It is proposed that a detailed topographic survey be undertaken of Ravensheugh cairnfield at EH Level 3 (Ainsworth *et al* 2007).
- The survey will entail the recording of the spoil tips, tracks, quarry faces, and quarry buildings. It is proposed that the wider elements of the site at some distance from the core be recorded by a survey grade GPS, and will be undertaken by volunteers under professional supervision. The four poster stone circle will be mapped by photogrammetry using photographs taken from a UAV (quadcopter), and/or telescopic pole. The archaeological features including cairns and rock art stones will be recorded by volunteers using a combination of a theodolite/disto and plane table / disto. A process of analysis, in conjunction with the volunteers to examine the development of the site will be undertaken, which will be presented graphically on the site drawings and also within the site descriptions.
- *Survey Methods:* it is intended that this will serve as a training exercise for the volunteers, so the survey techniques will be devised to be easy to understand, and will allow for plotting in the field. There is a broad range of survey options that can be achieved by volunteers with access to non-expensive

equipment, and it is proposed to introduce the volunteers to a range of techniques and then concentrate the survey using the plane table / theodolite.

- *Plane Table / Alidade / Disto*: the technique has the advantage that it produces the drawing in the field and can cope with sloping sites. The use of a plane table is effective in allowing volunteers to understand the principles of surveying. Using stadia tacheometry an alidade has an effective distance measurement capability of 150m (assuming moderate accuracy), but it is difficult to train volunteers in this technique. The proposed alternative is to bring the technique up to date by mounting a cheap Leica Disto on top of the telescope of the alidade. This provides accurate distance measurement up to a distance of 100m and significantly eases the use of the equipment, and therefore makes it more productive. (The application of a disto on both a theodolite and an alidade at a recent community survey of fulling mills as part of the Windermere Reflections project, in the Lake District, was found to be a very successful approach.)
- *Theodolite / Disto Survey*: the use of a theodolite / disto can be used alongside the plane table. The theodolite measures angles and the disto measures the distances and then the data is drawn up in the field by volunteers using an accurate film based protractor and ruler.
- *GPS Survey*: a Satellite Global Positioning System (GPS) will be utilised to record the general background topography. The survey grade GPS is a Leica 1200 differential system and uses Ordnance Survey base stations in conjunction with a roving station to correct the raw data with corrections transmitted by mobile phone. The accuracy of the OA North GPS system is capable of $\pm 0.03\text{m}$ and provides for a quick and effective means of recording the detail of the features.
- *Photogrammetric Recording*: it is proposed to record the sites and immediate environs by means of high altitude photography, which, using specialist photogrammetric software, can be used to create accurate three dimensional models of the site and topographic surfaces. For large landscapes there are two methods available, the first is to use a UAV, which is a small multi-engined model helicopter and provides photography from any altitude up to approximately 100m height. The alternative is to use a kite/balloon with a light weight camera mounted beneath. The advantage of the balloon is that the photography can be undertaken by the volunteers, and allows them to get involved in the photogrammetric process. In practice it is proposed to use both techniques. Survey control is introduced to the photographs by the placement of survey control targets across the site which are located by means of survey grade GPS.
- The photogrammetric processing is undertaken using Agisoft software which provides detailed modelling using the overlap of up to 120 photographs, and creates a very detailed DTM (Digital Terrain Model) across the site. The photographs are then digitally draped over the model to create an accurate three dimensional model of the ground surface. The primary output, however, is an accurate two dimensional image which can be used to generate accurate plans or profiles.
- *Survey Control*: it is proposed that survey control be introduced to the sites by means of a high accuracy survey type differential GPS where possible. This can achieve accuracies of $\pm 20\text{mm}$, and will ensure that the survey is accurately located onto the Ordnance Survey National Grid. If at any of the sites there is no mobile reception (necessary to provide corrections for the GPS) then the control will be established by means of a total station.
- *LiDAR plotting*: LiDAR at 1m resolution is available for the study area, which is of sufficient resolution to be able to inform the survey, and it is proposed to purchase one, possibly two, tiles of data as part of the project. There are two types of LiDAR available: two dimensional raster tiles, an example of which is presented within the present document, and three dimensional Ascii tiles which are more expensive, but can be manipulated in GIS, to enhance the vertical axis, change the light sources and change the viewing perspective. The latter considerably enhances the representation of the earthworks and it is proposed to purchase at least one tile of the Ascii data to facilitate the survey.
- *Detail Survey Overview*: the detail survey by plane table / tape will record all structural and earthwork components, which will be drawn by hachure survey. Survey points will be marked on the ground using spray paint and the survey drawing will be manually drawn up with respect to them. On completion of

the survey the field drawings will be digitised into a CAD system. The survey will record all archaeological features, earthworks and elements. The survey will aim to identify, locate and record all built elements of the landscape.

- *Gazetteer*: a descriptive record of all features will be compiled using a standard proforma, which will incorporate a provisional interpretation of the function of the site / feature, where possible, and similarly will provide a provisional interpretation of the site's chronology where possible. Once the digital gazetteer has been collated and edited, it will be output as an Access Report and input directly into a Microsoft Word format. This data will be formatted and topped and tailed within word to produce the gazetteer volume for the survey project. The description will include the following fields:

Northumberland National Park HER number

Site Number

Form

Site Name

NGR

Site Description

Monument Type

Period

Interpretation

Dimensions

Threats

Management

Photo reference

Condition

Surveyor

Date of survey

- *Photographic Record*: a photographic archive will be generated in the course of the field project, comprising landscape and detailed photography. Detailed photographs will be taken of the archaeological features using a scale bar. All photography will be recorded on photographic pro-forma sheets which will show the subject, orientation and date. The photography will typically be undertaken using a digital SLR camera with 12 megapixel resolution.

10.6 Archive and Report Production

A comprehensive Project Archive will be prepared as specified in Appendix 3 of *Management of Archaeological Projects* and fully in accordance with the *Guidelines for the Preparation of Archaeological Archives for Long Term Storage* (UKIC, 1990). The archive will be deposited in the Great North Museum.

This process will culminate in the production of a report including the following:

- Introduction to the project, if appropriate including extracts from this Project Design (e.g. from Sections 3) by way of background.
- A site location plan, related to the National Grid.
- The dates on which the project was undertaken.
- A concise, non technical summary of the results.

- A description of the methodology employed, work undertaken and results obtained.
- Plans and sections at an appropriate scale showing the position of the deposits.
- Recommendations for further archaeological work, if applicable, will be set out in the conclusions, but any such follow up work will not form part of this project.

Hard copies of the report will be provided to Northumberland National Park Authority, the North Pennines AONB Partnership, the Northumberland HER, the landowner, and the tenant farmer. In addition, high and low resolution PDF versions will be provided to the NNPA and AONB Partnership, to be used on the NNPA and AONB website and/or copied to project volunteers and other interested parties as appropriate.

11. PUBLICATION, PUBLICITY AND OUTREACH

- 11.1 It is expected that the results will be published, at least in summary form, in *Rock Articles Magazine*. Such a publication report will be prepared by Phil and Anne Bowyer, at no further cost to the project.
- 11.2 The project will also be registered with the Online Access to the Index of Archaeological Investigations (OASIS), where digital copies of the report will also be made available.
- 11.3 If appropriate, press releases will be organised through the Northumberland National Park Authority Communications Officer, the North Pennines AONB Partnership Publicity Officer and the local media will be invited to visit the site while works are in progress.
- 11.4 Discussion of the results will be worked into numerous talks given by NNPA and AONB Partnership staff each year to local societies through Northumbria and the North Pennines.
- 11.5 Results will be made available worldwide through the NNPA and AONB website, in summary form and as a downloadable PDF of the full project report.

12. STAGES, TASKS AND TIMETABLE

- 12.1 This is a small scale project with a relatively simple structure. It is divided into three stages and 11 tasks as shown in the table below. Following the approval of this Project Design by English Heritage, dates for the fieldwork phase will be finalised with the landowners and volunteers. Fieldwork is planned to extend over 9 days from June 15th through to June 23rd 2013. Post excavation work will take up to one calendar month to complete following the completion of fieldwork.

S 1	PREPARATION		
T 1.1	Finalising of MoRPHE compliant Project Design and EH approval	GS/PF/RV	Early May 2013
T 1.2	Agree health & safety provision and arrange on-site facilities	GS/PF/OAN	Early May 2013
T 1.3	Prestart site meeting	GS/PF/OAN	23 rd May 2013
T 1.4	Contact all AA volunteers and create contact database and rota for Ravensheugh participants	PF	Early June 2013
S 2	SURVEY		
T 2.1	Site set up	OAN/GS	June 15 th 2013
T 2.2	On site start up meeting	Volunteers/OAN/GS/PF	June 15 th 2013
T 2.3	Fieldwork	Volunteers/OAN/GS/PF	June 15 th – 23 rd 2013

T 2.4	Data reconciliation	OAN	July 2013
S 3	REPORT, ARCHIVE & PUBLICITY		
T 3.1	Production of project report*	OAN	July 2013
T 3.2	Deposition of archive, dissemination of final report to HER	OAN	August 2013
T 3.3	Project report placed on NNPA and AONB websites	GS/PF	Sept 2013

OAN = Oxford Archaeology North

PF = Paul Frodsham

GS = Gemma Stewart

RY = Rob Young

13. PROJECT REVIEW

- 13.1 The project will be subject to continuous review by the Gemma Stewart who will be on site throughout the fieldwork. Should any changes to the proposed programme become desirable during the course of the project then it will be necessary for these to be approved by Rob Young, who has the authority to approve such changes on behalf of English Heritage and the Altogether Archaeology project advisory group.
- 13.2 Upon project completion, volunteers will be asked to complete a questionnaire outlining their experience of working on the project and highlighting anything they would like to see done differently in future projects. Thus, in addition to fulfilling its own stated aims and objectives, this project will also play a positive role in planning future Northumberland National Park Authority and Altogether Archaeology modules.
- 13.3 The Core Team will also hold a review meeting upon completion of the project, and will discuss the results with the landowner and tenant farmer. This may lead to the development of a management plan for the site, though this lies outside the scope of this project.

14. OWNERSHIP

- 14.1 The project archive will be deposited in the Great North Museum.
- 14.2 Copyright in all material produced will reside jointly with Oxford Archaeology North, Northumberland National Park Authority and the North Pennines AONB Partnership.

15. HEALTH & SAFETY AND INSURANCE

- 15.1 Full consideration will be given to matters of health and safety throughout this project. Particular attention will be paid to the fact that the site lies in a pasture field containing large numbers of sheep. A health and safety induction will be given to all volunteers at project start up and all will be required to read a written statement on health and safety which will be kept on site and which all volunteers partaking in the project will be required to sign, stating that they have read and understood it and that they will abide by its terms. A generic Risk Assessment for Altogether Archaeology fieldwork is included in this Project Design as Appendix 1 (bound separately).
- 15.2 All work will be undertaken in full accordance with the provisions of the Standing Conference of Archaeological Unit Managers (SCAUM) Health and Safety Manual.
- 15.3 Oxford Archaeology North staff are fully trained with regard to health and safety, including first aid, manual handling, cable detection, site safety and risk assessment.
- 15.4 Oxford Archaeology North will ensure that at least one experienced First Aider and appropriate first aid supplies are on site at all times while fieldwork is in progress. Staff members will be supplied with

appropriate safety clothing and equipment and advice as to appropriate clothing and equipment will be provided to volunteers.

- 15.5 All aspects of the *Altogether Archaeology* project are covered by Durham County Council's comprehensive insurance policy. In addition Oxford Archaeology North staff are covered by the company's own insurance.

16. RISK LOG

- 16.1 This is a small scale project and risks are of a correspondingly small scale. Nevertheless, a risk log is appended here as Appendix 3 (bound separately).

APPENDIX 2: SITE GAZETTEER

Site Number **01**
Site Type Funerary Cairn
NGR NY 83420 74785
Period Bronze Age
Photograph(s) IMG_5964.jpg; IMG_5990.jpg; IMG_6004.jpg; IMG_6009.jpg
Description

A large sub-rectangular, turf-covered funerary cairn spatially associated with boundary bank/lynchet (Site **20**). The possibility is that the lynchet linked up this and a series of clearance cairns. It measures 11.7m long by 7.5m wide. There is a shallow apron of material on the south-east side of the cairn, and within this there are three cup-marked stones (Sites **116-118**). There are numerous stones visible.

Site Number **02**
Site Type Cairn
NGR NY 83406 74799
Period Prehistoric
Photograph(s) IMG_5992.jpg; IMG_5996.jpg
Description

An oval turf-covered cairn, which measures 5.3m long by 5m wide. The cairn is well-defined except on the western side.

Site Number **03**
Site Type Rock Art
NGR NY 83407 74802
Period Prehistoric
Photograph(s) IMG_5998.jpg; IMG_6002.jpg
Description

A small cup-marked stone located adjacent to a clearance cairn (Site **2**). It measures 0.33m long by 0.31m wide and contains five cup-marks.

Site Number **04**
Site Type Cairn and Incised Stone
NGR NY 83407 74808
Period Prehistoric
Photograph(s) IMG_6011.jpg; IMG_6024.jpg and IMG_6053.jpg; IMG_6055.jpg
Description

An oval, turf-covered clearance cairn. It measures 3.2m long by 3m wide. The south-eastern end is well-defined and there is part of a stone exposed on the north-east corner that has five visible linear incisions (Site **90**).

Site Number **05**
Site Type Clearance Cairn
NGR NY 83430 74794
Period Prehistoric
Photograph(s) IMG_6026.jpg; IMG_6031.jpg
Description

An elongated, sub-rectangular turf-covered clearance cairn. It measures 5.5m long by 1.5m wide.

Site Number **06**
Site Type Clearance Cairn
NGR NY 83431 74789
Period Prehistoric
Photograph(s) IMG_6033.jpg; IMG_6040.jpg

Description

A small, sub-circular turf-covered clearance cairn. It measures 1.5m in diameter and is located along the edge of a boundary bank/lynchet (Site **20**). There are two stones visible.

Site Number 07
Site Type Clearance Cairn
NGR NY 83438 74791
Period Prehistoric
Photograph(s) IMG_6042.jpg; IMG_6051.jpg

Description

A sub-rectangular, turf-covered clearance cairn. It measures 4.3m long by 3.4m wide and is located along the edge of a boundary bank/lynchet (Site **20**). There are several large stones visible.

Site Number 08
Site Type Cairn
NGR NY 83468 74740
Period Prehistoric
Photograph(s) IMG_6155.jpg; IMG_6158.jpg

Description

A sub-circular, turf-covered cairn. It measures 8m long by 6.5m wide and 0.3-1m high. The edges of the cairn are poorly defined and there are several stones visible.

Site Number 09
Site Type Cairn
NGR NY 83437 74749
Period Prehistoric?
Photograph(s) IMG_6160.jpg; IMG_6164.jpg

Description

A sub-circular, turf-covered cairn. It measures 6.7m long by 5.9m wide. The edges of the cairn are poorly defined and there is a central depression in the top. There are some stones visible.

Site Number 10
Site Type Rock Art?
NGR NY 83426 74745
Period Prehistoric?
Photograph(s) IMG_6166.jpg; IMG_6173.jpg

Description

A sub-circular boulder measuring 1.2m long by 0.9m wide and 0.5m high. There are erosion gullies and grooves on the upper surfaces and an iron vein. The erosion scars may originally have been cup-marks.

Site Number 11
Site Type Round House ?
NGR NY 83453 74747
Period Bronze Age to Iron Age
Photograph(s) IMG_5878.jpg- IMG_5889.jpg, IMG_6175.jpg; IMG_6190.jpg and IMG_6192.jpg; IMG_6197.jpg

Description

A probable sub-circular round house consisting of a well-defined, double thickness stone foundation wall on the west side. The eastern side has collapsed leaving only a slight embanked turf-covered platform with several visible stones. Overall the site measures 7.8m long by 7.7m wide with the extant walling 1.3m wide by 0.5m high. The internal dimensions are 4.5m by 4.3m.

Site Number 12
Site Type Stock Enclosure
NGR NY 83409 74820

Period Prehistoric?
Photograph(s) IMG_6306.jpg; IMG_6327.jpg

Description

A truncated, oval stock enclosure consisting of a well-defined curvilinear earth and stone bank on the south-west side but the rest is almost completely removed as a later sheepfold has been built across it (Site 16). Overall, the site measures 16.6m long by 13.3m wide. The extant bank measures 15m long by 1m-3m wide and 1m high.

Site Number 13
Site Type Clearance Cairn/Bank
NGR NY 83385 74817
Period Prehistoric
Photograph(s) IMG_6329.jpg; IMG_6339.jpg

Description

A large circular, turf-covered, clearance cairn with a curvilinear section of boundary bank protruding south-east from the southern end. The northern edge of the cairn is poorly defined but overall the site measures 13.5m long by 6.5m wide and 1m high. There are four large earthfast boulders along the length of the site. The later sheepfold (Site 16) is sat upon the site.

Site Number 14
Site Type Clearance Cairn
NGR NY 83376 74819
Period Prehistoric
Photograph(s) IMG_6341.jpg; IMG_6344.jpg

Description

A circular, turf-covered, clearance cairn. It is poorly defined and measures 2.5m in diameter by 0.25m high. There are no stones visible.

Site Number 15
Site Type Clearance Cairn
NGR NY 83377 74822
Period Prehistoric
Photograph(s) IMG_6346.jpg; IMG_6349.jpg

Description

An oval, turf-covered, clearance cairn. It measures 3.5m long by 2.5m wide and 0.3m high. There are six stones visible.

Site Number 16
Site Type Sheepfold
NGR NY 83377 74822
Period Post-Medieval to Modern
Photograph(s) IMG_6351.jpg; IMG_6379.jpg

Description

A two-celled, rectangular dry-stone sheepfold with internal division in the smaller northern cell. The fold has shelter walls running south-east from the south end and both west and east from the north end. The fold is partially collapsed but has some surviving vertical coping stones. There are two sheep creeps in the shelter walls and there are gateposts in the fold. Two gate hinges are inserted into the southern faces of eastern gateposts and are secured with lead; there is also one securing ring for a gate latch in south face of western gateposts. The fold measures 15.7m long by 7.2m wide and the T-shaped shelter walls each extend to 93m and 53.5m in total.

Site Number 17
Site Type Clearance Cairn
NGR NY 83364 74774
Period Prehistoric
Photograph(s) IMG_6381.jpg; IMG_6387.jpg

Description

An oval, turf-covered, clearance cairn. It is poorly defined and measures 7m long by 5m wide. There are four

stones visible.

Site Number 18
Site Type Clearance Cairn
NGR NY 83367 74790
Period Prehistoric
Photograph(s) IMG_6389.jpg; IMG_6392.jpg

Description

An oval, turf-covered, clearance cairn. It is well-defined and measures 6m long by 5m wide and 1m high. There are four stones visible on the south-eastern side of the mound.

Site Number 19
Site Type Clearance Cairn?
NGR NY 83378 74794
Period Prehistoric
Photograph(s) IMG_6394.jpg; IMG_6405.jpg

Description

An oval, turf-covered, clearance cairn. It is poorly defined and measures 4m long by 3m wide and 0.3m high. There are no stones visible.

Site Number 20
Site Type Linear Clearance Bank
NGR NY 83391 74771 to NY 83445 74794
Period Prehistoric
Photograph(s) None

Description

A linear clearance bank and lynchet that curves slightly to the south on the western end. It is orientated roughly east-north-east/west-south-west and measures 61.8m long by 2m wide and 0.5m high. There are numerous earthfast stones and boulders along the length of the lynchet. It also incorporates two small clearance cairns (Sites 6 and 7) and a larger probable funerary cairn (Site 1).

Site Number 21
Site Type Clearance Cairn/Bank
NGR NY 83355 74778
Period Prehistoric
Photograph(s) IMG_6407.jpg; IMG_6412.jpg

Description

A slightly curvilinear, turf-covered, clearance cairn or fragment of boundary bank. It is orientated roughly west/east and measures 9m long by 2m wide and 0.5m high. There is a single stone visible.

Site Number 22
Site Type Clearance Cairn
NGR NY 83336 74749
Period Prehistoric
Photograph(s) IMG_6414.jpg; IMG_6419.jpg

Description

An oval, turf-covered, clearance cairn. It measures 7m long by 6m wide and 0.8m high. It is well-defined and has five stones visible.

Site Number 23
Site Type Clearance Cairn
NGR NY 83494 74824
Period Prehistoric
Photograph(s) IMG_6421.jpg; IMG_6426.jpg

Description

An oval, turf-covered, clearance cairn. It measures 3m long by 2m wide. The northern edge is well-defined and there are two stones visible.

Site Number 24
Site Type Cairn
NGR NY 83528 74823
Period Prehistoric
Photograph(s) IMG_6429.jpg; IMG_6432.jpg

Description

A U-shaped, turf-covered, clearance cairn. It measures 7m long by 4m wide and is poorly defined except on the northern end. The cairn has been disturbed leaving a central depression containing five stones exposed in the centre.

Site Number 25
Site Type Clearance Cairn
NGR NY 83475 74869
Period Prehistoric
Photograph(s) IMG_6434.jpg; IMG_6440.jpg

Description

A sub-circular, turf-covered, clearance cairn located near the scarp edge on the north end of Ravensheugh Crags. It measures 4m long by 3m wide and 0.4m high. There are numerous stones visible in the cairn including a large stone on the north-western edge and a smaller one on the south-east edge which both contain cup-marks (Sites 98 and 99).

Site Number 26
Site Type Stock Enclosure
NGR NY 83523 74869
Period Prehistoric?
Photograph(s) None

Description

The fragmentary remains of an embanked stock enclosure located on the scarp edge on the north side of Ravensheugh Crags. The site consists of a single, curvilinear section of earth and stone boundary bank defining the extant western edge of an site which measures 24m long by 15m wide in extent. The section of banking measures 20m long by 2m wide and 0.5m high. The enclosure has been heavily truncated by at least three later quarrying pits and upcast material is scattered over the site. There are stones visible in the bank on the south-west end of the enclosure

Site Number 27
Site Type Clearance Cairn
NGR NY 83357 74853
Period Prehistoric
Photograph(s) None

Description

A sub-circular, turf-covered, clearance cairn. It measures 3.5m in diameter by 0.3m high. There is a slight depression to the west of the cairn. There are several stones visible.

Site Number 28
Site Type Quarry
NGR NY 83308 74874
Period Post-Medieval
Photograph(s) IMG_6501.jpg; IMG_6508.jpg

Description

A series of six oval and semi-circular quarry scoops cut into the steep scarp edge on the northern end of Ravensheugh Crags. Overall the area measures 48m long by 7m wide with scoops each up to 0.8m deep. The quarry scoops are all located to the north side of the hollow way (Site 64).

Site Number 29
Site Type Quarry scoop
NGR NY 83268 74843
Period Post-Medieval
Photograph(s) IMG_6510.jpg; IMG_6515.jpg

Description

Two adjacent sub-circular quarry scoops; the largest northern scoop measures 12m long by 9m wide. This example has an upcast bank surrounding the east side of a shallow central depression. There is a single cup-marked stone located in the upcast bank (Site 95). The other site is a simple shallow quarry scoop.

Site Number 30
Site Type Quarry
NGR NY 83246 74797
Period Post-Medieval
Photograph(s) IMG_6518.jpg; IMG_6522.jpg

Description

A diffuse area of shallow quarrying leaving undulating ground with some upcast banking. It measures 54m long by 25m wide. There are lots of disturbed stones and boulders strewn over this part of the shallow, south-facing scarp slope. The area contains three cup-marked stones (Sites 92-94)

Site Number 31
Site Type Boundary Bank and Cairn
NGR NY 83332 74703
Period Prehistoric
Photograph(s) IMG_6524.jpg; IMG_6531.jpg

Description

A linear section of earth and stone boundary bank protruding northward from an earlier clearance cairn. It is orientated roughly north/south and measures 12.2m long by 2.5m wide and 0.3m high. The bank runs parallel with a further field bank some 25m further to the west (Site 32). There are large stones visible protruding from the bank. The northern end is less well-defined but to the south is attached to a large oval clearance cairn measuring 7m long by 4m wide and 0.8m high. There are stones visible.

Site Number 32
Site Type Boundary Bank
NGR NY 83306 74733
Period Prehistoric
Photograph(s) IMG_6532.jpg; IMG_6536.jpg

Description

A pair of discontinuous linear sections of earth and stone boundary bank. It is orientated roughly north/south and measures 53m long by 2m wide and 0.3m high. The bank runs parallel with a further field bank some 25m further to the east (Site 31). There are large stones visible protruding from the surface of the southern half of the bank. The northern end is less well-defined.

Site Number 33
Site Type Kerbed Cairn
NGR NY 82995 74742
Period Prehistoric
Photograph(s) IMG_6563.jpg; IMG_6568.jpg

Description

A sub-circular, partially turf-covered, kerbed cairn located on a gentle break of slope some 58m east-north-east of Goatstones four poster circle (Site 35). It measures 5.2m long by 3.9m wide and 0.2m high. There are eight prominent kerb stones protruding from the grass, with the stones measuring on average 0.4m by 0.2m in size. They have an approximate rectangular arrangement, and this does not precisely match the shape of the cairn which has an oval shape. The cairn has a slightly undulating, but essentially flat top, and well-defined sloping edges giving it a characteristic kerbed cairn type profile.

Site Number 34
Site Type Clearance Cairn
NGR NY 82965 74708
Period Prehistoric
Photograph(s) IMG_6570.jpg; IMG_6573.jpg

Description

A sub-circular, turf-covered, clearance cairn located 23.8m east-south-east of Goatstones four poster circle (Site 35). It measures 3m long by 2.8m wide and 0.15m high. There are several small stones visible.

Site Number 35
Site Type Goatstones Four Poster Stone Circle
NGR NY 82938 74713
Period Prehistoric
Photograph(s) IMG_6217.jpg-IMG_6234, IMG_6575.jpg; IMG_6591.jpg
SM No. 25065
NMP No. 16849
HER No. 7833
ERA No. 1431; 1434

Description

The Goatstones four poster stone circle is a distinctive, and relatively rare, funerary monument, situated on a small knoll at the south-west end of Ravensheugh Crags, and which has a good outward vista to the north-west and south-east; it is a Scheduled Monument (SM 25065). It comprises four squat stones set in a c 4.5m quadrilateral; the stones are variable in height, from 0.8m high on the south side to 0.4m on the east side. The northern stone is 0.4m long, 0.64m wide and 0.65m high. The southern stone is 0.64m long, 1.44m wide and 0.78m high. The western stone is 0.38m long, 0.7m wide and 0.55m high.

However, in addition to the most very evident cup-marks on top of the eastern stone, examination by Stan Beckinsall has revealed that all of the stones have cup-marks (Bowyer and Bowyer 2012). The east stone has 12 large cup-marks and 13 smaller ones on the top surface; the north stone has three, possibly four, cup-marks among the natural grooves; the west stone has four cups on top and 12 small, faint ones on the side; the south stone has four cups and two grooves that may have been slightly enhanced by pecking.

Within the circle were the reported traces of a low mound (inspected in 1931 by a Mr Honeyman) who reported an undisturbed low mound (ERA database entry), but this was heavily obscured by the tussocky vegetation at the time of the survey and indeed could have been lost to antiquarian excavation, as a consequence it could not be confirmed; however, there was the potential that the stone circle formerly had a central burial cairn. There is, however, a small poorly-defined sub-circular mound that is just outside the north-west side of the circle, which is 6m long by 2.3m wide and 0.2m high, and has the potential to be a spoil mound from explorations within the interior of the four poster.

Aubrey Burl says that the four stones belong to a type called a 'four poster', most commonly found in Perthshire. Generally there are four stones set in a rectangle whose sides average 16' (4.88m) east to west by 14' (18.59m) north to south. The stones are usually graded in height and 'a quarter of the sites have cup-marks, but these, unlike the tallest stone, are invariably on the eastern side, nearly always on the south east stone.' He declares them to be 'primarily sepulchral,' having cremations that date to about 1800BC (ERA database entry).

The name Goatstones may be derived from "Gyet-Stones" which means "wayside stones", as the circle stands close to an old droveway.

Site Number 36
Site Type Rock Art
NGR NY 83445 74770
Period Prehistoric
Photograph(s) IMG_6057.jpg; IMG_6063.jpg

Description

A low-lying partially exposed sub-rectangular cup-marked stone. The exposed area of the stones measures 1.6m long by 0.95m wide and 0.05m high. There are at least 37 cup-marks visible on the flat surface of the stone. A rubbing of the stone was undertaken. The site was previously recorded as 'Goatstones V' (Bowyer and Bowyer 2012).

Site Number 37
Site Type Funerary Cairn?
NGR NY 83459 74772
Period Prehistoric
Photograph(s) IMG_6066.jpg; IMG_6071.jpg

Description

A sub-circular, turf-covered, cairn that may possibly be a funerary cairn. It is well-defined and measures 5.5m long by 5.1m wide. There are several stones visible.

Site Number 38
Site Type Clearance Cairn
NGR NY 83461 74783
Period Prehistoric
Photograph(s) IMG_6074.jpg; IMG_6086.jpg

Description

A sub-circular, turf-covered, clearance cairn. It is well-defined and measures 3.8m long by 3.3m wide. There are several small stones visible.

Site Number 39
Site Type Clearance Cairn
NGR NY 83462 74796
Period Prehistoric
Photograph(s) IMG_6088.jpg; IMG_6090.jpg

Description

A pair of small conjoined, sub-circular, turf-covered clearance cairns. Overall, they measure 4.3m long by .2m wide.

Site Number 40
Site Type Clearance Cairn
NGR NY 83455 74818
Period Prehistoric
Photograph(s) IMG_6092.jpg; IMG_6097.jpg

Description

An oval, turf-covered, clearance cairn. It measures 4.5m long by 3m wide. There are two stones visible.

Site Number 41
Site Type Clearance Cairn
NGR NY 83468 74813
Period Prehistoric
Photograph(s) IMG_6099.jpg; IMG_6102.jpg

Description

An sub-rectangular, turf-covered, clearance cairn. It measures 5m long by 3.2m wide. There are three stones visible.

Site Number 42
Site Type Clearance Cairn
NGR NY 83474 74804
Period Prehistoric
Photograph(s) IMG_6104.jpg; IMG_6122.jpg

Description

A small oval, turf-covered, clearance cairn. It measures 2.6m long by 1.1m wide and 0.3m high. There are several stones visible.

Site Number 43
Site Type Clearance Cairn
NGR NY 83477 74797
Period Prehistoric
Photograph(s) IMG_6124.jpg; IMG_6126.jpg

Description

A possible clearance cairn consisting of a small U-shaped spread of stone material. It measures 3.4m long by 3m wide and 0.1m high.

Site Number 44
Site Type Boundary Bank
NGR NY 83490 74783
Period Prehistoric
Photograph(s) IMG_6137.jpg; IMG_6141.jpg

Description

A small section of curvilinear earth- and stone-constructed boundary bank. It is orientated roughly east/west running across the hill slope and measures 11.5m long by 2m wide and 0.5m high. There are exposed stones in the centre of the bank.

Site Number 45
Site Type Cairn
NGR NY 83481 74804
Period Prehistoric
Photograph(s) IMG_6131.jpg; IMG_6135.jpg

Description

A sub-circular turf-covered cairn. It measures 5m long by 3.5m wide and 0.5m high. There are several stones visible.

Site Number 46
Site Type Stock Enclosure
NGR NY 83436 74858
Period Prehistoric?
Photograph(s) IMG_6200.jpg; IMG_6216.jpg

Description

An oval embanked stock enclosure consisting of earth and stone enclosing banks that are extant on all but the east side. The site measures 23m long by 21m wide with banks up to 2m wide by 0.6m high. There is an L-shaped structure on the external west side of the enclosure measuring 13m by 8.5m. The structure appears to resemble a fold rather than a domestic structure as it is not platformed. There is a small cairn surviving inside the enclosure (Site 135).

Site Number 47
Site Type Kerbed Cairn
NGR NY 83525 74778
Period Bronze Age

Description

A sub-circular, partially turf-covered, kerbed cairn. It measures 5m long by 4.2m wide and 0.6m high. The cairn is well-defined with probable kerb stones on the north side, but it has apparently been disturbed or has slipped on the south-east side. There are several stones visible including one large one on the south side and there is a small portable rock art stone (Site 107) located in the western half of the cairn.

Site Number 48
Site Type Clearance Cairn
NGR NY 83704 74760
Period Prehistoric?
Photograph(s) IMG_5777.jpg, IMG_5778.jpg

Description

A small, sub-circular, turf-covered, clearance cairn. It measures 1.7m long by 1.4m wide and 0.3m high.

Site Number 49
Site Type Clearance Cairn
NGR NY 83715 74756
Period Prehistoric?
Photograph(s) IMG_5780.jpg, IMG_5781.jpg

Description

A sub-circular, turf-covered, clearance cairn. It measures 2.5m long by 2.2m wide and 0.2m high. There are five stones visible.

Site Number 50
Site Type Clearance Cairn
NGR NY 83724 74761
Period Prehistoric?
Photograph(s) IMG_5783.jpg

Description

A sub-circular, turf-covered, clearance cairn. It measures 2.9m long by 2.7m wide and 0.3m high.

Site Number 51
Site Type Clearance Cairn
NGR NY 83713 74768
Period Prehistoric?
Photograph(s) IMG_5785.jpg

Description

An oval, turf-covered, clearance cairn. It measures 2.9m long by 2m wide and 0.2m high

Site Number 52
Site Type Cairn
NGR NY 83650 74743
Period Prehistoric?
Photograph(s) IMG_5787.jpg

Description

A crescent-shaped turf-covered cairn. It measures 4.1m long by 3.1m wide and 0.4m high. The cairn has been truncated and has a central depression and gap on the north-eastern side. There are two stones visible on the south side and a central stone on top.

Site Number 53
Site Type Burnt Mound
NGR NY 83659 74720
Period Prehistoric
Photograph(s) IMG_5789.jpg, IMG_5790.jpg, IMG_5791.jpg, IMG_5792.jpg, IMG_5793.jpg

Description

A burnt mound located 75m north of Coal Burn. It consists of two conjoined, oval, turf-covered mounds of differing sizes that form a U-shape open on the west side. The overall area measures 7.5m long by 5.5m wide and 0.7m high. The site is surrounded on all but the northern side by boggy ground.

Site Number 54
Site Type Cairn
NGR NY 83577 74755
Period Prehistoric?
Photograph(s) IMG_5795.jpg, IMG_5796.jpg, IMG_5797.jpg

Description

A sub-circular turf-covered cairn. It measures 5.75m long by 3.8m wide and 0.75m high. There are several large stones visible but no obvious structure.

Site Number 55
Site Type Clearance Cairn
NGR NY 83553 74741
Period Prehistoric?
Photograph(s) IMG_5799.jpg

Description

A small sub-circular, turf-covered, clearance cairn. It measures 1.5m long by 1.44m wide and 0.2m high. There are seven stones visible.

Site Number 56
Site Type Cairn
NGR NY 83585 74781
Period Prehistoric?
Photograph(s) IMG_5804.jpg

Description

A heavily truncated, originally circular and partially turf-covered cairn. The surviving extents measure 6m long by 2.6m wide and 0.3m high. The cairn has been disturbed through the centre by a north-east/south-west orientated modern drainage cut, leaving a C-shaped bank of material on the west side. There are stones exposed in the cairn

Site Number 57
Site Type Cairn
NGR NY 83621 74816
Period Prehistoric?
Photograph(s) IMG_5806.jpg

Description

A sub-circular turf-covered cairn. It measures 6m long by 4.4m wide and 0.5m high. The cairn has been disturbed with a central depressions. There are no stones visible.

Site Number 58
Site Type Cairn
NGR NY 83560 74818
Period Prehistoric?
Photograph(s) IMG_5808.jpg

Description

A sub-circular, turf-covered, cairn. It measures 5m long by 4.6m wide and 0.5m high. The stones have been disturbed and now form a U-shaped bank with a central depression and gap on the south side.

Site Number 59
Site Type Cairn
NGR NY 83553 74806
Period Prehistoric?
Photograph(s) IMG_5810.jpg

Description

A sub-circular, turf-covered, cairn. It measures 4.9m long by 4m wide and 0.6m high. The cairn has been disturbed with a central depression. There are four stones visible.

Site Number 60
Site Type Cairn
NGR NY 83557 74787
Period Prehistoric?
Photograph(s) IMG_5812.jpg

Description

A sub-circular turf-covered cairn. It measures 3.9m long by 3.35m wide and 0.4m high. There are six stones visible and some displaced ones to the side.

Site Number 61
Site Type Cairn
NGR NY 83539 74801
Period Prehistoric?
Photograph(s) IMG_5814.jpg

Description

A sub-circular, turf-covered, cairn. It measures 5m long by 3.9m wide and 0.45m high. It has a well-defined edge but the stones have been disturbed. There are thirteen visible stones and five stones displaced to the side.

Site Number 62
Site Type Bellpit
NGR NY 83698 74876
Period Post-Medieval
Photograph(s) IMG_5816.jpg, IMG_5817.jpg, IMG_5818.jpg, IMG_5819.jpg
NMP No. 1475291

Description

A large, sub-circular, turf-covered bellpit located just downslope of the scarp edge on the eastern end of Ravensheugh Crag. It measures 12m long by 10m wide and is 3m deep. There are some upcast stones around the edge.

Site Number 63
Site Type Quarry
NGR NY 83604 74860
Period Post-Medieval
Photograph(s) IMG_5821.jpg, IMG_5822.jpg

Description

An oval quarry scoop located on the top of the scarp at Ravensheugh Crag. The site has two central depressions and is surrounded by upcast banks. The quarry measures 7.7m long by 6.1m wide and 0.3-0.4m deep.

Site Number 64
Site Type Hollow Way
NGR NY 83248 74868 to NY 83716 74801
Period Medieval to Post-Medieval
Photograph(s) IMG_5824.jpg

Description

A well-defined hollow way running just to the south of the summit of Ravensheugh Crag. It is orientated roughly east/west and extends for over 450m. In places it is 2.5-3m wide by 0.2-0.4m deep. The track was probably used to access a large freestone quarry on the west end of the crags (Site 89). It obviously post-dates a stock enclosure as it curves around this feature (Site 46).

Site Number 65
Site Type Burnt Mound ?
NGR NY 83419 74591
Period Prehistoric
Photograph(s) IMG_5826.jpg, IMG_5827.jpg, IMG_5828.jpg, IMG_2829.jpg

Description

A possible burnt mound located on the north bank of Coal Burn. It consists of two oval, turf-covered, mounds that are parallel with a flat space in the middle. The overall area measures 9.5m long by 5.5m wide and 1m high. There is definitely stone surviving beneath the turf cover. The central flat area may be where modern drainage has been cut through the site as there is a small mound of displaced material to the south-east.

Site Number 66
Site Type Clearance Cairn
NGR NY 83467 74651
Period Prehistoric?

Photograph(s) IMG_5831.jpg, IMG_5832.jpg

Description

A small, sub-circular, turf-covered, clearance cairn. It measures 2.8m long by 2.3m wide and 0.1m high. There are no visible stones.

Site Number 67

Site Type Boundary Bank

NGR NY 83195 74673 to NY 83202 74640

Period Prehistoric?

Photograph(s) IMG_5834.jpg

Description

A linear boundary bank orientated roughly north-north-west/south-south-east. It measures approximately 21m long by 3m wide and 0.3m high on the south end. There are four stones exposed at the southern end and there is a kink where the bank turns to incorporate a clearance cairn (Site 68).

Site Number 68

Site Type Clearance Cairn

NGR NY 83202 74640

Period Prehistoric?

Photograph(s) IMG_5836.jpg

Description

An oval, turf-covered, clearance cairn attached to the southern end of a boundary bank (Site 67). It measures 6.5m long by 3.6m wide. There are four visible stones.

Site Number 69

Site Type Clearance Cairn

NGR NY 83213 74635

Period Prehistoric?

Photograph(s) IMG_5838.jpg

Description

A sub-circular, turf-covered, clearance cairn. It measures 3.1m long by 3.5m wide and 0.4m high. There are possible kerb stones on the southern and eastern sides.

Site Number 70

Site Type Clearance Cairn

NGR NY 83198 74619

Period Prehistoric?

Photograph(s) IMG_5840.jpg

Description

A circular, turf-covered, clearance cairn. It measures 2.5m in diameter by 0.1m high. There are no visible stones.

Site Number 71

Site Type Clearance Cairn

NGR NY 83186 74634

Period Prehistoric?

Photograph(s) IMG_5842.jpg

Description

A sub-circular, turf-covered, clearance cairn. It measures 4.75m long by 4.3m wide and 0.5m high. There are three visible stones and one possibly tumbled to the south.

Site Number 72

Site Type Clearance Cairn

NGR NY 83178 74641

Period Prehistoric?

Photograph(s) IMG_5844.jpg

Description

A circular, turf-covered, clearance cairn. It measures 3.4m in diameter by 0.5m high. The cairn is higher on the south-east edge and there are two visible stones.

Site Number 73
Site Type Clearance Cairn
NGR NY 83164 74642
Period Prehistoric?
Photograph(s) IMG_5846.jpg

Description

An oval, turf-covered, clearance cairn. It measures 4.9m long by 2.7m wide and 0.4m high. There is one visible stone.

Site Number 74
Site Type Clearance Cairn
NGR NY 83155 74639
Period Prehistoric?
Photograph(s) IMG_5848.jpg

Description

An elongated oval, turf-covered, clearance cairn. It measures 3.4m long by 1.9m wide and 0.3m high. There are three visible stones and two stones adjacent to the cairn..

Site Number 75
Site Type Clearance Cairn
NGR NY 83154 74625
Period Prehistoric?
Photograph(s) IMG_5850.jpg

Description

An oval, turf-covered, clearance cairn. It measures 3.4m long by 1.6m wide and 0.3m high. There are no visible stones.

Site Number 76
Site Type Clearance Cairn
NGR NY 83155 74649
Period Prehistoric?
Photograph(s) IMG_5852.jpg

Description

A circular, turf-covered, clearance cairn. It measures 4.6m long by 0.5m high. There are no visible stones.

Site Number 77
Site Type Clearance Cairn
NGR NY 83159 74651
Period Prehistoric?
Photograph(s) IMG_5854.jpg

Description

A small sub-circular, turf-covered, clearance cairn. It measures 3.6m long by 2.8m wide and 0.2m high. There are no visible stones.

Site Number 78
Site Type Clearance Cairn
NGR NY 83139 74675
Period Prehistoric?
Photograph(s) IMG_5856.jpg

Description

A small sub-circular, turf-covered, clearance cairn. It measures 3.6 long by 3.3m wide and 0.3m high. There are

no visible stones.

Site Number 79
Site Type Clearance Cairn
NGR NY 83154 74677
Period Prehistoric?
Photograph(s) IMG_5858.jpg

Description

A small circular, turf-covered, clearance cairn. It measures 1.9m in diameter by 0.1m high. There are no visible stones.

Site Number 80
Site Type Clearance Cairn
NGR NY 83171 74676
Period Prehistoric?
Photograph(s) IMG_5860.jpg

Description

A small sub-circular, turf-covered, clearance cairn. It measures 3.5m long by 2.8m wide and 0.3m high. There are no visible stones.

Site Number 81
Site Type Cairn
NGR NY 83176 74662
Period Prehistoric?
Photograph(s) IMG_5862.jpg, IMG_5863.jpg

Description

A sub-circular, turf-covered, clearance cairn. It measures 3.9m long by 3.6m wide and 0.6m high. It is higher on the south side and there is one visible stone.

Site Number 82
Site Type Clearance Cairn
NGR NY 83188 74690
Period Prehistoric?
Photograph(s) IMG_5865.jpg

Description

A small circular, turf-covered, clearance cairn. It measures 1.7m in diameter by 0.6m high. There are no visible stones.

Site Number 83
Site Type Boundary Bank and Cairn
NGR NY 83217 74666
Period Prehistoric?
Photograph(s) IMG_5867.jpg, IMG_5868.jpg

Description

A short linear section of boundary bank with conjoined clearance cairn. The bank is orientated roughly north-west/south-east. It measures 5.5m long by 1.3m wide and 0.5m high. There is a circular, turf-covered, clearance cairn at the eastern end. The cairn measures 3.9m long by 3.6m wide and 0.5m high. There are no visible stones on either bank or cairn.

Site Number 84
Site Type Clearance Cairn
NGR NY 83237 74691
Period Prehistoric?
Photograph(s) IMG_5870.jpg

Description

An oval, turf-covered, clearance cairn. It measures 2.3m long by 1.5m wide and 0.4m high. There is one stone visible.

Site Number 85
Site Type Clearance Cairn
NGR NY 83265 74657
Period Prehistoric?
Photograph(s) IMG_5872.jpg, IMG_5873.jpg

Description

A circular, turf-covered, clearance cairn. It measures 3.4m in diameter by 0.4m high. There are five stones visible.

Site Number 86
Site Type Clearance Cairn
NGR NY 83273 74654
Period Prehistoric?
Photograph(s) IMG_5875.jpg

Description

A sub-circular, turf-covered, clearance cairn. It measures 3.4m long by 2.5m wide and 0.2m high. There is one stone visible.

Site Number 87
Site Type Clearance Cairn
NGR NY 83312 74669
Period Prehistoric?
Photograph(s) IMG_5877.jpg

Description

A sub-circular, turf-covered, clearance cairn. It measures 2.9m long by 2.4m wide and 0.1m high. No visible stones.

Site Number 88
Site Type Rock Art?
NGR NY 83452 74780
Period Prehistoric?
Photograph(s) IMG_6128.jpg, IMG_6129.jpg, IMG_6473.jpg, IMG_6474.jpg

Description

An oval, potentially cup-marked stone. The stone measures 0.55m long by 0.35m wide and 0.1m high. There is a possible cup-mark in a natural groove with a shallow, north-facing profile.

Site Number 89
Site Type Quarry
NGR NY 83108 74816
Period Post-Medieval
Photograph(s) N/A
NMP No. 1475205

Description

A large area of quarry workings located at the western end of the spur of Ravensheugh Crags. Overall the area measures 265m by 91m. The centre is heavily disturbed where the stone has been cleaved up. The quarry has almost certainly truncated the western side of the cairnfield. A hollow way leads up to it from the west, and probably predated it and has been truncated by the quarrying, but may also have served the quarry. There is a boundary stone (along with several others outside of the study area) that served to define the limit of the quarry workings (Site **120**). There is a trigonometric pillar on the ridge inside of the quarry workings (Site **121**). The quarry was depicted on the OS First Edition map 6" to 1 mile map (1866), but had evidently been abandoned by the time of the 1896 OS 1:2500 map, as it was then described as an 'Old Quarry'.

Site Number 90
Site Type Incised Stone
NGR NY 83408 74808
Period Post-medieval disturbance ?
Photograph(s) N/A

Description

A stone with a series of six parallel linear incisions running near one edge of the upper surface. The stone is only partially exposed as it is contained within the north-east side of a clearance cairn (Site 4). The incisions are on a north/south alignment and each measure 0.18m long by 0.03m wide and 0.02m deep. The incisions are not natural geological features and are fairly unabraded and could reflect recent plough damage.

Site Number 91
Site Type Rock Art
NGR NY 83334 74769
Period Prehistoric
Photograph(s) IMG_6143.jpg, IMG_6144.jpg
ERA No. 1441
HER No. 7867

Description

A heavily patinated sub-rectangular cup-marked stone. The stone measures 0.75m long by 0.2m wide. There are six cup-marks visible on south-facing long edge of the stone. The site was previously recorded as 'Goatstones A' (<http://rockart.ncl.ac.uk>).

Site Number 92
Site Type Rock Art
NGR NY 83246 74809
Period Prehistoric
Photograph(s) IMG_6146.jpg, IMG_6147.jpg
ERA No. 1443 (and duplicate 1440?)

Description

A sub-rectangular, cup-marked stone located within the eastern half of a quarry scoop (Site 30). The stone measures 0.75m long by 0.3m wide and 0.1m high. There is a single, well-defined conical cup-mark visible on the upper surface of the stone. The site was previously recorded as 'Goatstones D' (<http://rockart.ncl.ac.uk>).

Site Number 93
Site Type Rock Art
NGR NY 83230 74799
Period Prehistoric
Photograph(s) IMG_6149.jpg, IMG_6150.jpg
ERA No. 1439 (and duplicate 1442?)

Description

A small, displaced cup-marked stone located within the western half of a quarry scoop (Site 30). The stone measures 0.7m long by 0.4m wide and 0.25m high. There is a single well-defined cup-mark visible on the surface of the stone. The site was previously recorded as 'Goatstones E' (<http://rockart.ncl.ac.uk>).

Site Number 94
Site Type Rock Art
NGR NY 83225 74803
Period Prehistoric
Photograph(s) IMG_6152.jpg, IMG_6153.jpg
ERA No. 1438

Description

A narrow, rectangular, cup-marked stone located on the western edge of a small cairn (Site 30). The stone measures 1.1m long by 0.35m wide and 0.15m high. There is a single shallow cup-mark visible on the south-east-facing side of the stone.

Site Number 95
Site Type Rock Art
NGR NY 83272 74843
Period Prehistoric
Photograph(s) IMG_6236.jpg, IMG_6237.jpg
ERA No. 1444
HER No. 7868

Description

A small, rectangular, cup-marked stone located on the eastern edge of a quarry scoop (Site 95). The stone measures 0.55m long by 0.15m wide and 0.2m high. There are three/quarter cup-marks visible on the upper surface of the stone. The site was previously recorded as 'Goatstones B' (<http://rockart.ncl.ac.uk>).

Site Number 96
Site Type Rock Art
NGR NY 83301 74835
Period Prehistoric
Photograph(s) N/A
ERA No. 1446
HER No. 7869

Description

A small, patinated trapezoidal cup-marked stone. The stone measures 0.9m long by 0.5m wide and 0.2m high. There is a single large cup-mark upon the surface of the stone. The site was previously recorded as 'Goatstones C' (<http://rockart.ncl.ac.uk>).

Site Number 97
Site Type Rock Art
NGR NY 83466 74873
Period Prehistoric
Photograph(s) IMG_6239.jpg, IMG_6240.jpg, IMG_6242.jpg, IMG_6243.jpg, IMG_6244.jpg
ERA No. 1448

Description

A large, D-shaped cup-marked stone. The stone measures 1.65m long by 1.2m wide and 0.25m high. There are approximately six cup-marks upon the stone although not all were clearly visible. The site was previously recorded as 'Goatstones G' (<http://rockart.ncl.ac.uk>).

Site Number 98
Site Type Rock Art
NGR NY 83475 74870
Period Prehistoric
Photograph(s) IMG_6246.jpg, IMG_6247.jpg
ERA No. 1449

Description

A large, sub-rectangular, cup-marked stone located on the north-west edge of a small cairn (Site 25). The stone measures 1.4m long by 0.8m wide and 0.65m high. The long sides of the stone are angled to a central ridgeline running the full length of the stone and there are six quarry marks riven along the eastern side. There are approximately nine cup-marks (including one large example) visible on the stone. The site was previously recorded as 'Goatstones F' (<http://rockart.ncl.ac.uk>).

Site Number 99
Site Type Rock Art
NGR NY 83476 74869
Period Prehistoric
Photograph(s) IMG_6249.jpg, IMG_6250.jpg
ERA No. 1447

Description

A small, sub-triangular, cup-marked stone located on the south-east edge of a small cairn (Site 25). The stone measures 0.65m long by 0.6m wide and 0.2m high. There is a single cup-mark visible on the flat surface of the

stone. The site was previously recorded as 'Goatstones H' (<http://rockart.ncl.ac.uk>).

Site Number 100
Site Type Rock Art
NGR NY 83464 74869
Period Prehistoric
Photograph(s) IMG_6252.jpg, IMG_6253.jpg
ERA No. 1459

Description

A sub-rectangular cup-marked stone. The stone measures 0.8m long by 0.6m wide and 0.1m high. There are at least three cup-marks visible on the flat surface of the stone. The site was previously recorded as 'Goatstones U' (Bowyer and Bowyer 2012).

Site Number 101
Site Type Rock Art
NGR NY 83707 74887
Period Prehistoric
Photograph(s) IMG_6255.jpg, IMG_6256.jpg

Description

A small, pointed, trapezoidal cup-marked stone that is located north-east of a bellpit (Site 62). The stone measures 0.75m long by 0.4m wide and 0.25m high. There is a large oval conical depression on the top surface of the stone with a single possible eroded cup-mark on the north edge of the stone.

Site Number 102
Site Type Rock Art
NGR NY 83643 74848
Period Prehistoric
Photograph(s) IMG_6258.jpg, IMG_6259.jpg
ERA No. 1453

Description

A large, D-shaped cup-marked stone. The stone measures 1.15m long by 0.65m wide and 0.6m high. There are a conjoined pair of shallow cup-marks upon the south end of the upper surface of the stone and a further single cup-mark on the turf line on the south-west edge of the stone. The site was previously recorded as 'Goatstones M' (<http://rockart.ncl.ac.uk>).

Site Number 103
Site Type Rock Art
NGR NY 83580 74804
Period Prehistoric
Photograph(s) IMG_6261.jpg, IMG_6262.jpg

Description

A rectangular cup-marked stone. The partially exposed area of the stone measures 0.45m long by 0.4m wide and it is flush with the ground surface. There is a single well-defined cup-mark upon the east side of the flat surface of the stone.

Site Number 104
Site Type Rock Art
NGR NY 83660 74797
Period Prehistoric
Photograph(s) IMG_6264.jpg, IMG_6265.jpg
ERA No. 1452

Description

A small sub-rectangular cup-marked stone. The stone measures 0.5m long by 0.3m wide and 0.05m high. There is a single cup-mark upon the slightly rounded surface of the stone.

Site Number 105
Site Type Rock Art
NGR NY 83629 74756
Period Prehistoric
Photograph(s) IMG_6267.jpg, IMG_6268.jpg
ERA No. 1450

Description

A D-shaped cup-marked stone. The stone measures 0.7m long by 0.5m wide and 0.15m high. There are five cup-marks upon the flat surface of the stone. The site was previously recorded as 'Goatstones L' (<http://rockart.ncl.ac.uk>).

Site Number 106
Site Type Rock Art
NGR NY 83641 74745
Period Prehistoric
Photograph(s) IMG_6270.jpg; IMG_6284.jpg
ERA No. 1451

Description

A large trapezoidal cup-marked stone. The stone measures 1.25m long by 1m wide and 0.35m high. There are up to sixteen large eroded cup-marks upon the flat surface of the stone. The site was previously recorded as 'Goatstones K' (<http://rockart.ncl.ac.uk>).

Site Number 107
Site Type Portable Rock Art
NGR NY 83524 74778
Period Prehistoric
Photograph(s) IMG_6286.jpg, IMG_6287.jpg, IMG_6288.jpg, IMG_6289.jpg, IMG_6290.jpg
ERA No. 1454

Description

A small, portable, sub-rectangular cup-marked stone sat upon the surface of a putative kerbed cairn (Site 47). The stone measures 0.2m long by 0.1m wide and 0.1m deep. There is a single deep cup-mark in the centre of the exposed rounded surface. The site was previously recorded as 'Goatstones J' (<http://rockart.ncl.ac.uk>).

Site Number 108
Site Type Rock Art
NGR NY 83403 74768
Period Prehistoric
Photograph(s) IMG_6292.jpg, IMG_6293.jpg, IMG_6294.jpg
ERA No. 1457

Description

A patinated, sub-triangular, cup-marked stone. The stone measures 0.62m long by 0.63m wide and 0.22m high. There are three cup-marks upon the south corner of the flat surface of the stone. The site was previously recorded as 'Goatstones P' (<http://rockart.ncl.ac.uk>).

Site Number 109
Site Type Rock Art
NGR NY 83392 74776
Period Prehistoric
Photograph(s) IMG_6296.jpg, IMG_6297.jpg, IMG_6298.jpg, IMG_6299.jpg

Description

A D-shaped cup-marked stone. The stone measures 0.74m long by 0.44m wide and 0.2m high. There are two large cup-marks visible on the sloping surface of the stone. The site was previously recorded as 'Goatstones W' (Bowyer and Bowyer 2012).

Site Number 110
Site Type Rock Art

NGR NY 83391 74773
Period Prehistoric
Photograph(s) IMG_6301.jpg, IMG_6302.jpg, IMG_6303.jpg

Description

A sub-rectangular cup-marked stone. The stone measures 0.69m long by 0.5m wide and 0.28m high. There are two cup-marks visible on the angled surface of the stone.

Site Number 111
Site Type Rock Art
NGR NY 83415 74735
Period Prehistoric
Photograph(s) IMG_6442.jpg, IMG_6443.jpg, IMG_6444.jpg
ERA No. 1458

Description

A small, bedstead-shaped, group of stones with one cup-marked stone. The undecorated upright stone measures 0.35m long by 0.25m wide and 0.25m high. The decorated stone measures 0.95m long by 0.35m wide and 0.1m high. There are several cup-marks upon the surface of the stone. The site was previously recorded as 'Goatstones T' (Bowyer and Bowyer 2012).

Site Number 112
Site Type Rock Art
NGR NY 83421 74731
Period Prehistoric
Photograph(s) IMG_6446.jpg, IMG_6447.jpg
ERA No. 1460

Description

A diamond-shaped cup-marked stone. The stone measures 1.15m long by 0.5m wide and 0.15m high. There is a single deep cup-mark on the surface. The site was previously recorded as 'Goatstones S' (Bowyer and Bowyer 2012).

Site Number 113
Site Type Rock Art
NGR NY 83428 74725
Period Prehistoric
Photograph(s) IMG_6449.jpg, IMG_6450.jpg
ERA No. 1455

Description

A heavily patinated triangular cup-marked stone. The stone measures 0.85m long by 0.6m wide and 0.25m high. There is a single cup-mark upon the rounded surface. The site was previously recorded as 'Goatstones N' (<http://rockart.ncl.ac.uk>).

Site Number 114
Site Type Rock Art
NGR NY 83430 74714
Period Prehistoric
Photograph(s) IMG_6452.jpg, IMG_6453.jpg
ERA No. 14371456

Description

A rectangular cup-marked stone. The stone measures 0.95m long by 0.75m wide (exposed) and 0.1m high. There are at least eleven cup-marks visible on the stone. The site was previously recorded as 'Goatstones O' (<http://rockart.ncl.ac.uk>).

Site Number 115
Site Type Rock Art
NGR NY 83428 74711
Period Prehistoric

Photograph(s) IMG_6455.jpg, IMG_6456.jpg

Description

A heavily patinated, rectangular, cup-marked stone with a pointed southern end. The stone measures 0.9m long by 0.75m wide and 0.2m high. There is a single possible cup-mark on the southern end. The site was previously recorded as 'Goatstones R' (Bowyer and Bowyer 2012).

Site Number 116

Site Type Rock Art

NGR NY 83425 74785

Period Prehistoric

Photograph(s) IMG_6458.jpg, IMG_6459.jpg

Description

A teardrop-shaped cup-marked stone exposed on the eastern edge of the large funerary cairn (Site 1). The stone measures 0.9m long by 0.6m wide and 0.15m high. The flat surface has one, or possibly a pair of cup-marks.

Site Number 117

Site Type Rock Art

NGR NY 83424 74782

Period Prehistoric

Photograph(s) IMG_6461.jpg, IMG_6462.jpg, IMG_6463.jpg, IMG_6464.jpg

Description

A small, pentagonal, cup-marked stone exposed on the southern edge of the large funerary cairn (Site 1). The stone measures 0.45m long by 0.3m wide and 0.15m high. The rounded surface has one possible cup-mark upon it.

Site Number 118

Site Type Rock Art

NGR NY 83424 74784

Period Prehistoric

Photograph(s) IMG_6466.jpg, IMG_6467.jpg

Description

A sub-oval cup-marked stone exposed on the eastern edge of the large funerary cairn (Site 1). The stone measures 0.7m long by 0.5m wide and 0.03m high. The slightly undulating surface has fourteen cup-marks upon it. A rubbing was taken (No. 2).

Site Number 119

Site Type Rock Art

NGR NY 83436 74795

Period Prehistoric

Photograph(s) IMG_6469.jpg, IMG_6470.jpg

Description

A small, sub-triangular, cup-marked stone measuring 0.4m long, 0.3m wide and 0.15m high. There is a single shallow cup-mark on the summit.

Site Number 120

Site Type Boundary Stone

NGR NY 83278 74826

Period Post-Medieval

Photograph(s) N/A

Description

A roughly hewn quarry boundary stone demarcating the eastern edge of a large quarry (Site 89). It is roughly rectangular.

Site Number 121

Site Type Trigonometric Pillar

NGR NY 83164 74858
Period Post-Medieval
Photograph(s) N/A

Description

A concrete-constructed trigonometric pillar set on the top of the scarp slope of Ravensheugh Crags and within a large quarry (Site **89**). TP5591, height 256m

Site Number **122**
Site Type Clearance Cairn
NGR NY 83170 74627
Period Prehistoric
Photograph(s) N/A

Description

An oval turf-covered clearance cairn measuring approximately 4.4m by 3.5m.

Site Number **123**
Site Type Clearance Cairn
NGR NY 83179 74608
Period Prehistoric
Photograph(s) N/A

Description

A sub-rectangular turf-covered clearance cairn measuring approximately 4.1m by 2.3m.

Site Number **124**
Site Type Clearance Cairn
NGR NY 83187 74614
Period Prehistoric
Photograph(s) N/A

Description

An oval turf-covered clearance cairn measuring approximately 2.9m by 2.1m.

Site Number **125**
Site Type Clearance Cairn
NGR NY 83260 74637
Period Prehistoric
Photograph(s) N/A

Description

A sub-circular turf-covered clearance cairn measuring approximately 2.8m by 2.6m.

Site Number **126**
Site Type Clearance Cairn
NGR NY 83270 74637
Period Prehistoric
Photograph(s) N/A

Description

A sub-rectangular turf-covered clearance cairn measuring approximately 4.4m by 2.8m.

Site Number **127**
Site Type Earthwork
NGR NY 83487 74818
Period Prehistoric?
Photograph(s) N/A

Description

A disturbed area of ground consisting of a slight banked lynchet, measuring approximately 6.9m by 2.2m.

Site Number 128
Site Type Clearance Cairn
NGR NY 83335 74667
Period Prehistoric
Photograph(s) N/A

Description

A sub-circular turf-covered clearance cairn measuring approximately 3.9m by 3.2m.

Site Number 129
Site Type Clearance Cairn
NGR NY 83376 74700
Period Prehistoric
Photograph(s) N/A

Description

A sub-circular turf-covered clearance cairn measuring approximately 3.6m by 3.4m.

Site Number 130
Site Type Clearance Cairn
NGR NY 83314 74724
Period Prehistoric
Photograph(s) N/A

Description

A low sub-rectangular turf-covered clearance cairn measuring approximately 4.5m by 3.5m.

Site Number 131
Site Type Clearance Cairn
NGR NY 83449 74726
Period Prehistoric
Photograph(s) N/A

Description

A low sub-circular turf-covered clearance cairn measuring approximately 6.5m by 6m.

Site Number 132
Site Type Clearance Cairn
NGR NY 83538 74658
Period Prehistoric
Photograph(s) N/A

Description

A low sub-circular turf-covered clearance cairn measuring approximately 4m by 3.8m.

Site Number 133
Site Type Clearance Cairn
NGR NY 83602 74755
Period Prehistoric
Photograph(s) N/A

Description

An oval turf-covered clearance cairn measuring approximately 5.5m by 4m.

Site Number 134
Site Type Cairn
NGR NY 83570 74796
Period Prehistoric
Photograph(s) N/A

Description

A damaged sub-circular cairn surviving as a curvilinear bank with a denuded east end. Overall, it measures 5.8m

by 5.4m

Site Number 135
Site Type Clearance Cairn
NGR NY 83440 74863
Period Prehistoric
Photograph(s) N/A

Description

An oval, turf-covered, clearance cairn measuring approximately 4.4m by 3.3m. The stones have been disturbed and now form a U-shaped bank with a central depression and gap on the east side.

Site Number 136
Site Type Clearance Cairn
NGR NY 83741 74815
Period Prehistoric
Photograph(s) N/A

Description

An oval, turf-covered, clearance cairn measuring approximately 3.5m by 2.1m.

Site Number 137
Site Type Platform House
NGR NY 83775 74710
Period Prehistoric?
Photograph(s) IMG5890.jpg- IMG5892.jpg

Description

A possible platform house consisting of a lenticular-shaped platform cut into the south-facing hillside. It measures 12.4m long by 7.3m wide and is up to 0.5m high.

Site Number 138
Site Type Stack Stand
NGR NY 83761 74752
Period Post-Medieval
Photograph(s) N/A
NMP No. 1475299

Description

A rectangular stack stand, one of a cluster of three identified at this location on Tim Gates aerial photography. It cannot be identified on the ground.

Site Number 139
Site Type Stack Stand
NGR NY 83762 74742
Period Post-Medieval
Photograph(s) N/A
NMP No. 1475299
HER No. 12651

Description

A rectangular stack stand, one of a cluster of three identified at this location on Tim Gates aerial photography. It cannot be identified on the ground. The fieldwork identified a slight sub-circular mound adjacent to it measuring 3.4m by 2.5m.

Site Number 140
Site Type Stack Stand
NGR NY 83753 74734
Period Post-Medieval
Photograph(s) N/A

NMP No. 1475299

HER No. 12650

Description

A circular stack stand, one of a cluster of three identified at this location on Tim Gates aerial photography. It is possibly extant as there is a small circular mound that measures 3m in diameter.

Site Number 141

Site Type Stack Stand

NGR NY 83715 74772

Period Post-Medieval

Photograph(s) N/A

NMP No. 1475299

HER No. 12649

Description

An isolated rectangular stack stand identified at this location on Tim Gates aerial photography. It cannot be identified on the ground.

Site Number 142

Site Type Cord Rig

NGR NY 83359 74689

Period Prehistoric

Photograph(s) N/A

Description

An area of narrow cord rig cultivation identified primarily from Tim Gates aerial photography. It is orientated roughly east-south-east/west-north-west and measures approximately 308m by 122m in extent.

Site Number 143

Site Type Cord Rig

NGR NY 83568 74761

Period Prehistoric

Photograph(s) N/A

NMP No. 1475295

HER No. 12648

Description

An area of narrow cord rig cultivation identified primarily from Tim Gates aerial photography. It is orientated roughly north-north-west/ south-south-east and measures approximately 375m by 175m in extent.

Site Number 144

Site Type Cord Rig

NGR NY 83694 74786

Period Prehistoric

Photograph(s) N/A

NMP No. 1475295

HER No. 12648

Description

An area of narrow cord rig cultivation identified primarily from Tim Gates aerial photography. It is orientated roughly east-south-east/west-north-west and measures approximately 102m by 73m in extent.

Site Number 145

Site Type Site of Rock Art

NGR NY 82940 74680

Period Prehistoric

Photograph(s) N/A

ERA No. 1435

Description

A possible cup marked stone, but likely to be a natural feature. The site was not investigated during the present

survey OA North 2013.

Site Number 146
Site Type Site of Rock Art
NGR NY 83035 74800
Period Prehistoric
Photograph(s) N/A
ERA No. 1436

Description

A small cup and probable natural linear groove on small rock in a heavily quarried area. These were possibly erosion features. The site was not investigated during the present survey OA North 2013.

Site Number 147
Site Type Site of Rock Art
NGR NY 83084 74731
Period Prehistoric
Photograph(s) N/A
ERA No. 1437

Description

Two cups on the north edge and one on the south edge of a quarry area. They are possibly natural geological features or the result of quarrying. The site was not investigated during the present survey OA North 2013.

Site Number 148
Site Type Site of Portable Rock Art
NGR NY 83335 74861
Period Prehistoric
Photograph(s) N/A
ERA No. 1445

Description

The site of a now removed portable cup-marked stone. The site was previously recorded as 'Goatstones I' (<http://rockart.ncl.ac.uk>). It was located on the south edge of the hollow way (Site 64) and had one cup-mark upon the upper surface.

ILLUSTRATIONS

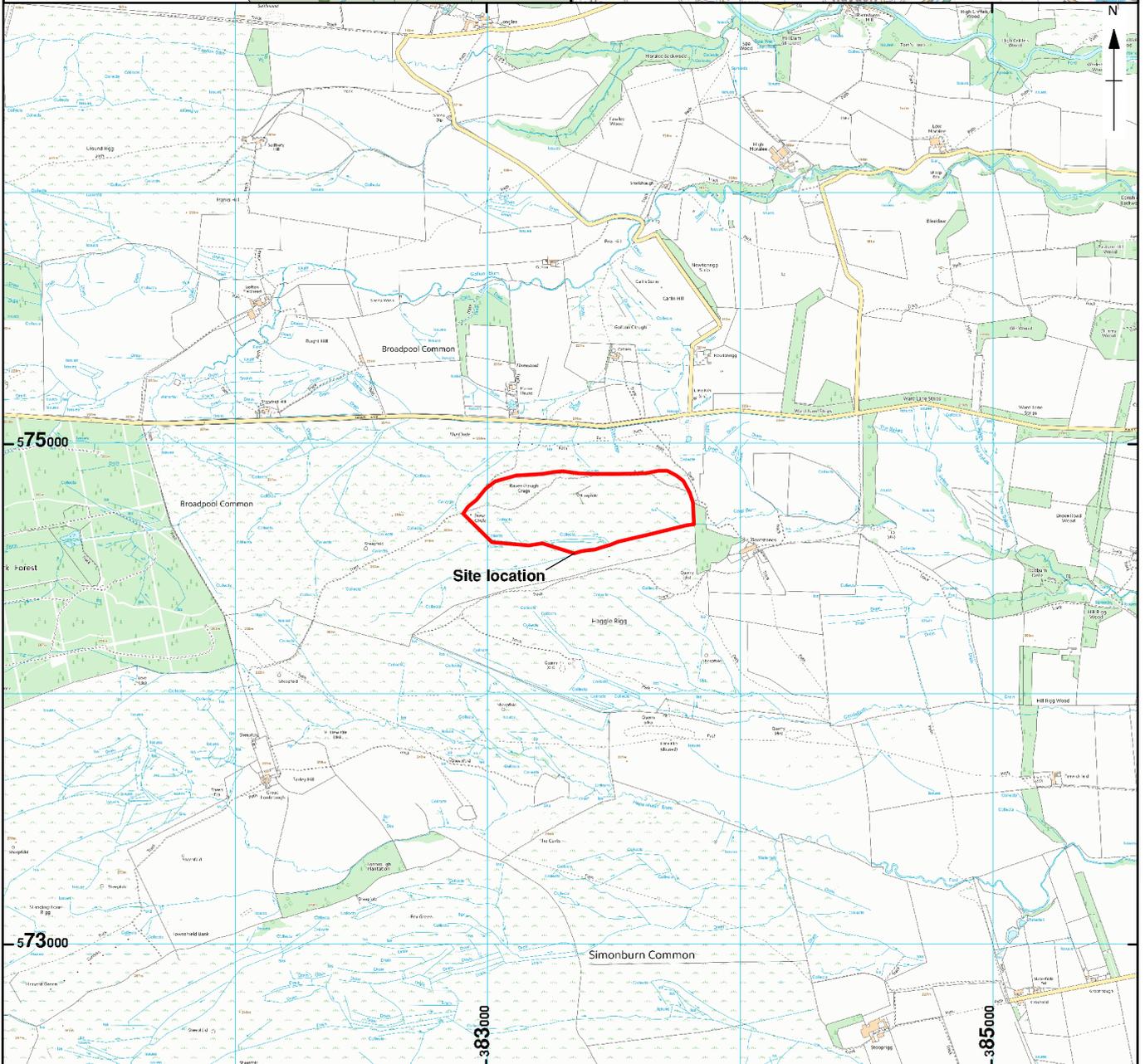
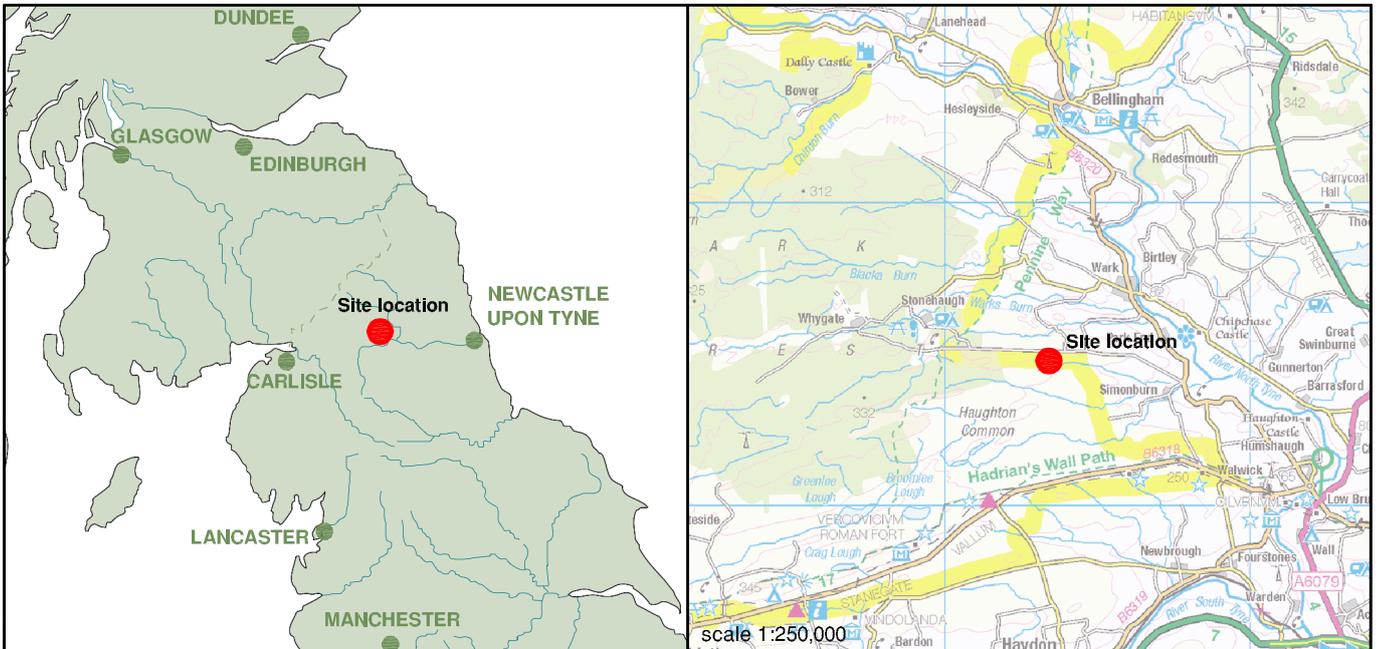
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Figure 1: Site location

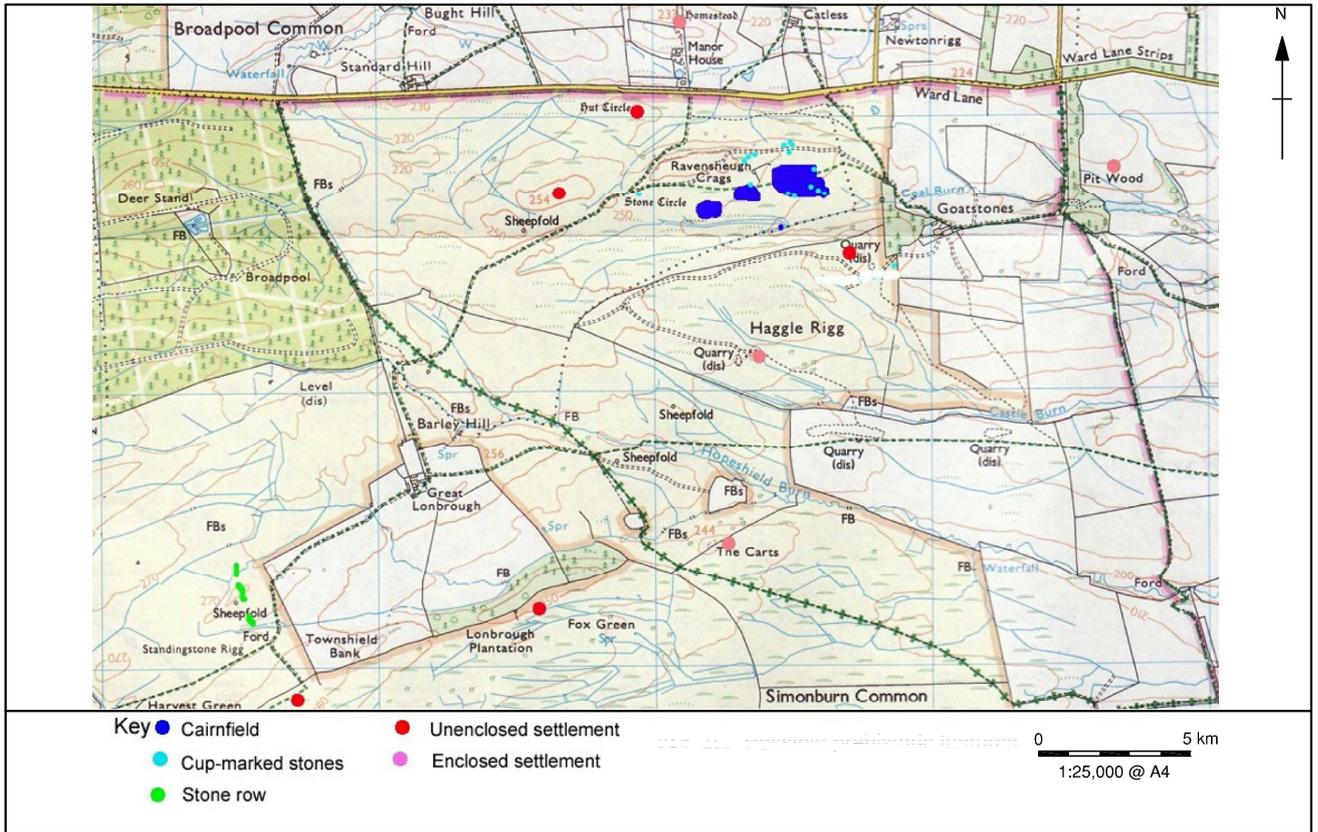


Figure 2: Prehistoric sites identified in the vicinity of Ravensheugh Crags (after Bowyer and Bowyer 2012)



Figure 3: The wider landscape surrounding Ravensheugh Crags with NMP data and areas surveyed as part of Altogether Archaeology

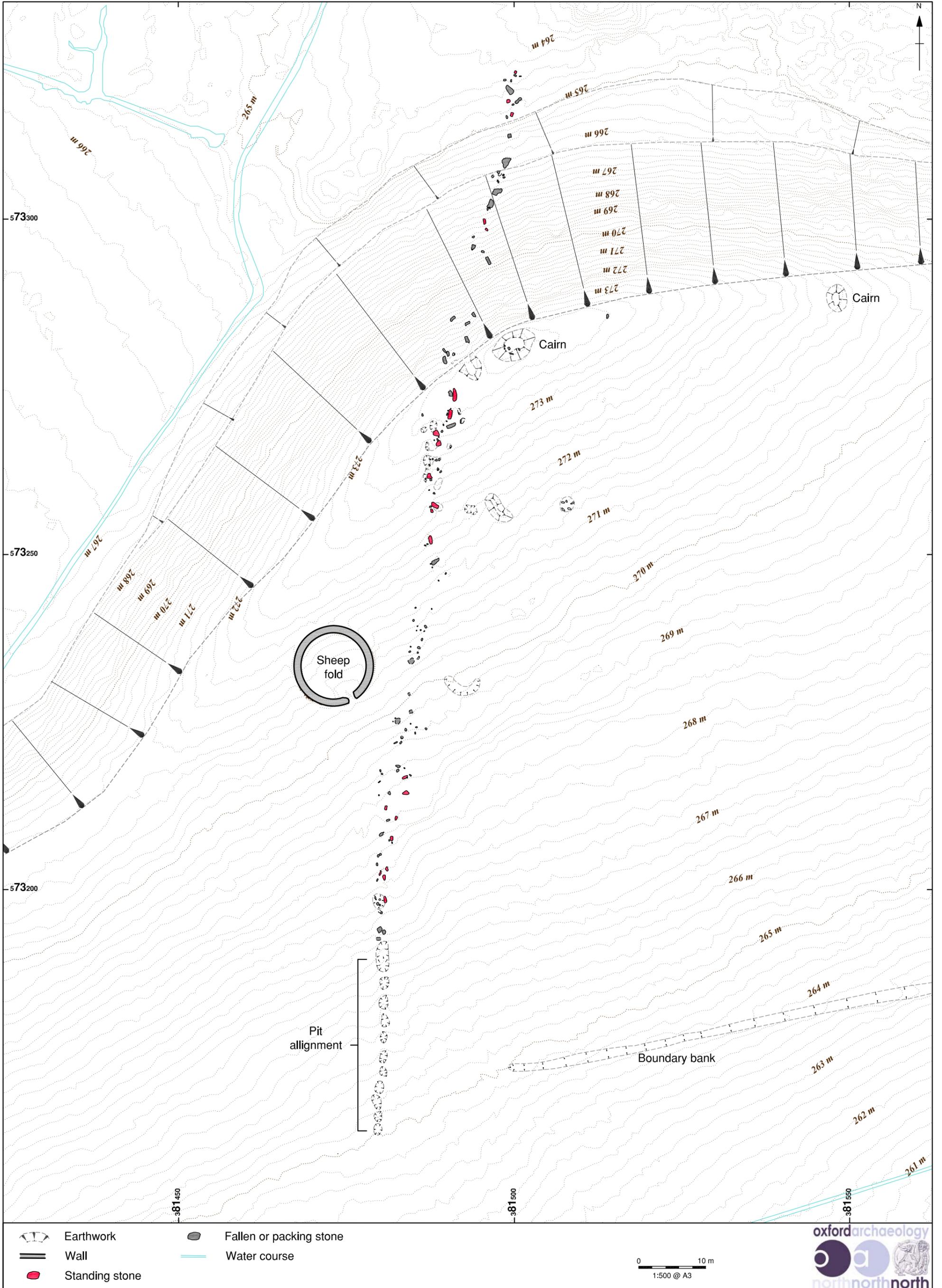


Figure 4: Standingstone Rigg, Topographic survey

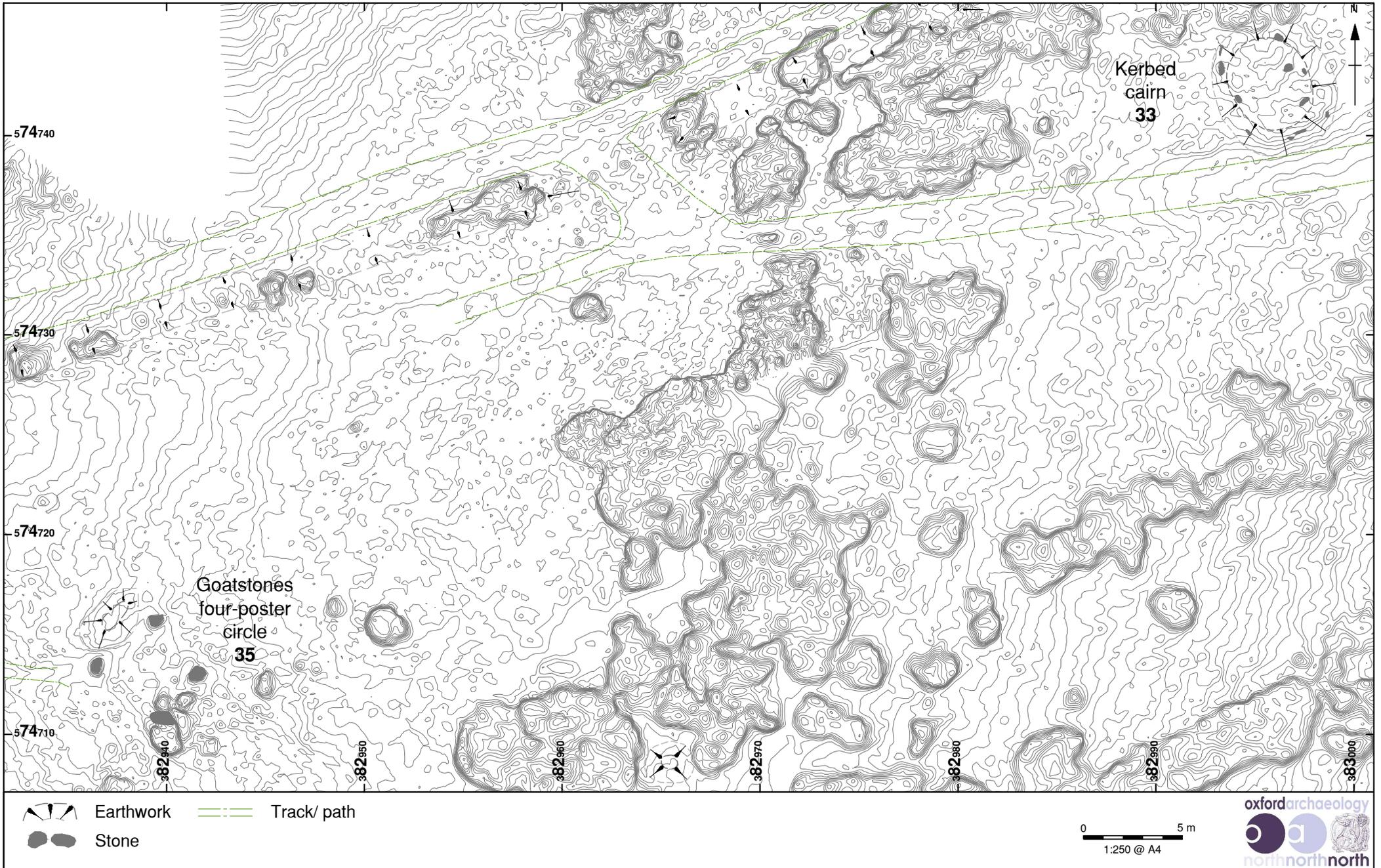


Figure 5: Detail aerial survey of Goatstones four-poster circle, and the kerbed cairn

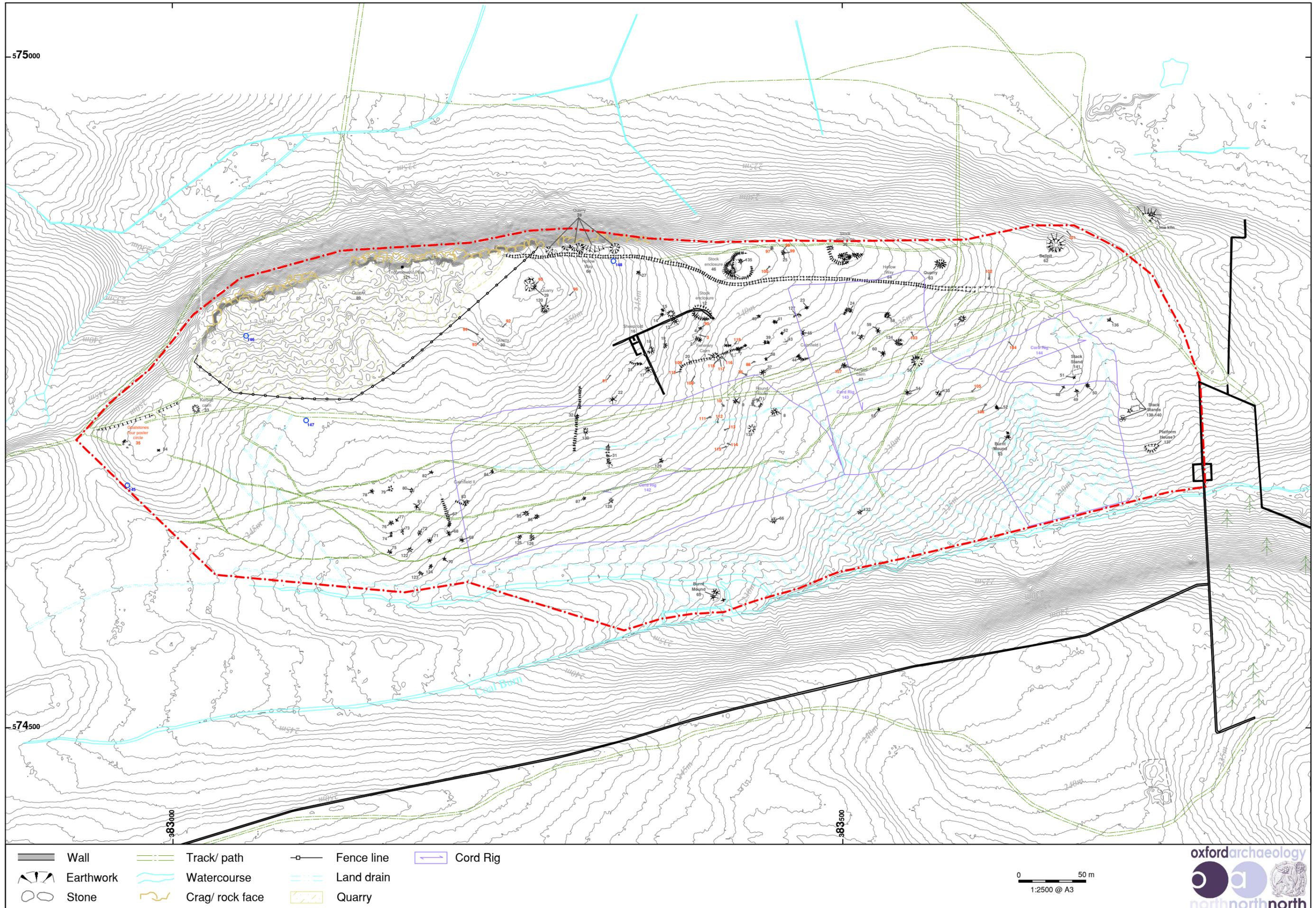


Figure 6: Ravensheugh topographic survey; overall plan

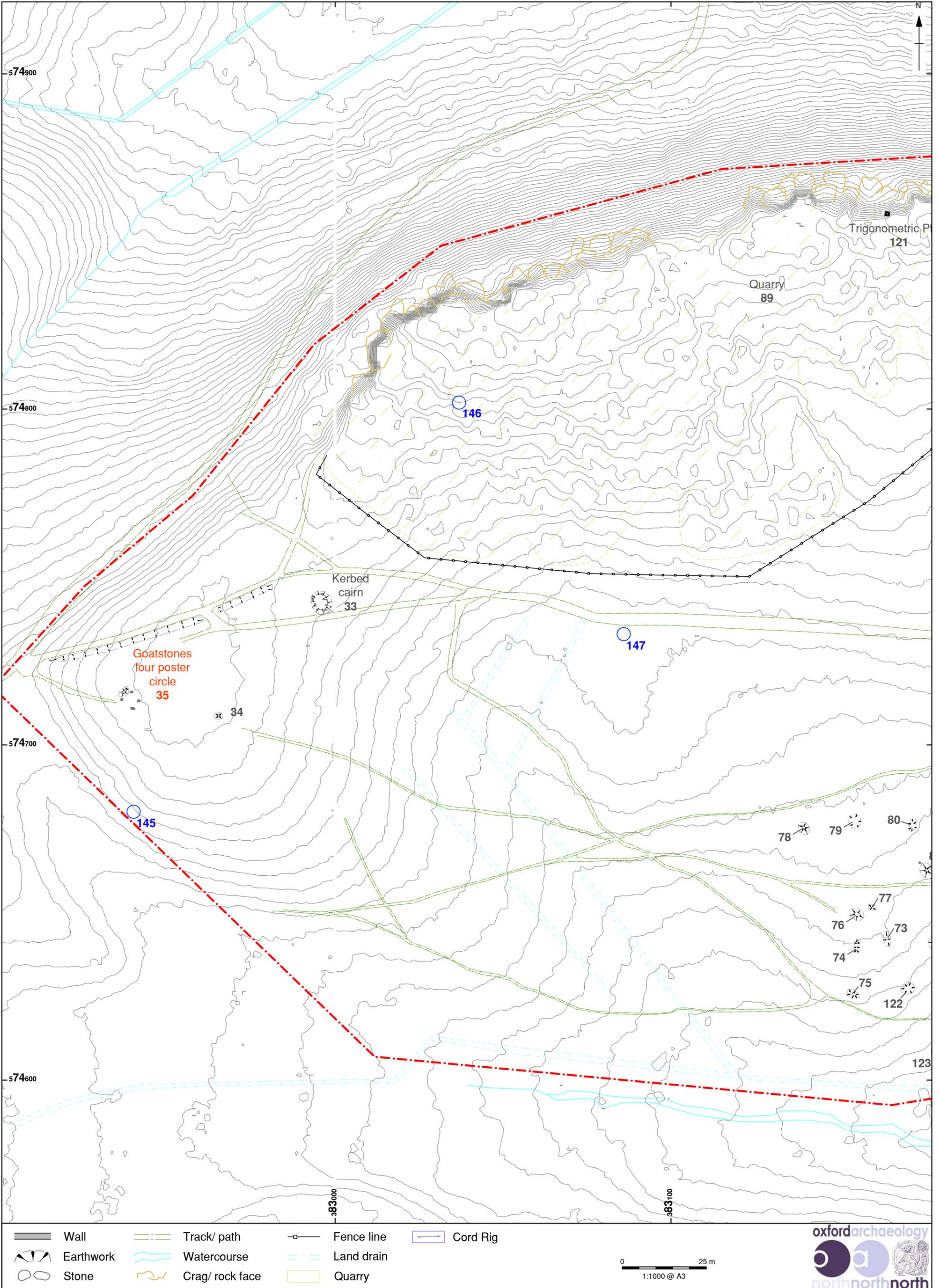


Figure 7: Ravensheugh topographic survey; west

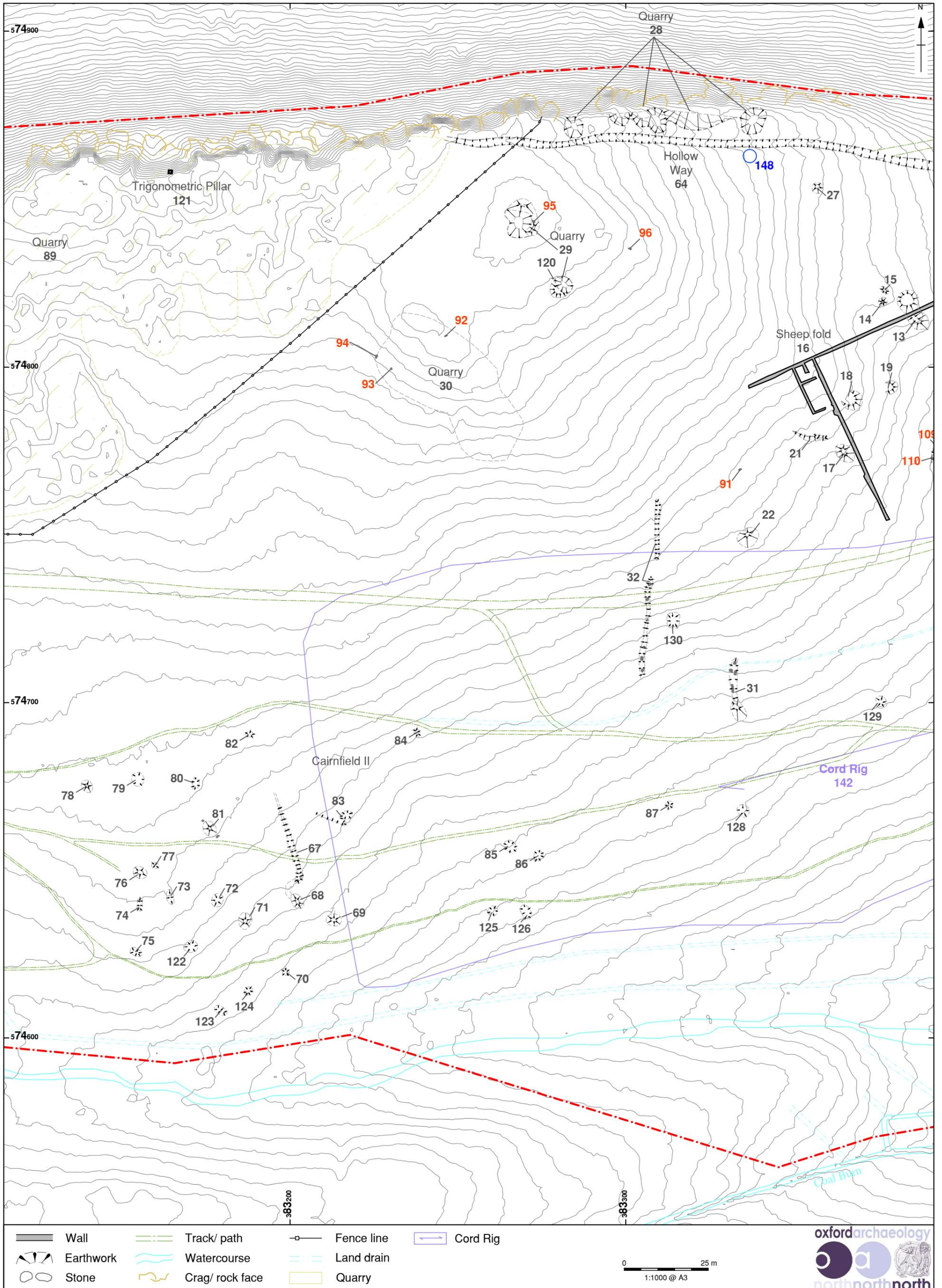


Figure 8: Ravensheugh topographic survey; west of central

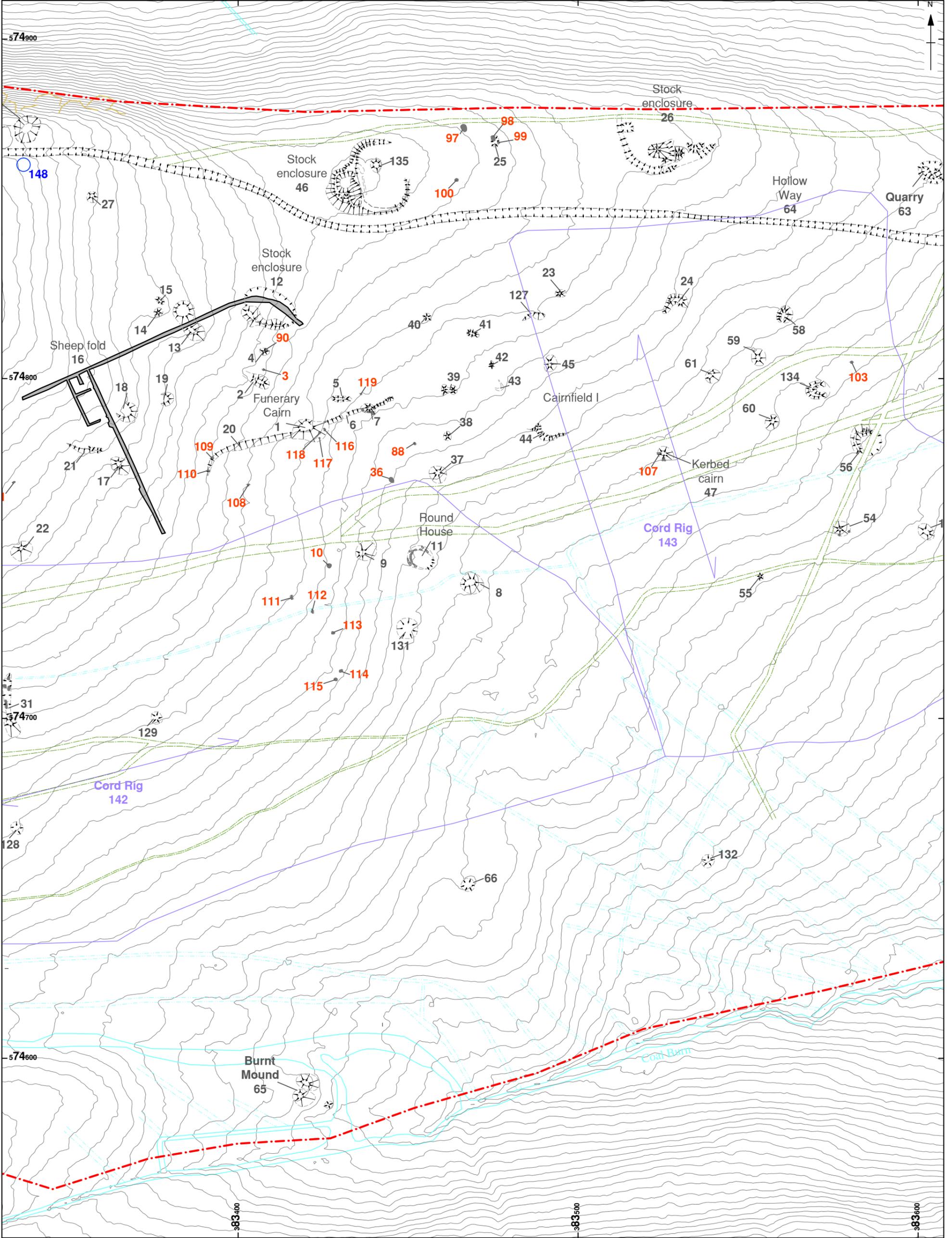


Figure 9: Ravensheugh topographic survey; east of central

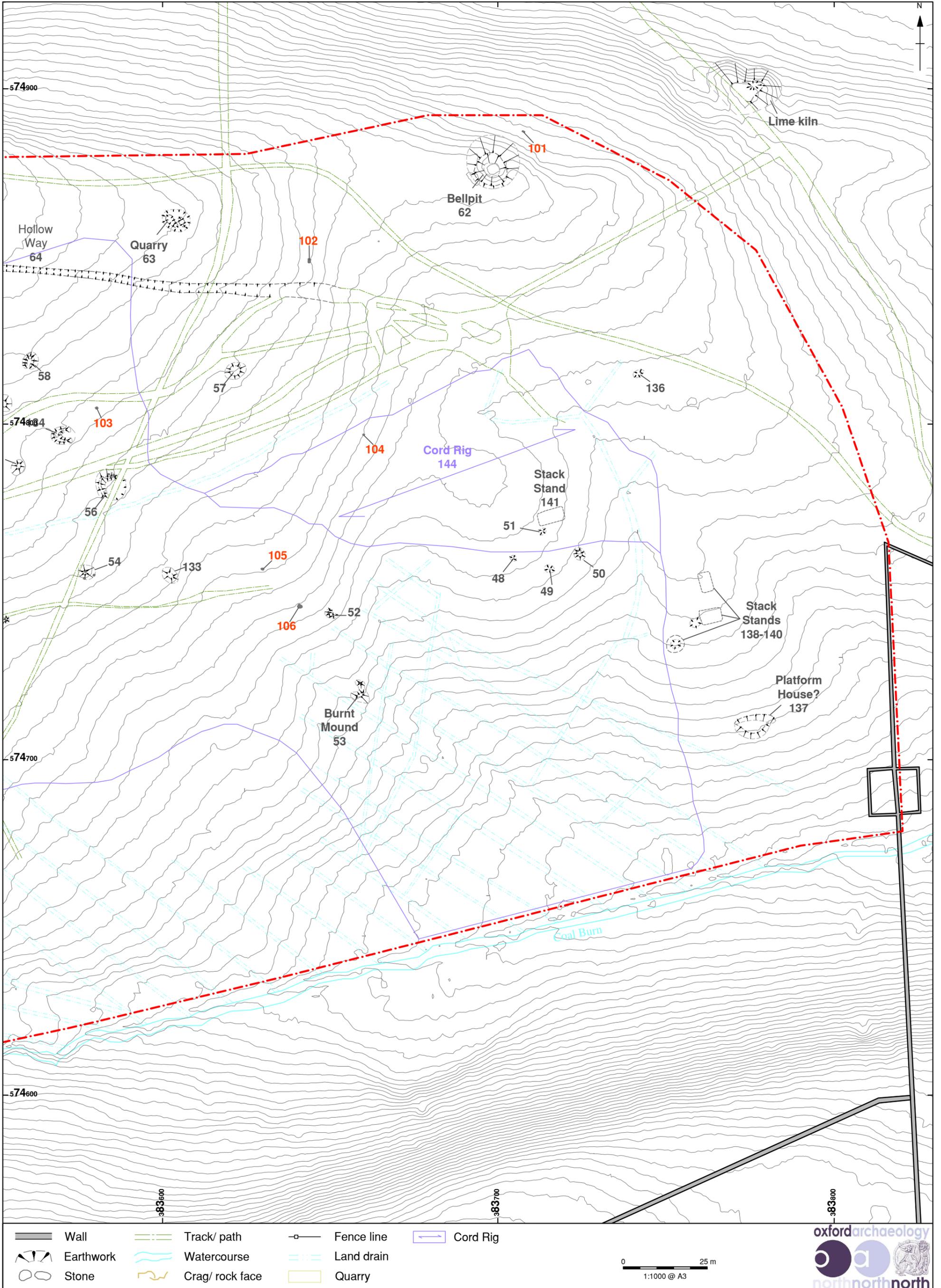


Figure 10: Ravensheugh topographic survey; east