



Big Moor Post-Fire Survey, Derbyshire Report for the Eastern Moors Partnership

ArcHeritage 2018

Big Moor, Derbyshire: 2018 post-fire archaeological survey

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Key Project Information

Project Name	Big Moor 2018 Post-Fire Survey
Report Title	Big Moor 2018 Post-Fire Archaeological Survey Report
Report status	Final
ArcHeritage Project No.	1622
Type of Project	Landscape survey
Client	Eastern Moors Partnership
NGR	SK 27290 75060
OASIS Identifier	archerit1-330054
Author	Rowan May
Illustrations	Rowan May
Editor	Glyn Davies, Rosalind Buck
Report Number and Date	2018/64 31 st October 2018
Version and filename	V2: 1622 Big Moor 2018 survey v2.docx

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NON-TECHNICAL SUMMARY

In July 2018 an archaeological survey was carried out on the southern part of the Big Moor Scheduled Monument in the Peak District National Park. The survey was undertaken after a moorland fire burnt off surface vegetation, in order to record the condition of the known archaeological resource and any new features revealed. The survey was commissioned by the Eastern Moors Partnership and conducted in line with a methodology previously adopted for the Eastern Moors Survey (ArcHeritage 2011).

The survey recorded 43 previously unknown features, nine of which are of potential Bronze Age date, including possible clearance cairns and linear clearance. Six features of probable post-medieval date are all associated with small-scale quarrying, and 27 features are associated with 20th-century activity, predominantly military training in the form of weapons pits and bullet-scarred rocks. Additionally, updates were made to the description of 414 features recorded by the 1991-96 RCHME survey and 2010-2011 Eastern Moors Survey. This included information on the current condition of the features and threats to their preservation. Rapid regrowth of bracken on the slopes meant that no details could be observed for 146 features obscured by vegetation. A further 47 features were not found, either due to their very ephemeral nature, infilling or silting since 1996, or inaccurate location data.

The assessment of condition and potential threats to the archaeological resource within the survey area indicated that the most common risk is from livestock, predominantly cattle. The impacts of cattle footprints were noted in 20th-century weapons pits and is a particular threat in areas of boggy ground. Cattle footprints were also seen on and around prehistoric earth and stone features within the Scheduled Monument. Bracken is a common threat to archaeology, though largely confined to the slopes. Threat of erosion due to weather was more rarely noted, though there are some new areas of exposed bare soil and stone on prehistoric monuments following the fire. It is recommended that monitoring is undertaken to ascertain the progress of re-vegetation across the site, as well as longer-term monitoring to assess the extent of ongoing impact to archaeological features from cattle grazing activity.

1 INTRODUCTION

This report presents the results of an archaeological survey of part of Big Moor, in the Eastern Moors Estate in the Peak District National Park, Derbyshire. The survey was undertaken after a moorland fire burnt off the surface vegetation coverage across part of the Big Moor Scheduled Monument (NHLE 1004599). The aim of the survey was to record any newly-revealed features and to assess the condition and vulnerability of previously surveyed features. ArcHeritage were commissioned by the Eastern Moors Partnership to undertake the survey, which was conducted in line with the methodology previously adopted for the Eastern Moors Survey (ArcHeritage2011). The project was monitored by the National Trust East Midlands archaeology team.

2 SITE LOCATION, GEOLOGY & TOPOGRAPHY

The site covers an area of heathland approximately 50 hectares in extent, located in the parishes of Baslow & Bubnell and Curbar in the Derbyshire Peak District and centred on NGR SK 27290 75060 (see Figure 1). Big Moor forms part of the Eastern Moors Estate, which is managed by the Eastern Moors Partnership (RSPB and National Trust) on behalf of the Peak District National Park Authority. The survey area covers the southern part of Big Moor Scheduled Monument (NHLE 1004599), an area of prehistoric cultivation and settlement remains, including an excavated house site at Swine Sty.

The site occupies a shelving landform, with the northern part being on a gently sloping plateau at a height of between 325-310m aOD. To the southeast of the plateau is a sharp slope/scarp aligned northeast to southwest, down to another area of fairly level ground (290-275m aOD), which stretches south and southeast towards the Sandyford Brook. The eastern limit of the site is defined by the Bar Brook, whilst the western and northern limits are heathland that was not impacted by the moorland fire. The predominant bedrock across the survey area is Rossendale Formation mudstone and siltstone and Rough Rock sandstone, formed in the Carboniferous period.

The site is part of the Eastern Peak District Moors SSSI (1043260), with the lower southern part recorded as the Big Moor South Flushes unit (087, 1024583) comprising lowland fen, marsh and swamp providing nesting habitat for moorland birds. The northern part of the site is within the White Edge South unit (085, 1024543), comprising upland dwarf shrub heath, an area of mostly dry heath with a good moss layer, mainly dominated by heather, with areas of wet heath and blanket bog.

Other ecological designations covering the site are the South Pennine Moors Special Area of Conservation (SAC UK0030280), which includes upland dry heath and active blanket bogs, which support a rich invertebrate fauna and important bird assemblages; and the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA UK9007021).

The boundary of the survey area was determined by the extent of the surface damage caused by the moorland fire, which occurred in May 2018. This appears to have started on the plateau at the northern side of the survey area and passed in a south-easterly direction. The fire removed most of the surface vegetation, but localised areas of untouched vegetation survived where these had been protected by the local landform (e.g. banks and ridges), suggesting the

fire moved fairly rapidly. Recovery of some types of vegetation was fairly rapid, with bracken in particular well re-established by the time of the survey in early July, and new sprouts of *Molinia* grass evident. No heather re-growth had occurred by that date.

3 AIMS & METHODOLOGY

3.1 Aims

The general aims of the survey were to assess potential damage to the known archaeological remains following the moorland fire, and to document any unrecorded features that were revealed by the burning off of vegetation. The specific aims were:

- to identify and record any previously unrecorded features to the criteria used for the Eastern Moors Survey (2011);
- to check previously recorded features and update descriptions if appropriate;
- to take record photographs of features and make an assessment of their condition post-burn;
- to assess the risk to the archaeology post-burn;
- to provide updated GIS files for import into NTHBSMR, RSPB GIS and PDNP HER.

3.2 Methodology

Base mapping and features previously recorded in the Eastern Moors Survey (2011) were imported into GIS shapefiles and uploaded to a Leica Zeno 20 mapping grade GPS, accurate to less than 1m (generally accurate in the field between 2-50cm).

Aerial photography was undertaken by Aerial-Cam using a drone, on the 4th July 2018. It was initially planned that the results of the aerial photography would be used to inform the survey, but delays in the programme meant that the two phases had to be undertaken simultaneously. The results of the drone photography were provided by Aerial-Cam as ortho-rectified photographs, and as processed digital elevation models (DEM). These show changes in the topography, such as banks, mounds and cut features (e.g. quarry pits, ditches). Unlike with Lidar, aerial photographs cannot be used to display the ground conditions below vegetation (digital terrain models/DTMs).

The entirety of the survey area was walked and new features recorded, using data fields established by the Eastern Moors Survey project. The features were recorded with the GPS as points and lines, depending upon their size. The survey was undertaken in July 2018 by Rowan May, Karen Weston and Matt Hitchcock.

An unique Eastern Moors Survey ID number was assigned to each new feature; these were subsequently assigned a new NTSMR number. A photograph of each feature was taken, where this aided interpretation, with a graded photographic scale placed in each shot.

The following data fields were used in feature recording:

- Feature ID (using EMS numbering)
- Monument type (FISH thesaurus)
- Description
- 10-fig NGR

- Period
- Condition (Good/average/poor)
- Ground cover
- Significance
- Photograph(s)

An approximate area of fire damage was provided by the Eastern Moors Partnership prior to the start of the survey. This was updated during the survey to provide a more accurate boundary of the area surveyed (Figure 2). It is not entirely clear if this represents the full area impacted by the fire, as in some areas the impact was limited or patchy and had few clearly visible signs of burning by the time of the survey.

Two National Trust volunteers accompanied the survey team on one day during the survey, Margaret and Robert Davies. They have been involved in monitoring the archaeological remains within the area, and had visited the site shortly after the fire. They have kindly shared their data and photographs with ArchHeritage and the National Trust, and these have been incorporated into the 2018 survey gazetteer.

3.3 Limitations

During the survey, it was apparent that the rapid re-growth of bracken, largely on the slope between the upper and lower plateaus, provided a severe restriction in the visibility of features, as well as a high risk of concealing tripping hazards. This slope is very uneven, with outcropping rocks and naturally fallen boulders, in addition to archaeological features such as stony banks, cairns, quarry pits and weapons pits. The area was also covered by a fine dust of burnt vegetation particles that were disturbed by walking through the new bracken growth. It was felt that, as the rationale for the survey was to record details made more visible by the fire, there would be no gain from surveying the areas where bracken growth obscured any details of the features. Where possible, the notes of volunteers who visited the site prior to the bracken regrowth have been incorporated into the survey results. The areas not subject to full survey are indicated on the survey plans.

The aerial drone photography was carried out as soon as access was arranged, and at the start of the survey. This recorded the entirety of the burn area and a buffer area. As with the survey, bracken growth on the slopes means that the DEM record in this area is affected by the vegetation coverage, though in other areas there is clearer evidence of the earthworks forming part of the Scheduled Monument (see Figure 3). Correlation of the geo-referenced DEM with the Royal Commission survey CAD data (as used in the 2011 Eastern Moors Survey) indicates a high degree of accuracy of the RCHME survey.

4 ARCHAEOLOGICAL BACKGROUND

4.1 Previous archaeological surveys/fieldwork

The Eastern Moors Survey (EMS) was undertaken in 2010 and 2011 across the Eastern Moors Estate. This aimed to provide a baseline survey of the archaeological resource to assist in conservation management of the estate. The survey incorporated documentary sources and the results of previous surveys within the area, the most significant of which were the detailed surveys of Big Moor and Gardom's Edge Scheduled Monument areas, undertaken in the 1990s as a joint project between the RCHME and the PDNPA's archaeological surveyor, John Barnatt. Given the size of these areas and the density of archaeological remains (the RCHME Big Moor survey identified approximately 2700 features), the results of these surveys were incorporated directly into the EMS database, and these areas were not subject to resurvey, apart from a check of the vulnerabilities and threats to the features.

The survey of Big Moor was undertaken by the RCHME and PDNPA between 1991-1996. This utilised a Total Station and offset recording, at a scale of 1:1000. The survey files were available in CAD format, which was directly imported into the Eastern Moors Survey GIS as point and line data. The gazetteer for the survey was only available in hard copy; this was scanned using OCR software to import the gazetteer entries into the project database.

John Barnatt has also undertaken research surveys on prehistoric remains across the East Moors, using tapes and offset measurements, at a scale of 1:2500. Potential archaeological features were recorded by Paul Ardron across the majority of the Eastern Moors Estate as an adjunct to an ecology survey in the 1993. These surveys were consulted during the EMS and have not been further consulted for the 2018 survey.

In 2016, a controlled burn of moorland grass was undertaken towards the southern edge of the 2018 survey area, to attempt to reintroduce a more mixed vegetation. Archaeological survey of the burn area was undertaken to mark the location of features recorded during the EMS, and any new features revealed by the vegetation removal, prior to further works to scour the roots of the *Molinia* grass (ArcHeritage 2016). This recorded two new features, both of probable 20th-century origin and located outside the area of the 2018 survey.

4.2 Summary of the known archaeology and history of the survey area

This information is summarised from the Eastern Moors Survey report (ArcHeritage 2011).

4.2.1 *Mesolithic to Neolithic*

The earliest recorded human activity within the Eastern Moors Estate dates to the Mesolithic period, and consists of flint tools and waste flakes. These were mainly recovered during fieldwalking episodes following major moorland fires in the 1960s that exposed surface soil layers. Within the vicinity of the survey area, a core and working flakes were recovered as chance finds near Bar Brook on the eastern edge of Big Moor. A pit containing charcoal radiocarbon-dated to the Late Mesolithic period (7000-4000 BC) was found in a trench excavated near Swine Sty, underlying a Late Bronze Age field bank (Barnatt 1995, 11). Palaeoenvironmental studies have indicated that the area would have been largely deciduous woodland in the Mesolithic period, with naturally clear areas at the gritstone edges and blanket peat forming in water-collecting areas such as Totle Moss, Leash Fen and Lucas Fen (Kitchen

2000, 80-81). The edges would have formed routeways through forested areas, whilst the bogs and associated grasslands are likely to have been useful resources for food and raw materials. Pollen records preserved in peat bogs suggest that forest management was practiced during the Mesolithic period, probably to introduce clearings to attract game for hunting and increase the number of food-producing plants. In the upland areas, woodland was unable to regenerate on the thin soils and peat began to form in these areas from around 7500-7000 years ago (Bevan 2004, 32).

By the Neolithic period, clearance of the woodland may have been more extensive, both through the expansion of the bogs and valley mires, with associated grasslands on their margins, and through human activity, with the adoption of arable and pastoral farming. Recorded Neolithic remains within the Eastern Moors Estate consist of flint artefacts, with some individual artefacts found on Big Moor. No monuments that can be clearly identified as being of Neolithic date have been recorded within the estate, though some of the field systems may have Neolithic origins.

4.2.2 *Bronze Age to Roman*

The vast majority of known prehistoric sites within the survey area date from the Bronze Age to Early Iron Age, some probably originating in the Neolithic period. These include fields and settlement remains, as well as embanked stone circles, ring cairns and barrows. The features indicate an extensive system of small dispersed settlements within fields and yards cleared of stones to allow cultivation or stock control. The fields and yards are defined by linear stony banks, frequently incorporating circular and oval cairns, or piles of stone derived from the cleared areas. Some of the cairns fulfilled a funerary or ritual function, with human remains and artefacts being buried below or incorporated into the structure (Barnatt and Smith 2004, 19-21), whilst many others related to field clearance. Barrows or burial mounds tend to be larger than most cairns, and comprise earthen mounds overlying one or more burials. Possible house sites have been recorded within or adjacent to some of the fields; these would have consisted of wooden round houses and associated structures, some on terraced platforms but many with no visible surface expression.

The date range of the occupation and use of the field systems across the East Moors is poorly understood, due to inherent difficulties in the dating of monuments such as the field banks and cairns. Excavations at Sir William Hill, Eyam Moor, provided evidence for Neolithic to Early Bronze Age cultivation (Wilson and Barnatt 2004), whilst palaeoenvironmental sampling of mire deposits at Stoke Flat East suggest that the fields here were laid out in the second millennium BC and continued in use throughout the first millennium, from the Bronze Age to the Late Iron Age (Long *et al.* 1998, 516), though this is based on a limited number of radiocarbon dates. Some of the settlements and field systems are likely to have been occupied for many generations, whilst others may represent short-term speculative clearance, possibly lasting only a season or so (Barnatt and Bannister 2009, 38).

The location of the prehistoric field systems is related to topography, in addition to suitable conditions for survival. In general, the fields tend to be located on relatively level shelf land between the sharp edges and the scarp slopes below (Barnatt 2000, 10), although occasionally fields or cairns have been located on more sloping ground. The lighter sandy soils on the

gritstone were suitable for prehistoric farming practices, and streams generally run relatively close to the field areas, as at Stoke Flat and Big Moor.

The majority of the 2018 survey area falls within an area of fields and settlement known as the Big Moor Scheduled Monument (see Figure 2). The central element of this field system is 'one of the largest and most complex identified in the Peak District' (Ainsworth 2001, 55), with a mixture of organised rectilinear fields and irregular plots defined by boundary banks and clearance lines, with evidence for a long chronological development and occasional changes of layouts. Barnatt (2000, 41) identified seven possible settlement foci in this central part of the Scheduled Monument, of which three and part of a fourth are located within the 2018 survey area. In the 2000 publication these are defined as areas F, G (Swine Sty) and H in the 2000 publication, and the edge of area C.

Excavations have taken place within area G on the settlement at Swine Sty, in the 1960s-70s. A further excavation was undertaken in 1983 just to the north in area C, at the junction of two field banks. Radiocarbon dates from the latter excavation suggested a period of use between 1620-1324 cal. BC (OxA2356) and 1253-830 cal. BC (OA2294) (Barnatt 1995). The excavations at Swine Sty by the Hunter Archaeological Society provided evidence for a probable prolonged use of the core parts of the settlement enclosure and its associated fields, and Barnatt (2000, 42) has suggested that the settlements based on the scarp slope (Swine Sty and area H to the northeast) may have been used seasonally or for alternative purposes to those on the plateau above, for example perhaps being more sheltered for occupation during the winter months.

4.2.3 *Medieval*

During the medieval period, the Eastern Moors Estate appears to have consisted primarily of wastes and commons. The recorded medieval archaeology of the survey area relates primarily to transport routes crossing the moors, and includes five Scheduled Monuments, all waymarker or boundary stones, one associated with a simple clapper bridge formed of slabs of stone. Wayside crosses were used as route markers in rough terrain where roads could not be otherwise marked.

Routes across the moors are preserved as hollow ways in many parts of the estate. The remains of several bridges possibly of medieval date survive in the vicinity of the Bar Brook, including clapper bridges and fragments of a packhorse bridge. The clapper bridges are of unclear date, and could be late medieval or post-medieval, being constructed from around 1400 to the 19th century (Scheduling information). The dating of hollow-ways is likewise difficult on morphological grounds, and it is unclear which of the vast complex of routes crossing Big Moor were of medieval rather than post-medieval date. It is likely that many of the routes were in use throughout both periods, with the visible earthworks forming over time, particularly in the post-medieval period, with an increase in traffic in the 17th and 18th centuries related to transport of goods and industrial materials (Hey 1980, 225-7).

The 'wastes' were important resources for the farming communities, providing grazing land for stock animals as well as natural resources such as peat, stone and possibly coal. Sheep folds and stock enclosures of possible medieval date have been recorded on Big Moor and it is likely that some of the gritstone quarries may have originated in this period, though no dating evidence for this has been discovered.

4.2.4 *Post-medieval to modern*

In the post-medieval period, the majority of the Eastern Moors Estate remained unenclosed wastes and commons. Some enclosure and improvement of former commons was undertaken in the 18th and 19th centuries, either in a piecemeal fashion through agreement between landowners or through Parliamentary Award. Large areas remained unenclosed, but were managed as part of the wider estate of the Duke of Rutland, who supported the enclosure award to effectively privatise the moorlands and develop the estate for grouse shooting. This included the establishment of game drives in the first half of the 19th century (Barnatt and Bannister 2009, 125), with remains associated with grouse shooting located on several of the moorland areas, including lines of grouse butts in a variety of styles. Animals were also grazed on the moors, as is indicated by the presence of isolated enclosures, sheepfolds and animal shelters, as well as occasional shepherd's huts.

Evidence for post-medieval industry is extensive across the Eastern Moors Estate. Lead smelting sites and millstone quarries have been recorded along Curbar, Froggatt and Gardom's Edges, with additional widespread remains of small- to medium-scale gritstone quarries. In addition to the manufacture of millstones, quarrying of millstone grit and other sandstones and mudstones was undertaken for building stone and roof slates as well as road and boundary wall construction and repair.

The Eastern Moors were utilised during both World Wars as a training ground for infantry troops. Remains associated with these activities include gun emplacements, practice trenches and foxholes as well as bullet and mortar scars on boulders and rock outcrops. There appears to be little documentary record of military training activities in this area. Some of the structural remains identified during the survey may also have related to military training activity.

5 SURVEY RESULTS

Features are referred to in the text by their four-figure EMS and six-figure NTSMR ID numbers (e.g. 5287/204020).

5.1 New features

A total of 43 new features were recorded during the post-fire survey. These are listed in the summary gazetteer in Appendix 1 and shown on Figure 4. The features recorded are likely to date from three periods: Bronze Age, Post-medieval and Modern.

5.1.1 *Bronze Age (2350-801 BC)*

Nine features of possible Bronze Age date were recorded. This includes six possible clearance cairns varying between 1m and 4m in diameter and 0.2 to 0.5m in height (Plate 2). One of these (7519/205954) is located between two previously recorded cairns, forming a northwest-southeast alignment at the southeast side of a series of cairns and boundaries surrounding the settlement site at Swine Sty. Small cairn 7533/205968 is southeast of a cairn (3849/202906) that was plotted in the RCHME survey but could not be found in 2018, despite being in an area with good visibility. It is possible that the original cairn was incorrectly located. Three short stretches of possible linear clearance were also identified, although at least two of these (7545/205985 and 7546/205986) are in areas with plentiful surface stone and could be

fortuitous natural alignments (Plate 3), whilst the third (7544/205984) may be associated with a lynchet previously recorded (feature 5287/204020).

All these features form part of the Scheduled Monument, and are therefore considered to be of National significance. They form part of the complex Bronze Age field systems on Big Moor.

5.1.2 *Post-medieval (AD 1540-1900)*

Six features were identified as probable small quarry pits rather than weapons pits, given their association with spoil mounds or evidence for stones in at least one face (Plate 4). Four are in close proximity at the base of the scarp in the western part of the survey area (7512-5/ 205947-50). Pit 7515/205950 may be the location of a screw picket seen by M & R Davies prior to the bracken regrowth. This was a metal implement used to bore holes for fence posts or temporary barbed-wire fencing. They were used in the First World War as they could be silently deployed, but this example may date from later military or agricultural activity. The pit was partially bracken-covered at the time of the ArchHeritage survey and the screw picket was not seen.

Possible quarry pit 7528/205963 is in an area where weapons pits have also been recorded, but had a vertically-faced, possibly quarried, stone in one side. This is also likely to be within an area of small-scale quarrying recorded as point in the RCHME survey (5304/204037), though the extent of the quarrying was not defined. For this survey it has been re-plotted as a line feature based on the DEM, which shows many small hollows. These incorporate the weapons pits as well as likely quarries, as it appears that they are intermingled, and it is likely that some of the quarry pits were re-purposed during the military training. Because the area was plotted, not all the hollows within it were given individual numbers. Further southwest, another hollow (7537/205972) was located adjacent to an earthfast boulder, and close to a group of weapons pits surrounding or cut into cairn 3893/202950. It is uncertain whether 7537/205972 was a quarry pit or a weapons pit, and it may have performed both functions.

An area of probable stone-working was recorded on the scarp edge by M & R Davies shortly after the fire. This area was densely bracken covered by the time of the ArchHeritage survey. Features recorded included worked stones (gateposts) and possible shelter walls, as well as pits/quarried boulders with worked stone and spoil. The exact location of the features recorded could not be clarified, but a likely extent based on the DEM has been plotted (feature 7547/205987). Some features previously recorded by the RCHME are within this area, including a ruined quarry worker's shed, a shelter and two groups of partially-worked gateposts. This may also correlate with an 'extensive area of outcropping rocks peppered with bullet and mortar scars' (5286/204019), the extent of which is not defined in the RCHME survey.

The features are all within the Scheduled Monument area, though they do not contribute directly to the characteristics for which it was Scheduled. Under the guidelines of the Eastern Moors Survey, they are considered to be of National significance as they fall within the SM; however, in their own right, the features are considered to be of Local/Regional significance. The features relate to post-medieval use of the moorland commons for the extraction of stone, probably mainly for field walls and gateposts.

5.1.3 *Modern (1901 to present)*

Just over half of the newly identified features (27) are considered to be of modern date, all but one probably associated with 20th-century military training activity (WWI/WWII). The largest

category is weapons pits, of which 18 were recorded. These vary from small sub-square pits less than 1m x 1m, to larger slit trenches usually 1.5m by 0.4-0.5m in extent (Plate 5), and occasional larger hollows 2m square, which were of uncertain purpose and may have been formed or modified by animal poaching (7525-7/205960-2). It is possible that one of the pits, 7536/205971, is part of a group previously plotted near a current desire-line footpath, which were not found in the survey and may have been either infilled or wrongly located (3904-6/202961-3). Many of the smaller weapons pits are very shallow, 0.1-0.3m deep, possibly having been partially infilled or naturally silted up; more rarely the pits are up to 0.5-0.6m deep. In areas where *Molinia* grass is dominant, the thick tussocks assist in disguising these features and contribute to a more amorphous appearance internally, which is exacerbated by trampling from grazing animals (cattle, deer).

Another pit (7540/205975) was circular in plan with vertical sides (slightly undermined at the base, possibly due to an animal burrow). This was 0.6m in diameter and 0.8m deep (Plate 6), and is similar in appearance to a pit 235m to the northeast (4567/203346). The very straight edges of these pits suggest a modern origin, though they appear too deep, regular in shape and narrow to be weapons pits (the interpretation originally given to 4567). Their depth may make them a hazard for animals or walkers. Pit 7540/205975 is concealed in bracken, whilst 4567/203346 is in an area of *Molinia* grass at the northeast tip of the survey area.

Six boulders with bullet scars (Plate 7) and one with a large mortar scar were recorded, the latter of which (7532/205967) may be within an ill-defined area of bullet scarred rocks represented only by a point in the RCHME survey. This area probably comprises many of the boulders on the side of the slope that was largely covered by bracken at the time of the survey, and its extent could not be more accurately defined. Margaret and Robert Davies recorded bullet-scarring on rocks in an area just to the south of the mortar scar where there also appeared to be evidence for small-scale stone-working (area 7547/205987). M & R Davies also recorded a graffiti inscription on the vertical face of a large earthfast boulder, possibly reading 'Dutch May --II', which is located close to an area of weapons pits and may be associated with military training activity.

All but one of the modern features are within the Scheduled Monument area, though they do not contribute directly to the characteristics for which it was Scheduled. Under the guidelines of the Eastern Moors Survey, they are considered to be of National significance as they fall within the SM; however, in their own right, the features are considered to be of Local/Regional significance. One weapons pit outside the SM is considered to be of Local/Regional significance. The features form an important record of local activity associated with military training during the First and Second World Wars.

5.2 Previously recorded features

The East Moor Survey recorded 607 individual or groups of features within or near the edge of the burn area, of which 379 are recorded as points and 228 as polylines. All but 13 of these are within the Scheduled Monument area, and were therefore recorded in the RCHME survey. The Scheduled Monument was not re-surveyed during the EMS, except for a general check of vulnerabilities and threats. Only the southeast corner of the survey area is not within the Scheduled Monument (see Figure 5). During the 2018 survey, as many features as could be found were checked for their condition and potential threats, and descriptions updated where

relevant. Of the total, 414 features were updated (68%) and 193 were not found or not seen (32%). The updated gazetteer will be sent to the Eastern Moors Partnership and National Trust SMR as an Excel spreadsheet and GIS shapefiles. Given the number of features and a general repetition of information from the 2011 EMS report, the gazetteer is not included in this report, though it can be provided as a print-out if required. As with the newly identified features, those previously recorded by the RCHME and EMS can be divided into three main periods: Bronze Age, Post-medieval and Modern.

5.2.1 Bronze Age (2350-801 BC)

The EMS/RCHME surveys record 389 individual or groups of features assigned to a probable Bronze Age date within the survey area. These comprise 196 point features and 193 line features (see Table 1). An overall plot of Bronze Age features is shown on Figure 6, with more detailed views in Figures 7-8. This shows that the Bronze Age resource is concentrated on the higher plateau at the northern side of the survey area, and in areas on the side of the slope, with hardly any extension onto the lower shelf of land apart from in the area close to the base of the slope, around Swine Sty/Area G, and Area H (Barnatt 2000, 38). The lower shelf is currently significantly boggier than the upper plateau, and it is possible that this lower-lying land was more waterlogged in the prehistoric period and therefore not used for cultivation. There is also a possibility that bog and peat deposits in this area may have developed after the Bronze Age and have covered or obscured the remains of earlier activity.

Monument type	Points	Lines	Total
Cairn	163	2	165
Linear clearance	2	73	75
Lynchet/cultivation edge		77	77
Banks (earth and/or stone)		21	21
Concentration of clearance stone	7	1	8
Boulder scarp		17	17
House site	15		15
Possible gateway	4		4
Earthen mound (possibly modern military training function?)	3		3
Possible structure (shieling, animal pen)	2		2
Ring cairn		1	1
Trackway		1	1

Table 1: Bronze Age monument types in updated EMS/RCHME survey

The largest category is cairns, which vary greatly in size and appearance, some little more than a metre in diameter and 0.2-0.3m high and representing no more than a few clearance stones collected together, and others being much more substantial, up to 11m in length and 1m in height. They may be sub-circular, sub-oval, or more irregular in shape (Plate 8). Some appear to have been modified by later activity, such as the construction of shooting stands for grouse hunting or military training.

Four possible burial cairns are within the area, one at the northern edge (2701/202253) is a substantial cairn or possible small barrow up to 8m in diameter and 1m in height on an area of fairly level ground on the upper plateau (Plate 9). It is located just to the west of the complex multiphase enclosures of Barnatt's Area C (2000, 38-9) and was shown as a possible burial mound in the RCHME survey. The other possible burial cairn identified by the RCHME is 3919/202976, located to the east of the Swine Sty settlement enclosure, and was obscured by bracken at the time of the 2018 survey. This is recorded as being smaller, at 3m in diameter and 0.3m in height. The RCHME survey stated that it had kerbstones on the downslope edge, though these were not seen by M & R Davies in June 2018. Cairn 2517/202168 is around 6m in diameter, with two areas of disturbance, is similar in appearance to 2701/202253 and is located close to the possible ring cairn. Cairn 2639/202219 is c.4m in diameter, within Area F and cut by a weapons pit. These two are not recorded as possible burial mounds in the RCHME survey, but certainly 2517/202168 would appear to be a likely candidate.

Three earthen mounds are described as potentially prehistoric or associated with 20th-century military training, all located to the west of Area C. Most of the cairns have some turf or vegetation coverage, and in many cases few stones are visible on the surface. Even after the fire, there are only a few cairns with significant areas of exposed stone, with soil and the burnt root mat covering the remains.

Linear features include stone and earth boundary banks and linear piles of clearance stone. It can be difficult to determine the difference between stony banks and linear clearance, which would have been piled at the edge of cleared/cultivation areas, and may have functioned as boundary banks. It is possible that they were piled alongside hedged boundaries that have left no other surface expression. Though the detailed RCHME survey identifies examples of boundaries comprising alternate sections of stone and earth banks, linear clearance and lynchets, many of these appear to be fairly continuous features (Plate 10). Some gaps in the banks are suggested to be the locations of original gateways through the boundaries. Three are located along a single boundary (2730/202281, 2732/202283, 3654/202745) at the west side of Area C, another (5066/203808) is in a long possible boundary bank running along the top of the slope above the Swine Sty settlement, partly obscured by bracken.

Numerous lynchets are plotted by the RCHME survey, again marking the edge of cultivated areas, where soil has built up against a boundary that has since been removed, leaving an earthen scarp. Many of these were difficult to find in the 2018 survey, and particularly on more level ground they are quite ephemeral features. On the slopes, the lynchets were easier to see (where clear of bracken), though in some cases it was difficult to establish whether they were the result of human activity or natural breaks of slope. Linear features described as 'boulder scarps' are of uncertain derivation; it is not clear whether these referred to linear alignments of naturally outcropping boulders augmented by some clearance stone, or lynchets with some remaining stones from a boundary (though 'stony lynchets' is also a recorded feature type). Many on the sloping ground were obscured by bracken at the time of the survey. Features described only as clearance stone tend to be loose groupings of medium to large stones, not as coherent as a cairn or clearance bank. It was noted during the survey that some lynchets recorded on the RCHME CAD plan tend to mark the base of slope of banks/scarps; in some cases these appear to be part of the same feature as clearance banks that lie above them.

Up to 15 possible house sites are recorded; these are mainly fairly level areas of ground within or close to enclosures or boundaries. Some are defined by curving boundaries that may have been built around a hut site, but others are more speculative. The only definite house site is that excavated by the Hunter Archaeological Society at Swine Sty (3805/202862). There are two more possible house sites within the Swine Sty enclosure, and three associated with a group of fields at the top of the slope to the north (Plate 11), as well as two within the enclosures of Area H at the northwest end of the slope and two associated with more fragmentary boundaries in between Swine Sty and H. There are a further five possible house sites in the enclosures forming Area C. Two other possible structures are recorded, a stone-built animal pen attached to the side of a boundary (5064/203806) and a possible shieling or robbed cairn (2531/202172) that was in an area of dense bracken by the time of the survey. The possible animal pen is very difficult to make out on the ground; there is an amorphous spread of stone adjacent to linear boundary bank 2536/202177, but it was not possible to discern any distinct shape.

One probable ring cairn is recorded at the northwest corner of the 2018 survey area (3892/202949). This was previously recorded as a point, but has been replotted as a line feature due to its size. The ring cairn is roughly circular and around 16m in diameter, defined by a low earth and stone bank up to 1.5m wide and surviving up to 0.4m in height (Plate 12). The bank has been severely truncated in places by a major braided hollow way route that cuts across it (3065/202547), and the full circuit is difficult to trace on the ground or on the DEM. No internal features are visible.

A number of Bronze Age features have been merged in the 2018 updated survey data. This was undertaken where no distinction could be seen between features recorded separately in the RCHME survey, and where visibility of the features was clear. The merged features are listed in Table 2. One lynchet feature (2818/202352) was deleted as two cairns appear to merge here (2817/202351 and 3640/202733) and no lynchet was visible between them.

Retained group ID	Merged feature IDs	Feature types
3887/202944	3888-3890/202945-47	Point and line clearance features that have been plotted as a single area of clearance stone placed on and around large earthfast boulders.
3846/202903	5269/204003	Linear clearance/lynchet
2682/2024249	2680-2681/202427-28	Linear clearance/lynchet
2734/202284	2735/202285	Conjoined linear clearance banks
2749/202298	2751/202299	Linear clearance/bank
2761/202307	2760/202306	Linear clearance/lynchet
4669/203434	5281/204014, 5283/204016	Linear clearance/bank/lynchet

Table 2: Bronze Age features merged in 2018 updated survey

5.2.2 *Post-medieval*

A total of 60 features assigned to a probable or possible post-medieval date are recorded within the 2018 survey area on the EMS/RCHME survey. These include 33 line features and 27 plotted as points. The features are shown on Figure 9 and summarised in Table 3. The majority of features relate to hollow ways, small-scale quarrying and stone-working, and grouse shooting.

Again, most features are concentrated on the upper plateau and the scarp slope in the northern part of the 2018 survey area.

Monument type	Points	Lines	Total
Hollow way		28	28
Paved path		2	2
Stone pile	3	1	4
Shooting stand	9		9
Quarry	6	1	7
Building/shelter	4		4
Dressed stone	2		2
Site of guide stone	1		1
Drain/tank	1	1	2
Ditch/trench	1		1

Table 3: Post-medieval monument types in updated EMS/RCHME survey

Hollow ways are the most common post-medieval feature type within this area. There are two major routes that cross Big Moor in roughly north-south (3070/202551) and northeast-southwest (3065/202547) alignments. The other hollow ways recorded tend to be shorter or more fragmentary; some branching off the major routes (or leading to them). Several features appear to relate to a northeast-southwest route that crosses the upper plateau, continuing northeast as a terraced trackway and current footpath. The visibility of hollow ways depends in part on the nature of the ground that is crossed. They tend to be more noticeable in boggy ground and at the edge of slopes, such as on the bank down to the Barbrook to the east of the survey area, or on the main northeast-southwest slope. Many of the braids of the major hollow ways are clear on the DEM. A series of well-defined, closely spaced braids of hollow way 3070/202551 at the northern edge of the survey area have the appearance of ridge and furrow earthworks (Plate 13). One very clear feature near the Barbrook has a raised bank to the side; it is unclear if this is a hollow way and causeway, or a bank and ditch of uncertain origin (5888/204610).

To the south of hollow way 3070/202551, the route becomes a raised track, recorded as a paved path on the RCHME survey (4809/203555). On the ground, there were few stones/flags visible at the time of the 2018 survey, but it is likely that the stones are covered with turf. Another possible paved path at the western side of the site (3878/202935) was within an area of dense bracken and could not be checked. At least two piles of stone recorded in the RCHME survey are associated with people removing stone from trackways; in one of the piles, the stone was from a Bronze Age boundary at Swine Sty that was crossed by hollow way 3070/202551. A cairn on the route of hollow way 3065/202547 may have supported a guidestone.

Nine features are recorded as possible or probable grouse shooting stands. These are all on the upper plateau, and are in the form of horseshoe-shaped earthen banks (Plate 14). They are within the area of Bronze Age remains, and some are eroded to the extent that their function cannot be certain, with the central hollow being largely infilled. Some may be built into or modified from cairns. They do not appear to be distributed in regular lines, as is frequently

found on Peak District grouse shooting estates, though it is possible that they represent more than one phase of construction or use, or relate to different drives.

There are seven features associated with quarrying, one of which is an area encompassing several small pits that may relate to day-working of stone (though some are later weapons pits). This group of features is on the relatively level upper plateau at the northern side of the survey area; most of the other quarry pits and stone-working features are on the scarp slope crossing the survey area, or near the base of the slope. All the pits are small, in general no more than 2-3m in diameter, and between 0.4 and 0.8m in depth (Plate 15). The RCHME survey recorded two areas of quarrying as points, with no clear indication of the extent of the area described. One of these, noted above (5304/204037), has been resurveyed as a line based on the extent of uneven ground; the other (4684/203449) was in an area with a lot of bracken coverage, and it was not possible to ascertain the extent of quarrying activity here. As the two largest pits within this area were also recorded as separate points, the other nine pits mentioned must be smaller than 2-3m in diameter. Other quarrying features recorded in the RCHME survey include a quarry-worker's hut and three possible shelters, all located on the boulder-strewn slope, and two places close to these shelters where partly dressed gatepost roughouts have been abandoned. These were all obscured by dense bracken at the time of the 2018 survey.

A drainage ditch and associated possible water tank recorded in the RCHME survey were difficult to find in 2018. The drainage ditch (3112/202577) was visible in fragments as a narrow, shallow linear hollow obscured by grass, but the tank (3111/202576) was not found and it is possible that it has been infilled since the survey.

5.2.3 *Modern*

The RCHME/EMS surveys identified a total of 172 features of probable modern date within the 2018 survey area, comprising 168 point features and four line features. The vast majority of these features (150) are associated with military training activity, probably mostly during the period 1939-1945. The features are shown in Figure 10 and summarised in Table 4 below.

Monument type	Points	Lines	Total
Weapons pit	118		118
Bullet or mortar scars	26	1	27
Possible military fieldwork/ mound	6		6
Excavation trench/spoil mound	17	2	19
Pit	1		1
Hollow way/ditch		1	1

Table 4: Modern monument types in updated EMS/RCHME survey

The largest monument type category is weapons pits, covering slit trenches and foxholes. These are found across the survey area, with a band of pits on the lower shelf towards the southeast side of the survey area, another band stretching northeast-southwest along or just below the slope, and more scattered groups on the upper plateau. There is also a small concentration on the lower ground at the southwest corner of the survey area. The weapons pits include square features less than a metre on each side and larger pits up to 2m in length and 0.6-0.8m wide. Some use cairns, banks or earthfast boulders for cover (Plate 16). They are generally fairly

shallow, some possibly at least partially deliberately infilled, or naturally silted up. A number of these are less than 0.2m deep, and very difficult to find; others are up to 0.5m in depth. Some recorded in the RCHME survey could not be found even in areas of good visibility. One pit, recorded as a foxhole in the RCHME survey, is circular with very vertical sides and is at least 0.5m deep (4567/203346). It is located in an area of *Molinia* grass at the eastern side of the survey area and is very similar to a pit first recorded in the 2018 survey (7540/205975). This feature does not look like the other weapons pits, it would be very restrictive and difficult to get out of, and may have had a different function. Its monument type has been altered to 'pit'.

There are 27 individual or groups of bullet-scarred boulders. These are in the main located on or just below the slope crossing the survey area, and result from military training. One of the features is a fairly widespread area of rocks that has been re-plotted as a line rather than a point, based on observations made the National Trust volunteers. The area was in dense bracken at the time of the ArchHeritage survey so its extent should be treated as approximate. Six features are described as possible military fieldworks; this includes three earthen mounds that are of uncertain function and may be of prehistoric date, as well as three possible shelters either cut into prehistoric features or made using stones taken from them (Plate 17). One linear feature is recorded as a possible hollow way or ditch, of uncertain date, with a bank on one side, crossing part of the lower plateau at the southeast tip of the survey area.

The final category of modern features derives from the archaeological excavations at Swine Sty in the 1960s-70s. These include spoil mounds of earth and stone, and excavation trenches, the largest being c.12m square, with a series of smaller trenches or test pits. All but one of the trenches are recorded as points, the exception being a possible boulder scarp which mirrors a trench edge. The trenches were within areas of dense bracken and could not be resurveyed, though several of the spoil heaps were found (Plate 18). An area of disturbance within one of the stony banks on the upper plateau (feature 3076/202554) may indicate an unrecorded excavation, though it is also possible that this is the site of stone robbed for nearby shelter/military fieldwork 5288/204614.

5.2.4 Unknown

Seven features are recorded as being of unknown date, two plotted as lines and five as points.

Monument type	Points	Lines	Total
Possible cairn	3		3
Mound	1	1	2
Gully		1	1
Unknown feature	1		1

Table 5: Monument types of unknown date in updated RCHME/EMS survey

Three of the point features are recorded in the EMS as possible small cairns (5890-92/204612-14), that were covered with *Molinia* turf. In the 2018 survey, these features are still earth-covered, but appear more likely to be earthfast boulders rather than cairns. The other unknown point feature (4792/203538) is depicted on the RCHME CAD plan, but the feature ID is not included in the accompanying gazetteer and therefore has no description in the EMS survey gazetteer. Nothing was found at this location in the 2018 survey, and it is likely that it is an error

on the CAD plan. A roughly rectangular earthen mound on the lower shelf, towards the eastern side of the survey area (5889/204611) is of unknown function; it is possible that it was associated with 20th-century military training activity.

The period for two features was recorded as 'natural'; this has been changed to 'unknown'. Both features were plotted as points, though one has been replotted as a line. The latter is recorded as a narrow, sinuous drainage gully (4709/203461), probably of natural origin, though the resurvey suggests that it is one of number of faint animal tracks in this area. The other 'natural' feature is a mound (3118/202583) on the upper plateau, containing many burrows. It is uncertain whether this is a constructed mound that has been badly affected by the burrows, or if the mound was created by the burrowing. No stone is visible within the burrows.

5.3 Features not found

A total of 193 features recorded in the RCHME survey were not found in the 2018 post-fire survey. These are evenly divided between point (97) and line features (96). The distribution of these features is shown on Figure 5, and the proportion of monument types represented is listed in Table 6.

Feature type	Points	Lines	Total	In bracken
Lynchets/cultivation edge		46	46	29
Cairn	31		31	28
Weapons pit	29		29	18
Linear clearance/clearance stone	3	22	25	22
Boulder scarp		13	13	8
Excavation/spoil mound	12		12	12
Hollow way/paved path		9	9	6
Bullet scars	7	1	8	8
Earth/stone bank		4	4	2
House site	4		4	4
Dressed stone	2		2	2
Building/shelter	2		2	2
Quarries	2		2	2
Stone pile	2		2	2
Ditch/gully	1	1	2	1
Water tank	1		1	0
Unknown/mistake	1		1	0

Table 6: Summary of monument types not found in 2018 survey

The majority (76%) of the features that were not seen were in the dense bracken areas, however, a third of the features not located were in areas of good to fair visibility. In many cases, this appears to be due to features being very slight; this is particularly the case for lynchets, which are the most common type of feature not seen in the survey. Many are described as slight or possibly natural in the RCHME survey, and it is possible that these may be

visible under more favourable low-light conditions. A number of the weapons pits are also described as very shallow, some recorded as less than 0.1m in depth in the 1990s. It is possible that these have silted up naturally, such as through vegetation growth, in the intervening period. Several others, near an active footpath along the top of the scarp, may have been deliberately infilled to remove a trip hazard. At least two of the recorded pits are in areas of boggy ground with a very uneven surface due to moss and *Molinia* grass tussocks. Despite the dry conditions it was not possible to see any distinct features within the boggy area, which is also disturbed by cattle footprints.

Three cairns not covered by bracken were not found in the survey; they are all described as being quite small and low (0.1-0.3m in height) and two are less than 1m in diameter. One may have been incorrectly located on the RCHME survey plan (3849/202906); the ground appears level at its location, which is crossed by a footpath, and a new possible cairn of similar dimensions was recorded 8m to the west in 2018 (7538/205973), perhaps the actual location of 3849. One 'unknown' feature does not appear to exist (4792/203538, see section 5.2.4) and may be an error on the RCHME CAD plan.

5.4 Problems noted with previous survey data

5.4.1 East Moor Survey database/GIS

One issue noted during the survey, and mentioned by the National Trust volunteers, is the number and complexity of features recorded by the RCHME survey. In part, this illustrates a difference in rationale between the RCHME and Eastern Moors Surveys. The former was a highly detailed survey undertaken over a period of several years with the aim of interpreting in detail the layout and phasing of the landscape, whereas the EMS was a more rapid survey primarily designed to locate and characterise features and provide baseline information for the conservation management of the estate. The level of detail in the RCHME survey does make finding and accurately identifying individual features within the Scheduled Monument difficult, unless a GPS with sub-metre accuracy is used. It is noticeable that the volunteer's notes using a standard walker's GPS with a typical accuracy of 5-10m had a clear offset of at least 6m in the NGRs in comparison to the survey data. Even with a GPS-enabled tablet showing location in relation to the survey plan, with an accuracy of c.5m it is difficult in the areas of densest archaeology to identify a specific cairn or clearance bank. It is possible that for the purposes of conservation management, a more rationalised system could be developed to facilitate monitoring, such as defining geographical areas within which more general conditions and vulnerabilities are recorded.

Undertaking the re-survey of Big Moor following the fire has indicated some problems resulting from the importation of the RCHME gazetteer, the OCR software having mis-transcribed some characters. This is particularly noticeable for numbers, which has impacted on some of the size information (e.g. confusing 3 and 8, 1 and 7). Where noted, this has been corrected for the entries within the post-fire survey area. A further issue is that in the CAD files, crosses (translated as points) marked smaller features such as cairns, pits, etc, but were also used to mark the gazetteer number for line features. In some cases, this has led to features being labelled twice in the GIS, as both point and line features. Again, this has been corrected for the 2018 survey area. At some point, it would be useful to check through the remainder of the Big Moor RCHME survey area for consistency and accuracy of transcription of the gazetteer.

A problem with duplication was noted where a feature had been surveyed by both the RCHME and the EMS and given two different survey numbers (4842/203588 and 6312/205010: bullet-scarred rocks). For the updated survey, the information for both entries has been combined and the duplicate number (6312) removed from the point shapefile. Other errors found in the EMS data within the 2018 survey area have been corrected, where noted (see Table 7). Translation of the CAD data into GIS appears to have resulted in several line features having multiple small segments. Where the features are continuous, these have been replotted as individual lines within the 2018 survey area. Some features plotted as points have been replotted as lines due to their size, and three line features have been replotted as points.

Shapefile alteration	Feature ID (EMS/NTSMR)	Feature types
Points replotted as lines	2606/202188, 2609/202191, 2617/202199, 2649/202226, 2761/202307, 2770/202312, 2808/202344, 3660/202750, 3892/202949, 4709/203461	Cairn, Linear clearance Linear clearance Linear clearance Cairn Linear clearance Linear clearance Lynchet Ring cairn Drainage gully
Lines replotted as points	2653/202229, 2660/202232, 4666/203431	Cairn Cairn Linear clearance
Corrected NGR	5268/204002	Lynchet
Mislabeled features	3817/202874, 3818/202875, 3775/202777	Linear clearance Stone bank Linear clearance
Multiple line segments merged	2825/202357, 3731/202750, 3828/202885, 3847/202904, 3848/202905	linear clearance/lynchets boulder scarp linear clearance lynchet hollow way
Multiple points added	3744/202804	Group of weapons pits: points added for identified individual pits
Duplicate points removed	2532/202173, 3731/202750, 3801/202791 6312/205010	linear clearance boulder scarp lynchet bullet scars

Table 7: Summary of alterations to updated 2018 shapefiles

Errors noted in the EMS database outside the survey area have not been corrected, though notes for the area surrounding the survey can be supplied if requested.

5.4.2 National Trust SMR

The volunteers noted an error with the NTSMR coordinates for several hollow way features within the survey area (5210/203949, 5211/203950 and 5234/203971). Following up on this it was found that on the online NTSMR map, a number of different hollow way features are plotted at a single location (SK 27357 75780, on a line which is part of braided hollow way 5277/204010). Further checking indicated that the major hollow ways 3065/202547 and 3075/202551 that pass through the 2018 survey area are not accurately plotted on the NTSMR but are also linked to the 5277 line, as are other hollow ways outside the survey area, including 5296/204029 and 5273/204006 (see Plate 1). These features all have different (but erroneous) grid references in the NTSMR feature record. Enhancement of the NTSMR is ongoing, and data errors will be corrected when highlighted.

Hollow Way, Big Moor, Eastern Moors

Record ID:	202551 / MNA172997
Record type:	Monument
Protected Status:	Scheduled Monument
NT Property:	Eastern Moors, Midlands
Civil Parish:	None Recorded
Grid Reference:	SK 2736 7578

Summary

0.6m in depth (upslope), hollow way route braids into two courses.

A Hollow Way, Big Moor, Eastern Moors

Record ID:	203949 / MNA174453
Record type:	Monument
Protected Status:	Scheduled Monument
NT Property:	Eastern Moors, Midlands
Civil Parish:	None Recorded
Grid Reference:	SK 2707 7535

Summary

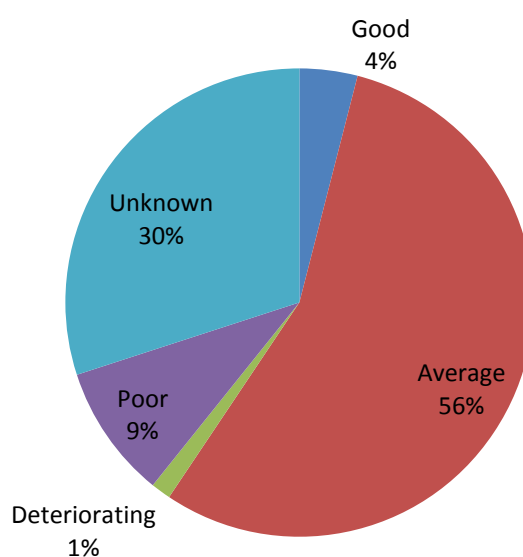
Short section of hollow way visible in slight natural gully.

Plate 1: Comparison of NTSMR records showing duplication of hollow ways

6 CONDITION SURVEY

6.1 Feature condition

The condition of new features and EMS/RCHME features is considered as a whole, with the overall percentages shown on Graph 1. The distribution of feature conditions is shown on Figure 11. Where features could not be found or details were obscured, the condition is categorised as unknown; this represents 30% of the features within the survey area. Just over half of the features are categorised as being in an average condition (features are clearly visible and retain characteristics that make them recognisable and interpretable), with 4% defined as in a good condition (clearly visible and readable, with few or no signs of damage/decay). The survey characterised 10% of features as being in a poor or deteriorating condition.



Graph 1: Condition of features

Poor features are considered to be those which have clear signs of damage/decay, that has impacted on their visibility and legibility in the landscape. Features classed as deteriorating are those where there are significant signs of ongoing damage or threat that may lead to a categorisation as poor in the near future. Table 8 lists the types of features categorised as being in a poor or deteriorating condition, and the principal threats identified.

Feature type	Period	Condition	Total	Threat
Weapons pit	Modern	Poor	31	Animal poaching, silting, vegetation
Bullet scars	Modern	Poor	1	Weathering/erosion
Graffiti	Modern	Poor	1	Weathering/erosion
Hollow way	Post-medieval	Poor	3	Animal poaching, 1 very slight
Building	Post-medieval	Poor	1	Weathering/erosion
Shooting stand	Post-medieval	Poor	1	Foot erosion, animal poaching
Drain/water tank	Post-medieval	Poor	2	Infilling/silting
Linear bank/ clearance	Bronze Age	Poor	7	Animal poaching, foot erosion, animal burrows, 1 poorly defined

Feature type	Period	Condition	Total	Threat
Linear bank/clearance	Bronze Age	Deteriorating	4	Animal poaching
Lynchets/cultivation edge	Bronze Age	Poor	6	Animal poaching, foot erosion, vegetation, all also very slight
Cairn	Bronze Age	Poor	5	Animal poaching, animal burrows, stone robbing, vegetation, 1 not found
Cairn	Bronze Age	Deteriorating	5	Erosion/exposure, animal poaching, animal burrowing, vegetation
Clearance stone	Bronze Age	Poor	1	Poorly defined
Animal pen	Bronze Age	Poor	1	Weathering/erosion, foot erosion, animal poaching
Ring cairn	Bronze Age	Poor	1	Foot erosion, animal poaching

Table 8: Summary of poor and deteriorating feature types

This indicates that weapons pits associated with 20th-century military training are most likely to be in a poor condition. These features are generally fairly small and shallow, and are easily lost to vegetation infill or damaged by animal poaching. The next highest number of monument types classed as poor or deteriorating are linear banks, linear clearance and cairns of Bronze Age date, though the numbers identified form only a small proportion of the total features for this area. Some of these are at threat from natural erosion (soil loss, collapse), as well as from animal poaching, and more rarely animal burrowing.

6.2 Principal threats and vulnerabilities

The main types of threat are broken down into six categories, presented in Table 9, with the number of features for which each threat type is recorded.

Threats:	Point features	Line features	Total
Animal poaching/rubbing	226	112	338
Vegetation coverage/tree roots	157	31	188
Foot erosion/footpath	28	22	50
Silting/infilling	42	3	45
Natural erosion (weathering/collapse/soil exposure)	37	6	43
Animal burrows	8	3	11

Table 9: Summary of types of threat to archaeological features

6.2.1 Animal activity

Grazing is an important part of the landscape management regime of the East Moors, and cattle are generally felt to be more suitable than sheep for the landscape and habitat types that are being promoted. Cattle were present within the site at the time of the 2018 survey. There is the potential for stock activity to adversely impact upon archaeological features, particularly in areas of boggy ground. Wild deer are also present within the survey area, and can impact on

archaeological features though, as they are lighter than cattle, the effect tends to be less severe. Livestock can also impact on features through rubbing against them; this was noted as a potential threat to bullet scars on large earthfast boulders, which appear to be commonly used as rubbing stones by cattle (Plate 19).

In the 2018 survey, animal trampling, known as poaching, was notable across the survey area and comprises the most commonly identified threat to archaeological features, with the clearest impact being on negative/cut features such as weapons pits. Distortion of the sides and base of the pits from cattle footprints was regularly observed, particularly in the areas of *Molinia* grass ground cover (Plate 20). Cattle and deer footprints were also noted on prehistoric archaeology; this was particularly clear due to the loss of vegetation through the fire. It is probable that the impact on earthworks and stone features is increased due to the lack of vegetation coverage. Animal poaching on these features can exacerbate erosion, as well as cause the displacement of stone.

Animal burrowing is noted as an occasional threat, particularly to mounds/cairns and earth and stone banks. This was mainly noted on the upper plateau, where the ground is drier. The types of feature most impacted by burrowing are prehistoric cairns and linear clearance banks, and burrows are likely to disturb archaeological deposits within and below these features. A possible post-medieval shooting stand has also been affected by burrowing, though the feature is indistinct and may actually be a rabbit warren. Another feature of uncertain origin may also be the result of burrowing activity.

The extent of damage to archaeological features caused by cattle activity and animal burrowing in this area should be regularly monitored.

6.2.2 *Vegetation*

Vegetation was identified as a threat to 188 features, with the most common threat being bracken coverage. Bracken can cause both physical and chemical damage to buried deposits. An investigation by the Dartmoor Archaeology and Bracken Project in 1999 showed that up to 20% of archaeological deposits had been physically damaged by bracken rhizomes within a 20 year period (Gerrard 2014). Bracken tends to colonise the better-drained areas, often correlating to the areas of densest archaeological deposits and features, such as the slope crossing the survey area, which is rich in prehistoric features. The tenacity of the bracken is indicated by the fact that it had rapidly regenerated across the slopes within just over a month after the fire. Bracken also has the potential to mask other types of damage occurring to archaeological features (such as animal poaching and natural erosion or collapse) and makes monitoring of feature condition difficult.

Molinia grass is common within the survey area, particularly on the lower shelf of land at the southern side. Though the grass is not in itself detrimental to archaeology, the thick tussocks formed by the grass can obscure archaeological features, particularly cut features such as weapons pits. It was noted that the edges and bases of many of the weapons pits in the survey area are obscured or distorted by the *Molinia* grass tussocks.

Heather is generally considered to be a low risk to archaeology, as its root systems are shallow. The heather burned across the survey area was not showing immediate signs of regeneration at the time of the survey. Heather seems to have favoured the prehistoric monuments, with the

result that on the upper plateau, many remained free of vegetation at the time of survey. Tree roots were only identified as a threat to one feature, largely due to the scarcity of trees within the survey area. The only feature impacted by trees is a cairn with a hawthorn tree growing out of it (3764/202823). This will disturb deposits within and below the cairn.

6.2.3 *Foot erosion*

Hiking is a significant activity within the survey area, and it is possible that mountain biking also occurs in some areas. The majority of this activity is limited to defined footpaths, which minimises impact on archaeological features. On the upper plateau, some long-established paths cross archaeological features, including Bronze Age linear banks and the possible ring cairn, with erosion visible on these features. In general, this does not appear to be severe, and the majority of the damage to the ring cairn is from hollow way braids associated with a post-medieval packhorse route rather than from the current footpath.

The loss of vegetation within the area affected by the 2018 fire will increase the risk of damage from foot erosion. Regular monitoring of the condition of the archaeology in the immediate vicinity of footpaths is recommended, particularly until the vegetation is fully re-established.

6.2.4 *Silting and infilling*

Silting is defined as the natural accumulation of soil from erosion of banks and the sides of features. Infilling is the deliberate backfill of a feature. These activities are noted as an occasional threat, most commonly in relation to 20th-century weapons pits, which represented all but three of the features impacted. The others were a hollow way, a possible water tank and its associated drainage ditch, all of probable post-medieval date. Deliberate infilling may have occurred at features near footpaths to remove trip hazards. A small group of weapons pits recorded in the RCHME survey near a footpath on the upper plateau could not be found, and it is possible that they have been deliberately filled in since the survey was undertaken. Other very shallow weapons pits (less than 0.2m deep) may have been partially infilled shortly after they were dug, or have silted up naturally. No deliberate infilling of pits or hollows should be undertaken without consultation with the National Trust and PDNPA archaeologists.

6.2.5 *Weathering and natural erosion*

Weather erosion is a naturally-occurring and ongoing threat to some archaeological features, and in particular to stonework or carvings. Within the survey area, the impact of weather erosion includes the degradation of bullet scars and graffiti on boulders. It also impacts upon structural stonework through freeze and thaw cycles and general exposure. This is seen within the survey area for features such as the possible quarryman's hut and shelters on the slope, though the current condition of these could not be confirmed due to bracken coverage.

Erosion can also impact earth and stone features such as cairns and clearance banks, particularly where bare of vegetation. Following the surface fire, there is an increased risk of soil erosion and displacement of stones through weather activity such as rain and surface-water runoff. However, it was noted that many of the prehistoric features had some surviving root mat coverage and relatively few had exposed stones that appeared to be at a high risk of damage through natural erosion. Features with substantial areas of exposed stone were mostly located on the upper plateau (Plate 21). Regular monitoring of the condition of features in this area is recommended until the vegetation is fully re-established.

7 CONCLUSIONS

The 2018 post-fire survey of the southern part of the Big Moor Scheduled Monument has recorded 43 new features, of which nine are of possible Bronze Age date (clearance cairns and possible linear clearance). Six features of probable post-medieval date are all associated with small-scale quarrying, and 27 features are associated with 20th-century activity, predominantly military training, in the form of weapons pits and bullet-scarred rocks. Additionally, updates were made to 414 features recorded by the 1991-96 RCHME survey and 2010-2011 Eastern Moors Survey. This included information on the condition of the features and threats to their preservation. Due to rapid regrowth of bracken on the slopes, no details could be observed for 146 features obscured by vegetation. A further 47 features were not found, either due to their very ephemeral nature, infilling or silting since 1996, or inaccurate location data.

The assessment of condition and potential threats to the archaeological resource within the survey area indicated that the most common risk is from livestock, predominantly cattle. The impacts of cattle footprints were noted in 20th-century weapons pits, where the shape of the sides and base have been distorted. This is a particular threat in areas where the ground is boggy. Cattle footprints also seen on and around the prehistoric earth and stone features on the upper plateau, and are likely to have a greater impact in areas where vegetation is slow to regenerate. Bracken is a common threat to archaeology, though largely confined to the slopes. Threat of erosion due to weather was noted in a few cases, with some new areas of exposed stone on prehistoric monuments following the fire, mainly on the upper plateau. It is recommended that monitoring is undertaken to ascertain the progress of re-vegetation across the site, as well as longer-term monitoring to assess the extent of ongoing impact to archaeological features from cattle grazing activity.

8 ACKNOWLEDGEMENTS

ArcHeritage would like to thank Chris Anslow-Johnson and Danny Udall of the Eastern Moors Partnership for arranging access for the survey and aerial drone photography, and Rosalind Buck and Rachael Hall of the National Trust for monitoring the project. We would also like to thank Aerial-Cam for the aerial photography, and Margaret and Robert Davies for providing information and photographs from their visits to the site following the fire.

9 REFERENCES

- Ainsworth, S. 2001. Prehistoric settlement remains on the Derbyshire gritstone moors. *Derbyshire Archaeological Journal* 121, 19-69.
- ArcHeritage. 2011. Eastern Moors Estate, Derbyshire: Historic Landscape Survey Report. Unpublished ArcHeritage report 2010/123.
- ArcHeritage. 2016. Big Moor, Derbyshire: Post-Moorland Grass Burning Archaeological Survey Report. Unpublished ArcHeritage report 2016/24.
- Barnatt, J. 1995. Neolithic and Bronze Age radiocarbon dates from the Peak District: a review. *Derbyshire Archaeological Journal* 115, 5-19.

- Barnatt, J. 2000. To Each Their Own: later prehistoric farming communities and their monuments in the Peak. *Derbyshire Archaeological Journal* 120, pp. 1-86.
- Barnatt, J. and Bannister, N. 2009. *The Archaeology of a Great Estate: Chatsworth and Beyond*. Windgather Press: Oxford.
- Barnatt, J. and Smith, K. 2004. *The Peak District: Landscapes Through Time*. Windgather Press: Oxford.
- Bevan, B. 2004. *The Upper Derwent: 10,000 Years in a Peak District Valley*. Stroud: Tempus.
- Gerrard, S. 2014. Bracken Rhizome Damage Assessment Report. Unpublished Dartmoor Bracken and Archaeology Project report for ACE Archaeology Club. (Available online at <<https://acearchaeologyclub.files.wordpress.com/2017/10/bracken-rhizome-damage-assessment-report.pdf>>)
- Hey, D. 1980. *Packmen, Carriers and Packhorse Routes: Trade and Communications in North Derbyshire and South Yorkshire*. Leicester University Press.
- Kitchen, W.H. 2000. Later Neolithic and Bronze Age Land Use and Settlement in the Derbyshire Peak District: Cairnfields in Context. Unpublished PhD Thesis, University of Sheffield.
- Long, D.J., Chambers, F.M. and Barnatt, J. 1998. The palaeoenvironment and the vegetation history of a later prehistoric field system at Stoke Flat on the gritstone uplands of the Peak District. *Journal of Archaeological Science* 25, pp.505-519.
- Wilson, A. and Barnatt, J. 2004. Excavations of a prehistoric cairn and ritual pits on Sir William Hill, Eyam Moor, Derbyshire, 2000. *Derbyshire Archaeological Journal* 124, pp.13-63.

FIGURES

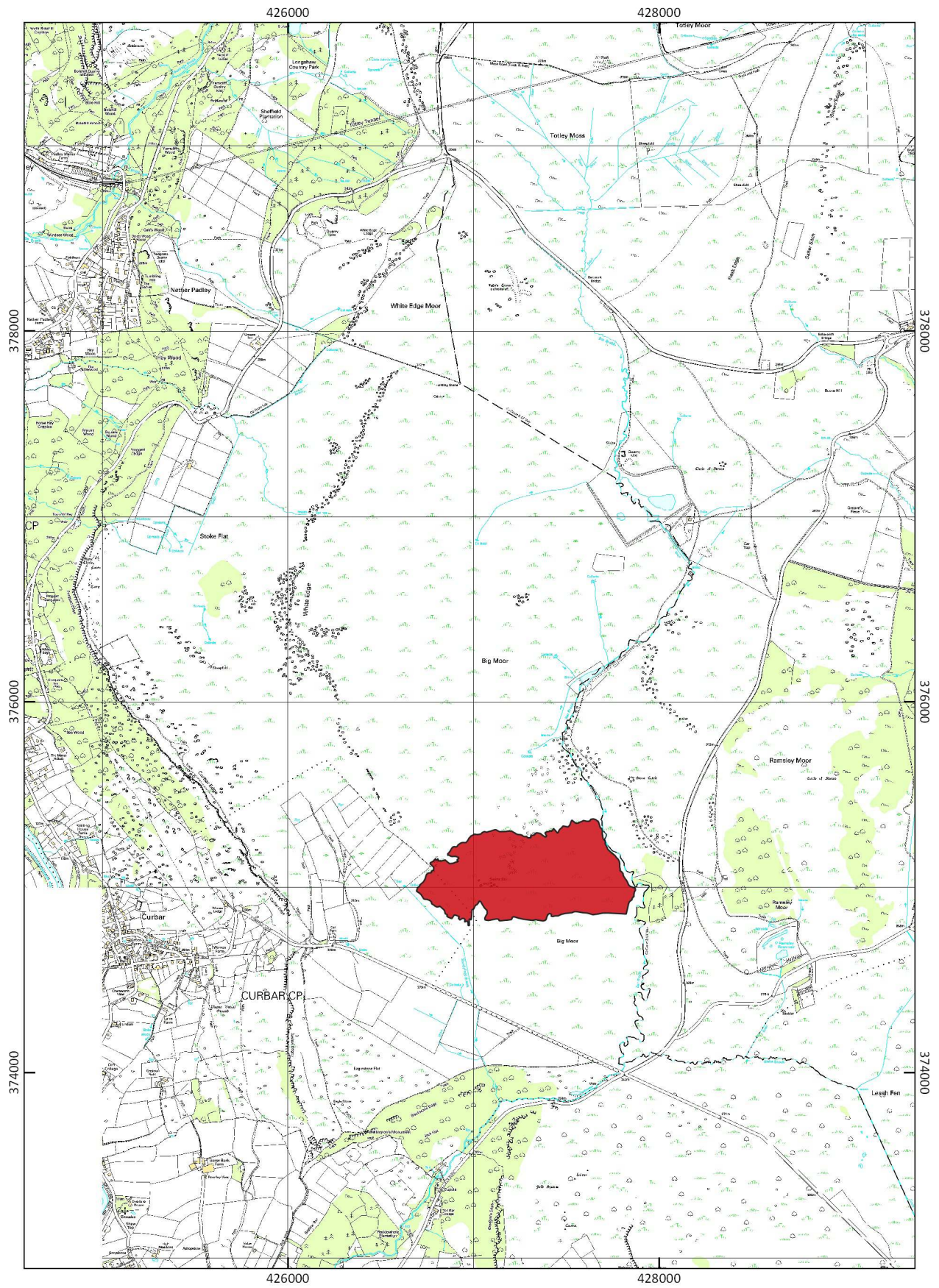
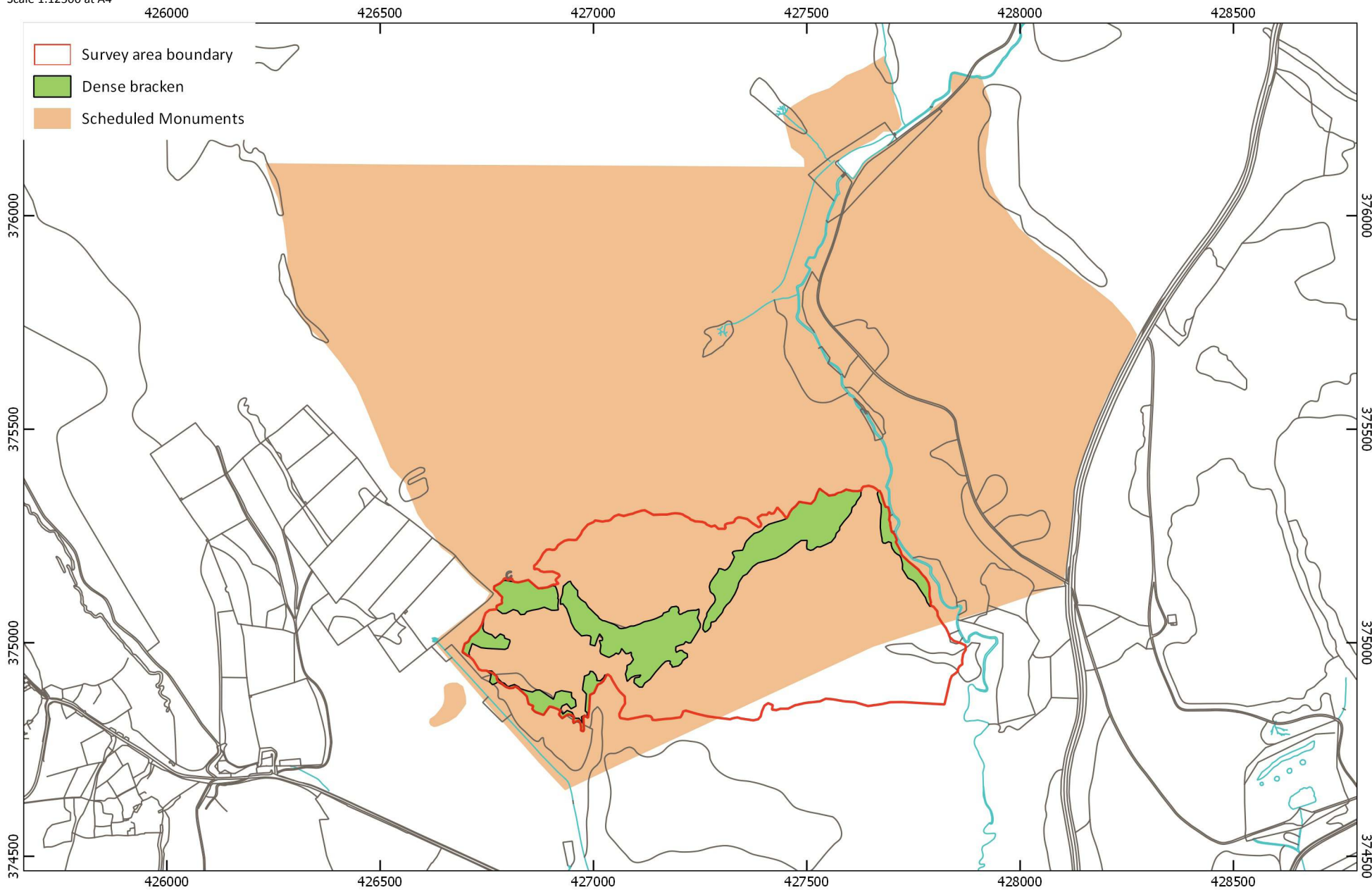


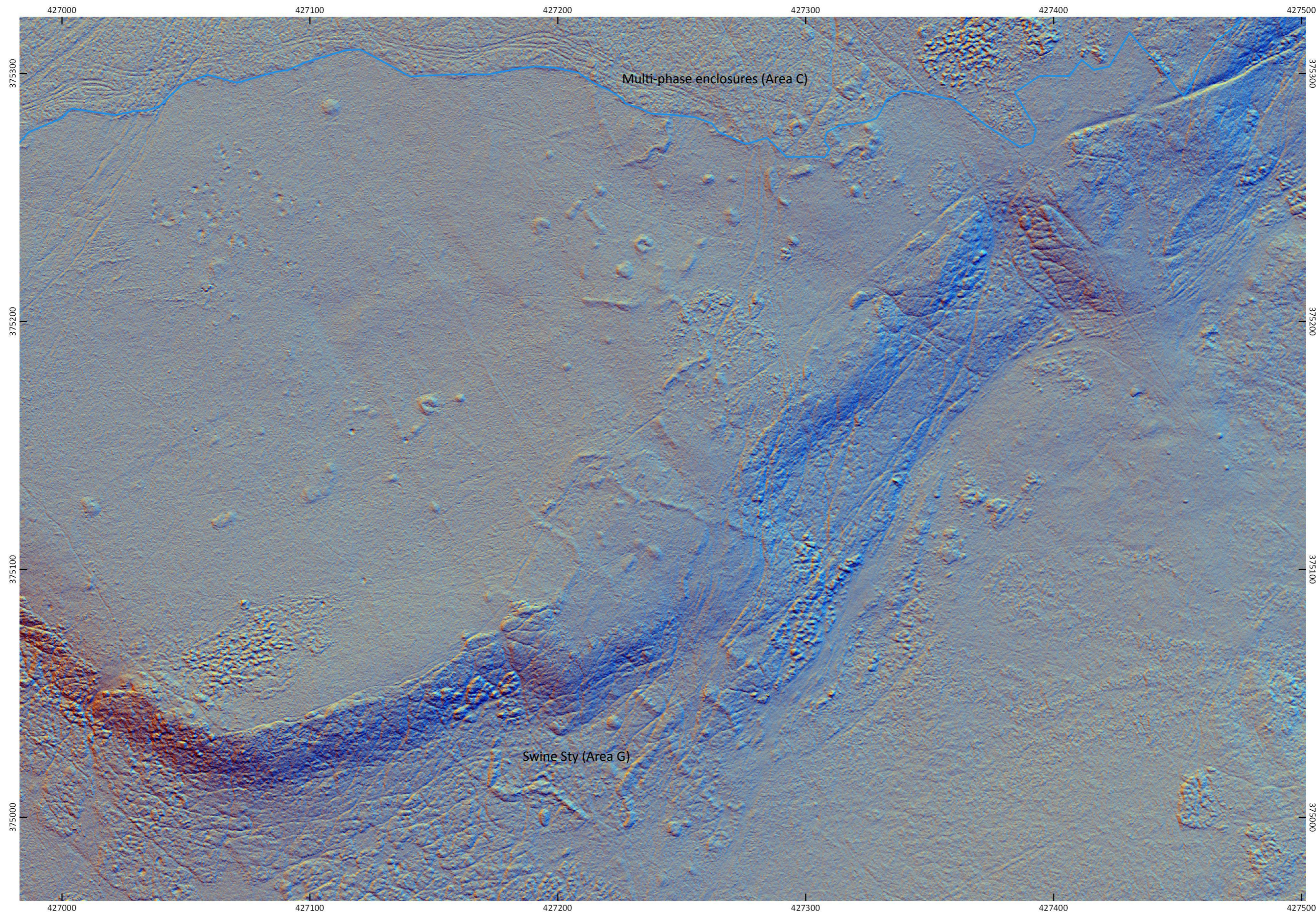
Figure 1: Location of survey area

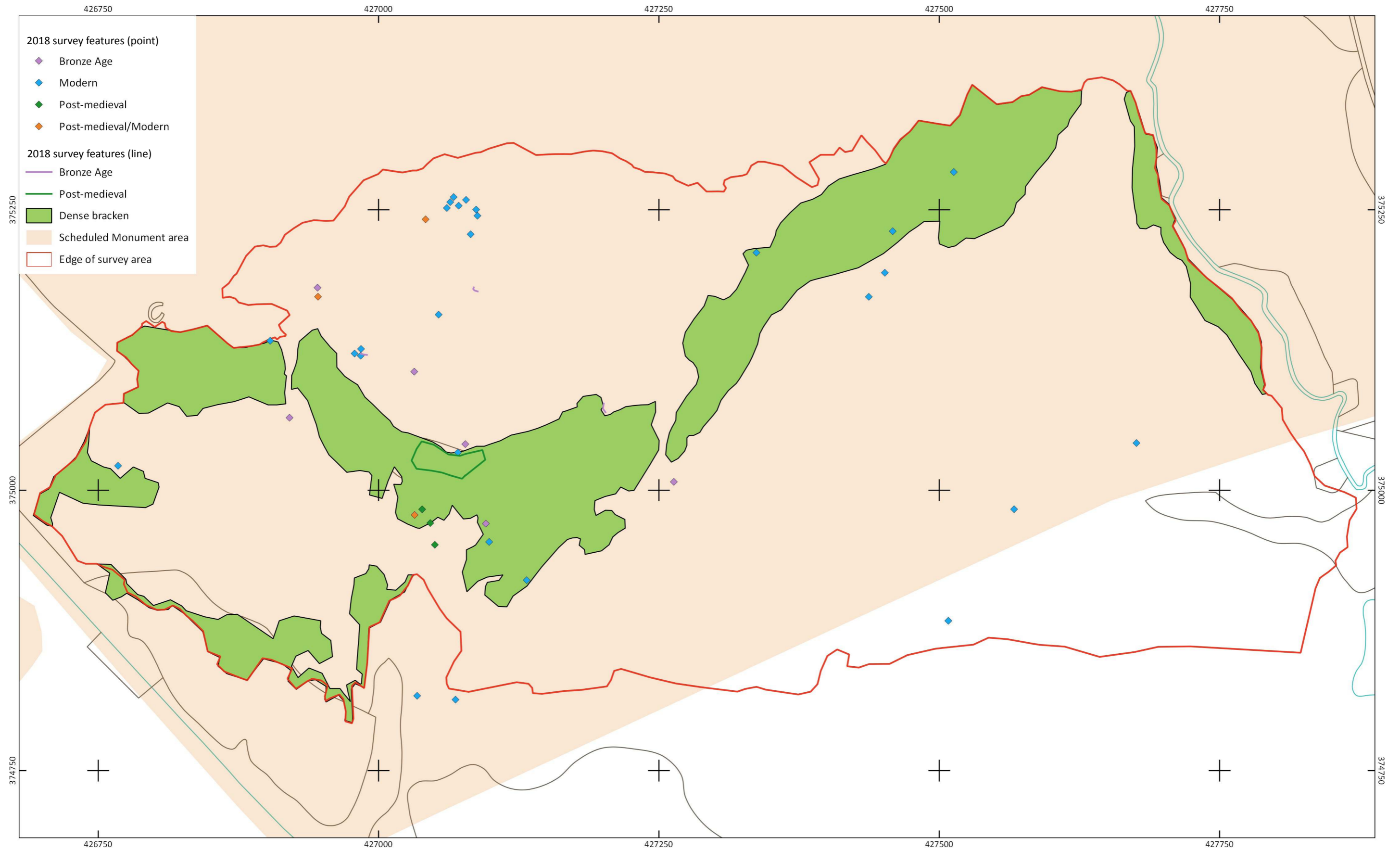
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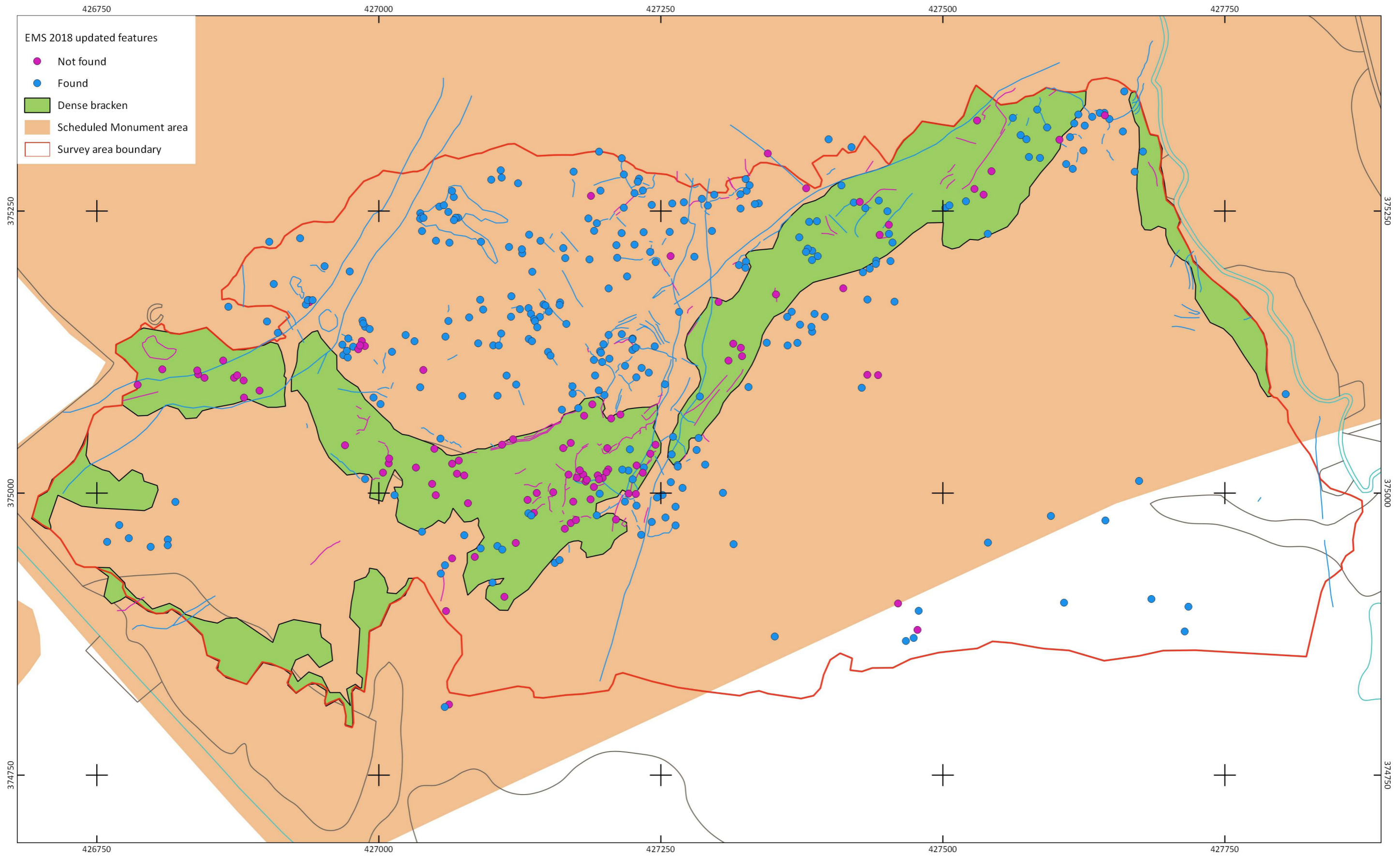


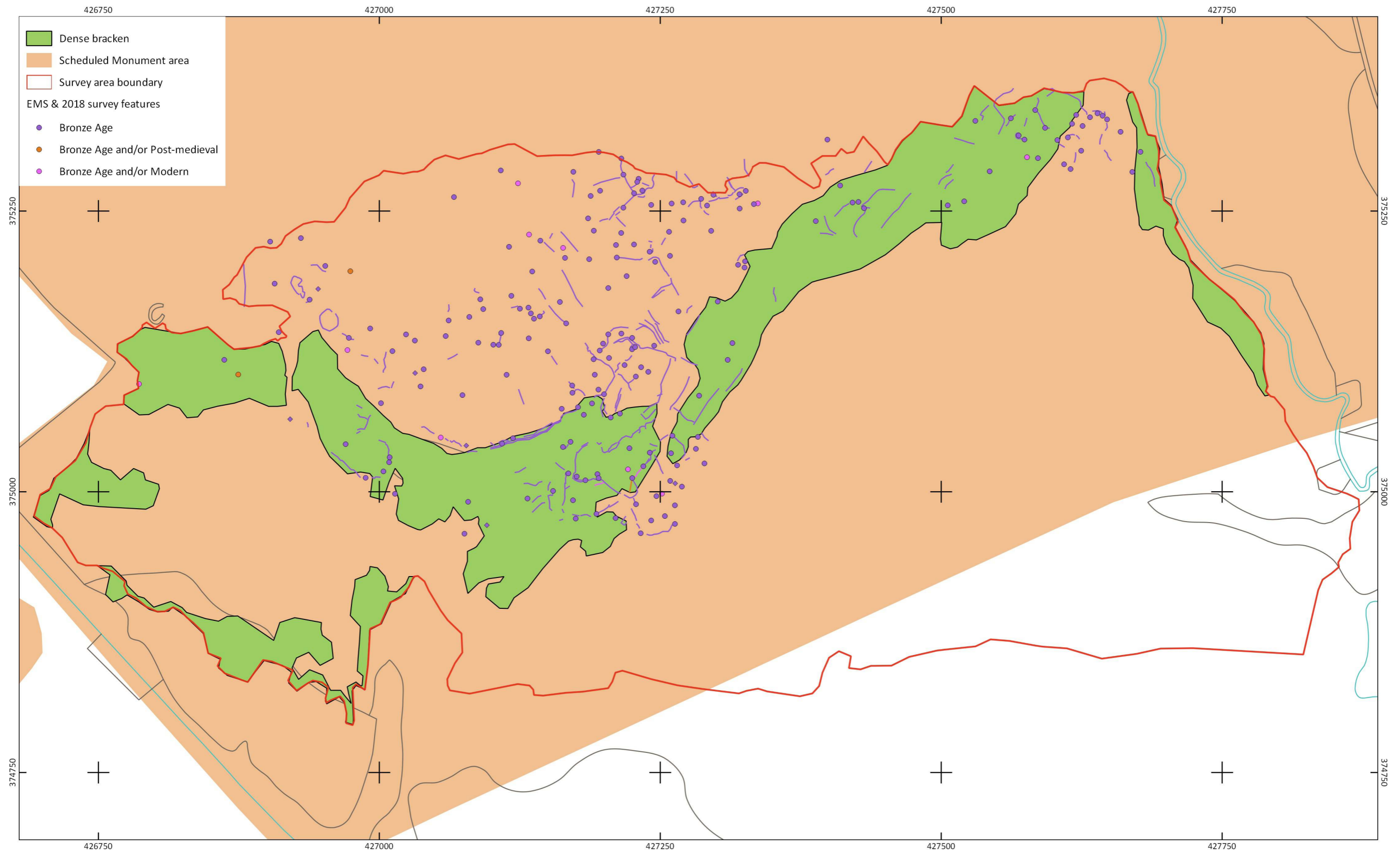
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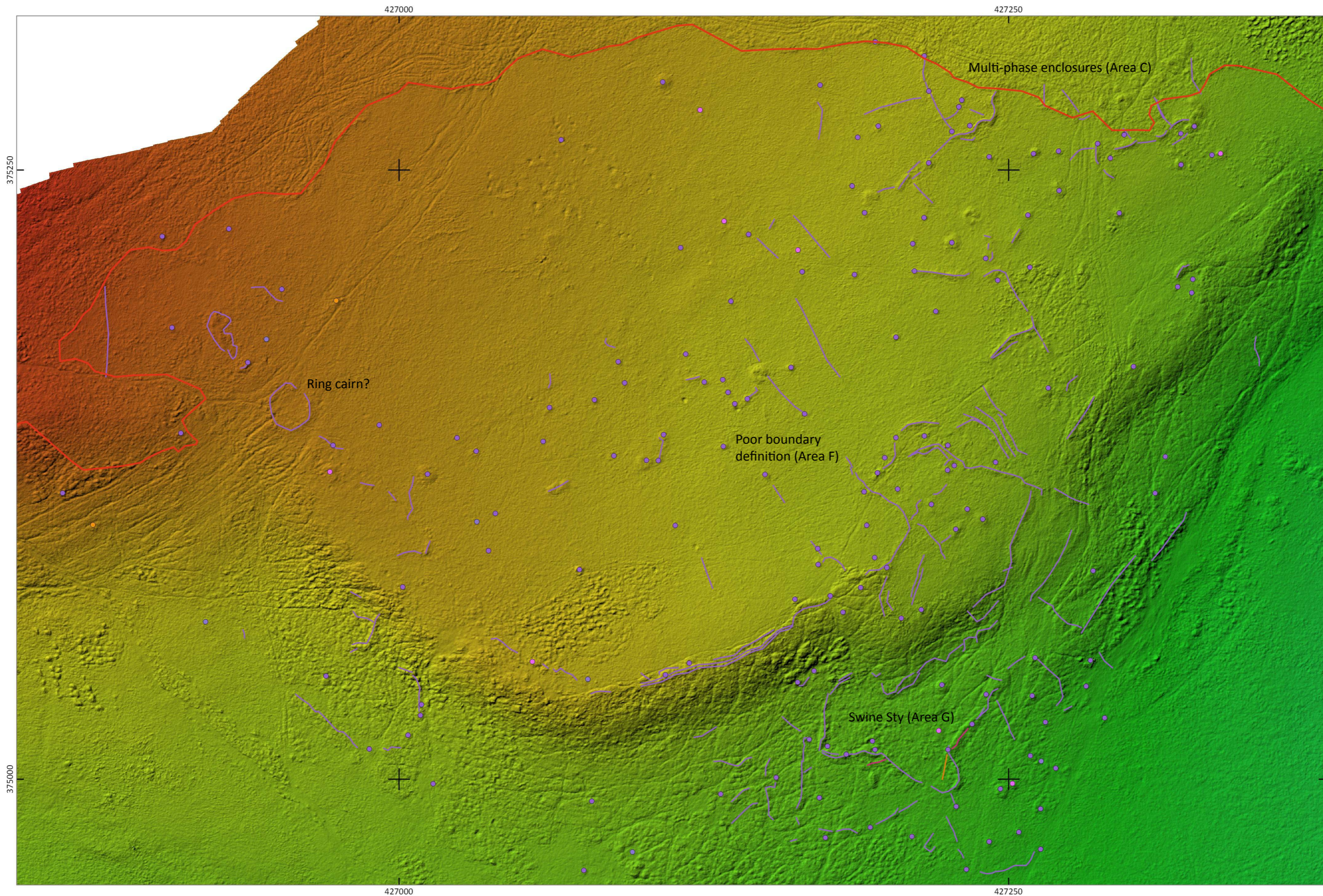
Figure 2: Plan of survey area and Scheduled Monuments

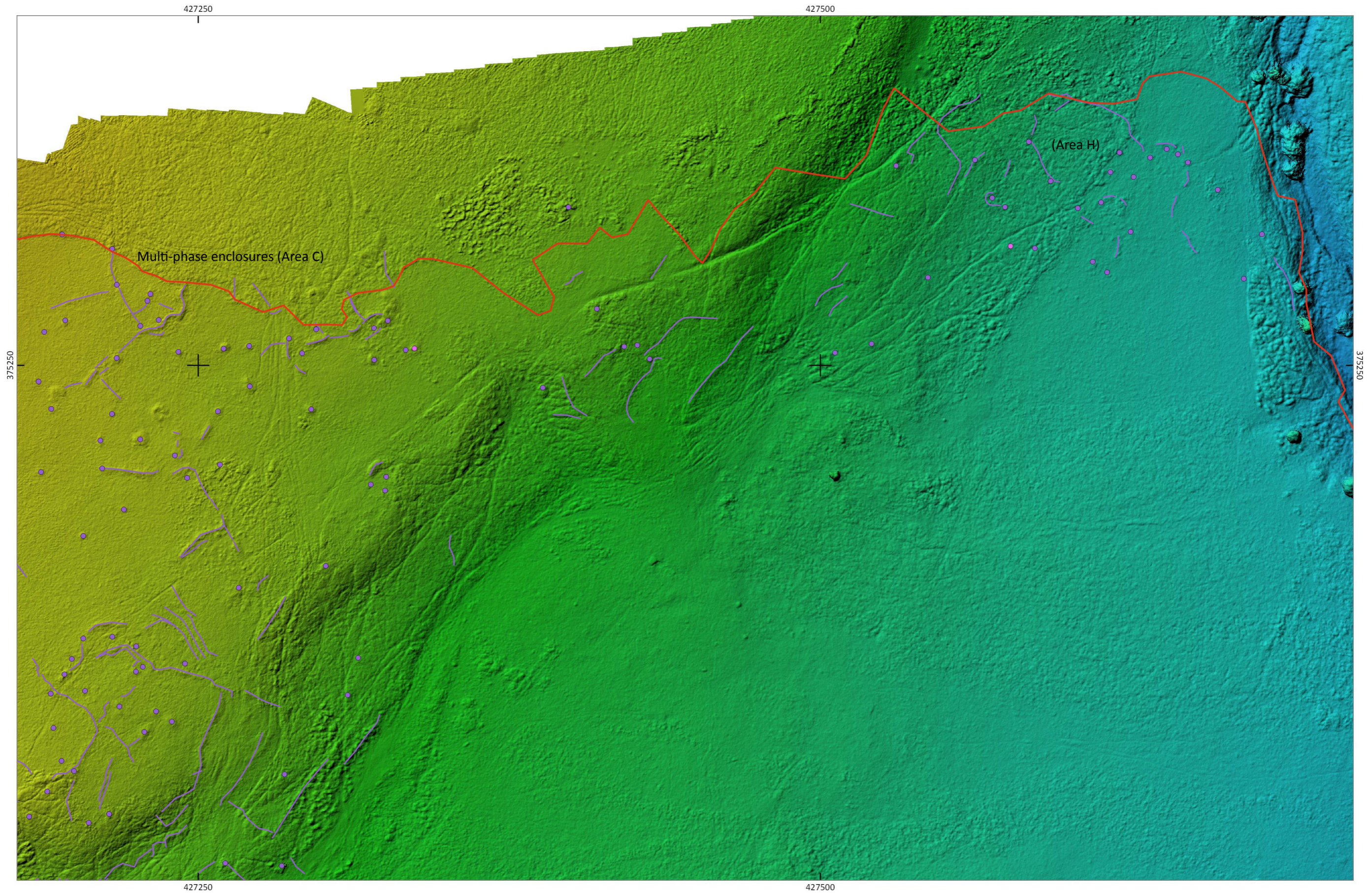


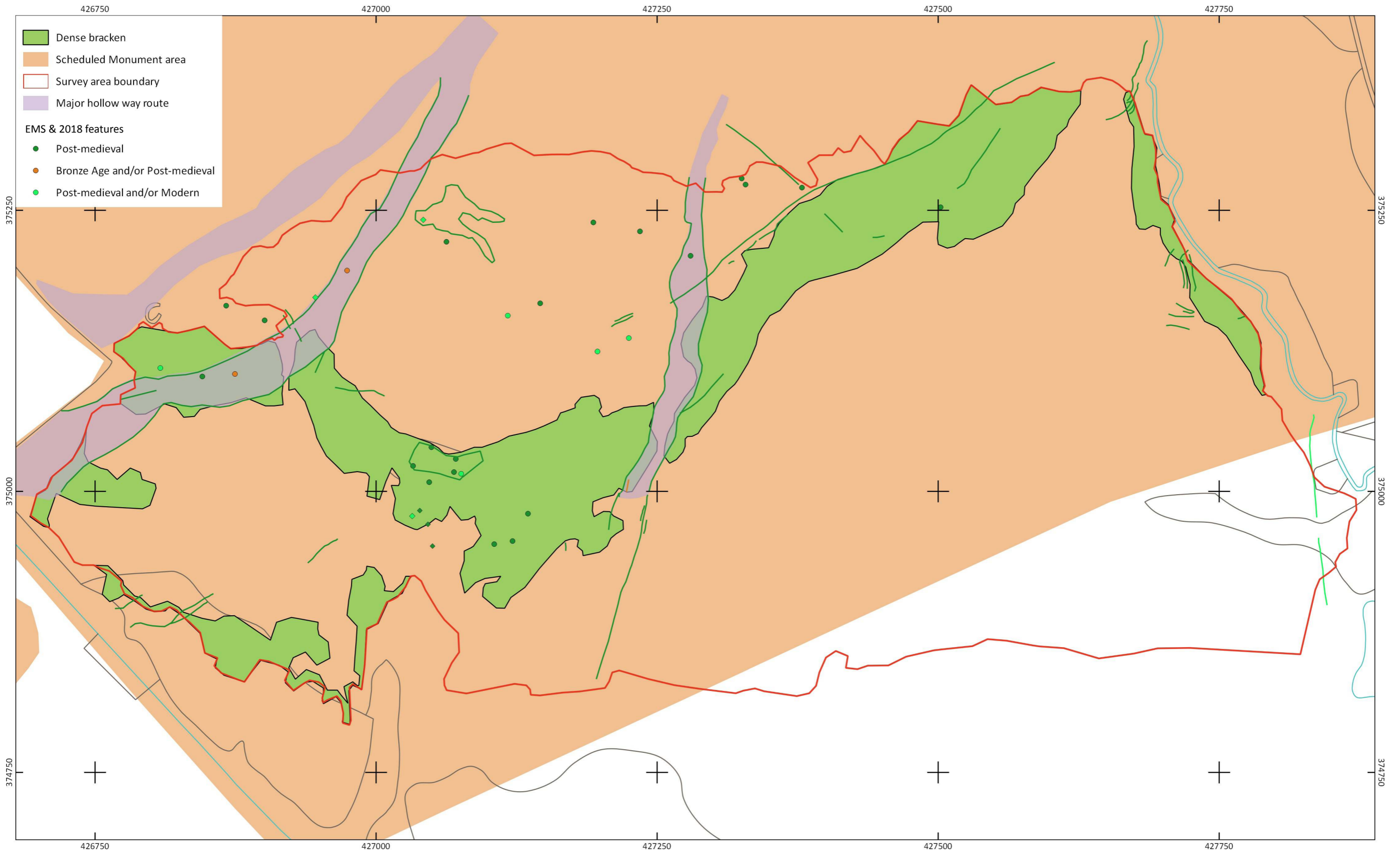


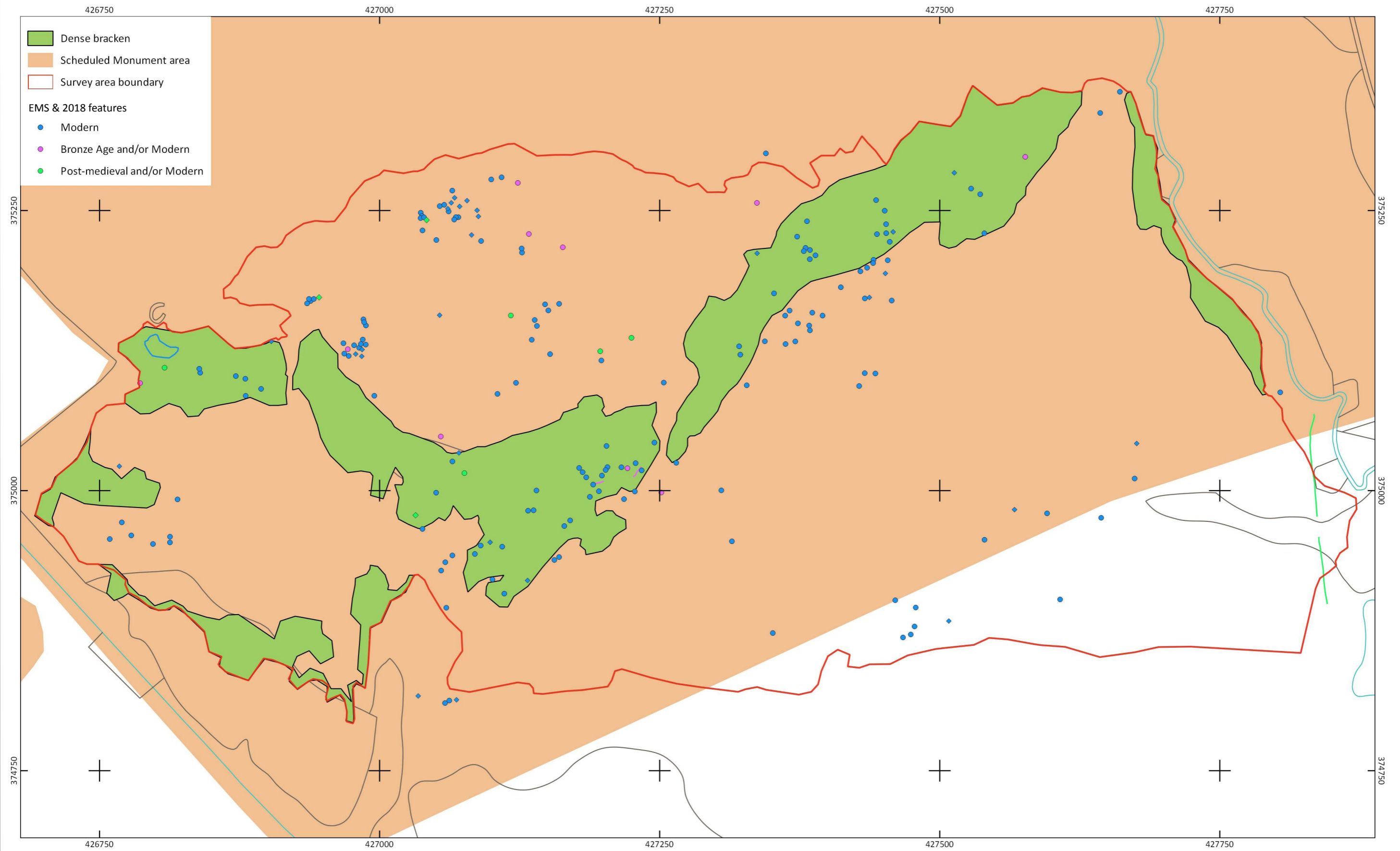


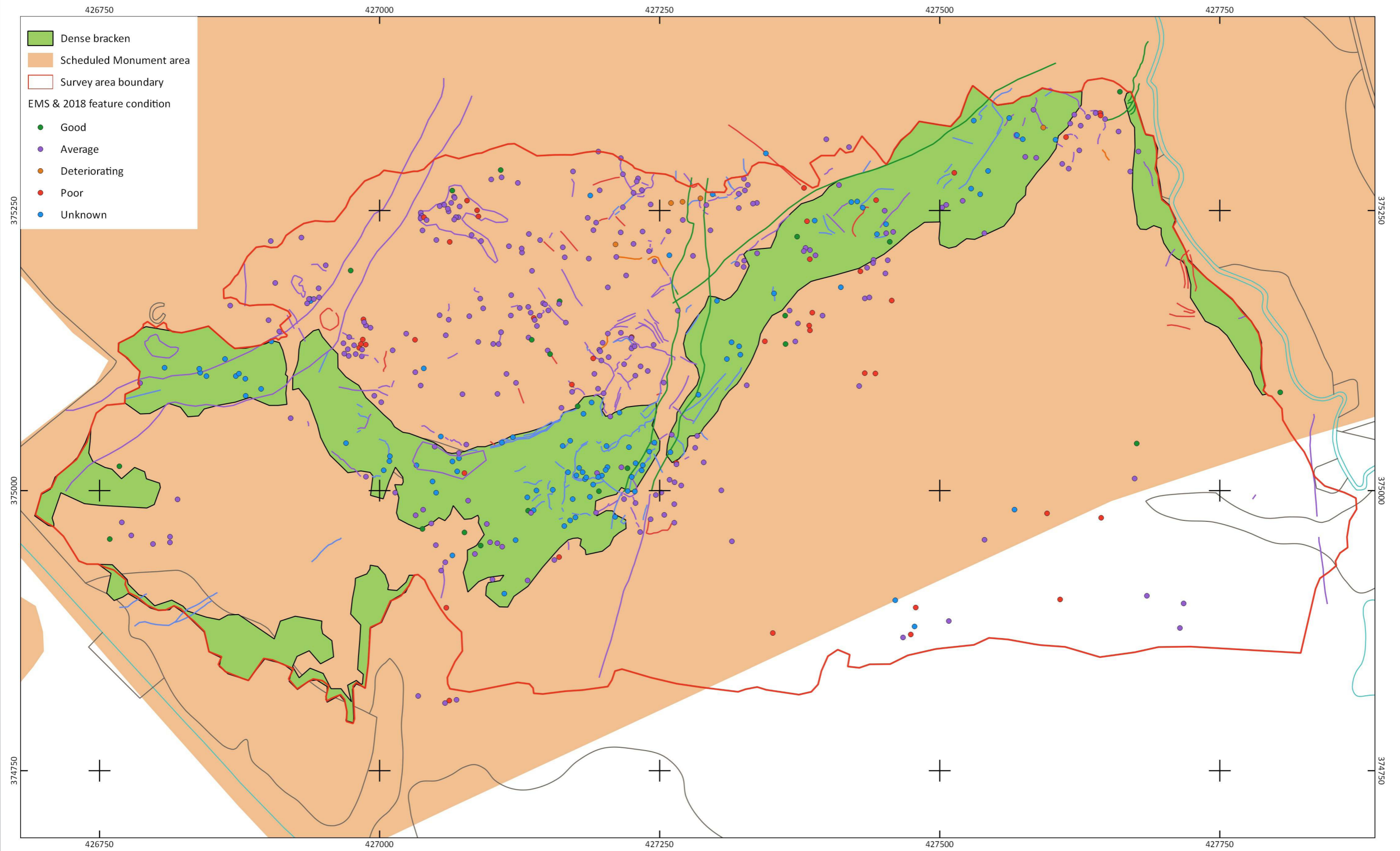












PLATES

Plate 2: Possible cairn 7516, viewed facing west



Plate 3: Possible linear clearance 7546, viewed facing northwest



Plate 4: Quarry pit 7513, viewed facing southeast



Plate 5: Weapons pit 7550 (photo by M & R Davies)



Plate 6: Pit 7540 (photo by M & R Davies)



Plate 7: Bullet scarred boulder 7548 (photo by M & R Davies)



Plate 8: Cairns 2755/202302 & 2753/202301 (to rear), viewed facing northwest



Plate 9: Possible burial cairn 2701/202253, viewed facing north



Plate 10: Stone bank 2678/202245, viewed facing northwest



Plate 11: Possible house site 2661/202233 defined by stony banks, viewed facing southeast



Plate 12: Part of bank of ring cairn 3892/202949, viewed facing south

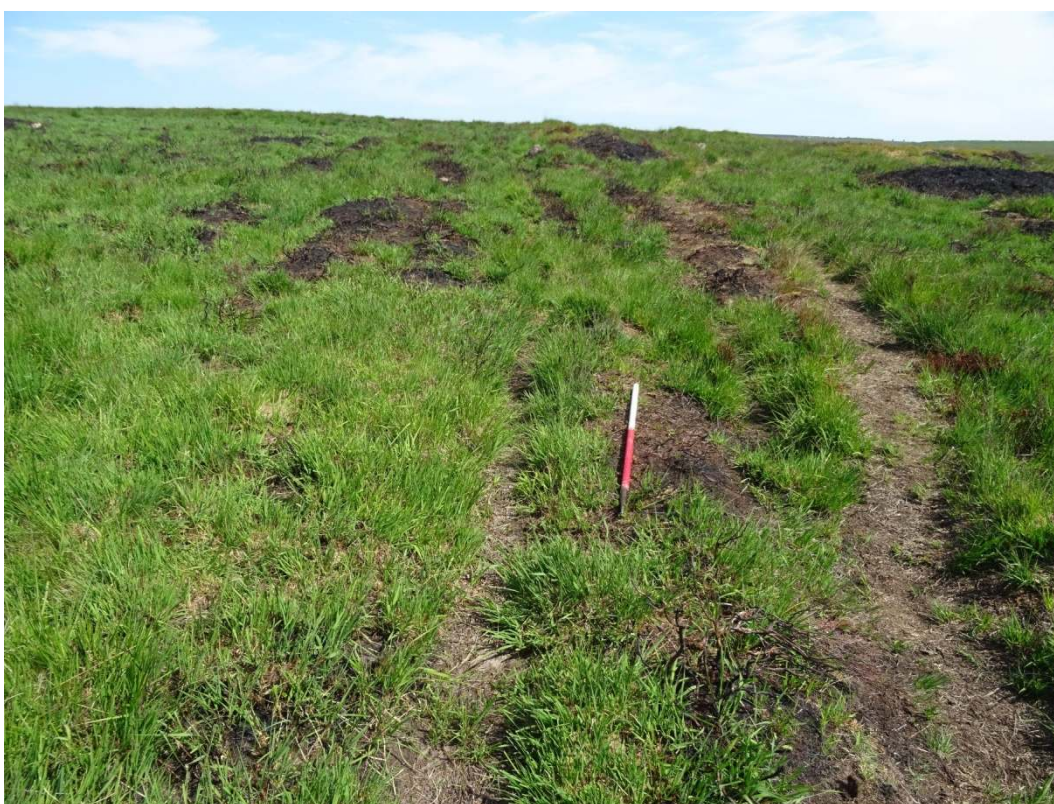


Plate 13: Multiple braids of hollow way 3070/202551, viewed facing north



Plate 14: Shooting stand 3870/202927, viewed facing northwest



Plate 15: Quarry pit 4536/203316 (photo by M & R Davies)



Plate 16: Weapons pit 5067/203809 using cairn 2635/202215 as cover, viewed facing north



Plate 17: Possible military fieldwork 5288/204021 built into cairn 2650/202227, facing northwest



Plate 18: Spoil mound of stones (4668/203433) from the Swine Sty excavations, viewed facing north



Plate 19: Bullet-scarred boulder 4842/203588, surrounded by erosion caused by cattle, viewed facing north



Plate 20: Weapons pit 4562/203341, distorted by cattle footprints (photo by M & R Davies)



Plate 21: Cairn/clearance 3642/202735, with stones exposed by fire, viewed facing east

APPENDIX 1: GAZETTEER OF NEWLY IDENTIFIED FEATURES

EMS ID	NTSMR ID	Site Name	Period	Monument type	Description	Condition	Threats	Ground Cover	Photo No.	E	N	Signif
7510	205945	Big Moor	Modern	Weapons pit	Infilled pit 0.7m x 0.5m, 0.1m deep. Associated with military activity 1939-1945. Just outside burnt area.	Average		Molinia grass		427068	374813	National
7511	205946	Big Moor	Modern	Weapons pit	Possible infilled weapons pit, 0.8m x 0.6m, 0.15m deep. Associated with military activity 1939-1945. Just outside burnt area.	Average		Molinia grass		427034	374816	National
7512	205947	Big Moor	Post-medieval	Quarry pit	Sub-oval hollow 2m x 1.5m, 0.4m deep. Probable small quarry hollow rather than weapons pit, with upcast bank to west, stones in face.	Average	Animal poaching	Molinia grass, sedge	1020898	427050	374951	National
7513	205948	Big Moor	Post-medieval	Quarry pit	Oval hollow 1.8m x 1.2m, 0.4m deep. Large stone in east face, bank to west.	Average	Veg	Bracken, sedge	1020900	427046	374970	National
7514	205949	Big Moor	Post-medieval	Quarry pit	Sub-circular hollow 2m x 1.5m, 0.5m deep. Possible bank upslope to east.	Average	Veg	Bracken, sedge		427038	374982	National
7515	205950	Big Moor	Unknown	Quarry pit	Sub-circular hollow 2m diameter, 0.5m deep. No obvious upcast. Possible quarry pit or shell crater associated with military training? A screw picket seen by M & R Davies following the fire may be in this pit.	Average	Veg, animal poaching	Bracken, grass	1020902	427032	374977	National
7516	205951	Big Moor	Bronze Age	Cairn	Possible clearance cairn c.1.4m diameter, 0.2m high. Some smaller stone and several boulders.	Average	Erosion, animal poaching	Heather	1020903	427095	374969	National
7517	205952	Big Moor	Modern	Weapons pit	Rectangular hollow 2m x 1m, 0.6m deep. Some stone but more regular than other pits in area.	Average	Veg, animal poaching	Bracken	1020906	427098	374953	National
7518	205953	Big Moor	Modern	Bullet-scarred boulder	Earthfast boulder with bullet scars on south face.	Average	Veg	Bracken, grass	1020912	427132	374919	National

EMS ID	NTSMR ID	Site Name	Period	Monument type	Description	Condition	Threats	Ground Cover	Photo No.	E	N	Signif
7519	205954	Big Moor	Bronze Age	Cairn	Area of piled clearance stone c4m x1.5m, 0.5m high. Located between 4786 and 4787; together they form a line of cairns.	Average	Erosion, animal poaching	Bracken	1001542	427263	375007	National
7520	205955		Modern	Weapons pit	Square pit 0.7m, 0.3m deep.	Average	Animal poaching	Molinia grass	1020926	427508	374883	Local/regional
7521	205956	Big Moor	Modern	Bullet-scarred boulder	Large earthfast boulder with bullet scars on south face.	Good	Partial veg cover	Molinia grass	1020930	427675	375042	National
7522	205957	Big Moor	Modern	Weapons pit	Probable weapons pit, c.2m x 1m, 0.6m deep. Slight upcast bank to east.	Average	Silting, veg, animal poaching	Heather, grass	1030020	427063	375256	National
7523	205958	Big Moor	Modern	Weapons pit	Square pit with vertical edges, 1.2x1.2m, 0.3m deep, not previously recorded.	Average	Animal poaching	Heather, grass		427060	375251	National
7524	205959	Big Moor	Modern	Possible weapons pit	Rectangular pit 1m x 1.5m, 0.5m deep. No visible stones or upcast banks. May be associated with military training activity.	Average	Silting, veg, animal poaching	Heather, grass	1030022	427071	375253	National
7525	205960	Big Moor	Modern	Possible weapons pit	Wide square hollow 2x2m, 0.4m deep. The feature is full of cow footprints and may be formed by animal poaching, but could be associated with military activity.	Poor	Animal poaching	Grass, sedge		427078	375258	National
7526	205961	Big Moor	Modern	Possible weapons pit	Wide square hollow 2x2m, 0.4m deep. The feature is full of cow footprints and may be formed by animal poaching, but could be associated with military activity.	Poor	Animal poaching	Grass		427087	375250	National
7527	205962	Big Moor	Modern	Possible weapons pit	Wide square hollow 2x2m, 0.4m deep. The feature is full of cow footprints and may be formed by animal poaching, but could be associated with military activity.	Poor	Animal poaching	Grass		427088	375244	National

EMS ID	NTSMR ID	Site Name	Period	Monument type	Description	Condition	Threats	Ground Cover	Photo No.	E	N	Signif
7528	205963	Big Moor	Unknown	Quarry pit	Rectangular hollow adjacent to earthfast boulder with quarried face. Hollow is 4m x 2m 0.4m deep. Possibly associated with military training rather than quarrying?	Average	Animal poaching	Reeds, grass	1030024	427041	375241	National
7529	205964	Big Moor	Unknown	Hollow	1.5m square hollow with amorphous edges, 0.3m deep. Possible weapons pit, or more recent cut.	Average	Animal poaching	Grass		427082	375228	National
7530	205965	Big Moor	Modern	Bullet-scarred boulder	Boulder with possible bullet scars on west face.	Average	Weather erosion, animal rubbing	Grass	1030091	427053	375156	National
7531	205966	Big Moor	Bronze Age	Cairn	Possible cairn, 2m diam, 0.4m high. Some largish stones are exposed following the fire.	Average	Human/animal foot erosion	Heather	1030101	427077	375041	National
7532	205967	Big Moor	Modern	Mortar-scarred boulder	Sunburst mortar scar on large boulder at edge of cliff/scarp. Probably part of undefined bullet/mortar scar area 5286?	Average	Weather erosion	Bracken	1030103	427070	375033	National
7533	205968	Big Moor	Bronze Age	Cairn	A small cairn 1.0x1.2m, 0.3m high. Two visible stones. Not plotted in RCHME Survey, but may be 3849 to the northeast, which was not found in 2018.	Average	Animal poaching	Heather, grass	1030106	427031	375105	National
7534	205969	Big Moor	Modern	Possible weapons pit	Hollow 1.5 x 1m, 0.2m deep. Possibly associated with military activity.	Average	Animal poaching	Heather, grass		426978	375121	National
7535	205970	Big Moor	Modern	Weapons pit	Pit 1 x 0.6m, 0.2m deep, adjacent to earthfast boulders. Probably associated with military training activity.	Average	Animal poaching	Heather, grass		426984	375119	National

EMS ID	NTSMR ID	Site Name	Period	Monument type	Description	Condition	Threats	Ground Cover	Photo No.	E	N	Signif
7536	205971	Big Moor	Modern	Weapons pit	Pit 1m square, 0.1m deep, near earthfast boulder. May be one of the pits 3904-6 originally plotted to the north that were not found?	Average	Animal poaching	Grass		426984	375125	National
7537	205972	Big Moor	Unknown	Hollow	Rectangular hollow adjacent to a large earthfast boulder with a vertical face. Uncertain if it is associated with military training or quarrying.	Average	Animal poaching	Heather, grass	1030131	426946	375172	National
7538	205973	Big Moor	Bronze Age	Possible cairn	Possible cairn piled against the south face of an earthfast boulder. The cairn is 2 x 1.2m, 0.3m high.	Average	Animal poaching	Heather, grass	1030132	426945	375180	National
7539	205974	Big Moor	Bronze Age	Possible cairn	Possible cairn visible as a raised area 2m in diameter and 0.3m high, with two stones visible at the edges.	Average	Animal poaching	Heather, grass, molinia grass	1030138	426920	375064	National
7540	205975	Big Moor	Modern	Pit	Circular pit 0.6m diameter with vertical sides 0.8m deep, slightly undermined at the base where the hole extends c.0.1m out to either side. Uncertain purpose, seems too deep/neat for a weapons pit. Hidden in bracken. Similar to pit 4567 to east.	Average	Risk of falling in!	Bracken	1030161-2; 18-06Jun 55, 116	427458	375230	National
7541	205976	Big Moor	Modern	Weapons pit	Probable slit trench 1.5 x 0.4m, 0.2m deep. The edges are amorphous, possibly due to animal poaching.	Average	Veg, animal poaching	Molinia grass, heather	1030166	427451	375193	National
7542	205977	Big Moor	Modern	Weapons pit	Square pit 1 x 1m, 0.3m deep, cut into slight slope.	Average	Veg, animal poaching	Molinia grass	1030155	427437	375172	National
7543	205978	Big Moor	Modern	Weapons pit	1m x 0.6m, 0.3m deep, adjacent to cairn 5045 and an earthfast boulder.	Average	Animal poaching	Grass		427066	375261	National

EMS ID	NTSMR ID	Site Name	Period	Monument type	Description	Condition	Threats	Ground Cover	Photo No.	E	N	Signif
7548	205979	Big Moor	Modern	Bullet scars	Pock-marked stone, probably WWII bullet-scars, lying on the edge of the ridge in an apparently cleared area, now burnt. (Recorded by M & R Davies. In dense bracken by time of ArcHeritage resurvey).	Average	Weather erosion	Bracken	18-06Jun 45-46, 49?	427337	375211	National
7549	205980	Big Moor	Modern	Bullet holes	Bullet holes in a rock just S of the guidestone path. (Location approximate. Recorded by M & R Davies, in dense bracken by time of ArcHeritage resurvey).	Unknown		Bracken		426903	375133	National
7550	205981	Big Moor	Modern	Foxhole	Two man fox-hole or slit-trench, in very good condition (probably completely covered by vegetation before the fire), probably simulating defence from attack from SE. No sign of spoil mound or earth bank protection to SE. Recorded by M & R Davies. Not noted in ArcHeritage survey, but a hollow is shown in this approx area on the DEM.	Good	Silting, veg	Molinia grass, reeds	18-06Jun 115	426767	375021	National
7551	205982	Big Moor	Modern	Bullet holes	Bullet scarred rock, with one bullet embedded on the E side; this extends further north the area where bullet scarred rocks and weapons pits have been found (including 203587-9/ 4841-3). (Recorded by M & R Davies. Not seen in ArcHeritage resurvey, but weapons pits were recorded nearby.)	Unknown				427566	374982	National

EMS ID	NTSMR ID	Site Name	Period	Monument type	Description	Condition	Threats	Ground Cover	Photo No.	E	N	Signif
7552	205983	Big Moor	Modern	Graffiti	On a large earthfast, some poorly scratched graffiti, possibly 'Dutch May--II'. May be associated with military training activity given proximity of slit-trenches/foxholes? (Recorded by M & R Davies. In dense bracken by time of ArcHeritage survey.)	Poor	Weather erosion	Bracken	18-06Jun 59-60, 70	427513	375283	National
7544	205984	Big Moor	Bronze Age	Possible linear clearance	Possible clearance stone. A loose line of stones, with a possible cairn at the southeast end. May be associated with lynchet 5287?	Average	Animal poaching	Bracken, burnt heather	1030065 facing northwest	427200	375072	National
7545	205985	Big Moor	Bronze Age	Possible linear clearance	Some earthfasts or large boulders and occasional smaller stones in a rough line, c5m x 0.5m, 0.2m high. In a stony area, possibly fortuitous.	Average	Animal poaching	Burnt heather, grass	1030089 facing northwest	427085	375178	National
7546	205986	Big Moor	Bronze Age	Possible linear clearance	Possible linear clearance, comprising turf-covered stones (some large), 1.5m wide, 0.2m high. In a stony area and possibly fortuitous. Could be associated with linear clearance 5034 to SE?	Average	Animal poaching	Burnt heather, grass	1030116 facing northwest	426986	375121	National
7547	205987	Big Moor	Medieval/ Post-medieval	Quarry pits	Area of pits, probably day-working sites for stone working, often with worked stone or spoil within them. Some have bullet holes or mortar scars. Individual features within this area include three possible shelters for stone working and bullet-scarred rocks. (Recorded by M & R Davies, extent approximate.)	Average	Veg	Bracken	18-06Jun 87-90, 92, 96-98, 100-104	427064	375023	National

Abbreviations: Signif: significance; EMS: East Moors Survey; veg: vegetation; E/N: Easting/Northing.

Photo numbers in red are by M&R Davies. Note: all features except 7520 are within Scheduled Monument 1004599.

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