

**THE CLWYD-POWYS ARCHAEOLOGICAL TRUST**

# **Mynydd Hiraethog Uplands Survey**

**ARCHAEOLOGICAL FIELD SURVEY**



**CPAT Report No 838**

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Report for RCAHMW


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## CRYNODEB

Mae'r adroddiad hwn yn ystyried canlyniadau arolwg a gynhaliwyd dan nawdd Menter yr Uwchdiroedd y Comisiwn Brenhinol rhwng mis Hydref 2006 a mis Ionawr 2007. Roedd yr arolwg yn cwmpasu ardal gymysg o rostir wedi'i amgáu'n rhannol a thir amaeth amgacedig, yn aml wedi'i wella, sydd rhwng 320m a 532m OD, mewn dau ddarn ucheldir ar Fynydd Hiraethog yng Nghonwy. Canolbwynt yr ardal ogleddol oedd Moel Maelogen, tua'r gorllewin o bentref Gwytherin, lle archwiliwyd ardal o ymron 4.6km<sup>2</sup>. Roedd yr ardal ddeheuol yn ymestyn dros 7.7km<sup>2</sup> gyda chop a Mwdwl-eithin, sef bryn tua 5km i'r gogledd-orllewin o bentref Cerrigydrudion, yn ei chanol. Nodwyd cyfanswm o 266 o safleoedd yn y ddwy ardal.

Roedd y rhan fwyaf o'r dystiolaeth yn fugeiliol ei natur ac yn ymwneud â defnydd amaethyddol canoloesol ac ôl-ganoloesol o'r ardal. Cofnodwyd tystiolaeth o nifer fechan o aneddiadau cysylltiedig, ond mae'n ymddangos bod llawer o'r anheddu ar dir ychydig yn is na'r tir a arolygwyd. Mae'r nifer o enwau lleoedd 'hafod' sy'n gysylltiedig â'r ffermydd sy'n bodoli yn y cylch yn cefnogi hyn. Grug oedd y llystyfiant a welwyd amlaf ar beth o'r tir uwch yn yr ardal ddeheuol. Nid oedd yn syndod, felly, darganfod tystiolaeth eang o strwythurau oedd yn gysylltiedig â saethu adar hela. Gwelir y carnau saethu, a hefyd y cysgodfeydd sy'n aml heb eu cydnabod, y byddai'r partion saethu'n eu defnyddio mewn tywydd drwg. Roedd nifer fawr o chwareli cerrig bychain hefyd yn nodweddu'r ardal ddeheuol. Cloddiwyd y rhain er mwyn cael deunyddiau ar gyfer y waliau cerrig i amgáu'r tir. Mae'n debyg y codwyd y waliau hyn rywbryd yn y 19<sup>eg</sup> ganrif.

Rhan weddol fach o'r archeoleg oedd gweithgareddau angladdol a defodol cynhanesyddol, ond roedd y safleoedd a gofnodwyd o bwysigrwydd arbennig o bryd i'w gilydd. Yr enghraifft fwyaf nodedig oedd grŵp o dri chwt cynhanesyddol ar dafod o dir ym mhen uchaf (ogleddol) Cronfa Ddŵr Alwen.

Datgelodd yr arolwg ond ychydig o dystiolaeth o weithgareddau diwydiannol, sef grŵp bach o chwareli cerrig yn unig, yn rhan uchaf Afon Derfyn yn yr ardal ogleddol. Mae'n bosibl mai darparu deunydd toi i'w ddefnyddio'n lleol oedd y rhain, ond roedd y garreg o ansawdd cymharol wael, yn enwedig o'i chymharu â'r llechi a gynhyrchwyd ar raddfa fawr mewn ardaloedd cyfagos. Mae'n annhebygol, felly, eu bod wedi'u defnyddio am gyfnod hir.

Roedd nifer o lwybrau a welwyd yn ystod yr arolwg yn cynrychioli'r cysylltiadau trafniadaeth lleol. Roedd llawer o'r rhain, yn ôl pob tebyg, yn llwybrau pellter hir oedd yn croesi'r darnau mawr o ucheldir. Roedd hen ffordd oedd yn croesi rhan ogleddol yr ardal ddeheuol yn fwy diddorol. Awgryma ffynonellau dogfennol mai ffordd goets oedd hon, y rhoddwyd y gorau i'w defnyddio rywbryd rhwng 1818 a 1839. Fe'i disodlwyd gan y ffordd dyrpeg a elwir erbyn hyn yn A543.

## SUMMARY

This report considers the results of a survey carried out under the auspices of the Royal Commission's Uplands Initiative between October 2006 and January 2007. The survey covered a mixed area of partially enclosed heath land and enclosed, often improved, farmland, between 320m and 532m OD, situated in two blocks of upland on Mynydd Hiraethog in Conwy. The northern area was centred on Moel Maelogen, to the west of the village of Gwytherin, where an area of almost 4.6km<sup>2</sup> was examined. The southern area extended to over 7.7km<sup>2</sup> and was centred on the summit of Mwdwl-eithin, a hill located approximately 5km to the north-west of the village of Cerrigydrudion. A total of 266 sites were identified in the two areas.

Much of the evidence related to medieval and post-medieval agrarian utilisation of the area, and was almost exclusively pastoral in nature. Evidence of a small number of related settlements was recorded, but much of the occupation seems to have been sited on slightly lower ground than that which was surveyed and this is supported by the number of 'hafod' placenames associated with the existing farms in the locality. Heather dominated the vegetation on some of the higher ground in the southern area, and it was not, therefore, surprising to find that there was widespread evidence of structures associated with game shooting, both the shooting stands and also the often unacknowledged shelters which were used by shooting parties in bad weather. The southern area was also characterised by a large number of small stone quarries, these having been excavated to provide material for the stone enclosure walls which were probably constructed at some point in the 19<sup>th</sup> century.

Prehistoric funerary and ritual activity formed a relatively minor component of the archaeology, but those sites which were recorded were occasionally of particular importance. The most notable instance was a group of three prehistoric huts on a tongue of land at the upper (northern) end of the Alwen Reservoir.

Little evidence of industrial activity was revealed by the survey, this being limited to a small group of stone quarries in the upper reaches of the Afon Derfyn in the northern area. It is possible that these were providing roofing material for local use, but the stone was of relatively poor quality, particularly when compared the slate that was being produced in large quantities in nearby districts, so it is unlikely that they were exploited for any significant length of time.

Local transport links were represented by a number of trackways, which were encountered during the survey. Many of these were probably long-distance routes crossing the various blocks of upland. Of more interest was a former road which crossed the northern part of the southern area, and documentary sources suggest this was a coach road abandoned at some point between 1818 and 1839, when it was replaced by the turnpike road which is now designated as the A543.



## 1 INTRODUCTION

- 1.1 In the second half of 2006, the Field Services Section of the Clwyd-Powys Archaeological Trust (henceforward CPAT) was given grant in aid by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) to conduct, under their long-running Uplands Initiative, an archaeological survey of land on Mynydd Hiraethog in Conwy, an area formerly in the historic county of Denbighshire. Much of Mynydd Hiraethog had already been assessed, first by CPAT in the 1990s and then by Oxford Archaeology North in recent years. The two areas earmarked for attention in 2006 effectively completed the study of the upland block of Hiraethog, west of the Brenig Reservoir.
- 1.2 This report summarises the results of the survey, which commenced in October 2006 and was completed in January 2007. It employed the formal transect methodology originated by CPAT in 1989 and specified by RCAHMW as a requirement for all their funded upland surveys. Data entry was carried out in parallel as the fieldwork progressed and continued after the cessation of fieldwork. This report was prepared in the period immediately following.

## 2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 The survey encompassed two distinct areas of Mynydd Hiraethog, with a total area of 12.31km<sup>2</sup>. The northern area covered by the survey covered 4.57km<sup>2</sup>, comprising the upper slopes of Moel Maelogen and Ffrithuchaf, commencing 1km to the west of Gwytherin and defined in part by the minor road leading from Gwytherin to Nebo on the south and by the B5113 on the west. The northern boundary was defined by the edge of earlier enclosures to the south of the farm of Maelogen Fawr.
- 2.2 The landscape of the northern area was characterised by a relatively recently enclosed and improved upland plateau. Much of the area was an extension of the main Hiraethog upland area, with the adjoining spur of Ffrithuchaf being separated from it by the increasingly steep-sided valley of the north-flowing Afon Derfyn. The elevation of the area rose from approximately 320m OD in the base of the Derfyn valley, up to a maximum of 423m OD on the summit of Moel Maelogen.
- 2.3 The southern area was larger in extent, extending over a total of 7.74km<sup>2</sup>. It was defined on the east by the upper reaches of the Alwen Reservoir and the adjoining forestry known as the Alwen Plantation, the western boundary being formed by the boundary of the Mynydd Hiraethog upland survey undertaken by CPAT in 1992. The southern boundary was rather more complicated, taking a meandering course, which can be roughly defined as the boundary between the enclosed fields and the 'ffridd', or enclosed upland, occupied by farms to the north and north-west of Cerrigydrudion.
- 2.4 The landscape of the southern area was dominated by the ridge aligned north-west to south-east running from Mwdwl-eithin to Craig-yr-lyrchen, which never descends below 450m OD and attains a maximum height of 532m OD on Mwdwl-eithin. A number of small streams flow southward down the relatively constant south-west slope of the ridge, but there is little evidence that these have had a major effect on the topography. The same is true on the north-east side of the ridge, although the Nant Heilyn has a slightly more pronounced course. The lowest part of the area was at an elevation of 320m OD, on the banks of the Afon Llaethog, a stream which flows southwards from Mwdwl-eithin.





Plate 1 Cairn (NPRN 294142) on the summit of Craig-yr-iyrrhen.

- 2.5 Land-use in the survey area is divided broadly between partially sub-divided upland common, both improved and unimproved upland pasture, and small amounts of lower-level enclosed farmland. These areas are almost exclusively used for stock grazing, the only exception being Moel Maelogen, on which there is a small wind farm of three turbines. Land improvement is present throughout most of the northern area, while there are still large parts of the southern area which remain unimproved. Even so, improvement in the southern area can be found up to nearly 480m OD in one locality. The vegetation cover of the northern area is predominantly acid grassland with rush infestation, with only very small areas of gorse and heather. In contrast, significant parts of the southern area are heather moorland, with a combination of bracken and acid grassland on the lower slopes.
- 2.6 The underlying geology consists of mudstones and siltstones, belonging to the Wenlock and Ludlow phases of the Silurian period (1994 British Geological Survey map). Some north to south-aligned faulting is present in the northern of the area.
- 2.7 The soils of the two areas vary, and a number of types have been identified in accord with the local topography. In the northern area, most of the high ground is occupied by loamy upland soils with a peaty surface horizon, belonging to the Wilcocks 2 Soil Association, and this is bordered on the east by fine silty and clayey soils of the Cegin Soil Association and on the north-west by loamy upland soils, also with a peaty surface, of the Hafren Soil Association. A small area of fine loamy and silty soils belonging to the Manod Soil Association lies along the course of the Afon Derfyn. In the southern area, the soils of the high ground belong to the Hafren Soil Association, to the north of which there are thick peat soils of the Crowdy 2 Soil Association. The southern edges of the south area are occupied by soils of the Manod Soil Association and fine loamy and silty soils of the Brickfield 1 Soil Association (all data derived from the 1983 Soil Survey of England and Wales map and legend).



### 3 METHODOLOGY

- 3.1 The initial phase of the survey comprised the examination and plotting of potential sites from aerial photographic sources, and was undertaken by RCAHMW, as discussed in Section 6. A project database was compiled using the structure specified by RCAHMW at the commencement of the project. As well as those sites which were identified during fieldwork, this also contains known sites already recorded in the regional Historic Environment Record (HER), held by CPAT, and sites recorded in the National Monument Record (NMR), held by RCAHMW.
- 3.2 RCAHMW also provided digital copies of some early mapping for the area to CPAT at the commencement of the survey. These were examined for archaeological sites, with any that were discovered being appended to the database. The Ordnance Surveyor's drawings and the Tithe surveys for the relevant parishes were examined in the National Library of Wales as were the large-scale 1<sup>st</sup> edition Ordnance Survey maps from the 1880s. Previously unrecorded features have been incorporated into the database from these sources. Sites and features recorded from these maps and from aerial photograph sources were subsequently checked in the field to determine their nature, authenticity and state of preservation.
- 3.3 The field survey programme commenced in October 2006. This was undertaken by the systematic transect walking of the area defined by RCAHMW at intervals of 30m. The methodology employed for enclosed fields varied slightly while still holding to the principles of 30m transect coverage, with the lines taken depending on a number of factors, including the position of gates, streams, and field shapes.
- 3.4 Sites that were encountered during the field survey were recorded on standard CPAT site-visit forms, the data including: an accurate location using a hand-held global positioning system (GPS) receiver; a written description of the character, function, condition, vulnerability and dating of the monument; and a sketch survey, where appropriate. Selected sites and landscapes were photographed where conditions were good and the site was readily discernible, in line with RCAHMW requirements. Digital images of the required format and resolution will be passed to RCAHMW with the project archive. While discussing access arrangements, the opportunity was also taken to gather anecdotal evidence from local residents regarding the area generally and a small number of sites that were known to them.
- 3.5 The field records were entered into a Foxpro database, whose structure was laid down in RCAHMW's *Revised Data Standard for Upland Survey* (Version 2, dated 23 May 2004) and using the currently approved indexing terms, with one exception where it was recognised that shelters had been constructed for shooting parties, but there was no suitable term in the list (see para 5.6). Fields for eastings and northings were also incorporated into the database, in order that all sites could be plotted on a map base using the Mapinfo GIS package. In addition to the main database, RCAHMW specified that additional databases were completed, containing information relating to the site visit (the *History* table), any perceived relationships between sites (the *Relations* table), and of any photographs taken during the fieldwork. These have been completed according to the specifications laid out in the relevant section of the Data Standard.
- 3.6 The specifications for the analysis of the survey results (see Section 4) included a requirement that the numbers of sites within different zones of elevation be calculated and that the resulting density of sites at different altitudes be established. Altitudes were determined for each site and entered into the project database, in order to allow this calculation to be made. To determine the density of sites, the total area of each zone was calculated by plotting the 50m contour lines, and from these a polygon of each 50m elevation zone could be mapped in the Mapinfo GIS package. The area of each polygon could then be easily calculated, providing a



total area for each elevation block from which site density could be determined. The results are given below in para 4.7.

- 3.7 A brief analysis of the results of the survey is also attempted by site type/function in Section 4, and this, together with more detailed site-specific information, is then used to assess the landscape and archaeology of the survey area in Section 5. The main details of the sites recorded during the survey are presented in Appendices 1 and 2, by NPRN and type, respectively. Fuller information regarding each site is contained within the project database returned to RCAHMW on completion of the survey.

#### 4 RESULTS OF THE FIELD SURVEY (Figs 2 & 3)

- 4.1 The total area surveyed during the project amounted in total to 12.31km<sup>2</sup>, a slightly larger area than that the 12.2km<sup>2</sup> defined in the original CPAT project proposal to RCAHMW in March 2006. This reflects some minor alterations to the survey area boundary in the field, to allow it to follow existing land boundaries and also as a result of available permissions.
- 4.2 The total number of archaeological features recorded in the survey area amounted to 266 sites, which represents a site density of 21.6 sites per square kilometre. Of these sites, only three (1%) were contained in the project database supplied by RCAHMW at the commencement of the survey, comprising the sites within the two areas that were already recorded in the National Monument Record. The small number of known sites probably reflects the remoteness and lack of settlement in the areas surveyed. A large number of anomalies were also recorded as polygonal data from aerial photographic sources by RCAHMW, but these have only been appended to the project database where some evidence of their authenticity was apparent, either from cartographic sources or from the subsequent field visit.
- 4.3 The archaeological sites recorded during the survey are depicted on Figs 1, 2 and 3, where they are identified by their NPRN. Figs 4 and 5 show a selection of the site types mentioned in the text of this report, where an appreciation of their distribution would be useful.
- 4.4 A breakdown of the archaeological resource by broad classes is given in the following table (Table 1). The numbers of sites belonging to particular site types and periods are given in Tables 2 and 3, respectively. Some amalgamation of equivalent or associated site types has been necessary in order to provide a useful overview, but all sites are detailed individually in Appendices 1 and 2. Table 4 deals with the breakdown of sites into 50m-altitude zones, as described in paragraph 3.6, above.

*Table 1 Numbers of sites attributed to broad functional classes*

Agriculture and Subsistence	190
Civil	1
Commemorative	1
Communications	1
Domestic	17
Industrial	2
Recreational	21
Religious, ritual and funerary	6
Transport	23
Unassigned	3
Water supply and drainage	1



*Table 2 Numbers of sites belonging to different site types*

Beacon	1
Boundary stone	8
Bridge	3
Cairn/round barrow	5
Clearance cairn	7
Drain/leat	3
Enclosure (pastoral)	4
Farmstead or associated building	3
Field boundary/system etc	21
Fold	20
House/cottage	2
Hut (Medieval/Post-Medieval)	4
Hut (Prehistoric)	3
Long hut	5
Marker cairn	12
Memorial cairn	1
Mound	4
Non antiquity	2
Peat cutting features	16
Platform	3
Quarry	74
Ridge and furrow/lazy beds	3
Sheep shelter	7
Sheep wash	1
Shelter	11
Shooting shelter	4
Shooting stand	16
Stone setting	1
Trackway/road	18
Triangulation pillar	1
Wall	2
Well	1

*Table 3 Numbers of sites attributed to different periods*

Prehistoric (undifferentiated)	4
Bronze Age	5
Medieval	12
Post-medieval	231
Modern	8
Unknown	4
General (Non antiquities)	2

**Table 4** Site numbers and densities for each 50m increase in elevation

Elevation (OD)	Area surveyed (km <sup>2</sup> )	% of survey area	No of sites	Sites per km <sup>2</sup>
300m-349m	0.66	5.4	18	27.3
350m-399m	5.93	48.2	108	18.2
400m-449m	3.92	31.8	73	18.6
450m-499m	1.69	13.7	59	34.9
500m-549m	0.11	0.9	8	72.7

- 4.5 As might be expected given the nature of the locality, features and structures of post-medieval date which are associated with pastoral farming form by far the main element of the archaeological resource, representing some two-thirds of the total. Within this category, evidence specific to sheep rearing and grazing amounted to 11% of the resource. Despite the obvious dominance of post-medieval activity, only a small number of dwellings or farmsteads of the period were recorded within the survey area, amounting to perhaps 2% of the total.
- 4.6 In the southern area, stone walls have found widespread use as boundaries and still form the main field divisions in many places, although these may well have originated as late as the 19<sup>th</sup> century. Evidence of the need to obtain the material used in their construction was demonstrated by the large number of stone quarries that were recorded (28% of the total number of sites). Redundant boundaries, more often of earth and stone construction and presumably therefore of an earlier date, were noted in both survey areas, forming 8% of the total resource.



Plate 2 Stone quarry (NPRN 294210), with the wall behind in which the stone was used

- 4.7 Trackways were another of the main site types (7% of the total sites), one of which has been identified as an abandoned coach road. In the case of both survey areas, these seem to more commonly define routeways across the moorland, rather than ways of accessing it from the farms around its periphery. Features relating to game shooting were also widely represented,



comprising nearly 8% of the resource, and while most of the sites were shooting stands, the figure also includes at least four shelters used by shooting parties in bad weather. The other main group of features was that related to peat cutting for domestic fuel, representing 6% of the total. None of the remaining site types forms more than 5% of the archaeological resource.

- 4.8 Some of the more sparsely represented sites are of interest, including prehistoric funerary monuments, which represent 2% of the total resource, a fairly typical figure given the nature of the topography. Platforms and long huts, which generally signify medieval or early post-medieval occupation, were present in both areas and formed over 3% of the total number of sites. Industry, however, was very poorly represented, with only two quarries in the upper reaches of the Afon Derfyn, both of which may have been used to provide poor quality roofing material for local use.



Plate 3 Stone setting (NPRN 294076) above Nant Heilyn

- 4.9 In addition to the normal range of site types, some rather more unusual examples were encountered during the fieldwork, which should be mentioned, including seven sheep shelters, features comprising stone walls placed at right-angles to each other in a 'T' or cross-shape. A number of slate slab boundary stones were also recorded, although not all of those distinguished on early maps were extant.
- 4.10 The breakdown of sites by period demonstrates a remarkable bias towards sites of post-medieval date, with these accounting for 87% of the total. In comparison, medieval activity is very poorly represented with only 4.5% of the sites recorded. Prehistoric sites, relating to both settlement and ritual and funerary activity, account for over 3% of the total. Eight sites (3%) were considered to be of modern (post-1900) origin, and two others are likely to be natural features. Only four (1.5%) of the sites recorded remain to be classified by period.
- 4.11 The density of sites in the different altitude zones, as defined in table 4, reveals a reasonably consistent spread of sites between 300m OD and 450m OD, averaging approximately 18 to 27 sites/km<sup>2</sup>, in comparison to the overall site density of 21.6 sites/km<sup>2</sup>. The marked increase in



site density between 450m OD and 550m OD, to 35 sites/km<sup>2</sup> and then 73 sites/km<sup>2</sup>, needs to be discussed, however. The most likely cause of this anomaly is a result of the types of site found in the upper reaches of the southern area, a large proportion of which were quarries and small shelters. These were relatively widespread in comparison to the archaeological sites on the lower, more improved, ground and were generally related to pastoral land-use in the post-medieval period. The very high figure for the zone above 500m OD is entirely due to a concentration of sites on the summit of Mwdwl-eithin.

## 5 THE LANDSCAPE AND ARCHAEOLOGY OF THE SURVEY AREA

- 5.1 The earliest visible evidence for human activity in both of the two localities belongs to the Bronze Age period, with a single round barrow in the northern area and four in the southern area. Of particular importance, though, is a group of prehistoric hut sites (NPRNs 294070, 294071 and 294198) on a spur near the north end of the Alwen Reservoir. A single site of the type and period is rare in this part of North Wales, but a group of three in one locality is a remarkable survival, given that they are very slight earthworks. The exact date of the sites is uncertain, but a Bronze Age or Iron Age date seems most likely.



Plate 4 Location of the group of hut sites on a spur at the northern end of the Alwen Reservoir

- 5.2 No trace of Roman or early medieval sites was forthcoming, and it is only in medieval times that occupation seems to have returned to the survey areas. Most of the evidence is in the form of settlement sites, either long huts or platforms, but enclosures are also present, which suggest the occupation was probably due to the utilisation of the locality for the grazing of stock.





Plate 5 Bi-partite enclosure and probable medieval platform (NPRN 294192)

- 5.3 Documentary sources reveal that part of the southern survey area once belonged to the Hiraethog Grange, donated to Aberconwy Abbey by Llewellyn ap Iorwerth in 1198, which passed into secular ownership with the dissolution of the monasteries in the mid 16<sup>th</sup> century. None of the original features survive, except as placename evidence, but a number of inscribed slate slabs still define the boundary, and are likely to be mid-19<sup>th</sup> century in date.



Plate 6 Boundary stone (NPRN 294017) inscribed 'HIRAETHOG PONT ALICE HUGH'



- 5.4 The vast majority of the archaeological sites in the areas surveyed belong to the post-medieval period, as has been mentioned above, although there are probably fewer actual settlements than in the medieval period. It seems that most of the later settlement was sited on slightly lower ground than that which was surveyed, a suggestion supported by the number of 'hafod' placenames associated with the existing farms in the locality. These denote summer settlements and they would normally be expected to be the highest (in elevation) evidence of settlement in the locality. Information from the landowner suggests that a ruinous cottage on the *ffridd* above Plas-hafod-y-maidd farm was once used by a gamekeeper.



Plate 7 Nant Heilyn farmstead (NPRN 294074), which had been rebuilt in 1868

- 5.5 Stock rearing and its associated activities were the main factors in the creation of post-medieval sites and features in both the survey areas. In addition to the field boundaries and walls used to control stock, and the quarries used to aid in their construction, more specialised structures such as sheep folds and sheep shelters were also recorded. The latter are either 'T' or cross-shaped and seem to be a local solution to a need for windbreaks on the exposed south-west facing slopes of Mynydd Hiraethog. In the case of the sheep folds in the area, these are generally simple structures of not more than three cells, often incorporating low 'creeps' to allow the sheep access.
- 5.6 Sites related to game shooting seem to be restricted to the higher ground in the southern area, which still has the appearance of a heather moor and is a Site of Special Scientific Interest. The structures associated with game shooting were predominantly shooting stands where the clients would wait for birds to be driven by beaters, but there were also a number of shelters, which were used by shooting parties in bad weather. The function of these structures is often unrecognised, but they are generally 3m to 4m long and have a common form, which aids their interpretation. The main features are a single entrance with an approximately opposite fireplace, whose flue exits through the wall, and where, in some cases (although not within the areas surveyed for the present project) a cast-iron fire grate is present. Low, stone benches may also be found against one or two internal sides.





Plate 8 Shooting shelter (NPRN 294047) near Mwdwl-eithin

- 5.7 Transport links were mostly represented by a series of trackways, most of which seemed to be long-distance routes crossing the various blocks of upland. A former road, 4.4m wide, defined by parallel ditches, was identified in the northern part of the southern area. Cartographic sources suggest this was a coach road, abandoned at some point between 1818 and 1839, when it was replaced by a turnpike road, which is still in use and designated as the A543.



Plate 9 Former coach road (NPRN 294082), looking south-west to Bwlch-y-garnedd



- 5.8 The little evidence of industrial activity that was revealed by the survey, was confined to a small group of stone quarries in the upper reaches of the Afon Derfyn in the northern area. It is possible that these were providing roofing material for local use, but the stone was of relatively poor quality, particularly when compared with the slate that was being produced in large quantities in nearby districts, so it is unlikely that they were exploited for any significant length of time.
- 5.9 The boundaries that enclose the modern fields have not been recorded in any detail, nor have they been attributed specific NPRNs. Most recent are the typical and ubiquitous post and wire fences, although these occasionally surmount earlier embankments on which a hedge was probably planted. Some of these embankments were recorded in both survey areas, but in the southern area, stone boundary walls and their attendant quarries were also present. It seems probable that the walls represent the organised enclosure of part of the area in the 19<sup>th</sup> century, given the regularity of the field pattern and the straight course of many of the boundaries. Two abandoned settlements in the northern area, Hafod-Gilbert (NPRN 294124) and Pant-glas (NPRN 294125), were probably contemporary with a phase of common enclosure, although in this locality the boundaries are earthen embankments.
- 5.10 The modern landscape of the study area is not significantly different from that of the post-medieval period, except that some common land has been subdivided between different graziers. Land improvement has also taken place in recent years, leading to significant changes in vegetation cover in the northern area and parts of the southern area. Some evidence of clearance and drainage features related to this improvement was recorded.
- 5.11 In summary, it can be stated that the archaeological resource is consistently distributed throughout the survey area and is predominantly post-medieval in origin. Important evidence of occupation and settlement in the prehistoric period was recorded, in particular, a group of three hut sites, in the northern part of the southern survey area. Some medieval settlement was also identified, but in the post-medieval period the area of settlement seems to have retreated to slightly lower ground, with most of the modern farms (whose origins are in the post-medieval period) lying just outside the boundary of both survey areas. Game shooting was evidently one of the main uses of the moorland portions of both survey areas in the post-medieval period.

## **6 AIR PHOTO MAPPING ASSESSMENT**

- 6.1 The mapping of archaeological features from aerial photographic (AP) sources was carried out by RCAHMW, prior to the commencement of fieldwork, as mentioned in paragraph 3.1, and it is a requirement of the grant in aid guidelines that an assessment of their value be provided in the final survey report.
- 6.2 The results of the mapping process were presented as a series of polygons on the digital map base for the area provided to CPAT by RCAHMW. A copy of the results was carried in the field, and compared with the archaeological sites that were encountered. Comments regarding the polygons were appended to the maps, but only those sites for which there was definite evidence, either documentary or physical, have been recorded in the project database. Any localities for which some palaeoenvironmental potential was recognised have also been appended to the mapping, these being almost exclusively in the eastern part of the northern survey area.
- 6.3 The mapping for this area was fairly successful, given the nature of the resource. A reasonable percentage of the linear sites, namely trackways and field boundaries, had been mapped, and where this was the case, the mapping aided their recording in the field by



providing an overview of the site in question. Some instances of the false mapping of features were encountered, most often where drainage gullies were incorrectly mapped as trackways.

- 6.4 Some AP evidence of peat cutting had been recorded on the higher ground of the southern area, generally related to areas of dense heather. No physical evidence to corroborate these observations was found, which may reflect the masking of peat cuts by subsequent heather growth or that the evidence was in fact of heather management in progress at the time the photograph was taken.
- 6.5 The main deficiency in the AP mapping was the near lack of any evidence being mapped of the areas of post-medieval quarrying that were widespread in the locality examined by the survey. Although some of these sites were sufficiently small in scale not to have been recognised, this is not the case with the majority, and it can only be assumed that the conditions in which the photographs were taken were not favourable for the recognition of excavated features. In any event, the most plentiful site type went effectively unrecorded by the mapping process.

## 7 RECOMMENDATIONS

- 7.1 There are very few areas which would benefit from more detailed topographic survey. In the southern area, the enclosure (NPRN 294192) could represent a medieval dwelling and detailed recording may strengthen this hypothesis, while the group of sites on the summit of Mwdwl-eithin may also benefit from more detailed study. In the northern area, only the area alongside the Afon Derfyn containing the dwelling (NPRN 294168) and fold (NPRN 294188) would perhaps benefit from a more accurate survey. The group of three hut sites (NPRNs 294070, 294071 and 294198) in the northern part of the southern area have already been subjected to detailed survey as part of a Cadw-funded survey.



Plate 10 Afon Derfyn dwelling (NPRN 294168) and fold (NPRN 294188)



- 7.2 Of the other sites in the survey areas, most are sufficiently served by the plotting of their locations using a hand-held GPS receiver. Aerial photographic sources could, perhaps, be used better to define the road (NPRN 294082) crossing the northern part of the southern area, although its course is already recorded on the Ordnance Survey mapping.
- 7.3 No sites that might merit geophysical survey were identified. The nature of the resource and the ground conditions render the use of this type of survey impractical.
- 7.4 Some environmental sampling has been done on Mynydd Hiraethog recently and it is not known whether further investigation is merited in the locality. If any investigation is contemplated, three possible areas have been identified, centred on SH 86206134, SH 86506135 and SH 86536090. The first area is relatively small, but peat to a depth of at least 0.8m was identified in that at SH 86506135. All of these locations lie within the northern survey area, as no areas of suitable peat depth were identified in the southern area. However, given the relatively unimproved nature of some parts of the southern area, it seems possible that suitable localities may be present. The potential for the preservation of buried peaty soils beneath some of the monuments should also be considered, as these buried soils might be used to aid in the dating of individual sites, if required.
- 7.5 In the northern area, only one archaeological site, the cairn of Carnedd Goronwy (NPRN 303366) is depicted on the modern Ordnance Survey mapping. Of the other sites in this locality, only the round barrow on Moel Maelogen (NPRN 294135), and perhaps the hut (NPRN 294149) on Ffrithuchaf, merit adding to the mapping.
- 7.6 The situation is more complicated in the southern area, where a reasonable number of the more significant monuments, including sheep folds, sheep shelters and boundary stones, are already depicted on the Ordnance Survey mapping and give a representative picture of the archaeology of the area. Of the remaining sites, only the enclosure (NPRN 294192) and the hut (NPRN 294156) could be added to provide an improved view of the nature of the resource. The writer has some concerns regarding the representation of the group of prehistoric huts near the Alwen Reservoir, given the potential fragility of these sites.
- 7.7 One site depicted on the Ordnance Survey mapping in the southern area was not found, namely a non-funerary cairn located at approximately SH 92205301. This should be deleted from the mapping to avoid confusion.

## 8 CONCLUSIONS

- 8.1 The survey has been successful in adding a significant number of new sites to the National Monument Record, in addition to the small number that were already known in the survey area. This should enable a balanced view to be taken of the archaeological resource of this part of Mynydd Hiraethog, particularly in view of the large amount of field survey which has been completed in the area in recent years.
- 8.2 Although the archaeological resource is widely, and fairly evenly, distributed throughout the two survey areas there is very poor representation for most periods and the vast majority of the resource (87% of the total) is of post-medieval origin. This is largely related to the agrarian utilisation of the area.
- 8.3 A small number of medieval and post-medieval settlements were recorded, but much of the occupation seems to have been sited on slightly lower ground than that which was surveyed. Heather dominated the vegetation on some of the higher ground in the southern area, and widespread evidence of structures associated with game shooting was recorded, both the



shooting stands and also the shelters which were used by shooting parties in bad weather. The southern area was also characterised by a large number of small stone quarries, these having been excavated to provide material for the stone enclosure walls which were probably constructed at some point in the 19<sup>th</sup> century.

- 8.4 Prehistoric funerary and ritual activity formed a relatively minor component of the archaeology, but some settlement sites of the period were recorded. The most significant of these are a group of three prehistoric huts, situated on a tongue of land at the upper (northern) end of the Alwen Reservoir.
- 8.5 Local transport links were represented by a number of trackways, many of which were probably long-distance routes crossing the various blocks of upland. Of more interest was a former road that crossed the northern part of the southern area, which documentary sources suggest was a coach road abandoned at some point in the early 19<sup>th</sup> century, when it was replaced by a turnpike road.
- 8.6 The site density in relation to elevation reveals a reasonably consistent spread of sites between 300m OD and 450m OD, averaging between 18 and 27 sites/km<sup>2</sup>. There is, however, a marked increase in site density between 450m OD and 500m OD, to 35 sites/km<sup>2</sup> and then 73 sites/km<sup>2</sup> between 500m OD and 550m OD. The curious increase in site density with elevation may be explained by the presence of some of the more ephemeral sites, such as small shelters, which are relatively widespread on the unimproved portions of upland in comparison to the lower, improved, ground. The very high figure for the zone above 500m OD is due to a concentration of sites on the summit of Mwdwl-eithin.

## 9 ACKNOWLEDGEMENTS

- 9.1 The writer would like to thank his colleague, Mr G Davies, for his assistance with the survey. Also the following for their assistance and co-operation: Mr D Leighton, RCAHMW, for facilitating the survey and monitoring; the staff of the National Monument Record, RCAHMW; the staff of the Regional Historic Environment Record, CPAT; and all of the landowners for their help and permission to carry out the survey.

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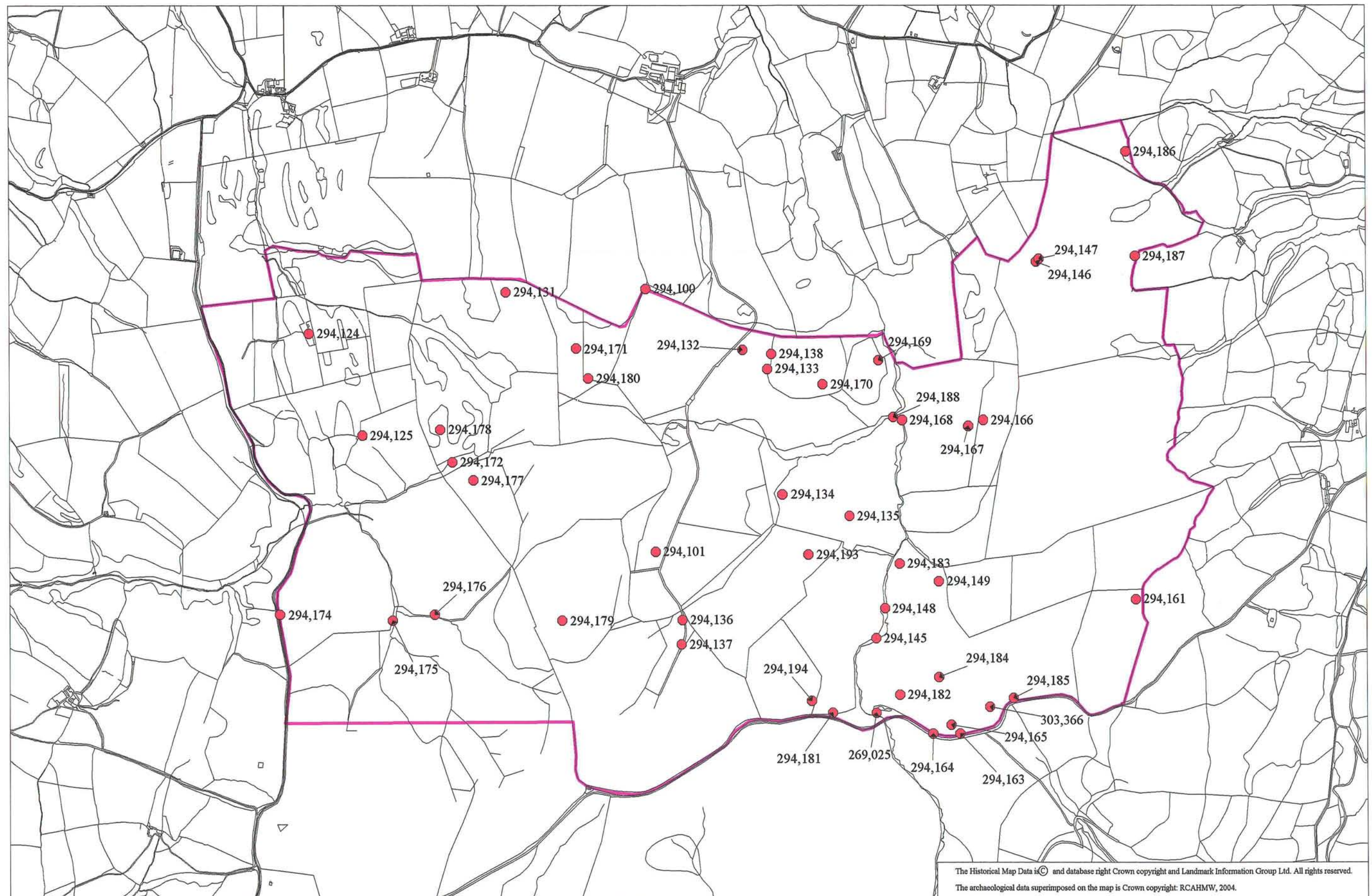


Fig 1 Archaeological sites in the northern survey area Scale 1:12,500



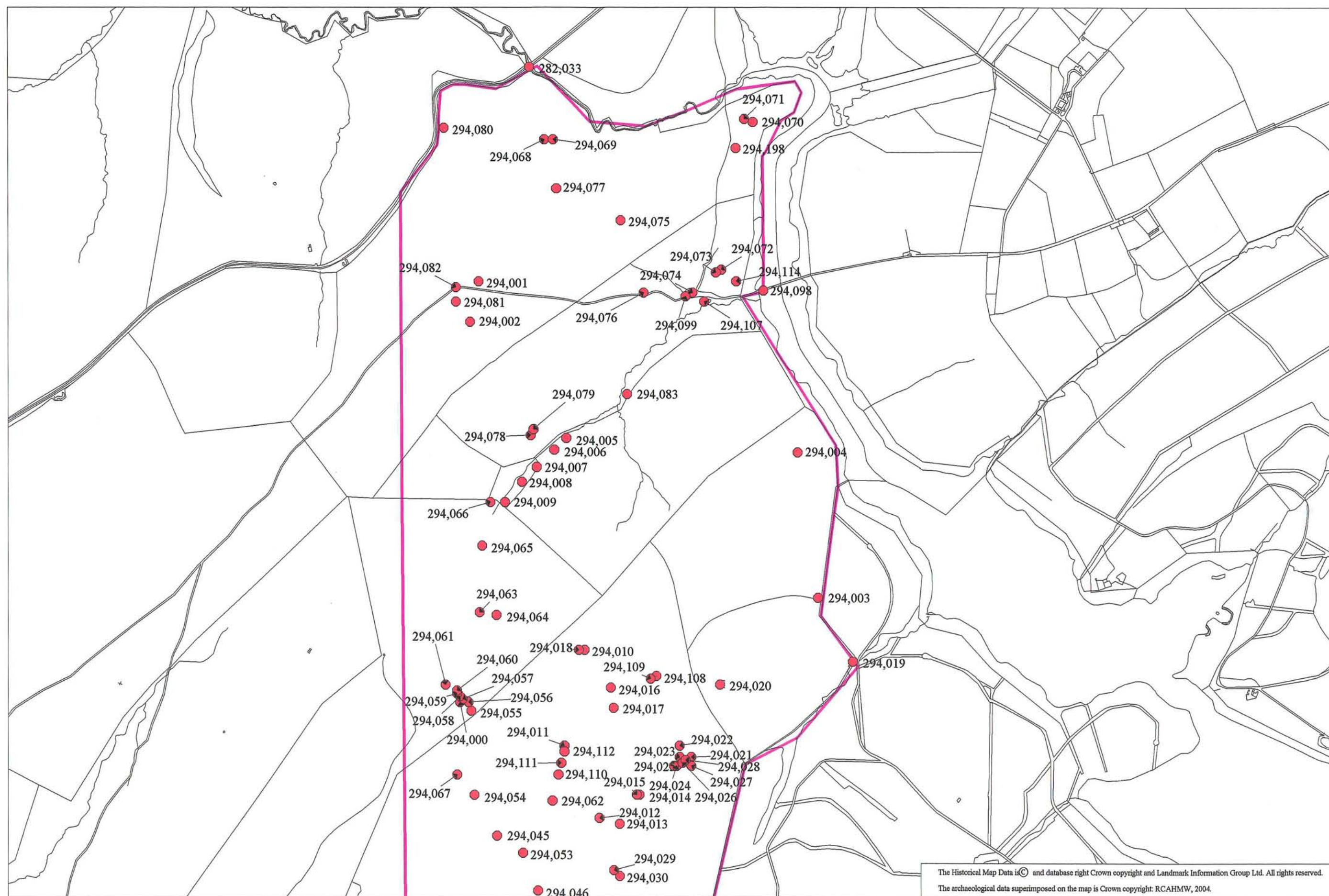


Fig 2 Archaeological sites in the north part of the southern survey area Scale 1:12,500



Fig 3 Archaeological sites in the south part of the southern survey area Scale 1:12,500



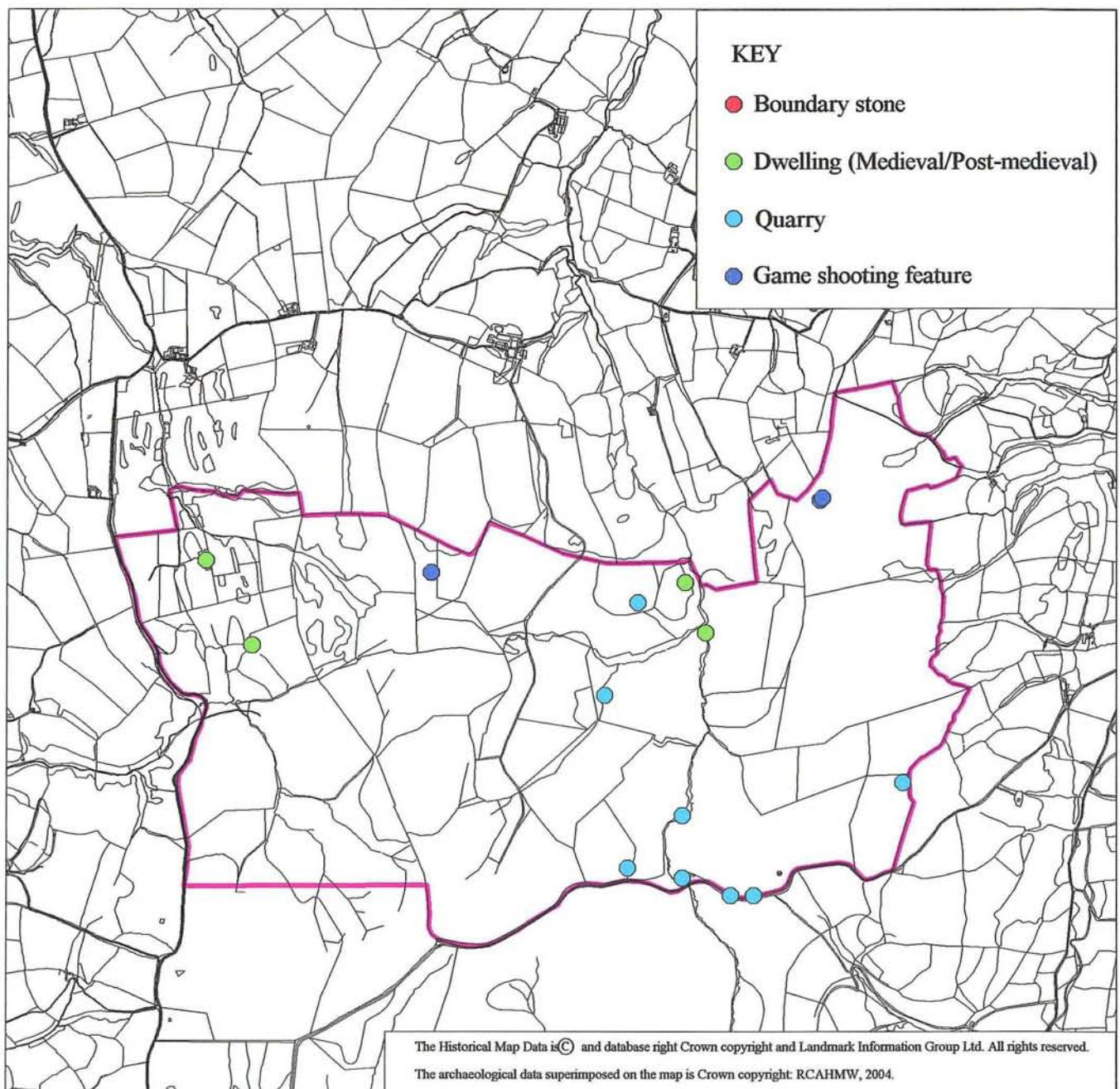


Fig 4 Distribution of selected site types in the northern survey area Scale 1:25,000



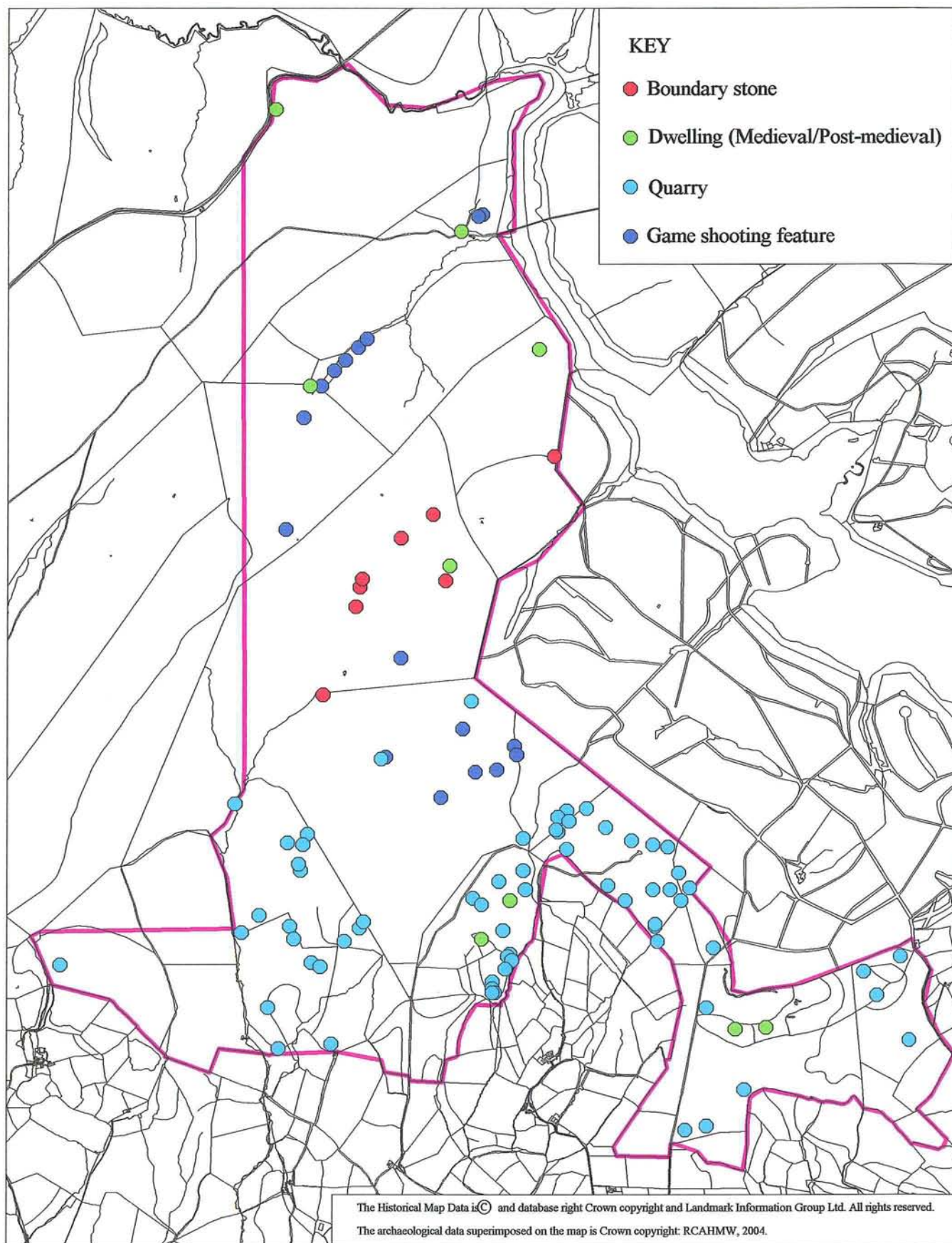


Fig 5 Distribution of selected site types in the southern survey area Scale 1:25,000