



UPLANDS INITIATIVE FIELD PROJECTS 2005-6

Nantlle to Beddgelert Survey Area

North Wales

Archaeological Survey Draft Report



Oxford Archaeology North

April 2006

RCAHMW

Issue No: 2005-6/510

OA North Job No L9511

NGR: SH 537 534

Document Title: UPLANDS INITIATIVE FIELD PROJECTS 2005-6
NANTLLE TO BEDDGELERT - SURVEY AREA

NORTH WALES

Document Type: Archaeological Survey Draft Report

Client Name: RCAHMW

Issue Number: 2005-6/510

OA Job Number: L9511

National Grid Reference: SH 537 534 (centre)

Prepared by: Peter Schofield
Position: Project Supervisor
Date: April 2006

Checked by: Jamie Quartermaine Signed.....
Position: Senior Project Manager
Date: April 2006

Approved by: Alan Lupton Signed.....
Position: Operations Manager
Date: April 2006

Document File Location Jamie/Projects/9511wels4/Nantlle_Rep

Oxford Archaeology North

Storey Institute
Meeting House Lane
Lancaster
LA1 1TF
t: (0044) 01524 848666
f: (0044) 01524 848606

w: www.oxfordarch.co.uk
e: info@oxfordarch.co.uk

© Oxford Archaeological Unit Ltd 2006

Janus House
Osney Mead
Oxford
OX2 0EA
t: (0044) 01865 263800
f: (0044) 01865 793496

Oxford Archaeological Unit Limited is a Registered Charity No: 285627

Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

CONTENTS

SUMMARY	2
WELSH SUMMARY	4
ACKNOWLEDGEMENTS.....	6
1. INTRODUCTION.....	7
1.1 Circumstances of the Project	7
1.2 Objectives	7
2. METHODOLOGY.....	8
2.1 Project Design.....	8
2.2 Desk-Based Survey.....	8
2.3 Identification Survey.....	8
2.4 Gazetteer of Sites.....	9
2.5 Archive	9
3. TOPOGRAPHICAL AND HISTORICAL BACKGROUND.....	10
3.1 Location and Topography	10
3.2 Geology.....	10
3.3 Archaeological and Historical Background.....	10
4. RESULTS OF THE DESK-BASED STUDY	14
4.1 Desk-Based Study Summary	14
5. SURVEY RESULTS	16
5.1 Introduction.....	16
5.2 Prehistoric and Roman.....	18
5.3 Medieval	20
5.4 Post-Medieval.....	21
6. CONCLUSION.....	23
6.1 Discussion.....	22
7. RECOMMENDATIONS	26
7.1 Recommendations for Further Work	26
8. BIBLIOGRAPHY	27
8.1 Primary sources.....	27
8.2 Published Cartographic Sources	27
8.3 Secondary Sources.....	27
APPENDIX 1: GAZETTEER OF NEW SITES.....	29
ILLUSTRATIONS	35

PLATES..... 36

SUMMARY

An archaeological identification survey of the mountainous region from Nantlle to Beddgelert (SH 537 534, centred) in Snowdonia, North Wales was undertaken between December 2005 and February 2006, by Oxford Archaeology North (OA North) on behalf of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) as part of the Uplands Initiative. The project carried out an initial archaeological desk-based study, followed by a field identification survey for the study area.

The survey area of Nantlle to Beddgelert covers an area of 22 sqkm and consists of the western edge of the Snowdonia massif. The area is dominated by high peaks, including the igneous ridges between Craig Cwm Silyn and Y Garn, with their tributary cwms in the south, and the large igneous protrusions of Mynydd Mawr and Moel Tryfan. The study area consists of sloping open moorland which rises from approximately 200m to between 630m and 700m on the highest ridges, with the moorland being fringed by semi-improved enclosure on the lower slopes.

In total, 43 sites were established as being recorded within the SMR and NMR, of which 13 were updated and given additional new NMR numbers. In total, 295 new sites were identified, representing a substantial numerical increase in the number of sites within the study area.

The previously discovered sites identified in the NMR and SMR as prehistoric were limited to summit cairns strung along the top of the Nantlle ridge and atop Mynydd Mawr. The present survey, however, has discovered fifteen further monuments that are probably of Bronze Age date, including two previously unrecorded burnt mounds and examples of Bronze Age cairns and cairnfields which could be either funerary or clearance in nature.

There was a series of complex, multi-period field systems that contain many elements including round houses, stock enclosures and clearance cairns. The Mynydd Mawr field systems include banked terraces on the steeper lower slopes which give way to complex stone-banked field systems on the flatter open moorland. The field systems had round houses set within them and were located on the freer draining land on small natural rises and plateaux. The present survey revealed that the field systems extended much further to the north and fragmentarily to the east than had been previously noted. Although there is a defensive hilltop enclosure set above Gelli Ffrydiau (NMR 95369), this is somewhat removed from the field systems and surrounding settlement on Mynydd Mawr, and there is no indication of an association between the field systems and the hilltop enclosure.

Very few sites of definitively medieval date had previously been discovered within the study area, and the present survey has significantly increased the number. The most significant of these are a series of platform houses and small sub-rectangular domestic structures, set within the multi-period field systems, on the south of the study area around the farmstead of Bryn-llidiard. Some probable long house sites were also identified which were isolated and may have reflected transhumant 'hafod-style' settlement.

In total, 224 sites have been ascribed to the post-medieval period, with the majority of the identified sites reflecting the relatively recent exploitation of large tracts of open moorland that forms the western edge of the Snowdonia. Up to 110 examples of sheepfolds and shelters were scattered across the whole study area, demonstrating that sheep farming has

been a major enterprise within the study area. The fringes of the moorland have been subject to enclosure from at least the early post-medieval period.

As well as the agricultural features, there was also considerable evidence for slate quarrying and copper mining. The slate quarrying was divided between the expansive regions of extraction in the west of the study area, a traditional location when quarrying goes going back into the Roman period and later extraction around Llyn-y-Gader to the east. Examples of the slate quarries include Gader-Wyllt quarry (NMR 287213) and the remains of extensive spoil tips associated with Alexandra Quarry (NMR 40528). The copper mining industry of the central Nantlle valley, was associated with the Drws-y-coed mine (NMR 33774) from the eighteenth century onwards.

CRYNODEB

Ymgwymerwyd ag arolwg adnabyddiaeth archeolegol o'r mynydd-dir rhwng Nantlle a Beddgelert (SH 537 534, canol) yn Eryri rhwng Rhagfyr 2005 a Chwefror 2006. Gwnaed y gwaith hwn gan Oxford Archaeology North (OA North) ar ran Comisiwn Brenhinol Henebion Cymru (RCAHMW) fel rhan o Fenter yr Ucheldir. O dan y prosiect, cynhaliwyd astudiaeth ddesg gychwynnol o'r archeoleg, ac wedyn arolwg adnabod yn y maes ar gyfer ardal yr astudiaeth.

Mae ardal yr astudiaeth rhwng Nantlle a Beddgelert yn mesur 22 km sgwâr ac mae'n cynnwys ymyl gorllewinol *massif* Eryri. Mae'n ardal sydd dan drem copaon uchel, gan gynnwys y trumiau igneaid rhwng Craig Cwm Silyn a'r Garn, gyda'u his-gymoedd yn y de, ac allwthiadau igneaid helaeth Mynydd Mawr a Moel Tryfan. Mae ardal yr astudiaeth yn rychwantu gweundir agored ar oleddf, gan godi o ryw 200m i rhwng 630m a 700m ar y trumiau uchaf, a thir caeëdig wedi'i led wella tuag ymylon y gweundir ar y llechweddau isaf.

I gyd, pennwyd bod 43 o safleoedd wedi'u cofnodi yn yr SMR a'r NMR, a 13 o'r rheiny wedi'u diweddarau gan dderbyn rhifau NMR ychwanegol newydd. Pennwyd cyfanswm o 295 o safleoedd newydd, gan gynrychioli cryn gynnydd yn nifer y safleoedd o fewn ardal yr astudiaeth.

Roedd y safleoedd a ddarganfuwyd yn flaenorol yn yr NMR a'r SMR fel rhai cynhanesyddol wedi'u cyfyngu i garneddau mewn rhes ar hyd copa trum Nantlle ac ar ben Mynydd Mawr. Mae'r astudiaeth bresennol, fodd bynnag, wedi darganfod pymtheg heneb bellach sy'n perthyn i Oes yr Efydd yn ôl pob tebyg, gan gynnwys dau dwmpath llosg nas cofnodwyd o'r blaen ac enghreifftiau o garneddau o Oes yr Efydd a chaeau carneddau a allai fod naill ai'n angladdol neu'n ganlyniad i weithgarwch clirio.

Roedd cyfres o systemau caeau cymhleth, a berthynai i sawl cyfnod, yn cynnwys elfennau niferus fel tai crynion, llociau da byw a charneddau clirio tir. Mae systemau caeau Mynydd Mawr yn cynnwys terasau ar oleddf ar y llechweddau isaf mwy serth, gan ildio lle wedyn i systemau caeau cymhleth â chloddiau maen ar y gweundir agored mwy gwastad. Roedd tai crynion o fewn y systemau caeau oedd wedi'u lleoli ar y tir draeniad rhydd ar godiadau a llwyfandiroedd naturiol bach. Datgelodd yr arolwg presennol fod y systemau caeau'n ymestyn lawer ymhellach tua'r gogledd, ac mewn modd tameidiog tua'r dwyrain hefyd, nag a nodwyd ynghynt. Er bod caeade amddiffynnol ar ben y bryn uwchlaw Gelli Ffrydiau (NMR 95369), mae tipyn o bellter rhwng hwnnw a'r systemau caeau a'r anheddiad amgylchynol ar Fynydd Mawr, a does dim arwydd o gysylltiad rhwng y systemau caeau a chaeade pen y bryn.

Prin iawn oedd y safleoedd o ddyddiad canoloesol pendant a ddarganfuwyd yn flaenorol o fewn ardal yr astudiaeth, ac mae'r arolwg presennol wedi cynyddu'r nifer yn sylweddol. Y mwyaf arwyddocaol o'r rhain yw cyfres o dai llwyfan a fframweithiau domestig is-hirsgwar bach, wedi'u gosod o fewn y systemau caeau aml-gyfnod ar ochr ddeheuol ardal yr astudiaeth o gwmpas ffermdy Bryn-llidiard. Pennwyd hefyd rai safleoedd tai hirion tebygol oedd yn anghysbell ac a all fod wedi adlewyrchu trefn anheddu ar sail hafota.

I gyd, cafodd 224 o safleoedd eu priodoli i'r cyfnod ôl-ganoloesol, a mwyafrif y safleoedd a bennwyd yn gynrychioli gweithgarwch cymharol ddiweddar i elwa ar ddarnau helaeth o

weundir agored ar hyd ymylon gorllewinol Eryri. Roedd hyd at 110 o enghreifftiau o gornannau a llochesi wedi'u gwasgaru ar draws holl ardal yr astudiaeth, gan ddangos bod ffermio defaid wedi bod yn fenter o bwys yno. Cafodd ymylon y gweundir eu cau ers o leiaf dechrau'r cyfnod ôl-ganoloesol cynnar.

Yn ogystal â nodweddion amaethyddol, roedd hefyd gryn dystiolaeth o chwarela llechi a mwyngloddio copor. Roedd y chwarela wedi'i rannu rhwng y mannau tyrchu helaeth yng ngorllewin ardal yr astudiaeth, lleoliad traddodiadol yn mynd yn ôl o bosib i gyfnod y Rhufeiniaid, a chloddio diweddarach o gwmpas Llyn y Gader tua'r dwyrain. Mae enghreifftiau o'r chwareli llechi yn cynnwys chwarel Gader Wyllt (NMR 287213) ac olion tomenni rwbil eang oedd yn gysylltiedig â Chwarel Alexandra (NMR 40528). Roedd diwydiant mwyngloddio copor canol Dyffryn Nantlle yn canoli ar fwynglawdd Drws-y-coed (NMR 33774) o'r ddeunawfed ganrif ymlaen.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank the Staff of the Royal Commission on Ancient and Historical Monuments of Wales (RCAHMW), in particular David Leighton, David Thomas, Tom Pert and Medwyn Parry, and also the staff of the reader services of the National Library of Wales, Aberystwyth. OA North is also grateful to all the landowners who generously allowed the survey team onto their land, in particular, Mr Arwel Jones of Tal-y-mignedd Isaf and Mr O Ellis of Gelli Ffryddiau.

We would like to thank Lorna Jones, Land Charges Officer at Gwynedd County Council and Seran Dolma at the Countryside Council for Wales, and we must also thank Nina Steele of the Gwynedd Archaeological Trust for providing HER details.

The field survey was undertaken by Peter Schofield, and assisted by Alastair Vannan. The report was written by Peter Schofield, and the illustrations were by Jamie Quartermaine, Peter Schofield and Jo Cook. The report was edited by Jamie Quartermaine and Alan Lupton. The project was managed by Jamie Quartermaine.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Oxford Archaeology North (OA North) was invited to undertake an archaeological identification survey of the mountainous region from Nantlle to Beddgelert (SH 537 534 centred) in Snowdonia, North Wales on behalf of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) as part of the Uplands Initiative. The study area encompasses 22 sqkm of upland and is part of the Nantlle Valley registered Historic Landscape No. 27.

1.2 OBJECTIVES

1.2.1 The objectives of the project were:

- to promote a wider and deeper understanding of upland areas and their role in Welsh history, in accordance with the aims of the Uplands Initiative;
- to provide an accurate Level 1 survey of all identified monuments (OA North, 2002).

1.2.2 To achieve these objectives the study area was subject to a desk-based assessment and walk-over survey. The desk-based study, carried out in November 2005, consisted of a search of both published and unpublished records held by the National Monuments Record (NMR) of Wales, Gwynedd Archaeological Trust and the library and archives at OA North's offices in Lancaster. The field work was carried out to fit in with access availability and weather conditions; and was undertaken between December 2005 and February 2006.

1.2.3 This report sets out the results of the work, accompanied by a summary gazetteer of new sites (*Appendix I*).

2. METHODOLOGY

2.1 PROJECT DESIGN

- 2.1.1 A project design (OA North 2005b) was submitted by OA North in response to a request for archaeological surveys of extensive areas of the Welsh Uplands; it was designed to meet the requirements of a brief by RCAHMW (2005). The project design provided for an initial archaeological desk-based study, followed by a field identification survey for the following areas: Nantlle to Beddgelert, Berwyn East, Tywyn-Dolgoch Uplands and Trannon East. OA North was commissioned to undertake survey in the first of these project areas and the present report relates to the Nantlle to Beddgelert study area only (Figs 1 and 2).
- 2.1.2 The work has been carried out in accordance with the project design (OA North 2005b), although the enclosed land at the westernmost part of the area, in the ownership of Gelli Frydiau Farm, was denied access and could not be surveyed. Unfortunately, this was an area containing the greatest concentration of early field systems.

2.2 DESK-BASED SURVEY

- 2.2.1 **National Monuments Record (NMR):** an assessment was made of data held by the RCAHMW, Aberystwyth, which were overlain onto digital 1:10,000 mapping for the study area.
- 2.2.2 **Aerial Photographs:** aerial photography from the NMR office was also consulted along with RCAHMW aerial photographic interpretation of the study area. Information relating to possible new sites was annotated onto the field walking maps in GIS format.
- 2.2.3 **Historic Environment Record (HER):** an assessment was made of data held by the Gwynedd Archaeological Trust (GAT), which was also overlain onto the digital base map for the area.
- 2.2.4 **Ordnance Survey Mapping:** first and/or second edition mapping was available for the entire survey area, and was examined for indications of historic sites not previously represented in the NMR and HER databases.
- 2.2.5 **World Wide Web:** historic landscape characterisation, parish records, census data and transcripts of some public records were obtained from archives and local histories on the internet. More modern data on the parish was also gleaned, which provided information about recent developments in the area.

2.3 IDENTIFICATION SURVEY

- 2.3.1 An identification survey to Level 1 (OA North 2002) was undertaken on the Nantlle to Beddgelert study area. The identification survey represents the minimum standard of record for field investigation, and is aimed at the discovery of previously unrecorded sites. Its objective is to record the existence, location, and extent of any archaeological site. The emphasis of the record lies on the written

description, which includes comments on character and condition, and sites have been graded in terms of condition and archaeological significance. Sites already identified within the study area by the NMR and HER were checked and recorded at the same level of consistency as the newly discovered sites. The whole survey area, including both the unenclosed commons and surrounding improved and enclosed fringes, was examined. The survey aimed to identify, locate and record archaeological sites and features on the ground and involved four elements: reconnaissance, mapping, description and photography. This generated core information for entry into the NMR and additional archive information, in accordance with the RCAHMW Revised Data Standard for Upland Survey (RCAHMW 2004).

- 2.3.2 Each area was walked in transects of between 20m and 50m, depending on local topography and ground cover. The archaeological detail was mapped using Leica differential GPS equipment which used real-time EGNOS corrections from geostationary satellites to achieve an accuracy of ± 0.5 m. The digital survey data was transferred as shapefiles into a GIS system (ArcGIS 9), and was superimposed onto the embedded digital Ordnance Survey data (Figs 3 and 4). The descriptive records were input on-site into a database on a Psion portable palm computer; the more complex sites were also sketched onto paper *pro-forma* sheets. A photographic record of the sites was maintained in 35mm black and white print format, colour slides, and also using digital colour imagery; the digital photographs were used to accompany the present report.

2.4 GAZETTEER OF SITES

- 2.4.1 All of the information concerning archaeological sites within the assessed area was collated into a gazetteer (*Appendix 1*), which provides brief details of their location, period, type and altitude. Locations are given as eight-figure National Grid References where possible, and the position of each site is indicated on Figures 3 and 4.

2.5 ARCHIVE

- 2.5.1 A full archive has been produced to a professional standard in accordance with current English Heritage guidelines (1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The archive is provided in the English Heritage Centre for Archaeology format, both as a printed document and digitally. A synopsis, including the index to the archive and a copy of the report, will be placed in the NMR, RCAHMW at Aberystwyth and the Gwynedd HER at GAT, Bangor.

3. TOPOGRAPHICAL AND HISTORICAL BACKGROUND

3.1 LOCATION AND TOPOGRAPHY

3.1.1 The survey area of Nantlle to Beddgelert covers an area of 22 sqkm and consists of the western edge of the Snowdonia massif. The area is centred upon the U-shaped glaciated valley of the Nantlle Valley which extends east/west. To the west of the valley on the lower ground, and outside the study area is the lake of Llyn Nantlle Uchaf which drains the Afon Drws-y-coed from the valley. To the east the ground rises to a narrow pass, at Bwlchgylfin, over into the Afon Gwyrfal valley, below Snowdon, which contains the community of Beddgelert. The area is dominated by high peaks, and includes the igneous ridges between Craig Cwm Silyn and Y Garn, with their tributary cwms in the south, and the large igneous protrusions of Mynydd Mawr and the lower Moel Tryfan in the centre and north (Fig 1). The study area consists of sloping open moorland which rises from approximately 200m to between 630m and 700m on the highest ridges. The area is characterised as predominantly open moorland which is fringed by semi-improved enclosure on the lower slopes below the steep sides of the Nantlle Valley, and also smaller piecemeal enclosures along the edges of Moel Tryfan and Mynydd Mawr to the west and north (Cadw/CCW/IOMOS 1998).

3.2 GEOLOGY

3.2.1 The solid geology of the study area consists mainly of a mixture of sedimentary rocks of Cambrian and Ordovician ages, and are of the Merioneth and Arenig-Llandeilo series respectively. The geology has suffered an intrusion of younger igneous rocks centred for the most part upon the highest hills and ridges (British Geological Survey 1994; Neville George and Smith 1961). The intrusions are of the Coarse Grained Acid series and at Mynydd Mawr consists of Riebeckite Microgranite (*ibid*). The overlying soils are a mixture of various soil types dependant on the parent rock (Soil Survey 1983). The igneous outcrop of Mynydd Mawr has gritty, loamy acid and coarse loamy soils of Bangor and Laployd associations. The area around Moel Tryfan and the lower slopes of Mynydd Mawr have gritty, loamy acid soils of the Hexworthy association. The steep slopes on either side of the Nantlle Valley have fine loamy soils above bedrock, which are of the Manod association. The Nantlle ridge rising up to the south has loamy permiable soils of the Hafren association and the land descending to Llyn-y-Gader contains a pocket of very acid peat of the Crowdy 2 association (*ibid*).

3.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.3.1 **Prehistoric and Roman:** there was very little previously recorded evidence of human activity in the immediate study area during the prehistoric period. The only previously identified sites consisted of the locations of Bronze Age summit cairns which were strung out atop the high summits throughout the study area. These consisted of the cairns on Mynydd Mawr (NMR 302554, Plate 1) and Craig Cwmbychan (NMR 400489) to the north of the Nantlle Valley. To the south of the

valley are the twin summit cairns at Y Garn (NMR 302602) and the cairn at Craig Cwm Silyn (NMR 302537), which are located upon the high mountain ridgeline skirting the southern edge of the study area.

- 3.3.2 Within the study area there are extensive field systems with round house settlements set within them, which are located on the lower slopes, surviving just above the edges of modern cultivation. The most obvious of these field systems is set on the western flank of Mynydd Mawr, and is located just to the north of Gelli Ffridiau farm, below, and to the south of, Caeronwy-uchaf (NMR 24298, RCAHMW 1960). It consists of multiple, lynched terraces, stock enclosures and fields surrounding grouped and singular round houses and 'homesteads', which survive within modern field plots and also extend uphill to the east on flat, well drained, areas within the unimproved commons (GAT nd; PRN 15737). The field system spreads to the west and survives in-between, and is in part randomly destroyed by, the later slate workings (Cadw/CCW/ICOMOS 1998). There are also similar field systems located in semi-improved fields to the north of the study area, on the northern flank of Mynydd Mawr above Tyddyn Bach farm (NMR 275729). There is also a lowland round house settlement which is clustered on a low flat rise, just off the floor of the valley at Drws-y-coed, in the centre of the study area (NMR 93678). Further lowland sites and field systems of the period have probably been destroyed or masked by the considerable post-medieval quarrying and mining activities.
- 3.3.3 These predominantly unenclosed settlements and associated field systems are categorised within the NMR as Iron Age / Roman; however, there are very few absolute dates for these monuments in Wales and their chronology is uncertain. They are unlikely to be of early Iron Age date as the climatic decline of the early part of the first millennium BC would not have supported arable farming at altitude (Lamb 1981), although there are examples from elsewhere in Northern England of unenclosed settlements that date back to the Late Bronze Age (Haselgrove 2002; Jobey 1985).
- 3.3.4 The other remaining sites of this period are two small defended enclosures, the first of which is slightly removed from a potentially contemporary field system and is located just above Gelli Ffridiau farm (NMR 95369, Plate 5). It consists of a small sub-oval defended enclosure set upon a small knoll which overlooks the lower end of the valley. The second enclosure/fort is located to the west of the study area and is set on top of a small knoll on the valley floor at Caer Engan near Penygroes. Between them, the enclosures effectively guarded / controlled the entrance and centre of the valley (Cadw/CCW/ICOMOS 1998). It has been suggested that quarrying of the slate was taking place in the Roman period just to the west of the study area at Cilgwyn, and that this was where the slate from the fort of *Segontium* came from (*ibid*).
- 3.3.5 **Medieval:** there is some scanty evidence for habitation and exploitation within and around the study area during this period. The main complex of field systems on the western fringes of Mynydd Mawr could possibly have been cultivated at this time this period; however, there was no evidence of long houses set within the settlements (RCAHMW 1960), which is unusual when compared with other extensive field systems found upon the moorland fringes of the Snowdonia range (OA North 2004b and 2005a). There is evidence, however, that long houses and

areas of associated ridge and furrow cultivation survive along the mid-slope of the southern side of the Nantlle Valley (GAT nd; PRN 15736). Further afield, just outside the north-eastern edge of the study area, there is evidence for a holy well at Ffynnon Garmon, an attendant sixteenth century chapel (NMR 302546 and NMR 26455) and also a potential long house settlement (NMR 15112); however, all of these sites have been engulfed by tree plantation in the twentieth century. Within the Nantlle Valley itself, prior to its' draining, the isthmus between the twin lakes of Llyn Nantlle-isaf and the extant Llyn Nantlle Uchaf was probably the maerdref (a medieval commotal centre) and administrative centre of the commote of Uwch Gwyrfa (Cadw/CCW/ICOMOS 1998). Further local evidence of activity within this period can be seen with the traditional burial place of St Twrog, which is said to be upon the hill of Mynydd Cilgwyn, just to the west of the study area (GAT nd; PRN 15713). The earliest industry within the valley consisted of early workings at Drws-y-coed copper mine (NMR 33774) in the central narrow valley floor, which was reputedly visited by Edward I in 1284 (Bick 2003).

- 3.3.6 **Post-Medieval:** the period has been dominated, and the landscape shaped most predominantly, by extensive extractive mining industries in the post-medieval period. There are two major industries, slate quarrying and copper mining, within the Nantlle valley, and, although these are located outside the study area, they do have a bearing on the study area as a whole. The slate quarrying developed most extensively on the floor of the valley mouth and its lower slopes on the east side of Penygroes in order to exploit the Cambrian slate rocks of Caernarvonshire (Morgan Rees 1975); the most extensive of these is the Dorothea quarry which dates from as early as the 1840s (Richards 1999). The general development in the industry saw an increase in intensification through the eighteenth and into the nineteenth centuries, with a trend of spreading out from west to east. There is evidence that the quarrying shaped early land settlement, with small early (possibly eighteenth century) fields seen between the waste tips at Cilgwyn (Cadw/CCW/ICOMOS 1998). The land tenure had developed along the lines of small landholdings and settlements and, consequently, the quarrying developed in scattered and dispersed areas largely dictated by the ownership of the mineral rights (*ibid*). Evidence for this industry can be seen within the study area, firstly (and less extensively) on its eastern fringes where there are the remains of Llyn-y-gader and Gader-wyllt quarries which operated between the 1880s and 1920s (Richards 1999). Secondly, on the north-western corner of the study area are the remains of Alexandra quarry (NMR 40528), whose spoil heaps encroach into the study area; this quarry was active between the 1860s and 1980s (Brown and Hughes 2004; Richards 1999). One interesting aspect of the interrelation between agriculture and industry, is the way that dispersedcrofting settlement has been fuelled by the expansion of the quarries and has led to small islands of encroachment upon the crown commons in the north-western fringe of the study area (Cadw/CCW/ICOMOS 1998; Richards 1999).
- 3.3.7 The copper mining industry has developed within the central section of the valley floor with extensive workings at Simdde-dylluan and Drws-y-coed mines (and to a lesser extent Benallt mine); trial levels and adits extend up the valley sides to both the north and south and into the study area (Bick 2003). The largest venture was Drws-y-coed mine, which was owned by the Assheton-Smith family from the early eighteenth century until 1874 and was then worked sporadically until the 1920s (*ibid*). Simdde-dylluan mine, located just to the west on the same lode, operated

throughout the same timescale with many different owners, but was only significantly viable until the mid-nineteenth century. Benallt mine, located above Simdde-dylluan mine, was a purely speculative lead mining enterprise of the 1870s which reused an earlier nineteenth century adit (*ibid*).

- 3.3.8 The unenclosed moorland to the north of the valley was Crown common which has been encroached upon over the last few centuries but has stayed essentially open. To the south of the valley the commons have been divided amongst individual farmsteads that are spread along the valley floor and lower slopes. The open moorland has been rationalised by the establishment of enclosure walls that extend up the Nantlle ridge to the south. The open moorland, throughout the study area, has traditionally been used for sheep grazing with many sheep folds located at altitude within the cwms and below the ridgeline (GAT nd; PRN 15713; PRN 15741).

4. RESULTS OF THE DESK-BASED STUDY

4.1 DESK-BASED STUDY SUMMARY

- 4.1.1 ***Cartographic Evidence:*** examination of the historic maps, the Ordnance Survey (OS) first and subsequent editions of the 6" to 1 mile map, can provide an insight into the development of the enclosed lands and higher unenclosed moorland; however, there was revealed little significant difference between the OS first edition mapping (1890-91) and that of today. The layout of the enclosure fields at the edge of the study area remains for the most part unchanged, and shows the pattern of small piecemeal encroachment onto the Crown commons in the north and west of the study area. Although the fields along the edges of the Nantlle Valley remain relatively static, they do, however, show the extant nature of many of the farms and enclosed cottages which have subsequently fallen into ruin in the twentieth century. The historic mapping indicates that the principle use for the moorland was for the grazing of sheep, and there are many sheep folds located at junctions of trackways on the edge of the farmed land and leading up onto the higher sheep walks. There are also many sheep folds at the higher limits of the sheep walks, especially within the sheltered glacial cwms on the north side of the Nantlle ridge.
- 4.1.2 The OS first edition mapping shows the heavily industrialised nature of the lower land immediately surrounding and encroaching onto the fringes of the study area. The extensive quarries and spoilheaps of the slate industry can be seen on the north, west and east of the study area. The most extensive region is at the base of the valley to the west where numerous workings, including Dorothea, Talysarn, Pen-y-bryn and Pen-yr-orsedd slate quarries, are sited. They include intricate narrow gauge railways which were extended over time in the course of the later twentieth century editions of the OS mapping. To the north of the study area is Alexandra Quarry with its powered incline and which has spoilheaps that demonstrably expand in extent and number over time. To the east are the smaller Llyn-y-gader and Gader-wyllt quarries which have tramways extending along the lake edge. Within the Nantlle Valley itself are the main workings of the copper mines at Drws-y-coed and Simdde-dylluan and there attendant trial workings and adits littering the north and south slopes of the valley and cwms. Another interesting feature are the number of lakes which have been dammed to provide water power for these industries, and include Llyn Bwylch-y-mon (now drained), Llyn y Dywarchen and Llyn Ffynnonnau. At the foot of the valley the lake of Llyn Nantlle-Isaf (one of two lakes in the valley) was shown on the First Edition mapping but this has subsequently been drained and is now covered in quarry spoil.
- 4.1.3 ***Aerial Photographic Interpretation:*** digital aerial photographic mapping and interpretation was supplied by the RCAHMW under the auspices of the Uplands Initiative. This identified many of the features and settlement associated with the extensive field systems located upon the fringes of the study area. There are new extensive systems on the southern side of the Nantlle Valley located around Bryn-llidiard farm, which may mirror the more extensive relict field systems that had previously been recorded on the north-western slopes of the valley. There are also smaller more discrete settlements on the elevated south side of the valley, which are

associated with one or two round houses. The investigation has highlighted the complex nature of the fields that are spread over a wide area; clarifying the definition of the field banks and lynchets, as well as potential clearance cairns. Further small mound features have been identified distributed widely across the study area which could have many potential functions; one particular example near Bryn-gwyn-bach farm was kidney-shaped and was subsequently found through fieldwork to be a burnt mound ((NMR 287284). The aerial photographic interpretation has also added to the number of trial mines, and adits located upon the higher parts of the study area and form the majority of the sites identified at these elevated altitudes.

- 4.1.4 ***Gwynedd Sites and Monuments Record (SMR), National Monuments Record of Wales (NMR)***: in total, 43 unduplicated sites were recorded within the SMR and NMR; comprising four prehistoric sites, three Bronze Age sites, ten Iron Age sites, three Early medieval and medieval sites, two medieval/post-medieval sites, fifteen post-medieval sites and six sites of unknown date (Table 1; Figs 3 and 4).

5. SURVEY RESULTS

5.1 INTRODUCTION

- 5.1.1 The study area incorporated areas of enclosed and unenclosed land and the survey examined both known and previously unknown sites which ranged in date from the prehistoric to the post-medieval and modern periods. While there were examples of single monuments, many were part of larger groups of sites, which, for the most part, consisted of extensive multi-period field systems. All the sites identified by the documentary study were examined; their locations and extent were updated on the mapping, as required, and the site descriptions were enhanced. Both new and old sites are indicated on Figures 3 and 4. Two small portions of the study area were not subject to walkover survey (Figure 2). The southernmost portion located around Caeronwy-uchaf was restricted because the landowners, who live at Blaeny-garth, refused access to their land. The northern portion, located above Ty-coch on the north side of Mynydd Mawr, was restricted because the landowner could not be identified or contacted.
- 5.1.2 *Previously Recorded Sites:* the desk-based study identified 43 pre-survey NMR sites, whilst a further 13 unduplicated SMR sites were also updated and given new NMR numbers. The greater majority of the known sites were confirmed by the identification survey; however, a few sites, despite extensive searching, could not be located.
- 5.1.3 *New Sites:* in total, 295 new sites were identified representing a substantial numerical increase in the number of sites within the study area; they are summarised below in Table 1.

Period	Pre-Survey Number	Post-Survey Number	Numerical Increase
Prehistoric	4	12	8
Bronze Age	3	10	7
Prehistoric/Iron Age	0	2	2
Iron Age	10	36	26
Iron Age/medieval	0	3	3
Early medieval	1	1	0
Medieval	2	18	16
Medieval/post-medieval	2	3	1
Post-medieval	15	239	224
Modern	0	2	2
Unknown/General	6	12	6
Total	43	338	295

Table 1: Pre- and Post-Survey Site Numbers

5.1.4 **Altitude range of sites:** the overall site density was fifteen sites per sqkm, which was spread according to altitude as shown in Table 2. The greatest density of sites was between the 300-324m OD range.

Height Range	Existing Sites	New Sites	Total
100-124m	2	0	2
125-149m	2	0	2
150-174m	3	0	3
175-199m	5	4	9
200-224m	7	24	31
225-249m	5	50	55
250-274m	6	36	42
275-299m	0	27	27
300-324m	4	55	59
325-349m	0	46	46
350-374m	2	24	26
375-399m	2	14	16
400-424m	0	3	3
425-449m	1	3	4
450-474m	0	2	2
475-499m	0	4	4
500-524m	0	2	2
Over 525m	4	1	5
Total	43	295	338

Table 2: Pre- and Post- survey site numbers with respect to altitude

5.1.5 **Range of site types:** the sites identified from the present survey, and previously identified within the record, fall into 27 general types, which are defined as shown in Table 3.

Type	Existing Sites	New Sites	Total
Boundary, Boundary Bank, Boundary Stone, Enclosure Boundary, Marker Cairn, Marker Stone, Wall	0	34	34
Building, Building Platform, Structure, Dwelling, House	7	10	17
Burnt Mound	0	2	2

Cairn, Cairnfield, Clearance Cairn	4	14	18
Chapel	2	0	2
Copper Mine, Slag Heap, Trial Mine	1	30	31
Dam, Filter House, Reservoir	0	4	4
Deserted Rural Settlement, Settlement	3	1	4
Enclosure	1	8	9
Farm Building, Farmhouse, Farmstead, Homestead	4	19	23
Feature, Mound, Natural Feature	1	4	5
Field System	3	7	10
Garden	1	0	1
Hillfort	1	0	1
Holy Well	1	0	1
House Platform, Platform, Platform House, Longhouse	2	14	16
Round House, Round House Settlement	6	13	19
Lake	1	0	1
Leat	0	1	1
Milestone	0	1	1
Mine Building, Miners Shelter	0	7	7
Obelisk	0	1	1
Peat Cutting	0	5	5
Quarry, Quarry Building, Slate Quarry	4	6	10
Ridge and Furrow	0	2	2
Sheepfold, Sheep Shelter, Shelter, Stock Enclosure	1	109	110
Trackway	0	3	3
Total	43	295	338

Table 3: Range of Site Types

5.2 PREHISTORIC AND ROMAN

5.2.1 **Bronze Age:** those previously discovered sites that were defined within the NMR and SMR as prehistoric were limited to summit cairns strung along the top of the Nantlle ridge and also atop Mynydd Mawr (Plate 1). The present survey, however, has discovered fifteen further monuments that are probably of Bronze Age date. Two previously unrecorded burnt mounds of classic horseshoe/kidney shape have been identified, and are a typical indicator of Bronze Age activity. The first of these is located in the east, on the edge of shallow boggy ground, at Bwylch y Moch (NMR 287144; Plate 2), and would have been submerged within the reservoir of Llyn Bwylch y Moch in the nineteenth century; however, it now survives as an obvious feature. The second burnt mound was in the extreme south-west end of the study area on semi-improved but boggy ground and adjacent to a stream by Bryngwyn farmstead (NMR 287284), and had been identified by examination of the

aerial photographs (*Section 4.1.3*). The two mounds mirror the general distribution and location of mounds of this type in the region, one of which has been excavated on the Graeanog ridge (Kelly 1990).

- 5.2.2 The remaining putative Bronze Age sites located by the survey were examples of small cairns and cairnfields, which could be either funerary or clearance in nature. There were several examples of small, singular cairns set upon the sloping land beneath the Nantlle ridge in the south of the study area, including the examples at Afon Craig-las and Y Gader (NMR 287243 and NMR 287205). A further two examples were within the field system at Bryn-llidiard (NMR 287259 and NMR 287275); however, also within this locality were ten long sub-rectangular mounds (NMR 287258), which are more likely to be associated with the later field system. There are, in addition, two single, undated examples of sub-circular and sub-square platform mounds, which were each set above Afon Tal-y-mignedd (NMR 287120) and Afon Craig-las (NMR 287093) respectively. In the north of the study area are examples of a grouped pair of cairns, each up to 8m in diameter, which are set in the flat saddle between Moel Tryfan and Mynydd Mawr (NMR 287027 and NMR 287028). It is likely that these are funerary in nature, although they are in close proximity to two other features, one of which was possibly a round house. Potentially, the most interesting of the cairns are seen in several cairnfields strung out around Llyn Ffynhonnau and Castell Caeronwy farmstead. The first of these consists of at least ten low cairns in a group set on elevated flattened ground just to the north of Llyn Ffynhonnau (NMR 287042); they are in isolation with no attendant field systems. Further south, around and to the south of Castell Caeronwy, are similar cairnfields, one with twelve cairns (NMR 287081, Plate 3) and one with eight cairns (NMR 287085). These cairns are located on the edge of, and partly within of the extensive Iron Age field system in this area (NMR 287092). It was uncertain whether the cairnfields were part of a process of stone clearance within established field plots, or whether the field system developed out from a simple cairnfield leaving the earlier cairns extant within the plots. Immediately to the east of Castell Caeronwy are the fragmentary remains of part of another field system (NMR 287079); here there is evidence that the clearance cairns were the primary sites and that the subsequent sinuous field banks had developed around and through the earlier cairns,
- 5.2.3 ***Mynydd Mawr Field Systems:*** previous field surveys have identified extensive field systems located on the western flank of Mynydd Mawr and the present survey has increased significantly the number of sites associated with them. These earlier expansive field systems and the banked terraces on the steeper lower slopes (NMR 24298), has been overlain by complex stone-banked field systems on the flatter open moorland. The field systems had round houses set within them and were located on the freer draining land on small natural rises and plateaux (NMR 287090 and NMR 287092). One interesting aspect of the present survey was the extent to which the field systems extended much further to the north and more intermittently to the east than had been previously noted (NMR 287079 and NMR 287078). To the south-east the land curves around the flank of Mynydd Mawr and into the Nantlle Valley, and has been heavily improved from Gelli Ffrydiau farm; however, there are also ephemeral traces of the field system continuing into this locale (NMR 287297) and at least two further round houses are to be found within it (NMR 287290 and NMR 287298). Although there is a defensive hilltop enclosure set

above Gelli Ffrydiau (NMR 95369, Plate 5), this is somewhat removed from the field systems and settlement surrounding it on Mynydd Mawr, and there is no indication of an association between them.

- 5.2.4 In the south of the study area are the remains of further extensive field-systems which have been partially overlain/erased by Bryn-llidiard farmstead (NMR 287271, NMR 287283, NMR 287261 and NMR 287260). These field systems contain many elements, including round houses (NMR 287265, NMR 287273 and NMR 287268), elements of stock enclosures, and clearance cairns, although only some of these features show up on the aerial photographs. The field systems were obviously multi-period in nature, as there were potentially earlier cairns set within them, as well as rectilinear platform houses. In addition to these large complex systems, there were also small round house groups and individual round houses, some with small stock enclosures attached, which follow the top break of the valley sides along the south of the Nantlle Valley and around to Llyn-y-Gader in the east (NMR 302636, NMR 287245, NMR 287228, NMR 287294, NMR 287204, and NMR 287277, Plate 4). In addition, there are several very isolated examples, one within the Cwm Planwydd, which is overlooking Llyn Cwellyn on the east side of Mynydd Mawr (NMR 287151), and one high up on the craggy slopes of Craig y Bera on the steep southern slope of Mynydd Mawr (NMR 287293).

5.3 MEDIEVAL

- 5.3.1 Few sites of definitively medieval date had previously been discovered within the study area. The present survey has, however, identified numerous sites for the period, the most interesting of which are a series of rectilinear platform houses and small sub-rectangular domestic structures that are set within the multi-period field systems on the south of the study area around the farmstead of Bryn-llidiard. In the easternmost part of the field system (NMR 287260) are numerous rectangular cairns, which have been ascribed as being clearance features (NMR 287258); however, within one of the field system enclosures are examples of sub-rectangular platform houses which are all orientated roughly south-east/north-west (NMR 287274, Plate 6). Further rectangular structures (NMR 287272 and NMR 287282) are set within other parts of the field system. It had been previously noted that long houses and areas of associated ridge and furrow cultivation survive along the mid-slope of the southern side of the Nantlle Valley (*Section 3.3.3*). Further into the study area are other examples of long houses, to the south of Llyn Nantlle-uchaf which were sited on the top break of slope of the steep valley side (NMR 287281 and NMR 287280), and are in broadly similar locations and settings as the round houses of preceding periods. Unlike the earlier structures, however, there are examples of these long house structures spreading out on similar altitudes and topography on the opposite south-facing slopes to the north of the valley (NMR 287199 and NMR 287203). Long house structures and a platform house were also found at similar altitudes and locations as the round houses on the east of the study area overlooking Llyn-y-Gader (NMR 287199 and NMR 287203). Some of these sites were quite isolated and may have reflected transhumant 'hafod-style' settlement above the established farmsteads within the valley floor. There are further examples of long houses nestled far into the glacial cwms on the north side

of the Nantlle ridge, near Afon Craig-las (NMR 287098), Mynydd Tal-y-mignedd (NMR 287069) and Bwylchgylfin (NMR 287192).

5.4 POST-MEDIEVAL

- 5.4.1 ***Agricultural Landscape:*** in total, 224 sites have been ascribed to the post-medieval period, and form the majority of the identified sites (see Table 1) (Figs 5 and 6). The sites reflect the relatively recent exploitation of large tracts of the open moorland that forms the western edge of the Snowdonia. Many sites are attributable to the dispersed agricultural exploitation of the moorland for stock management, and comprise numerous sheepfolds and shelters (up to 110 examples) scattered across the whole study area. The large number of these features demonstrate that sheep farming has been a major enterprise across the moorland at altitude during the post-medieval period.
- 5.4.2 ***Field systems and Settlement:*** the fringes of the moorland have been subject to enclosure from at least the early post-medieval period. The steep slopes on either side of the Nantlle Valley have been controlled and enclosed by the farmsteads located on the valley floor up as far as the top break of slope of the valley side. At the western end of the study area this has led to a good proportion of the earlier lyncheted field systems being enclosed. The management of moorland in the southern part of the study area was clearly divided between the separate farmsteads, rather than being Crown common as in the north, and is evidenced by numerous examples of rudely constructed boundary stones across the area (eg NMR 287227, NMR 287240 and NMR 287251). Encroachment upon the open Crown common by small, enclosed, crofting cottages had taken place above the slate quarries (where the inhabitants worked), all the way between Moel Tryfan and Mynydd Mawr. Extant examples include Castell Caeronwy, which partly overlays the earlier field systems, and to the north and east of this, and up as far as Llyn Ffynhonnau, are small enclosures with ruined domestic buildings. These include Penrhyn (NMR 287033), Bryn-castell (NMR 287080) and an un-named example which had fallen into disrepair before the OS First Edition mapping (1890) (NMR 287034). More permanent settlement and farmsteads can be seen on the south-western fringe of the study area, for example at Bryn-llidiard farmstead (NMR 287262; Plate 7); however, given the relatively high altitudes here, this settlement has contracted during the twentieth century. At the head of the Nantlle Valley, in the east of the study area, are numerous small ruinous farmsteads and cottages, which are set within small extant field systems on and around the slopes of Clogwyngarreg, and around Llyn-y-Dywarchen (eg ‘Hafoty’ NMR 287163 and Llyn-y-forwyn’ NMR 287138); associated with them are extensive tracts of peat cutting (NMR 287132; Plate 8). Many of the farmsteads, especially those on the western side of Clogwyngarreg, may have had a dual purpose of being both agricultural in function, and also providing dispersed accommodation for the workers of the copper mines in the valley. It was not uncommon for the workers in the quarries and mines of the early industrial period to have had a mixed agricultural industrial economy (OA North 2003b).
- 5.4.3 ***Industrial Landscape:*** other than agricultural features, the most numerous sites of the period are industrial in nature (Figs 5 and 6). Elements of both dominant forms of industry, slate quarrying and copper mining, can be found within the study area.

The slate quarrying was divided between the expansive regions of extraction in the west of the study area, which has traditionally been the heartland of slate extraction, going back potentially into the Roman period (*Section 3.3.2*) and also much later extraction around Llyn-y-Gader in the east. In the latter area, elements of Gader-Wyllt quarry were recorded (NMR 287213; Plate 10), including a cutting shed, narrow gauge railway and further structures; in the general vicinity were further trial slate cuttings (NMR 287196 and NMR 287209). In the north-west of the study area are the remains of extensive spoil tips associated with Alexandra Quarry (NMR 40528). Upon these can be found many rude structures (NMR 287016), which were probably a result of the reworking of waste slate by unemployed miners during times of slump in the industry in the late nineteenth century (Richards 1999).

- 5.4.4 **Copper Working:** in the general vicinity of the Alexandra slate quarries are many further trial cuttings for slate extraction or possibly copper mining (eg NMR 287218 to NMR 287222). The (predominantly) copper mining industry of the central Nantlle valley, was most notably associated with the Drws-y-coed mine (NMR 33774) from the eighteenth century onwards. The valley floor has many extant workings, and these features are also to be seen within the study area. The most numerous sites are the complex of adits, individual trials, and stopes, which litter the steep sides of the valley, and extend up into the sheltered glacial cwms running on the north side of the Nantlle ridge. Trial mines (eg NMR 287064 at Mynydd Tal-y-mignedd; Plate 9) can consist of several adits, or stopes, with extensive spoil heaps set one above another; or side by side, in varying attempts to find a rich lode. They were also associated with small stone-built miners shelters at their mouths and, slightly further removed from the mines, were the ruins of stone structures where the working of the ores and slag waste was undertaken (eg NMR 287070 at Mynydd Tal-y-mignedd). It is difficult to reconcile which of these adits were purely experimental or which were part of the extensive copper mines rising up from the valley floor as both were documented for the immediate area (Bick 2003).
- 5.4.5 Other important features include the water management features that were required to supply the needs of both industries. There are the remains of a breached dam in the north of the study area on Llyn Ffynhonnau (NMR 287037) and a derelict reservoir/water works further north (NMR 287030). At the head of the valley in the east of the study area is a breached dam (NMR 287158), which originally retained the now drained Llyn Bwylch-y-moch that supplied the Drws-y-coed mine. There are also several large sinuous leats running across the slopes; the westernmost leat NMR 287307 ran for over 2200m along the 295m OD contour, and drained the stream from Llyn Cwmyffynnon into a small reservoir adjacent to the Drws-y-coed mine. In addition, to the east of the study area, are the remains of a long sinuous leat which would have drained the watershed on the eastern side of Y Gader down towards Drws-y-coed mine (NMR 287184).

6. CONCLUSION

6.1 DISCUSSION

- 6.1.1 The survey has identified a moderately high density of sites distributed throughout the study area, most of which were associated with post-medieval stock management and extractive industrial activities. Previous surveys have highlighted a number of sites, including extensive early settlement around the western fringes of the study area and several industrial landscapes. The present survey has increased the number of identified monuments within the NMR by 786%.
- 6.1.2 In terms of the prehistoric period there is a small number of summit cairns and a couple of 8m diameter cairns located significantly in the saddle between Moel Tryfan and Mynydd Mawr (NMR 287027-8). This relatively low concentration of funerary monuments indicates that there was no particular pattern of ceremonial / funerary activity by comparison with other upland areas in North West Wales, such as at Pentrevoelas on Mynydd Hiraethog or at Cefn Coch on Eastern Snowdonia (OA North 2003b and 2004b). There are, however, indications of prehistoric settlement activity and a general presence, epitomised by the two new burnt mounds of classic form and location near boggy areas (NMR 287114 and 287284). There are also a number of small cairnfields within the western part of the study area, around Llyn Ffynhonnau and Castell Caeronwy which, although they can not be definitively ascribed to the Bronze Age; correspond to the pattern of small random cairnfields reflecting primary forest clearance seen elsewhere in northern England (Quartermaine and Leech forthcoming). Significantly, they are within the area of the lynched field systems, indeed one cairnfield (NMR 287075) is actually within one of these field systems. While they were not necessarily contemporary with the field systems, they may reflect the early agricultural improvement from which the large arable field systems developed.
- 6.1.3 ***Lynched Field Systems and Settlement:*** the most important landscapes within the study area are undoubtedly the field systems and settlement remains around the western part of the study area centred on Caeronwy. These extend across a large area, and are, encompassed for the most part, within present day field systems; they include cultivation terraces / lyncheds, and are associated with both grouped and individual round houses. Although the settlements were, for the most part, unenclosed, there were a number of 'homesteads' which were potentially enclosed, unfortunately these (eg NMR 302539 and 302545) were mostly within an area that was denied access and could not be examined by the present survey. In addition, there were also a number of stock enclosures associated with the round houses indicating that in part there was a pastoral economy being practised within this area.
- 6.1.4 These field systems and settlement complexes have not been properly investigated, there is no absolute dating and there is considerable uncertainty as to their origin and duration. Given the complexity of the field systems and the broad range of monuments, it is possible, indeed probable, that they developed over a considerable period. Unenclosed round house settlements can date back to the

Bronze Age (Haselgrove 2002; Jobey 1985), and given that there are direct associations between primary cairnfields and the field systems, it is possible that the settlements developed out from Bronze Age activity in the environs. The field systems, for the most part, reflect an arable economy which would have been unviable on these marginal uplands in the earlier part of the Iron Age because of the deterioration of the climate (Lamb 1981). However, this does not exclude the possibility that some or more of the 'homesteads' and the stock enclosures, which relate to a pastoral economy, may have had their origins during this period. The main period of arable activity and settlement, is therefore either of Bronze Age date before the climatic decline, or more probably of late Iron Age/ Romano-British date following climatic improvement.

- 6.1.5 The main complex of early field systems is within an area of present day field system centred on the farms of Castell Caerony, Caeronwy-isaf, and Caeronwy-uchaf. There is a significant degree of correlation between the earlier boundaries and the present day boundaries, such that either the present day boundaries continue the line of earlier boundaries or they are immediately adjacent and parallel to the earlier boundaries. For example, early boundary NMR 287089 extends up to a corner of the present day intake of Castell-Caeronwy and the boundaries of NMR 302540/302543 are aligned with the present day boundaries. This indicates either some form of continuity of field boundary, or more probably re-use, but exploiting the very prominent boundaries of the early field system. The fact that the area of the modern day field system around Caeronwy and the area of the early field system is largely the same, probably reflects that both have maximised areas of better drained ground, which is bordered to the east by an area of particularly poorly drained ground.
- 6.1.6 **Medieval Activity:** medieval settlement was relatively limited in numbers and extent, and was, for the most part, on the slopes on either side of the Nantlle valley. The main area of medieval settlement was around the farm of Brynllidiard, and was probably the precedent of the post-medieval farm. The remains comprise a series of sub-rectangular platform houses (NMR 287260) within an early field system that has been overlain by the parliamentary enclosure boundaries. The field system has small, irregular fields that were potentially associated with the unenclosed round house settlements in this area. Elsewhere within this general area are isolated long houses (NMR 287272 and 287282), each within a small irregular field system. As such, these reflect small isolated, remote and elevated field systems which probably had their origins in the late prehistoric / Roman periods but were almost certainly further developed within the medieval period. The presence of what purport to be medieval structures within an earlier system, may be an indication of continuity, but perhaps more probably reflects transhumant reuse of an earlier field system. Transhumant structures are also represented in the southern part of the area within the cwms on the northern side of the Nantlle ridge (NMR 287098, 287069 and 287192), and on the eastern side of the study area overlooking Llyn-y-Gader. These, however, are not associated with any field system and have not, apparently, developed beyond their transhumant roots.
- 6.1.7 **Post-Medieval Agriculture:** the remains of post-medieval agriculture make up the vast majority of sites within the study area, and are predominantly stock management features on the unenclosed moorland (110 sites). There was also

expansion of settlement and field systems out from the valley floor, reflecting encroachment of the moorland. In particular, at the head of the Nantlle valley, are small ruinous farmsteads within small intake field systems around the craggy slopes of Clogwyngarreg.

- 6.1.8 **Post-Medieval Industry:** the most dominant element of the present day landscape are the landscapes of the slate and copper industries. The slate industry was centred on Cilgwyn and Y Fron to the west and the area of Llyn y Gader to the east; the study area divides the two. It is therefore inevitable that there has been some expansion of the industry onto the study area, most notably the Gader-Wyllt quarry to the east (NMR 287196) beside Llyn-y-Gader, and Alexandra quarry (NMR 40528) to the north-east. Inevitably, given the scale of the overarching industry, these have had a massive, albeit local, impacts on the landscape with large extraction pits and very large spoil mounds, most notably around Alexandra quarry.
- 6.1.9 The main centre of the copper industry was again out of the study area in the Nantlle valley (Drws-y-coed mine), but the trial pits extended onto the adjacent uplands. Some of these adits were very substantial and reflect considerable effort to the extent of sinking numerous adjacent adits in order to investigate possible lodes.

7. RECOMMENDATIONS

7.1 RECOMMENDATIONS FOR FURTHER WORK

- 7.1.1 It is recommended that investigation in the form of palynological sampling and peat coring be undertaken in several areas within the study area. Firstly sampling should take place in the boggy areas immediately adjacent to both of the burnt mounds (NMR 287114 and 287284). This would potentially elucidate the pattern of use and environs of these monuments. If possible work should also be undertaken near to Llyn Ffynhonnau and the adjacent cairnfields in order to identify the potential periods of clearance of tree cover and agriculture in the pollen record. Peat coring could also be conducted on the lower flanks of Y Gader and near the western banks of Llyn-y-gader where archaeological sites exist and the soil survey suggests deep peat deposits (Soil Survey 1983).
- 7.1.2 Of particular importance is the need for further investigation of the extensive, potentially multi-period, field systems and their attendant settlements. These are of considerable archaeological importance but are not adequately understood. In particular, there are uncertainties about their origins, how they have developed, their period of use and their potential for continuity in later periods. To an extent some of these issues could be resolved by undertaking a detailed topographic survey of the landscapes, which would potentially elucidate the interrelationships of the monuments, record the true extent of what are often very diverse and extensive landscapes, and also inform their sequential development. This would not provide an absolute chronology for the sites, but palynological work from peat adjacent to the sites would be able to determine periods of agricultural, and more specifically, arable activity in the vicinity of the sites.
- 7.1.3 There is a possibility that conducting a boundary survey of all of the extant stone-walled boundaries within the complexes of post-medieval settlement islands which have encroached onto the open common could pick apart their relative chronologies. This could show the development and expansion of the slate quarrying and settlement within the region, and the inter-relationship between the lowland and upland fringe. This exercise would be of particular use if it took in the small putative eighteenth century fields located further west as far as Cilgwyn.
- 7.1.4 Detailed survey and documentary analysis could be profitably undertaken on the extensive mine complexes around Drws-y-coed. This should take in the features within the valley bottom, and sides, including the early mining cottages, and the more remote trials, adits and stopes on the moorland.

8. BIBLIOGRAPHY

8.1 PRIMARY SOURCES

8.1.1 *Aerial Photographs*

Digital Air Photograph Mapping: Nantlle to Beddgelert, RCAHMW

8.2 PUBLISHED CARTOGRAPHIC SOURCES

British Geological Survey, 1994 *Geological map of Wales: Solid, 1:250,000*

Landmark digital copies of first edition Ordnance Survey 1890-91 (Provided by RCAHMW)

Soil Survey, 1983 *Soils of England and Wales, Sheet 2, Wales, 1:250,000*, Soil Survey of England and Wales

8.3 SECONDARY SOURCES

Bick, D, 2003 *The Old Copper Mines of Snowdonia*, Ashbourne

Brown, D, and Hughes, S (eds), 2003 *The Archaeology of the Welsh Uplands*, Aberystwyth

Cadw/CCW/ICOMOS, 1998 *Register of Landscapes of Outstanding Historic Interest in Wales : HLW (GW) 9 Nantlle Valley* (www.ccw.gov.uk/Generalinfo)

English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London

Gwynedd Archaeological Trust, nd *Historic Landscape Characterisation (Caernarfon - Nantlle)*, GAT Report No. 402, unpubl rep

Haselgrove, C, 2002 The later Bronze Age and the Iron Age in the lowlands, in C, Brooks, R, Daniels and A, Harding (eds) *Past, present and future, the Archaeology of Northern England*, Durham, 49-70

Jobey, G, 1985 The unenclosed settlements of Tyne-Forth: a summary, in D Spratt and C Burgess (eds) *Upland settlement in Britain: the second millennium and after*, BAR Brit Ser, 143, Oxford, 177-94

Kelly, RS, 1990 Recent work in north-west Wales: the excavation of a burnt mound at Graenog, Clynnog, Gwynedd, in 1983, in V Buckley 1990 *Burnt Offerings, International Contributions to Burnt Mound Archaeology*, Dublin

Lamb, HH, 1981 Climate from 1000BC to 1000AD, in Jones, M and Dimpleby, G, (Eds) *The environment of Man: The Iron Age to the Anglo-Saxon period*, BAR Brit Ser, 87, Oxford

Morgan Rees, D, 1975 *The Industrial Archaeology of Wales*, London

Neville George, T, and Smith, B, 1961 *British Regional Geology: North Wales, 3rd edition*, London

OA North, 2002 *Survey Levels*, unpubl doc

OA North 2003a *Ennerdale Historic Landscape Survey*, unpubl rep

OA North, 2003b *Uplands Initiative Field Projects 2002-2003, Mynydd Hiraethog Survey Area - Archaeological Survey Report*, unpubl rep

OA North, 2004a *Uplands Initiative Field Projects 2003-2004, Dyffryn Tanat Survey Area - Archaeological Survey Report*, unpubl rep

OA North, 2004b *Uplands Initiative Field Projects 2003-2004, Eastern Snowdonia (North) Survey Area - Archaeological Survey Report*, unpubl rep

OA North, 2005a *Uplands Initiative Field Projects 2004-2005, Eastern Snowdonia (Central) Survey Area - Archaeological Survey Report*, unpubl rep

OA North, 2005b *Upland Initiative Field Projects 2004-05: Project Design*, unpubl doc

Quartermaine, JA, and Leech, RH, forthcoming *Archaeological landscapes of the Cumbrian uplands; results of the Lake District National Park Survey*

Richards, AJ, 1999 *The Slate Regions of North and Mid Wales and Their Railways*, Llanrwst

RCAHMW, 1960 *Inventory of Caernarvonshire: Vol 2 Central*, London

RCAHMW, 1964 *Inventory of Caernarvonshire: Vol 3*, London

RCAHMW, 2004 *Revised Data Standard for Upland Survey: for Projects Conducted April 2005 to March 2006*, unpubl doc

RCAHMW, 2005 *The Uplands Initiative: Invitation to bid for the 2005/2006 programme of archaeological survey*, unpubl doc

UKIC, 1990 *United Kingdom Institute for conservation: Guidelines for the preparation of archives for long-term storage*

APPENDIX 1 GAZETTEER OF NEW SITES

NPRN	NGR	TYPE	PERIOD	ALTITUDE
287001	SH52015725	Sheep Shelter	post-medieval	315
287002	SH52285775	Wall	post-medieval	320
287003	SH52365774	Sheep Shelter	post-medieval	310
287004	SH52435782	Sheep Shelter	post-medieval	300
287005	SH52435791	Sheep Fold	post-medieval	290
287006	SH52015794	Shelter	post-medieval	300
287007	SH51995761	Sheep Shelter	post-medieval	330
287008	SH52165766	Sheep Fold	Post medieval	335
287009	SH51895753	Sheep Shelter	Post-medieval	315
287010	SH51885757	Sheep Shelter	Post-medieval	310
287011	SH52045741	Sheep Fold	Post-medieval	320
287012	SH52315705	Sheep Fold	Post-medieval	310
287013	SH52445680	Trial Mine	Post-medieval	315
287014	SH52135654	Trackway	Post-medieval	345
287015	SH52105648	Trial Mine	Post-medieval	345
287016	SH52065648	Miners Shelter	Post-medieval	350
287017	SH52235672	Trial Mine	Post-medieval	335
287018	SH52255668	Sheep Shelter	Post-medieval	335
287019	SH52235676	Trial Mine	Post-medieval	330
287020	SH52335661	Trial Mine	Post-medieval	335
287021	SH52375656	Trial Mine	Post-medieval	330
287022	SH52435653	Trial Mine	Post-medieval	325
287023	SH52645565	Trial Mine	Post-medieval	315
287024	SH52515560	Clearance Cairn	Prehistoric?	325
287025	SH52565576	Enclosure	Prehistoric?	340
287026	SH52595578	Platform	Unknown	335
287027	SH52665586	Cairn	Bronze Age?	335
287028	SH52665585	Cairn	Bronze Age?	335
287029	SH52345575	Filter House	Post-medieval	350
287030	SH52295577	Reservoir	Post-medieval	355
287031	SH52265561	Trial Mine	Post-medieval	345
287032	SH52175569	Trial Mine	Post-medieval	360
287033	SH52205538	Farmstead	Post-medieval	330
287034	SH52155529	Farmstead	Post-medieval	320
287035	SH52115526	Trial Mine	Post-medieval	320
287036	SH52315510	Sheep Fold	Post-medieval	300
287037	SH52365510	Dam	Post-medieval	300
287038	SH52305504	Enclosure	Prehistoric?	305
287039	SH52345503	Wall	Post-medieval	305
287040	SH52265505	Wall	Post-medieval	300
287041	SH52485520	Sheep Fold	Post-medieval	305
287042	SH52435531	Cairnfield	Prehistoric	320
287043	SH52505565	Mound	Prehistoric?	335
287044	SH52685556	Sheep Fold	Post-medieval	330
287045	SH52885576	Sheep Fold	Post-medieval	330
287046	SH53825569	Wall	Post-medieval	300
287047	SH53765561	Sheep Shelter	Post-medieval	320
287048	SH53535528	Sheep Fold	Post-medieval	350
287049	SH53535536	Sheep Fold	Post-medieval	365
287050	SH53115565	Cairn	Prehistoric?	385

287051	SH53145556	Slag Heap	Post-medieval	390
287052	SH53255513	Trial Mine	Post-medieval	480
287053	SH53245505	Trial Mine	Post-medieval	485
287054	SH53235506	Sheep Shelter	Post-medieval	480
287055	SH52965497	Sheep Shelter	Post-medieval	370
287056	SH52895524	Sheep Shelter	Post-medieval	350
287057	SH52975570	Wall	Post-medieval	370
287058	SH52625516	Sheep Shelter	Post-medieval	320
287059	SH52535502	Structure	Post-medieval?	315
287060	SH52525502	Enclosure	Post-medieval?	315
287061	SH52595504	Wall	Post-medieval	325
287062	SH52615520	Shelter	Post-medieval	320
287063	SH53535140	Obelisk	Modern	653
287064	SH53125195	Trial Mine	Post-medieval	385
287065	SH53115195	Miners Shelter	Post-medieval	385
287066	SH53165198	Trial Mine	Post-medieval	370
287067	SH53195194	Trial Mine	Post-medieval	390
287068	SH53285204	Structure	Medieval	370
287069	SH53225202	Longhouse	Medieval	370
287070	SH53155207	Mine Building	Post-medieval	355
287071	SH53385216	Trial Mine	Post-medieval	320
287072	SH53385216	Miners Shelter	Post-medieval	320
287073	SH53635200	Sheep Fold	Post-medieval	330
287074	SH52415495	Wall	Post-medieval	305
287075	SH52395495	Sheep Fold	Post-medieval	305
287076	SH52435498	Sheep Fold	Post-medieval	305
287077	SH52465501	Sheep Fold	Post-medieval	310
287078	SH52495494	Enclosure	Iron Age	310
287079	SH52505473	Field System	Iron Age	295
287080	SH52805486	Farmstead	Post-medieval	335
287081	SH52645485	Cairnfield	Prehistoric; Iron Age	320
287082	SH52695482	Wall	Iron Age?	320
287083	SH52895465	Wall	Iron Age	350
287084	SH52815455	Shelter	Post-medieval	325
287085	SH52735458	Cairnfield	Prehistoric; Iron Age	315
287086	SH52335463	Shelter	Post-medieval	270
287087	SH52255463	Enclosure Boundary	Iron Age?	270
287088	SH52235455	Boundary Bank and Ditch	Iron Age?	260
287089	SH52215469	Boundary Bank and Ditch	Iron Age?	270
287090	SH52625413	Field System	Iron Age	270
287091	SH53305423	Sheep Fold	Post-medieval	335
287092	SH52815437	Field System	Iron Age	315
287093	SH52195222	Platform	Unknown	260
287094	SH52535221	Boundary Bank	Post-medieval	315
287095	SH52635232	Sheep Fold	Post-medieval	330
287096	SH52585122	Wall	Post-medieval	320
287097	SH53135112	Sheep Fold	Post-medieval	430
287098	SH52625109	Longhouse	Medieval	320
287099	SH52505102	Sheep Shelter	Post-medieval	315
287100	SH52265116	Mine Building	Post-medieval	320
287101	SH53575265	Platform	Post-medieval	215
287102	SH53575264	Trackway	Post-medieval	220
287103	SH53655244	Sheep Fold	Post-medieval	290
287104	SH53985270	Boundary Bank	Post-medieval	260

287105	SH54145266	Wall	Post-medieval	290
287106	SH54345217	Sheep Fold	Post-medieval	405
287107	SH54645190	Sheep Shelter	Post-medieval	500
287108	SH54775205	Peat Cutting	Post-medieval	500
287109	SH54815213	Shelter	Post-medieval	490
287110	SH54765245	Sheep Fold	Post-medieval	415
287111	SH54535252	Sheep Shelter	Post-medieval	355
287112	SH54485258	Sheep Shelter	Post-medieval	345
287113	SH54045283	Trackway	Post-medieval	225
287114	SH54045287	Sheep Shelter	Post-medieval	260
287115	SH54105285	Sheep Fold	Post-medieval	260
287116	SH54085283	Sheep Shelter	Post-medieval	265
287117	SH54105282	Farmhouse	Post-medieval	265
287118	SH54125281	Farm Building	Post-medieval	265
287119	SH54145281	Sheep Fold	Post-medieval	265
287120	SH54185280	Mound	Unknown	265
287121	SH54315275	Sheep Fold	Post-medieval	280
287122	SH54375281	Sheep Fold	Post-medieval	295
287123	SH54465281	Sheep Shelter	Post-medieval	320
287124	SH54435284	Trial Mine	Post-medieval	310
287125	SH54365287	Sheep Fold	Post-medieval	295
287126	SH54665301	Trial Mine	Post-medieval	360
287127	SH54245315	Boundary Bank	Post-medieval	330
287128	SH54205308	Boundary Bank	Post-medieval	310
287129	SH54075293	Farm Building	Post-medieval	255
287130	SH53705291	Farm Building	Post-medieval	175
287131	SH55975334	Building Platform	Post-medieval	240
287132	SH56335328	Peat Cutting	Post-medieval	235
287133	SH56395343	Sheep Shelter	Post-medieval	255
287134	SH56235379	Sheep Fold	Post-medieval	245
287135	SH56185374	Sheep Fold	Post-medieval	240
287136	SH56145362	Peat Cutting	Post-medieval	235
287137	SH56205366	Sheep Fold	Post-medieval	240
287138	SH56195363	Farmhouse	Post-medieval	240
287139	SH56205356	Farm Building	Post-medieval	245
287140	SH56225346	Sheep Fold	Post-medieval	235
287141	SH56285376	Peat Cutting	Post-medieval	255
287142	SH56115389	Boundary Bank	Post-medieval	240
287143	SH55995399	Deserted Rural Settlement	Post-medieval	240
287144	SH55985394	Burnt Mound	Bronze Age	235
287145	SH55155465	Sheep Fold	Post-medieval	350
287146	SH55045475	Sheep Fold	Post-medieval	380
287147	SH55065499	Sheep Shelter	Post-medieval	345
287148	SH55045501	Sheep Shelter	Post-medieval	340
287149	SH54995505	Structure	Unknown	330
287150	SH54935506	Sheep Shelter	Post-medieval	325
287151	SH54985501	Round House	Iron Age	340
287152	SH54795495	Sheep Shelter	Post-medieval	370
287153	SH54785490	Sheep Fold	Post-medieval	375
287154	SH54515455	Stock Enclosure	Post-medieval	450
287155	SH54505451	Sheep Fold	Post-medieval	455
287156	SH54685462	Sheep Shelter	Post-medieval	430
287157	SH54815476	Sheep Shelter	Post-medieval	405
287158	SH55645396	Dam	Post-medieval	235

287159	SH55625386	Farm Building	Post-medieval	235
287160	SH55675390	Sheep Fold	Post-medieval	250
287161	SH55895333	Milestone	Modern	235
287162	SH55805356	Sheep Fold	Post-medieval	240
287163	SH55845357	Farmstead	Post-medieval	240
287164	SH55815361	Farm Building	Post-medieval	255
287165	SH55765348	Ridge and Furrow	Post-medieval	240
287166	SH56005366	Farm Building	Post-medieval	245
287167	SH55665363	Sheep Fold	Post-medieval	260
287168	SH55675338	Building Platform	Medieval; Post-	255
287169	SH55605333	Quarry	Post-medieval	235
287170	SH55505346	Building Platform	Post-medieval	240
287171	SH55575351	Farmhouse	Post-medieval	250
287172	SH55535358	Sheep Shelter	Post-medieval	240
287173	SH55515363	Building Platform	Post-medieval	230
287174	SH55445361	Sheep Fold	Post-medieval	210
287175	SH55475370	Sheep Fold	Post-medieval	210
287176	SH55485377	Trial Mine	Post-medieval	210
287177	SH55485376	Sheep Fold	Post-medieval	210
287178	SH55525379	Sheep Fold	Post-medieval	220
287179	SH55355388	Longhouse	Medieval	240
287180	SH55135383	Quarry	Post-medieval	220
287181	SH54915372	Wall	Post-medieval	200
287182	SH54815376	Enclosure	Medieval?	220
287183	SH54605389	Sheep Fold	Post-medieval	310
287184	SH55495338	Leat	Post-medieval	245
287185	SH55415340	Shelter	Post-medieval	245
287186	SH55235343	Farmhouse	Post-medieval	220
287187	SH55215335	Sheep Shelter	Post-medieval	225
287188	SH55095328	Trial Mine	Post-medieval	220
287189	SH55095299	Sheep Shelter	Post-medieval	365
287190	SH55145299	Sheep Shelter	Post-medieval	375
287191	SH55775305	Sheep Fold	Post-medieval	240
287192	SH55405327	Longhouse	Medieval	280
287193	SH55515332	Sheep Shelter	Post-medieval	365
287194	SH55535287	Wall	Post-medieval	310
287195	SH55475279	Trial Mine	Post-medieval	340
287196	SH56095190	Trial Mine	Post-medieval	235
287198	SH56075184	Sheep Fold	Post-medieval	240
287199	SH55945176	Longhouse	Medieval	270
287200	SH56045176	Wall	Post-medieval	255
287201	SH56435142	Boundary Stone	Medieval?	245
287202	SH56425142	Feature	Unknown	245
287203	SH56425143	House Platform	Medieval	245
287204	SH56445147	Round House	Iron Age	245
287205	SH56345150	Cairn	Bronze Age	250
287206	SH56395153	Enclosure	Medieval?	245
287207	SH56365157	Enclosure	Post-medieval	240
287208	SH56565161	Trial Mine	Post-medieval	230
287209	SH56605163	Trial Mine	Post-medieval	230
287210	SH56625166	Miners Shelter	Post-medieval	220
287211	SH56765180	Enclosure	Post-medieval	200
287212	SH56515191	Quarry Building	Post-medieval	190
287213	SH56445178	Slate Quarry	Post-medieval	210

287214	SH56435178	Quarry Building	Post-medieval	210
287215	SH56455183	Quarry Building	Post-medieval	200
287216	SH56385181	Wall	Post-medieval	210
287217	SH56195194	Farmstead	Post-medieval	230
287218	SH56225204	Stock Enclosure	Post-medieval	210
287219	SH56235212	Stock Enclosure	Post-medieval?	205
287220	SH56225213	Round House	Iron Age	205
287221	SH55755310	Clearance Cairn	Post-medieval	235
287222	SH55745312	Wall	Post-medieval	235
287223	SH55765318	Mound	Unknown	235
287224	SH56185234	Ridge and Furrow	Post-medieval	230
287225	SH56235215	Round House	Iron Age	205
287226	SH51145230	Sheep Fold	Post-medieval	220
287227	SH51195219	Boundary Stone	Post-medieval?	245
287228	SH51365173	Round House Settlement	Iron Age	310
287229	SH51365177	Structure	Iron Age?	305
287230	SH51305174	Sheep Shelter	Post-medieval	305
287231	SH51065119	Trial Mine	Post-medieval	335
287232	SH51015116	Trial Mine	Post-medieval	335
287233	SH51135082	Sheep Fold	Post-medieval	340
287234	SH51155074	Farm Building	Post-medieval	350
287235	SH51115069	Shelter	Post-medieval	375
287236	SH51085059	Miners Shelter	Post-medieval	390
287237	SH51095061	Trial Mine	Post-medieval	385
287238	SH51305055	Sheep Fold	Post-medieval	345
287239	SH51335052	Sheep Fold	Post-medieval	340
287240	SH51425067	Boundary Stone	Post-medieval	335
287241	SH51475078	Sheep Fold	Post-medieval	350
287242	SH51575062	Sheep Fold	Post-medieval	340
287243	SH51775154	Cairn	Bronze Age	385
287244	SH51565167	Sheep Fold	Post-medieval	335
287245	SH50915183	Round House	Iron Age	270
287246	SH51075187	Sheep Fold	Post-medieval	275
287247	SH51045194	Wall	Post-medieval	260
287248	SH51015212	Sheep Fold	Post-medieval	230
287249	SH50135130	Sheep Fold	Post-medieval	295
287250	SH50305130	Sheep Fold	Post-medieval	310
287251	SH50505127	Boundary Stone	Post-medieval	330
287252	SH50725126	Sheep Fold	Post-medieval	345
287253	SH50875133	Sheep Fold	Post-medieval	330
287254	SH50915155	Sheep Fold	Post-medieval	310
287255	SH50525150	Sheep Fold	Post-medieval	300
287256	SH50415145	Shelter	Post-medieval	300
287257	SH50415144	Trial Mine	Post-medieval	300
287258	SH50355161	Cairnfield	Prehistoric?	285
287259	SH50255167	Cairn	Bronze Age?	275
287260	SH50175156	Field System	Iron Age; medieval	285
287261	SH49975166	Stock Enclosure	Iron Age	265
287262	SH49805169	Farmhouse	Post-medieval	255
287263	SH49725163	Farmhouse	Post-medieval	250
287264	SH49845154	Sheep Shelter	Post-medieval	255
287265	SH49915149	Round House	Iron Age	265
287266	SH49935152	Wall	Iron Age	265
287267	SH49815144	Sheep Fold	Post-medieval	260

287268	SH49805131	Round House	Iron Age	265
287269	SH49805134	Sheep Fold	Post-medieval	265
287270	SH49985140	Sheep Fold	Post-medieval	275
287271	SH50025144	Field System	Iron Age; medieval	280
287272	SH49995147	Longhouse	Medieval	275
287273	SH49995150	Round House	Iron Age	275
287274	SH50165157	Platform House	Medieval	280
287275	SH50125157	Cairn	Prehistoric	280
287276	SH50735166	Sheep Fold	Post-medieval	295
287277	SH51915205	Round House Settlement	Iron Age	325
287278	SH52055209	Sheep Fold	Post-medieval	280
287279	SH52115198	Peat Cutting	Post-medieval	280
287280	SH51935227	House Platform	Medieval?	275
287281	SH51575206	Longhouse	Medieval	295
287282	SH49655170	Structure	Medieval?	245
287283	SH49675169	Field System	Iron Age; medieval	245
287284	SH49385130	Burnt Mound	Bronze Age	245
287285	SH52475356	Clearance Cairn	Post-medieval	195
287286	SH52495349	Wall	Post-medieval	180
287287	SH52735438	Platform House	Iron Age	300
287288	SH52595356	Structure	Post-medieval?	220
287289	SH52685356	Longhouse	Medieval	225
287290	SH53035366	Round House	Iron Age	290
287291	SH53455390	Wall	Post-medieval	380
287292	SH53715385	Sheep Fold	Post-medieval	365
287293	SH53565408	Round House	Iron Age	430
287294	SH53915258	Round House	Iron Age	290
287295	SH53435413	Wall	Post-medieval	380
287296	SH53395411	Wall	Post-medieval	360
287297	SH52875384	Field System	Iron Age	285
287298	SH52905377	Round House	Iron Age	280
287299	SH54535262	Sheep Fold	Post-medieval	345
287300	SH54425269	Platform House	Unknown	310
287301	SH52605127	Sheep Fold	Post-medieval	335
287302	SH54245276	Mound	Unknown	270
287303	SH54815237	Stock Enclosure	Post-medieval	440
287304	SH54525275	Trial Mine	Post-medieval	350
287305	SH54495278	Mine Building	Post-medieval	335
287306	SH54205245	Peat Cutting	Post-medieval	380
287307	SH54305269	Leat	Post-medieval	295
287308	SH53535232	Shelter	Post-medieval	295
287309	SH52225206	Enclosure	Post-medieval	275
287310	SH52525243	Sheep Fold	Post-medieval	245
287311	SH53855267	Trial Mine	Post-medieval	240
287312	SH53305530	Trial Mine	post-medieval	450

ILLUSTRATIONS

Figure 1: Location Map

Figure 2: Nantlle to Beddgelert Survey Area

Figure 3: Northern section of the study area

Figure 4: Southern section of the study area

Figure 5: Post-medieval industrial and agricultural sites in the northern section of the study area

Figure 6: Post-medieval industrial and agricultural sites in the southern section of the study area

PLATES

- Plate 1: Mynydd Mawr summit cairn (NMR 302554)
- Plate 2: Burnt mound south of Bwlch y Moch (NMR 287144)
- Plate 3: Cairnfield west of Bryn Castell (NMR 287081)
- Plate 4: Round house settlement west of Afon Craig-las (NMR 287277)
- Plate 5: Hillfort north-east of Gelli Ffrydiau (NMR 95369)
- Plate 6: Platform house south-east of Bryn-Llidiard (NMR 287274)
- Plate 7: Bryn-Llidiard farm house (NMR 287262)
- Plate 8: Llyn y Dywarchen peat cutting (NMR 287132)
- Plate 9: Mynydd Tal-y-Mignedd trial mine (NMR 287064)
- Plate 10: Gader-Wyllt slate quarry (NMR 287213)

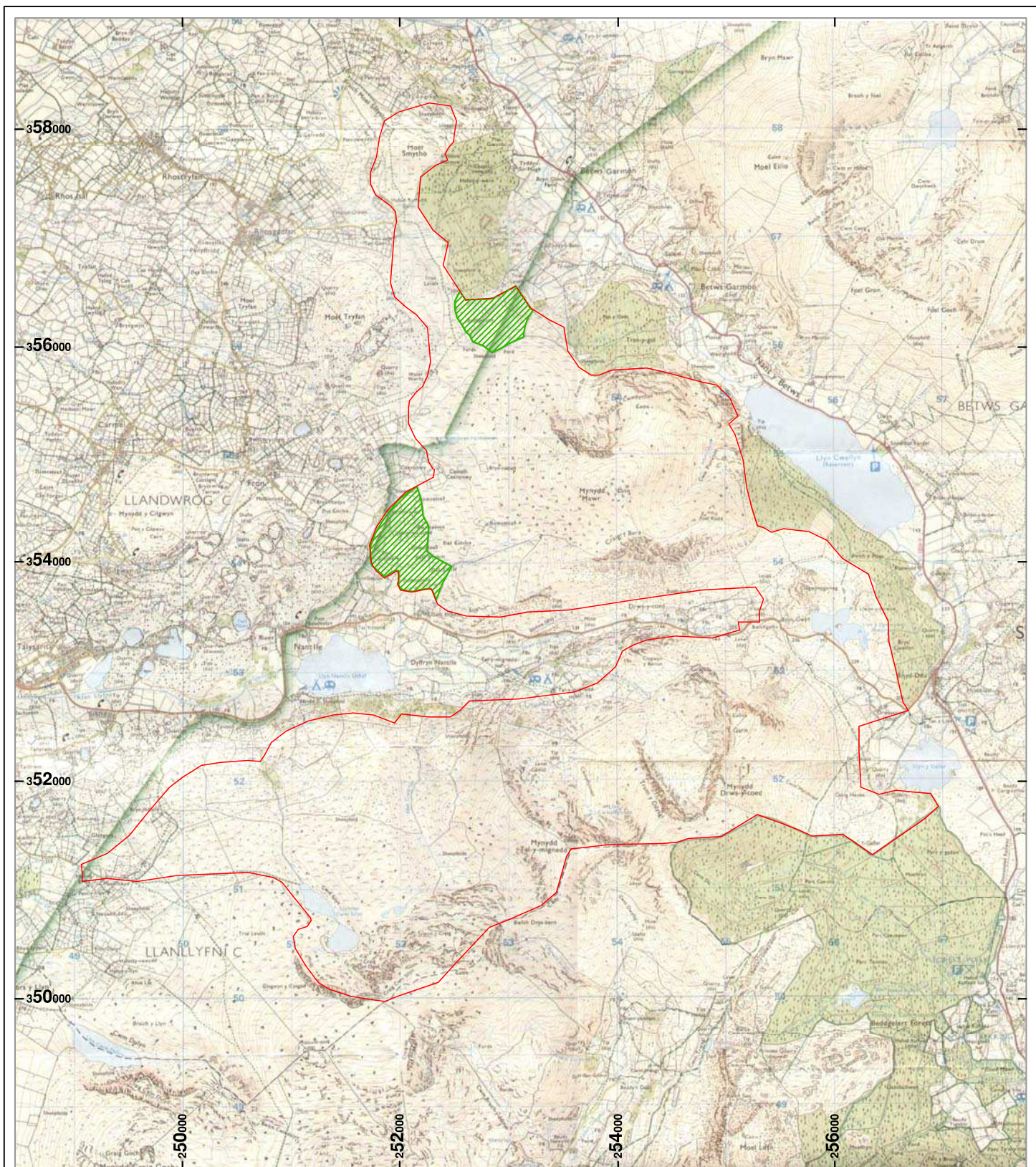


based upon the Ordnance Survey 1:250000
 with the permission of the controller of HMSO
 © Crown Copyright. All rights reserved.
 Licence No AL 100005569


0 5km



Figure 1: Location Map



0 1km
1:50,000 at A4

 Area of Restricted Access



 Reproduced from the Landranger 1:25,000 scale by permission of the Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright 1990. All rights reserved. Licence No AL 100005569



Figure 2: Nantlle to Beddgelert Study Area

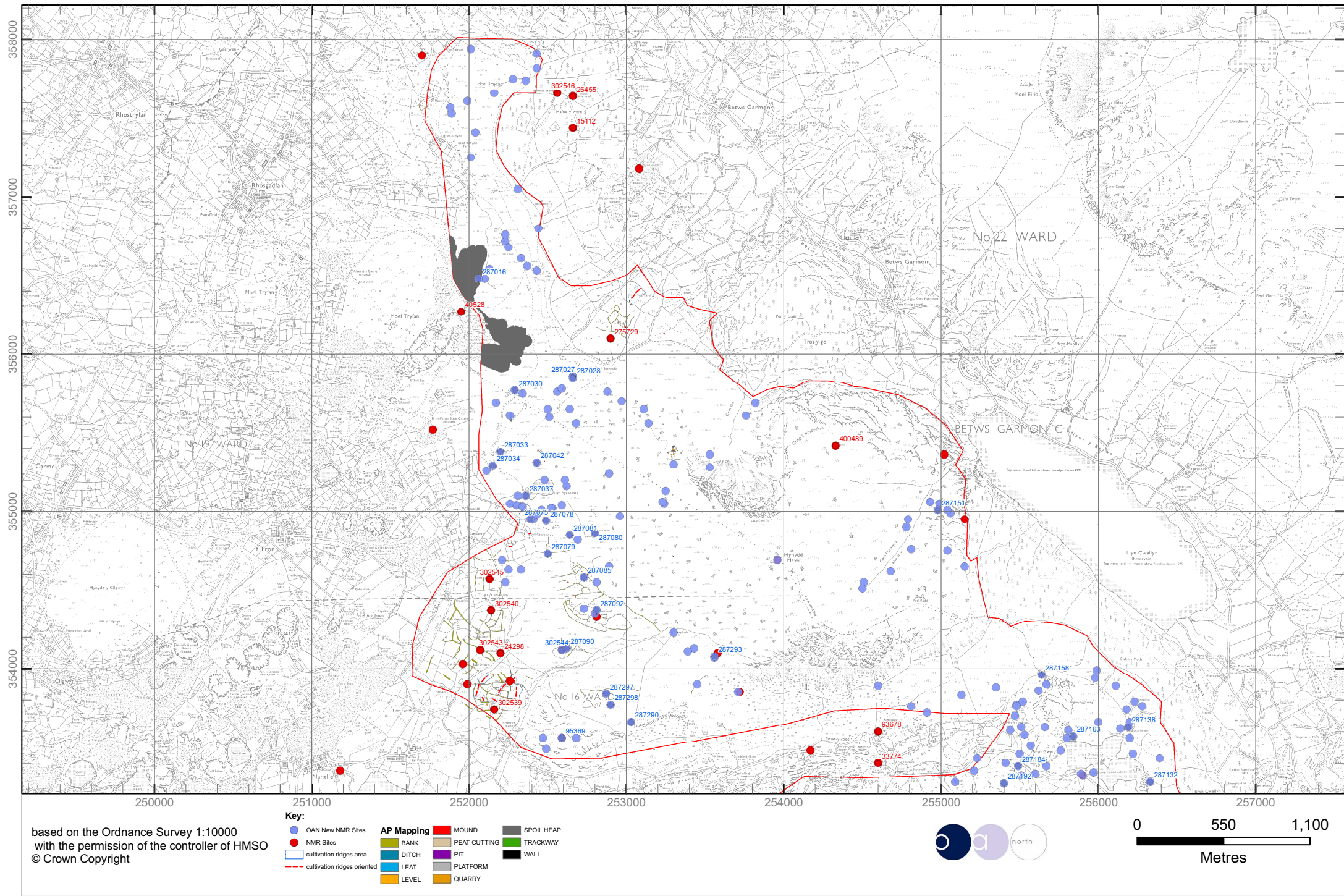


Figure 3: Northern section of the study area

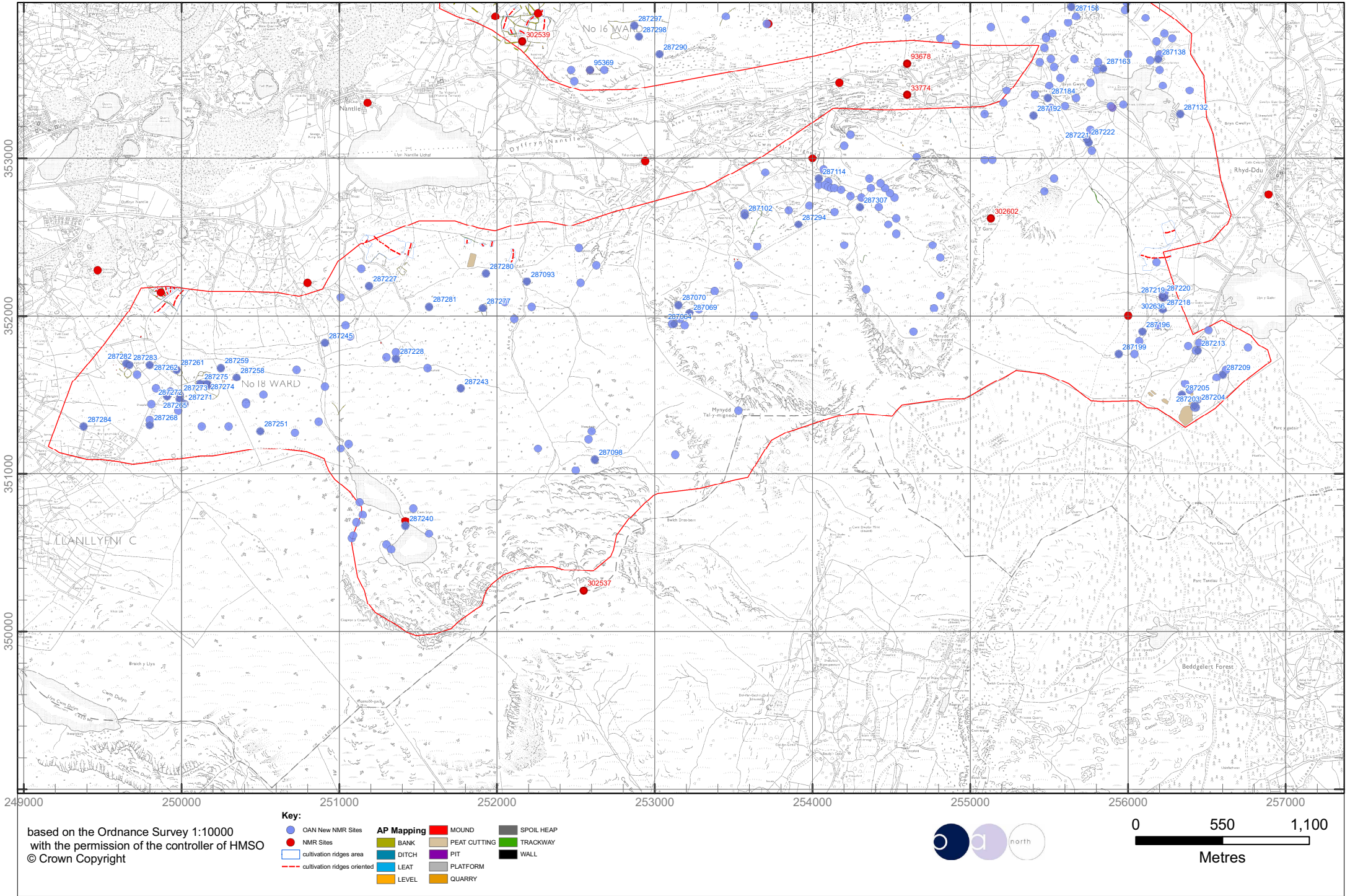


Figure 4: Southern section of study area

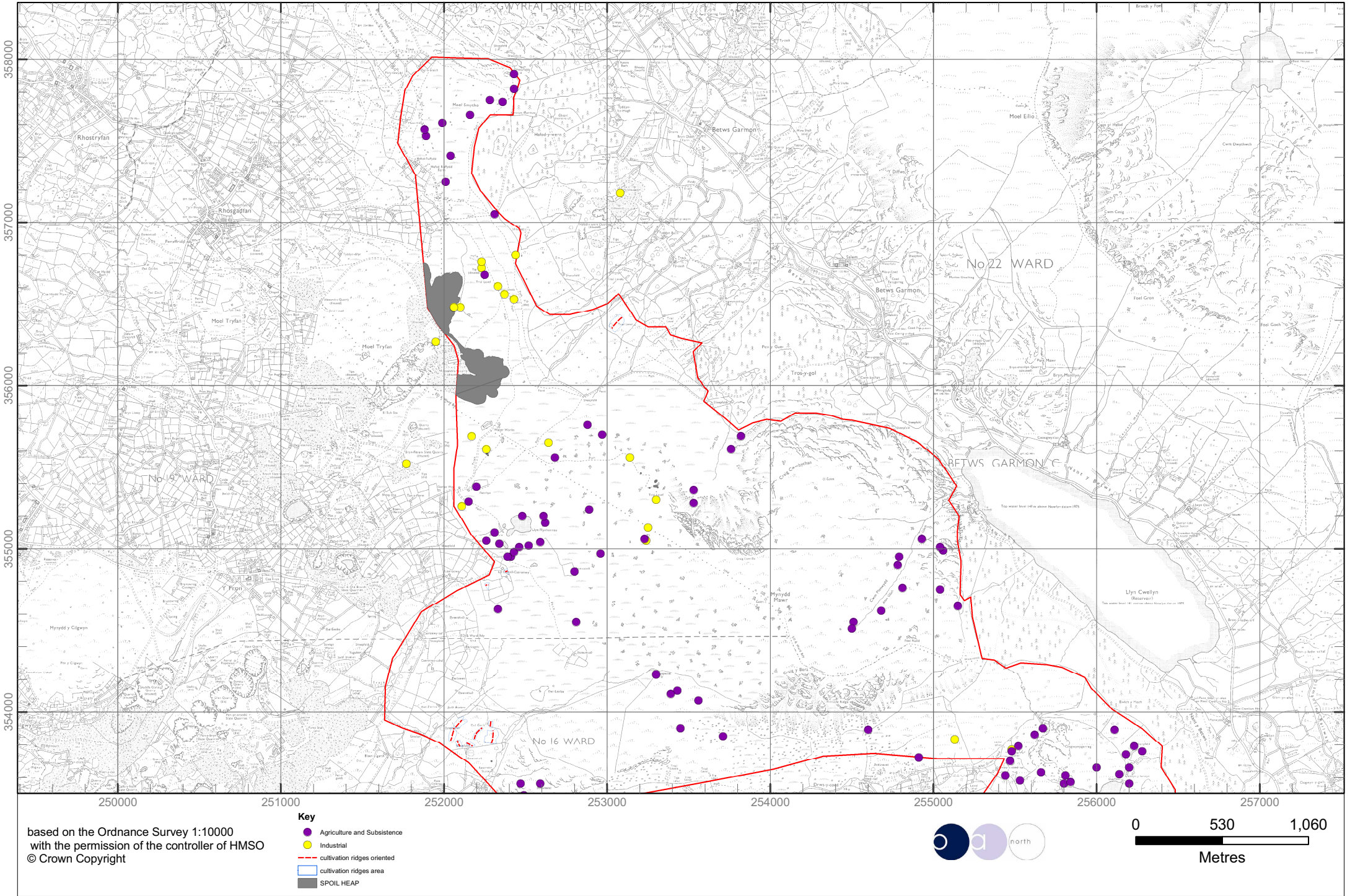


Figure 5: Post-Medieval Industrial and Agricultural Sites in Northern section of study area

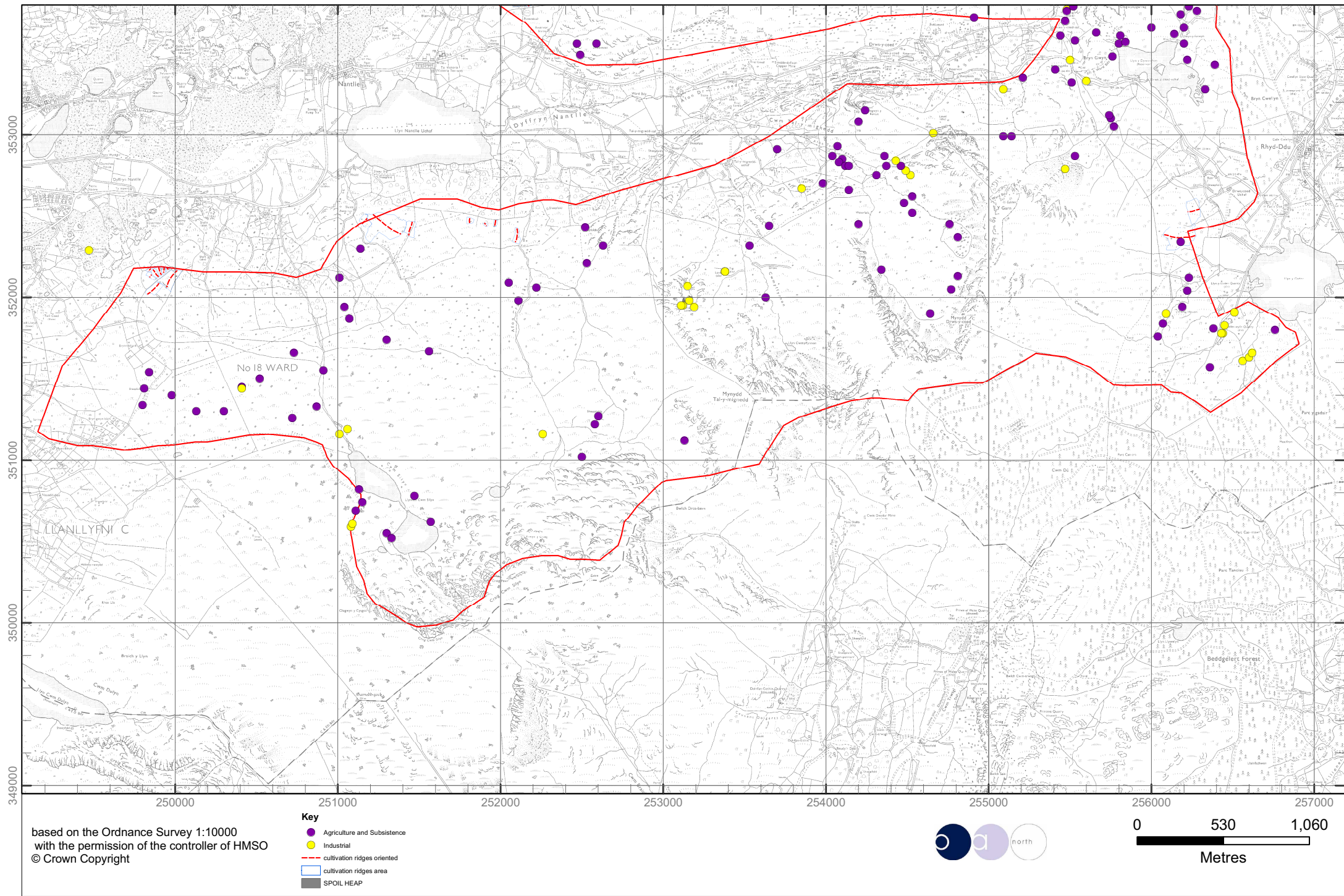


Figure 6: Post-Medieval Industrial and Agricultural Sites in Southern section of study area



Plate 1: Mynydd Mawr summit cairn (NMR 302554)



Plate 2: Burnt mound south of Bwlch y Moch (NMR 287144)



Plate 3: Cairnfield west of Bryn Castell (NMR 287081)



Plate 4: Round house settlement west of Afon Craig-las (NMR 287277)



Plate 5: Hillfort north-east of Gelli Ffrydiau (NMR 95369)



Plate 6: Platform house, south-east of Bryn-Llidiard (NMR 287274)



Plate 7: Bryn-Llidiard farm house (NMR 287262)



Plate 8: Llyn y Dywarchen peat cutting (NMR 287132)



Plate 9: Mynydd Tal-y-Mignedd trial mine (NMR 287064)



Plate 10: Gader-Wyllt slate quarry (NMR 287213)



**Head Office/Registered Office/
OA South**

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: <http://oxfordarchaeology.com>

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850 500
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>



Director: Gill Hey, BA PhD FSA MCifA
*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*