

GWYNEDD UPLAND SURVEY 1995 - 96

BERWYN SSSI PILOT AREAS

G1323

REPORT AND GAZETTEER

Report no. 199

YMDDIRIEDOLAETH ARCHAEOLEGOL GWYNEDD

GWYNEDD ARCHAEOLOGICAL TRUST

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1 INTRODUCTION

- 1.1 Survey work has undertaken during 1995-96 on two blocks of land, each approximately 75 - 100 ha in extent, along the western end of the Berwyn ridge on the Gwynedd-Clwyd border, as part of the Uplands Initiative funded by the Royal Commission on Ancient and Historical Monuments in Wales.
- 1.2 The areas were within two purple, or 'first priority', areas on the RCAHM(W)'s Upland Initiative Strategy Map (areas which have an overlap of at least three conservation designations): in reality, the two areas are part of the same Berwyn SSSI, which extends in total over c. 15991 ha and only shows as 'purple' where it crosses into Gwynedd and overlaps with the National Park and a *Tir Cymen* pilot area. The Trust in its original submission for funding prior to the survey, was not convinced, following field visits, about committing resources to surveying the whole of these 'purple areas' and instead suggested carrying out pilot surveys within the areas to determine their archaeological potential and make recommendations for the level of further work required.
- 1.3 Rapid pilot surveys, supported by desk-based work, were therefore undertaken to assess the potential of the two areas, and this report is based on the findings.

2 BACKGROUND TO THE AREAS

FOEL CWM-SIAN LLWYD

2.1 General

- 2.1.1 The area covered by the survey comprised approximately 75 - 100 hectares (some additional survey was carried out beyond the area originally outlined and shown on the accompanying maps): it is situated c. 3.5 kilometres south-east of Bala, on the Gwynedd-Clwyd border centred on SJ000318, and rises from c. 44m OD to 648m OD. It is located within the district of Meirionnydd and the community of Llanywer, and extends across the parishes of Llanfor in the west and Llandderfel in the east. During the medieval period the area fell within the administrative bounds of the cantref of Penllyn and the commote of Is-melech.
- 2.1.2 By 1842 much of the land surrounding the area had been enclosed. However, the area itself does not appear on either of the two parish tithe maps that were consulted and thus appears to have been unenclosed. It now lies within Snowdonia National Park.

2.2 Geology and Soils

- 2.2.1 The solid geology of the area consists of the sedimentary rocks of the Silurian system, comprising a combination of shales, mudstones, and greywackes. In particular, it lies on the Wenlock Series of grits, mudstones, shales, sandstones and flags which form the axial belt of the Central Wales syncline which extends from near Corwen southwards, beyond Lake Vyrnwy (Smith *et al*, 1961, 48).
- 2.2.2 The soils of the area are heavy and acidic, and are often waterlogged.

2.3 Topography

- 2.3.1 The survey area straddled the peak of Foel Cwm-Sian Llwyd, which rises to a height of 648m (662m according to the GPS used by the Trust !), and included its western and eastern slopes of steadily rising heather moorland or rough grassland above the 450m contour line. A small number of streams run down from the Foel's peak, one of which (on the east) forms part of the parish boundary. The area was open, undivided moorland. A footpath runs across the from the north-west to the summit south of the survey area and down to the east.

2.4 Vegetation

- 2.4.1 The upland landscape of the Berwyns, whose western boundary this area lies close to, is protected by its designation as a Site of Special Scientific Interest because of its nationally important vegetation and upland bird populations. The major vegetation type is that of blanket mire, the dominant species of which are heather (*calluna vulgaris*), hare's-tail cottongrass (*eriophorum vaginatum*) and a number of bog mosses (*sphagnum*). Other major vegetation types are acid grasslands and dwarf shrub heath dominated by heather, with associated bilberry (*vaccinium myrtillus*) covering the steeper slopes (information *ex CCW*).
- 2.4.2 The eastern part of the survey area, on fairly steep slopes, consisted almost entirely of thigh-high heather, with small isolated pockets of wetter ground covered by mosses or reeds, and a number of stream channels. The western slopes of the mountain were less steep but still covered with similar vegetation, although there was an area of blanket peat at the bottom of the slope just within the north-west corner of the area. The vegetation on the summit ridge was easier to walk. Also along this ridge, the peat has eroded away (whether by natural or man-made actions, or a combination of both, is not known) revealing the natural bedrock in places. The vegetation cover not only proved difficult physically to move through but will also have reduced the visibility/definition of archaeological features. The depth of the peat is likely to have covered over any 'early' sites below the ridge.

2.5 Conservation status

- 2.5.1 The survey took place within a 'purple block area' (*i.e.* areas with an overlap of three or more conservation designations) as shown on the RCAHM(W)'s Upland Indicative Strategy Map, as described above.
- 2.5.2 The three 'conservation designations' which have been identified as relevant to this area are (i) that it falls wholly within Snowdonia National Park; (ii) that it is within a *Tir Cymen* pilot area (*i.e.* Meirionnydd); and (iii) it is within the Berwyn Site of Special Scientific Interest.
- 2.5.3 The Berwyn SSSI is described as being of national importance for its vegetation and upland bird populations (it is considered one of the most important uplands in Wales for birds). A major vegetation type is that of blanket mire, with acid grasslands and mires among the other vegetation communities present.

MOEL Y CERRIG DUON

2.6 General

- 2.6.1 The area covered by the survey extended to c. 75 - 100ha (again, some additional survey was carried out to the north of the area originally outlined and shown on the accompanying maps), lies c. 6.5 kilometres south of Llyn Tegid, on the Gwynedd-Ciwyd border centred on SH916238. It is within Snowdonia National Park, the district of Meirionnydd and the communities of Llanuwchllyn, in the north and Mawddwy in the south. The northern part of the area is in the parish of Llanuwchllyn, while the southern part is in the parish of Llanymawddwy. During the medieval period the area was within the administrative bounds of the cantref of Penllyn and the commote of Uwch Tryweryn.
- 2.6.2 By 1842 much of the land in the bottoms of the steep valleys to the west and south of the area had been enclosed. However, only the southern most part of the survey area, known as Bwlch y Groes, is shown on the 1842 tithe maps, and even this part is described as '*unenclosed sheepwalk belonging to several landowners of the parish of Llanymawddwy*' (see appendix IV). Until recently, therefore, the area appears to have been open mountain, perhaps used as upland pasture by the nearby farms but not claimed by any individuals. The area today is privately owned and farmed as sheep grazing.

2.7 Geology and Soils

- 2.7.1 This area contains Ordovician sediments which now form extensive tracks sweeping in a half-circle from Cadair Idris and the Talylyn Valley through the Arans into the Bala area (Smith *et al*, 1961, 29). Volcanic eruptions during the Ordovician period resulted in localized vent-outbursts. In the Berwyn region the chief outburst took place during the Upper Ordovician period. These volcanic rock types vary from rhyolitic to basaltic (Smith *et al*, 1961, 29).
- 2.7.2 The soils in the area are acid and wet, resulting in the growth (of up to 2m in depth) of peat bog and acidic grasslands (see below).

2.8 Topography

- 2.8.1 The survey area covered a triangular-shaped piece of land on the west-facing slopes of Moel y Cerrig Duon: its eastern edge was defined by the county boundary of Gwynedd-Clwyd (which follows the ridge of the Moel running north - south), and its western edge stopped at the road which runs down to Dinas Mawddwy. The road over Bwlch y Groes which is adjacent to the area is claimed to be the highest road in Wales.
- 2.8.2 Within the area the slope gradually rises from c. 450m up to the summit at 625m; in addition there is a slightly lower summit (582m OD) towards the southern end. Two streams run down the lower part of the western slope, and a third runs in a southerly direction through Bwlch y Groes. Two small (c. 130m square), recent forestry plantations are located near the bottom of the slope above the road near the streams. No dry-stone field walls are present in the area, but modern wire fences do act as physical divisions between the parishes and the counties.

2.9 Vegetation

- 2.9.1 The upland landscape of the Berwyns, whose western boundary this area lies close to, is protected by its designation as a Site of Special Scientific Interest because of its nationally important vegetation and upland bird populations. The major vegetation type is that of blanket mire, the dominant species of which are heather (*calluna vulgaris*), hare's-tail cottongrass (*eriophorum vaginatum*) and a number of bog mosses (*sphagnum*). Other major vegetation types are acid grasslands and dwarf shrub heath dominated by heather, with associated bilberry (*vaccinium myrtillus*) covering most of the slopes (information *ex* CCW).
- 2.9.2 The area consisted of acidic coarse grasslands, with up to 2m in depth of peat growth.

2.10 Conservation status

- 2.10.1 The survey took place within a 'purple block area' (*i.e.* areas with an overlap of three or more conservation designations) as shown on the RCAHM(W)'s Upland Indicative Strategy Map, as described above.
- 2.10.2 The three 'conservation designations' which have been identified as relevant to this area are (i) that it falls wholly within Snowdonia National Park; (ii) that it is within a *Tir Cymen* pilot area (*i.e.* Meirionnydd); and (iii) it is within the Berwyn Site of Special Scientific Interest.
- 2.10.3 The Berwyn SSSI is described as being of national importance for its vegetation and upland bird populations (it is considered one of the most important uplands in Wales for birds). A major vegetation type is that of blanket mire, with acid grasslands and mires among the other vegetation communities present.

3 PROJECT METHODOLOGY SUMMARY

3.1 Archive Search

3.1.1 Sources

3.1.1.1 Information concerning the previously-recorded archaeological sites in the areas or in the immediate vicinity of the areas was collated from Gwynedd Sites and Monuments Record and Royal Commission records. Geological and pedological information was obtained from sources in the University College of North Wales library, with ecological information provided by the Countryside Commission for Wales. Examination of the index cards at Gwynedd Archive Service in Dolgellau unfortunately produced no relevant information for the two areas.

3.1.1.2 Copies of the 1:10,000 maps for the two areas (which served as the basis for the fieldwork and report maps) were obtained from the SMR, while the copies of the 1901 (2nd edition) six inch Ordnance Survey maps were consulted at the Gwynedd Archive Service (Dolgellau), as were the relevant tithe maps and schedules of 1842, parts of which are reproduced in appendix IV. No estate plans, maps or other papers relating to the two areas were discovered.

3.1.1.3 There was a general lack of documentary information for the two areas, presumably reflecting their isolated and, until recent times, 'unclaimed' nature.

3.1.2 Known archaeology

3.1.2.1 At the outset of the project the SMR recorded two archaeological sites in the Foel Cwm-Sian Llwyd area and one archaeological site on the boundary of the Moel y Cerrig Duon area:

3.1.2.2 Foel Cwm-Sian Llwyd

PRN	Site	NGR
3255	Round cairn	SH99713173
3256	Cairn	SH99583138

3.1.2.3 A second possible cairn within the Foel Cwm-Sian Llwyd area is also reported on the SMR primary record sheet of PRN 3256, but had no separate PRN. Approximately 100m to the north-east of the area a stone-built shooting box was recorded (PRN 5205).

3.1.2.4 Moel y Cerrig Duon

PRN	Site	NGR
4968	Cairn, site of	SH91292328

3.1.2.5 To the south-east of the area, PRN 4970 records the site of a wayside cross, from which the nearby pass is said to take its name. A modern cross has been erected on the roadside, but the exact location of the original cross itself is not known.

3.1.2.6 In 1991, Clwyd-Powys Archaeological Trust (CPAT) was commissioned by CCW to prepare a report on the archaeology of the Berwyn Nature Conservation Review Site. This report was based largely on existing information in the SMRs of Gwynedd, Clwyd and Powys, and first and/or second edition 1:10,560 OS maps (Silvester, 1991, 1). Some fieldwork was undertaken in the north of the area, but none was undertaken in the areas investigated in this project (Silvester, *pers. comm.*).

3.1.2.7 This report indicated that little archaeological evidence remained in the Berwyn NCR area from the early prehistoric period, though, environmental evidence indicated extensive woodland clearance in the neolithic period, with arable pollen indicative of cultivation appearing in the later part of this period (Silvester, 1991, 5). Human activity during the prehistoric period here appears to have peaked during the bronze age, as in many upland areas: indeed, all known 'early' archaeological monuments such as cairns and standing stones (ceremonial and funeral sites predominate) are attributed to this period (*ibid*, 5), although only two settlement sites possibly from this period have been identified in the area of the NCR. Pollen evidence from the bronze age suggests more woodland clearance, the spread of grass heathland and the expansion of peat moorland towards the end of the period, reflecting a general climatic deterioration at this time (*ibid*, 6).

3.1.2.8 The medieval period is thought to have seen the rise of the *hafotai* system of transhumance: the area just west of Moel y Cerrig Duon is known as *Gwaun yr hen-luest* (meadow of the old summer dwelling/hafod), but there is no direct archaeological evidence, at least in the western end of the Berwyns. Further permanent settlement occurred in the uplands during the seventeenth and eighteenth centuries with encroachment on waste and common land. Features from this period dominate the archaeological record in the Berwyn range (*ibid*, 7), notably sheepfolds and structures associated with field sports (*i.e.* grouse butts and shooting boxes). Examples of these features are present in the survey areas.

3.1.2.9 Extensive areas of undated peat cuttings in the Berwyns indicate that this activity played an important part in the local economy during previous times. Evidence of small scale mining/quarrying is also sometimes found (*ibid*, 8). Again, both of these activities are represented in these pilot areas.

3.1.3 Industrial history

3.1.3.1 The area around Foel Cwm-Sian Llwyd has a number of small slate quarries which exploited isolated Cambrian and Ordovician outcrops. Some of these ephemeral sites are believed to be quite ancient (Richards, 1991, 143). Two quarries are recorded around the survey area; one at Nant y Sarn (SH975315) to the west, which is believed to have been worked in the 1880s, and a putative site at Afon Calltwr (SH988327) (*ibid*, 143). Both these sites are shown on the 1901 O.S. map as 'Old Slate Quarry'. The same map also shows an 'Old Quarry' c.150m east of the summit of Foel Cwm-Sian Llwyd, which is presumed to be a similar small-scale slate trial (see gazetteer).

3.1.3.2 There are no sites of industrial archaeological/historical interest recorded in the vicinity of Moel y Cerrig Duon.

3.2 Aerial Survey

3.2.1 In preparation for the project, the two areas were flown and photographed from the air in December 1995 under wintry conditions. Both general 'landscape' photographs as well as more site specific photographs (black and white negatives) were taken. These photographs were studied before actual field walking was undertaken, as well as used during fieldwork itself.

3.2.2 The results of the flight were disappointing, as both areas were largely featureless with no 'new' sites visible and few existing field boundaries.

3.2.3 Colour vertical aerial photographs, taken by Geoscan in 1992, were also examined at the Countryside Commission of Wales, Bangor, but these yielded no new information.

3.2.4 The availability of these aerial photographs was of limited help during the fieldwork stage, allowing some orientation on the ground.

3.2.5 The negatives and photographs from the GAT aerial survey are deposited in the Gwynedd Sites and Monuments Record under the project number G1323.

3.3 Field Survey

- 3.3.1 The fieldwork was undertaken in January 1996, in wintry conditions with frequent snow flurries and hard frosts. The summits of the mountains, especially Foel Cwm-Sian Llwyd, were hidden for much of the time. The survey was carried out by two members of Trust staff who systematically walked the areas within 50m of one another. Actual walking in both areas was difficult due to the vegetation (and poor conditions), and it was found that zig-zagging downslope was often the most effective (and easiest) way of walking.
- 3.3.2 *Foel Cwm-Sian Llwyd* was accessed from both the eastern side (from the main road), where the steep gradient, deep heather and hidden holes and water-courses made walking and observation particularly difficult; and from the western side (from the footpath) where the going was slightly easier. In addition to the survey area as defined, additional work was undertaken to the north-west around Rhiwaedog-is-afon (where a 'new' sheepfold was recorded), as well as northwards from the summit down the ridge and along the Afon Caletwr towards the cultivated land, and south-east on the eastern slopes towards Pont Cwm Pydew. It was found that here it was easiest to follow 'rides' cut into the vegetation, and natural streams wherever possible, walking across the deeper vegetation heading in a downhill direction.
- 3.3.3 *Moel y Cerrig Duon* was slightly easier to access and walk, due mainly to the lower vegetation and previous peat cuttings: field walking extended outside the defined area to the north, down to an area of deep peat growth. However, little of interest was noted here, and as far as could be seen from aerial and ground survey the land continued like this for some distance northwards.
- 3.3.4 All physical indications of human activity in the landscape were recorded using a two-tier recording system (see appendix III). The site visit forms were based on similar forms used by the Trust in previous upland surveys but were slightly modified. Those sites which were perceived as 'major' sites or monuments, such as cairns, sheepfolds and quarries, were recorded on full page site visit forms, allowing a range of detailed observations and sketch plans to be made in conjunction with a checklist of pre-determined attributes. Less important and complex landscape features (such as peat cuttings) were recorded on short form records which itemised only basic information about the features.
- 3.3.5 It had been the intention to record straight on to a hand-held computer, but old-fashioned paper forms were preferred in the end as being faster. When the weather was particularly poor, a micro-cassette recorder was used: a copy of the standard forms had been covered in plastic and information on each site was read onto tape in the order of fields shown on these forms. These were then either added straight to the computer data-base, or copied on to forms and typed-in later.
- 3.3.6 The fieldwork maps that were used were copies of the Ordnance Survey 1:10,000 enlarged to 1:5,000: this is generally considered to be a sufficiently large scale for the purposes of this type of survey work. A number of items on these maps were then highlighted in different colours for easy recognition (*i.e.* the edge of the survey area, fence boundaries, known sites, suspected sites picked up from APs and other sources, the 50m contour intervals). Maps showing each separate area were then covered in drawing film and fastened to small drawing boards. Site numbers and other notes (for example on land-use) were then written on these during fieldwork.
- 3.3.7 As the areas consisted of open moorland with few if any reference points, it was decided to try to locate sites by using a Global Positioning System. The system used was M.I.D.A.S. II (Mapping Information Database Acquisition System): this was chosen for a number of reasons, including ease of use, degree of accuracy, compatibility with existing CAD systems already used by the Trust (allowing compatibility with Fastmap currently used by RCAHM(W)) and the Trusts for SMR/END GIS work) *etc.* This operated in real time using a number of satellites and a fixed radio link with Point Lynas to record accurate grid references and heights, which were recorded directly on a hand-held computer and downloaded in the office (see below).
- 3.3.8 The system was not without its problems (including difficulties in obtaining and maintaining an adequate radio signal), but on the whole it was effective and useful (especially on north-facing slopes and summits) and allowed all the sites within the two areas to be pinpointed with considerable accuracy. The positions of previously-recorded sites marked by the Ordnance Survey (such as the cairns on Foel Cwm-Sian Llwyd,

and the fence and boundary stones on Moel y Cerrig Duon) were reassuringly close to those obtained using GPS, although some of the heights OD varied somewhat.

3.4 Post field survey and database structure

3.4.1 The information on previously-known and 'new' sites gained from the survey was transferred from the original paper records (and/or tapes) to a computerised database (one for each separate area, MOEL from Moel y Carreg Duon, and CWM from Foel Cwm-Sian Llwyd - see appendix I) compatible with the Gwynedd SMR, and this now forms a satellite record within the SMR, along with previous Upland Surveys. A copy of these gazetteers is included as Appendix I. The relevant information was also copied to the main SMR so that the records now form part of the Gwynedd SMR proper: appendix II contains a brief list of the same sites printed out from the SMR.

3.4.2 The structure of the project databases is as follows:

Structure for database : C:\FPD26\SMR\MOEL.dbf

Number of data records:

Date of last update:

Field	Field Name	Type	Width
1	PRN	Numeric	5
2	NPRN	Numeric	5
3	SURVEY_NO	Numeric	5
4	SITENAME	Character	50
5	NGR	Numeric	11
6	OSMAP	Character	13
7	ALTITUDE	Numeric	4
8	DISTRICT	Character	21
9	COMMOUNC	Character	50
10	STATUS_NO	Character	8
11	SITESTAT	Character	5
12	AREASTAT	Character	8
13	CLASS	Character	30
14	SITETYPE	Character	40
15	PERIOD	Character	15
16	PERIODSPEC	Character	20
17	CENTURY	Character	7
18	FORM	Character	25
19	DESCTYPE	Character	50
20	CROSSREFS	Character	30
21	PERSON	Character	20
22	DATE	Character	4
23	UPDATE	Character	20
24	NOTES	Memo	10

*Total**

3.4.3 Maps of the survey area showing the previously known archaeological sites, streams, physical features and contour lines (every 50m) were produced by digitising the 1:10,000 OS map using AutoCAD and FastCAD 2D programs to produce DXF files.

3.4.4 The locations of the newly-discovered sites were then added in one of two ways. The sites which had been located by reference to known boundaries *etc.* were simply transferred from the fieldwork maps to the digitised map. For those sites which had been accurately located using the GPS, a series of DXF files were created within the GPS software and transferred into FastCad3 where they were merged with the digitised information from the Ordnance Survey maps to form a single map. This proved to very effective. The

layering facility of the FastCAD 3D program allows for the visible manipulation of data and for future alterations or additions to the data.

- 3.4.5 The data thus held will also be capable of being transferred directly to FastMap (the GIS programme currently being developed by RCAHM(W) and the Welsh Trusts for use with END/the regional SMRs), either with the digitised background OS information or simply as PRNs. This has obvious and considerable advantages.
- 3.4.6 All original fieldwork forms and other material compiled during the survey is archived in the SMR under the project number, G1323.

4 SUMMARY OF RESULTS

4.1 FOEL CWM-SIAN LLWYD

- 4.1.1 Nine sites have been recorded in, or just outside, the area designated for survey. Arguably the two most significant sites (the summit cairns, possibly bronze age in origin) have been all-but destroyed, one by a modern sheep-fold and the other by the Ordnance Survey trig. point. There are examples of the features which have been said to dominate the archaeological record in the Berwyn range, *i.e.* sheepfolds and structures associated with field sports (PRNs, 13977, 13975, 5203 and 5205) (Silvester, 1991, 7). There is also evidence for trial mineral exploitation, which does not appear to have been successful. There is minimal evidence for the exploitation of peat.
- 4.1.2 The whole area is covered with peat bog, which appears to be at least a metre deep in most places; the presence of the cairns might suggest possible prehistoric activity in the area, but further evidence for this would be masked by the peat and cannot now be discerned.
- 4.1.3 The results were much as had been predicted at the outset of the project.

4.2 MOEL Y CERRIG DUON

- 4.2.1 This area was very similar. The gazetteer includes twenty two sites recorded in the survey area: of these, the most interesting was the series of boundary stones situated along the eastern side of the survey area (nine such stones were recorded). These small erect slabs of local stone tended to be located on slight rises or outcrops on the ridge of the hill, and in some cases were set in the small quarries of their origin. Their siting along the modern county boundary (Gwynedd/ Clwyd) following the older county boundary of Meirionnydd/Montgomeryshire, suggests that they indeed define the traditional county boundary, while the occurrence of a carved letter 'F' on one of them (PRN 13962) remains unexplained.
- 4.2.2 A single cairn had already been identified in the area, located at the summit of Moel Cerrig Duon. Although most of the present 'monument' appeared recent (there was no lichen growth on the piled stones), evidence of a possible stone kerb around the base of this stone pile, the artificial appearance of the base and the classic location of the cairn (in which it was similar to those on Foel Cwm-Sian Llwyd), indicates the possibility of earlier (prehistoric?) origins.
- 4.2.3 Three sites in the north-west of the area appear to have formed a small quarrying complex. One (PRN 13960) consisted of evidence for very small scale quarrying of the exposed outcropping of the local schist. A few metres to the north-west of this there was a small pile of stones (PRN 13952), identical to that in the outcrop, with the appearance of having been dumped, perhaps as spoil. A narrow track (PRN 13961) led down from the quarrying activity towards the main road.
- 4.2.4 However, the most dominant features of the local landscape were the numerous peat cuttings. They occurred throughout the area, with a particular concentration in the southern half. Generally they were irregular in shape and size, often one cutting would merge with another, and actual edges were difficult to define. A deep gully (PRN 13968) on the lower hill-top, up to 2m in depth, cut through the centre of the area in a

north-east to south-west direction: it was unclear how much of this feature was natural erosion and how much actual peat cutting (probably it was a combination of both): this was also true of a number of the other areas. No peat cutting tracks (as can be seen further south near Dinas Mawddwy) were noted, but the moderate slopes of the area probably explain this.

- 4.2.5 Two modern features were also recorded: PRN 13957, a vehicle track leading from the road to a sheep feeding area in the south of the area: and PRN 13951, a well-defined stone-surfaced linear area with sheep feeding troughs set on it in a line and wired together to prevent their being blown away. The latter would be difficult to interpret without the presence of the actual troughs.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 None of the sites noted during these surveys are considered to be potential candidates for scheduling as monuments of national importance.
- 5.2 The fact that peat bog, often up to 2m deep, covers both areas, and the subsequent lush growth of heather, has restricted the extent to which any surviving archaeological sites or features can be identified from both aerial and ground-based field survey. Continued field survey of the surrounding areas is therefore very unlikely to produce any archaeological evidence of past settlement and land-use, although environmental examination of the peat deposits, auguring and other techniques may well be more profitable in developing our understanding of human exploitation of such areas.
- 5.3 Completion of this level of field survey of the remainder of the 'purple' areas for which these were pilot studies should therefore be given low priority: they are not susceptible to survey of this nature, although aerial survey might be an appropriate and more cost-effective way of examining them, and environmental studies might prove efficacious.

6 ACKNOWLEDGEMENTS

- 6.1 The Trust would like to thank Mrs Jones of Tan-y-Bwlch (Moel y Cerrig Duon); and Mr R. Jones of Plas Isa, Corwen, and Mr C. Jones of Ty Cerrig, Caletwr, (Cwm-Sian Llwyd) for their assistance and allowing us access to their land.

7 BIBLIOGRAPHY

- Bowen, E.G., and Gresham, C.A., 1967, *History of Merioneth*.
- Davies, D., n.d., *Welsh Place-names and their meanings*.
- Manley, J., Greuter, S. and Gale, F. (eds), 1991, *The Archaeology of Clwyd*.
- Richards, A.J., 1991, *A Gazetteer of the Welsh Slate Industry*.
- Silvester, R.J., 1992, *The Archaeology of the Berwyn NCR Site, North Wales*.
- Smith, B. and George, T.N., 1961, *British Regional Geology - North Wales*.

APPENDICES

APPENDIX I : SITE GAZETTEER

PRN	SITENAME	NGR
13976	SHEEPFOLD, FOEL CWM SIAN LLWYD	SH98233205
A TWO-CELL SHEEPFOLD BYILT ON LEVEL GROUND NEAR A STREAM. IT IS WELL-BUILT AND STILL IN GOOD CONDITION (THE WALLS ARE 1.4M HIGH) WITH A SHEEP CREEP LINKING THE TWO CELLS.		
5203	SHED, FOEL CWM SIAN LLWYD	SH98193215
A SHED BUILT OF DRY-STONE WALLS, UP TO 2M HIGH, ON TWO SIDES WITH WOODEN POSTS AND PLANKS FORMING THE REMAINING SIDES. A CORRUGATED IRON ROOF LIES ON THE GROUND TO THE S OF THE STRUCTURE. THE W SIDE SURVIVES AS STONE FOOTINGS, NO ACTUAL WALLING REMAINS.		
13972	PEAT CUTTING, FOEL CWM SIAN LLWYD	SH99283191
AN INDISTINCT, SUB-CIRCULAR PEAT CUTTING C. 25M IN DIAMETER.		
13973	?PEAT CUTTING, FOEL CWM SIAN LLWYD	SH99663171
AN AREA OF DISTURBED PEAT ON THE CREST OF THE MOUNTAIN. SOME SHEEP EROSION WITH POSSIBLE HUMAN DISTURBANCE.		
13975	SHEEPFOLD, FOEL CWM SIAN LLWYD	SH99703173
A SOLID, SQUARE, WELL-BUILT SHEEPFOLD OVERLYING THE CAIRN (PRN 3255). IT IS POSSIBLE BUILT OF CAIRN MATERIAL. THE ENTRANCE IS 1M WIDE ON THE N WALL AND THERE IS A BLOCKED ENTRANCE ON THE E SIDE. THE INTERIOR IS COVERED IN COLLASPED WALL MATERIAL, THOUGH, THE WALLS STILL STAND TO A HEIGHT OF 1.8M.		
3255	CAIRN, FOEL CWM SIAN LLWYD	SH99703173
CAIRN MARKED ON OS MAP, NOW DESTROYED BY SHEEPFOLD (PRN 13765) BUILT ON TOP. THE SITE UNDOUBTEDLY FORMLY EXISTED AND THE AMOUNT OF STONE IN THE FOLD SUGGESTS IT WAS PROBABLY QUITE SUBSTANTIAL. LOCATED ON A PROMINENT RISE ON THE HILL-SHOULDER.		
13974	QUARRY, FOEL CWM SIAN LLWYD	SH99743140
A STONE QUARRY CONSISTING OF AN ADIT AND TWO SPOIL HEAPS. IT IS APPROXIMATELY 8-10M LONG WITH 2M OF ACTUAL WORKING FACE EXPOSED. THE SPOIL HEAPS ARE ERODING DOWNSLOPE.		
3256	CAIRN, FOEL CWM SIAN LLWYD	SH99583138
A CARIN C. 3M IN DIAMETER, ALMOST TOTALLY DESTROYED BY OS TRIG POINT (A CONCRETE BLOCK). THERE IS NO EVIDENCE FOR A KERB, EXCEPT POSSIBLY ON THE W SIDE. VISITORS HAVE BUILT A SMALL CAIRN ON THE S SIDE.		

Records printed: 9

<u>PRN</u>	<u>SITENAME</u>	<u>NGR</u>
13950	PEAT CUTTINGS, MOEL Y CERRIG DUON AN AREA OF IRREGULAR PEAT CUTTINGS.	SH91552320A
13951	SHEEP TROUGHS, MOEL Y CERRIG DUON A LINEAR SERIES OF METAL FEEDING TROUGHS, BOUND TOGETHER BY WIRE, ALL ON STONE SURFACE 5M WIDE AND 40M LONG.	SH
13952	STONE PILE, MOEL Y CERRIG DUON A VERY SMALL AREA, 3M BY 3M, OF SCHIST STONES LYING ON THE SURFACE. APPROXIMATELY 5M NORTH-WEST OF QUARRIES (SURVEY NO. 111)	SH91502439
13953	BOUNDARY STONE, MOEL Y CERRIG DUON A SMALL SUB-RECTANGULAR, ORTHOSTATIC STONE SLAB (LOCAL SCHIST STONE), ERECTED ON A NATURAL OUTCROP. A SMALLER STONE HAS BEEN JAMMED INTO THE BASE OF THE STONE AS SUPPORT. THIS IS SITUATED ON THE COUNTY BUONDARY LINE.	SH91642327
13954	BOUNDARY STONE, MOEL Y CERRIG DUON A SMALL SUB-RECTANGULAR, ORTHOSTATIC STONE (SCHIST) SLAB. IT IS LOCATED ON A NATURAL OUTCROP. LIES ON THE COUNTY BOUNDARY.	SH91632324
13955	BOUNDARY STONE, MOEL Y CERRIG DUON A SMALL SUB-RECTANGULAR ORTHOSTATIC STONE SLAB (SCHIST). LOCATED JUST NORTH OF A NATURAL OUTCROP. LIES ON THE COUNTY BOUNDARY.	SH91642292
13956	BOUNDARY STONE, MOEL Y CERRIG DUON A SMALL SUB-RECTANGULAR, ORTHOSTATIC STONE SLAB (SCHIST). LOCATED ON A SLIGHT RIDGE. LIES ON THE COUNTY BOUNDARY.	SH91652290
13957	TRACK, MOEL Y CERRIG DUON A MODERN VEHICLE TRACK, 3M WIDE AND C. 20M LONG, LEADING FROM THE ROAD TO AN AREA OF SHEEP FEEDING.	SH91482285C
13958	BOUNDARY STONE, MOEL Y CERRIG DUON A SMALL SUB-RECTANGULAR, ORTHOSTATIC STONE SLAB (SCHIST), ERECTED ADJACENT TO MODERN FENCE ON THE COUNTY BOUNDARY.	SH91792348
13959	PEAT CUTTINGS, MOEL Y CERRIG DUON AN AREA OF ILL-DEFINED PEAT CUTTINGS.	SH91652405A
13960	QUARRIES, MOEL Y CERRIG DUON TWO SMALL QUARRIES, CUT INTO THE SLOPE ABOVE A STREAM. THE BEDROCK IS EXPOSED AND LOOSE STONE IS SCATTERED ABOUT. THE STONE PILE (SURVEY NO. 15) IS LOCATED C. 5M TO THE NORTH-WEST.	SH91522436
13961	TRACKWAY, MOEL Y CERRIG DUON A TRACKWAY LEADING DOWN THE VALLEY FROM THE QUARRIES TO THE MAIN ROAD, 1.3M WIDE, CUT INTO THE SLOPE WITH A DOWNSLOPE BANK, 0.5M HIGH.	SH
13962	BOUNDARY STONE, MOEL Y CERRIG DUON A SMALL STONE SLAB, ORIGINALLY UPRIGHT NOW SLANTING A LITTLE, WITH A LETTER 'F' CARVED ON THE W SIDE.	SH

<u>PRN</u>	<u>SITENAME</u>	<u>NGR</u>
13963	BOUNDARY STONE, MOEL Y CERRIG DUON A LARGISH ORTHOSTAT SLAB OF LOCAL STONE, ERECTED WITHIN A SMALL POSSIBLE QUARRY, THE SIDES OF WHICH HAVE THE APPEARANCE OF A KERB.	SH
13964	CAIRN, MOEL Y CERRIG DUON A RECENT LOOKING PILE OF STONES, C. 0.4M IN DIAMETER, BUILT ON TOP OF A NATURAL RIDGE. THE RIDGE HAS BEEN ENLARGED BENEATH THE CAIRN AND THERE IS A POSSIBLE EARLIER, LARGER STONE KERB HERE. THE SITE IS LOCATED NEAR TO THE SUMMIT.	SH
13965	BOUNDARY STONE, MOEL Y CERRIG DUON A FRAGMENT OF A BOUNDARY STONE C. 0.1M HIGH.	SH
13966	BOUNDARY STONE, MOEL Y CERRIG DUON A SCHIST SLAB ALIGNED ALONG BORDER C.0.35M HIGH.	SH
13967	PEAT CUTTINGS, MOEL Y CERRIG DUON AN AREA OF IRREGULAR PEAT CUTTINGS.	SH91352350A
13968	PEAT CUTTINGS, MOEL Y CERRIG DUON AN AREA OF IRREGULAR PEAT CUTTINGS.	SH91702360A
13969	PEAT CUTTINGS, MOEL Y CERRIG DUON AN AREA OF PEAT CUTTINGS.	SH91802433A
13970	PEAT CUTTINGS, MOEL Y CERRIG DUON AN AREA OF PEAT CUTTINGS.	SH92082414A
13971	PEAT CUTTINGS, MOEL Y CERRIG DUON AN AREA OF PEAT CUTTINGS JUST BELOW THE SUMMIT OF MOEL Y CERRIG DUON.	SH92332425A

Records printed: 22

APPENDIX II : SITE LIST FROM GWYNEDD SITES AND MONUMENTS RECORD

PRN	SITENAME	NGR
3255	CAIRN, FOEL CWM SIAN LLWYD	SH99703173
256	CAIRN, FOEL CWM SIAN LLWYD	SH99583138
203	SHED, FOEL CWM SIAN LLWYD	SH98193215
13950	PEAT CUTTINGS, MOEL Y CERRIG DUON	SH91552320A
3951	SHEEP TROUGHS, MOEL Y CERRIG DUON	SH91442417C
3952	STONE PILE, MOEL Y CERRIG DUON	SH91502439
13953	BOUNDARY STONE, MOEL Y CERRIG DUON	SH91642327
3954	BOUNDARY STONE, MOEL Y CERRIG DUON	SH91632324
3955	BOUNDARY STONE, MOEL Y CERRIG DUON	SH91642292
13956	BOUNDARY STONE, MOEL Y CERRIG DUON	SH91652290
13957	TRACK, MOEL Y CERRIG DUON	SH91482285C
3958	BOUNDARY STONE, MOEL Y CERRIG DUON	SH91792348
3959	PEAT CUTTINGS, MOEL Y CERRIG DUON	SH91652405A
13960	QUARRIES, MOEL Y CERRIG DUON	SH91522436
3961	TRACKWAY, MOEL Y CERRIG DUON	SH91472437C
3962	BOUNDARY STONE, MOEL Y CERRIG DUON	SH92412458
13963	BOUNDARY STONE, MOEL Y CERRIG DUON	SH92442426
3964	CAIRN, MOEL Y CERRIG DUON	SH92352416
3965	BOUNDARY STONE, MOEL Y CERRIG DUON	SH92262408
3966	BOUNDARY STONE, MOEL Y CERRIG DUON	SH92092383
13967	PEAT CUTTINGS, MOEL Y CERRIG DUON	SH91352350A
3968	PEAT CUTTINGS, MOEL Y CERRIG DUON	SH91702360A
3969	PEAT CUTTINGS, MOEL Y CERRIG DUON	SH91802433A
13970	PEAT CUTTINGS, MOEL Y CERRIG DUON	SH92082414A
3971	SHEEPFOLD, FOEL CWM SIAN LLWYD	SH98233205
3971	PEAT CUTTINGS, MOEL Y CERRIG DUON	SH92332425A
13972	PEAT CUTTING, FOEL CWM SIAN LLWYD	SH99283191
13973	?PEAT CUTTING, FOEL CWM SIAN LLWYD	SH99663171
3974	QUARRY, FOEL CWM SIAN LLWYD	SH99743140
3975	SHEEPFOLD, FOEL CWM SIAN LLWYD	SH99703173

records printed: 30

APPENDIX III : SURVEY FORMS

PROJECT <small>name & number</small>		MAP SHEET No.		AREA		NUMBER	
NGR	ELEVATION	TYPE stone wall bank ditch track clearance other mod. fence					
TYPE EXAMPLE poor average good v. good		VISIBILITY (m)		500+ 2-500 1-200 50-100 20-50 10-20 <10m		% SURVIVAL	
DIMENSIONS		length	breadth (1)	breadth (2)	diameter	height (1)	height (2)
LAND USE		deciduous coniferous mixed parkland scrub moorland rough pasture improved pasture reverted pasture marsh peat bog other					
DESCRIPTION (brief)				CONDITION		NAME	
				ORIENT		DATE	
ASSOC. FEATURE/SITE		SAME AS					

PROJECT <small>name & number</small>		MAP SHEET No.		AREA		NUMBER	
NGR	ELEVATION	TYPE stone wall bank ditch track clearance other mod. fence					
TYPE EXAMPLE poor average good v. good		VISIBILITY (m)		500+ 2-500 1-200 50-100 20-50 10-20 <10m		% SURVIVAL	
DIMENSIONS		length	breadth (1)	breadth (2)	diameter	height (1)	height (2)
LAND USE		deciduous coniferous mixed parkland scrub moorland rough pasture improved pasture reverted pasture marsh peat bog other					
DESCRIPTION (brief)				CONDITION		NAME	
				ORIENT		DATE	
ASSOC. FEATURE/SITE		SAME AS					

PROJECT <small>name & number</small>		MAP SHEET No.		AREA		NUMBER	
NGR	ELEVATION	TYPE stone wall bank ditch track clearance other mod. fence					
TYPE EXAMPLE poor average good v. good		VISIBILITY (m)		500+ 2-500 1-200 50-100 20-50 10-20 <10m		% SURVIVAL	
DIMENSIONS		length	breadth (1)	breadth (2)	diameter	height (1)	height (2)
LAND USE		deciduous coniferous mixed parkland scrub moorland rough pasture improved pasture reverted pasture marsh peat bog other					
DESCRIPTION (brief)				CONDITION		NAME	
				ORIENT		DATE	
ASSOC. FEATURE/SITE		SAME AS					

PROJECT <small>name & number</small>		MAP SHEET No.		AREA		NUMBER	
NGR	ELEVATION	TYPE stone wall bank ditch track clearance other mod. fence					
TYPE EXAMPLE poor average good v. good		VISIBILITY (m)		500+ 2-500 1-200 50-100 20-50 10-20 <10m		% SURVIVAL	
DIMENSIONS		length	breadth (1)	breadth (2)	diameter	height (1)	height (2)
LAND USE		deciduous coniferous mixed parkland scrub moorland rough pasture improved pasture reverted pasture marsh peat bog other					
DESCRIPTION (brief)				CONDITION		NAME	
				ORIENT		DATE	

PROJECT

AREA

NUMBER

NGR

ALT.

SITE TYPE

TYPE INTERPRET v.doubt doubt poss prob def TYPE EXAMPLE poor average good v.good

TOPOGRAPHY valley floor valley slope (top mid base) hill slope (top mid base) depression ridge rise other

FORM building-roofed building-ruined earthwork wall bank ditch feature other

MATERIAL stone earth mixed undetermined other

DESCTYPE spread mound hollow platform enclosure linear other MANMADE v.doubt doubt poss prob def

VISIBILITY(m) 500+ 2-500 1-200 50-100 20-50 <20 CONDITION intact nr.intact damaged nr.destr

SIZE

SHAPE

ORIENT

CHRONOLOGY early pre late pre/RB early med med late med mod undet CONFIDENCE high mod low

THREATS put no. below relevant ones 1=slight 2=mod 3=severe

animal erosion animal burrowing afforestation building ploughing scrub vehicle erosion visitor erosion

weathering natural decay water drainage land improvement quarrying stone robbing other

LAND USE arable improved pasture rough grazing woodland/scrub forestry peat bog other

ON-SITE VEGETATION turf coarse grass rushes gorse heather bracken moss bilberry other

THREAT RESPONSE A (SAM) B (Reg) C (Loc) D (Min) E (Further info) O.S. Already Yes No

FURTHER WORK none detailed plan AP geophysics trial trench documentary environmental re-visit other

AP REFs

PHOTOS TAKEN B/W Y/N CS Y/N INITIALS

DATE

DESCRIPTION/SKETCH

APPENDIX IV - SCHEDULE FOR 1842 TITHE MAP

SCHEDULE : 1842 TITHE MAP

FOEL CWM-SIAN LLWYD

There is no ordered information for this area.

MOEL Y CERRIG DUON

The Parish of Llanymaddwy

105 Unenclosed sheepwalk belonging to several landowners of the parish of Llanymaddwy.

The Parish of Llanuwchllyn

20 Thomas Fitzhugh Esq. Thomas Jones Ffridd - Pasture.

The area of the survey is called common land. Sir W. Watkin Wynn appears to be the main landowner in the area.

APPENDIX V - PLACENAMES IN THE AREA

Place-names of interest in the survey areas.

The placename evidence is taken from the 1842 tithe map and more recent Ordnance Survey maps, and generally appears to describe the natural topography of the areas, with reference to one-time owners.

The recurrence of the 'cross' (croes) seems to confirm the presence of some sort of cross symbol (see PRN 4970) in the top part of the valley to the west of the Moel y Cerrig Duon area. The 'Luest' mentioned seems to indicate the proximity of an old summer dwelling.

Foel Cwm-Sian Llwyd

Foel Cwm-Sian Llwyd - the bare topped hill of Sian Llwyd's valley

Cwm Sian Llwyd - Sian Llwyd's valley

Bryniau Gleision - green hills

Afon Caletwr - from *dwr* = water, and *caled* = hard ?

Pont cwm Pydew -

Cwm Pydew -

Trwm y Sarn - *trum* = ridge or crest; *sarn* = paved way

Carnedd Wen - white cairn

Moel y Cerrig Duon

Moel y Cerrig Duon - bare topped hill of the black rocks

Foel y Groes - bare topped hill of the cross

Gwaun yr Hen-Luest - meadow or moor of the old farm/hafod

Craig y Ogof - crag of the cave

Nant Tan y bwlch - stream valley near the pass

Bwlch y Groes - pass of the cross

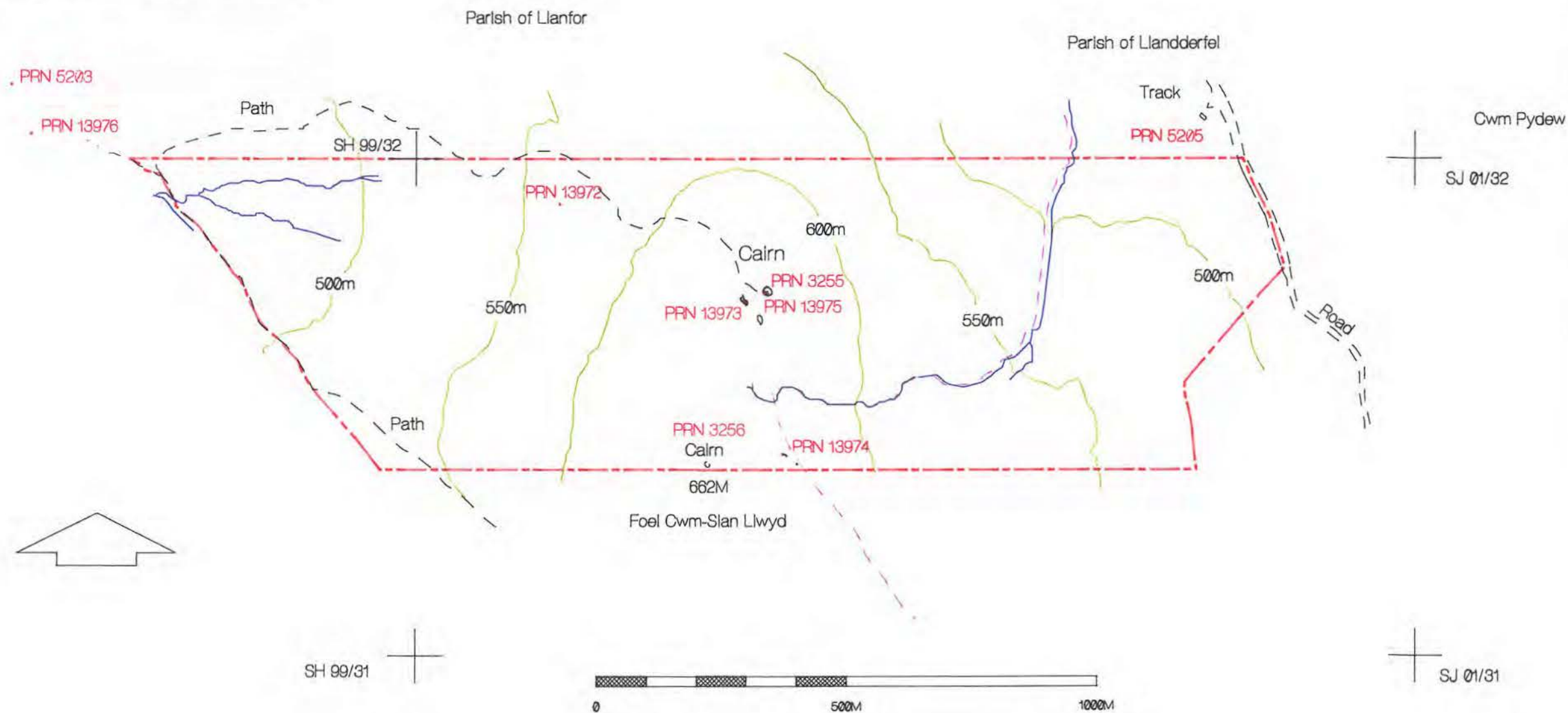
APPENDIX VI - LIST OF ARCHIVE MAPS


Archive maps.

The maps listed below are held with the main archive record for the project.

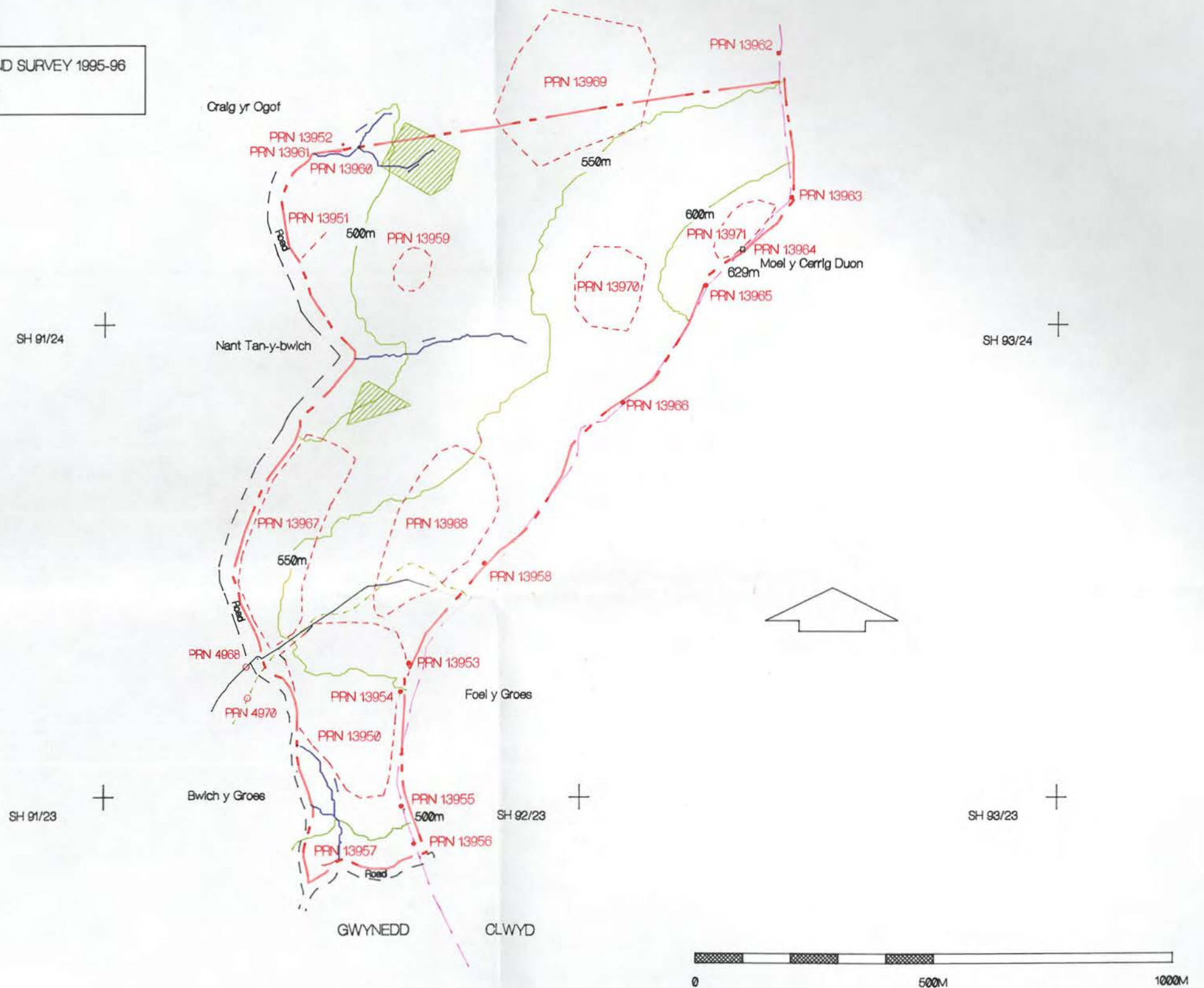
Number	Scale	Date	Description
1	1:10,000	1983	Base map - showing streams, paths, boundaries, PRN's and aerial photographic information.
2	6"	1901	
3	N.T.S.	1842	Llanfor tithe map.

CWM SIAN LLWYD UPLAND SURVEY 1995/6
MAP 1: Survey Area and PRNs



<p>YMDIRIEDOLAETH ARCHAEOLEGOL GWYNEDD</p>  <p>GWYNEDD ARCHAEOLOGICAL TRUST</p> <p>Craig Beuno : Ffordd y Gerth : Bengor : Gwynedd LL57 2RT Tel/Ffon (01248) 352535 : Fax/Ffôn (01248) 378925</p>	<p>Description</p> <p>Cwm Sian Llwyd Upland Survey 1995/6</p>	<p>Project number: G1323</p> <p>Drawing number: Map 1</p> <p>Scale(s): 1:10,000</p>	<p>Surveyed by: GAT</p> <p>Drawn by: GAT</p> <p>Date: FEBRUARY 1996</p>	<p>Notes and revisions:</p> <p>--- Foot Path</p> <p>--- Community Boundary</p> <p>--- Survey Area</p>	<p>Client:</p> <p>RCAHM (W)</p>
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MOEL Y CERRIG DUON UPLAND SURVEY 1995-96
MAP 2: Survey Area and PRNs



YMDRIEDOLAETH
ARCHAEOLEGOL
GWYNEDD



GWYNEDD
ARCHAEOLOGICAL
TRUST

Craig Beuno : Ffordd y Gerth : Bangor : Gwynedd LL57 2RT
Tel/Fon (01248) 352535 : Fax/Ffôn (01248) 370025

Description
MOEL Y CERRIG DUON
UPLAND SURVEY 1995/6

Project number:
G1323

Drawing number:
Map 2

Scale(s):
1:10,000

Surveyed by:
GAT

Drawn by:
GAT

Date:
FEBRUARY 1996

Notes and revisions:

--- Survey Area

--- County Boundary

--- Community and Parish Boundary

--- Wire Fence

PRN 4968 Existing PRNs

Foresty Plantation

Client:
RCAHM (W)

