Historic landscape characterisation for management -

Llyn Environmentally Sensitive Area

GAT Project G1509

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Carn Fadryn

O! na ddeuai chwa i'm suo
O Garn Fadryn ddistaw bell
Fel na chlywn y gynnau'n rhuo
Ond gwrando am gân y dyddiau gwell

Gweirglodddiau

Cerddi'r hâf ar fud sandalau'n
Llithro dros wirgloddiau Llyn;
Cerddi am flodau'r pren afalau'n
Distaw ddisgyn un ac un.

Cynan (Albert Evans Jones)

This countryside we call Llyn is in the shape of a long arm of land stretching out into the sea; a thrust of hilly ground towards the West, some of it fertile, but most of it windswept and barren. There are some sheltered crevices where trees grow reasonably well, and here and there a hamlet tucked into a fold in the ground. But the small fields, with their banked walls topped with gorse, the infrequent streams, the spare meadows and the rough patches of tilled ground are little more than interludes between the sea and the waste heights of the hills. Here, at this extremity of the peninsula, life is precarious: nothing rich to the eye save the sunsets and the blaze of heather or gorse on a fine summer day.

Inland, to the East, there are farmlands where life is prosperous and cattle abound, where an abundance of trees gives shelter and firewood to the poor, where crops are less at the mercy of the weather and the soil responds generously to the labour of man and woman. Where the gentry, as they are called, have mansions... the mansions are as small as themselves, but these houses and their inhabitants riot in their pride and are pleased that their small lordship over man and cottage should be acknowledged.

Ll. Wyn Griffith, *The Wooden Spoon*

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1   Introduction and acknowledgements

1.1   Historical landscape characteristics are the tangible evidence of the activities and habits of the people who occupied, developed, used and shaped the land to serve human needs in the past; they reflect the beliefs, attitudes, traditions and values of these people. They include the physical remains of all aspects of man's activities and exploitation in the past (above and below ground, known and potential), and our understanding, interpretation and even perception of those remains. They may reflect a variety of activities occurring at one time, or evolving functions in different periods of time. The various characteristics of a landscape interrelate and may, in some cases, overlap.

1.2   Countryside Commission (in its document *Views from the Past*, 1996) states that as managers we should be concerned with the historic character of the present landscape, and not with the study of the past for its own sake. It places the idea of 'historic landscape character' at the centre of these ideas. It has been the aim of this project to identify the characteristics of the present landscape of Llyn which bear witness to the historical processes which have brought it about, to provide a basic commentary on the categories of information used, to relate these to existing landscape types and to define the scope for creative action within the ESA scheme to guide the continuing evolution of the landscape, to sustain or even enhance elements considered essential to the historic character of the areas.

1.3   In this study, the term 'historic character' has been preferred to 'historic landscape', as it is now accepted that all landscape is historic in that it reflects, to a greater or lesser degree, the processes which have occurred in history and which have formed its present appearance. It is the variety, not necessarily of the processes but of their physical manifestations, which is important and which gives the present day landscape its many and varied historical characters. Landscapes can be described (and often defined) by their different 'characters', and historical character (or time-depth dimension) is one strand of this.

1.4   Characterisation is defined *as the process of identifying and defining the particular characteristics which make each area distinctive*, and is rapidly emerging as the basis for a unified approach to describing and understanding the environment (Countryside Commission *et al*, 1997, 4).

2 Purpose of report - aims and objectives

2.1 General

2.1.1 This project and report was intended as a contribution towards the overall historic landscape initiative currently being funded by Cadw: Welsh Historic Monuments, Countryside Council for Wales and ICOMOS UK. It originally had three main aims (a) to contribute to our understanding of Llyn as an area of identified historic landscape; (b) to aid ADAS's monitoring of the effectiveness of the ESA system of farming conservation; and (c) to test a methodology for characterising historic landscape (see below).

2.2 Llyn historic landscape

2.2.1 The Llyn peninsula, including Bardsey, has been identified on the *Register of Landscapes of Outstanding Historic Interest in Wales* by Cadw, CCW and ICOMOS (Cadw: Welsh Historic Monuments, 1995, HLW(GW)8, pp 88-9). It contains important and well-preserved evidence of land-use and settlement from the prehistoric period onwards, which contribute significantly to the present character and appearance of this landscape, parts of which are designated AONB, Heritage Coast and ESA.

2.2.2 As a follow-up to the work on producing this register, Cadw put forward the suggestion that *'More work could be done on the characterisation of those registered historic landscapes that lie within ESAs, particularly with a view to reconciling these with the recent work on landscape types within each ESA. This, in turn, could lead to the particular features which characterise those historic landscapes being incorporated within individual farm plans.'*

2.3 Llyn Environmentally Sensitive Area

2.3.1 The Llyn Peninsula Environmentally Sensitive Area (ESA) was designated in 1988 by the Secretary of State for Wales under provisions made in the Agriculture Act 1986 (Section 18). The ESA scheme aims to conserve and enhance the landscape, wildlife and historic interest of the area.

2.3.2 Farmers with land in the ESA are invited to enter a voluntary agreement with WOAD for ten years. In return for an annual payment, farmers agree to manage their land in ways that will help achieve the aims of the scheme. In each ESA an environmental monitoring programme has been established to help assess whether the Scheme meets its overall aims and objectives. The landscape monitoring element of this programme follows a national approach developed by ADAS for WOAD. For each ESA Landscape Type the important elements and features are defined, and objectives and prescriptions drawn up for their conservation.

2.3.3 The landscape monitoring programme is designed to give an assessment of the impact of the ESA designation on landscape quality. Briefly, the approach is as follows. The overall landscape is composed of several distinctly different types of landscape, each with its own character and characteristics. The "key" characteristics are created by the various landscape elements and combinations of elements within each landscape type. If these elements change they will affect the key characteristics, the character of the landscape type and thus the quality of the overall landscape.

2.3.4 The WOAD document *Lleyn Peninsula Environmentally Sensitive Area - Landscape Assessment* (1995) sets out the description and key characteristics of the landscape in the Lleyn Peninsula ESA. Monitoring is intended to identify changes to the landscape elements. These changes will be assessed first for their impact on the character of each landscape type and then, leading from this, assessed in the context of their impact on the overall character and quality of the ESA landscape.

2.3.5 It was clear that the ADAS landscape assessment did not take sufficient account of the historical dimension of the landscape, and therefore the impact of the ESA designation on elements and features relating to the historical dimension cannot be adequately monitored. It was considered that this situation was in need of improvement and that the monitoring of the historical interest dimension of the scheme should be aided.

2.3.6 The project was an attempt to work towards a definition of the important elements and features of the historic dimension of the Llyn ESA landscape, and to tie these in where appropriate to the various Landscape Types already identified by ADAS. It attempted to suggest ways in which the baseline statement for monitoring the historic landscape interest of the Llyn Peninsula ESA could be established. It also suggested broad

conservation objectives and management prescriptions for the landscape types, and in addition attempted to establish a mechanism whereby changes can be assessed for their impact on the historic character of each area.

2.4   Beyond the ESA

2.4.1   As this landscape characterisation project was originally concerned specifically with the landscape of the ESA and its management, produced for FRCA specifically for the purposes of landscape monitoring as described above, the work originally focused on the rural landscape as created and influenced by agricultural land management.

2.4.2   However, circumstances changed during the course of the project which meant that it (and the methodology) evolved to take account of these. The main factor was the realisation that the information being gathered for the ESA could be made appropriate to other landscape assessment and management initiatives, involving wider, non-agricultural, land-uses such as settlement, roads, industrial areas and so on

2.4.3   The principal amongst these was a pilot scheme of the Countryside Council for Wales's Landscape assessment and decision-making process (LANDMAP), which was carried out in the summer/winter of 1997 for the same area of Llyn. Landmap is a management-led method for assessing the landscape which is based on the creation of landscape policy areas which are created by a number of specialist inputs. Briefly, the historical aspect of landscape was identified as one of seven specialist inputs to this process, and it was soon recognised that the information collated (as well as the level of detail and the way in which it was put together) during this project was directly relevant (with one or two modifications) to the Landmap process. Details of the Landmap exercise ca ne br found in GAT Report no. 270.

2.4.4   As a result, the scope of this study was widened to take account of other historical factors and to demonstrate the relevance of the work to wider landscape conservation and planning management

2.5   Historic landscape characterisation

2.5.1   As has already been stated, the Countryside Commission (in its document *Views from the Past*, 1996) states that as <u>managers</u> we should be concerned with the historic character of the present landscape, and not with the study of the past for its own sake. It places the idea of 'historic landscape character' at the centre of these ideas.

2.5.2   Characterisation is defined *as the process of identifying and defining the particular characteristics which make each area distinctive*, and is rapidly emerging as the basis for a unified approach to describing and understanding the environment (Countryside Commission *et al*, 1997, 4). Ultimately, in order to be of any practical use, this has to be translated into the management of physical things.

2.5.3   At present there is no standard, accepted methodology for establishing the historical characterisation of landscape, and it was considered that Llyn, and this project, represented a good opportunity to test a variety of approaches, some of which had been initially developed elsewhere (Countryside Commission, 1994; Rippon, 1995). However, comparable current studies in England, such as the Cotswold AONB Historic Landscape Type Characterisation, are based on the principal of *the predominant form of the present landscape [which] is identified principally by the existing patterns of enclosures within areas of landscape.*

2.5.4   The details of the methodology adopted in this study are the subject of both a separate section in this report (section 3) and of a separate report, GAT Report no. 287.

2.5.5   This was a landscape appraisal which was not concerned with attaching value: it is intended as a description, or characterisation, of the historical dimension of part of Llyn. The project is also intended, at a secondary level, to serve as a basis for future research from an academic archaeological point of view. The historic landscape of Llyn has not been researched in any great detail to date: to the east, Gresham's study of Eifionydd (Gresham, 1954) has shown the potential of detailed study, from a historical geography point of view, of the development of an area from the medieval period onward. Miss Horton's study of land utilisation in the 1840s on Llyn, based on the tithe maps, would appear to have considerable potential for studies of landscape change and development, but this work remains unpublished (Rural Survey of Wales, 1952). This project has shown the considerable potential for future study.

3 Approaches to historic characterisation methodology

3.1 Towards a definition of historic landscape character

3.1.1 As has already been stated, characterisation is defined *as the process of identifying and defining the particular characteristics which make each area distinctive*, and is rapidly emerging as the basis for a unified approach to describing and understanding the environment (Countryside Commission *et al*, 1997, 4). Ultimately, in order to be of any practical use, this has to be translated into the management of physical things, or, rather, the attributes of physical things.

3.1.2 The historical dimension of landscape is concerned with the chronological structure of the landscape through time (where the emphasis is on change and continuity) and space (where the emphasis is on patterns at different scales, complexity and diversity). The evidence occurs in features or elements (such as relict archaeological sites, buried remains, buildings and earthworks, including scheduled ancient monuments, listed buildings, conservation areas and so on), and the information held in these features and the relationships between them provide a record of the way in which the landscape has evolved over time. By recording, mapping and analysing the evidence in this way, the development of the landscape over time can be seen and described.

3.1.3 The historic interest of an area can be defined in terms of the distinctive characteristics of a period or theme (or combination thereof) which demonstrate the way in which the area shows organisation of space either during one particular period or a development through time; this can include a combination or pattern of features which, although they may individually lack distinction, nevertheless represent a significant and distinguishable landscape when viewed as an entity. This may be visible in the arrangement of fields or siting of settlements; in a pattern of land-use which represents traditional practices unique to a community; in the sheer density of related remains; or it may contain buildings distinctive in style, design or method of construction.

3.1.4 The project examined evidence for the development of the landscape from all periods from the mesolithic through to modern. The study has treated all historical periods as potentially of the same importance in the shaping of the landscape: however, as relatively little remains of earlier periods (compared with more recent periods), the evidence for these periods assumes a relatively greater importance in terms of future management priorities.

3.2 Approaches to historic landscape themes

3.2.1 This study began by examining pre-existing ESA landscape types, and thus concentrated principally on the evidence for the historical development of agriculture and rural subsistence in the area (*i.e.* dates of enclosures from prehistoric to modern times).

3.2.2 In England, work in Cornwall, Avon, Cotswold AONB *etc*. has concentrated on identifying landscape 'type categories' (such as 'open fields', 'ancient woodland', towns, villages and hamlets' *etc*.) and drawing lines across the landscape according to 'type', having allotted each part of the contemporary landscape to one category only.

3.2.3 However, it was soon seen that this was too cumbersome and inflexible for ADAS's ESA requirements: for example it made no reference to relict and buried archaeological sites which are charcateristic of large parts of Llyn and need particular management. Also, it was soon perceived that, if expanded, the work could contribute to many other countryside (and urban) processes and management strategies (for example Landmap, UDPs *etc*. – see GAT Report no. 287).

3.2.4 This realisation, along with the need to deal effectively with a vast amount of data, led to the development of the concept of historic landscape themes which could be considered (analysed and described) separately, and then combined as and when required (a) to fit into pre-existing landscape areas (such as FRCA's Llyn ESA), or (b) to form new 'character areas' for plans and strategies such as Unitary Development Plans, Landmap and so on.

3.3 Definition of historic landscape themes

3.3.1 It has already been stated that Llyn is a predominantly agricultural landscape: one of the most dominant characteristics, therefore, are its field boundaries, and the patterns they form. These occur in a variety of types and patterns, some undoubtedly originating in the prehistoric period, while others fossilise medieval strip fields: other again relate to nineteenth-century enclosure of waste or estate improvements. As the ESA is concerned with keeping 'traditional boundaries', this led to the first theme of 'agriculture'.

3.3.2 In the past, most archaeologists have been concerned with the preservation and management of specific archaeological sites and monuments. In some areas, notably marginal ones, these sites are so well-preserved and densely clustered that they form whole 'relict landscapes'. In other areas, they are less dominant visually, although buried remains may be known to survive in great numbers (visible as cropmarks). As the Llyn has particularly fine examples of both types of distribution, it seemed appropriate to treat these as the second landscape theme as their presence/absence, date, type *etc.* could be used to define and describe the historical characters of different areas.

3.3.3 Closer inspection of the landscape, revealed settlements, routeways, relict archaeology, industrial remains and ornamental and leisure uses to be important too. As has already been stated, components relating to each of these themes could be defined as being conspicuous or dominant, and visually they could be seen to form overall patterns. This led to the drawing up of a series of historic landscape themes as follows - agriculture (field patterns), relict archaeology (period, function, form), settlement (dispersal and degree), industry (type, location and extent) and communications (type), although other themes (including designed landscapes and military) were considered as appropriate but less important.

3.3.4 The study area was examined using a combination of the modern Ordnance Survey Explorer 1:25,000 map, a series of 1993 vertical colour aerial photographs, data from the regional sites and monuments record (in the form of both lists of sites and sites plotted using various criteria against the FRCA landscape types), and a series of primary and secondary sources (although the latter were limited). Limited fieldwork was undertaken and comprised observation, recording and photography from public roads and footpaths in the area. GAT Report no. 287 contains fuller details.

3.4 Application

Working lists of all the types within the themes can be found in appendix II.

3.4.1 Agriculture

3.4.1.1 The aim was to define and record the degree of landscape planning (or lack of it) at different periods in the past, as well as establish phases of succession and replacement, to try to determine which areas of the current landscape reflect use in various previous periods.

3.4.1.2 The analysis considered field patterns, field size, scale, whether the pattern was intact or fragmented, field boundaries and buildings.

3.4.2 Relict archaeology

3.4.2.1 The regional sites and monuments record covering the study area contained information on 520 sites of archaeological/historical interest. This included sites which vary in date from the mesolithic to 19th century, in function from inscribed stone to barn, and in form from findspots to stone buildings (but see above).

3.4.2.2 The perceived requirement to map information at a 'landscape' scale, mirroring the approach to settlement and agriculture described above, led to the development of the concept of 'historic contexts'. An historic context could be described as an important theme, pattern or trend (*e.g.* settlement, ritual, industry) in the historical development of an area at a particular time in prehistory/history (*e.g.* prehistory, or nineteenth century), which is reflected in the surviving archaeological/landscape evidence. Most areas reflect multiple land uses and physical evolution over many years, and therefore more than one historic context will usually be associated with any particular area.

3.4.2.3 Some areas contain particularly good or typical evidence of one or a few historic contexts, which can be defined as a combination of period and function. Twenty three simple historic contexts were defined (see appendix II) using the criteria of period (*i.e.* early prehistoric, late prehistoric/Romano-British, medieval, post-medieval, modern, unassigned) and function (based on six broad categories (settlement and land-use, religious and ritual, industrial, military, communications and leisure).

3.4.2.4 For management purposes, it was determined that the form of particular sites might also be relevant, and so a *current form* category was allocated to each site judged from SMR information and local knowledge (*i.e.* earthwork/relict, building or structure in use, find only, cropmark/parchmark, not known/unlocated /place-name).

3.4.3 Settlement

3.4.3.1 Settlements are the building blocks of the landscape: in strictly archaeological/historical terms these are probably more important than field patterns as they can potentially provide more information on the economic basis which dictates the field pattern (type), but in landscape terms they are also a vital element in defining and characterising an area. Of principal importance are the date, form, plan and type of settlement.

3.4.3.2 Analysis considered first of all degree of dispersal (nucleated/dispersed/isolated), density (rural (farms)/ semi-rural (villages)/urban (town)) and components (house, terrace, mill, church, chapel, shop).

3.4.3.3 The present settlement pattern visible in the landscape was examined using aerial photographic and map coverage, and a series of ten discernible types was drawn up, based on degree of dispersal and components. Density of settlement was established by examining each kilometre square, and recording the principal settlement type present in that square, as well as by estimating the number of currently-occupied dwellings per kilometre square.

3.4.3.4 It is considered equally important that building types (vernacular architecture tradition), building materials (type of stone, brick, roofing material *etc.*) and period be taken into consideration, but resources did not allow for this to be taken very far.

3.4.4 Industry

3.4.4.1 Industrial remains are relatively uncommon on Llyn (there are only two working quarries in the area), and only six areas were noted which could be said to be dominated by industrial archaeological remains: small, disused quarries marked by the OS were ignored.

3.4.4.2 The areas are Trefor (granite quarry, still working, with a system of inclines, piers etc. and an attached quarry community): Nant Gwrtheyrn (granite quarry with a system of inclines, jetties etc. with associated village now a language centre): Nefyn (former series of terraced stone quarries east of the town): Mynydd Rhiw (neolithic stone axe factory at its north-east end, while in C19 Benallt at south-west end was most productive manganese mine in Britain - series of mines, railways, aerial ropeways etc.): Llanengan/Bwlch (important lead-mining complex - underground workings, shafts, chimneys, adits etc.): Llanbedrog (coastal granite (Cambrian) quarries - see also Pwllheli-Llanbedrog tramway): and Nanhoron (small stone quarry, still active)

3.4.5 Communications

3.4.5.1 The main communication routes applicable to the study area are coastal and road/trackway (there are no canals or railways). Analysis considered roads as either trunk, county, minor, lanes (straight/winding), tracks (straight/winding) or footpath straight/winding) only, along with an estimate of their date.

3.4.6 Other

3.4.6.1 A number of other sites and areas are important in historic landscape terms, although these have few, if any, implications for ESA management. Local knowledge of the area has led to the definition of a number of historic parks and gardens, two former military airfields, a number of leisure-associated areas, as well as religious/ceremonial factors as being relevant.

3.4.6.2 Other themes which might be relevant to a full historic characterisation might be leisure (caravan parks, tourist attractions) and coastal.

4   Historical processes and background

4.1   Llyn is a large peninsula extending south-west of the main mountain massif of Snowdonia. Topographically, it comprises a dissected plateau with outliers of harder rocks forming a number of isolated, but prominent, hills and ridges. The whole, however, has been very much modified by deposits of material laid down at the end of the last Ice Age. Yr Eifl, the so-called Rivals, in the north-east part of the peninsula are the most prominent hills, reaching 564m above OD: these are followed by Carn Fadryn, in the centre of the peninsula, at 371m above OD, and Mynydd Rhiw, in the south-west, at 304m above OD, although there are several lower hills rising in between these summits. The gently undulating plateau surface is generally between 50m and 100m above OD, with occasional lower areas formed by shallow valley basins, coastal margins or narrow, deeply incised, hidden valleys. Bardsey Island lies off the south western tip of the peninsula across Bardsey Sound, and reaches 167m OD.

4.2   This extensive area contains both major monuments and large extents of relict features, at the same time displaying a wide variety of historic characters. It possesses a great and unparalleled wealth and diversity of smaller scale archaeological and historical features, which together form a cohesive and integrated whole, demonstrating both the continuity and the territorial unity of Llyn from possibly prehistoric times onwards. There are archaeological sites ranging from the mesolithic period to the recent past, and it is an area of Wales where the effects of both the Roman, Norman and English conquests seem to have been very little felt.

4.3   The historical processes and episodes which have affected the landscape of Llyn are various. They include enclosure for agriculture from the neolithic times onwards; the expansion of settlement and agriculture into the marginal uplands at different times and subsequent retreats 'downhill'; the practice of transhumance (involving seasonal migration between upland and lowland pastures); the marking-out of territories; the improvement of the land by various estates in the post-medieval period; the enclosure of land in the eighteenth and nineteenth centuries; the defence and invasion of territories; the need to travel, trade and communicate over both short (infield and outfield, between settlements) and long (trade routes, drovers' roads, turnpikes) distances; the development of ritual and ceremonial (including religious) beliefs and activities; the exploitation of natural resources by mining and quarrying; and the growth of the leisure industry and tourism.

4.4   Mesolithic sites have been found on some of the coastal headlands around Uwchmynydd and Trwyn Bychestyn in the west, probably relics of hunting settlements which exploited the coastal plains long since inundated by the sea. The exceptionally hard rock of Mynydd Rhiw provided raw material for the manufacture of polished stone axes in the neolithic period which were traded widely. The primitive quarries which have been identified were probably worked by the first farmers in the area who buried their dead in the cromlechs or chambered tombs such as those at Cefnamwlch and Rhiw. The higher outcrops are also the sites of bronze age burial cairns whose builders, as is becoming apparent from the result of aerial photography and excavation, also raised earthen barrows in areas where stone was less plentiful. Archaeological investigations have also revealed traces of a middle bronze age farmstead at Sarn Meyllteyrn, and confirmed the considerable potential for the discovery of more buried archaeological evidence of this type in areas which are now ploughed flat.

4.5   The best known and most impressive prehistoric monuments in the area are the magnificent iron age hillforts crowning the summits of Mynydd Ceiri (Tre'r Ceiri), Garn Boduan and Carn Fadryn, with several other, smaller, but complementary, forts on other summits. The communities who provided the resources to build these hilltop citadels lived in farmsteads dispersed on the adjoining lowlands but, as in earlier periods, their remains have tended to survive above ground only in those areas with a plentiful supply of stone, and where later agricultural clearances have not occurred. Aerial photography and excavation have, however, started to reveal hidden, buried remains of settlements belonging to this period in the area. The number and large size of the iron age hillforts in Llyn certainly suggest that the landscape was being intensively exploited at this time.

4.6   Roman influence on the native traditions of the area is difficult to quantify but seems to have been relatively minor: although Roman finds have been discovered on a number of archaeological sites, there are no known Roman military sites or roads in the area. It has been suggested that as a consequence of this restricted influence, Celtic customs and religion may have persisted more strongly here than elsewhere, a fact which may in part account for the religious importance of Llyn and Bardsey during the ensuing early Christian period. As religious sites, Bardsey and Aberdaron have had a clear historical relationship with each other over many centuries. The ecclesiastical site on the island was traditionally founded by St Cadfan, and by the 12th century it had a reputation for sanctity as the burial place of 'twenty thousand saints'. It was taken over by

Augustinian canons and has since persisted as a place of pilgrimage. Aberdaron, on the mainland, was originally a *clas* church site dedicated to St. Hywyn, and the community is first mentioned in 1094, when the canons provided a boat for Gruffydd ap Cynan to escape. The topography of the site, which is located almost directly on the sea shore, is, unfortunately, badly eroded, but the position is typical of many early church sites in the Celtic countries.

4.7 These sites, however, are not the only pointers to the significance of the area in the early centuries AD. The two inscribed stones from Capel Anelog (now in Aberdaron church) are amongst the most vocal records of this period in Wales. Other stones have come from Llannor, and in addition there are numerous dedications of churches to Celtic saints. The priory on St. Tudwal's island is another important site with a possible early foundation.

4.8 In the later medieval period, most of the area fell within the cantref of Llyn, divided into the commotes of Cymydmaen, Dinllaen and Cafflogion, with their commotal centres at Neigwl, Nefyn and Pwllheli respectively. The sites of most of the constituent townships have survived as loosely nucleated settlements or place-names into the present day, many of them recognisable by the occurrence of *uchaf* and *isaf* in farm place-names. Much of the land was held by the church and monasteries, notably Bardsey, Clynnog Fawr and Cymer, and the patchwork of small dispersed villages and settlements, lanes, fields, stone walls, banks and hedges which is so typical of the Llyn landscape must, to a great extent, date from this period, although there are classic areas of later, rectilinear, 19th-century Parliamentary Enclosures on common land, particularly in Rhoshirwaun, Bryncroes, Llaniestyn, Yr Eifl and Rhiw (see below).

4.9 There are only two towns, Nefyn and Pwllheli, in the area (both formerly commotal centres in the medieval period), although other nucleated centres such as Llanengan and Abersoch (both the result of increasing tourism in the previous and this centuries) do exist. Nefyn was the maerdref and administrative centre of the commote of Dinllaen, and developed into one of the principal towns of Gwynedd during the 13th and 14th centuries, supported by fishing and its role as a stopping place for pilgrims on the way to Bardsey. After the Edwardian conquest, it became a borough, but it was devastated during the Glyndwr rebellion in 1400, and never really recovered as a settlement until the 19th century. Pwllheli, on the opposite side of the peninsula, was the maerdref and administrative centre of the commote of Cafflogion and developed on similar lines to Nefyn, becoming a borough after the conquest but, unlike Nefyn, it recovered from the Glyndwr rebellion to develop further over the ensuing centuries. The original core of the town has largely been subsumed by the 19th century land reclamation and developments whose characteristics forms and styles dominate the present townscape. On the other hand, Neigwl (formerly the commotal centre of Cymydmaen) is not a nucleated settlement at all but a scatter of farms.

4.10 In around 1780, Pennant described Llyn thus: *The houses of the common people are very mean; made with clay, thatched and destitute of chimneys. Notwithstanding the laudable example of the gentry, the country is in an unimproved state, neglected for the sake of the herring fishery. The chief produce is oats, barley and black cattle. I was informed that above three thousand are annually sold out of these parts. Much oats, barley, butter and cheese are exported. The land is excellent for grazing, being watered by a thousand little rills. It is destitute of trees, except about the houses of the gentry ... I observed that the fields were covered with sheeps' samphire, which sheep and cattle eagerly feed on and grow very fat.*

4.11 In his report on the state of agriculture in Caernarfonshire, George Kay (1794) talks of the very small size of most of the farms, with few exceeding 60 acres of arable land, of which two-thirds was generally in pasture. He described farmhouses as in need of being *greatly amended. The farmers are not only in want of houses, sheds and farmyards, but even those they have are frequently detached from each other. Small miserable huts are built on different parts of the farms, each sufficient only to contain a cow or two.* There was no proper system of husbandry, and most cows spent the winter out of doors. Oats and barley were the principal crops, and wheat was only grown along the coast: although much land was perceived as being in need of drainage, little if any was carried out. He remarks that much of Caernarfonshire was still unenclosed, but dry stone walls, earthen banks or (more recently) ditch and hedge (either of hawthorn alone or intermixed with furze) were the common boundary types. Enclosure was generally followed by a doubling in rent. Horses were used for ploughing, dairying and pig raising were minor parts of the economy: from the Porthdinllaen area, prodigious supplies of poultry and eggs went to Liverpool.

4.12 Kay's report was amplified by Davies (writing between 1799 - 1810). He compared Llyn (somewhat unfavourably) with Anglesey: gentlemen of moderate means conducted the affairs of their own estates, while those of larger estates were conducted by agents, the latter being distinguished by the surface of the soil,

buildings, fences and so on (he particularly notes the estates of Nanhoron,as well as Glynllifon and Nannau which held considerable extents of land on Llyn at that time). He described the cottages of labourers as *disgraceful habitations of wretchedness. One smoky hearth, for it should not be styled a kitchen, and one damp litter-cell, for it cannot be called a bed-room.* Hyde Hall comments frequently on the wretched condition of thatched cottages in Llyn in 1811.

4.13   At the end of the eighteenth century, most of the land was farmed by peasants renting from distant gentry and estates: the consolidation of farms by means of exchanging isolated quillets (strips of land reflecting the medieval pattern of open fields fossilised by later enclosure walls or hedges) was still occurring, though most low-lying, privately-owned land was already enclosed. The commons were an important part of the agricultural regime, with people relying on them for summer grazing (mainly for sheep), fuel and building materials. Most peasant families were self-reliant and poor, there was a general lack of an organised market economy, road infrastructure and much of the land was unimproved, and the common land was used for sheep grazing, fuel and building materials. Agricultural practice was still basically medieval in approach and outlook: most land was tenanted, and as leases were rare people were reluctant to invest in improvements. It was said that the area was a hundred years behind southern England.

4.14   However, at the turn of the century, the larger landowners grouped together to obtain private acts to enclose the remaining Crown commons and wastes (probably the single most important factor in altering the landscape in recent times): some tenants with land adjoining commons also benefited from this, but others lost out. Rhoshirwaun (1802) was among the first such Caernarfonshire enclosures, covering two or three thousand acres of marshy waste (Crown common), although due to problems in evicting squatters, it was not finalised until 1814. This was followed in 1808 by an act affecting Llanbedrog and Llangian; in 1811 by an act covering 6,000 acres in Aberdaron, Rhiw, Llanfaelrhys and five other parishes; and in 1812 by an act affecting Nefyn, Pistyll, Carnguwch and Llanaelhaearn. This was aimed at facilitating and improving the land by division, allotment, enclosure, ditching, fencing and ploughing; and some allotments were set out for stone pits for the maintenance of roads. Livestock were banned from the new enclosures for seven years to allow hedges to become established. A document concerning the Meillionydd estate (Bangor MS 2636, UCNW) indicates the variety and extent of stone walling constructed following enclosure, and also shows a (late) exchange of numerous quillets scattered across another landowner's land for a consolidated area of the newly-enclosed common.

4.15   Other large enclosures of former common land in the early nineteenth century include Garn Fadryn, around Mynytho and around Tre'r Ceiri/Llithfaen: these areas still correspond with areas of small, regular, stone-walled fields with single-storey nineteenth-century dwellings. A map in the National Library shows the extent of ownership of land in the 1840s: whilst much of the land was divided among a relatively small number of large farms or estates, there are concentrations of smaller parcels of land (divided between a larger number of owners) on Mynydd Nefyn, in Nefyn, Morfa Nefyn, Garnfadryn, Mynytho, Llanengan, Bryncroes, Llangwnnadl, Rhiw and Uwchmynydd. Interestingly, another map of farm holdings in the same area in 1947 clearly shows the concentration of a greater number of smaller holdings in the areas of Nefyn, Edern, Garnfadryn, north of Pen-y-groeslon, Rhiw, Mynytho, Llanengan, Machros and Uwchmynydd, a fact which can still be seen in the current field size, pattern and density. The lasting result of enclosure was probably loss of amenity for the rural poor, rather than improvement in agriculture.

4.16   The extent of (past) ownership of different parts of the peninsula by large estates, as well as by the church earlier in the medieval period, has been a major contributory factor to the appearance of the present landscape. Those which owned the most land in Llyn during the eighteenth and nineteenth centuries include Glynllifon (Lord Newborough), Cefnamwlch (Fynch), Madryn (Parry Jones), Nanhoron (Edwards) and Vaynol (Assheton-Smith). A map of 1947 (from the National Library of Wales, but unprovenanced) shows the extent of estate land in the southern part of this area: Cefnamwlch owned most of the northern coastal belt from Edern down to Sarn Meyllteyrn, and from Nefyn south-east towards Pwllheli: Madryn owned a huge area of land north-east of Garn Fadryn: Nanhoron owned a large are based around the house, with outlying parcels in Rhiw, north-east of Aberdaron and south-west of the A497: Glynllifon owned a sweep of land around the northern end of Mynydd Rhiw as well as its southern tip, plus an area below Uwchmynydd: and Vaynol owned an area around Castellmarch, north of Llanbedrog (formerly the estate also held land around Rhiw).

4.17   Pennant (Penrhyn Estate) planted some six hundred thousand trees between 1781 and 1797 to act as windbreaks on his property: he also improved the state of farmhouses and the nature of leases, compensating tenants for improvements made. Half a century later the estate gained control of the Meillionydd estate previously held by the Vaughans of Nannau. The Edwardses of Nanhoron were also at the forefront of

agricultural and property improvements. The Glynllifon estate was known for its practice of consolidation and for disallowing the building of any cottages on its land: a survey of the Bodfean estate (held by Newborough), carried out in 1808, found the it to be in a state of considerable dilapidation, the buildings wretched and the lands neglected. The Vaynol estate introduced improvements such as building new roads, planting waste corners, straightening crooked hedges, draining wet lands and so on. Davies also describes the enclosing of land by fences and gates, and remarks on the distinctive style of building stone walls adopted by individual estates (Davies, 124). Wet soils and exposed situations required smaller enclosures, so that ditches acted as drains and hedges as shelters.

4.18   Hyde Hall (who visited Llyn between 1809-11) remarks on improvements to roads (although the turnpike was already grassed-over due to insufficient passing traffic, and other roads were being built although there was little commercial traffic on them) and walls (including the walling off of paddocks for summer grazing for cattle) but little else. Most of the examples quoted were on the land of the larger estates.

4.19   Things had changed little by the 1840s: comparison of tithe maps with earlier estate maps shows that field boundaries remained much as before: there was little amalgamation. In one area which has been studied (the parishes of Rhiw and Llanfaelrhys), the field boundaries shown on the 1842 and 1844 tithe maps were still those which were in place at the end of W.W.II in 1947. Not only fields, but farm holdings remained fixed for over a century: the average size of a farm in the 1860s was said to be c. 150 acres, and corn- and barley-growing was much more widespread than it is now and occupied perhaps a third of available land. Change was slow in the backwater of Llyn, and perhaps only the arrival of the railway in Pwllheli in 1867 heralded changes to a more modern way of life. The only local fairs were the four yearly fairs in Pwllheli (later increased to six).

4.20   There was remarkable religious energy in Llyn which is reflected impacted in the local architecture: the first Nonconformist chapel was built at Nanhoron in 1769, and the vigorous preaching and zeal of the new (Welsh) preachers, contrasting with the absent (English) indifference of the established church led to a rise in nonconformity amongst the people in Llyn which is still reflected in the number and grandeur of local chapels across the area. However, it is interesting to note that itinerant priests were a feature of the Llyn countryside up until the 1870s.

4.21   The survival of cob-walled cottages (a vernacular building type which is rapidly disappearing) appears to be limited to the area of the Rhoshirwaun enclosure, although Hyde-Hall alsoe mentions them as existing elsewhere in Llyn at the beginning of the 19th century (Hyde-Hall, 1809-11, XX). Water- and wind-mills are a common feature of the Llyn landscape, in valley bottoms and on hill-tops: there were formerly around forty mills operating in the area in the mid-19th century (Rural survey of Wales, 1952, p12). Farms are generally nucleated, with farm buildings either built onto houses or in adjacent squares or clusters, and there is now a general absence of field barns and other detached farm buildings (apparently contrasting with earlier reports, e.g. Kay). Many of the larger farms contain one or more modern buildings, but there are examples of unspoilt houses and outbuildings. Although most building is in stone (brick is relatively unusual), the use of corrugated iron is widespread and this material is to be found in barns, sheds, garages and even houses.

4.22   The area contains a wealth of designed historic landscapes (some of which are identified on the Register of Parks and Gardens of Special Historic Interest in Wales, currently being compiled by Cadw), mainly small parks with woodlands and gardens (frequently walled) of the 18th and 19th centuries, often taking advantage of the spectacular natural landscape: the most important are probably Cefnamwlch, Nanhoron, Plas yn Rhiw and Boduan, but there are others.

4.23   During the 19th and 20th centuries, mineral extraction has taken place in the area, most notably granite from a series of prominent coastal quarries in the north, with processing and wharfage facilities and attendant workers' housing. Perhaps the most famous is the former quarrying village in Nant Gwrtheyrn which is now the National Welsh Language Centre, but Benallt, on Mynydd Rhiw, was at one time the largest manganese mine in Britain.

4.24   More recently, there was an RAF airfield at Penrhos, between Pwllheli and Llanbedrog, during World War II, with an accompanying bombing range on Hell's Mouth. The most recent additions to the character of the landscape are the numerous caravan parks (both transient and permanent) which dot the landscape, as the area turns to its new task of serving tourism.

5 Overall historic characterisation of Llyn

5.1 Introduction

5.1.1 For descriptive purposes, historic landscape character within an area must be coherent across a range of (historic landscape) topics (or themes). In some cases, one characteristic (*e.g.* area of relict archaeological remains, pattern of stone-walled fields) may be over-riding: in other cases, it may be a combination of two or more less-dominant but strong characteristics (*e.g.* scattered settlement pattern of cottages with small, regular pattern of fields); in other cases, there may be no clear pattern amongst any of the characterising elements and this in itself may the 'character' of the area (GAT Report no. 287).

5.1.2 However, in order to define areas where historic landscape characteristics might be distinctive, first it is necessary to gain an overall impression of the historical depth of the Llyn landscape. This provides an overall historic landscape framework character within which the descriptions of the different Landscape Types and historic character areas can be fitted, and against which the differing characters could be compared.

5.2 Description

5.2.1 For the most part, Llyn is a quilt of small-scale, intricate pasture fields sewn together by miles of *cloddiau*,walls and hedges, draped over a rolling, plunging, climbing skeleton of valleys and hills, coastline and plateaux. It is in the main an enclosed landscape, overshadowed in places by looming hills and giving out on to open cliff tops: small and irregular fields are mainly green pasture, with areas of yellow and brown arable splashed across them. Small pockets of woodland give height, variety and colour and add a sense of shelter, while areas of heather and grass moorland, many the result of poor past management, create areas of open, expansive uplands.

5.2.2 Routeways are principally winding, often deeply-incised lanes, with species-rich deep hedgerows and verges, which twist and turn giving constantly-changing views (where views can be had) and perceptions. The twists and turns reflect earlier (and now often disappeared) landscape patterns of fields and settlements: sharp right-angles might follow a medieval pattern of strip fields, while curving routes might indicate an even earlier (prehistoric) curvilinear pattern of fields. Footpaths are particularly interesting in that many also follow patterns now lost. This is in contrast with more recent (turnpike, nineteenth century) roads which head straight off across the landscape towards their destinations.

5.2.3 There is a pattern of dispersed settlement, with farm complexes lying alongside lanes or at the end of narrow tracks, apparently randomly scattered but many actually representing the remnants (perhaps in name only) of medieval townships. Several isolated churches also bear witness to the desertion of the medieval countryside. There are few nucleated (village) settlements, and many of these comprise disproportionate numbers of modern council houses.

5.2.4 Above the densely-packed fields rises a series of upland blocks which are often blanketed by large areas of upstanding, relict archaeological remains, mainly settlement- and agriculture-related and prehistoric and medieval in date. The importance of these to both the professional archaeologist and the enquiring visitor, more used to swathes of arable and buried remains, cannot be over-estimated. In between, there are girdles of small, regular, stone-walled fields which are the result of enclosure of the commons in the last century.

5.2.5 The earliest evidence for occupation is in the form of finds of flints (the result of tool manufacture) on headlands on both the north and south coasts: apart from these sites, however, the area is historically remarkably poor in terms of material culture. In the last few years evidence has begun to emerge of former settlement in areas which were previously blank: detailed survey has begun to reveal the existence of sites surviving still as earthworks particularly in marginal areas and on hilltops, while there is a growing body of evidence, in the form of crop- and parch-marks, of settlement on the hillslopes and lower-lying ground which exist only as buried remains.

5.2.6 Farms form the basic settlement blocks of the area: these are usually family-owned larger or smaller conglomerations of buildings in a single location; barns in the outfield areas are virtually unknown in the area. The variety in terrain is reflected in the agricultural land-uses: the moorland environments are poor, reserved for the rearing and fattening of sheep and a few cattle. Below these are temporary and permanent grasslands, while cereals and other fodder crops are restricted to the well-drained soils further west. The relatively small

size of holdings throughout the area is reflected in the proportion of holdings that MAFF would regard as being worthy of only part-time operation.

5.2.7   The area is characterised by its general lack of modern artefacts, especially once beyond the main centres of population and away from the industrial north coast: there are the occasional housing estate and farm buildings, a hidden quarry and a wood-mill, but no factory complexes, no semi-urban sprawls of shops or industrial estates. The one concession to the twentieth century are the (now all-too-characteristic) permanent and transient caravan parks. This adds to the feeling of remoteness and perhaps isolation (in space and time) from the modern industrial century.

5.2.8   There are few ancient or semi-ancient woodlands in the area, and those that exist are generally limited to the incised valleys: there are no stretches of open water. Language and the institutions which support and rely on it are also key elements in the human landscape of Llyn which have tangible roots in the historic landscape.

5.2.9   Perhaps the most recent chapter in Llyn's landscape history concerns the value in which it has been held over the past few decades: much of the area is Heritage Coast and a large proportion of it is a designated Area of Outstanding Natural Beauty: it also contains a National Nature Reserve, several Sites of Special Scientific Interest and a number of Scheduled Ancient Monuments. The whole of it is also, of course, an Environmentally Sensitive Area.

Type A - Sheltered Parkland - visible in centre of photograph.
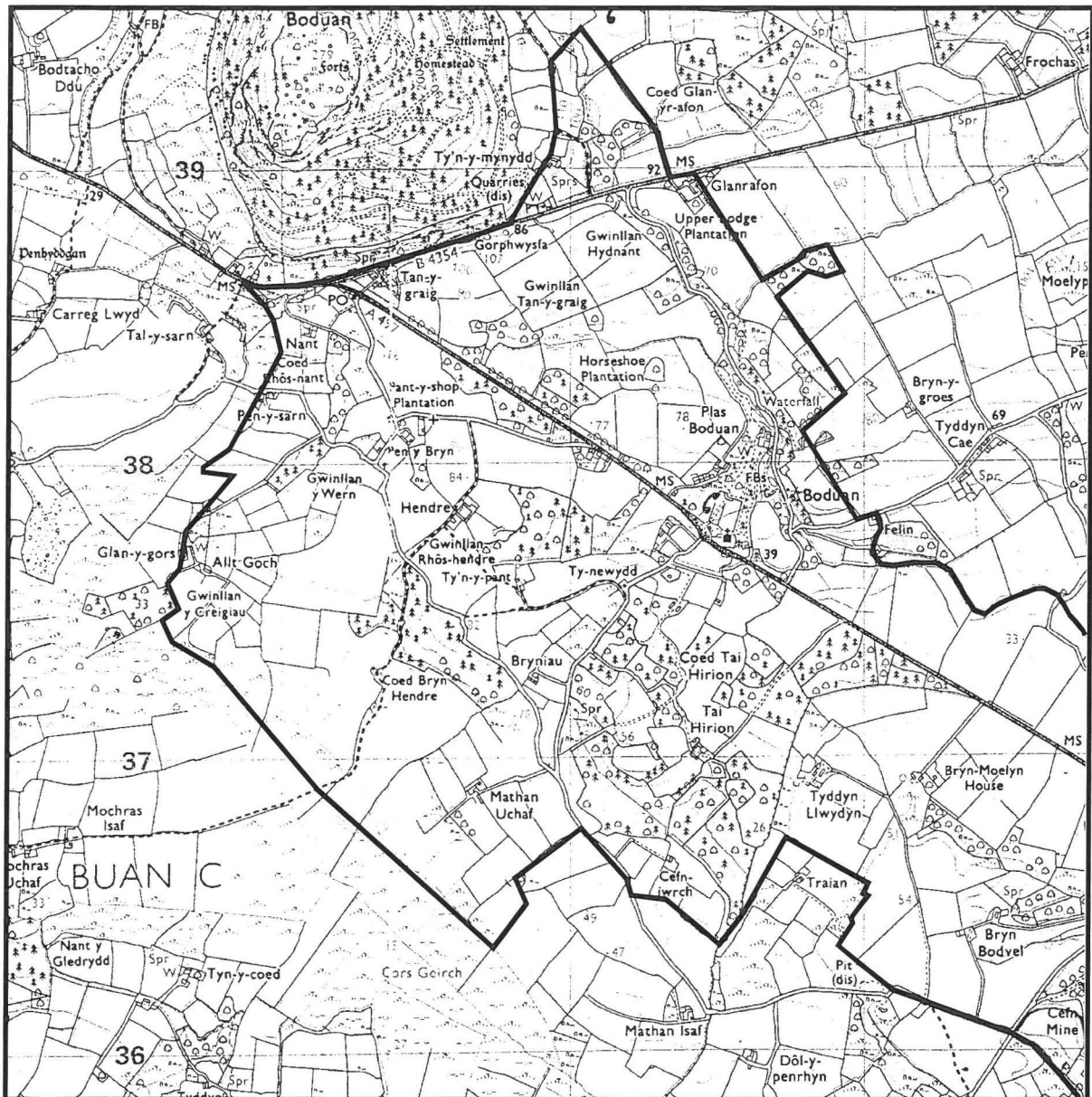
Type A: Sheltered Parkland

6 ESA Landscape types - historic landscape characters

Type A: Sheltered Parkland

The area is neat and compact; the observable historical characteristics are mainly of late date and, without much variation in its historical character, retains considerable synchronic historical integrity. The overwhelming visual aspect is the regular layout of field boundaries leading off the central main road, within a parkland setting. The area rates high for period and, possibly, documentation.

Key historic landscape characteristics

The field pattern is mainly one of neat medium-sized, laid-out fields, many apparently springing from (i.e. later than) the main A497 which was built as a turnpike road in 1803, interspersed with woodlands: there are few examples of earlier patterns or of later disintegration. The area north of Pwllheli is on a smaller scale than the rest, with more varied field size and patterning, and a greater concentration of trees and hedges. This is largely a result of the topography. The *cloddiau* are generally smaller around Pwllheli, with hedges or more recent post-and-wire fences.

Agriculture has been fairly intensive in this area, and no known major archaeological sites survive above the ground, although a number of ploughed-out sites have been recorded by aerial photography in the arable land in the south of the area.

The settlement pattern is principally one of scattered farms and houses, with two estates dominating the northern part of the area and settlement becoming denser and more nucleated towards the town of Pwllheli in the south: the farms are principally well-designed clusters of farms with associated ranges of buildings, although behind Pwllheli there is a greater variety of (19th and 20th century) non-farm domestic dwellings and gardens.

There are no significant industrial archaeological remains.

The main A497 trunk road runs north-west south-east through, and dominates, the area: a number of minor roads lead off this and are sinuous in character, with more dips and rises in the lanes north of Pwllheli, suggesting they pre-date the main road and much of the surrounding field pattern. The now-dismantled railway track from Caernarfon to Afonwen crosses the eatsern part of the area.

The planned parklands of Plas Boduan, Bodfel and Plas Bodegroes dominate the main part of the area to either side of the main road. There is also lower-grade parklnd around Gwynfryn Plas and Trefan

Conservation priorities

The arable land known to contain cropmark evidence will need special attention with regard to depths of ploughing: the areas which have parchmark evidence will need to be managed so that they are not deep-ploughed. The regular *cloddiau* and the woodlands are very characteristic. The woodland composition is particularly important: it is all planted, there is little natural wood surviving, and contains greater and lesser numbers of exotic species, some now coming to the ends of their lives. There is much rhododendron/ laurel undergrowth, which is typical late eighteenth/nineteenth century.

Type B - Plateau Mosaic. Pentre-uchaf nucleated settlement

Type B: Plateau Mosaic

Type B: Plateau Mosaic

This largely open, expansive and lived-in agricultural landscape has a less formal, more diverse, historic character, showing evolution from the prehistoric period onwards: the drainage pattern has obviously played a major role in the development of the landscape. Visually, again, the dominant elements are the mosaics formed by the *cloddiau,* and the scattered farm settlements. The diversity means that there is no strong sense of historical period or overwhelming sense of character. The area rates high for diversity, survival and potential.

Key historic landscape characteristics

The field pattern is largely one of small to medium scale, regular layout which appears (certainly in the lower-lying parts) to have been heavily influenced by the drainage pattern: the effect of the pattern is more organic and less regulated than in the Sheltered Parkland zone, and although it is obviously ancient in origin, nevertheless most of what is now visible is fairly recent in date. There are few obvious examples of prehistoric survival. Boundary types are again mainly *cloddiau* (usually with shrub vegetation and trees), although in places there is a dependence on modern post-and-wire fences, and there are several recent conifer plantations.

A number of relict archaeological sites survive, most noticeably around Yoke House and in the north of the area where there are a scheduled *motte* and standing stones. Of these, though, only the former have a more than site-specific impact on the landscape and demonstrate continuity through time. There are some indications of buried archaeological sites from recent aerial photography.

The settlement pattern is principally one of scattered farms, some of which are associated with medieval township place-names, but with a few concentrations of dwellings (for example in Y Ffor, Llannor, Llwyndyrys and Rhos-fawr). Llannor is probably medieval in origin (the church has medieval masonry and a number of early Christian crosses have been found in the vicinity) whereas Rhos-fawr is more recent. Buildings on the whole are stone-built.

There are no significant industrial remains in this area.

A turnpike road forms the eastern border of the area, and another bisects it from east to west. There are a number of other minor roads, which belong to the Llyn tradition of being deeply cut where they cross slopes, and more open and wider on flatter plateau land. Mostly they have deep hedgerows and this, along with their, in places, curvilinear or staggered progress, implies an origin earlier than much of the surrounding regular field pattern: in the eastern part of the area, the roads are more recent. A large part of the routeway pattern comprises farm tracks and footpaths: while some of the latter follow obvious routeways, many appear simply to cut across modern fields.

The parkland of Bodfel intrudes into the western part of the area, but Trallwyn in the north has had a minimal landscape impact.

Conservation priorities

Relict archaeological sites exist around Yoke House, Ty Newydd and north-west of Mela: this survival of upstanding remains in a lowland, improved setting is unusual and these sites (and what remains of their settings) should be preserved. The diversity of field size and patterning should not be allowed to decay.

Type C - Moorland Basin

looking eastwards towards Hills and Knolls zone, over expansive open fields.
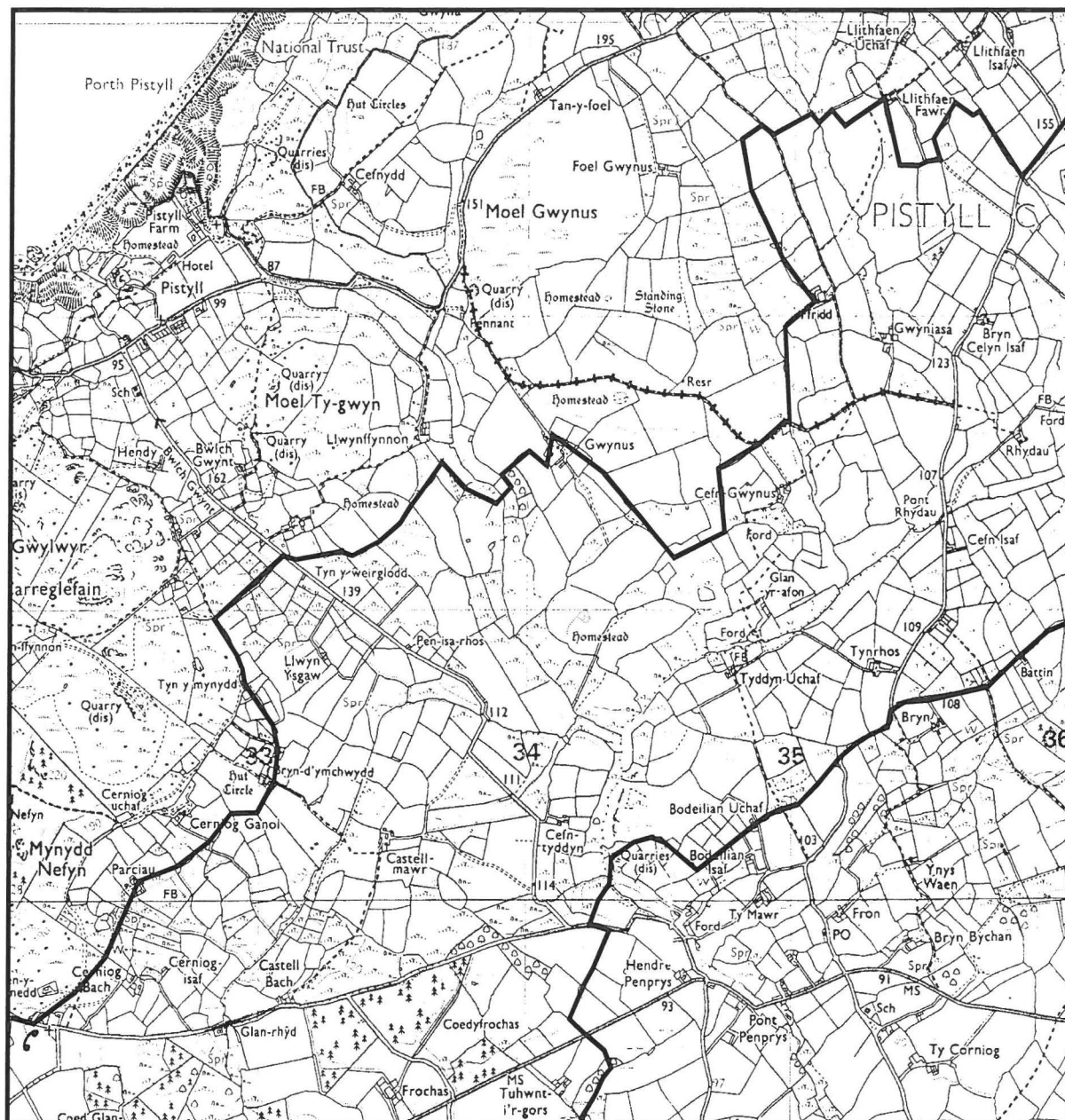
Type C: Moorland Basin

Type C: Moorland Basin

This transitory landscape between open upland and the heavily improved agricultural heartland contains examples of the historic character of both. In places there are relict areas of landscape from the prehistoric and medieval periods, while elsewhere there are recent, planned patterns. The area rates relatively high for survival, condition, period, amenity and potential.

Key historic landscape characteristics

The land here is all enclosed with, on the whole, small-scale patterns which have been created by the organic development of an agricultural landscape, based on grazing, which has evolved over millennia. Although there are some stone walls, set within the encompassing rougher grazing lands, most of the boundaries are *cloddiau*, some with modern fences on top: some improvements have begun to remove these. While some of the boundaries and regular patterns are relatively recent, others relate to farming practices which date back to the prehistoric period and are associated with relict settlements. In the south and east end of the area are planned, nineteenth century, fieldscapes, probably responding to road improvements.

The area contains a considerable number of relict (mainly prehistoric) settlement sites, set within at least part of their contemporary agricultural landscape, and the potential for further discoveries is high.

An open and exposed landscape which contains closely-scattered farms with no nucleated settlements (except Llwyndyrys on the southern edge). Farms vary from squat, upland-type dwellings to grander, nineteenth-century constructions with a suite of modern outbuildings.

There are no significant industrial remains.

Deep lanes lead out from intimate valleys with water to stone-walled upland landscape, where the routeways, although still characteristic, are wider and more open: in general these cross the area from north to south, which reflects the routes of the (relatively) few footpaths. Straight roads relate to nineteenth-century enclosures.

The parklands of Plas Boduan which encroach into the south-west corner of this area, and those of Trallwyn Hall in the east, are not characteristic of this landscape zone.

Conservation priorities

An area of relict sites and field pattern exists around Tyddyn-bach in the east of the area: the slopes of Gwynus also contain important relict remains which should be retained. Field boundaries should not be removed.

Type D - Hills & Knolls - recent enclosures and relict archaeology on Mynydd Nefyn.

Type D: Hills and Knolls

Type D: Hills and Knolls

The appearance of stone walls, rather than *cloddiau*, announce that we have arrived in the uplands, above and beyond the agricultural heartland. Llyn contains several large-scale, rugged, exposed and open landscapes, very characteristic of Snowdonia uplands, almost all with a patchwork skirt of upland cultivation and the same sense of isolation. The largest area is centred on the hillfort of Tre'r Ceiri, while others are situated on Garn Fadryn (again dominated by a huge hillfort), another around Mynytho, and the last significant one on Mynydd Rhiw. These areas are palimpsests, characterised by acres of relict man-made features and displaying great historical depth and complexity: like all uplands, they retain high academic, educational and amenity value for the archaeologist. They rate high on survival/condition, period, rarity, fragility/vulnerability, potential and amenity.

Key historic landscape characteristics

This rugged and exposed landscape is dominated by unenclosed areas of semi-natural vegetation, with an absence of recent agricultural land improvement, but much evidence for earlier agricultural exploitation and land organisation. Immediately below is a swathe of small fields enclosed by stone wall boundaries largely created by last-century enclosure of the mountain *ffridd*. While some of the boundaries and smaller patterns are relatively recent (including some last-century enclosures of mountain land, some of which are now decaying), others, still in use, relate to farming practices which date back to the prehistoric period. The boundaries are typically stone walls (rather than *cloddiau*): earlier ones are often characterised by their meandering course, their wide, rubble-built and decaying appearance and the lynchets they lie on.

The prime importance from a historic landscape perspective is the array of relict archaeological sites from prehistoric through to post-medieval periods. Well-preserved and upstanding settlement sites of the prehistoric and medieval periods, often with acres of associated relict field systems, are the most numerous, but burial sites also exist. The whole is often dominated by huge stone-walled hillforts, some of the most visually-impressive sites in Britain.

These areas display a remoteness reflected in a complete lack of buildings on the mountain tops, with scattered, small upland farms set within the enclosed land below. Many of the latter are late holdings, single-storey, rendered, cottages with slate roofs, often originating in quarry-related encroachment. Nucleated settlements are few and those which exist along the north coast, like Llithfaen and Nant Gwrtheyrn, are nineteenth-century settlement based on quarrying.

The north coast is punctuated by a series of stepped stone quarries, with their systems of working galleries and inclines, and their associated settlements (such as Trefor, Nant Gwrtheyrn and Llithfaen), while Rhiw has the remains of a significant manganese mining industry.

In general the areas are characterised by a lack of communication routes. A single main road runs through the largest area, following the contour and switching from south-facing to north-facing slope probably following an earlier routeway: other (minor) roads here are probably last century, but there is also a significant network of footpaths. Rhiw has a similar contour-hugging route, while roads around Garn Fadryn and across Mynytho relate to the recent enclosures.

Conservation priorities

The hillfort of Tre'r Ceiri is one of the major hillforts of western Britain, and Garn Boduan (with its possible post-Roman refortification is hardly less important; there is an extensive group of relict remains which covers almost the whole of the area between the B4417 and the coast; series of nineteenth century enclosures exist to the north-east of Llithfaen and between Garn Boduan and Carreglefain; the slopes of Mynydd Nefyn also contain significant relict remains which are under threat from unsympathetic land use.
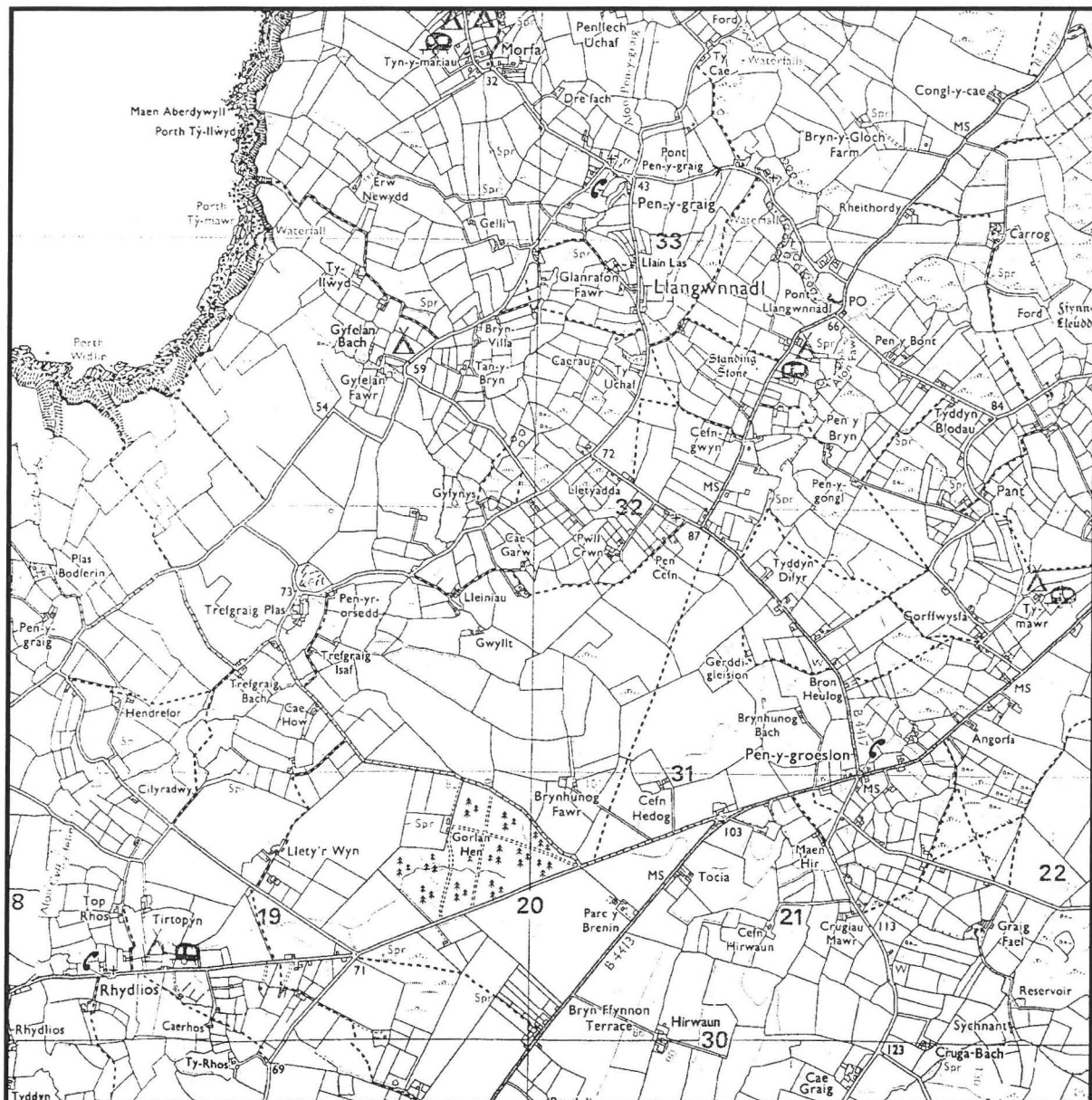
The retention of the relict archaeological landscape features and the nineteenth-century enclosure landscape with its small, stone-walled field pattern.

Type E - Coastal Plateau

Degraded field system, isolated medieval churches and nearby scattered farm settlement.

Type E: Coastal Pleateau

Type E: Coastal Plateau

An open and extensive area which contains disparate historic landscape character zones, from the town of Nefyn and its relict medieval field pattern, to the windswept, open and expansive land further south where the sense of place and intimacy, so characteristic of much of Llyn, has been lost, a feeling accentuated by the physical loss of any established field pattern. Elsewhere, inland towards Llangwnnadl and Rhoshirwaun, the impact of nineteenth-century enclosure of waste is still clearly visible in the network of small, regular fields and an increasing density of single-storey cottage dwellings. The area rates high for diversity, fragility/vulnerability and potential.

Key historic landscape characteristics

This exposed landscape contains a wide variety of field patterns and boundary types: there is little sense of place. There are good but few examples of relict medieval strip fields fossilised below later boundaries, often associated with more nucleated settlement areas (such as Edern, Morfa Nefyn) or medieval township place-name sites (such as Hendref and Morfa). There are areas of later enclosure (such as that around Rhoshirwaun; but much of the area has the disintegrated field pattern of removed boundaries and amalgamated fields. The dominant boundary type comprises low windclipped vegetation on wide field boundary banks, which may or may not have side ditches and be stone-faced: there are also hedges and pockets of trees. Farming in most of the area, especially along the north coast, is on a large scale, reflected in the size and distribution of the farms. Of all the Llyn landscape areas, this is perhaps the one which has been eroded most, with many field boundaries removed to allow expansive agricultural techniques to be employed (see the area south-east of Botwnnog), and has lost much of its historic character and integrity. The predominace of post-and-wire fences in places sums it up.

The relatively-intensive recent agricultural activity has erased most of the above-ground traces of earlier settlement, and there is little in the way of prehistoric or medieval activity in evidence in the current landscape, although dry summers have started to give information (in the form of cropmark and parchmark sites) on buried archaeology. The emergence of this evidence appears to be largely dependent on the nature of the underlying geology, but there are indications that hilltops, hillslopes and waterside locations were all settled in the past. (Unfortunately, the paucity of material culture resulting in a general lack of artefacts means buried sites are difficult to locate.)

The area encompasses a widely-disparate settlement pattern too, from the nucleated medieval town of Nefyn in the north to the widely-dispersed farms further south, many of which are at the end of their own access tracks centred on medieval township place-names (such as Hirdre, Nyffryn). The area around Rhydlios/ Llangwnnadl/Pen-y-groeslon/Rhoshirwaun contains a quite distinct pattern of small, single-storey dwellings (mainly of the last century), densely scattered within their own plots and adjacent to the road, set in a small, rectangular fields (presumably their own smallholdings enclosed out of the surrounding waste). The sense of period is quite distinct and strong here, a feeling which is reinforced by the numerous chapels. Building types encompass a wide range of styles and dates, from the sixteenth century onwards: there are few empty dwellings. The dispersed farms are large and surrounded by clusters of stone and modern buildings, widely distributed reflecting their land holdings. At the other end of the scale are small, single-storey last-century cottages (concentrated inland around Llangwnnadl) and even modern estate buildings. The area of the Rhoshirwaun enclosure contains a (diminishing) number of clay-walled dwellings of the last century.

There are few significant industrial remains in the area, with the exception of the area around Machroes/ Bwlchtocyn/Llanengan, where there are remains relating to a former important lead-mining complex, with not only underground workings, shafts, chimneys, adits etc., but also a distinct nucleated settlement pattern of nineteenth-century workers' cottages. Lime was burnt in the nineteenth century at Porth Colmon and Porth Ysgaden.

The network of routeways contains both the deeply-incised, meandering lanes typical of 'older' Llyn, as well as straight roads of the last century: there is also a complex of footpaths, some of which follow green lanes while others cut straight across fields.

This landscape is devoid of areas of planned, ornamental parkland.

There is a large group of very distinctive World War II structures (including pillboxes, Nissan huts ad batteries) around Cefn Leisiog, representing the remains of a former RAF chainholme radar station.

Conservation priorities

The surviving small, regular field patterns around Nefyn, Morfa Nefyn, Edern, Rhos-y-llan, Llangwnnadl, Rhydlios, Rhoshirwaun and much of the area around Bwlchtocyn and Mynydd Gilan should be retained. Known crop- and parch-mark sites must be protected from deeper ploughing within an arable regime which has the potential to reveal further remains.

Type F - Uwchmynydd

Fossilsed medieval strip fields, plus loose scatter of 19th century farmsteads/cottages.

Type F: Uwchmynydd

Type F: Uwchmynydd

A rugged, remote landscape with a strong sense of period and historic character, based on well-preserved fossilised strip fields and relict prehistoric settlement remains: it is as if the past is clinging on at the end of the world. The area rates high for survival, period, rarity, potential and amenity.

Key historic landscape characteristics

This is a small-scale, secluded, enclosed landscape, comprising a large area of fossilised strip fields huddling behind unenclosed, high cliffs, and above which rises a series of unenclosed mountain peaks. The field boundaries are solid, dependable, sheltering *cloddiau*, almost all covered in low vegetation, whose lines must trace an earlier, unenclosed medieval pattern of strip fields: they are a remarkable survival and reflect centuries of unchanging, low-key management based on grazing.

Depth is added to the historic character of the area by the series of mesolithic flint scatters along the cliff-top edge, as well as by the later prehistoric hut circles and the medieval earthworks on the unenclosed mountain sides.

The settlement pattern is a distinctive scatter of small, squat farms with their attendant buildings at the end of short tracks: the sense of place is reinforced by the scatter of nineteenth century chapels (and few other buildings) along the roadways, as well as the knowledge that Anelog was the site of an early medieval monastic retreat (even today, it is still a retreat).

There are no industrial remains in the area.

There are few straggling lanes, perhaps less deep than elsewhere, running across the enclosed area, many of which peter out in farmyards near the cliff top. The web of footpaths is of interest because most of them follow either existing green lanes or field boundaries, or the apparent lines of field boundaries which have since been removed.

Conservation priorities

The field pattern must not be allowed to disintegrate further, and *cloddiau* should not be removed, replaced or repaired by wire fences (as is beginning to happen); ground cover should be maintained over the mesolithic flint scatters on the cliff tops (these are particularly vulnerable to erosion or overgrazing); and the future of the relict earthwork sites must be secured within a grazing regime.

Type G: Snowdonia Edge

Type G: Snowdonia Edge.

A transitory landscape between sea-coast and foothills, with no overall historic character or feeling but several dominant patterns reflecting a number of historical processes. The are rates high for survival, period, potential and amenity.

Key historic landscape characteristics

The area is almost entirly enclosed, but field patterns and sizes vary considerably from medium to large sacle, irregular patterns in the low-lying regions around Pentrefelin (where rivers and water courses dominate the landscape topographically) and again to the west of Llanllyfni, to the dominant, small-scale, intricate and regular patterns of 19th century enclosure in the upper eastern parts of the region, around Garndolbenmaen and Nazareth.

Considerable depth is added to the historic character of the area by the numerous prehistoric burial chambers, standing stones and hut circles; the Roman fort at Bryncir; the deserted medieval rural settlements scattered across the landscape as well as the nucleated focal points of Cricieth and Dolbenmaen (and the medieval place names). Whilst not in sufficient concentrations to form dominant patterns, they are nevertheless significant.

The settlement pattern is principally of scattered farmsteads: lnger-established farms in the low-lying areas north and south, with concentrations of 19th century cottages typically on the upland fringes. However, there are nucleated settlements, all on the A497 (as might be expected) – Porthmadog at the eastern end (a 19th century creation), Pentrefelin and Cricieth (originally a medieval borough) in the west. Borth y gest and the regimented lines of Morfa Bychan on the coast owe their development to the holiday industry.

The zone is relatively highly-industrialised compared with areas further west, with the large working sand and gravel quarries at Graeanog and Bryncir (themselves with little industrial archaeological interest), and an outlying former granite quarry on Moel y Gest (with its galleries and inclines).

Two main roads cross the area, both former toll roads emanting emanating from Porthmadog, one heading northwards to Caernarfon and the other west to Pwllheli. These dominate the are visually, but othwerwise there are a few minor lanes criss-crossing the low-lying marshes and higher ridges: a series of footpaths is quite extensive, but most of the area is relatively inaccessible.

The only designed landscape of note within the area is that around Wern, where the park is probably originally 18th century with a garden designed in the early 20th century. The southern (coastal) part of the area has been heavily influenced by tourism. As well as the two settlements already mentioned, there are many caravan parks, hotels, B&Bs etc.

Conservation priorities

The future of the relict archaeological sites, mainly stone-built features but with some earthworks, must be secured. Gresham's study of Eifionydd has shown the potential for reconstructing the medieval landscape, and boundary features are thus also important.

Type H - Coastal and Valley Flats - in centre of photograph.

Few historic landscape characteristics.

Type H: Coastal and Valley Flats

Type H: Coastal and Valley Flats

A largely unenclosed wet, open, isolated landscape with little in the way of identifiable historic character or depth. The sense is of a partially-tamed natural wilderness.

Key historic landscape characteristics

This low-lying area, part of which is land-locked and part open to the sea, is still partly unenclosed; such boundaries as exist are probably late in date (the seaward section was enclosed in the last century), and are straight banks or hedges topped by gorse.

No relict archaeology is known from the areas.

There is a complete lack of settlement in the land-locked part of the area. The other contains just a couple of (late) isolated settlements on the coast.

There are no industrial remains in either area.

Only two footpaths cross the land-locked area, while a narrow track leads to the coast-edge settlements.

### Conservation priorities

It is possible that buried archaeological deposits, or important palaeobotanical remains, do exist in the area which could be damaged by desiccation. The area should be managed to retain its current waterlogging.

Type J - Hell's Mouth Plain - showing the expansive, though enclosed, fieldscape,

which was Cistercian land in the medieval period.
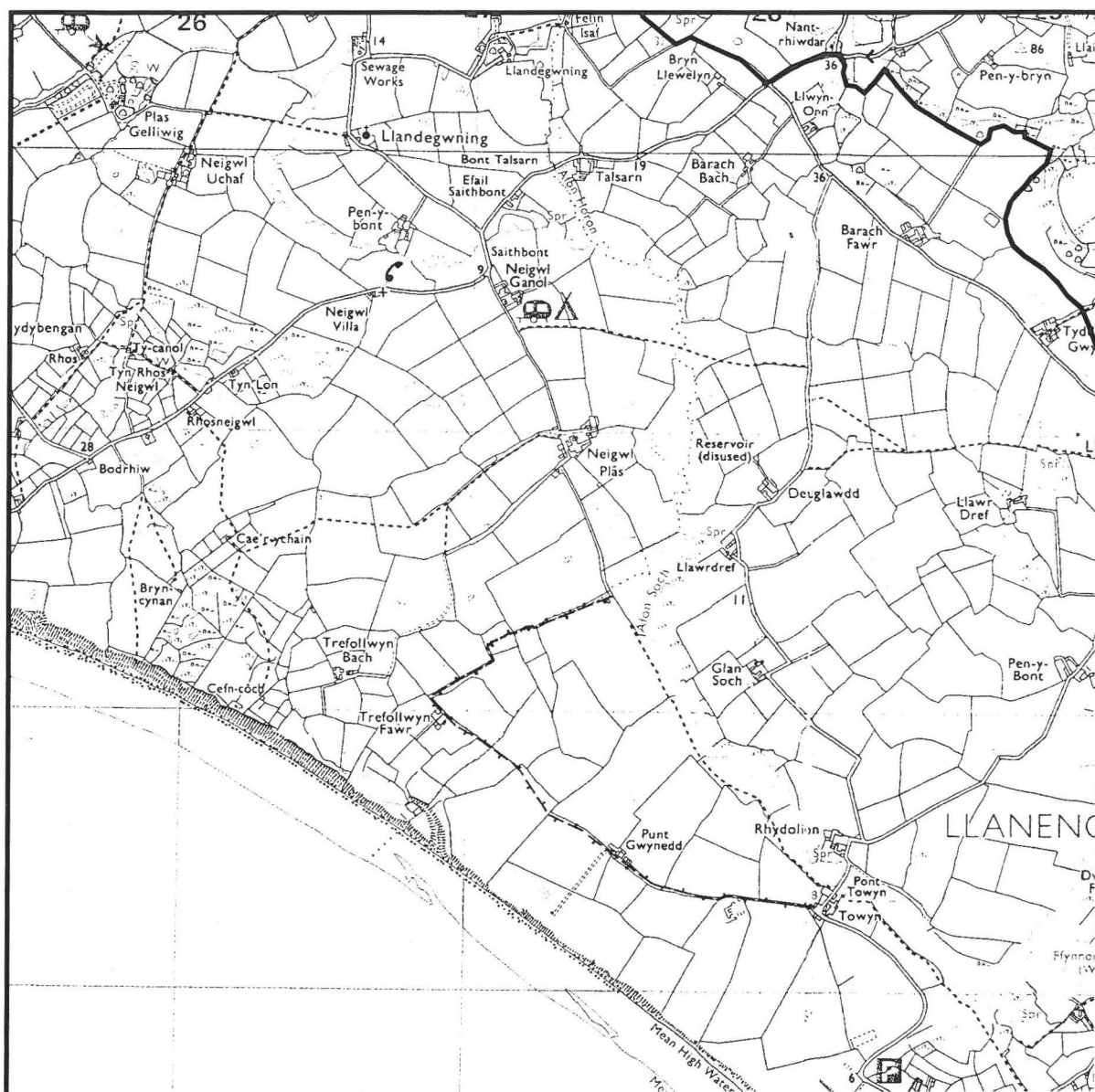
Type J: Hell's Mouth Plain

Type J: Hell's Mouth Plain

In historic landscape terms, this is very much a continuation of rolling upland edge: an extensive, open and cultivated landscape with scattered settlement, some areas of small-scale patterning but an overall sense of modernisation, improvement and integration. There is little sense of historic period or place, although the area rates high for fragility/vulnerability.

Key historic landscape characteristics

An expansive, cultivated openness, with some grazing but also arable cultivation created by large-scale fields (created by the removal of some boundaries), surrounded by low banks with fences and a lack of woodland planting. The overall Llyn field patterning, created by a mixture of larger fields with enclaves of small-scale fields, hedges and banks, is maintained. The pattern is particularly diverse, with few regular laid-out fields, small-scale patterns at either end of the beach (oral history suggests that even in the mid-nineteenth century these were waste and have only recently been enclosed), and many irregular fields, perhaps reflecting a former presence of strip fields which were formerly Cistercian land.

No known relict archaeological sites exist, although undefined cropmark sites are known.

The settlement pattern is again of widely-scattered, well-designed groupings of farm buildings, often straddling the road. An isolated church and a series of (farm) placenames indicate the remnants of the medieval township of Neigwl.

The former presence of the W.W.II airfield connected with Penrhos has left behind some traces.

A number of minor roads cross the area randomly, many with the sharp, staggered curves that reflect an earlier (now largely lost), regular field pattern: the long bridges required by the low-lying, meandering riparian zones are particularly characteristic of this area.

Conservation priorities

The area's principal components (scattered farms, areas of intact, small-field patterns, bridges and buried archaeological remains) should be maintained.
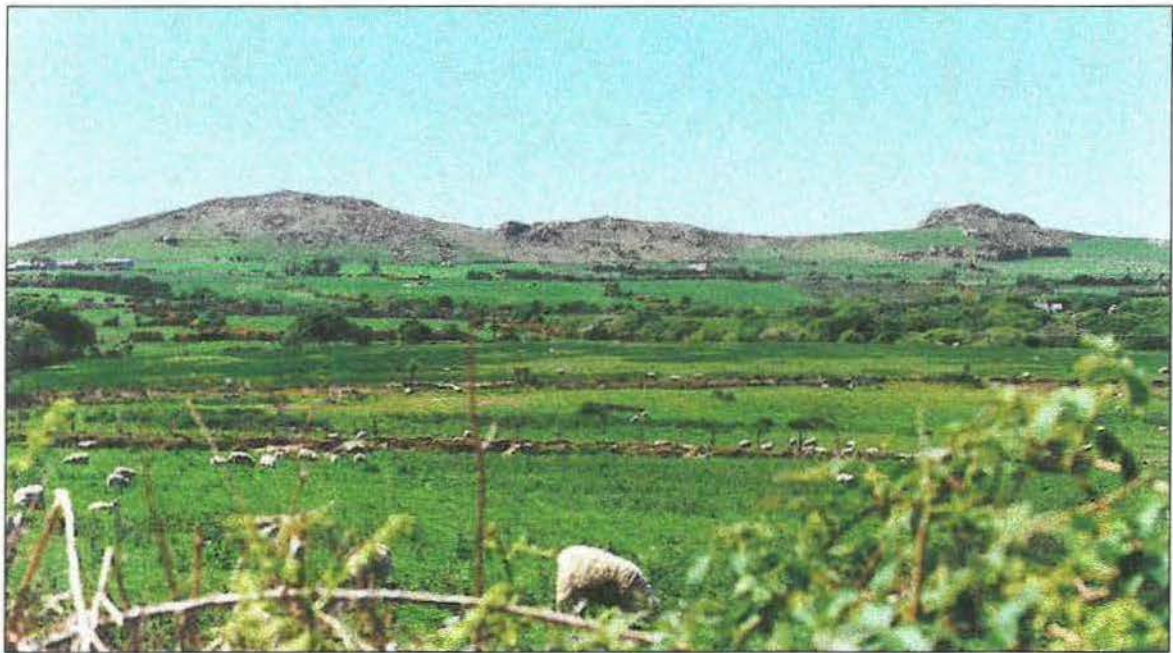
Type K - Rolling Upland Edge - an interesting and varied landscape of different characters,

from low-lying marshes to upland (unenclosed) zones.
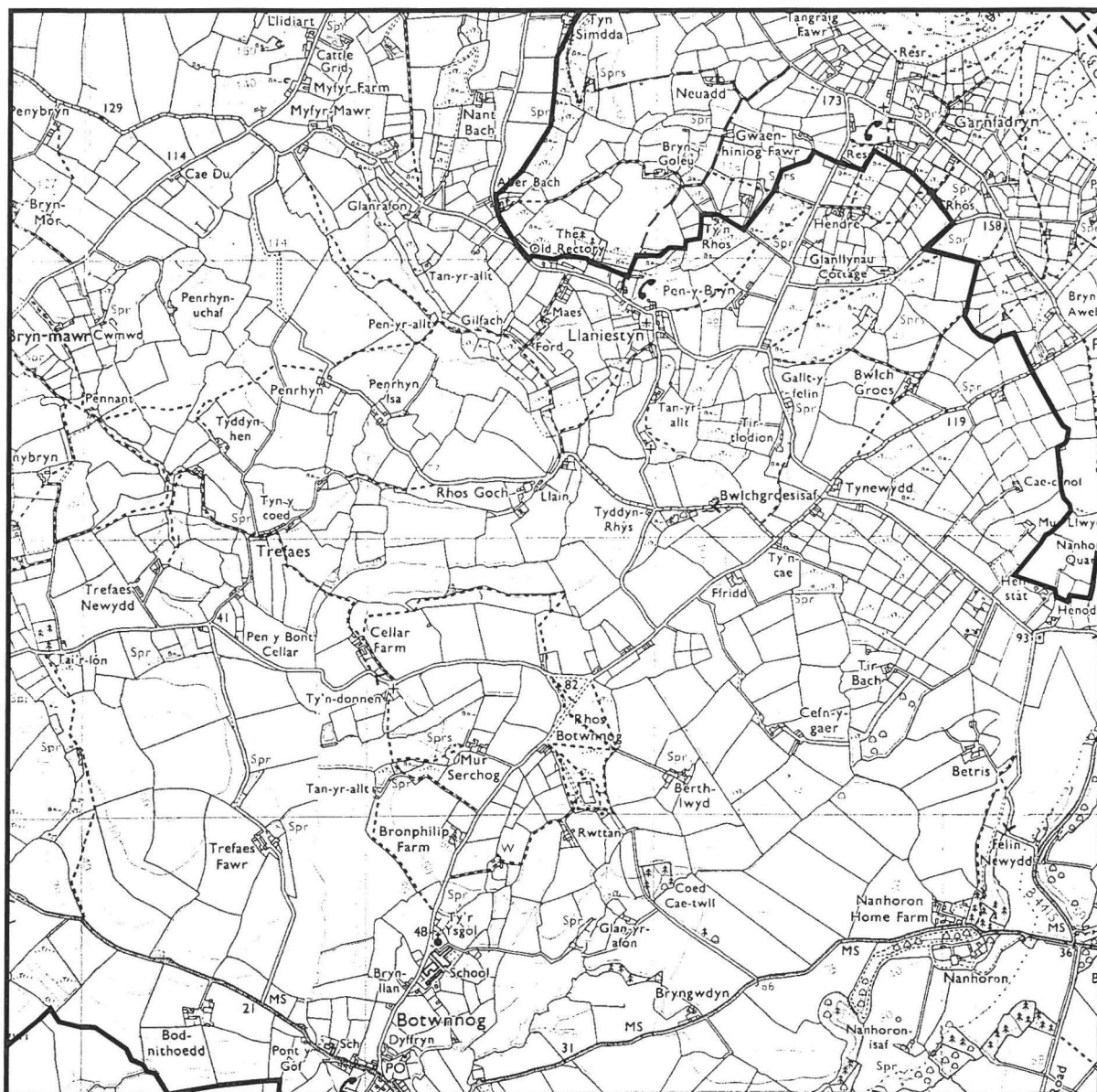
Type K: Rolling Upland Edge

Type K: Rolling Upland Edge

In may ways the most complex, varied landscape, the mixed pattern of cultivated and semi-natural vegetation perhaps epitomises what many consider to be the character of Llyn, based on rolling hillsides, sudden valleys and ever-changing perspectives. The area rates high on diversity, potential, period and amenity.

Key historic landscape characteristics

All kind of field patterns are here, indicating the long and complex history of the agriculture of the area, with areas of bog in valley bottoms, patches of rough grass, deciduous woodland and smaller fields in valley sides and dips, leading out to less intact, sweeping, improved grass fields in more open areas, surrounded by traditional banks with their associated vegetation.

The area contains a loose scatter, rather than significant concentrations, of relict archaeology (mainly isolated earthworks or stone-built sites), but the distribution and type of known sites means there is much scope for further discoveries.

A loosely-scattered settlement pattern dominates most of the area, with isolated farms and loose hamlets giving way to nucleated centres of population both inland (notably Sarn and Botwnnog, both probably with early origins) and on the coast (Abersoch and Llanbedrog, both owing their development principally to twentieth-century tourism).

There are no significant historical industrial remains in the area.

The deep lanes which lead out from the sheltered valleys onto the plateaux are typical Llyn: deeply-incised, with floriferous hedgebanks and mainly single track: even the principal (county) roads are winding and characteristic. Relatively few of the routeways appear recent, pushed through the landscape in straight lines; most belong to the tradition of climbing up valley slopes, looping round contours, staggering around pre-existing field patterns (many now disappeared) or meandering across level plateaux. Trackways to farms are numerous and there is a series of footpaths covering much of the area.

Significant portions of the landscape area reflect the modelling by large estates in the eighteenth and nineteenth centuries, which have resulted in swathes of laid-out parkland with plantations of trees: Cefnamwlch in the north-west, Nanhoron near the south and Madryn and its offshoots in the north have all had considerable impact.

Conservation priorities

Field boundaries and patterns (especially intact patterns), winding lanes, historic parkland, crop- and parch-mark sites, nucleated settlements should all be retained; relict archaeological sites are particularly at risk and should receive positive management.

7 Managing historic landscape character within the ESA

7.1 General

7.1.1 Positive management should be aimed at halting and, if necessary, reversing any trends that can be shown to be causing unacceptable damage to the historic landscape resource. If at the same time management can actually enhance the historic landscape, then that is even better. It is essential that such management is continuous, and contains provisions for monitoring and review.

7.1.2 One of the basic tenets underpinning management is that we should be aiming to continue (rather than halt) the past evolution of the landscape: to do this we must first have identified what is important and significant in historic landscape terms. It should also be noted that now we can influence the way in which the landscape evolves from this point on, and that is significant in itself. It is the overall historic character of the present landscape (as evidenced in important and significant groupings and patterns) which we should aim at retaining, but in order to do this we must manage at the component level. We must identify, conserve and enhance the local and regional historic diversity of our landscapes.

7.1.3 The ESA regime offers the opportunity to integrate the needs of the historic environment with modern land-use requirements to produce a workable, effective management system and , more importantly a working, viable, landscape, which should provide ways and means for the various human activities in an area to be integrated with each other and with conservation, at the same time providing opportunities for study, research, education, interpretation and quiet enjoyment.

7.1.3 This means that sites and features of historic landscape interest are positively managed for their own sakes, rather than just left unimproved. It is important that the management of such features is integral to the management of the farm as a whole, rather than an isolated, unrelated activity.

7.1.4 Although it is the aim of the aim of the ESA to retain the general (including historic) character of the area, it is necessary, to enable viable management prescriptions to be drawn up, to reduce the historic landscape characters described above back down into its constituent components.

Management of → Retain character → Conserve diversity and character areas
components -
field walls, buildings,
archaeological sites *etc.*

7.1.5 A management plan should specify conservation objectives for a site/area and how they will be monitored: it should identify points at which some response will be made if monitoring shows that a feature is changing: it should establish what activities/processes will be the subject of monitoring: it should establish what management of on-going activities is required; and : identify the types of development or activities which might adversely affect the site.

7.1.6 Not all the sites and features which comprise the historic landscape require the same detailed level of management: some sites can be adequately managed by the application of simple, general strategies, while some sites merit more detailed, site-specific, problem-led responses.

7.1.7 For management purposes, when describing historic landscape components, it may be useful to distinguish between relict and historic features: **relict** = defunct features (e.g. hut circles, standing stones) and **historic** = features which still retain some degree of practical use (*e.g.* house, field wall still in use as a boundary).

7.2 Threats to the historic landscape of Llyn

7.2.1 Agricultural practices (*i.e.* activities governed by ESA management) which are potentially most damaging to historic landscape features include land improvement, removal of boundaries, demolition of buildings, over-grazing leading to erosion, deeper ploughing, allowing regeneration of scrub and woodland, construction of

new fencing and tracks and drainage. The recognition of cropmark sites largely depends on continuing arable cultivation, although encroachment on unploughed sites and the reduction of above- and below-ground remains are problems.

7.2.2   Despite the ESA designation, there is perceived to be an ongoing, incremental erosion of quality and variety on Llyn, with the loss of specific features leading to overall loss of character. The widespread use of post-and-wire fencing to fortify *cloddiau* (or simply replace them), the removal of some boundaries within a general intensification of agriculture, the expansion of agricultural improvement into upland areas, and the establishment of conifer plantations all aid the erosion of the distinctive sense of place. The ESA monitoring report (1992) states that 53% of the field boundaries within the ESA are *cloddiau*. Many of these are in poor condition due to inappropriate management: once vegetation cover is removed, they are prone to erosion and collapse. Many have been cleared to allow modern machinery to operate more efficiently, while others act as 'quarries' for other operations.

7.2.3   Other forces for change (for example housing development, road improvements, improvements in infra-structure and services, minerals development) lie outside the brief of this study. However, although outside the remit of ESA, the pressures and problems that arise from recreation and tourism (which is encouraged as a part of farm diversification) also pose a long-term threat to the stability of many historic landscape features on agricultural land.

7.3   Management opportunities within the ESA

7.3.1   Each farmer joining the scheme enters all his farm into an ESA Management Agreement: this is prepared by the Welsh Office Agriculture Department (WOAD) and includes all the undertakings expected of the farmer. The ESA booklet , *Guidelines for farmers,* contains management guidelines which relate to general principles.

7.3.2   There are two 'tiers' of agreement: tier 1 is obligatory and aims to retain valuable wildlife and landscape features for the whole farm. Tier 2 is voluntary and offers higher rates of payment in return for a commitment to enhance the value of certain types of land and features/structures by specific management practices. A conservation plan is a feature of this ESA scheme; this consists of a schedule of work which the farmer agrees to carry out over a two-year period, and a farm map identifies the location of the proposed works.

7.4   Tier 1 – Guidelines for the management of historic landscape elements

7.4.1   *General*

7.4.1.1   The intention of this section is to provide general management guidance and best practice for particular types of historic landscape feature. Any work on a Scheduled Ancient Monument will require Scheduled Monument Consent from Cadw: Welsh Historic Monuments; work on Listed Buildings will require the granting of Listed Building Consent by the local planning authority. Failure to obtain the appropriate consent may render the land-owner liable to prosecution.

7.4.1.2   The majority of historic landscape features, including many relict sites of archaeological and historical interest, can probably be adequately dealt with under general umbrella management objectives and prescriptions which would fall within tier 1 management. Such sites might include walls, *cloddiau,* standing stones, small cairns, possibly even earthwork enclosures. The general management objective might be something as simple as 'maintain as site of historic landscape interest', and the management prescription might read 'maintain existing grass cover, prevent erosion, ensure colonisation of scrub vegetation does not take place' *etc.*

7.4.1.3   For sites such as these, as well as for general day-to-day management, a series of guidelines has been drafted (below), adherence to which should ensure that most everyday actions will avoid accidentally damaging historic landscape elements. Most are common sense and should not involve extra expense or time spent in carrying out jobs. These are applicable to sites within all Landscape Types areas, although not all will necessarily be relevant to any particular type. Sites which are more complex and require detailed, positive, management are examined in later sections.

7.4.2   Guidelines for historic landscape theme - agriculture

Landscape element types

These include *cloddiau*, field walls, hedges, banks and agricultural buildings.

Management guidance

Maintain features in a stable condition. If required, stone walls, *cloddiau* or other boundaries should be re-built to retain their character: where possible, boundaries should be restored and not replaced by post and wire fences. Where the latter are inevitable, their line should follow the previous boundary; boundary lines should not be removed. No new boundaries should be constructed unless they follow the line of previous boundaries and are of the same type. Fields should not be amalgamated unless they fall within areas which are characterised by 'decayed' field patterns, where this may be acceptable.

Avoid the use of heavy machinery close to or across the features. Where this is unavoidable, utilise existing gaps and crossing points in the feature, rather than create new ones. If this is not possible, ensure minimum damage is caused by the construction of tracks and that a boundary is only crossed once: avoid areas where features join each other as this may destroy valuable archaeological information.

It is not necessary to remove healthy deciduous trees adjacent to boundaries provided that they are not causing root damage: they enhance the ecological value of the feature (and may actually be a part of the feature). Do not allow the removal of any stone or any material from the feature. Do not allow the tipping of any rubbish, spoil or any other debris, or storage of equipment, fuel, *etc.* on or adjacent to the site.

Buildings should be preserved wherever possible: at the least, further decay should be prevented. Halt any damaging processes such as root damage or erosion, by the removal of trees or scrub growing on walls or within the building/structure. Do not remove low vegetation (*e.g.* grass, mosses, lichen, ferns, *etc.*) which are binding the structure and preventing erosion: vegetation may be of significant wildlife interest. Ivy is particularly difficult and expert advice should be taken before this is tackled.

Ecological features of the historic environment

This type will include wetlands, former woodland, etc.

Management guidance

Boggy areas may be important deposits of environmental remains such as pollen, the analysis of which makes it possible to investigate and understand the former environment. They may also preserve organic remains including wooden structures. It is important that they are not allowed to dry out.

If necessary, remove trees and scrub from waterlogged deposits, as such vegetation will dry out any organic remains which may be preserved. Avoid the use of any heavy machinery on or around such deposits; take care not to damage the edges of ponds. Do not damage the deposit by drainage works or any form of pollution. Do not divert existing or new drainage channels into waterlogged deposits as this may alter their chemical and physical composition. Waterlogged deposits should not be excavated to construct conservation ponds unless expert advice has been taken.

Where it is considered desirable to clean out silted ponds, environmental and archaeological advice should be taken. Any such work should ideally be monitored by an archaeologist: if not, and any archaeological finds are made, then they should be notified immediately and work should cease until advice has been received. Any organic finds e.g. wood, leather, *etc.* should be immediately immersed in clean water to prevent deterioration. Deciduous trees in the vicinity of ponds or waterlogged deposits may be left if they are not damaging the banks or causing drying of the deposits. Do not allow the tipping of any rubbish, spoil or any other debris on the site.

Ancient woodland may include areas of former coppice sometimes associated with charcoal burning mounds; wood banks and earthworks associated directly with woodland management may be preserved, and pollarded

trees may exist. Such woodlands may also have preserved elements of the historic landscape pre-dating the wood. All work in woodland should be planned to ensure the survival of such features. Evaluate the historic landscape value of ancient woodland in liaison with appropriate archaeological advice. If appropriate, consider the viability of recommencing traditional management, or a modified form of the present management, to enhance the value of the site.

7.4.3 Guidelines for historic landscape theme - relict archaeology

Relict landscape element types

This includes earthworks (e.g. house platforms, charcoal burning mounds, pillow mounds, barrows, enclosures, lynchets), stone-built sites (e.g. hillforts, hut circles, hut groups, long huts, relict field walls) as well as buried remains such as cropmark and parchmark sites, and findspots. It includes Scheduled Ancient Monuments which can be subject to separate management plans agreed with Cadw: Welsh Historic Monuments.

Management guidance

Maintain the site in a stable condition. Current practices which are not creating problems should be continued. Existing grass cover should be maintained, as grazing is normally a desirable means of conserving archaeological sites. However, it is important that grazing is maintained at a level which keeps undesirable vegetation under control but not to such an extent as to cause erosion. Artificial feed points and licking blocks should not be placed on identified historic landscape features (especially relict archaeological sites).

Halt any damaging processes such as root damage or erosion by the removal of trees or scrub growing on earthworks or stone-built features. It is not necessary to remove healthy deciduous trees in the vicinity of the site or feature provided that they are not causing root damage. Woody scrub growth should be cut or treated with herbicide without disturbing the ground surface, but do not remove remains of hedgerows or trees directly associated with the site or feature and its surroundings. Prevent regeneration on earthworks. No new tree planting should occur within 20m of known or possible sites of archaeological or historic landscape interest.

From time to time, fencing may be necessary to protect part of a site or feature while allowing grazing elsewhere, in which case care is required when positioning fence posts. If permanent fencing is erected, care should be taken that it does not cut across areas of archaeological significance. Existing erosion scars affecting sites of archaeological interest should be repaired and subsequently monitored and maintained. Rabbit populations (and those of other burrowing animals) should be kept under control.

No areas should be ploughed, cleared or otherwise improved without specific prior archaeological consultation, and any proposals for other changes in land-use should be referred for archaeological comment. Boggy and other wet areas should not be drained, and no new drainage should be carried out without prior archaeological consultation. No ditched feature should be infilled without prior archaeological consultation.

The layout of roads, tracks and footpaths should be designed to avoid crossing areas of archaeological significance. No heavy machinery should be moved across the area without prior archaeological consultation.

Archaeological sites should not be used as a source for stone, turf or other materials, neither should materials (including stone, topsoil, rubbish, farm waste, scrap, old machinery *etc.*) be stored or dumped in archaeologically sensitive areas.

Metal detecting can cause damage to the archaeological heritage by removing items from their archaeological context and disturbing sites. No metal detecting should be allowed on known archaeological sites, unless under qualified archaeological supervision. This is particularly worrying in areas where there is a potential wealth of archaeological metalwork in the ground. Metal detecting on a Scheduled Ancient Monument without the prior written permission of the Secretary of State is an offence. If in doubt, archaeological advice should be taken before granting permission to metal detectors. A new Treasure Act was implemented in September, 1997, which has implications for farmers who allow metal detectors on their land, as there is now a duty to report finds which come within any of the four categories which comprise the new definition of 'treasure'.

Public access to vulnerable sites should not be improved as this may lead to erosion or deliberate damage. As the approach to some sites is often on steep slopes, consideration should be given to improvement to footpaths to prevent erosion.

Damage can also be caused by events such as off-road rallies, mountain bike racing and four-wheel drive 'meets', as well as fairs, shows and other events involving large marquees. While such events might be temporary, the effect they have on both above-ground and buried archaeological (the damage caused by wheel ruts, the digging of holes *etc.*) is permanent.

If the site is a Scheduled Ancient Monument any work, outside a management plan agreed with Cadw, will require Scheduled Monument Consent.

Cropmarks and parchmarks

These sites are usually only to be viewed from the air, although they can be observed from other well-located vantage points. They occur usually only under exceptional circumstances, when the growing crop or grass cover is under stress from too little moisture. Areas of previous ground disturbance (such as pits and ditches) or buried features (such as walls or hearths) will show generally as lighter or darker marks in the growing crop.

Management Guidance

The recognition of buried archaeological remains in arable fields, the underlying landscape, relies on the continuation of arable cultivation. However, these sites will already be much reduced in their archaeological layers and much invaluable information will already have been lost: this rate of loss must be diminished and, if possible, discontinued.

Current ploughing depths should be retained, and deeper ploughing should not be allowed over known sites. Activities involving disturbance of the deeper subsoil (into which the archaeological remains are usually cut), such as mole-draining or pan-busting, should be avoided in areas known or thought to contain buried remains.

Areas thought likely to contain buried remains (such as hilltops, or level plateaux on slopes) should be targeted by archaeologists using appropriate methods of investigative survey (such as aerial photography or geophysical survey).

Findspots

There are seldom any surface remains associated with sites of casual finds. Such artefacts are often found on the ground surface, or disturbed from topsoil, and therefore present little or no opportunity for management. Significant scatters of finds may, however, indicate the presence of buried features.

Management Guidance

The sites of significant find scatters should be avoided by substantial ground-disturbing machinery, particularly if subsoil is likely to be disturbed. If disturbance is unavoidable then an archaeological watching brief should be carried out during the work to identify buried features. If in doubt, seek professional advice.

7.4.4   *Guidelines for historic landscape theme - settlement*

Landscape element types

These include farmhouses, outbuildings including barns, sheds, pigsties, coach-houses *etc.* as well as other buildings which form part of the settlement plan of an area.

Management guidance

With the exception of day-to-day maintenance, works connected with dwellings and other buildings will tend to fall within the ambit of planning legislation. A check should be made as to whether a particular building is listed before any works are undertaken. Any development which is subject to the planning process will be subject to strict archaeological procedures, using the guidelines laid down in PG (Wales) and the Welsh Office Circulars 60/96 and 61/96 (Planning and the Historic Environment and Archaeology and Planning).

Buildings and other structures should be maintained in good condition. All repairs and renovations should be carried out carefully and sympathetically. Expert advice should be sought where there are any doubts. Building materials (including roofing) should correspond to existing materials for that area: designs for new buildings should conform to local character.

There should be sympathetic approaches to the provision of any new, or renewal of existing, services (such as overhead wires) which should be in keeping with local historic landscape character. The impact of new services should be fully evaluated.

7.4.5   Guidelines for historic landscape theme - industry

Landscape element types

This may include significant remains such as quarries, adits, shafts, tramways, ropeways, inclines and associated buildings and structures.

Management guidance

Most of these features and landscape elements fall outside the remit of the ESA scheme; however, some fall within farming land and brief guidelines are therefore needed.

Maintain the site in a stable condition. Prevent regeneration of scrub, tree and undergrowth on walls and within buildings. Fence any dangerous structures (*e.g.* old mine shafts, deep holes/wells, teetering structures) to keep away both livestock and visitors and, if appropriate, erect warning signs. If necessary seek archaeological advice on the desirability of consolidating the building/structure. No remedial work should be carried out without consultation and advice.

Do not allow the removal of stone or any material from the site, or the tipping of any rubbish, spoil or other debris on the site. However, where damage is unavoidable, for example if the structure has to be partially destroyed to make it safe, a full archaeological survey consisting of photography and measured drawing should be carried out beforehand. Advice must be sought on this.

7.4.6   Guidelines for historic landscape theme - communications

Landscape element types

This includes roads, lanes, tracks (including farm tracks), green lanes and footpaths.

Management guidance

Most of these sites, and therefore their management, fall outside the scope and remit of the ESA scheme. However, farm tracks, 'green' lanes and footpaths are elements which the scheme might cover.

An important part of the historic character and local distinctiveness of the (public) roads is the signing, with many of the signs in Llyn being the 'old' black and white type, although the main roads have new signs: the former should be maintained wherever possible. Other street and road furniture (*e.g.* lampposts) should also retain their existing character when replaced. Most lanes are uncluttered and free from signs, although caravan parking signs and adverts for local produce are common. These have become a recognisable part of the character of the area and their individual distinctiveness should be retained. Another important characteristic

of the area is that it retains its 'dark night quality', with little if any extraneous modern roadside lighting: this aspect of the landscape should certainly be maintained.

Maintain the site in a stable condition: the character of most routeways lies in the combination of built elements (usually side-walls or side-banks, and a metalled or cobbled surface) with natural elements (hedgerows, trees, flower-rich verges), often deeply incised into the landscape.

Where active management is required, any damaging processes (such as root damage causing imminent collapse of a section of walling) or increased erosion should be identified and the source of the problem dealt with. However, great care should be taken. If trees or gorse, for example, are part of the character of a routeway, any plants which are removed or die should be replaced. Indiscriminate spraying should not be carried out on roadside verges: trees and hedges should be cut back in the autumn, and should be treated sensitively (not sheared off to a level top - the equivalent of a basin cut).

Routeways must not be blocked: if necessary, gateways can be installed but wherever possible these should be in character with existing gateways (many estates or areas, for example, had distinctive styles of gates). New posts should not cause damage to existing structures. Do not allow the removal of any stone or any material from the site, or the tipping of any rubbish, spoil or any other debris on the site. New trackways should be avoided wherever possible, and any newly-constructed trackways should conform to the local historic character (this does not include farm vehicle routes across fields).

Whilst public access along trackways is obviously an intrinsic part of their character, the use of motor vehicles on green lanes should be restricted to tractors or other farm vehicles: vulnerable sites such as grassed trackways should be protected from erosion (see also section on relict archaeology, for the effects of off-road vehicles on the historic environment).

7.4.7   *Other general guidelines*

Archaeological excavation is a skilled and expensive operation which should be left to those professionally qualified, and with the proper resources, to undertake it. All excavations should be carried out within the parameters of a long-term research framework. 'Amateur' excavations should be actively discouraged, but 'amateur' involvement in supervised excavations will continue to be encouraged.

If archaeological features or artefacts (such as pottery, flint or bone) are found, they should be left undisturbed if at all possible and reported at once to Gwynedd Archaeological Trust. Artefacts will always have a greater significance in context and in many cases will become meaningless if taken away.

If the artefact is found loose on the ground surface, however, and is likely to be removed anyway, it is probably safer to record its exact location and then hand it in to the Trust with full details of the circumstances surrounding its discovery. It will be returned if wanted, after it has been duly recorded.

Public access to vulnerable sites should not be improved as this may lead to erosion or deliberate damage. Where sites lie close to public roads and/or are publicly accessible (*e.g.* near car parks or picnic places), consideration should be given to the provision of interpretation boards, perhaps as part of the conservation plan.

7.5   Tier 2 and Conservation plans – suggested improvements in the management of historic landscape components

7.5.1   Whilst the above guidance should be sufficient for the majority of components (sites) which comprise the historic landscape, larger and (arguably) more important components and patterns (character, or character areas) could benefit from greater representation in conservation plans. This would require more detailed management plans, drawn up to the specific requirements of individual sites. Such plans obviously require greater input and commitment (in terms of time and money), and need detailed planning and consideration, as well as careful monitoring.

7.5.2   Such sites and areas include all those considered to be of national importance (whether Scheduled or not), and those of sufficient regional or academic interest, or of sufficient complexity, to warrant detailed management.

It should be noted that all management action on Scheduled Ancient Monuments should be agreed before any works are undertaken with the relevant Inspector of Ancient Monuments. Any draft management proposals for SAMs should be sent to Cadw for their comments: this should be followed by a meeting on site with Cadw's Inspector of Ancient Monuments before any real time or effort is invested in the scheme. Management plans will come under Section 17 or Section 24 Management Agreements of the 1979 Ancient Monuments and Archaeological Areas Act, and should be developed on five- and thirty-year timescales. Detailed management plans for other archaeological sites should be agreed between all relevant interested parties.

7.5.3   Any successful management plan should follow a number of stages including the identification of the archaeological resource, identification of a series of management objectives, the formulation of a strategy, and implementation and monitoring to ensure positive management of the archaeological resource (see appendix VI for fuller details).

7.5.4   Following the model suggested elsewhere for Tir Cymen (GAT report 250), it is recommended that a complete inventory (baseline condition survey) of all sites, features and structures which comprise the historic landscape should be made when a farm enters its ESA agreement. Each compnent or group (pattern) of components should be described and its condition noted to enable future monitoring (see appendix V): again as suggested for Tir Cymen, it might be suitable for sites, features and patterns to be categorised according to their relative importance and management requirements.

7.6   Site categories

7.6.1   One way of achieving this would be to establish a series of broad categories (A, B, C, D, E and F (L) - see appendix III), based on the perceived requirements and relative importance and complexity of each component/pattern. This should identify which sites can be managed simply by general management considerations (as outlined above under tier 1 – see section 7.4), and which require detailed conservation plans (see previous section).

7.6.2   The categories are described in detail in appendix III. The broad divisions between these categories have been made on archaeological grounds, but each is tailored towards specific management aims. Each category is described archaeologically, lists management objectives and gives a management prescription.

7.6.3   The term 'national importance' as used here is defined by application of the non-statutory criteria for scheduling ancient monuments. A site may meet any one, or a combination, of these eight published criteria (period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity, potential) and be deemed of national importance and therefore merit scheduling as an ancient monument under the 1979 Ancient Monuments and Archaeological Areas Act. Once designated, Ancient Monuments are protected by law and special permission (Scheduled Monument Consent) is required, from the Secretary of State, for any works effecting them. Cadw, who administer Scheduled Ancient Monuments (SAMs) in Wales, may enter into management agreements with owners of such sites. These agreements are specific to each monument and take precedence over the general management prescriptions given below.

7.6.4   Using these categories, an evaluation of each historic landscape element can be carried out during the base-line survey. The categorisation of sites should be an ongoing process requiring site identification and recording by the appropriate archaeological body. Categories are not immutable and where new information becomes available review may be considered, this may be most common for sites in category E.

7.6.5   Where sites require immediate remedial conservation work, i.e. a site is considered to be at risk and a conservation priority, a means of recording condition and threat is set out in appendix V. This scheme, which is simple to operate and can be used in conjunction with site categories, has two main advantages: it provides base-line data on condition and threat level against which the success (or otherwise) of the management of a site can be monitored; and it can help to establish management priorities.

7.7   Site management categories

7.7.1   Briefly, a method of passing on advice on the management of historic landscape guidelines to non-specialist project officers, similar to that outlined in section 7.4 above, is by means of management categories. This is explained more fully in appendix IV, but has not been tried on Llyn.

7.7.2   It is possible that the more detailed guidelines set out above in 7.4. could be adapted in this way, and following a detailed farm survey, each historic landscape component (or group) could be allocated to a similar management category.

8   Monitoring within the ESA

8.1   Monitoring is essential if the effectiveness of the ESA scheme to fulfil its function is to be evaluated. Monitoring requires reliable base-line data against which progress or otherwise can be measured. A staged approach to recording and monitoring the historic landscape aspect of the scheme should be adopted as an integral part of the ESA scheme: this should involve -
(i) the identification of the resource,
(ii) the identification of a series of management objectives,
(iii) the formulation of a management strategy, and
(iv) implementation of the strategy and monitoring to ensure positive future management of the historic landscape resource.

8.2   Following the model suggested elsewhere for Tir Cymen (GAT Report no. 250, 1997 - CCW is currently in the process of reviewing the arrangements for historic landscape provision within Tir Cymen), it is recommended that a complete inventory (condition survey) of all sites, features and structures which comprise the historic landscape should be made made by a suitably-qualified, professional archaeologist when a farm enters its ESA agreement. Each component (and group of components) should be described and its condition noted at the outset, and management recommendations would also be made (stages i and ii above – also appendix V).

8.3   It is suggested that a system of monitoring is used as follows (see appendix V for a more detailed explanation). In the base-line survey, the condition of each component (or group), and an 'at risk' assessment is recorded on a sliding scale from 1 - 5 (best to worse), giving two 'scores'. The form of the feature (e.g. earthwork) and the nature of any real or potential threats which will require management (e.g. animal burrowing, removal of stone), with a qualifier which assesses the level of each threat will also be noted (and taken from a glossary), along with a management recommendation to mitigate any damaging processes. Photographs should also be taken. Each subsequent time a feature is visited, the condition, at-risk factor and threat levels will be recorded and compared with earlier visits to determine whether the particular management of that feature is successful. Any unsuccessful management practices can be revised and altered.

8.4   The management recommendations would be incorporated into the farm plan agreed between FRCA and the farmer (see above, stage iii). Monitoring of the condition of these elements would be conducted on a regular basis (stage iv, above), either by an archaeologist (preferred) or by a project officer, using the base-line data as a comparison, to ensure that targets are being met and that the management regime implemented is effective.

8.5   This information would be recorded in a database so that quantitative statistics can be compiled and analysed. For example, it would be possible to identify the three most significant factors adversely affecting condition and risk of sites in a particular Landscape Type, and strategic planning could deal with those problems as a priority. This might have a considerable impact on archaeological planning and projects, and could lead to effective long-term conservation and management.

8.6   An effective and relatively inexpensive way of carrying out such monitoring might be by using aerial survey: photographs could be taken of the farm when it enters an ESA agreement, and it would be relatively straightforward exercise to fly over and photograph farms on a regular (say three-year) basis, and compare results with the base-line survey (as already happens with Scheduled Ancient Monuments): actual site visits could then be limited to farms where problems are identified.

9 Conclusions and recommendations

9.1 General

9.1.1 The project was generally welcomed (by FRCA) to have been successful in demonstrating the effectiveness of historic landscape characterisation as a management tool. It gathered and collated historic landscape data in a format, and at a level, which was well-suited to the ESA management which could use the data and put the management recommendations into practice. The study, therefore, has had direct practical application. It is recommended that historic landscape characterisation is continued as an effective management tool for the management of historic landscapes.

9.1.2 The map scale used was 1:25,000: this was considered ideal in that it showed all the field boundaries and settlements, roads and routes and much of the relict archaeology, and yet was manageable for both fieldwork and reports. Data captured at this scale can also be readily transferred to the regional sites and monuments records (especially if they are moving into GIS – see below). It is recommended that any future historic landscape characterisation work is mapped at this level.

9.1.3 In order to be most effective, it is probably better if the number of personnel involved in any project is restricted to a minimum. Obviously it will necessary to consult with various sub-aspect experts, but the team actually carrying out the project should, ideally comprise two people (interestingly, the Countryside Commission also insist on two people carrying out landscape assessment exercises). It is also important to try to build on experience gained from previous work, by using the same team for subsequent work: this is largely because of the different approach and 'mind set' that is required to deal with issues at a landscape (rather than site-specific) level. Expertise is cumulative.

9.1.4 The effectiveness of the project was limited by two major problems - (i) available databases and sets of information on the historic environment are not comprehensive in scope and thus a lot of information has to be 'gathered' (which is time- and resource-consuming), and (ii) there was insufficient information available on the past and present condition of historic landscape components to allow an assessment of the effectiveness of the ESA prescriptions. The scope of this (pilot) project did not allow either of these deficits to be addressed satisfactorily, as it was necessarily based principally on readily-available data, with a limited amount of original documentary and field work. However, it has demonstrated the potential usefulness of undertaking such work in future projects.

9.1.5 The other major drawback of the project was that it was not computer- (i.e. GIS-) based. The Landmap pilot, to which this characterisation work contributed (GAT Report no. 270), has clearly demonstrated the advantages of a computerised GIS-based system for mapping and analysing landscape-based data. Unfortunately, this project was undertaken using relatively unsophistacted techniques of maps, overlays and coloured crayons for analysis (although some computer-generated maps were possible, notably from SMR data). Any future historic landscape characterisation work should, for preference, be carried out using a GIS-based system (preferably Mapinfo with OS digital data, if these are available).

9.2 Specific

9.2.1 The study has concentrated on analysing and defining the historic character of the existing Llyn ESA landscape types already established by FRCA. In most cases, a reasonable historic characterisation could be attempted (see section 6). However, a series of adjustments could be made to these types could be made on purely historical character grounds as follows -

i) the area north of Pwllheli could be removed from sheltered parkland and incorporated within plateau mosaic:

ii) the moorland basin designation could be dropped as it is largely a transitional zone, and the edges of the hills and knolls and moorland basin areas moved south and north accordingly to be contiguous:

iii) the hills and knolls areas around Mynydd Cefnamwlch and Mynydd Ystum could be incorporated into the surrounding areas, as they have few of the historic characteristics of the former landscape type:

iv) it might be useful to describe the different upland blocks as separate entities, as they are quite distinct:

v) Mynydd Cilan, and the area from the Afon Soch southwards, could be redesigned from coastal plateau to rolling upland edge, as its character is quite distinctive and unlike the north coast:

vi) the southern edge of the coastal plateau could be restricted to the northern coastal area (see above), as far inland as Llangwnnadl and Rhydlios, as this is quite distinctive: the remainder could be redesignated as rolling upland edge, or given a separate landscape type:

vii) there is actually little difference between plateau mosaic (if retained) and rolling upland edge, and these could receive the same designation.

9.3   Recommendations for detailed analysis

9.3.1   A number of more detailed analyses which would benefit historic characterisation and subsequent management on Llyn were thrown up by the study. These include (in nor particular order):-

i) mapping the historical landscape elements against the physical evidence:

ii) analysing the type of farm/other settlement in each area:

iii) carrying out a detailed study of a specific area to gain a greater understanding of its historical processes:

iv) examining, say, two farms in each landscape type as a pilot for recording historic landscape information and making appropriate management recommendations (along the lines of Tir Cymen farm assessments to provide base-line condition surveys) – see section 8:

v) carrying out detailed archaeological survey of hills and knolls areas and moorland basin as a priority:

vi) target resources for aerial survey and geophysical survey in areas of cultivation:

vii) examine historical ecology:

viii) examine in detail areas held by two different estates to compare and contrast the historical detail of boundaries, buildings, survival of archaeological remains, *etc.* to see whether there are distinct characteristic differences:

ix) compiling a list of potentially relevant material in the local record office.

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APPENDICES

FRCA Llyn ESA Landscape Types

FRCA Llyn ESA Landscape Types - Descriptions

Type A: Sheltered Parkland

A neat, medium-scale, lushly patterned, managed landscape.

Key Characteristics

- a medium-scale, neat landscape created by the network of well maintained field boundaries

- a lushness created by lines of deciduous field boundary trees and blocks of managed woodland

- a managed character created by clean fields and well designed groupings of farm buildings.

Type B: Plateau Mosaic

A small scale, sheltered landscape with a traditional pastoral patchwork in the homogenous expanse.

Key characteristics

- A small scale, sheltered, traditional pastoral patchwork created by the field banks with their shrub vegetation and small trees.

- An homogenous expanse created by an absence of woodland, except in the sheltered dips and valleys.

- A mixed character created by a mosaic of clean grass fields and areas of wet rush and scrub.

- A naturalness created by an absence of modern artefacts and the abundance of modern artefacts and the abundance of semi-natural habitats.

Type C: Moorland Basin

An expansive, wet landscape with a large scale patterning. open, exposed and isolated.

Key characteristics

- An expansive wet and remote character created by the extensive areas of rough grazing with boggy and wet areas and low shrubby vegetation.

- Large scale patterns created by blocks of upland farming with stone walls around clean fields set within the encompassing rougher grazing lands.

- An open and exposed landscape created by homogenous expanses of low, semi-natural vegetation and lack of tree planting.

- A sense of isolation created by lack of artefacts and buildings.

Type D: Hills and Knolls

A large scale rugged exposed and open landscape with a patchwork skirt of upland cultivation and a sense of isolation.

Key characteristics

- A large scale rugged exposure created by unenclosed areas of semi-natural vegetation, rough grazing and rock/scree strewn slopes, with an absence of agricultural land improvement.

- An openness created by the absence of planting and only restricted patches of low scrub.

- A patchwork skirt of upland cultivation created by traditional stone wall boundaries around grass fields with a staggered edge to the open grazing land.

- An isolation created by a lack of buildings, except at the base of the slope, and an absence of modern artefacts.

Type E: Coastal Plateau

An open and windswept, small scale cultivated patchwork landscape, rugged and exposed in character.

Key characteristics

- A windswept exposed landscape due to an absence of woodland, except in the more sheltered dips, in association with farmsteads and settlements, and only low windclipped vegetation on field boundary banks.

- A small scale cultivated patchwork created by traditional field boundary banks functionally enclosing small clean grass fields.

- A ruggedness created by the presence of bare stone banks, areas of low semi-natural vegetation, a natural interface with the cliffed coast and an absence of modern artefacts.

Type F: Uwchmynydd

A rugged, natural, open and remote landscape with an historic character.

Key characteristics

- A natural and rugged character created by low open semi-natural vegetation, coastal heath and rocky outcrops.

- An openness created by a lack of high vegetation.

- A remoteness created by a general lack of artefacts and buildings and the overall low-key yet traditional management approach.

- An historic character created by enclaves of ancient cultivation with a distinctive small-scale patchwork of traditional banks around grass fields in association with isolated buildings.

Type G: Snowdonia Edge.

A rugged and exposed small-scale cultivated landscape with contrasting sheltered lush areas and strong links to landscapes of the Snowdonia National Park

Key characteristics

- A ruggedness created by rock outcrops in association with sweeps of open rough grazing, scrub and boggy areas.

- Exposed small-scale cultivated patterns created by traditional stone walls around small grass fields, isolated groups of stone buildings and a lack of planting.

- Lush sheltered areas created by managed grasslands, with deciduous woodland and groups of trees.

- Links to the Snowdonia National Park landscape created by the diversity of well managed upland type landscapes and areas of semi-natural vegetation.

Type H: Coastal and Valley Flats

A wet, open isolated landscape with homogenous natural expanses

Key characteristics

- A wet naturalness created by semi-natural vegetation and wetland areas.

- An isolation created by a lack of building, other artefacts or enclosure.

- Open homogenous expanses created by sweeps of low vegetation and a general lack of agricultural development or planting.

Type J: Hell's Mouth Plain

An extensive open and cultivated landscape with areas of traditional patterning and a sense of naturalness.

Key characteristics

- An expansive openness created by large scale fields surrounded by low banks with fences and a lack of woodland planting.

- A cultivated character created by clean grass and arable fields and well designed groupings of farm buildings.

- Traditional patterning created by some small-scale fields, hedges and banks and a lack of isolated fences.

- A sense of naturalness created by wet scrub and boggy areas alongside streams which merge gradually with adjacent dryer land.

Type K: Rolling Upland Edge

A lush, pastoral, varied landscape with a mixed pattern of cultivated and semi-natural vegetation.

Key characteristics

- A lush pastoral quality created by the deciduous woodland in valleys and dips in association with sweeping improved grass fields.

- A patterned cultivated character created by the patchwork of medium scale clean grass fields surrounded by traditional banks with their associated vegetation, and a lack of modern artefacts.

- A mix of semi-natural vegetation created by areas of rough land on steep valley sides, and wetter areas in valley bottoms.

Working list of historic character themes

Working list of historic character themes

Agriculture

Nine basic field type patterns can be defined, based on size and boundary line. Some fields can be more easily categorised than others, and each field must be viewed in the setting of its surrounding fields to discern patterns. The main differences are between 'regular' and 'irregular', 'intact' and 'disintegrated' and in size. One pattern, probably relating to 'anciently enclosed land' was used as a default type (see below).

small to medium fields, irregular (curvilinear) (possibly prehistoric in origin)

large areas of upland, unenclosed or lately enclosed

large lowland enclosures (disintegrated pattern, recent amalgamations)

small fields, regular pattern (deliberately laid out)

medium fields, irregular patterns (odd corners and sides) <3 straight sides, not laid out (default)

medium/large fields, regular pattern (axial) 3 or 4 straight sides (or 2 + natural), laid out end-18 or 19th century: pattern dominated by straight lines

small, elongated fields (possibly fossilised medieval strip fields)

remnant coastal edge

ancient woodland/valley sides (no particular pattern visible)

In addition, the following boundary types were identified

clawdd (with hedge/trees)

clawdd (without hedge/trees)

clawdd (with post-+-wire fence)

dry stone wall

hedge

hedge with trees

Relict archaeology

Historic contexts which have been identified are

1a Early prehistoric settlement and land division.
1b Early prehistoric ritual activity.
1c Early prehistoric industrial activity.

2a Late prehistoric/Romano-British settlement and land division.
2b Late prehistoric/Romano-British religious and ritual activity.
2c Late prehistoric/Romano-British industrial activity.
2d Late prehistoric/Roman military activity including communications.

3a Medieval settlement and land division.
3b Medieval religious and ritual activity.
3c Medieval industrial activity.
3d Medieval military activity.
3e Medieval communications.

4a Post medieval settlement and land division.
4b Post medieval religious and ritual activity.
4c Post medieval industrial activity.
4d Post medieval military activity.
4e Post medieval communications.

5a Unassigned settlement and land division.
5b Unassigned religious and ritual activity.
5c Unassigned industrial activity.
5d Unassigned military activity.
5e Unassigned communications.
5f Unassigned leisure activity.
5g Unassigned site/evidence

Current form categories (for management) are

Earthwork / Relict
Building / Structure in use
Find only
Cropmark / Parchmark
Not known / Unlocated / Place-name

Settlement

The settlement types which have been identified are:-

dispersed, undeveloped settlements

IF   isolated farm

SH   scatter of houses

SHF   scatter of houses and farms

nucleated, developed settlements

SHC   scatter of houses plus church/amenity etc.

CH   cluster of houses

CHC   cluster of houses plus church/amenity etc.

T   town

Industry

The areas of industrial archaeological interest which have been identified are

Trefor (granite quarry, still working, with a system of inclines, piers etc. and an attached quarry community)

Nant Gwrtheyrn (granite quarry with a system of inclines, jetties etc. with associated village now a language centre)

Nefyn (former series of terraced stone quarries east of the town)

Mynydd Rhiw (neolithic stone axe factory at its north-east end, while in C19 Benallt at south-west end was most productive manganese mine in Britain - series of mines, railways, aerial ropeways etc.)

Llanengan/Bwlch (important lead-mining complex - underground workings, shafts, chimneys, adits etc.)

Llanbedrog (coastal granite (Cambrian) quarries - see also Pwllheli-Llanbedrog tramway)

Nanhoron (small stone quarry, still active)

Communications

Communication routes can be categorised as follows:

trunk road

county (A) road

minor (B) road

lanes (principally straight)

lanes (principally winding)

trackways (unsurfaced) (straight)

trackways (unsurfaced) (winding)

footpaths

Other

former RAF bombing school at Penrhos (now Polish home) and bombing range at Hell's Mouth

parks and gardens (Nanhoron, Cefnamwlch, Plas Bodegroes, Madryn, Plas yn Rhiw, Plas Boduan, Bodfel, Trallwyn Hall and Plas Gelliwig)

Relict archaeology / historic landscape components – site categories

Relict archaeology / historic landscape components – site categories

Category A - Sites of National Importance.

Site type. Scheduled Ancient Monuments, Grade I and II* Listed Buildings and sites of similar quality, *i.e.* those sites which would meet the requirements for scheduling (ancient monuments) or the top two tiers of listing (buildings), or both. There is a presumption in favour of preservation of all such sites and their settings should they come under threat.

Management objective. To maintain and enhance as monument of national or regional importance. Basically to halt any damaging processes, stabilise monument (reversing damage if possible/feasible/desirable), carry out any remedial works (e.g. repair stonework), establish stable, non-destructive land-use regime on site and environs, monitor situation. The site will normally need to be properly recorded before works starts, and often works will be supervised, recorded and monitored throughout. These may well be the subject of optional tier 2 agreements, or included in the conservation plan.

Management prescription. As there is insufficient detail and up-to-date information on the condition and requirements of sites, a detailed management plan (tier 2 or conservation plan) will be required for each site as part of an overall management framework. For SAMs there will need to be Cadw involvement.

Category B - Sites of Regional Importance

Site type. Sites which would fulfil the criteria for listing Grade II (if a building), but not for scheduling (if a site of relict archaeological interest). Nevertheless such sites are of particular importance within a regional context and, if threatened, should ideally be preserved *in situ*, although complete excavation and/or recording may be an acceptable alternative.

Management objective. To maintain as site of archaeological/landscape interest. Basically to halt any damaging processes, stabilise monument (reversing damage if possible/ feasible/desirable), carry out any remedial works (e.g. repair stonework), establish stable, non-destructive land-use regime on site and environs, monitor situation. The site should be recorded before and after works. These could be the subject of optional tier 2 agreements, or included in the conservation plan.

Management prescription. Suitable management of these sites may be achievable simply by following the general management guidelines set out for tier 1, although some initial action might also be required (e.g. repair stonework) which could the subject of optional tier 2 agreements, or included in the conservation plan.

Category C - Sites of District or Local Importance

Site type. Sites or features which are not of sufficient importance to justify a recommendation for preservation if threatened, but which have an interest and importance in their local context and merit adequate recording in advance of damage or destruction.

Management objective. This is possibly the most complex (as well as the most costly) category in management terms, as each site/landscape will vary both in terms of surviving historical/archaeological remains and in management requirements. It will usually be the most suitable option to include these sites in their wider landscape context and rely on the tier 1 general management guidelines.

Management Prescription. However, if active management is required (e.g. there are dangerous structures, or if the site is of particular archaeological importance and is in need of repair) this may be the subject of optional tier 2 agreements, or could be included in the conservation plan.

Category D - Minor and Damaged Sites

Site type. Sites which are of minor importance or so badly damaged that too little remains to justify their inclusion in a higher category. For these sites rapid recording either in advance or during destruction, should be sufficient.

Management objective. These sites are probably not worth active (positive) management and can in almost all cases rely on not being actively damaged further by adherence to the tier 1 general management guidelines.

Management Prescription. In most cases, no definite management is required, although sites should be identified in any archaeological survey and subsequently on the farmer's map for information. Brief details of site should be available for consultation.

Category E - Sites needing further investigation

Site type. Sites whose importance is as yet undetermined and which will require further work before they can be allocated to categories A-D. Recommendations for further evaluation may be appropriate if there is likely to be a management implication.

Management objective. These sites should be subject of further archaeological investigation/assessment so that they can be assigned to the appropriate category.

Management prescription. Any archaeological baseline condition survey should make recommendations for an appropriate method and level of assessment.

Category F - Sites with no defined physical presence

Site type. This category comprises findspots, sites noted but not accurately located in antiquarian references, sites known only from place-name evidence and other reported sites whose authenticity is in doubt (e.g. certain sites which have not been verified by recent archaeological fieldwork). Where poorly located sites initially placed in this category are subsequently identified and recorded, it may be appropriate to revise their categorisation during subsequent monitoring.

Management Objective. Identify and record sites as opportunities arise. Assess their nature and condition.

Management Prescription. Identify and record sites as appropriate during the course of normal management and monitoring. Sites that cannot be located cannot be managed. Such sites should be noted in information supplied to farmers in ESA scehemes to alert them to their potential presence, and to the fact that they may not be precisely located but that they may be significant.

Category L - Sites which form part of an integral historic landscape pattern

Site type. It is intended that this category is used over and above categories A-E for sites which it is felt form part of a recognisable synchronic or diachronic historical/archaeological pattern within the landscape: it can apply to sites in any category (A - E), and individual sites in different categories can form part of the same pattern. This designation has the potential to increase the importance of a site, although sites must initially be judged on their own merits (one of thenon-statutory criteria caters for this anyway). The L suffix is added in brackets after the individual category (for example category A(L), or B(L)).

Management objective. To maintain the integrity of the group or pattern of features which are of historic landscape interest. Basically to halt any damaging processes, stabilise all the contributing landscape elements (reversing damage if possible/ feasible/desirable), carry out any remedial works (e.g. repair stonework), establish stable, non-destructive land-use regime on site and environs, monitor situation. The group of features should be recorded before and after works.

Management prescription. This will depend on the type and quality of each landscape pattern: it may be possible in some cases to rely on general management guidelines for tier 1 (*e.g.* for groups of field boundaries forming a distinct, self-contained pattern), while for others (*e.g.* a contemporary grouping of 'long huts' with relict and in-use field boundaries) it may be necessary to draw up a detailed plan which could the subject of optional tier 2 agreements, or be included in the conservation plan.

Management categories

Suggested management categories for historic landscape components.

Management category 1
Presence of archaeological interest notified to owner/occupier. No specific management. Relevant Welsh Archaeological Trust Curatorial Officer to be notified of further material found.
Category F sites - examples findspots, find scatters

Management category 2
Archaeological sites which are not discernible from the ground notified to owner/occupier. Agreement should be reached that future cultivation under [ESA] agreement will be no deeper than existing, that no tree-planting shall be carried out, and no drains etc will be cut through site *etc.*.
Category A, B, C, D or E – examples sites which exist as cropmarks / parchmarks within cultivated areas.

Management category 3
Site should be removed from cultivation and grazed: it should also be protected from poaching by stock, no tree-planting shall be carried out, and natural regeneration of scrub should be controlled by appropriate cutting/grazing.
Category C, D or E – examples earthwork or stone-built features within (or on edge of) cultivated areas.

Management category 4
Area containing site is presently uncultivated: site will be maintained uncultivated and grazed, protected from poaching, no tree-planting shall be carried out, and should have scrub growth controlled as above.
Category C, D or E – examples earthwork or stone-built features in marginal (uncultivated) areas.

Management category 5
Field boundary (or more usually boundaries) of special historic significance (especially those which are part of a dominant pattern) should be notified to owner/occupier and protected.
Category C(L) or D(L) usually - examples stone walls, cloddiau, earth banks

Management category 6
Other (isolated) important historic landscape components hould be preserved and protected.
Category C, D or E – examples boundary stone, standing stone, sheepfold, structure

Management category 7
Archaeological sites (extent as shown) requiring site-specific or individual management prescriptions. Consult Welsh Archaeological Trust Curatorial Officer.
Category A and (most) B - examples large, complex or otherwise important earthwork and stone-built sites (including those of schedulable status but not yet SAMs)

Management category 8
Scheduled Ancient Monument. Management a question for Cadw: Welsh Historic Monuments. Initial advice may be obtained from the relevant Welsh Archaeological Trust Curatorial Officer.
Category A – SAMs

APPENDIX V

Monitoring

Monitoring

The following method of monitoring the condition of sites (historic landscape components), and the success or otherwise of management plans or actions is suggested. It assess sites on condition and risk, and records form, threats and threat levels.

In order to provide guidance for setting management priorities, and to measure success or otherwise it is suggested that the condition and risk scores for sites are added together and then squared (to highlight differences). The results –
$1+1 = 2, 2 \times 2 = 4$ lowest score, best situation (site is in optimal condition, and there is no risk).
$5+5 = 10, 10 \times 10 = 100$ highest score, worst situation (site has extensive problems and is at immediate risk).

Highest scores are highest priorities in terms of management.
Increasing score on monitoring visit (over previous visit) means site is deteriorating (management not working).
Decreasing score on monitoring visit (over previous visit) means site is improving (management is working).

Form

Cropmark / parchmark
Earthwork
Relict standing building or structure
Building or structure in use
Earthwork with standing structure

Condition

1 Optimal
2 Satisfactory
3 Generally satisfactory - minor problems
4 Unsatisfactory - local problems
5 Extensive problems (3 or more significant threats)

Risk

1 No risk
2 Slight risk
3 Medium risk
4 High risk
5 Immediate risk

Threats

Afforestation
Animal burrowing
Animal erosion (poaching)
Building / development
Drainage
Dumping
Land improvement
Natural decay
Ploughing - around
Ploughing - over
Quarrying / stone robbing
Scrub growth
Subsidence
Tree growth
Vehicle erosion
Visitor erosion
Weathering

Threat levels

1 None
2 Minor
3 Some
4 Considerable
5 Dangerous

APPENDIX VI

Stages in a management plan

Suggested steps involved in a management plan

This will obviously depend on a number of factors, including the nature of the plan (e.g. the form of some plans, such as ESA ones, will be pre-determined by the nature of the scheme or whatever), the importance of the archaeological site, the funds available, *etc.*

However, the following action plan is suggested as a suitable way forward (in an ideal world), and can be adpted to meet individual circumstances.

The plan in outline. Having decided that a management plan would be useful, there should be discussion to determine what form it should take, and how archaeological needs can be integrated with other land-use requirements. The plan might be solely concerned with the archaeological side of management, or it might be a multi-purpose plan dealing with ecological and other matters at the same time (the latter is almost always preferable). Identify who is going to carry out the work (this includes the archaeological work, the capital works, the continuing maintenance and the monitoring).

Survey. For a plan to be successful, it must be known what it is that is going to be managed. In order to do this, a programme of survey should be the first step. A certain amount of desktop work (concentrating on old maps, photographs, descriptions etc.) should be followed by a detailed survey and evaluation of the archaeology of the land being made the subject of the plan, identifying all the features of archaeological/historical interest which exist and assessing their importance and condition. This detailed base-line survey should include map information at a relevant scale, as well as photographic material and written descriptions. The resulting land-use map will form the basis of all future decisions.

Management assessment. This should establish what, if any, problems currently exist (i.e. what is damaging the archaeology or might damage it in the foreseeable future) and identify the steps that need to be taken to rectify them and to ensure continued preservation of the site. It should determine the objectives of management for each site/feature/monument/area of interest and the ideal land-use appropriate to that objective. This will lead to the establishment of a long-term management regime which should include target dates/annual programmes.

Discussion and debate. At the same time there should be consideration of other demands on the land and the extent to which these conform or conflict with the ideal land-use for each area of archaeological interest determined during the previous stage. There may need to be reconciliation between differences by balancing advantages against disadvantages. Once this has been done, an integrated plan can be developed which makes provision for initial works and future land-use. It may be useful at this stage to prepare a land-use/constraint map and an outline calendar of activities. Consideration must be given to including potential sub-contractors and other interested bodies in the aims of the work.

Getting going. The next step will be to undertake any necessary capital works to enable the proposals in the plan to work efficiently (e.g. constructing new fences, tracks, gates, diverting footpaths, clearing scrub, erect and information panels).

Implementation and review. This will be followed by long term day-to-day management following the pattern established in the plan. An annual review of the objectives, and the means by which they are achieved, provides a useful way of monitoring the effectiveness of the plan. The plan must also be open to change if it, or a part of it, is not achieving the desired results. The plan must also be able to incorporate, and adapt to, new archaeological information.

Long-term future. The plan must be sufficiently flexible to accommodate changing circumstances, but to ensure continuity it should, ideally, be tied to the land so that some long-term security for the archaeological monuments is provided.