
Historic Landscape Characterisation: **Amlwch**



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Prepared for
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Part A

General information

1 Preface

1.1 Natural forces and human activity acting together over the last six thousand years have contrived to produce a landscape of great beauty and variety in Wales, a national asset that is essential both to our national identity and to our individual “sense of place” and well-being. The diversity and imprint of human activity on the landscape is everywhere to be seen, from the enigmatic stone monuments of the prehistoric period and the magnificent castles and abbeys of the medieval period to quite commonplace and typical features like field boundaries that can often be of great age. But the landscape is more than just attractive scenery or a record of the past; it also provides a place for us to live, work and sustain ourselves, through farming, forestry, tourism and so on, processes that all shape, and will continue to shape, the landscape.

1.2 Recognising and raising awareness of the importance and wealth of the historic fabric of the landscape has been the central theme and message of the, non-statutory, Register of Landscapes of Historic Interest in Wales, the first part of which, covering thirty-six “outstanding” landscapes, was published in January 1998. This is being compiled as a joint initiative between Cadw: Welsh Historic Monuments, the Countryside Council for Wales (CCW) and the International Council on Monuments and Sites (ICOMOS), working in collaboration with the four Welsh Archaeological Trusts, the Royal Commission on the Ancient and Historical Monuments of Wales and the Welsh unitary authorities.

1.3 The Historic Landscapes Register provides a first step national overview of the historic content of the Welsh landscape. The next step, so essential to the process of informing the way in which aspects of the historic landscape may be managed, is to make available more detailed information about the character of this landscape at a more local level. This is achieved through a process known as historic landscape characterisation which has been developed in Wales jointly by Cadw, CCW and the Welsh Archaeological Trusts. This involves the identification of geographically definable and mappable areas of historic character, as determined by the range and distribution of surviving archaeological and historic features and the main types of historic land use patterns or historic “themes” that have shaped the area. The key historic characteristics of the area are then identified along with recommendations for their positive management.

1.4 This report is one in a series of landscape characterisation exercises being undertaken by the Welsh Archaeological Trusts with grant aid from Cadw. These studies will initially concentrate on those areas identified on the Historic Landscapes Register, although it is accepted that the whole of the Welsh landscape can be said to be, in one way or another, historic. Information is being prepared in a form which is compatible with CCW’s landscape assessment and decision-making methodology, known as LANDMAP. It will be made available to a wide range of organisations and will feed into various initiatives to protect and manage the Welsh countryside, most notably the Tir Gofal agri-environment scheme. It is also seen as making a particularly important contribution to raising awareness and heightening a feeling of local distinctiveness.

1.5 The Historic Landscapes Register and these characterisation exercises fully acknowledge the dynamic and evolving nature of the landscape. They promote the view that protecting the legacy of the past in the landscape is not to be achieved by preventing change or fossilising the landscape but rather by informing the process of change, creating tomorrow’s landscapes without necessarily sacrificing the best of yesterday’s.

1 Rhagair

1.1 Mae'r grymoedd naturiol a'r gweithgaredd dynol a fu'n gweithredu ar y cyd dros y chwe mil o flynyddoedd diwethaf wedi cyfrannu at y broses o gynhyrchu tirwedd o harddwch ac amrywiaeth hynod yng Ngymru, ased cenedlaethol sy'n hanfodol i ni o ran ein hunaniaeth genedlaethol a hefyd o ran ein lles a'n 'hymdeimlad o berthyn i le' unigol. Gellir gweld ymhobman yr amrywiaeth a'r olion a adawyd ar y tirwedd gan weithgaredd dynol, o henebion cerrig enigmatig y cyfnod cynhanesyddol a chestyll ac abatai gwych y cyfnod canoloesol, i'r nodweddion eithaf cyffredin a nodweddiadol fel ffiniau caeau a all yn aml fod yn hen iawn. Ond nid dim ond golygyfeydd deniadol neu gofnod o'r gorffennol yn unig yw'r tirwedd; mae hefyd yn darparu lle i ni fyw, gweithio a chynnal ein hunain ynddo, drwy gyfrwng amaeth, coedwigaeth, twristiaeth ac ati, oll yn brosesau sy'n llunio, ac a fydd yn parhau i lunio'r tirwedd.

1.2 Bu cydnabod a chodi ymwybyddiaeth o bwysigrwydd a chyfoeth ffabrig hanesyddol y tirwedd yn thema ac yn neges ganolog y gofrestr anstatudol, Cofrestr O Dirweddau O Ddiddordeb Hanesyddol Eithriadol Yng Nghymru, y cyhoeddwyd y rhan gyntaf ohoni, sy'n cwmpasu trideg chwech o dirweddau 'eithriadol' ym mis Ionawr 1998. Caiff y Gofrestr ei llunio fel menter ar y cyd rhwng Cadw, Cyngor Cefn Gwlad Cymru a'r Cyngor Rhyngwladol ar Henebion a Safleoedd (ICOMOS) sy'n gweithio mewn cydweithrediad a phedair Ymddiriedolaeth Archeolegol Cymru, y Comisiwn Brenhinol Henebion Cymru ac awdurdodau unedol Cymru.

1.3 Y Gofrestr o Dirweddau o Ddiddordeb Hanesyddol yw'r cam cyntaf, trosolwg cenedlaethol o gynnwys hanesyddol tirwedd Cymru. Y cam nesaf, mor hanfodol i'r broses o lywio'r modd y gellir rheoli agweddau ar y tirwedd cenedlaethol, yw trefnu bod gwybodaeth fwy manwl ar gael ynglŷn a chymeriad y tirwedd hwn ar lefel fwy lleol. Cyflawnir hyn drwy broses a elwir yn nodweddiad tirweddau hanesyddol a ddatblygwyd yng Nghymru ar y cyd a Cadw, Cyngor Cefn Gwlad Cymru ac Ymddiriedolaethau Archeolegol Cymru. Golyga hyn nodi ardaloedd o gymeriad hanesyddol y gellir eu diffinio a'u mapio'n ddaearyddol, yn ol yr hyn a benderfynir gan ystod a dosbarthiad y nodweddion archeolegol a hanesyddol sy'n goroesi a'r prif fathau o batrymau defnydd tir hanesyddol neu 'themaau' hanesyddol sydd wedi llunio'r ardal. Nodir nodweddion hanesyddol allweddol yr ardal felly ynghyd ag argymhellion ar gyfer eu rheoli'n gadarnhaol.

1.4 Mae'r adroddiad hwn yn un o gyfres o ymarferion nodweddiad tirweddau hanesyddol yr ymgwymerir ag ef gan Ymddiriedolaethau Archeolegol Cymru gyda chymorth grant gan Cadw. Bydd yr astudiaethau hyn yn canolbwyntio yn y lle cyntaf ar yr ardaloedd hynny a nodwyd yn y Gofrestr O Ddiddordeb Hanesyddol, er y caiff ei dderbyn bod modd disgrifio tirwedd Cymru gyfan, mewn un ffordd neu'r llall, fel un hanesyddol. Mae gwybodaeth yn cael ei pharatoi ar ffurf sy'n cydweddu a methodoleg asesu tirweddau a gwneud penderfyniadau Cyngor Cefn Gwlad Cymru, sef LANDMAP. Bydd ar gael i ystod eang o sefydliadau a chaiff ei fwydo i fentrau amrywiol er mwyn diogelu a rheoli cefn gwlad Cymru, yn bennaf y cynllun agri-amgylcheddol sef, Tir Gofal. Caiff ei weld hefyd yn gwneud cyfraniad arbennig o bwysig i'r broses o godi ymwybyddiaeth a dwyshau'r ymdeimlad o arbenigrwydd lleol.

1.5 Cydnabyddia'r Gofrestr O Dirweddau O Ddiddordeb Hanesyddol a'r ymarferion nodweddiad hyn yn llawn natur ddeinamig y tirwedd sy'n parhau i esblygu. Hyrwyddant y farn mai nid trwy rwystro newid neu ffosileiddio'r tirwedd y mae diogelu treftadaeth y gorffennol yn y tirwedd, ond yn hytrach drwy lywio'r broses o newid, gan greu tirweddau'r dyfodol heb o anghenraid aberthu tirweddau gorau'r gorffennol.

2 Background and acknowledgements

2.1 The study area

2.1.1 The area which forms the focus of this work encompasses the Amlwch and Mynydd Parys area in Anglesey, which has been identified on the Register of Landscapes of Outstanding Historic Interest in Wales by Cadw, CCW and ICOMOS, HLW(Gw) 1, in Cadw, 1998, 70-72.

2.1.2 The study area is situated in the modern county of Anglesey/Ynys Môn. It includes the harbour and town of Amlwch and the copper-mining and processing areas on Mynydd Parys immediately to the south.

2.1.3 The area includes what is effectively one settlement, the town of Amlwch. Ownership patterns within this area are complicated. The settlements of Amlwch and Porth Amlwch are made up largely of freeholds and leaseholds. Porth Amlwch harbour is divided between the Isle of Anglesey County Council and the Shell Trust.

2.2 Acknowledgements

2.2.1 The author is grateful to several people for their contributions to this project. Former colleagues in the Gwynedd Archaeological Trust offered helpful advice throughout. David Longley contributed the section on the Medieval landscape of the study area, and Nina Steele provided SMR data in a number of formats. The report was discussed with Andrew Davidson of Gwynedd Archaeological Trust. The report has profited from extensive conversation with Judith Alfrey of Cadw.

2.3 Abbreviations

The following abbreviations are used in this report.

| | |
|------|--|
| CCW | Countryside Council for Wales |
| GAT | Gwynedd Archaeological Trust |
| GIS | Geographic Information System |
| HLC | historic landscape characterisation |
| TAAS | Transaction of the Anglesey Antiquarian Society |
| LIRO | Llangefni Record Office |
| NLW | National Library of Wales |
| SMR | Sites and Monuments Record |
| THSC | Transactions of the Honourable Society of Cymmrodorion |
| UDP | Unitary Development Plan |
| UWB | University of Wales, Bangor |
| WATs | Welsh Archaeological Trusts |

3 Evolving historic characterisation methodology

3.1 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 human 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.

3.2 The 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 this concept.

3.3 Characterisation is defined as the process of identifying and defining the particular characteristics which make each area distinctive, and is rapidly emerging as a sound basis for describing, understanding and managing the environment. It is the great depth of human activity which underpins much of that which we feel is important about locality and landscape, and helps give an area its local distinctiveness. Historic landscape characterisation sets out to establish the historic depth within the modern landscape by identifying its principal historic components.

3.4 The term 'historic character' is generally 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.

3.5 At present there is no standard accepted methodology for establishing the historical character of landscape, but recent work in Wales has suggested that a practical approach based on considering the evidence as a series of themes may provide an answer. At a landscape level, what is significant in historical terms might include field boundary patterns (whether they are irregular or regular, their size, date etc.); settlement patterns (whether scattered or nucleated, date of origin etc.); the relict remains of earlier periods which are to be found in upland or marginal landscapes; the effect of 18th and 19th century estates on the landscape; the impact of industry, military installations and so on.

3.6 The dominant historic themes or patterns in a locality help define local historic character. The combination of these characteristics give an area its local distinctiveness, and it is the definition of areas of local distinctiveness which leads to character areas.

3.7 The process of characterisation can be briefly summarised as -

| | | |
|--|---|--------------------|
| (one or several) components | - | dominant patterns |
| (one or more) dominant patterns | - | coherent character |
| coherent character (with definable limits) | - | character area |
| (several) character areas | - | local landscape |

3.8 Characterisation is a practical tool intended to aid management in its broadest forms. It is essential, therefore, that the process identifies key historic landscape characteristics which are features and/or patterns that can actually be managed, and that the success of this management can be measured for monitoring purposes.

3.9 The reports emerging from characterisation work contain a number of elements. The first part of the report contains general information concerning the background to the project, the methodology employed, a glossary of terms and general management issues. The second part contains information relating to the specific area under study, including (a) a general historical introduction to the area divided thematically; (b) a description of each character area split into three parts (an historical background, key historic landscape characteristics and conservation and management priorities accompanied by a map of the area and an illustration); and a select bibliography.

4 GIS-related proformae

4.1 This section contains instructions on filling in the GIS-linked recording forms created as part of the project. The form consists mainly of 'tick boxes' compatible with a table to be created (for example) in Mapinfo, and has now been standardised across Wales. This information is intended to be linked to GIS tables used by LANDMAP, and the form contains a number of fields which can be cross-referenced to any subsequent LANDMAP exercises.

4.2 The form is loosely divided into three parts – the first identifies the study area by name, number, project and location, and contains general information; the second is a list of historic landscape 'themes' which is intended to act both as a check-list and to ensure systematic recording (which can be transferred to a database) of all character areas to a certain level (the current list of themes is included in section 6 below); and the third relates to management issues.

PROJECT NO

This simply records the individual project number each Trust assigns to the particular project (e.g. G2012).

AREA

This is the name of the area as used in the project: this will usually be based on a geographical, historical or cultural association.

HLCA NO.

This is simply a consecutive number (beginning at 1) assigned to areas within the project. In this case, PRNs have also been allocated to the areas and these are displayed at the top of the character area descriptions in this report.

HLCA NAME

As above, a historic, cultural or simple geographic name is preferred (e.g. [Tywyn]), otherwise a more general topographical description (e.g. rolling meadow) might be more appropriate.

LOCATION

A six figure central grid reference should be sufficient.

SUMMARY OF CHARACTER

This strives to be succinct, preferably fewer than twenty words (e.g. for Caernarfon - Roman fort, castle, walled medieval town, slate quay, sequence of housing stock). This is intended as aide-memoire for writing the report.

GENERAL HISTORIC INTEREST

This is simply a summary of the information contained below in the individual themes to sum up the principal historical interest in the area.

THEMES

Boxes within each theme should be ticked where that element exists as a significant factor at landscape scale within an area. The ticked boxes will form the basis of the free-text description in the report: this description should refer to as many of the ticked boxes as is thought appropriate, and supply supporting information. An up-to-date list of themes is included below.

PRINCIPAL CURRENT LAND USES

This field summarises the broad principal land uses within the area in an attempt to identify which future management mechanisms (e.g. Tir Gofal for agriculture, UDPs for residential/urban areas) might be relevant to managing the area.

RECORDED BY / DATE

Name of compiler and date, following standard practice.

KEY HISTORIC LANDSCAPE CHARACTERISTICS

This should be a simple list of the principal components within the area (for example - parkland, gentry houses, substantial farmsteads, limestone walls) which make it distinctive.

CONSERVATION PRIORITIES AND MANAGEMENT

This summarises the key historic landscape components which underlie (and are essential to) the character of the area and therefore need to be managed if the historic character of the area is to be maintained. This can be a summary of the relevant part of the main area entry in the report.

5. Current themes in historic landscape characterisation

SUBSISTENCE

AGRICULTURE (Field pattern)

Unenclosed/open
Evolved/irregular
Regular (small)
Regular (medium)
Regular (large)
Large enclosures
Med. strips
R+F
Estate owned and improved
Varied
C20th post-war
Other
Not present/Unknown

AGRICULTURE (Field boundary)

Dry-stone wall
Stone-faced bank
Stone-faced bank with hedge
Hedge
Distinctive hedgerow trees
Earth bank
Dyke
Ditches
Mortared walls
Slate pillars
Pale
Sheepfolds
Post+wire fence
Other
Not present/Unknown

FORESTRY

Ancient woodland
Other broadleaf woodland
Plantation
C20Forestry
Scrub/unmanaged
Coppice
Charcoal burning
Other
Not present/Unknown

**+ supporting information (date, historical
associations, archaeological data etc.)**

ARCHAEOLOGY

RELICT

Prehistoric settlement/fields
Medieval settlement/fields
Prehistoric ritual
Post-medieval settlement/fields
Turbary
Other
Scattered
Not present/Unknown

INDUSTRIAL

Quarrying
Mining
Manufacturing
Mill
Brewery
Metal processing
Other processing
Craft/cottage
Rural industry
Other
Not present/Unknown

BURIED

Cropmark/parchmark
Urban deposits
Find scatters
Palaeoenvironmental evidence
Other
Not present/Unknown

MILITARY

Prehistoric
Roman
Early medieval
Anglo-Norman
Edwardian
Welsh
Tudor
Civil War
C19th
WWI
WWII
Other
Not present/Unknown

+ supporting information (date, historical associations, archaeological data etc.)

BUILT ENVIRONMENT

SETTLEMENT PATTERN

Loosely dispersed scatter
Dense scatter
Clustered
Ribbon
Nucleated – planned
Nucleated – organic
Business/commercial
Other
Not present/Unknown
Specify date (if relevant)

BUILDING TYPE

Farmhouse
Cottage
Terraced housing
Shops
Place of worship
Processing
Distinctive vernacular style (specify in character summary)
Other
Not present/Unknown

PRINCIPAL BUILDING MATERIAL

Stone – random
Stone – coursed
Clay/earth
Wood
Brick
Concrete
Other

PRINCIPAL ROOFING MATERIAL

Slate
Tile
Thatch
Stone tile
Concrete tile
Metal
Other

ORNAMENTAL / LEISURE

Deer park
Parkland/garden
Garden/park (C20)
Tourism
Sports facilities
Hunting estate
Other leisure

ECCLESIASTICAL

Cemetery (medieval)
Cemetery (modern)
Church (medieval)
Church (post medieval)
Monastic

**+ supporting information (date, historical
associations, archaeological data etc.)**

Chapel (nonconformist)
Other

INFRASTRUCTURE

COASTAL/MARITIME

Sea defences
Intertidal features
Harbour/fishing
Other
Not present/Unknown

COMMUNICATION

Footpaths
Tracks
Lanes-winding
Lanes-straight
Turnpike
Major road
Ports/docks
Airfields
Bridges
Communications towers
Public rail
Industrial rail
Other rail
Canal
Other
Not present/Unknown

RESOURCES

Power generation
Power distribution
Water supply
Peat cutting
Other
Not present/Unknown

**+ supporting information (date, historical
associations, archaeological data etc.)**

OTHER

HISTORIC ASSOCIATIONS

Place-name
Artistic
Folklore/legend
Events
Literary
Persons
Other
Not present/Unknown

**+ supporting information (date, historical
associations, archaeological data etc.)**

6 Managing historic character

6.1 Rural land-use change

6.1.1 There have been many pressures on the rural environment and the countryside over the last 50 years as a result of changes in land use and shifting priorities for agriculture (the principal rural land use). Agricultural intensification and the maximisation of productivity were the priorities up until the mid-1980s, and as a consequence the character of rural landscapes changed dramatically during this period as hedgerows and trees were removed to create more efficient farming systems. Reclamation of the hills and marginal land led to the removal of significant upstanding archaeological sites and palimpsest landscapes.

6.1.2 Currently, due to agricultural over-production and a general greater awareness of and concern for the quality and protection of the rural environment, the implementation of the Common Agricultural Policy provides a number of incentives to farmers and landowners to manage their land in an environmentally sensitive manner. The all-Wales Tir Gofal scheme includes provision for the conservation of certain habitats and the protection and enhancement of stone walls and boundaries, as well as sites and features of archaeological and historic landscape interest.

6.1.3 However, of the estimated 27,000 farms in Wales, only c. 600 farms per year are currently entering into such agreements, which leaves the vast majority outside any formal management scheme, and so many important archaeological sites and landscape features continue to be lost. The challenge therefore is to identify historic landscape priorities for conservation, protection, enhancement or even restoration both within the scheme and without it.

6.1.4 Three of the principal advantages of an approach using character areas are that (a) it is able to identify and map both local distinctiveness and national importance; (b) by identifying physical features which can be managed it can feed directly into land management and development planning strategies; and (c) it sets the management of individual features within their local landscape context, allowing emphasis to be placed on those features which best define local landscape character. It can assist in management plans by setting priorities for management and enhancement, highlighting intrinsic values, and encouraging links to multi-purpose management.

6.1.5 Characterisation is about management: if we are going to manage effectively, we must know what is there, what is important and what we want to do with it. Character areas can tell us what is distinctive (i.e. important both locally and nationally) about a particular area, and therefore what needs to be managed in order to retain that area's distinctiveness (character).

6.2 General considerations

6.2.1 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.

6.2.2 One of the basic tenets underpinning management is that we should be aiming to continue (rather than halt) the evolution of the landscape: to do this we must first identify what is important and significant in historic landscape terms. It is the overall historic character of the present landscape (as evidenced in important and significant groupings and patterns) which we should aim to retain, but in order to do this we must concentrate management actions at the level of individual components. We must identify, conserve and enhance the local and regional historic diversity of our landscapes.

6.2.3 Agri-environment and other rural initiatives offer the opportunity to integrate the needs of the historic environment with modern land-use requirements to produce a workable, effective management system. More importantly, they should result in 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.

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

6.2.5 By working at the most basic level, management can be used to retain the general historic character of the area -

| | | | | |
|---|---|-----------------------|---|--|
| Management of components - | - | Retain character | - | Conserve diversity and character areas |
| (field walls, buildings, archaeological sites etc.) | | (patterns and themes) | | (local landscapes) |

6.2.6 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.

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

6.3 Mechanisms - general

6.3.1 It is envisaged that characterisation has many potential applications to management including -

- assisting in developing landscape conservation and enhancement projects, by identifying elements and patterns of the historic environment which are considered either typical of a local area (provide local distinctiveness) or are of particular importance (rare at a national level);
- targeting resources within grant aid by government and other organisations towards conserving elements and patterns of the historic environment in the same way;
- developing policies for unitary development plans (UDPs);
- assisting in determining planning applications, especially large-scale developments such as roads, wind-farms, mineral extraction, large-scale landfill, waste disposal, reclamation, water schemes, major settlement and major industrial development;
- aiding the management of land by farmers, and large corporate landowners such as industrial companies, water or electricity companies, the forestry industry and the National Trust;
- providing baseline information for local areas against which future change can be monitored, for example as part of the Tir Gofal scheme;
- providing general information not already on the SMR which can be used to inform advice given as part of a number of rural initiatives such as Tir Gofal, Woodland Grant Schemes etc.;
- providing advice in a rural framework to conservation agencies including Cadw, the Countryside Council for Wales, the Environment Agency, local authorities, national parks and others;

- providing information to a number of wider initiatives, including contributing to our academic understanding of landscape, stimulating further research, raising public perception of the landscape, and the preparation of policy statements by public bodies.

6.4 Mechanisms - specific

6.4.1 Tir Gofal is open to applications from farmers throughout Wales. Within the scheme, payments will be made to farmers for observing 'codes of good environmental practice', one of which is care and enhancement of the historic environment. As the scheme is a 'whole farm' scheme, it allows archaeological management strategies sensitive to the character of the landscape as a whole to be integrated with farming practices. Characterisation is useful for monitoring purposes, as it sets out the wider historic environment framework within which individual farm plans will sit. It can also help prioritise management within a broader landscape context.

6.4.2 Unitary Development Plans address 'land use' issues; the UDPs for Snowdonia National Park and Gwynedd are currently being compiled, both of which take into account previous LANDMAP initiatives which have recently been completed.

6.4.3 Countryside strategies are the responsibility of local authorities (together with others), which have a general duty under section 1 of the Countryside Act, 1981, to have regard to the desirability of conserving the natural beauty and amenity of the countryside in the exercise of their functions relating to land. Countryside strategies principally address management of the countryside in areas outside settlement limits, but they are also a mechanism, at least in part, for implementing development plan policies. In Wales, such strategies are supported by CCW.

Local authorities have a number of powers which have implications for the management of the historic environment including the power to establish Country Parks (section 7 of the Countryside Act 1968); the ability to declare Local Nature Reserves (section 21 of the National Parks and Access to the Countryside Act 1949); the ability to enter into access agreements with landowners (section 64 of the National Parks and Access to the Countryside Act 1949); the ability to buy derelict land (often of industrial archaeological interest) for reclamation purposes (section 21 of the National Parks and Access to the Countryside Act 1949); the duty to make Tree Preservation Orders where appropriate (section 198 of the Town and Country Planning Act 1990); and the duty to apply The Hedgerow Regulations 1997 which controls the removal of certain important hedgerows (from section 97 of the Environment Act 1995). Other powers are treated separately below.

Many local authorities have a countryside warden service which would benefit from characterisation information.

6.4.4 Local Agenda 21 programme At Rio de Janeiro, governments committed themselves to setting up national targets for safeguarding and improving the environment. Local Agenda 21 and Local Biodiversity Action Plans provide the means of meeting these targets, and of promoting the principles of sustainable development, at a local level. Both initiatives are about embracing a conscientious vision of the long-term future by identifying what matters locally and paying serious attention to the global costs of maintaining local lifestyles.

This has implications for archaeology and the historic environment. At a local level, sense of place is a fundamental aspect of quality of life. The present day landscape underpins our sense of the place in which we live. Much of its character and distinctiveness is derived from the historic environment (archaeology and the built heritage in all its forms). The historic environment is of course both fragile and non-renewable. We have a responsibility to maintain it so that future generations can also appreciate and benefit from it in the same way that we do. However, the landscape is not static. Just as today's landscape is a product of the changing relationships between people and their environment through time, so it must be allowed to continue to change.

The point of sustainability is that it promotes change which meets the needs of the future whilst retaining the integrity of the historic environment. In order to do so decisions have to be made about

the relative importance of different elements. Traditionally, evaluation has been based on individual sites, with particular examples being selected out for special protection (known as scheduling). However, it is the sum total of historical and archaeological features, not individual sites, which gives landscape much its grain and it is often the more ordinary features that create 'local distinctiveness'. In order to ensure that decisions about the future of the historic environment are made on a secure basis, sound information needs to be gathered. Historic landscape characterisation work of the kind being carried out by the Trusts provides historic environment audits, from which decisions of this kind can be made.

6.4.5 Access is a key issue in the countryside, if we are to enjoy the landscape and all its inherent interests and in turn engender understanding and respect for the countryside and the way it works. In addition to the rights of way network, the Countryside Rights of Way Act has been passed by Parliament. As many of the best-preserved and most fragile palimpsest archaeological sites and landscapes lie within areas to which there will shortly be greater public access, this has potential implications for archaeological management.

Historic landscape characterisation can identify these areas (i.e. where there are well-preserved yet fragile archaeological remains) and thus highlight the potential management problems if the areas are 'opened up' to public access. It may even be that such areas could be excluded from unfettered access under new legislation, either permanently or on a temporary basis.

Characterisation also has the potential to inform leaflets, trails and other interpretative material.

6.4.6 Tourism The Wales Tourist Board (WTB) has the strategic responsibility for encouraging people to visit Wales and for the provision of tourist facilities. In recent years tourism has become one of the most important growth sectors of the economy. Unitary authorities all have a tourism strategy of some description, and historic characterisation has a part to play in sustainable 'green tourism' in that it can help identify local distinctiveness which can be used both to attract visitors (by way of advertising), create atmosphere and to inform quality initiatives such as local walks, guides and other recreational activities. It can also direct visitors to areas with a robust historic environment, and away from those which are particularly fragile.

6.4.7 Management agreements In addition, local authorities have the ability (under section 39 of the Wildlife & Countryside Act, 1981) to enter into management agreements with landowners. This is an area which could be explored further from the historic environment perspective, as such agreements could cover not only individual monuments but also historic landscape characteristics (such as boundary types).

6.4.8 Other local authority programmes Local authorities have programmes for economic development, highways maintenance, environmental education and coastal protection. These would all benefit from the information which is being compiled through the characterisation projects, and, in the other direction, the safeguarding of the historic environment would benefit from those drawing up these programmes having direct access to historic landscape characterisation data. In fact, information at this broad level would probably be more useful than detailed, site-specific SMR data.

6.4.9 Environment Agency is responsible for producing Local Environment Action Plans (LEAPs) and Catchment Management Plans (CMPs). The historic environment does not have a high profile in either of these, and both could therefore benefit from information which characterisation can provide.

6.4.10 Other bodies Historic landscape characterisation information can be used to educate and inform a wide range of organisations and individuals including statutory agencies, voluntary bodies (RSPB, Woodland Trust, North Wales Wildlife Trust, British Trust for Conservation Volunteers, National Trust) town councils, community councils, farming unions and others. It is our experience that often it is easier to explain the importance of, and inherent interest of, the historic environment by using historic characterisation, than by the more traditional means of individual archaeological sites and excavations.

Local distinctiveness and a sense of place, which are of undoubted interest to people, can all be conveyed by such means, and the potential importance of this aspect of characterisation cannot be emphasised too strongly.

7 Glossary of keywords and expressions

7.1 Definitions

Character

the overall impression created by an area of landscape which is susceptible to being described

Characterisation

the process of identifying and defining the particular characteristics which makes different areas of landscape distinctive

Character area

is where component elements form dominant patterns to allow the definition of an area which can be clearly described: historic character areas are either

a) areas which embody the distinctive characteristics of a type, period or theme, or represent a significant and distinguishable entity whose components may lack individual distinction: or

b) areas which show organisation of space either during one particular period or through time. This may be visible in the arrangement of fields or siting of settlements; or a pattern of land-use which represents traditional practices unique to a community; or in the sheer density of remains relating to either a single theme/period or succession of periods/themes; or the grouping together of buildings etc which are distinctive in style, design or method of construction; or a transportation system reflecting an important innovation in engineering.

Coherent character

where the components and patterns across an area of landscape are consistent, coherent character can be defined which can lead to character areas

Component

the most basic building blocks of the historic landscape, including walls, farms, cottages, archaeological monuments etc., which, when combined, form dominant patterns

Dominant patterns

patterns formed by components such as field walls which are visually dominant in an area: the spread of a single dominant pattern, or the coincidence of two or more, leads to coherent character

Element

another word for component (preferred)

Evaluation

The process of attaching value (non-monetary) to a particular area of landscape, usually by reference to an agreed set of criteria in the context of the assessment

Feature

another word for component (preferred)

Historic landscape

the physical remains in the current landscape of the evidence for past human exploitation of the environment over time

Relict

historic landscape components which are no longer in use are described as relict for management purposes

7.2 Process of characterisation

This can be briefly summarised as -

(several) components - dominant patterns

(one or more) dominant patterns - coherent character

coherent character (with definable limits) - character area

(several) character areas - local landscape

7.3 Levels at work

| <i>level</i> | <i>action</i> |
|----------------------------|---|
| landscape | strategic policies, overviews (national) |
| character areas | management policies - LANDMAP, UDPs, countryside strategies (regional) |
| <i>(coherent character</i> | <i>stage of characterisation (general management guidelines))</i> |
| patterns/groupings | characterisation is undertaken at this level (local) |
| components | define what's important/typical & manage landscape components (site specific) |

7.4 Useful descriptive terms

presence

conspicuous, evident, missing

scale

open, exposed, enclosed, secluded, confined, intimate, small scale, medium scale, large scale

diversity

uniform, simple, diverse, complex

unity

unified, ordered, interrupted, fragmented, chaotic, rambling, structured, organic

balance

harmonious, balanced, discordant, chaotic

enclosure

confined, enclosed, open, exposed

texture

smooth, textured, rough, very rough

colour

monochrome, muted, colourful, garish

movement

remote, vacant, peaceful, active

form

straight, angular, curved, sinuous

stimulus

boring, bland, interesting, invigorating

other

palimpsest, aesthetic value, visual amenity, educational potential, sense of place, distinctive character, common character, historically complex, domesticated character, essentially wild

Part B

Information specific to Amlwch and Mynydd Parys

8 Historical processes and background

8.1 Introduction

The Amlwch and Mynydd Parys historic landscape forms a compact area extending from the sea-coast of north-eastern Anglesey and the narrow harbour of Porth Amlwch to the hill, by courtesy a mountain, Mynydd Parys, which rises to 147m just over 3km to the south. The significance of this landscape derives from the fact that there is a long, probably intermittent, history of mining for copper on Mynydd Parys stretching back to the Bronze Age, that in the eighteenth and nineteenth century this was exported through Porth Amlwch, and that in this period a remarkable industrial town grew up at Amlwch to accommodate the mine workers and their families.

The discovery of low-grade copper ore near the surface of the mountain in the mid-eighteenth century led to one of the most extraordinary bursts of industrial activity ever seen in the British Isles – in some respects, in its scale and its suddenness, it has more in common with the ‘robber economies’ of mining in parts of the Americas or of Australasia.

Although accounts from the first major phase of modern mining (1768 onwards) speak of shafts being sunk to win the ore, Parys is unusual in that from the late eighteenth century it was effectively worked as an open quarry. It is not always clear to what extent the practice of open-casting derives from a policy of deliberately collapsing large tunnel workings and multiple shafts driven into a near-horizontal ore body, but the earliest paintings of the site, dated to 1790, already show open pits which became in time the Great Opencast and Hillside Opencast, which now dominate the landscape. The scale of work here appealed to artists influenced by the fashionable notions of the ‘sublime’ and paintings constitute an important form of evidence for this site (Lord 1998). Traces of earlier arrangements perhaps survive here and there, as in an open cavern known as gwaith Robin Ellis (= ‘Robin Ellis’ work’) at SH 4432 9037.

By the turn of the eighteenth and nineteenth century, the alignment of the ore vein required a different approach to mining. The dispersed ore that could be quarried in the pits had largely been worked out; the vein became more concentrated as it went deeper and also turned to the north. It therefore proved necessary to sink further shafts, deeper this time than the ones which had been opened out to form the pits, and for the most part situated immediately to the north of the earlier workings. Some of these were worked by horse-whims, but some required steam engines to wind them. This technology seems to have been introduced by the Cornish mine captains who arrived at this time. Pumping also became a greater challenge and led to the construction of a beam-engine house in the eastern part of the mine (the ‘Pearl engine’) and a windmill near the summit, both of which are prominent features in the surviving landscape. An unusual method of extracting the ores, practiced certainly from the late eighteenth century, was by precipitation, in which copper-rich water was allowed to settle in extensive ponds in which the ore was precipitated by the action of items of scrap iron left in them.

These various features transformed the mountain itself into a distinct industrial landscape, and also required the development of harbour facilities nearby, at Porth Amlwch. In turn, the small medieval settlement at Amlwch itself became for a generation a boom town. The landscape history of the last two hundred years is essentially the story of managing the decline of this staple industry and of the settlements and infrastructure which it called into being. However, the development of the Octel works from 1950-51 meant that it became once again an industrial community, and it is true to say that the town preserves something of the sense of a frontier settlement. The mountain forms a distinct presence, dominating the area, with its modern steel headgear over the Morris shaft serving as a reminder that its industrial history may not be over. Similarly, plans for the former Octel site may restore it to industrial use. The communities of Amlwch and Porth Amlwch have in recent years been the focus of regeneration initiatives, many of which are managed by Menter Môn, an agency of Isle of Anglesey County Council.

8.2 Land ownership

Within recent centuries the principal landowners of the farm-land of the parish were the Plas Newydd family, owners outright of the large farms of Parys and Trysglwyn Isaf, as well as the smaller tenements of Morfa Du, Tan yr Allt, Foel, Pen y Nant, Pen Mynydd, Bryn Gwyddef, Bryn y Gwynt, and Pen y Bryn, and the Llysdulas (Dinorben) family who owned in moiety with Plas Newydd, Cefn y Gors, Tyddyn Dai, Tros Lon, Pentre Gwian, Cerrig y Bleddiau and Tal y Dyffryn. Within the present built-up areas of the town, the Plas Newydd family were again the principal landowners. However, other parcels of land were owned by the Llysdulas (Dinorben) estate, including the site of the Dinorben Arms in the centre of the town; by the Tresgawen estate, including the site of the smelting works (now the Craig y Don housing estate), the strip of housing along the east side of Salem Street, and the eastern part of Porth Amlwch; by Coed Helen of Caernarfon and by the see of Bangor, owners of the land immediately to the west of Amlwch harbour (Rowlands, opp. 16, Pritchard 12, NLW Amlwch tithe map and apportionment, BU slate catalogues). It does not seem that the principal landowners commissioned large-scale authoritative maps of their holdings in the nineteenth century (or if they did, they are not in public depositories). Some of the boundaries between the mid-nineteenth century estates remain evident, but there is no clear evidence of controlled leasing in such a way that an estate style is evident.

Historically the mountain was divided between Plas Newydd as the sole owner of the eastern half of the mountain and Plas Newydd and the Llysdulas estates as joint owners of the western half. Anglesey Mining now own one half and the Plas Newydd estate the other.

The town of Amlwch and the settlement of Porth Amlwch are mainly held in freehold. The west side of the port is owned by the Isle of Anglesey Charitable Trust, the east side by the Country Council.

The historic landscape area lies mainly within the present community of Amlwch, though it extends into Llanellian community.

8.3 Agriculture

It is likely that part at least of the area would have been heavily wooded in the early part of the Medieval period, as the name Llannerch y medd (to the south-west of the historic landscape area) suggests (Llannerch = glade or clearing). Whilst it is likely that forest clearance would have been under way even in Neolithic times, the presence of this place-name element suggests that substantial clearance had not taken place locally until the Medieval period (Carr 1982 21). By this stage, documentary evidence confirms intensive exploitation of the agricultural resources of the historic landscape area. The granting of lands within the study area to (or appropriation by) powerful lay and spiritual lords in the medieval period suggests that they were recognised as particularly fruitful even by the standards of Anglesey, traditionally the granary of Wales. Some of the persons who held land in the medieval period laid the foundations of the estates which dominated the area into the Industrial and Modern period. The establishment of the manor Plas yn Amlwch and its associated lands by the see of Bangor indicate that the land was highly prized, and it remained Episcopal property until the 19th century. The descendants of Iorwerth Fychan (floruit 1302-3), rhaglaw (bailiff) of Twrcelyn in time held both the Llwydiarth and Llysdulas estates (Carr 1982 216-7). Llysdulas established the farm Madyn Dysw, in existence by 1549, as one of the dispersed holdings of what was originally a free township whose original nucleus was at Llanwenllwyfo to the east (SH 485 901 – Carr 1982 30). Robert de Parys was granted the farm which now bears his name in 1406; this included part of the mountain (Rowlands 1981).

It is clear from documentary evidence that Amlwch was situated on some of the best soils in Anglesey; the parish church was rated the third most valuable in the island in 1254 (after Llanfaes and Penmon) on tithes, oblations and income from glebe. Though clearly the Black Death affected the area adversely, the same pattern is evident three centuries later. In 1535 the rectory of Amlwch was the second most valuable on Anglesey, being valued at £33 6s 8d and had been annexed to one of the dignities of Bangor cathedral, namely the archdeaconry of Anglesey (Carr 1982 268, 276-7, 305). It is likely that as well as corn-growing, dairying formed a significant part of the economy of the study area; lactuals (tithes of butter, milk and cheese) at Amlwch in 1535 were £5 compared to £1 6s 8d at Llangristiolus

and Cerrigceinwen (Carr 1982 104). It is likely that this is reflected in the farm-name Llaethdy, 'dairy'.

The explosive growth of mining in the eighteenth century did not mean that the entire area ceased also to be agriculturally productive, since farmers benefited from the presence of a large landless industrial proletariat swarming into the area, as well as, in the case of Madyn Dysw, from the rich profits to be made from hiring out horses to cart ore to the port. However, this period did result in fundamental changes to the agricultural landscape. Apart from the fact that much of it disappeared under mining and processing sites – for instance the establishment of substantial precipitation pits on Llaethdy land – it was also a period of conscious agricultural improvement, with the opportunity to reinvest surplus in rebuilding farmhouses, improving boundaries, field-drains and road access. However, other than the Corris maps of Parys farm (1791, 1792), few detailed maps have emerged to enable a detailed picture of changes in farming practice in this period. The farmhouses themselves – Llaethdy Mawr, Parys, Parys Bach, Bod Ednyfed – are largely late eighteenth century or nineteenth century in design and construction, substantial estate-sponsored dwellings, with associated agricultural buildings of similar date. Part of Madyn Dysw dates from the seventeenth century, part is a Regency farmhouse. They confirm the active involvement of the estates in their agricultural properties and the continued prosperity of the farming sector.

8.4 Settlement

8.4.1 Medieval background

There is evidence of settlement in the area of Amlwch from the Medieval period. The Medieval core of the settlement is represented by the site of the medieval church (where the present church now stands) and by the site of Plas yn Amlwch, on the north edge of the present town.

8.4.2 Nucleated settlements

There are effectively two nucleated settlements within the study area, though since 1951 they have more or less merged into one continuous semi-urban area. These are Amlwch itself and Porth Amlwch.

The growth in mining from the 1760s onwards transformed the existing Medieval settlement at Amlwch (8.4.1) into a significant industrial community – one of the classic Welsh industrial settlements, along with Blaenavon, Merthyr Tydfil, Swansea, Bethesda and Blaenau Ffestiniog. The origins of the industrial settlement lay around the church and along the Queen Street/Salem Street axis, and on the whole Amlwch seems to have expanded in a very piecemeal and unplanned fashion along existing roads and lanes connecting Amlwch with Llanelian to the east and with Cemaes to the west. The end result is that buildings that are early or mid-nineteenth century in date are to be seen alongside substantial late-nineteenth century houses and other buildings which were built on previously unallotted land, and 'infill' housing estates, many of which it may be surmised were constructed when the Ocel works opened in 1951. The building of the school near the south-western extremity of the built up area provided a strong visual focus, as it overlooks the town, but the sense of the historic centre was greatly dissipated by the construction of a bypass road immediately to the west of Salem Street/Queen Street.

The oldest houses which survive at Amlwch now are nineteenth century in date, even along Queen Street/Salem Street, though the laying out of this road is thought to be the work of the eighteenth century entrepreneur Methusalem Jones. References in the parish records for 1780 confirm that the new houses were typically thatched, only a few were slated, and that they measured no more than 12' by 15' (Rowlands 131-4). No pictorial, cartographic or archaeological evidence has so far emerged for any of them, and lack of understanding of the early development of Amlwch is hampered by the fact that there are few reliable maps of the area before the 25" ordnance. The tithe map does not show any significant development outside the Medieval nucleus, but it is possible that this document, effectively a record of who was obliged to pay a particular kind of tax (great tithes of corn and hay, small tithes of livestock) does not depict the houses of the very poor built without legal sanction. As noted below, the tithe map shows little development at Porth Amlwch but the Francis map of 1828 shows that it was already becoming built up.

Some of the nineteenth century houses are understood to contain slag blocks in the fabric,

after the manner of a number of early industrial houses in Swansea, though the extensive use of rendered surfaces and pebbledash has obscured much of the evidence for construction and age. Size and proportions are better guides than external finish; Barclay's Bank on Queen Street (SH 4426 9276) preserves the contours of an early nineteenth century dwelling but has seen much adaptation.

Despite the decline of Amlwch in the 19th century, there are many attractive buildings from the Victorian period and the early twentieth century, including the HSBC bank and the Post-Office. Later nineteenth century buildings are distinguishable from buildings constructed during Amlwch's heyday (1760-1830) by their proportions, which conform more to standard industrial housing found elsewhere in the United Kingdom, and by the use of imported material such as brick.

Porth Amlwch, like Amlwch itself, is a largely unplanned community. The earliest houses are the two-storey eighteenth century terraced dwellings along Pen Cei, and there is evidence that it was being built up by 1828, when it is depicted on the Francis map of the harbour - the later tithe map shows practically no development here. Whereas Amlwch grew up around pre-existing roads of some description, Porth Amlwch grew up in part around the industrial roads of the late eighteenth century that led from the mines to the smelters where the Craig y Don housing estate now stands. The street-name Stryd y Glorian/Machine Street commemorates the weighing machine for the carts that was formerly situated around SH 4472 9312. Another focus was the (presumably pre-Industrial) road that leads east to Llaneilian. However, a third focus was the settlement that grew up to the east of the harbour around what appear to be winding footpaths. Dwellings here are of every date from the early nineteenth century to the late twentieth, and the area seems to have grown up in the interstices of fields, gardens, paths, lane-ways, a brick-field and water-courses.

The Craig y Don housing estate is a good example of a social housing initiative built around a geometric street pattern. This was erected in response to the need for workers' housing when the Octel plant opened.

8.4.3 Non-nucleated settlements

Though there is little evidence of a dual economy settlement of small-holders and miners comparable to the slate quarry settlements of Arfon, there are a number of isolated landless dwellings which at one time will have accommodated miners and their families. Some ruined dwellings have been identified on the mountain itself. At Mynydd Llwyd a row of untypical cottages survives, a ribbon development on the side of the Llanerchymedd road, though vernacular character beyond the basic outline has been effaced here by recent alterations (SH 4412 9170). The farms are, as noted in 8.3, mainly large Victorian buildings, though smaller nineteenth century farm buildings survive eg Pentre Gwian at SH 4429 9117, a double-fronted two storey building with brickwork chimneys.

8.4.4 Building types and material

Though the majority of buildings surviving within the historic landscape from before the 1860s are strongly vernacular in character, making use of locally-obtained stone, there is considerable early use of brick, as well as more extensive use of non-local brick and other materials including dressed stone from after this period, suggesting that the opening of the railway significantly altered local building custom. There is some use of copper-ore slag as a building material, though this is not extensive. The use of slate is practically universal as a roofing material, though the tiled roof of the Craig y Don housing estate makes a bold statement amidst the Merioneth grey slates and Arfon blue.

A brick-field operated at Porth Amlwch in the early nineteenth century, and possibly earlier, as the late-eighteenth century Mona Lodge (SH 4389 92823 [stables at SH 4391 9286]) is brick-built and it is unlikely at that stage that bricks would have been brought in by sea. Melin Mona of 1816 is also brick-built. A distinctive green-coloured Precambrian stone is also used in many of the earlier buildings; it is possible that this was obtained from opening-out work in the mines, though the principal outcrops lie along the coast. Buildings within the mines are for the most part stone-built and extremely dilapidated. One exception is the conserved Pearl engine-house of 1817, constructed of locally-obtained stone and with wooden lintels.

The smaller vernacular houses often use small pitched dormer windows to light the first floor, thereby obviating the need for a full two storeyed dwelling. An example can be seen in Amlwch at 'Riverside' (SH 4433 9292), where two attached dwellings, of one and a half storeys, have the upper floor lit by four dormer pitched roof windows. Attached to the dwellings in a continuous row are two agricultural buildings, one of them a former slaughter-house – incidentally also illustrating how industrialisation was closely tied in with vernacular traditions of agricultural life. As the nineteenth century progressed, this style mutates into more conventional two-storey double- or single-fronted terraced housing throughout the study area. Terraces are short and follow the course of pre-urban lanes.

Dwellings that are more polite in conception are to be found scattered within Amlwch and Porth Amlwch – again, suggestive of an unplanned development and later infill. Graig y Mor (SH 4440 9308), a rectangular-plan house of early nineteenth-century, is stone-built with distinctive limestone quoins and window reveals, and a hipped slate roof with an ornamental chimney stack. The Dinorben Hotel (SH 4418 9290), a building of early 19th century construction, built under the patronage of the Kimmel estate, is a double pile building of two-storey with attics and porch in Georgian style, and was in existence by 1817, at the time of the Amlwch riots. Solid late nineteenth century houses like Ael y Bryn (SH 4523 9316) sit a little incongruously amidst much smaller vernacular dwellings. At SH 4518 9308, opposite Capel Peniel is an attractive but intrusive style of house with a stucco front and ornamented pattern of window detailing.

8.5 Relict archaeology

There is evidence for Prehistoric activity on Mynydd Parys itself, but not elsewhere within the historic landscape area. In 1796 Christopher Sykes referred to cobblestones and fire-set drift workings on the mines, which had been recently quarried away by opencast workings. He considered these to be pre-Roman.

Oliver Davies investigated the mines in 1937 when he concentrated on an area near to Oxen Quarry on the northern side of the mountain near the windmill. Several trenches were dug and 24 hammer stones were discovered, together with charcoal and other artefacts, which he considered to be 'Old Celtic' or Roman period. The Early Mines Research Group reinvestigated the area in 1988 and found further hammer stones. Charcoal recovered from new trenches has been dated to 2000 -1500 BC.

Exploration of the underground workings since 1995 has found a number of sites containing hammer stones where modern workings, being driven upwards on lodes, have cut the base of earlier workings driven down, presumably from the surface. Sites discovered so far are choked with spoil and sediment containing hammer stones. Charcoal samples have been recovered and dated to 1650 –1290 BC. It is apparent from the distribution of hammer stones on the surface and underground, together with the account by Sykes, that prehistoric mining was distributed across several lodes.

8.6 Parks and gardens

There are no significant parks and gardens within the historic landscape area.

8.7 Industrial

This historic landscape area constitutes one of the industrial landscapes par excellence of Wales.

As noted above (8.5), archaeological evidence confirms mining in the Bronze Age. No direct evidence of Roman mining is known, although finds of copper ingots of Roman date, including two on or near Mynydd Parys, suggest that there may have been mining and smelting during the Roman period, though the precise locations are unknown.

Documentary evidence for mining in the Medieval period is sparse. However, the grant in 1406 to Robert Parys of the farm which bears his name – which included the mountain as well as lower-lying lands to the north – suggests that its mineral wealth was acknowledged even then. A Tudor map shows

mines 'one mile distant' from Porth Amlwch, and Sir John Wynn suggests obliquely that work was going on in the 1570s (NLW Calendar of Wynn Papers).

The eastern end of the mountain, later known as the Mona Mine, was worked from 1761, but the first significant discovery of ore was not made until 2 March 1768 in a shaft at Golden Venture. By 1770 mining had also begun at the opposite end of the mountain (Parys Mine). Between 1773 and 1785 output exceeded 3000 tons per year, providing a serious threat to Cornish copper mining and the trade in smelted copper controlled by the Swansea smelters. Not only did this transform the economy and society of north-eastern Anglesey, but it exerted a profound effect on the copper trade internationally, ensuring that for two generations the mines dictated the terms of trade and forcing the established Cornish mines to work ever deeper (indirectly paving the way for Trevithick's development of high-pressure steam pumping).



The Great Opencast in 1790 (John Warwick Smith)

Three principal methods of extraction were employed – shaft mining, opencast pits and precipitation in ponds. The first two techniques were confined to two distinct areas. Along the south eastern edge of the mountain the Great Opencast and Hillside Opencast now dominate the landscape, whereas along the north western side are mainly shafts. Precipitation ponds are visible both on the mountain itself and – on a bigger scale – around its periphery.

An account of the first stage of mining written in the early nineteenth century, is included in the report by Gwynedd Archaeological Trust (GAT 1998). This suggests that the mining method employed was to sink pits or shafts 30 yards deep before reaching ore on the Mona mine. It is suggested that on the Parys Mine the ore was nearer the surface and so whilst they used the same technique they also stripped off the surface and by this method had created a vast chasm. An examination of available map evidence and illustrations, together with field evidence suggests a scenario where the areas now represented by the Hillside Opencast and Great Opencast, were first worked by multiple shafts onto a fairly horizontal ore body. Ore was mined by driving galleries from the shafts therefore using a form of pillar and stall mining. The next stage involved removing the pillars, which caused the collapse of the ground, thus forming the opencasts. It is probably that overburden from both sites was stripped and

removed before this stage. Several cave-like openings surviving in the opencast workings appear to be fragments of this stage of working. No evidence of pre-gunpowder working was found in these areas.

To the north of the Hillside Opencast towards the windmill are a group of deep fissures running at an angle to the opencast. These are up to 20m deep and average 1m wide. Geologists examining the site have suggested that these are natural fissures formed by the collapse of the sides of the Hillside Opencast, but the GAT report suggests that these may be mine workings from the mid eighteenth century. On close examination it is apparent that there are no tooling marks on the sides of the fissures, or socket holes for timber, and no evidence of explosive use in the form of drill holes or shattered surfaces. The complete lack of mineral on the wall further supports the conclusion that these are indeed natural features and not a result of mining.

Underground mining may have been pursued more vigorously with the arrival of Cornish management on the mountain, when Lord Uxbridge (as he then was – the future Marquis of Anglesey) leased out the Mona mine to the Cornish Vivian family in 1811, and James Treweek was appointed as Mine Captain. The organisation of the underground workings suggests Cornish influence.

Shafts have been sunk through the lodes and the ground has been blocked out from levels driven along the lodes at regular intervals down to a depth of 150 fathoms (approximately 300m). The ground between these levels has been explored by rises up the lodes, which where favourable have been opened out to form work chambers and stopes (fig.4). In several places these rises have been equipped with ladders or have had steps cut into the floor to act as footways, routes for miners to get from one level to another. It appears that both the Parys and Mona Mines had footways extending from the surface, which suggest that they were intended as routes for the miners to take to and from their working places. Many original ladders still survive.

Drainage has been achieved by several adit levels driven from the flanks of the mountain. Initially these served each mine independently, but as the mines deepened a joint level draining both the Parys and Mona mines was developed, the Dyffryn Adda adit (also known as the 45 fathom level). All workings below this level required pumping and are now flooded. Until 2003 the adit had been dammed for around 60 years which had raised the water level in the mine up to the 25 fathom level. Due to safety concerns the dam had now been removed, which has dewatered another 40m of mine greatly increasing the amount of accessible workings. Many of the underground areas now revealed contain large amounts of timber, some supporting plies of waste rock, known as deads. As this timber has been waterlogged for 60 years and that water has now been removed there is a great danger that timberwork will fail rendering large parts of the mine inaccessible, which may prevent access to historically significant workings. There is also a danger that unintentional damage may be caused by visitors to the newly accessible areas, which have until recently been a sealed context.

At the present time it is difficult to discuss in any detail how the mine developed and worked underground. The only detailed underground mapping of the mine dates from 1856, and was deposited as an abandonment plan when the mines ceased working, as the most recent survey then available (pers com D.Jenkins). Historic plans are often unreliable sources of information, and as with most maps, they only provide a snap shot of the mine at that time, and it is common to find that plans exclude areas that are no longer being worked or were simply not of interest at that time. This plan is simply a centre line survey of the underground levels, marking the position of shafts. It contains no details of where the ground has been stoped, and it is therefore not possible to discuss how ore was moved from the stopes to the shafts, and therefore where it arrived on the surface. This is all key information that can help in the understanding of activities on the surface.

Some localised survey work has been recently carried out at the prehistoric mining sites; it is likely that detailed survey will add much detail to the understanding of the working of the mines. The large number of hammer stones seen underground indicates that bronze-age mining was considerably more extensive than might be assumed from surface evidence.

As access to the underground workings has been restricted, particularly the areas that were until recently flooded, a remarkable amount of archaeological information survives. Objects such as wooden pump rods, a balance box, air ducts, and wheel barrows have been found.

Most of the shafts on the mountain have been capped and are marked by a concrete post. Unusually the shafts are rarely surrounded by a defined spoil heap. This means that evidence of the method of shaft haulage used, which normally survives on top of a shaft mound, is in most cases absent. It is apparent that there were localised transport systems moving waste and ore using roads, railed tramways and possibly wheel barrows.

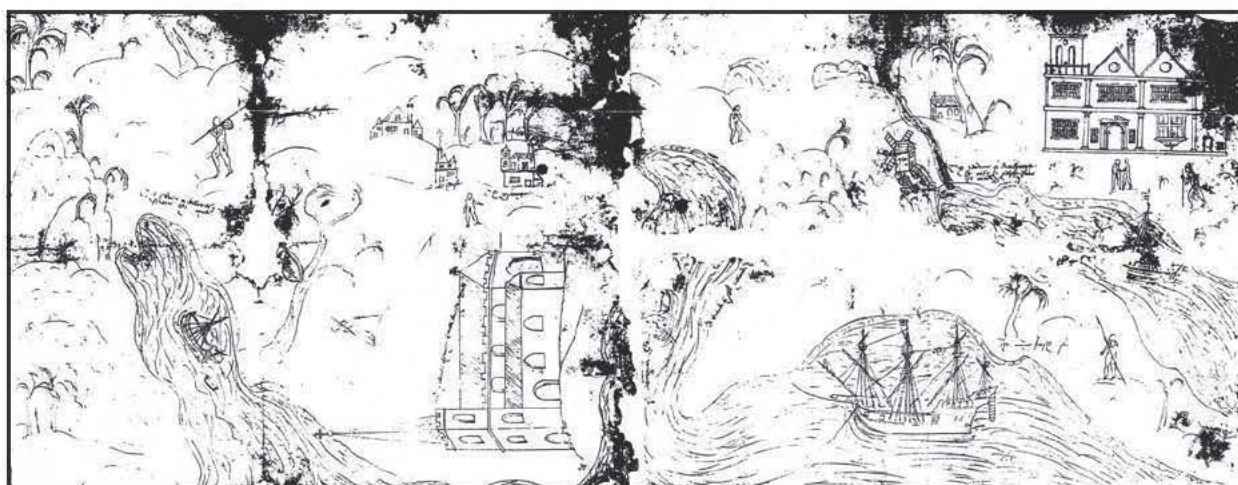
In addition to the mines themselves, there is landscape evidence of the ancillary industries which were carried out within the register area. The site of the main smelters has been covered by a housing estate, but there are traces of smelters and slag-runs to the north, on the west side of the harbour. The Octel works, established to extract bromide from sea-water, was built in 1950-51, and perpetuated the local tradition of chemical working up to its recent closure. Some of its buildings and plant survive, including the distinctive concrete water-tower. The shell of the corn wind-mill, Mona mill/Melin y Borth of 1816, at Porth Amlwch at SH 4485 9346 is an impressive feature.

8.8 Military

There is no attested military site within the historic landscape area.

8.9 Communications

Amlwch and the Parys mines historically looked to the sea. Though the area was served by a road system and from 1866 by a branch line railway, the whole of this historic landscape area effectively formed a compact export sump focussed on the harbour at Porth Amlwch, which was for a while one of the busiest in Wales.



Map of Amlwch in the late 16th century (PRO SP 46/36 MPF 11)

The sixteenth century map printed in Hope (Hope 1994, 16) indicates interest at government level in the resources of Mynydd Parys and a concern for their efficient movement by sea but also confirms that Porth Amlwch was in no way built up or developed as a harbour at that time. The available evidence suggests that there may have been small-scale development in the 1750s followed by a very rapid development from the 1760s onwards, including the construction of substantial smelters for processing the ore on the west side of the harbour, that by the late 1820s the greater part of the present harbour landscape was in existence, but that ship-building and ancillary industries were added later on in the nineteenth century. There is little visible evidence for smelting on the site at the time of writing, in part because a housing estate was constructed in the 1950s on the main bank of smelters, but the harbour area remains comparatively undisturbed. As such the present landscape effectively dates from the period 1750-1900, and there is some evidence for phases of development within that time-span.

Cartographic materials, unfortunately, do not make it possible to build up a more detailed picture of the development of the harbour and industrial facilities. During the early part of the Industrial and Modern



Amlwch Port in 1815 (William Daniel)

period (1750 onwards), the west side of the harbour, the tenement known historically as Cae'r Pandy belonged to the see of Bangor, for which there are very few relevant documents in any of the Welsh archives. The lack of surviving map evidence for the Bishop of Bangor's estate makes it impossible to build up a picture of how the processing areas at the port developed.

During the same period, the eastern side belonged to the Bod Ednyfed estate, of which the papers are to be found in the Llwydiarth Esgob collection at UWB. Pritchard refers to 'many kilns smelting copper ore from Mynydd Parys' from 1762, even before the harbour was cut, in 1767, according to his dating (Pritchard 1866, 15). A lease of 1770 permitted Sir Nicholas Bayly to erect 'a Quay and also bins (ore-bins), Storehouses and Warehouses', and makes it clear that there were existing cottages and ore-bins at the port (UWB Plas Newydd VII 151). The 1780 map in Llwydiarth Esgob (UWB LI.E. 638) shows the site in its infancy, and in any case follows an already obsolete convention of showing buildings in elevation rather than in plan, which makes it difficult to locate them accurately. One, however, approximates to the site of the Newhaven public house. The Francis map of 1828 shows the Bod Ednyfed side of the harbour only, and confirms that the present inner harbour, at least on the eastern bank, has changed remarkably little since then (UWB LI.E. 639, 640, 641). It includes the projecting quay on to which the present lighthouse was later (1853) constructed. Facilities included warehouses and six bins, some of them roofed, some open. It is likely that much of this work will have been undertaken in the immediate aftermath of the passage of the Act of 1793, which permitted the 'enlargement, deepening, cleansing, improvement and regulation of the harbour (Hope 1994 98-9). The Francis map shows the culverted Afon Goch emerging below the site of the bank of smelters and also shows a shipwrights' yard on the west side, Treweek's lard Ochor Draw, in existence since 1825 (Hope 1994 101).

The next available map is the first edition ordnance survey of 1889, which shows the limekiln, lard Newydd and the old shipyard, lard Ochor Draw, more developed than it is shown on the 1828 map, together with other buildings on Turkey Shore which, whilst they are not shown on the 1828 map, may

already have been in existence, since the map's purpose is to show Bod Ednyfed landholdings, and these formed part of the see of Bangor's land. Iard Newydd was under construction from 1870 and had been bought by Captain William Thomas in 1871 or 1872. Hill's chemical works at Llam Carw was established in 1840 and lasted into the early years of the 20th century (Hope 1994 88-91).

As well as the important archaeological landscape of Porth Amlwch, the movement of substantial amounts of copper ore, coal and other products called for the development of industrial transport corridors between the mines, smelters and harbour on a scale which significantly exceeded whatever arrangements had been in force in earlier periods. However, and very unusually in a Welsh context, these consisted of roads, rather than railways and they remained dependent on animal traction throughout their period of operation. The mines themselves made a little use of internal railways, though a short length of railway was used to transport coal from the harbour to the smelter.

The principal source for the development of the network of industrial roads within the study area is a map of 1780 preserved in the Quarter Sessions papers at Llangefni Record Office (WQS/1780/E/12). This confirms the existence of one major industrial road, the present-day Stryd y Glorian and Lôn Goch, presumably a creation of the previous twelve years. This and the other roads within the study area, however have remained in use and have been upgraded for motor vehicles, and as archaeological features cannot compare with the Lôn Gopar, believed to date from 1788, an outstanding example of an industrial road in a national (Welsh) context.

The study area also has an intact railway system, now disused, which never had a direct connection to the mines. The construction of the Anglesea (sic) Central Railway from Gaerwen on the main Chester to Holyhead main line to Amlwch, completed in 1867, connected the area to the national railway network, though the line failed to revive the flagging industrial fortunes of the town. Passenger and public services came to an end in December 1964, and thereafter only Octel traffic used the line until this traffic also ceased in the 1990s, making use for the first $\frac{3}{4}$ miles of the journey of an extension constructed from Amlwch station in 1951 (Bradley 106-7). The rails remain in situ, together with a loop at the site of the former Amlwch station. Amlwch goods shed, a typical late-19th century example of its type, survives in re-use. The railway has been the focus of sporadic but unsuccessful preservation attempts.

8.10 Cultural associations

The mines form a significant cultural/associative landscape of their own. Amongst the names associated with the mines are the impresario Llew Llwyfo, the preacher John Williams 'Brynsiencyn', and Thomas Williams 'Twm Chwarae Teg'. The use of the druid motif on the mines' currency, adopted by the Amlwch Industrial Heritage Trust as their logo, is an instance of the interest shown in the island's ancient past in the wake of the publication of Henry Rowlands' *Antiquitates Parochiales* in 1710.

9 Historic character areas

9.1 The study area has been divided into 8 separate historic character areas as follows:

| | | |
|----|--------------------------------|-------------|
| 01 | Porth Amlwch Conservation Area | PRN 28641) |
| 02 | Porth Amlwch settlement | (PRN 28642) |
| 03 | Amlwch settlement | (PRN 28643) |
| 04 | Amlwch Conservation Area | (PRN 28644) |
| 05 | Rural area | (PRN 28645) |
| 06 | Octel works | (PRN 28646) |
| 07 | Llam Carw | (PRN 28647) |
| 08 | Precipitation ponds | (PRN 28648) |
| 09 | Mines | (PRN 28649) |

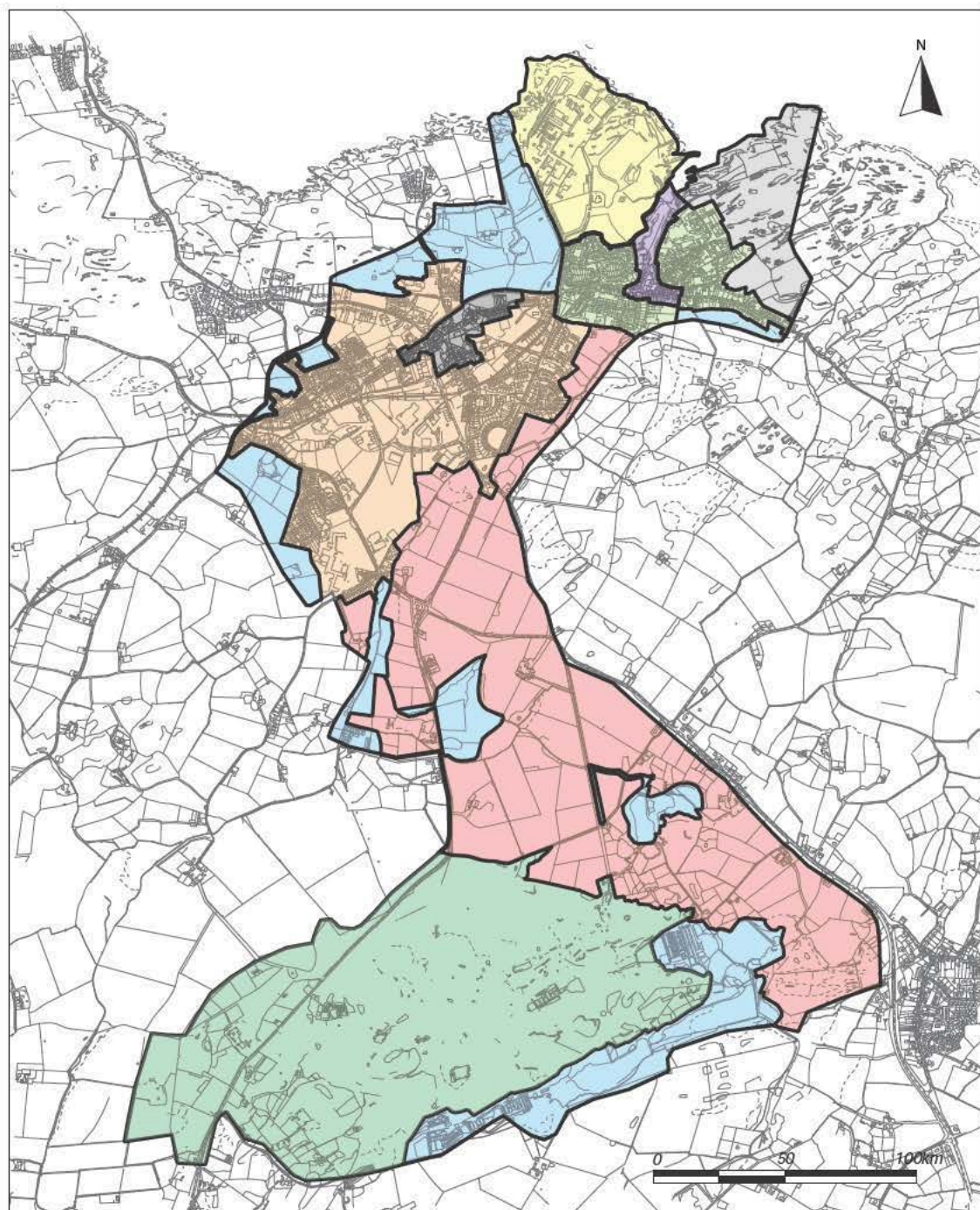
9.2 An overall location map showing the position of these areas in relation to each other is included at the beginning of this section.

9.3 Each area description has been divided into three sections following the model of earlier reports – historic background, key historic landscape characteristics and a management section.

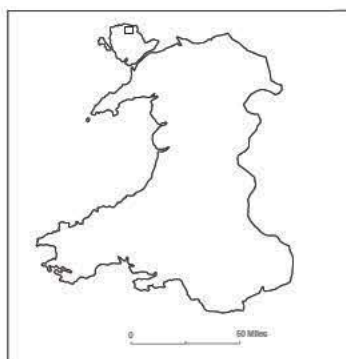
9.4 A map showing the extent and detail of each area is located facing the description. The area is outlined with a solid, black line.

9.5 Colour plates which give an impression of the overall texture and character of each area are also included following the description: some of these are aerial photographs, but sometimes a ground level view has been more appropriate.

Fig 1. Location of numbered character areas



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- | | |
|----|--------------------------------|
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| 09 | Mines |

01 Porth Amlwch harbour (PRN 28641)

Historical background

A harbour which is known to have been acknowledged as an actual or potential shipping point for mineral ores since the sixteenth century but which only developed on any scale from the mid-eighteenth century, with the sudden expansion of mining. As well as providing the means for storing copper ores which were being exported, the harbour area also came to include the site of smelting furnaces, timber saw-mills, ship-building yards, warehouses, a lime-kiln, a light-house and breakwater, a sail loft and brothels. In addition, the smelting furnaces established to the west of the harbour area required coal as a fuel, and a bin in which to store it, and an inclined plane to raise it from the quay level.

The decline in copper export from the early- to mid-nineteenth century onwards did not mean that the harbour ceased to be used as it remained a busy regional entrepot until the early years of the twentieth century. Wooden shipbuilding went on until 1897, and iron- and steel-hulled ships continued to be built for some years after that. The harbour is now used for recreational purposes.



The harbour at Porth Amlwch

Key historic landscape characteristics

Historic mineral harbour.

Porth Amlwch is one of the best-preserved small mineral harbours in Wales. Its cramped location is in many respects more typical of a small west-country harbour than a Welsh harbour, and it is unusual in that it was never rail-served, other than by a very short system to move coal from the coal-bin to the smelter. Some of the quay walls are laid in a distinctive way, with the stones laid in a near-vertical alignment; this is said locally to represent Cornish influence.

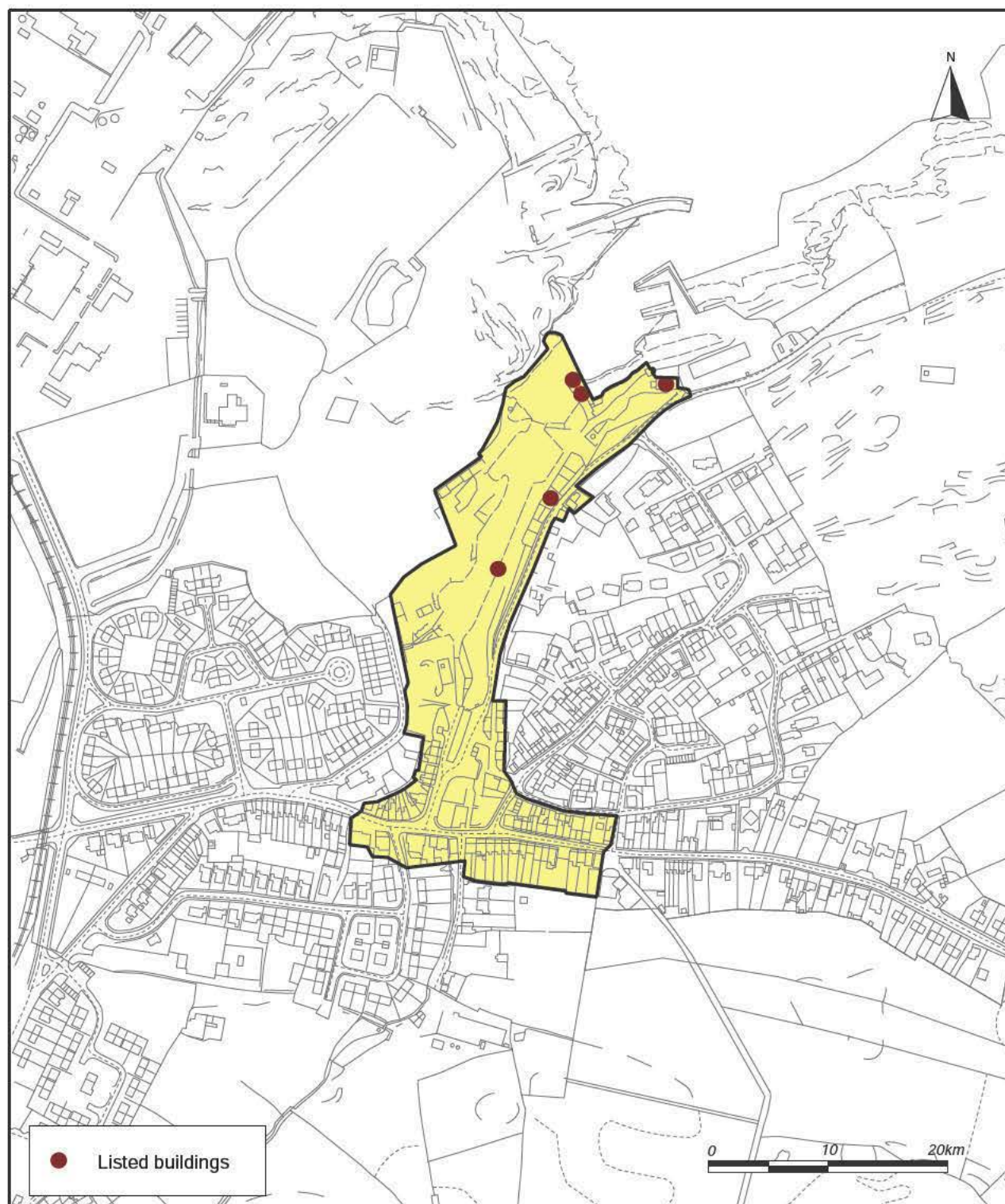
Its archaeology has been comprehensively studied and inventories have been prepared of the surviving historic features. There have been some attempts at conservation of the lighthouse, the lime-kiln and the copper- and coal-bins. In addition, the sail loft, with its characteristic raked floor, has been converted into a café-interpretation centre.

The Conservation Area which is co-terminous with this character area includes the majority of the port, including the sail loft, the mainly eighteenth-century houses of distinctive design along Pen Cei, and the houses on the square defined by Machine Street and Lon Cei. It also includes the relict archaeological landscape on the west of the harbour, the site of the dilapidated buildings of a shipyard, tavern, quay and saw-mill.

Conservation priorities and management

Preservation and conservation of historic features; considered adaptive re-use of some structures (eg copper bins); further archaeological recording, to include archaeo-metallurgical analysis of smelting slags; liaison with Amlwch Industrial Heritage Trust and with Menter Môn; Opportunity for archaeological study and recording of housing stock; encouragement to appropriate and sympathetic conservation of dwellings and infrastructural buildings.

Fig 2. Landscape Character Area 1: Porth Amlwch harbour (PRN 28641)



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02 Porth Amlwch settlement (PRN 28642)

Historical background

This area includes those parts mostly settled in the mid-to-late nineteenth century around Lon Wen, Llyn Brics, Stryd Llywelyn and Gallt Ednyfed to the east of the harbour, a ribbon development along Ffordd Llanelian, and nineteenth century dwellings along Stryd y Glorian. The Francis map of 1828 shows this area being built up. It also encompasses post-War housing developments including the Craig y Don estate, constructed in the 1950s on the site of the smelting works.



The square at Porth Amlwch

Key historic landscape characteristics

Mixed settlement with some historic structures and street-pattern

This is the area of the Porth Amlwch settlement that lies outside the Conservation Area. It contains number of structures from the early nineteenth century but the impact is dissipated by the extensive use of pebbledash and plastic windows and doors, as well as by the construction of late twentieth century structures along the street scape.

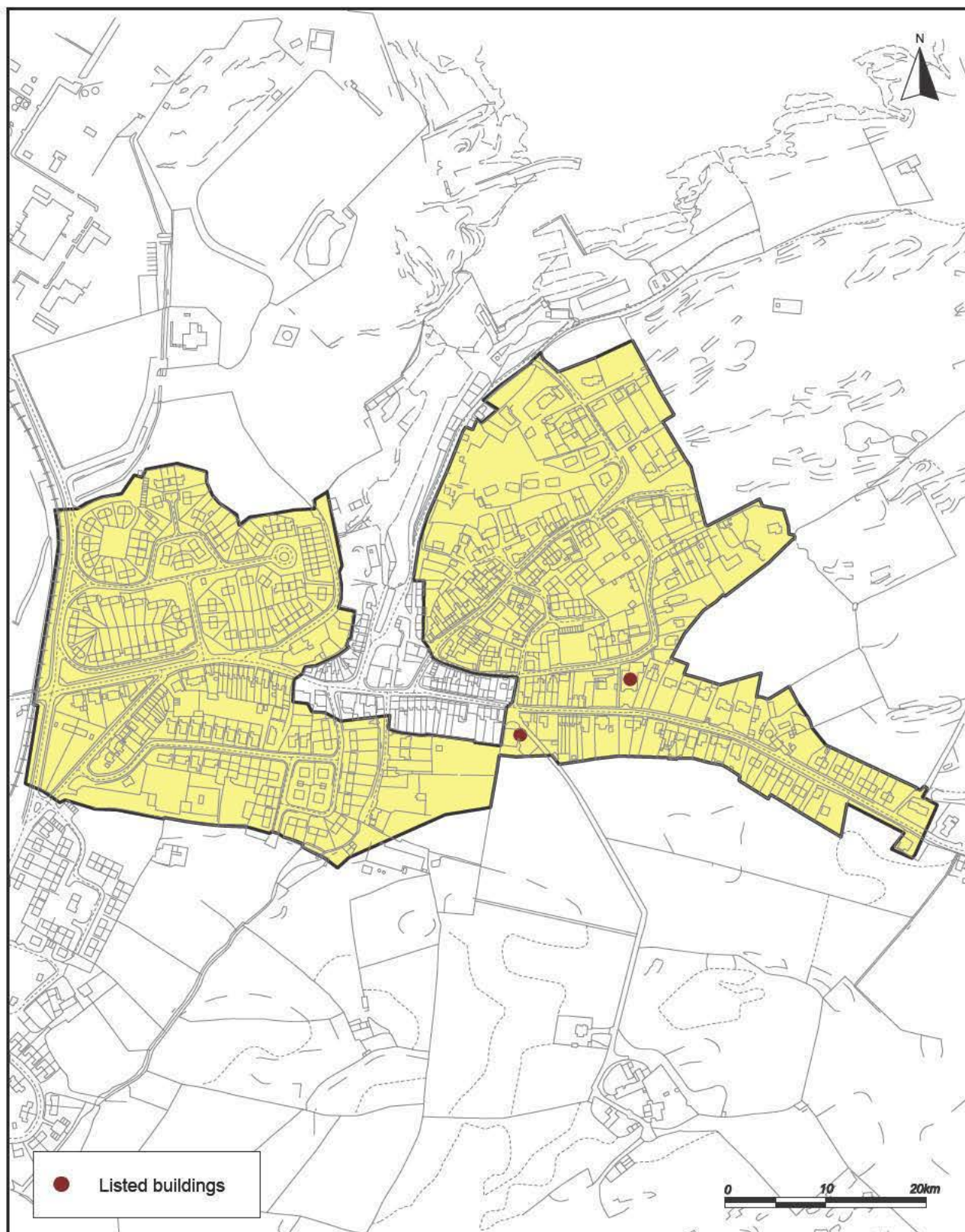
The older part of the settlement is based around winding lane-ways to the east of the port. Some of the dwellings are very firmly in the vernacular tradition and have something of the character of a settlement that is almost entirely spontaneous, with houses being built with back doors facing the street (eg SH 4522 9325). However, these mingle with much more substantial late nineteenth century middle-class houses such as Ael y Bryn (SH 4523 9316). Llanelian Road is a ribbon development where late nineteenth century middle class houses predominate, set back from the road behind front gardens. The two impressive chapels that are situated in this character area are both to be found here, Capel Carmel at SH 4508 9306, now out of use and in poor condition but is a fine halo arch chapel of the 1860s, believed to have been designed by Thomas Thomas of Glandore, Swansea; Peniel is an exercise in 'Arts and Crafts classical' by Richard Davies of Bangor dating from 1898-1900 (SH 4519 9312).

The Craig y Don housing estate is situated on the site of the former copper smelters, and forms a tight group of attractive semi-detached dwellings with distinctively coloured tile roofs (SH 4472 9323).

Conservation priorities and management

Possible further archaeological study of smelting site; archaeological study and recording of early housing stock; encouragement to appropriate and sympathetic conservation of dwellings and infrastructural buildings.

Fig 2. Porth Amlwch settlement (PRN 28642)



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03 Amlwch settlement (PRN 28643)

Historical background

This area represents the settlement outside the historic core which now forms a Conservation Area (04) but which may initially have been developed in the late eighteenth century (for instance around Bethesda Street, Queen Street and Bethesda Street). Even so, present housing stock is nineteenth century, and is otherwise made up largely of nineteenth and twentieth century development and 'overspill'. The Amlwch tithe map shows it as completely undeveloped, though it is possible that the map did not show the presence of squatter cottages. The secondary school is a prominent landscape area almost in its own right, and was erected in 1948-53. There are a number of important and distinctive buildings within this area.



Mona Lodge, a late 18th century house



Sir Thomas Jones School, Amlwch

Key historic landscape characteristics

Key characteristics here

This is the area that lies on the periphery of the Amlwch Conservation Area (area 04 below). It includes the greater part of the Amlwch settlement and many of its historic buildings, as well as late twentieth century social housing and an industrial estate.

The east west axis of Bethesda Street (effectively a continuation of Mona Street, one of the principal arteries of the historic town) contains much nineteenth century housing as well as the remarkable and substantial Mona Lodge, a gentry dwelling with associated stables, probably of late eighteenth century construction (it was in existence by 1794) and built for the mine/estate agent, John Price of Cadnant. It has now been separated into four separate dwellings (SH 4389 92823 - stables at SH 4391 9286).

Much of the housing stock is nineteenth century in date and 'industrial-vernacular' in inspiration, often incorporating dormer windows. Some of the older houses along Queen Street and Bethesda Street are early nineteenth century in date, though the majority have been modernised, making it difficult to date them with certainty. Some are understood to contain slag blocks in the fabric, after the manner of a number of early industrial houses in Swansea. The street itself, formerly known as Methusalem Street, may have originally been laid out by the eighteenth century entrepreneur Methusalem Jones, who lived for a while in Amlwch but is chiefly remembered for initiating the commercial quarrying of slate in Blaenau Ffestiniog.

The National School of 1824 on Bull Bay Road at SH 4404 9301 (a very early purpose-built school by North Walian standards), is made all the more unusual by its emphatically polite architecture. Robert Roberts Sgolor Mawr, the lexicographer and autobiographer, was briefly the schoolmaster in charge. It is now in re-use as a nursery school and a commercial unit. On the same road but further away from the centre of the town is the Church of Our Lady Star of the Sea and St Winifride, designed in the 1930s by G. Rinvulcri to resemble an upturned boat. It makes use of a high-dome stressed concrete construction.

Ysgol Syr Thomas Jones (formerly the County Secondary School), the earliest purpose-built comprehensive school in Britain, was built between 1948 and 1953 on an area of high ground to the

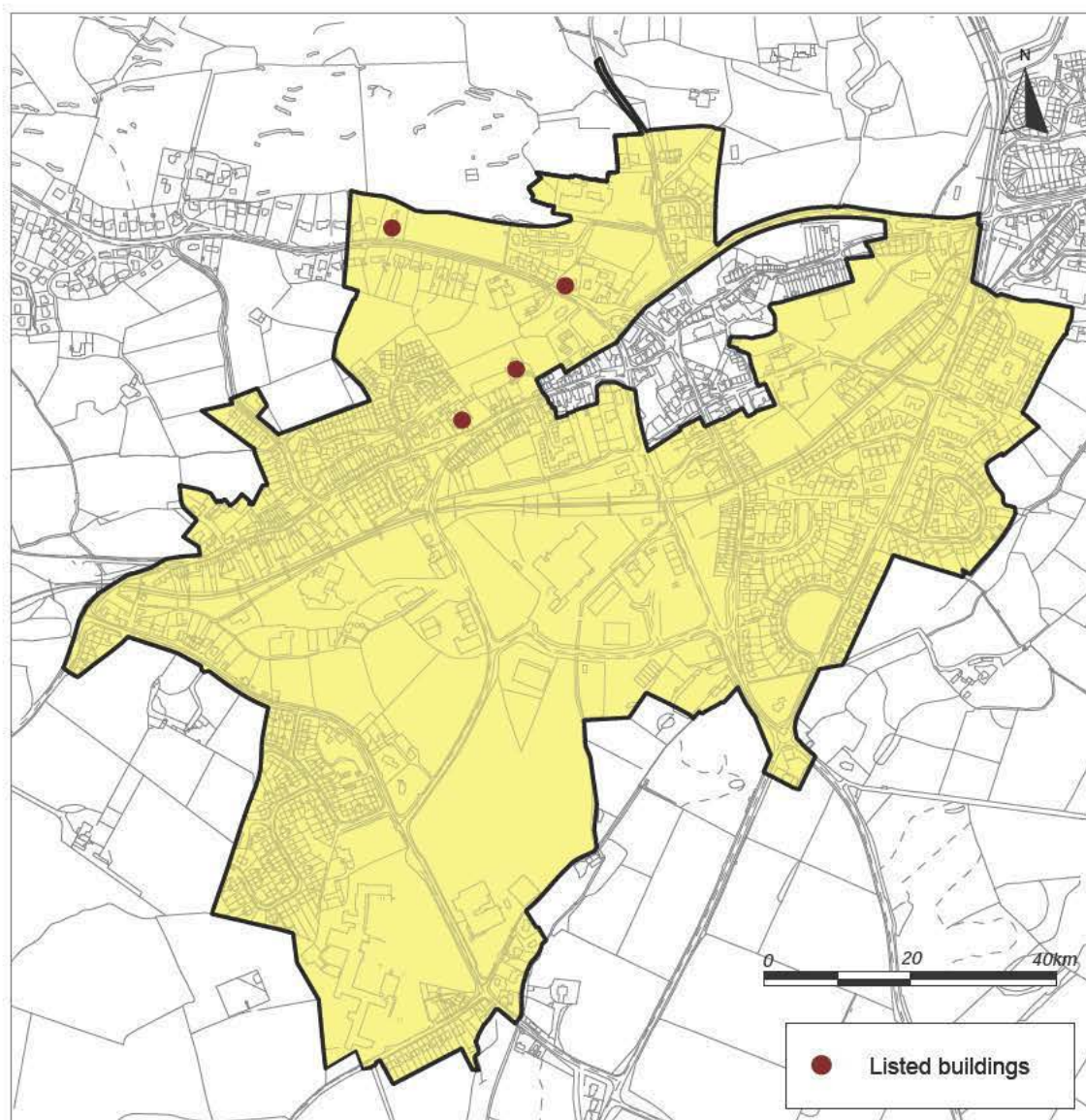
south-east of the main part of the town; its rock-dressed masonry tower echoes the design of the Pearl engine-house at the copper mine. It was designed with broad corridors to make the circulation of large numbers of pupils easier between hall, gymnasia and classrooms housed in adjoining blocks. The design is characterised by large areas of glazing and a generous use of space. Its effect is mitigated by the leisure centre opposite, but it is nevertheless an impressive set of structures particularly for visitors arriving at Amlwch from the west.

It is noted here as it is noted of 04, that the town of Amlwch lies in a comparatively low-lying area, and that the roads in to it offer interesting and attractive vistas. In this connection, the taller buildings add considerably to the visual appeal of the town as a whole – these include the ‘engine-house’ tower of the school and the church tower (04), as well as the Octel water-tower (06) and the upstanding features associated with the mine – the Morris shaft (outside the Historic Landscape area), the Pearl engine house and the windmill (09).

Conservation priorities and management

Preservation of character; retention of view of school from Llanerchymedd road; encouragement to restoration of historic features and building materials in dwellings; adaptation of buildings in accordance with historic character, working with existing pallet of historic building materials; preservation of historic skylines, roof-scapes and chimneys.

Fig 4. Amlwch settlement (PRN 28643)



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04 Amlwch Conservation Area (PRN 28644)

Historical background

The core of the historic settlement at Amlwch, and now a Conservation Area. Amlwch is Medieval in origin in that it was based around the parish church and the court of the Bishop of Bangor but expanded rapidly from the 1760s onwards. Even then, initial growth seems to have been confined to a very tightly-defined area, centered on the north-south axis now known as Stryd y Frenhines and the east-west axis Mona Street-Wesley Street. Early industrial houses are said to have been mainly thatched cabins.

Thereafter maps show that the settlement remained more or less static during the early years of the nineteenth century, until it experienced a mild revival with the coming of the railway. The establishment of the Octel works (area 02) in 1951 led to the expansion of the settlement, and the building particularly of new social housing.



St Elaeth's Church, Amlwch

Key historic landscape characteristics

Historic settlement

Amlwch preserves many of the characteristics of an early industrial settlement. Some of the surviving housing stock dates from the early nineteenth century though no above-ground evidence remains within the Conservation Area of identifiable eighteenth century 'first phase' housing. There is some limited evidence for the use of copper slag blocks as a building material as at Swansea. The buildings are typical of those found elsewhere in Anglesey, characterised by rubble walls, often rendered or pebble dashed, slate roofs with flush eaves, and sash windows - the earlier of small (usually 12) pane, the later Victorian examples with four panes. The majority of the windows have been modernised. Barclay's Bank building on Queen Street (SH 4426 9276) suggest that vernacular strictures survived even on the main axes of the town.

The settlement is dominated by the parish church of St Elaeth, consecrated in 1800 and designed by Wyatt (probably James), though remodelled by Henry Kennedy, the diocesan architect, in 1867. This neo-Classical building of decidedly Protestant form replaced a medieval building; its tower continues to dominate the town. Other places of worship and civic infrastructure are built on a substantial scale, including the former Welsh Wesleyan chapel which occupies a commanding position at the eastern end of Wesley Street (SH 4444 9306), now owned by Mona Safety Products; a sliding workshop door has been inserted in the front (west-facing) gable. The Memorial Hall, with its classical façade and hipped roof, is also situated on Wesley Street (SH 4427 9298). Smaller, and still in use, is the side-entry English Methodist Wesleyan chapel on the north side of Wesley street, built in 1831, with pointed gothick windows but otherwise unornamented, a design for which there are Cornish parallels (SH 4436 9305). The Dinorben Arms, near the cross-roads which form the fulcrum of the Conservation Area, is known to have been in existence in 1817, at the time of the Amlwch riots. It is an attractive double pile building, with a classical touch in the portico porch. However the historic ambience of this part of the town has been diminished by the demolition of the buildings immediately to the north of the hotel and their replacement by late twentieth-century structures of brown brick.

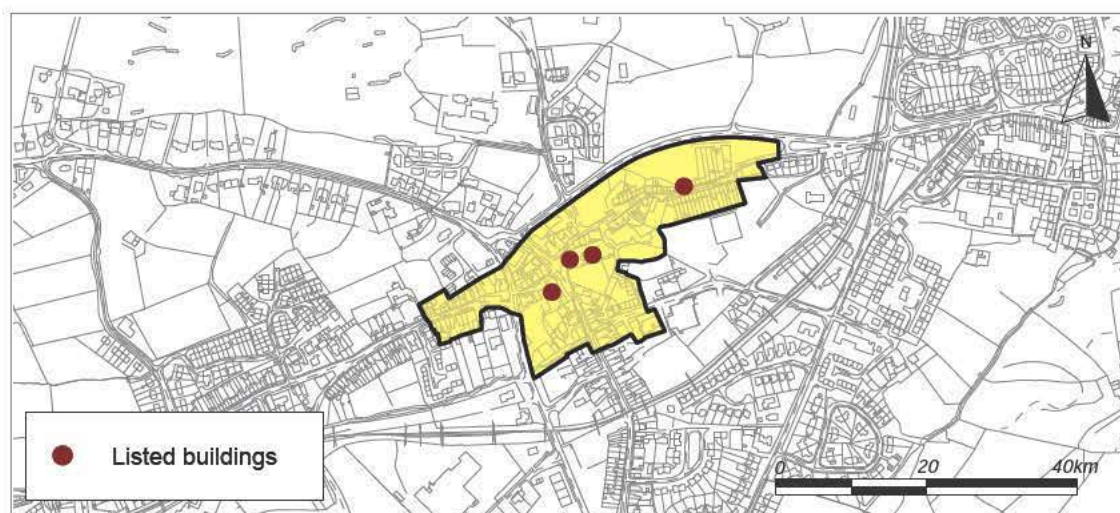
Despite the decline of Amlwch in the 19th century, there are many attractive buildings from the Victorian period and the early 20th century, including the HSBC bank and the Post-Office, reflecting a half-hearted attempt to develop it as a holiday resort. Later 19th century buildings are distinguishable from buildings constructed during Amlwch's heyday (1760-1830) by their proportions, which conform more to standard industrial housing found elsewhere in the United Kingdom, and by the use of imported material such as brick, though many are now pebble-dashed.

It is noted here as it is noted of 03, that the town of Amlwch lies in a comparatively low-lying area, and that the roads in to it offer interesting and attractive vistas. In this connection, the taller buildings add considerably to the visual appeal of the town as a whole – these include the 'engine-house' tower of the school (03) and the church tower, as well as the Octel water-tower (06) and the upstanding features associated with the mine – the Morris shaft (outside the Historic Landscape area), the Pearl engine house and the windmill (09).

Conservation priorities and management

Opportunity for archaeological study and recording of housing stock; encouragement to appropriate and sympathetic conservation of dwellings and infrastructural buildings; adaptation of buildings in accordance with historic character, working with existing pallet of historic building materials; preservation of historic skylines, roof-scapes and chimneys.

Fig 5. Amlwch Conservation Area (PRN 28644)



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05 Rural area (PRN 28646)

Historical background

An area that is known to have been agriculturally productive in the Medieval period (as reflected in documentary evidence and in the evidence of the place name Llaethdy (dairy), and which benefited from income derived from mining in the late eighteenth and early nineteenth centuries.



Looking north across undulating open countryside from Parys Mountain to Amlwch (on the left) and Porth Amlwch (on the right)

Key historic landscape characteristics

Improved agriculture

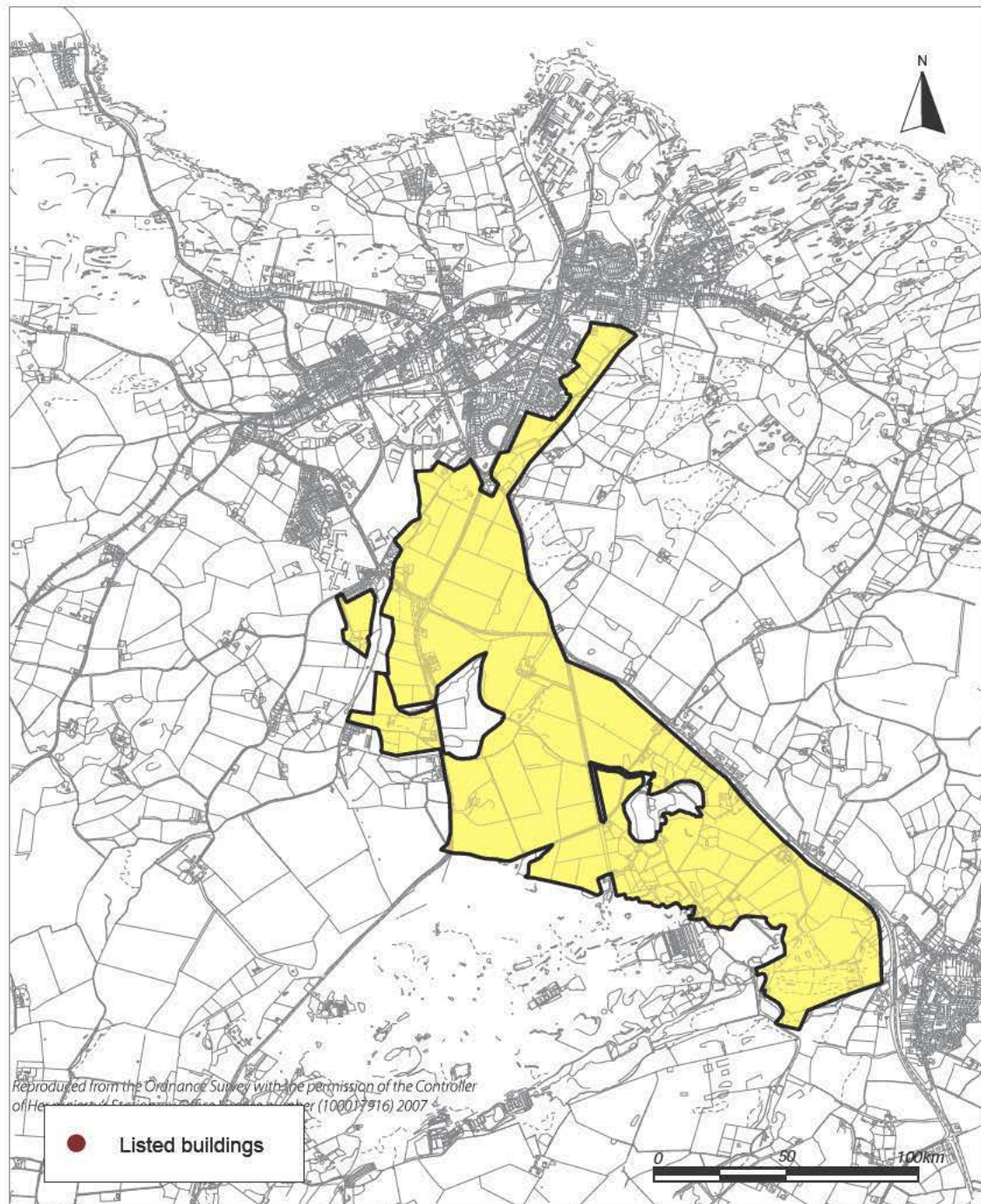
A small area on the periphery of the main settlement areas and of the mines, though effectively part of a much larger landscape of agricultural improvement that extends out of the Historic Landscape area. The farm houses and outbuildings mainly lie outside the Register area; only Llaethdy Mawr and Pentre Gwian lie within, the former a very substantial farm house, the latter a much smaller double-fronted two storey dwelling, but both of nineteenth century date. There is a cottage row at Mynydd Llwyd in which traditional character has been effaced, and a vernacular isolated dwelling at Tal y Dyffryn (SH 4479 9108).

The area is characterised by large regular enclosures representing improvements of the eighteenth and nineteenth century under the patronage of the major landowners, and reflecting not only the quality of the land itself but the increased prosperity of farming in the area after mining began on a major scale in the 1770s.

Conservation priorities and management

Preservation of open character; encouragement to appropriate and sympathetic restoration of cottage dwellings and to farm houses and outbuildings.

Fig 6. Rural area (PRN 28646)



06 Octel works (PRN 28646)

Historical background

The site of a chemical works designed to extract bromide from sea water, opened in 1951 and now out of use. Little is known of the history of this area before that time but it is likely that it was used for rough grazing. However, the substantial windmill of 1816 indicates an earlier industrial phase to this area.

It is now owned by Canatxx LNG Limited, who propose operating the site as a liquified natural gas regasification plant; tankers would bring liquified natural gas to a fixed platform located 3km off shore, from where it would be pumped ashore for chemical contracting, before shipping on to Fleetwood.



The tall five storey windmill built in 1816 is a well-recognised local landmark, located above the chemical works.

Key historic landscape characteristics

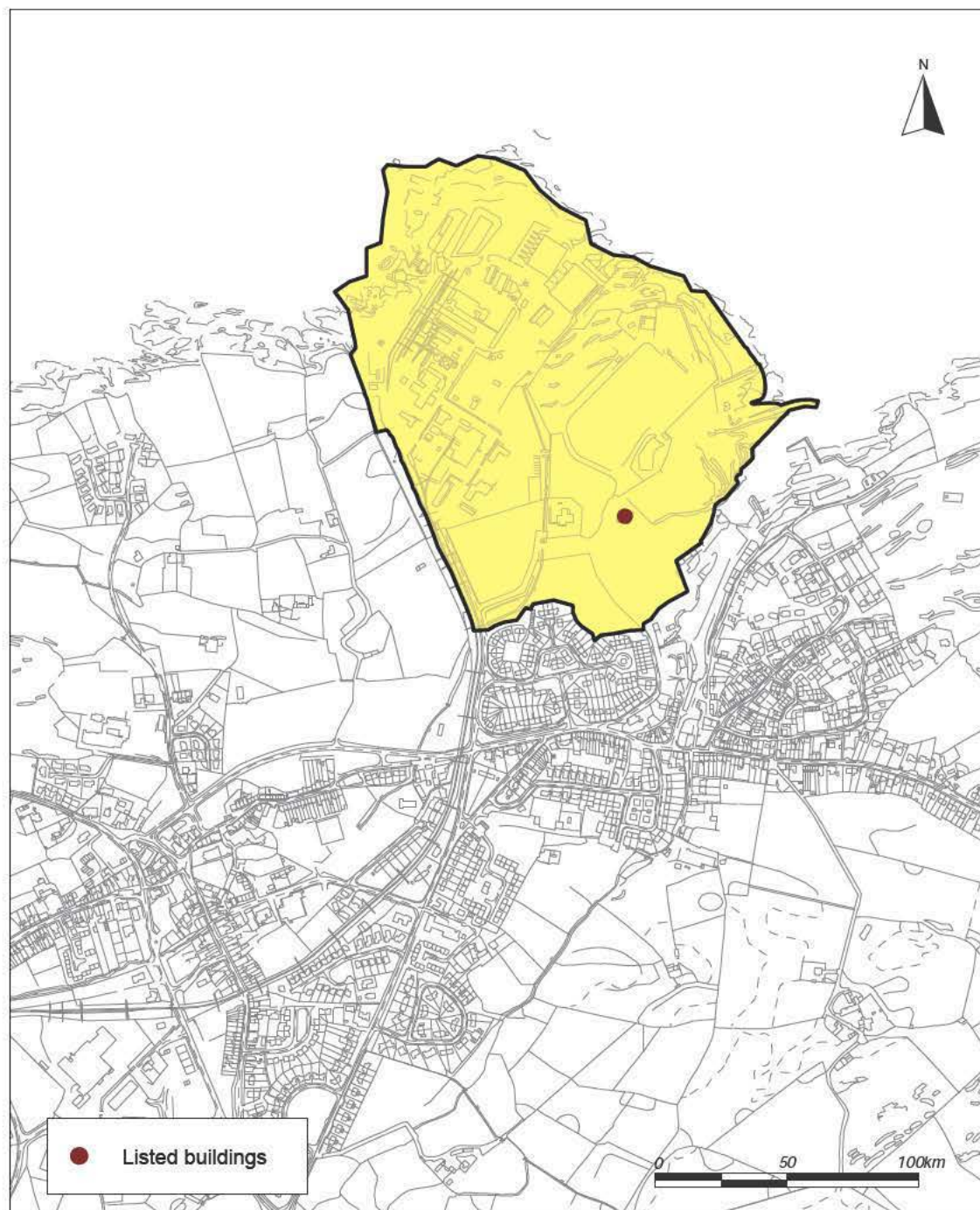
Chemical works site.

As well as the industrial buildings, in distinctively modern idiom, this area contains the Octel Social Club and playing field. The concrete Octel water-tower and the brick-built windmill between them contribute two of the most prominent features of the Amlwch sky-line. The modernist buildings of the chemical works extend to a stark rocky foreshore.

Conservation priorities and management

Discussion as to future of industrial buildings; preservation where possible and appropriate of distinctive and prominent features eg water tower; liaison with Canatxx and Amlwch Industrial Heritage Trust.

Fig 7. Octel works (PRN 28646)



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07 Llam Carw (PRN 28647)

Historical background

The site of a chemical works opened by an entrepreneur named Hills on a bleak headland in 1840 and out of use by 1897. Little is known of the history of this area before that time but it is likely that it was used for rough grazing. This area also includes the site of the dry dock associated with the harbour but which does not form part of the Conservation Area and the two enigmatic stone-built chimneys which may form part of the chemical works.



The two stone-built chimneys at Porth Amlwch next to the former Shell Oil terminal

Key historic landscape characteristics

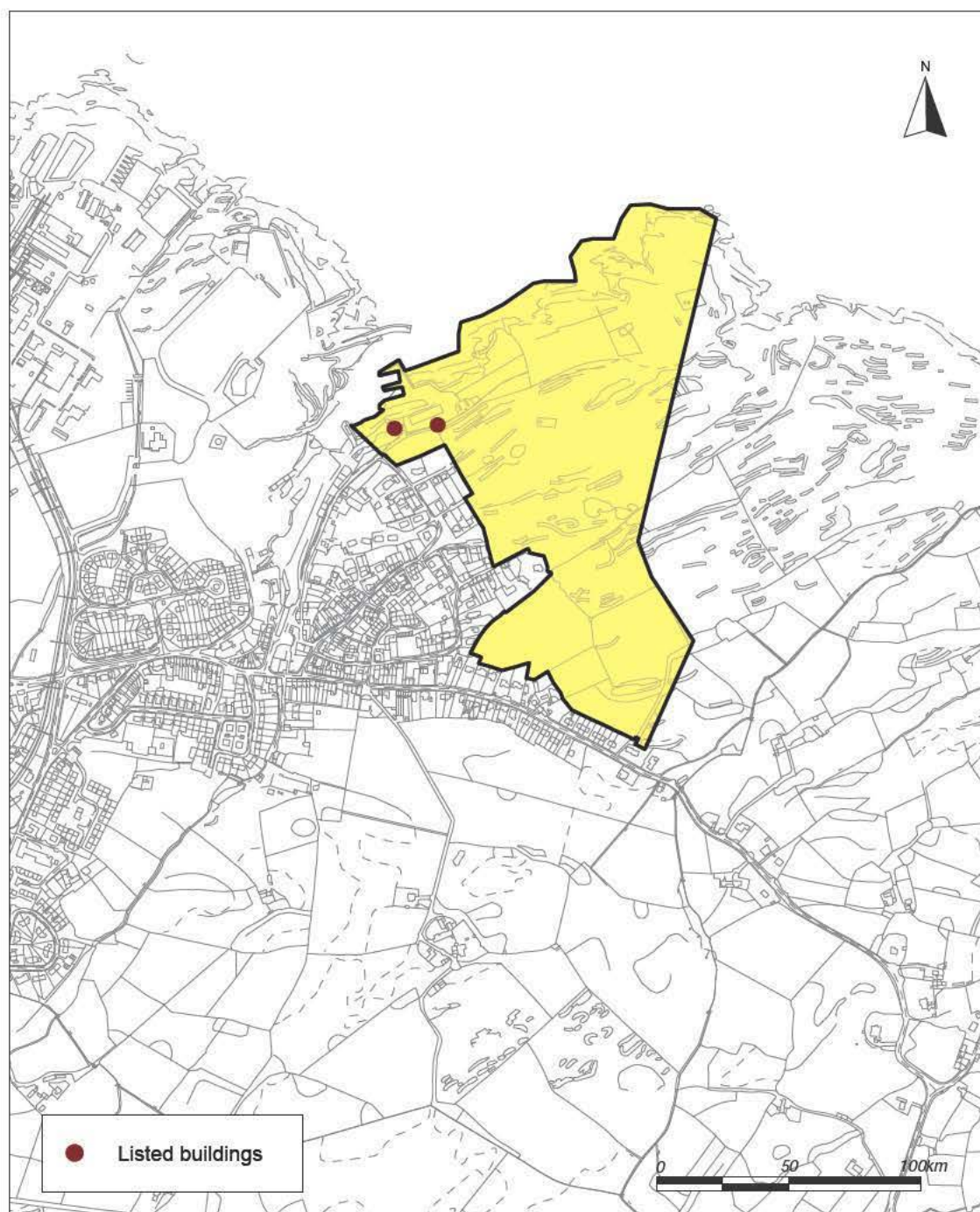
Chemical works site.

Little is known of the history and development of this site, known as gwaith Hills (Hill's work[place]), despite extensive research by members of the Amlwch Industrial Heritage Trust. It is known that Hills was involved in a number of chemical operations including one in London. There are traces of slag on the ground in a number of places, presumably brought in as fill rather than a product of the work carried on here.

Conservation priorities and management

Preservation of sense of open space; possible archaeo-metallurgical study; liaison withn Amlwch Industrial Heritage Trust.

Fig 8. Llam Carw (PRN 28647)



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08 Precipitation ponds (PRN 28648)

Historical background

An unusual feature of the mines on Mynydd Parys was the practices of precipitating copper-rich waters which had been allowed to permeate through the mine or over the tips with scrap iron in large purpose built ponds to yield ore which could then be dried. This process outlasted the end of conventional mining in the 1880s, and continued until 1958.



Remains of brick and timber built precipitation ponds at Dyffryn Adda Historical background

Key historic landscape characteristics

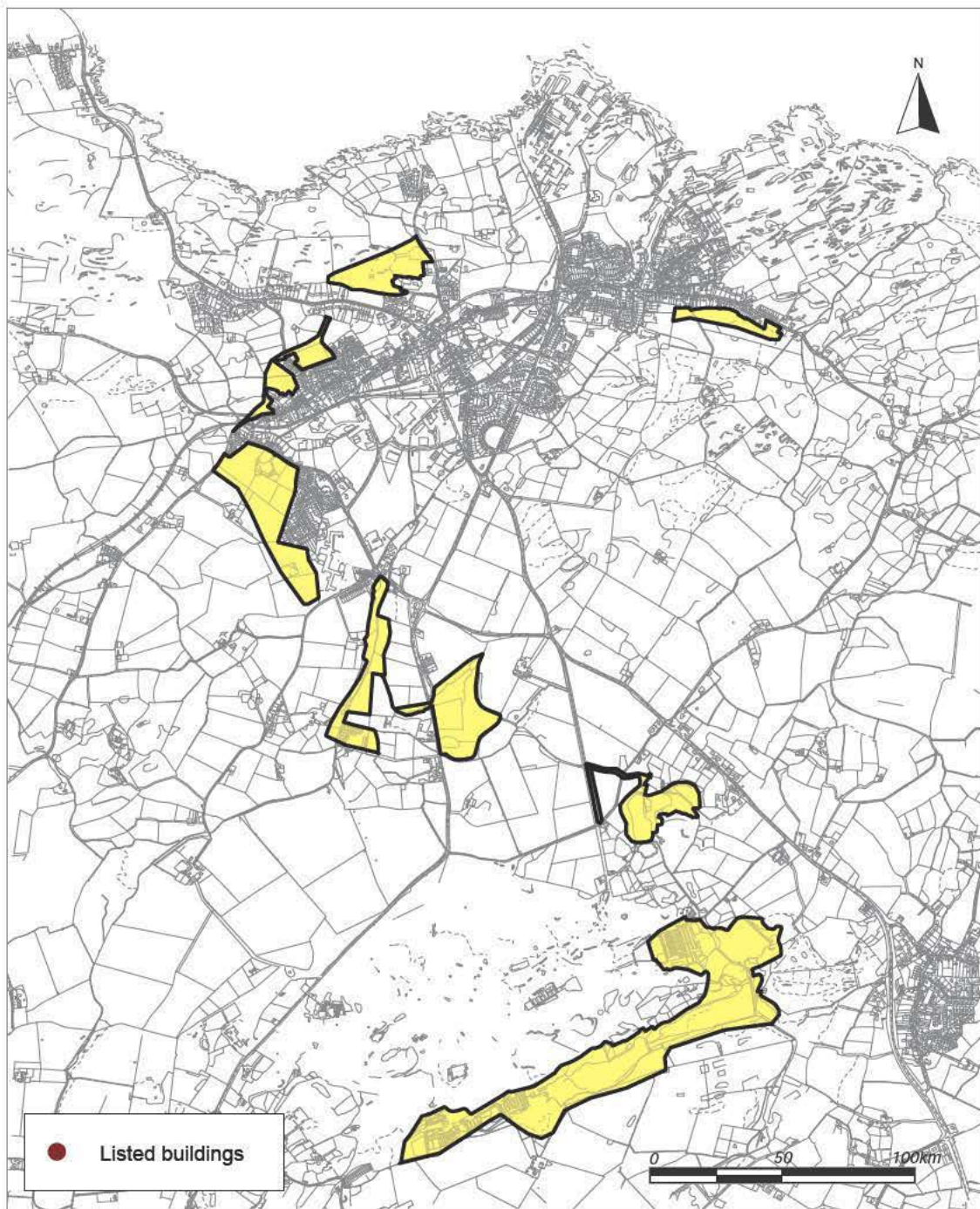
Unique industrial features

The vast ponds survive all around the mountain, many of them still holding water. The best surviving examples are at Dyffryn Adda (SH 438 915), together with an ochre-drying floor and a kiln building dating to 1815-19. This area has been conserved by the Amlwch Industrial Heritage Trust. A small part of the Dyffryn Adda SAM falls into this area.

Conservation priorities and management

Liaison with Amlwch Industrial Heritage Trust re conservation and interpretation; liaison with other stake-holders eg Environment Agency re contamination issues etc. Encouragement to targeted and appropriate use of pond system for green initiatives and micro-biological study. Encouragement to appropriate commercial use of the resource (eg production of paints and dyes).

Fig 9. Precipitation ponds (PRN 28648)



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09 Mines (PRN 28649)

Historical background

An extensive copper mine situated on Parys Mountain, a ridge 147m high to the south of the port town of Amlwch; its workings and multi-coloured waste tips dominate the mountain and the surrounding area. The mine was worked both as an opencast and underground. It has been extensively studied by historians and archaeologists.

Its origins lie in the Early Bronze Age, when underground levels were worked on the northern part of the site. There is circumstantial evidence for Roman and Medieval working but the mines only became active in the 1760s with the re-discovery of low-grade copper-ore near the surface. The substantial opencasts are creations of the late eighteenth and early nineteenth centuries; thereafter increasingly ore was won from shafts, generally horse-wound, though in some instances steam plant was used. Steam and wind-power was also used for pumping. Ore was calcined on site.

Deep mining effectively ceased in the 1880s, though exploration continues under the auspices of Anglesey Mining plc, a subsidiary of the Imperial Metals Corporation of Vancouver. The head-frame stands over a shaft sunk in 1988.



Parys Mountain

Key historic landscape characteristics

Historic mining landscape

The area is defined by the two great quarries near the summit of the ridge, which date from the closing years of the eighteenth century, and result from a policy of deliberately collapsing the underground workings opened since 1768. The need to follow the veins deeper underground led to the construction of the two most prominent standing buildings on the site, both of which operated underground pumps. The engine-house near the north-eastern limit of the site (SH 447 907) dates from 1819, and is believed to be the oldest surviving example in Wales to be built for a Cornish beam engine. The windmill tower at the summit of the mountain was installed in 1878 as an auxiliary to an adjacent steam pump engine, and is the single most prominent landmark on the mountain, visible over a considerable distance. No machinery survives in either structure.

Other surviving buildings on the mountain are the offices of the two companies which operated the mine in the eighteenth and early nineteenth century. The quadrangular Mona Mine yard was in existence by 1786. Now extremely dilapidated, it once contained a smithy, lime-store, wagon shed, furnace, carpenter's shops, assay office, stables, a turnery and a place for the bier. Of the Parys Mine yard even less remains, but it seems to have been laid out in a similar way.

The sites of calcining kilns are also evident at a number of locations, visible as vivid pink craters, the condensation chambers as two parallel stone walls a few feet apart, in between which is a profuse growth of heather.

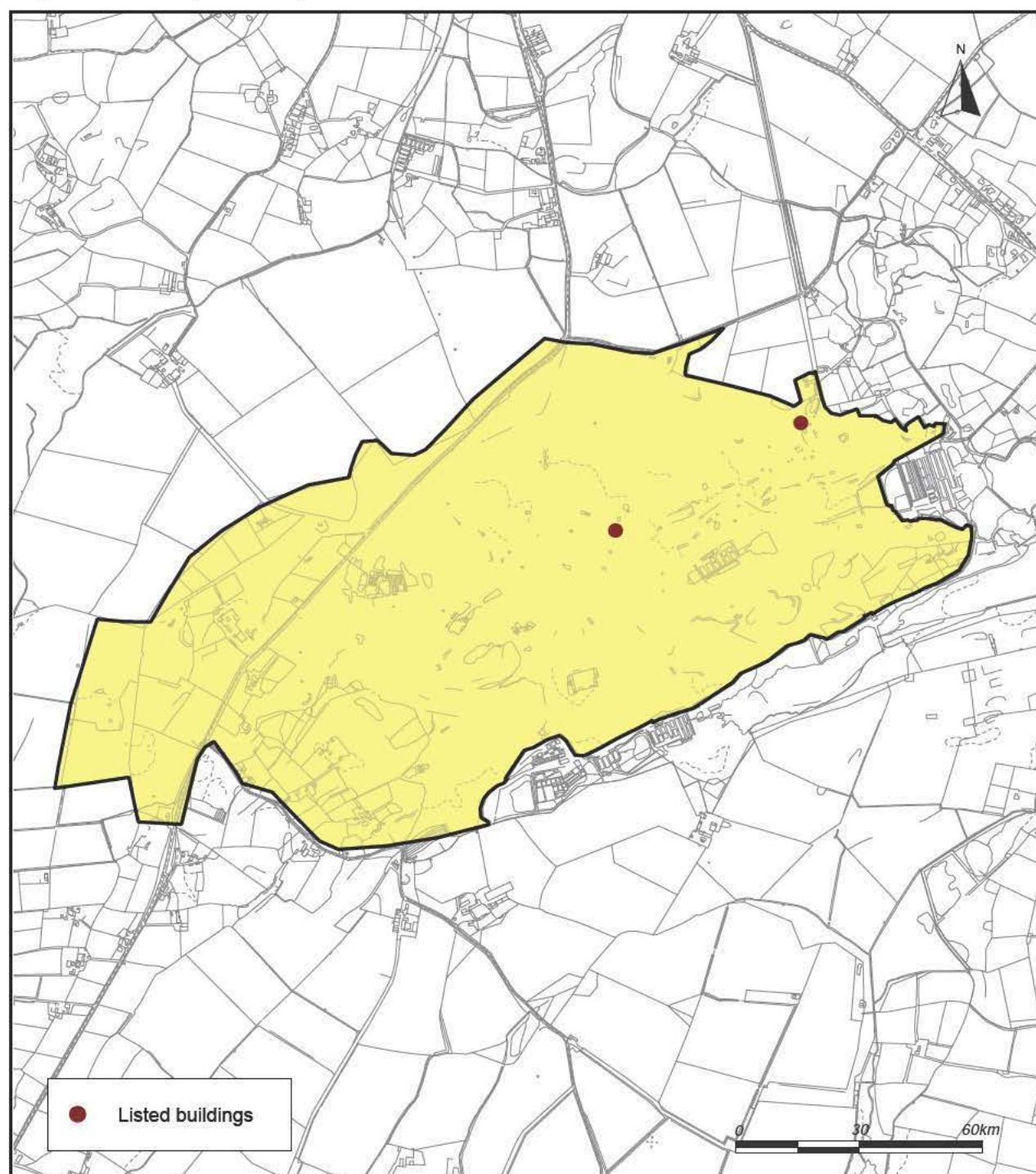
Underground workings are accessible at several points, though known shaft-sites were capped in the 1970s.

The mine includes the Mynydd Parys SSSI, split up into fourteen discrete locations, and several Scheduled Ancient Monuments, including the Great Opencast, the windmill and the Pearl engine house.

Conservation priorities and management

Monitoring for effects of collapse, vegetation-growth, visitor impact; monitoring of underground workings for accessibility and security and for changes in water-level; liaison with Amlwch Industrial Heritage Trust.

Fig 10. Mines (PRN 28649)



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10.2 Archive sources

10.1.1 National Library of Wales

Church in Wales records, Bangor diocese papers

B/Maps/13 – map of Bodednyfed estate, 1869

Map of Parys farm, 1791, by John Corris

Wynn papers

Amlwch tithe map and apportionments

10.2.2 University of Wales, Bangor

Carter Vincent papers

3, 4, 6, 9, 14, 16, 17, 26, 29, 30, 39 – documents relating to Paynter windmill, premises in Amlwch etc, 1815-1852

Plas Newydd papers

VII 151 – lease to erect warehouse, etc, Porth Amlwch, 1770

Llwydiarth Esgob papers

638 – map of Porth Amlwch, 1780

639 – map of Porth Amlwch by Captain Francis, 1828

640 – map of Porth Amlwch by Captain Francis, 1828

641 – map of Porth Amlwch by Captain Francis, 1828

10.2.3 Llangefni Record Office

W/DD/1725 – plans and rentals of lands including Parys farm, by John Corris, 1792
W/QS/9/Easter/1790 – reference to roads proposed to be built in the parish of Amlwch, 1790
W/QS/12/Easter/1790 – plan of roads proposed and built in the parish of Amlwch, 1790
WSB/121 – photograph of Francis map of 1828
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10.2 Archaeological surveys

10.2.1 Royal Commission on the Ancient and Historic Monuments of Wales

Site file AN IND SH49
CARN database for Amlwch – <http://rcahmw.org.uk/cgi/user/ahmwww/database/search>, accessed 20 March 2004

10.2.2 Gwynedd Archaeological Trust

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10.2.3 Other

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8.3 Ordnance survey

1"

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6"

Anglesey III NW, 1901, 1922-49, NE 1922-49

25"

Anglesey III 6, 1889, 1924

Anglesey III 7, 1900, 1924



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