

FRON AND OLD BRAICH QUARRY
LAND RECLAMATION SCHEME
ARCHAEOLOGICAL ASSESSMENT (G1287)

REPORT NO. 137

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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prepared for Gwynedd County Council

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Archaeological Assessment

1. INTRODUCTION

Gwynedd County Council are proposing a land reclamation and stabilisation scheme on part of Fron and Old Braich quarries. This will involve (i) rebuilding the retaining wall which runs alongside the slate tip east of Fron, and grading the waste tip to a safer angle of repose; (ii) reducing the height of the existing retaining walls either side the former tramway; (iii) regrading the tips above the road between the top of the tip and the existing hollow; (iv) filling the hollow which exists between the tips with any surplus waste from the regrading.

Gwynedd Archaeological Trust (Contracts Section) have been contracted by Gwynedd County Council to carry out an archaeological assessment of the proposed land reclamation and stabilisation scheme.

2. ASSESSMENT BRIEF

An initial report was requested from Gwynedd Archaeological Trust, assessing the likely archaeological impact of the plans and suggesting mitigatory measures. The assessment will comply with the guidance given in the "Standard Guidance for Archaeological Desk-based Assessments" as specified by the Institute of Field Archaeologists.

The basic requirement was for a desk-top survey and field search of the proposed area in order to assess the impact of the proposals on the archaeological and heritage features within the area concerned. The importance and condition of known archaeological remains were to be assessed and areas of archaeological potential identified. Recommendations for measures to mitigate the effects of reclamation are suggested. Gwynedd Archaeological Trust's proposals for fulfilling these requirements were, briefly, as follows:

- a) to identify and record the cultural heritage of the area to be affected by the proposals;
- b) to evaluate the importance of what was identified (both as a cultural landscape and as the individual items which make up that landscape); and
- c) to recommend ways in which damage to the cultural heritage can be avoided or minimised.

This initial report will contain the results of the desktop study and walkover, with recommendations for further evaluation work if this is necessary, and recommended mitigatory measures.

3. METHODS AND TECHNIQUES

3.1 Desk-top Study

Consultation of maps, computer records, written records and reference works, which make up the County Sites and Monuments Record, was undertaken at Gwynedd Archaeological Trust. Records held by the County Archives in Caernarfon (including early Ordnance Survey maps, tithe maps and schedules) were consulted.

Lists supplied by Cadw: Welsh Historic Monuments were consulted for information about listed buildings and scheduled ancient monuments. There are no scheduled ancient monuments or listed buildings within the study area.

3.2 Field Search

This was undertaken on the 18 September, 1994, by two members of Trust staff.

Sites identified were marked on copies of 1:2500 OS maps as accurately as possible without surveying. Forms were filled in assessing each site, and detailed notes made of the more important. Photographs were taken of all potential sites identified.

3.3 Report

All available information was collated, and transferred onto a single set of maps at a scale of 1:2500 for convenience. The sites were then assessed and allocated to the categories listed below. These are intended to give an idea of the importance of the site and the level of response likely to be required; descriptions of the sites and specific recommendations for further evaluation or mitigatory measures, as appropriate, are given in the relevant sections of this report.

The criteria used for allocating sites to categories are based on those used by the Secretary of State when considering ancient monuments for scheduling; these are set out in Annex 3 to Planning Policy Guidance 16 (Wales): Archaeology and Planning.

3.4 Categories

The following categories were used to define the importance of the archaeological resource.

Category A - Sites of national importance.

Scheduled Ancient Monuments, Listed Buildings and sites of schedulable or listable quality, i.e. those which would meet the requirements for scheduling (ancient monuments) or listing (buildings) or both.

Sites which are scheduled or listed have legal protection, and it is recommended that all Category A sites remain preserved and protected *in situ*.

Category B - Sites of regional or county importance.

Sites which would not fulfil the criteria for scheduling or listing, but which are nevertheless of particular importance within the region.

Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

Category C - Sites of district or local importance.

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened.

Category C sites nevertheless merit adequate recording in advance of damage or destruction.

Category D - Minor and damaged sites.

Sites which are of minor importance or so badly damaged that too little remains to justify their inclusion in a higher category.

For Category D sites, rapid recording, either in advance or during destruction, should be sufficient.

Category E - Sites needing further investigation.

Sites whose importance is as yet undetermined and which will require further work before they can be allocated to categories A - D are temporarily placed in this category, with specific recommendations for further evaluation.

4. ARCHAEOLOGICAL FINDINGS

4.1 Introduction

The Sites and Monuments Record held by Gwynedd Archaeological Trust did not record any sites within the study area, though in the immediate vicinity are two Prehistoric/Roman settlement sites and associated field systems.

Archive material consulted at the Local Record Office, mainly tithe maps and schedules, were useful for indicating the farm boundaries and landowners during the 18th to 19th centuries, and the early Ordnance Survey maps also helped elucidate changing patterns of the quarry extent.

4.2 The Archaeological Background

This section provides a summary of the archaeology and history of the surrounding area so that the findings of the assessment can be put into a wider context.

4.2.1 Prehistoric

To the south-east of Fron and Old Braich quarries there is substantial evidence for early settlement and farming activity in the form of groups of round huts, enclosures, field systems and also a small hillfort near Nantlle. A substantial number of these settlement sites and the hillfort have Scheduled Ancient Monument status. Immediately south of the quarries near Bryn-rhedyn are hut circles and field systems. The proximity of so much early activity suggests that similar sites may have been destroyed by the quarry, or still underlie the tips.

4.2.2 Roman

Though there is no recognisable recorded evidence of Roman activity, it is likely that many of the hut groups and associated field systems were used throughout the Roman period.

4.2.3 Medieval and later

There are a number of platform houses and associated field systems within the scheduled area to the south-east of the two quarries indicating continuation of agricultural land use from the Roman period through the Medieval period.

4.2.4 Post Medieval

Studies made of early Ordnance Survey and Parish Tithe maps record the enclosure of areas of common land and the steady development of a dispersed series of settlements.

Many of the field systems now visible date from the early 19th century when field boundaries were re-aligned and much common land enclosed to encourage progressive farming techniques.

Exploitation of the slate veins probably begins in the late eighteenth century; Old Braich quarry displays a characteristic early gallery system of this period. Fron is recorded as an "old quarry" on the Crown wastes, which the parishioners had the right to work, on the tithe map of 1840, but documentary sources suggest that it had been worked by Crown tenants from c. 1815. It was systematically worked by a succession of limited companies from 1864 to 1891, and spasmodically up to the 1960s.

The course of the 3'6" gauge horse-worked railway which connected Fron to the Nantlle Railway at Tal y Sarn slate quarry, built between 1864 and 1868, is readily apparent, as are the remains of the 2' gauge railway which replaced it in 1881. This may have seen occasional locomotive working, and remained in use until c. 1930. Other surviving structures at Old Braich and Fron include a slate mill dating from the 1870s, lying between the two quarries; a wheel-pit, mill and associated structures south-east of Fron quarry; and considerable evidence

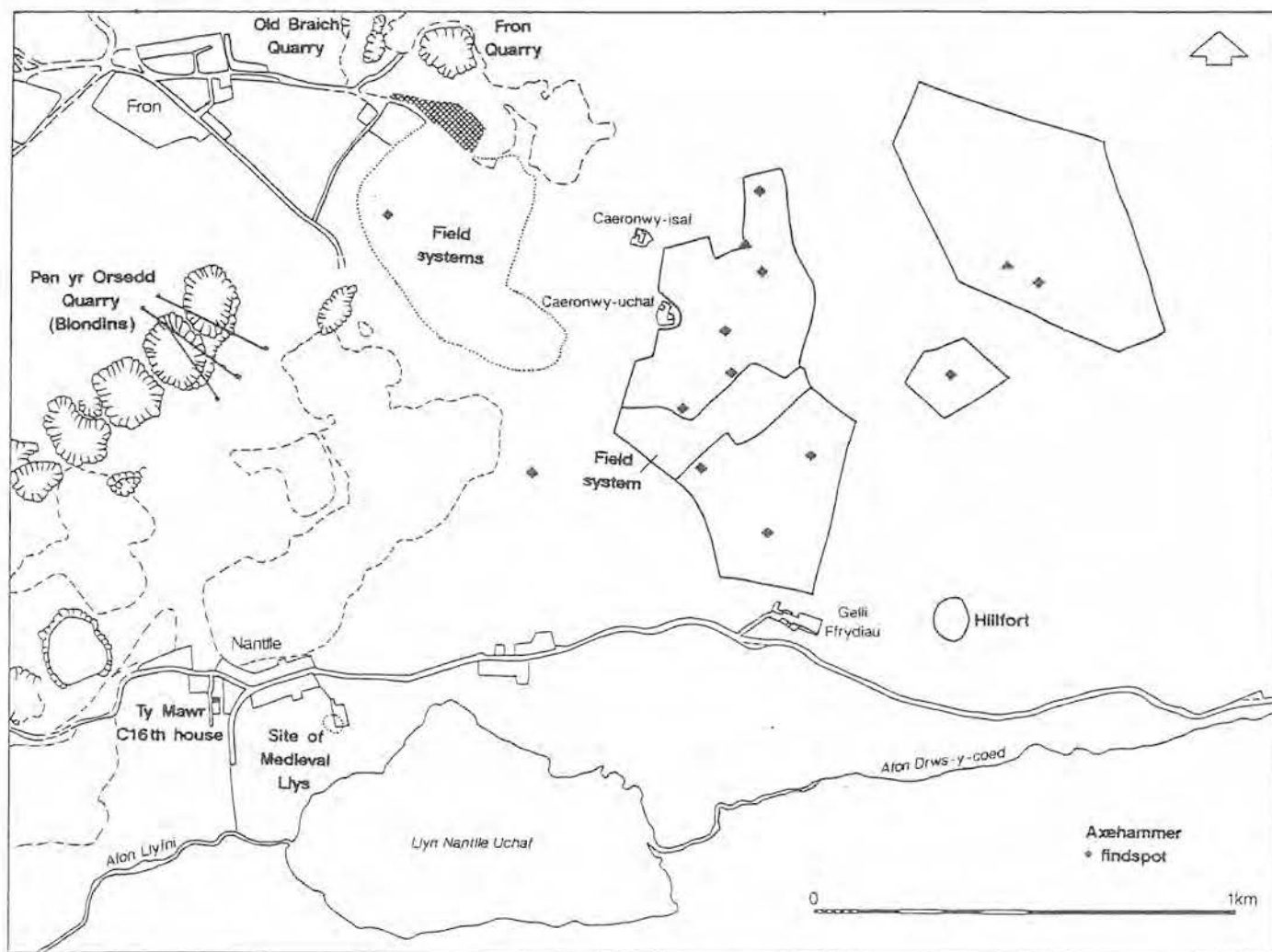


Fig. 1 Location of sites of archaeological and historical interest.

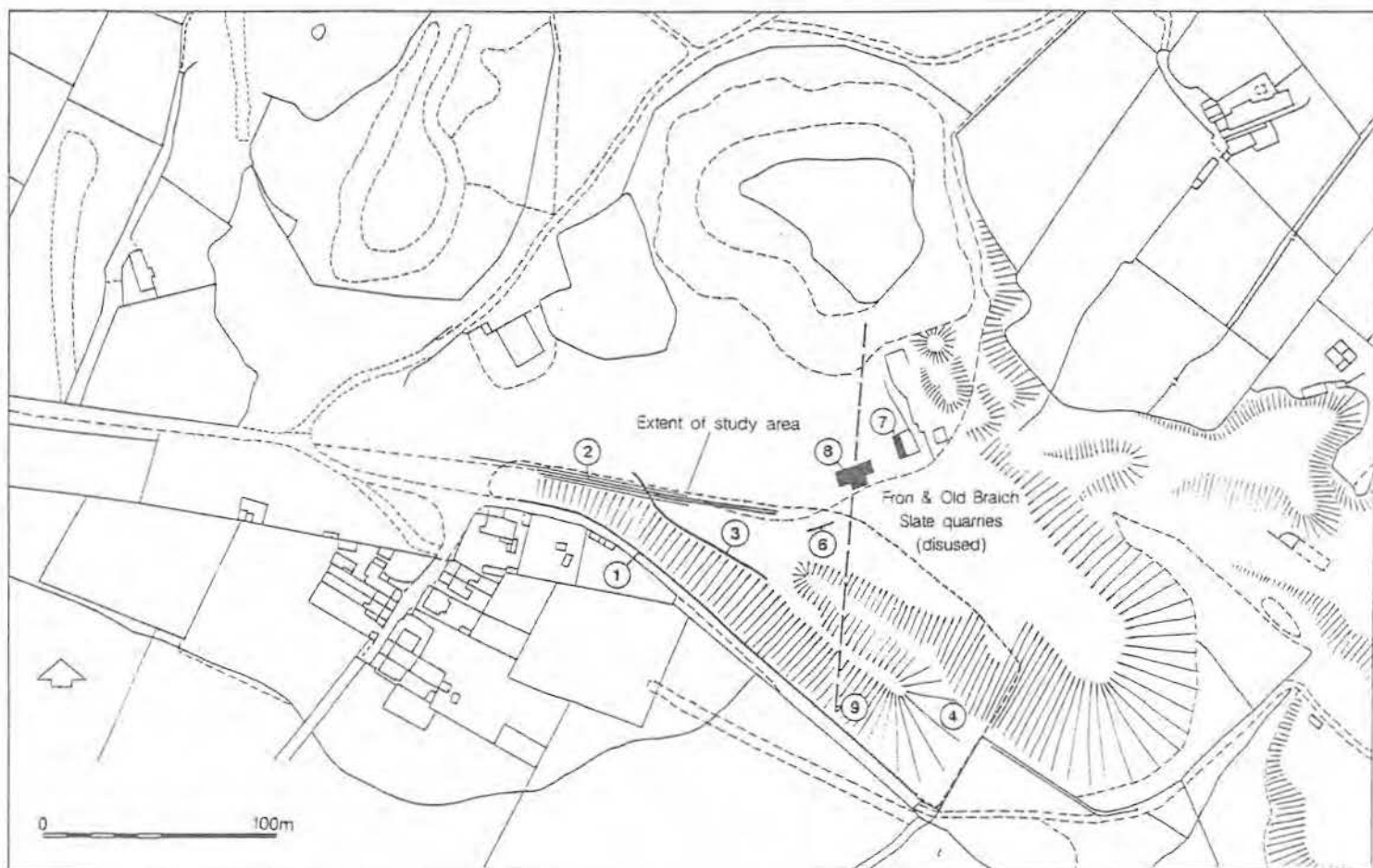


Fig. 2 Location of sites listed in the gazetteer.

of tip contractors working from the Great Depression onwards in the form of shelters, winding houses and a stockyard. A plan of the 1860s railway shows that the area proposed for development was formerly the site of the quarry stackyard and of a row of slate-making sheds (*gwaliau*). The main part of the tip run, however, dates from the 1880s, and overlays the rubble tipping systems of the 1860s, and also the original quarry itself.

4.3 Archaeology of proposed development area.

4.3.1 Introduction (N.B. the numbers refer to the site numbers in the gazetteer)

The area proposed for land reclamation and stabilisation lies to the south of the Fron and Old Braich quarries and contains the slate tip with a number of features associated with slate quarrying and later tip working.

4.3.2 Gazetteer of Archaeological Sites

1. Retaining wall *Category D*

Slate built retaining wall running alongside the existing road, and reaching a maximum height of approximately 2 m. Collapsed in places.

2. Tramway *Category B*

Remains of horse-drawn tramway. Lined either side by two slate retaining walls over 2 m high. Built 1864-68 for the removal of material to the Nantlle railway at Tal y sarn until 1880's. After 1881 material was diverted via the Bryngwyn incline to the North Wales Narrow Gauge Railway and on eventually to Caernarfon. Recorded on 1914 1:2500 Ordnance Survey.

3. Tip run *Category D*

Short tip run which crosses over the tramway. Bridge abutments, which may pre-date the tip retaining walls, are visible on either side of the tramway.

4. Slate tips *Category C*

A succession of slate tips, probably overlying and filling in an earlier quarry.

5. Tip contractors workings *Category C*

A series of shelters built into the tip whilst the waste material was being re-worked by tip contractors during the 1930's and up to the 1960's. Also part of this phase of working is an anchorage point and engine mounting used for hauling slate out of Fron quarry.

6. Wall *Category D*

A length of wall 15 m long and c. 1 m high. This formed part of the stock yard for storing slates used by the tip contractors.

7. Remains of winding house *Category D*

The foundations (with an iron bolt protruding) of a former winding house are visible.

8. Remains of Smithy *Category D*

The foundations of this building, marked on the 1913 O.S. map are just visible.

9. Former adit on south side of tip. *Category D*

An adit formerly ran from the quarry pit out through the hillside to the south. It was open until recently, but is now blocked.

5. RECOMMENDATIONS

Fron and Old Braich quarries contain an interesting sequence of remains, dating from the 18th century to the 1960's. The area to be affected by the proposed reclamation contains the line of the 1881 tramway with high retaining walls, some buildings from the late 19th century quarry working, and substantial remains from the re-working of the tips up to 1960.

It is now generally recognised that the Industrial period in Britain is of great historical importance, and the archaeological study of remains of the period is a vital element in the understanding of that period. Slate quarrying constituted the most important industry in Gwynedd in the 19th century, whilst Gwynedd formed the most important area of slate quarrying in Britain. Therefore the slate quarrying remains in Gwynedd are of national importance, and whereas the remains at Fron quarry are not of specific importance in themselves, they do form a representative sample of what is a declining archaeological resource.

It is therefore recommended that the remains of the quarry are surveyed, and each feature identified, photographed and described. This will enable a complete record to be made of the quarry remains, and will ensure that there is a sufficient body of evidence to unravel the working phases of the quarry. Some documentary work will be necessary to allow the archaeological findings to be put into a historical context.

The quarry has already been surveyed by the County Council for the purposes of the present proposals, and it is possible that the existing survey could be used as a base upon which to plot the archaeological features, thus saving some time.

It is also recommended that the line of the tramway is retained as a landscape feature, and that the retaining walls either side the tramway are carefully dismantled so that features such as the bridge abutments visible within the wall are preserved.

7. SELECT BIBLIOGRAPHY

7.1 Unpublished Sources

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7.2 Published Sources

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1:2,500 1914

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Richards A, 1991, *A Gazetteer of the Welsh Slate Industry*

8. Non Technical Summary

A number of features have been identified from various phases of quarrying on the site. Although none of the features are of particular individual merit, together they form a coherent series of structures which exemplify the development of processing techniques within the Welsh slate industry from the 18th century to the 1960's. In particular the remains of secondary tip working, typical of the Nantlle and Crown quarries from the 1930's onwards, form a particularly interesting feature.

It is recommended that a full measured survey is carried out, with a photographic survey of all features.

The former tramway is of some archaeological importance, and it is recommended that the line of the tramway is retained as a landscape feature.

