

GRAIANOG QUARRY, CLYNNOG -
PROPOSED EXTENSION
ARCHAEOLOGICAL ASSESSMENT (G1260)

SMR.

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Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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PROPOSED QUARRY EXTENSION, GRAIANOG

INITIAL REPORT

1. INTRODUCTION

Planning permission is to be sought for an extension to sand and gravel workings, Graianog farm, Upper Clynnog, by Alfred McAlpine Minerals Ltd, which will affect an area to the north of the existing quarry, belonging to Graianog farm. The application involves an area of land covering some 9 ha.

Gwynedd Archaeological Trust (Contracts Section) have been contracted by Alfred McAlpine Minerals Limited to carry out an archaeological assessment of the proposed quarry extension, and also to assess the remainder of the area which has planning permission for quarrying and processing.

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 and new sites to be identified. Recommendations for measures to mitigate the effects of extractions 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 assessment work if this is necessary, and recommended mitigatory measures.

3. METHODS AND TECHNIQUES

3.1 Desk-top Study

Consultation of maps, photographs, computer records, written records and reference works, which make up the 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. Aerial photographs were inspected at the offices of the Countryside Council for Wales.

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 August, 1994, by two members of Trust staff. Conditions for field walking were fair, but site identification was hampered by the long grass. The weather was drizzly and slightly misty. The entire proposed extension area was walked.

Sites identified were marked on copies of 1:25,000 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 1:25,000 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 numbers in brackets refer to the site gazetteer numbers)

The Sites and Monuments Record held by Gwynedd Archaeological Trust recorded four sites within the study area: the Graianog hut group (site 1), the ring money find spot (site 3), the Medieval settlement (site 8), and the Medieval platform house (site 9).

A number of possible archaeological sites were noted from aerial photographs, and these were checked on the ground. With the exception of one, a raised bank connected with site 10, none were visible on the ground. All the fields concerned have been heavily ploughed and improved.

Archive material consulted at the Local Record Office, mainly tithe maps, 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 farm boundaries and tracks.

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

The proposed extension area is surrounded by a significant number of archaeological sites, the earliest sign of human activity being the standing stone SW of Bwthyn Graianog, which occupies the summit of a low saddle, 250m N of the Cefn Graianog homestead. It may have been in place as early as the mid-third millennium BC (c. 2500 BC) and became a focus of ritual for the ensuing fifteen centuries. The two accompanying cairns would have been sited deliberately close to the stone and could be later additions to a larger multi-phase site developing from the late Neolithic to the middle Bronze age, of which only the stone and the cairns survive above ground. The three sites are protected Scheduled Ancient Monuments. In addition to these two cairns there are five others in the vicinity, although outside the proposed development area.

One focus of contemporary settlement might have been near the Graianog burnt mound, excavated by the Trust in 1983. The mound lay on the eastern margin of the ridge, next to a former stream channel, and was one of a series of scattered burnt mounds occupying similar locations in the surrounding bogs. No evidence of a settlement was found when the site was excavated and the surrounding area surveyed by magnetometer.

A chance find of ring money, in 1970 by a farm worker, discovered in the adjacent field indicates evidence for Bronze age activity in the immediate area.

The next major phase of human activity occurred towards the end of the Iron age, when a significant number of small enclosed homesteads were built. Those which have been excavated: the Caerau hut groups (exc.1936), Cefn Graianog I (Hogg. 1959), Cefn Graianog II (White. 1977-79), and Graianog (Kelly. 1984-87), show that these enclosed homesteads flourished without a break for several centuries, possibly through to the end of the Roman period.

There are at least three more known enclosed homestead sites around the Graianog ridge, none of which have been excavated, at: Foel-uchaf (SH45575046), NW of Graianog (SH45504945) and SW of Bryn Gors (SH46434985).

4.2.2 Roman

The round hut settlements mentioned in 4.2.1 above continued in use throughout this period, and the excavated settlements at Cefn Graianog I, Cefn Graianog II Graianog, and Caerau produced a quantity of pottery of Roman date.

4.2.3 Medieval and later

Occupation ceased at the homesteads about the end of the Roman period. Re-occupation began at the Graianog homestead at some stage between the eighth and eleventh centuries AD. Excavations in advance of gravel extraction at Cefn Graianog in 1977, revealed the remains of a substantial twelfth to thirteenth-century farmstead, comprising a house, barn, stable and byre. The settlement appeared relatively prosperous, but was short-lived.

In addition there are a number of possible platform house sites, (SH45344900, excavated 1977, and SH46024978) and a homestead with a series of contemporary boundary walls at (SH46154975). During the Medieval period land in this area was alienated to the *Clas* (Church) of Clynnog Fawr, some 4km to the west. Medieval townships close to the study area are recorded at Llanllyfni, and Penarth.

4.2.4 Post Medieval

The present Graianog farm probably dates to the middle of the fifteenth century, and was certainly well established by the early seventeenth century. Graianog was the sole focus of settlement on the ridge until Cefn Graianog was founded as an off-shoot to settle a divided inheritance in the middle of the nineteenth century.

The field systems now visible, in all probability, date from the early 19th century when many boundaries were re-aligned to open up areas for progressive farming techniques.

4.2.5 Conclusions

The region around Graianog contains a number of sites of archaeological and historical interest, and excavations carried out ahead of previous gravel extractions have proved that the area is rich in archaeological material. There is potential for the survival of sites of all dates, from the Prehistoric period through to the Medieval period.

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 extraction lies to the west of the current extraction area. Combined they form a roughly oval-shaped ridge, comprising fluvio-glacial silts, sands and gravels, laid in considerable depths over shales and slates of Lower Ordovician age. The soils are well drained stony brown earths and have attracted settlement from the earliest times. Only site (1) will be affected by the proposed extension, all the other sites lie in the area currently being worked. Two new sites have been noted within this latter area: a small sub-rectangular structure (site 5) and a possible enclosure visible on aerial photographs (site 11).

4.3.2 Gazetteer of Archaeological Sites

1. Graianog hut group SH 45824938 *Category B/E* PRN 117

A small homestead consisting of three round huts, a long sub-rectangular building and a small sub-rectangular building. This site was partially excavated Gwynedd Archaeological Trust between 1984 and 1987. Evidence from the resulting finds showed that the site had been inhabited from the late Iron Age through to the early Medieval period. Although the hut group lies just outside the proposed area, associated remains may extend into the area to be worked.

2. Cairn SH45914967 *Category D* PRN 29707

Clearance cairn - within a small triangulated walled area where three dry stone field boundaries converge (marked on all the OS maps). It would appear to be the result of relatively modern field clearance, though it is possible that there is an earlier feature underneath.

3. Ring money (Find spot) SH46014963 *Category D* PRN 3446

The first recorded example in Wales of Bronze Age 'ring-money' was found by a farm worker near Graianog farm in 1970. The area around the findspot was subsequently surveyed using a metal detector by the Trust, for the National Museum of Wales; results were negative. The find is now in the National Museum of Wales.

4. Cairns SH46104958 and SH46134969 *Category D* PRN 29830

Two mounds comprising of a number of large boulders, probably the result of modern field clearance.

5. Sub-rectangular feature/possible hut SH46154955 *Category C*

A sub-rectangular shaped hollow c.5m wide. Around the hollow there are definite low raised banks, and where these banks converge with the present wall there are a number of large stones set in the banks which appear to go underneath and are visible on the other side of the wall. In an otherwise gently curving boundary, where the feature occurs, there is a 'kink'. Probably the remains of a hut or an old sheepfold.

6. Cairn SH46164948 *Category E* PRN 29831

An area of disturbance possibly as a result of field clearance, consisting of a mound of medium and large boulders - probably partly modern clearance, however in places the boulders are well below the ground level of the present field, which suggests there may be an earlier cairn site beneath. The surrounding area is scattered with areas of large and small stones, but no pattern is discernible to suggest a feature.

7. Stone wall SH46114965 *Category D* PRN 29832

A stretch of dry stone wall, which is unusual because its base consists of very large boulders. It is the only example in the area and may be the remains of a much earlier boundary.

8. Medieval settlement SH46154975 *Category B* PRN 3779

It is possible to discern three small rectangular compartments and several low banks which disappear into a marshy area to the north of the site. Remnants of a wall are also visible to the south of the site. The site has been used as a dumping area for clearance stones.

9. Platform house SH46024978 *Category E* PRN 4360

Possible structures of 'platform house type' cut into the slope on the south side. Under recent field conditions this site was not visible.

10. Stone structure and enclosure SH46164992 *Category C* PRN 29833

The well defined remains of a stone structure within an irregular enclosure with two low field boundaries running north and west from the enclosure. The enclosure is marked on the 1889 1:2500 OS map. Possibly the remains of a small stone dwelling or a sheepfold, of uncertain date.

11. **Large circular enclosure** SH45894970 *Category E*

Large circular feature clearly visible on aerial photographs. Possibly the site of an early enclosure. Due to poor field conditions nothing was visible on the ground.

12. **Field boundaries, etc.**

The pattern and nature of field boundaries are an important part of the historic landscape. Their construction, linear plan and ecological diversity can provide valuable information about the landscape and its evolution. The most common types of field boundary in this area are drystone walls.

5. RECOMMENDATIONS

5.1 General

In this section, it is necessary to assess the likely impact of the proposed scheme on the cultural heritage, and to make recommendations to mitigate that impact. Specific recommendations are made for each site when there is sufficient information to enable a reasonable assessment of its importance. However where the status of the site is not yet known (Category E sites), then recommendations are made for further assessment to establish the status of that site. It will only be necessary to carry out this further assessment if the site is to be disturbed. In addition, the high density of sites in the surrounding area has implications for those areas of unknown archaeological potential, and recommendations are also made for assessing these areas.

5.2 Recommendations for further assessment

1. **Graianog hut group** Although the settlement is just outside the limit of the proposed extension, this site has been included because it is likely that the area north of the hut group itself, (which is within the limit of the proposed extension), is examined by geophysical survey and some trial trenching to establish whether there are any associated features in the area.

6. **Cairn** Potential impact: Damage from contractors vehicles, storage of topsoil etc. It is recommended that disturbance of this site is avoided, but if this is not possible then the site should be examined by trial excavation to ascertain its archaeological status.

9. **Platform house** Potential impact: Total destruction. The site should be examined by trial excavation to determine its nature. Appropriate mitigation measures will be recommended after the evaluation.

11. **Large circular feature** Potential impact: destruction by quarrying. The site should be examined by geophysical survey and trial trenching to establish its status: appropriate mitigation measures will be recommended following this evaluation.

5.3 Recommendations for mitigatory measures

5.3.1 Known sites

1. **Graianog hut settlement** It is recommended that the hut group area is fenced off from the area to be quarried. The fence line should be determined by an archaeologist to ensure that the full extent of the site is included.

2. **Cairn** Potential impact: Complete destruction. It is recommended that a watching brief is carried out whilst the cairn is being removed. If the cairn proves to be of Prehistoric date rather than the result of modern clearance, adequate time should be allowed to record any findings.

3. Ring money (Find spot) Potential impact: Complete destruction. The area where the ring money was discovered was surveyed using a metal detector by staff from Gwynedd Archaeological Trust shortly after the discovery was made. It is unlikely that there is anything else around the immediate area, although a watching brief should be maintained during soil stripping operations.

4. Cairns Potential impact: Possible damage from quarrying, contractors vehicles and soil storage. It is recommended that a watching brief is carried out when the cairns are being removed. Should the cairns prove to be Prehistoric rather than the result of modern clearance, adequate time should be allowed to record any findings.

5. Sub-rectangular feature Potential impact: Possible damage from contractors vehicles, soil storage etc., but the site appears to be outside the area to be directly affected by quarrying. It is recommended that this feature is fenced off and left *in situ*, but if this is not possible, then the site should be fully recorded by excavation.

7. Stone wall Potential impact: Possible damage from contractors vehicles etc. but unlikely to be affected by direct quarrying. If the site is to be physically affected, it is recommended that it is photographed, and a section recorded across the wall. If the buried soils are suitable, soil samples should be taken to provide dating evidence and environmental data from beneath the wall.

8. Medieval settlement Potential impact: Possible damage from contractors vehicles and soil storage. This site should be fenced off and left *in situ*. If physical impact cannot be avoided, then this site should be fully excavated before disturbance.

10. Stone structure and enclosure Potential impact: damage from contractors vehicles and soil storage. It is recommended that this structure is fenced off and left *in situ*. If physical disturbance of the site is unavoidable, it should be surveyed, and examined by trial excavation.

12. Field boundaries It is recommended that where a significant part of any field boundary is to be disturbed, then it should be recorded in advance by photograph and written description.

5.3.2 Recommendations for areas of unknown archaeological potential

Previous results have shown that many sites can only be detected once soil removal has commenced. It is recommended that a continuous watching brief is undertaken during soil stripping operations. This is an important part of the mitigatory strategy, with potential for discovering sites which would otherwise go unrecorded.

6. SUMMARY FOR FURTHER WORK & MITIGATORY MEASURES

6.1 Further assessment work

This section summarises the work which is recommended to evaluate those archaeological remains whose status and extent are not yet established, i.e. sites in Category E. If it is necessary to disturb these areas, then they will be reclassified and suitable mitigatory measures suggested following evaluation.

Category E - Sites needing further investigation

1. N. of Graianog hut group	Geophysical/trial trenching
6. Cairn	Trial trenching
9. Platform house	Trial trenching
11. Large circular feature	Geophysical/trial trenching

6.2 Mitigatory Measures

This section lists the remaining sites according to category (as described in Section 3.4 above).

Category A - National importance

None

Category B - Regional importance

1. Graianog hut group
8. Medieval settlement

Category C - Local importance

5. Sub-rectangular feature
10. Stone structure and enclosure

Category D - Minor and damaged sites

2. Cairn
3. Ring money (Find spot)
4. Cairns
7. Stone wall
12. Field boundaries

7. SELECT BIBLIOGRAPHY

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8. Non Technical Summary

An initial assessment of the proposed extension area has identified a number of actual and some possible sites. Recommendations for further assessment are made for those sites whose archaeological status is not yet known, and mitigatory measures are recommended for the remaining sites.

Four sites of unknown archaeological status have been identified: Site 1, which is included in this section as it is probable that the area to the north of the hut group contains associated archaeology; site 6, the possible cairn; site 9, the platform house; and site 11, the large circular feature. Sites 1, 9, and 11 are likely to be directly affected, and assessment in the form of geophysical survey and/or trial trenching is recommended for each site. Site 6 lies on the edge of the proposed area, and will require further evaluation if it is to be disturbed.

Two sites are identified as Category B status: the enclosed hut group at Graianog (site 1 outside the development area) and the Medieval settlement (site 8). These should be fenced off to prevent any unnecessary damage by contractors vehicles during the initial stages of construction work.

Two sites have been identified as Category C status: the sub-rectangular feature (site 5); and the small irregular-shaped enclosure containing a stone structure (site 10). These sites lie on the edge of the proposed area and it is recommended that they are fenced off and left *in situ*. However, if they are to be physically disturbed, it is recommended that adequate time is allowed for full excavation.

The remaining sites fall into Category D status: two cairns, (sites 2 and 4) appear to be modern clearance cairns - it is recommended that a watching brief is carried out during the removal of these, and in the event of any Prehistoric findings, adequate time is allowed for recording. An early wall (site 10), should be recorded in section if it is to be physically disturbed. It is also recommended that any other field wall which is to be removed should be recorded by photograph and written description.

