

PROPOSED HYDRO-ELECTRIC SCHEME,
AFON MAESGWM

ARCHAEOLOGICAL ASSESSMENT

SMR

Report 109.

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Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

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ARCHAEOLOGICAL ASSESSMENT

prepared for

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Gwynedd Archaeological Trust Report No. 109 (GAT No. 1225)

HYDRO-ELECTRIC SCHEME, AFON MAESGWM

INITIAL REPORT

1. INTRODUCTION

A hydro-electric scheme is proposed which will draw water off the Afon Maesgwm at a point (approximately SH63754450) above Pont Maesgwm, and return it to the same river south of Parc slate quarry at approximately SH62134328. Gwynedd Archaeological Trust (Contracts Section) has been asked by Shawater Ltd to carry out an archaeological assessment of the proposed scheme, to form part of an Environmental Assessment, leading to an Environmental Statement which is to accompany the proposal.

2. ASSESSMENT BRIEF

An initial report was requested from Gwynedd Archaeological Trust, assessing the likely archaeological impact of the scheme and suggesting mitigatory measures.

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. Measures to mitigate the effects of the proposed scheme on the archaeological resource were to be 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 report covers the work done under the first two stages of assessment, documentary research and walking the area, and includes recommendations for later stages.

3. METHODS AND TECHNIQUES

3.1 Desk-top Study

Consultation of maps, computer records, written records and reference works, which make up the Sites and Monuments Record, was undertaken at Gwynedd Archaeological Trust. Records (including early Ordnance Survey maps, tithe maps and schedules, estate papers and reference works - see bibliography) were consulted in the library and the archives of the University College of North Wales, Bangor, and the County archives at Dolgellau. Aerial photographs were inspected at the offices of the Countryside Council for Wales.

3.2 Field Search

This was undertaken on the 6th of June 1994, when the whole of the proposed route of the pipeline was walked. Conditions were poor for fieldwork, with light and visibility below average for the time of year.

Sites identified were marked on copies of 1:10,000 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 1:10,000. 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.

In some cases, further investigation may result in sites being moved into different categories. 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 of 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. By the end of the assessment there should be no sites remaining in this category.

4. ARCHAEOLOGICAL FINDINGS

4.1 Introduction

A search of the Sites and Monuments Record held by the Gwynedd Archaeological Trust produced details of a number of sites of archaeological interest within the study area, though none of these will be directly affected by the proposed hydro-scheme. These sites include the late Prehistoric - Roman Settlement at Garth-y-Foel, the medieval settlement site of Pont Maesgwm and the Roman Road known as Sarn Helen, among other sites, dating from prehistoric times the early 20th century.

Archive material consulted at the Dolgellau Record Office, in particular the Tithe map for Llanfrothen, and estate records, were useful in indicating the farm boundaries and land owners from 17th to 19th centuries, and early Ordinance Survey maps also helped elucidate changing patterns of farm boundaries and tracks. Unfortunately, Land Tax Assessments for the area dating from before 1900 were not available.

Lists supplied by Cadw: Welsh Historic Monuments were consulted for information about listed buildings and scheduled ancient monuments. There are a number of sites in the vicinity which fall into this category: the house at Parc, the two cottages to the south-west, the barn and gatehouse, all part of the group of buildings known as Parc are Listed grade II, as is the 17th century cow-house and cottage known as Beudy-newydd.

Sites noted from documentary sources were identified in the field where possible, and a number of additional sites were identified. These are included, with the rest of the sites, in the gazetteer.

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

There is evidence of Prehistoric occupation of the area, ranging from settlement sites of circular houses and associated enclosures to finds of implements, dating from the period. The settlement sites typically date to the Iron Age (600 BC - 0 BC) although occupation often continues into the Roman period. An example of one such site, is that at Garth-y-Foel (SH62554430), which comprises three well preserved round huts with an enclosure wall. Another settlement site of the period is situated at Ogof Llechwyn (SH64104292), to the south-east of the study area. This consists of two large hut circles and partially encircling enclosure wall. Nearby, close to the metalled lane stands yet another, though much ruined hut circle (SH63694289) of massive build.

Also of interest is a stone axe of group VII type, found in Cwm Croesor at SH63544498, and a socketed bronze spearhead of the Bronze Age (1,600 - 600 BC) found near Creua, to west of the study area.

4.2.2 Roman

It has been suggested that the Roman road known as Sarn Helen, which ran between Segontium (Caernarfon) and the fort at Tomen y mur passes through the northern section of the study area, (possibly crossing the Afon Maesgwm somewhere in the region of the present Pont Maesgwm), on its way to Croesor and the Aberglaslyn pass. Antiquarian references mention a Roman road in the area, however the length of paved track between Croesor and Bwlch Gwernog and another to the east of Fron Goch (SH64454214), should not necessarily be ascribed a date earlier than the 18th century. However, the possibility that the course of the road may, in part, lie beneath the course of the present metalled lane from Tanybwlich to

Croesor should not be discounted.

The settlements and field systems mentioned in 4.2.1 above appear to have continued in use throughout the Roman period.

4.2.3 Medieval

The study area lies within the Medieval Cantref of Ardudwy, in the Commote of Ardudwy Uwch Artro, and formed part of the Medieval township of Llanfrothen. There are a number of settlement sites in the area probably dating to the early part of the period, amongst these are the two associated house platforms (62594404), probably the remains of a Medieval farmstead, which lie just to the north of the present Post-Medieval house of Parc, and two longhuts situated to the west (SH634439) and east (SH636440) of Pont Maesgwm.

The well, known as Ffynnon Helen, takes its name from the relatively late growth in the legend of the Roman Empress Helena, associated with the early track of Sarn Helen, close by and there is apparently no genuine Medieval tradition attached to the site.

4.2.4 Post Medieval

The study area lies within the boundaries of the farm of Parc and Gelli, according to the Tithe map of 1841. The buildings at Parc (Listed Grade II and of Group Value) are of considerable interest, being a classical example of the "unit system" which developed in this region during the 17th century. The "unit system" refers to a layout where two or more houses, each a complete entity, were built in close proximity, often sharing the same yard. Other examples of the type are to be found at Gwydir, Plas Newydd (Penrhyndeudraeth) and Clenenney.

The complex of buildings at Parc comprises 4 houses, a barn and gatehouse, gardens and orchards with terraces and enclosing walls all of 17th century origin. The three earliest houses all date from the time of William Lewis Anwyl (died 1642). One remains to foundation height and consisted of a central block with two projecting wings one on each side. This building is probably a rebuild of an earlier structure built in the time of Robert ap Morris (c. 1500-1576) of Parc. Another, only 8' 8" away from the first and facing it at right angles is also in ruins. This was a two storey rectangular building with a small projecting wing (still roofed) attached to its south-west wall. The third building is butted up against this projecting wing and is of a slightly later construction. The latter building has a number of interesting features including a circular chimney, which carries the flue from an upstairs chimney and a flue which leads down through the thickness of the wall into a room below, which has been interpreted as a chute by which ash could be conveniently removed. The fourth and only habitable house at Parc, has a date stone bearing the date 1671 and the initials of Lewis and Katharine Anwyl. The building is of an unusual plan, having two original front doors, one leading into each of the main down stairs rooms, originally divided by a wooden partition.

Also of interest is the large cow-house of Beudy-newydd (listed Grade II), dated 1666, with the initials K A, for Katherine Anwyl. This had space for 24 animals and a cottage for the herdsman, which is attached to the cow-house at a right angle forming a 'T' shaped plan.

Industrial remains exist in abundance throughout the region, which date in the main from the nineteenth century. The quarry at Parc (SH626436), opened in 1866 was an underground working, producing slab and slate ridging. By 1878 the quarry had started using the Croesor Tramway (opened in 1864) and was employing between 15 and 20 men. Under the ownership of William Kellow the quarry became amalgamated in the Parc & Croesor Slate Quarries Co. Ltd. in 1895. The Parc quarry remained in the Kellow family until the workings eventually closed in 1930. The remains at Parc quarry include the still inhabited managers' house, to the north-east stands a building containing the base of a compressor, associated with this is a wheel-pit and slate bedded incline with rope score marks and a flight of stone steps. Across the river, which is extensively bridged by massive slate slabs, are the ruins of the main mill. This was powered by a launder from the tailrace of the upper wheel. The collapsed adit

which lead to the underground workings, lies nearby.

The workings at Parc Slab (SH632444) are roughly contemporary to those of Parc and like Parc were eventually operated in conjunction with Croesor. The mill site, once served by an incline, which joined with the Croesor Tramway to the north, is now cut by the road to Croesor. Immediately to the south lies an unusually large wheel-pit, the remains of buildings and extensive waste slate tips.

4.2.4 Summary

The area around Parc holds a number of sites of archaeological and historical interest belonging to the Prehistoric and Roman periods. The Medieval period is reasonably well chronicled, and, although they are difficult to date, sites of this period are present. The buildings at Parc date from the 17th century, though there is evidence for a structure dating at least to the 15th century having stood on the site. There are numerous industrial remains in the area, dating mainly from the latter half of the 19th century, the development of which was closely related to the improvement in transportation brought about by the construction of the Croesor Tramway.

4.3 Archaeology of proposed development area.

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

It is currently proposed that the pipeline will extract water from the river to the north-east of Pont Maesgwm, just south of the disused dam at SH63754450 and will then run north-west, down the hill side, keeping to the north of the covered reservoir, and cross the metalled lane from Tanybwllch to Croesor at approximately SH63344426, where it will turn sharply to the south-east. From the metalled lane the pipeline will take one of two slightly varying routes down hill to cross another metalled lane (Croesor to Llanfrothen) at either SH63034417 or SH63054413 to eventually join the track below Parc (6) at SH62954411. It is proposed that the pipe then follows the track to a point beyond the Garden terraces of Parc (SH62744384), where it will leave the track to cross farm land to the east, passing immediately south of Beudy-newydd.

The route then turns slightly to the south, crosses the incline (4) to a turbine house and outfall point at SH62134328, near a right angle bend in the Afon Maesgwm, (see fig. 2).

The following sites will be directly affected by the proposed development: the rectangular structure (3); the incline (4); the field bank (5); the revetted trackway below Parc (6); Trial Level and associated waste tip (7); the linear slate waste tip (8); the low bank (14); the sub-circular feature (15); Possible orthostatic walling and associated trackway (16); and the bank and ditch (17).

4.3.2 Gazetteer of Archaeological Sites

1. Slate slab bridge and associated revetment SH62124325 Category D

A small bridge, which crosses the Afon Maesgwm where its course takes a right angle bend, and enters a diversion channel linking it ultimately with the Afon Croesor. The diversion channel apparently forms part of a land reclamation system of embankments (c. early 19th century) extending to beyond Pont Garreg-Hyllidrem (SH61454315). The bridge consists of a number of roughly hewn slate slabs laid across iron girder supports, and probably dates from the early 20th century. However there appears to have been a river crossing at this point from at least c. 1840 indicated by the first edition 1" Ordnance Survey map. The southern side of the bank has been strongly revetted at the point of the artificial right angled bend, indicating the start of the river diversion mentioned above.

2. Small rectangular structure SH62184334 Category D

A small rectangular drystone constructed structure situated on the south-east bank of the Maesgwm near the river crossing (1). The structure stands about half a metre high and has possible entrances in its north-west (overlooking the river) and south-east sides.

3. Rectangular structure, (remains of) SH62154327 Category D

A rectangular, boulder built structure remaining in part to almost shoulder height. The structure is situated between the river and the existing track. This is probably the remains of an agricultural building.

4. Incline SH62184334C Category C

This is a stone revetted incline built c. 1878 to connect the Parc quarry with the Croesor tramway. The incline presently forms part of an access road to the farms of Parc and Beudy-newydd

4a. Drumhouse, associated with the incline (4) SH62204333 Category C

The remains of the slate built drumhouse (c. 1878), constructed to serve the incline connecting Parc quarry with the Croesor tramway (4). One gable end of the structure still stands to its original height, and the base of the machinery housing partially remains, the rest has been reduced to foundation level.

5. Field bank, south-west of Beudy-newydd SH62274344C Category D

A low linear, eroded field bank running down slope towards the river, on a north-south axis. The feature is cut by the later quarry and farm tracks.

6. Revetted trackway below Parc SH62504363-SH63014417 Category C

A well built trackway which originally lead from Brondanw isaf, Llanfrothen to Parc, shown on the 1st edition Ordinance Survey and the Tithe map of 1840. The track is partly revetted on its lower and upper sides and at one place lies within a cutting. The track is crossed by at least two stone lined drains (at approximately SH62724381 and SH62654371). There is evidence to suggest that, in some places, its surface was originally cobbled.

7. Trial Level and associated waste tip SH62904408 Category D

A small narrow trial adit cut into the slope just above the track (6), just after the junction with the original track to the Gatehouse of Parc. Opposite and immediately down slope of the track (6) lies the associated waste tip.

8. Linear slate waste tip SH63204420C Category D

A long slate tip stretching from a point mid-way along the incline (10) north-west to an engine house and other structures, including a slab covered leat at SH63144425C. The tip, part of the Parc Slab quarry, has already been breached by a water pipeline (Welsh Water) at its south-east end.

9. Revetted track/incline SH63214411-SH63334423 Category D

A linear stone revetted track, probably the bed of an incline associated with a number of levels, part of the Parc Slab quarry. This quarry ceased production before the First World War.

10. Orthostatic walling SH63404432C *Category D*

A length of walling comprising large orthostats running north, up hill from the metalled lane, forming part of a field boundary shown on the Tithe map of 1840. The walling may be a remnant of an earlier field pattern.

11. Small sub-rectangular structure SH63414431 *Category D*

A small sub-rectangular stone and earth banked structure, situated at the crest of a small natural gully, just south of the orthostatic walling (11). The structure is located immediately off a minor track (13).

12. Track approximately SH63404432C *Category D*

A minor track, following a ledge through a slight hollow between two rocky knolls on the hillside and descending to cross a tributary of the Afon Maesgwm.

13. Drystone abutment SH63434429 *Category D*

A wedge shaped drystone constructed structure, interpreted as a possible abutment, and probably associated with industrial activity. However the exact function of the site is uncertain and the possibility of it simply being a regular shaped clearance cairn should not be ruled out.

14. Linear feature SH63404425-SH63444409 *Category E*

The remains of a low bank, with a possible hollowway and a sunken stream parallelling it to the immediate west. The exact nature of the feature is uncertain and the stream may possibly be a water worn ditch. The course of a Roman road is thought to lie in the vicinity.

15. Sub-circular feature SH63414415C *Category E*

A large raised sub-circular feature located approximately half way along the bank (15), near the stream. The feature, which is grassed over, stands to a height of about half a metre and is fairly level on top.

16. Possible orthostatic walling and associated trackway approximately SH63454419C *Category E*

A curvilinear setting of large boulders, which possibly represent the remains of an early enclosure. To their immediate south lies a slightly sunken curvilinear feature, possibly a trackway, though its exact course and nature is uncertain.

17. Bank and ditch SH63624408C *Category D*

A low linear bank and parallel ditch, probably associated with an early attempt to drain and improve the surrounding land.

18. Field boundaries

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. There are field boundaries of many different periods within the study area, some of which may have Prehistoric origins, although most are Post-Medieval in date.

5. RECOMMENDATIONS

5.1 General

The pipe will be 300 mm in diameter, and requires 300 mm cover. The trench for the pipe will therefore need to be 600 mm deep and some 500 mm wide. The impact of the scheme on the cultural heritage could be minimised by the correct choice of route of the pipeline, and by using the most appropriate method to dig the trench and lay the pipe.

5.2 Route

The suggested route, shown on the accompanying plan, is designed to minimise the impact on the known archaeological features.

5.2.1 North of Pont Maesgwm - The Croesor lane. It is recommended that where the pipeline runs close to the sub-circular feature (15), and the possible orthostatic walling and associated trackway (16) care is taken to minimise damage to these features, where this is unavoidable the features should be recorded. This could be undertaken during construction, provided time is allowed for the recording of features.

5.2.2 Linear Feature (14). It is recommended that the pipeline crosses the linear feature (14) at a right angle, so as to minimise any damage to the feature. This bank will need recording, and this could be carried out once work has started, providing sufficient time is allowed for the recording of the remains.

5.2.3 The Croesor lane - Parc. It is recommended that the route closely follows the Welsh Water pipeline corridor, where it crosses the linear slate waste tip (8), if this is not possible the feature should be recorded and reinstated following completion.

5.2.4 Parc - Turbine and Outfall Point. At its eastern end the pipeline will cross the disused incline (4), which once connected Parc quarry to the Croesor Tramway. It is recommended that this site is recorded before it is disturbed and re-instated as a landscape feature following the laying of the pipe. The turbine house and return pipe are to be located near the rectangular structure (3), it is preferable that the site be left untouched, however if disturbance is unavoidable, the site should be recorded by excavation and measured survey before work starts.

5.2.5 Field Boundaries. Where the pipeline cuts through any field banks or dry stone walls, such as the field bank (5) and the bank and ditch (17), care should be taken that any damage is minimised, and that they are recorded in advance and reinstated afterwards.

5.2.6 Unknown Archaeological Deposits. It is possible that archaeological deposits exist underground with no visible above ground remains, and that these will only be discovered following soil stripping operations. It is therefore recommended that a continuous watching brief is undertaken during soil stripping, with time allowed for recording features observed.

5.3 Working method

The working corridor should be kept to the minimum needed to excavate the trench, store the soil, and reinstate. It is recommended that an archaeologist is present when the working corridor is established, to minimise the impact of the route design on the cultural remains. The possibility of working by hand should be examined where machine working may cause unnecessary damage. Care should be taken when reinstating the stored material that the original ground surface is kept as undisturbed as possible.

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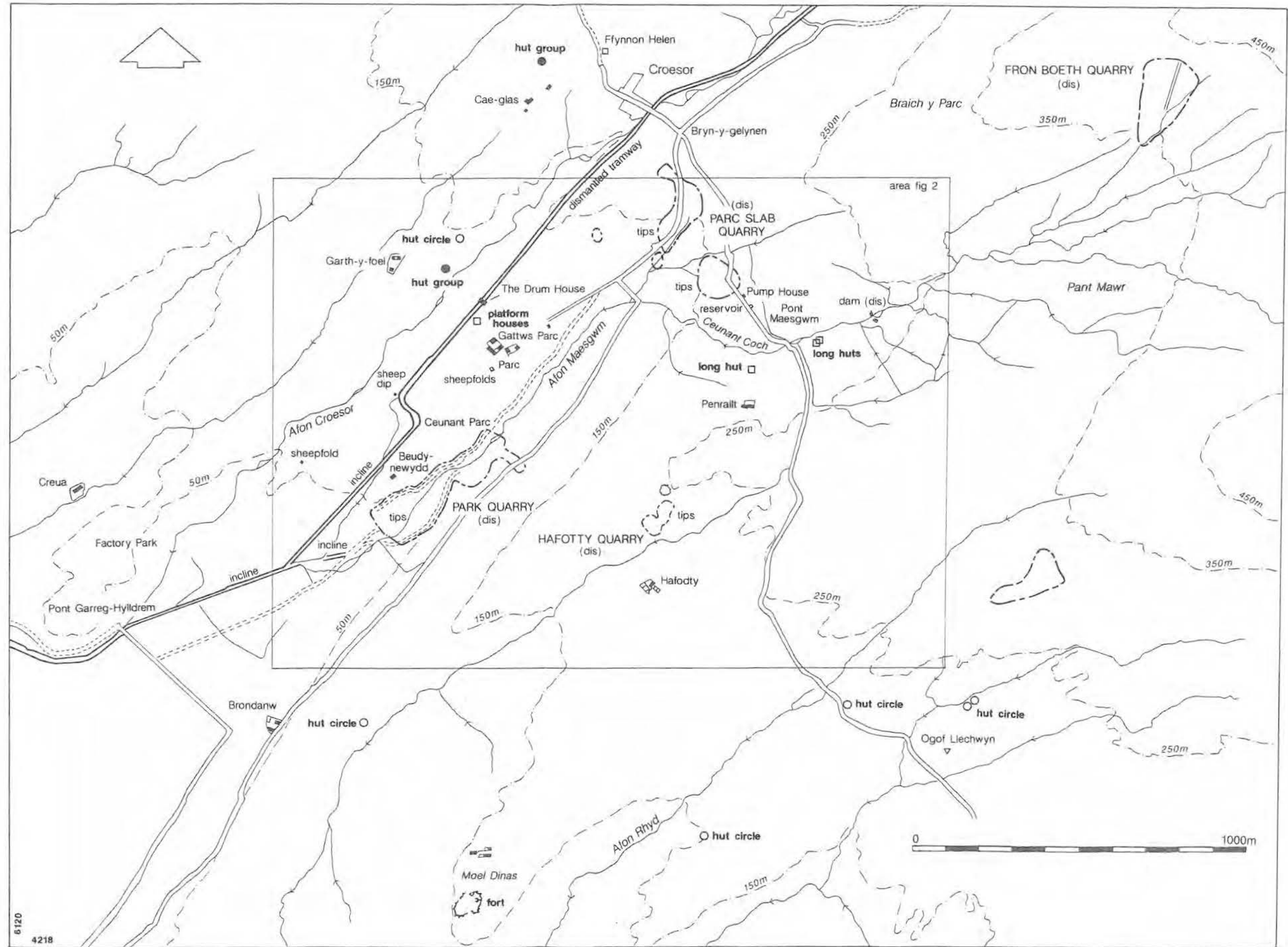


Fig 1. Location and extent of desktop and field survey areas.

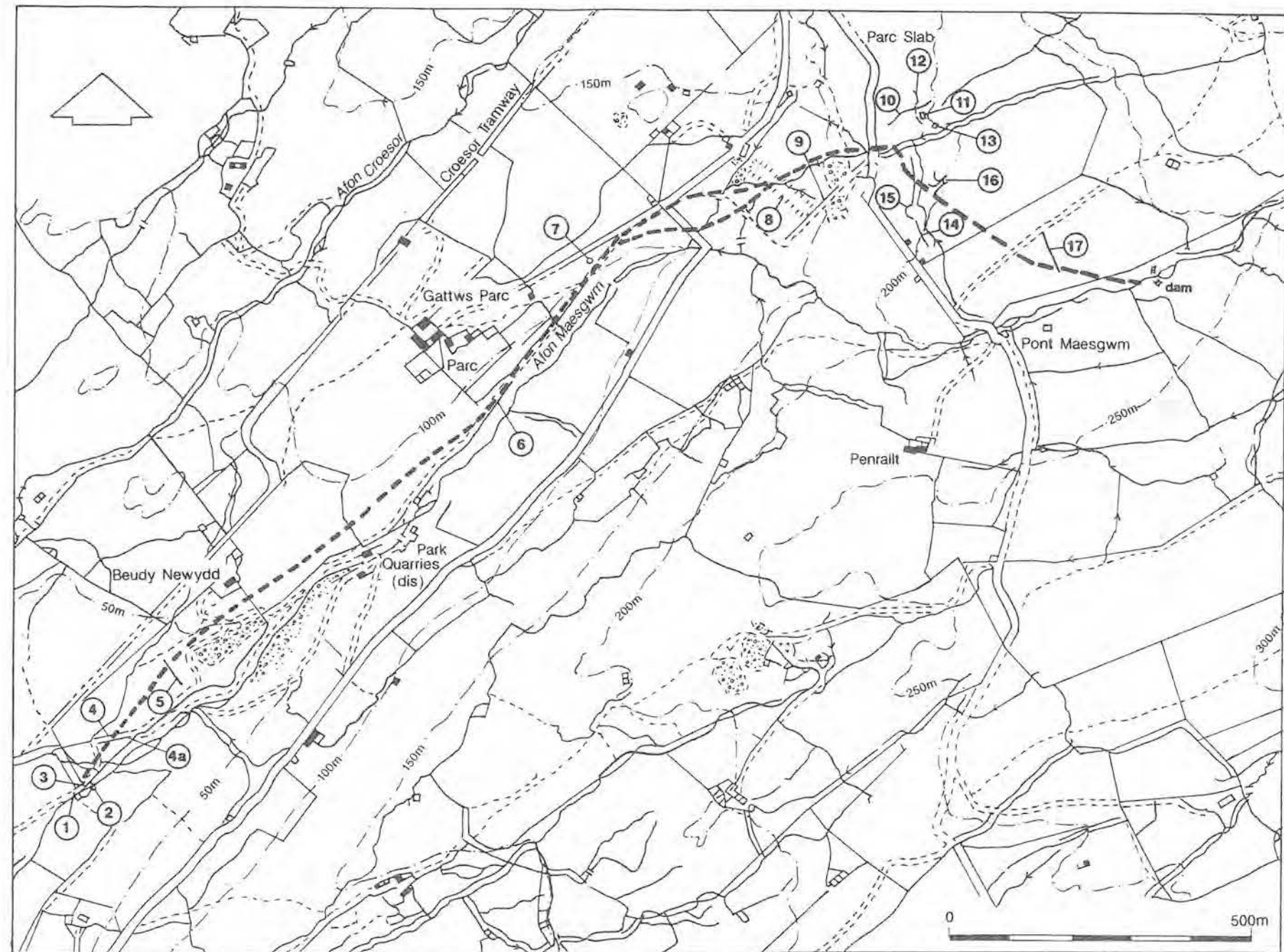


Fig 2. Location of sites listed in gazetteer and preferred pipeline route.