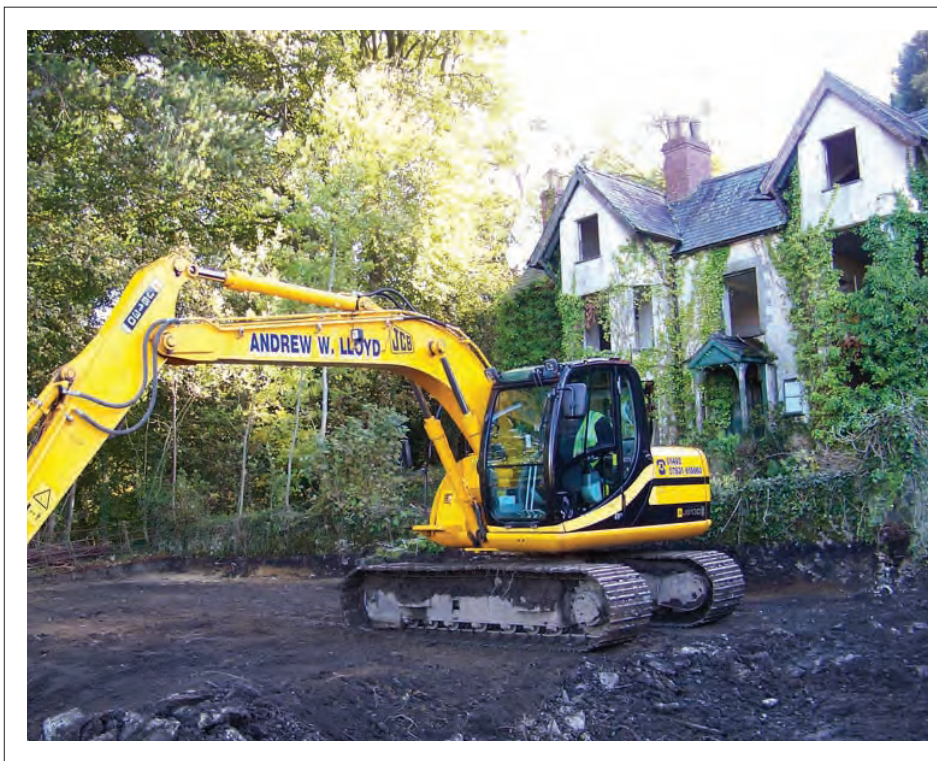


# *Archaeology Wales*

## **Furnace Farm, Bodnant Estate, Conwy**

### Archaeological Watching Brief



By  
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Report No. 1012

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# Archaeology Wales

## Furnace Farm, Bodnant Estate Conwy

### Archaeological Watching Brief

Prepared for: Patrick Bigham, Capita Symonds

On behalf of: Bodnant Estate

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Date:

By  
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Report No: **1012**

Date: **April 2011**



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## **Summary**

*An archaeological watching brief was carried out by Cambrian Archaeological Projects and Archaeology Wales between October 2010 and February 2011 during groundworks associated with the redevelopment of Furnace Farm on the Bodnant Estate, Conwy. The groundworks involved the reduction of ground levels within and around the complex of farm buildings and within woods to the south-west, to accommodate new buildings, parking and services. The works carried out around the buildings was subject to an intensive watching brief, while the topsoil removal in the woodlands was only monitored intermittently. This followed a brief prepared by Gwynedd Archaeological Planning Services (GAPS). No features of archaeological significance were revealed during the groundworks, either in the vicinity of the buildings or in the woodlands. A spread of mixed coal, ash and charcoal was identified on the northern side of the site, which is likely to have originated from the furnace known to have existed immediately north-east of the farmhouse at the start of the nineteenth century.*

## **1. Introduction**

This report presents the results of an archaeological watching brief carried out during groundworks within and around the buildings of the former Furnace Farm (NGR: SH 79600 72280; fig. 1). Furnace Farm forms part of the Bodnant Estate, near Eglwysbach in the Conwy valley, and comprised the remains of the former farmhouse, a stone-built cow house and a range of stone-built arched outbuildings.

The groundworks were carried out as part of the refurbishment of the former farm complex by the Bodnant Estate, to create the Bodnant Welsh Food Centre (fig. 2). The development proposal was submitted by Mr Patrick Bigham, of Capita Symonds, Penrhos Manor, Oak Drive, Colwyn Bay, LL29 7YW. The local planning authority is Conwy County Borough and the planning application number is 0/36337.

The watching brief was carried out following recommendations by Ashley Batten of the Gwynedd Archaeological Planning Services (Henceforth GAPS), who act as archaeological advisers to Conwy County Borough. It was recommended that an intensive watching brief was undertaken during all groundworks, demolition and stripping out within and immediately around the former farm buildings, and that an intermittent watching brief was carried out during groundworks elsewhere on the site. The watching brief followed an archaeological Desk-based assessment and Standing Building Recording carried out by Richard Scott Jones of Cambrian Archaeological Projects (CAP) in 2010.

The first phase, in the area immediately surrounding the farm buildings, was undertaken by Cambrian Archaeological Projects (CAP) in October 2010. The second phase, in the woods to the south-west of the farm buildings was carried out by Archaeology Wales (AW) in February 2011. The on site work was undertaken by Ian Davies and the project was managed for both CAP and AW by Mark Houliston.

## **2. Aims and Objectives**

The archaeological watching brief followed a Brief prepared by Ashley Batten of GAPS (see Appendix I) and a Specification prepared by Mark Houliston of CAP/AW (see Appendix II). The aim of the watching brief was to mitigate the impact of the development on the site and to locate and record any previously unknown archaeological remains, following guidelines set out in Welsh national planning

guidance (Planning Policy Guidance Wales 2002), Welsh Office Circular 60/96 (Planning and the Historic Environment: Archaeology) and Welsh Office Circular 61/96 (Planning and the Historic Environment: Historic Buildings and Conservation Areas).

### **3. Site Description and Historic Background**

Furnace Farm lies on the eastern bank of the River Conwy at 20m AOD. It is located 500m to the west of Bodnant Gardens, which is Grade I listed on the Cade Register of Parks and Gardens of Special Historic Interest in Wales (PGW (Gd) 5 (CON)). The farm itself falls within the 'essential setting' of the listed gardens and as such any development of the farm buildings will impact on the gardens.

A house had stood on the site of the modern Furnace Farm since the early seventeenth century (Edwardes Holland undated). It was initially called Pwll-y-Calch, Pool of the Lime, named after a lime kiln located on the tidal reaches of the Conwy River (McLaren 1939). In 1805 it was bought by the Bodnant Estate, and gradually expanded and developed by the Pochin family, the owners of the Estate (McLaren 1939).

A map of 1805 depicts the farmhouse and the brick-built cow house, with an old furnace immediately to the north-east (fig. 3). A track leads from the road past the eastern side of the farmhouse to the furnace, which is located on the northern side of a yard from the farmhouse. A walled garden is located to the north-west of the range of buildings. The farm has evidently been in existence for some time by 1805.

The cartographic evidence reveals the developments to the farm throughout the nineteenth century, with the range of arched outbuildings having been constructed by the time of the 1841 Tithe map (fig. 4). The furnace is not depicted on the Tithe map, evidently having been knocked down in the early nineteenth century. By 1900, the hay barn to the south of the cow house had been constructed, and a series of walls built within the courtyard area between the cow house and the arched outbuildings (fig. 5).

### **4. Watching Brief**

#### **4.1 Methodology**

A watching brief was carried out in two phases during the groundworks associated with the development of the Bodnant Welsh Food Centre. The first phase was undertaken by Cambrian Archaeological Projects (CAP) in October 2010, and the second phase by Archaeology Wales (AW) in February 2011.

The initial watching brief was intensive (ie. carried out during all phases of ground clearance work and demolition). A 13t mechanical excavator was used for all the groundworks fitted with a 2m wide toothless ditching blade. A 1m wide toothed bucket was used to remove overgrown vegetation and rubble (after examination by the on-site archaeologist). Access to the interior of the house and other buildings was not possible during the development works due to Health and Safety concerns. As a result, no record was made of the interior of the buildings following the stripping out of modern fittings.

The second phase of the watching brief was intermittent, involving walkover surveys of ground undergoing topsoil stripping to the south-east of the farm complex. This area of woodland was stripped using tracked machines fitted with both toothed and toothless buckets. As a result of the stripping methodology, ground conditions were poor.

#### 4.2 Results of CAP watching brief

In October 2010, groundworks were carried out in the area immediately surrounding the farm complex.

Initial ground clearance was carried out immediately to the north of the farmhouse, in an area of former garden. The garden was overgrown with vegetation, which covered several small piles of building rubble. These were examined to determine whether they were structural prior to being removed.

In the section of garden closest to the house the topsoil was up to 0.1m thick and comprised a dark organic silty clay, which lay directly on top of the mixed light yellowish orange gravelly natural. Occasional irregular spreads of small rounded river pebbles (max 0.1m in diameter) were identified set into the upper surface of the natural. These are thought to be the fragmentary remains of a paved surface located immediately in front of the house, as depicted on the OS 1<sup>st</sup> Edition Map of 1875.

Groundworks in the northern half of the garden revealed a rich, dark greyish black silty clay topsoil up to 0.3m deep, consistent with a well cultivated soil regularly enriched with manures. The topsoil overlay a thin light yellowish brown silty clay subsoil up to 0.1m thick, which overlay the mixed light yellowish orange natural (fig. 6). There was no evidence of any surviving garden features, although occasional small fragments of eighteenth or nineteenth ceramics were uncovered in the topsoil and subsoil (not retained).

To the south of the large cow shed a narrow track was stripped back to the surface of the natural, which comprised a light yellow clay containing numerous small pebbles – notably different from the natural to the south of the farm complex (fig. 7). The topsoil comprised an organic dark greyish black silty clay, was up to 0.2m deep and contained small fragments of eighteenth or nineteenth century ceramics (not retained). Once the trackway had been stripped, the hay barn located in an elevated position to the south of the cowshed was demolished (fig. 7). It was a brick-built structure with timber cladding in places and timber beams (modern) covered by corrugated iron sheeting. The ground level immediately to the south of the cow house, in the area of the hay barn, was reduced by around 10m to accommodate the construction of a new building, which involved the removal of the retaining wall to the south of the cowshed (fig. 7). The whole area was covered by an organic topsoil, up to 0.25m, which overlay the light yellow gravelly natural. The ground reduction exposed the whole of the southern wall of the barn to the base of its foundations.

In the central courtyard of the arched northern range a thin layer of silt and vegetation was removed to reveal the well-preserved cobbled yard (fig. 8). The cobbles comprised rounded river pebbles up to 0.2m in diameter. The cobbled yard surface was left intact, with further clearance of rubble and general dereliction from inside the arches being undertaken by a small 6t JCB excavator. Within the courtyard between the barns a series of walls were demolished (fig. 8). These were modern (twentieth century) in date and comprised breeze block walls rendered with concrete forming a

roughly rectangular enclosure within the courtyard, and red-brick walls blocking entrances to the bays in the cowshed. No structural features associated with the main farm buildings were damaged by this work.

On the north side of the arched northern range, butting up against the outer wall, a sub-square/rectangular feature backfilled with a mixture of turf and building material was identified (fig. 9). This feature measured 3.70m north/south, and 3.20m east/west and was clearly visible on the surface surrounded by an extensive spread of mixed coal, charcoal and ash that was revealed following the removal of the turf (fig. 9). This spread of burnt materials was up to 0.5m deep, and extended several metres from the wall of the northern range, into the field. A machine dug sondage, cut to a depth of 1m was cut into the feature to attempt to determine its function (fig. 9). No structural remains were identified within the feature, which cut through the layer of charcoal, coal and ash into the yellow clay natural. The function of the feature is not known, although it clearly post-dates the spread of burnt materials and is likely to be relatively modern.

To the west of the farm complex, an area of ground surrounded by trees was stripped to the surface of the subsoil. This revealed a thick organic topsoil, up to 0.5m deep (fig. 10).

#### 4.3 Results of AW watching brief

In February 2011, a watching brief was carried out in an area of woodland to the south-west of the farm complex (fig. 11).

The site consisted of a small mixed deciduous woodland, the base of which was largely overgrown with ground creeping ivy and small herbaceous plants and snowdrops. Most of the trees were to be kept intact, with a minimum amount of crown reduction to open up the site and make the trees safe.

Walkover surveys were carried out over four days, as different sections of the woodland were cleared of topsoil. The topsoil was revealed to be up to 0.1m, comprising a rich organic woodland soil overlying the same yellow gravelly natural. Occasional fragments of nineteenth century coarse wares were recovered, and a few tiny fragments of white glaze ware of a similar period (not retained).

On the 7<sup>th</sup> February, a soil strip was monitored for the construction of an access track into the wood in the field to the south of Furnace Farm. The topsoil here was slightly deeper at 0.15-0.2m, and overlay an intermittent deposit of light orangey brown silt colluvium (fig. 11).

### 5. **Discussion and Conclusions**

The watching brief carried out in the area around the farm building complex did not reveal any features of archaeological significance. The topsoil was shown to be thin across the whole site, lying directly on top of the natural yellow clay. A roughly square feature identified abutting the northern wall of the northern range was cut into the natural, but was revealed to be non-archaeological, probably modern in date. A spread of mixed coal, charcoal and ash found in the field immediately to the north of the northern range is thought to have derived from the furnace located to the north-east of the farm complex.



The watching brief in the woodlands to the south-west of the site did not reveal any features of archaeological significance. The ground conditions following the stripping of the site using tracked machinery, however, were extremely poor.

No monitoring or recording of the interior of the farm buildings during or following the stripping out of modern fittings was possible due to health and safety concerns.

## **6. Bibliography**

Edwardes-Holland, H. 1830-1862 'Transcripts by Howel Edwardes-Holland', held in the Gwynedd Archive and accessed via internet source.

Jones, R.S. 2011. *Furnace Farm, Eglwysbach, Conwy Valley. Standing Building Recording*. CAP client report 634.

McLaren, C. 1939 'The Bodnant Estate. Notes compiled by Lord Aberconway 1939, pp 77-78

### *Cartographic Sources*

- Estate Map 1805 (McClaren private Library, Bodnant Estate)
- Tithe Map (Eglwysbach, 1841)
- Ordnance Survey First Edition 1875 (1:2500)
- Ordnance Survey 1900 edition (1:2500)

# *Archaeology Wales*

## **APPENDIX I - GAPS Brief**

## DESIGN BRIEF FOR ARCHAEOLOGICAL INVESTIGATION AND RECORDING

### Gwynedd Archaeological Planning Service

**Site:** Furnace Farm, Bodnant, Conwy

**Date:** 10<sup>th</sup> March 2010

**National Grid Reference:** 279600, 372280

**Planning reference:** 0/36337

***This design brief is only valid for six months after the above date. After this period Gwynedd Archaeological Planning Service should be contacted.***

*It is recommended that the contractor appointed to carry out the archaeological mitigation visits the site of the proposed development and consults the Regional Historic Environment Record (HER) for north-west Wales before completing their specification. Gwynedd Archaeological Planning Service cannot guarantee the inclusion of all relevant information in the design brief.*

Key elements specific to this design brief have been highlighted.

#### **1.0 Site Location and Description**

- 1.1 For the purposes of this brief the site comprises Furnace Farm, Bodnant Estate, Eglwysbach along with a c.2ha plot around the main buildings and adjacent to the A470 for c. 400m to the south-west.
- 1.2 The plot is located on the east bank of the Conwy Valley.
- 1.3 Conwy is located on the north coast of North Wales.

#### **2.0 Archaeological Background**

- 2.1 The Furnace Farm buildings appear on the Ordnance Survey 1<sup>st</sup> Edition Map (Denbighshire Survey, 1875) and are therefore at least 19<sup>th</sup> century in date.
- 2.2 A number of the field boundaries that are extant on the Ordnance Survey 1<sup>st</sup> Edition map will be breached or removed by the proposed work.
- 2.3 The nearby Furnace Mill (listed building ref. 83) is of a similar classical style of construction to Furnace Farm and dates to 1837, though its origins apparently date to the Tudor period.
- 2.4 The Furnace Farm buildings retain substantial historic character and are closely associated with the nearby Bodnant Estate.
- 2.5 Furnace Farm falls within the 'essential setting' of the Grade I listed garden of the Bodnant Estate (PGW (Gd) 5 (CON) as detailed in the Register of Parks and Gardens of Special Historic Interest in Wales (ICOMOS & Cadw 1998).
- 2.6 The wider landscape has been extensively improved and managed throughout the post-medieval period. Although few extant archaeological sites are recorded in the locality there is good potential for early buried remains.

- 2.7 The *Canovium – Varis* Roman Road is thought to run c.200m to the north of the development plot and the Medieval church site of Llwydfaen (NPRN 404665) is located on the opposite side of the estuary.
- 2.8 In addition, the fertile lowland slopes of the Conwy Valley, particularly those within close proximity of a watercourse, are likely to have attracted settlement throughout all historic and prehistoric periods.
- 2.9 The reports below must be consulted in relation to this brief.
- 2.10 Documentation
- Cadw, 1998. Conwy, Gwynedd & The Isle of Anglesey *Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales*, Cadw, Cardiff
- English Heritage, 2006. *Understanding Historic Buildings A guide to good recording practice*. English Heritage, London.

### 3.0 The nature of the development and archaeological requirements

- 3.1 The Furnace Farm buildings are to be fully refurbished, converted and extended to create the Bodnant Welsh Food Centre (see Capita Symonds drawings). The proposals include extensive ground works to create car parking and access. The works will involve the formation of a site compound area, the installation of a sewage treatment plant and the construction of several new buildings (see drawing no. 31289/PI//INF/01).
- 3.2 This is a *design brief* for a programme of archaeological works to mitigate the impact of the development to be undertaken following planning consent, according to guidelines set out in Welsh national planning guidance (*Planning Policy Guidance Wales 2002*), Welsh Office Circular 60/96 (*Planning and the Historic Environment: Archaeology*) and Welsh Office Circular 61/96 (*Planning and the Historic Environment: Historic Buildings and Conservation Areas*). The programme of works will comprise a **desk based study**, a **detailed record** of the Furnace Farm building and a **watching brief**.
- 3.3 This *design brief* should be used by the archaeological contractor as the basis for the preparation of a detailed written archaeological *specification*. The specification must be submitted to the Gwynedd Archaeological Planning Service for approval before the work commences.
- 3.4 The *specification* should contain, as a minimum, the following elements:
- Non-technical summary.
  - Details of the proposed works as precisely as is reasonably possible, indicating clearly on a plan their location and extent.
  - A research design which sets out the site-specific objectives of the archaeological works.
  - Reference to the relevant legislation.
  - Health and Safety considerations.
  - Monitoring procedures.
  - Field methodology.
  - The level and grade of all key project staff.
  - A timetable for the proposed works including contingency costs (if appropriate).

- The intended method of publication.
- Archive deposition.

#### 4.0 Mitigation detail

4.0 The programme of archaeological works to **mitigate** the impact of the development will consist of a programme of **desk based study**, **historic building recording** and **watching brief**.

#### 4.1 Desk Based detail

The object of this programme of archaeological works is to make full and effective use of existing information in establishing the archaeological significance of the site. This information will support the other elements of the programme of archaeological mitigation (detailed below).

4.2 The **Desk Based Study** will involve the following areas of research:

- a) Collation and assessment of all relevant information held in the HER, including listed building records.
- b) Assessment of all available excavation report and archives including unpublished and unprocessed material affecting the site and its setting.
- c) Assessment of all extant aerial photographic (AP) evidence and, where relevant, a re-plotting of archaeological and topographic information by a suitably qualified specialist at an appropriate scale. The main source of archaeological aerial photographic records is held at the Royal Commission on Ancient and Historical Monuments in Wales (RCAHMW), Aberystwyth.
- d) Assessment of records held at the RCAHMW and University College Bangor, if appropriate.
- e) Assessment of the environmental potential of the archaeological deposits through existing data or by inference.
- f) Assessment of the faunal potential of the archaeological deposits through existing data or by inference.
- g) Assessment of the artefactual potential of the archaeological deposits through existing data or by inference.
- h) Assessment of all available geotechnical information for the area including the results of test pits and boreholes.
- i) Assessment of the present topography and landuse of the area through maps and site visits.

4.3 **Historical research** will involve the following:

- a) An analysis of relevant maps and plans. Cartographic evidence is held at the County Record Offices, including Tithe Maps, Enclosure Act Plans, Estate Maps and all editions of the Ordnance Survey. Place and field-name evidence from these sources must be considered.
- b) An analysis of the historical documents (e.g. county histories, local and national journals and antiquarian sources) held in museums, libraries or other archives, in particular local history and archives library

#### 4.4 Building record detail



4.2 The building record should be roughly commensurate with the English Heritage '*Understanding Historic Buildings: a guide to good recording practice*' (2006) Level 3 and should include the following elements:

- written account 1-3, 5-9, 11-13, 18 & 22;
- drawings 2-3, 6-9;
- photographs 1-9.

4.3 Before new records are prepared, existing sources of information should be found and examined for their adequacy. Such information may be found in drawings, photographs, published and unpublished accounts.

4.4 The **written account** should be an analytical record but should also set the building within its local and regional context. It should draw on a range of available resources and discuss the building's significance, origins and development and use. The local archives held at Conwy County Record Office must be consulted along with the records held by the National Library, National Monument Record and regional Historic Environment Record.

4.5 The **drawings** must include plans of the existing floor and room spaces recording the form and location of architectural / structural features of historic significance.

4.6 **Photographs** should be detailed and must record all features, room spaces and elevations to illustrate the setting, appearance and structure of the building and to support an historical analysis. Each print should be clearly labelled with the subject, orientation and the date taken, and cross-referenced to its negative and or digital file (see 4.8 & 4.9).

4.7 Both black-and-white and colour photography should be used where appropriate.

4.8 If utilising digital technology, high resolution images (preferably in tiff. format) must be produced. These should be presented within the report as a hard copy and a compact disc must be included as an archive to accompany the report.

4.9 Recording methodology must be in accordance with Institute for Archaeologists guidance (see general requirements below).

4.10 The archaeological contractor will ensure that sufficient resource is made available for a resulting archive report.

4.11 The report should specifically include the following:

- a) a copy of the design brief and agreed specification,
- b) a location plan,
- c) a plan illustrating the location and direction of any photographs or drawings,
- d) full dimensional and descriptive detail, a full bibliography of sources consulted,
- e) An archive compact disc.

4.12 **Watching brief detail**

The **watching brief** will include:

- Observation on an **intensive** basis, of **all** non-archaeological excavation works in and around the Furnace Farm buildings and within the adjacent fields.
- Observation on an **intensive** basis, of **all** demolition or stripping out works.
- Observation on an **intermittent** basis, of all other non-archaeological tree clearance and groundworks including the construction of site compounds, etc.
- A drawn, written and photographic record of any significant archaeological details, features, structures and deposits that may be revealed **both above ground and below ground.**
- Preparation of full archive report.

4.16 The monitoring of works is to be undertaken in a manner that allows for the immediate cessation of development for the recording of archaeological evidence. Agreement must be reached between the archaeologist and developer in order that this is achieved.

4.17 Recording methodology should be in accordance with Institute for Archaeologists guidance (see general requirements below). Recording will comprise appropriate plans, elevation and photographs.

4.18 The archaeological contractor will ensure that sufficient resource is made available for a post-excavation programme to result in an archive report.

4.19 The report should specifically include the following:

- f) a copy of the design brief and agreed specification,
- g) a location plan,
- h) all located sites plotted on an appropriately scaled plan of the development,
- i) a gazetteer of all located sites, including full dimensional and descriptive detail, a full bibliography of sources consulted.

## 5.0 General requirements

5.1 The archaeological recording and watching brief must be undertaken by an appropriately qualified individual or organisation, fully experienced in work of this character.

5.2 Details, including the name, qualifications and experience of the project director and all other key project personnel (including specialist staff) should be communicated to the Gwynedd Archaeological Planning Service and all written work attributed to an author(s).

5.3 Contractors and subcontractors are expected to conform to standard professional guidelines. The following are of particular relevance in this instance:-

- English Heritage's 2006 Understanding Historic Buildings: A guide to good recording practice
- English Heritage's 2006 Management Of Research Projects in the Historic Environment (MORPHE)

- The Institute for Archaeologists 1996 (revised 1999) Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures.
  - The Institute for Archaeologists 1994 (revised 1999) Standard and Guidance for Archaeological Watching Briefs.
  - The Institute for Archaeologists 1985 (revised 1997) Code of Conduct.
  - The Institute for Archaeologists 1990 (revised 1997) Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.
  - The Institute for Archaeologists 1999 Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.
  - English Heritage's 1991 Management of Archaeological Projects (MAP2).
  - Museum and Galleries Commission 1994 Standards in the Museum Care of Archaeological Collections.
  - United Kingdom Institute for Conservation 1990 Guidelines for the Preparation of Excavation Archives for long-term storage.
- 5.4 Many people in North Wales speak Welsh as their first language, and many of the archive and documentary references are in Welsh. Contractors should therefore give due consideration to their ability to understand and converse in Welsh.
- 5.5 Care must be taken in the siting of offices and other support structures in order to minimise the impact on the environment. Extreme care must also be taken in the structure and maintenance of spoil heaps for the same reasons and to facilitate a high quality reinstatement. This is particularly important in relation to pasture land.
- 5.6 The archaeological contractor must satisfy themselves that all constraints to groundworks have been identified, including the siting of live services, Tree Preservation Orders and public footpaths. Gwynedd Archaeological Planning Service bears no responsibility for the inclusion or exclusion of such information within this brief.
- 5.7 Any changes to the specifications that the archaeological contractor may wish to make after approval by this office should be communicated to Gwynedd Archaeological Planning Service and approved.
- 5.8 Care must be taken in dealing with human remains and the appropriate environmental health regulations followed. Gwynedd Archaeological Planning Service and the local Coroner must be informed immediately human remains are discovered.
- 5.9 Arrangements for the long-term storage and deposition of all artefacts must be agreed with the landowner and Gwynedd Archaeological Planning Service before the commencement of investigation.
- 5.10 The involvement of Gwynedd Archaeological Planning Service should be acknowledged in any report or publication generated by this project.
- 5.11 A full archive including plans, photographs, written material and any other material resulting from the project should be prepared in accordance with standard guidance. All plans, photographs and descriptions should be

labelled, cross-referenced and lodged in an appropriate place (to be agreed with Gwynedd Archaeological Planning Service) within six months of the completion of the project.

- 5.12 Two copies of the bound report must be sent to the address below, one copy marked for the attention of the Development Control Archaeologist, the other for attention of the HER Officer, who will deposit the copy in the HER.

## **6.0 Curatorial monitoring**

- 6.1 The project will be monitored by the development control archaeologist at Gwynedd Archaeological Planning Service to ensure the fulfilment of the brief and specifications. The development control archaeologist will normally inspect site works and review the progress of excavation reports and archive preparation. The archaeological contractor must inform Gwynedd Archaeological Planning Service in writing of the proposed start dates for the project.

## **7.0 Glossary of terms**

- 7.1 *Archaeological Contractor*  
A professionally qualified individual or an organisation containing professionally qualified archaeological staff, able to offer an appropriate and satisfactory treatment of the archaeological resource, retained by the developer to carry out archaeological work either prior to the submission of a planning application or as a requirement of the planning process.
- 7.2 *Archaeological Curator*  
A person, or organisation, responsible for the conservation and management of archaeological evidence by virtue of official or statutory duties. In north-west Wales the archaeological advisor to the Local Planning Authorities is the development control archaeologist, who works to the Welsh Archaeological Trust's Curators' Code of Practice.
- 7.3 *Archive*  
An ordered collection of all documents and artefacts from an archaeological project, which at the conclusion of the work should be deposited at a public repository, such as the local museum.
- 7.4 *Brief*  
The Association of County Archaeological Officers (1993) defines a *brief* as an outline framework of the planning and archaeological situation which has to be addressed, together with an indication of the scope of works that will be required.
- 7.5 *Historic environment Record (HER)*  
A documentary record of known sites in a given area. In north-west Wales the HER is curated by the curatorial division of the Gwynedd Archaeological Trust.
- 7.6 *Specification*  
The Association of County Archaeological Officers (1993) defines a *specification* as a schedule of works outlined in sufficient detail to be quantifiable, implemented and monitored.

**7.7     *Watching brief***

A formal programme of observation during non-archaeological excavation works in order to identify, investigate and record any archaeological remains which may be present, in accordance with the Archaeological Standards.

**Further information**

- 8.1     This document outlines best practice expected of an archaeological assessment but cannot fully anticipate the conditions that will be encountered as work progresses. If requirements of the brief cannot be met they should only be excluded or altered after gaining written approval of the Gwynedd Archaeological Planning Service.
- 8.2     Further details or clarification of any aspects of the brief may be obtained from the Development Control Archaeologist at the address below.

Ashley Batten  
Uwch Archaeolegydd Cynllunio – Senior Planning Archaeologist

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# *Archaeology Wales*

## **APPENDIX II - CAP Spec**

## CAMBRIAN ARCHAEOLOGICAL PROJECTS:

### Specification

For Archaeological Desk Based Study, Building Recording  
and Watching Brief at

Furnace Farm, Bodnant

Prepared for:  
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Project No: T1123

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## NON TECHNICAL SUMMARY

*This specification details the proposal for archaeological desk based study, building recording and a watching brief at Furnace Farm, Bodnant, Conwy. It has been prepared by Cambrian Archaeological Projects Ltd for Capita Symonds. Oak Drive, Colwyn Bay.*

### 1. Introduction

The proposed development is at Furnace Farm, Bodnant, Conwy (Henceforth – the site), NGR: 279600 372280. The development proposal has been submitted by Mr Patrick Bigham, of Capita Symonds, Penrhos Manor, Oak Drive, Colwyn Bay, LL29 7YW. The local planning authority is Conwy County Borough and the planning application number is 0/36337.

The Furnace Farm buildings are to be fully refurbished, converted and extended to create the Bodnant Welsh Food Centre. The proposals include extensive ground works to create car parking and access. The works will involve the formation of a site compound area, the installation of a sewage treatment plant and the construction of several new buildings

This specification has been prepared by Mark Houliston (MIfA), Unit Director, Cambrian Archaeological Projects Ltd (Henceforth - CAP) at the request of Capita Symonds. It provides information on the methodology which will be employed by CAP during archaeological desk based study, building recording and a watching brief at the site.

The details set out in this specification follow a Brief prepared by Ashley Batten of the Gwynedd Archaeological Trust (Henceforth GAT), who act as archaeological advisers to Conwy County Borough, to mitigate the impact of the development to be undertaken following planning consent, according to guidelines set out in Welsh national planning guidance (Planning Policy Guidance Wales 2002), Welsh Office Circular 60/96 (Planning and the Historic Environment: Archaeology) and Welsh Office Circular 61/96 (Planning and the Historic Environment: Historic Buildings and Conservation Areas). GAT has recommended that a desk based study, building recording and a watching brief are undertaken. The building recording is to comprise a full photographic and measured/draw/descriptive survey undertaken to a standard equivalent to English Heritage Level 3 (English Heritage 'Understanding Historic Buildings: A Guide to Good Recording Practice' 2006).

The purpose of the proposed desk based study is to provide historic background information for the work and to inform interpretations made during the building recording and watching brief. The purpose of the building recording is to produce a record of key structural fabric prior to alteration. The purpose of the watching brief is to ensure that any buried remains associated with development are fully investigated and recorded if revealed.

Cambrian Archaeological Projects is an organisation registered to the Institute for Archaeologists (IfA). All work will be undertaken by suitably qualified staff to the highest professional standards.

## 2 Site description

The proposed development lies on land at Furnace Farm, Bodnant Estate, Eglwysbach, Conwy, and includes a c.2ha plot situated around the main buildings and adjacent to the A470 for c. 400m to the south-west. The plot is located on the east bank of the Conwy Valley.

According to the Brief (ref D1311),

'The Furnace Farm buildings appear on the Ordnance Survey 1st Edition Map (Denbighshire Survey, 1875) and are therefore at least 19th century in date.

A number of the field boundaries that are extant on the Ordnance Survey 1st Edition map will be breached or removed by the proposed work.

The nearby Furnace Mill (listed building ref. 83) is of a similar classical style of construction to Furnace Farm and dates to 1837, though its origins apparently date to the Tudor period.

The Furnace Farm buildings retain substantial historic character and are closely associated with the nearby Bodnant Estate.

Furnace Farm falls within the 'essential setting' of the Grade I listed garden of the Bodnant Estate (PGW (Gd) 5 (CON) as detailed in the Register of Parks and Gardens of Special Historic Interest in Wales (ICOMOS & Cadw 1998).

The wider landscape has been extensively improved and managed throughout the post-medieval period. Although few extant archaeological sites are recorded in the locality there is good potential for early buried remains.

The Canovium – Varis Roman Road is thought to run c.200m to the north of the development plot and the Medieval church site of Llwydfaen (NPRN 404665) is located on the opposite side of the estuary.

In addition, the fertile lowland slopes of the Conwy Valley, particularly those within close proximity of a watercourse, are likely to have attracted settlement throughout all historic and prehistoric periods.'

## 3 Site specific objectives

The primary objective of the work will be to mitigate the impact of the development by undertaking a programme of work consisting of a desk based study, building recording and a watching brief.

The work will result in a report, which will provide a comprehensive record of all the work undertaken. It will include interpretive statements and, where appropriate, recommendations. It will provide an assessment of regional context within which the structural fabric rests and will aim to highlight any relevant research issues within national and regional research frameworks.

#### 4 Desktop study

Prior to the start of building recording an examination and assessment will be made of readily available written, cartographic, pictorial and oral sources.

The work will include an assessment of the present topography and landuse of the area through maps and site visits, and of all environmental, faunal, artefactual and geotechnical information that may be available. Where relevant, a re-plotting of archaeological and topographic information will be undertaken by a suitably qualified specialist at an appropriate scale.

Sufficient documentary research will be undertaken to inform the building recording and to place the results of the work in their historic context.

As a minimum this will include:

- A brief search of information held in the Historic Environment Record
- Published and unpublished archaeological and historical information relating to the site, including archaeological archives and unprocessed material;
- Readily available historical maps, OS maps, tithe maps, and estate maps (mainly held at the County Records Office);
- Information held in the National Library of Wales, Aberystwyth (and where the records are not available, at the County Records Office and University College Bangor);
- Information held by the Royal Commission on Ancient & Historical Monuments in Wales (RCAHMW), Crown Buildings, Plas Crug, Aberystwyth, in particular extant aerial photographic (AP) evidence;
- Information held in local museum, library and archive collections.

#### 5 Historic building recording

The recording will be completed in accordance with IfA Standards and Guidance relating to the Investigation and Recording of Standing Buildings (Oct 2008) and will conform to standards set out by English Heritage (English Heritage 'Understanding Historic Buildings: A Guide to Good Recording Practice' 2006).

A survey to English Heritage Level 3 will be undertaken. It will contain the following elements:

- drawings 2-3, 6-9;
- photographs 1-9.
- written account 1-3, 5-9, 11-13, 18 & 22;

Drawings will comprise measured plans and elevations at appropriate scales. They will be augmented by measured elevations and drawings showing features of particular interest, where appropriate. Plans and elevations of each internal floor and facade will be completed where fabric is visible for investigation. Key structural and fabric changes will be represented in all drawings. Drawn records will be undertaken in digital format and printed at a scale of 1:50, with more detail where required. The drawings may be based on existing plans such as those produce by qualified architects.

Photographs will be taken in high-resolution digital photography with the camera set to take TIFF format images with a resolution greater than four megapixels.



The written account will be an analytical record, but will also set the building within its local and regional context. It will draw on a range of available resources and discuss the building's significance, origins, development and use. Conclusions on the structural dating and phasing will be made in the report. The survey will include a descriptive survey of all key structural features including fabric and original fixtures and a phasing guide.

## 6 Watching Brief

A watching brief complying with the IfA Standards and Guidance on Watching Briefs (October 2008) will be completed. It will consist of the following elements:

- Observation on an intensive basis, of all non-archaeological excavation works in and around the Furnace Farm buildings and within the adjacent fields.
- Observation on an intensive basis, of all demolition or stripping out works.
- Observation on an intermittent basis, of all other non-archaeological tree clearance and groundworks including the construction of site compounds, etc.

The watching brief is intended to ensure that any buried remains associated with the development are fully investigated and recorded if revealed.

As defined by the IfA (2008) 'the Watching Brief will provide an opportunity for the archaeologists present to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard'.

If such a find is made representatives of Capita Symonds and GAT will be informed and a site meeting organised as appropriate. If, as a result of the meeting, GAT recommend that further work is undertaken, for example the excavation of specific areas or features, CAP will prepare a Specification for the work and an estimate of all associated costs.

## 7 Monitoring

GAT will be contacted approximately two weeks prior to the commencement of ground works, and subsequently once the work is underway.

Any changes to the specification that CAP may wish to make after approval will be communicated to the GAT for approval on behalf of Planning Authority.

Representatives of GAT will be given access to the site so that they may monitor the progress of the building recording and watching brief. GAT will be kept regularly informed about developments, both during the site works and subsequently during the post-fieldwork programme.

## 8 Post Field-work programme

### *Site archive*

The site archive will be prepared in accordance with MAP 2, Appendix 3 (English Heritage 1991). It will comprise all the data recovered during the desk-based assessment and building survey and shall be quantified, ordered and indexed and will be internally consistent. The archive will be deposited with the RCAHMW.

### *Final reporting*

A draft report will be submitted to Capita Symonds and GAT for comments within 4 weeks of the field-works being complete.

A full client report of the results of the archaeological work will be prepared within 6 weeks of the end of the fieldwork.

The client report will contain, as a minimum, the following elements:

- A concise non-technical summary of the results
- A location plan
- A summary of the archaeological and planning background, and a methodology
- The results of the desk based study, including a summary of all the information gathered (a full catalogue will be presented as an appendix to the report) and a full assessment as detailed in Section 4 above
- A building recording report with plans and elevations at an appropriate scale, and high quality reproductions of site photographs. All photographs will be captioned and numbered. Specifically the report will include the following:
  - a plan illustrating the location and direction of any photographs or drawings,
  - full dimensional and descriptive detail,
  - conclusions on the structural dating and phasing,
  - a statement of the local and regional context of the remains,
- A report on the results of the watching brief, with all located sites plotted on an appropriately scaled plan of the development,
- Integrated conclusions and, where appropriate, mitigation recommendations drawing on the results of the desk based study, building recording and watching brief,
- A bibliography
- Appendices of information gathered during the various elements of the work, including: a record of all sources examined during the desk based study, and a gazetteer of all sites located during the watching brief,
- A copy of the design brief and agreed specification
- An archive compact disc

Copies of the full report will be sent to Capita Symonds, GAT and for inclusion in the HER. Digital copies will be provided in pdf format if required.

A summary report will be submitted to the editor of the CBA's Archaeology in Wales, for inclusion in the annual Archaeological Notes section.

## 9 Resources and timetable

### Standards

The field evaluation will be undertaken by CAP staff using current best practice.

CAP is an IFA Registered Archaeological Organisation and all work will be undertaken

to the standards and guidelines of the IFA.

#### Staff

The project will be undertaken by suitably qualified CAP staff. Overall management of the project will be undertaken by Richard Scott Jones (a CV is available upon request).

#### Equipment

The project will use existing Cambrian Archaeological Projects equipment.

#### Timetable of archaeological works

The work will be undertaken at the convenience of the client. No start date has yet been agreed.

#### Insurance

Cambrian Archaeological Projects is an affiliated member of the CBA, and holds Insurance through the CBA insurance service.

#### Health and safety

All members of staff will adhere to the requirements of the *Health & Safety at Work Act*, 1974, and the Health and Safety Policy Statement of Cambrian Archaeological Projects.

If CAP has sole possession of the site, then CAP will produce a detailed Risk Assessment for approval by the client before any work is undertaken. If another organisation has responsibility for site safety, then CAP employees will be briefed on the contents of all existing Risk Assessments, and all other health and safety requirements that may be in place.

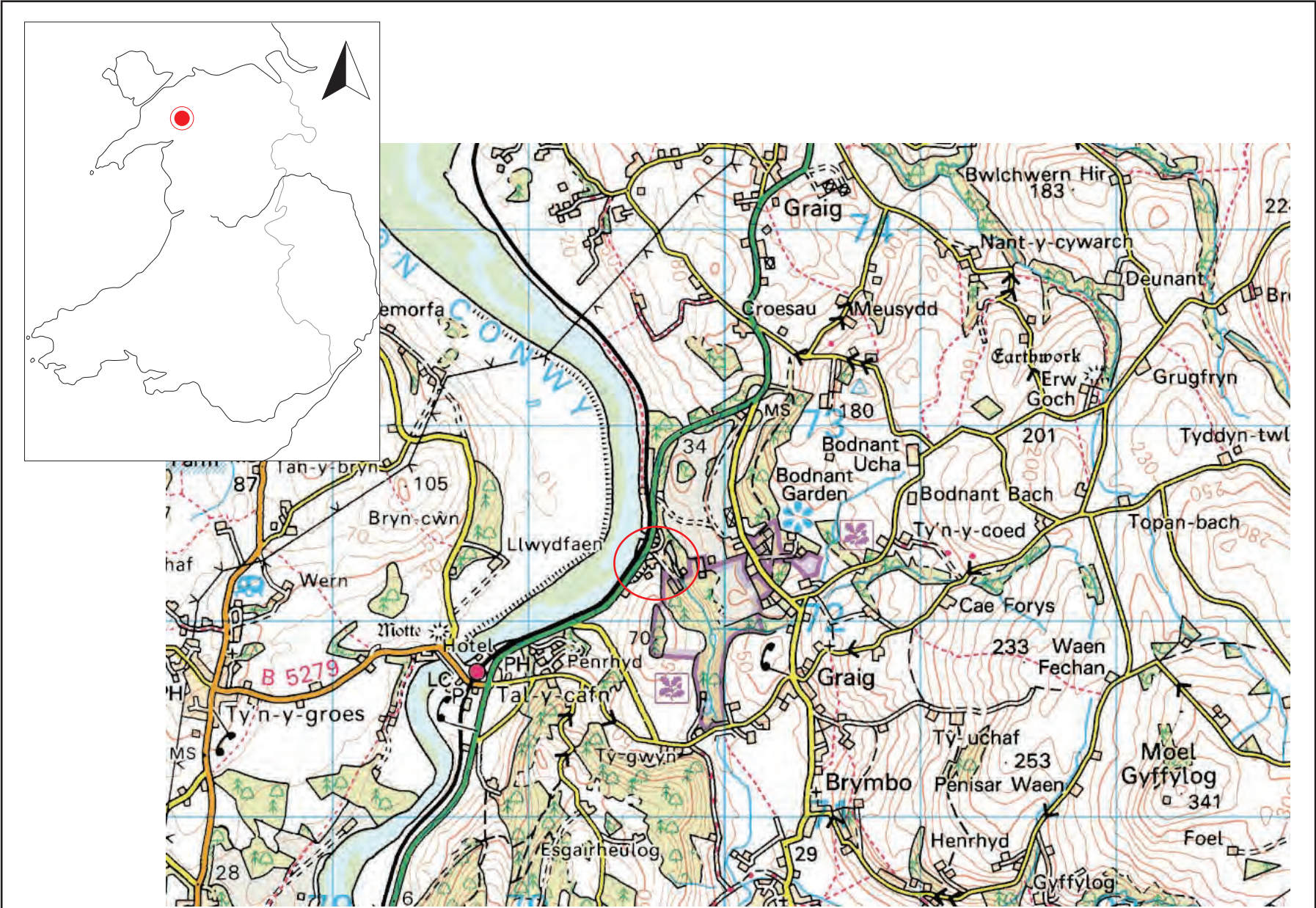


Fig. 1  
Location of Furnace  
Farm





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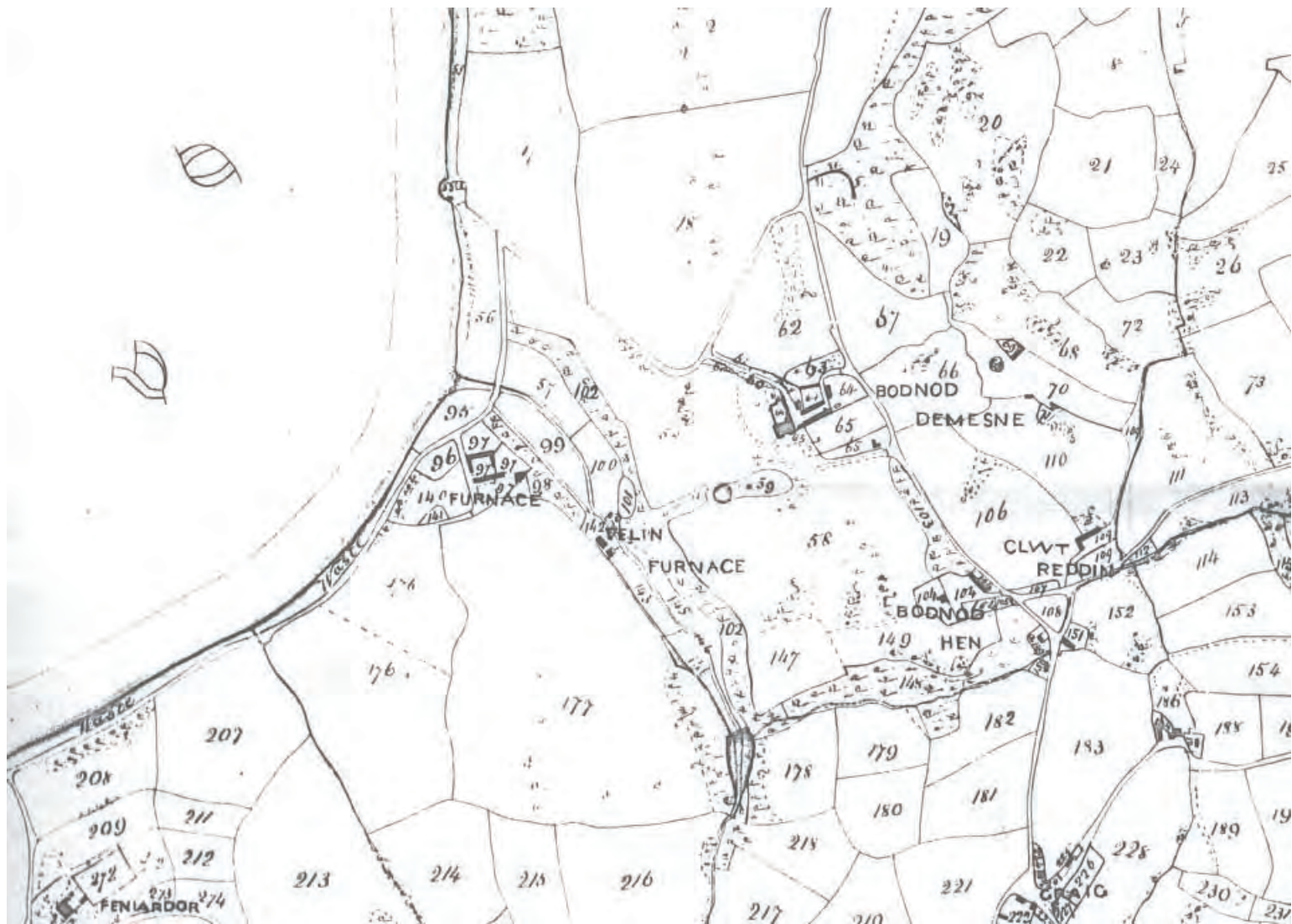


Fig. 4  
Tithe Map of 1841  
showing Furnace  
Farm



Fig. 5  
OS 3rd Edition Map  
of 1900 showing  
Furnace Farm





Fig. 6  
The garden during  
the groundworks

The track to the south of the cow house following topsoil stripping



The Hay Barn during demolition



The area of the Hay Barn following ground reduction



Fig. 7  
Groundworks to the south of the cow house





Courtyard following clearance - the cobbled yard surface can be seen through the soil overburden



Demolition of walls within the courtyard and between the arches

Fig. 8  
Clearance works  
in the courtyard  
between the cow  
house and the  
outbuildings

Possible feature following the  
topsoil strip



Sondage cut through possible feature



Spread of mixed coal, charcoal and ash



Fig. 9  
Groundworks in the  
area to the north of  
the outbuildings





Fig. 10  
Groundworks in the  
area to the west of  
the farm buildings



Stripping of topsoil in the woodland



Access track stripped in the field to the south of the farm building complex

Fig. 10  
Groundworks in the woods and field to the south of the farm buildings

# *Archaeology Wales*

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