Llanuwchllyn to Glan-llyn Cycle Path Bala, Gwynedd

Archaeological Field Evaluation



By Chris E Smith BA (Hons) MA MCIfA Report No. 1379

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Llanuwchyllyn to Glan-llyn Cycle Path Bala, Gwynedd

Archaeological Field Evaluation

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Date: July 2015

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Non-Technical Summary

This report results from work undertaken by Archaeology Wales Ltd (AW) for Spencer Pughe Associates. It draws on the results of an Archaeological Evaluation on land between Llanuwchllyn and Bala, Gwynedd, to the south of the A494, prior to the submission of a planning application for the construction of a cycle track. Previous work in the area by Gwynedd Archaeological Trust noted the presence of a rectilinear cropmark formed by two parallel linear earthworks adjacent to the farmstead at Glan-Llyn Isa, which showed on an aerial photograph of 1948. Given the proximity of the line of a known Roman road linking the forts at Caer Gai and Caersws, a Roman date was suggested for these features.

The Evaluation took place in July 2015. Two trenches and two test pits were excavated. Trench 1 was 10.0m long and had been positioned to bisect the westernmost of the cropmarks shown on the 1948 aerial photograph. A shallow, linear, area of disturbed natural corresponding to the location of the feature was revealed. It contained three fragments from a green glass vessel. No other archaeological features or finds were revealed.

Analysis of the results of the evaluation shows that the feature identified by the aerial photograph probably relates to an early 20th century agricultural enclosure that was formed by, now removed, steel rails and concrete fence posts.

1 Introduction

1.1 Location and scope of work

1.1.1 In July 2015 Archaeology Wales Ltd (AW) carried out a field evaluation on land to the south of the A494 between Llanuwchllyn and Bala prior to the proposed development of a cycle path. The assessment area comprised a strip of land 2.5m wide by approximately 110m long situated along the north-western edge of a field located to the south west of the Glan-Llyn Outdoor Education Centre. The assessment area sits at approximately 185m above ordnance datum and is centred on NGR SH 88393 31679 (Figs 1&2). The work was carried out as a pre-planning requirement at the request of Spencer Pughe Associates on behalf of Gwersyll yr Urdd Glanllyn, the potential developer.

A WSI for the work was prepared by AW on behalf of Gwersyll yr Urdd Glanllyn and then submitted to, and subsequently approved by, John Roberts, the Snowdonia National Park Archaeologist (SNPA).

1.2 Geology and topography

- 1.2.1 The underlying solid geology of the site is composed of Ordivician Caradoc rocks, laid down in the Palaeozoic era. The solid geology is overlain by slowly permeable, seasonally wet, acid, loamy and clayey soils with low fertility and impeded drainage (Geological Survey Map, 2001).
- 1.2.2 The assessment area is located 470m to the west of south-western end of Lake Bala. It runs parallel with the A494 between Llanuwchllyn and Bala, 500m to the east of the Roman fort site at Caer Gai (Fig 1).
- 1.2.3 The site is currently in use as pasture for sheep and comprises the top 2.5 metres of a relatively flat field sloping gently to the south east.

1.3 Archaeological and Historical Background

- 1.3.1 In preparation for the submission of an Outline Planning Application, Gwynedd Archaeological Trust (GAT) undertook an archaeological assessment in May 2012 for the first proposed cycle route (GAT report 1055). This concluded that the postulated line of the Roman Road between the forts at Caer Gai and Caersws would intersect the line of the proposed cycle route. As a result, the eastern end of the cycle route was subsequently modified and a desktop assessment undertaken in January 2015.
- 1.3.2 The report identified a previously unrecorded banked earthwork enclosure located at the south-western end of the proposed development near Glanllyn Isa. This feature was visible on a 1948 RAF aerial photograph and measured 75m square, with two rounded corners, which can be indicative of a Roman military site. At this point the walkover assessment of the site identified two low parallel banks with possible associated ditches (GAT report 1227). There is some historical evidence that the earthwork may be from 20th century agriculture of the Welsh Agricutural Sub-Committee.

2 Aims and Objectives

2.1 Field Evaluation

2.1.1 The field evaluation was undertaken to:

- Establish the presence/absence of archaeological remains within the area of proposed development with specific reference to the cropmark ditch observed on the 1948 aerial photograph
- Determine the extent, condition, nature, character, quality and date of any archaeological remains present
- Establish the ecofactual and environmental potential of archaeological features and deposits
- Produce a record of the features.

3 Methodology

3.1 Field Evaluation

- 3.1.1 Excavation of the two evaluation trenches and two test pits (Fig 2) was undertaken using a Kubota 5 tonne tracked mechanical excavator under close archaeological supervision and by hand.
- 3.1.2 Each test pit measured 2.5m x 2.5m. Trench 1 measured 10m in length by 1.5m wide and trench 2 measured 5m in length by 1.5m wide.
- 3.1.3 The on-site work was undertaken by Chris E Smith and Ian Davies. The overall management of the project was undertaken by Kate Pitt (ACIfA). All areas were photographed using high resolution digital photography.
- 3.1.4 All on-site illustrations were undertaken on drafting film using recognised conventions and scales (1:10, 1:20, 1:50) as appropriate.
- 3.1.5 All works were undertaken in accordance with the CIfA's *Standards and Guidance: for an archaeological evaluation* (2014) and current Health and Safety legislation.

3.2 Finds

3.2.1 Finds were recovered by hand during the course of the excavation and bagged by context.

4 Evaluation Results

4.1 Soils and ground conditions

4.1.1 The topsoil and subsoil deposits were uniform across all four excavated areas. The topsoil was composed of a loose and friable mid-brown silt deposit with occasional small gritty stone and slate inclusions and measured 0.2m deep. The subsoil deposit was composed

- of a moderately compacted, mid-yellow/brown, plastic silty clay deposit with similar inclusions to those located within the topsoil.
- 4.1.2 The ground conditions were dry in all of the trenches with excavation taking place during mixed and overcast conditions.

4.2 Description

- 4.2.1 Trench 1 (Figs 2 & 3, Plates 1-4) measured 10m in length by 1.5m in width and was aligned north-east to south-west. It was centred on NGR SH 88360 31699 and was positioned so as to bisect the cropmark shown on the 1948 aerial photograph. Removal of turf and topsoil (101) was undertaken by mechanical excavator. The topsoil was found to be composed of a loose and friable mid-brown silt deposit with occasional small gritty stone and slate inclusions and measured 0.2m deep. Removal of the subsoil deposit (102) showed it to be composed of a moderately compacted, mid-yellow/brown, plastic silty clay deposit with similar inclusions to those located within the topsoil. Occasional large (up to 0.3m) rounded stones were located within the subsoil horizon. Removal of the subsoil showed the surface of the natural deposits (103) which were composed of alternating bands of mid-yellow/brown clay and blue/grey compacted small stones/grit. The natural was located at 0.4 to 0.45m below the modern ground surface.
- 4.2.2 Within the middle of the trench a linear area of disturbed natural (104) was noted. A higher occurrence of larger rounded stones was noted above the area of disturbance, excavation of which produced three green glass vessel fragments. The area of disturbance lined up with the line of the cropmark ditch the trench had been positioned to investigate. An investigatory slot was excavated through the disturbed feature (104) though found it to have no discernible edge or cut. It was also not found to be a continuous feature but appeared to be made up of sequential smaller areas of disturbance. The linear area of disturbance (104) was found to be shallow at 0.15m deep. The bottom of the linear feature was thus located at approximately 0.5m below the current ground surface. No further finds or features were located within trench 1.
- 4.2.3 Trench 2. Trench 2 (Figs 2&3, Plates 5&6) measured 5m in length by 2.5m in width and was aligned north-east to south-west. It was centred on NGR SH 88400 31710. Removal of turf and topsoil (201) was undertaken by mechanical excavator. The topsoil was found to be composed of a loose and friable mid-brown silt deposit with occasional small gritty stone and slate inclusions and measured 0.2m deep. Removal of the subsoil deposit (202) showed it to be composed of a moderately compacted, mid-yellow/brown, plastic silty clay deposit with similar inclusions to those located within the topsoil. Occasional large (up to 0.3m) rounded stones were located within the subsoil horizon. Removal of the subsoil showed the surface of the natural deposit (203) which was composed of firmly compacted, mottled, mid-yellow/brown clay. The natural was located at 0.4 to 0.45m below the modern ground surface. No finds or features were located within trench 2.
- 4.2.4 <u>Test Pit 1</u>. TP1 (Figs 2&3, Plate 7) measured 2.5x2.5m and was positioned between trenches 1 and 2. It was centred on NGR SH 88382 31706. Removal of turf and topsoil (301) was undertaken by mechanical excavator. The topsoil was found to be composed

of a loose and friable mid-brown silt deposit with occasional small gritty stone and slate inclusions and measured 0.2m deep. Removal of the subsoil deposit (302) showed it to be composed of a moderately compacted, mid-yellow/brown, plastic silty clay deposit with similar inclusions to those located within the topsoil. Occasional large (up to 0.3m) rounded stones were located within the subsoil horizon. Removal of the subsoil showed the surface of the natural deposit (303) which was composed of firmly compacted, mottled, mid-yellow/brown clay. The natural was located at 0.4 to 0.45m below the modern ground surface. No finds or features were located within test pit 1.

- 4.2.5 Test Pit 2. TP2 (Figs 2 & 3, Plate 8) measured 2.5x2.5m and was positioned furthest to the north east of all the excavation areas. It was centred on NGR SH 88415 31714. Removal of turf and topsoil (401) was undertaken by mechanical excavator. The topsoil was found to be composed of a loose and friable mid-brown silt deposit with occasional small gritty stone and slate inclusions and measured 0.2m deep. Removal of the subsoil deposit (402) showed it to be composed of a moderately compacted, mid-yellow/brown, plastic silty clay deposit with similar inclusions to those located within the topsoil. Occasional large (up to 0.3m) rounded stones were located within the subsoil horizon. Removal of the subsoil showed the surface of the natural deposit (403) which was composed of firmly compacted, mottled, mid-yellow/brown clay. The natural was located at 0.4 to 0.45m below the modern ground surface. No finds or features were located within test pit 2.
- 4.2.6 No deposits suitable for environmental sampling were encountered during the course of the excavation.

5 Finds

5.1 Glass

- 5.1.1 The only finds from the evaluation were three contiguous green vessel glass sherds bearing the embossed words 'Armstrong & Co Carnarvon', recovered from feature (104) within trench 1 and retained, weighing 253g in total.
- 5.1.2 Armstrong & Co were a company first registered at an address (Castle Ditch) in Carnarvon in 1903. They were in business between 1903 and 1948 (Morris, 2015).

5.2 Results Summary

5.2.1 To summarise, trench 1 contained the sole feature (104) revealed by the evaluation. This was an irregular, linear, area of disturbance situated above the natural clay, which contained three contiguous 20th century glass sherds. The location of the feature corresponded to that of the linear cropmark identified in the aerial photograph of 1948.

6 Discussion and Interpretation

6.1 Overall interpretation

- 6.1.1 A brief study of the historic OS mapping of the assessment area shows that the farmhouse at Glan-Llyn Isa was constructed within a semi-circular yard between 1890 and 1901. This yard is shown on the 1953 OS map as having been extended to the north-west by a roughly rectangular area. The yard extension is also shown on the 1948 aerial photograph and appears to be adjacent to the north-eastern edge of the enclosure, with an area of internal divisions, possibly for animal pens (Figs 2 and 3). The yard extension is still extant, being defined by a series of trees growing along an early 20th century steel rail and concrete post fence.
- 6.1.2 It is the opinion of the author that the 'enclosure' and area of internal divisions within the assessment area were formed by the laying out of similar steel rail and concrete post fencing between 1901 and 1948, and that the linear ditches apparent within the field were left after the removal of most of this boundary (with the exception of the still extant portion adjacent to Glan-Llyn Isa) prior to 1948.
- 6.1.3 This supposition is supported by the location of the cropmarks shown on the aerial photograph, one of which appears to respect the line of the curvilinear road forming the access to Glan-Llyn Isa.
- 6.1.4 The recovery of glass vessel fragments from feature (104), which equates with one of the features shown on the aerial photograph, reinforces the dating of the enclosure, as the glass manufacturer was only in business between 1903 and 1948.
- 6.1.5 The overall interpretation gained from the work carried out is that the crop-marked enclosure identified on the 1948 aerial photograph as a possible Roman military site is likely to date from the early 20th century and have served an agricultural purpose.

7 Conclusions

- 7.1.1 Based on the results of the field evaluation and a brief assessment of the historic and landscape evidence, it is felt likely that the 'enclosure' seen on the aerial photograph is 20th century date. None-the-less, given the proximity of the assessment area to the purported line of the Roman road and the fort at Caer Gai, it remains possible that previously unrecorded Roman archaeology survives nearby.
- 7.1.2 As the proposed cycle path will have a very shallow footprint, should any further archaeological mitigation works be deemed necessary, it is suggested they are limited to a watching brief during the initial soil strip only.

8 Acknowledgements

8.1.1 Thanks are due to Spencer Pughe for his help on-site and to Ian Davies for his assistance with the fieldwork.

9 Bibliography and References

British Geological Survey. 2001, 4th Edition. Solid Geology Map, UK South Sheet.

Chartered Institute for Archaeologists. 2014 Standards and Guidance for a Field Evaluation.

Flook, R. 2015 Llanuwchllyn to Glan-Llyn Cycle Path: Archaeological Assessment, GAT Report 1227

Morris, K. 2015 - http://www.carnarvontraders.com/wine.shtml - Accessed 22/07/2015

Richards, G. 2012 Llwybr Tegid: Llanuwchllyn to Glanllyn Cycle Route: Archaeological Assessment, GAT Report **1055**

Cartographic

Ordnance Survey County Series Merionethshire 1889-1890 1:10,560

Ordnance Survey County Series Merionethshire 1901 1:10,560

Ordnance Survey County Series Merionethshire 1953 1:10,560

APPENDIX I: Figures

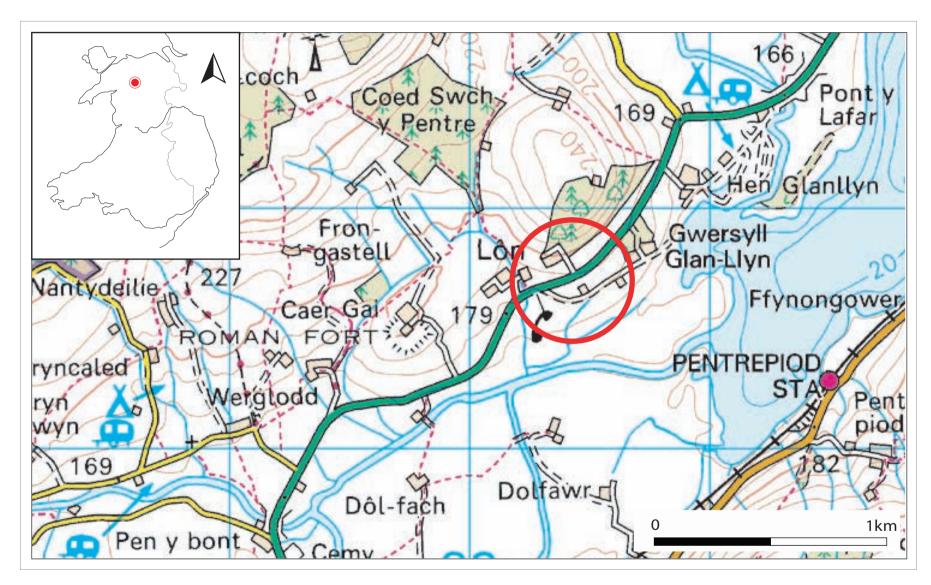
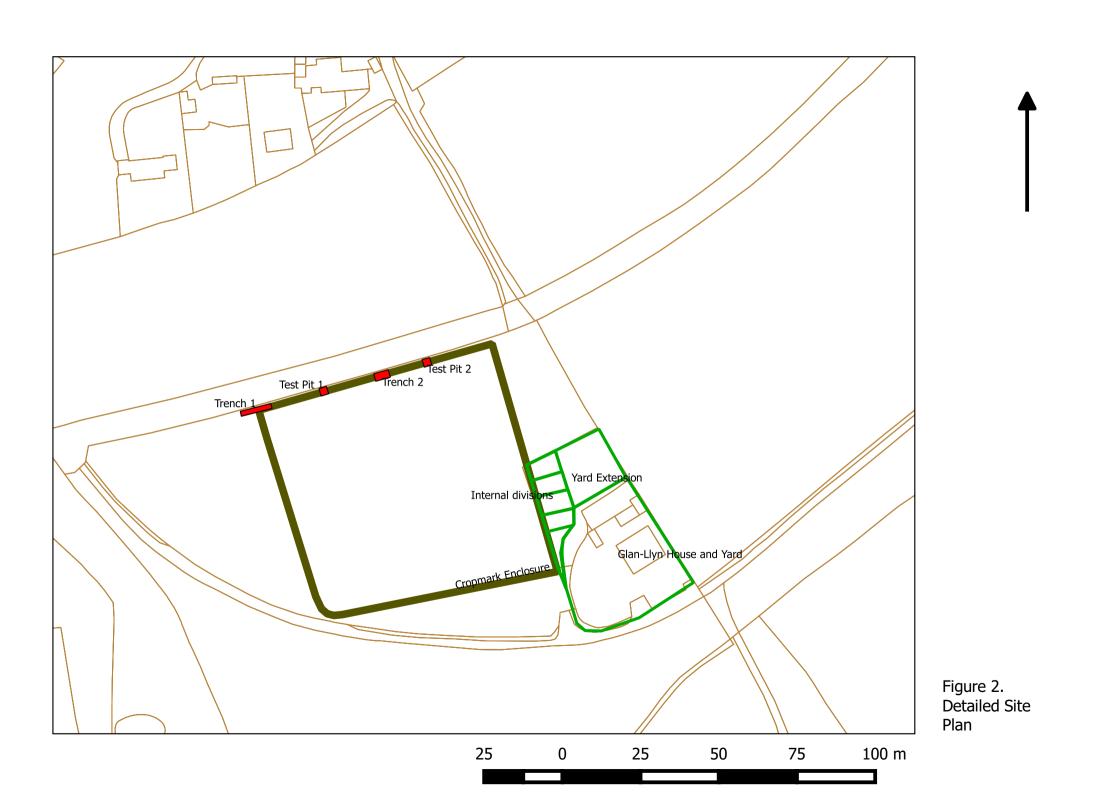


Figure 1. Site Location



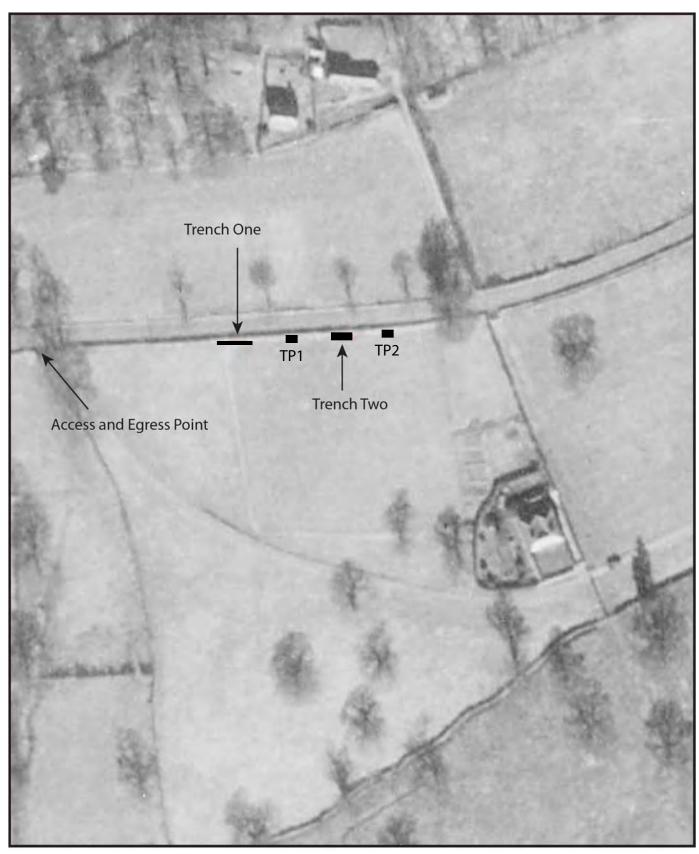


Figure 3: 1948 Aerial photograph showing assessment area and cropmark adjacent to Glan-llyn Isa farmstead

APPENDIX II: Plates



Plate 1:Trench 1 general overview. Looking north east. Scales 2x1m & 1x2m



Plate 2:Trench 1 general overview. Looking south west. Scales 2x1m & 1x2m



Plate 3: Oblique view of feature (104) within Trench 1. Looking west. Scale 1x1m



Plate 4: Post excavation view of feature (104) within Trench 1. Looking north west Scale 1x1m



Plate 5: General overview of Trench 2. Looking north east. Scales 2x1m & 1x2m



Plate 6: General overview of Trench 2. Looking south west. Scales 2x1m & 1x2m



Plate 7: Oblique overview of test pit 1. Looking north. Scales 2x1m



Plate 8: Oblique overview of test pit 2. Looking west. Scales 2x1m

APPENDIX III:

Specification

Written Scheme of Investigation for an Archaeological Evaluation at the Llanuwchllyn to Glan-llyn Cycle Path, Llanuwchllyn, Bala

Prepared for:

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12 Faenol Isaf
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Project No: 2338

03 July 2015

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NON TECHNICAL SUMMARY

This Written Scheme of Investigations details the proposal for the excavation of two, 10m long, evaluation trenches at the 'Llwybr Tegid' Cyle Path, Llanuwchllyn, Bala, Gwynedd. It has been prepared by Archaeology Wales Limited for Spencer Pugh Associates, Tywyn, Gwynedd.

1. Introduction

A development of a new 450m length of the 'Llwybr Tegid' cycle path between Llanuwchllyn and the Glan-llyn Outdoor Education Centre, Gwynedd, (Henceforth – the site) has been proposed (Planning Reference: pre-application) by Mr Spencer Pughe of Spencer Pugh Associates. The development plot comprises a linear area of land, owned by *Urdd Gobaith Cymru*, to the south of the A494 Llanuwchllyn to Bala Road and to the west of the Glan-llyn outdoor Education Centre, National Grid Reference centred on SH88513176. The remainder of the field is owned by Mr Glyn Edwards, Fferm Y Lon, Llanuwchllyn, Gwynedd, LL23 7ST and is outside of the scope of the development; no access is allowed to Mr.Edwards' land.

In preparation for the submission of an Outline Planning Application, Gwynedd Archaeological Trust (GAT) undertook an archaeological assessment in May 2012 for the first proposed cycle route (GAT report 1055). This concluded that the Roman Road from the Roman fort of Caer Gai to the Roman fort of Caersws would intersect the cycle route. The eastern end of the cycle route was subsequently modified and a desktop assessment undertaken in January 2015. The report on this work follows recommendations made by John Roberts, Snowdonia National Park Archaeologist (Henceforth - SNPA).

The report identified a previously unrecorded banked earthwork enclosure located at the south-western end of the proposed development near Glanllyn Isa. This feature was visible on a 1948 RAF aerial photograph and measured 75m square, with two rounded corners, which can be indicative of a Roman military site. At this point the walkover assessment of the site identified two low parallel banks with possible associated ditches (GAT report 1227). There is some historical evidence that the earthwork may be from 20th century agriculture of the Welsh Agricutural Sub-Committee. The proposed cycle route will cut through 2.5m of the width of the northern side of the enclosure.

This Written Scheme of Investigation has been prepared by Kate Pitt (ACIfA), Project Manager, Archaeology Wales Ltd (Henceforth - AW) at the request of Mr Spencer Pughe. It provides information on the methodology that will be employed by AW during the excavation of two evaluation trenches and two evaluation test pits at the location of the earthwork enclosure.

All work will conform to 'Standard and Guidance for Archaeological Evaluation' (CIfA 2014) and be undertaken by suitably qualified staff to the highest professional standards. Archaeology Wales is a Registered Archaeological Organisation with the Institute for Archaeologists.

2 Site description

The site comprises a 2.5m wide corridor of land in an area of agricultural land.

3 Site specific objectives

This WSI is for a programme of archaeological works, to be undertaken prior to planning consent, in accordance with guidelines set out in Planning Policy Wales 2012 and Welsh Office Circular 60/96.

The primary objective of the work is to investigate a banked earthwork enclosure. The work will help to elucidate the presence or absence of associated archaeological material, its character, distribution, extent, condition and relative significance.

The work will include an assessment of the regional context within which the archaeological evidence rests and will aim to highlight any relevant research issues within national and regional research frameworks.

The work will result in a report that will provide information of sufficient detail to allow informed planning decisions to be made which can safeguard the archaeological resource. Preservation in situ will be advocated where at all possible, but where engineering or other factors result in loss of archaeological deposits, preservation by record will be recommended.

4 Method Statement for Evaluation

Preliminary work

The archaeological project manager in charge of the work will ensure that all constraints to ground works have been identified, including the siting of live services, Tree Preservation Orders and public footpaths.

Evaluation

To ensure good coverage of the enclosure two evaluation trenches and two test pits will be undertaken, located as seen in Fig 1.

Evaluation Trench 1 will be 10m in length an 1.5m in width, location centred on 288360, 331699 to cross the corner of the enclosure

Evaluation Trench 2 will be 5m in length and 2.5m in width, location centred on 288400, 331710 along the northern linear of the enclosure

Test Pit 1 will be 2.5m x 2.5m, location centred on 288382,331706 along the northern linear of the enclosure

Test Pit 2 will be 2.5m x2.5m, location centred on 288415,331714 along the northern linear of the enclosure

The evaluation trenches and test pits will initially be excavated to the top of the archaeological horizon by machine. All mechanical excavation will be undertaken using a toothless bucket. All areas will be hand cleaned using hoes and/or pointing trowels to prove the presence, or absence, of archaeological features and to determine their significance. In each area the excavation of the minimum number of archaeological

features will be undertaken, to elucidate the character, distribution, extent and importance of the archaeological remains. In each area sufficient excavation will be undertaken to ensure that the natural horizons are reached and proven. If safety reasons preclude manual excavation to natural, hand augering may be used to try to assess the total depth of stratification within each area. The depth of the excavation will conform to current safety requirements. If excavation is required below 1.2m the options of using shoring or stepped trenching will be discussed with SNPA.

Recording will be carried out using Archaeology Wales recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.

All photographs will be taken with a high resolution (8+ Mega Pixel) digital SLR in RAW format (converted to TIFF and JPEG at highest resolution for archiving and presentation respectively). For both general and specific photographs, a photographic scale shall be included. The photographic record shall be accompanied by a photographic register detailing as a minimum, feature number, location and direction of shot.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required, and these will be related to Ordnance Survey datum and published boundaries where appropriate.

<u>Monitoring</u>

SNPA will be contacted prior to the commencement of ground works, and subsequently once the work is underway.

SNPA will be provided with notice of the start date, a projected timetable and a copy of the Health and Safety Risk Assessment 5 working days prior to the commencement of the work.

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

SNPA will be given access to the site so that they may monitor the progress of the field evaluation. SNPA will be kept regularly informed about developments, both during the site works and subsequently during post-excavation.

Artefacts

Archaeological artefacts recovered during the course of the excavation will be cleaned and labelled using an accession number which will be obtained from the local museum. A single number sequence will be allocated to all finds. The artefacts will be stored appropriately until they are deposited with the museum.

All artefacts recovered during the project will be retained and related to the contexts from which they were derived. All typologically distinct and closely datable finds will be recorded three-dimensionally.

The evaluation will carefully consider any artefactual or economic information and provide an assessment of the viability, for further study, of such information. It will be particularly important to provide an indication of the relative significance of such material for any subsequent decision-making process regarding mitigation strategies.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (Phil Parkes of Cardiff Conservation Services).

A catalogue by context of all artefactual material found, quantified by number, weight, or both, and containing sketches of significant artefacts will be compiled.

Pottery will be analysed to the standards outlined in "Guidelines for the Preparation of Pottery Archives" as prepared by the Study Group for Roman Pottery in consultation with the CIfA. All other material will be analysed following the advice given in the Institute of Field Archaeologists: Guidelines for Finds Work.

The requirements for the conservation of artefacts will be unpredictable until after the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Site should be used as guidance).

Environmental and technological samples

Samples will be taken where necessary when significant deposits are located. These will be retained for processing. The level of post-excavation processing will be dependent on the results of the field evaluation and following discussion with an environmental specialist and SNPA.

Any features containing deposits of environmental or technological significance will be sampled. If required, the project manager should arrange, through a suitably qualified expert the assessment of the environmental potential of the site through examination of suitable deposits. The assessment of potential should consider the guidelines set out in the English Heritage publication 'Environmental Archaeology' August 2011.

The requirements for the conservation of samples will be unpredictable until after the completion of the fieldwork. The archaeological contractor will ensure, however, that at least minimum acceptable standards are achieved (the UK Institute of Conservation's Guidelines for the Treatment of Finds from Archaeological Site should be used as quidance).

Human remains

Human remains will be left in situ, covered and protected when discovered. No further investigation should normally be permitted and SNPA and the local Coroner must be informed immediately. After discussion, it may be appropriate to take bone samples for C14 dating. If removal is essential it can only take place under the appropriate Ministry of Justice and Environmental Health regulations.

Conservation

All archaeologically recovered artefacts, building materials, industrial residues, environmental material, biological remains (including human remains) and decay products (collectively referred to as 'finds') will be conserved following the guidelines set out in 'Standard and Guidance for the collection, documentation, conservation and research of archaeological materials' (CIfA, 2014).

Specialists

In the event of certain finds/features etc. being discovered, the site archaeologist may have to seek specialist opinion for assistance. Such specialists will be accessed either internally within AW itself or from an external source. A list of external specialists is given in the table below.

Туре	Name	Tel No.
Flint	Amelia Pannett	02920 899509
Animal bone	Jen Kitch	07739 093712
CBM, heat affected clay, Daub etc.	Rachael Hall	01305 259751
Clay pipe	Hilary Major	01376 329316
Glass	Andy Richmond	01234 888800
Cremated and non-cremated human bone	Malin Holst	01759 368483
Metalwork	Kevin Leahy	01652 658261
Neo/BA pottery	Dr Alex Gibson	Bradford University
IA/Roman pottery	Jane Timby	01453 882851
Post Roman pottery	Mr Stephen Clarke	
Charcoal (wood ID)	John Carrot	01388 772167
Waterlogged wood	Nigel Nayling	University of Wales (Lampeter)
Molluscs and pollen	Dr James Rackham	01992 552256
Charred and waterlogged plant remains	Wendy Carruthers	01443 233466

Treasure

If items that may be subject to the Law of Treasure Trove are recovered, the appropriate authorities will be notified, in accordance with The Treasure Act 1996, Code of Practice (2nd revision), England and Wales issues by the Department for Culture Media and Sport.

5. Method statement for the production of an illustrated report and the deposition of the site archive

Report preparation

The report will contain the following:

- A fully representative description of the information gained from the evaluation, even if there should be negative evidence.
- A concise non-technical summary of the project results.
- At least one plan showing the site's location in respect to the local topography, as well as the position of all excavated areas.
- Suitably selected plans and sections of significant archaeological features. All plans and sections should be related to Ordnance Datum.
- Written descriptions of all features and deposits excavated and their considered interpretation.
- A summary report on the artefactual and ecofactual assemblage and an assessment of its potential for further study, prepared by suitably qualified individuals or specialists.
- A statement of the local and regional context of the archaeological remains identified.
- An impact assessment, with mitigation proposals, of the proposed development on the archaeological resource can be considered and presented for consideration. This could include the mapped archaeological potential of the site in relation to the proposed development.

Copies of the report will be sent to the client, the SNPA archaeologist (two hard copies and two on DVD), for the SNPA planning department, and for inclusion in the local

HER (two hard copies and two on DVD) and the National Monuments Record (paper copy and DVD). The DVDs will include the whole digital archive arising from the work including the photographs (as below). Digital copies will also be provided in pdf format.

A summary report of the work will be submitted for publication to a national journal (e.g. Archaeology in Wales) no later than one year after the completion of the work.

The site archive

A project archive will be prepared in accordance with the National Monuments Record (Wales) agreed structure and be deposited within an appropriate local museum on completion of site analysis and report production. It will also conform to the guidelines set out in 'Management of Archaeological Projects Two, Appendix 3' (English Heritage 1991).

Arrangements will be made with the local museum before work starts. Wherever the archive is deposited, this information will be relayed to the HER.

Although there may be a period during which client confidentiality will need to be maintained, the report and the archive will be deposited not later than six months after the completion of the work.

Other significant digital data generated by the survey (i.e. AP plots, EDM surveys, CAD drawings, GIS maps, etc.) will be presented as part of the report on a CD/DVD. The format of this presented data will be agreed with the curator in advance of its preparation.

6. Resources and timetable

Standards

All stages of the project will be undertaken by AW staff using current best practice. All work will be undertaken to the standards and guidelines of the CIfA.

Staff

The project will be undertaken by suitably qualified AW staff. Overall management of the project will be undertaken by Mark Houliston.

Equipment

The project will use existing Archaeology Wales equipment.

<u>Timetable of archaeological works</u>

The start date of works is Monday 20th July 2015.

Insurance

Archaeology Wales 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 Archaeology Wales.

AW will produce a detailed Risk Assessment before any work is undertaken.

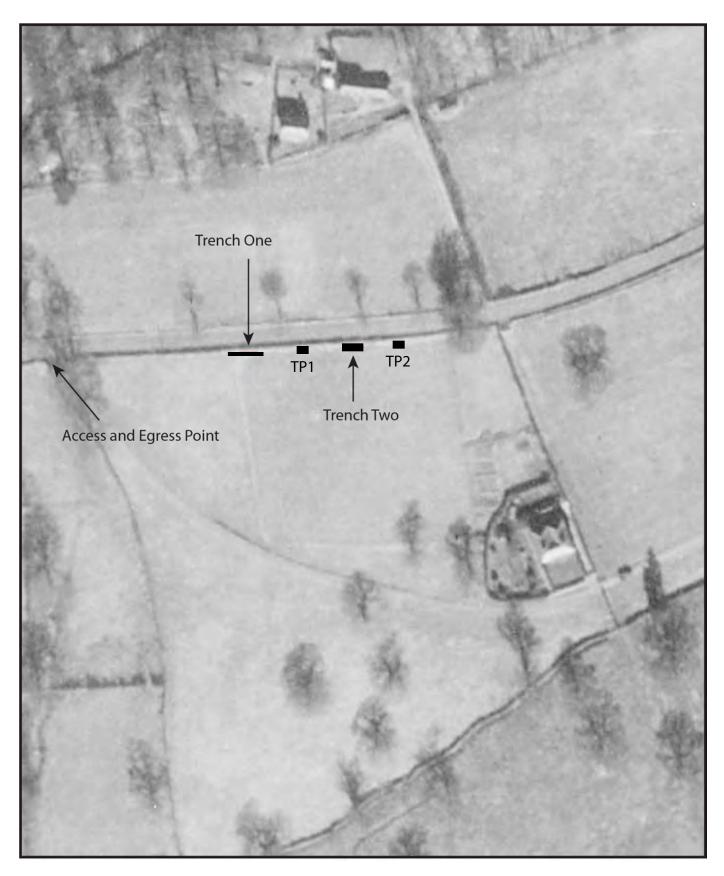


Figure 1. Trench and Test Pit Location Plan

APPENDIX IV:

Archive Cover Sheet

ARCHIVE COVER SHEET

Llanuwchyllyn to Glan-llyn Cycle Path

Site Name:	Bala
Site Code:	LGB/15/EVA
PRN:	-
NPRN:	-
SAM:	-
Other Ref No:	-
NGR:	NGR SH 88393 31679
Site Type:	Green field
Project Type:	Field Evaluation
Project Manager:	Kate Pitt
Project Dates:	July 2015
Categories Present:	Modern
Location of Original Archive:	AW
Location of duplicate Archives:	-
Number of Finds Boxes:	NA
Location of Finds:	NA
Museum Reference:	-
Copyright:	AW
Restrictions to access:	None



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