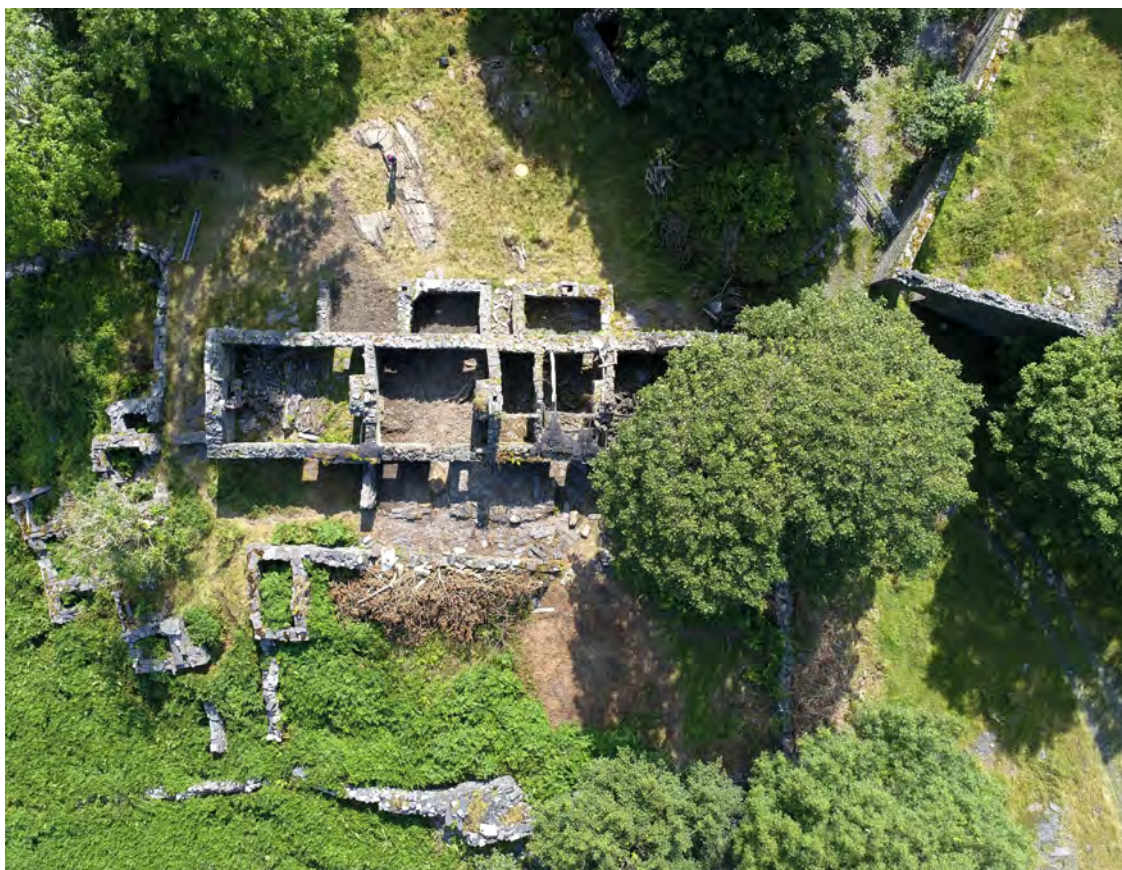


# Pen y Bryn Barracks Nantlle

Community Excavation and building recording



 Cadw



Llywodraeth Cymru  
Welsh Government



Ymddiriedolaeth Archaeolegol Gwynedd  
Gwynedd Archaeological Trust



# Pen y Bryn Barracks Nantlle

## Community excavation and building recording

Project No. G2593

Report No. 1539

Prepared for: Cadw

March 2020

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## *Crynodeb*

*Cynhaliodd Ymddiriedolaeth Archaeolegol Gwynedd raglen asesu gymunedol ar safle Ysgol Pendalar, Caernarfon. Adeiladwyd yr ysgol yn hwyr yn yr 1960au, heb fesurau archaeolegol, ar gaeau agored ger caer Rufeinig Segontium a'r Ffordd sy'n rhedeg o'r giatiau. Cafodd yr adeiladau eu dymchwel yn ystod y blynyddoedd diwethaf, gan adael slabiau concrid ar safle teras. Wrth gloddio, tynnwyd un slab a darn o'r ffordd/maes parcio, ac fe aseswyd yr archaeoleg oedd wedi goroesi oddi tannodd. Roedd y dyddodion Rhufeinig, ar y cyfan, wedi'u gwarchod yn dda o dan adfeilion yr ysgol, a chafodd cyfres o nodweddion eu hadnabod a'u samplu. Roedd hyn yn cynnwys dwy ffynnon, pedair popty clai, nifer o bydewau, a grŵp o dyllau pyst. Cafwyd casgliad sylweddol ac amrywiol o ddarnau o grochenwaith ynghyd ag amrywiaeth o ganfyddiadau bychain. Daw'r olion Rhufeinig o ardal y credir iddi fod yn rhan o bentref vicus gyfochr â'r ffordd o'r gaer. Cadarnhaodd y gwaith cloddio bod archaeoleg Rhufeinig sydd o bwysigrwydd cenedlaethol wedi goroesi o dan adfeilion yr ysgol.*

## *Summary*

*Gwynedd Archaeological Trust carried out a programme of community-based clearance, excavation and archaeological recording at Pen y Bryn Barracks, Nantlle. The barracks were found to be cottages housing quarry-workers and their families. One of the four cottages was cleared of rubble and excavated and the building range was recorded in detail. The earliest part of the buildings was a late 17<sup>th</sup>-century stone-built barn. A second agricultural building was added to this in the 18<sup>th</sup> or early 19<sup>th</sup> century. The agricultural buildings were converted and extended in order to produce a row of four crog-loft cottages in the 1860s. Lean-to kitchens were added and the cottages remained in used until the 1920s. They were subsequently re-used as animal pens and are now roofless.*

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# **G2593 PEN Y BRYN BARRACKS – COMMUNITY EXCAVATION AND BUILDING RECORDING**

## **1 INTRODUCTION**

Gwynedd Archaeological Trust (GAT) carried out a community excavation at Pen y Bryn barracks Nantlle (part of Scheduled Area CN302, Cloddfa'r Lon Slate Quarry SH50275338) as part of its Cadw grant-aided programme for 2019-20. This project contributed to the World Heritage Site nomination bid for the Slate Industry of North Wales and to the Welsh Government Initiative - Year of Discovery. Pen y Bryn is significant because it demonstrates the integration of the slate quarrying industry at Nantlle with the pre-existing farming community. The initial work at Pen y Bryn comprised clearance of vegetation that was threatening and obscuring the site, most notably two mature trees that were growing in the barracks and associated gardens. This was followed by the excavation of two limited areas, detailed recording of the row of barracks and production of a condition report for the structures. The project was carried out as a community initiative and included school visits/activities on site, excavation and archaeological recording by the Unloved Heritage Project and the Young Archaeologists' Club. A probable rock-cannon with incised initials adjacent to the barracks was excavated and recorded by the Unloved Heritage Project and the results have been integrated into the archaeological report.

The community project was undertaken on weekdays between the 1<sup>st</sup> July and the 23<sup>rd</sup> July 2019, with an open day event being held during on the 21<sup>st</sup> July. The first two days of the project comprised site setup and essential health and safety works by GAT staff with volunteers starting on site on 3<sup>rd</sup> July. Archaeological supervision was provided by David Hopewell and Neil McGuinness.

The community excavation included a public engagement and outreach strategy which was delivered bilingually (Welsh and English). This included the involvement of the volunteers and liaison with visitors to the site during the excavation. In addition an open day event in conjunction with Unloved Heritage Project was undertaken alongside continual social media updates. The GAT Outreach team, Dan Amor and Jade Owen, managed the public engagement and outreach strategy.

The fieldwork was undertaken within Scheduled Monument CN302 and Scheduled Monument Consent was obtained for all works.

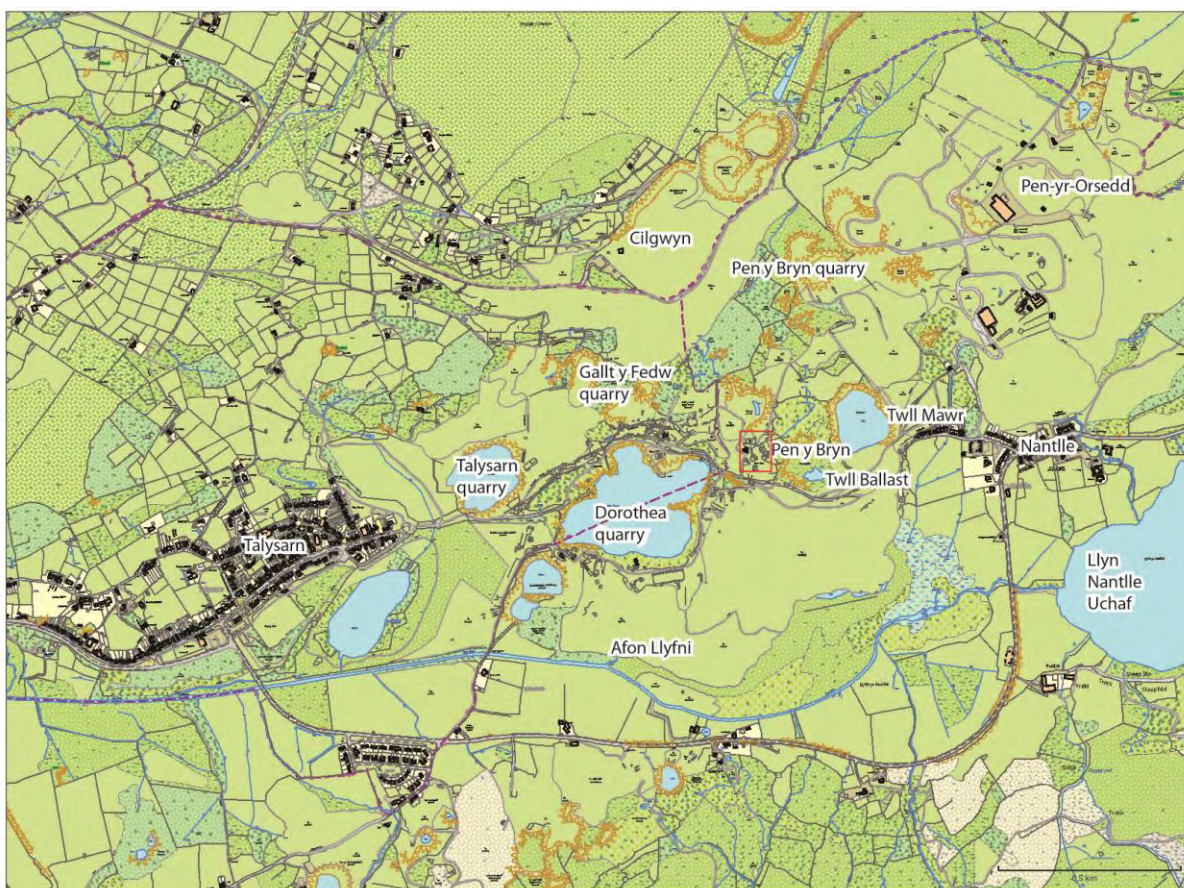


Figure 1. The Nantlle quarries showing location of Pen y Bryn

## 2 FIELDWORK AIMS AND OBJECTIVES

The key aims and objectives of the evaluation/excavation were to:

- a) to provide a clearer understanding of the phasing and development of the barracks and their conversion from agricultural buildings to barracks associated with the slate industry
- b) to provide evidence of the activities carried out in the barracks and associated yard and provide evidence of the material culture of the quarrymen and their families.
- c) to excavate and record a marriage stone/rock cannon adjacent to the barracks (not part of the current scheduled area)
- d) to clear vegetation from the barracks and their environs that was threatening the stability of the buildings
- e) to place the results in context, reference shall be made to *A Research Framework for the Archaeology of Wales Version 03, Final Refresh Document March 2017*.

### 3 BACKGROUND

#### 3.1 Introduction

The site comprises a block of four barracks along with two outlying blocks, yards, gardens and outbuildings dating from the 1860s (Figure 1). The larger block was converted from a much earlier building; the remains of oak timbers and two arched openings in barracks 3 and 4 may be contemporary with the nearby seventeenth-century Pen y Bryn farmhouse. The buildings only retain a few fragments of roofing but for the most part the walls survive close to their full height. The buildings stand immediately adjacent to the Snowdonia Slate Trail but are currently fenced off and obscured by vegetation. Throughout the project the Trust worked closely with partner organisations, including members of the conservation sub-group, RCAHMW and Cadw along with the owners The Dorothea Lakes Ltd.

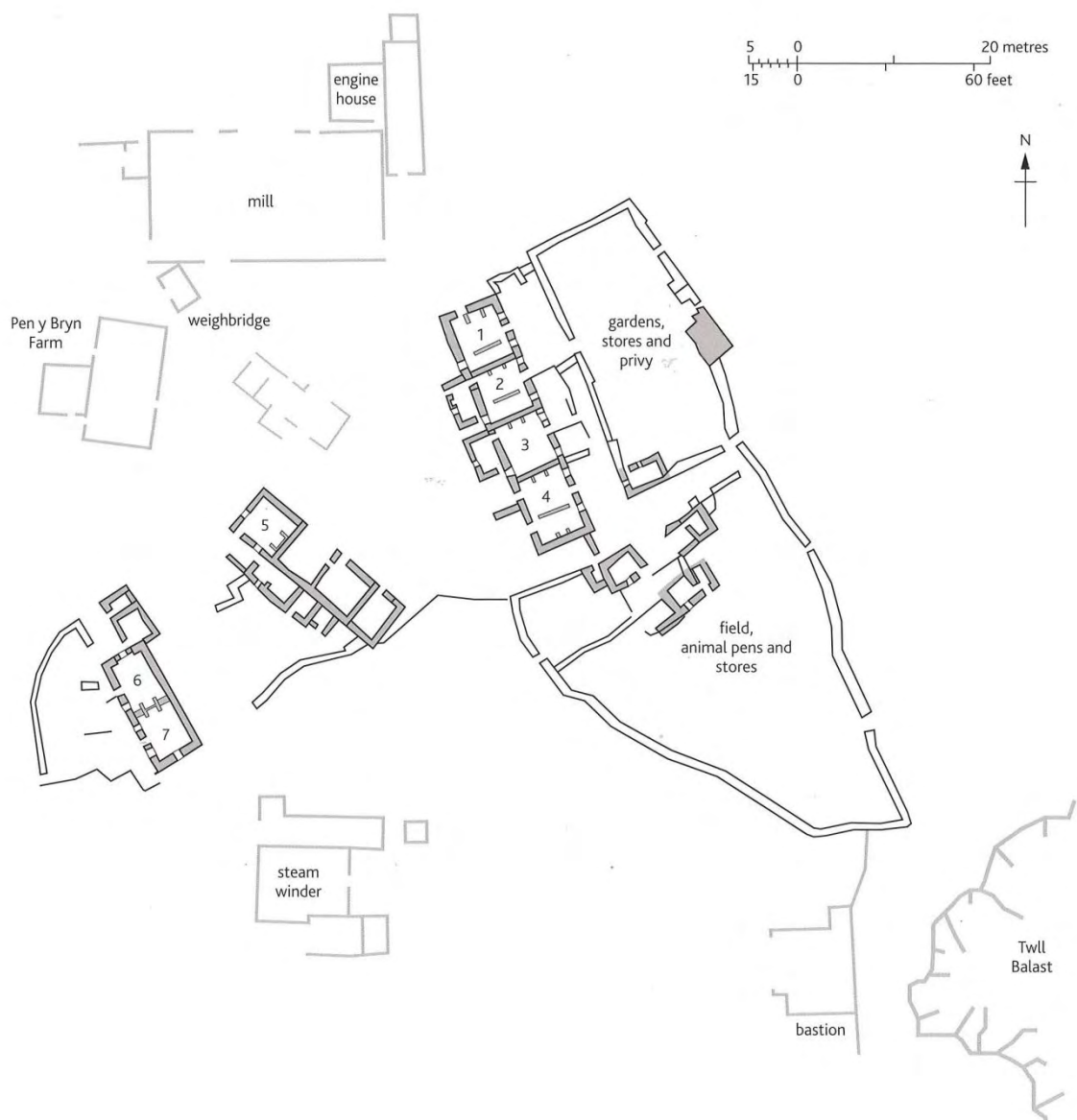


Figure 2. Pen y Bryn, RCAHMW survey from Gwyn 2015, 191



## **4 METHODOLOGY**

The work programme included the following principal tasks:

### **4.1 Vegetation Clearance**

The site is under threat from unmanaged natural decay which is considerably exacerbated by the unchecked growth of trees that have seeded naturally in and around the buildings. There were three trees that were threatening the stability and survival of the barracks. The first was a large mature sycamore close to the northern corner of the building. Two of the lower branches had been impacting the building during high winds and had caused damage to the chimney. The second was a semi-mature tree growing in the western corner of barrack 3 that had begun to damage the surrounding masonry and was susceptible to windthrow and the potential to cause extensive damage. A third semi-mature tree was growing just outside the ENE door of barrack 3 and this was also vulnerable to windthrow. The two lower branches of the mature sycamore were pruned and the other two trees were completely removed down to ground level with the stumps treated to prevent regrowth. All works were arranged by Ocrow Estate Management on behalf of the owners and were carried out by tree surgeons using rope-work and sectional felling in order to avoid any contact with the buildings.

There were many small saplings and other undergrowth in and around the barracks and outbuildings which would have posed a longer term threat to the site if not cut back. Some of these were cut back by hand; no larger trees that could fall on the structures were removed and no ivy growing on the walls was removed as it could cause increased instability without specialist treatment. Some of the vegetation clearance was carried out by the Unloved Heritage Project.

### **4.2 Community excavation and recording**

The areas that were suitable for community excavation were constrained by health and safety considerations. Barracks 1 and 2 contained the most significant multiphase archaeology but were unsuitable for excavation due to unstable masonry above head height, and the fragile remnants of the roof. These compartments were cordoned off and access was strictly prohibited to all members of the public and volunteers. The floor of barrack 4 was covered with the rubble of a collapsed internal wall and the gable end and associated fireplace were leaning inwards and were on the point of collapse. Barrack 3 was stable and was safe for carefully supervised excavation as was the yard to the ENE. The marriage stone/rock cannon was covered in shallow soil, moss and turf. This was excavated by the Unloved Heritage Group under the supervision of Jade Owen and other GAT staff.

Training formed a major part of the community excavation. Volunteers were trained in all aspects of building recording and excavation with particular emphasis on photographic recording and filling in and understanding context and structure sheets. Much of the recording of the buildings was carried out by the volunteers. The volunteers also contributed to the archive search and recording oral history.

### **4.3 Building recording**

The barracks were recorded in detail using photogrammetric 3D modelling by GAT staff in order to minimise the need to access the less stable parts of the site (barracks 1 and 2). This produced orthographic elevations of significant parts of the barracks and 3D models of the buildings.

Accessible elements of the stable areas were recorded using sketch elevations, plans and structure sheets. The survey allowed the phasing of the early structure and 19th century additions that form the barracks to be evaluated as well as information about the condition of the structures.

#### **4.4 Excavation**

Barrack 3 was stable apart from a few displaced stones on the wall tops that were removed without significant impact to the buildings. Parts of the building were free from deep rubble making it the most suitable area for excavation. Both the barrack and the yard were cleared of fallen slate, rubble and other debris. Clearance did not affect the stability of the extant structures and increased understanding of the phasing of the buildings.

A second excavation was carried out in an area that lies outside the scheduled area but could be considered to affect the setting and context of the scheduled buildings. This comprised an overgrown rock cannon or “marriage stone” to the west of the barracks. This is a large area of bedrock with incised initials and drilled holes. This was cleared of vegetation and some limited excavations were carried out in its immediate surroundings. This was also recorded by photogrammetry along with written and drawn records. The excavation was carried out by young people as part of the Unloved Heritage Project under supervision from Gwynedd Archaeological Trust staff.

Access and excavations were carried out under the terms of a licence between the owners and GAT namely the *Licence for Access to Dorothea and Twll Slate Quarries, Talysarn, Caernarfon*. Risk assessments and a method statement were produced by GAT and approved by Ocrow Estate Management on behalf of the owners.

#### **4.5 Public engagement**

Public engagement is of particular importance in this former slate quarrying area. In addition to participation in the survey and excavation, the project engaged with the local and wider community via an open day to the excavations and a guided walk around the surrounding quarrying area. The project also integrated some of its activities with schools and the Unloved Heritage Project allowing them to explore, learn about and interpret their heritage, in particular those elements concerned with Dyffryn Nantlle’s slate quarrying industry. A public open day was held on Sunday July 21<sup>st</sup>. This was jointly marketed as part of the UK-wide Festival of Archaeology, and also as part of GAT’s annual public walks programme, those who wished to attend the public open day were booked onto one of three guided tours of the site.

##### **4.5.1 Schools**

Three local primary schools took part in the project: Ysgol Rhosgadfan, Ysgol Bro Lleu and Ysgol Baladeulyn. Prior to each school visit to site, GAT’s Outreach and Education Officer conducted an introductory session with each class. This served as a means to discuss what archaeology is, what archaeologists do and to outline the work that GAT undertakes. This also provided context for Pen y Bryn Barracks within the wider historic and cultural landscape and introduced the aims and objectives of the overall project and explained to pupils what they would be doing when they visit. Pupils were invited to become ‘archaeologists for the day’ and participate in a suite of activities including recording architectural features, recording historic graffiti, recording the wedding stone/rock cannon and drawing artefacts.

School visits took place on weekdays between the 8<sup>th</sup> and 19<sup>th</sup> of July. All activities took place within strictly constrained areas for health and safety reasons with a high teacher/supervisor to pupil ratio.

#### **4.5.2 *Unloved Heritage***

Funded by the Heritage Lottery and led by Cadw, the Unloved Heritage Project aims to enable young people to investigate different themes of Wales's unique past while developing specialist skills in archaeology. The Unloved Heritage participants assisted in vegetation clearance, excavating and recording and undertaking photogrammetry of the marriage stone, and running their own stall on the Open Day. The young people had three full days on site. One of the full days was the Public Open Day where the participants ran a stall and interacted with the local community. Their involvement on site allowed the young people to develop their archaeological and technological skills and enhanced their knowledge and ongoing work on the heritage of the area.

#### **4.5.3 *Young Archaeologists' Club***

GAT now runs the Bangor branch of the Young Archaeologists' Club (YAC). A session at the barracks was held for the YAC on Monday 22<sup>nd</sup> July. This gave members and parents the opportunity to find out about the community excavation and learn about the site within the wider historic landscape. Attendees participated in the same suite of activities as the local schools

### **4.6 Fieldwork Methodology**

#### **4.6.1 *General***

All identified features were recorded using GAT recording-forms. Photographic images were taken using a digital SLR camera set to maximum resolution in RAW format. A photographic record was maintained on site using GAT recording-forms and was digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process. Photographic images will be archived in TIFF format. In addition to the fieldwork record images, images were also taken for use as publicity shots.

Archaeological features/deposits/structures were manually cleaned and examined to determine extent, function, date and relationship to adjacent activity. Most areas were recorded photogrammetrically using multiple photographs to produce 3D models using Agisoft Metashape tied into OS coordinates using high precision GPS survey.

All excavated features were recorded either manually or photographically, using GAT context forms and structure sheets.

Building recording adopted a flexible approach due to time and access constraints. The buildings were recorded photogrammetrically, supplemented by detailed descriptions, sketch drawings and interpretation on GAT structure sheets. This formed one of the training topics for volunteers

#### **4.6.2 Artefacts**

Diagnostic artefacts from sealed deposits were retained for further examination and identification. The artefacts were treated according to guidelines issued by the UK Institute of Conservation, in particular the advice provided within *First Aid for Finds* (Watkinson and Neal 2001).

All finds are the property of the landowner; however, it is Trust policy to recommend that relevant finds are donated to an appropriate museum (in this case Storiol, Ffordd Gwynedd, Bangor LL57 1DT), where they can receive specialist treatment and study. Access to finds must be granted to the Trust for a reasonable period to allow for analysis and for study and publication as necessary. Trust staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff.

#### **4.7 Reporting**

This is an interim report summarising the results, making recommendations for any further post excavation analysis and providing information about the condition of the buildings. This interim report will be synthesised into a publication report in 2020-21

### **5 RESULTS**

#### **5.1 Historical evidence**

The 1846 tithe map shows buildings at Pen y Bryn but it is not sufficiently accurate to allow interpretation. There does appear to be a cluster of buildings including the house and farm buildings, one of which appears to correspond to the earliest phase of the barracks. The schedule lists Dorothea Garnons as the owner. The Garnons family were descended from Robert de Gernon a companion of William the Conqueror. In the 17th century Richard Garnons married Catherine Vaughan of Corsygedol. Richard Garnons of Colommendy in Denbighshire inherited the Pant Ddu and Nantlle Estates from his father in 1803. He was the sheriff of Caernarfonshire in 1805 (Burke 1835). Pant-du is a 17th Century house close to Talysarn and appears to have been the nucleus of the Garnons' holdings in the area. Dorothea quarry was named after Dorothea Garnons

Pen y Bryn farmhouse is thought to date from the 17th Century and parts of the farm buildings that lie to the south-east are probably contemporary. Some parts of the buildings are built from field stone in a similar fashion to the house, the rest are built from quarried slate and are later.



Figure 3. The 1841 tithe map showing Pen y Bryn

The census records allow the development of the barracks to be traced.

The census records for 1861 and 1871 are as follows:

**1861** Pen y Bryn occupied by Richard Owens widower, Farmer of 70 acres and sons Richard and William

**1871** Pen y Bryn occupied by Richard Owen Unmarried Quarryman and Farmer of 60 acres

Pen y Bryn occupied by Thomas Owen Labourer Laura (wife) 4 daughters 1 son

Pen y Bryn occupied by Robert Williams Quarry Labourer and Ellen (wife) 4 daughters 4 sons

Pen y Bryn occupied by Morgan Jones Quarryman and Elinor (wife) 2 daughters 3 sons

Pen y Bryn occupied by John Pritchard Quarryman and Jane (wife) 2 daughters 3 sons and grandson

Pen y Bryn occupied by Owen Evans Quarryman and Elizabeth (wife) 2 daughters 2 sons

Pen y Bryn occupied by Mary Parry (widow) and daughters Jane and Elizabeth

Pen y Bryn occupied by William Owen Quarryman and Margaret (wife) and son

This demonstrates that Pen y Bryn changes from a farm and outbuildings to a farm plus 7 households sometime between 1861 and 1871, presumably as a result of the conversion of farm buildings to dwellings. The dwellings are usually referred to as quarry barracks (e.g. PRN description and Gwyn 2015 191). The makeup of the households show that they were, in fact, cottages housing family units (including one widow and her daughters) as opposed to being worker's barracks. The 1881 census lists 9 households possibly indicating further conversions. The 1891 census lists 9 or 10 buildings with 2 unoccupied. Pen y Bryn Terrace Nos 1 to 4 are named. The 1911 census provides details of the numbers of rooms. There were 8 households, 2 with 2 rooms, one with 3, and 5 with 4.



Figure 4. Ordnance survey 25" 1<sup>st</sup> edition 1889

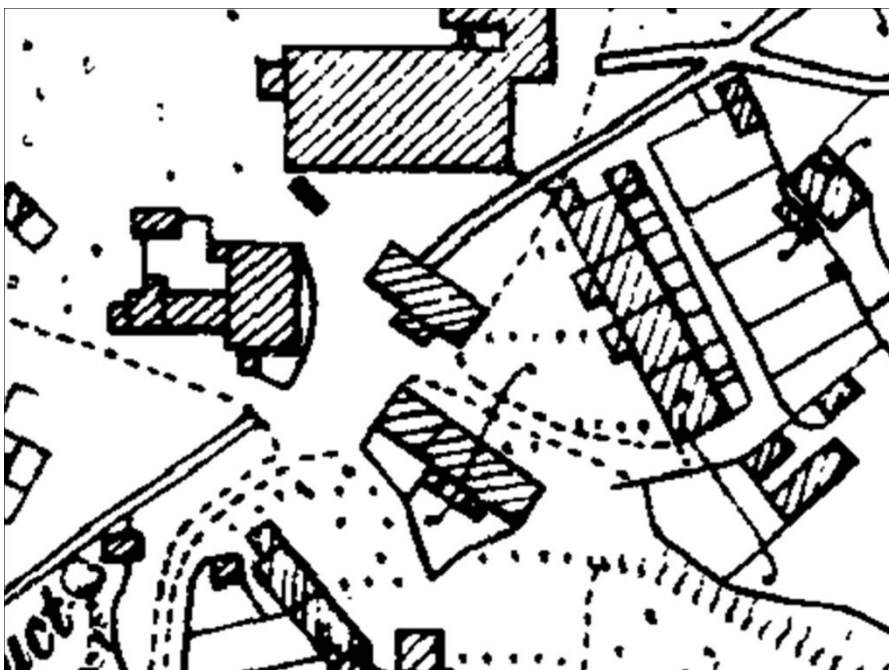


Figure 5. Ordnance survey 25" 2nd edition 1913

Pen y Bryn Cottages appear on the 25" county series Ordnance survey maps. The first edition (1889) shows the four cottages with extensions on the WSW side of cottages 2 and 3 and on the NNW side of cottage 1. Cottage 4 is larger than the others. Garden plots bounded by a path lie to ENE of the cottages. Further plots and outbuildings lie to the ENE of this along with outbuildings in the field to the SE.

The second edition shows a reduction in the size of the extension on the NNW side of cottage 1 and the addition of a new extension on the NE corner. There also some minor changes to the outbuildings

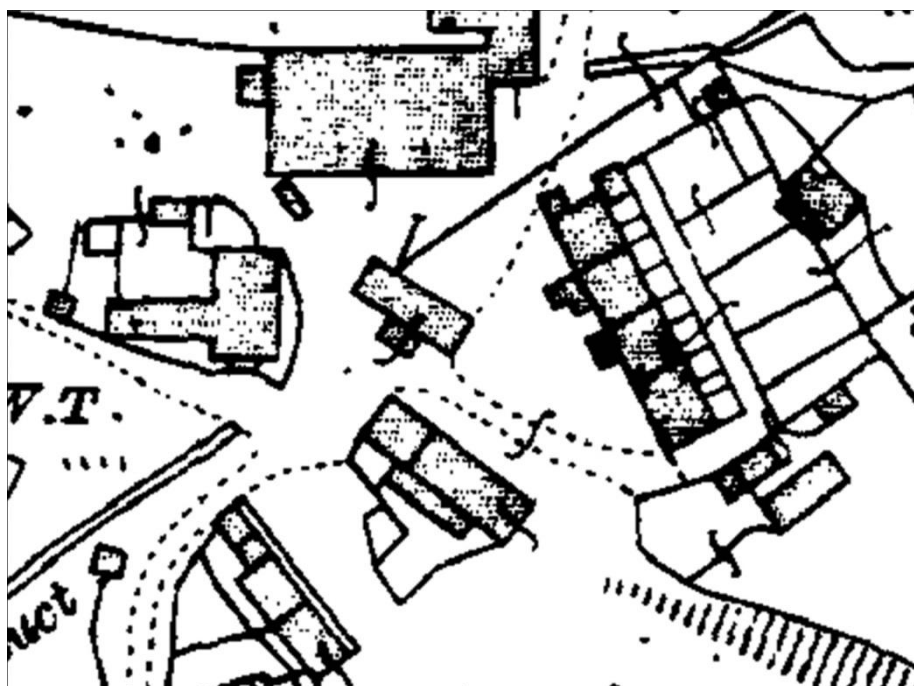


Figure 6. Ordnance survey 25" 3rd edition surveyed 1916

The third edition surveyed in 1916 shows a small extension on the rear of the pre-existing extension on cottage 2 and further additions to the outhouses.

Further information about the site after the last census in 1911 is mostly derived from oral history from conversations with John Williams, known to most as John Pen y Bryn. John's family moved into Pen y Bryn in 1938. There are also some recollections from the period in a book by his sister the Labour MP Betty Williams (*O Ben Bryn i Dy'r Cyffredin*, 2010).

Pen y Bryn cottages were occupied until the 1920s. The last occupants in the other converted outbuildings were Len and Idris Parry. They lived in number 7 (see Figure 1) which appears to have been converted from a cart shed and moved out in 1938. John recalls that the extensions were kitchens and that the area around the cottages was called Pencraig. The outhouses were toilets, a tool-shed and pigsties.



The cottages and other buildings reverted to being agricultural buildings and John's father Gruffydd Williams converted the area round the cottages into pig enclosures (Cae Susan, and Cae Lil, named after the pigs) in the 1950s. Cottage 4 was used to treat sheep.

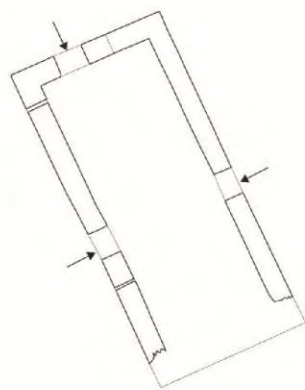
## **5.2 Survey and Excavation**

The survey and excavation results were combined to form a master-plan of the cottages. The basic plan was derived from a series of photogrammetric surveys that were used to create 3D models in Agisoft Metashape. The models were output as orthoviews, i.e. with no perspective distortion. The information for cottages 2 to 4 was mostly derived from a series of overlapping drone photographs. Cottage 1 was obscured by a tree and was surveyed using a pole-cam. The models for elevations, interiors and the marriage stone were produced from overlapping ground-based and pole-cam photographs. Fig 6 shows a plan of the cottages along with context numbers for individual features. The survey and excavation information is listed for each cottage and the marriage stone by context number as shown on Fig 6 and summarised by phase at the end. Figs 7-9 show orthographic projections of the long axes of the cottages. Five broad phases were identified:

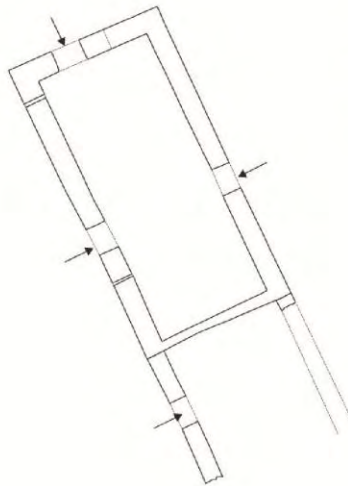
- I - the 17<sup>th</sup> century agricultural building
- II – additions to the agricultural building
- III – Conversion to four cottages
- IV – Additions and alterations to the cottages including the kitchens
- V – Pig and animal enclosures



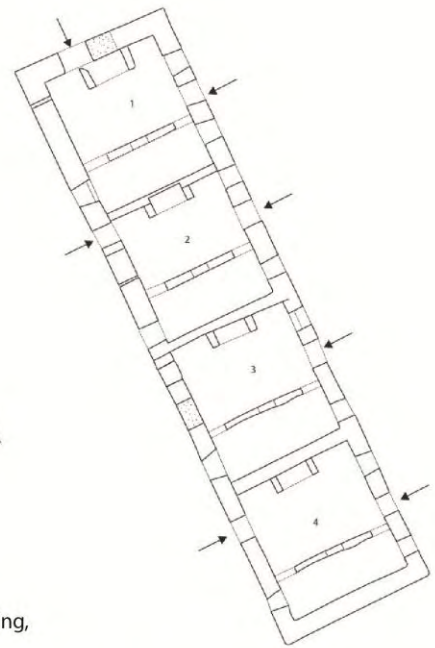
Figure 7. Pen y Bryn cottages – 2020 survey



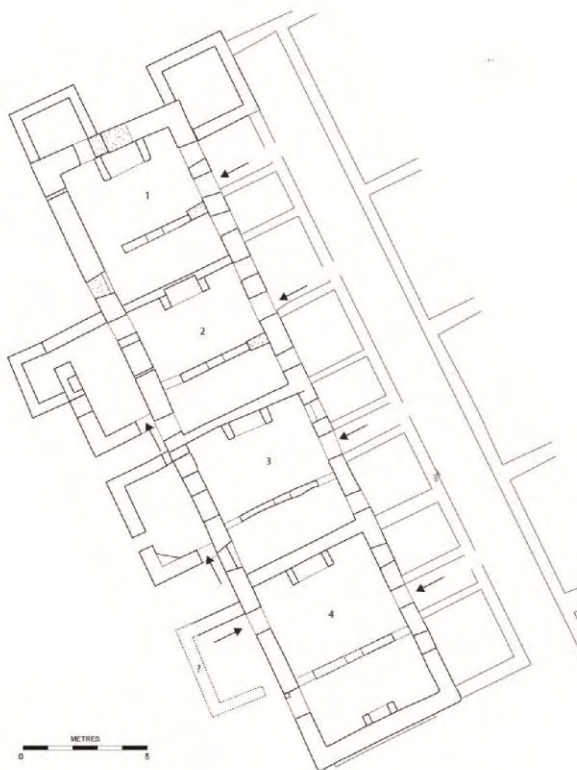
Phase 1 - barn,  
late 17th century



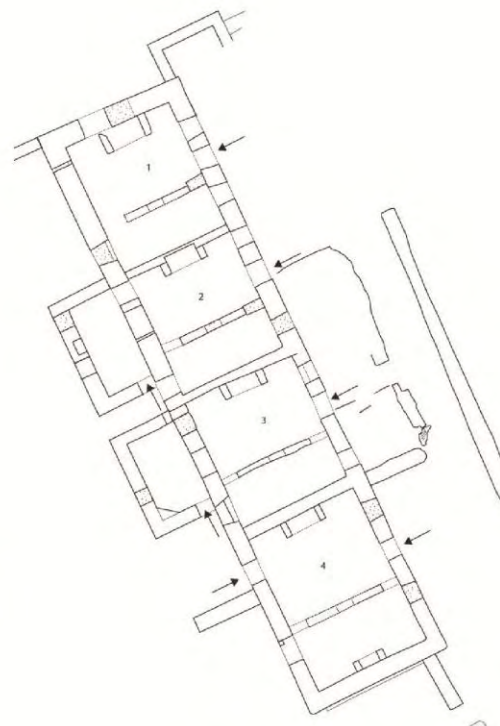
Phase II - additional agricultural building,  
18th or early 19th century



Phase III - conversion to cottages,  
between 1861 and 1871



Phase IV - extensions to cottages,  
1870s to 1913



Phase V - animal pens,  
post 1920s

Figure 8. Outline phasing plans

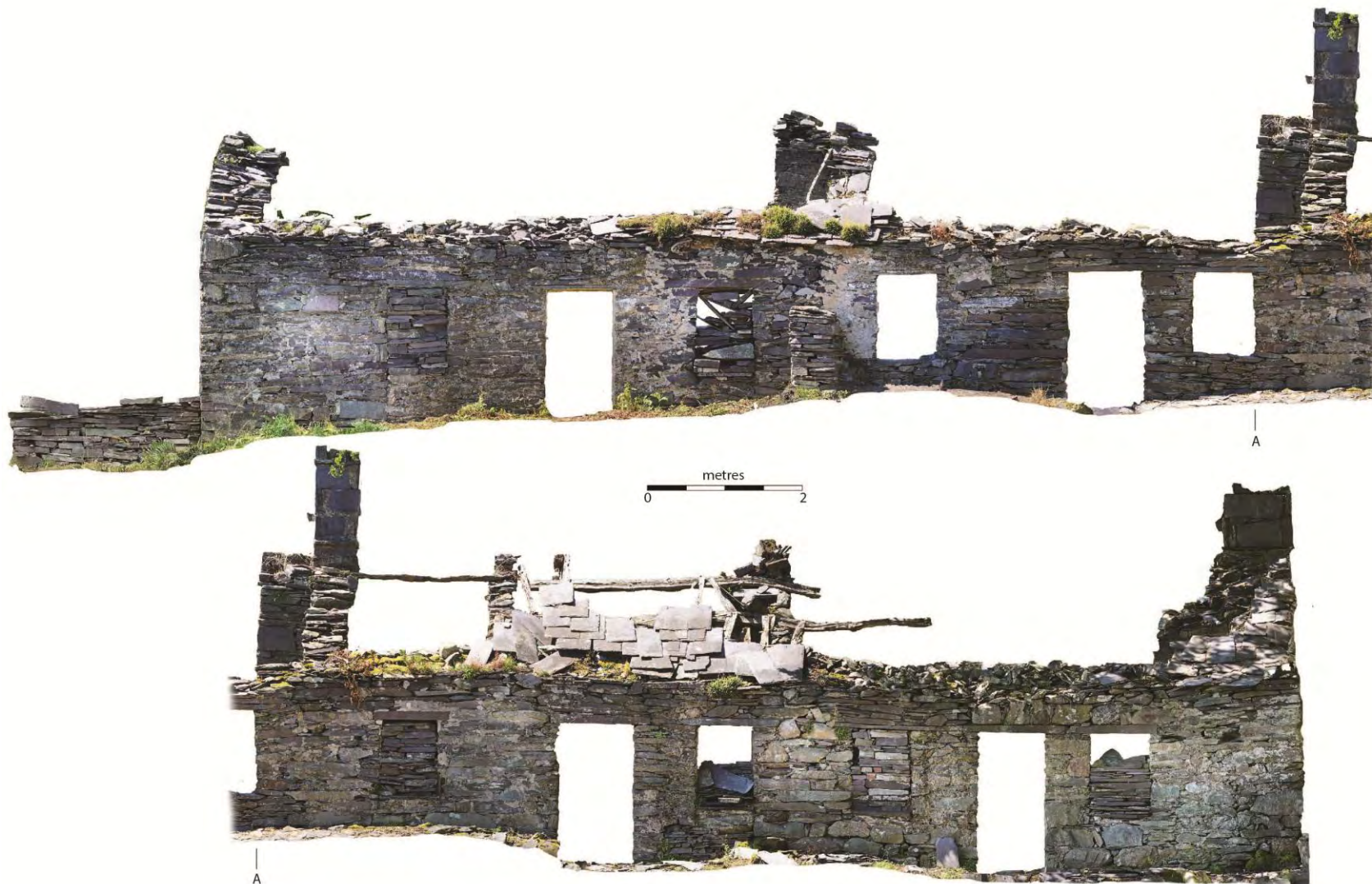


Figure 9. Orthographic projection from 3D model - ENE facing elevation



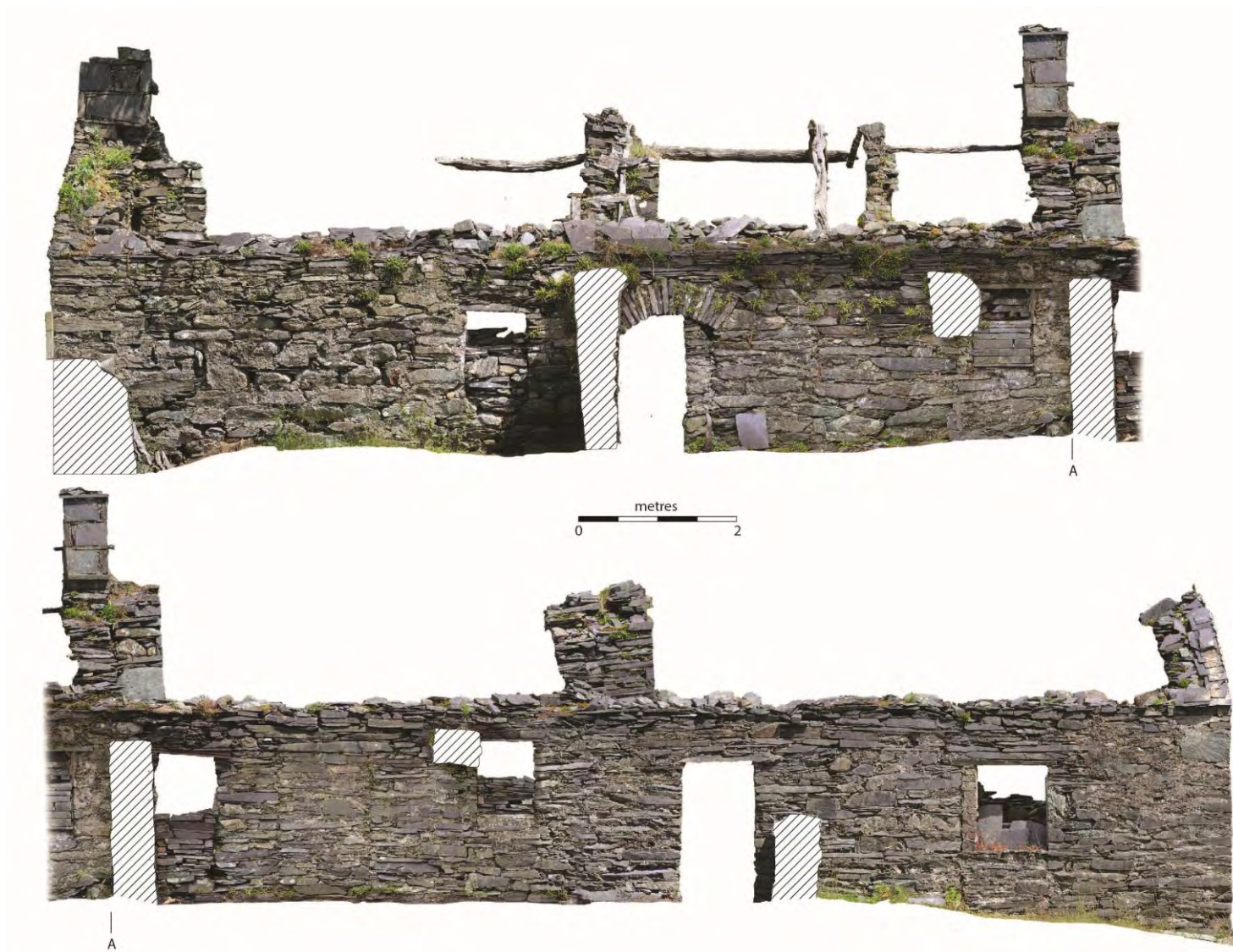


Figure 10. Orthographic projection from 3d model - WSW facing elevation without extensions



Figure 11. Orthographic projection from 3d model – WSW facing elevation of extensions

### 5.2.1 Cottage 1

This is a crog-loft cottage that incorporates phase I masonry from the original barn.

1001 A window with a splayed opening, 1.12m high and 0.92m wide internally and 0.77m wide externally with wood and slate lintels. Possibly a phase II insertion into the barn. It had been reduced in height to 0.5m with rough unbonded slate and stone infill capped by mortar bedding for a window frame (Phase III). The reduced window was partially blocked with piled slate (Phase V)

1002 WSW wall. A mortar bonded wall of rough field-stone, 0.85 m thick. The upper part of the wall includes smaller slate slabs and is probably a later addition or rebuild. The wall contains two windows. One is a slit window (1003 phase I). The second is probably an insertion; a rough joint on the inner NNW side could be a feature of the insertion or a later phase III alteration. The internal elevation is pointed and retains some plaster. The upper part of the wall is bowed out by 0.2m and leaning to the WSW.



Figure 12. Slit window 1003



1003 A slit window 0.14m wide and 0.68m high (Phase I). It has an external lintel of slate fieldstone. The window is blocked externally with stones wedged into the slit (Figure 11). The inside is mostly plastered over.

1004 The NNW gable end (Figures 12 and 13). The gable survives to its full height of 5.15m (including chimney) and is 6.8m wide. The gable is slightly asymmetrical with the chimney stack offset to the WSW by about 0.5m. The masonry is mortar bonded field-stone including some large slate slabs. There are two main phases visible. The first are elements of the phase I barn in the form of the majority of the masonry and two arched doorways 1005 and 1006 (see individual descriptions). The first floor doorway has been truncated with much of the arch having been lost. This demonstrates that the roof line was lowered after the door was blocked, probably in the conversion to the phase III barracks. The chimney stack is also a later phase III addition and is constructed from thick squared-off slate slabs and rubble. The first floor doorway is blocked with mortar-bonded field-stone masonry. The ground floor door is open and the ENE side stands behind the fireplace (see discussion in 1005). There has been some subsidence with some parts of the structure leaning to the WSW and cracks in the upper wall.

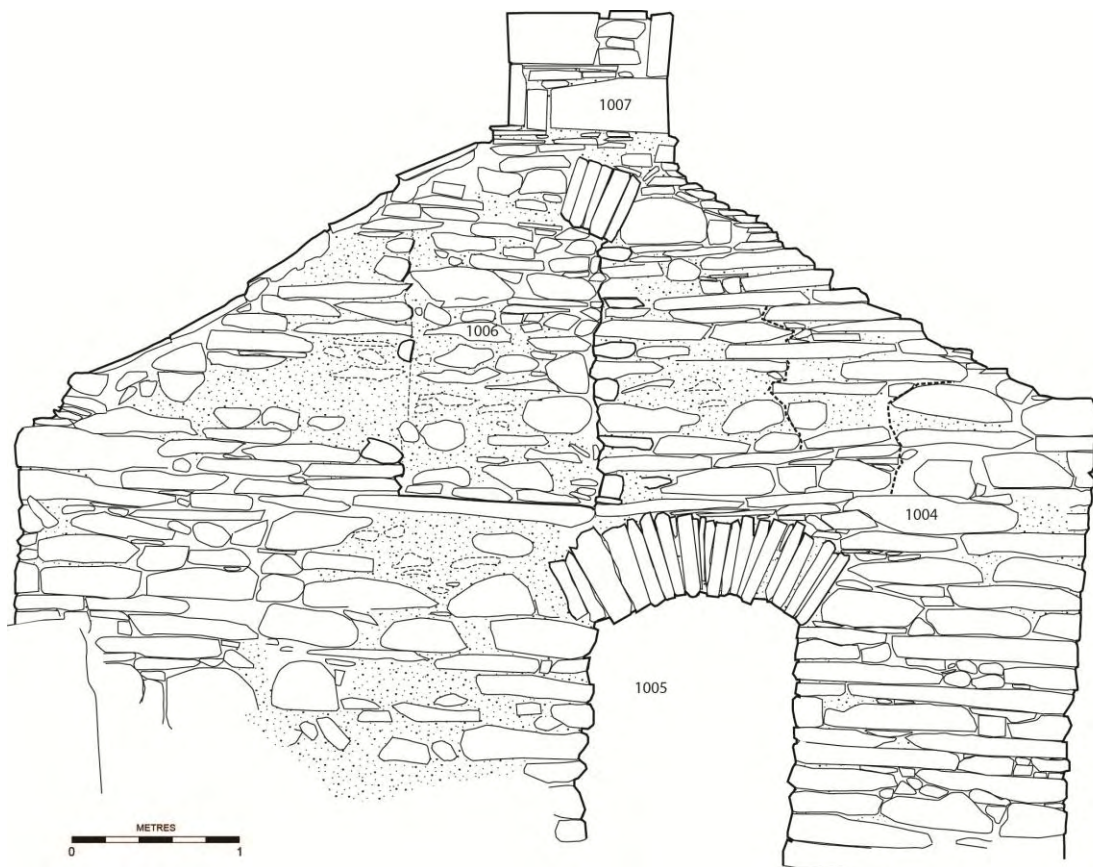


Figure 13. NNW gable end 1004 showing phase I doorways 1005 and 1006





Figure 14. NNW gable-end of cottage 1

1005 Ground floor door in NNW gable (Figures 13-14). The doorway is 1.2m wide and a maximum of 1.6m high. The outside of the wall is supported by a segmental arch of rough slate voussoirs. This does not continue through the width of the wall and the inside is supported by a substantial oak lintel set level with the apex of the arch. Fireplace 1014 stands in front of about a third of the width of the door. Unlike the other cottages, the fireplace and chimney breast were offset to the ENE apparently in order to avoid covering the door completely. It is possible that the door continued in use even though it was partially obscured by the fireplace. This would have provided access to the lane. It may have been partly blocked in a similar fashion to door 2007.





Figure 15. Blocked doorway 1005 showing oak lintel and corner of fireplace

1006 Blocked first floor door in NNW gable (Figures 12 and 13). The door is 1.1m wide and 1.7m high. About a quarter of a segmental arch with rough slate voussoirs survives. The edge of the door on the ENE side is accented by five irregular protruding quoins spaced fairly evenly along the height of the door. The WSW side retains two protruding stones. A protruding slate threshold stone defines the bottom of the door. The inside is hidden by the chimney breast.

1007 Chimney stack on NNW gable. Phase III chimney stack added to gable. It sits slightly off centre on the gable which must have been modified in order to accommodate the chimney running from the chimney breast. The stack stands to a height of 0.65m and is 0.95m wide and constructed from thick squared-off slate slabs and rubble. There are protruding drip stones on either side and at the apex of the roof. The chimney stack is unstable and partially collapsed.

1008 ESE wall of cottage 1. Mortar bonded wall of rough field-stone, 0.8 m thick. The upper 0.2m comprises slate slabs from quarry waste and is presumably a phase III addition. The wall

incorporates two windows 1009 and 1011 and a door 1010 which appear to be phase III insertions. The wall was presumably fairly extensively rebuilt to accommodate the new elements. A slight change in the thickness of the front upper wall coinciding with the line of the internal division (1015) is probably a late repair.

1009 Partly blocked window 0.78 wide and 1.25m high, splaying slightly to 0.86m internally. The lintels are thin slate slabs. The blocking is drystone (phase V) slate waste.

1010 Doorway with slate lintels 0.87m wide and 2.29m high.

1011 Blocked window 0.77m wide and 1.1m high with slate lintel and sill (Figure 15). Completely blocked with slate waste and bricks (phase V). Patches of infilling around the window with small pieces of slate are an indication that it was inserted in phase III.



Figure 16. Blocked window 1011

1013/1014 Fireplace and chimney-breast in cottage 1 (Figure 16). The fireplace and chimney-breast are 2.06m wide and set asymmetrically against the NNW gable. The stack sits on the WSW side of the chimney breast. It appears that the fireplace was offset in order to allow partial access to the phase I door in the gable end. The opening for the fireplace is 1.45m wide and 0.87m high and 1.0m deep. The lintel is a large, thick edge-set slab of slate that is partially covered in render and black



bituminous paint. The chimney breast and flue were built against the existing end wall of the building and were only minimally tied in with occasional stones set into the gable end. The WSW side of the chimney breast has moved forward and away from the wall forming a substantial bulge and appears to be on the point of collapse.



Figure 17. Fireplace 1013 and chimney breast 1014

1015 The cottage was divided into two by a narrow slate wall with doorways forming a crog-loft. The wall was lightly built out of small slate slabs and was 0.4m thick. There were 0.8m wide doorways at either end. The wall has collapsed into the SSE end of the cottage leaving a stub up to 0.4m high. The ENE doorway had been blocked (Figure 17).



Figure 18. Collapsed dividing wall 1015. Note sockets for crog-loft joists

1016 The ENE doorway had been blocked by a 0.4m wide dry stone wall (1016) which has survived to a height of 1.25m. This was built from slate slabs in a similar style to most of the phase V alterations.

1017 see 2015

1018 Cottage 1 extension. The kitchen is shown on the 25" county series maps. The NNW wall survives but much of the rest was demolished in the 1950s. The WSW wall to the N of the cottage has been pushed over by a mature sycamore tree. Much of the area was obscured by brash when the site was surveyed.





Figure 19. Cottage 1 extension 1018, showing fireplace 1019 and upright slab 1020

1019 The fireplace and chimney survive in the northern corner of the building. The top of the fireplace is at a height of 1.3m (Figure 18) but is mostly obscured by fallen slate slabs.

1020 A 0.9m high, upright, rectangular slate slab stands adjacent to the fireplace.

1021 Roof timbers. Parts of two oak purlins survive.

## 5.2.2 Cottage 2 and extension

### 5.2.2.1 Cottage

This is a crog-loft cottage that incorporates phase I masonry and roof-timbers from the original barn.

2003 Partly blocked window (Figure 19) in the WSW end of smallest room. It was originally 0.77m wide and 1.38m high. The lower half was neatly blocked with mortared slate blocks leaving a 0.27m wide sill on the inside. Mortar bedding for a window-frame survives in the reduced aperture. This was subsequently infilled with rough slate in phase V.



Figure 20. Partly blocked window 2003

2007 Arched doorway (Phase I, Figure 20) The doorway is 1.32m wide and a maximum of 1.69m high. The outside of the wall is supported by a segmental arch of rough slate voussoirs (photo 079). The arch does not continue through the width of the wall and the inside is supported by a rough slate lintel set level with the apex of the arch. The door is partially blocked by 2008.





Figure 21. Outside of arched doorway 2007

2008 Partial blocking of doorway 2007 (Figures 20 and 21). The SSE side of doorway 2007 was blocked by a narrow wall reducing the width of the doorway to 0.88m. The blocking was constructed from mortar bonded slate and fieldstone. An additional slate lintel and a length of iron rail reduced the height of the doorway to 1.43m. It is presumed that this was constructed at the same time as the phase IV extension.



Figure 22. Inside of arched doorway 2007 showing blocking 2008 and slate lintel

2009 WSW wall of cottage 2. The wall is constructed from mortar bonded fieldstone with some later slate courses on the top. It is part of the phase I barn and contains a contemporary arched doorway (2007) and a slit window (2010). The wall is 0.85m thick.

2010 A slit window 0.15m wide and 0.73m high (Phase I). It has an external lintel of slate fieldstone. The window is blocked externally with stones and a brick crudely mortared into the slit. The inside is mostly plastered over.

2011 Partially blocked window/doorway (Figures 22 and 23). This is a phase III window 0.75m wide and 1.05m high with slate external lintel and sill and partially blocked with phase V (pigsty) dry-slate. The window retains elements of a phase I feature, almost certainly a doorway. There is a straight joint in the external wall running from the NNW side of the window to the ground (Figure 22). The masonry to the SSE side of the window is partially rendered and includes a crude, apparently recent repair to the lower wall. The inner face (Figure 23) retains an oak lintel, similar to that over doorway 1005, that extends to the SSE of the window and corresponds to a straight joint in the lower wall 0.4m from door 2014. It seems likely that this is the remains of a phase I door with the lintel intact but with the arch over the outside of the door having been removed in the conversion to cottages.





Figure 23. Remains of phase I doorway 2011 in ENE wall. Note straight joint below window

2012 Blocked window. Blocked window in ENE wall. Original window phase III, 0.75m wide and 1.0m high with rough slate lintels and a sill of thin slates and mortar. It was completely blocked using unbonded slate blocks, probably in phase V.

2013 ENE wall of cottage 2 (Figure 21). Phase I wall of mortar bonded large field stone 0.75 to 0.8m thick. It retains parts of a phase I arched doorway (2011) but has been substantially rebuilt to insert cottage doors and windows. The upper wall comprises rough slate slabs, probably part of phase III additions.



Figure 24. Interior of ENE wall of cottage showing blocked phase I doorway and oak lintel

2014 Cottage doorway. Doorway 1.0m wide and 1.89m high with a rough stone lintel. The SSE side in notably rough and unevenly built, presumably because it is a phase III insertion.

2015 Dividing wall between cottage 1 and 2. A fairly insubstantial wall of mortared rubble about 0.4m thick. It is mostly plastered but does not appear to be tied in to the phase I side walls of the building. It is probably one build with the fireplace (2016) as the chimney is partly incorporated into the body of the wall.

2016 Fireplace in cottage 2 (Figure 24). A fireplace with a vertically set slate-slab lintel which has broken into two. The lintel has three drill holes set asymmetrically into it that presumably held either a decorated fascia or apparatus over the range. The uprights are plastered and covered with black paint. The opening for the fireplace is 1.5m wide and 1.0m high and has been blocked with unmortared slate slabs, presumably to prevent the lintel from collapsing. The blocking appears to be a phase V addition. The chimney breast is of field stone and slate and appears to be of one build with the wall of the cottage (2015). The chimney stack has mostly collapsed.

2017 Dividing wall for crog loft. Lightly built wall of fieldstone, cobbles and slate 0.30 to 0.35m thick. The joist sockets pass right through the wall. There are doors at either end (2018 and 2019) and a first floor door to the crog loft 2020.

2018 Blocked doorway at ENE end of wall 2017, 0.75m wide and 1.75m high. Blocked with unmortared slate blocks, typical phase V (pigsty) alteration.





Figure 25. Fireplace 2016

2019 Doorway at WSW end of wall 2017 0.84m wide and 1.66m high with the remains of a wooden door-frame.

2020 Blocked first floor crog-loft door, 0.9m wide and about 1.5m high (Figure 25). The blocking is mortared slate that appears to have been partly plastered over indicating that it was added while the cottage was still in use. The upper WSW quadrant appears to have been left open with a slate slab running across the centre and subsequently blocked with roughly piled slate. The SSE side of the blocked entrance is completely rendered over. The crog loft must either have been accessed by stairs in the small room or abandoned.

2021 SSE wall of cottage 2 see 5050

2022 Roof timbers (Figure 25) - Some roof timbers survive in cottage 2. A much modified oak truss survives in the SSE end of the main room. The bases of the rafters spring from about 0.7m from the top of the wall but appear to have been reset and are bolted together at the apex. A tie beam is bolted onto the rafters to form a simple A frame. Purlins run to two rafters at the opposite end of the room that have been incorporated into the chimney-breast. A few fragments of common rafters and battens support slates on the lower part of the roof. The underside of the slates show evidence of lime torching. The bolts tying the roof timbers together are hand-forged and threaded.





Figure 26. Roof timbers 2022 and blocked crog-loft door 2020



Figure 27. WSW wall of extension 2006 showing fireplace 2006 window 2002 and blocked door 2001

#### 5.2.2.2 Cottage 2 extension (2006)

A monopitched lean-to extension 4.1m x 2.0m internally. Walls 0.5m to 0.7m thick of roughly mortared slate slabs and blocks.

2001 Blocked doorway leading to former additional extension shown on 1920s OS25" map. The doorway 0.7m wide and 1.43m high with a rough slate lintel. The door is blocked with neatly-built mortared slate-block masonry. The inner end is covered by a large slate slab slightly wider than the door held by iron angled fittings (Figure 26).

2002 Window in extension. A window 0.7m wide and 0.95m high partly blocked with roughly piled slate slabs (phase V, Figure 26).

2004 Doorway into extension. The doorway is 0.69m wide and 1.38m high with lintels of iron railway track.

2006 Fireplace in extension. A small fireplace set into the WSW wall. The chimney runs up through the wall. The fireplace opening is 0.56m wide and 0.52m high with a sheet of steel set below a slate lintel (Figure 26).

### 5.2.3 Cottage 3

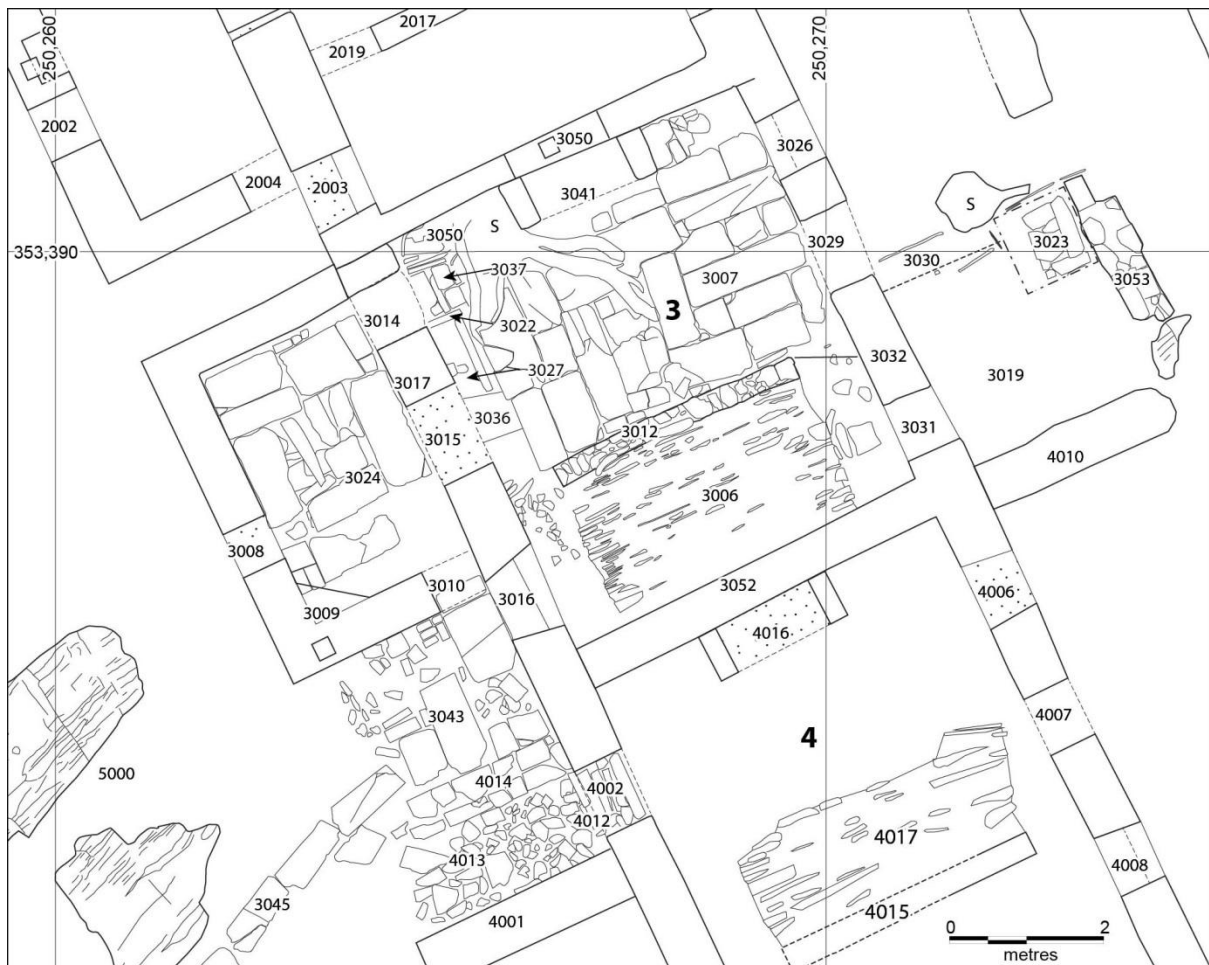


Figure 28. Plan of cottage 3



This is a cottage with internal dimensions of 5.7m x 5.1m (Figure 27). It was formerly subdivided by a now collapsed dividing wall forming a crog-loft and small room 1.92m wide. There is an extension on the WSW wall. The interior of the cottage was excavated by hand as part of the community excavation.

#### 5.2.3.1 *Structural components cottage 3*

3012 The base of the internal dividing wall, 0.3m thick. The wall had failed from close to the base. Mostly built from mortar bonded slate slabs. Doors at either end approx. 0.7m wide at WSW and 0.8m at ENE.

3014 Partially blocked door leading to extension (Figure 28). The doorway is 0.73m wide and 1.73m high with a slate lintel in the interior and lengths of bridge-rails in the exterior. The blocking is phase V piled slate and brick to a height of 1.05m, well preserved on the exterior but collapsed and failed from close to the base in the interior. The collapsed material contained several pieces of slate with incised initials and one small piece with concentric circles. These were presumed to have come from the fireplace. There were also iron fire-bars in the blocking.



Figure 29. Blocked phase II doorway 3015 centre and doorway 3014 (R) and window 3016 (L)

3015 Blocked phase II doorway (Figure 28). The doorway is 1.16m wide and 1.8m high with large slate lintels. The base of the door is at the same level as flooring slab 3036 which runs beneath the blocking and this is below the level of the cottage floor. The blocking is of mortar-bonded slate and field stone. Slabs spanning close to the whole width of the opening about half way up in both the interior and exterior could indicate that it had been blocked in two phases initially being reduced to a window. The position of the door in the centre of the wall and its association with the lower floor level suggest that it was a barn door opening into the farm-yard on the WSW. It is also much wider



than the other cottage doors and is best interpreted as a cow house or stable door. This feature provides the best evidence for the phase II buildings at Pen y Bryn.

3016 Partly blocked window on WSW side of the cottage (Figure 28). The window is 0.73 m wide externally splaying to 0.98m internally and 1.22m high. It has thin slate lintels and sills. The lower 0.26m has been blocked with small mortar bonded pieces of slate in either phase III or IV in order to reduce the size of the window. About half of the remaining opening was subsequently blocked with roughly piled slate in the outer part of the window (phase V).

3017 The WSW wall of the cottage. The wall, in contrast to the fieldstone masonry of the phase I barn, is constructed almost entirely from slate that appears to be waste from the quarry. It is mortar bonded and of one build with cottage 4. The inner face of the wall abuts the dividing wall between cottages 2 and 3 (Figure 29). The outer face is obscured by the lean-to. The wall contains phase II blocked doorway 3015 and phase II or III window 3016 and phase III or possibly IV inserted doorway 3014.

3026 Window in ENE wall. The window is 0.80 m wide and 1.12m high. There are slate lintels over the outside of the window but the opening on the inside appears to have extended upwards to the roof. This is different to all of the other windows in the cottage. There is no surviving sill.

3029 Cottage doorway in ENE wall. Doorway 0.91m wide and 1.83m high with a rough stone lintel.

3031 Window in ENE wall. The window is 0.80 m wide and 1.10m high with thin slate lintels and no surviving sill.



Figure 30. ENE wall of cottages 2 and 3 showing change from field-stone masonry to slate (at L scale)

3032 The ENE wall of the cottage. The wall, in contrast to the fieldstone masonry of the phase I barn, is constructed almost entirely from slate that appears to be waste from the quarry. It is mortar bonded and of one build with cottage 4. The inner face of the wall abuts the dividing wall between cottages 2 and 3. There is however no corresponding joint in the outer face. Here the phase I masonry is bonded with the phase II or III slate masonry photo 141 or elevation. The wall contains phase III inserted windows 3026 and 3031 and doorway 2039.



Figure 31. Fireplace 3041

3041 Fireplace cottage 3 (Figure 30). The fireplace and chimneybreast and chimney appear to have been built against the dividing wall 3050. The fireplace and chimney-breast are 1.7m wide and set centrally against the dividing wall. The opening for the fireplace is 1.15m wide and 1.15 high. The lintel is a large, thick edge-set slab of slate with three holes drilled in it. The fireplace had a decorative slate slab surround. Broken off stubs remain on both sides along with an iron fixing on the left upright and the holes in the lintel. Several fragments of incised and carved slate slabs were found in the material blocking door 3014 and John Williams recalls that there was a decorated



fireplace in cottage 3. One slab covered in concentric Ogwen Valley style carvings was recovered from the top of the extension wall. This had been painted with black bituminous paint similar to that found on the fireplace in cottages 1 and 2.

3050 Dividing wall between cottages 2 and 3. The wall is 0.5m thick and built from field stone and slate and is similar in style to the phase I barn masonry. The upper part of the wall appears to have been rebuilt in slate presumably to accommodate the chimney. As noted above the inner face of the cottage walls abut the dividing wall but the two phases of masonry are tied together on the outer ENE face. It is likely that 3050 was a dividing wall in the phase I or II agricultural phase. The conversion to cottages and insertion of doors and windows would have entailed some fairly extensive rebuilding and this could perhaps account for the seemingly anomalous relationship between the cottage walls and the dividing wall. The wall is leaning slightly to the NNW

3052 The chimney stack is well-preserved and stands on top of dividing wall 3050 and is about 0.6m high, 1.3m wide and is neatly constructed from thick squared-off slate slabs. There are protruding drip stones on either side and at the apex of the roof.

#### *5.2.3.2 Excavation - Cottage 3, overburden and collapsed material*

The cottage was filled with a series of somewhat intermixed deposits comprising fallen slates and masonry, humus from animal droppings and leaf-mould along with occasional accumulations of occupation debris. The individual deposits are described below followed by the structural components that were revealed.



Figure 32. Fallen dividing wall 3006

3006 Fallen dividing wall (Figure 31). The dividing wall that formed the NNW side of the crog-loft had collapsed from the base (3012) falling to the SSW. Most of the wall remained in one piece on the floor of the SSE room and the top had hit the end wall probably causing the chimney stack to fall into the building. The wall was about 0.3m thick and was built from mortared slate slabs and blocks. Some plaster survived. The coherent fallen masonry was not removed.

3003 Collapsed chimney stack. The chimney stack on the SSE wall had fallen directly onto the fallen dividing wall possibly during the same collapse event. This comprised a heap of blocks of mortar bonded slate slabs and smaller rubble. This was removed from the interior of the building exposing fallen wall 3006.

3047 A layer of humus and slate pieces along with some glass and pottery. This filled some of the deeper holes in the small SSE room. It was however virtually indistinguishable from 3005. This may be the same context as 3049 see below and undisturbed parts may date from phase II agricultural activity that preceded the cottages.

3027 This was a layer of ashes and clinker from a coal fire that had been used to infill a hollow against the WSW wall partially infilling structure 3022 and overlying 3047

3013 The upper part of 3027 contained a collection of broken pottery, window and bottle glass, sea shells, a (?faux) tortoiseshell hair-slide and a ladies Edwardian-style chainmail purse. This appears to be a collection of material dating from the occupation of the cottages.

3005 A rather variable layer of humic material overlaid the slate floor of the building and hollows in the small SSE room. This appeared to date, at least in part, from the use of the building as a pigsty and was typically 0.3 to 0.5m deep and up to 0.7m deep in the small room. The context consisted of humus probably derived from animal droppings and leaves, crumbs of mortar, slate fragments, broken pottery and glass, plastic wrappings, paint pots and broken tools. There were fragments of a cast iron range close to the fireplace. The context was much disturbed by roots of the (removed) tree growing in the room.

3018 Humic soil containing at least 50% mortar overlying 3005 in places. This appears to have originated from weathering of mortar from the walls and beneath the slate roof.

3001 A layer of broken roofing slates and leaf-mould dating from the collapse of the roof and subsequent organic matter from leaves and sheep droppings. This overlaid 3018, 3005 and parts of 3006.

### *5.2.3.3 Excavation - Cottage 3: The floor and associated features.*

The overburden of humus, slate, etc. (see above) was excavated by hand revealing the floor and associated features along with the roots of the tree that had been growing in the interior. The roots were removed where feasible. The floor contexts are described in stratigraphical sequence starting with the earliest.

3039 Bedrock, Slate bedrock

3040 Orange silty-clay glacial substrate underlaid the building and was encountered in several places on the WSW and SSE sides of the cottage.



3036 A large greenish slate slab runs beneath both the blocking in door 3015 and the slate cottage floor. This is part of the phase II floor (see Figure 33).

3049 A humic layer containing small pieces of slate between slab 3036 (and equivalent stratigraphic levels) and the cottage floor 3007. Not investigated but probably associated with phase II agricultural activity.

3007 The cottage floor in the main room at the NNW end of cottage 3 (Figure 32). This was an almost intact floor of large mostly blue slate slabs but including one purple slate and two green slates similar to the phase II slab (3036). The slabs are mostly rectangular with dimensions of up to 1.7m x 0.6m. Irregular or broken slates are infilled with smaller fragments. The floor does not continue as far as the WSW wall and the associated features along the wall.



Figure 33. Slate floor 3007

3037 Two edge-set slates and a series of roughly horizontal slabs are aligned with door 3014. This appears to be the remains of steps down into the extension (Figure 33).

3022 A 0.095 wide and 1.0m long carefully squared-off edge-set slab abuts the edge of the side of the steps at a right-angle (Figure 33). This and the side of the steps were clearly set at the same height and set level about 5cm above the floor as evidenced by paint on the side of the slab. The function of this feature is not clear but it might be suggested that it formed part of a level base for a piece of furniture or other item of household equipment, perhaps in order to lift it above the damp floor. The hollow against the wall was filled with cinders and household rubbish (3027 and 3013). There are presumably missing phase III/IV elements here as it is unlikely that there would have been a large hole in the cottage floor.

3046 The small ground floor room was excavated to either side of the fallen wall 3012. No slate floor was present in this part of the building. Instead there was a hollow up to 0.3 m deep excavated



Figure 34. Phase II slab 3036, slate base 3022 and remains of steps 3037

down to subsoil or bedrock in places that was filled with humus, rubbish and randomly oriented slate slabs and blocks (3005/3047). It is suggested that there was a suspended wooden floor in this half of the building with joists either set on earth or slate blocks. Parallels can be seen in the croglift cottages at Cae'r Berllan, Bethesda dating from c. 1840 that had pitch pine floors in the small room.

#### 5.2.3.4 Cottage 3 extension

A monopitched lean-to extension 3.6m x 2.3m internally (Figure 34). Walls 0.6m thick of roughly mortared slate slabs and blocks. The interior and yard to the SSE were excavated by hand revealing slate flooring and paving.

3008 A blocked window set into the WSW wall. The window is 0.63m wide and c. 0.64 m high. No lintels survive. The window has been blocked with a plastic coated wire crate or basket and roughly piled stone. Several slabs have been placed on top of the blocking but the original upper wall has been lost (Figures 10 and 34).





Figure 35. General view of the extensions to cottages 2 and 3

3009 A fireplace set into the corner of the extension. A 1.0m long slate lintel cuts the corner of the building with the wall carried above it to form the chimney. Rusted metal bars can be seen beneath the lintel. John Williams reports that there was a boiler in this corner in the 1950s (Figure 35).

3010 Doorway, entrance into extension. A 0.73m wide and 1.69m high doorway with a slate lintel set into the cottage wall leads into the extension.

#### 5.2.3.5 Cottage 3 extension: Excavation

3024 The extension was filled with a mixture of roofing slates from the roof of the cottage, humus and rubbish in the form of pottery sherds and broken glass. Intact slates were typically 0.6m long and 0.33m wide. The deposit was 0.18m deep and was lying directly on the slate floor of the building.

3025 Slate floor of extension (Figure 35). Slab floor of sub-rectangular green and blue slates. There are several slates missing. Two slates have rough semi-circular holes in their edges, possibly deliberately made although their purpose is unclear. The surfaces of the slates were worn and pitted possibly as a result of slates or other objects falling on them.





Figure 36. Cottage 3 extension showing slate floor 3023 and corner fireplace 3009

3028 The slate floor was lying on a slate fragments that had been laid to level the floor. This was sitting on orange glacial substrate and bedrock.

3043 Hard standing to SSE of room 3 extension. A fragmentary and rough area of slate and brick paving, possibly partly robbed. The surface consists of three large sub-rectangular slate slabs leading from the extension entrance to path 3045. Smaller slate blocks and bricks make up the rest of the extant surface. Elsewhere 3044 is exposed

3044 Dark humic soil and broken slate underlies hardstanding 3043. This is presumably a buried soil along with building debris or slate levelling for the surface.

3045 Slate path. A curvilinear line of six substantial slate slabs were traced as far as the outcrop/rock cannon 5000 (Figure 36). It is not clear if the path continues beyond this point, probing suggests it might but further investigation is needed. The path was laid directly on soil and had been



covered by turf. The north-eastern slabs are green slate possibly all split from the same block. The remaining slabs are blue slate.



Figure 37. Slate path 3045 leading to outcrop 5000

#### 5.2.3.6 Cottage 3 garden.

A raised area presumed to be a garden plot was excavated in front of the SSE end of cottage 3. A layer of broken roofing slates and other debris (3020) were cleared from the area revealing a raised garden plot (Figure 37). The plot was bounded by edging/wall 3030 and walls 3053 and 4010. The latter was a later addition (phase V) and the map evidence suggests that the plot continued as far as the pathway from cottage 4. The excavated contexts are as follows:

3020 Broken roofing slates and humus overlying 3019

3019 Soft humic silty soil 0.3 to 0.4m deep. Improved soil in garden bed.



Figure 38. Garden plot (3030, 3023 and 3053)

3023 Orange yellow buried soil beneath 3019.

3030 Edging to garden plot. The edge of the garden plot alongside the path from the front door of cottage 3, comprises edge-set thin slates extending downwards as far as the base of soils 3019 and

3023 a. A parallel alignment of an edge-set slate and two iron pegs define the inner side of the edging, and may have supported a wooden plank. This was subdivided by an edge-set slate running at right angles between the inner and outer edges. The two parallel edges appear to have formed an earth-filled subdivision of the garden plot, 0.35m wide, perhaps for decorative plants. The space between the two edges was subsequently filled by a low, rough wall of slate that was sitting on top of garden soil 3018.

3053 The ENE edge of the garden plot is defined by a slate wall the foundations of which are at the same level as the base of soil 3019. The wall is 0.5m wide and roughly-built from slate slabs. The SSE end had collapsed and had been sitting on uneven bedrock.





Figure 39. Buried wall 3024

3024 The base of a slate wall was underlying buried soil 3023 and sitting directly on the glacial substrate (Figure 38). The wall was of dry-slate and was 0.6m wide and two to three courses high. It could be traced for 1.1m and continued to the SSE. This must have predated the cottages and was probably associated with the earlier phase I or II agricultural buildings.

#### **5.2.4 Cottage 4**

This cottage is slightly longer than the others comprising two ground floor rooms with dimensions of 5.0m x 4.1m and 5.0m x 2.6m along with a crog loft.

4002 Doorway in WSW facing wall. The doorway is 0.4m wide and 1.64m high with irregular slate lintels. It retains mortar rendering in the upper half. It may have been partially blocked in order to form a window and then been re-opened.



4003 Window and former doorway in WSW wall. Four-phase opening in wall. This was originally a door in the phase III or IV barracks (see discussion in 4009) 1.09m wide and 1.9m high. This was partly filled with mortar-bonded slate while the cottage was in use to form a 1.02m high window this was subsequently reduced in width to 0.9m by the addition of a mortared brick insert in the outer NNW side. The opening was further partially blocked with very roughly piled slate in phase V.

4004 WSW wall of cottage 4. Wall of mortar-bonded slate slabs and blocks with some field stone. There are signs of some rebuilding in the upper part of the wall particularly above window 4003.

4005 Gable end of cottage 4. Wall of mortar-bonded slate slabs and blocks with some field stone built on a protruding foundation. It stands to a height of 4.6m and the gable is leaning precariously to the NNW. The chimney stack has been lost. The inner face includes sockets for the joists for the crog loft. Fireplace 408 was built against this wall and tied in with long stones in several places. See photo 375



Figure 40. ENE wall of cottage (4009) showing straight joint beneath window 4008

4006 Window ENE wall of cottage. Window 0.75m wide externally, splaying asymmetrically to 0.9m internally, and 1.27m high. The lower half of the window is blocked with unbonded roughly-built slate and field-stone masonry and the upper with randomly piled slate slabs both in phase V.

4007 Door in ENE wall of cottage 4. The door is 0.91m wide and 1.72m high with internal and external lintels of two thin slate slabs set on top of each other and separated by a pine lintel in the middle. Some render survives allowing the position of the doorframe, towards the outside of the opening, to be seen. Various nails and fixings around the doorway appear to be related to temporary blocking in phase V use as an animal pen.

4008 Window and straight joint in ENE wall of cottage 4 (Figure 39). The window is 0.82m wide and 1.17m high with slate slab lintels and sills. The outer part of the window has been blocked with three upright slate slabs held in place internally by the edge of one of the sill slabs at the base and by a length of rail and a piece of wrought iron with a rounded-over end at the top. The outside is neatly filled with dry-slate masonry, probably one of the better built, examples of phase V masonry. There is a straight joint below the SSE side of window see 4009

4009 The ENE wall of cottage 4. A rather variable wall of slate slabs and occasional split field stones (Figure 39). There appear to be several phases of masonry. The most obvious change is a straight joint below, but not above the SSE side of window 4008. This delineates two styles of masonry with flat slabs of slate with rough mortar render to the NNW and a mixture of slabs and blocks to the SSE. The masonry style to the SSE continues above the window perhaps indicating that the lower NNW wall belongs to an earlier phase. The structural sequence is unclear; the straight joint may be an earlier corner of the cottage that was subsequently extended. This interpretation is perhaps the most likely but should be treated with some caution. The level of modification is unknown; the window would have to be an insertion dating from the extension and the inner face does not appear to include stones that would have tied into the gable end although these could have been removed and the masonry tidied.

4015 The dividing wall between the two rooms in the cottage had collapsed to the NNW. The wall was about 0.3m thick with doorways at either end that were about 0.7m wide

4016 Fireplace at NNW end of cottage 4 (Figure 40). The fireplace and chimney-breast are built against the dividing wall 3052 possibly as one build. The fireplace and chimney-breast are 1.85m wide and 0.65m deep and are set centrally against the dividing wall. The opening for the fireplace is 1.20m wide and 1.05m high. The lintel is a large, thick edge-set slab of slate with four holes drilled in it presumably in order to support a mantle or decorative slate surround. The chimney breast is of mortar-bonded slate slabs and includes some large slabs set upright as quoins. The fireplace has been blocked with rough piled slate masonry (phase V)





Figure 41. Fireplace 4016

4017 The collapsed dividing wall. The lower part remained in one piece on the cottage floor.

4018 Fireplace at SSE end of cottage 4 (Figures 41 and 42). The fireplace and chimney-breast are built against the gable end and were tied in by some large stones that run into the wall. The chimney breast has tilted away from the wall. The upper part has collapsed and the rest is very unstable. This is the only fireplace in the smaller room in Pen y Bryn cottages. The fireplace and chimney-breast are 1.45m wide and 0.4m deep and are set centrally against the wall. The opening for the fireplace is 0.85m wide and 0.6m high. The lintel is a large, thick edge-set slab of slate.





Figure 42. Fireplace 4018



Figure 43. Fireplace 4018 showing collapse

Cottage 4, yard. The area outside door 4002 was cleared of turf and fallen slates (4013) revealing further debris along with the remains of a threshold (4012) for the door and the base of a wall 4014 (Figure 43).





Figure 44. Cottage 3 and 4 yard and wall foundation 4014

4012 Threshold to door 4002. Two slate slabs extend across the doorway and appear to have formed the threshold. These may have formed the inner end of a paved area, now lost, outside the door.

4013 Rubble consisting mostly of fallen and smashed roofing slates mixed with humic soil and turf.

4014 Wall foundations. The base of a 0.55m wide slate wall that abutted the outer face of the cottage was uncovered at the same depth as the nearby slate paving. This could be traced for 2.33m before being lost in rubble. It is in a comparable position to the NNW walls of the extensions to cottages 2 and 3 and could be interpreted as the remains of a similar structure built on to cottage 4.

#### 5.2.4.1 Cottage 4 – Added phase V external walls abutting the cottage.

Dating information from John Williams.

4001 Dry-stone slate wall 2.36m long, 0.55m wide and 1.25m high. Phase V wall added in the 1950s as part of reuse of the cottages as farm buildings.

4010 A somewhat roughly built dry-stone slate wall 2.63m long, 0.62m wide and 1.25m high. Phase V wall added in the 1950s as part of reuse of the cottages as farm buildings (Figure 44).



Figure 45. Wall 4010

4011 Dry-stone slate wall 2.4m long, 0.59m wide and 0.89m high. Phase V wall added in the 1950s as part of reuse of the cottages as farm buildings. This allowed the front and rear of the buildings to be separated in order to contain animals. The initials W.D and a date of 1907 have been neatly incised in a rectangular framing on the slab on top of the wall. This is presumed to have been reused from an earlier structure



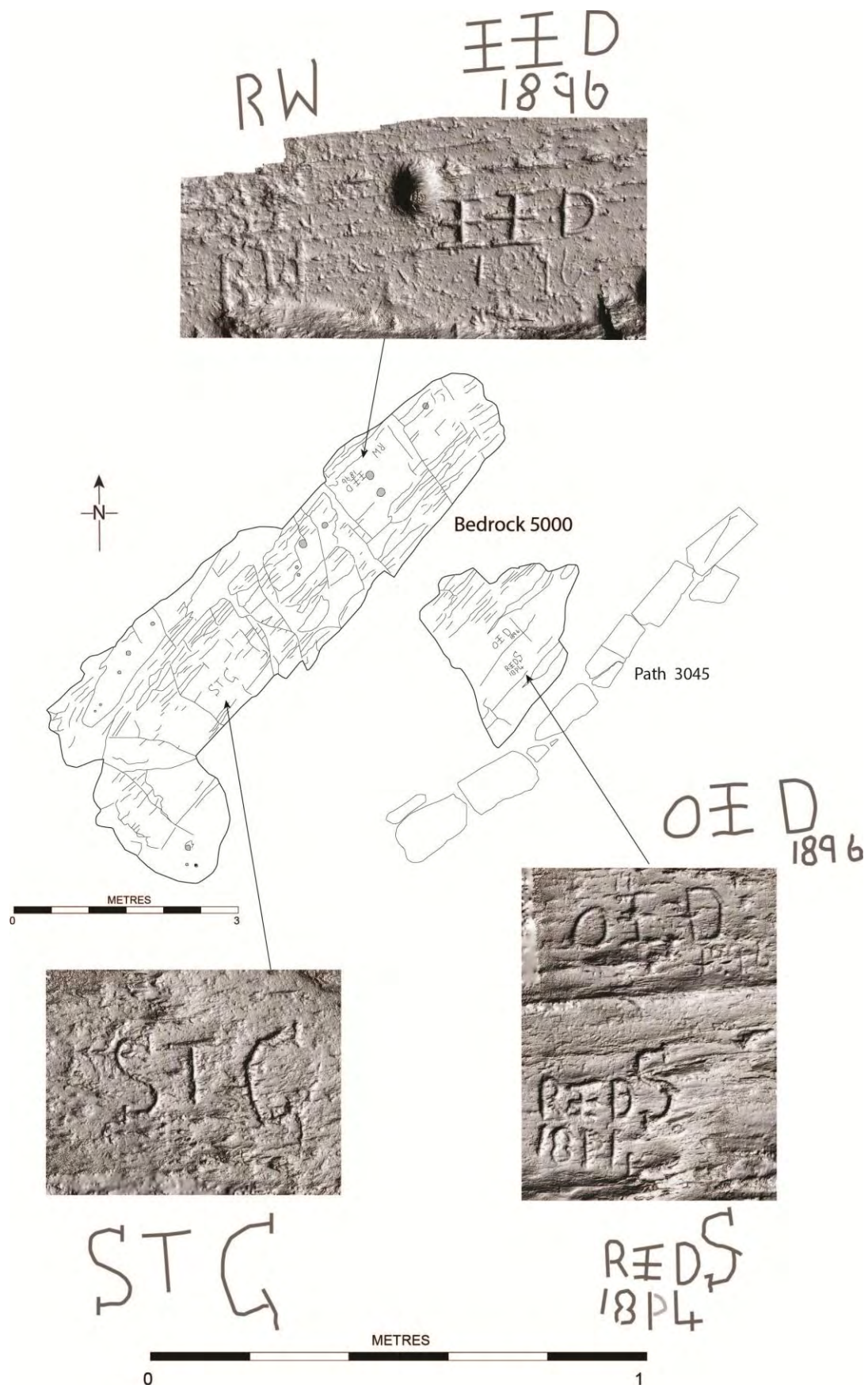


Figure 46. Marriage stone or Rock Cannon 5000 showing orthographic views of graffiti. Holes are shown in grey

### **5.2.5 5000 Marriage stone or rock cannon.**

A large rock outcrop to the west of the cottages was completely covered in moss and grass but was known to have holes and initials carved into it. This was excavated by a group of young people under the auspices of the Unloved Heritage Scheme. After removal of the vegetation the stone could be seen to have 14 holes bored into it to a variety of depths ranging from 1cm to 11cm (Figure 45). The shallowest appeared to have been unfinished. These had been made using a quarryman's jympar (jumper), a weighted iron rod with a chisel end that was repeatedly thrust into a hole in order to bore it for blasting. This series of holes is typical of a rock cannon, a common feature in slate quarries used to fire black powder charges at times of celebration. According to Griff R. Jones in *The Rock Cannon of Gwynedd* (2002) "in the Nantlle district they were more commonly known as Wedding or Marriage Stones". There is a cannon listed in his book as Fferm Penbryn Cannon, Nantlle with 10 holes and with no linking channels for powder fuses. The NGR in the listing places this above Cilgwyn. This is presumed to be an error as the Cilgwyn cannons are named as being on Mynydd Cilgwyn. The substitution of one number in the NGR places it near Pen y Bryn so it is likely that this is the listed example.

A series of 5 initials are also visible on the rock. It is possible that they are associated with the rock cannon but this cannot be demonstrated. The initials and the stone were recorded photographically and were 3D modelled. The detailed models of the initials are shown on (Figure 45) along with a drawing of the stone. All of the initials were chiselled into the rock, the chisel marks can be seen on the detailed model. Three include dates, 2 of 1896 and one 1894 with a reversed 9. Three of the initials included a symbol resembling a crossed seriphed capital I. This was identified as an archaic version of the letter J. There was little surviving local knowledge of this symbol. Rhys Mwyn identified the symbol on a family gravestone of John Richard Thomas of Cilgwyn where the symbol clearly represented a J. Subsequent enquiries and local research revealed numerous examples on Pont Ogwen in Bethesda and in scattered graffiti across much of north-west Wales. Examples are commonly found in graffiti from the C16th through to the C18th or C19th throughout Britain. Examples have been found in the cloisters of Canterbury, Norwich and Lincoln cathedrals. They seem to be most common in the 17<sup>th</sup> to 18<sup>th</sup> centuries. The examples in north-west Wales are from the late 19<sup>th</sup> and early 20<sup>th</sup> century and would seem to be archaic. It is possible that the later use may be connected to there being no J in the Welsh alphabet although borrowings had to be made from English for the common names John and Jones. The initials are RW JJD 1896 OJD 1896 RJD with an anomalous added S and STG. The dated initials may correspond to three sons of John Davies who are listed on the 1901 census Owen J Davies 21 years old, John J Davies 19 years old and Robert J Davies 17 years old. A Roland Williams 16 years old is also listed. Samuel Griffith age 17 son of Thomas is also listed possibly corresponding to STG. It therefore seems that the graffiti were chiselled by teenagers and may not be of any great significance beyond a demonstration of young people learning to use the tools of a quarryman. The rock cannon may not be related to the initials and could even be interpreted as further informal training, this time in the use of a jumper. If it is a rock canon it is a relatively simple informal example. Its size and form are consistent with other examples listed in Nantlle district by Jones (ibid). There are 26 listed with between 2 and 75 holes. Of these only 13 have channels and the 14 holes at Pen y Bryn puts it above the median number of 12. (the average would be skewed by three examples with over 50 holes).

## 6 PHASING SUMMARY

**Phase 1** (late 17<sup>th</sup> century) The northern pair of cottages (1 and 2) originated as an agricultural building, probably a barn, with distinctive arched doorways. Two doorways were set on opposing sides towards the centre. One was at ground floor level in the gable-end and one at first floor level leading to a loft. The building incorporated slit windows and was built from field stone with walls about 0.8m thick. The roof was supported by oak timbers. The barn was probably contemporary with Pen-y-Bryn farmhouse which incorporates an arched doorway in its rear wall. The farm was part of a small estate belonging to the Garnons family.

**Phase 2** (18<sup>th</sup> or early 19<sup>th</sup> Century) A further agricultural building was added to the southern end of the barn. This was built from slate slabs with walls about 0.65m thick. An uneven join with the field-stone masonry of the barn can be seen in the end of cottage 3 just beyond the end of cottage 2 (ENE wall). The extent of this building is not known. A length of the WSW wall with one blocked doorway can be positively identified in cottage 3. The phase I and II buildings faced WSW towards to what must have been a rough farmyard with the rock cannon in the centre.

**Phase 3** (Between 1861 and 1871) The agricultural buildings were extensively remodelled by insertion of dividing walls, fireplaces, windows and doors to form 4 crog-loft cottages which, according to census records, housed quarry workers and their families. The front of the buildings faced ENE towards garden plots and a path running parallel to the row. The phase I oak roof timbers were reused in cottages 1 and 2. The truncated first floor doorway in the gable shows that the roof-line was altered at this point. The ground floor door in the gable end appears to have been kept open in order to provide access to the neighbouring lane and subsequently to an extension but was probably narrowed in order to accommodate the fireplace, part of which was built in front of it. The cottages were divided by narrow walls to form a crog-loft. These had doors at both ends, possibly to provide access to both ends of the very cramped bedroom. A local resident reported that the bedrooms of this type were sometimes divided by a curtain providing privacy for male and female residents once puberty was reached.

**Phase 4** (late 19<sup>th</sup> century) Lean to extensions, probably kitchens were added to the WSW side of cottages 1 and 2. An extension was added to the NNW end of Cottage 1 that was accessed through the phase I door in the gable end. Map evidence shows that this was subsequently reduced between 1889 and 1913 and a kitchen added to the northern corner of the cottage. Straight joints in the wall of Cottage 4 suggest that it was extended. It appears that the gable-end was demolished and rebuilt to produce a longer cottage. This may have necessitated a rebuild of the internal dividing wall. This produced an extended room that included a fireplace in the SSE end of the cottage. The windows in the small rooms beneath the crog lofts in the rear of cottages 1 to 3 were reduced in size.

**Phase 5** (post 1920s) The barracks were abandoned and the buildings and gardens re-used as animal pens. This included the addition of three drystone slate walls to cottage 4 and the blocking of windows and doors with rough slate masonry probably in the 1950s.



## 7 CONDITION SURVEY

The cottages mostly stand to the height of the eaves and gables. Only fragments of roof survive mostly in cottage 2 and this is unstable and degrading quickly. The main areas of instability are listed below:

**Cottage 1.** The internal dividing wall has collapsed. The fireplace is very unstable having moved away from the gable wall and has a large bulge just above the fireplace lintel. This is on the point of collapse. The chimney stack has partially collapsed and is also unstable. The top of the northern end of the WSW wall has bowed outwards.

**Cottage 2.** This is the best preserved cottage and the only one to retain the internal dividing wall. It retains some roof timbers and slates all of which are deteriorating and are unstable. The dividing wall between cottages 1 and 2 is stable but the chimney stack has fallen. The fireplace lintel has broken in two but is supported by phase V slate blocking in the fireplace. The dividing wall between cottages 2 and 3 is leaning slightly to the NNW. The chimney stack is intact and appears to be stable.

**Cottage 3.** The internal dividing wall has collapsed and the chimney stack on the wall between cottages 3 and 4 has collapsed into cottage 3. The fireplace has been slightly disturbed by tree roots but is currently stable.

**Cottage 4.** The internal dividing wall has collapsed. The upper part of the gable is leaning precariously to the NNW and the fireplace and chimney breast have come away from the wall and are on the point of collapse.

## 8 ACKNOWLEDGEMENTS

Neil McGuinness provided much of the training for volunteers, carried out the drone survey and produced the 3D models of the cottages. Thanks are due to the owners The Dorothea Lakes Ltd for allowing access and to Nigel Spiers (Ocrow Estate Management) for on-site arrangements. John “Pen y Bryn” Williams also helped out with access and shared his memories of a lifetime of involvement with the site.

The project could not have happened without the help of the many volunteers who participated in the project. The Unloved Heritage group carried out their own area of excavation and helped out with the open day. Thanks are also due to Jade Owen and Dan Amor who organised the outreach components of the project for GAT and to Rhys Mwyn for help on the open-day/guided walks.

## 9 REFERENCES

Burke J., 1835 *A Genealogical and Heraldic History of the Commoners of Great Britain and Ireland*

Gwyn D., 2015 *Welsh Slate – Archaeology and History of an Industry* RCAHMW

Jones G.R., 2002 *The Rock Cannon of Gwynedd*

Williams B., 2010 *O Ben Bryn i Dy'r Cyffredin* Gwasg y Bwthyn

## 10 APPENDIX . THE UNLOVED HERITAGE PROJECT

### 10.1 The Marriage Stone Excavation at Pen y Bryn by Jade Owen

#### Project Background

The ‘Unloved Heritage?’ project is the name given to a Heritage Lottery Funded programme of activities designed to engage, enthuse and inspire young people throughout Wales to get involved with their local heritage. In particular, the project concentrates on the often neglected 19<sup>th</sup> and 20<sup>th</sup> century heritage. Gwynedd Archaeological Trust’s branch of ‘Unloved Heritage?’ is based in Dyffryn Nantlle and focuses on the areas slate industry.

#### Pen y Bryn Excavation and Open Day

As part of the Pen y Bryn excavation the young people of the ‘Unloved Heritage?’ project were given the opportunity to excavate the site’s Rock Cannon also known as a Marriage Stone. The young people were on site for three full days, spread over six after school sessions. During the course of the excavation the young people developed a range of archaeological skills, which included excavating, photography and recording.



Figure 46. Unloved Heritage participants recording Marriage Stone.



Figure 47. Unloved Heritage participant uncovering graffiti on Marriage Stone.

By participating in the excavation it also allowed the young people to gain a broader understanding of Dyffryn Nantlle’s history during the slate quarrying period. Prior to this experience the young people had no knowledge of what a Marriage Stone was and had not come across the symbol known as a quarryman’s ‘J’ (Figure 47). By the end of their time on site they had learned about the Marriage Stone’s function and the sites significance during the 19<sup>th</sup> and 20<sup>th</sup> centuries.





Figure 48. Graffiti with quarryman's 'J' symbol uncovered by Unloved Heritage participants.

The young people were able to share their new found knowledge during the Public Open Day. As part of the Open Day a guided walk had been organised for members of the wider community. The 'Unloved Heritage?' participants were asked to contribute and spoke in front of those attending about what they had found and learned. The group also had their own stall to promote other work they have undertaken as part of the 'Unloved Heritage?' project. One of the 'Unloved Heritage?' participants when asked what had been their highlight from the excavation said 'I really enjoyed the Open Day, I was scared to talk in front of people but I did it and I'm proud of myself.' The open day provided the young people the opportunity to share their knowledge with the wider community and it also helped to develop their public speaking skills and build their confidence.



Figure 49. Unloved Heritage participants speaking as part of Public Open Day/ GAT Public Walk

The young people have created a video documenting what they did, learned and enjoyed as being part of the Pen y Bryn excavation. To view the video please visit Unloved Heritage on YouTube <https://www.youtube.com/watch?v=PwASaPxoEYE>









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