

# **North West Wales Dendrochronology Project Ty Mawr, Wybrnant, Conwy**



**EAS Client Report 2011/06  
April 2011**

**Engineering Archaeological Services Ltd  
Unit 2 Glanypwll Workshops  
Ffordd Tanygrisiau  
Blaenau Ffestiniog  
Gwynedd  
LL41 3NW**



**Registered in England N° 286978**

# **North West Wales Dendrochronology Project Ty Mawr, Wybrnant**

**EAS Client Report 2011/06**

**Commissioned by  
Margaret Dunn  
For  
North West Wales Dendrochronology Project**

**April 2011**

**By  
I.P. Brooks**

**Engineering Archaeological Services Ltd  
Unit 2 Glanypwll Workshops  
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# **North West Wales Dendrochronology Project**

## **Ty Mawr, Wybrnant**

**SH 76979 52410**

**NPRN 16966**

**PRN 3746**

**Status: Grade II\* Listed**

### ***Introduction***

This report details the recording of the house Ty Mawr, Wybrnant, undertaken to compliment both the dendrochronological sampling, undertaken by Oxford Dendrochronology Laboratory, and the documentary study undertaken by volunteers for the North Wales Dendrochronology Project. The fieldwork took place on 14<sup>th</sup> April 2011.

### ***Methodology***

The ground floor and first floor plans were made by direct measurement. The drawings of the timberwork were carried out by direct measurement at a scale of 1:20. Photographs were taken with a Nikon D80 digital SLR camera at a resolution of 10.2 mega pixels. Where practical all the photographs included a metric scale.

### ***Survey Report***

Ty Mawr, Wybrnant lies within the Wybrnant valley, approximately 2.75 m north west of Penmachno, Conwy. It is owned by The National Trust and is currently open to the public. The house is famous for having been the birthplace of Bishop William Morgan (1545-1604), the translator of first complete Welsh Bible in 1588 (Haslam *et al* 2009, 485). Ty Mawr is aligned, approximately north south at an elevation of approximately 210m OD

The house has been previously recorded by the Royal Commission on the Ancient and Historical Monuments of Wales and has been noted by Haslam *et al* (2009, 485). A summary of key descriptions is given in Appendix 1. A major restoration by The National Trust took place in 1987-88 to mark the quatercentenary of the translation (Suggett and Stevenson.2010, 73). This stripped out much of the nineteenth and twentieth century alteration including the various extensions seen on the plan by the Royal Commission, the moving of the front door back to its original position and the removal of the internal divisions of the house (Figure 3). This restoration also saw the construction of plank and post partitions forming a cross passage and two service rooms on the ground floor at the northern end of the property.

Ty Mawr Wybrnant is a four bay, stone built storeyed house of Snowdonia type with a gable end chimneys (Plates 1 – 4). It is constructed of roughly coursed stone blocks which tend to be “slabby” in nature. The quoins are not emphasised, although there is a tendency to use longer stone blocks. The stone work is heavily mortared disguising some of the evidence for previous phases. The roof is covered by modern slates with ceramic ridge tiles.

There are two chimneys. That at the northern end, the chimney breast is corbelled from a height of about 1.8 m above the ground level and is supported by three stone corbels which support a stone slab on which the rest of the chimney breast is built (Plate 4). The breast narrows at just below roof height to a square stack which leans markedly to the south. The stack is capped by short pillars and a slate slab so that the smoke discharges to the sides. The southern chimney (Plate 2) sits on the gable end. It has a square stack and is also capped by a slate slab supported by short pillars. Both gable ends show that the roof level has been slightly raised (Plate 2 and 4)

The front elevation (Plate 1) has a doorway positioned, off centre to the north and three windows on both the ground and first floors. There is a blocked door slightly the south of the existing door which was part of The National Trust’s restoration in 1987 – 1988. The current doorway is the original opening which was re-opened in the restoration, it has a stone lintel. The windows vary in size and shape and are somewhat irregularly placed within the wall. The all have stone lintels and modern (reproduction) mullioned frames. There is also a modern slate plaque (Plate 5) commemorating Bishop William Morgan above the blocked doorway.

The rear elevation (Plate 3) has a single door towards the northern end of the building. This is not opposite the front door and therefore does not constitute a through passage. Three windows pierce the wall, two on the first floor and one on the ground floor. Once again these are miss-matched; the two upper storey windows are horizontally proportioned with the southern window being deeper than the northern. The ground floor window is square, but sits within an area of re-built stonework which stretches for about 3 m from the northern side of the window towards the southern gable. This patch appears only to reach the first floor level and possibly marks the position of one of the extensions removed by The National Trust during the course of its renovations.

The ground floor (Figure 3) is currently divided into three rooms and an entrance passage. This passage and the two small rooms at the northern end have been created by the National Trust in an approximation as to what the house may have looked like in the late sixteenth century. They have been created by inserting post and plank partitions. Embedded in the wall of the north eastern room is a timber which clearly does not relate to the current layout (Plate 6). Sometimes referred to as the base of a cruck frame (e.g. Suggett and Stevenson 2010, 72) this timber leans towards the south making unlikely that it was part of a truss. One possibility is that this was the position of a steep stair at one point in the

development of the house. There is a second timber embedded in the eastern wall of the main room (Plate 7). This would appear to be the base of a possible cruck frame and suggests that the sixteenth century house was based on an earlier structure.

There is a timber stretching across the northern gable wall of the ground floor (Plate 8) at a height of approximately 1.75 m which is presumably part of the structure to support the corbelled chimney above.

The main ground floor room has a large fireplace at its southern end (Plate 9). This has a wooden bressumer which has a marked bow in its centre. There are also a series of mortices suggesting there was possibly a loft predating the current ceiling level. The ceiling beams are slightly chamfered and have simple run-out stops (Plate 10) and the joists coggled. The joists at the southern end of the room appear to be older, whilst those north of the staircase appear to be modern. They can be seen to be sitting on top of the remains of earlier joist on the northern ceiling beam in this room (Plate 11)

The first floor is divided into two rooms at the central truss (Truss 2). The southern room has two small cupboards either side of the chimney breast (Plates 12 and 13) which are divided from the main rooms by simple plank doors with wooden latches. There are three trusses, all of a similar design with slightly tapering principle rafters and a high collar (Figure 6, Plates 14 – 16). Two pairs of purlins and a ridge purlin form framework of the roof structure. All of the trusses are strapped with iron fitting in order to stabilise them. Truss 1 has an iron plate joining the two principle rafters (Plate 17), Truss 2 has two iron bands binding a split in the eastern principal rafter and Truss 3 has an iron plate strengthening the joint between the collar and the western principal rafter.

It is clear that there are at least three phases to the roof construction. A notch in the upper surfaces of the principal rafters suggests that originally there were only one pair of purlins and that the roof line was at a slightly lower pitch. This is also reflected by the line of the chimney breast on the southern gable wall (Plate 18) and on the outside of the building (Plates 2 and 4). Whilst the current purlins sit on the upper surface of the principle rafters and are supported by cleats there are trenches in the principal rafters containing the remains of previous purlins which have been sawn off. The ridge purlin is supported on the gable walls with iron shoes.

The northern gable wall contains a fireplace with a wooden bressumer. This bressumer has been repaired with only the eastern end of the original timber surviving (Plate 19 - 20).

### ***Dendrochronology Sampling***

Four new samples were taken, three from the roof structure and one from a ceiling joists. Old samples from the two possible cruck timbers and the

bressumer were also restudied, although they did not prove to be datable (Miles *pers comm.*)

### **Conclusions**

Ty Mawr Wybrnant has clearly developed over a long period of time. The earliest phase was probably an open hall with a cruck frame. Little of this phase survives except the base of the cruck frame in the eastern wall and presumably some of the lower stonework. This was converted into a storeyed house of Snowdonia type, although whether this was a single phase of development is not entirely clear. The presence of mortice holes in the bressumer of the southern fireplace hints at the presence of a loft at a lower level than the current upper storey.

The roof shows at least three phases of modification. Whilst the principal rafters appear to be common to all three phases it is clear that the original roof had a slightly lower pitch and probably only one pair of purlins. The second phase of roof modification saw the replacement of the single pair of purlins with two pairs set in trenches. When the roof level was lifted these purlins were replaced by two pairs of purlins sitting on the upper surfaces of the principal rafters and supported by cleats. It is likely that this modification also led to extra strains on the roof structure and the need for the iron strapping of the trusses.

Little remains of the pre 1987 layout of the building survives representing the later phases of use of the building, however the plan held by the Royal Commission (Figure 3) preserves this evidence.

### **Acknowledgments**

The recording of this building was commissioned by Margaret Dunn for the North Wales Dendrochronology Project. Access arranged by Elizabeth Green for The National Trust who own the building. The earlier plan of the building before the restoration in 1987 – 1988 was supplied by Nicola Roberts of the Royal Commission on the Ancient and Historical Monuments of Wales

### **References**

- Haslam, R., Orbach, J. and Voelcker, A. 2009 *The Buildings of Wales. Gwynedd. Anglesey, Caernarvonshire and Merioneth*. Yale University Press. 313
- Royal Commission on the Ancient and Historic Monuments of Wales 1956. *An Inventory of the Ancient Monuments in Caernarvonshire. Volume 1: East*
- Suggett, R and Stevenson, G. 2010. *Introducing houses of the Welsh Countryside*. Y Lolfa.





Plate 1: Front elevation



Plate 2: Southern gable



Plate 3: Rear elevation



Plate 4: Northern gable





Plate 5: Commemorative plaque



Plate 6: Timber embedded in the wall of the north east ground floor room



Plate 7: Base of possible cruck frame in main, ground floor room



Plate 8: Timber across the northern gable end.



Plate 9: Fireplace in the main ground floor room



Plate 10: Chamfer and stop on ceiling beam





Plate 11: Replacement joists



Plate 12: Cupboard in south east corner of the first floor



Plate 13: Cupboard in SW corner of first floor



Plate 14: Truss 1, looking SSW



Plate 15: Truss 2, looking north



Plate 16: Truss 3, looking NNW





Plate 17: Iron Plate strengthening Truss 1



Plate 18: Southern gable wall showing original roof line



Plate 19: Chimney in the north gable wall



Plate 20: Detail of the repair to the bressumer over the fireplace in the northern gable.

## **Appendix 1: Sources**

### **Listing Information**

[http://jura.rcahms.gov.uk/cadw/cadw\\_eng.php?id=3578](http://jura.rcahms.gov.uk/cadw/cadw_eng.php?id=3578)

### **TY MAWR**

<b>Street Name and Number:</b>	
<b>Listed Building Reference:</b>	3578
<b>Grade:</b>	II*
<b>Date Listed:</b>	13/10/1966
<b>Date Amended:</b>	17/07/1992
<b>Co-ordinates:</b>	276979,352410
<b>Locality:</b>	WYBRNANT
<b>Community:</b>	Bro Machno
<b>Council:</b>	Conwy
<b>National Park:</b>	Yes
<b>Location</b>	

At head of Wybrnant Valley approx 2.5 km NW of Penmachno. Best reached via signposted minor road branching N off Penmachno-Glasgwm road approx 700m W of Penmachno village centre.

### **History**

Farmhouse rebuilt in late C16/early C17 incorporating parts of earlier house on site, traditionally held to be birthplace of Bishop William Morgan (1545-1604) translator of first complete Welsh Bible (1588). Restoration by Lord Penrhyn for tercentenary of translation 1888. Restoration by National Trust 1987-88 to mark quatercentenary of translation.

### **Interior**

Interior arrangements restored 1987-88. Stone flagged floor. Entrance passage with (modern) post-and panel partitions, 2 rooms to R, oak partition (modern) between. To L of passage, hall with chamfered ceiling beams. Large fireplace in end (S) wall, heavy chimney lintel with mortices (indicating former loft). South wall has base of former cruck. Wooden stair (modern) leads to first floor partitioned into 2 rooms (modern). Chamber over hall has 2 deep cupboards flanking chimney. Book room with fireplace. Roof of 3 collar-beam trusses with purlins and 2 tiers of purlins (formerly trencled).

### **Exterior**

Two-storey house in flat stone slabs with massive foundations. Random slate roof in graded courses (dating from 1987-88 restoration). End chimneys in stone, capped by slabs and discharging to sides. Massive square S chimney

(heightened in smaller masonry blocks); less massive N chimney with pronounced lean to S has chimney breast corbelled out c1.8 metres above ground level. Upper floor has 2 almost square windows and smaller window to L. Slate plaque between floors recording history of house dates from 1980's restorations. Entrance doorway (restored to this position 1980's) has stone lintel and jambs. To L one rectangular window and one small square window; to R small square window. At rear, upper floor has two horizontally-proportioned windows, that to R deeper. On ground floor, square-headed door, and to R, small vertically-proportioned window.

### **Reason for Listing**

Graded II\* for historical associations.

### **References**

Royal Commission on Ancient & Historical Monuments in Wales, Survey and Inventory, Caernarvonshire, Vol I: East, 1956, pp173-4; National Trust Guidebook to Ty Mawr, 1988, pp43-47; Information from National Trust Vernacular Buildings Survey.

## Coflein

<http://www.coflein.gov.uk/en/site/16966/details/TY-MAWR%2C+WYBRNANT/>

### TY-MAWR, WYBRNANT

<b>NPRN</b>	16966
<b>Map Reference</b>	SH75SE
<b>Grid Reference</b>	SH7700152407
<b>Unitary (Local) Authority</b>	Conwy
<b>Old County</b>	Caernarfonshire
<b>Community</b>	Bro Machno
<b>Type of Site</b>	FARMHOUSE
<b>Broad Class</b>	Domestic
<b>Period</b>	Medieval;Post Medieval
<b>Site Description</b>	

A late sixteenth-early seventeenth century house with earlier origins. Identified as the birthplace, in 1545, of Bishop Morgan, the translator of the first complete Welsh Bible, published in 1588. The house was restored and modified in 1888 and 1987-8, to commemorate this event.

A two storey house, with walls of flat stone slabs above massive boulder foundations. It has a (modern) slate gabled roof framed by massive stone end chimney stacks. Few original features remain. Vestidual cruck timbers are thought to survive from an earlier building (see below).

**Sources:** RCAHMW Caernarvon Inventory I (1956), 173-4

National Trust Guidebook (1988)

CADW Listed Buildings Database (3578)

### John Wiles 17.04.07

[Additional:] House of Snowdonian type with late-medieval origins associated with Bishop Morgan. Plan and account in RCAHMW's Caernarvonshire Inventory with revisions in the National Trust Guide. Restoration work by the National Trust revealed the remains of two cruck-trusses cut off flush with the walls. Cores for tree-ring dating were taken from the crucks and fireplace beam in Oct. 2001 by the Oxford Dendrochronology Laboratory. (2001.10.23/RCAHMW/RFS)

The samples have failed to date. (RFS/2002)

## **Gwynedd Archaeological Trust**

### **Regional Historic Environment Record**

[http://www.cofiadurcahcymru.org.uk/arch/gat/english/gat\\_interface.html](http://www.cofiadurcahcymru.org.uk/arch/gat/english/gat_interface.html)

#### **Ty Mawr, Gwybernant**

<b>Primary Reference Number</b>	(PRN): 3746
<b>Trust:</b>	Gwynedd
<b>Site Type:</b>	HOUSE
<b>Period:</b>	Post-Medieval
<b>Community:</b>	Bro Machno
<b>NGR:</b>	SH77025240
<b>Legal Protection:</b>	Listed Building

#### **Description :**

Ty Mawr, Gwybernant, is the reputed birth-place of Dr. William Morgan (1541-1604) Bishop of St. Asaph, first translator of the entire Bible into Welsh, as commemorated by a modern plaque over the door.

It is a long building of two storeys. The walls are built of long slates with well-finished quoins and some large boulders at ground level. They are mostly of one period. The windows are mainly small and square; those at ground level have been much altered. The front door is modern, the original entrance being marked by upright slabs to the north, now containing a window. The north gable has a projecting chimney carried on three half-round corbels about five feet above the ground. It is surmounted by a tall square stack with slate slabs at the shoulders. The south gable is plain and is surmounted by a squat square chimney stack. The roof is about one third pitch and the slates are modern. <1>

Sixteenth century with alterations. Grade 2\*. Property of National Trust. <2>

No change, but not outstanding apart from historical connections. <3>

16th Century and alterations. 2 storey. Stone boulders and long slates with well finished angles. Massive chimney. Birthplace Bishop Morgan, translator entire Bible into Welsh. <4>

#### **Sources :**

Inventory of the Ancient Monuments of Caernarvonshire , Royal Commission on Ancient and Historic Monuments , 1956 , <1>

Nant Conway Rd , DOE , 1964 , <2>

SH75SE , Ordnance Survey , 1971 , <3>

RC Buildings Records , Royal Commission on Ancient and Historic Monuments ,  
1999 , <4>

**Events :**

**Related PRNs :**



**Royal Commission on the Ancient and Historic Monuments of Wales 1956.  
An Inventory of the Ancient Monuments in Caernarvonshire. Volume 1:  
East**

175 Ty Mawr Gwibernant is the reputed birthplace of Dr William Morgan (1541 – 1604) Bishop of St Asaph, first translator of the entire Bible into Welsh, as commemorated by a modern plaque over the door. It is a long building of two storeys. The walls are built of long slates with finished quoins and some large boulders at ground level. They are mostly of one period. The windows are mainly small and square; those at ground level having been much altered. The front door is modern, the original entrance being marked by upright slate slabs to the N., now containing a window. The north gable has a projecting chimney carried on three half round corbels about 5 ft above the ground. It is surmounted by a tall square stack with slate slabs at the shoulders. The S. gable is plain, and is surmounted by a squat, square chimney stack. The is of about one-third pitch, and the slates are modern.

Inside the ceiling is of four bays, and have three roughly chamfered beams, that on the N. containing a groove for a partition. At the N. end is a wall plate carried on two corbels. The N. entrance is blocked, but the curved stone lintel is still visible, three roof trusses are largely concealed, but appear to contain original principles.

**Haslam, R. Orbach, J and Voelcker, A 2009. The Buildings of Wales.  
Gwynedd. Yale University Press, New Haven and London.**

485 Tŷ MAWR Wybrnant, 2m. NW. The reputed birthplace of Dr William Morgan (c. 1545 – 1604), Bishop of Llandaff (later of St Asaph) and the first translator of the complete Bible into Welsh (1588). Probably C17, but incorporating fragments of cruck blades. Large square chimney to the S. The N chimney corbels out at head-height, then reduces to a tall square shaft just below roof level. Heavily restored by the National Trust in the late 1980's. To the W, a COTTAGE and attached BARN C18, rebuilt for the guardian and exhibition space. To the NW, a small (new) BRIDGE across the Wybrnant river.

**Suggett, R and Stevenson, G. 2010. Introducing houses of the Welsh  
Countryside. Y Lolfa.**

72 – 73 The Wybrnant valley feels as remote as it is possible to get in Wales today, yet in the sixteenth century it was on a main drovers' road from Llŷn through Dolwyddelan and on to the cattle markets across the border. Famous as the birthplace in 1545 of William Morgan (the first translator of the whole Bible into Welsh), it is equally important as a well-preserved and restored sixteenth-century Snowdonian House. The name (Tŷ-mawr or 'Great House') suggest that this was no ordinary farm in its day. It is considered to have been home to a wealthy farming family.



What is interesting here is that a former hall (from William Morgan's time) was modified to create a building that externally at least follows the classic 'Snowdonia house' pattern. This shows the strong appeal of the new kind of storeyed house that was being built locally by the middle classes, and that even existing homes were modified to conform to the latest fashion.

Little remains of the early hall aside from two cruck fragments in the east wall and the lower section of stonework, and the hall was remodelled in the later sixteenth century or possibly early seventeenth century. The new plan followed the Snowdonian house pattern with fireplaces in the gable-end walls rather than in the middle of the house, as was then common on the Welsh borders. It lacks a stone mural stair, a feature still seen in some of the neighbouring properties in Penmachno, and a ladder stair was probably used to reach the new first-floor chambers.

The National Trust restored the property in 1988 to mark the fourth century of the Welsh Bible, stripping out many nineteenth- and twentieth-century alterations and creating the simple interior seen today.

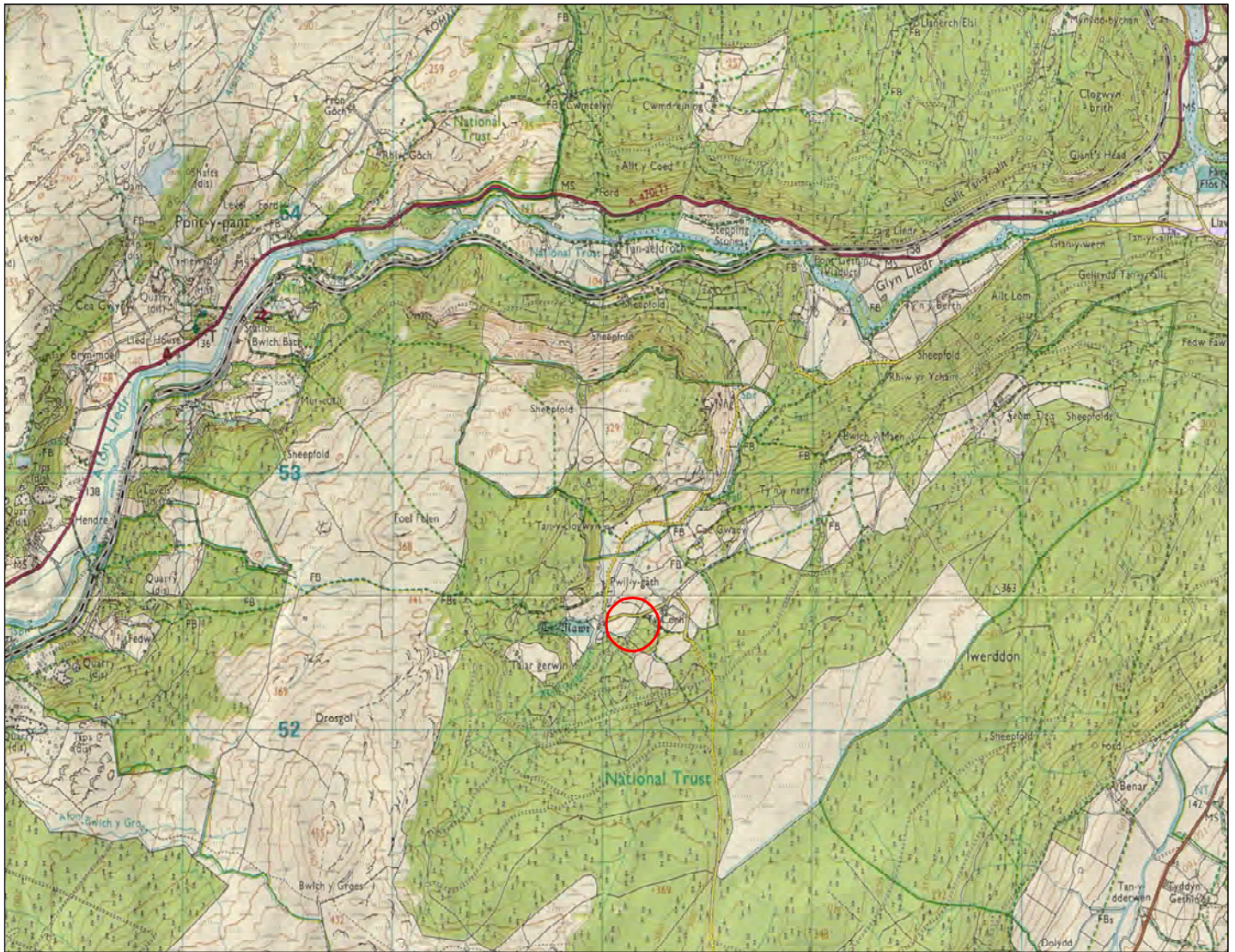


Figure 1: Location  
Scale 1:25,000

Reproduced from the Outdoor LeisureTM 17, 1:25,000 scale  
by permission of the Ordnance Survey ® on behalf of  
The Controller of Her Majesty's Stationary Office  
© Crown Copyright 1992  
All Rights Reserved Licence Number AL 100014722

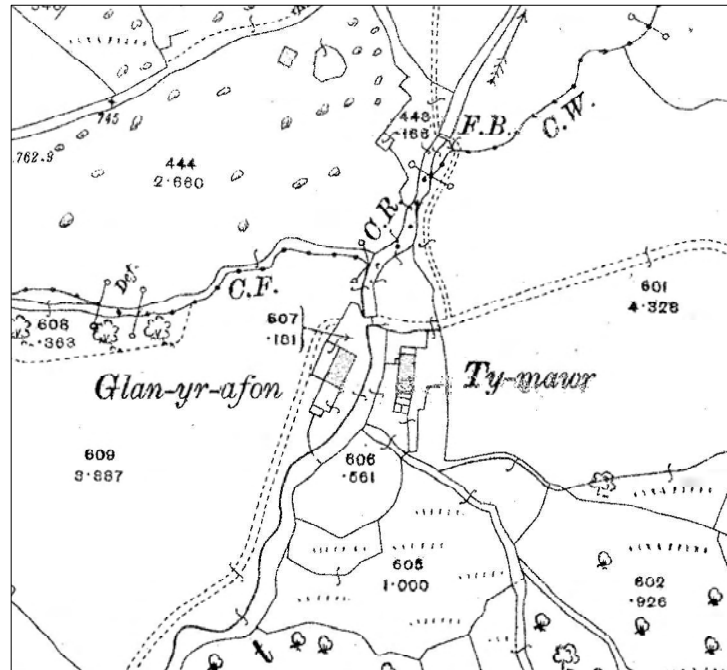


Figure 2: Extract from the 1913 Ordnance Survey Map  
Caernarvonshire XXXIII.12  
Scale 1:2500

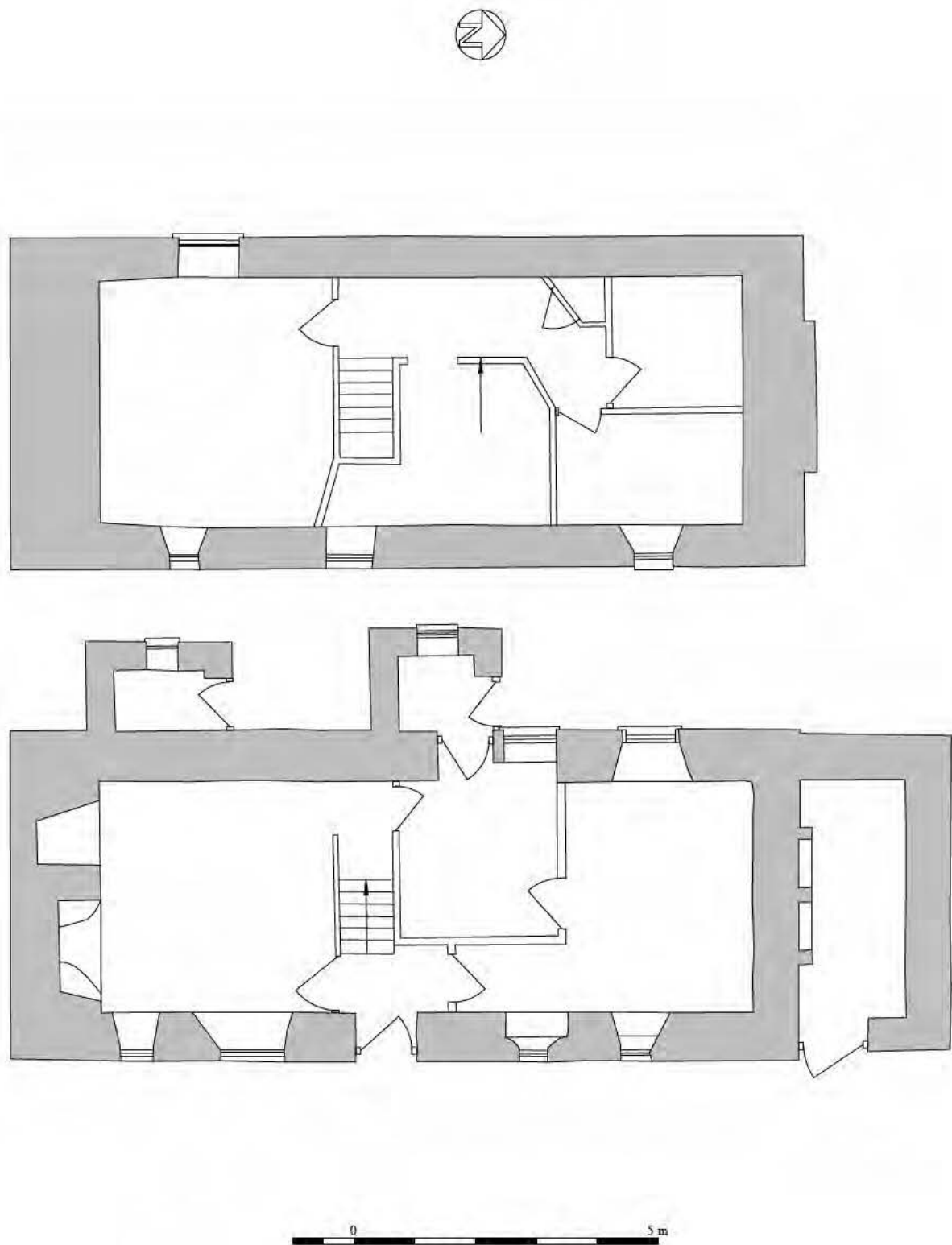


Figure 3: Plan of Ty Mawr, Wybrnant before restoration  
(Based on plan by RCAHMW)  
Scale 1:100



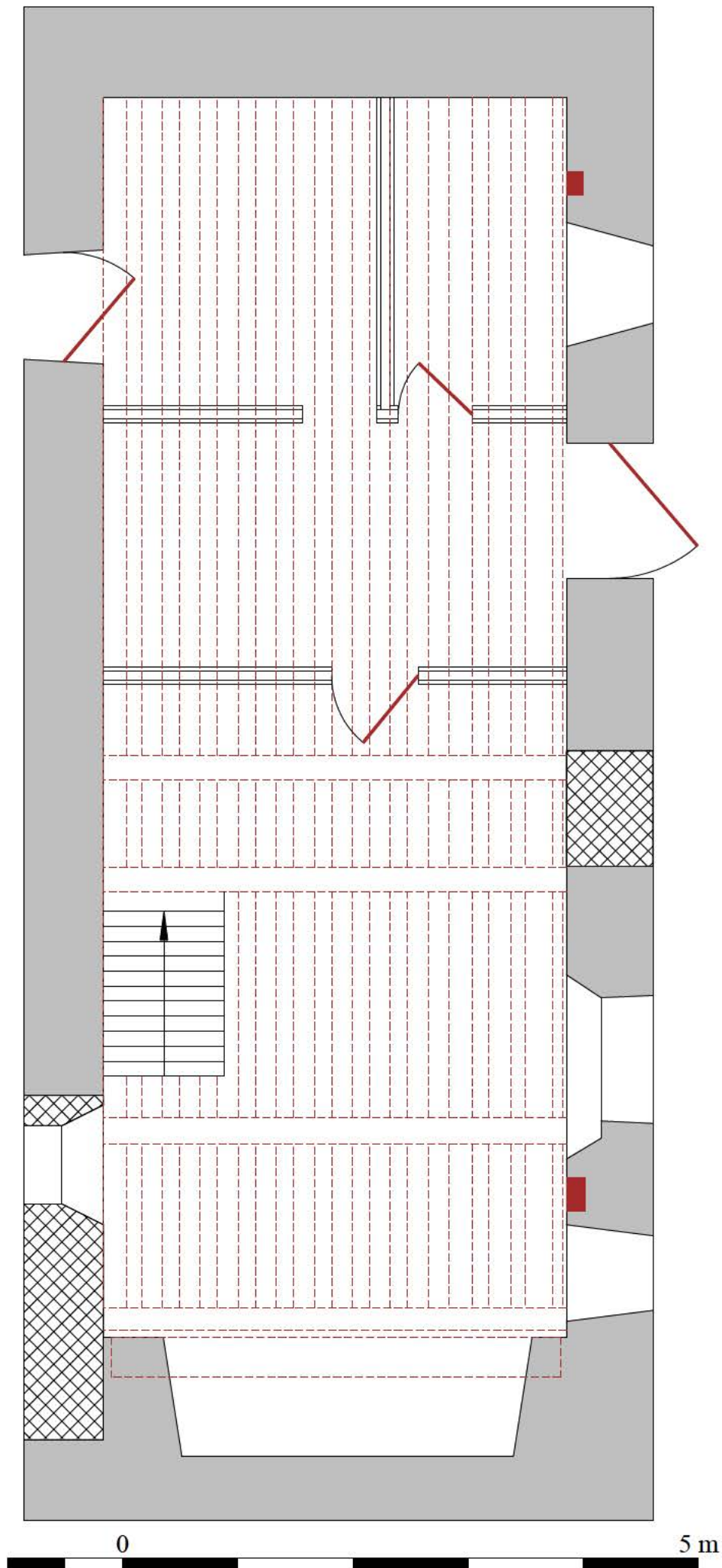


Figure 4: Ground Floor Plan  
Scale 1:50

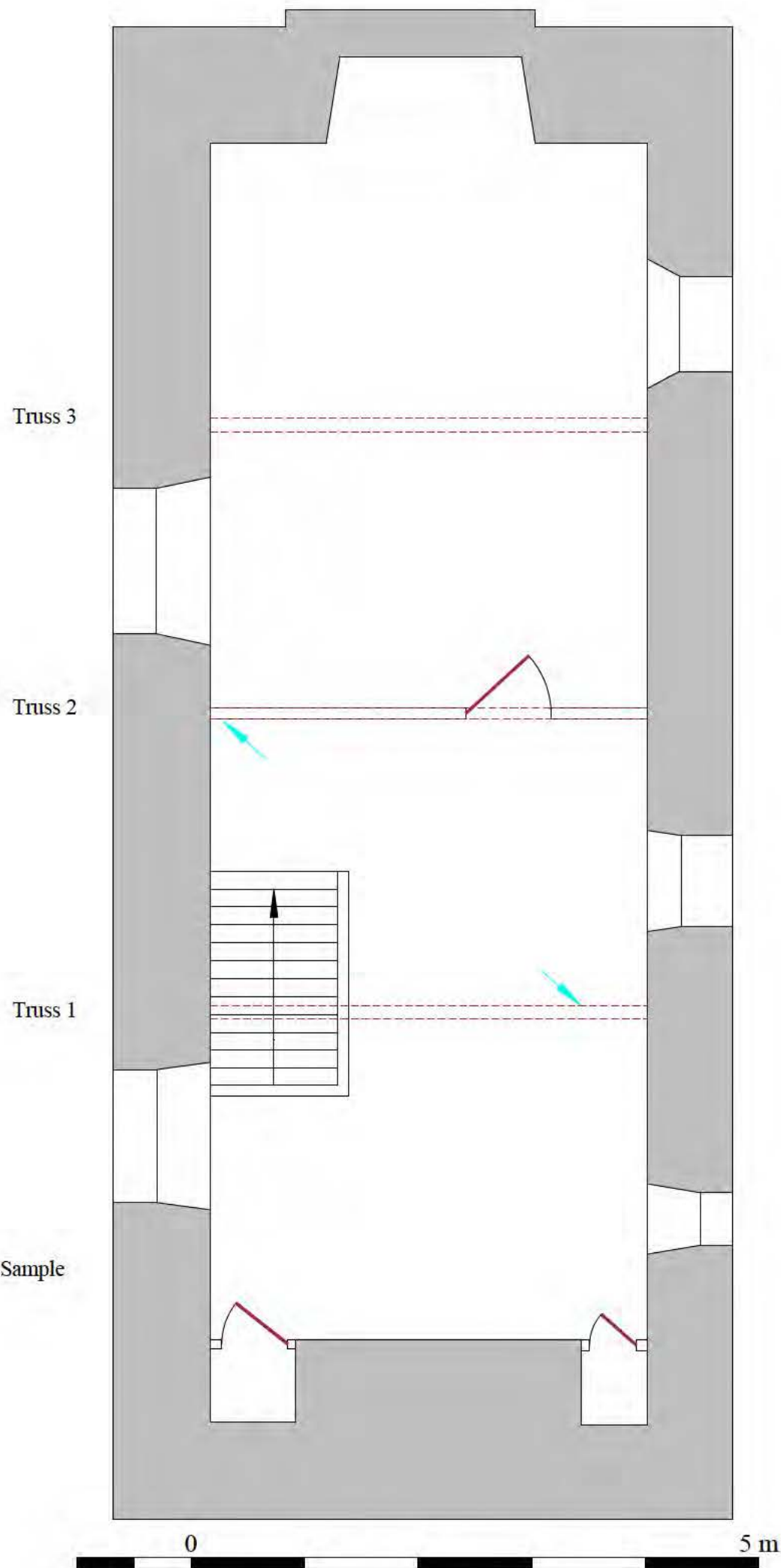
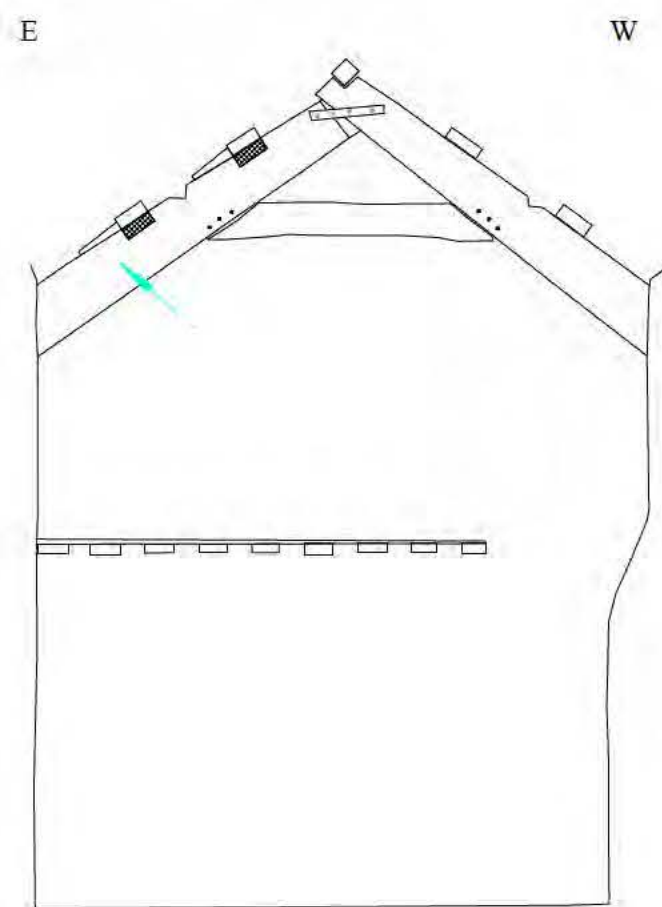
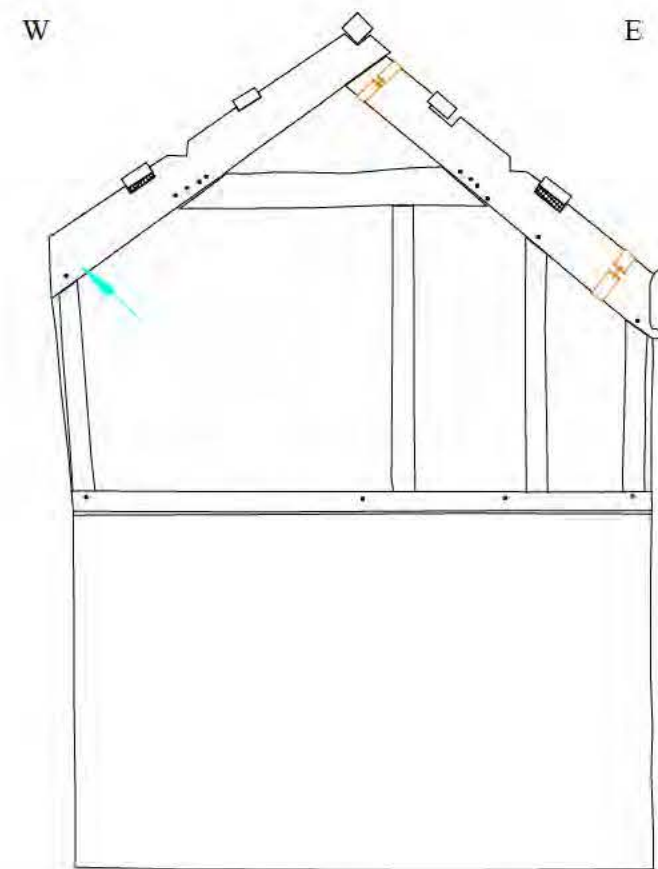


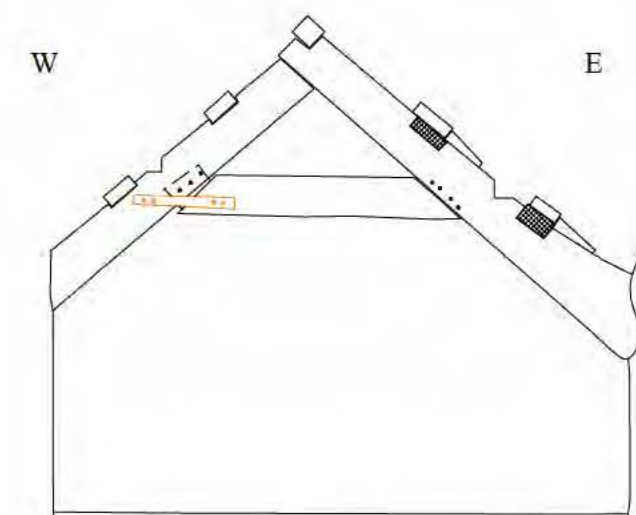
Figure 5: First Floor Plan  
Scale 1:50



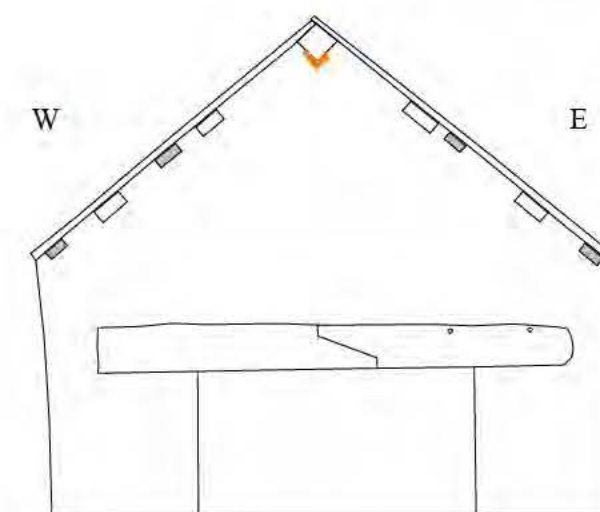
Truss 1




Truss 2



Truss 3



Northern Gable End

 Sample site


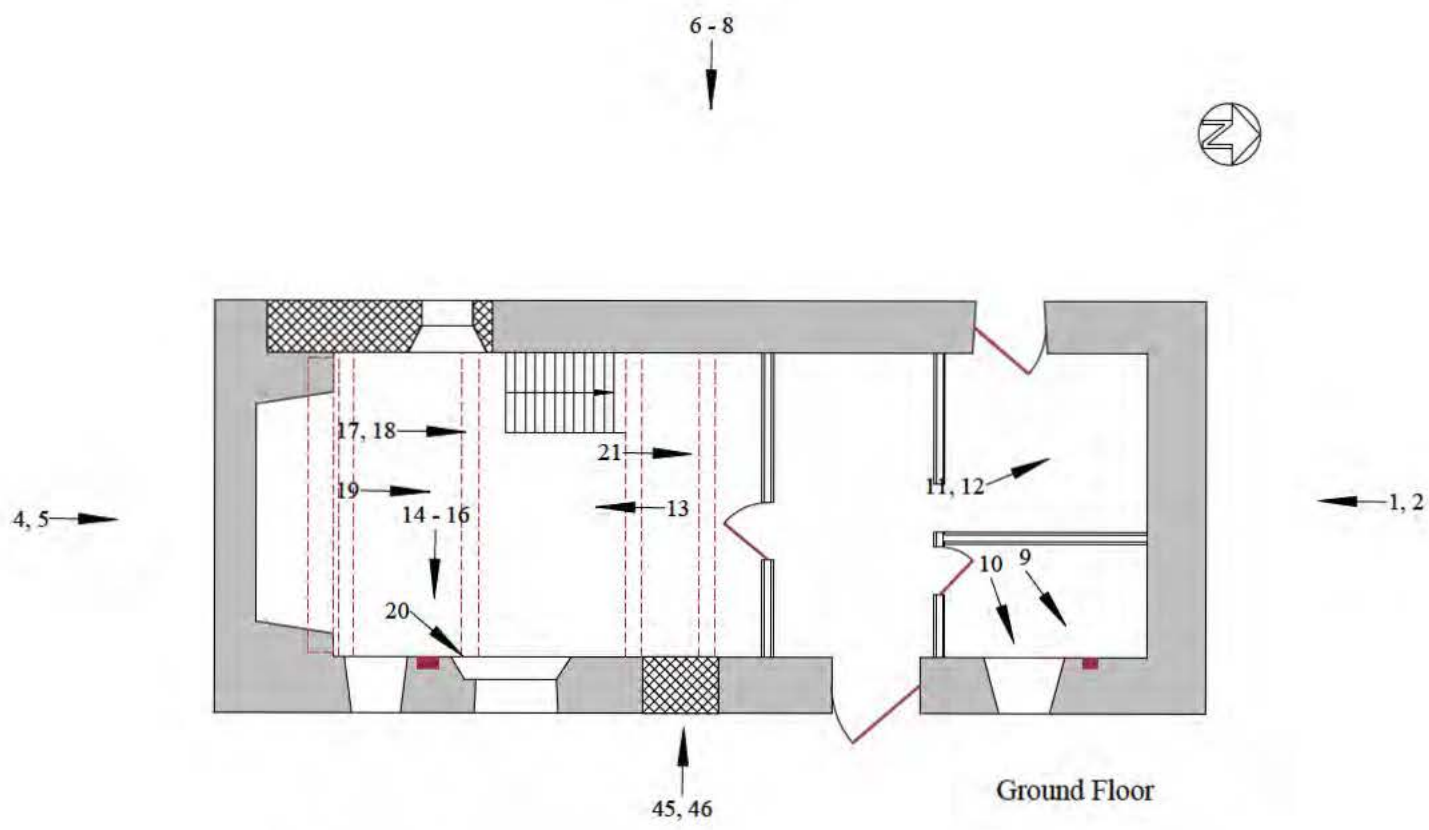
 Iron Fittings



Figure 6: Profiles  
Scale 1:50



3

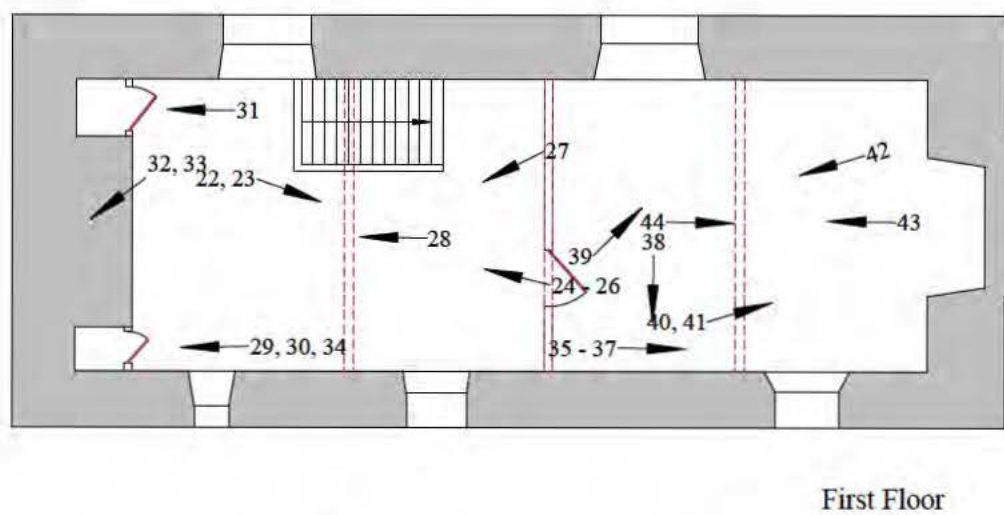


Figure 7: Location of the Photographs in the Archive  
Scale 1:100