

North West Wales Dendrochronology Project Bron Goronwy, Ffestiniog, Gwynedd



EAS Client Report 2011/07
May 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 Bron Goronwy, Ffestiniog, Gwynedd

EAS Client Report 2011/07

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

May 2011

**By
I.P. Brooks**

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

Registered in England N° 286978

Content

Grid Reference

NPRN Number

Status

Introduction

Methodology

Survey Report

Dendrochronology Sampling

Conclusions

Acknowledgements

References

Appendix 1: Sources

List of Figures

Figure 1: Location

**Figure 2: Extract of the First Edition Ordnance Survey Caernarvonshire
VII.7 Map**

Figure 3: Ground Floor Plan

Figure 4: First Floor Plan

Figure 5: Truss 2

Figure 6: Trusses 1 and 3

Figure 7: Ground Floor Partition

Figure 8: Location of the photographs in the archive

List of Plates

Plate 1: Front elevation

Plate 2: South western gable end

Plate 3: North eastern gable

Plate 4: Rear elevation

Plate 5: Blocked doorway

Plate 6: The blocked doorway seen in the stairwell.

Plate 7: Blocked openings in cow house

- Plate 8: Stone work in north eastern gable of house**
- Plate 9: The ground floor passageway**
- Plate 10: The fireplace**
- Plate 11: The end of the bressumer extending into the passage between main room and the lean too**
- Plate 12: The partition in the main room, looking west**
- Plate 13: The northern section of the partition in the main room**
- Plate 14: Detail of joint in the partition between the passageway and the main room, looking north**
- Plate 15: Detail of the ceiling beam and joists in the main room, looking north**
- Plate 16: Remains of the stone staircase, looking SW**
- Plate 17: The remain of the partition between the passageway and the western room, looking NE**
- Plate 18: Socket for a post and plank partition in the ground floor, western room, looking SE**
- Plate 19: General view of the western ground floor room, looking NW**
- Plate 20: The relationship between the first floor partition and Truss 2**
- Plate 21: Mortice and dowel holes below the southern principal rafter of Truss 2**
- Plate 22: Mortice and dowel holes below northern principal rafter of Truss 2**
- Plate 23: Truss 1, looking SW**
- Plate 24: Truss 2, looking NE**
- Plate 25: Truss 3, looking north**
- Plate 26: Oblique mortice and tenon joint between the collar and southern principal rafter of Truss 1.**
- Plate 27: Detail of overlapping purlins above Truss 3**
- Plate 28: Wooden plate below Truss 2**

North West Wales Dendrochronology Project

Bron Goronwy

SH 71833 41148

NPRN 28200

PRN 6518

Introduction

This report details the recording of the house Bron Goronwy, Ffestiniog, Gwynedd, 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 11th May 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

Bron Goronwy lies within Cwm Cynfal, approximately 1.8 km SE of Llan Ffestiniog. At the time of the survey the property was being restored by the current owners and converted for modern use. The domestic range is aligned NE – SW and is attached to a cow house on its northern side which is aligned at right angles to the main range. There is also another, lean too, range on the north eastern end of the house which may also be of agricultural origins.

Although the house is not listed, the Royal Commission on the Ancient and Historical monuments of Wales recorded some details of the building in 1963 and 1971. They also visited the building in April 2011 as part of the assessment procedure for this project.

The house is a, two bay, storeyed house of Snowdonia type with a later cow-house attached at right angles on its northern side and another extension, also assumed to be of agricultural origins on its north eastern gable end. The main house has a modern slate roof and a chimney stack on each of the gable ends (Plates 1-3). The chimney on the south western gable end (Plate 2); however, appears to be fake with only the north eastern chimney having stack (Plate 3) extending below the roof level. It is noticeable that the active chimney stack (Plate 3) has a tapered profile whilst the blank has a square profile (Plate 2).

The property now faces south east and this face of the property has been covered in render and studded with stone chips (Plate 1). Elsewhere the building would appear to be constructed of roughly coursed stonework with the little or no emphasis at the quoins. The lean-to extension on the north eastern end is of a much courser construction of larger stone laid in rough courses and with larger blocks at the quoins (Plate 3). This extension would appear to have originally had an open face to the north and the eastern wall has been truncated to the line of the house, having originally extended much further to the north, possibly forming the northern boundary of a yard. The cow house, to the north, appears to have at least two phases of construction.

The rear elevation and eastern gable wall are partly obscured by the later agricultural building (Plate 4). Of particular note are two blocked openings within the rear elevation which are seen within the cow-house. One of these openings is a blocked doorway (Plate 5) with pitched stone voussoirs which marks the position of original cross passage. This feature is also shown in the stair well of the house (Plate 6). The second opening would appear to be a, first floor, blocked window (Plate 7).

Within the lean-to extension there are some stone blocks set at an acute angle (Plate 8) which appear to define a feature within the wall, although the function of this feature is unknown.

Inside; the ground floor is divided into two rooms separated by a cross passage leading to the staircase (Figure 3). The passage way is partly defined by post and plank partitions and partly by later stud walling (Plate 9).

The main room is at the eastern end of the house. It is marked by a large fireplace at its eastern end and the post and plank partition at the western end. The fireplace (Plate 10) has a large wooden bressumer which extends into the passageway between the main room and the lean too at the eastern end of the complex (Plate 11) where it appears to have been shortened. The partition divides the room from the cross passage (Plates 12 -13, Figure 5). Although initially appearing to be of single phase it has been recently heavily restored with similar planks being used to "repair" the panelling to the south of the doorway. This partition is centrally placed within the house and is below the remains of a similar partition on the first floor and the central truss of the building. The post immediately to the north of the doorway in the partition has a mortice (Plate 14) marking the position of the original door head, unfortunately the corresponding joint has been lost so it is not possible to determine the width of the original door. The ceiling of the main room has a single beam which is chamfered and has simple run-out stops. The joists are also chamfered and stopped and are joined to the main beam by barefaced tenon joints (Plate 15).

There was originally a stone stair adjacent to the fireplace, between the hearth and the southern wall of the house, in the southern corner of the property (Plate 16). This has been removed, although the remains of the lower step survive. The

space which contained the stairs has been converted into a passage between the house and the lean too extension on the eastern end of the house.

The western ground floor room is partly divided from the cross passage by the remains of a post and plank partition (Figure 7). This runs below a cross beam which defines the original width of the cross passage at 1.71 m. Only the section of the partition to the north of the doorway survives (Plate 17), although the sockets for the corresponding partition to the south of the doorway survives (Plate 18). This would give the original opening into this end of the building as approximately 1.70 m. The row of peg holes in the southern most surviving post may suggest the position of a dividing partition, although the top two peg holes appear to relate to a possible door head in the partition. The joists run between the beam over the partition and a second beam along the western gable wall (Plate 19). These joists have been recently lifted above this beam in order to level the floor above. There is also a blocked window in the northern wall of this room.

The first floor is now divided into five rooms and a landing; however it would appear to have originally been divided into two rooms with the dividing partition being below, and slightly to the west of, the central truss (Figure 5, Plate 20). The post and plank partition is a continuation of the division between the cross passage and main ground floor room, however, it would appear to be a replacement of an earlier wattle and daub partition directly below Truss 2. This is demonstrated by a series of dowel holes and three mortices, one below the collar and the others in the principal rafters of Truss 2. (Plates 21 - 22).

The three trusses all have a similar form (Figures 5 and 6) with a collar and raking queen posts (Plates 23 – 25). Unfortunately the trusses (Figure 6) have broken principal rafters which have resulted in the trusses having moved slightly. These cracks have since been stabilised by the addition of metal plates. This does; however allow for the joint between the collar and the principal rafter to be seen in Truss 1. This joint is oblique tenon (Plate 26) with four wooden pegs holding the joint together. The queen struts in Trusses 1 and 3 have been modified with sections having been cut out. It is assumed that these cut-outs were to ease access along the roof space once it had been enclosed. All of the trusses have a range of trenches for previous purlins in their upper surfaces showing that the roof has been replace or modified at least twice and possibly three times. The current purlins are relatively large, plank like timbers which taper so that they overlap above the trusses where required (Plate 27).

Truss 1 has two short spurs tying the principal rafters back into the walls. Whilst these features may be part of the original design of Truss 1 it is more probable that they were an early attempt to stabilise this truss. The northern principal rafter of the central Truss (Truss 2) sits on a plate sunken into the wall of the house (Plate 28) which may also be the lintel for the blocked window seen in the southern end of the cow-house.

Dendrochronology Sampling

A total of ten samples were taken, by Oxford Dendrochronology Laboratory. These sampled the collar of Truss 1, the south principal rafter of Truss 1, the top plate of the upper floor screen, the collar of Truss 2, a southern raking strut, the southern lower purlin, the northern principal rafter of Truss 3, the top plate of the ground floor screen, the western ceiling beam and the eastern ceiling beam.

Conclusions

Whilst retaining many of its original features Bron Goronwy has clearly had a complex history. It would appear to have been originally a storeyed house of Snowdonia type with a gable end fireplace. There was a cross passage, approximately 1.7 m wide running between opposing doorways. The partitions dividing the house were of post and plank construction, although it is possible that these partitions replaced an earlier wattle and daub partition, at least on the first floor. There was a stone stair to the south of the fireplace which was presumably a spiral staircase. On the first floor the house appear to have been divided into two, equally sized rooms below the central truss. The chamber at the eastern end was lit by two windows on the northern wall, one of which is now blocked.

At some stage the staircase was moved from adjacent to the fireplace to its current position at the northern end of the cross passage. This would require the blocking of the northern doorway and therefore presumably also related to the construction of the agricultural buildings.

The agricultural buildings including the cow-house and the lean too at the eastern end are obviously later addition, presumably of eighteenth or nineteenth century date. The construction of these buildings leads to the blocking of the northern door and two windows. There is also a feature on the eastern gable wall of obliquely arranged stone blocks which is of uncertain function.

The roof structure suggests that there have been at least two phases of roof modification with trenches in the principal rafters suggesting the position of earlier purlins. The current restoration of the property has required the insertion of a series of metal plates to stabilise the original timbers which have cracked and moved. The current restoration has also included the reconstruction of part of the partition between the main room and the cross passage.

Acknowledgments

The recording of this building was commissioned by Margaret Dunn for the North Wales Dendrochronology Project. Thanks are also due to the owners for access to this building.



Plate 1: Front elevation



Plate 2: South western gable end



Plate 3: North eastern gable.



Plate 4: Rear elevation



Plate 5: Blocked doorway



Plate 6: The blocked doorway seen in the stairwell.



Plate 7: Blocked openings in cow house



Plate 8: Stone work in north eastern gable of house



Plate 9: The ground floor passageway



Plate 10: The fireplace



Plate 11: The end of the brussummer extending into the passage between main rooma and the lean too.



Plate 12: The partition in the main room, looking west



Plate 13: The northern section of the partition in the main room



Plate 14: Detail of joint in the partition between the passageway and the main room, looking north



Plate 15: Detail of the ceiling beam and joists in the main room, looking north



Plate 16: Remains of the stone staircase, looking SW



Plate 17: The remain of the partition between the passageway and the western room, looking NE



Plate 18: Socket for a post and plank partition in the ground floor, western room, looking SE



Plate 19: General view of the western ground floor room, looking NW



Plate 20: The relationship between the first floor partition and Truss 2



Plate 21: Mortice and dowel holes below the southern principal rafter of Truss 2



Plate 22: Mortice and dowel holes below northern principal rafter of Truss 2



Plate 23: Truss 1, looking SW



Plate 24: Truss 2, looking NE



Plate 25: Truss 3, looking north



Plate 26: Oblique mortice and tenon joint between the collar and southern principal rafter of Truss 1.



Plate 27: Detail of overlapping purlins above Truss 3



Plate 28: Wooden plate below Truss 2

Appendix 1: Sources

<http://www.coflein.gov.uk/en/site/28200/details/BRON+GORONWY/>

BRON GORONWY

Site Details

-  Site Details
-  Associated Collection Records (10)

NPRN	28200
Map Reference	SH74SW
Grid Reference	SH7182641138
Unitary (Local) Authority	Gwynedd
Old County	Merioneth
Community	Ffestiniog
Type of Site	HOUSE
Broad Class	Domestic
Period	16th Century

Site Description

[summary:] 2 unit, type A [Snowdonian plan], later byre added.

[Additional:] Bron Goronwy is a storeyed Snowdonian house of classic type which, although externally modernised, retains many distinctive regional features. There is a fully-screened cross-passage (cf. Bryn-yr-odyn) with twin outer rooms. The blocked cross-passage doorway visible in the attached agricultural range has a door-head of voussoirs. The hall retains a large gable-end fireplace with (later) fireplace stair alongside with stair light. The first floor has two intercommunicating chambers divided by a closed truss between open collar-beam trusses with raking struts. The principal (inner) chamber has a gable-end fireplace. Planned by RCAHMW. (RFS/RCAHMW/APRIL 2011)

Tree-ring dating commissioned by North-West Wales tree-ring dating project in partnership with RCAHMW in 2010. A total of ten timbers were sampled in this building. One timber showed several growth depressions and could not be dated. Of the remaining nine series, one – a collar – was found to have been from a tree felled in summer 1477, whilst all the other roof timbers, and the top plate of a ground-floor screen appear to form a single group of timbers, most likely felled at the same time. Only one timber retained complete sapwood, and was found to have been from a tree felled in winter 1530/31. It seems likely therefore that construction took place in 1531, or within a year or two after this date.

Full report available in NMRW. (NJR, 07/04/2011)

Catalogue Number ↓	Collection Record	Description	Medium
C17920	Drawings Collection	RCAHMW drawing showing plan and section of Bron Goronwy, Ffestiniog.	graphic
C17921	Drawings Collection	Multi site RCAHMW drawing showing plan and section of Bron Goronwy, Ffestiniog, published in Houses of the Welsh Countryside, fig 82.	graphic
C441171	NMR Site Files	Bron Goronwy, Ffestiniog; descriptive account produced by Peter Smith, undated.	text
C441172	NMR Site Files	Bron Goronwy, Ffestiniog; preliminary measured plan produced by Peter Smith and Dylan Roberts 1971.	graphic
C441173	NMR Site Files	Bron Goronwy, Ffestiniog; three black and white photographs produced by RCAHMW 1963	photo
C441175	NMR Site Files	Bron Goronwy, Ffestiniog; brief note and sketch plan produced by Peter Smith and Harry Brooksby, 1963.	text;graphic
C478890	NMR Site Files	Exterior view showing main elevation	photo
C478891	NMR Site Files	View from cowshed to rear opposite door	photo
C478892	NMR Site Files	Interior view showing lintel	photo
C816580	RCAHMW Colour Oblique Aerial Photographs	RCAHMW colour slide oblique aerial photograph of Bron Goronwy, Ffestiniog, taken by C.R.Musson on the 25/05/1997	photo

**Gwynedd Archaeological Trust
Regional Historic Environment Record**

http://www.cofiadurcahcymru.org.uk/arch/gat/english/gat_interface.html

Brongoronwy House, Ffestiniog

Primary Reference Number (PRN) :	6518
Trust :	Gwynedd
Site Type :	HOUSE
Period :	Post-Medieval
Community :	Ffestiniog
NGR :	SH71824113
Legal Protection :	

Description :

Sources :

Nmr Record Card , Royal Commission on Ancient and Historic Monuments , ,
<1>

Events :

Related PRNs :

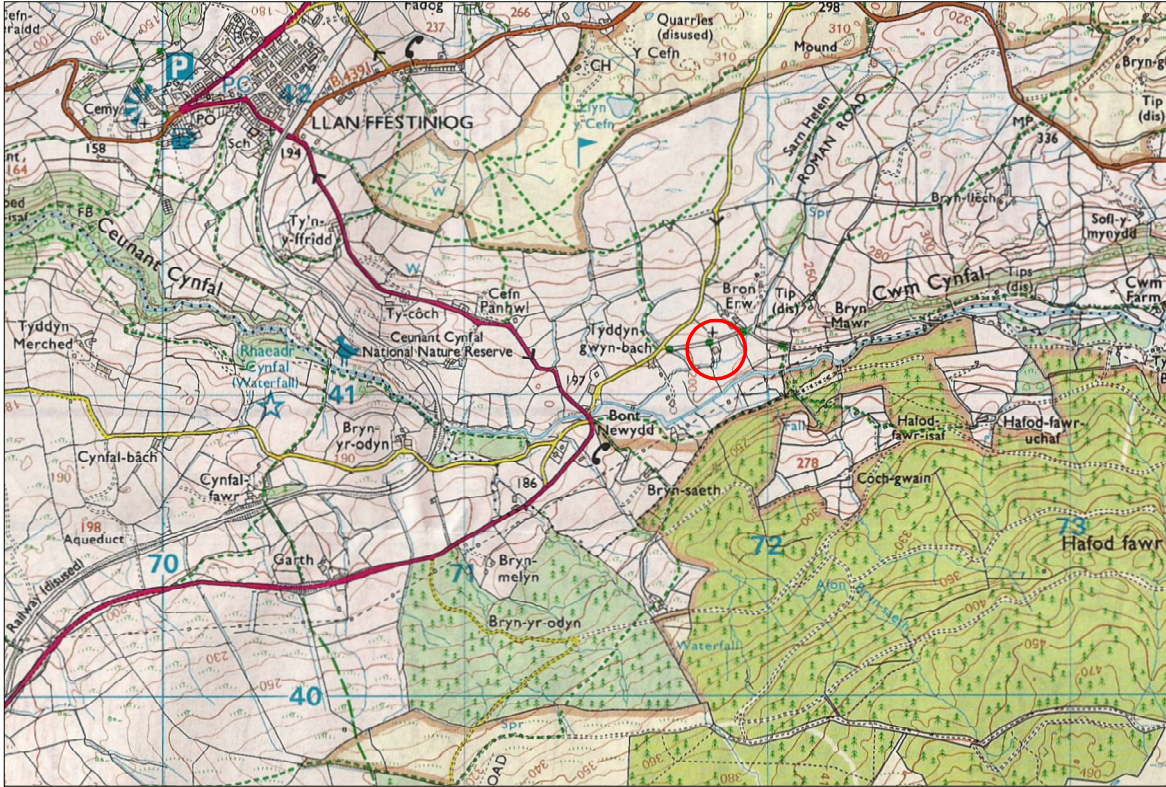


Figure 1: Location
Scale 1:25,000

Reproduced from the ExplorerTM OL18, 1:25,000 scale
by permission of the Ordnance Survey ® on behalf of
The Controller of Her Majesty's Stationary Office
© Crown Copyright 2009
All Rights Reserved Licence Number AL 100014722

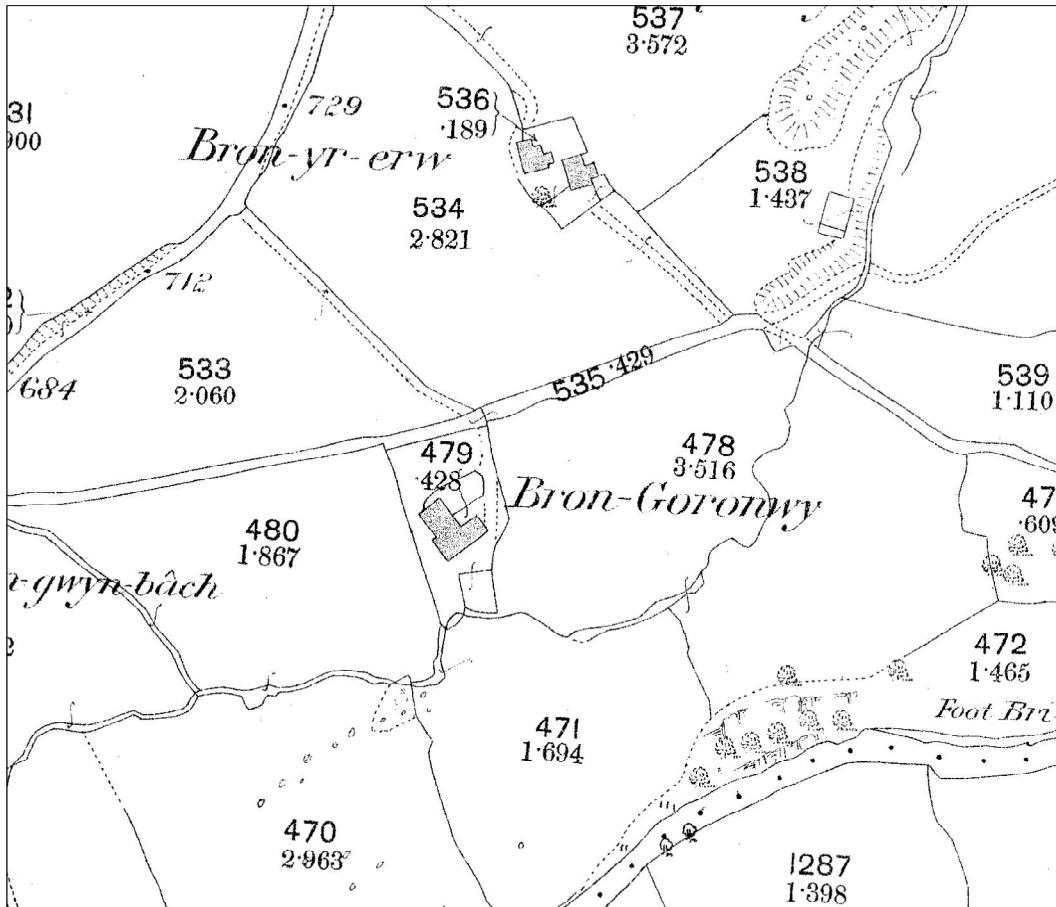


Figure 2: Extract from the First Edition Ordnance Survey Map
 Merionethshire XII.6 (1889)
 Scale 1:2500

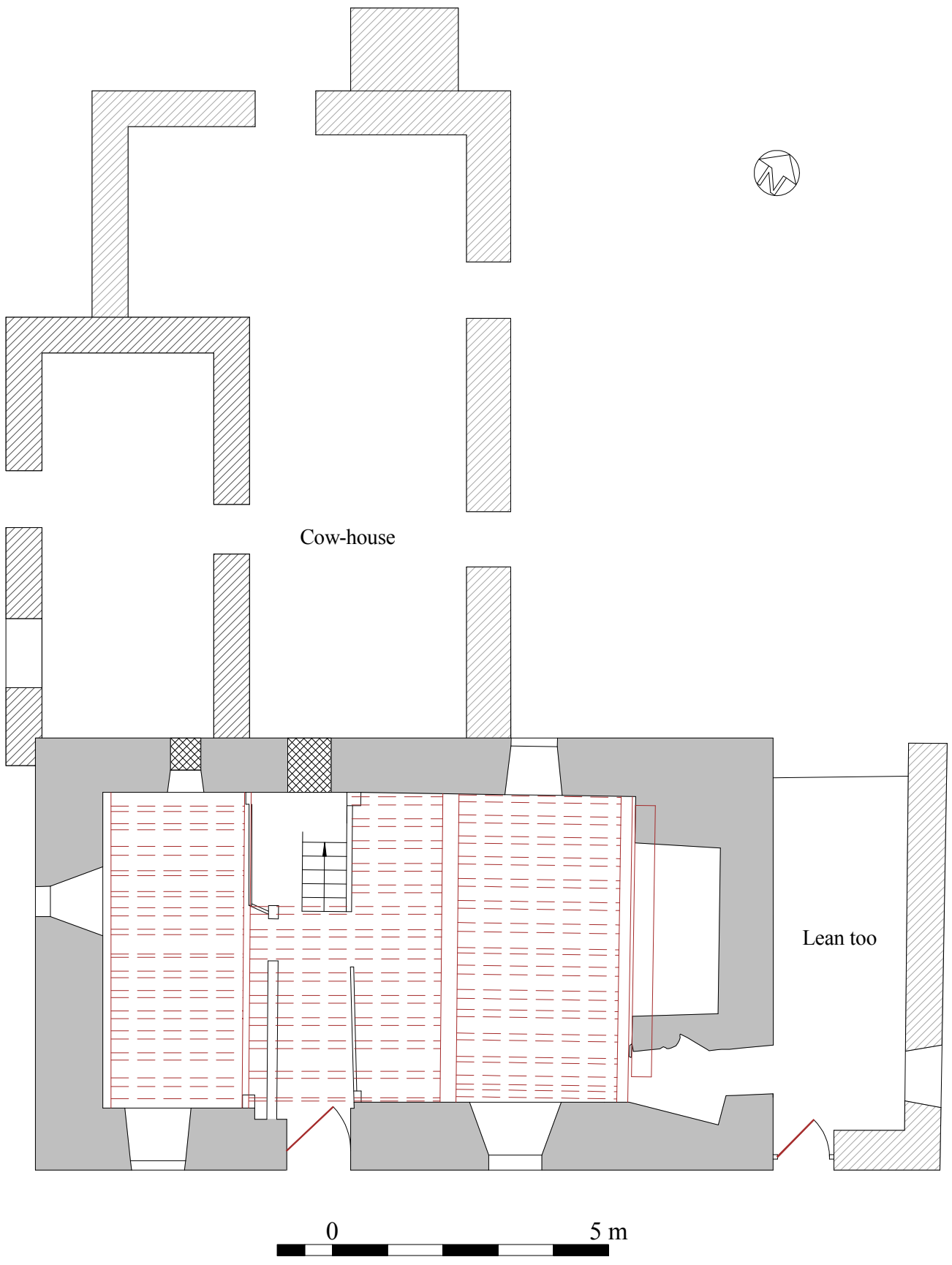


Figure 3: Ground Floor Plan
Scale 1:100

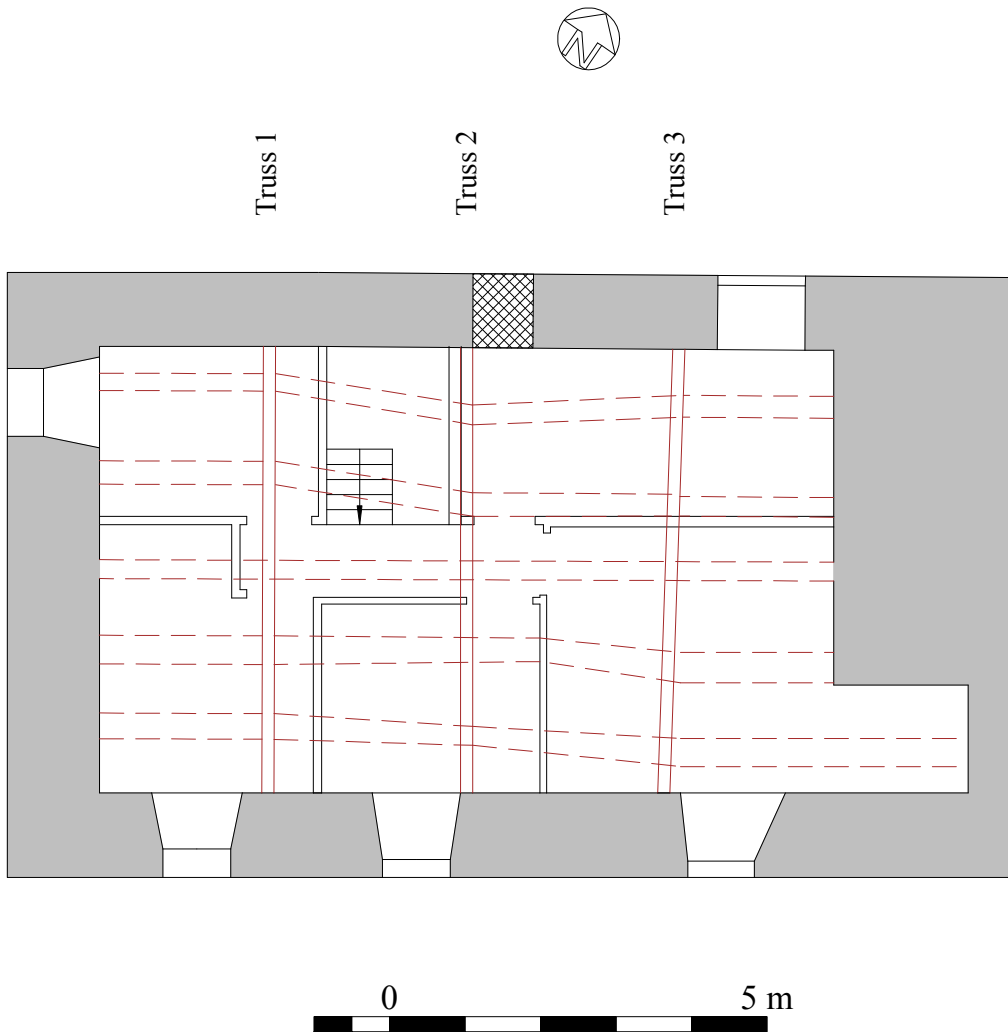


Figure 4: First Floor Plan
Scale 1:100

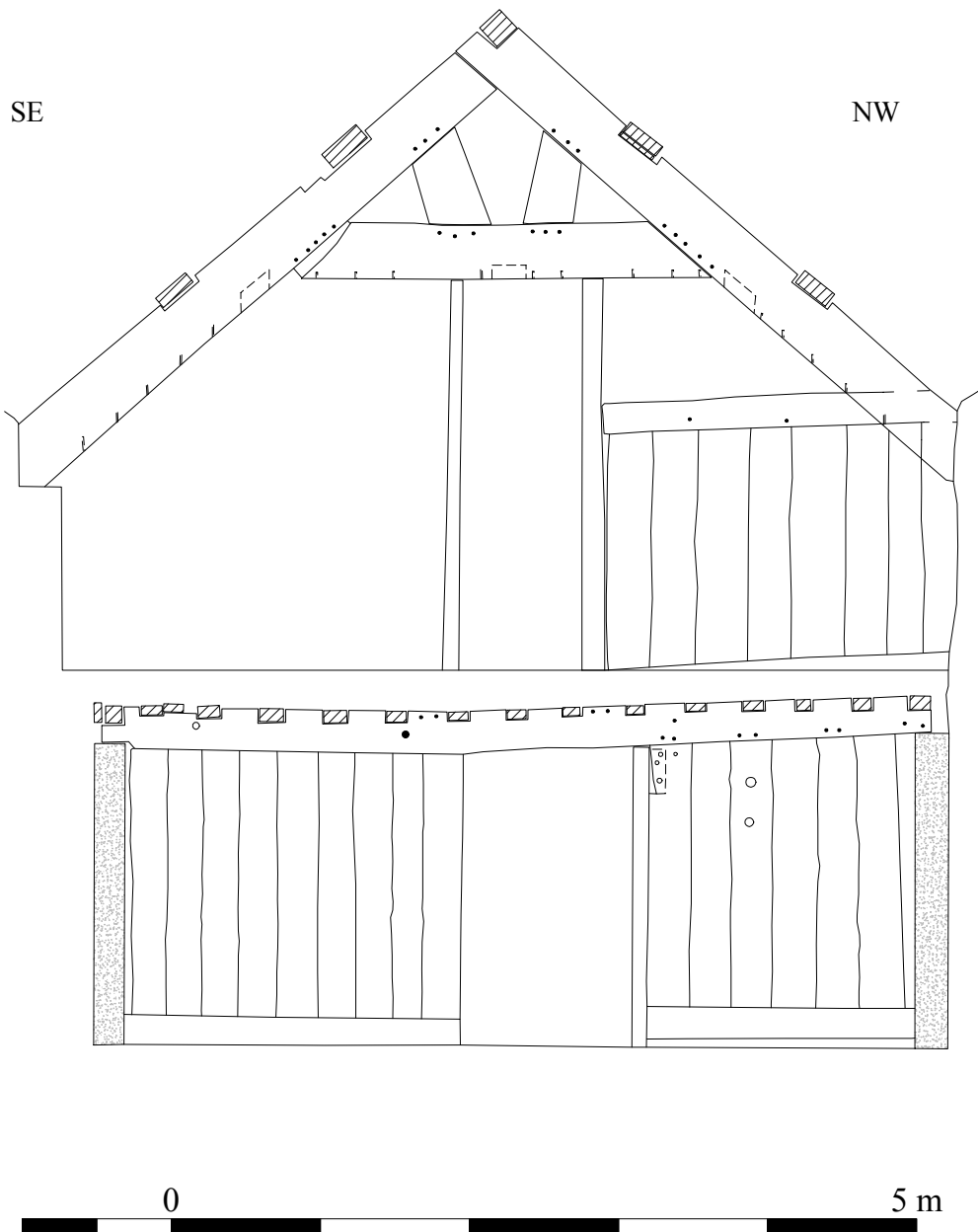
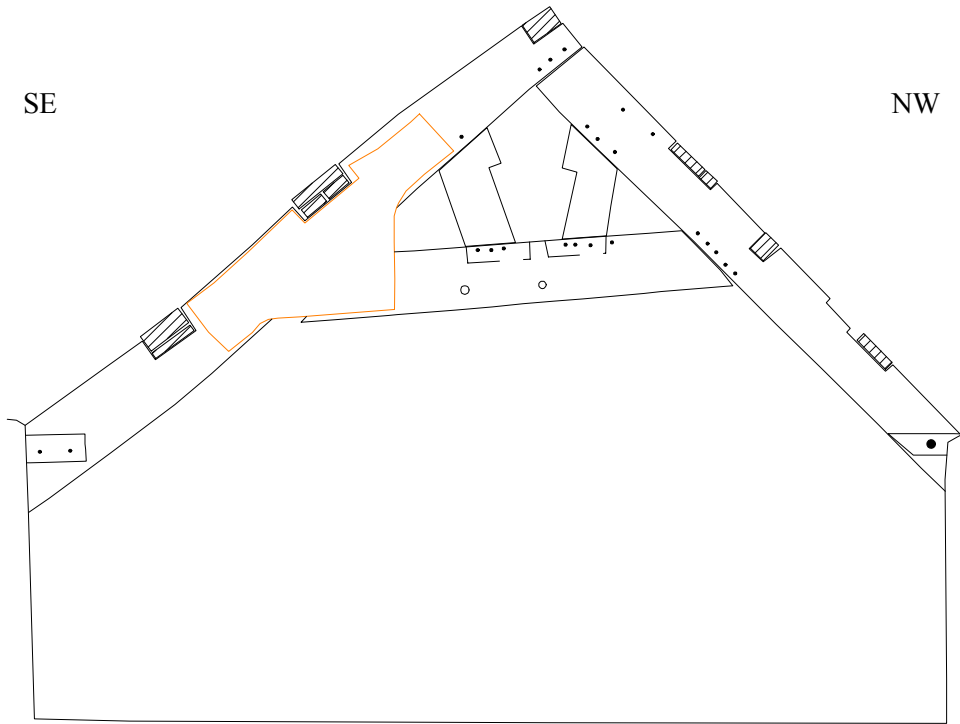
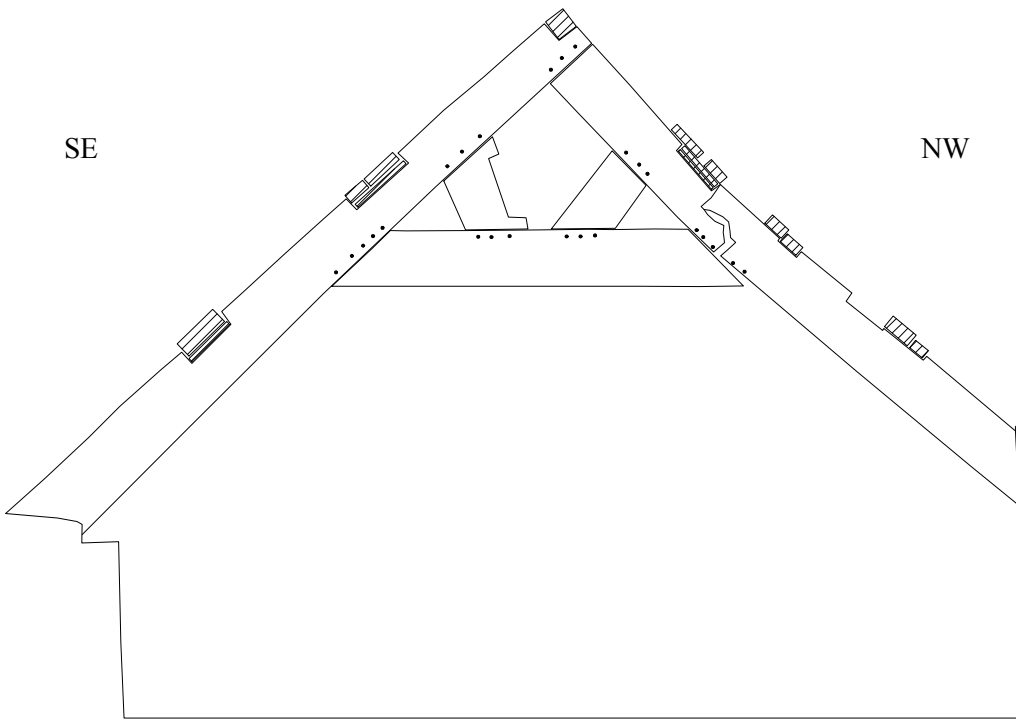


Figure 5: Truss 2
Scale 1:50



Truss 1



Truss 3



Figure 6: Trusses 1 and 3
Scale 1:50

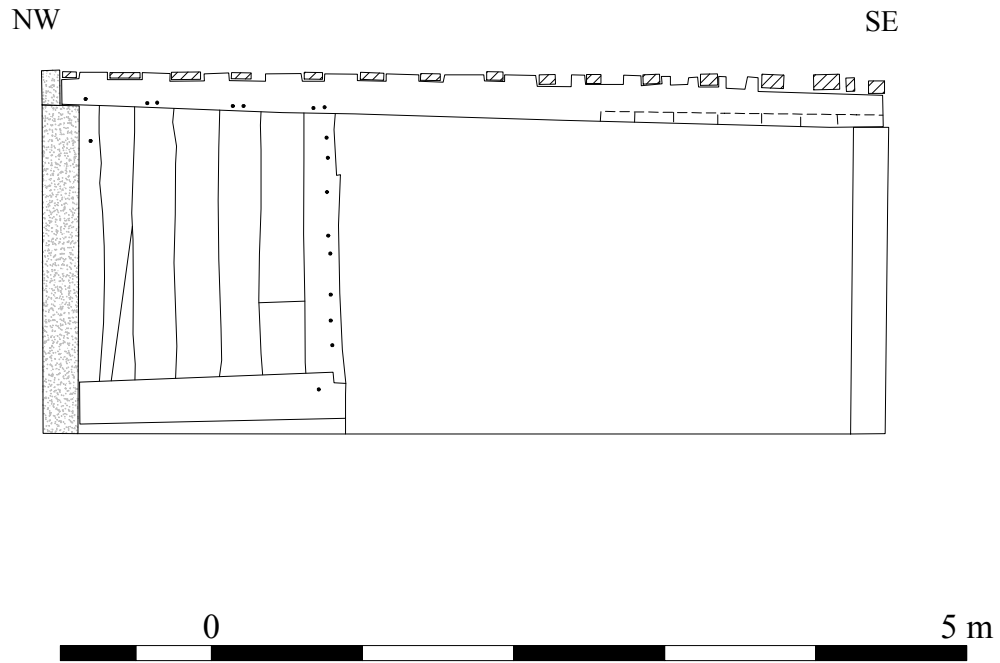


Figure 7: Ground Floor Partition
Scale 1:50

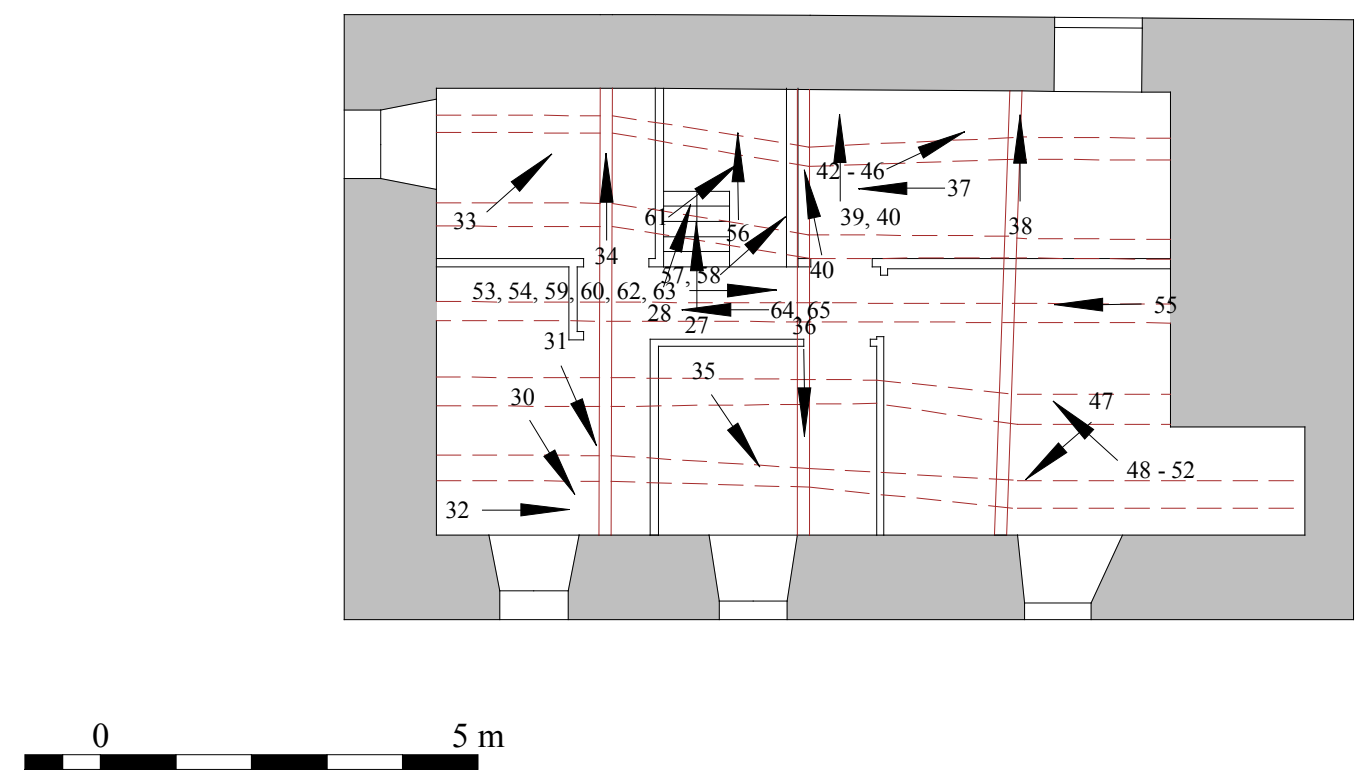
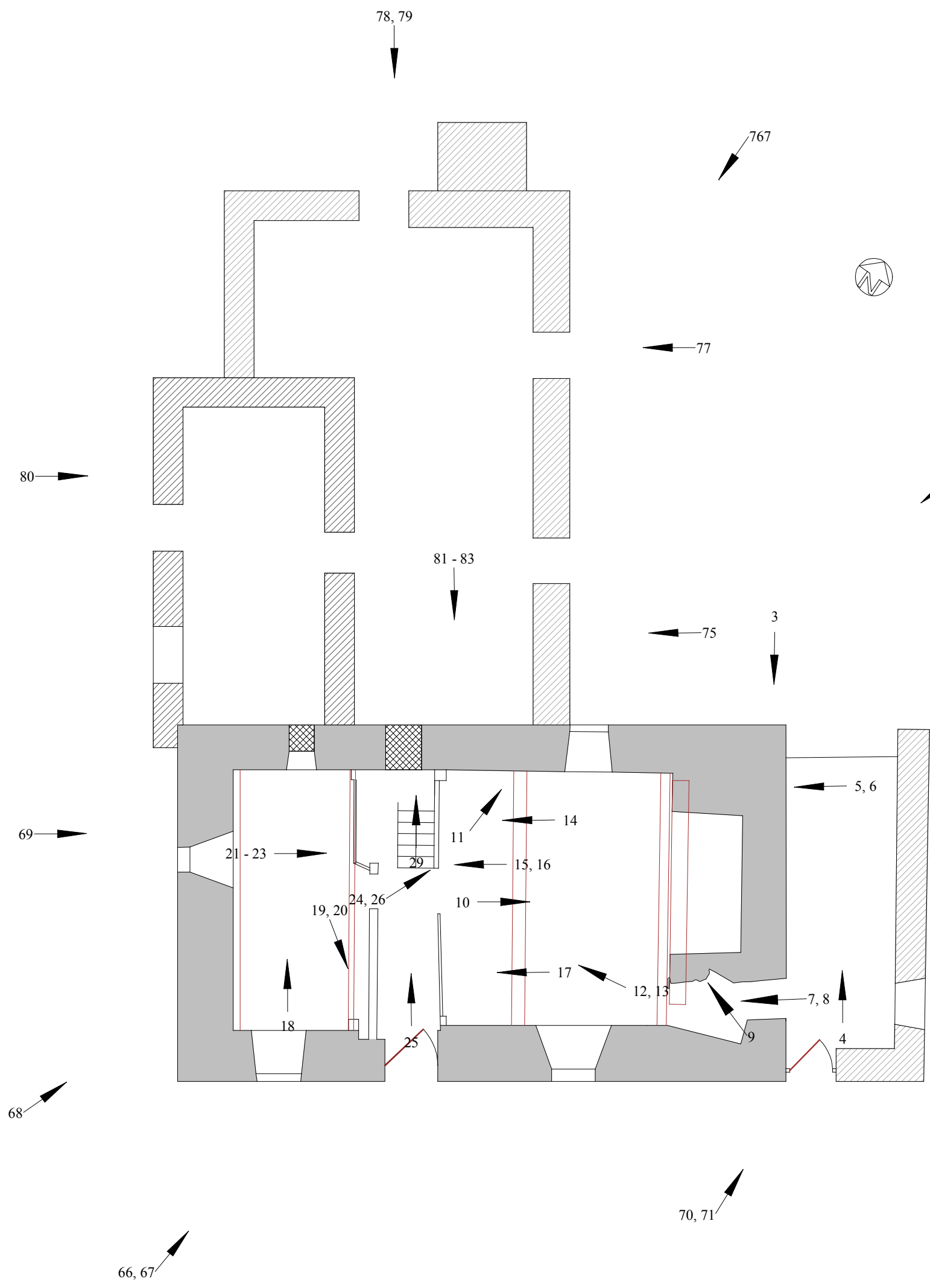


Figure 8: Location of the Photographs in the Archive
Scale 1:100