

# **North West Wales Dendrochronology Project Plas Tirion Old House, Llanwrst, Conwy**



**EAS Client Report 2012/03  
June 2012**

**Engineering Archaeological Services Ltd  
Unit 2 Glanypwll Workshops  
Ffordd Tanygrisiau  
Blaenau Ffestiniog  
Gwynedd  
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**Registered in England N° 286978**

# **North West Wales Dendrochronology Project Plas Tirion Old House, Llanwrst, Conwy**

**EAS Client Report 2012/03**

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

**June 2012**

**By  
I.P. Brooks**

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# **North West Wales Dendrochronology Project**

## **Plas Tirion Old House**

**SH 81043 59121**

### ***Introduction***

This report details the recording of the old house at Plas Tirion, Llanwrst, Conwy, 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 13<sup>th</sup> June 2012.

### ***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***

The old house lies approximately 30 m south of the Grade II\* listed house of Plas Tirion, Llanwrst, Conwy. Both building are approximately 2.8 km SSE of the centre of Llanwrst. Although the main house is listed, the old house escaped notice until recently. It is aligned approximately east – west, at right angles to the hill slope into which it was probably partly cut. It is now somewhat buried in vegetation and obscured by later agricultural buildings (Plates 1 – 5)

Externally the building, where exposed, is constructed of random stonework, with a slate roof. The roof clearly has three phases of repair with the eastern end being in a poor state of repair with small thick slates. The middle section has purple slates and the western end grey slates (Plates 4 and 5). There appear to be a ceramic ridge tile over most, if not all of the roof. The building would appear to have been truncated, originally having extended further east as there are small stub walls at this end of the building (Plate 6) and the eastern gable wall is clearly inserted and contains modern concrete blocks in its upper section. There is also a truss (Truss 2, Figure 6) partly exposed in this gable wall. There is a single window in the western gable wall which has a twelve pane widow over an inward tilting vent. There is a slate lintel over this opening which would appear to be a later feature. Similar later window openings occur towards the eastern end of the building in both the north and south walls. Both of these windows are in earlier, larger, openings which have been partly blocked. The window in the north eastern corner has been placed in a previous doorway which has been partly blocked with concrete blocks (Plate 7). The window, itself is a six pane wooden

window with a wooden lintel. The window in the southern wall now contains a metal mesh, having lost its window furniture. It partially fills an earlier opening which has two phases of infill. The original opening was at least 1.12 m wide with long and short quoins on the western side and a stone lintel (Plates 8 and 9).

The building would appear to have originally been an open hall; however it is now divided into two rooms with no internal access between the rooms. The, larger, western room (Plates 10, 11) has a door in its southwest corner, a window in the western gable wall and a blocked opening, probably a window, opposite the doorway (Plate 12). There is also a possible wooden lintel in the eastern end of the southern wall, above an area where the wall is distinctly uneven (Plate 13). The western end of the room has a platform at about 2.35 m above the current floor level. This is supported by five beams, one of which serves as a tie beam for the truss at this end of the building. Whilst the majority of these beams are squared timbers, Beam 2 (Figure 4) is of round wood and is probably a later replacement (Plate 14). The platform, itself, is constructed of wooden staves and planks (Plate 15) with a lime plaster surface (Plate 16). Beam 4 (Figure 7, Plate 17) has a series of slots and holes cut into its lower surface suggesting the presence of a partition (Figure 7). The position of the mortice slots would suggest that there were two possible doorways, one centrally placed and one at the southern end, partition. The platform would appear to be associated with a phase which was at least partly a timbered building. There is a wooden rail encased in the northern wall (Plate 18) which is clearly hafted into the rest of the structure of the platform (Plate 19). This rail also shows evidence of missing posts with empty peg holes and mortice slots. It is possible that the platform was extended over the whole of the western room at some stage. The remains of three lateral beams survive together with the socket of a fourth beam (Plate 20). The southern beam also has the half mortice joints for cross timbers (Plate 21) suggesting that this eastern end was floored at some point.

The truss at this end of the building (Figure 5) is distinctive. It is a “cruck” truss with a high collar (Alcock Type A, (1981, 96, fig 49)), however each of the blades has been made from a separate timber giving a lack of symmetry to the truss (Plates 22, 23, 25, 26)). The blades of the truss can be traced into the stone walls of this end of the building (Plate 24) and are heavily smoke blackened suggesting the original building was an open hall. The purlins on the northern side of the building would appear to relate to the cruck truss, whilst those on the southern side have been moved or replaced with the addition of an extra timber running from halfway down the principal rafter to the wall plate (Plate 26). The lower northern purlin is trenched, whilst the upper purlin is held in place by a wooden peg driven into the upper surface of the principal rafter. This upper purlin is either warped, or a bent timber, with a downward bend, at its western end (Plate 27). The lower purlin may be a replacement as there is the stub of a second purlin in the western gable wall (Plate 27).

The smaller eastern room has an entrance in the south eastern corner, with a partially blocked opening in the opposite wall (Plate 7). There is also a partially

blocked opening adjacent to the doorway (Plates 8 and 9). The room, however, is dominated by a large fire place in the north western corner of the room (Plate 28). There is a wooden bressumer over the hearth and a blocked opening, high on the southern side of the chimney breast (Plate 29) of an unknown function. Both the wall containing the fireplace and the eastern gable walls are later insertions (Plate 30). Indeed the eastern gable wall would appear to have at least two phases of blocking with a lower stone wall and the use of concrete blocks to fill the space formed by Truss 2. This truss (Figure 6, Plate 31) was difficult to record as it was obscured by vegetation growing through the roof. It has, however, a high collar and raking queen posts. There is also some evidence that there was a wooden partition below this truss at some point as there are two mortice slots and peg holes in the collar.

### ***Dendrochronology Sampling***

A limited number of samples were taken, by Oxford Dendrochronology Laboratory. These sampled Truss 1, the purlins on the northern side of the building and the beams supporting the platform.

### ***Conclusions***

The old house at Plas Tirion clearly has a long and complex history. It is likely that it started life as an open hall with crude cruck trusses formed with squared timbers. The dendrochronological study would suggest that this phase dates from 1498 AD (Dunn *pers comm.*). Assuming the current building preserves part of the original footprint it was possibly a four bay hall extending further to the east than the current building and was aligned at right angles to the hillside. At this stage it is likely that the building was of timber, possibly with stone plinth. The addition of the platform would also appear to have been a timber framed phase dating from 1545/6 (Dunn *pers comm.*). The replacement of the wall with stonework occurred at a later date than the insertion of the platform. At this stage it is likely that the building was still, essentially a single hall.

The building was then divided with the insertion of the fireplace. At this phase it is likely that the function of different ends of the structure was separated as there is no access between the two ends of the building. One possibility is that the division and construction of the fireplace is related to the construction of the first phase of Plas Tirion itself in 1565 (Dunn *pers comm*) when this building may have served as an external kitchen. At what point the old house becomes redundant, for even a minor domestic role, is uncertain, however at some point the building becomes truncated, probably to allow the construction of a drive to the “new” house and probably Truss 2 replaced any previous structure. At this point it is likely that the building was totally given over to agricultural uses, serving in its later phases as a cowhouse. There is a complex sequence of opening (both windows and doors) which it is not easy to place in a coherent sequence. The current openings relate to relatively modern use of the buildings, but all of the windows appear to be in earlier openings. Of particular note is the

window in the southern wall which is in a blocked door with long and short quoins along the western side of the opening.

This use of the building for agriculture continues until the mid-twentieth century with some maintenance, including the re-roofing parts of the building and the blocking of the space below Truss 2

### ***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.

### **References**

Alcock, N.W 1981. *Cruck construction. An introduction and catalogue*. CBA Research Report 42





Plate 1: Old house looking east



Plate 2: Old house looking south





Plate 3: Old house looking NNW



Plate 4: Old house looking NW showing, later, attached, agricultural buildings





Plate 5: Old house looking NE showing, later, attached agricultural buildings



Plate 6: Stub wall on north eastern end of building





Plate 7: Window in north eastern corner of the building.



Plate 8: Window in blocked opening in the south eastern end of the building





Plate 9: Detail of blocking in south eastern section of the building



Plate 10: Western room looking west



Plate 11: Western room looking east



Plate 12: Blocked opening in western room, looking north





Plate 13: Possible blocking in the south east corner of the western room



Plate 14: Beams supporting the platform, Beam 2 in the foreground



Plate 15: Structure of the platform from below



Plate 16: Plaster surface of the platform





Plate 17: Evidence for the partition below Beam 4



Plate 18: Rail in north wall



Plate 19: Joint between the rail and the platform



Plate 20: Lateral beams and socket for missing support





Plate 21: Joints in top of lateral beam



Plate 22: Truss 1, looking NW



Plate 23: Apex of Truss 1, looking NE



Plate 24: Foot of Truss 1 in southern wall of building





Plate 25: Detail of northern blade of Truss 1



Plate 26: Detail of southern blade of Truss 1



Plate 27: The western end of the northern purlins



Plate 28: Fireplace in the eastern room





Plate 29: Blocked opening on the southern side of the chimney breast



Plate 30: Later eastern gable wall

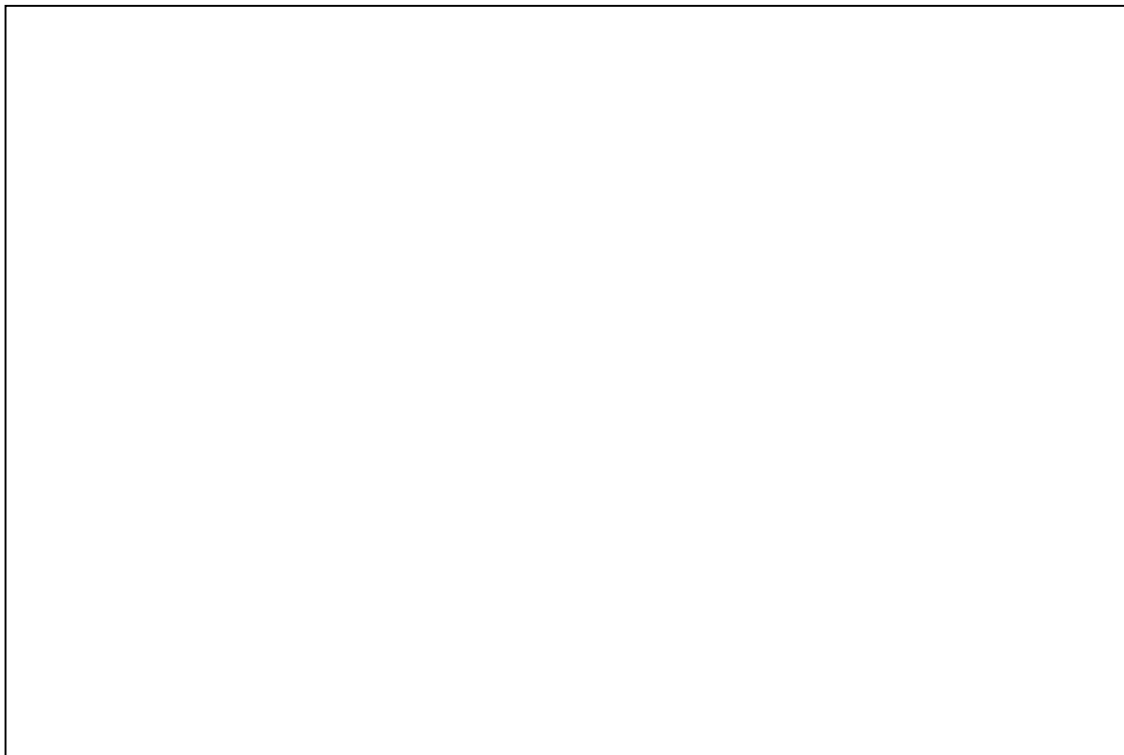


Plate 31: Truss 2, looking east



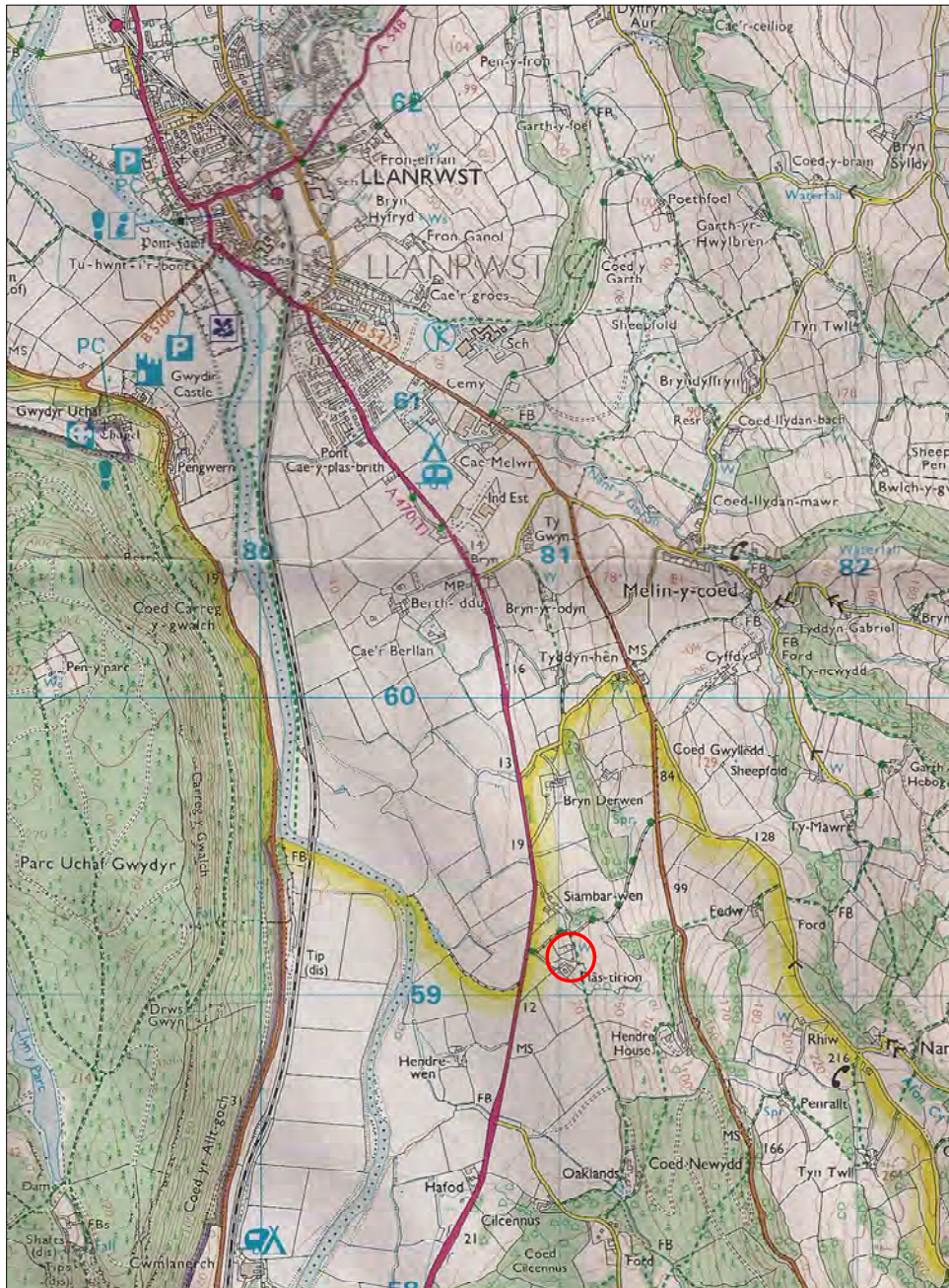


Figure 1: Location  
Scale 1:25,000

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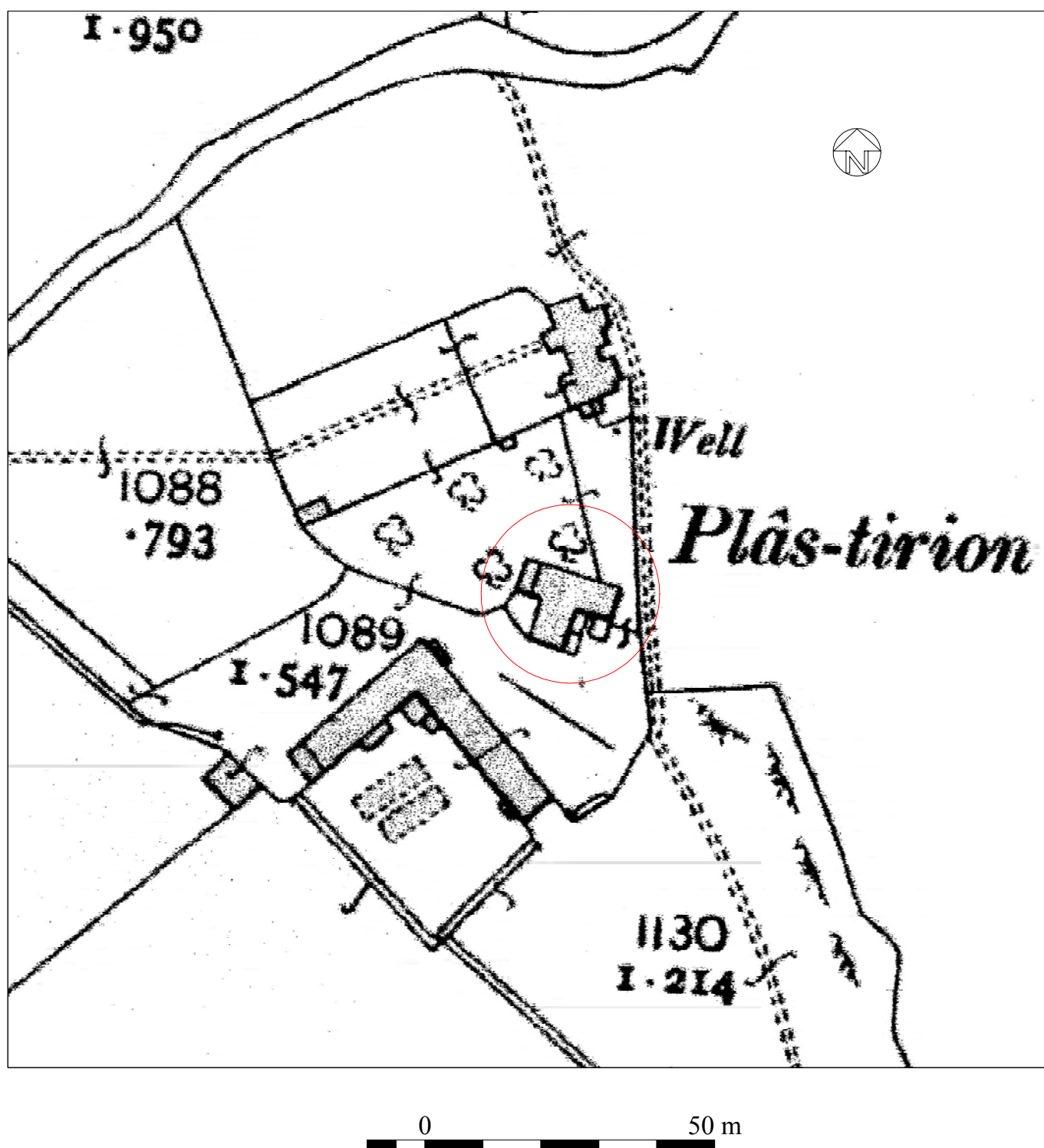


Figure 2: Extract from the Ordnance Survey 1913 Map  
Denbighshire XVI.6  
Re-scaled to 1:1000

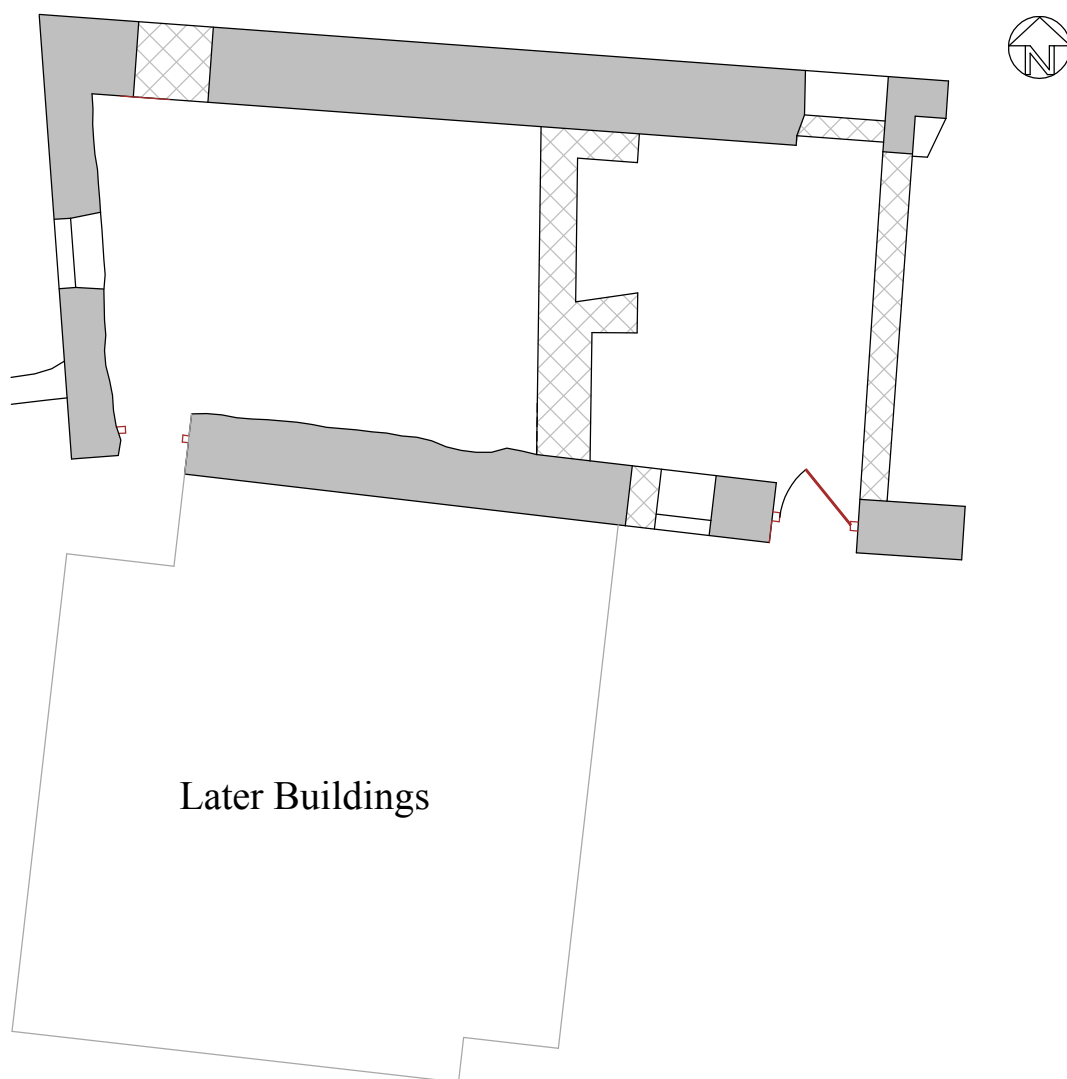


Figure 3: Ground Floor Plan  
Scale 1:100

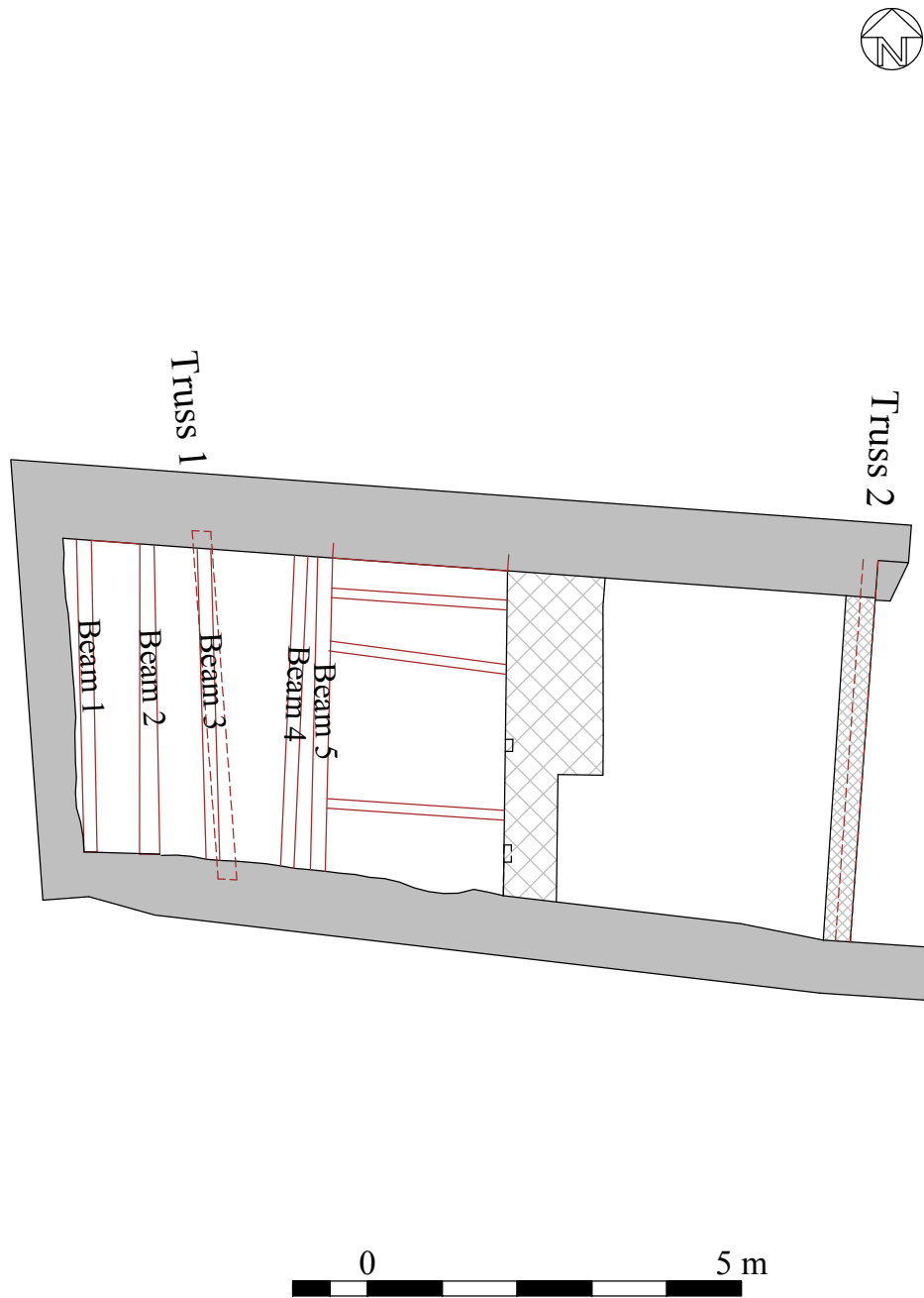


Figure 4: Platform Level Plan  
Scale 1:100

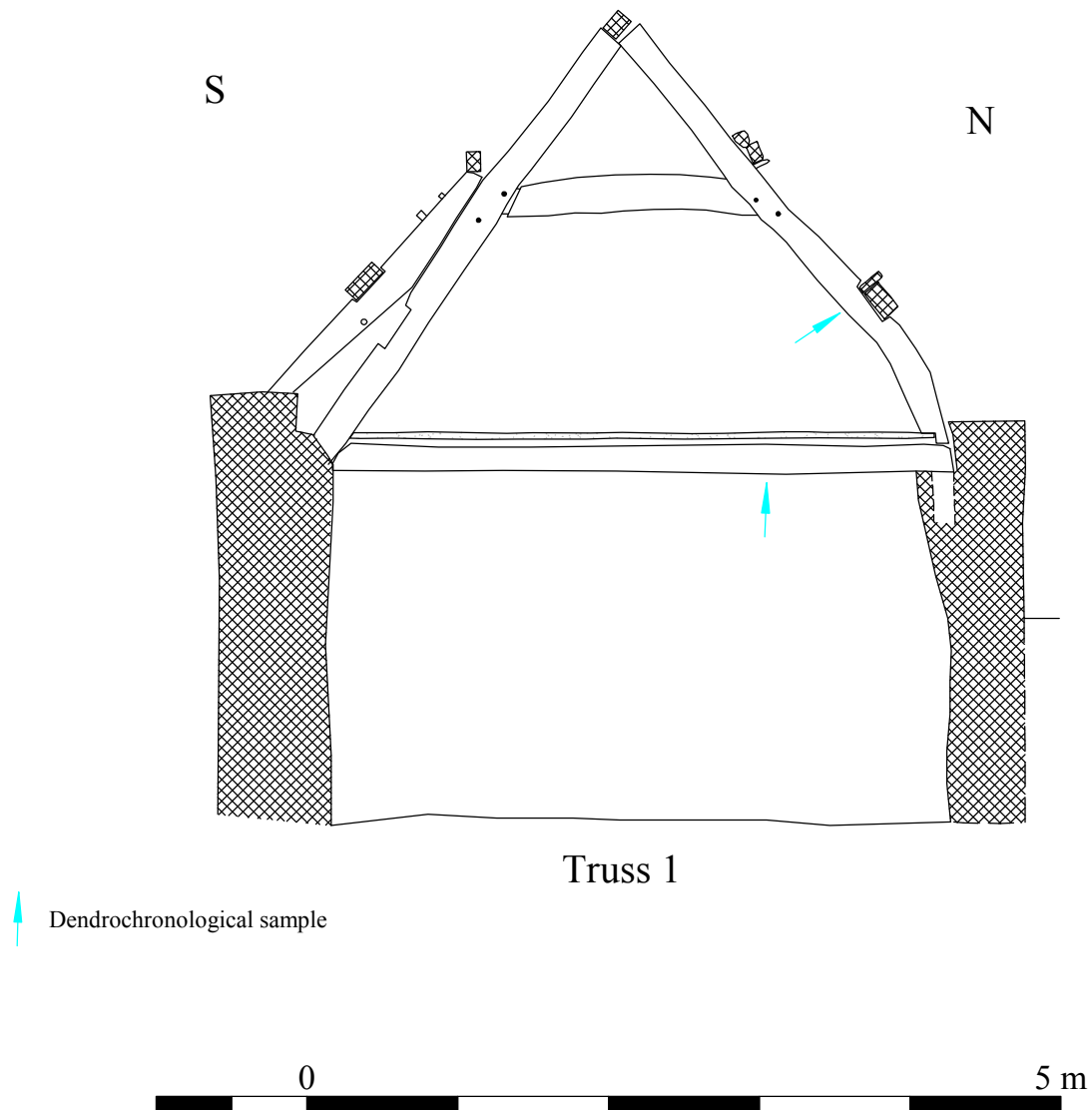


Figure 5: Truss 1  
Scale 1:50

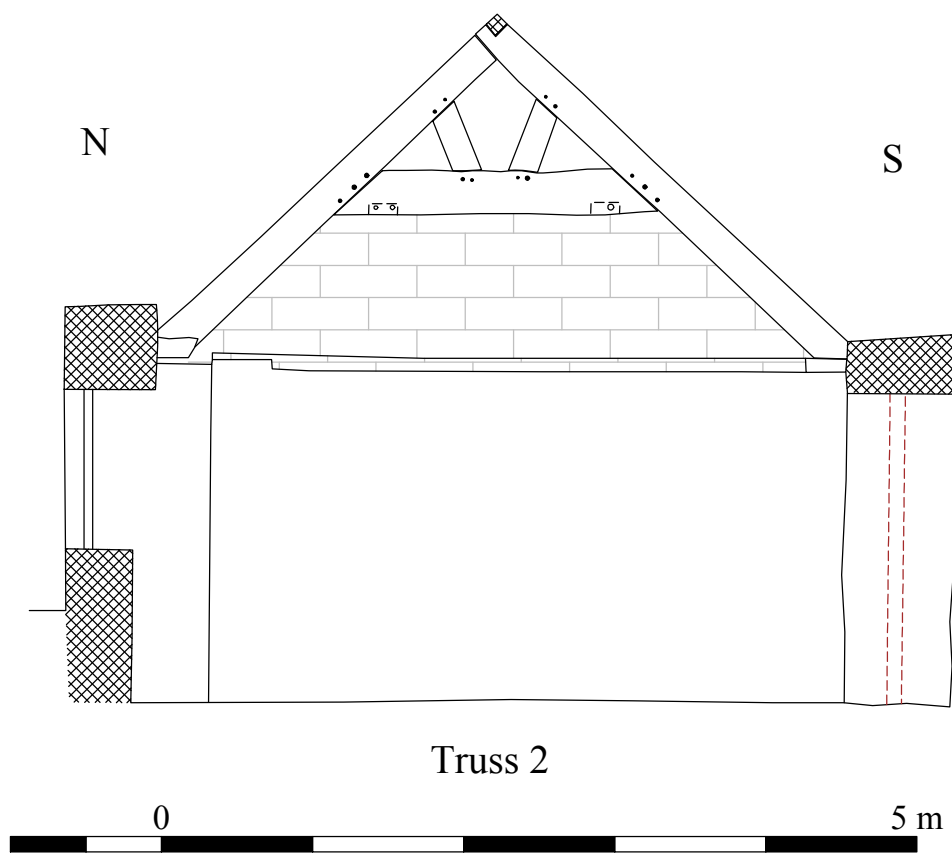


Figure 6: Truss 2  
Scale 1:50

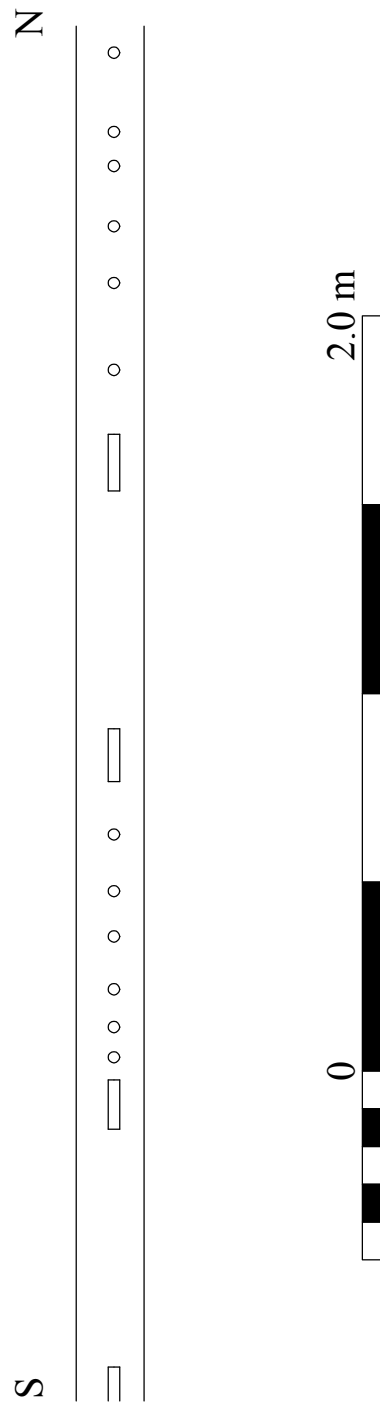


Figure 7: Sockets for Partition below Beam 4  
Scale 1:20



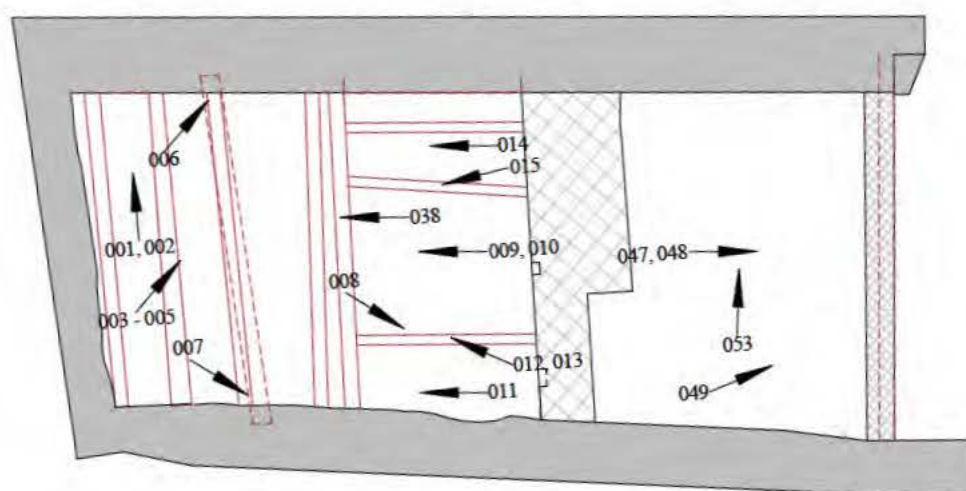
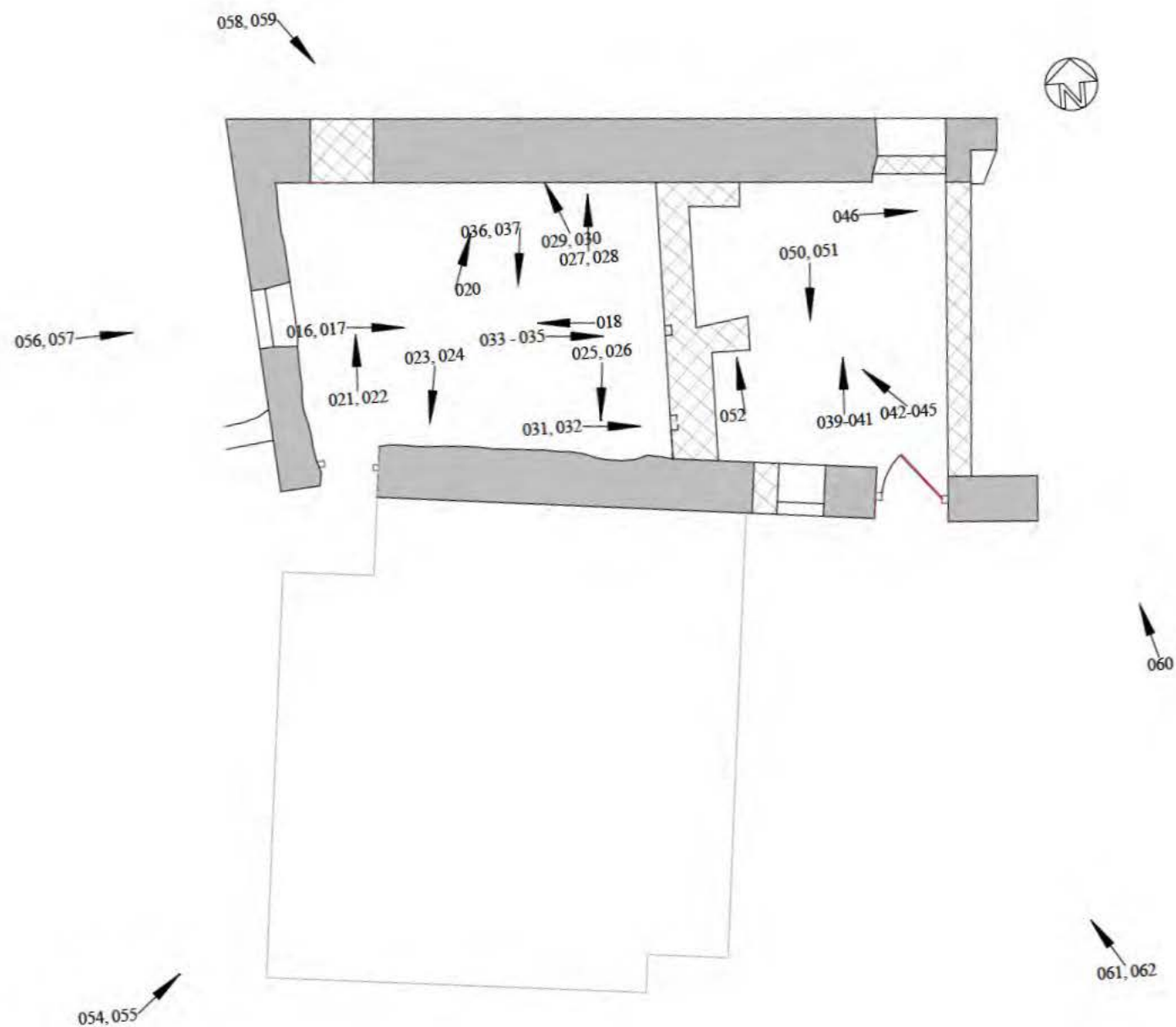


Figure 8: Location of the Photographs  
in the Archive  
Scale 1:100