
North West Wales Dendrochronology Project

Ty Eiddew, Harlech



GAT Project No. 2102

Report No. 829

September, 2009

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Prepared
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Ty Eiddew, Harlech. NGR SH 58203127

Introduction

This report contains the results of a survey undertaken to complement the proposed dating of timbers at Ty Eiddew, Harlech, as part of the North West Wales Dendrochronology project. The survey was undertaken on 28 September, 2009 at the same time as the dendrochronology sampling. Documentary research will be undertaken by volunteers to accompany this survey, and separate reports will be issued describing the results of the documentary survey and of the dendrochronology sampling.

A brief for the survey was provided by North West Wales Dendrochronology Project, and Gwynedd Archaeological Trust provided a design to meet the specification of the brief.

Survey report

Ty Eiddew (in English 'Ivy Cottage') is located on the west side of Penllech, a road running north from the centre of Harlech, and down the steep escarpment. The house lies approximately 80m east of the castle, and adjacent to the former corn water mill. The land slopes sharply down to the north, and the house is aligned north-south, with the south end terraced into the steeply sloping hillside, and the north end built up on a raised foundation. The house fronts on to Penllech, with a small garden separating the house from the road to the east. The rear yard backs on to the mill and land adjoining the mill.

It is now two cottages of one and a half storeys. The external walls, with the exception of the north gable, are rendered. The north gable is of roughly coursed stone rubble, containing a number of squared sandstone blocks, which appear to have been reused from earlier buildings. Two small blocked windows are visible, the lower smaller one is approximately 0.75m square and lies 1m above floor level. The upper one lies approximately 3m above ground floor level and measures just over 1m high and about 1m wide. A foundation wall 1.25m high is of larger stone: the ground floor level of the house is marked by a small off-set of 20cm. There are two end chimneys, and the roof is of relatively modern slate. The front elevation contains two doors on the left of each house, with large, almost square windows to the right. No. 1 to the south has a modern (1950's) catslide double dormer across nearly the whole length of the house, under which are two horizontal windows. No. 2 to the north has a single gabled dormer. At the rear of the house small gabled two-storey wings have been added to the south end of each, and single storey lean-to additions along the remainder of the wall. The original building measures 12.8m long and 7.2m wide, excluding the later extensions at the rear.

Internally there is currently no access between the two houses, and they are in separate ownership. The downstairs and upstairs rooms contain no detail earlier than the 19th century, with the exception of the lower parts of the roof trusses which can be seen partly plastered over in the bedrooms. The upper roof space is accessed through the ceiling by two small trapdoors. The roof runs the full length of both houses, and

was built to serve a single structure. It consists of five smoke blackened collar-beam trusses, forming four bays. The dividing wall between the two houses lies on the north side of the central truss. The internal length of the bays varies between 2.4m and 2.6m, making a total internal length of 10.6m. The internal width is 5.35m.

The collar-beam trusses are all similar in design. The principals (340mm x 120mm) are joined by a pegged mortise and tennon joint at the apex. The collar beam is mortised into the two principals. The upper purlins (240mm x 100mm) run through the principals. Cusped windbraces are mortised into the purlins and principal rafters. These occur either side the three internal trusses, and on the internal side of the two outer trusses. There are no windbraces on the lower purlin, and no evidence for them, though this may be hidden by plaster and paint. The windbraces are curved and have four cusps on the lower side, with the exception of the brace in the south-east corner on truss no. 1, which has been replaced with a straight-sided plank. The majority of the original rafters (110mm x 75mm) survive, though most appear to have been moved during re-roofing. There is evidence to show some were pegged to the purlin, though not all. There are four rafters to each bay, approximately 500mm apart. (note: all measurements given are averaged, and do not take into account variations of width and breadth within the timbers, which can vary by 20mm, with the exception of the depth of the rafters).

The two outer trusses (1 and 5) were built against the gables, and the interior of the truss filled and plastered. The north gable contained remains of a dark yellow limewash within the upper triangle. Of the three internal trusses, no. 3 was partly obscured by the dividing wall, so detail was hidden. The other two, however, each contained a groove around the inside of the triangle formed by the principals and the collar beam. On the north side the truss (no. 4) held a section of oak planking in each corner, and it is assumed this would have originally filled all or part of the upper triangle. The grooves were approximately 30mm deep and wide. The two boards remaining in each corner measured a maximum of 300mm long and 300mm high. The end was chamfered by a long gradual chamfer 50mm long, which narrowed the thickness of the board from some 25mm thick to 12mm thick.

The two collar beams on trusses 2 and 4 also had a groove along the underside, which would have supported partitions below. The grooves were approximately 30mm deep and wide. A groove is also thought to exist on the underside of truss 3, though this was more difficult to confirm.

Dendrochronology sampling

A single sample was taken from the east principal of truss no. 4.

Conclusions

Ty Eiddew was initially a single structure with a four bay roof of five collar-beam trusses with cusped windbraces. The standard of joinery is high, and the timbers carefully selected. The trusses are smoke-blackened, suggesting a domestic origin for the building. The building was originally open to the roof. If the north door is in its original location, this may mark the site of a through-passage (the rear wall has been removed so there is no surviving evidence for the opposing door), with single bay to the north and two-bay hall to the south. The style of the roof is late medieval, dating from the late fifteenth century to early sixteenth century. The north gable preserves

two blocked square windows which may be contemporary with the original building. In the mid-19th century the building was converted into two cottages, when the first floor and upper ceiling were put in, and two gabled dormers added to the front. The south door was added at this time, as were the extensions to the rear. There is very good potential for the recovery of more information both from the upstanding building, particularly if any render or plaster is to be removed, and from buried archaeology.

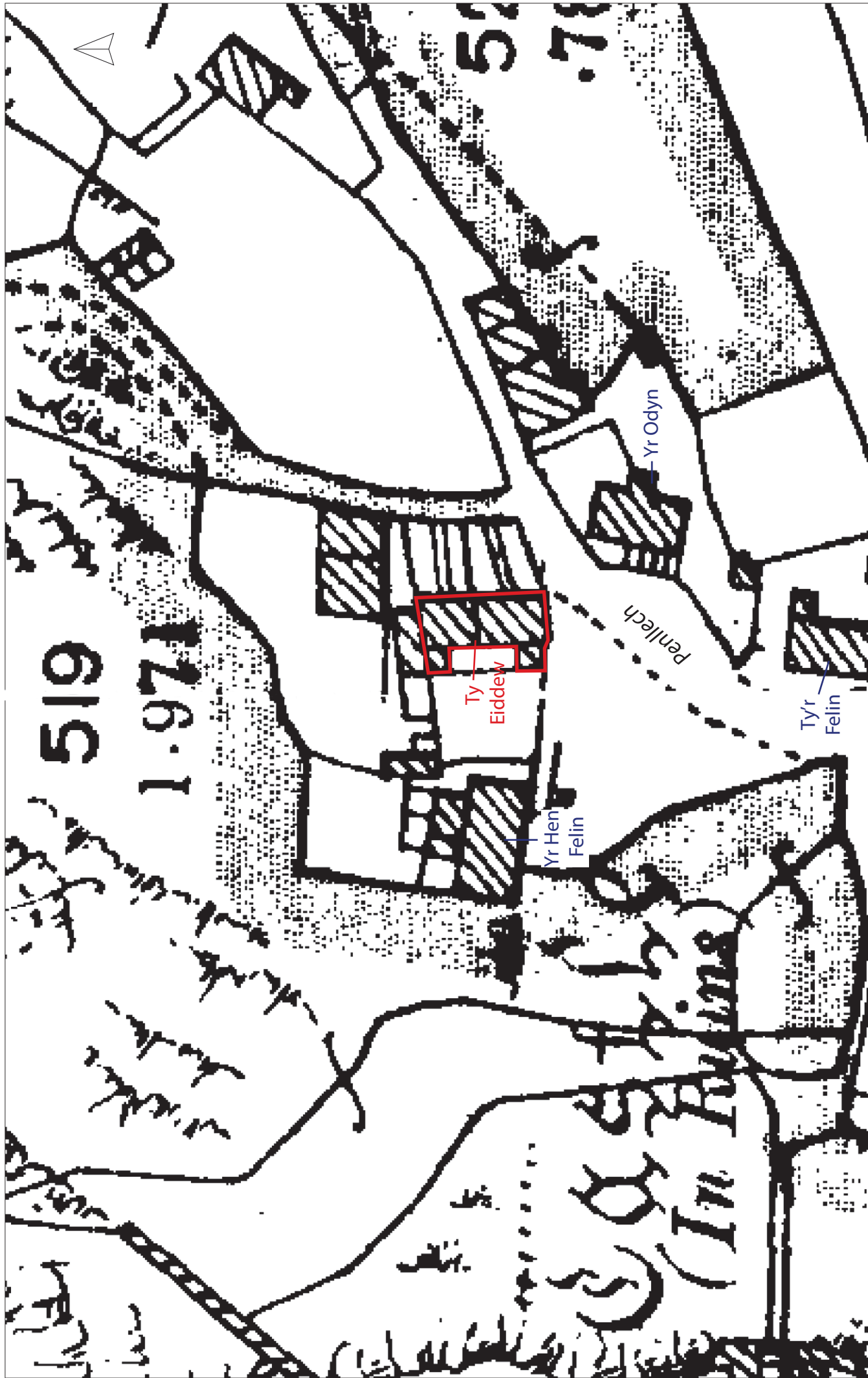


Figure 1. Plan of Ty Eiddew 1901. Ordnance Survey county series, Merioneth. XCl.3. Scale 1:5000

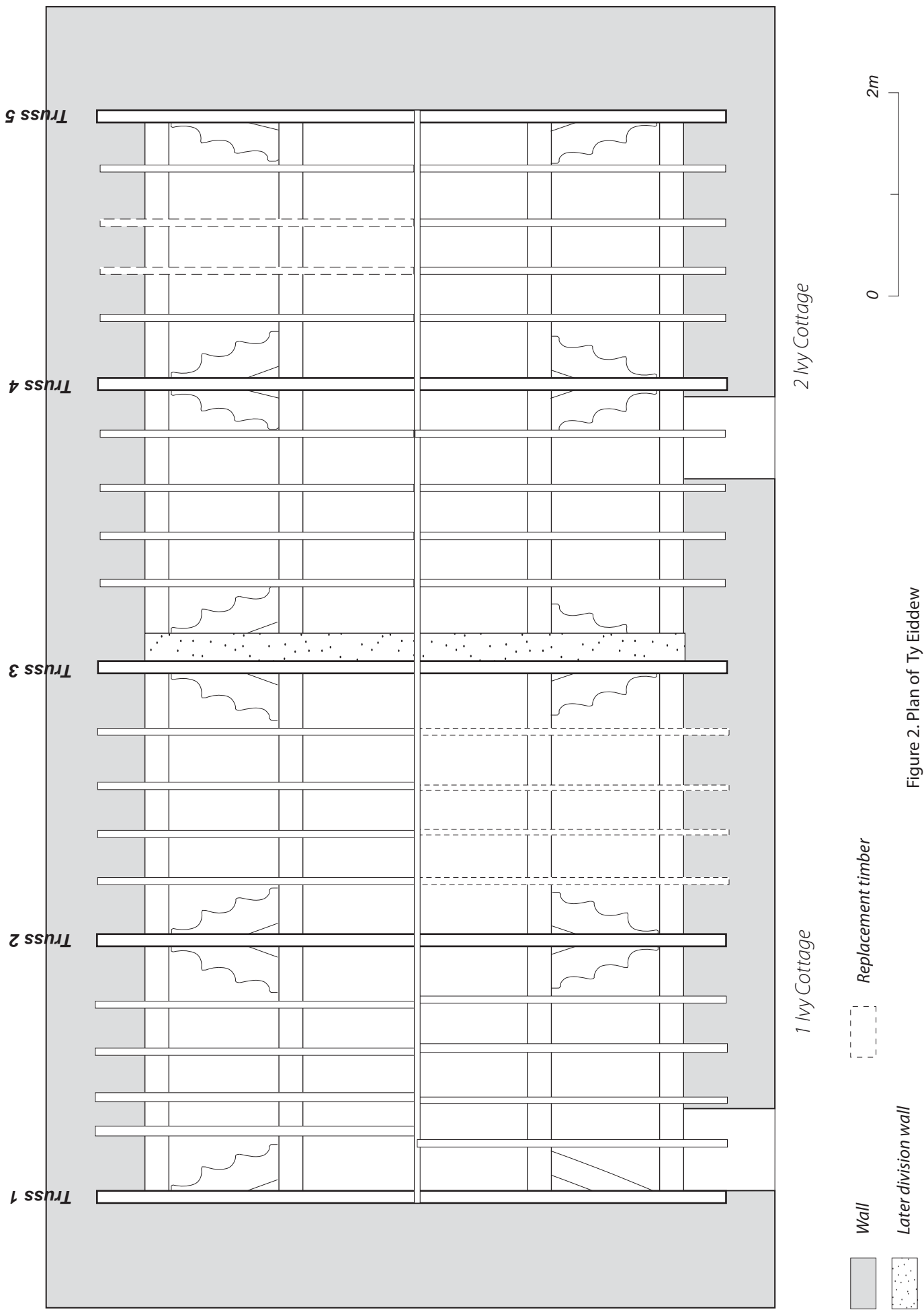
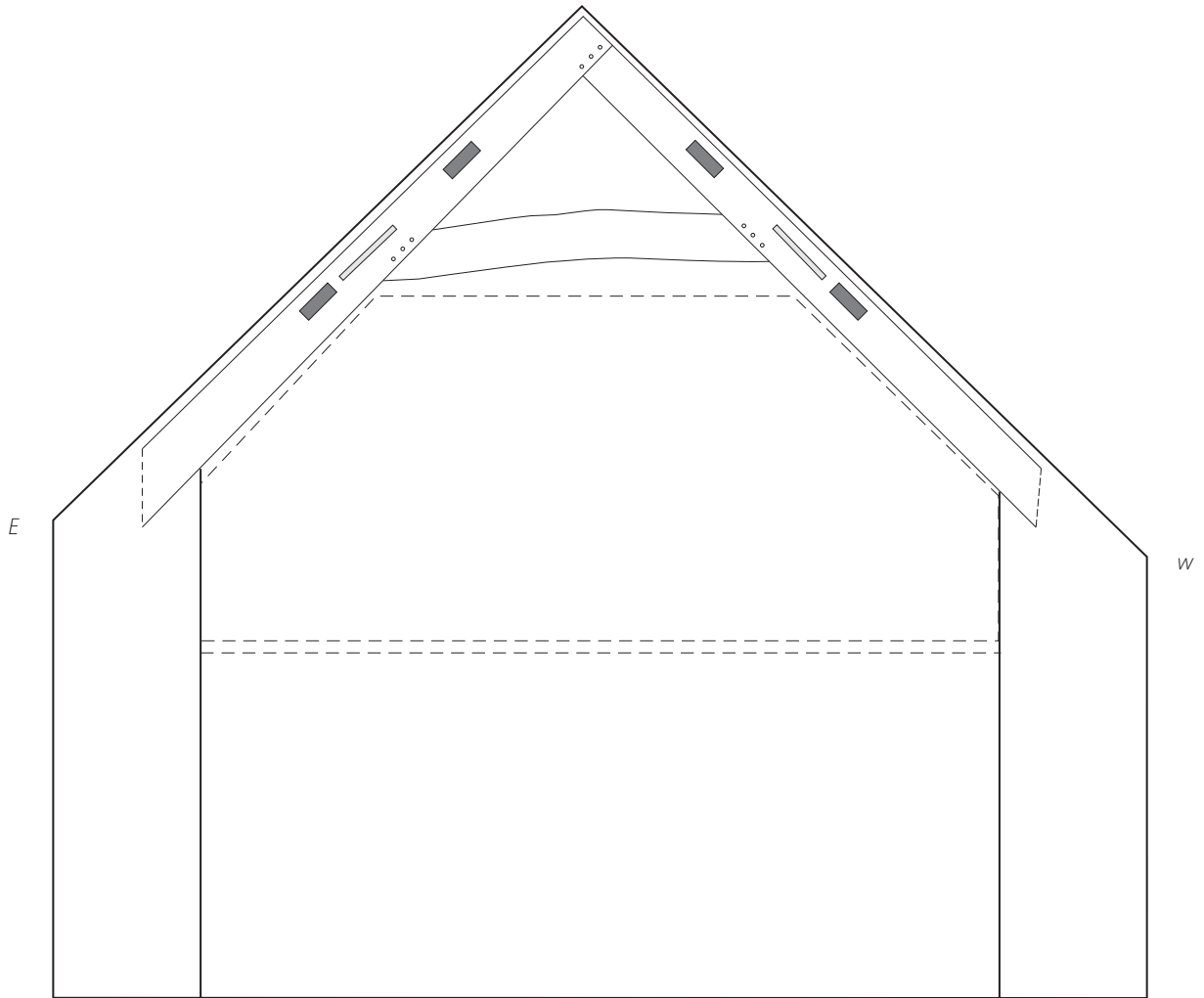




Figure 2. Plan of Ty Eiddew



-  *Purlin*
-  *Wind brace*

0 2m

Figure 3. South facing elevation of north gable

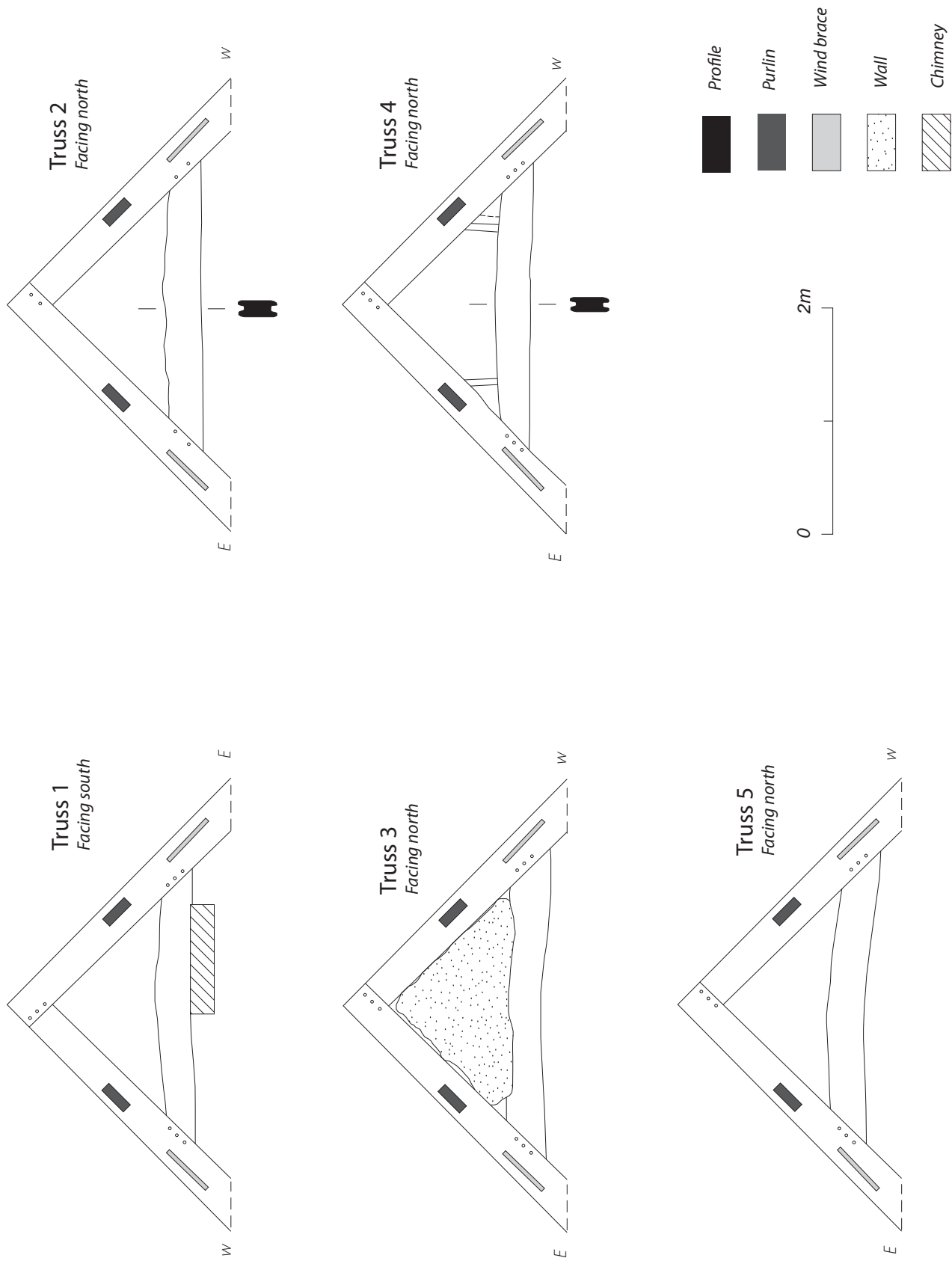


Figure 4. Elevations of the five trusses at Ty Eiddew



Plate 1: West facing image of Ty Eiddew



Plate 1: South-west facing image of north facing gable showing two blocked windows



Plate 3: South facing image of truss 4.



Plate 4: North facing image of truss 2 & 3.



Plate 5: North-west facing image of the wind brace attached to truss 4.



Plate 6: South-west facing image of section of oak planking in truss 4 showing chamfer on the outer edge.



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