

Channel Tunnel Rail Link  
**Union Railways (South) Ltd.**

## **2 BOYS HALL ROAD, WILLESBOROUGH, KENT**

NGR: TR 0258/4112

ARC BOY 99

Environmental Statement Route Window 32



**Oxford Archaeological Unit**

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Channel Tunnel Rail Link  
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# 2 BOYS HALL ROAD, WILLESBOROUGH, KENT

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## 2 BOYS HALL ROAD, WILLESBOROUGH, KENT

### *Summary*

*The Oxford Archaeological Unit (OAU) was commissioned to carry out an archaeological investigation of the footprint and the curtilage of the Grade II Listed building at 2 Boys Hall Road, Willesborough, Kent (NGR TR 0258/4112). The work was undertaken on behalf of Union Railways (South) Limited, as part of the recording of listed buildings in North East Kent, due to be demolished in advance of CTRL construction.*

*Structurally, No. 2 Boys Hall Road was not fully investigated prior to its dismantling, since much of the historic fabric was visible within the building, and its interest was clearly apparent. Consequently there is no detailed information about some aspects of the building's construction, but it was inspected at the time of rebuilding (at Romden Road, Smarden, Kent) where it can still be seen.*

*The building is thought to have been constructed around 1600 and reused some medieval timbers. The plan is of two bays, of interest as an unusual small version of the new post-medieval plan type of lobby-entrance house. It has rubble stone walling in the ground floor and gable ends with clay tile hanging over timber framing in the first floor. There is a modern rendered brick outshot on the north side which conceals an earlier timber framed jetty with original wattle and daub panels. The roof is pitched, clad in clay peg tiles with two hipped dormers.*

*The excavations of the building footprint revealed five development phases of 2 Boys Road. Evidence of early activity (Phase I) is very slight, and the length of time between the demolition or abandonment of the medieval structures and the construction of the cottage (Phase II) is uncertain. The cottage is thought to have been built consecutively in the early to mid-16th century, and at a later phase possibly in the mid-late 16th century (Phase III), encountered further modifications. To the rear of the house an extension or ancillary structure was added in the early modern period (Phase IV), and a fireplace inserted in the late-18th or beginning of the 19th century. In the modern period (Phase V) the house was extended to the north-east and the area around the cottage landscaped.*

*In addition to the main excavations two test trenches were opened to evaluate the archaeological context of the building and to assess whether any archaeological deposits survived. These mainly revealed modern deposits although a second trench also contained features associated with earlier phases.*





## **2 BOYS HALL ROAD, WILLESBOROUGH, KENT**

### **1. INTRODUCTION**

#### **1.1 Background to the Project**

1.1.1 Oxford Archaeological Unit (OAU) was commissioned, on behalf of Union Railways (South) Limited, to undertake a programme of archaeological recording at 2 Boys Hall Road, Willesborough, Kent (NGR TR 0258/4112). This work formed part of the recording of listed buildings in North East Kent, due to be demolished in advance of the construction of the Channel Tunnel Rail Link. This Grade II listed building was a two-storey timber framed cottage considered to be of 16th century origin. It was located on the route of the Channel Tunnel Rail Link in the parish of Willesborough.

##### *Planning Background*

1.1.2 During the passage of the CTRL bill through Parliament, undertaking No. 0340 was given to Ashford Borough Council (ABC) in respect of a number of Listed Buildings. The undertaking allowed for the demolition of 2 Boys Hall Road and required the nominated undertaker to ensure that the house was moved for an appropriate re-use at a suitable location with the co-operation of ABC and Kent County Council (KCC).

1.1.3 The CTRL Act 1996 disappplies the requirement for obtaining Listed Building Consent for the demolition of these buildings, however the nominated undertaker was required to obtain agreement under the Deed of Heritage (Listed Buildings and Conservation Areas) from ABC for the necessary works to the structures.

1.1.4 The recording work forms part of a wide-ranging programme of archaeological recording and excavation work undertaken along the route of the proposed CTRL.

#### **1.2 SITE LOCATION AND TOPOGRAPHY**

1.2.1 The site is located in the parish of Willesborough, east of Ashford, immediately north of the existing Ashford to Folkestone Railway and west of Boys Hall Road next to Crowbridge, at NGR TR 0258/4112, at about 42m OD; it is located on the north edge of Weald clay.

#### **1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

1.3.1 The division of sands and clays in this area is marked by settlement from the prehistoric period, utilising both the lighter soils on the sands above the spring line and the heavier clay beneath.

1.3.2 Evidence of early settlement has been recovered in the Willesborough area. An Iron Age site of unknown extent was found during field excavation by Kent Archaeological Rescue Unit in 1990 immediately south and adjacent to the railway line, south-east of the present area of study. Evaluations carried out for RLE by the Museum of London Archaeological Service to the east of Boys Hall Road found no archaeological features near this part of Boys Hall Road (URL 1997).

- 1.3.3 The medieval village of Willesborough had a dispersed plan of settlement, with its southern end spreading down from the church and Court Lodge, along Boys Hall Lane, round Crowbridge Road and Bentley Road back to the church. This was severed by the building of the South Eastern Railway in 1842, which partially realigned the road pattern.
- 1.3.4 During the course of the CTRL works, a programme of archaeological recording was also undertaken at 4 Boys Hall Road, a Grade II listed building. The building would appear to originate, in the early 19<sup>th</sup> century, as a three cell, in-line single storey brick built structure. The nature of the primary building remains uncertain though the identification of a primary fireplace within the central room would appear to indicate a domestic function. This is perhaps supported by the evidence of a property survey undertaken in advance of the construction of the railway which describes the building as a 'lodge', related to No. 2 Boys Hall Road. In c.1890, the building was extended by the addition of a first floor of timber stud construction clad externally with decorative banded tiles and providing three additional rooms. Additional heating was provided in the central, first floor room and by the construction of a second stack to the southern part of the building with fireplaces at ground and first floor levels. During the 20<sup>th</sup> century, a single storey, pent-roofed bathroom extension was appended to the north elevation.
- 1.3.5 No. 2 Boys Hall Road was perhaps constructed around 1600 and reused some medieval timbers. The plan is of two bays, built around a central chimney stack. It has rubble stone walling in the ground floor and gable ends with clay tile hanging over timber framing in the first floor. There is a modern rendered brick outshot on the north side which conceals an earlier timber framed jetty with original wattle and daub panels. The roof is pitched, clad in clay peg tiles with two hipped dormers.

## **2. METHODOLOGY AND SCOPE OF FIELDWORK**

### **2.1 Scope of fieldwork**

2.1.1 In January 1999, the footprint of the demolished building was excavated as one open area, including a margin around the edge in order to determine the extent of the original building.

2.1.2 In addition, 2 trenches, respectively 11.2m and 12.7m long by 3m wide, were opened along the north and south edges of the curtilage in order to evaluate the archaeological context of the building and to assess whether any other archaeological deposits survive.

### **2.2 Fieldwork Methodology**

2.2.1 After initial planning, the floor materials were removed down to the first significant archaeological horizon. Thereafter all work was done by hand excavation.

2.2.2 All trenches were cleaned by hand and exposed features were investigated to determine their extent and nature, and to retrieve finds and environmental samples.

2.2.3 An overall site plan, showing the trenches location, was produced at 1:50; all subsequent planning was produced at 1:20. Sections were drawn at a scale of 1:20. All features were photographed using colour slide and black and white negative film.. Recording was in accordance with standard OAU procedures as set out in the OAU Field Manual (ed. Wilkinson D, 1992).

2.2.4 Fieldwork was undertaken in accordance with requirements set out in the CTRL *Archaeology Programme Written Scheme of Investigation* and the agreed methodology in the existing Project Method Statement (ref. S/400/SP/0008 p.481 & 483, part 5).

### 3. ARCHITECTURAL DESCRIPTION

#### 3.1 Introduction

3.1.1 No. 2 Boys Hall Road was not fully investigated prior to its dismantling, since much of the historic fabric was visible within the building, and its interest was clearly apparent. Consequently there is no detailed information about some aspects of the building's construction, but it was inspected at the time of rebuilding (at Romden Road, Smarden, Kent) where it can still be seen.

3.1.2 In all the prior investigations, the building appeared to be of two bays, though there was a question as to whether it might have been part of a larger building, though the building fabric and excavated archaeological evidence now show this can not have been the case. This description is based on that in the 1994 OAU Rail Link report, amplified by later observations.

#### 3.2 General Description

3.2.1 No. 2 Boys Hall Road was perhaps constructed around 1600 and reused some medieval timbers (Plate 1). The plan is of two bays, built around a central chimney stack. It has rubble stone walling in the ground floor and gable ends with clay tile hanging over timber framing in the first floor. There is a modern rendered brick outshot on the north side which conceals an earlier timber framed jetty with original wattle and daub panels. The roof is pitched, clad in clay peg tiles with two hipped dormers.

3.2.2 *Interior:* Two-bay plan with central stack and jettied front to north, covered by outshot (Plate 2). The *outshut* now contains kitchen and bathroom, etc. The *framing* of the visible walls, ceiling and jetty is plain and of modest scantling, with short chiselled carpenters' marks. Several instances of redundant peg holes suggests that some of the timber is re-used. The carpenters' marks on the framing include numbers VIII and VI in such a position as to suggest that the present timber frame is complete and does not have a missing bay, as initially was thought possible. The post below the centre of the jetty has a long straight jowl, and the ends of the jetty joists are cut back square as if for a fascia board. There are three original posts between the outshot and the main structure, but if the original front door was in this elevation its position is not obvious (it was probably opposite the chimney stack). The central *chimney stack* is of brick, with a large fireplace (and oven on the south) in the principal *west room*, and a smaller fireplace in the east room (much of the visible brick is old, but some either rebuilt or vigorously cleaned) (Plate 3). The ceiling of the west room has been replaced in the southern half (with a reused wallplate), but the whole appears to be integral with the framing, i.e. the room was not an open hall; the wall plates seem to indicate that the original structure was timber-framed on the ground floor rather than being a first-floor built on a ragstone wall.

3.2.3 A stair, probably modern, rises behind the stack in the eastern room to the *first floor*, which is ceiled above the level of the tie beams, the central tie being truncated for a door. The beams in the main bedroom ceiling are probably not original, and may be a modern fitting of older timbers. The tie in the west wall is a former tie or wallplate, turned through 90 degrees and showing mortices for a window with timber mullions. Other windows were difficult to identify, but after dismantling there was clear evidence (in the diamond-shaped mortices for mullions) of windows in the end walls and the jetty wall. The jettied wall is low, and adequate headroom was only obtained by the ceiling being higher than the tie beam.

- 3.2.4 The chimney stack, although rebuilt on the outside, was all of original brick in the attic and both halves were clearly of one build (Plate 4). The tie beam of the central truss has been severed to provide access to the bedrooms, and no evidence was found for other tie beams.
- 3.2.5 The *roof has* reused rafters of medieval proportions, but the trusses are later. The apparent soot-blackening seemed most likely to be a modern preparation applied to the beams by the former occupant in the 1950s. The central truss has mortices for struts to the tie beam, and a collar beam clasping the side purlins; on other original truss was of similar design. The roof is hipped, with a true hip apex only at the east end, and some evidence for alterations at the west end.
- 3.2.6 *Assessment:* All the components appear to be contemporary, probably of one build, c.1600, with reuse of medieval rafters and other parts from another building. It was a modest two-bay structure, of interest as an unusual small version of the new post-medieval plan type of lobby-entrance house. It has been altered by the removal or alteration of substantial parts of its original fabric, and the addition of an outshot over the jetty has disguised its original form.

## 4. ARCHAEOLOGICAL INVESTIGATIONS

### 4.1 Excavations of the building footprint

#### *Phase I - late medieval occupation?*

- 4.1.1 Evidence of early activity is very slight. Overlying the natural are a few horizons (191, 301, 303) which have produced early to mid 13th century pottery.
- 4.1.2 On the south-west and to the north of the site, two clay deposits have been identified (214, 178), possibly representing early floor levels and containing possible 12th century pottery. Above 214 were two deposits, a burned area (216) and a dump of household debris (310), also possibly associated with pre-cottage occupation as they are stratigraphically earlier than wall 120. They did not however produce any dating evidence. They could be associated with an earlier structure, possibly in timber. If it is presumed that the dump was deposited outside the living quarters whilst the hearth was inside the structure, then it may be that the western extreme of the building was located between the two deposits.
- 4.1.3 Post-hole 254 and two possible wheel ruts (256, 257) cut into the natural may also have been associated with this early phase.
- 4.1.4 There are traces of early walls. On a NW-SE alignment is a one course wall of large limestone blocks (328) and to the north of the cottage are the mortared remains of a ragstone wall aligned east to west, with the external side of the stone faced (329). It is difficult to establish the construction date of these walls as no dating evidence came from the construction cut. They could either be part of an earlier building, demolished by subsequent construction or more likely the foundation of the post-medieval cottage. 328 in particular was on the same alignment that 120.

#### *Phase II - Construction of the cottage, early to mid 16th century*

- 4.1.5 The length of time between the demolition or abandonment of the medieval structures and the cottage being constructed is uncertain.
- 4.1.6 Prior to the construction of the building, the ground was levelled (171, 177, 188, 253, 283, 284, 286, 287, 288, 289) probably in the early 16<sup>th</sup> century. The cottage was built consecutively. Early 16<sup>th</sup> century pottery was found in the construction cut of 187, which has only survived in foundation. Walls 328 and 119 were probably part of this first phase of construction, as well as fireplace 130. The fourth original wall was probably 240, which was used as the lower foundation course of modern wall 107.
- 4.1.7 Associated with wall 240, a plinth (241) was uncovered that may have been for an external chimney or hearth. Both 240 and 241 were set in mortar (249) and constructed directly on top of levelling layer 253 without any foundation trench being cut. A spread of ash (182, 285, 232) located on the other side of the wall (240) may have been associated with this hearth. Perhaps this may have been the location for an outhouse activity or perhaps this is the only remaining evidence to indicate the full width of the original house, assuming that the hearth had been included in the building.
- 4.1.8 A few features could be associated with the works originated by the construction of the house; they produced early 16th century pottery. These include pits 244 and 296 and postholes 278 and 317 in the front room, and posthole 252 in the back room.

### ***Phase III - Modifications, mid to late 16th century?***

- 4.1.9 At a latest phase, the building encountered some modifications. Wall 328 was widened by deposit 330 to enable wall 120 to be constructed over the top, and part of wall 187 was reused as footings for 121. The reason of the modifications of the buildings are unclear, the house possibly needed some repairs and new walls were built, replacing the earlier ones. It is also possible that a new façade was wanted. No dating evidence was found.
- 4.1.10 Abutted against wall 120 was a rectangular footing of ragstone rubble (113) measuring 1m by 1.4m. It would appear that this was constructed at the same time as walls 120 and 121, perhaps as support for an internal staircase.
- 4.1.11 These modifications probably occurred within a short period of time after the building of the house as mid 16th century pottery were found in the backfill of the robber trench for wall 187 (193, 306). This pottery could also be residual, the trench being backfilled with earlier material.
- 4.1.12 The entrance ways have altered over time. The rear door (115) to the modern boiler room dates to the 19<sup>th</sup> century, but it is likely to have replaced an earlier doorway. Doorway 116 was cut through 119 at a later date. It is possible that there originally was an entrance in wall 240, perhaps to where the cupboard was located in the modern house.
- 4.1.13 Few occupation layers or floors were recorded in the front room. The only possible early occupation layers were associated with the fireplace. A layer of ash (332) was found at the bottom of the sequence. It did not contain any dating evidence but it was likely to be associated with primary use. Above this one was a fire pit (327) cut through the hearth floor layer (323). This was then overlain by a mortared hearth (138, 140) upon which a series of layers were deposited (137, 136, 135, 139, 133) before being sealed by the latest base (114) of the fire. This sequence did produce very few dating evidence. One sherd of early 16th century pottery was recovered in deposit 137, but it is possibly residual.
- 4.1.14 The back room revealed a much more complex stratigraphic sequence possibly due to previous occupation or to a more intensive use. Floor levels, dated from the mid 16th century include two cobbled surfaces (211, 228) which might have been one extending in the whole room. Numerous occupation layers (262, 268, 269, 270, 209, 221) were recorded, dated also from the mid 16th century.

### ***Phase IV - Addition to the rear of the house, early modern***

- 4.1.15 An extension or ancillary structure (group 149) was built at the back of the house, abutting wall 120. There were no visible construction cuts for the walls (110, 147, 148), suggesting that the structure was built straight onto the ground surface (203). This structure was found overlying a linear (217) which the fill contained mid 18th century pottery. It is probable that this was a drain, backfilled in order to build structure 149, in which case this extension dated around the middle of the 18th century. The function of that structure remained unclear. There was no evidence of any burning, suggesting that it was unlikely to have been a kind of kiln or oven, nor was there any cuts that might have represented the sump of a toilet. This added room could have just been a storage.
- 4.1.16 In the back room, a fire place (226) was inserted. The foundation cut (322) for this structure was cut through a floor (210) dated from the late 18th century. It is therefore likely that this new fireplace was built in the late 18th or beginning 19th century. The hearth 226 was later replaced by a tiled fireplace (111, 112). A series



of clay floors (157, 162, 156, 158, 159, 164) were recorded overlying the previous floor levels and occupation layers mentioned in phase III, probably in order to repair and re-level the ground. Sometime during the 19th century, the clay floor was replaced by a tiled or flagged floor, bedded on a layer of fine yellow sand (166). It is probable that this was removed during the mid twenty century.

- 4.1.17 In the front room, the floor was raised and laid on foundations (169, 173, 174, 175, 179, 184, 185). Typically these foundations were three or four dark purple red bricks, found in the corners and centre of the room. The mortar used was black and ashy, similar to deposits found on the fireplace brick surround (134) suggesting that the earth was narrowed around the same time as the floor was raised. This new floor was dated from the 19th century.

#### ***Phase V - Extension of the house, modern period***

- 4.1.18 In the area south-east of wall 110, at the rear of the building, the remains of an undated cobbled surface (207) were recorded. These cobbles were heavily truncated by a large pit (206) thought to be a rubbish dump due to the large quantities of limestone and tile that it contained (151). It also produced mid 19th century pottery. Overlying this was a pathway (142), perhaps running from the pathway to the well. The structure 149 was demolished probably around the same period as a mid 19th century deposit, formed by accumulation of yard material, was found overlying walls foundations 147 and 148. Wall 110 was reused as a wall of the boiler house. A concrete floor slab with a tiled surface was then laid inside (109) and paving slabs (128) were placed outside forming part of the patio area of the cottage.
- 4.1.19 A new extension was built to the north-east of the house. Wall 107 was built on top of 240 and walls 105 and 106 completed the new extension, along with some internal partitions. A new main entrance was constructed in the north facing wall.
- 4.1.20 The final phase of the floors, inside the building, was a complete covering in concrete (101, 102, 103, 104). It is likely that they were laid during the later half of the last century.
- 4.1.21 The area around the cottage has also been landscaped. To the north west, the area has been levelled (131, 132, 124) before concrete (117) laid. Similarly to the south of the site, the ground has been levelled (127, 197) and paving (118) laid on a cinder bedding (123). Between the path and the house (wall 121), a planting border (122) has been created, whilst to edge the path from the embankment, a single skin wall (125, 126) has been built.
- 4.1.22 Several modern service trenches have also been identified during the course of the excavation. To the south east, parallel to wall 121, was drain 154 consisting of two linear alignments of bricks capped with a tile in places and sealed with clay. The fill of the drain produced mid 18th century pottery. To the north west of the site (outside wall 119) was a modern soak-away (168), probably associated with a service drain (261). A possible soak away (263), south of the site, was robbed (264) possibly in the 19th century. Another modern drain (150) was located alongside wall (120).

## **4.2 Test trenches**

- 4.2.1 In addition to the excavation of the main building, single trenches were opened in order to evaluate the archaeological context of the building and to assess whether any archaeological deposits survived. Trench 3629TT was located to the north of the cottage and trench 3630TT adjacent to the existing railway track to the south of the site.

### ***Trench 3629TT***

- 4.2.2 This trench measured 11.2m by 3m. All deposits identified were of late modern date.

500	Overlying 501 - Topsoil
501	Overlying 502 - Modern deposit of washed gravel
502	Overlying 503 - Modern spread of demolition rubble, possibly associated with the construction of the bridge embankment
503	Overlying 504 - Brown silty clay subsoil
504	Natural clay

### ***Trench 3630TT***

- 4.2.3 This trench measured 12.7m by 3m. Most of the deposits were of modern date. However, one feature and a few deposits were possibly associated with earlier phases.
- 4.2.4 Overlying the natural, were two layers of ploughsoil (613, 614), both contained 13th century pottery and could be associated with the late medieval occupation identified during the excavation of the building. Bedded upon 614 was a stone surface possibly associated with early occupation of the cottage and with the stone well structure (618) recorded within the same trench. Neither the surface or the well did produce any dating evidence. A brick capping (617) was later constructed for the well.

600	Overlying 601 - Concrete paving slabs forming patio area
601	Overlying 602, 608 - Sand bedding layer for paving 600
602	Overlying 610, 611, 616 - Topsoil
603	Overlying 618 - Topsoil
604	Cut 603, 610 - Cut for modern drain
605	Fill of modern drain 604
606	Cut 602, 611 - Cut for construction of modern patio wall
607	Brick patio wall on rough cement/hardcore foundation
608	Backfill of construction cut for wall 607
609	Cut 618, filled by 617, 610 - Cut for capping of well structure
610	Backfill of cut 609
611	Overlying 612, 613 - Clay surface, possible front yard of building
612	Overlying 614 - Brown clay, possibly remnant of ridge/furrow
613	Overlying 614 - Silty clay, probably old ploughsoil
614	Overlying 615 - Silty clay, probably old ploughsoil
615	Natural clay
616	Overlying 614 - Stone surface
617	Brick /cement capping to older stone lined well
618	Stone lined well

## **5. CONCLUSIONS**

- 5.1.1 This minor building, listed as being of 18th-century date, was obviously much older when inspected, though its original size was uncertain. The fact that it was indeed a two-bay jettied building with a central brick stack makes it of interest as a smaller example of what would often be a three-bay plan. The re-use of materials within the frame also made its date uncertain, though this became more clear with the archaeological investigation, and the presence of early/mid 16th-century pottery.
- 5.1.2 It was noted that no occupation layers or any deposits containing late post-medieval pottery were found when numerous deposits were dated from the early to mid 16th century and then from the 18th century onwards. Presumably, early to mid 16th century deposits were associated with the original construction of the house or its primary occupation. The absence of deposits dated between the mid 16th century and the early 18th century is possibly due to truncation at latest phases. It could also mean that the early floors built during phase I of the building remained in use for a long period of time, until a new extension was needed.
- 5.1.3 It is instructive that a building that was occupied, used, and modernised, seems to have limited archaeological potential for reconstructing the continuous story of its habitation.

## **6. BIBLIOGRAPHY**

URS 1997. Boys Hall Road, ARC BHR97: an archaeological evaluation, prepared by MOLAS for URL

## APPENDIX 1 COPY OF DoE LIST ENTRIES

5344 BOYS HALL ROAD

(North Side)

Willesborough

No 2

TR 04 SW 3/157

II

2.

C18. 2 storeys. Ground floor stuccoed. 1st floor tile hung. Steeply pitched tiled roof with 2 hipped dormers. Casement windows.

Listing NGR: TR0290641336

## APPENDIX 2 CERAMICS

### 2.1 Post-Roman pottery

*by Paul Blinkhorn*

#### *Introduction*

- 2.1.1 The pottery assemblage comprised 879 sherds with a total weight of 13,886 g. The majority of the pottery was of late medieval or earlier PMieval date, although small quantities of earlier medieval wares were also present, indicating that there was virtually continuous occupation at the site from the 13<sup>th</sup> century until the present day. All the wares are well-known in the area, although the presence of a near-complete Anglo-Netherlandish Tin-Glazed Albarello is worthy of note, as such vessels are by no means common at rural sites in the region.

#### *Methodology*

- 2.1.2 All sherds were processed within the guidelines of the CTRL Section 1 Archaeology Post-Excavation Assessment Instruction: Rev AB, and the Medieval Pottery Research Group Guidelines for the Analysis and Publication of Medieval Pottery were adhered to. Where necessary, sherds were examined under a 20x binocular microscope to aid fabric identification.

#### *Quantification and Provenance*

- 2.1.3 The pottery was recorded using the codes and chronologies of the Canterbury Archaeological Trust Fabric series for the county of Kent (Cotter forthcoming a) and b)), with the following types noted:

EM3A: E Kent shelly-sandy ware 1075/1100-1200/25. 7 sherds, 126 g.

M1: Tyler Hill sandy ware, 1225-1350. 6 sherds, 239 g.

M5: London-type ware, 1140-1375. 7 sherds, 146 g.

M40B: Ashford/Wealden sandy ware, ?1200/25 – 1400. 47 sherds, 636 g.

LM1: Tyler Hill sandy ware, 1375-1523. 35 sherds, 720 g.

LM5G: Surrey fine white “Tudor Green”, 1425/50-1550. 1 sherd, 6 g.

PM1: Red earthenware, 1550-1800. 187 sherds, 4665 g.

PM5: Frechen Stoneware, 1525-1750. 12 sherds, 256 g.

PM7.9: Anglo-Netherlands Tin-Glazed Earthenware, 1550/75-1625/50. 1 sherd, 345 g.

PM10.1: Border ware, 1550-1700. 2 sherds, 56 g.

PM21: Staffs slip-trailed earthenware, 1700-1900. 2 sherds, 26 g.

PM26: Staffs white salt-glazed stoneware, 1725-1780. 10 sherds, 31 g.

PM43: Creamware, 1740-1780. 106 sherds, 514 g.

PM57: Cistercian ware, 1475-1600. 2 sherds, 10 g.

PM64: Calcareous ‘Peppered’ smooth ware, 1525-1725. 329 sherds, 4863 g.

LPM1: Late Iron-Glazed earthenwares, 1775+. 11 sherds, 379 g.

LPM5: Yellow ware, 1825/50-1900. 11 sherds, 53 g.

LPM7: English Porcelain, 1740+. 9 sherds, 41 g.

LPM10: Modern English Stoneware, 1800-1940. 12 sherds, 377 g.

LPM12: Pearlware, 1780-1825. 8 sherds, 41 g.

LPM14: Staffs. "Ironstone"-type earthenware, 1825-75. 69 sherds, 314 g.

LPM23: Notts/Derby Stoneware, 1775-1925. 1 sherd, 11 g.

- 2.1.4 In addition, 4 sherds (81 g) of residual late Iron Age pottery was also noted. The pottery occurrence by number and weight of sherds per context is shown in Table 2.1.

*Potential for further work*

- 2.1.5 This assemblage comprises mainly late- or PMieval wares which are all well known in the region. However, there are also medieval wares present, and it is possible that the pre-building stage of the cottage may be medieval in date, although the presence of Iron Age pottery and features means that they may date to the prehistoric features. Very little further work is required, although some illustrations will be necessary. Certainly, the fact that an Anglo-Netherlandish Albarello was present at this site is worthy of wider dissemination, for while these vessels are by no means unknown in Kent, they are not common in the rural context.

*Bibliography*

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## 2.2 Ceramic building materials and fired clay

*By Susan Pringle*

### *Summary*

- 2.2.1 A quantity of ceramic building material was recovered from the excavations, all of which has been examined for this assessment. The total weight, including 0.9 kilogrammes of stone and 0.150 of fired clay, is 50.046 kilogrammes; small quantities of slate, mortar, concrete and pitch have also been examined. All the datable material is from the PMieval period, although some medieval roof tile may be present.

### *Introduction*

- 2.2.2 All the ceramic building material, stone, mortar, concrete, pitch and fired clay recovered during the recent excavation works, amounting to 50.046 kilogrammes, was examined for the assessment.

### *Methodology*

- 2.2.3 All of the material has been scanned for the assessment using a binocular microscope. Ceramic building material has been divided by form, and the fragments counted and weighed. The presence of distinctive fabric types has been noted, but no analytical work has been carried out on the fabrics from the site, as this task is more appropriately carried out at the next stage. Other information recorded includes the presence or absence of glaze, unusual markings and any complete dimensions. The data were entered on an Excel database.

### *Quantification*

- 2.2.4 The total weight of ceramic building material scanned for the assessment is 49,646 kilogrammes, of which 0.003 kilogrammes is fired clay.

### Ceramic building material

- 2.2.5 The ceramic building material types represented are brick and roof tile (peg or plain tile, hip and ridge tiles).

#### Roof tiles

- 2.2.6 The majority of the tile fragments examined (582) are of peg tiles, with small quantities of hip and ridge tile; these may be under-represented in the figures, as small pieces cannot easily be differentiated from peg tiles.
- 2.2.7 Most of the roof tile is in the well-fired, light orange, calcareous fabric with cream surfaces similar to that made at the kilns at Nacolts, situated approximately three kilometres north-east of the site. There is some variation in tiles of this fabric type, including a streakier or slightly lumpier texture than usual, and some have medium, well-sorted moulding sand. It is not clear whether these represent production from a different site, or chronological or other variation in the Nacolts product. A second distinctive tile fabric is present, with cream, orange and red clay or siltstone inclusions and cream silty banding in a light orange matrix.
- 2.2.8 No complete tiles were noted; a peg tile in the sanded version of the ?Nacolts fabric has a length of 242mm. All nail-holes are of the square type, set diagonally. No glaze was noted.

## Bricks

- 2.2.9 There is a range of brick types from this site. The majority are in orange or red sandy fabrics, unfrosted and with the indented margins typically seen in bricks made before c AD 1700. Several are overfired or have vitrified surfaces (contexts 209, 210, 240, 255, 268). Two may have been shaped by cutting; one has what appears to be a sawn chamfer along a stretcher edge (context 210), the other has what may be saw or chisel marks on the top surface. This shaping is typical of late 15th and 16th century brickwork, when bricks were used for decorative details such as architraves, cornices and chimneys.
- 2.2.10 Bricks of later date are present in cleaning spit (152), trench 3629TT, and the service trench. Fragments of brick with red, slightly sandy fabric and sharp arrises, one of which is worn, possibly rubbed, occur in 3629TT; these are probably of 18th or 19th century date. A flat brick, used for flooring, in Museum of London fabric 3047 occurs in cleaning spit 152; this is probably 18th century. Two large bricks (? x 115 x 74mm and ? x 102 x 72mm) in an orange fabric with abundant fine sand occur in service trench 154; with sharp arrises, they probably date to the 19th century. Bricks with sharp arrises, 62 and 63mm thick, in orange-red sandy fabric, one of them worn, come from context 115.
- 2.2.11 Heavy wear indicating use as flooring can be seen on bricks from contexts 115, 151, 152, 162, 325,

### Fired clay

- 2.2.12 A single scrap, three grammes in weight, of sandy, light orange, fired clay or daub occurs in context 307.

### Stone

- 2.2.13 A small quantity of roofing slate totalling 0.09 kilogrammes is present (see Table 2.3).

### Mortar, plaster and concrete

- 2.2.14 A fragment of 20th century concrete was noted in context 124, and cleaning spit 152 contained a variety of cement renders. A thin fragment of plaster with fine sand aggregate and hair came from context 265, and a scrap of cream mortar with abundant fine sand from context 151.

### Pitch (?)

- 2.2.15 A lump of black granular material with a black mortar attached and a tarry smell came from context 245; this is probably pitch, but its function is not known.

### *Provenance*

- 2.2.16 Building materials have been retained from all the structural phases, ie Phases I, II, III and X, as well as from service trenches.
- 2.2.17 Phase 1 deposits contain early post-medieval brick in an orange sandy fabric, with an approximate date range of AD 1480–1700, as well as roofing tiles, almost certainly of local manufacture, which cannot be dated with any precision but are likely to be medieval or early post-medieval. This assemblage is consistent with a structure dating to the 16th or 17th centuries. The only unusual item for this date is a fragment of dark grey, micaceous, roofing slate. Although slate from Cornwall and Devon was used occasionally in the south and south-east, particularly in coastal locations, from the 12th century (Jope and Dunning 1954, 209), slate does not come



into general use for roofing until the early 19th century, when the Welsh slate quarries were exploited. The fragment from context 209, however, appears more micaceous than the Welsh slate, and may be residual from medieval usage; slate was used for roofing at Dover and Canterbury in the medieval period (ibid., 211).

- 2.2.18 The material in Phase II deposits is very similar to that from Phase I, except that a new red brick fabric appears in the plinth, context 241.
- 2.2.19 Much of the same material also occurs in deposits of Phase III, although the appearance of two red bricks which may have been shaped (contexts 210, 232) suggests that material may have been brought from another source for reuse in non-structural features. The first worn flooring bricks occur in this phase, in contexts 162 and 325. These bricks are also of early post-medieval type.
- 2.2.20 Nothing exceptional was noted in the extensions and ancillary structures comprising Phase X; the material resembles that from Phases I–III. Some later material was noted in the service trenches, such as the large bricks in fine sandy orange fabric in context 154 (dimensions ? x 115 x 74 and ? x 102 x 72mm), which are probably of 19th date.
- 2.2.21 Trench 3629TT appears to contain some 19th century material, including bricks, roofing slate (of a different type to that from –context 209) and chimney pot. Trench 3630TT has only poorly dated peg tile of medieval or later date.
- 2.2.22 The condition of the material is fairly abraded, but there is no risk to its preservation.

#### *Conservation*

- 2.2.23 It is unlikely that further analysis will be needed on this assemblage and it is therefore suitable for placing in long term storage.
- 2.2.24 There are no special requirements for long term storage, other than the use of robust packaging materials and a dry environment.
- 2.2.25 Retention/discard policy: at this stage all the material should be retained, but it should be possible to discard much of the material in the future, after the site has been fully studied and published. Samples of tile and brick fabrics should, however, be retained.

#### *Comparative material*

- 2.2.26 The tile fabrics found on the site should be compared with the Canterbury Archaeological Trust's tile fabric type series, which could provide information on their sources and date ranges, and comparisons could be carried out with material from other Roman sites in north-east Kent.

#### *Potential for further work*

- 2.2.27 The brick and tile provide evidence for the sources and types of building materials used on or near the site in the post-medieval period.

#### *References*

Jope, E. M., and Dunning, G. C., 1954. The use of blue slate for roofing in Medieval England, *Antiquaries Journal* 34, 209–217

Table 2.1: Pottery occurrence by number and weight (in g) of sherds per context

Context	Count	Wt	Date	Comments
120	3	127	1190-1375	13 <sup>th</sup> C
124	36	283	1525-1900	Mid 19 <sup>th</sup> C
127	18	129	1725-1875	19 <sup>th</sup> C
129	80	353	1550-1875	Mid 19 <sup>th</sup> C?
137	1	23	1525-1725	Early 16 <sup>th</sup> C?
142	8	55	1550-1875	Late 18 <sup>th</sup> C
143	3	32	1725-1940	19 <sup>th</sup> C?
144	3	9	1740-1780	Mid 18 <sup>th</sup> C?
145	4	34	1775-1875	19 <sup>th</sup> C
151	109	2160	1550-1940	Mid 19 <sup>th</sup> C?
152	13	263	1525-1875	19 <sup>th</sup> C
153	2	13	1525-1780	Mid 18 <sup>th</sup> C
157	7	28	1525-1800	Mid 16 <sup>th</sup> C
162	5	166	1525-1800	Mid 16 <sup>th</sup> C
165	1	17	1550-1800	Mid 16 <sup>th</sup> C
167	3	43	1525-1725	Early 16 <sup>th</sup> C?
170	81	967	1525-1875	19 <sup>th</sup> C
171	1	11	1525-1750	Early 16 <sup>th</sup> C?
178	1	16	1075/1100-1200/1225	12 <sup>th</sup> C?
186	1	345	1550/75-1625/50	complete albarello. Late 16 <sup>th</sup> C?
189	6	96	1525-1725	Early 16 <sup>th</sup> C?
190	1	54	1550-1800	Mid 16 <sup>th</sup> C
191	2	20	1200/25-1400	13 <sup>th</sup> C?
192	3	91	1375-1800	Mid 16 <sup>th</sup> C
197	1	9	1225-1350	E-M 13 <sup>th</sup> C
198	26	744	1375-1875	Late 18 <sup>th</sup> C?
199	11	160	1375-1900	Early 18 <sup>th</sup> C
203	3	128	1375-1800	Mid 16 <sup>th</sup> C
204	6	239	1550-1780	Mid 18 <sup>th</sup> C
209	10	195	1525-1800	Mid 16 <sup>th</sup> C
210	12	357	1525-1900	Late 18 <sup>th</sup> C
212	10	113	1550-1875	Mid 19 <sup>th</sup> C
214	1	24	1075/1100-1200/1225	12 <sup>th</sup> C?
219	5	59	1550-1800	Mid 16 <sup>th</sup> C
220	24	532	1200/25-1875	19 <sup>th</sup> C
221	42	793	1200/25-1800	Mid 16 <sup>th</sup> C
228	4	118	1550-1800	Mid 16 <sup>th</sup> C
229	8	17	1740-1780	Mid 18 <sup>th</sup> C
234	32	428	1375-1725	Early 16 <sup>th</sup> C
235	7	43	1375-1725	Early 16 <sup>th</sup> C
240	21	362	1375-1875	19 <sup>th</sup> C?
241	1	8	1525-1725	Early 16 <sup>th</sup> C?
245	8	64	1200/25-1725	Early 16 <sup>th</sup> C
250	8	46	1525-1725	Early 16 <sup>th</sup> C
251	23	466	1525-1725	Early 16 <sup>th</sup> C
253	17	257	1525-1800	Mid 16 <sup>th</sup> C
262	51	1002	1525-1725	Early 16 <sup>th</sup> C
265	3	21	1525-1875	19 <sup>th</sup> C
268	4	167	1375-1750	Early 16 <sup>th</sup> C
269	18	178	1425/50-1725	Early 16 <sup>th</sup> C
270	10	315	1375-1800	Mid 16 <sup>th</sup> C
271	1	14	1525-1725	Early 16 <sup>th</sup> C
273	4	44	1525-1725	Early 16 <sup>th</sup> C
276	3	15	1200/25-1400	13 <sup>th</sup> C?
281	2	23	1525-1725	Mid 16 <sup>th</sup> C
284	3	229	1525-1725	Early 16 <sup>th</sup> C
286	3	26	1525-1725	Early 16 <sup>th</sup> C
287	4	23	1525-1725	Early 16 <sup>th</sup> C

Context	Count	Wt	Date	Comments
290	1	2	1525-1725	Early 16 <sup>th</sup> C
293	9	57	1200/25-1780	Mid 18 <sup>th</sup> C
295	3	45	1200/25-1525	Late 14 <sup>th</sup> C
301	8	151	1190-1400	Early-Mid 13 <sup>th</sup> C
303	7	137	50BC-1400	Early-Mid 13 <sup>th</sup> C - residual Late Iron Age
304	2	25	50BC-1725	Early 16 <sup>th</sup> C - residual Late Iron Age
307	4	33	1200/25-1725	Early 16 <sup>th</sup> C
313	10	130	1200/25-1800	Mid 16 <sup>th</sup> C
314	6	50	1375-1725	Early 16 <sup>th</sup> C
315	4	70	50BC-1525	Late 14 <sup>th</sup> C - residual Late Iron Age
318	6	77	1375-1725	Early 16 <sup>th</sup> C
500	2	5	1770-1875	19 <sup>th</sup> C
501	12	62	1525-1875	Mid 19 <sup>th</sup> C
610	7	76	1525-1875	Mid 19 <sup>th</sup> C
613	16	381	1075/1100-1400	Early-Mid 13 <sup>th</sup> C
614	4	31	1190-1400	13 <sup>th</sup> C
Total	879	13886		

Table 2.2: Counts and weights for each tile type (securely identified material only)

Tile type	Count	Weight
Brick	121	27370
Hip tile	1	165
Peg tile	582	21105
Ridge tile	7	685
Total	711	49325

Table 2.3: Occurrence of roofing slate, by context, count and weight

Description	Context	Count	Weight grammes
Dark grey micaceous roofing slate	209	1	5
Grey roofing slate	501	2	10
Dark purplish-grey	502	1	30
Roof tile fragment; dk grey slate with green mottle	152	1	45
Total		5	90

Table 2.4: Quantification of ceramic building materials by count and weight

Context	Count	Weight (g)	Type	Period	Early date	Late date	Comments
0	6	250	peg	M; PM			Usual sort
0	3	15	tile	?			?forms.
114	1	40	peg	PM			Later type? Thin, orange-red, calc, fine to med moulding sand, small sq n/hole set on diag.
115	4	1015	brick	PM			Orange-red sandy fabric, sharp arrises, 1 worn surface - flooring? 62 and 63mm thick.
120	2	220	peg	M; PM			Incl ?later type.
124	9	260	peg	M; PM			
124	2	5	tile	?			Probably peg flakes.
124	1	100	ridge	M; PM			
124	1	80	brick	PM			Orange silty and sandy, abraded.
124	1	70	concrete	PM	1900	2000	Render - 20th century?
129	8	520	peg	M; PM			Usual type - some overfired
129	1	50	ridge	M; PM			Orange fabric with moldg sand; cream to lt brown surfaces. Part ?stamp on ext surface - ?accidental.
129	1	5	tile	?			Abraded scrap.

Context	Count	Weight (g)	Type	Period	Early date	Late date	Comments
137	1	35	peg	M; PM			
151	4	140	peg	M; PM			Incl redder, ?later fabrics
151	2	5	tile	?			Scraps - 1 may be peg, other v. sandy orange fabric
151	1	5	mortar	?			Scrap of cream mortar with abundant fine sand
151	2	415	ridge	M; PM			2 conjoin; thick-walled (17-18mm); orange fabric, cream-lt brown surfaces & moulding sand - ?late Naccolt
151	1	320	brick	PM	1480	1700	3033-type, indented border; base v worn - possibly used as cobble.
152	9	400	peg	PM			Incl redder, ?later type with proper moulding sand; 1 reduced.
152	2	160	brick	PM			1 burnt vitrified scrap; the other is late ?18th c ?flat brick 3047 - v worn, used for flooring.
152	5	65	mortar	PM			Various cement renders
152	1	45	slate	PM			Roof tile fragment; dk grey slate with green mottle
153	5	340	peg	M; PM			Square n/holes, 1 on diagonal. Incl silty lumpy fabric.
154	5	655	peg	M; PM			2 conjoin- complete L=242mm, small sq n/hole set diag; ?later type Naccolt, moulding sand on creamy base
154	2	2980	brick	PM	1800	1900	Orange fabric, abundant fine sand. Large bricks (? X 115 x 74; ? X 102 x 72mm), ?19th, sharp arrises.
157	16	640	peg	M; PM			
157	1	150	hip?	M; PM			Angled corner, either hip or odd peg tile.
157	2	560	brick	PM			Orange sandy & silty; ? X 108 x 53mm.
162	15	580	peg	M; PM			
162	1	700	brick	PM			Red iron-rich fabric nr 3047, ? X 113 x 53mm. Worn header and ?bedface - flooring brick?
165	1	50	peg	M; PM			
165	1	85	brick	PM			Frag - orange, sandy iron-rich fabric, nr 3047.
170	1	10	brick	PM			
170	35	1100	peg	M; PM			Some reduced/overfired.
177	1	30	peg	M; PM			
189	1	20	peg	M; PM			
192	11	590	peg	M; PM			Incl lumpy silty fabric.
194	1	60	peg	M; PM			
197	2	25	peg	M; PM			
203	3	140	peg	M; PM			
209	22	770	peg	M; PM			Incl lumpy/silty fabric, and streaky silty.
209	6	450	brick	PM			Most overfired, some vitrification
209	1	5	slate	PM?			Dark grey micaceous roofing slate.
210	12	530	peg	M; PM			usual type
210	2	10	tile	M; PM			probably flakes of peg.
210	13	810	brick	PM			3033, th=43mm; abraded but may have a sawn chamfer along stretcher face (and vitrif mort on other stretcher). Also thicker (c.60mm) orange sandy iron-rich fabric.
220	18	520	peg	M; PM			Most Naccolt or redder sandier version - 1 is silty streaky type.
221	6	265	peg	M; PM			2 very overfired.
221	2	10	tile	M; PM			probably peg tile
221	1	85	ridge	M; PM			or hip?
228	8	240	peg	M; PM			Incl silty streaky fabric

Context	Count	Weight (g)	Type	Period	Early date	Late date	Comments
228	1	65	ridge?	M; PM			slight curve
228	1	10	brick	PM			scrap of orange sandy iron-rich
231	9	340	peg	M; PM			usual fabric, and 1 silty orange
231	2	1	tile	?			crumbs - peg?
232	17	720	peg	M; PM			Naccolt, some silty lump type
232	9	1130	brick	PM			Fairly early brick? 1 seems to have saw marks on ?top surface; orange sandy fabrics, incl indented border.
234	9	250	peg	M; PM			
234	1	120	brick	PM			Orange sandy fabric
235	4	115	peg	M; PM			1 is reduced and overfired
240	13	660	peg	M; PM			Naccolt type and silty lump type.
240	1	5	tile	?			Peg?
240	10	2440	brick	PM	1480	1700	Early PM, with sandy fabric/s, indented borders. Overfired, lot of vitrified surfaces, prob accidental.
240	14	2920	brick	PM	1480	1700	Smashed, some vitrified. Orange sandy and lt orange fine sandy fabrics.
241	5	1120	brick	PM	1480	1700	Red sandy (? X 103 x 55mm); orange sandy.
241	3	220	peg	M; PM			
245	1	160	pitch?	?			Black granules with a sort of black mortar attached; smells tarry.
245	6	200	peg	M; PM			1 is reduced
245	3	205	brick	PM			small frags
250	17	620	peg	M; PM			1 is very reduced; several look overfired.
250	2	55	brick	PM			Scraps - red sandy and lt orange fine sandy.
251	14	450	peg	M; PM			
253	174	4340	peg	M; PM			Mostly Naccolt type, incl round and diag sq n/holes. May include small frags ridge tile.
253	4	585	brick	PM	1480	1700	2 conjoin. Prob all same fabric, sandy orange iron-rich; incl indented borders. Some overfired, with vitrified ?mortar on top surface.
255	3	1680	brick	PM	1480	1700	orange sandy fabric, 1 with vitrified mort; all mortared - ?reused.
262	3	120	peg	M; PM			Diag sq n/hole, Naccolt fabric.
262	1	25	ridge	M; PM			Naccolt fabric
265	4	110	peg	M; PM			Incl 1 flake, prob peg
265	1	10	mortar	?			Plaster with fine sand aggregate and hair. Thinly applied.
268	1	110	peg	M; PM			Orange calc fabric, Naccolt type? Diag sq n/hole.
268	1	90	brick	PM			Corner frag, all surfaces are 'glazed' with thick vitrified ?mortar (prob accidental).
269	1	20	peg	M; PM			Mortar on broken edges - ?reused.
270	2	130	peg	M; PM			2 fabrics? Naccolt and slightly redder, poorly mixed fabric with fine moulding sand.
273	2	210	peg	M; PM			
274	2	35	peg	M; PM			
274	1	5	tile	M; PM			Prob flake from peg tile.
281	12	740	peg	M; PM			Incl type with coarse calc incls and reddish slightly lumpy fabric; some overfired.
281	10	4075	brick	PM	1480	1700	All orange sandy fabrics, but may be 2 sizes; indented borders present; some vitrification
284	9	680	peg	M; PM			

Context	Count	Weight (g)	Type	Period	Early date	Late date	Comments
286	2	20	peg	M; PM			
286	1	20	brick	PM			
287	2	5	peg?	M; PM			
287	1	15	brick	PM			
290	8	190	peg	M; PM			Most Naccolt type, also silty/lumpy fabric (cream, orange & red siltstone chunks and silty bands in orange fabric)
290	1	10	ridge	M; PM			Naccolt type
290	3	10	tile	M; PM			Probably peg chips
290	6	100	brick	PM			Small frags orange sandy fabric.
293	4	140	peg	M; PM			Naccolt type
293	1	260	brick	PM			Orange sandy, prob early p-med.
297	3	40	peg	M; PM			Naccolt type - 1 n/hole square set diag.
297	3	130	brick	PM			sandy orange fabrics
307	30	1020	peg	M; PM			Naccolt type, small n/holes, 6mm sq, set diag (holes are round at base, ?reflecting method of making hole punch.
307	1	3	f/c?	?			tiny scrap sandy clay or daub - light orange.
310	2	50	peg	M; PM			Naccolt type
314	3	40	peg	M; PM			
318	5	180	peg	M; PM			1 overfired.
325	2	4680	brick	PM	1480	1700	2 complete red bricks; unfrogged, indented borders (dimensions on sheet); 1 upper and 1 lower bedface worn - paving/flooring bricks?
334	4	380	peg	M; PM			2 types - clean orange with cream surfaces (3201/Naccolt?), & redder version with more calc. Orange type has small diag sq n/holes (complete B=156mm)
334	1	165	hip	M; PM			Fine red calc fabric, fine sanding
500	5	80	peg	M; PM			(context contains 19th c pot)
500	2	5	tile	?			
500	1	2	brick?	PM			crumb sandy orange
501	2	10	slate	PM			grey roofing slate
501	2	30	peg	M; PM			usual type
501	4	90	brick	PM	1750?	1900	fine sandy, prob post 1750.
501	2	20	tile	PM?			1 frag sooted - scrap of ?chimney, also ?peg
502	1	30	slate	PM			Dark purplish-grey
502	6	475	brick	PM	1700	1900	18th-19th c? Red, slightly sandy, fabric, sharp arrises; thin dauby render, finished with mortar skim. 1 has rounded ?stretcher edge - rubbed or worn?
504	8	305	peg	M; PM			Usual type
613	2	140	peg	M; PM			Incl 3201, and thicker tile, orange fabric with frequent v coarse dk red & cream silty, platy incls, with part messy n/hole.

## APPENDIX 3 METALWORK

### 3.1 Metalwork

*by Valerie Diez*

#### *Introduction and methodology*

3.1.1 92 iron items, 27 copper alloy objects and 1 brass object were recovered during excavation at 2 Boys Hall Road. All iron objects were x-rayed. Assessment of iron items was based on the x-rays. Other metal objects were assessed through visual examination and identified.

3.1.2 All items are listed in Table 3.1 and 3.2.

#### *Quantification*

3.1.3 All objects belong to the following categories: coins, personal, domestic, horse equipment, structural and miscellaneous.

3.1.4 3 modern coins and one unreadable one were found.

3.1.5 Personal: this category comprises 17 items, including one utilitarian buckle form (SF 28), one thimble (SF 3), half a pair of scissors (SF 17), one possible brooch pin (SF 21), 5 pins with wire wound spherical head and 8 buttons with loop attachment. Copper alloy pins with wire wound spherical heads were produced from the 14<sup>th</sup> century and during all the post-medieval and modern period. All buttons are probably of modern date.

3.1.6 Domestic: 8 items compose this group. It includes one rectangular iron lock (SF 19) and one key with broken bit (SF 15), one knife (SF 20), one handle (SF 24) and one possible hanging weight (SF 23). Finally three objects in this category are probably lighting equipments: one copper alloy wire chain, possibly part of lamp suspenders (SF 2), one cup of a brass candleholder (SF 9) and one unstratified cupped candleholder with wax tray (SF 30) from the late medieval period (Egan, 1998).

3.1.7 Horse equipment: 5 items are included in this group, all fragments of horse-shoe with rectangular or square holes.

3.1.8 Structural: this category comprises 60 nail fragments (heads and shanks), 2 screws, 1 possible fitting (SF 27), a few rivets and a rivet plate (SF 29).

3.1.9 Miscellaneous: this category comprises all unidentified objects or fragments whose the function could not be determined, including 5 rods, 2 sheets, 1 disc, 1 rod, 1 chain and 5 unidentified fragments.

#### *Conservation and potential for further work*

3.1.10 There are no special requirements regarding this assemblage. The actual packaging is suitable for long term storage in a stable environment.

3.1.11 Part of this assemblage is of modern date. No further work is required.

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3.1.12 Egan, G., 1998. *The Medieval Household. Medieval finds from excavations in London, daily living c. 1150-1450*, The Stationery office, London.

Table 3.1: Quantification of Iron objects

Context	SF No.	Object	Material	Comments
114	0	Nail	Fe	
124	0	Nails x 4	Fe	including 2 heads
124	0	Horse shoe	Fe	with rectangular holes
129	0	Nails x 5	Fe	
129	0	Screw	Fe	
129	0	fragments x 6	Fe	very badly corroded fragments
137	0	Nail	Fe	
142	0	Objects x 2	Fe	
143	0	Nail	Fe	
151	19	Key plate	Fe	very corroded, details not visible
151	20	Knife	Fe	very badly corroded
151	0	Nails x 2	Fe	
151	0	Shank fragment	Fe	
152	0	Nails x 9	Fe	including 4 with heads
162	12	Lump: 3xFe, 2x Cu alloy	Fe & Cu al	Lump of nails and rivets stuck together by corrosion (3 nails minimum)
162	26	Lump of objects and corrosion	Fe	contains at least one coin (? unreadable), one pin with wire wound spherical head and one nail
162	27	Fitting?	Fe	L-shaped object, possibly a pivot
170	0	Horse shoe	Fe	with rectangular holes, very badly corroded
170	0	Nails x 10	Fe	including 4 heads
170	0	Object	Fe	very badly corroded
170	0	Rod	Fe	pointed end
198	14	Nail	Fe	
198	15	Key	Fe	circular bow and stem, broken bit
203	0	Nail	Fe	complete
210	16	Rod	Fe	bar with moulding in the middle
210	17	1/2 pair scissors	Fe	
210	0	Nail	Fe	
212	0	Nail corroded to pot sherd	Fe	
220	0	Strip?	Fe	
220	0	Nail	Fe	
220	0	Sheet	Fe	
221	0	Nails x 3	Fe	including 2 heads
240	0	Rod	Fe	
240	0	Masonry nail?	Fe	
240	0	Nails x 6	Fe	
250	28	Buckle	Fe	'D' shaped frame and pin; utilitarian buckle form
253	0	Shank	Fe	
255	0	Nail	Fe	almost complete
262	0	Nails x 2	Fe	including one complete bent nail
269	33	Nail	Fe	
281	0	Rod fragments x 2	Fe	
307	34	Nail	Fe	1 head and 2 shank fragments
315	36	1/2 horse shoe	Fe	Square holes
315	0	Horseshoe arm	Fe	
325	0	Nail	Fe	
u/s	0	Horseshoe arm	Fe	with rectangular holes

Table 3.2: Quantification of other metalwork

Context	SF No.	Object	Material	Comments
124	8	Button	Cu al	with loop attachment
124	10	Disc	Cu al	
124	11	Pin	Cu al	fragment
124	23	Hanging weight?	Cu al & Pb	in bad condition and fragmented



129	4	Coin	Cu	1944
129	7	Coin	Cu/Silver	three pence, 1939
129	0	Screw	Cu al	complete
142	1	Button	Cu	with loop attachment
142	3	Thimble	Cu	flattened
144	2	Chain	Cu	pPossibly part of lamp suspenders
145	24	Handle	Bone & Cu	
151	5	Pin	Cu	
151	18	Button	Cu	with loop attachment
151	0	Fitting?	Cu al	with wire wound spherical head
152	32	Coin	Cu al	one penny, 1979
162	25	Buttons x 2	Cu al	with loop attachments
167	0	Loop	Cu al	
170	21	Spoon handle/brooch pin?	Cu al	one extremity broken
170	0	Sheet	Cu al	pierced by irregular hole, possibly for rivet
194	13	Pin	Cu al	with wire wound spherical head
201	9	Candle holder	Brass	Grooved cup
212	0	Buttons x 2	Cu al	including one with loop attachment
231	22	Button	Cu al	with loop attachment
232	31	Pin	Cu al	with wire wound spherical head
234	29	Rivet plate	Cu al	2 visible holes for rivets
u/s	30	Candleholder	Cu al	candleholder with wax tray, c. 1350-1400

## APPENDIX 4 MISCELLANEOUS FINDS

### 4.1 Miscellaneous finds

*By Valerie Diez*

*Introduction and methodology*

4.1.1 This assemblage is composed of 85 objects of glass, mortar/plaster, ceramic, stone, coal, slag and foil.

4.1.2 All objects were scanned for identification.

*Quantification*

4.1.3 All objects are listed below in Table 4.1.

4.1.4 36 fragments of glass were recovered, mainly window glass and bottle fragments, none of them were closely datable, they appear to be of post-medieval or modern date.

4.1.5 14 clay pipe fragments were also found, all plain stem fragments with no marks or decoration apart from one plain bowl fragment. One modern tobacco wrapper of ‘Old Holborn’ was also found.

4.1.6 Other miscellaneous objects are essentially undiagnostic and unidentified, including 3 mortar/plaster fragments, 19 stone items, 5 flints, 2 coal fragments and 5 iron slag.

*Conservation and potential for further work*

4.1.7 No conservation is required. Actual packaging is suitable for long term storage.

4.1.8 There is no potential for further work.

*Table 4.1: Quantification of miscellaneous finds*

Context	SF No	Object	Material	Comments
114		3 fragments	Glass	1 green bottle base and 2 fragments of clear glass
114		Tobacco wrapper	Foil	‘Old Holborn’ tobacco
114		1 fragment	mortar/plaster	
124		6 fragments	Glass	3 fragments of clear window glass, 3 fragments of light green glass including one bottle base
124		2 clay pipes	Ceramic	stem fragments
127		fragment	Glass	1 fragment of clear window glass
129		5 fragments	Glass	1 fragment of clear window glass and 4 fragments of light green glass
129		3 clay pipes	Ceramic	stem fragments
129		graphite stick	Stone	
129		2 fragments	Coal	
137		slag	Slag	
142		fragment	Glass	1 fragment of green glass
142		clay pipe	Ceramic	stem fragment
142		3 flints	Flint	
143		clay pipe	Ceramic	stem fragment
144		fragment	Glass	1 fragment of clear window glass
151		6 fragments	Glass	3 fragments of green glass and 3 fragments of thin clear glass
151		clay pipe	Ceramic	stem fragment

161		2 slag	Slag	
162		fragment	Glass	1 fragment of blue glass?
162		1 fragment	mortar/plaster	
170		fragment	Glass	1 fragment of porcelain?
170		4 fragments	Stone	
190		1 fragment	mortar/plaster	
197		fragment	Glass	1 thick fragment of green glass
197		clay pipe	Ceramic	stem fragment
204		fragment	Glass	1 small neck of clear or light green glass
204		clay pipe	Ceramic	broken bowl
204		fragment	Coal	
210		2 fragments	Glass	2 fragments of blue glass
212		3 fragments	Glass	1 green bottle base fragment, 1 neck bottle fragment and 1 indeterminate fragment
212		clay pipe	Ceramic	stem fragment
219		clay pipe	Ceramic	stem fragment
231		4 fragments	Stone	
234		fragment	Glass	1 fragment of blue glass
240		fragment	Glass	1 green bottle base fragment
250		flint	Flint	
253		2 fragments	Stone	
253		flint	Flint	
255		fragment	Stone	
284		slag	Slag	
288	35	fragment	Stone	
290		fragment	Stone	
293		clay pipe	Ceramic	stem fragment
313		clay pipe	Ceramic	stem fragment
314		slag	Slag	
u/s		5 fragments	Stone	
u/s		flint	Flint	

## APPENDIX 5 ANIMAL BONE

*by Julie Hamilton*

### *Introduction*

- 5.1.1 A total of 1298 fragments of bone were recovered by hand from 76 contexts, of which 766 fragments of bone hand-recovered from 37 contexts were examined in detail.

### *Methodology*

- 5.1.2 Bones and teeth were identified using a comparative collection and standard references such as Schmidt (1972) and Hillson (1992). The assemblage was recorded on a computer spreadsheet (Excel) allowing details of context, species, element, side, completeness, age/sex data, pathology, measurements, alteration and condition to be recorded for each fragment; numbers of unidentified fragments and weights per context were also recorded. Total fragment numbers and, where useful, minimum numbers of individuals (MNIs; based on the commonest element, with side taken into account, and fusion state for long bones) were calculated from these records. Ageing of domestic animals followed Silver (1969), Payne (1973, 1987), Grant (1982), and Levine (1982), sheep and goat bones were distinguished according to Boessneck (1969), and cattle horn cores were classified following Armitage and Clutton-Brock (1976) and Armitage (1982). Where no goat was positively identified, sheep/goat is referred to as sheep. Sheep/goat and cattle were sexed by the thickness of the acetabular rim, and horse and pig by the presence/morphology of canine teeth. Measurements followed von den Driesch (1976). Withers heights were estimated according to von den Driesch and Boessneck (1974). Small mammal and bird bones were noted but not identified to species.
- 5.1.3 Contexts for detailed examination were selected based on their archaeological value (i.e. secure contexts that could be placed within the site phasing), potential information to be gained from the bone assemblage, and to obtain as much information as possible about phases of interest.

### *Quantification*

- 5.1.4 A total of 766 fragments (17,748 g) of bone hand-recovered from 37 contexts were examined in detail. Of these, 287 (14,814 g) from 34 contexts were identified to species (Table 5.1), and there were also 6 bird bones (18 g).
- 5.1.5 Table 5.1. Numbers of identified fragments by context, feature interpretation and phase
- 5.1.6 Table 5.2. Percentages of identified fragments of domestic species by phase
- 5.1.7 Table 5.3. Percentages of minimum numbers of individuals (MNI) for domestic species by phase
- 5.1.8 Table 5.4. Percentages of fragment weights of domestic species by phase
- 5.1.9 Bone was recovered in similar quantities (by fragment number, weight or MNI) from each of the three main phases (I, II, III) yielding animal bone (Tables 1-4). There were only 20 identified fragments from phase X, from the rubbish deposit (151), and just 1 from ploughsoil (614), so discussion concentrates on the earlier

phases. Species present were sheep, cattle, pig, and horse, with rat (*Rattus norvegicus*) in Phase III.

#### Phase 1: pre-cottage features

- 5.1.10 Cattle was very much the dominant domesticate in terms of fragment numbers, and also weight (which may be a better indication of relative meat weights). Pig and sheep between them make up less than 15% of fragments, with pig outnumbering sheep. MNIs show a similar pattern although the proportions of less common species are increased -- with such low fragment numbers this is perhaps best regarded as an upper estimate for the proportion of these smaller species. There was also a single horse tooth.
- 5.1.11 The pattern of skeletal representation for cattle (Table 5.5) includes c. 15% fragments of meat-bearing elements (mainly proximal limb bones), 80% fragments of other elements (mainly distal limb bones), and 5% teeth. Most large bones were broken, possibly for marrow extraction. The low proportion of axial elements makes it unlikely that much primary butchery waste is represented, and the assemblage can be interpreted as secondary butchery/kitchen refuse. Butchery marks (mainly chops) were seen on 9/74 (12%) of cattle bones, and were consistent with carcass division (e.g. mandible, scapula near articulation), or, in one case (cuts on proximal tibia) meat stripping. Chop marks were also seen on metacarpal shafts, and could either originate in carcass division (removing feet) or chopping up bones for marrow extraction. The straight and strong metapodials are often used in making tools and other objects, but there was no evidence for that here. Chop marks were also seen on large ribs, probably cattle, and some large vertebrae had been chopped through parallel with the long axis, suggesting that carcasses had been halved lengthwise down the spine.
- 5.1.12 Of the 5 stageable cattle mandibles (Table 5.6), 4 were from animals around 2-3 years old at death, suggesting cattle killed specifically for meat at an "economic" age. These are likely to have been bullocks, though there are no horncore/innominate data to test this. There was also 1 mandible from a much older animal. The epiphysial fusion data were compatible with this: where observable, about half of the epiphyses that fuse at 2-3 years of age were still unfused, and there was no evidence for much younger animals.
- 5.1.13 Measurements of 3 cattle metapodials (Table 5.7) give estimated withers heights of 115-120 cm, 126-132 cm, and 127-134 cm, respectively.
- 5.1.14 Of the 8 pig fragments 3 were from meat-bearing bones and the rest from the head (including 2 teeth) (Table 5.5). It is likely that small bones such as those from the feet and vertebrae would be under-represented in this assemblage, so it is not possible to draw strong conclusions, except to say that these probably represent secondary butchery/kitchen refuse, as for cattle. Part of a maxillary tooththrow was from a pig aged 12-16 months at death. Epiphysial fusion state was observable on 2 distal humerus fragments, which fuse at about 1 year: 1 was fused, 1 unfused. There was 1 adult male canine (tusk). The pattern is compatible with exploitation of pigs for meat.
- 5.1.15 There were only 3 identified sheep fragments: 1 mandible from an animal 4-6 years old at death, 1 humerus fragment (with chop mark), and 1 tibia fragment which was unfused distally, so from an animal less than 18-24 months old. Probably these are food remains, and it is likely that sheep contributed least to the meat diet.
- 5.1.16 There was a single horse tooth, which indicates the presence of the species.

5.1.17 The two bird bones should be identified to species if possible.

Phase II: construction of cottage

5.1.18 Cattle again predominate over sheep and pig, though the two smaller species, particularly pig, are somewhat more frequent than in Phase I (Tables 5.1-5.4). If not merely a chance effect, this could be due to better preservation, i.e. less bias against smaller fragments, a change in disposal practices and/or spatial organisation, or reflect a real change in diet: there are too few fragments to examine these alternatives.

5.1.19 The pattern of skeletal representation for cattle (Table 5.5) is quite similar to that for Phase I, with about 20% (meat-bearing) proximal limb elements and >50% distal limb elements, mainly broken. Butchery marks (chops) were seen on 4/48 (8%) fragments -- a mandible, a metacarpal, a scapula and a cervical vertebra (halved), and also on two large (probably cattle) ribs and a vertebra, probably relating to carcase division. Again, these appear to be secondary butchery/kitchen refuse, and thus to represent food remains.

5.1.20 There were two more or less stageable cattle mandibles, one from an animal 2-3 years old and the other from an animal >3 years old at death. Epiphysial fusion showed a clear pattern: 0 observable elements from animals <1 year old, 7/8 elements fusing at 12-16 months fused, and 5/6 elements fusing at 2-3 years unfused, i.e. most fragments were probably from cattle >16 months and ≤2-3 years old at death. There was also a metatarsal from a very young animal (probably <6 months old, judging by size, though no epiphyses were preserved). This strengthens the evidence that the cattle bone derives from animals killed for meat.

5.1.21 Pig skeletal representation (Table 5.5) was similar to Phase I, with about half meat-bearing proximal limb elements and half from the head. No butchery marks were noted. The three stageable mandibles (1 included the canine, male) indicated ages at death of 16-22 months, and there was a maxillary row from a younger pig (7-13 months). There were only 2 observable epiphyses, deriving from pigs >1 year and <3.5-4 years old at death, compatible with the tooth wear data. Again exploitation of pigs for meat is indicated.

5.1.22 Of 8 sheep fragments, 4 were limb elements (a radius, unfused distally, so from an animal >10 months but <2.5-3 years old; 2 tibia fragments, one fused distally so >18-24 months; and a metatarsal fragment). None of these would have borne much meat. The 4 "head" fragments (2 horncore fragments, a tooth and a mandible) were all in the same context, which lacked limb bone. No butchery marks were seen. Little can be deduced from this scattered assemblage, but an interpretation of secondary butchery/kitchen waste seems likely.

5.1.23 The 5 horse fragments included a radius and ulna from a skeletally mature animal, a metacarpal fragment, and 2 teeth. Withers height estimated from the radius was 132 cm (c. 13 hands) (Table 5.7). Horse bone could be used for making bone objects, but there is no evidence for that here.

5.1.24 The single bird bone requires identification.

Phase III

5.1.25 Cattle again predominate over sheep and pig, and proportions of the two smaller species are more similar to Phase II than Phase I, though the proportion of pig by weight is lower (Tables 1-4). There are too few fragments to examine alternative explanations.

- 5.1.26 Cattle skeletal representation is also similar, with c.25% fragments from meat-bearing elements, 45% from distal limb elements, and about 30% from the head, mainly mandible fragments. Butchery (chop marks) was seen on 8/75 (11%) of fragments including mandible, scapula, humerus, radius, a metatarsal, and 2 innominate fragments; another metatarsal was sawn through, a process sometimes related to bone working rather than butchery for food. Many metapodials were smashed. An interpretation of secondary butchery/kitchen refuse is likely.
- 5.1.27 There were 2 stageable cattle mandibles, one from a very young (<1 month) calf and one from an old animal with heavily worn teeth. 10/10 observable epiphyses of elements fusing at 12-16 months were fused, but only 4/10 of elements fusing at 2-3 years, suggesting that most of the limb bone was from cattle >16 months and ≤2-3 years old at death, reflecting animals raised primarily for meat. The very young and old cattle might reflect dairying, which could have involved small-scale cattle keeping at the site.
- 5.1.28 Of the 19 pig fragments, 10 were teeth (including 4 male canines), scattered through several contexts, not concentrated in one. This is a high proportion compared with other species/phases, and could reflect a bias against preservation of smaller, more fragile elements, so that pig might have been deposited in greater proportion than it appears. No butchery marks were seen. The remainder included 5 limb and 4 skull (including mandible) elements. There were 2 stageable mandibles, from pigs 12-16 and 16-22 months old at death. There were 3 observable epiphyses, all fused, from elements fusing at c. 1 year. This accords with exploitation for meat.
- 5.1.29 The 6 sheep elements included 1 femur, 2 radius, and 3 mandible fragments. 2 of these were from sheep 6-12 months and the 3rd from a sheep 2-3 years old at death; the single observable epiphysis (proximal radius, fusing at c. 10 months) was fused. No butchery was seen. Again, these can be interpreted as food remains.
- 5.1.30 There were 3 rat (*Rattus norvegicus*) bones from a hearth layer and 1 from a floor layer. The rat was probably a commensal pest.
- 5.1.31 There were also 3 bird bones, which should be identified.
- Other
- 5.1.32 The only identified fragment from the ploughsoil (614) was a cattle tooth. The dump of refuse (151) from a possible pit, of uncertain date, contained 4 cattle metapodial fragments, a pig astragalus, and 1 sheep radius and 14 sheep mandible fragments (from a minimum of 3 individuals, all 2-3 years old). This is refuse similar in nature to that from phased deposits, but there is too little to interpret in detail.
- Overall interpretation
- 5.1.33 It seems reasonable to interpret the animal bone assemblages from the three phases as secondary butchery/kitchen refuse, i.e. food remains. Most ageable material comes from animals killed at an optimum age for meat production, with few remains of very young or old animals. This would seem to be a "consumer" rather than a "producer" site, though it is possible that cattle were kept on a small scale, perhaps for milk, in Phase III. Taking the evidence at face value, 80-90% of meat consumed would have been beef, followed by pork and lamb/mutton, but it is likely that the contribution of these smaller species is underestimated because of biases against the recovery of smaller and more fragile bones. At least some of the bird bone is probably from domestic species (though this remains to be confirmed), which could have contributed eggs as well as meat to the diet.

- 5.1.34 There is some variation in proportions of the three main domesticates over time, particularly an increase of pig in Phase II, but in view of the low fragment numbers and possible biases it would not be wise to put much emphasis on this. Horse appears in phases I and II, and rat in Phase III, while bird bones occur rarely in all 3 phases. About 5% of fragments overall (up to 11% of cattle/cattle-sized fragments) showed signs of carnivore gnawing, indicating the presence of dogs at the site, though no dog remains were found.

#### *Provenance*

##### Phase 1: pre-cottage features

- 5.1.35 The majority of the bone comes from dumps of occupation material. Traces of burning (ranging from dark discoloration to calcination) were common, seen on 60% of fragments. Traces of carnivore gnawing were seen on c. 8% of fragments overall. Considerable surface erosion (enough to obscure other surface alteration such as butchery) was recorded on c. 10% of fragments overall: about half of this was "rootlet" erosion on fragments from one context (262) of dumped occupation material, while most of the remainder was seen on fragments from soil horizons. This pattern reflects differences in post-depositional alteration: perhaps context 262 was richer in nutrients, encouraging plant growth. Most likely these reflect post-depositional alterations such as (partial) burning of dumped rubbish and mechanical or chemical erosion of bone surfaces in the ground.

##### Phase II: construction of cottage

- 5.1.36 Most of the bone comes from levelling layers, a wall (240) and an occupation layer (250). Compared to Phase I there is a slightly higher proportion of burnt bone (70%), rather less gnawed bone (3%), and a similar amount of surface erosion (noted on 8% of fragments). Most material is probably at least to some extent redeposited, and it is not certain how different in origin it may be from that in Phase I.

##### Phase III

- 5.1.37 The bone comes from layers identified as floor layers, hearth layers and an occupation layer, inside the cottage. Burning was less common (30% of fragments), as was erosion (4%), while c.5% of fragments were gnawed. Not surprisingly, about 80% of fragments from hearth layers were burnt, while in floor layers the proportion of burnt fragments varied from 5 to 80% (mean 30%). Again, it is likely that the bone is to some extent redeposited, and it may also represent some casual rubbish disposal incorporated in floors.

#### Overall interpretation

- 5.1.38 While proportions of burnt, gnawed and eroded fragments varied from context to context, there was not enough material from different context types to distinguish consistent variations from chance ones. In Phases I and II the material probably comes from rubbish deposits outside the house (or whatever structures are indicated by the Phase I features), to some extent incorporated in building features (e.g. levelling layers) in Phase II, and this may account for the generally higher level of burnt bone, i.e. burning is seen as mainly a post-disposal process rather than related to cooking. There is little to contradict the idea that the bones are mainly secondary butchery/food remains, with no evidence of specialised bone working.
- 5.1.39 The proportion of loose teeth is relatively low. Where whole skeletons were originally disposed of, this can indicate good preservation, but in this case it probably reflects the original relative lack of skull elements, i.e. meat came at least



to some extent from partial carcasses rather than whole ones. There is considerable fragmentation and few complete bones. On the other hand, the surface condition of the bone is reasonable. It is likely that preservation biases will affect species proportions (underestimation of smaller species), skeletal element proportions (underestimation of smaller elements) and age profiles (underestimation of juveniles), which should be borne in mind when interpreting the data.

#### *Conservation*

- 5.1.40 Storage in boxes is satisfactory.

#### *Comparative material and potential for further work*

- 5.1.41 There would be some interest in comparing this assemblage with those from other contemporary CTRL house sites, e.g. Bridge House.
- 5.1.42 It is not likely that further investigation of this material will produce information that would change the interpretation given here. It would be of some interest to identify the bird bones.

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Table 5.1. Number of identified fragments by context, feature interpretation and phase

Context	Phase	Interpretation	N identified fragments					Count	Weight(g)	
			Sheep	Cattle	Pig	Horse	Rat			Bird
192	I	trench fill	0	5	0	0	0	0	5	230
199	I	soil horizon	1	4	2	0	0	0	7	337
209	I	occupation layer	0	9	0	0	0	0	9	413
220	I	layer	0	5	2	0	0	1	8	461
234	I	posthole	0	4	2	0	0	0	6	528
255	I	post pipe	0	1	0	0	0	0	1	190
262	I	occupation layer/dump	2	34	2	1	0	0	39	2734
270	I	occupation layer/dump	0	1	0	0	0	0	1	9
271	I	cut fill	0	1	0	0	0	0	1	77
273	I	posthole	0	1	0	0	0	0	1	36
279	I	posthole	0	0	0	0	0	0	0	0
281	I	posthole	0	1	0	0	0	1	2	70
301	I	soil horizon	0	2	0	0	0	0	2	68
310	I	dump	0	6	0	0	0	0	6	259
232	II	ash spread	0	3	3	0	0	0	6	345
235	II	levelling	1	0	0	0	0	0	1	34
240	II	wall	0	22	2	0	0	1	25	1439
250	II	occupation layer	0	5	2	0	0	0	7	332
253	II	levelling	2	13	5	2	0	0	22	1769
284	II	levelling	1	3	3	1	0	0	8	579
286	II	levelling	0	0	0	0	0	0	0	0
287	II	levelling	0	1	0	0	0	0	1	84
290	II	post pipe	4	0	0	2	0	0	6	127
315	II	posthole	0	1	0	0	0	0	1	47
114	III	hearth layer	0	0	0	0	3	1	4	9
137	III	hearth layer	0	6	3	0	0	0	9	330
152	III	floor layer	0	1	0	0	0	1	2	16
157	III	floor layer	1	0	0	0	0	0	1	17
162	III	floor layer	0	5	0	0	0	0	5	422
167	III	floor layer	0	16	1	0	0	1	18	677
170	III	floor layer	1	19	10	0	1	0	31	1155
210	III	floor layer	1	3	0	0	0	0	4	187
221	III	occupation layer	3	21	5	0	0	0	29	1249
276	III	layer	0	4	0	0	0	0	4	342
325	III	under hearth	0	0	0	0	0	0	0	0
614	trench	ploughsoil	0	1	0	0	0	0	1	5
151	V-VI	pit/dump	15	4	1	0	0	0	20	257
<b>TOTAL</b>			<b>32</b>	<b>202</b>	<b>43</b>	<b>6</b>	<b>4</b>	<b>6</b>	<b>293</b>	<b>14832</b>

Table 5.2 Percentage of identified fragments of domestic species by phase

Phase	% of identified fragments				Count	Weight (g)
	Sheep	Cattle	Pig	Horse		
I	3.5	86.0	9.3	1.2	86	5407
II	10.5	63.2	19.7	6.6	76	4755
III	6.0	75.0	19.0	0.0	100	4384
					<b>262</b>	<b>14546</b>

Table 5.3 Percentages of minimum numbers of individuals (MNIs) of domestic animals by phase

Phase	% of MNI				Count
	Sheep	Cattle	Pig	Horse	
I	10.0	60.0	20.0	10.0	10
II	22.2	44.4	22.2	11.1	9
III	25.0	50.0	25.0	0.0	8

Table 5.4 % Weights (g) of identified fragments by phase for sheep, cattle and pig

Phase	% Weight of identified fragments			Total
	Sheep	Cattle	Pig	
I	1.6	94.2	4.2	5352
II	3.0	80.8	16.3	4213
III	2.4	92.1	5.6	4384

Table 5.5 Fragment types by phase for domestic species

	NIFs				Percentages			
	Sheep	Cattle	Pig	Horse	Sheep	Cattle	Pig	Horse
PHASE I								
Scap, Innom, Limb	2	10	3		66.7	13.5	37.5	0.0
Podial/Metapodial		36			0.0	48.6	0.0	0.0
Phalanges		8			0.0	10.8	0.0	0.0
Vertebrae					0.0	0.0	0.0	0.0
Skull/Horncore		4	2		0.0	5.4	25.0	0.0
Mandible	1	12	1		33.3	16.2	12.5	0.0
Teeth		4	2	1	0.0	5.4	25.0	100.0
<b>TOTAL</b>	<b>3</b>	<b>74</b>	<b>8</b>	<b>1</b>				
PHASE II								
Scap, Innom, Limb	3	10	7	2	37.5	20.8	46.7	40.0
Podial/Metapodial	1	18		1	12.5	37.5	0.0	20.0
Phalanges		8			0.0	16.7	0.0	0.0
Vertebrae		3			0.0	6.3	0.0	0.0
Skull/Horncore	2	4	4		25.0	8.3	26.7	0.0
Mandible	1	4	3		12.5	8.3	20.0	0.0
Teeth	1	1	1	2	12.5	2.1	6.7	40.0
<b>TOTAL</b>	<b>8</b>	<b>48</b>	<b>15</b>	<b>5</b>				
PHASE III								
Scap, Innom, Limb	3	19	5		50.0	25.3	26.3	
Podial/Metapodial		27			0.0	36.0	0.0	
Phalanges		7			0.0	9.3	0.0	
Vertebrae					0.0	0.0	0.0	
Skull/Horncore		1	1		0.0	1.3	5.3	
Mandible	3	14	3		50.0	18.7	15.8	
Teeth		7	10		0.0	9.3	52.6	
<b>TOTAL</b>	<b>6</b>	<b>75</b>	<b>19</b>	<b>0</b>				

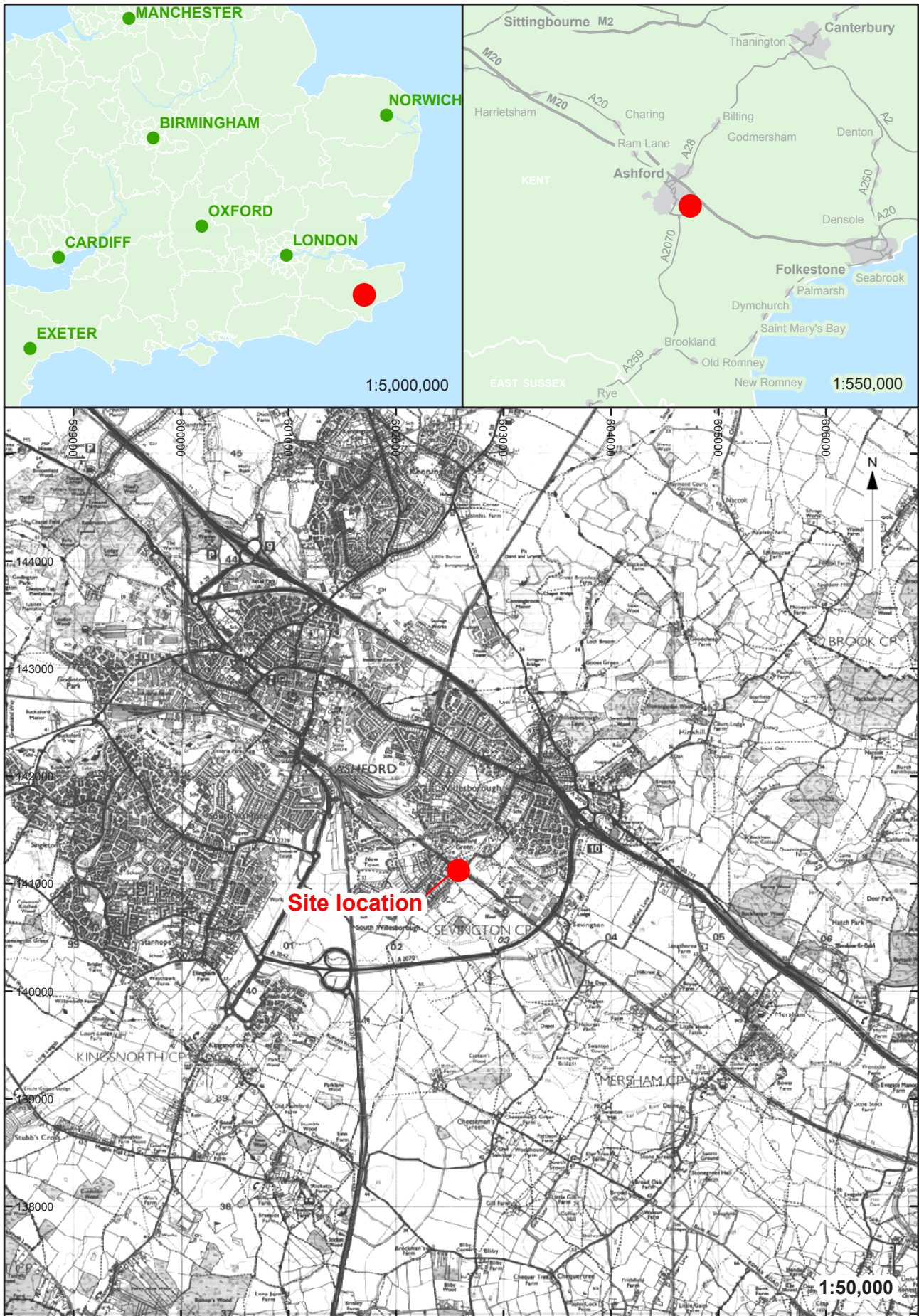
Table 5.6 Cattle mandible wear stages (Grant 1972)

Context	Phase	Side	dp4	P4	M1	M2	M3
262	I	R		X	k	h	f
262	I	R	j		j	B	
262	I	L	k	C	g	c	X
262	I	L		X	X	X	b
234	I	L	j		h	f	a
240	II	L		X	j	f	X
240	II	R		f	l	k	g
170	III	L	B		X		
221	III	L		X	l	k	k

Notes: A tooth absent from socket, B tooth broken, X part of mandible absent

Table 5.7 Measurements (von den Driesch 1976). Given in mm unless otherwise stated

Species/Element	Context	Measurement									
<b>Cattle</b>											
Metacarpal		GL	Bp	SD	DD	Bd					
	192	19.1cm	55.5	29.1	21.1	-					
	262	21.0cm	53.2	28.4	21.1	53.8					
Metatarsal		GL	Bp	SD	DD	Bd					
	262	24.0cm	45.4	23.9	23.9	50.7					
Astragalus		GLl	GLm	DI	Dm	Bd					
	252	68.8	61.5	39.6	37.9	43.9					
<b>Pig</b>											
Astragalus		GLl	GLm								
	151	46.8	42.2								
<b>Horse</b>											
Radius		GL	PL	Ll	Bp	BFp	SD	CD	Bd	BFd	
	253	32 cm	31 cm	30.5 cm	76.2	68.6	35.8	11.2	74.5	60.9	



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Figure 1: Site location

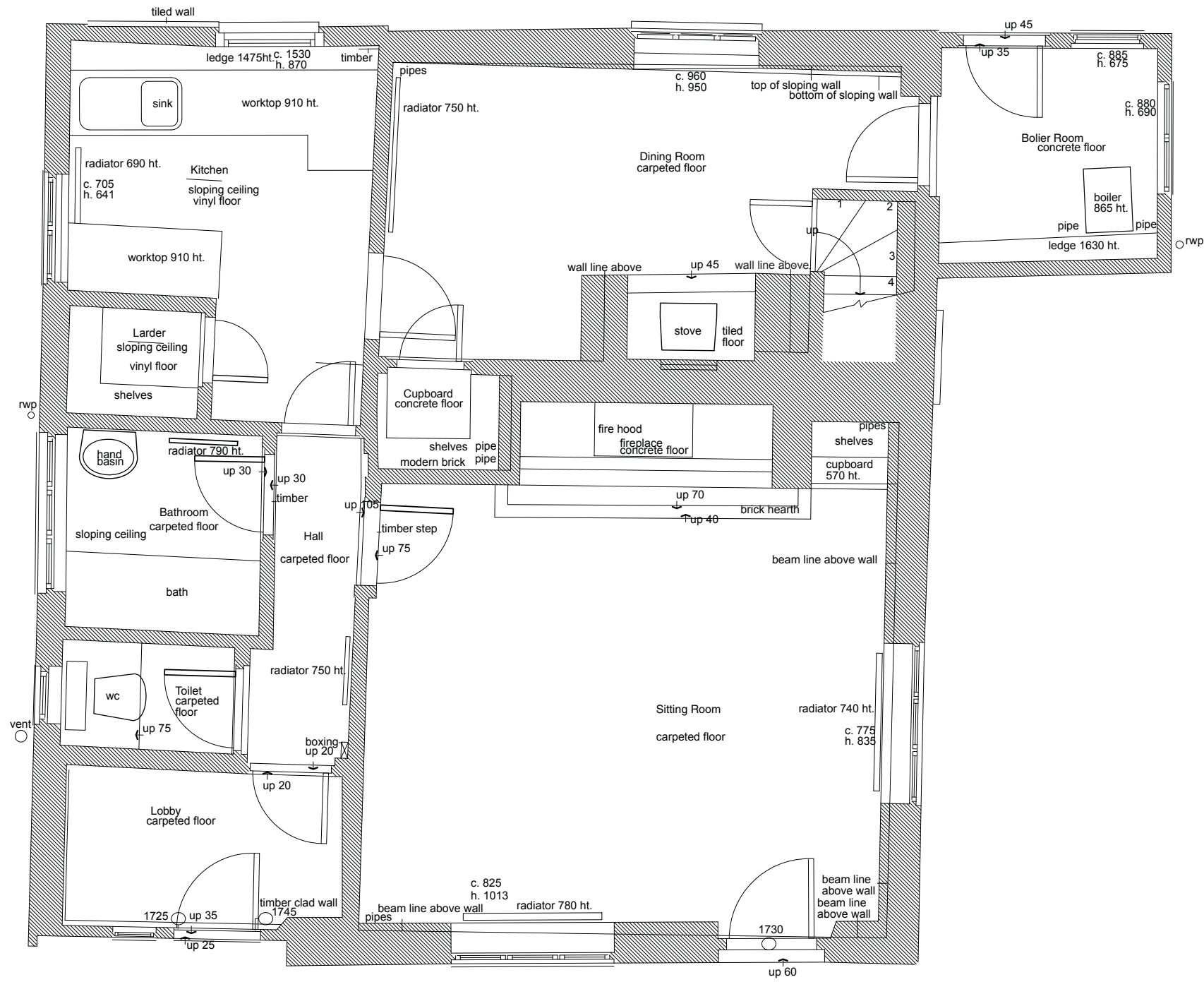


Figure 2: Ground Floor Plan

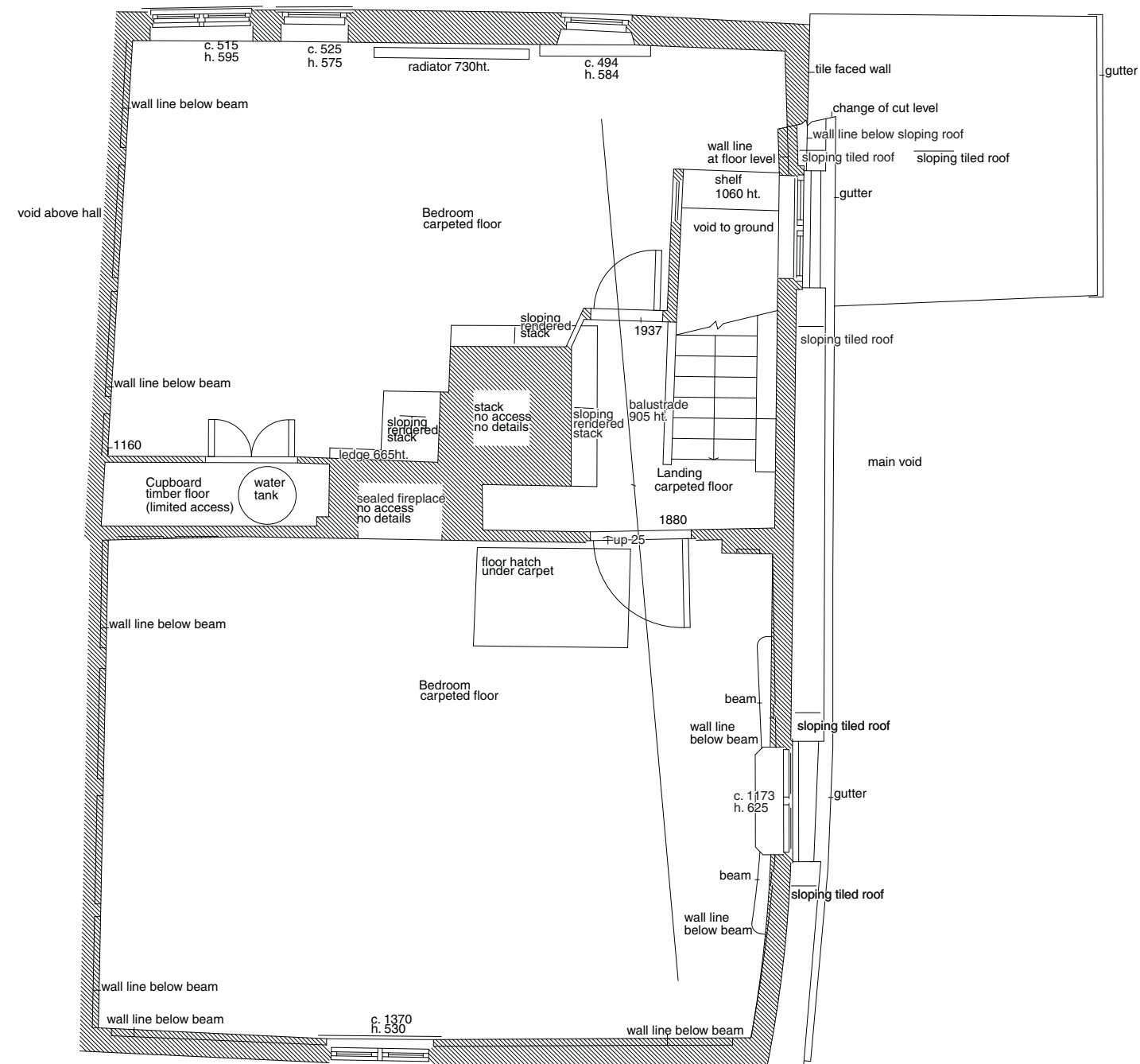


Figure 3: First Floor Plan

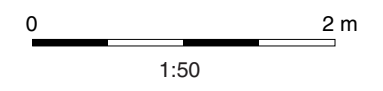
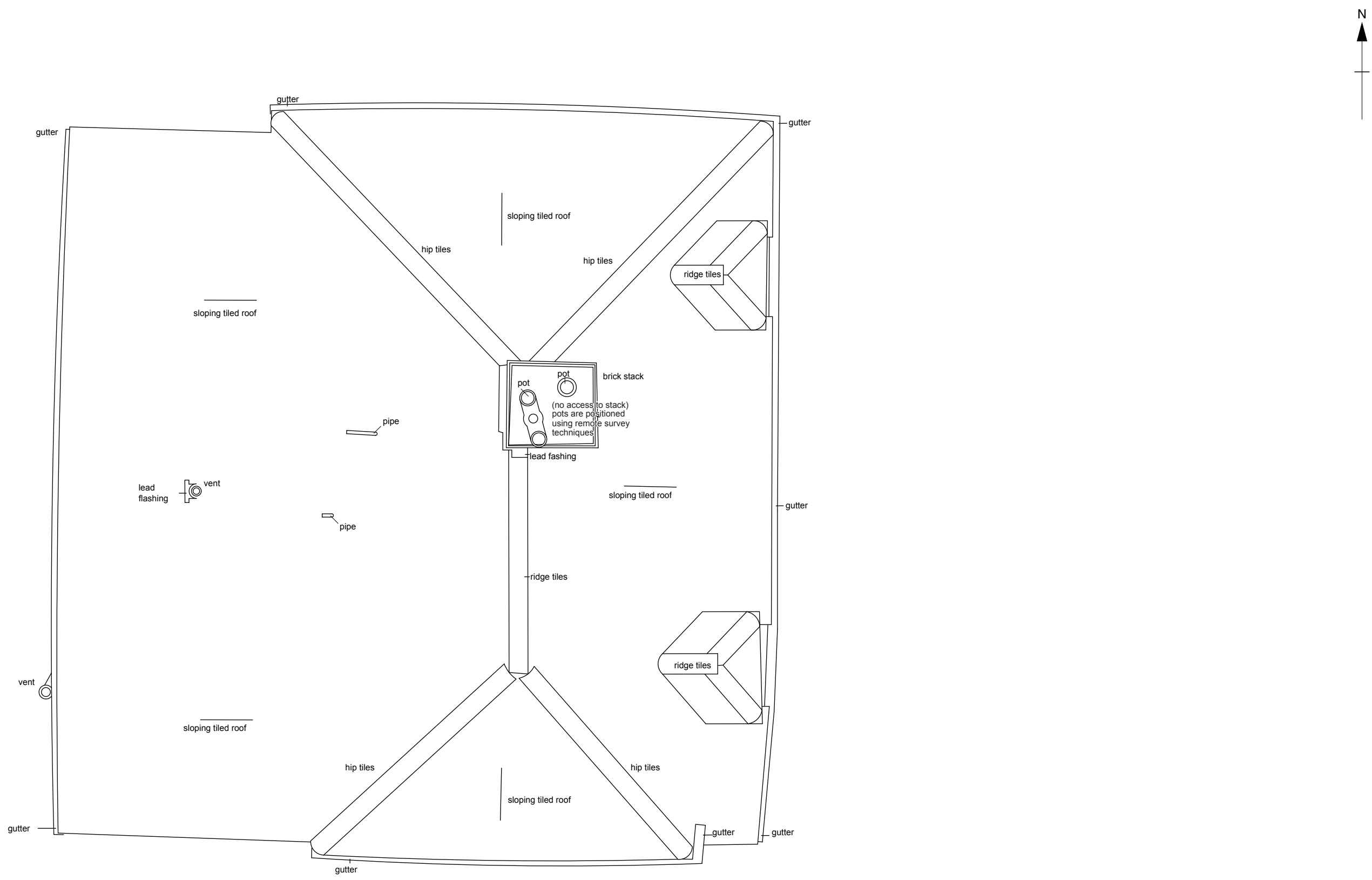


Figure 4: Roof Plan



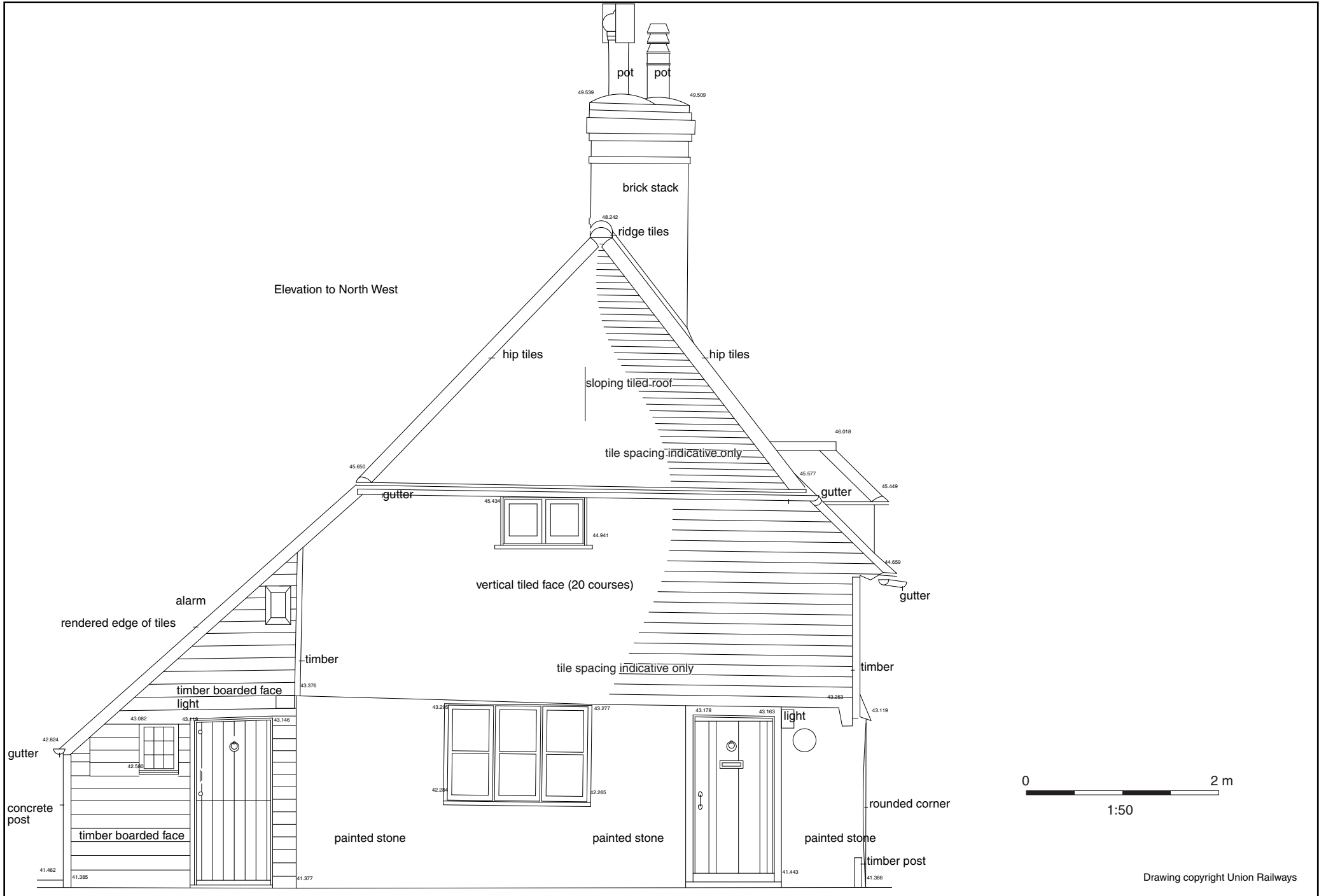


Figure 5: North-west elevation



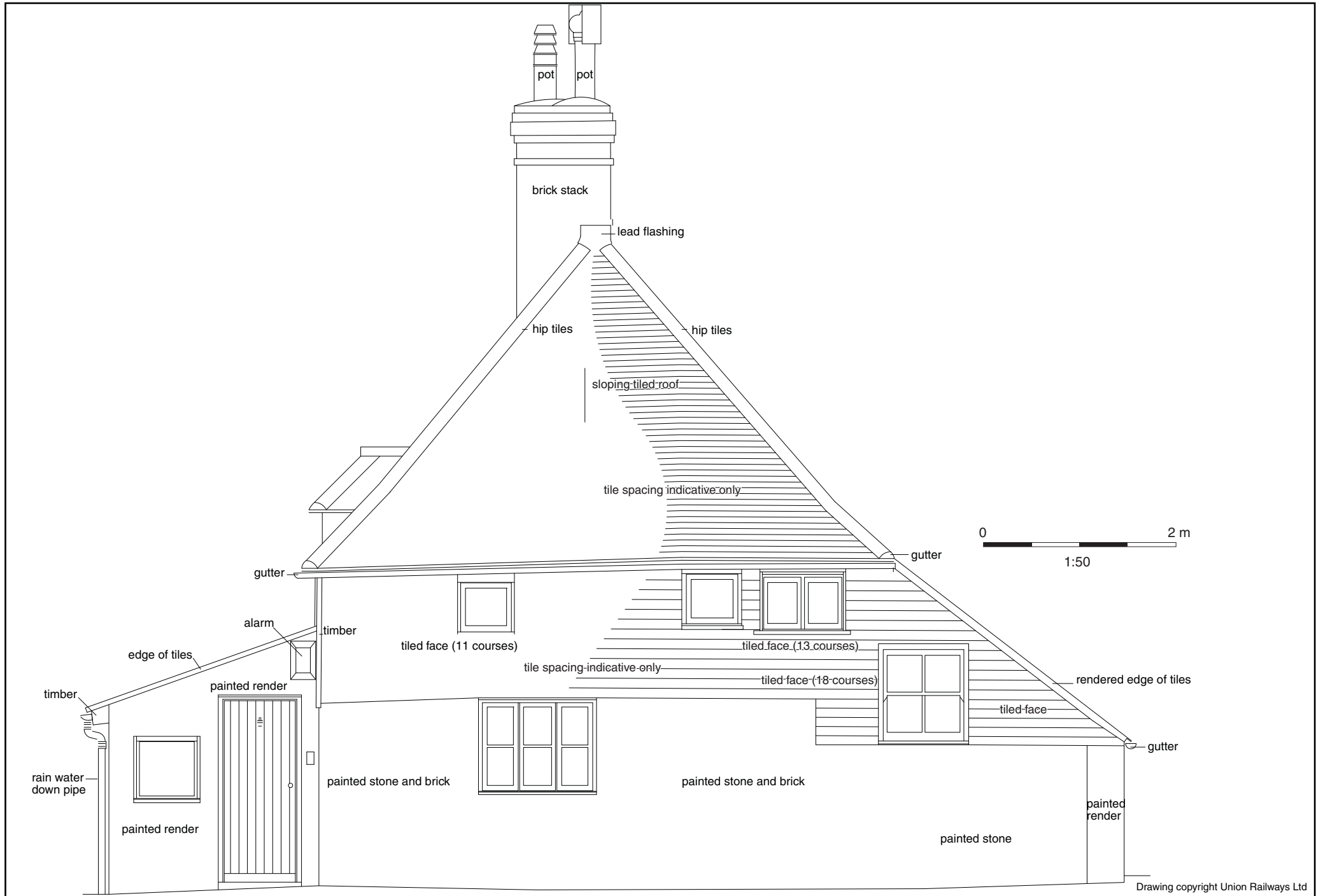


Figure 7: South-east elevation

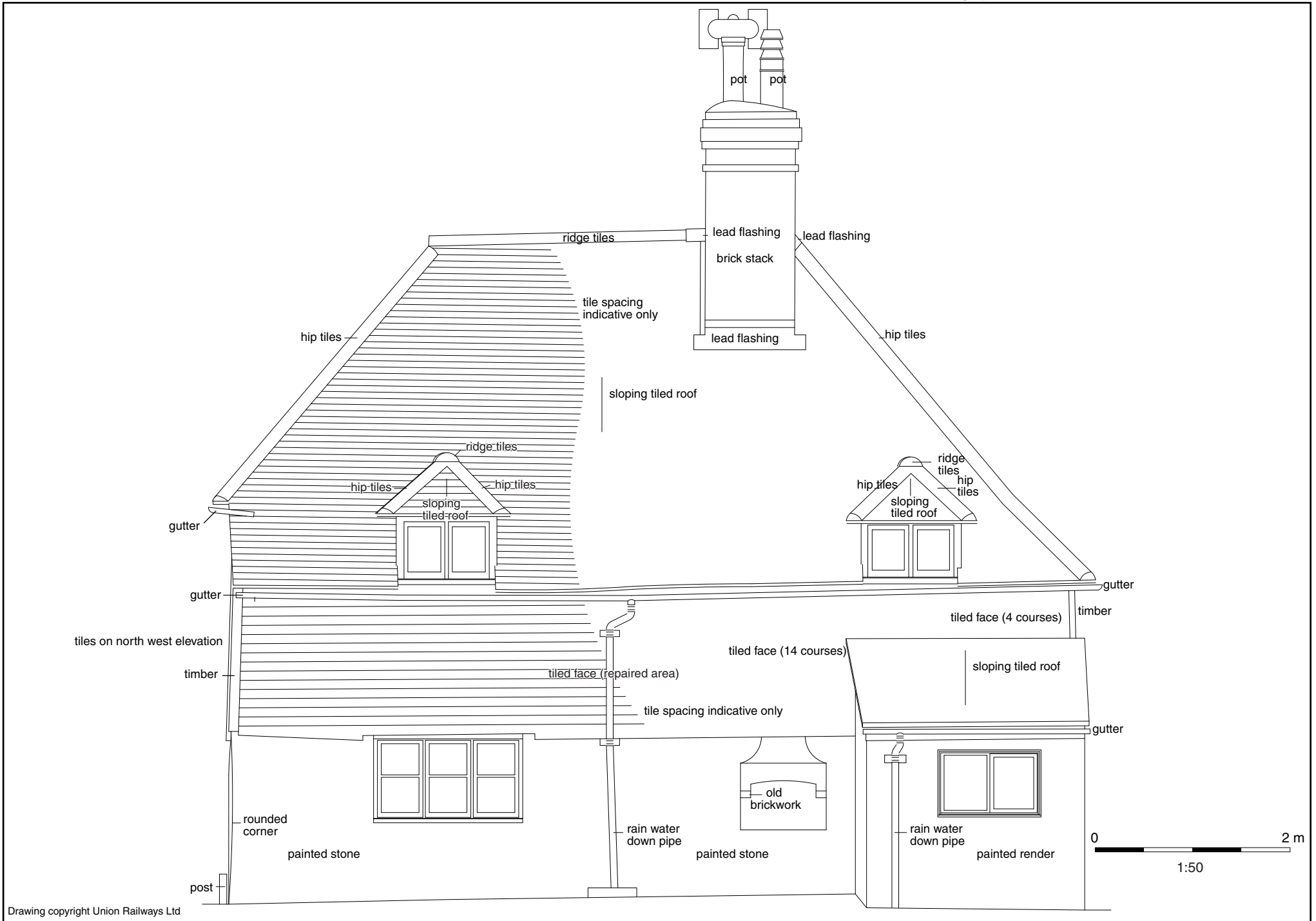


Figure 8: South-west elevation

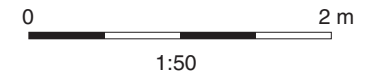
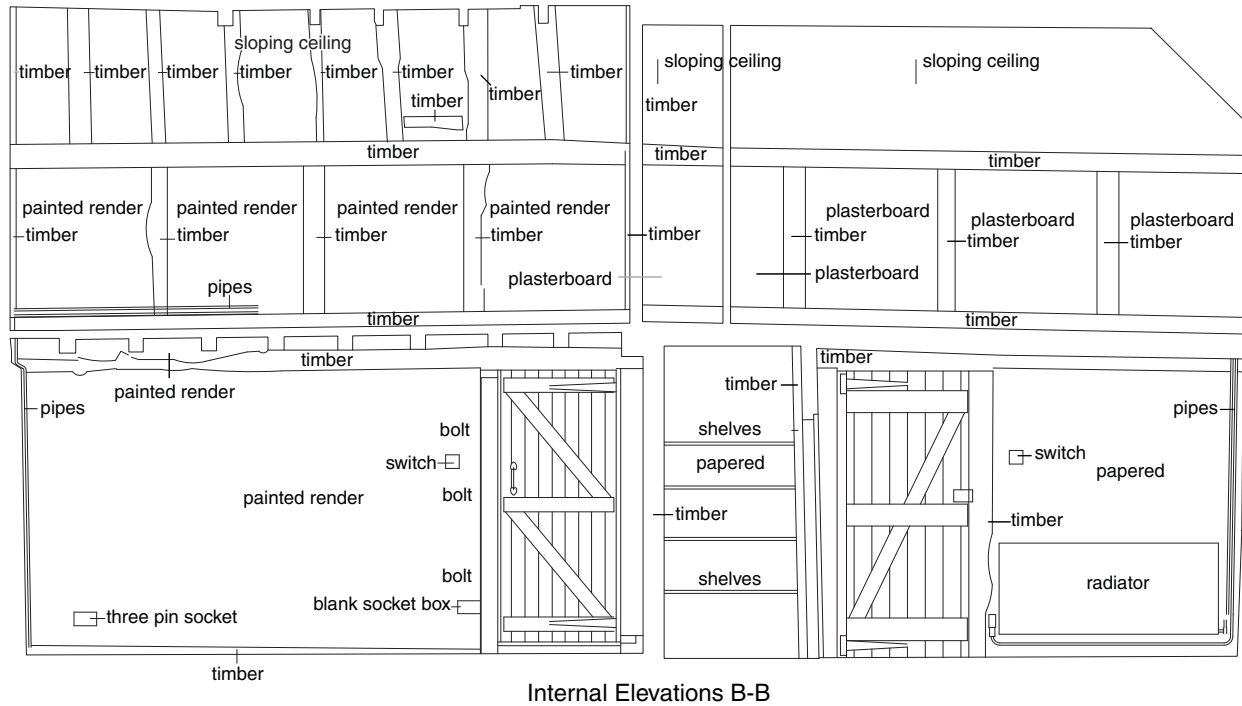
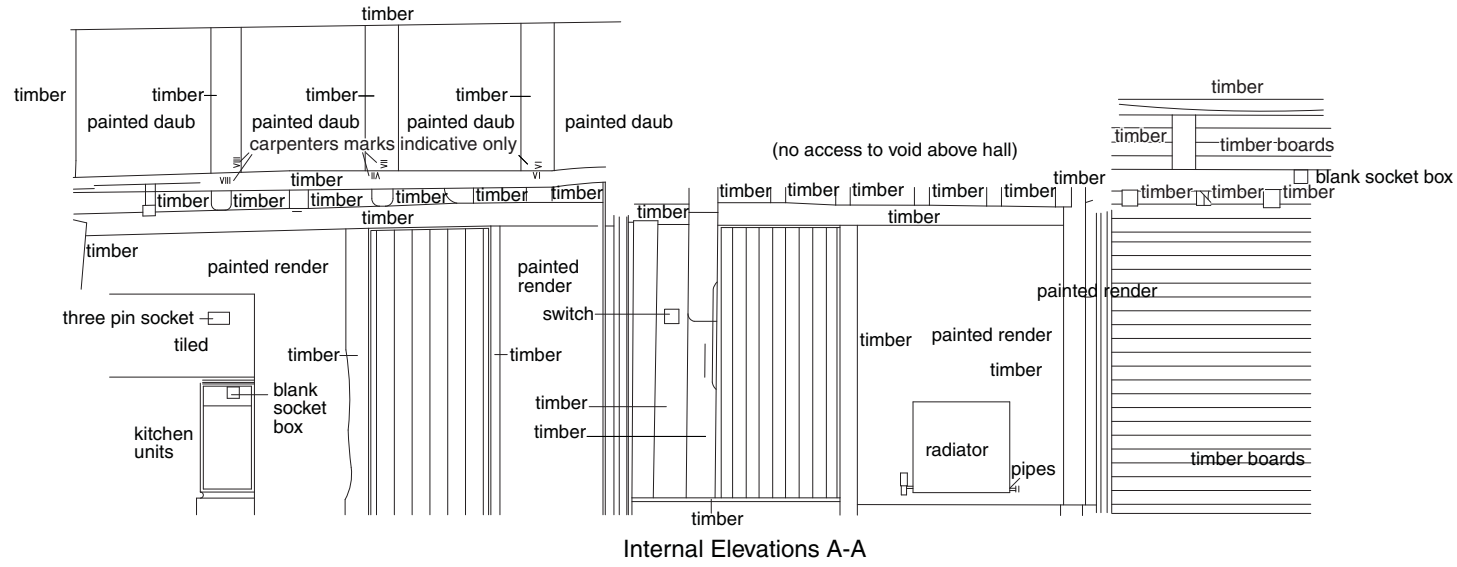
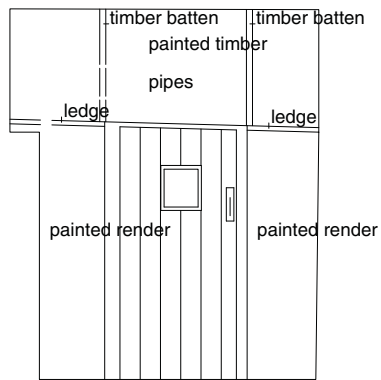
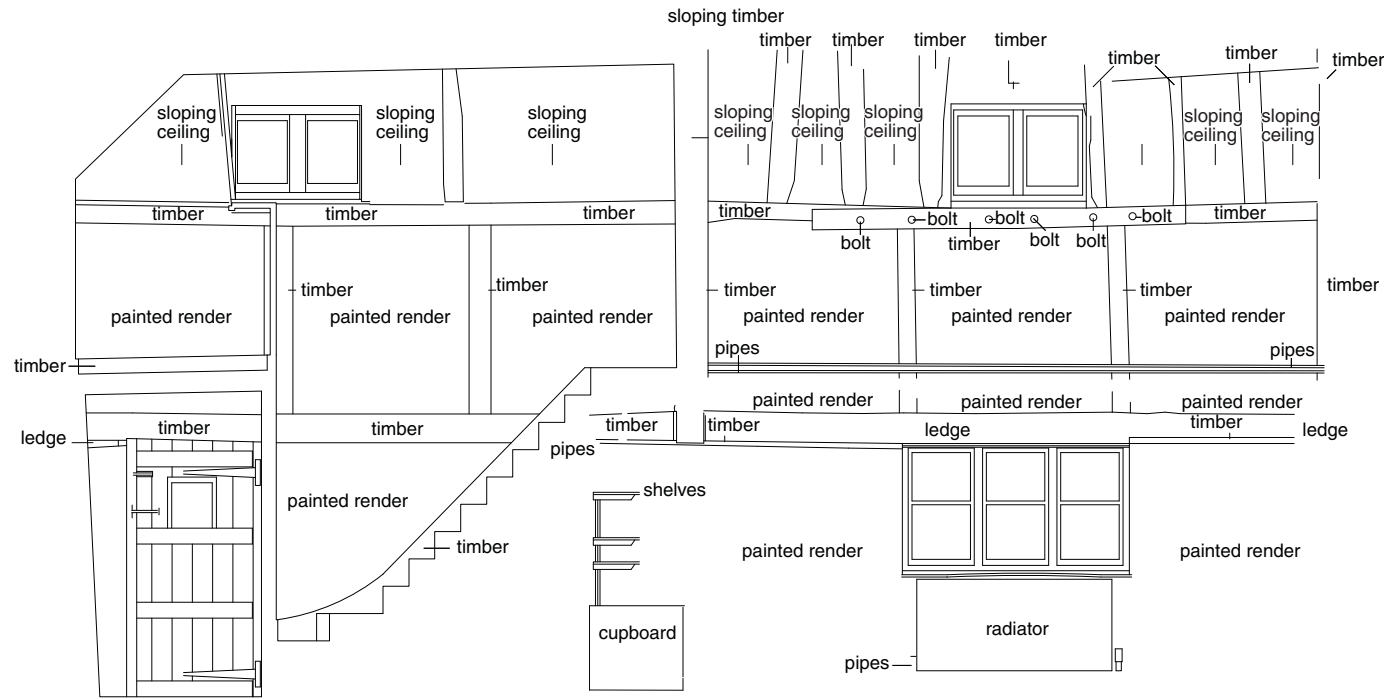


Figure 9: Internal elevations

### Internal Elevations C-C



### Internal Elevation D-D



Figure 10: Internal elevations

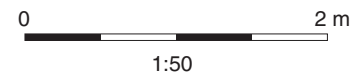
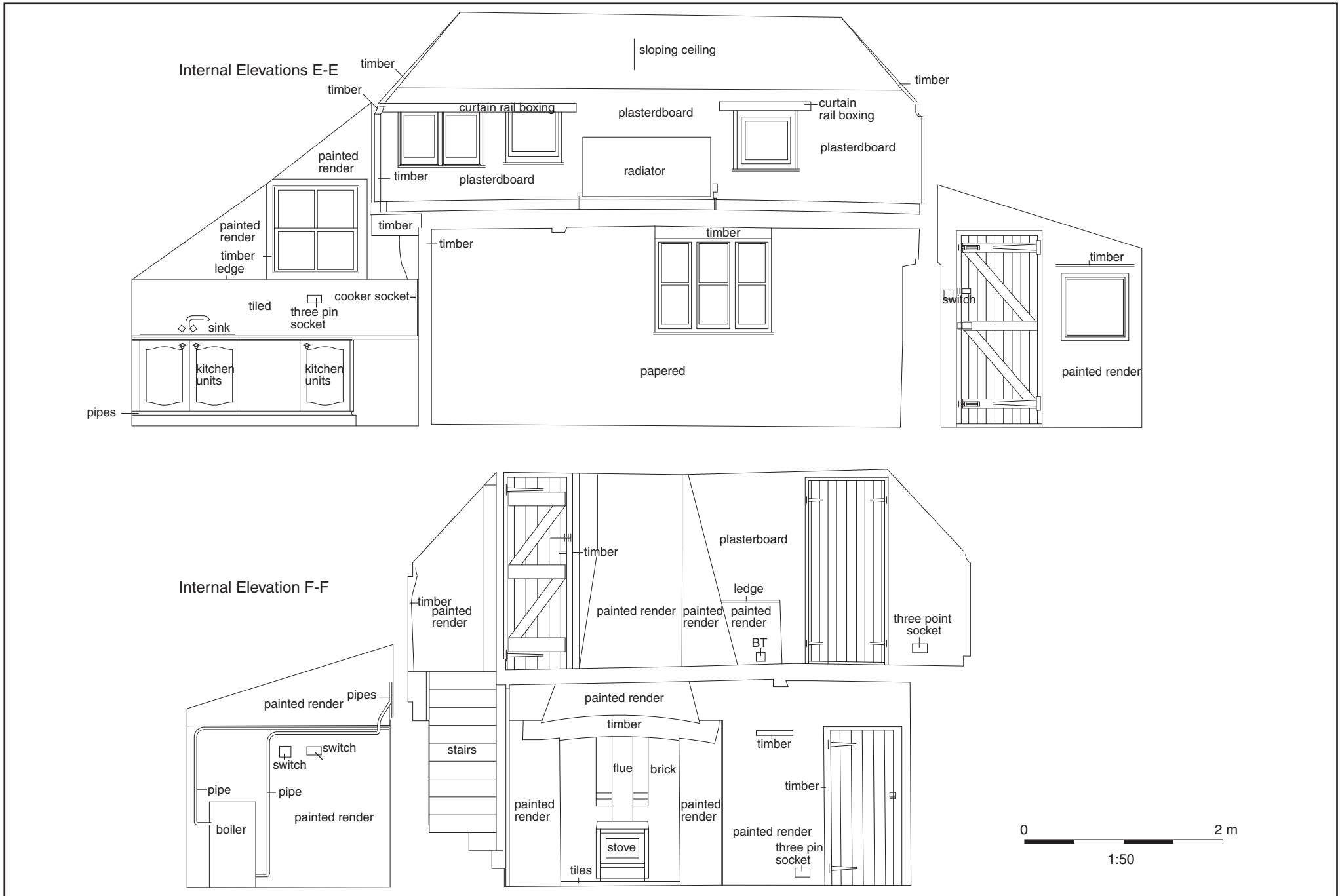


Figure 11: Internal elevations

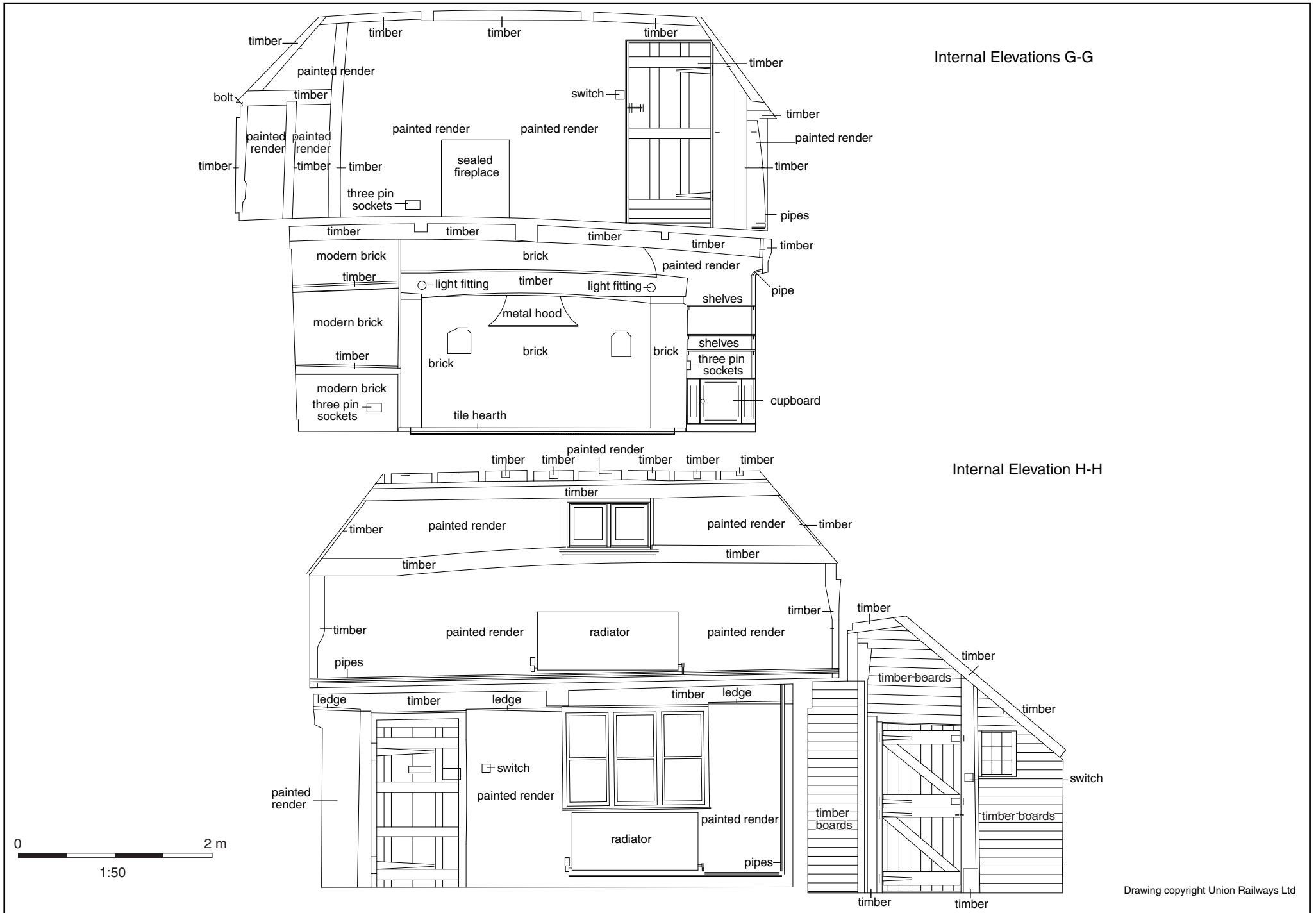


Figure 12: Internal elevations





Plate 1: General view, west elevation



Plate 2: Internal view, jettied front to north



Plate 3: West room, main fireplace



Plate 4: Roof truss and chimney