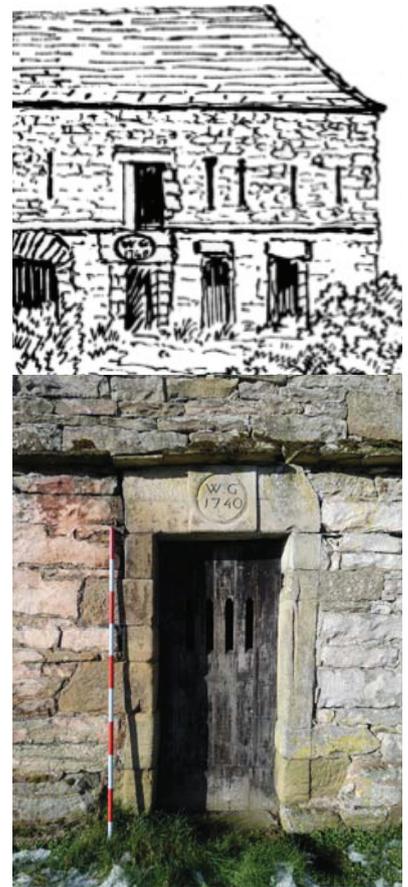


PETTY HALL BARN, ORTON, CUMBRIA

Heritage Statement



Client: Edmund Harrison

NGR: 362228 508118

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April 2019



The Site	
Site Name	Petty Hall Barn, Orton
County	Cumbria
NGR	362228 508118
Listing Status, Level, and number	Listed Grade II, No. 1311584, and in the curtilage of Grade II* Listed building, No. 1326736
Brief description of building/buildings to be recorded	L-shaped barn and outbuildings, attached to north end of house

Client	
Client Name	Edmund Harrison
Client's architect/agent	Chris Richardson (Lanquest Properties)
'As existing' drawings available?	Yes

Planning	
Pre-planning?	Yes
Planning Application No.	-
Plans (e.g. conversion, extension, demolition)	Conversion into dwelling and construction of additional new build dwelling
Condition number	-
Local Planning Authority	Yorkshire Dales National Park
Planning Archaeologist	-
Level of Building Recording required	2/3

Archiving	
Relevant Record Office(s)/Archive Centre(s)	Kendal
Relevant HER	Yorkshire Dales National Park/Cumbria

Staffing	
Desk-based assessment	Dan Elsworth
Building recording	Dan Elsworth and Tom Mace
Report writing	Dan Elsworth, Jo Dawson, and Tom Mace
Report editing	Jo Dawson
Illustrations	Tom Mace
Date on site work carried out	11 th March 2019

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Non-Technical Summary

Prior to the submission of a planning application for the conversion of a disused barn at Petty Hall, Orton, Cumbria Greenlane Archaeology was commissioned to carry out a heritage statement, which it was agreed would comprise a desk-based assessment and archaeological building recording, which was undertaken in March 2019.

Petty Hall has a date stone of 1604, although it may have earlier origins. It belonged to the Birkbeck family, who were originally from Hornby Hall near Brougham. It passed, perhaps through marriage, to Christopher Petty, from whom it now takes its name, before passing to the Garnetts. They constructed the barn, which has a date stone of 1740. The map evidence shows that the building retained its original footprint throughout the 19th century but was massively extended to the west after 1915.

The building recording revealed that the barn was constructed as a bank barn built with its long side set into the slope. It would have had a threshing floor on the upper floor and housing for cattle below, although unusually it also incorporated a passageway from east to west at its south end and a small outshut on the west side extending over both floors, which probably served as a grain store. During the 19th century some minor alterations were made, mainly in the form of repairs to the floors, but in the early 20th century, after 1915, it had a considerable extension added to the west, evidently to provide additional cow housing in a more modern concrete block construction. A further timber shed clad with corrugated metal sheeting was also added after this.

The barn represents a good example of a bank barn of relatively early date with some more unusual features. It is also quite unusual in having a large addition made at such a late date; this perhaps related to legislative changes regarding the housing of animals made in the 20th century. It also forms part of a much larger structure with the house, which is Grade II* Listed, and so comprises part of a significant and very prominent structure in Orton.

Acknowledgments

Greenlane Archaeology would like to thank Edmund Harrison for commissioning the project and his architect Chris Richardson at Lanquest Properties for providing information about the site, assisting with access and providing the 'as existing' drawings. Further thanks are due to the staff at the Cumbria Archive Centre in Kendal for their assistance with accessing the relevant archive information.

1. Introduction

1.1 Circumstances of the Project

1.1.1 The circumstances of the project are set out in the tables on the inside cover of this report.

1.2 Location, Geology, and Topography

1.2.1 The site comprises a single linear block attached to the north end of Petty Hall and is located on the west side of the centre of Orton at approximately 235m above sea level (Figure 1; Ordnance Survey 2002). It lies within the area of Orton Fells, which is a sparsely settled area, characterised by rolling upland farmland, bounded by high dry stone walls, and limited woodland (Countryside Commission 1998, 56-59).

1.2.2 The solid geology of the Orton Fells largely comprises carboniferous limestone (Moseley 1978, plate 1), although beds of sandstone and Eden shales are also present, with expanses of limestone pavement and rocky outcrops prevalent where the underlying solid rocks are not covered by deposits of boulder clay and till (Countryside Commission 1998, 56-57).

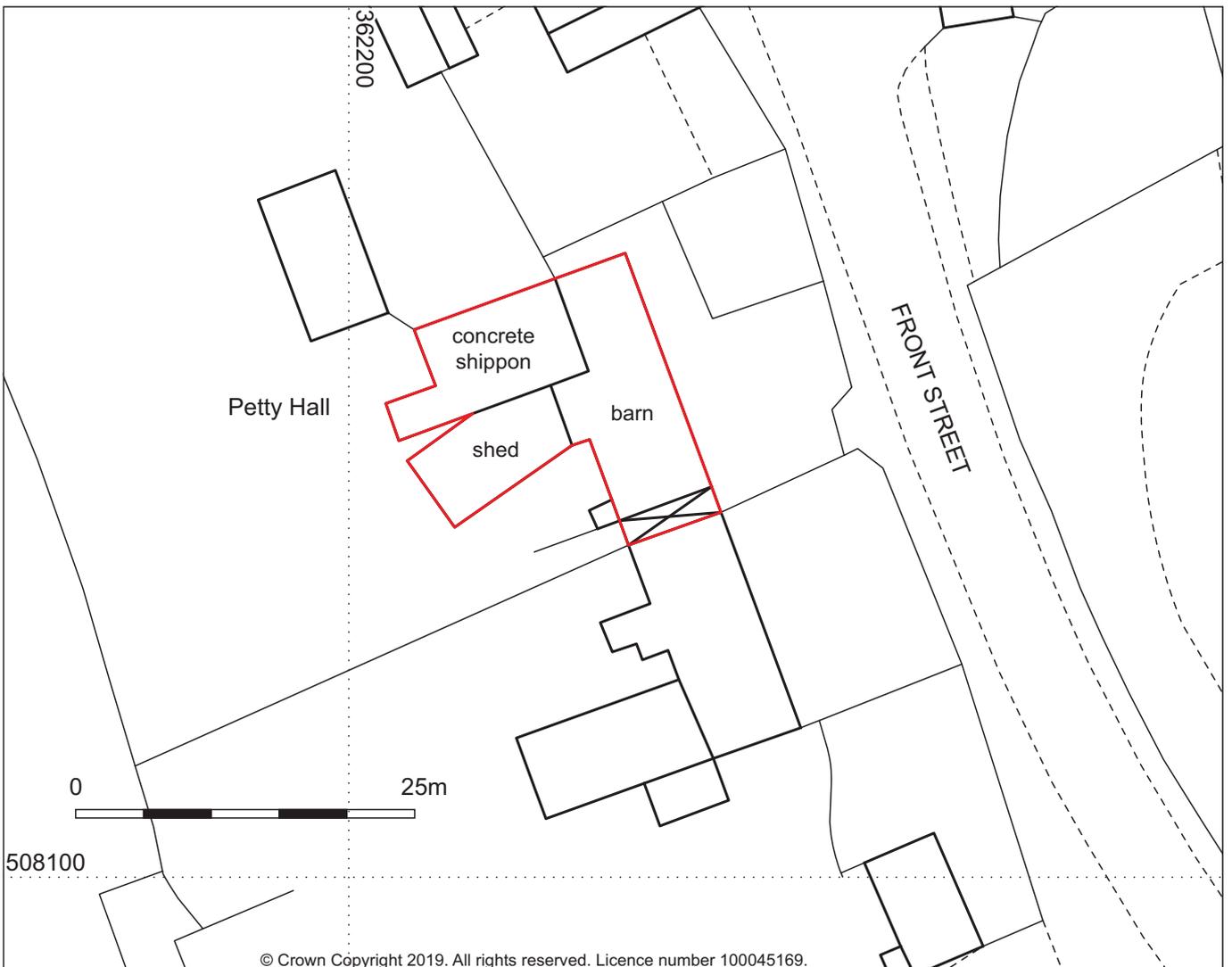
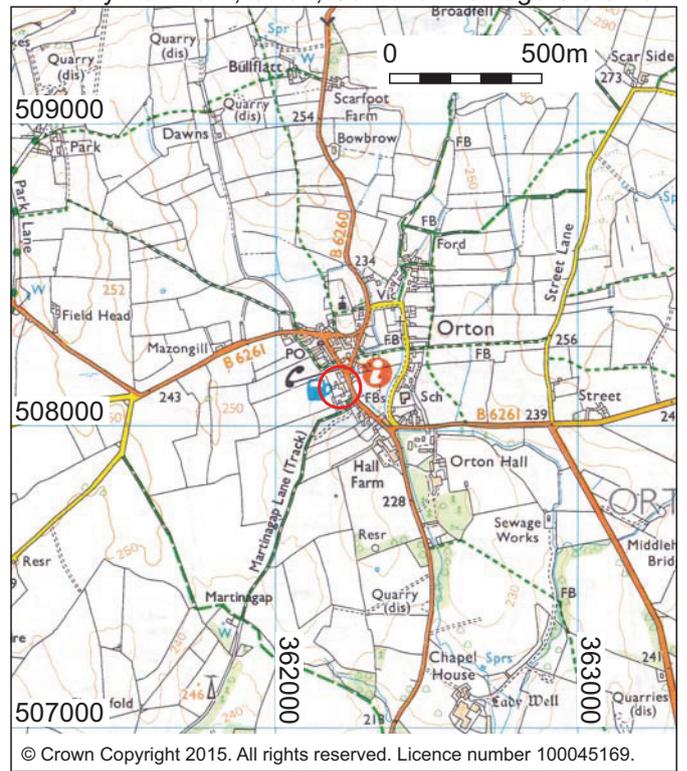
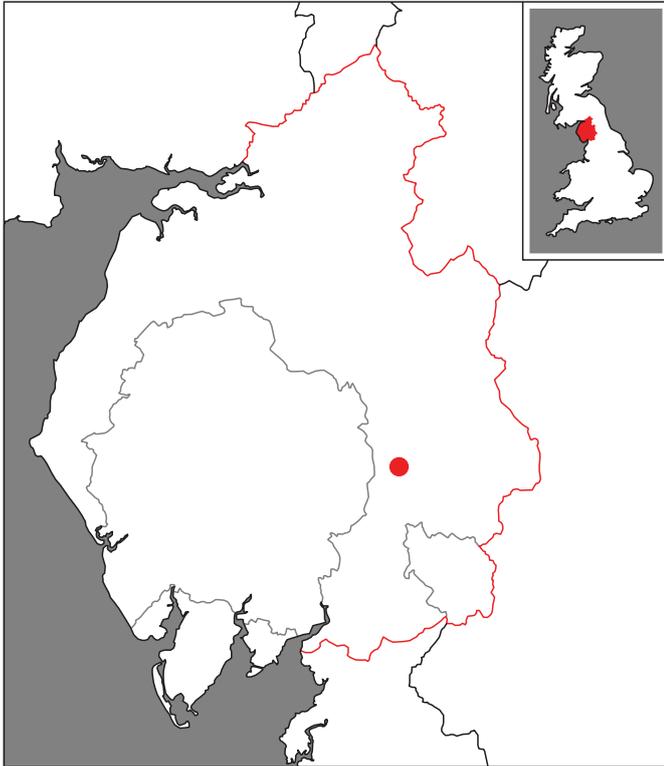


Figure 1: Site location

Client: Edmund Harrison

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2. Methodology

2.1 Introduction

2.1.1 The heritage statement is intended to aid the understanding of the development and significance of the building, and an archaeological building recording, including a desk-based assessment, was considered the most suitable way of achieving this. This will also provide a suitable record of the structure equivalent to Level 2/3 survey as defined by Historic England (Historic England 2016). The work was carried out according to the guidelines of the Chartered Institute for Archaeologists (CIfA 2014a; 2014b). A suitable archive has also been compiled to provide a permanent paper record of the project and its results, also in accordance with CIfA guidelines (CIfA 2014c).

2.2 Desk-Based Assessment

2.2.1 A desk-based assessment was carried out in accordance with the guidelines of the Chartered Institute for Archaeologists (CIfA 2014b). This principally comprised an examination of early maps of the site and published secondary sources. A number of sources of information were used during the compilation of the desk-based assessment:

- **Record Office/Archive Centre:** the majority of original and secondary sources relating to the site are deposited in the relevant Record Office(s) or Archive Centre(s), as specified in the cover sheet of this report. Of principal importance are early maps of the site. These were examined in order to establish the development of the site, date of any structures present within it, and details of land use, in order to set the site in its historical, archaeological, and regional context. In addition, any details of the site's owners and occupiers were acquired where available;
- **Online Resources:** where available, mapping such as Ordnance Survey maps and tithe maps were consulted online;
- **Greenlane Archaeology:** Greenlane Archaeology's office library includes maps, local histories, and unpublished primary and secondary sources. These were consulted where relevant, in order to provide information about the history and archaeology of the site and the general area.

2.3 Building Recording

2.3.1 The building recording was carried out to Historic England Level 2/3 type standards (Historic England 2016), which provides a relatively detailed record of the building. The recording comprised the following elements:

- **Written record:** descriptive records of all parts of the building were made using Greenlane Archaeology *pro forma* record sheets;
- **Photographs:** photographs in colour digital format (as both 12meg jpegs and RAW files) were taken of the main features of the building, its general surroundings, and any features of architectural or archaeological interest. A selection of the colour digital photographs is included in this report, and the remaining photographs are in the project archive;
- **Drawings:** 'as existing' architect's drawings were provided by the client. These were plotted at a scale of 1:100 and annotated by hand with additional detail.

2.4 Archive

2.4.1 The archive, comprising the drawn, written, and photographic record of the building, will be deposited with the relevant Record Office or Archive Centre, as detailed on the cover sheet of this report, together with a copy of the report. The archive has been compiled according to the standards and guidelines of the CIfA guidelines (CIfA 2014c). In addition details will be submitted to the Online Access to the Index of archaeological investigationS (OASIS) scheme. This is an internet-based project intended to improve the flow of information between contractors, local authority heritage managers and the

general public. A paper copy of the report will be provided to the client and a digital copy of the report will be provided for the relevant Historic Environment Record, as detailed on the cover sheet of this report.

3. Desk-Based Assessment

3.1 Map and Image Progression

3.1.1 **Introduction:** it appears that there isn't a tithe map covering the village of Orton, and the earliest useful maps, therefore, are those produced by the Ordnance Survey.

3.1.2 **Ordnance Survey, c1861:** this map shows the barn attached to the Petty Hall, with a covered passageway between them (Plate 1). There is a small structure extending east in the north-east corner, and the wall line along the west side suggests either that the barn is in three parts, or that outshuts have been added.

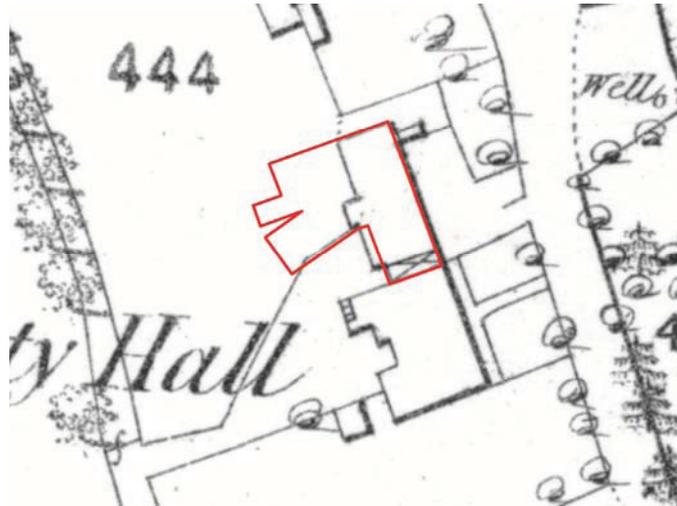


Plate 1: Extract from the Ordnance Survey map of c1861

3.1.3 **Drawing, 1890:** a drawing of Petty Hall and the adjoining barn was made by Fred Garnett, and published in the *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* in 1891 (Garnett 1891). It shows the house and barn much as it now appears (Plate 2), although the barn is apparently un-rendered while the house is rendered.

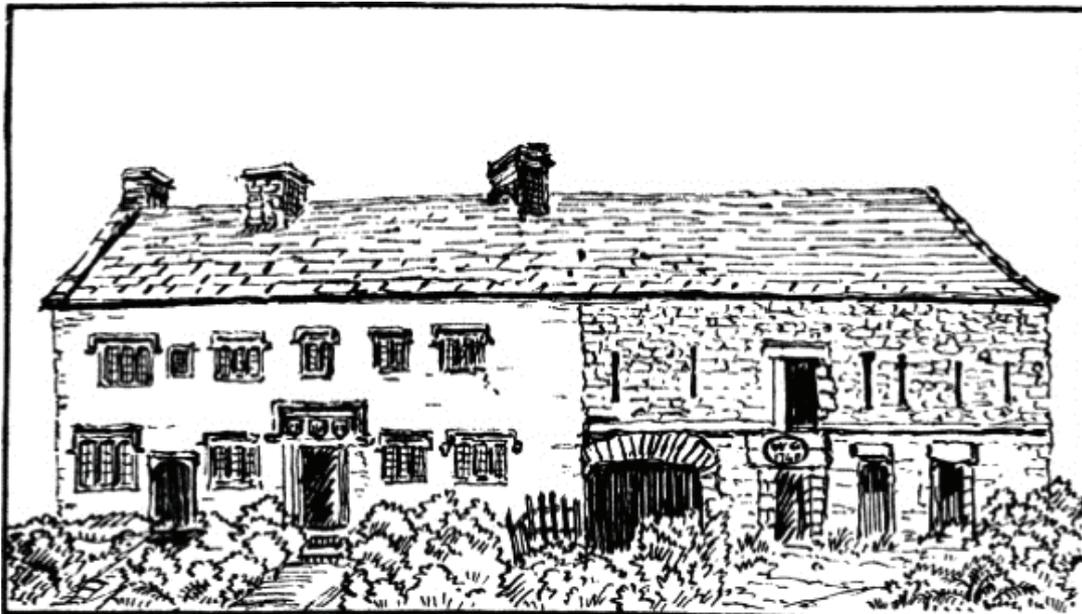


Plate 2: Drawing of Petty Hall and barn, 1890

3.1.4 **Photograph, late 19th century:** an undated photograph, apparently from the late 19th century, survives of Petty Hall, and it shows stonework on the very edge of the adjoining barn (Cumbria Image Bank 2019).

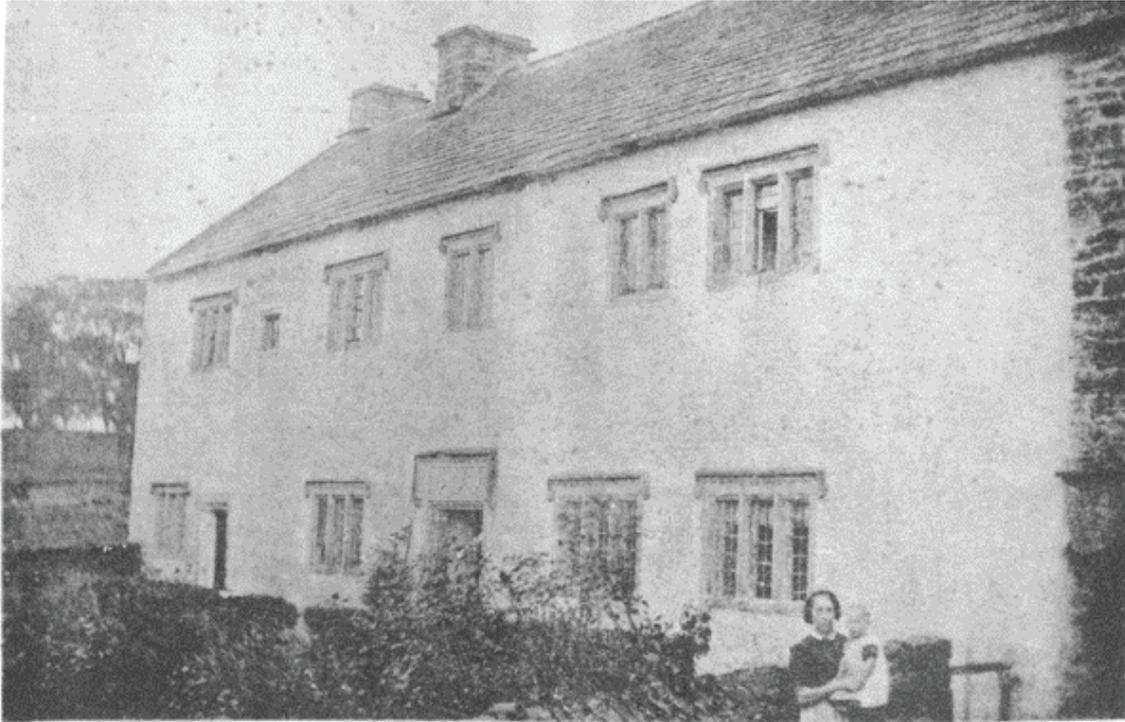


Plate 3: Late 19th century photograph of Petty Hall and the edge of the adjoining barn

3.1.5 **Photograph, 1894:** Petty Hall and the south end of the adjoining barn were photographed by Herbert Bell in 1894, and the photo is number 53 in Vol.1 of an album, *Examples of Early Domestic and Military Architecture in Westmorland*, assembled in 1910 (Norgate and Norgate 2013a). Only part of the barn is shown but it is clearly finished with limewash by this time. A later photograph taken in the mid-20th century shows that this limewash remained well into the 20th century (reproduced in Palmer and McIntire 1983, 99).



Plate 4: Photograph of Petty Hall and south end of adjoining barn, 1894

3.1.6 **Ordnance Survey, 1898:** the mapping conventions have changed since the previous edition (Plate 5). The passageway is no longer shown, but there is nothing else to suggest it no longer exists. The extension at the north-east corner is no longer present, and a small structure has been built against the south boundary wall.

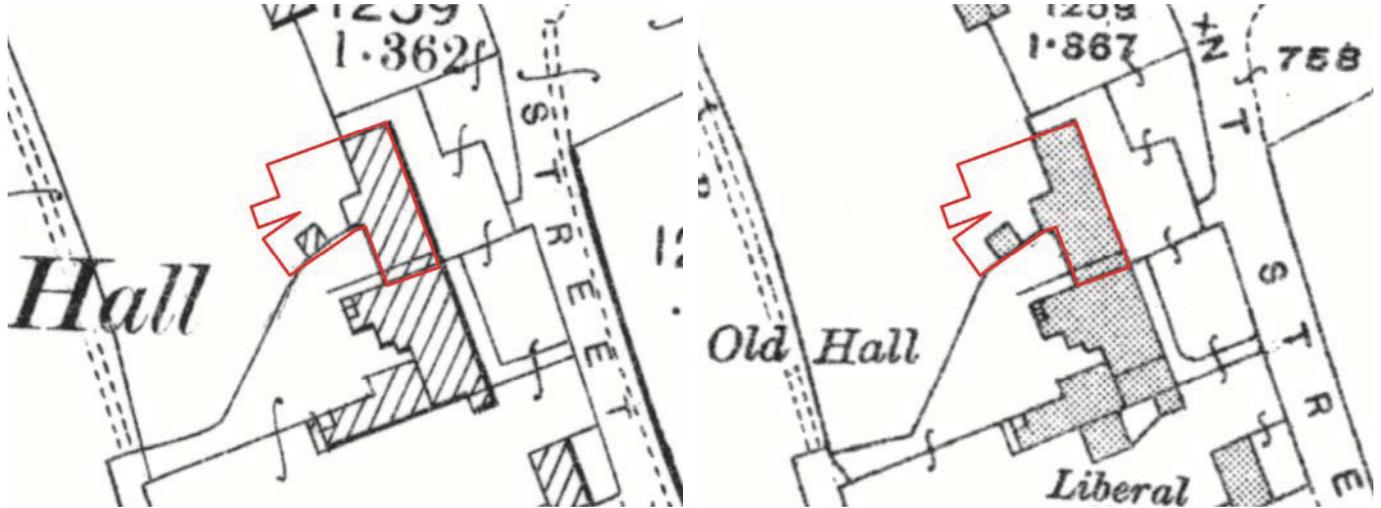


Plate 5: Extract from the Ordnance Survey map of 1898

Plate 6: Extract from the Ordnance Survey map of 1915

3.1.7 **Ordnance Survey, 1915:** there are no changes apparent to the barn since the previous map (Plate 6).

3.1.8 **Photographs, 2003 and 2006:** photographs are available online from 2003 (Historic England 2014) and 2006 (Norgate and Norgate 2013b) showing parts of the barn. These show it essentially as it is today.

3.2 Site History

3.2.1 Orton is a medieval settlement, although its place-name suggests it has Anglian origins, which is first recorded in the 13th century (Smith 1967, 42). The origins of Petty Hall are obscure, although it is thought to be Elizabethan in origin (Taylor 1893, 19). The earliest reliable piece of information is the date stone of 1604 in the house. This is marked with the initials GB and MB relating to members of the Birkbeck family (Garnett 1981, 300). The Birkbecks were originally from Hornby Hall in the parish of Brougham where they lived for several generations and they were well connected to the Petty family; in the 17th century an Elizabeth Birkbeck married a Christopher Petty, gentleman, while a George Birkbeck was also his ward (Taylor 1880). Within Petty Hall there is a second date stone of 1689 with the initials CMP, thought to relate to the same Christopher Petty, of Skipton, (Garnett 1891, 302) who presumably acquired the property through this marriage. Documentary evidence certainly demonstrates the connection between the Birkbecks and Christopher Petty, with other property in Orton passing from Petty to the Birkbeck family (CAC(K) WPR 9/17/2/9 18th century). Although none of this is of direct relevance to the barn at Petty Hall and none of this original documentation can be connected to it, there are references to a barn in Orton so it is possible that there was a precursor to the current building.

3.2.2 Petty Hall was subsequently acquired by the Garnett family, the first of these being William whose initials 'are inscribed on a stone over one of the doors in the right hand, or barn end of the house' (Garnett 1891, 303). The Garnetts were originally from Wickerslack in Crosby Ravensworth parish and can be traced in that area back to 1601 (*op cit*, 302-303). It was also at one time the property of Dr Gibson of Kirkby Stephen (Palmer and McIntire 1983, 98) but it is not clear if this was before or after the Garnett's ownership.

4. Building Recording

4.1 Arrangement and Fabric

4.1.1 **Arrangement:** the building primarily comprises part of a long linear range orientated north/south and is attached to Petty Hall at the south end (Plate 7), although there is a small outshut at the centre of the western elevation of the barn. It has been further extended at the north end of the west elevation with a concrete block addition and a timber shed finished with corrugated metal sheeting also extends from the west elevation but this is not actually attached to the barn. The front elevation of the barn faces east towards the road; the building is a bank barn built into the slope along the long west side, which allows for the lower floor level.



Plate 7: General view of the barn, with Petty Hall to the south, viewed from the north-east

4.1.2 **Fabric:** the whole of the original linear range is constructed from the local yellow gritstone and limestone, mostly in fairly regular courses of roughly dressed blocks with some through stones and details in neatly finished stone. The roof is mainly graduated green slate with stone ridge tiles with finial bases, although the small western outshut has a grey slate roof. The larger later extension on the north side of the west elevation has a corrugated asbestos concrete roof while the timber shed is roofed with corrugated metal sheeting. Internally the timber is all hand finished, although there is some later machine-cut timber replacements, and the floors are concrete and stone.

4.2 External Detail

4.2.1 **North external elevation:** this is the gable end. It is repointed in concrete along the eaves, and has defined quoins at both end and three rows of through stones. There are two slot vents at the top and a row of five projecting slabs housing dovescotes at the eaves (Plate 8). It is extended to the west by the side of the concrete block extension, which is plain (Plate 9). There is a further extension after a return, with the back of a monopitch section to the concrete extension, with a single doorway in a plain surround, and a plank and batten door.



Plate 8 (left): The gable end of the barn forming the main part of the north external elevation, viewed from the north-west

Plate 9 (right): The extension to the west of the north external elevation, viewed from the north

4.2.2 East external elevation: this is the front elevation, it is two storeys high, and it is facing onto the road (Plate 10). There are quoins at the north end and iron rain water goods and stone coping over the slates at the north end. There is a concrete skim over the lower part at the north end with part of the projecting concrete block wall to the south, presumably denoting the position of a former outshut (Plate 11). There is a small blocked window at the north end. There is a row of three doorways on the lower floor, each with neatly dressed quoins, the long ones rebated and scored for render, neatly chamfered. The southern door has a datestone in a moulded circular medallion above the lintel: 'W : G 1740' (Plate 12), and there is also graffiti initials 'JH' scored into its south jamb (Plate 13). All of the doorways have timber plank and batten doors, the north and south with three vent slots. There is a small window to the south, with a two light fixed casement. There is a narrow wagon doorway to the south into the passage below the building with a dressed voussoir arch and quoins (Plate 14). The barn clearly butts the house to the south – the house has a datestone 'GB 1604 MB'. There is a projecting plinth along the base of the elevation and a drip course of thick slabs above the lintels of the doorways. The upper floor has five vent slots and a row of through stones. There is a central winnowing/pitching door with dressed quoins, and a slight chamfer and drip mould over.



Plate 10: General view of the east external elevation, viewed from the east



Plate 11 (left): The north end of the east external elevation, viewed from the south-east

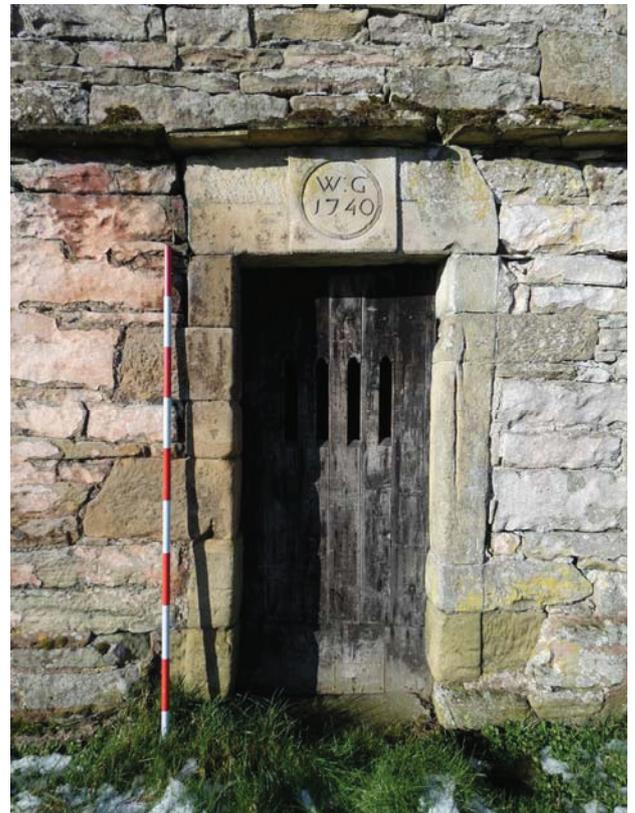


Plate 12 (right): The southernmost lower level doorway in the east external elevation, viewed from the east



Plate 13 (left): Graffiti on the southern jamb of the southernmost doorway in the east external elevation, viewed from the north

Plate 14 (right): The south end of the east external elevation, viewed from the east

4.2.3 West external elevation: the south end of this elevation butts the house. There is a lower level opening to the passage below the building against this, with a voussoir arch in yellow stone (Plate 15). The rest of the elevation is in a much more obviously limestone at the upper level. There is a blocked doorway on the south side with a stone lintel with a drip course over, blocked with stone, and no quoins as such (Plate 16). There is a wagon door to the north of this in the centre, and it has been inserted or widened as there is concrete rebuild in the jamb to the south and a projecting line of concrete, presumably for an attached outshut that is now missing. The wagon door has a reused sleeper for a lintel and is rebuilt above and in the south jamb. To the north of the wagon doorway the wall returns at the small extension to the west, which is built in a much rougher limestone with large quoins and has a rough hole apparently purposefully broken through it at the base. The side of the monopitch is repointed along the top in concrete. There is a return to the north which is plain and is butted by an extension to the north (this is all largely obscured by a timber shed). The return of the extension is plain concrete blocks, and continues as the side of the monopitch section, with a single window with an eight-light casement, with secondary glazing over it (Plate 17). The north end is the gable of the extension, and has a wide doorway with a detached sliding door and an eight-light window above, with secondary glazing over (Plate 18).



Plate 15 (left): The south end of the west external elevation, viewed from the west
Plate 16 (right): The central part of the west external elevation, viewed from the west



Plate 17 (left): The north end of the west external elevation showing the later extension, viewed from the west



Plate 18 (right): The north end of the west external elevation showing the later extension, viewed from the north-west

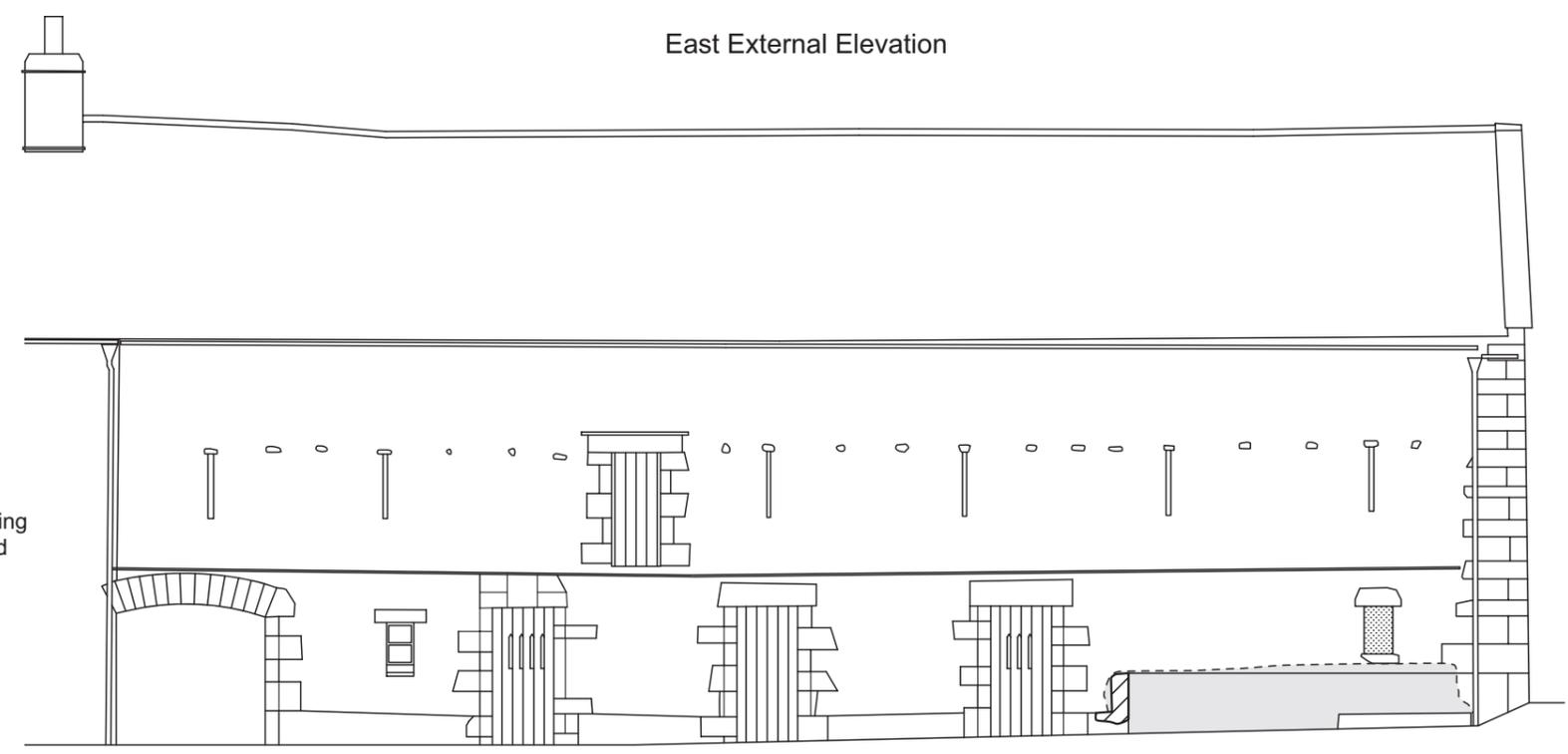
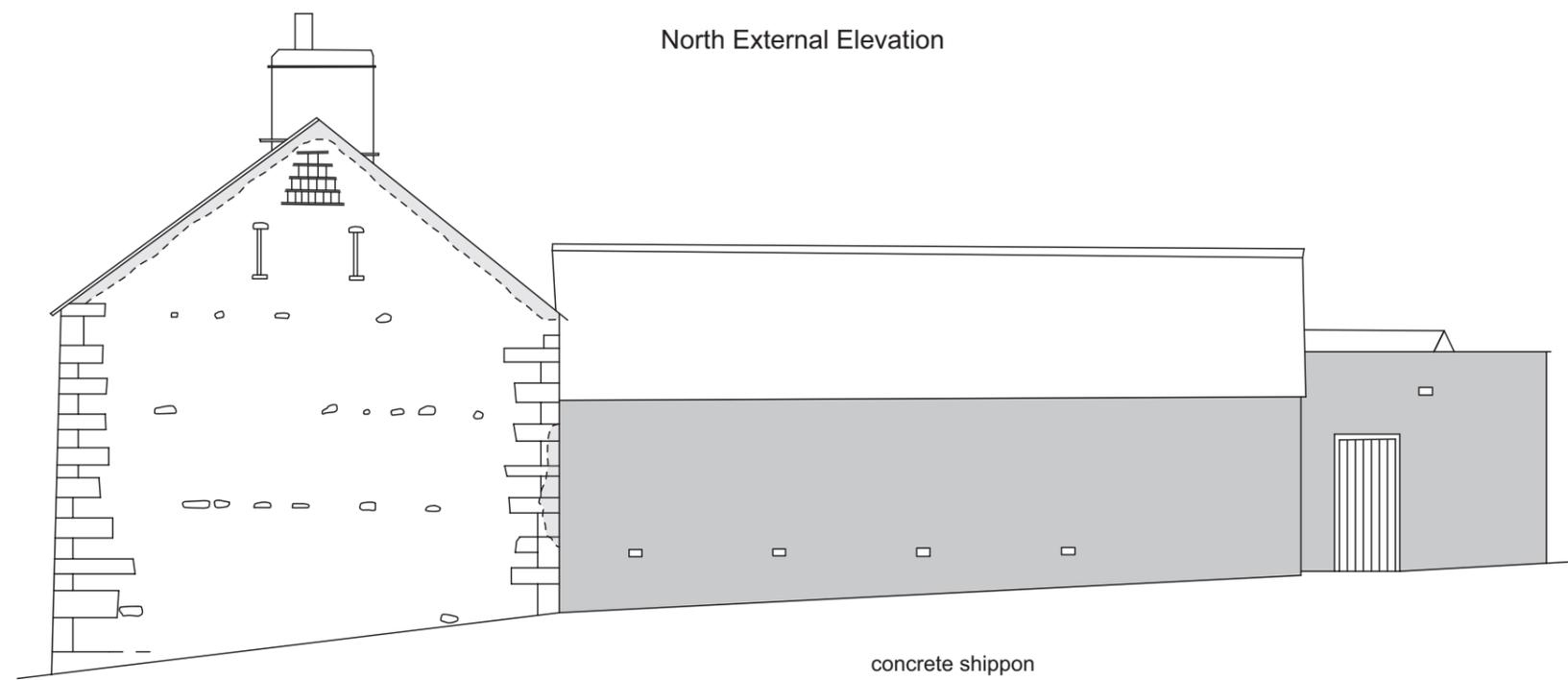
4.2.4 **Shed:** this is detached from the main building but part of the structure is in the space between the main barn and the outshut. It is of timber construction covered with corrugated iron sheeting. The north and east elevations are against other buildings. The south elevation has two small doorways and two windows, both eight-light, with a central large doorway with a plank and batten door (Plate 19). The west elevation is a plain gable (Plate 20).



Plate 19: The south elevation of the shed, viewed from the south



Plate 20: General view of the shed, from the south-west

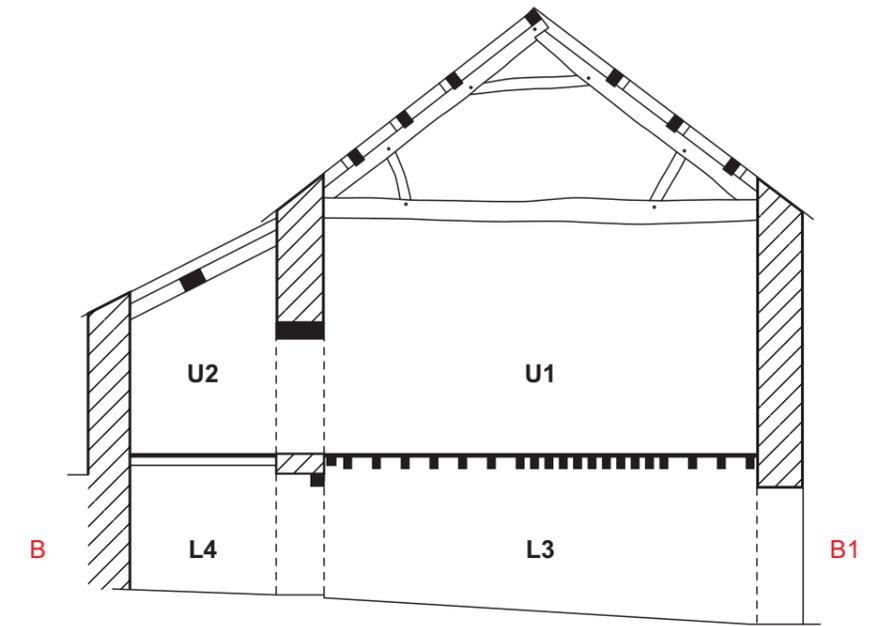
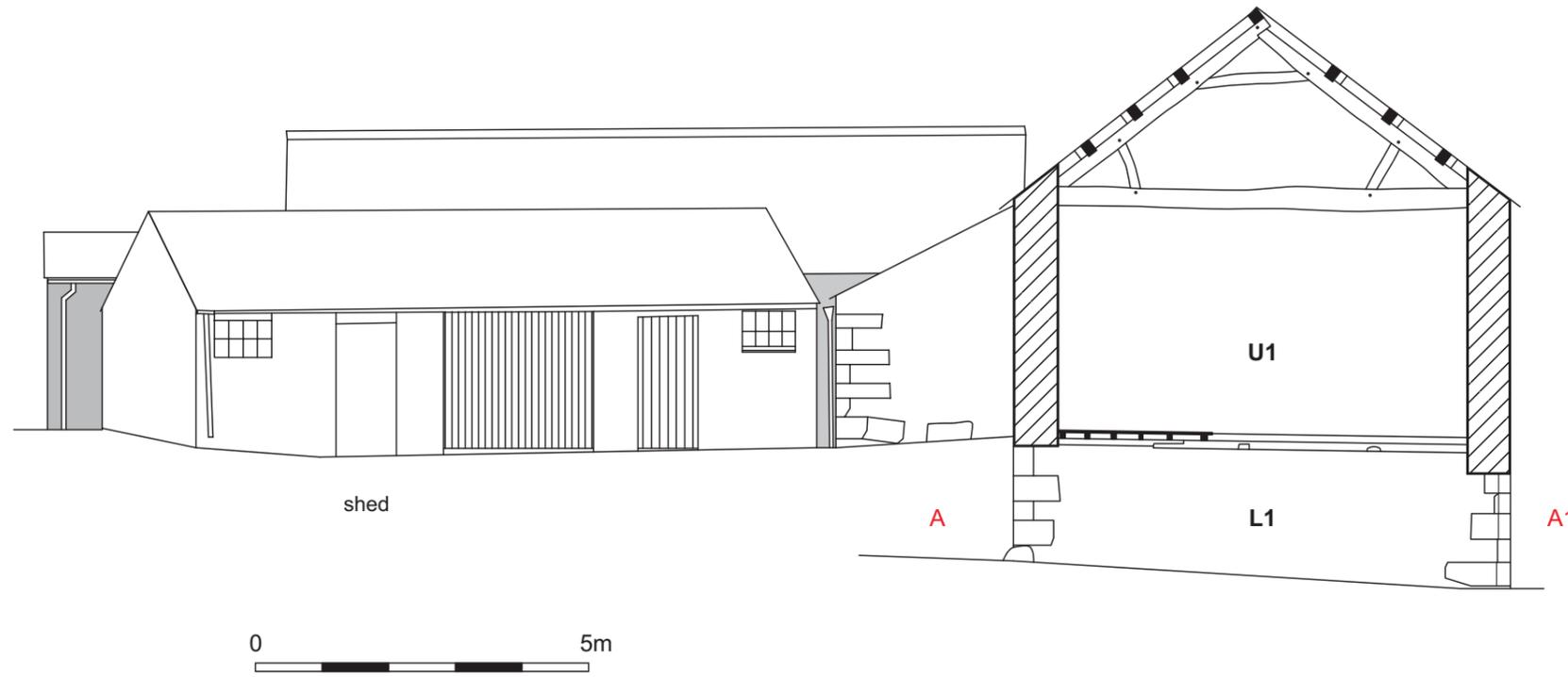


Key: blocked feature edge uncertain cross-sectional wall concrete block construction concrete render

Figure 2: North and east external elevations

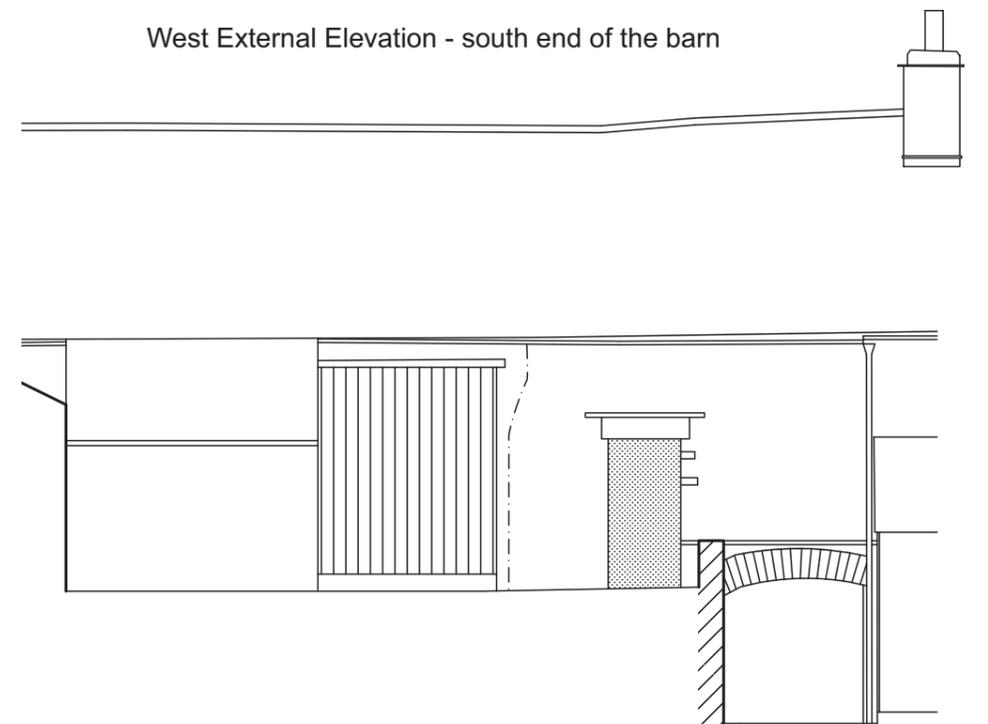
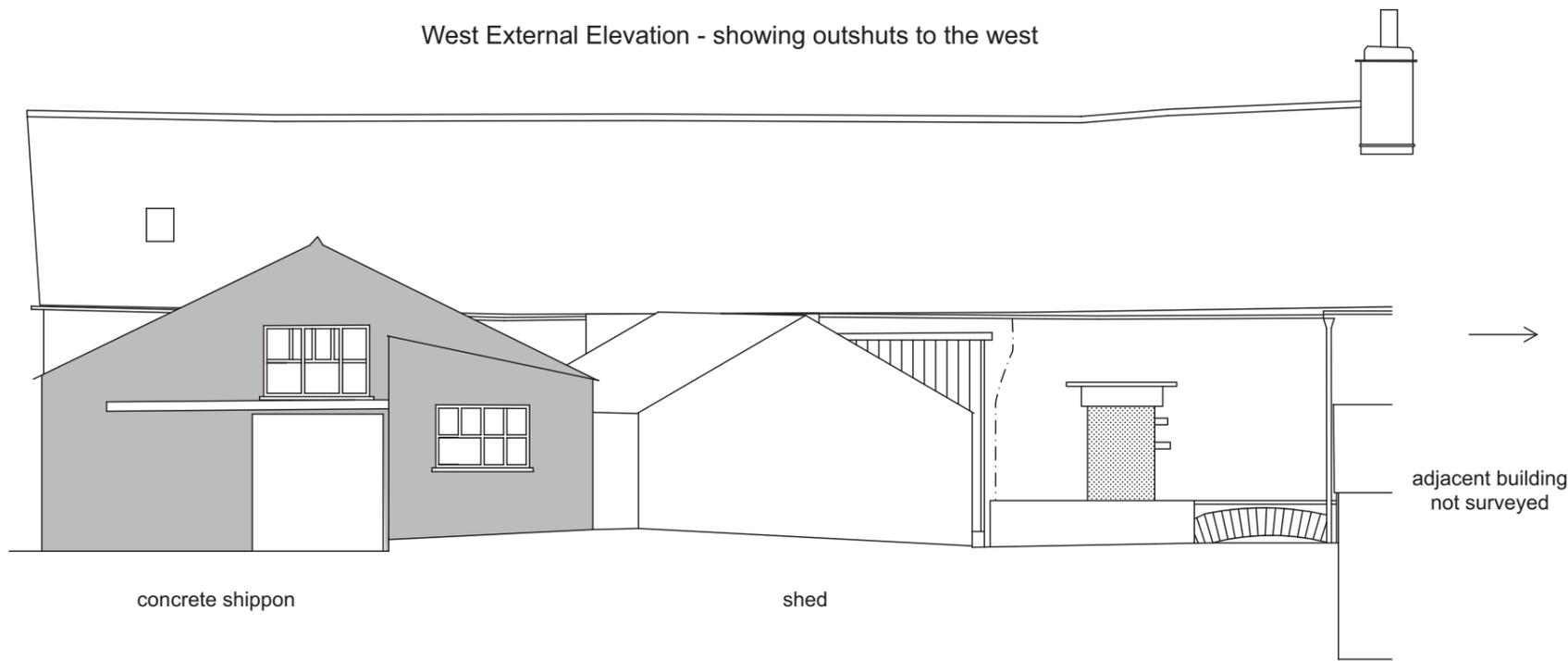
South External Elevation and Cross-section A-A1

Cross-section B-B1



West External Elevation - showing outshuts to the west

West External Elevation - south end of the barn



Key: blocked feature repointing / insertion extrapolated line cross-sectional wall concrete block construction cross-sectional timber **L1/U1** room number

Figure 3: South and west external elevations and cross-sections A-A1 and B-B1

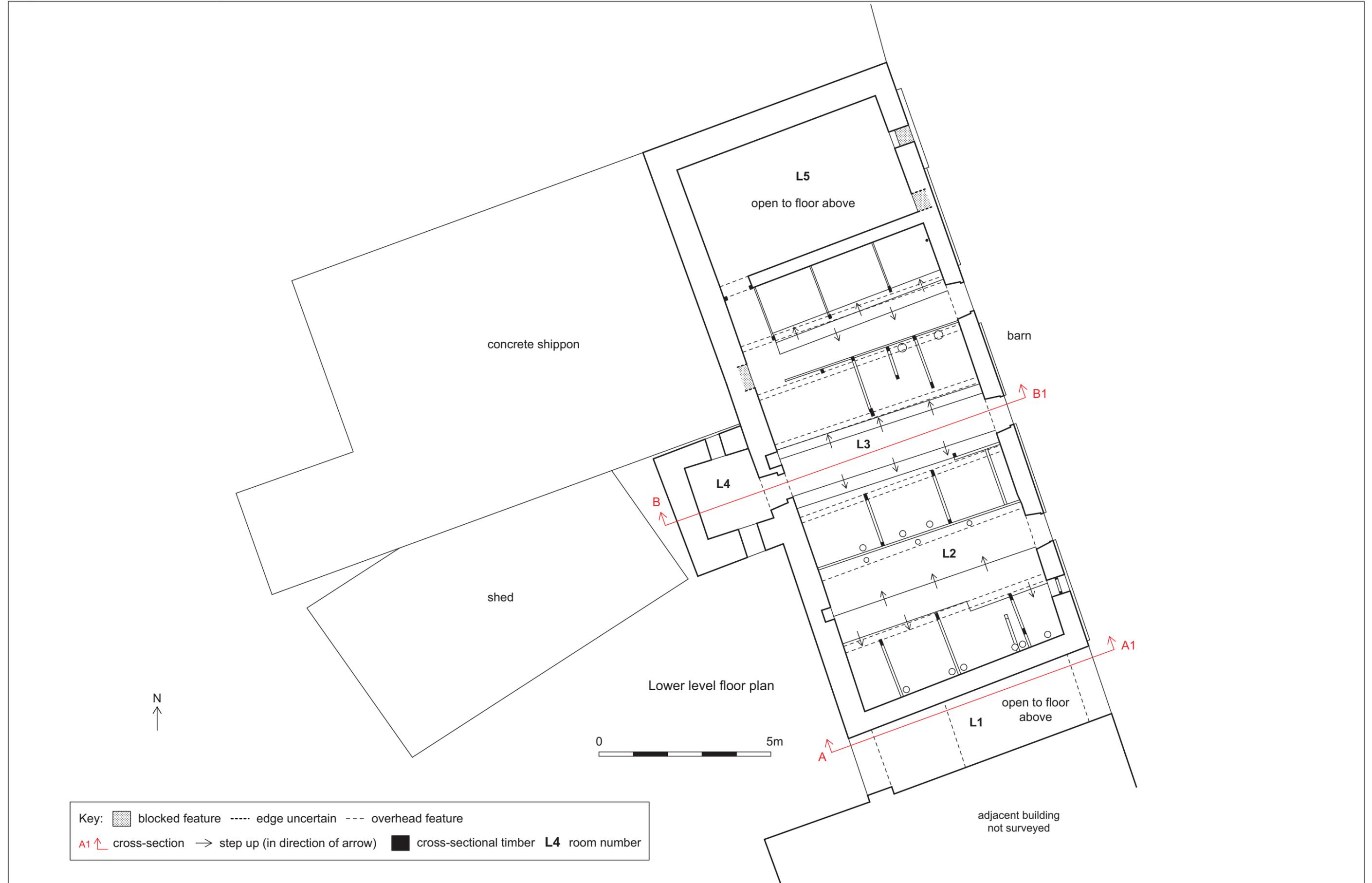


Figure 4: Lower level floor plan



Figure 5: Upper level floor plan

4.3 Internal Detail

4.3.1 **Lower level floor Room 1 (L1):** this comprises a passageway running below the building from east to west. The floor was apparently originally concrete but this has largely worn through to rough stone and the room is mostly open to the floor above but the west end retains part of a floor made from sawn joists and floorboards (Plate 21). The walls are finished with rough render to the **north** and **south** and there is a timber wall plate at the top of the north elevation and joist holes to the south. The **east** and **west** ends of the room are open through arched openings with voussoir stones (Plate 22).



Plate 21 (left): Room L1 showing the remaining floor of the room above, viewed from the east

Plate 22 (right): Room L1, showing the arched opening to the east, viewed from the west

4.3.2 **Lower level floor Room 2 (L2):** this room has a concrete dung channel east/west through the centre and a concrete step up on the south side but cobbles to the north (Plate 23). The ceiling is supported by two east/west beams. The south beam has Baltic timber marks (Plate 24) and the north one is reused. The south one is supported by posts for three timber stalls against the south wall, which are very basic and hand-finished (Plate 25 and Plate 26). The north beam is supported by three iron columns with flat plates on the top. The east, west and south walls are exposed stone. The **north elevation** comprises a plank and batten timber partition against the iron posts (Plate 27). The **east elevation** has a doorway with a stone lintel and rebate for the plank and batten door (Plate 28). The small two-light casement window to the south has a stone lintel and thin stone sill. The **south elevation** is plain with a wall plate at the top and pipes for the drinking troughs labelled 'FORDHAM | PAT N^o. 452755'. The **west elevation** has a small alcove on the north side with a stone lintel.



Plate 23 (left): Floor in Room L2, viewed from the east

Plate 24 (right): Baltic marks on the southern beam, Room L2, viewed from the south



Plate 25 (left): Stalls on the south side of Room L2, viewed from the north-east

Plate 26 (right): Stall detail on south side of Room L2, viewed from the north



Plate 27 (left): The north elevation in Room L2, viewed from the south-west

Plate 28 (right): Doorway in the east elevation, Room L2, viewed from the west

4.3.3 **Lower level floor Room 3 (L3):** there is a double row of stalls with two concrete lined dung channels east/west with raised areas either side with stone edging and cobbled floors (Plate 29 and Plate 30). There are stalls against the south elevation and in the central area and to the north side, mostly of hand-finished timber construction connected to the hand-finished supporting beams for the ceiling (Plate 31 and Plate 32). The stalls to the north side of the room have stone slab construction (Plate 33) and there is a manger in the south-east corner (Plate 34). The joists are a mix of hand-finished and later replacements. The originals are whitewashed. There are metal troughs at the stalls like in L2. The walls are finished with whitewash. The **north elevation** is plain apart from the doorway on the west side. The **east elevation** has two doorways with stone lintels and a very decayed timber one rebated for the plank and batten doors (Plate 35). The **south elevation** comprises a plank and batten timber partition. The doorway to the south side of the **west elevation** has a plain timber surround and early plank and batten door on strap hinges (Plate 36) with a timber lintel and an alcove to the north with a stone lintel. To the north of this there is a further possible opening blocked with stone.



Plate 29 (left): Dung channel in the floor on the south side of Room L3, viewed from the east

Plate 30 (right): Dung channel in the floor on the north side of Room L3, viewed from the east



Plate 31 (left): Stall detail on the south side of Room L3, viewed from the north



Plate 32 (right): Stalls in the centre of Room L3, viewed from the north-east



Plate 33 (left): Stalls on the north side of Room L3, viewed from the south-east



Plate 34 (right): Manager in the south-east corner of Room L3, viewed from the west



Plate 35 (left): Door in the north side of the east elevation of Room L3, viewed from the west

Plate 36 (right): Door in the west elevation of Room L3, viewed from the east

4.3.4 **Lower level floor Room 4 (L4):** this room has an 'earth' floor possibly with cobbles below and heavy hand-finished joists support the boards for the ceiling. The walls are unfinished stone. The **north elevation** has an aperture/chute with a sloping sill and a rough timber lintel (Plate 37). The doorway in the **east elevation** has a timber lintel and plain surround (Plate 38). The **south elevation** has a rough hole knocked through and the **west elevation** is plain.



Plate 37 (left): Chute in the north elevation of Room L4, viewed from the south-east



Plate 38 (right): Doorway in the east elevation of Room L4, viewed from the west

4.3.5 **Lower level floor Room 5 (L5):** the 'earth' floor in this room is obscured. The room is open to the floor above and all the walls are exposed stone. The **north elevation** is plain. There is a blocked opening to the north side of the **east elevation** leaving an alcove with a stone lintel and sill and there is a second blocked feature to the south side of the same elevation with a stone lintel possibly butted by the south elevation (Plate 39). The **south elevation** is only up to the height of the next floor and topped with large slabs. It is keyed into east wall at the bottom but the upper part is butts it. The doorway to the west side has a hand-finished timber lintel with a square door surround (Plate 40), which butts the west elevation. The **west elevation** is plain.



Plate 39 (left): The east elevation of Room L5, viewed from the west



Plate 40 (right): The south elevation of Room L5, viewed from the north

4.3.6 **Upper level floor Room 1 (U1):** this is in the main part of the barn. The floor is timber boards but is obscured by straw and other items. It is open to the roof – there are six trusses, all fairly basic tie beam type each supported by a pair of angled braces (Plate 41). There is a diagonal ridge and three purlins per pitch. The timber is all hand-finished and lots of it is clearly reused, evidently from cruck blades. There is no floor at the north end where the dividing wall comes through the floor level and it is open to the room below. The walls are all bare stone, and are much more irregular compared to the exterior, and there is no sign of mortar or whitewash at the north end of the west elevation but the rest has traces. The **north elevation** is a gable end, and has two square holes at the top corresponding with the dovecote and two slot vents below (Plate 42). In the **east elevation** the first two bays have no whitewash or mortar but the rest have mortar. There is a row of six slot vents (Plate 43) and to the south of the centre there is a winnowing door (Plate 44). It has a large lintel and a plank and batten door with large strap hinges. The last bay and a half at the south end also has no mortar. The **south elevation** is a plain gable with remnants of roughcast render and continues to the lower floor with arrow of joist holes just below this floor level, although part of the floor remains on the west side (Plate 45). The east and west elevations clearly butt against the south and there is a window blocked with stone high on the east side. The **west elevation** has a blocked doorway on the south side with a timber lintel and wagon door to the north of that, with a timber lintel in a recess. The south jamb of the wagon doorway have been rebuilt. There is possibly a blocked window high on the east side. The doorway to the north of that to U2 has a rough timber lintel and timber surround and was evidently not inserted. There is a further doorway with rebuilt jambs to the north. This was evidently inserted and has a timber lintel and plank and batten door with diagonal battens. There is another vent slot on this side of the room at the north end.

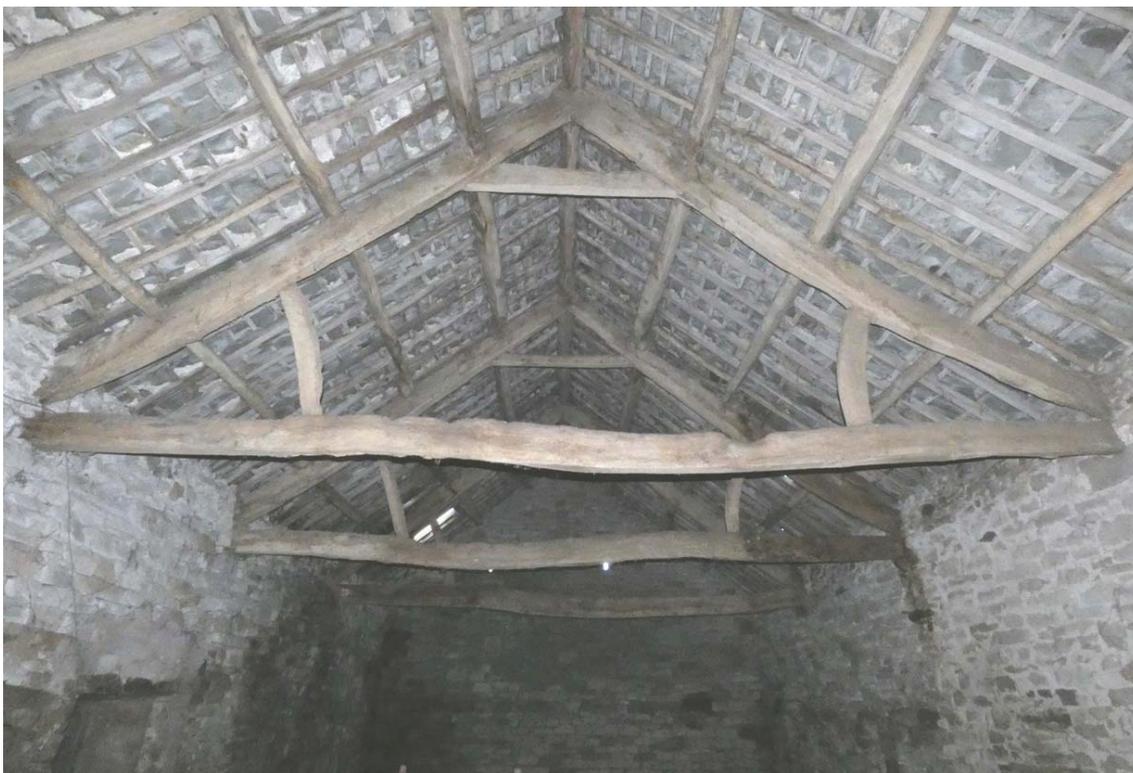


Plate 41: Trusses in Room U1, viewed from the north



Plate 42 (left): The north elevation in Room U1, viewed from the south



Plate 43 (right): The east elevation in Room U1, viewed from the north-west



Plate 44 (left): Doorway in the east elevation of Room U1, viewed from the west

Plate 45 (right): The south elevation of Room U1, viewed from the north

4.3.7 Upper level floor Room 2 (U2): the floor in this room is obscured. The room is open to the roof where the hand-finished east/west joists are visible and the slates are torched with lime (Plate 46). The walls are finished with remnants of whitewashed lime plaster. The **south and west elevations** are plain. The south elevation might butt the wall to the east and there is a small window on the **north elevation** with a rough timber lintel and stone sill and there are tally marks drawn onto the plaster to the east (Plate 47). The doorway in the **east elevation** to U1 has a rough timber lintel and timber surround with further tally marks to the north side (Plate 48). The **south elevation** has a low aperture to the outside, possibly broken through the wall, which also leads to the floor below.



Plate 46: The roof in Room U2, viewed from the south



Plate 47 (left): Window and tally marks in the north elevation of Room U2, viewed from the south-east

Plate 48 (right): Doorway in the east elevation of Room U2, viewed from the west

4.3.8 **Upper level floor Room 3 (U3):** this room has a concrete floor, which is raised in the centre, with dung channels either side (Plate 49). There are concrete stalls to the north and south on raised floors, four to the north and five to the five to the south, with iron tether posts between and pipes attached to the walls for water troughs, marked 'DICKIE' (Plate 50). The walls are finished with concrete skim. The corrugated sheet roof is supported by two L-beam steel trusses with three skylights per pitch (Plate 51 and Plate 52). The **north and south elevations** are plain with just the pipes, troughs, stalls and ceramic vents. The doorway on the south side of the **east elevation** is a tongue and groove plank and batten door. The **west elevation** has a wide doorway with a concrete lintel with a window over. There is a water tank fixed to the wall to the south.



Plate 49 (left): The floor in Room U3, viewed from the west



Plate 50 (right): The stalls against the south side of Room U3, viewed from the north-east



Plate 51 (left): North side of trusses in Room U3, viewed from the west



Plate 52 (right): South side of trusses in Room U3, viewed from the west

4.3.9 **Upper level floor Room 4 (U4):** this room has a concrete floor and corrugated sheet roof with two machine-cut timber joists. The **south** and **east elevations** are plain apart from pipes and electrics. The **north elevation** has a plank and batten door on the east side with a machine-cut surround (Plate 53) and vent to the west. The window in the **west elevation** is an eight-light casement (Plate 54).



Plate 53 (left): Doorway in the north elevation of Room U4, viewed from the south



Plate 54 (right): Window in the west elevation of Room U4, viewed from the east

4.3.10 **Shed:** the shed is divided into three sections with a manger in the one to the west end (Plate 55) and it has concrete floors throughout. It has a flat ceiling at the west end but the two trusses are otherwise simple tie-beam type with two purlins at the ridge and one per pitch (Plate 56). The sheets are marked 'TRADEMARK STANLEY'.



Plate 55 (left): General view of the west end of the shed, viewed from the south-east



Plate 56 (right): A typical truss within the shed, viewed from the south-east

5. Discussion

5.1 Introduction

5.1.1 It is apparent from the documentary evidence that the site has an early history, with the house at Petty Hall existing from at least 1604. The barn, however, is clearly much later and was built against the north end of the earlier house; the date stone demonstrates that the barn was constructed in 1740. The map evidence confirms that the barn had taken on its current footprint by the middle of the 19th century and that it was considerably enlarged in the 20th century.

5.2 Phasing

5.2.1 **Introduction:** the building recording was able to reveal four phases of development of the site, many of which could be closely dated through reference to the documentary evidence and the date stones present on the barn and the adjoining house.

5.2.2 **Phase 1 (1740):** the date stone present in the east elevation of the barn shows that it was built in 1740, evidently for William Garnett – it is certainly later than the house to the south, which it butts against and which is dated 1604, and the form of the building and the various elements within it are certainly fitting with this. It was constructed as a ‘true’ bank barn, with its length along the slope, which would have housed a threshing floor on the upper floor and cow housing on the lower floor (Brunskill 2002, 105-111). Bank barns were commonplace during this period and continued to be constructed well into the 19th century (*op cit*, 108-109). The truss forms are also indicative of an 18th to 19th century date (*op cit*, 153), as are the long strap hinges used on several of the doors, although these originate in the 17th century (Alcock and Hall 2002, 21-22). There are two major variations on the typical bank barn plan; the passageway at the south end of the building (Room L1) and the small outshut on the west side (Rooms L4 and U2). The passageway was evidently constructed to allow easy access from east to west, presumably because there was not room for this around the north end of the building. The western outshut is of less certain function and is unusual in having been constructed over two floors, the lower part of which would have required excavation into the slope. Its purpose is less certain, the chute on the lower level and the plastered interior of the upper level suggests that it might have been a feed store for the animals with a granary above, but it could also have been used as a loose box or similar small pen for animals. A further unusual feature is the presence of dovecote in the north elevation, which is perhaps reflective of the relative status of the property as a whole.

5.2.3 **Phase 2 (19th century):** the original barn seems to have remained in its original form and saw relatively little change for over a century, although it is likely that the stalls were reconfigured at least once. Some repairs to the internal floor were clearly carried out, with iron posts being added along the north side of Room L2 against which a timber wall was placed, and Baltic timber was used for at least one beam. This typically began to be used in the late 18th century although its peak was during the mid to late 19th century (Vandenabeele *et al* 2016). It is most commonly found in coastal areas so its presence in Orton is perhaps unusual.

5.2.4 **Phase 3 (early 20th century):** the map evidence shows that the massive extension to the north end of the west elevation clearly post-dates 1915. This was evidently constructed in order to accommodate additional cattle, a common feature of such buildings, although more typically during the Industrial Revolution when the demand for dairy products increased (Brunskill 2007, 140-141). The late date of this extension is perhaps more likely due to continuing changes in legislation regarding hygiene (Grundy 2015) or economic pressures brought about by the First and Second World Wars. This phase also clearly saw the addition of a small extension at the north end of the east elevation, which only survives as a concrete scar and part of a wall and so its purpose remains obscure, which in turn led to the blocking of a small opening in the wall at this point. Further openings were probably also blocked in this period or later, presumably as a result of the threshing floor going out of use. This phase probably also corresponds with the enlargement of the wagon doorway in the west elevation, presumably in order to allow access for larger farm vehicles or large stacks of hay into the upper floor.

5.2.5 **Phase 4 (mid to late 20th century):** it is clear that the site was further enlarged with the addition of the essentially free-standing shed, which was added to the west. This too was clearly to allow further accommodation for animals, presumably calves or sheep/lambs. This too was evidently added after 1915 and after the Phase 3 extension. The mark on the corrugated sheeting is a type recorded on sheeting used in Anderson shelters (Stanley nd), which indicates the likely date and might suggest that this structure was a reused military building, perhaps from the military training camp at Warcop. A further addition likely to belong to this phase is the hole roughly knocked through the south wall of the small western extension, presumably in order to gain access into this space. The building also suffered generally from water ingress and a gradual decline in condition during this period, in part due to the deterioration of the roof, but probably also due to the storage of hay on the upper floor, and this has led to the main floor/ceiling becoming very rotten in places and further repairs being made.

5.3 Significance

5.3.1 The barn at Petty Hall represents a very good example of a bank barn of relatively early date, which retains a considerable amount of original fabric, although internally the timber forming the floor is generally in a poor condition due to damp and some of it has been replaced. Its association with Petty Hall itself, a Grade II* Listed Building of considerable architectural and historical interest within Orton and of regional importance, means that the barn forms a part of a single significant structure, with an imposing elevation facing onto the main road through the village. The 20th century extensions have had a somewhat detrimental effect to the west side of the building and their removal would certainly benefit the overall structure.

Stanley, M, nd *Maker's Marks*, https://www.andersonshelters.org.uk/makers_marks.html

Taylor, MW, 1880 On Some Manorial Halls in Westmorland, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 1st ser, **4**, 387-406

Taylor, MW, 1893 Manorial Halls in Westmorland, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 1st ser, **12**, 15-41

Vandenabeele, L, Bertels, I, and Wouters, I, 2016 Baltic Shipping Marks on Nineteenth-Century Timber: Their Deciphering and a Proposal for Classifying Old Timber, *Construction History*, **31:2**, 157-175

Appendix 1: Listed Building Details

BARN AND BYRE RANGE ADJOINING NORTH END OF PETTY HALL

Heritage Category: Listed Building

Grade: II

List Entry Number: 1311584

Date first listed: 06-Feb-1968

Date of most recent amendment: 24-Jun-1987

Statutory Address: BARN AND BYRE RANGE ADJOINING NORTH END OF PETTY HALL, B6260

County: Cumbria

District: Eden (District Authority)

Parish: Orton

National Grid Reference: NY 62220 08131

Details:

ORTON B6260 (West side) NY 60 NW Orton 13/71 Barn & Byre range adjoining north end 6.2.68 of Petty Hall (formerly listed under Old Hall)

GV II

Barn and byre range. 1740 date (badly weathered) with initials W.G. on door lintel. Coursed rubble with quoins; slobbered 45° graduated slate roof with stone coping to north gable. Adjoins Petty Hall (listed separately); 2 storeys, 6 bays. Segment-headed wagon arch at junction with Hall leads through to rear; small window and 3 plank doors to right, all under drip-course. 1st floor has central plank door with vent slits to either side. Barn entrance to rear; dovecote openings in north gable.

PETTY HALL

Heritage Category: Listed Building

Grade: II*

List Entry Number: 1326736

Date first listed: 06-Feb-1968

Date of most recent amendment: 24-Jun-1987

Statutory Address: PETTY HALL, B6260

Statutory Address: PETTY HALL, FRONT STREET

County: Cumbria

District: Eden (District Authority)

Parish: Orton

National Grid Reference: NY 6222808118

Details:

ORTON B6260 (West side) NY 60 NW Front Street, Orton 13/70 Petty Hall (formerly listed as Old Hall) 6.2.68 GV II*

Large house. 1604 date with initials G.B. & M.B. (for Birkbeck) on door lintel. Reset stone panel on interior has 1689 date with initials C. & M.P. and pseudo-heraldic device. Later alterations. Coursed,

Client: Edmund Harrison

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squared rubble with quoins. 45° graduated slate roof with stone coping to south gable. Wing to rear. 2 storeys, 6 bays. 2 plank doors, both with false 4-centred heads. Right-hand door is main entrance with dated lintel and architrave; two 3-light windows to right and one to left. 3-light window to left of 2nd door. 2- and 3-light windows to 1st floor. All windows are square-leaded casements in stone-mullioned, chamfered surrounds under hoodmoulds with decorative label-stops. Stone mid and end chimneys. Interior retains many original features including large segmentally-arched fireplaces, massive chamfered beams, doors, partitions, and decorative plaster cornices.