Barn at Lower Rookes Farm Rookes Lane, Norwood Green, West Yorkshire: Historic Building Record



July 2014 NGR: SE 14081 26343 Historic township: Hipperholme with Brighouse

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SUMMARY

The barn at Lower Rookes Farm (NGR: SE 14081 26343) is thought to date from the late sixteenth or seventeenth century, though it was altered in the early nineteenth century and subsequently. It is six bays long, with stone outer walls, and has a single aisle along the west side which forms a pair of shippons, with the barn entry between them. This record comprises scale drawings and photographs, supplemented by a dendrochronological assessment, made in 2012 and 2014 for the developers C & A Bailey to fulfil a condition of planning consent for the barn's conversion.

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BARN AT LOWER ROOKES FARM, ROOKES LANE, NORWOOD GREEN, WEST YORKSHIRE:

HISTORIC BUILDING RECORD

1 Introduction

- 1.1 This report presents the results of historic building recording of a single aisled barn at Lower Rookes Farm, at Norwood Green, near Halifax, in West Yorkshire. The work was carried out between July 2012 and June 2014 for the developers of the building, A & C Bailey, to discharge a condition attached to planning consent from Calderdale Council, for the conversion of the building to holiday accommodation.
- 1.2 The aisled barn is six bays long, with stone outer walls and is thought to date from the late sixteenth or seventeenth century, though it was altered in the early nineteenth century and subsequently. The main body of the barn forms a single open space with no evidence for any internal structures, but the single aisle along the west side forms a pair of shippons, with the barn entry between.
- 1.3 The recording work was carried out in accordance with a specification from the West Yorkshire Archaeology Advisory Service (WYAAS) (Appendix 1), and involved historical research, drawn, photographic and written recording, and dendrochronological sampling, but no analysis as none of the timbers proved suitable for dating (see Appendix 2). This report will be submitted to the clients, the West Yorkshire Historic Environment Record and the West Yorkshire Archive Service, and will be published on the internet via the OASIS project.

2 Location and current use

- 2.1 The barn stands on the east side of Rookes Lane, immediately north of its junction with the A58 Whitehall Road, at the south end of Norwood Green village, which lies some 5km east of Halifax town centre. The national grid reference for the site is SE 14081 26343, its altitude is 125m above sea level, and the postcode is HX3 8PU (figure 2).
- 2.2 The barn forms part of a complex of buildings at Lower Rookes Farm, although most of these are twentieth century. It faces west onto Rookes Lane, with the detached farmhouse standing 10m to its north, while the north end of the barn, which was an historic addition to it, has been converted to a second dwelling. Various lean-tos on the east side of the barn are also twentieth century (figure 3).
- 2.3 The building is in use only for storage and has not been used for farming since the 1990s.

3 Planning background

3.1 The barn has been listed since 1983 (grade II; National Heritage list no: 1314063), and the identifying description reads:

Single aisled barn. Late C17 with addition to left-hand end early C19. Hammer-dressed stone, stone slate roof. 6 bays with segmental arched entry with gable over. Doorways with monolithic jambs to aisles to either side. Opposed arched entry. Some king post trusses survive; stone wall under arcade plate but aisles still retain posts with braces and ties. Left hand gable has arched cart entry with Venetian window over.

3.2 Planning and listed building consent for the conversion of the barn to six holiday lets, with associated works, was granted by Calderdale Council on 12 October 2011 (application numbers 11/01048/CON & 11/01049/LBC), and a condition (number 6) attached to the latter at the request of the council's archaeological advisor, WYAAS, requires archaeological and architectural recording, to which end the present work was undertaken.

4 Previous investigative work

4.1 No previous detailed archaeological investigation of the barn appears to have been undertaken, though the building was noted in a recently published article as one of a relatively small number of gabled entry barns in West Yorkshire: such barns, the article contends, were designed with the intention of displaying the status of their owners, often but not always with a pigeon loft incorporated in the gable. The author considered the barn at Lower Rookes to be the "most curious of them all" in terms of the details of the stonework of the gabled entry, though this can probably be accounted for by nineteenth century rebuilding, only apparent from detailed examination.

5 Historical background

Lower Rookes Farm

5.1 The name Rookes has been applied to settlement at Norwood Green since the twelfth or thirteenth century if not earlier, when members of the Rookes family were principal tenants of the lords of the manor there. Subdivision of their original property means that there are now three sites which bear the Rookes name, for which the nomenclature has changed over time, resulting in a confusing situation (see figure 4). The original "Rookes Hall", probably the site of their earliest homestead, is now known as "Upper Rookes", and lies about 200m to the north-east of Lower Rookes, sometimes referred to historically as Nether

¹ Moir, D 2005 "Gabled entry barns in West Yorkshire: power and prestige" *Yorkshire Buildings* **33** pp83-97

Rookes. Here, there are two principal houses: "Lower Rookes Hall", on the west side of Rookes Lane, and "Lower Rookes Farm" on the east side. The former has also been called "Rookes Hall" in recent years (and still is on Ordnance Survey maps), and the latter "Lower Rookes", but the following description uses the current names to avoid confusion.

- 5.2 John Whitley put the date of 1638 on the present Lower Rookes Hall, when it was substantially rebuilt, and his son Nathan (born c.1616) owned the whole of Nether Rookes when he died in 1692, and left the property to be divided into two: the first part, which he termed the "Little House", with its barn, fulling mill and land (ie. the modern Lower Rookes Farm), was bequeathed to his daughter Elizabeth, while the messuage known as the "Great House" (ie. the present Lower Rookes Hall) was willed to another relative. Given the fact that both houses were previously in the same family, it seems likely that the barn was intended to serve for their combined use. Elizabeth was the wife of Samuel Stanhope, and in 1713 they sold the property to Gervas Brown for £800. Brown left Lower Rookes Farm to the Revd Robert Tempest on his death in 1739, and Tempest then devised the property to his sister-in-law Elizabeth Tempest, when he died in 1756. She subsequently sold it for £1400 to William Sutcliffe of Hipperholme, in 1771, who sold it eight years later to Thomas Fourness of Otley, for £1500. In 1782 it was left to Fourness's grandson Matthew Wilson, of Eshton Hall, and in 1833 Wilson sold it to Joseph Whiteley of Halifax, who had recently purchased Lower Rookes Hall itself, and so was able to re-unite the two holdings divided in 1692. On his death in 1859, the combined property at Lower Rookes was left to Whiteley's daughter Ellen Tolson, on whose demise it was however split into two again, with her son Henry being bequeathed the present Lower Rookes Farm. The house there was demolished and rebuilt in 1888, and in a visit in c.1910 it was said to be "unfortunate for the antiquaries that only the ancient barn and farm buildings" remained.2
- No early photographs or drawings of the barn at Lower Rookes Farm have been identified, but it is shown on nineteenth century maps, including township maps of 1836 and 1849, where it appears as a plain rectangular detached building; it cannot be ascertained whether it had by then been extended at the north end to its present size³ (these maps cannot be reproduced, for copyright reasons). The Ordnance Survey's 1854 map (figure 5) shows the barn with an appendage at the north-east corner, and its 1894 map (figure 6) shows one at the south-west corner, but neither of these small additions seems to have survived. The 1907 map (figure 7) implies the south-west appendage (by its form) to have been pig sties. The 1922 map (figure 8) shows a new addition to the east side of the barn,

² Trigg, WB & Tolson, L 1910 "Rookes Hall and Upper and Lower Rookes, Hipperholme" *Transactions of the Halifax Antiquarian Society* 1910 p241-270

³ WYAS Calderdale: BRI 63 Plan of the Township of Hipperholme cum Brighouse, 1836; MISC 666 Plan of the Township of Hipperholme cum Brighouse in the Parish of Halifax, J Hepworth, 1849

which is still extant; later maps show that between the 1930s and 1950s new lean-tos were added to the south and east sides (figures 9 & 10).

Aisled barns

- 5.4 Aisled barns are a significant type of traditional farm building, of historic interest because they contribute to an understanding of the vernacular architecture and past farming systems of the region. As a group they are under threat due to redundancy and neglect, as well as their potential for conversion, and records of them can help provide an understanding of this diminishing and irreplaceable stock.
- 5.5 In general terms, an aisled barn is an agricultural building type defined by the use of an internal timber frame to support the roof, in which the roof trusses are carried on vertical posts within the building (arcade posts), rather than by the outer walls. The spaces between the arcade posts and the long outer walls form "aisles", and can vary in width considerably from one barn to the next. Some aisled barns have been dated to the thirteenth century, eg. that at Cressing Temple in Essex, but these early examples are generally very large and associated with monastic estates.

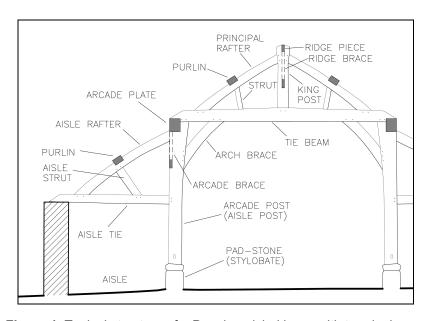


Figure 1: Typical structure of a Pennine aisled barn, with terminology

5.6 A large number of aisled barns exist in the north of England, particularly in the Pennine areas of South and West Yorkshire, with the distribution also extending into the Lancashire Pennines. Some of these Pennine aisled barns appear to be of late medieval or early post-medieval date⁴, but the main period of their

⁴ eg. the timber-framing of one at Blacko, near Nelson in Lancashire, was dated by dendrochronology to between 1560-1600 (Stephen Haigh, 2007 Aisled Barn, Great Stone Edge Farm, Blacko,

construction seems to have been between 1570 and 1650⁵. They are generally associated with the gentry or large estates, rather than the yeoman level of society, but it has been suggested that the aisled barn was the "standard farm building in the Pennines before 1750"⁶, although this was more probably true at the higher end of the wealth and social scale, than at the lower end.

5.7 Pennine aisled barns are generally found with stone outer walls, but in a number of cases it can be demonstrated that these replaced earlier timber-framed walls. Their plan forms vary greatly, with lengths ranging from three to eleven bays, and although most have aisles along both sides, some, such as that at Lower Rookes, have a single aisle. Short internal cross-walls sometimes take the place of arcade posts, often to create a covered porch area with an aisle to either side, these flanking spaces often serving as shippons⁷, and this tradition can be seen to continue in later barns in which no timber posts at all are used. The aisles themselves vary in width, the average being around 3m, which is roughly the minimum required to stall cattle with a passage to their rear, but some are so narrow as to be effectively vestigial.

6 Recording methodology

- 6.1 The recording was carried out in accordance with the specification issued by WYAAS (Appendix 1), between 9 July 2012 and 16 June 2014, and comprised drawn, photographic and written records. The building was initially recorded as found, and this work was approved by WYAAS at a meeting with Elizabeth Chamberlin on 16 July 2012, before conversion work began. Further photographic recording then took place following the demolition of modern leantos on the east side, in 2014, though it should be noted that some alterations to this elevation had already taken place by that time.
- 6.2 The drawn record, based on an original survey by Holden Design Services Ltd, was achieved by additional hand measurement, and comprises a site plan, ground floor plan, phased plan, two cross sections and a long section. These are intended to show all significant archaeological detail, and use conventions based on those specified by English Heritage⁸.
- 6.3 The photographic record was made using a medium format camera with perspective control and other lenses, and black and white film for archival permanence. External and internal photographs were taken, in most cases with

Lancashire: Archaeological Building Recording; Ian Tyers, 2007 Tree-ring analysis of timbers from a building: Great Stone Edge Farm Barn, Blacko, Lancashire)

⁶ Clarke, D W 1974 "Aisled barns in the Pennines" *Brigantian* vol 18-20

⁵ Wade Martins, S, 1991 *Historic Farm Buildings*, p26

⁷ eg. at Stake, near Mytholmroyd: Haigh, Stephen 2007 Barn at Stake, Stake Lane, Cragg Vale, West Yorkshire: Archaeological Building Recording (unpublished report)

⁸ English Heritage 2006 Understanding Historic Buildings: A guide to good recording practice

a scale, either a 1m or 2m ranging pole marked with 0.5m graduations, or a 1m baton marked with 0.1m graduations, and their locations are shown on copies of the plans. All the photographs are copied in this report, and in the following description they are referred to by numbers in **bold**. A small number of external photographs was also taken using a digital camera (see Appendix 3).

As part of the programme of recording, a dendrochronological assessment was made of the timber frame, involving a site visit by Ian Tyers of the Dendrochronological Consultancy, during which a number of timbers were sampled. Later analysis of these was unsuccessful in obtaining any dates, however (see Appendix 2).

7 Description of the barn

- 7.1 From the adjacent Rookes Lane the barn appears as a long, low structure with little to distinguish it from many other historic buildings in the area, as its sandstone walls and stone slate roof are generally plain and not of particular merit from first glance (1-3). Closer examination of the walls does indicate however that the outer fabric of the building is more complex, while a view of the largely open interior shows that much of the timber frame remains intact (4-6).
- 7.2 Those outer walls of the barn which appear to be original, ie. late sixteenth, or more likely seventeenth century, are constructed from local sandstone rubble laid in rough courses, as can be seen to the north of the main entrance, although the two-light window with recessed mullion here has been inserted (7,8); this masonry contrasts with the more regular and less weathered stonework with thinner courses, over the arched entrance and elsewhere, which is believed to be early nineteenth century (9). It is therefore clear that the upper part of the gabled porch or entry has been rebuilt in the late Georgian or early Victorian period, and there are one or two other aspects of the barn which belong to this phase, chiefly the extension to the north, which has now been converted to a dwelling (10,11). The south part of the barn's west wall appears to be largely of early masonry, with the exception of the two modern windows lighting the aisle here, though the store built against this wall is twentieth century (12,13). The south gable appears to have been entirely rebuilt in the nineteenth century, as can be seen not only from the neatly coursed stonework but also from the regular arrangement of large square openings with monolithic jambs at ground floor level, and the ashlar pitching eye (14-17). There has also been rebuilding in the same stone in the rear, east elevation, though here it is confined to the area surrounding the wide doorway (with arch, and recent plank and batten doors similar to those at the front of the barn) (18-20), as well as parts of the upper storey. To the south of this doorway, the rebuilt upper storey contains a row of three large regular openings of the same form as those in the gable (21-23), but to its north, rebuilding has been less extensive and a triangular breather

and larger, rectangular opening (both now blocked) can be seen, within the original stonework (24-27). (The triangular breather was removed during rebuilding work in 2014, at the same time as new upper windows were put in (28,29)). Lean-tos of various dates adorn this rear elevation (30), but the earliest appears to be that which was built between 1905 and 1915 (according to the Ordnance Survey), and this forms a small covered area over the large arched doorway (31,32). It is brick-built but has a stone slate roof and at one time held an upper floor of timber, and still retains a length of line shaft fastened to the barn wall, on which there are a number of pulleys, so was probably used for chopping or mixing feed (33-36). The adjacent lean-tos seem to have been built between the 1930s and 1950s and are not significant, though the extent to which ground levels were raised for their construction should be noted.

- 7.3 Inside the barn, four discrete areas can be identified: the west-facing porch or entry (38); the main body of the barn, six bays long and defined on its long sides by the outside wall to the east and the timber arcade to the west (39,40); and the two parts of the west aisle, separated by the porch and comprising a pair of shippons (41,42). The most significant aspect of the interior however is the timber frame, which contains a high proportion of oak, some clearly re-used, but there are also a number of elements which have been replaced in softwood, and these are thought to represent major repairs to the barn, probably carried out at the same time as the partial rebuilding of the walls, most probably in the early nineteenth century.
- 7.4 The porch forms a covered area square in plan, with concrete floor and stone side walls, which also serve to support the arcade plate in place of timber posts. These walls incorporate a pair of doorways to the south and north parts of the aisle, the doorways having square section, monolithic jambs most likely dating to the nineteenth century alterations. The main doors are presently located below an oak beam just beyond these doorways, and are twentieth century plank and batten type, but it is possible that their predecessors were positioned on the line of the arcade, where a steel beam now supports blockwork (43,44). The outer beam carries the inner edge of a flagstone loft within the porch (45), to which there is now only very restricted access, so perhaps this was not intended to be a storage area but was meant as a barrier against the weather above the doors, the flagstones being chosen over timber boards for their weight and ability to withstand up-draught from the west wind. It is common for barns with gabled entries such as this to have a pigeon loft in this position, but there is no sign of one here, though of course one may have been removed during the rebuilding of the gable in the nineteenth century.
- 7.5 The entry opens into the barn's threshing bay, with flagged floor and large rear doors to the east (46); to either side are large open storage areas, with what appear to be earth floors, and no evidence for any lofts in the form of beam or

joist sockets in the walls (47). The south end is the larger, and in its east, outer wall, a clear horizontal change in the stonework can be seen about 1.3m above floor level, where the darker, lower masonry is thought to be original to the barn, and the upper part, set back very slightly, is probably nineteenth century, and incorporates the three forking holes just below the eaves (48). The early stonework is confined to the very foot of the south gable, below the lower level shuttered openings (49,50). Within the barn's two northern bays the original east wall appears to survive to a greater height, though the different phases are more vaguely defined (51) and it is not certain in which the triangular breather is located (52). The wide blocked opening near the north gable has thin upright jambs more in keeping with a nineteenth century domestic window, and remains somewhat enigmatic (53). Meanwhile the interior face of the barn's north gable (beyond which is the converted extension), has been altered by the crude insertion of a doorway and patchy rebuilding, but it does contain a triangular breather similar to that in the east wall, at a slightly lower level (54).

Timber frame

7.6 Turning now to the timber frame, carpenter's numbering marks on some of the five trusses indicate that they were constructed from the south end to the north (and with their upper faces towards the threshing bay, as is typical), and so the following description follows that sequence.

Truss 1

7.7 Many parts of truss 1 have been replaced in machine sawn softwood (55), but the tie beam, arcade post and aisle tie are all oak and therefore probably original to the barn. The arcade post is badly decayed (56) but still rests on its padstone, now sandwiched between the concrete walls to either side (57), and splays out at its top to support the lap dovetail assembly; the arch brace has been replaced in softwood, but the arcade braces are original and bear notches to indicate they are numbers "I" and "II" in the series (58-60). West of here, the aisle tie and vertical aisle strut are probably original, but the aisle rafter and angled strut are softwood (61).

Truss 2 (see figure 12)

7.8 In this instance the truss appears little altered since its construction, the only significant softwood timbers being the king post and aisle rafter, but it is notable that the tie beam is re-used, the series of mortices for pegged tenons in its soffit suggesting that it was formerly a wall plate in a close studded frame (62-64). The truss bears the carpenter's number "III" on both sides of the joints between tie beam, principal rafter and struts at the east end (65), and "IIII" at the corresponding four positions at the west end (66), so it can be surmised that

numbers "I" and "II" appeared on truss 1, though no such numbering was observed there. The form of the arcade post and (straight) arch brace is in keeping with that at truss 1 (67), as is the pair of arcade braces, which with the notched figures "III" and "IIII" continue the numbering sequence observed to the south (68,69). In this case the base of the arcade post appears to have been removed, though the pad-stone is in place and it is possible that the foot survives within the later concrete and blockwork (70,71). The aisle tie and struts are original, but aisle rafter has been replaced (72); the massive "whole tree" purlins over the aisle are also evidently original, though some softwood reinforcement has been introduced, contrasting with the situation over the main body of the barn, where all purlins to the south of truss 2 have been replaced.

Trusses 3 and 4 (see figure 12)

- These cross frames form a pair to either side of the threshing bay, and are quite distinct from 1, 2 and 5 in their use of a high level collar with short king post, and in the absence of arcade post and aisle framing: the west ends of the trusses instead rest on the stone walls on either side of the entry (a short upright length of softwood in the south wall being part of a modern repair) (73-75). All original components of the trusses appear to have survived, though the upper parts are in poor condition, perhaps a consequence of an inherent structural weakness in a design which was clearly intended for display, rather than solidity; in this respect, the manner in which the pegs within the upper parts obviously protrude contributes to this eye-catching quality. Notably the timber used is generally massive, but irregular, and the principal rafters are of a slightly lighter hue than the tie beam, raising the possibility that it is not oak but another hardwood (lan Tyers, pers comm).
- 7.10 Joint numbering is visible in several places on the trusses: on truss 3, the tie beam below its joint with the west strut is marked "V", and with the east strut "VI", a right-to-left (west-to-east) sequence, at odds with that on truss 2, but the numbering on truss 4 (of which more is visible) also follows the same west-to-east direction. Thus the joints between the tie beam and the west principal rafter and strut are numbered seven (actually "IIV", though inverted, as though the carpenter was marking it from the top when the truss was assembled horizontally) (76,77), and the corresponding positions on the east half are numbered "VIII", though also inverted (78,79).
- 7.11 The apexes of trusses and 3 and 4 are unusual, and it is unfortunate that their partial failure means the later reinforcing timbers obscure some of their details (80,81). They comprise a short king post, T-shaped in section, with three pegs to either side holding the tenoned ends of the principal rafters, and a short collar immediately below, with three pegs to the tenon at each end. The front part of the king post (which stands proud of the principal rafters only by about 25mm)

continues down across the face of the collar, and a peg to either side appears to hold a tenon within the collar, though it may simply keep the front half of the king post in place. There is also a ridge brace to the front or upper face of each truss, rising from a tenon set within the base of the king post, to which it is fastened by a single peg on the west side (82-84). Only on truss 4 is there numbering visible at this upper area, where it consists of the numeral "II" incised in four places at the joints between principal rafter, king post, and collar.

Truss 5

- 7.12 The northernmost truss has been entirely replaced with a nineteenth century one of bolted softwood, its west end supported by a brick pier in place of the original arcade post (85). Beyond this pier much of the aisle frame does survive in the form of a massive whole tree tie and rafter (86,87), though the latter has failed and is supported by a length of telegraph pole. There has been some replacement of purlins in the bays to either side.
- 7.13 The arcade plate running along the west side of the barn appears intact to the south of the entry, where there is a scarf joint between trusses 1 and 2 (88). A second scarf joint is positioned over the south wall of the entry, and a third close to truss 5 (89). North of here the arcade plate has been turned through 180°, so the original seatings for the rafters are now within the soffit, an alteration probably carried out when the truss was replaced (90).

The aisle

7.14 The single aisle on the west side of the barn is occupied by a pair of shippons, spaces which have almost certainly always served to house tied cattle, though their present fittings are of mid twentieth century date. The southern part has paired stalls for twelve animals fitting neatly into the bays of the timber frame, with concrete boskins or dividers, ceramic troughs, concrete floor with manure channel, and partly rendered walls, all required by twentieth century hygiene regulations for dairy cows (91-93). The low wall separating it from the main body of the barn is also twentieth century and of concrete and breeze block, and there was also a boarded partition above this running up to the roof, now largely removed. This type of partition still encloses the north part of the aisle, which is similarly equipped, though the shorter length of two bays contains only stalls for eight cows (94-98).

8 Discussion and conclusion

8.1 The significance of the barn at Lower Rookes lies in its aisled construction and in the surviving original parts of its internal timber frame, which is distinctive in form (particularly in the upper parts of the roof trusses), and largely intact. An

accurate date for the building's construction remains elusive, and to a large degree the attribution to the seventeenth or possibly sixteenth century is based on broad comparison with other aisled barns in the region which are generally believed to be of the same broad period. The external stone walls lack distinguishing original features, partly perhaps a consequence of the partial rebuilding which took place in the nineteenth century.

8.2 The barn's general plan is characteristic for Pennine aisled barns in its threshing floor with large storage areas to either side, and single aisle which was almost certainly used to house cattle. This arrangement indicates a mixed farming regime in which both crops and pastoral production were both important economically, a situation made more likely by the building's location towards the lower parts of the Pennine uplands; further up Calderdale the opportunities for arable farming were more restricted by poorer growing conditions. In terms of size, the building's six-bay length is longer than average for such barns in the district, though well within the norm, and no doubt indicates a prosperous builder.

Appendix 1: WYAAS Specification

Specification For Building Recording/Structural Watching Brief Lower Rookes Farm Barn (SE 14081 26343)

Specification prepared at the request of the developer's agent on behalf of Calderdale Council (Planning Permission 11/01049/LBC)

1 Summary

1.1 A building record (drawn and photographic survey) is required to identify and document items of archaeological and architectural interest prior to the conversion of this grade II listed aisled barn to holiday apartments. This specification for the necessary work has been prepared by the West Yorkshire Archaeology Advisory Service, the curators of the West Yorkshire Historic Environment Record.

NOTE: The requirements detailed in paragraphs 6.1.1 to 6.1.5 inclusive, 8.3 and 8.4 are to be met by the archaeological contractor prior to the commencement of fieldwork by completing and returning the attached form to the WY Archaeology Advisory Service.

2 Site Location and Description

2.1 Location

(Grid ref. SE 14081 26343) Lower Rookes Farm Barn lies on the east side of Rookes Lane, which leads from Whitehall Road (A58). The Barn lies alongside the road and is parallel to it.

The site lies within the township of **Hipperholme with Brighouse**.

2.2 Description

Lower Rookes Farm Barn is an aisled barn, encased in stone with a stone flagged roof. The barn has a single aisle to the west side and also has a gabled cart entry. The footprint of the barn, including the attached 20th century extensions to the east side covers an area of approximately 377 square metres. The condition of the building is reasonable, however, confirmation of structural condition should be sought from the developer's agent.

Lower Rookes Farm Barn is a grade II listed building (LBS 338896).

3 Planning Background

The site owners, through their agents Thomas Jagger (T D Jagger Ltd, 3 Richmond House, Caldene Business Park, Mytholmroyd, Hebden Bridge HX7 5QJ, contact Thomas Jagger 101422 883317) have obtained planning consent (Planning Application No. 11/01049/LBC) for Conversion of existing barn to form 6 no holiday lets including demolition of outbuildings, single storey extensions to rear and new bin store/boiler room to rear. The WY Archaeology Advisory Service (as Calderdale's archaeological advisor) has prepared this specification in order to allow the developers to meet the terms of an archaeological condition which has been placed on the consent.

4 Archaeological Interest

4.1 Historical Background

Lower Rookes Farm Barn is a grade II listed building (LBS 338896) and therefore a designated heritage asset.

The barn at Lower Rookes Farm is a good example of a 6-bay Pennine aisled barn with King post roof trusses. The barn has an arched entry with a gabled roof. There is some evidence

for the re-use of timbers in the aisled barn, which formerly belonged to a fully timber-framed building. The two trusses to either side of the threshing floor are suggestive of a 16th or 17th century date, however evidence for a detailed typology of these aisled barns is still being expanded and without dendrochronological dating it is difficult to be precise. These two trusses are of particular interest, as they appear to have a King block supported by a collar to the upper part of the truss (however due to being unable to get a close look, it is difficult to see). As a gabled entry barn, Lower Rookes is one of a group of buildings which was intended to display the status and wealth of the owner. The barn has a stoneflagged threshing floor between the opposed cart entries, however this flagged area does not continue throughout the barn and to either side, where there is an earthen floor.

There is evidence that the trusses to either side of the internal porch, also once had posts, which were replaced by the internal stone porch walls as can be seen from the truncated length of surviving post, to the south of the cart entry in the west elevation.

4.2 Impact of proposed development

The proposals involve extensive alterations and subdivision of the internal layout as well as the demolition of the existing 20th century additions to the rear of the barn and the construction of new stone-built extensions in their place. The ground level to the rear of the barn is currently substantially higher than what is proposed and therefore, following the demolition of the 20th century extensions the proposal will require the reduction in ground level to the rear (East elevation) of the barn to match the level of the eastern cart entry. The sub-division of the barn, in order to create 6 units will obscure parts of the historic fabric of the building and alter the volume of space within the barn. The works will also require the replacement of some parts of the timber-framed elements of the barn – the structural report suggests that the post marked 'B' on the plans may need to be replaced. The proposed drawing indicates that all three timber posts may in fact be replaced – it is therefore important that the timber-framed structure is subject to dendrochronological dating, prior to the commencement of works.

5 Aims of the Project

- 5.1 The first aim of the proposed work is to identify and objectively record by means of photographs and annotated measured drawings any significant evidence for the original and subsequent historical form and functions of the aisled barn, and to place this record in the public domain by depositing it with the WY Historic Environment Record (Registry of Deeds, Newstead Road, Wakefield WF1 2DE).
- 5.2 The second aim of the proposed work is to analyse and interpret the buildings as an integrated system intended to perform a specialised function. The archaeologist on site should give particular attention to reconstructing as far as possible the functional arrangements and division of the buildings. The roles of historical plan form, layout and circulation should all be considered in this process of interpretation.
- 5.3 The third aim of the proposed work is to analyse and interpret the development of the timber-framed structure; and to attempt to establish the date of the barn by means of dendrochronological analysis. Lower Rookes Farm Barn should be placed within the overall context of the development of Pennine aisled barns with reference to the published typology for these buildings.

6 Recording Methodology

6.1 General Instructions

6.1.1 Health and Safety

The archaeologist on site will naturally operate with due regard for Health and Safety regulations. Prior to the commencement of any work on site (and preferably prior to submission of the tender) the archaeological contractor may wish to carry out a Risk

Assessment in accordance with the Health and Safety at Work Regulations. The archaeological contractor should identify any contaminants which constitute potential Health and Safety hazards (e.g. chemical drums) and make arrangements with the client for decontamination/making safe as necessary and appropriate. The WY Archaeology Advisory Service and its officers cannot be held responsible for any accidents or injuries which may occur to outside contractors engaged to undertake this survey while attempting to conform to this specification.

6.1.2 Confirmation of adherence to specification

Prior to the commencement of any work, the archaeological contractor must confirm in writing adherence to this specification (using the attached form), or state in writing (with reasons) any specific proposals to vary the specification. Should the contractor wish to vary the specification, then written confirmation of the agreement of the WY Archaeology Advisory Service to any variations is required prior to work commencing. Unauthorised variations are made at the sole risk of the contractor (see para. 8.3, below). Modifications presented in the form of a re-written project brief will not be considered by the West Yorkshire Archaeology Advisory Service.

6.1.3 Confirmation of timetable and contractor's qualifications

Prior to the commencement of *any work*, the archaeological contractor must provide WYAAS in writing with:

- a projected timetable for the site work
- details of project staff structure and numbers
- names and CVs of key project members (the project manager, site supervisor, any proposed specialists, sub-contractors etc.)
- details of any specialist sub-contractors in this instance, the dendrochronologist

All project staff provided by the archaeological contractor must be suitably qualified and experienced for their roles. In particular, staff involved in building recording should have proven expertise in the recording and analysis of agricultural buildings. The timetable should be adequate to allow the work to be undertaken to the appropriate professional standard, subject to the ultimate judgement of WYAAS.

6.1.4 Site preparation

Prior to the commencement of work on site the archaeological contractor should identify all removable modern material (including modern machinery) which may significantly obscure material requiring an archaeological record, and should contact the developer in order to make arrangements for their removal (if necessary, under archaeological supervision). The barn should be cleared of material ready for the recording to take place – such as the trailer stored in the centre of the barn between the two cart entries. It is not the intention of this specification that large-scale removal of material of this type should take place with the archaeological contractor's manpower or at that contractor's expense.

6.1.5 Documentary research

Prior to the commencement of work on site, the archaeological contractor should undertake a rapid map-regression exercise based on the readily-available map and photographic evidence held by the relevant Local History Library (Central Library, Northgate, Halifax HX1 1UN) and the West Yorkshire Archive Service (same address), and a rapid examination of the available 19th- and 20th-century Trades and Postal directories, the appropriate census returns and all other available primary and relevant secondary sources. This work is intended to inform the archaeological recording by providing background information with regard to function and phasing. Please note that this exercise is not intended to be a formal

desk-based assessment, and should not represent a disproportionate percentage of the time allowed for the project overall.

6.1.6 Use of existing plans

Holden Design Services have produced plans as existing of buildings. If appropriate, these plans may be used as the basis for the drawn record and for any annotation relative both to the historic and photographic record. Additional information relevant to the historic record should be indicated on the plans, which shall be re-drawn as necessary. It is the responsibility of the archaeological contractor to check the accuracy of these drawings and to make any necessary adjustments or corrections. Contractors are therefore advised to determine prior to the submission of tender whether major re-survey/re-drawing will be necessary. For this purpose, the WY Archaeology Advisory Service would suggest that the tendering contractor check a small number of randomly selected measurements across the site, e.g. a few long face measurements, the position and size of a selection of doors and windows, and a random series of internal diagonals (it is accepted that the contracting archaeologist will not be able to identify isolated and unpredictable errors by using this method). It is the archaeological contractors' responsibility to obtain the appropriate copyright permissions for any original material employed as a basis for further work.

6.2 Sequence of recording

6.2.1 Initial record

As a result of the modern extensions to the barn, recording work should take place in two stages. The structures should initially be recorded as extant, with due provision made for the removal of any debris or modern material which may obscure fabric or features requiring an archaeological record (para 6.1.4 above).

6.2.2 Watching Brief

Subsequent to the commencement of structural work on site, a watching brief should be maintained by the contracting archaeologist to record any pertinent historic structural or functional detail which may be exposed during the course of demolition but which are currently inaccessible, overbuilt or obscured by later alterations to a degree not remediable under normal circumstances of site preparation. This record should be obtained by means of notes, drawings and photographs as appropriate, to the standards outlined elsewhere in this specification. This detail should then be incorporated into the completed record. This enables the east and south elevations of the barn to be photographed, once the 20th century brick built extensions have been demolished.

6.2.3 Dendrochronological Assessment & Analysis

Provision shall be made, within the quotation, for dendrochronological analysis to be undertaken on the timber-framed barn if suitable timbers are identified by a recognised dendrochronologist.

The dendrochronological analysis should be undertaken by a recognised dendrochronologist who has extensive experience with work on historic standing buildings and has widespread access to relevant reference data. The analysis should follow the procedures and outputs outlined in 'Dendrochronology:guidelines on producing and interpreting dendrochronological dates' published by English Heritage (1998) and available on their website (http://www.englishheritage.org.uk/publications/dendrochronology-guidelines/). Provision should be made for the dendrochronologist to undertake an initial site visit to assess the timbers and discuss an appropriate sampling strategy with the archaeologist.

For the convenience of the dendrochronologist it is initially recommended that a small number of digital photographs are taken by the archaeological contractor of the surviving timber-framing within the barn. These photographs should aim to show the general form of the extant timber-work and the general character of the timbers and their scantling. These

should be supplied to the dendrochronologist either by email (following their agreement to receive the material in this way) or by sending a CD. The objective of this is to inform the dendrochronologist of the general nature of the structures and extant timber-work, prior to their initial assessment visit to site. The dendrochronologist also to be provided basic background information relating to the history and development of the complex including relevant plans on which timbers sampled can be subsequently recorded and incorporated into the dendrochronological report.

The dendrochronological analysis should take place following the first phase of fieldwork – however, it may be that some of the timbers are inaccessible, such as the timber post encased by a brick pier at the north end of the barn and in this instance it may be appropriate for the dendrochronologist to return to site to ensure that these timbers are included in the sampling strategy.

6.3 Written Record

The archaeologist on site should carefully examine all parts of each building prior to the commencement of the drawn and photographic recording, in order to identify all features relevant to its original use and to obtain an overview of the development of the building and of the site as a whole. As part of this exercise, the archaeologist on site should produce written observations (e.g. on phasing; on building function) sufficient to permit the preparation of a report on the structure. The crucial requirement is that each discrete internal space should be examined individually, that the results of that examination should be noted in a systematic fashion, and that these objective observations should be used to inform an analytical interpretation of the overall development and operation of the site.

6.4 Drawn Record

6.4.1 Drawings required

The attached house at the north end of the barn is excluded from the drawn record. The drawn record should comprise:

- A plan of the barn (with truss position reflected on plan)
- A phased plan using the results of the building recording & dendrochronological dating
- Two short sections through the barn (at least one to include one of the trusses to either side of the cart entry & the other to be agreed with the WYAAS)
- A long section along the line of the aisle which thereby includes evidence for the remains of the post at the base of south side of the west cart entry

Drawings should be made at an appropriate scale (not smaller than 1:100 for plans; not smaller than 1:50 for sections). The structures should be recorded as existing, but a clear distinction should be made on the final drawings between surviving as-built features and all material introduced in the structure during the late 20th-century.

6.4.2 Scope of record

All features of archaeological and architectural interest identified during the process of appraisal should be incorporated into, and clearly identified in, the final drawn record. Typically, items of interest would include:

- All original structural elements, including posts, roof structure/truss form and arrangement (note that timber type should be identified in each instance, and that all timber structural elements should be examined for re-use)
- Evidence for the presence of tie-beam lap dovetail assembly, the conversion techniques used on the timbers and the position of the upper faces of the crossframes

- Evidence for the number of bays
- Original doors and early doors and window frames and any evidence for associated shutters or other fittings
- Evidence for original and subsequent historical arrangement of the interior, including: original fittings (tethering rings etc), evidence for animal stalls or boxes (including recesses and partition grooves in walls)
- Evidence for the existing and historic position of the stylobates within the barn detail to be clearly marked onto the plan
- Beamed ceilings, haylofts or mortises/holes in the wall which may indicate the original position of beams which have been removed
- Original or historic floor surfaces, such as flagged floors and any drains set therein (and any evidence of drains set within later concrete surfaces which may indicate the position of an earlier re-used drain) – clearly marked onto the plan
- Evidence for original heating and lighting arrangements including candle recesses
- Evidence for original/historic breathers and means of ventilation
- Evidence for the use of powered machinery (including elements which may have been man or horse-driven)
- Evidence for scarf joints in the roof timbers (which may indicate an alteration to the original structure of the building or the re-use of timbers)
- Any carpenters' marks, merchants' marks or apotropaic marks visible on the timbers and evidence for the sequence and type of carpenters' marks utilised to be recorded (any such marks to be annotated onto the plan)
- Evidence for the stone flagged area above the west cart entry
- Evidence for the phasing of the buildings on site (such as straight joints), for additions or alterations to the barn relevant to its original and subsequent use evidence for the relationship of the barn with the adjacent house and development of the barn should be made

but this list should not be treated as exhaustive. The archaeologist on site should also identify and note:

- any significant changes in construction material this is intended to include significant changes in stone/brick type and size
- any blocked, altered or introduced openings
- evidence for phasing, and for historical additions or alterations to the building.

6.4.3 Dimensional accuracy

Dimensional accuracy should accord with the normal requirements of the English Heritage Architecture and Survey Branch (at 1:20, measurements should be accurate to at least 10mm; at 1:50, to at least 20mm; at 1:100, to at least 50mm). Major features such as changes in structural material may be indicated in outline. The recording of individual stones or stone courses is not required unless greater detail is needed in order to adequately represent a particular feature of interest.

6.4.4 Drawing method

The survey may be executed either by hand or by means of reflectorless EDM as appropriate. In accordance with national guidelines⁹, drawings executed on site should be made either on polyester-based film (minimum thickness 150 microns) with polymer-bonded leads of an appropriate thickness and density, or on acid-free or rag paper. If finished drawings are generated by means of CAD or a similar proven graphics package, recorders should ensure that the software employed is sufficiently advanced to provide different line-

⁹ English Heritage 2006, Understanding Historic Buildings – a guide to good recording practice, 7.1.1ff

weight (point-size); this feature should then be used to articulate the depth of the drawings. CAD repeats or cloning of features should not be used. What is required as an end product of the survey is a well-modelled and clear drawing; ambiguous flat-line drawings should be avoided. Drawing conventions should conform to English Heritage guidelines as laid out in English Heritage 2006, Understanding Historic Buildings – a guide to good recording practice, and the WYAAS would recommend that the CAD layering protocol detailed in the same volume (8.3, Table 2) should be adhered to.

6.5 Photographic Record

6.5.1 External photographs

An external photographic record should be made of all elevations of the building, from vantage points as nearly parallel to the elevation being photographed as is possible within the constraints of the site. The contractor should ensure that all visible elements of each elevation are recorded photographically; this may require photographs from a number of vantage points. A general external photographic record should also be made which includes a number of oblique general views of the barn from all sides, showing it and the complex as a whole in its setting. In addition, a 35mm general colour-slide survey of the barn should also be provided (using a variety of wide-angle, medium and long-distance lenses). While it is not necessary to duplicate every black-and-white shot, the colour record should be sufficiently comprehensive to provide a good picture of the form and general appearance of the complex and of the individual structures.

6.5.2 Internal photographs

A general internal photographic record should be made of the barn. General views should be taken of each room or discrete internal space from a sufficient number of vantage points to adequately record the form, general appearance and manner of construction of each area photographed. In areas which are wholly modern in appearance, character and materials, a single shot to record current appearance will suffice. Specific shots should be taken of each truss and the timber-framed elements of the barn, including the aisle-ties.

6.5.3 Detail photographs

In addition, detailed record shots should be made of all individual elements noted in section 6.4.2 above. Elements for which multiple examples exist (e.g. each type of roof truss, column or window frame) may be recorded by means of a single representative illustration. Detailed shots should be taken of:

- any carpenters' marks or setting out marks
- the truncated post (& padstone) to the south of the west cart entry
- the collar/King block arrangement of the two trusses to either side of the cart entry
- the stone-flagged area above the west cart entry

N.B. Detail photographs must be taken at medium-to-close range and be framed in such a way as to ensure that the element being photographed clearly constitutes the principal feature of the photograph.

6.5.4 Equipment

General photographs should be taken with a Large Format camera (5" x 4" or 10" x 8") using a monorail tripod, or with a Medium Format camera which has perspective control, using a tripod. The contractor must have proven expertise in this type of work. Any detail photographs of structural elements should if possible be taken with a camera with perspective control. Other detail photographs may be taken with either a Medium Format or a 35mm camera. All detail photographs must contain a graduated photographic scale of appropriate dimensions (measuring tapes and surveying staffs are not considered to be acceptable scales in this context). A 2-metre ranging-rod, discretely positioned, should be

included in a selection of general shots, sufficient to independently establish the scale of all elements of the building and its structure.

6.5.5 Film stock

All record photographs to be black and white, using conventional silver-based film only, such as Ilford FP4 or HP5, or Delta 400 Pro (a recent replacement for HP5 in certain film sizes such as 220). Dye-based (chromogenic) films such as Ilford XP2 and Kodak T40CN are unacceptable due to poor archiving qualities.

6.5.6 Digital photography

As an alternative to our requirement for colour slide photography, good quality digital photography may be supplied as an alternative, using cameras with a minimum resolution of 4 megapixels. Note that conventional black and white print photography is still required and constitutes the permanent record. Digital images will only be acceptable as an alternative to colour slide photography if each image is supplied in three file formats (as a RAW data file, a DNG file and as a JPEG file). The contractor must include metadata embedded in the DNG file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name, the date of photograph, the subject of the photograph, the direction of shot and the name of the organisation taking the photograph. Images are to be supplied to WYAAS on gold CDs by the archaeological contractor accompanying the hard copy of the report.

6.5.7 Printing

6.5.6a Record photographs should be printed at a minimum of 5" x 7". In addition, a small selection of photographs (the best of the exterior setting shots and interior shots) should be printed at 10" x 8" (a minimum of 4 shots). Bracketed shots of identical viewpoints need not be reproduced, but all viewpoints must be represented within the report.

6.5.6b Prints may be executed digitally from scanned versions of the film negatives, and may be manipulated to improve print quality (but **not** in a manner which alters detail or perspective). All digital prints must be made on paper and with inks which are certified against fading or other deterioration for a period of 75 years or more when used in combination. If digital printing is employed, the contractor must supply details of the paper/inks used in writing to the WY Archaeology Advisory Service, with supporting documentation indicating their archival stability/durability. Written confirmation that the materials are acceptable must have been received from the WYAAS prior to the commencement of work on site.

6.5.7 Documentation

A photographic register detailing (as a minimum) location, direction and subject of shot must accompany the photographic record; a separate photographic register should be supplied for any colour slides or for colour digital photographs. The position and direction of each photograph and slide should be noted on a copy of the building plan, which should also be marked with a north pointer; separate plans should be annotated for each floor of each building

7. Post-Recording Work and Report Preparation

7.1 After completion of fieldwork

Prior to the commencement of any other work on site, the archaeological contractor should arrange a meeting at the offices of the WY Archaeology Advisory Service to present a draft of the 1st- stage drawn record (fully labelled and at the scale specified above), a photolocation plan, and photographic contact prints adequately referenced to this plan (material supplied will be returned to the contractor). **N.B.** if full-sized prints or digital versions of contact sheets are supplied for this purpose, they must be accompanied by a sample of the

processed negatives. If appropriate, the WY Archaeology Advisory Service will then confirm to Calderdale Planning Services that fieldwork has been satisfactorily completed and that other work on site may commence (although discharge of the archaeological condition will not be recommended until the dendrochronological dating and watching brief have been undertaken a completed copy of the full report and photographic record has been received and approved by the West Yorkshire Archaeology Advisory Service). Please note that as of the 1st April 2011, the WYAAS will charge the archaeological contractor a fee for each fieldwork verification meeting.

7.2 Report Preparation

7.2.1 Report format and content

A written report should be produced. This should include:

- an executive summary including dates of fieldwork, name of commissioning body, and a brief summary of the results including details of any significant finds
- · an introduction outlining the reasons for the survey
- a brief architectural description of the barn presented in a logical manner (as a walk around and through the barn, starting with setting, then progressing to all sides of the structure in sequence, and finally to the interior from the ground floor up)
- the results of the dendrochronological analysis (which should be fully integrated into the report) and should inform the final phased plan of the building. In addition, the dendrochronologist's report to be included as an appendix to the report.
- a discussion placing the barn in its local, historical and vernacular contexts, describing and analysing the development of aisled barn. This analysis should consider the aisled barn as an integrated system intended to perform a specialised function, with particular attention being given to historical plan form, layout and circulation within the barn/the processes being carried out within the barn.
- A discussion placing the timber-framed aisled barn within the overall context of the development of Pennine aisled barns with reference to the published typology of aisled barns.

Both architectural description and historical/analytical discussion should be fully cross-referenced to the drawn and photographic record, sufficient to illustrate the major features of the site and the major points raised. The architectural description should be fully cross-referenced to the drawn and photographic record, sufficient to illustrate the major features of the site and the major points raised. It is not envisaged that the report is likely to be published, but it should be produced with sufficient care and attention to detail to be of academic use to future researchers. A copy of this specification and a quantified index to the field archive should also be bound into the back of the report. The cover sheet should include a centred eight-figure OS grid reference and the name of the township in which the site is located (Hipperholme with Brighouse).

7.2.2 Report Illustrations

Illustrations should include:

- a location map at a scale sufficient to allow clear identification of the Barn in relation to other buildings in the immediate area
- an overall keyed plan of the site showing the surviving buildings in relation to each other and to the buildings on site which have been demolished
- any relevant historic map editions, with the position and extent of the site clearly indicated
- a complete set of site drawings completed to publication standard, at the scale stipulated in Para. 6.4.1 above (unless otherwise agreed in writing by the West Yorkshire Archaeology Advisory Service)
- a complete set of site drawings at a legible scale, on which position and direction of each photograph has been noted
- any additional illustrations pertinent to the site

• a complete set of good-quality laser copies of all photographs (reproduced at a minimum of 6" by 4").

The latter should be bound into the report in the same logical sequence employed in the architectural description (Para. 7.2.1 above) and should be appropriately labelled (numbered, and captioned in full). When captioning, contractors should identify the individual photographs by means of a running sequence of numbers (e.g. Plate no. 1; Plate no. 2), and it is this numbering system which should be used in crossreferencing throughout the report and on the photographic plans. However, the relevant original film and frame number should be included in brackets at the end of each caption.

7.3 Report deposition

7.3.1 General considerations

- 7.3.1a The report should be supplied to the client and identical copies supplied to the West Yorkshire HER, the WY Archive Service and to the English Heritage Archive (English Heritage, The Engine House, Fire Fly Avenue, Swindon SN2 2EH for the attention of Mike Evans, Head of Archives). The report supplied to the English Heritage Archive should be in digital format only. A recommendation from WYAAS for discharge of the archaeological condition is dependant upon receipt by WYAAS of a satisfactory report which has been prepared in accordance with this specification. Any comments made by WYAAS in response to the submission of an unsatisfactory report will be taken into account and will result in the reissue of a suitably edited report to all parties, within a timescale which has been agreed with WYAAS.
- 7.3.1bThe report copy supplied to the West Yorkshire HER should include a complete set of photographic prints (see Para. 7.3.2 below). The finished report should be supplied within eight weeks of completion of all fieldwork, unless otherwise agreed with the West Yorkshire Archaeology Advisory Service. The information content of the report will become publicly accessible once deposited with the Advisory Service, unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposit.
- 7.3.1c **Copyright** Please note that by depositing this report, the contractor gives permission for the material presented within the document to be used by the WYAAS, in perpetuity, although The Contractor retains the right to be identified as the author of all project documentation and reports as specified in the *Copyright, Designs and Patents Act* 1988 (chapter IV, section 79). The permission will allow the WYAAS to reproduce material, including for non-commercial use by third parties, with the copyright owner suitably acknowledged.
- 7.3.1.d The West Yorkshire HER supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. Contractors are advised to contact the West Yorkshire HER officer prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, the West Yorkshire HER may place the information on a web-site. Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the report to the case officer at the West Yorkshire HER.
- 7.3.1e With the permission of the developer, the archaeological contractor are encouraged to consider the deposition of a copy of the report for this site with the appropriate Local History Library.
- 7.3.2 Deposition with WY Archaeology Advisory Service (West Yorkshire Historic

Environment Record)

The report copy supplied to the WY Archaeology Advisory Service should also be accompanied by both the photographic negatives and a complete set of labelled photographic prints (mounted in KENRO display pockets or similar, and arranged in such a way that labelling is readily visible) bound in a form which will fit readily into a standard filing cabinet suspension file (not using hard-backed ring-binders). Labelling should be on the back of the print in pencil giving film and frame number only and on applied printed labels on the front of the appropriate photographic sleeve which should include:

- film and frame number
- date recorded and photographer's name
- name and address of building
- · national grid reference
- specific subject of photograph.

Negatives should be supplied in archivally stable mounts (KENRO display pockets or similar), and each page of negatives should be clearly labelled with the following:

- Township name
- Site name and address
- Date of photographs (month/year)
- Name of archaeological contractor
- Film number

Colour slides should be mounted, and the mounts suitably marked with – 'Hipperholme with Brighouse' (the Township name) with 'Lower Rookes Farm Barn' under, at the top of the slide; grid reference at the bottom; date of photograph at the right hand side of the mount; subject of photograph at the left hand side of the mount. Subject labelling may take the form of a numbered reference to the relevant photographic register. The slides should be supplied to the WY Archaeology Advisory Service in an appropriate, archivally stable slide hanger (for storage in a filing cabinet).

7.4 Summary for publication

The attached summary sheet should be completed and submitted to the WY Archaeology Advisory Service for inclusion in the summary of archaeological work in West Yorkshire published on the WYAAS website. During fieldwork monitoring visits WYAAS officers will take digital photographs which may be published on the Advisory Service's website as part of an ongoing strategy to enable public access to information about current fieldwork in the county.

7.5 Preparation and deposition of the archive

After the completion of all recording and post-recording work, a fully indexed field archive should be compiled consisting of all primary written documents and drawings, and a set of suitably labelled photographic contact sheets (only). Standards for archive compilation and transfer should conform to those outlined in *Archaeological Archives – a guide to best practice in creation, compilation, transfer and curation* (Archaeological Archives Forum, 2007). The field archive should be deposited with the Calderdale Office of the West Yorkshire Archive Service (Central Library, Northgate, Halifax HX1 1UN), and should be accompanied by a copy of the full report as detailed above. Deposition of the archive should be confirmed in writing to the WY Archaeology Advisory Service.

8 General considerations

8.1 Technical queries

Any technical queries arising from this specification should be addressed to the WY Archaeology Advisory Service without delay.

8.2 Authorised alterations to specification by contractor

It should be noted that this specification is based upon records available in the West Yorkshire Historic Environment Record and on a brief examination of the site by the West Yorkshire Archaeology Advisory Service. Archaeological contractors submitting tenders should carry out an inspection of the site prior to submission. If, on first visiting the site or at any time during the course of the recording exercise, it appears in the archaeologist's professional judgement that

- i) a part or the whole of the site is not amenable to recording as detailed above, and/or
- ii) an alternative approach may be more appropriate or likely to produce more informative results, and/or
- iii) any features which should be recorded, as having a bearing on the interpretation of the structure, have been omitted from the specification,

then it is expected that the archaeologist will contact the WY Archaeology Advisory Service as a matter of urgency. If contractors have not yet been appointed, any variations which the WY Archaeology Advisory Service considers to be justifiable on archaeological grounds will be incorporated into a revised specification, which will then be re-issued to the developer for redistribution to the tendering contractors. If an appointment has already been made and site work is ongoing, the WY Archaeology Advisory Service will resolve the matter in liaison with the developer and the Local Planning Authority.

8.3 Unauthorised alterations to specification by contractor

It is the archaeological contractor's responsibility to ensure that they have obtained the West Yorkshire Archaeology Advisory Service's consent in writing to any variation of the specification prior to the commencement of on-site work or (where applicable) prior to the finalisation of the tender. Unauthorised variations may result in the WY Archaeology Advisory Service being unable to recommend discharge of the archaeological recording condition to the Local Planning Authority and are made solely at the risk of the contractor.

8.4 Monitoring

This exercise will be monitored as necessary and practicable by the WY Archaeology Advisory Service in its role as 'curator' of the county's archaeology. The Advisory Service should receive at least one week's notice in writing of the intention to start fieldwork. A copy of the contractor's Risk Assessment should accompany this notification.

8.5 Valid period of specification

This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

Any queries relating to this specification should be addressed to the WY Archaeology Advisory Service without delay.

West Yorkshire Archaeology Advisory Service Elizabeth Chamberlin

May/2012

West Yorkshire Archaeology Advisory Service Registry of Deeds Newstead Road Wakefield WF1 2DE Telephone: (01924 306794).

Fax: (01924) 306810

E-mail: echamberlin@wyjs.org.uk

Appendix 2: Dendrochronologist's report



Dendrochronological Consultancy Ltd. 65 Crimicar Drive Sheffield S10 4EF

Phone: 07814 970138 Fax: 0870 7059431 Email: ian@dendro.co.uk

Registered in England Company Number 05894961 Registered Office Westbourne Place, 23 Westbourne Road, Sheffield S10 2QQ

Mrs A Bailey Lower Rookes Farm Rookes Lane HALIFAX HX3 8PU

Assessment; Barn at Lower Rookes Farm, Rookes Lane, HALIFAX, HX3 8PU

Monday, 20th August 2012

Dear Mrs A Bailey

My assessment of the barn primarily follows requirements outlined by English Heritage (1998 Dendrochronology: guidelines on producing and interpreting dendrochronological dates). To summarise this; a typical request relating to structural timbers would generally require half a dozen or more accessible oak timbers, with each containing reasonable numbers of annual rings, derived from different original trees, from an area of interest that is to be targeted for analysis.

I visited the barn on 16/7/2012 with Stephen Haigh. The barn contains a mixture of recycled and probably later introduced timbers. We have to be very selective about which timbers to sample, targeting the larger structural elements, and seeking those with sapwood and bark if available, we need primary timbers with lots of rings to have any chance of providing dates. On this occasion my assessment did identify a handful of timbers with some potential and core samples were taken from some of these. However my processing and analysis of these has identified that all of these samples are unsuitable for dendrochronological methods. I don't need to tell you how disappointed I am, but that's the situation we have, in effect my extended assessment of the timbers has identified that none of the material in the barn is suitable.

Many thanks for Stephen's time taken explaining the building to me, I enclose an invoice covering my time as agreed with Stephen, I wish you luck with the rest of the project. Stephen has separately received this information which will be incorporated into his report.

Ian Tyers

Appendix 3: List of digital photographs

CD of photographs (in JPG, ORF(RAW) & DNG formats) deposited with the West Yorkshire Historic Environment Record

Number	Subject
D01	General view of the barn and farmhouse, across Rookes Lane
D02	General view of the barn and converted north end, from the north-west
D03	General view of the barn, from the south-west
D04	The gabled entry in the west side of the barn
D05	The west side of the barn with gabled entry, from the north
D06	Main entrance in west elevation, from the north
D07	Previously converted north end of barn
D08	The rebuilt south gable, with nineteenth century openings
D09	General view of the barn from the south-east, showing later lean-tos
D10	Early C20 brick lean-to against east cart entrance, from the south-east

Appendix 4: Contents of the project archive

To be deposited with the Calderdale office of the West Yorkshire Archive Service

1 file, containing:

- a copy of the report
- photographic contact sheets (8 no)
- site notes (annotated plans etc)

Complete list of black and white photographs taken, in film order

Films 1 to 7 taken 10 July 2012; film 8 taken 16 June 2014

Photo	Film	Frame	Subject
37	1	1	Interior of C20 shed against west side of barn, from the west
2	1	3	General view of the barn and converted north end, from the north-west
10	1	4	Previously converted north end of barn
11	1	5	Previously converted north end of barn, from the north-east
5	1	6	The west side of the barn with gabled entry, from the north
3	1	7	General view of the barn, from the south-west
1	1	9	General view of the barn and farmhouse, across Rookes Lane, from the south-west
4	1	10	The gabled entry in the west side of the barn
7	1	11	West side of the barn and gabled entry, from the south-west
9	1	13	Main entrance in west elevation, from the north
12	1	15	West elevation of barn to south of entrance, with pitched stone surfacing and inserted windows
14	1	16	The rebuilt south gable, with nineteenth century openings
30	1	17	General view of the barn from the south-east, showing later lean-tos
31	1	18	Early C20 brick lean-to against east cart entrance, from the south-east
32	2	1	Early C20 brick lean-to against east cart entrance, from the north-east
16	2	3	Detail of boarded window in south gable
17	2	4	Detail of pitching eye in south gable
15	2	5	Detail of doorway and window in south gable
13	2	6	Inserted window in south end of west elevation
8	2	7	Nineteenth century window in north end of west elevation
22	2	9	South part of east elevation, with modern lean-to, from the north-east
21	2	10	South part of east elevation, with modern lean-to, from the south-east
24	2	11	East wall of barn within later lean-to, showing rebuilt masonry, from the north-east
25	2	12	East wall of barn within later lean-to, showing blocked triangular breather, from the south-east
27	2	13	East wall of barn within later lean-to, showing where north end extended, from the east
26	2	15	East wall of barn within later lean-to, showing blocked window at foot, from the east
43	2	16	Flagged loft within gabled entry, from the east
45	2	17	Underside of flagged loft within gabled entry, from the west
44	2	18	Beams over west entry, from the west
36	3	1	Interior of early C20 brick lean-to against east cart entrance, from the east, showing line shafting
34	3	2	Interior of early C20 brick lean-to against east cart entrance, from the south
35	3	4	Interior of early C20 brick lean-to against east cart entrance, from the north
33	3	5	Interior of early C20 brick lean-to against east cart entrance, from the north

18	3	6	Arched doorway in east elevation, from the east
46	3	7	Threshing bay in barn, from the west
38	3	9	Interior of west cart entry, from the east
39	3	10	Barn interior, from the south-east
40	3	11	Barn interior, from the south-west
48	3	12	South end of east wall, inside barn, showing original stonework at foot with later openings above
49	3	13	Barn interior: south end
41	3	14	The south part of the aisle, from the north-east
50	3	16	South-east corner inside barn, showing original stonework at left with rebuilt walls above and to right
57	3	17	Truss 1: foot of arcade post and pad-stone, from the east
56	3	18	Truss 1: arcade post, from the north-east
55	4	1	Truss 1, from the north
58	4	3	Truss 1: head of arcade post with original arcade plate and braces, with modern arch brace, from the north-east
71	4	4	Truss 2: foot of arcade post and pad-stone, from the south-east
70	4	5	Truss 2: arcade post, from the south-east
62	4	6	Truss 2, from the north
63	4	8	Truss 2: underside of tie beam, from the west
67	4	9	Truss 2: head of arcade post, from the north
75	4	10	Brickwork repair and softwood timber in south side of west entry
74	4	11	Truss 3, from the north
82	4	12	Truss 3: detail of king post and collar, from the north-west
66	4	14	Truss 2: west end of tie beam, from the north, showing joint numbering "IIII"
65	4	15	Truss 2: east end of tie beam, from the north, showing joint numbering "III"
95	4	16	Partition enclosing north part of barn, from the south-east
54	4	17	Inside face of north gable, showing inserted doorway etc
51	4	18	North end of east wall, inside barn, showing areas of disturbed and rebuilt stonework
53	5	1	North-east corner inside barn, showing blocked window (?) at right and breather to left
52	5	3	Blocked triangular breather in inside face of east wall
47	5	4	Barn interior, from the north-west
6	5	5	The barn interior, from the north-east
73	5	6	Truss 4, from the south
80	5	7	Truss 4, from the south-east
81	5	9	Truss 4, from the south-west
76	5	10	Truss 4: west end of tie beam, from the south, showing joint numbering "IIV"
77	5	11	Truss 4: west strut above tie beam, from the south, showing joint numbering "IIV"
83	5	12	Truss 4: detail of king post and collar, from the south
78	5	13	Truss 4: east end of tie beam, from the south, showing joint numbering "IIIV"
79	5	15	Truss 4: east strut above tie beam, from the south, showing joint numbering "IIIV"
84	5	16	Truss 4: detail of king post and collar, from the south-east
85	5	17	Truss 5, from the south
90	5	18	Arcade plate north of truss 5, from the east (timber inverted)
89	6	1	Scarf joint in arcade plate, north side of truss 5, from the east
94	6	3	South part of aisle, from the south-east
88	6	4	Scarf joint in arcade plate, between trusses 1 and 2, from the east
64	6	5	Truss 2, from the south

93	6	6	South part of aisle, from the south
92	6	7	South part of aisle, from the north-east
61	6	9	Truss 1: framing over aisle, from the north
59	6	10	Truss 1: head of arcade post etc, from the north-west
68	6	11	Truss 2: head of arcade post, from the south-west
60	6	12	Truss 1: joint numbering "I" and "II" on arcade post and braces, from the north-west
69	6	13	Truss 2: joint numbering "III" and "IIII" on arcade post and braces, from the southwest
72	6	16	Truss 2: framing over aisle, from the north
91	6	17	South part of aisle, from the north-west
97	6	18	North part of aisle, from the south
86	7	1	Truss 5: framing over aisle, from the south
98	7	3	Detail of concrete boskin and ceramic trough, north part of aisle, from the southwest
96	7	4	North part of aisle, from the north
87	7	5	Truss 5: framing over aisle, from the north-west
42	7	6	The north part of the aisle, from the north-west
23	8	1	East elevation, after demolition of lean-tos, 2014
19	8	2	East elevation of barn, after demolition of lean-tos in 2014
20	8	4	Arched doorway in east elevation, after demolition of lean-tos
29	8	5	East elevation of barn, to north of arched doorway, after demolition of lean-tos, 2014
28	8	6	East elevation of barn, from the north-east, after demolition of lean-tos, 2014

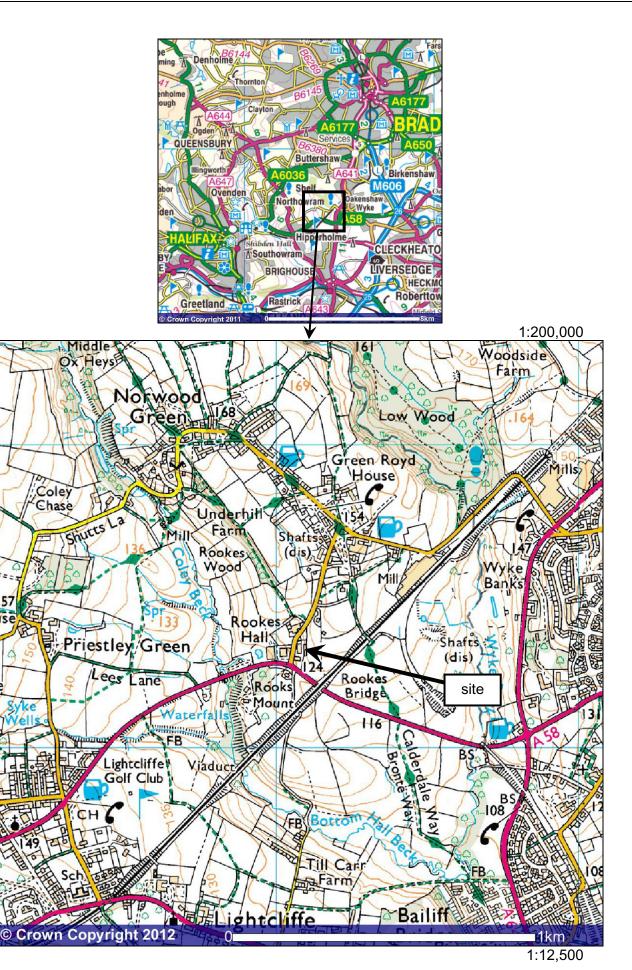
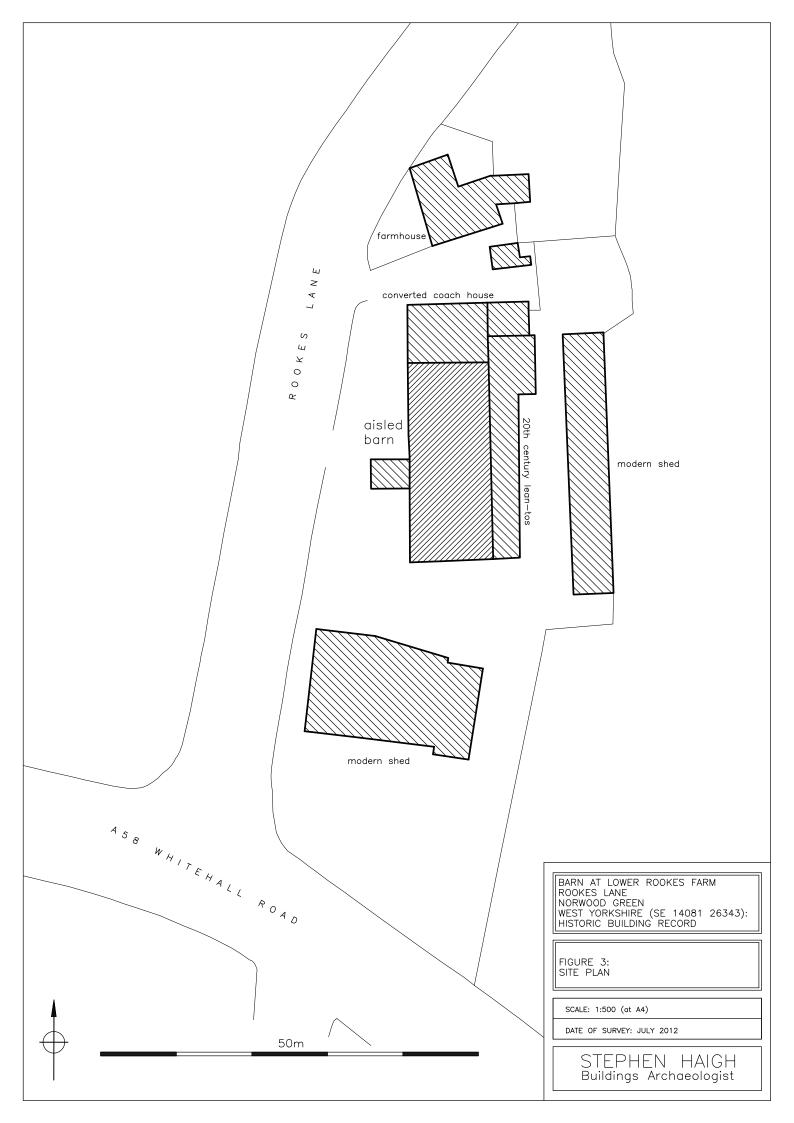


Figure 2: Location maps

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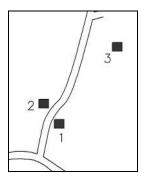


Figure 4: Schematic plan to show the various Rookes properties
1: Lower Rookes Farm; previously Lower Rookes Hall
2: Lower Rookes Hall; previously Rookes Hall
3: Upper Rookes, previously Rookes Hall

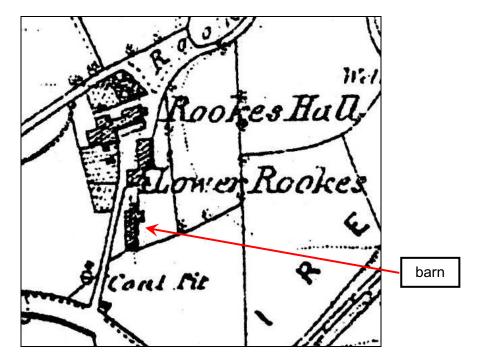


Figure 5: Ordnance Survey 1:10,560 map, published 1854 (surveyed 1849-50) Sheet no: Yorkshire, 231; enlarged to approx 1:2500

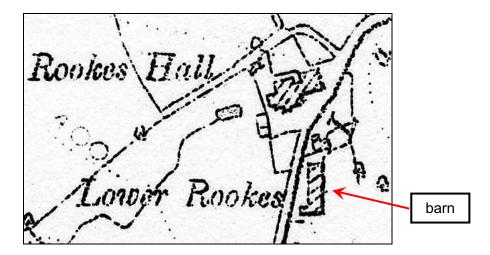


Figure 6: Ordnance Survey 1:10,560 map, published 1894 (surveyed 1891-2) Sheet no: Yorkshire, 231NE; enlarged to approx 1:2500

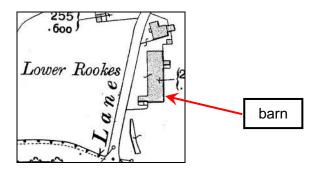


Figure 7: Ordnance Survey 1:2500 map, published 1907 (revised 1905) Sheet no: Yorkshire, 231.7

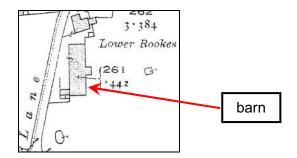


Figure 8: Ordnance Survey 1:2500 map, published 1922 (revised 1915) Sheet no: Yorkshire, 231.7

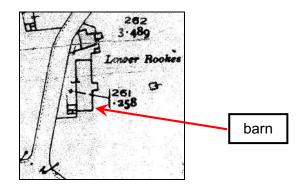


Figure 9: Ordnance Survey 1:2500 map, published 1933 (revised 1932) Sheet no: Yorkshire, 231.7

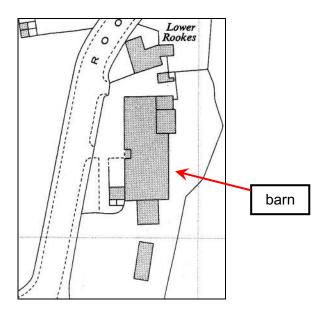
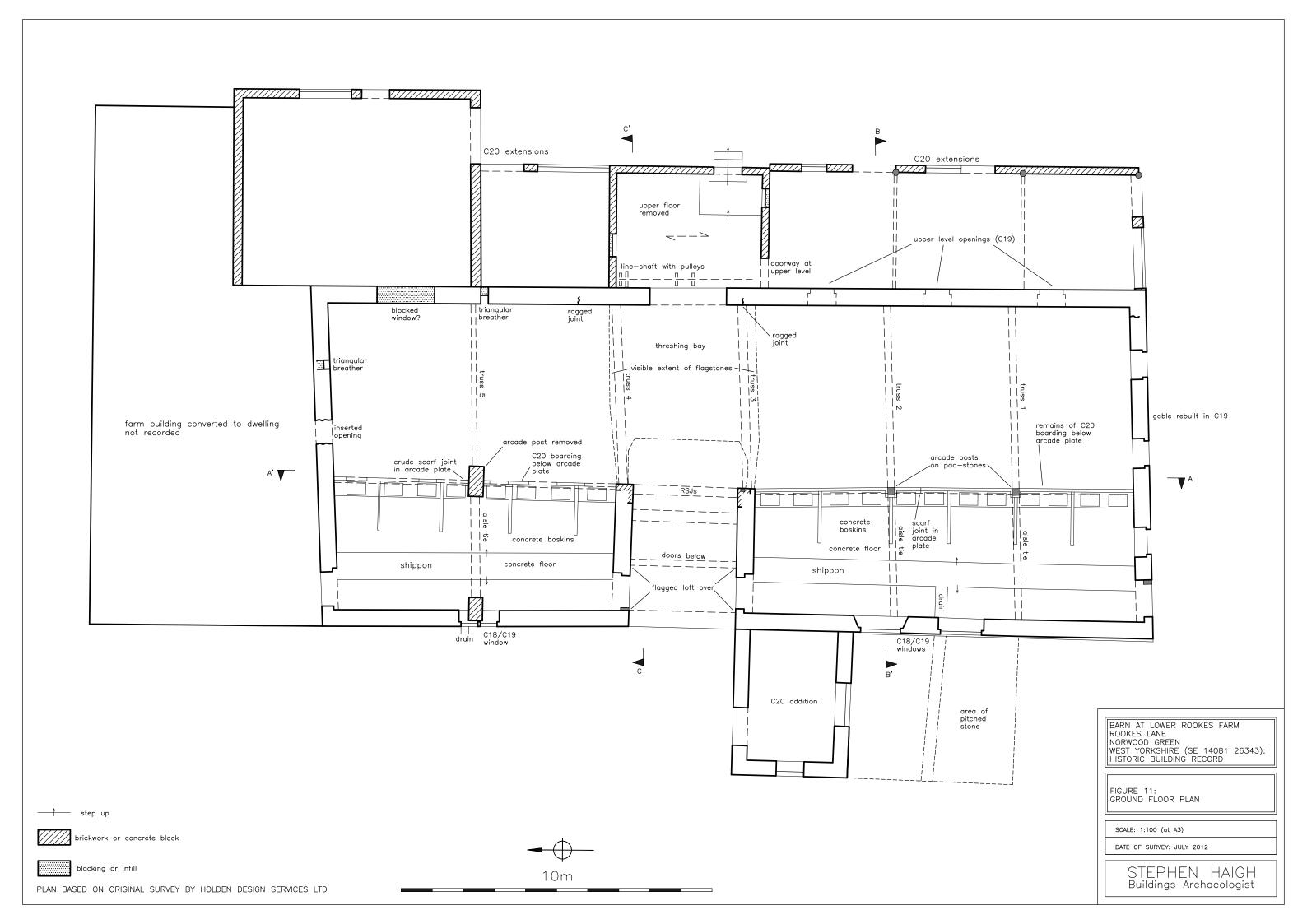
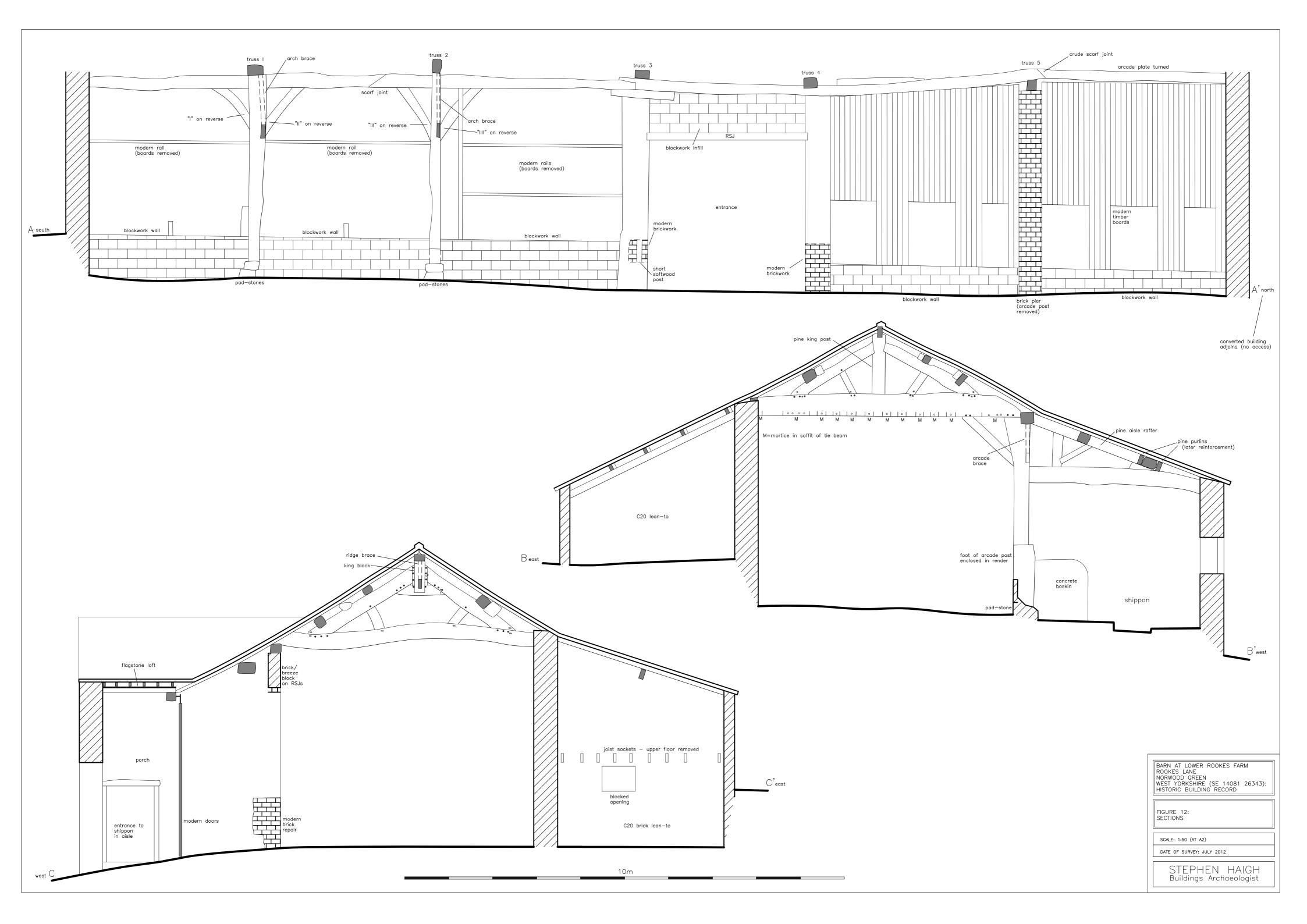
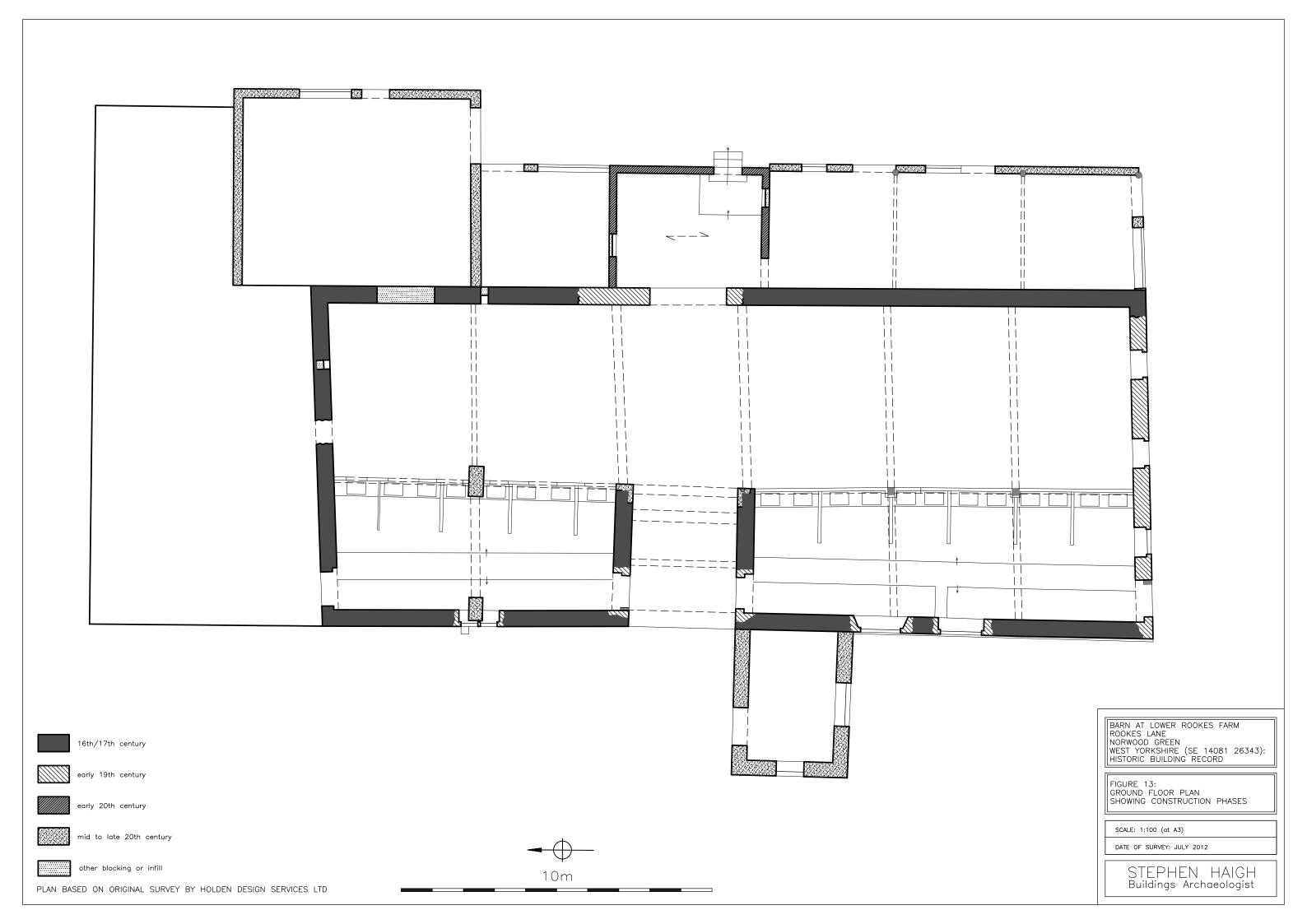
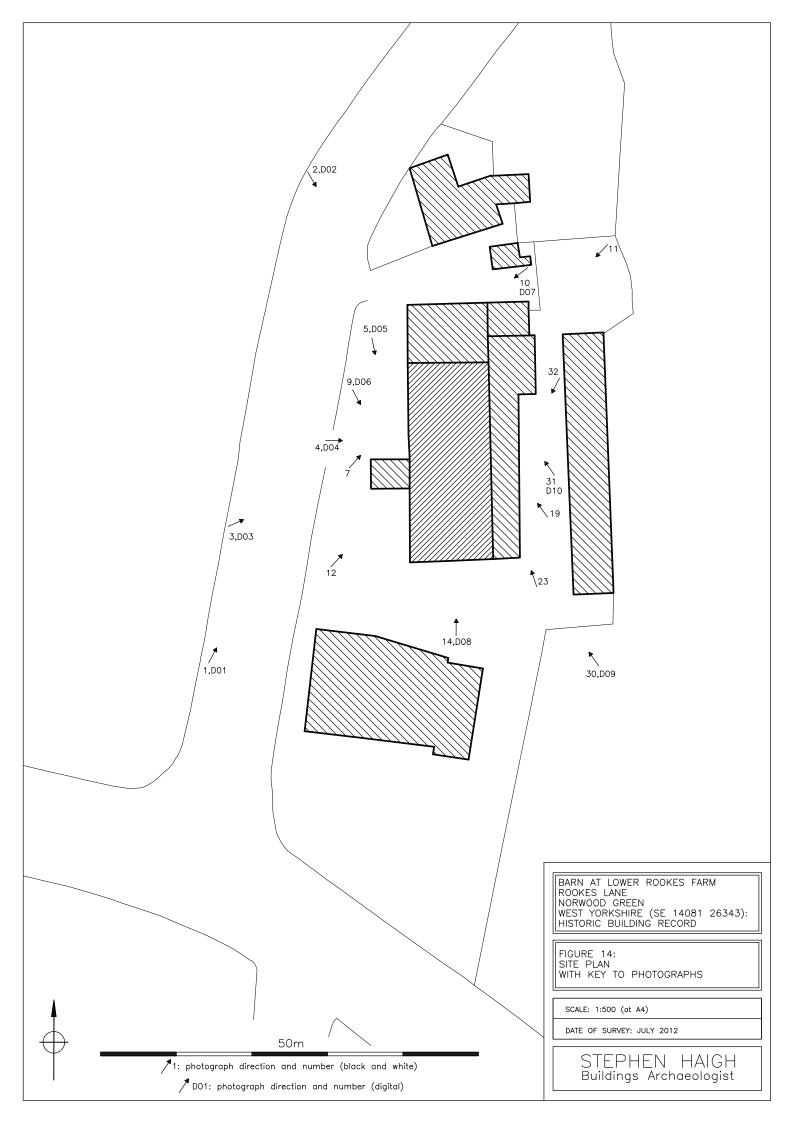


Figure 10: Ordnance Survey 1:1250 map, published 1956 (revised 1956) Sheet no: SE 1426 SW









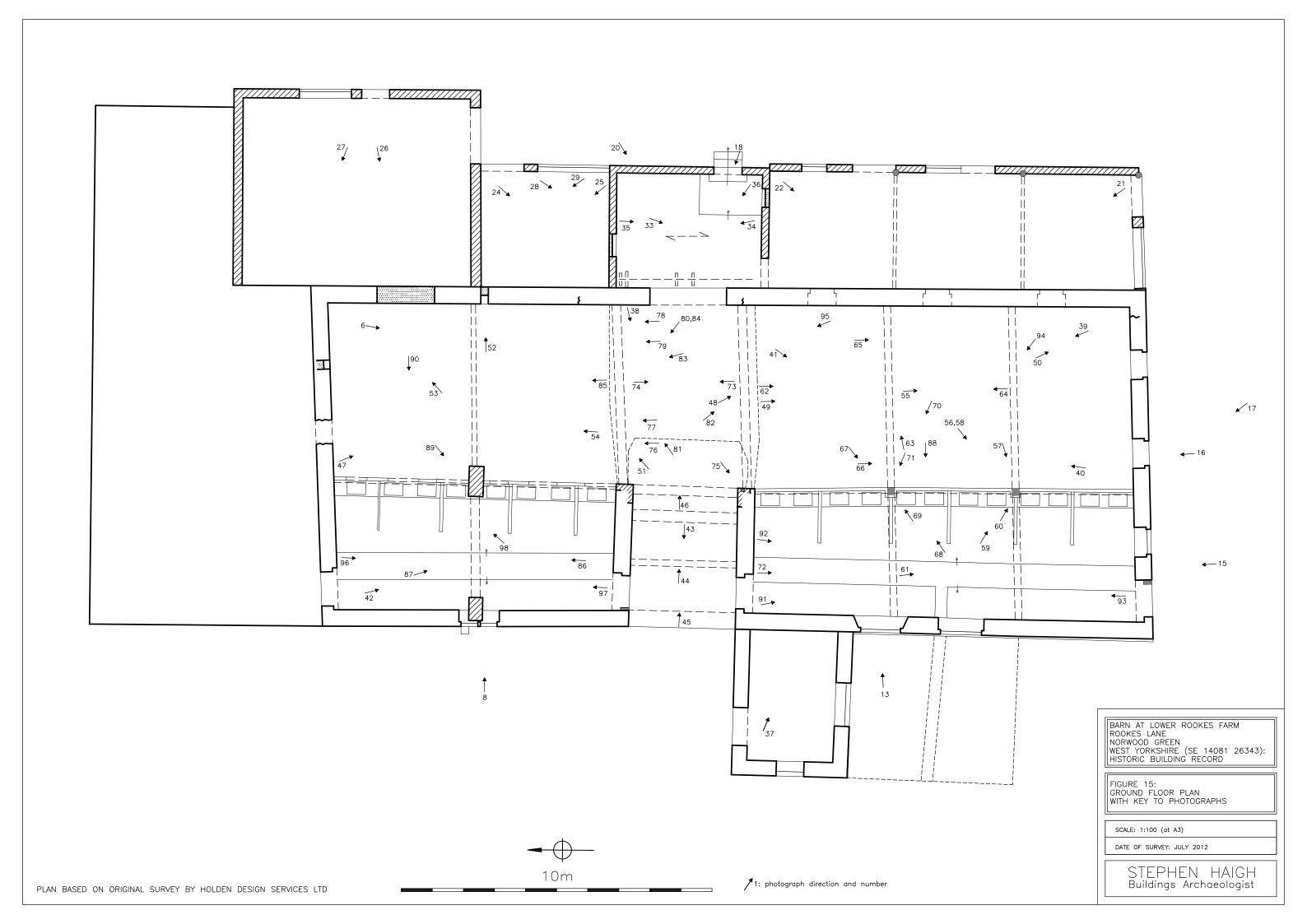




Photo 1: General view of the barn and farmhouse, across Rookes Lane, from the south-west (film 1, frame 9)



Photo 2: General view of the barn and converted north end, from the north-west (film 1, frame 3)



Photo 3: General view of the barn, from the south-west (film 1, frame 7)

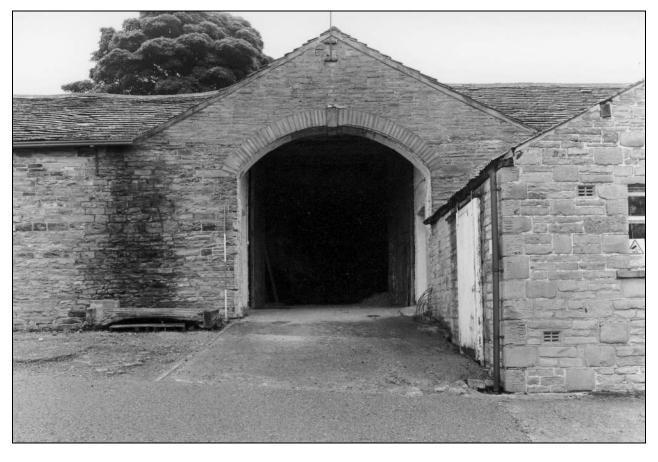


Photo 4: The gabled entry in the west side of the barn (film 1, frame 10)

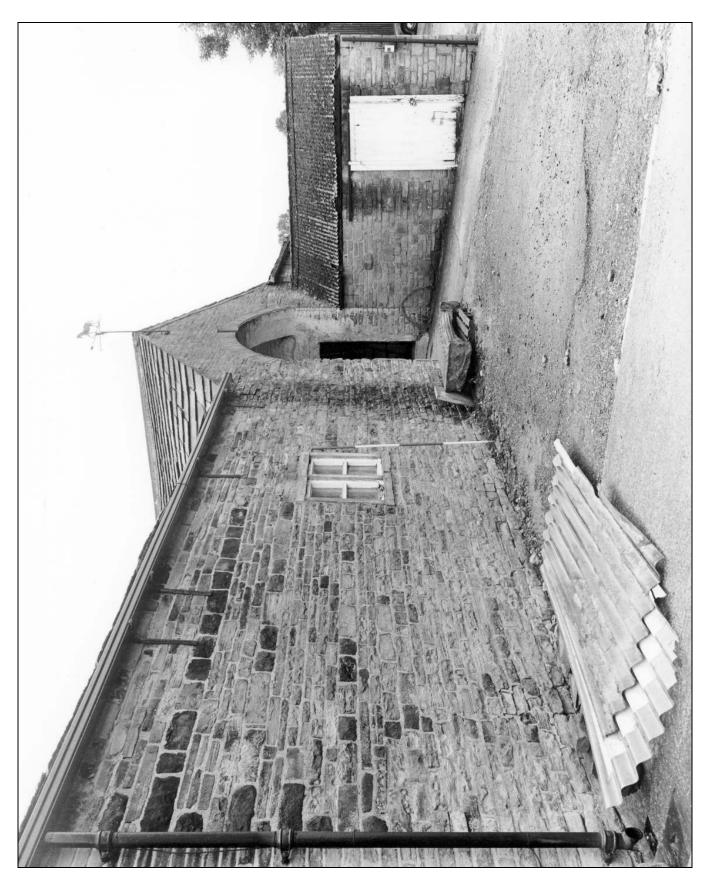


Photo 5: The west side of the barn with gabled entry, from the north (film 1, frame 6)

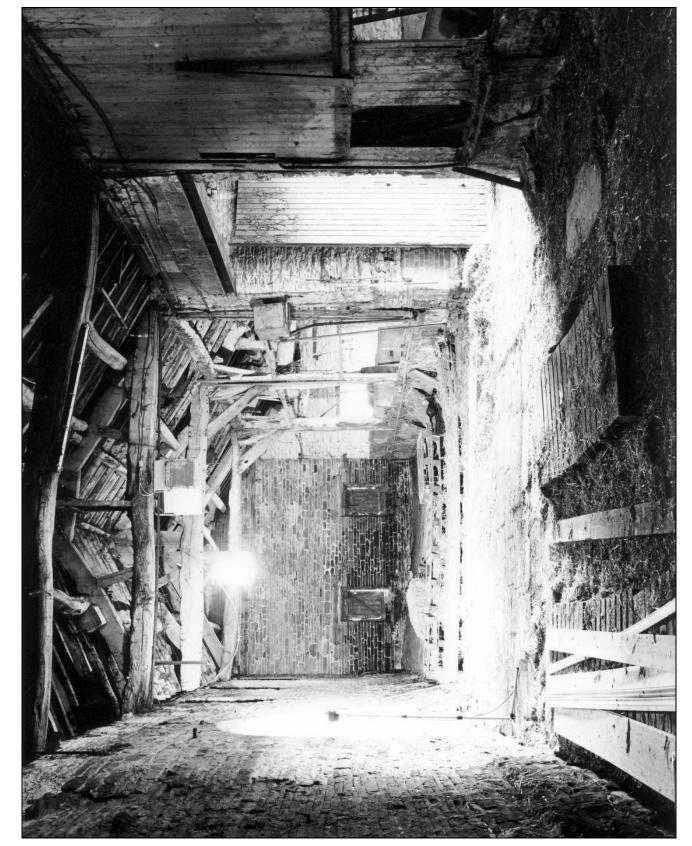


Photo 6: The barn interior, from the north-east (film 5, frame 5)



Photo 7: West side of the barn and gabled entry, from the south-west (film 1, frame 11)

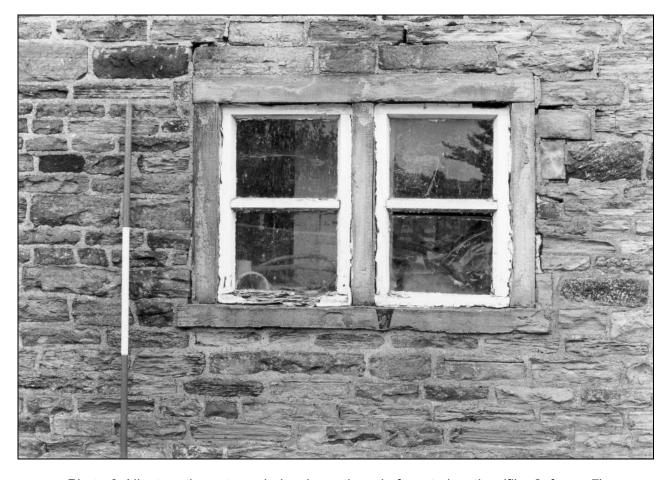


Photo 8: Nineteenth century window in north end of west elevation (film 2, frame 7)



Photo 9: Main entrance in west elevation, from the north (film 1, frame 13)



Photo 10: Previously converted north end of barn (film 1, frame 4)

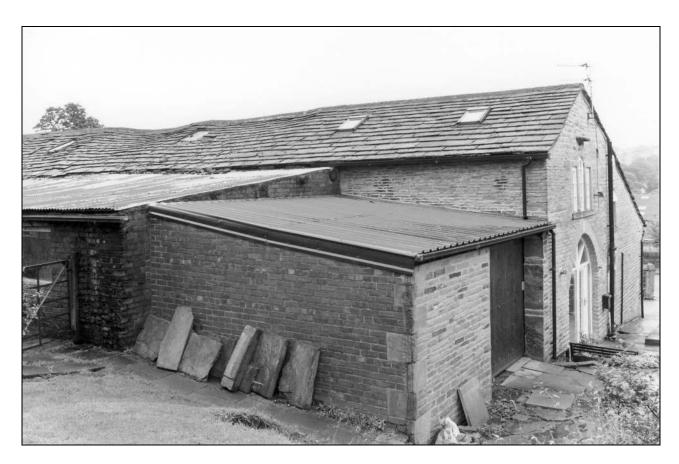


Photo 11: Previously converted north end of barn, from the north-east (film 1, frame 5)



Photo 12: West elevation of barn to south of entrance, with pitched stone surfacing and inserted windows (film 1, frame 15)



Photo 13: Inserted window in south end of west elevation (film 2, frame 6)



Photo 14: The rebuilt south gable, with nineteenth century openings (film 1, frame 16)



Photo 15: Detail of doorway and window in south gable (film 2, frame 5)



Photo 16: Detail of boarded window in south gable (film 2, frame 3)



Photo 17: Detail of pitching eye in south gable (film 2, frame 4)



Photo 18: Arched doorway in east elevation, from the east (film 3, frame 6)

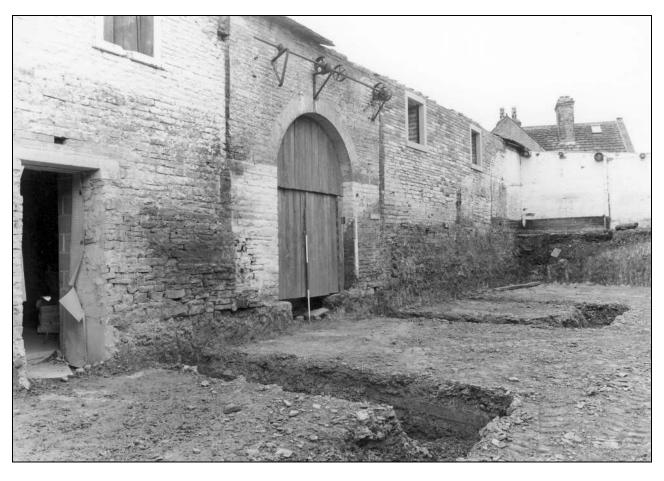


Photo 19: East elevation of barn, after demolition of lean-tos in 2014 (film 8, frame 2)





Photo 21: South part of east elevation, with modern lean-to, from the south-east (film 2, frame 10)



Photo 22: South part of east elevation, with modern lean-to, from the north-east (film 2, frame 9)



Photo 23: East elevation, after demolition of lean-tos, 2014 (film 8, frame 1)



Photo 24: East wall of barn within later lean-to, showing rebuilt masonry, from the north-east (film 2, frame 11)

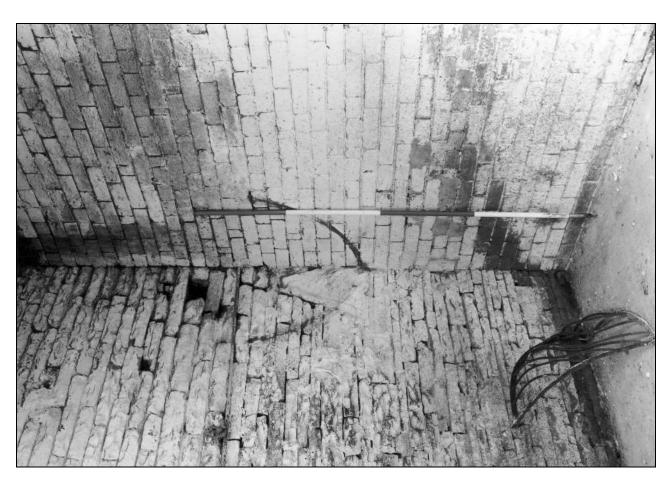


Photo 25: East wall of barn within later lean-to, showing blocked triangular breather, from the south-east (film 2, frame 12)



Photo 26: East wall of barn within later lean-to, showing blocked window at foot, from the east (film 2, frame 15)



Photo 27: East wall of barn within later lean-to, showing where north end extended, from the east (film 2, frame 13)



Photo 28: East elevation of barn, from the north-east, after demolition of lean-tos, 2014 (film 8, frame 6)



Photo 29: East elevation of barn, to north of arched doorway, after demolition of lean-tos, 2014 (film 8, frame 5)



Photo 30: General view of the barn from the south-east, showing later lean-tos (film 1, frame 17)

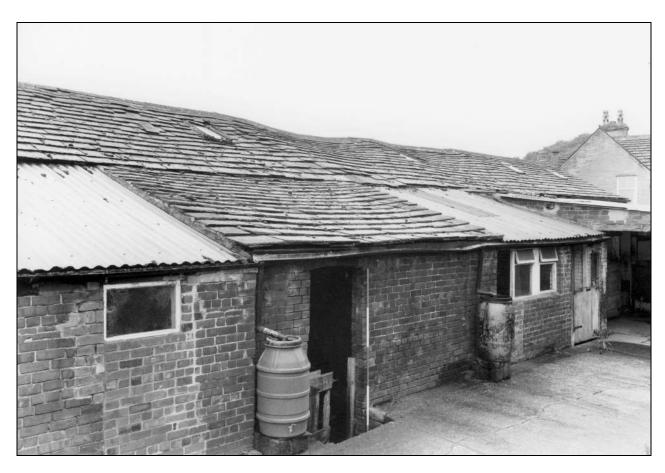


Photo 31: Early C20 brick lean-to against east cart entrance, from the south-east (film 1, frame 18)



Photo 32: Early C20 brick lean-to against east cart entrance, from the north-east (film 2, frame 1)

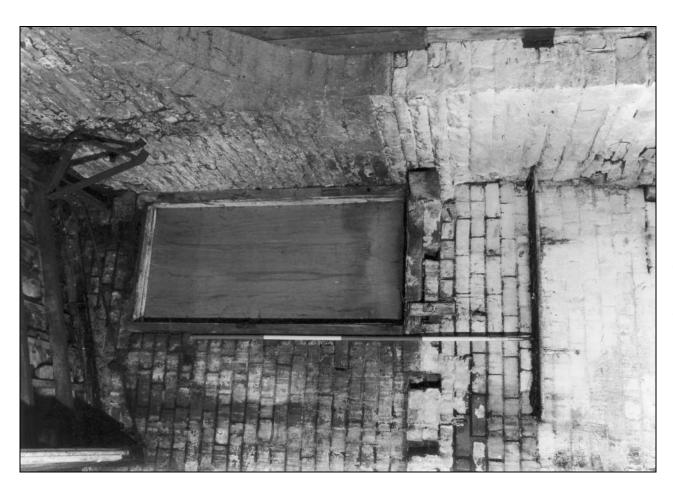


Photo 33: Interior of early C20 brick lean-to against east cart entrance, from the north (film 3, frame 5)



Photo 34: Interior of early C20 brick lean-to against east cart entrance, from the south (film 3, frame 2)

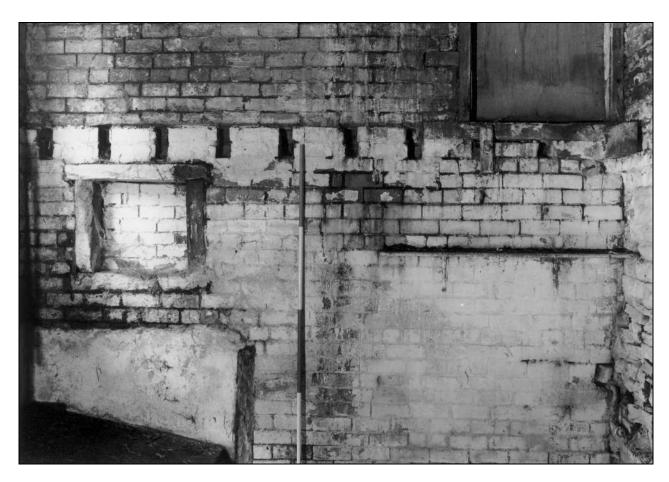


Photo 35: Interior of early C20 brick lean-to against east cart entrance, from the north (film 3, frame 4)

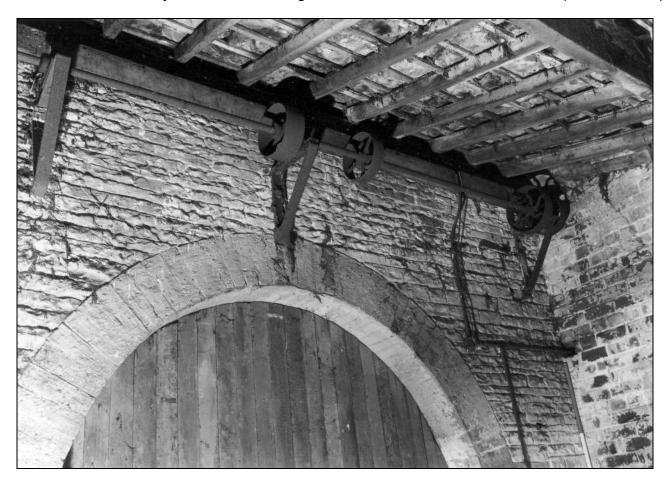
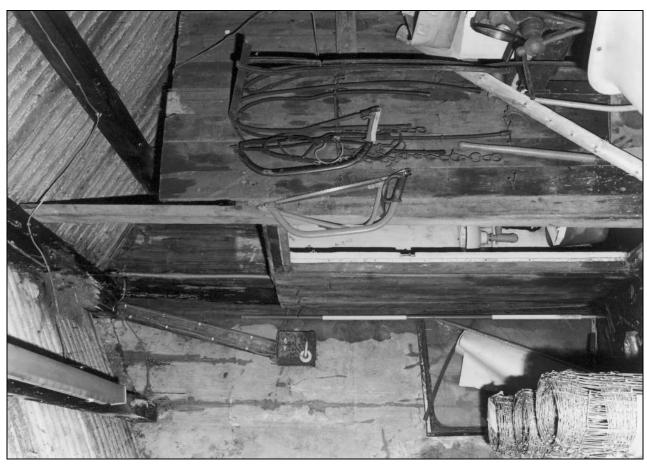


Photo 36: Interior of early C20 brick lean-to against east cart entrance, from the east, showing line shafting (film 3, frame 1)



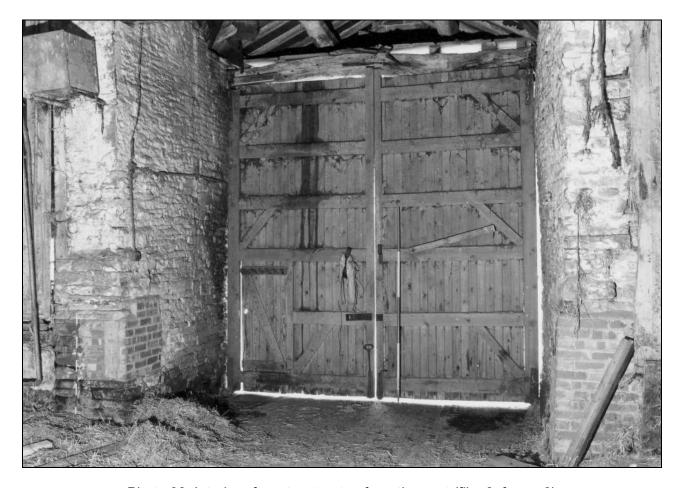


Photo 38: Interior of west cart entry, from the east (film 3, frame 9)



Photo 39: Barn interior, from the south-east (film 3, frame 10)

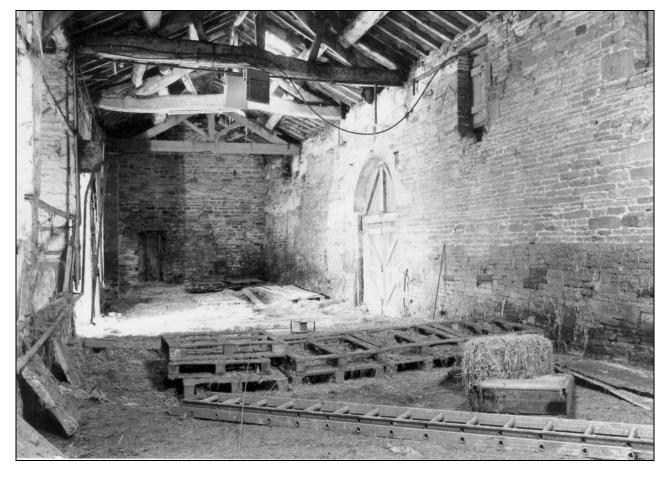
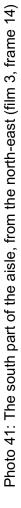
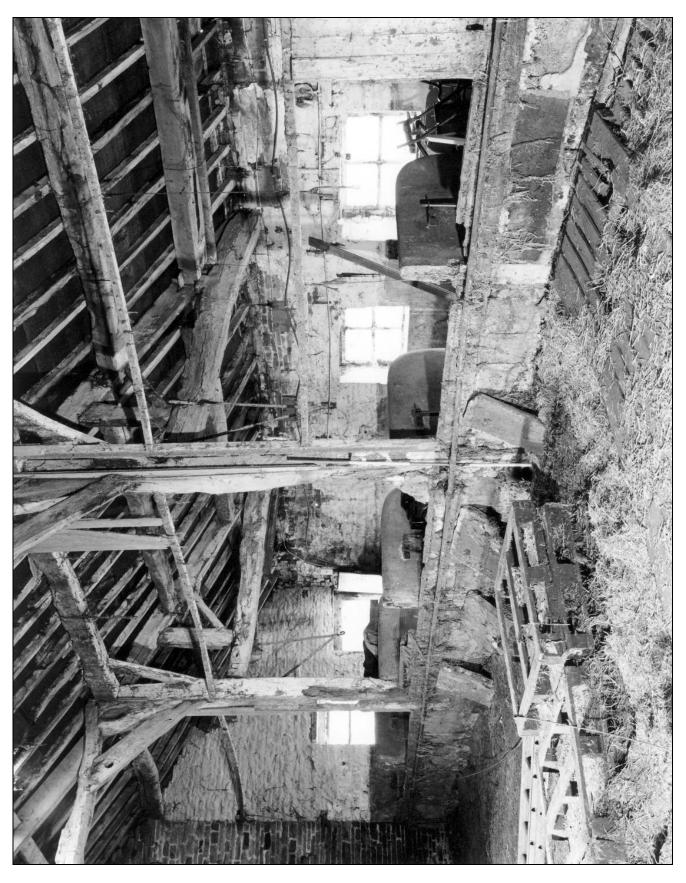


Photo 40: Barn interior, from the south-west (film 3, frame 11)





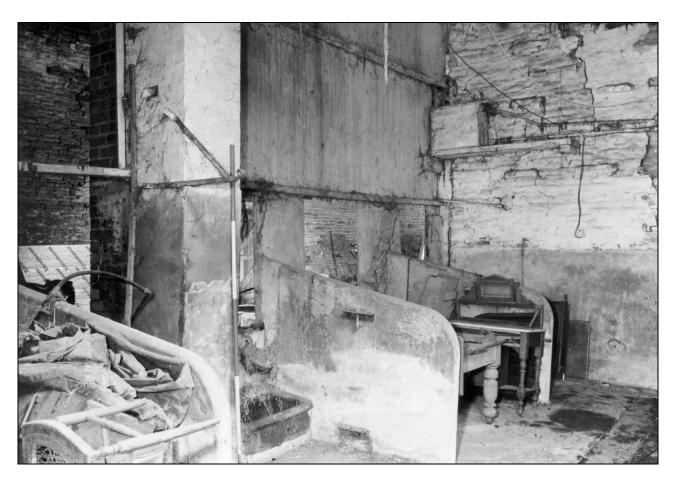


Photo 42: The north part of the aisle, from the north-west (film 7, frame 6)



Photo 43: Flagged loft within gabled entry, from the east (film 2, frame 16)



Photo 44: Beams over west entry, from the west (film 2, frame 18)



Photo 45: Underside of flagged loft within gabled entry, from the west (film 2, frame 17)

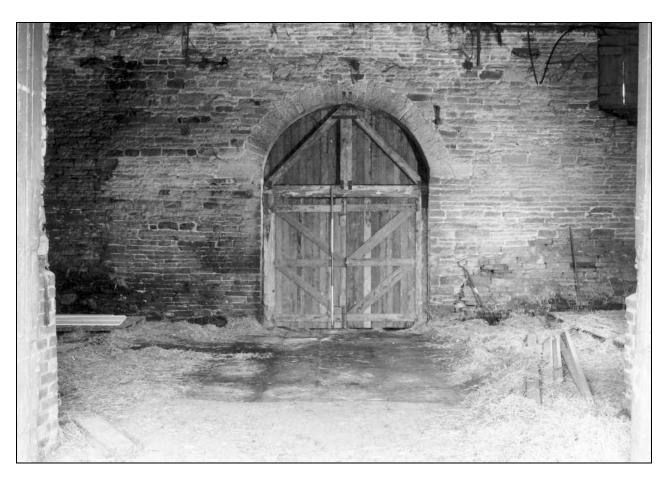


Photo 46: Threshing bay in barn, from the west (film 3, frame 7)



Photo 47: Barn interior, from the north-west (film 5, frame 4)



Photo 48: South end of east wall, inside barn, showing original stonework at foot with later openings above (film 3, frame 12)



Photo 49: Barn interior: south end (film 3, frame 13)

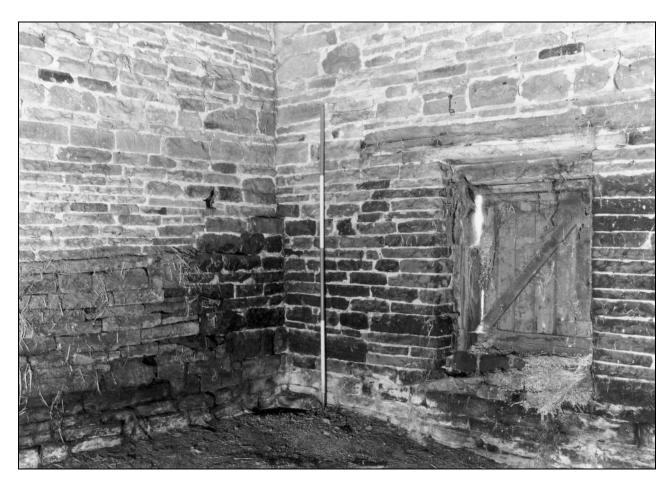


Photo 50: South-east corner inside barn, showing original stonework at left with rebuilt walls above and to right (film 3, frame 16)

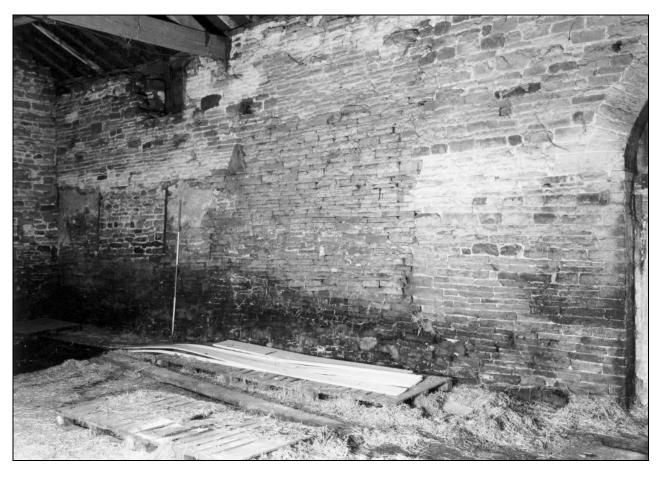


Photo 51: North end of east wall, inside barn, showing areas of disturbed and rebuilt stonework (film 4, frame 18)



Photo 52: Blocked triangular breather in inside face of east wall (film 5, frame 3)

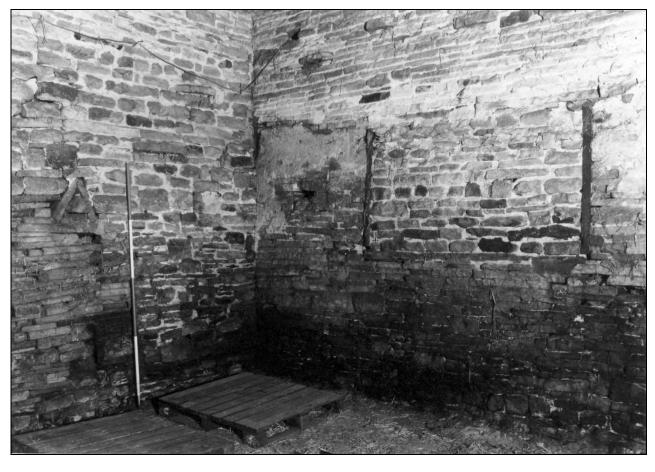


Photo 53: North-east corner inside barn, showing blocked window (?) at right and breather to left (film 5, frame 1)





Photo 55: Truss 1, from the north (film 4, frame 1)



Photo 57: Truss 1: foot of arcade post and pad-stone, from the east (film 3, frame 17)



Photo 56: Truss 1: arcade post, from the north-east (film 3, frame 18)



Photo 58: Truss 1: head of arcade post with original arcade plate and braces, with modern arch brace, from the north-east (film 4, frame 3)



Photo 59: Truss 1: head of arcade post etc, from the north-west (film 6, frame 10)



Photo 60: Truss 1: joint numbering "I" and "II" on arcade post and braces, from the north-west (film 6, frame 12)



Photo 61: Truss 1: framing over aisle, from the north (film 6, frame 9)



Photo 62: Truss 2, from the north (film 4, frame 6)



Photo 63: Truss 2: underside of tie beam, from the west (film 4, frame 8)



Photo 64: Truss 2, from the south (film 6, frame 5)

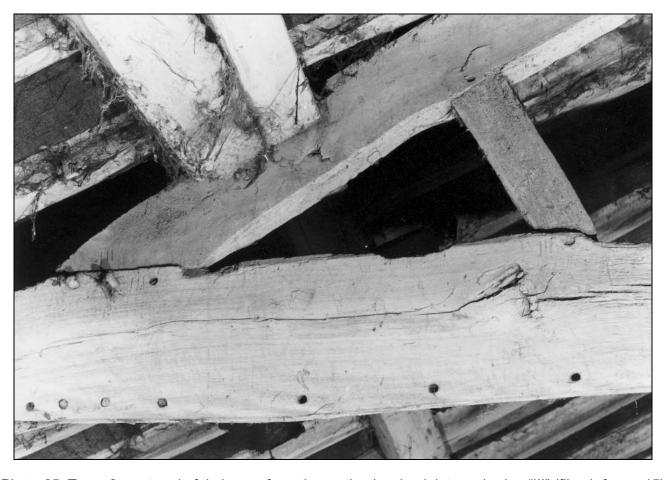


Photo 65: Truss 2: east end of tie beam, from the north, showing joint numbering "III" (film 4, frame 15)



Photo 66: Truss 2: west end of tie beam, from the north, showing joint numbering "IIII" (film 4, frame 14)



Photo 67: Truss 2: head of arcade post, from the north (film 4, frame 9)



Photo 68: Truss 2: head of arcade post, from the south-west (film 6, frame 11)



Photo 69: Truss 2: joint numbering "III" and "IIII" on arcade post and braces, from the south-west (film 6, frame 13)



Photo 71: Truss 2: foot of arcade post and pad-stone, from the south-east (film 4, frame 4)

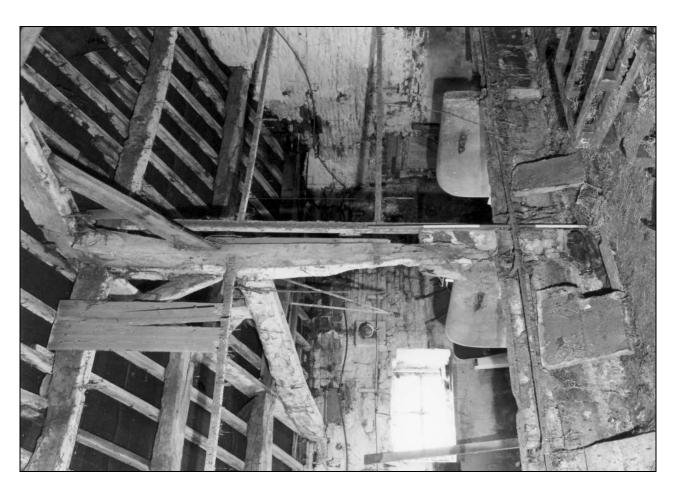


Photo 70: Truss 2: arcade post, from the south-east (film 4, frame 5)



Photo 72: Truss 2: framing over aisle, from the north (film 6, frame 16)



Photo 74: Truss 3, from the north (film 4, frame 11)







Photo 75: Brickwork repair and softwood timber in south side of west entry (film 4, frame 10)



Photo 76: Truss 4: west end of tie beam, from the south, showing joint numbering "IIV" (film 5, frame 10)



Photo 77: Truss 4: west strut above tie beam, from the south, showing joint numbering "IIV" (film 5, frame 11)



Photo 78: Truss 4: east end of tie beam, from the south, showing joint numbering "IIIV" (film 5, frame 13)



Photo 79: Truss 4: east strut above tie beam, from the south, showing joint numbering "IIIV" (film 5, frame 15)



Photo 80: Truss 4, from the south-east (film 5, frame 7)

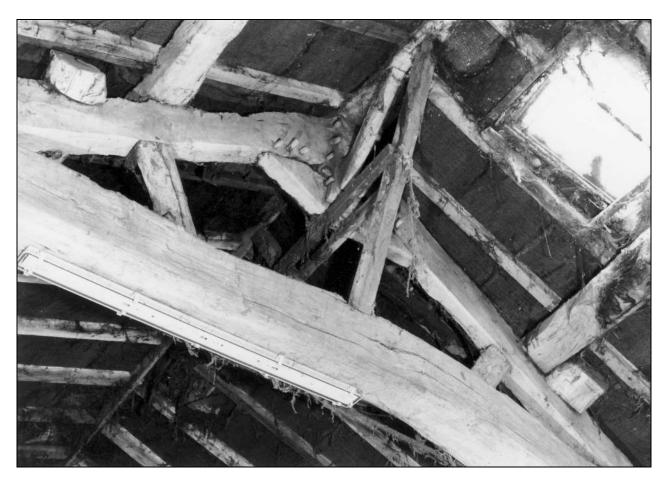


Photo 81: Truss 4, from the south-west (film 5, frame 9)



Photo 82: Truss 3: detail of king post and collar, from the north-west (film 4, frame 12)



Photo 83: Truss 4: detail of king post and collar, from the south (film 5, frame 12)



Photo 84: Truss 4: detail of king post and collar, from the south-east (film 5, frame 16)



Photo 85: Truss 5, from the south (film 5, frame 17)



Photo 86: Truss 5: framing over aisle, from the south (film 7, frame 1)



Photo 87: Truss 5: framing over aisle, from the north-west (film 7, frame 5)



Photo 88: Scarf joint in arcade plate, between trusses 1 and 2, from the east (film 6, frame 4)



Photo 89: Scarf joint in arcade plate, north side of truss 5, from the east (film 6, frame 1)

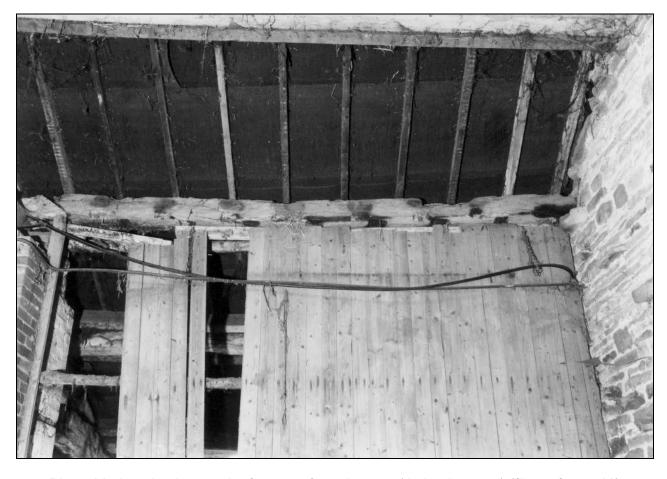


Photo 90: Arcade plate north of truss 5, from the east (timber inverted) (film 5, frame 18)

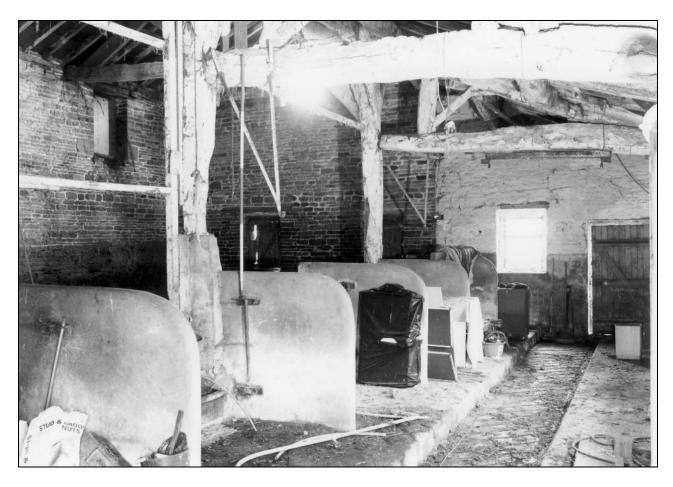


Photo 91: South part of aisle, from the north-west (film 6, frame 17)

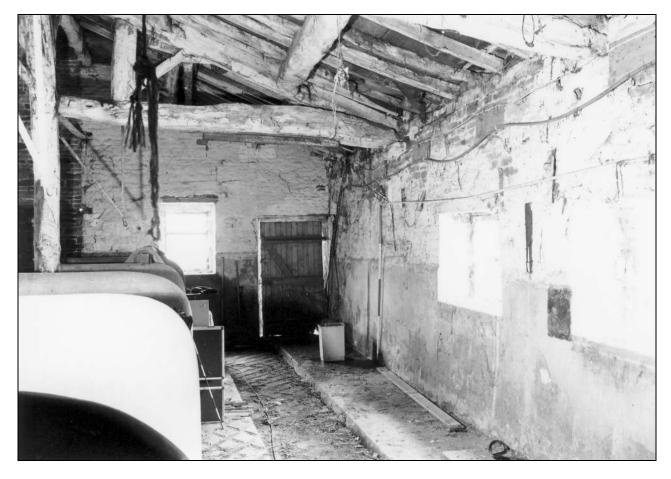


Photo 92: South part of aisle, from the north-east (film 6, frame 7)

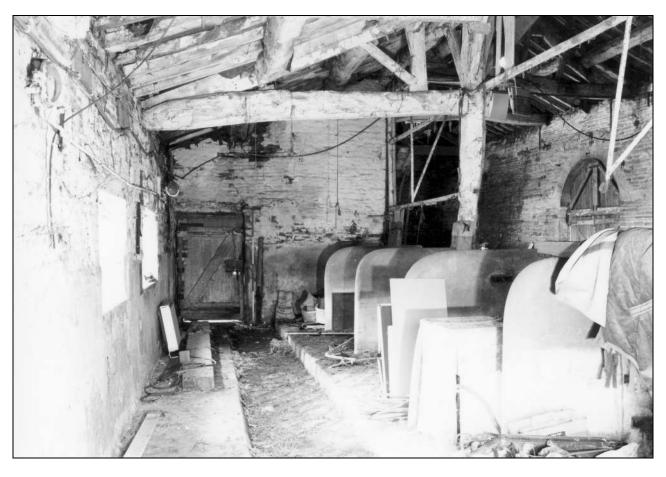
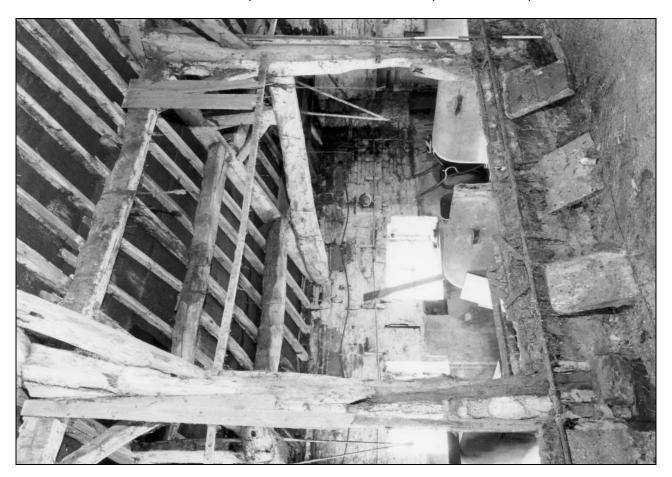


Photo 93: South part of aisle, from the south (film 6, frame 6)



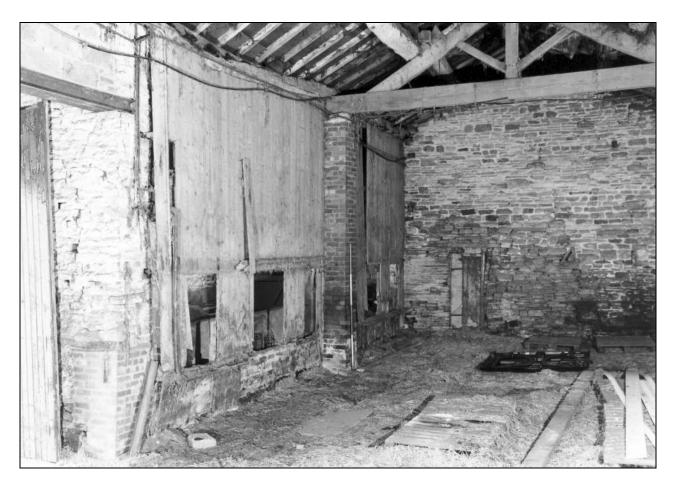


Photo 95: Partition enclosing north part of barn, from the south-east (film 4, frame 16)

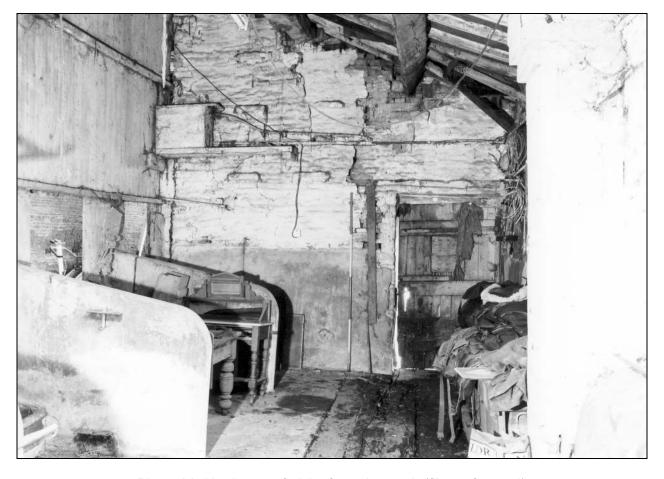


Photo 96: North part of aisle, from the north (film 7, frame 4)

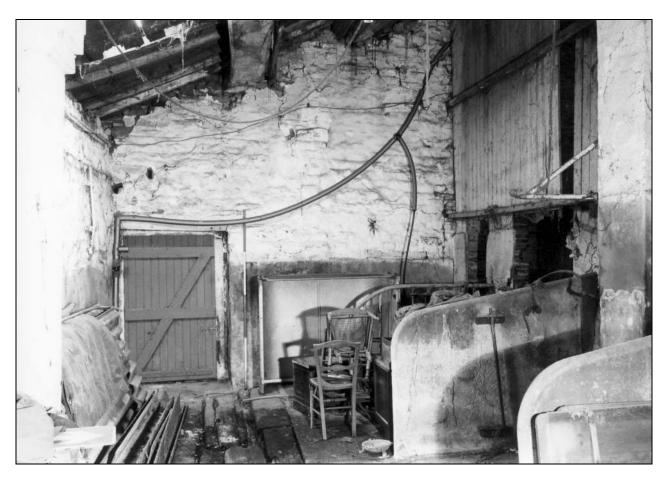


Photo 97: North part of aisle, from the south (film 6, frame 18)



Photo 98: Detail of concrete boskin and ceramic trough, north part of aisle, from the south-west (film 7, frame 3)