Mottisfont Tythe Barn, Mottisfont Hampshire (SU 325 268)

Historic Building Record 2009-2010

November 2010

by

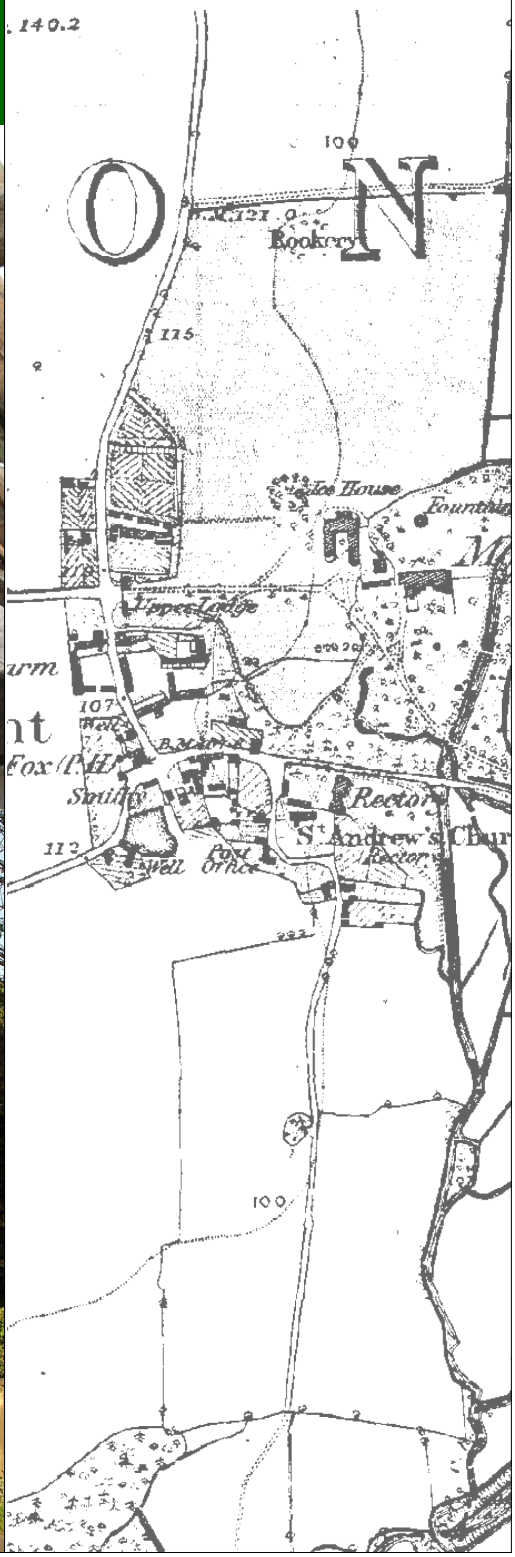
Martin Wilson

for

Middlebridge Services Ltd

Souterrain

Archaeological Services Ltd



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Martin Wilson BA (Hons) MIfA MIEnvSci MEAGE FSA Scot

Souterrain Project No. SOU10/059

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(cover map: reproduced from the 1874 Ordnance Survey map of Hampshire: 048,1:10,560

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CONTENTS

(Illustrations are at the end of the report)

List of Figures

Summary

The old village hall at Mottisfont was adapted from a medieval barn sometime during the early 20th century. Between summer 2009 and summer 2010 it was converted to a house, by Middlebridge Services Ltd (Romsey). The conversion work revealed that the barn had previously undergone many alterations in the 18th century, or even the 19th century, at which time it belonged to the rectory of Mottisfont. The medieval timber framework of the barn, exposed and restored during the work, became a key feature of the new house design.

As the barn structure was gradually revealed throughout the works, an archaeological record was made by Souterrain Archaeological Services Ltd (Romsey).

This report gives a descriptive and illustrative account of archaeological observations made of the medieval and post-medieval building during the work. It provides an analysis of the former agricultural building based on those observations, and places the barn in its historic context via available documentary sources. The record comprises photographs and drawings of the medieval and post-medieval building, to be used in conjunction with this report. It compliments an earlier photographic record and report made of the 20th century village hall prior to its conversion.

Preface

All statements and opinions in this document are offered in good faith. Souterrain Archaeological Services Ltd (Souterrain) cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

The report was prepared by Martin Wilson BA Hons, MIfA, MIEnvSc, MEAGE, FSA Scot. The illustrations were produced by Mercedes Planas BA MSc MIfA ICES. Edward Roberts, of Hampshire Buildings Survey Group, is thanked for the use of his preliminary survey drawings which have been elaborated in this report and also for his comments on the date of the medieval barn.

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30th November 2010

1. The Building Conversion Project

1.1 The conversion of the former village hall at Mottisfont (NGR SU 325 268) to a domestic dwelling was undertaken between summer 2009 and summer 2010 by Middlebridge Services Limited of Romsey.

1.2 The village hall was situated on the south side of Mottisfont Lane, having been adapted from a medieval tithe barn in the early 20th century. The hall acquired four of barn's five bays, while an end bay to the east remained in use as a stable. The exterior of the building was clad in weatherboards. Inside the hall, the internal framework of the barn was covered by tongue and groves panels, including a lowered ceiling which left only the mid-sections of four medieval cross-frames visible. In contrast, the framework inside the stable was visible to the roof. Windows and doors had been inserted at the rear, in some places with apparent disregard to the load bearing needs of the medieval timber framework. The red tiled roof was repaired, or even completely re-tiled, during the works. The building went out of use a village hall in the latter half of the 20th century and was occupied for a while as commercial premises until the turn of the century. The structure acquired Grade II listing on account of the largely-concealed medieval structure.

1.3 Listed Building Consent was granted for the 2009-2010 development by Test Valley Borough Council, in pursuance of its powers under the Town and Country Planning Act, Orders and Regulations. The following condition attached to the Consent[1] (Application No. 10/00054/LBWS) concerned the archaeological significance of the historic building:

03 The development shall take place in accordance with the "Method Statement for Building Recording" prepared by Souterrain and submitted to the Local Planning Authority on 16th June 2009 as part of application 09/01156/LBWS.
Reason: The site is potentially of archaeological significance in accordance with Test Valley Borough Local Plan policy ENV11.

2. The Historic Building Record

2.1 In advance of re-development proposals in 2007, an 'as found' photographic record was made of the building[2] (by Souterrain) at the request of the Conservation Officer for Test Valley Borough Council. It included a record of limited 'opening up' works done to inform conversion proposals. At the same time, a preliminary analysis was made medieval tithe barn by Mr Edward Roberts, a specialist on the medieval barns of Hampshire, who put forward a hypothesis about the character and date of the original timber structure[3] based upon what little of the framework was extant. The archive report is housed in the Hampshire County Records Office as a public-accessible record.

2.2 This document is an analytical record of the remains of the timber framed barn during its subsequent exposure in the course of conversion and restoration works. The record comprises photographic archive, measured drawings of characteristic elements of the building, and a written account. The form and level of recording observed the guidance of the English Heritage (*Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (2006).

[1] See Test Valley Borough Council Notice of Listed Building Consent, 9th March 2010, Application No. 10/00054/LBWS. Proposal: Alteration/restoration work in association with conversion of barn to dwelling. Location: the Tythe Barn, Mottisfont Village Road, Mottisfont, Romsey. Date Registered 12.01.2010.
[2] *Mottisfont Tythe Barn, Mottisfont Hampshire, SU 325 268, 'As found' Photographic Record*. For Middlebridge Services Ltd. Souterrain Archaeological Services Ltd Report, May 2007
[3] E Roberts: *Mottisfont Tithe Barn: a record and analysis of the original structure with some reference to later phases*, May 2007, Test Valley Planning Application 09/00665/FUL

2.3 The purpose of the recording was: a) to expand upon existing knowledge of the building in order to gain an understanding of the original structure and subsequent changes; and b), to record elements of the structure that would suffer loss, change or concealment during conversion work. The record was made by Martin Wilson of Souterrain Archaeological Services Ltd on behalf of Middlebridge Services Ltd following consultation with the Conservation Officer with regard to specific requirements[4]. In particular, since the internal features of the roof were not visible in 2007, the roof structure was to comprise a main part of the recording programme. Analytical dialogue took place on site between Martin Wilson and Edward Roberts[5], and forms the basis of the discussion in this report.

2.4 Photographic recording was enabled in stages throughout the conversion and restoration programme, between August 2009 and February 2010. The archive comprises black and white prints and a CD containing digital images. The metric scales which appear in the photographs are normally 2m in length with divisions of 0.5m, or > 0.20m for specific detail. Each image is indexed (Section 7), with a short description, and cross-referenced to a scale plan of the building which shows the direction of view (Figs.49 to 51).

3. Phases of use[6]

3.1 The tithe barn appears to have a 'multifunctional agricultural building', that is, a place where sheaved corn or different crops were stored, where threshing took place, and where animals were stabled. In the 1840s the barn belonged to the rector of Mottisfont[7], evidence itself of being a tithe barn, at which time it stood in the north-west angle of the rectory farmyard. The western side of the south elevation (i.e. Bays 1, 2 and part of Bay 3) appears to have adjoined to another farm building (Fig.2). The ground plan of the barn, with its acute-angled west end suggests that it was fashioned to fit into an irregular corner of rectory-owned land, maximising space within the farmyard. The north wall measures 23.6m in length, the south wall. 22.6m, and the width of the building is *c.*6.4m.

3.2 Broadly speaking the barn has two discernible phases of construction (*i.e.* prior to its conversion to a village hall). The first phase, which we will refer to as the original timber-framed barn, has been placed within the date range 1400 and 1480 by Mr. Roberts, based upon the 'fan truss' (*i.e.* out-curving braces from above the collar) at the east end, a hallmark period feature of the mid-15th century and a type which has been dated many times in Hampshire. The second phase concerns all subsequent additions and replacements during the agricultural 'life' of the barn, which appear to have taken place in the 18th or 19th century.

3.3 In view of what appeared to be a wholly-replaced west elevation (the lower half substituted by a brick wall), the question arose during the preliminary analysis of 2007[8], as to whether or not the Phase I structure was *in situ*. Further evidence is examined below.

4. Observations

4.1 Technical terms used in this report are shown on Figure 4. For the purpose of recording and reference the bays are numbered west to east 1 to 5, and cross-frames (roof truss supported by two principal posts), 1 to 6; the latter become Trusses 1 to 6 when referring to the roof interior.

[4] *Method Statement for Historic Building Recording: Mottisfont Tythe Barn, Mottisfont Hampshire*. For Middlebridge Services Ltd. Souterrain Archaeological Services Ltd 15th June 2009. Consultation: 11th June 2009.
[5] Mr Roberts is to carry out further study of the building in the context of Hampshire's historic barns.
[6] The description expands upon the preliminary description and analysis made by Mr Roberts
[7] Mottisfont Tithe Award, 1840, Hampshire Record Office 21M65/F7/164/1-2
[8] Ibid. Roberts, E 2007.

Bay 1

Ground

4.2 This bay is asymmetrical, most probably for of the reasons described above (Section 3.1). The lower half of the west elevation, up to a height of c.2m, was replaced by brick-lined cob wall presumably in the late 18th or early 19th century (Fig.10). The lower halves of each of the principal posts of the end frame (cross-frame 1) are missing. Similarly, during the same event, the lower half of the north elevation of the barn was substituted by a brick wall.

4.3 Removal of the weatherboarding from the south elevation revealed that many of the structural elements had either seriously decayed or were completely missing; sills were absent and most main posts, rotten at the base, were scarfed with new oak timber during the restoration (Fig.11). Other than the principal post of cross-frame 2, there was apparently no Phase 1 or Phase 2 timber work present after the removal of the 20th century cladding[9]; a possible open access to an adjacent building in the 19th century (*ante.* 3.1) might account for this. The priority to secure the structural stability of the south frame determined the course of the restoration programme, during which the roof was supported by a purpose-built steel scaffold.

4.4 The north elevation (Fig.10) consists of a wall of red brick (rendered and whitewashed on the interior), built to a height of c.2m upon a foundation of re-used limestone blocks. The wall extends throughout Bay 2, to the entrance in Bay 3, before continuing in Bays 4 and 5. Except for the principal posts, only the upper half of a timber framework is present in the north elevation, which rests upon the wall, and is panelled in weatherboards.

Roof

4.5 Truss 1 is a replacement timber frame (Fig.12), and is markedly different from the fan truss of the east elevation. There are no tension brace mortises present on the tie beam. The original (Phase 1) curving wind-braces are present on both sides of the roof. Truss 2 (Fig.5) is faced up to the west. The principal rafters have threaded purlins, which is a feature of each original cross-frame (Fig.14). Medieval carpenter's marks, roughly-scored Roman numerals, are visible across most of the facing side joints of Truss 2 (Fig.15), and on the outer face of each wind-brace. A second series of neatly-chiselled carpenter's marks are present on the timber of each joint (Fig.16) indicating that the frame was dismantled and re-erected. The style and technique used for these marks suggest that the reconstruction event took place in the 18th or early 19th century. Notably, the wind-brace mortises on Truss 1 (S) (Fig.17) and Truss 2 (N) are exceptionally wide-fitting when compared with those in the other bays, with rough saw-marks extending outside each mortise on Truss 2 (N), which gives the impression of a 're-jigging' during (re-)construction. Both the northwest wind-brace and the southeast wind-brace have a large right-angled notch cut out of their upper sides at some later date, the reasons for which are uncertain (Fig.12). The common rafters are predominantly replacements. On the south side they include a very weathered 'split' mid-rail which has stave holes and a 'v'-groove clearly visible. There is a 'daisy wheel' inscribed on the face of the tie beam (south side) (Fig.13), a means by which a medieval carpenter would calculate the angles and layout of the building by compass geometry [10].

[9] Based on information from the construction team.

[10] See for example: www.conservation.gu.se/digitalAssets/1307/1307344_Daisywheel_-_introduktion.pdf. and www.timberbuildings.net

Bay 2

Ground

4.6 The north and south elevations retain their original principal posts. In the preliminary analysis (Roberts, 2007) it was suggested that this bay may have contained the Phase 1 wagon entrance, on account of bays 4 and 5 having evidence for loft floors, and given that wagon entrances were usually in the centre of a barn in order to minimise labour. In this respect; therefore Bay 2 would have functioned as a 'central' bay. In support of this theory there are no mortises present in posts 2 or 3 for down-swinging curved tension braces (Figs.18 and 20), as seen elsewhere along the north elevation. The timber framework of the north elevation, including wall plate, belongs to Phase 2; the lower beam of the framework consists of a re-used mid rail turned onto its side (Fig.20). The lower part of the south elevation was not seen by the archaeologist during the development, although he was informed that there were no remains of sill beams or the original ashlar plinth. Few storey posts (i.e. those which rise between and wall plate) survive in the south elevation, their lower portions rotted away, were scarfed to new timber during the restoration (Fig.19).

Roof

4.7 Most of the roof frame (i.e. with the possible exception of the common rafters) belongs to Phase 1. Truss 3 (Fig.5) is faced up to the west. Medieval carpenter's numerals are present, as are a series of numerals of probable 18th / early 19th century date (Fig.21). 'Daisy wheels' are also present (Figs.21 to 23). The original wind braces are intact. Notches, at right-angles, have been cut out at a later date, the reason for this is uncertain (Fig.24).

Bay 3

Ground

4.8 Traditionally, the central bay was the loading bay. It was used as a wagon entrance in Phase 2 (i.e. the 18th / 19th centuries). The lintel above the entrance is a re-used mid-rail turned on to its side (Fig.25). On cross-frame 3 (i.e. on the west side of the entrance) there is a mortise for a down-swinging tension brace which would have been attached to a bridging beam (similar to mid-rail), precluding an original wagon entrance in this bay. Peg holes on the principal posts of cross-frame 4 denote the position of a mid-rail, although there is no mortise for a central stud (Fig.6). There were apparently no remains of sill beams or the original ashlar plinth in the lower part of the south elevation.

Roof

4.9 With the possible exception of the common rafters, the roof frame belongs to Phase 1. As with Trusses 2 and 3, Truss 4 (Fig.6) is faced up to the west. Medieval carpenter's numerals are present, as are a series of numerals of probable 18th century date (Fig.26).

Bay 4

Ground

4.10 The lower half of the north elevation consists of a brick wall, to a height of c.2m, upon a foundation of re-used limestone blocks. The wall extends throughout Bay 5. On top of the wall, mid rails have been laid, turned through 90 degrees, to form a sill for the timber framework of the upper half of the elevation. Due to the constraints of visibility, it was not possible to ascertain whether there was evidence for a down-swinging tension brace in post 4.

4.11 In the south elevation, there was no trace of a sill beam; the lower parts of principal posts and storey had rotted away (Fig.27). Symmetrically, opposed mortises cut diagonally into inward sides of the 2nd and 3rd principal posts indicate the probable position of a manger; a Phase 2 feature (Fig.28).

4.12 Removal of the village hall stage in Bay 4 revealed a floor of rammed chalk, forming a raised area (Fig.29) and a brick-lined drain running north-south beneath the north and south walls of the building (Fig.30). In contrast, Bays 1 to 3 had opened up directly onto geological stratum, while the floor of Bay 5, the stable, was cobbled. The dimensions of the bricks (6" x 1½ x 1") suggest a post-medieval date. Ground-work also revealed evidence for a wall of an earlier building on the site, approximately 1m west to cross-frame 5. It consisted of a linear void, to a depth of c.0.4m, in a layer of rammed chalk, filled with 18th–19th century soil and rubbish (Fig.31). The void had evidently been caused by the removal of superstructure; at its base a rotten timber, probably the remains of a sill beam was removed by the ground-work team. Since a sill beam would have sat proud of any floor, the rammed chalk was clearly a later event. Hand-made bricks used for the foundations of internal partitions were the same dimensions as those on the outside wall of the building, suggesting the same chronology. The bricks used inside the building were un-mortared.

Roof

4.13 As with Trusses 2, 3 and 4, Truss 5 is faced up to the west (Figs.7 and 32). Medieval carpenter's numerals are present across all main joints, flanked by those of probable 18th century date (Fig.33). Peg holes on the principal posts of cross-frame 5 denote a former bridging beam, together with evidence for a central stud (Fig.7). There are stave holes on the underside of the tie beam (Fig.34), a 'v' groove on its upper side (Figs.35), and stave holes on the underside of the collar beam (see Bay 5).

Bay 5

Ground

4.14 The sill of the southern elevation comprised the remains of rotten timber fragments upon a plinth of assorted bricks. There was a lack of diagnostic carpentry cast doubt on any these fragments being Phase 1 material (Fig.36).

4.15 The principal post of cross-frame 5 on the north side has been severed at approximately mid height and stands upon an 18th century brick wall the upper part of the post shows signs of repair work. The timberwork of the north elevation in Bay 5 (Fig.37) is entirely replacement, its reconstruction probably dates from the 18th or even, 19th century, Timbers, such as the segments of wall plate (Fig.38), are likely to have been derived from at least one other medieval structure.

4.16 The principal post on the south side remains intact, although was dislodged from the sill beam. The sill beam may be timber from Phase I although the brick plinth is more likely to be Phase 2 (Fig.39).

4.17 Evidence for a bridging beam in cross-frame 6 (Fig.8), implies that a loft floor was present in Bay 5; a stable with hay loft above.

Roof

4.18 Truss 6 is a 'fan truss', the king strut flanked by out-curving braces (Figs.8 and 40).The truss has been severed just above the purlins (Fig 41). There is a stave groove above the collar, indicating a gable. Medieval carpenter's numerals show that this was indeed the original end frame; these flanked by 18th century numerals as observed on cross-frames 2 to 5 (Figs.41 and 42). Notably, the principal rafter on the north side of cross-frame 5 has no wind brace mortise and has clearly suffered weathering on its east side, indicating that it is a replacement timber that was formerly an end frame (Fig.43).

Notes on the brickwork

4.19 The lower half of the north elevation consisted of a wall of red brick (Fig.37) built upon on a foundation re-used limestone blocks; the latter which is presumed to been salvaged from rubble derived from the priory of Mottisfont (Fig.44). The bricks, handmade, each measure approximately 9" x 4" x 2 ½ " (228.6 x 101.6 x 25mm). The wall comprises a single soldier course, above which there Flemish bond, which gradually becomes irregular in pattern before changing to stretcher bonding, in places reverting to Flemish bond, or an irregular version of it. The wall is understood to date to the reconstruction of the barn in the late 18th / early 19th century.

Roof tiles

4.20 There were two main types of roof tile (Fig.45), the earlier of these having the rounded peg hole, some with rotted wood inside. The tiles each measure approximately 10 ¾ " x 6 ½ " x ½ " (273 x 165 x 13mm).Tiles were fastened by either a gob of mortar or metal pins; many were placed upside down. The type of makeshift wooden batons that these were attached to seems to indicate that the roof had been re-tiled in the late 19th or early 20th century (Fig.46), perhaps at the time of the building's conversion to a village hall. During the development, the structure was re-tiled utilising a predominant quantity of the original tiles (Fig.47).

5. Discussion

5.1 The discussion which follows is the result of a methodical and detailed examination of the building by Martin Wilson and Edward Roberts during the works.

Dating

5.2 The chronology and identification of phases of construction was a principal research objective. Absolute dating of the main timber frame (i.e. Phase 1), by dendrochronology, proved unsuccessful during the programme of restoration[11]. Nine samples were taken; two in the form of slices from *ex situ* posts and the rest as cores. Three series matched each other and were combined to make a new single series, but neither this, nor the other individual samples could be dated to reference material. There was some evidence of disturbance in the growth patterns, perhaps as a result of management of the trees, which may account for the lack of dating at this site. However, a relative date range of 1400 to 1480 has been proposed by Mr Roberts, and a mid-15th century date is most likely; this primarily based upon the presence of the 'fan truss' (cross-frame 6 / east gable end) a construction technique that has been securely dated on a number of occasions in Hampshire. The latter date is an outlier in a cruck house, the earlier date has much longer, curved braces in its elevations.

The Phase 1 Structure

5.3 The evidence shows that the long elevations of the original 5-bayed barn were mid-railed with a central stud between each bay and down-swinging tension braces (Fig.9). In truss 5, there are two peg-holes for a presumed mortise in the top of the collar to hold a short king post to the ridge; evidence for the presence a ridge beam in the original structure. A stave groove above the collar of cross frame 6 shows that the roof was originally gabled. Phase 1 material in the barn comprises five of the original cross frames (except for the upper section of the east end), wind braces, and probably the wall plates in the south elevation (except for the west bay) and the west half of the north elevation. It is very doubtful whether the remnants of storey posts in the south elevation belong to Phase 1. An unusual feature of Mottisfont tithe barn is that all cross frames are faced up to the west, whereas one would normally find cross frames faced up to the wagon entrance of a

[11] Bridge , M.C. FSA, 'The Dendrochronological Investigation of Timbers from Mottisfont Tithe Barn, Hampshire (NGR SU 324 267)' *Oxford Dendrochronology Laboratory Report 2010/06*, March 2010.

barn (i.e. a central bay) as assumed in the preliminary report. A parallel is the barn at Mill Court, Binsted, Hampshire. Another uncommon feature is the threaded purlins (e.g. Fig.15 and 32),which are usually found only in houses; Hampshire examples of these being one at Overton dated to the 1430s and another at King's Somborne, dated to 1504.

The Phase 2 Structure

5.4 There is sufficient evidence to demonstrate that the barn was dismantled and re-built some four centuries later; an event which brought about a number of substantial alterations. The dismantling process may have involved the whole structure, but was most certainly the roof frames, and the west and north elevations; the lower halves of which have been completely renewed in brick or cob (west elevation), the upper half almost entirely in odd and rough timbers. Substantial repairs were made to the north elevation of Bay 5, which included replacement wall plates and the principal purlin of cross frame 5. It was probably at this time that the end of the roof was changed from gabled to half-hipped.

5.5 The ground level of Bay 5 of the re-built barn is understood to have been a stable, above which there was loft accommodation, presumably for the groom. The evidence for the room over is evidenced by a roughly-cut v-shaped stave groove for a wattle and daub partition wall on the upper side of the main beam of Truss 5, on either side of the crown post (Figs.34 and 41). Additionally there are a number of scorch marks caused by tapers, on the lower part of the main beams (Truss 5 and Truss 6) and along the upper parts of the north and south wall plates (Figs.38 and 40). The loft was most likely to have been accessed by ladder. Within living memory Bay 5 has acquired the name 'the Bull Pen' although there is no further evidence to confirm that this was its function. It was not uncommon for the end bay of a barn to have been reserved for the riding horse(s) of a gentleman owner (such as the rector, in this case); while the farm work horses were kept in a larger stable block within the farmyard. Coincidentally, the barn at Mill Court, Binsted, also had a stable within the end bay with a room over for the groom.

Evidence of re-build

5.6 One of the main indicators of a re-build is the two sets of carpenters' (Roman) numerals throughout the roof structure that are largely situated side-by-side. The earliest set, most certainly date to original erection of the timber frames in the 15th century, and consist of long rough score marks, which are in some cases appear rather distinct. The other set comprise shorter, clear and neatly chiselled numerals with v-shaped profile, common in 18th and 19th century carpentry. There would seem no reason to have re-numbered timbers at the later date unless the roof frame had been completely dismantled and reassembled. The principal posts were marked likewise, but this would be the sensible thing to do, even if only the roof was to be taken off. To support of this postulated date of a rebuild in the 18th - 19th century is the brickwork and rough carpentry in the north elevation. A less obvious sign of the re-build is found in two the wind brace mortises in the west side of the barn; on Truss 1 (S) (See Section 4.5; Fig.17) and Truss 2 (N). Unlike their counterparts throughout the rest of the roof which are tightly fitting and well-carpentered, these are significantly wider and display saw-marks on the outside of the mortise, indicating crude opening up to enable re-jigging during re-erection.

5.7 In addition to evidence of substantial reconstruction it appears that the barn may not have originally stood in its present position. The plan of the barn shows that it was constructed to maximise available space in the farmyard. This meant that the south side of Bay 1 had to be fore-shortened, which in turn, meant that slightly longer cross-timbers were needed to reconstruct the west end frame. The west wall frame (Truss 1) is thus set at an angle of 10 degrees from the perpendicular, its tie beam exceeding the general width of the building by about 0.20m. Notably, the width of each of the five bays is between c.3m and c.3.2m (from the centres of main posts), the exception being the southern side of Bay 1 which is c.2.35m. It is reasonable to infer from this, that the structure was re-sited on a smaller footprint than that for which it was designed, although admittedly, the skewed

west end in itself is not an argument for a rebuild because the same constraints of space could as easily have applied to the carpenter at the primary phase as at the secondary phase. However, the absence of mortises in the tie beam to take the 'fan truss' braces (one would expect it to match the east end frame), and the aforementioned re-sawn wind braces seem to suggest that the barn was erected on this spot at a later date. To support this hypothesis are the observations made during ground-works to underpin the north (brick) wall beneath Bays 4 and 5, where made-up ground, up to c.0.6m in thickness, comprised rubble masonry which is likely to have originally derived from the priory of Mottisfont which was suppressed in 1536 during the Dissolution and converted to a mansion house shortly afterwards by William, Lord Sandys, K.G., the king's chamberlain[12].

Notably, this material was composed of either heavily abraded or and /or decorative pieces, which suggests that it was the discarded material following the dismantling and 'stone robbing' of the priory. Most of it had clearly lain about exposed to the elements for quite some time. The foundation layer is believed to be contemporary with the brick wall (late 18th / early 19th century). To challenge this hypothesis, consideration was given to the possibility that the barn had been 'jacked-up', although in view of the natural downward slope of the ground to the east, it would have meant that the west end of the barn would have originally sat in a significant recess in the slope; not only would this have bad for drainage, but there was no archaeological evidence for such a recess. It has already been mentioned that a substantial former wall of a building was recorded in the floor of Bay 4, c.0.5m west cross-frame 5. The building was most likely demolished to make way for the barn.

5.8 It was considered that the barn may have originally belonged to the priory of Mottisfont, although the consensus is that it is very small for a monastic barn - basically two usable bays for storing crops plus bays for threshing floor and stock shelter, or stable. Mr Roberts was much inclined to think that the barn was originally built somewhere within the rector's farmyard and thus close to its present position. This hypothesis being partly based on his knowledge of several medieval documents in which timber-framed buildings were purchased in order to be re-erected on someone else's property. In each case the re-erection seems to have been at negligible cost, implying a building in good condition that did not need expensive brickwork or new timbers to be found. In the case of the Mottisfont barn, however, it seemed that so much work needed to be done on the building that it would have represented an extremely poor investment for the buyer. On the other hand, if it already belonged to the rector, its economic reconstruction might be enabled without an initial outlay, and perhaps from materials that might be obtained cost-free. Moreover, the cost of transport on bad roads would also have to be borne by a purchaser making a decrepit barn a poor buy. Since many other medieval barns are found alongside a road with the farmyard behind the Mottisfont barn may not be far from its original position.

6. Report and Archive

6.1 This report contains a list of all the photographs taken and plans showing their location. The archive is intended as a public-accessible record, to be housed in the Hampshire County Records Office. Copyright is retained by Souterrain Archaeological Services Ltd and Middlebridge Services Ltd (Romsey), from which permission may be sought for reproduction.

[12] see 'Houses of Austin canons: Priory of Mottisfont', A History of the County of Hampshire: Volume 2 (1973), pp. 172-175. URL: http://www.british-history.ac.uk/report.aspx?compid=38107 Date accessed: 09 November 2010.

6.2 The archive on the CD comprises:

- digital photographs
- index to photographs
- copy of the report

7. References

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Maps

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www.timberbuildings.net

Figures

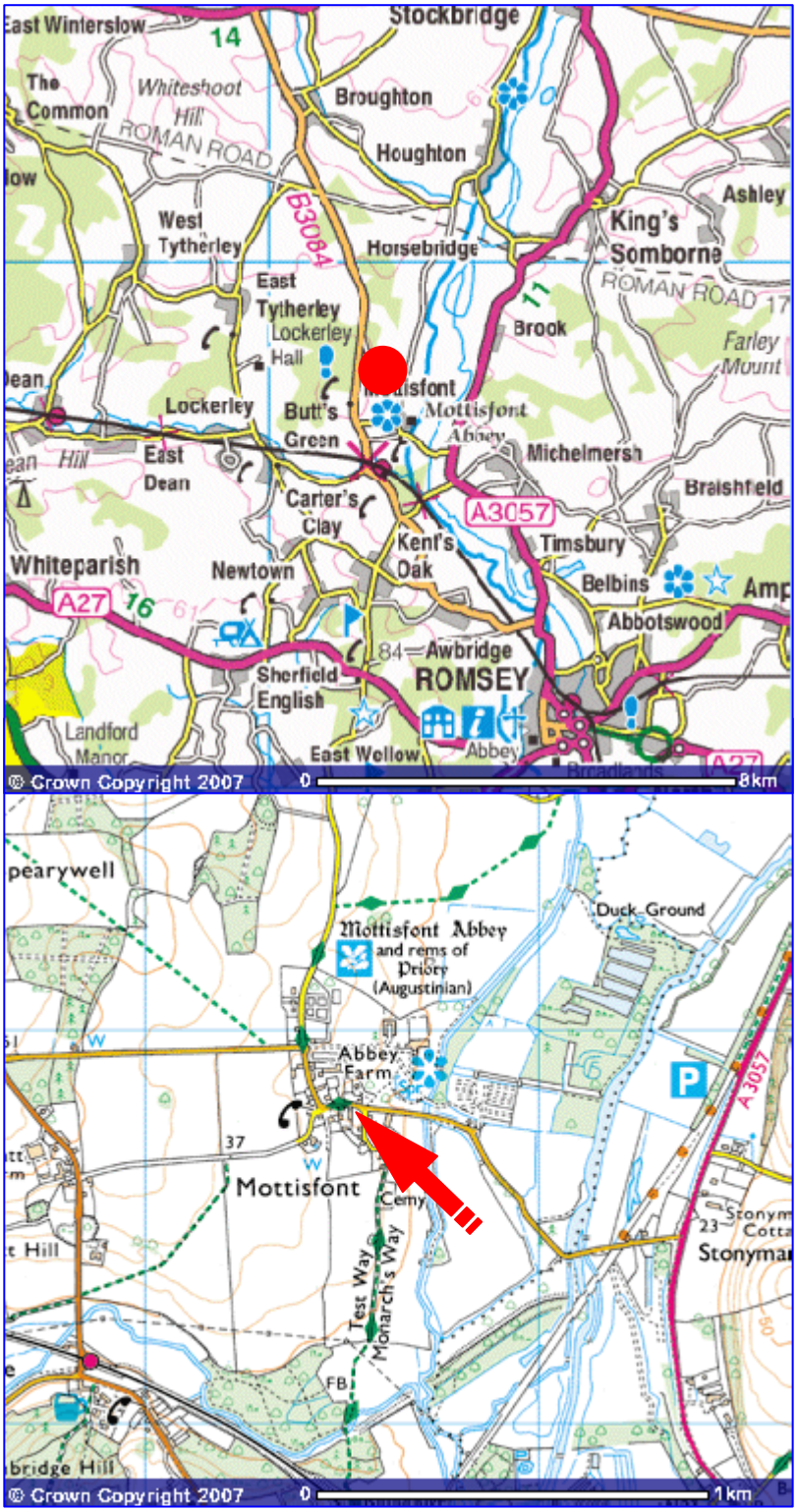
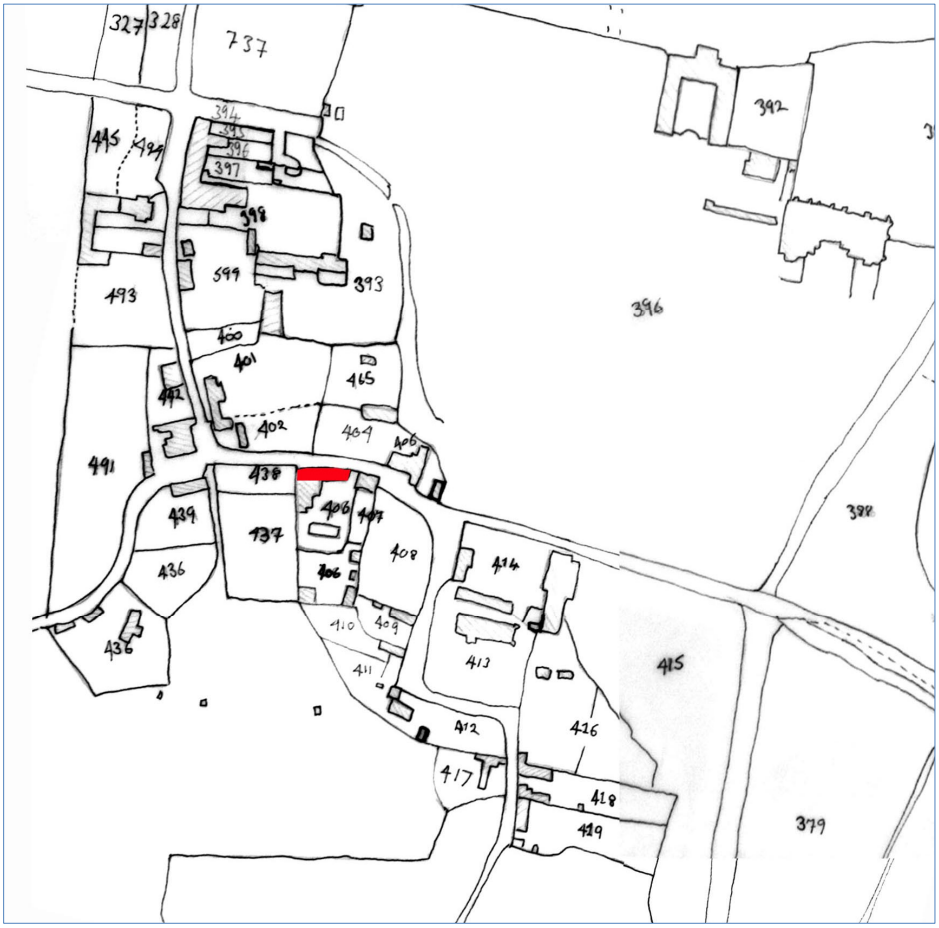


Fig. 1. Location of Mottisfont tithe barn

Fig. 2.
Extract from Mottisfont Tithe Map 1840 (location of barn in light red).
(Source: tracing held by Romsey Library)



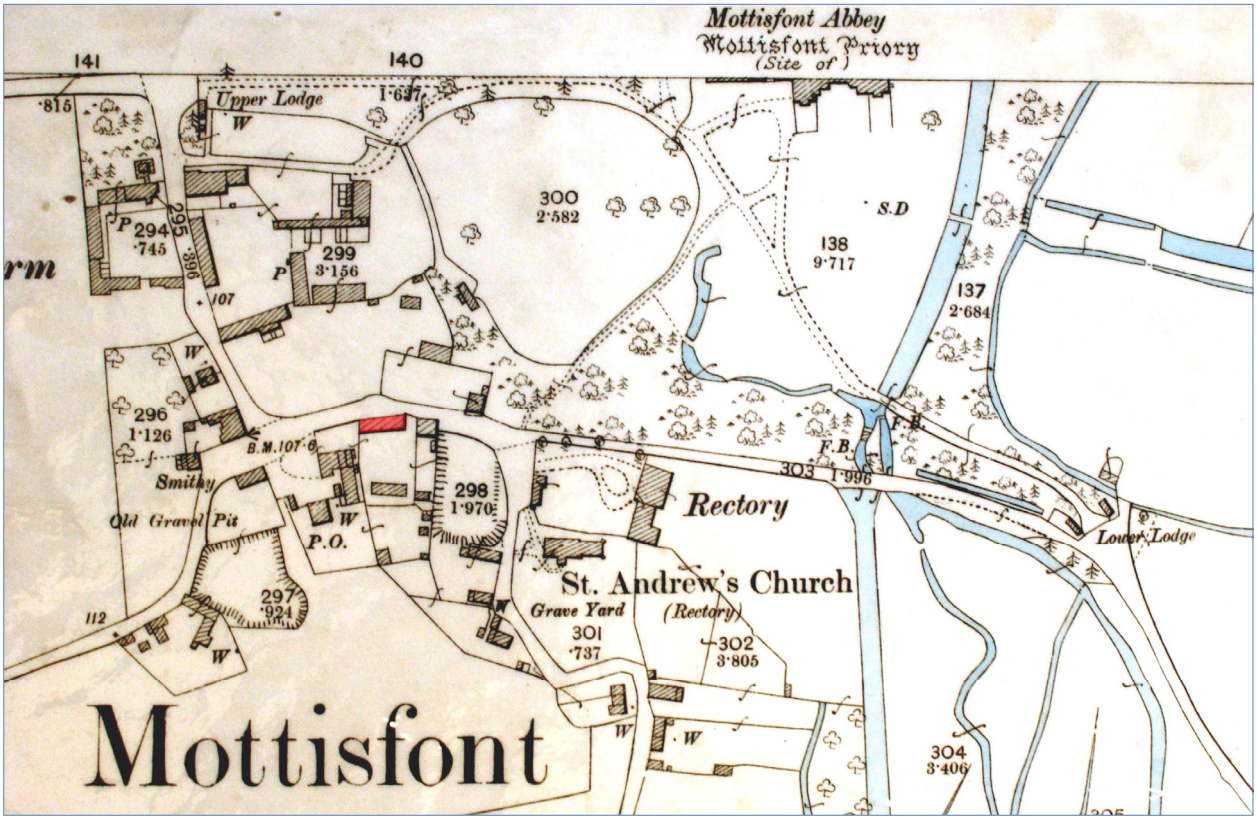
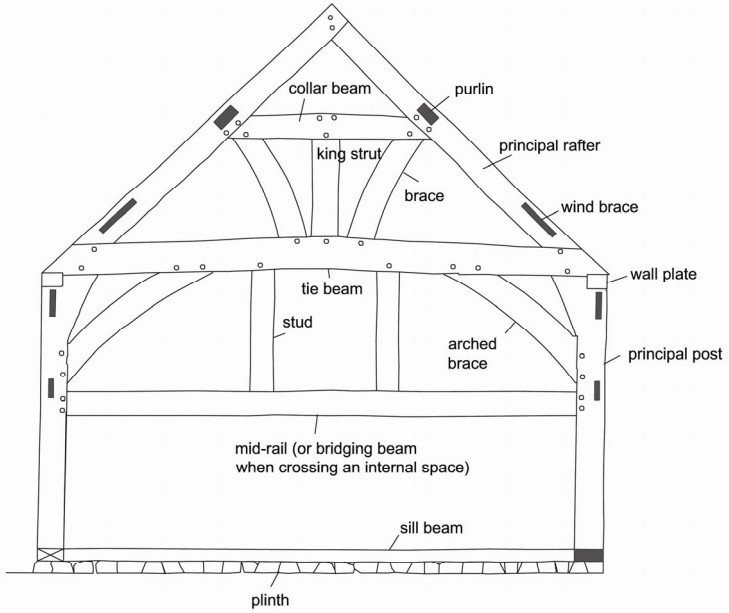
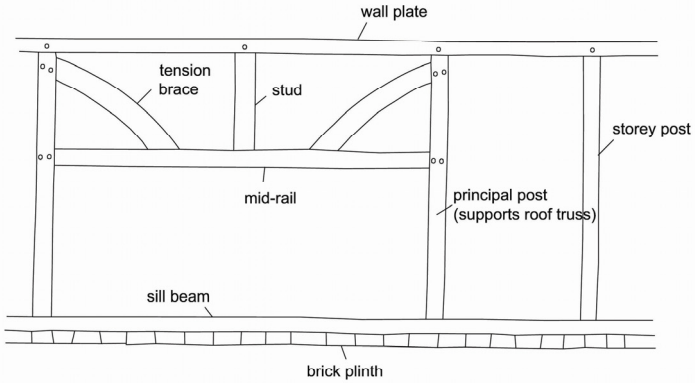


Fig.3. Extract from Ordnance Survey 2nd Edition 1897, 25" (tithe barn in light red).



(a)

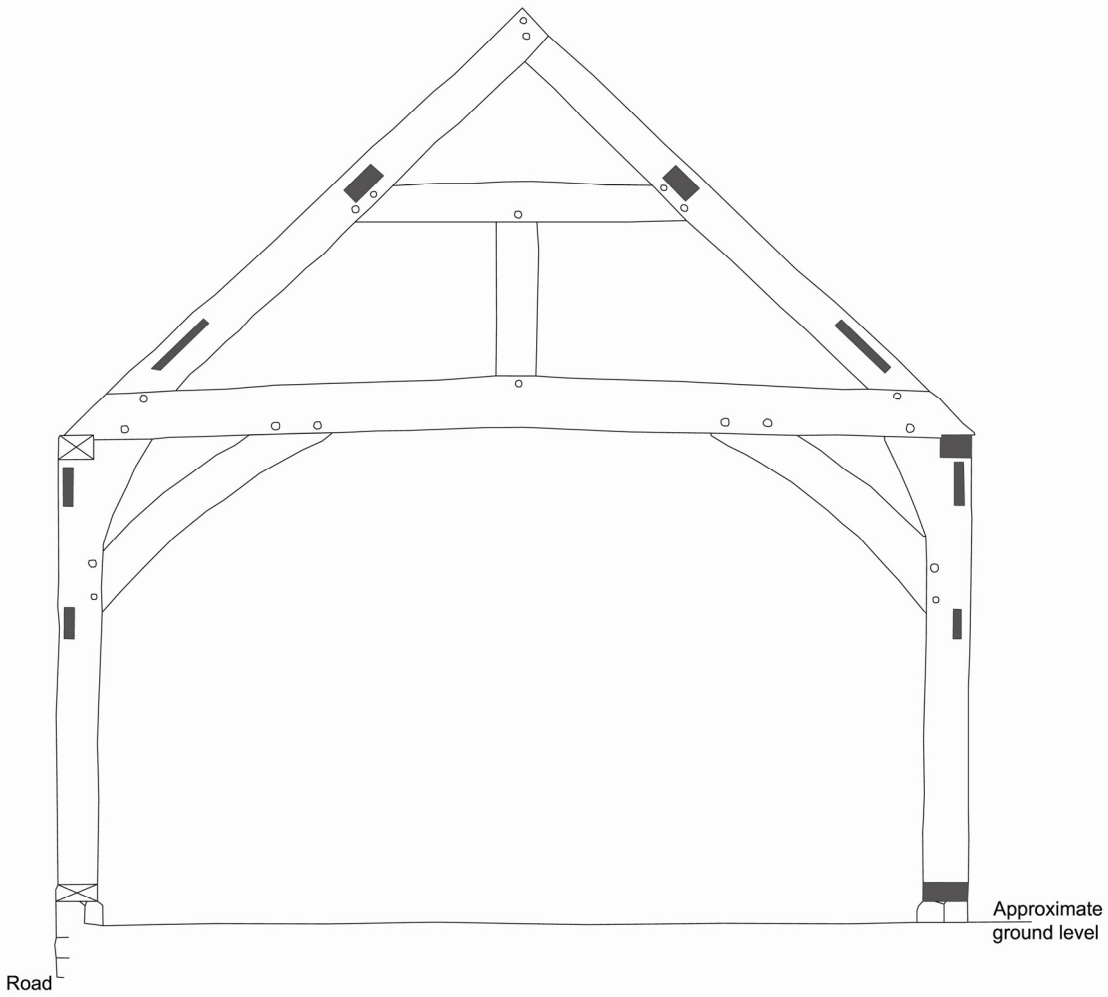


(b)

Mottisfont Tithe Barn Restoration and Conversion

Figure 4: Technical terms
a) cross-frame; b) external elevation

0 2m



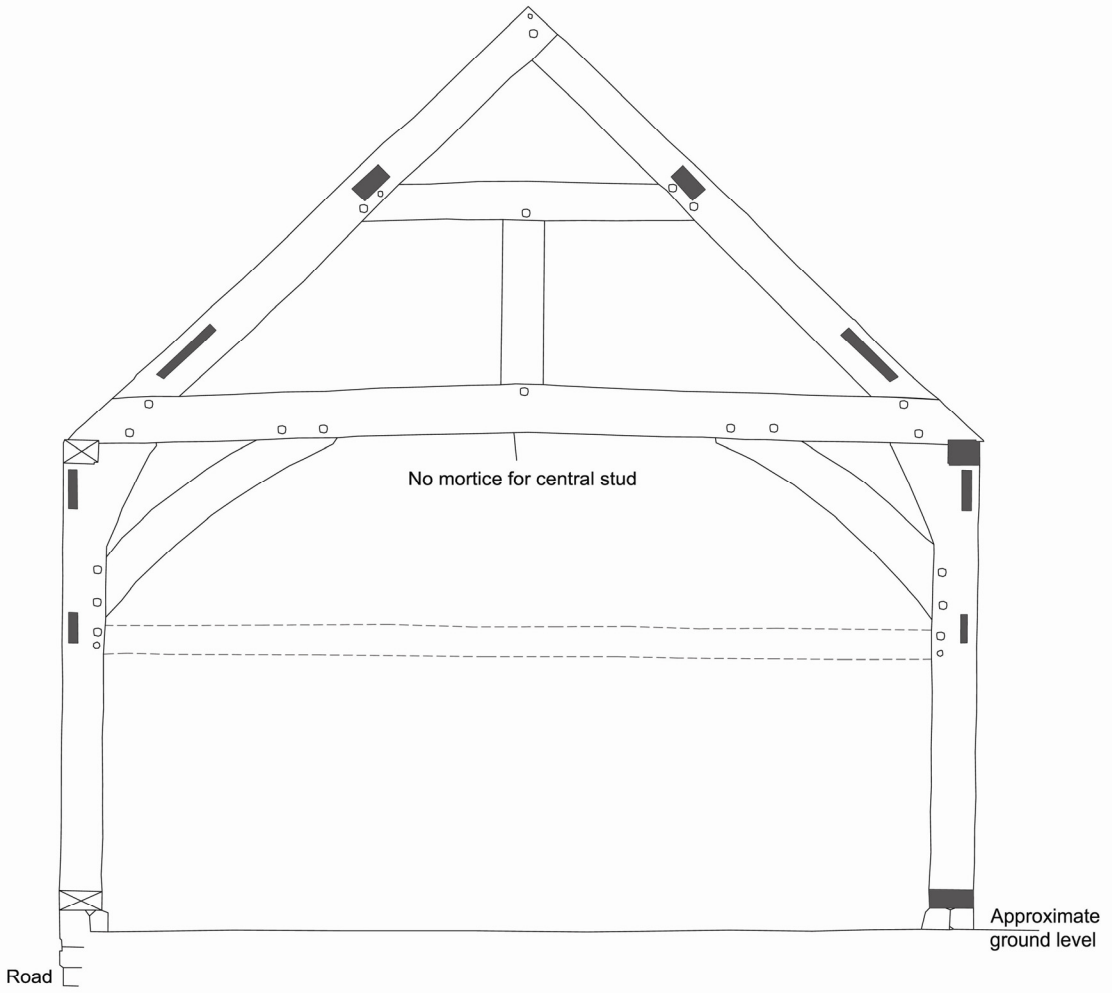
Mottisfont Tithe Barn Restoration and Conversion

Figure 5: Cross-frames 2 and 3 (after E Roberts 2007)

Sectioned timber

Site of sill and wall plate

0 1m



Mottisfont Tithe Barn Restoration and Conversion

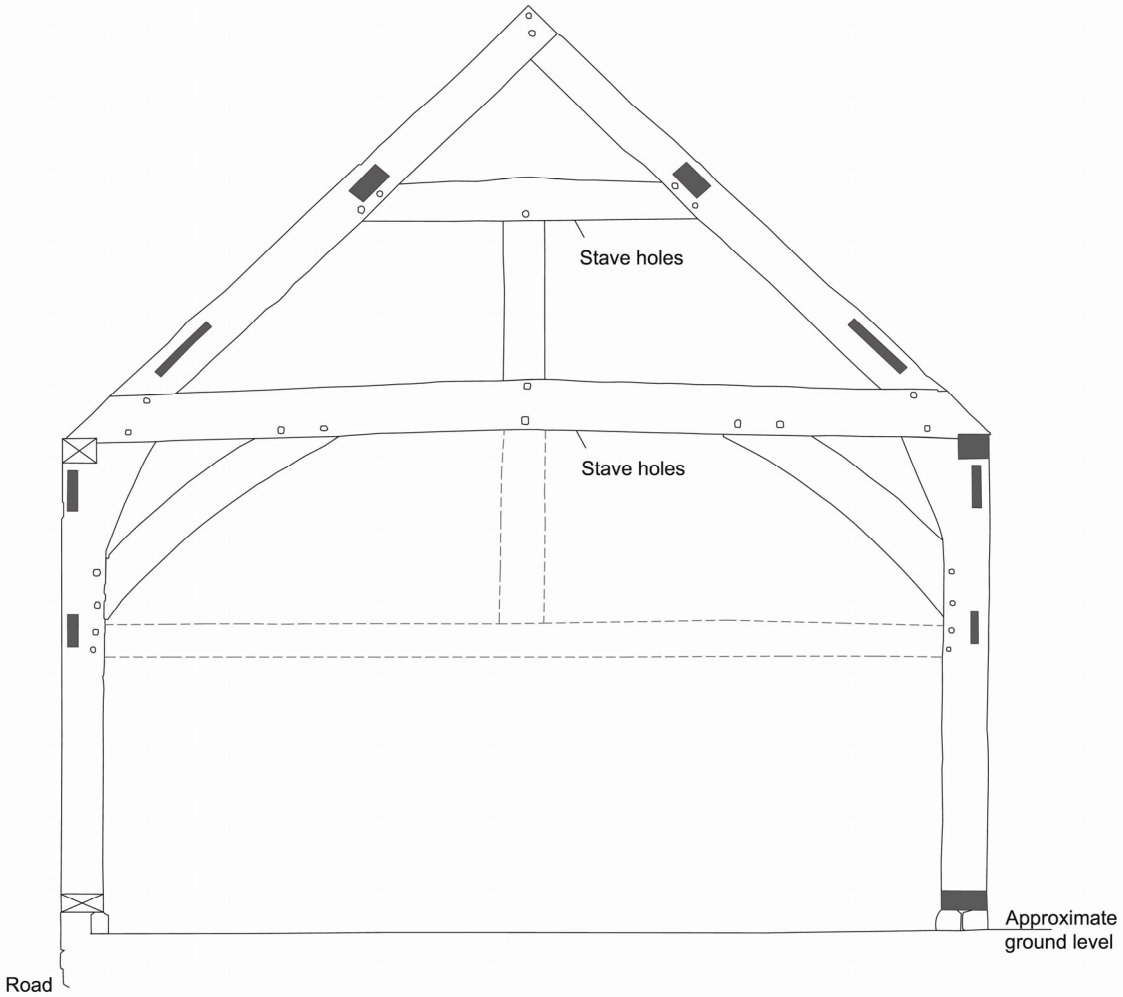
Figure 6: Cross-frame 4 (after E Roberts 2007)

Conjectured line

Sectioned timber

Site of sill and wall plate

0 1m



Mottisfont Tithe Barn Restoration and Conversion

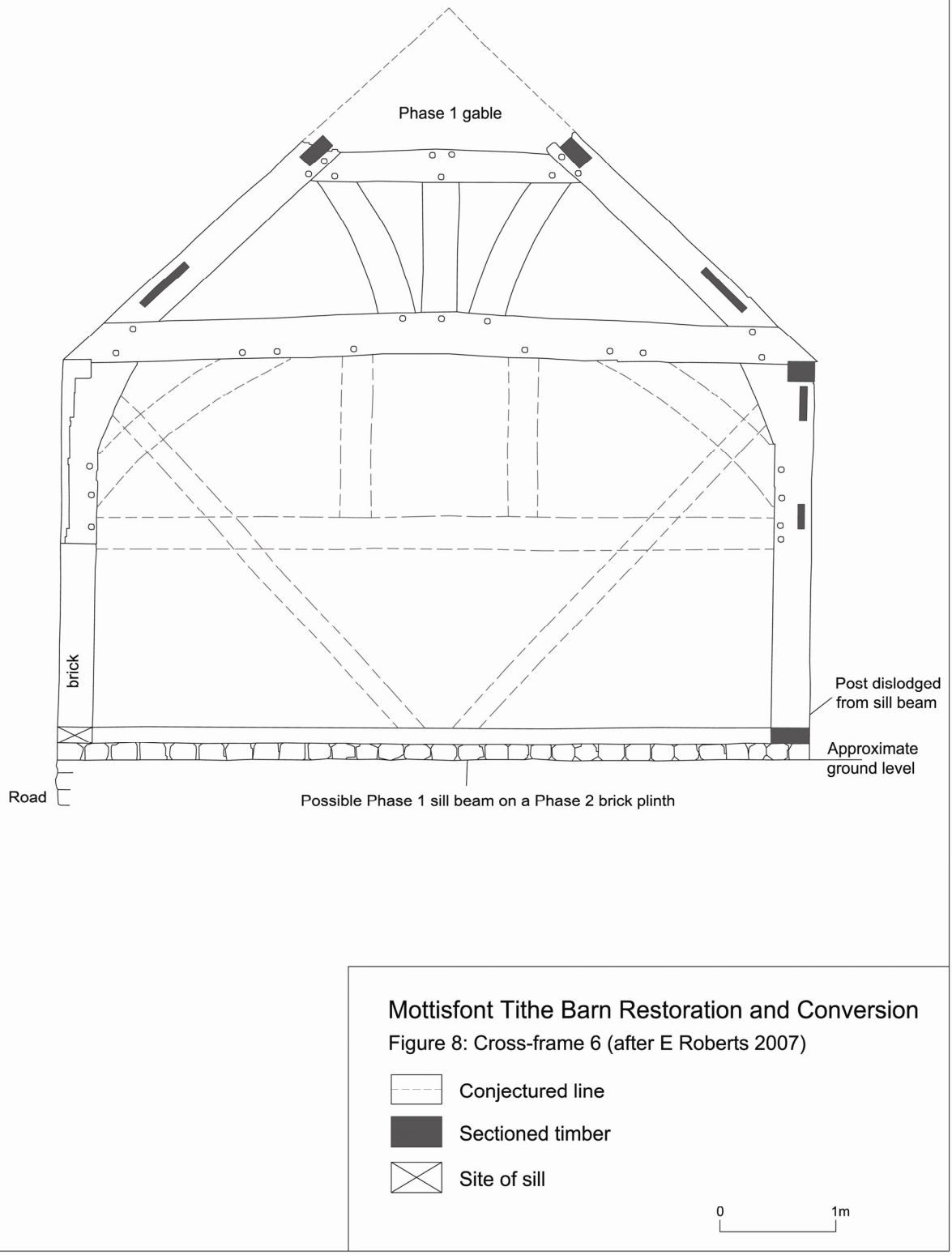
Figure 7: Cross-frame 5 (after E Roberts 2007)

Conjectured line

Sectioned timber

Site of sill and wall plate

0 1m


Phase 1 gable
brick
Post dislodged from sill beam
Approximate ground level
Road
Possible Phase 1 sill beam on a Phase 2 brick plinth
Mottisfont Tithe Barn Restoration and Conversion
Figure 8: Cross-frame 6 (after E Roberts 2007)
Conjectured line
Sectioned timber
Site of sill
0
1m

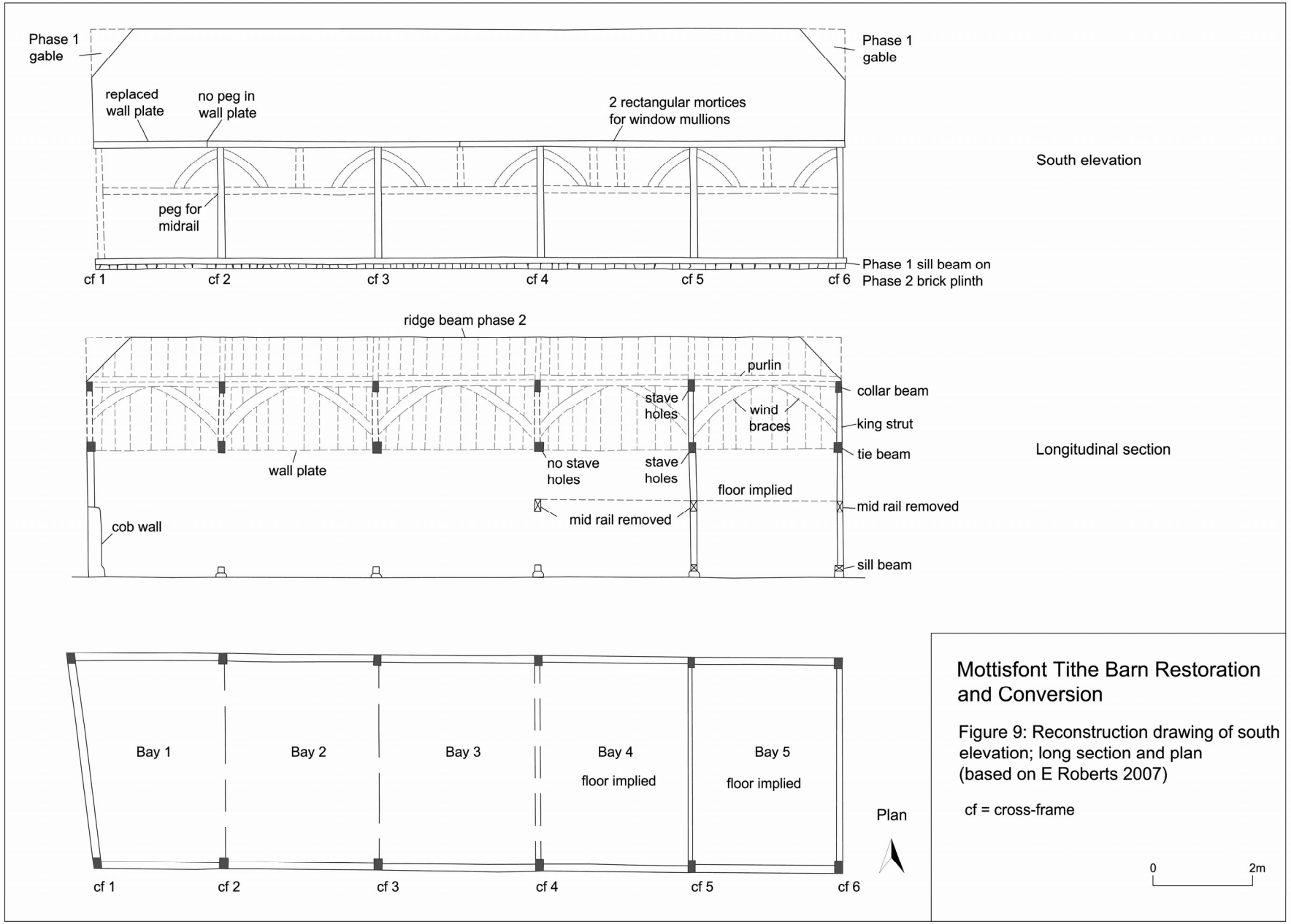

Phase 1 gable
Phase 1 gable
replaced wall plate
no peg in wall plate
2 rectangular mortices for window mullions
peg for midrail
Phase 1 sill beam on Phase 2 brick plinth
cf 1
cf 2
cf 3
cf 4
cf 5
cf 6
South elevation
ridge beam phase 2
purlin
collar beam
stave holes
wind braces
king strut
tie beam
wall plate
no stave holes
stave holes
floor implied
mid rail removed
mid rail removed
cob wall
sill beam
Longitudinal section
Bay 1
Bay 2
Bay 3
Bay 4
floor implied
Bay 5
floor implied
cf 1
cf 2
cf 3
cf 4
cf 5
cf 6
Plan
Mottisfont Tithe Barn Restoration and Conversion
Figure 9: Reconstruction drawing of south elevation; long section and plan (based on E Roberts 2007)
cf = cross-frame
0
2m

Fig. 10. General view of the west and north elevations, facing north-west from Bay 3.

Fig. 11. Bay 1 and 2. Remains of medieval and post-medieval timber framework in the south elevation. Facing north-west.

Fig. 12 (above). Bay 1, truss 1. Facing north-west.

Fig.13. Bay 1, truss 2 (S), 'daisy wheel' on tie beam. Facing south-east.

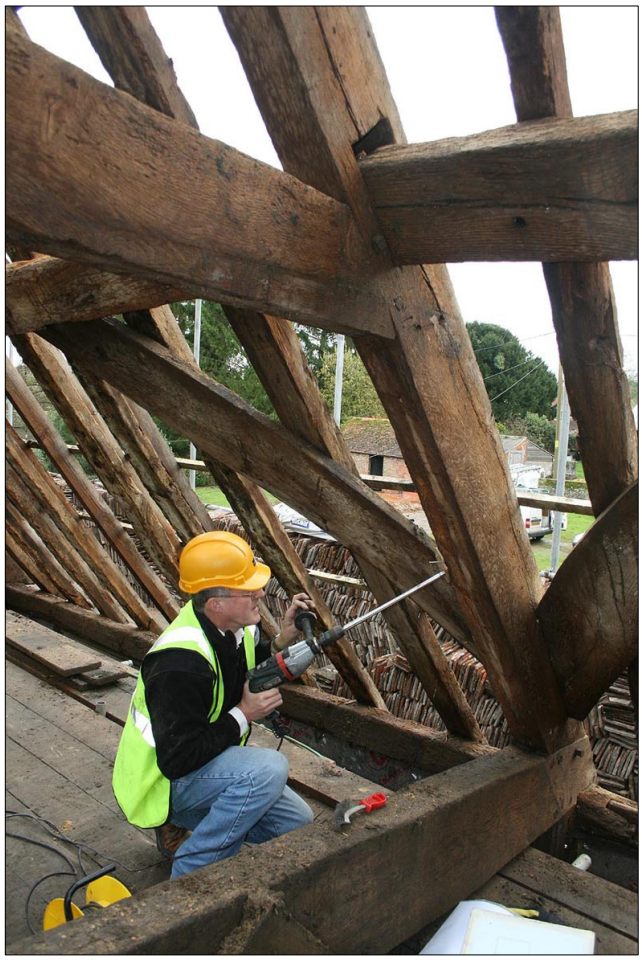


Fig.14. Bay 1, truss 2 (S). Facing south-east.

Fig.15. Bay 1, truss 2. Crown post-collar beam joint. Facing east.

Fig.16. Bay 1, Truss 2 (N). Collar beam-principal rafter joint. Facing north-east.

Fig.17. Bay 1, truss 1. Facing south-west.

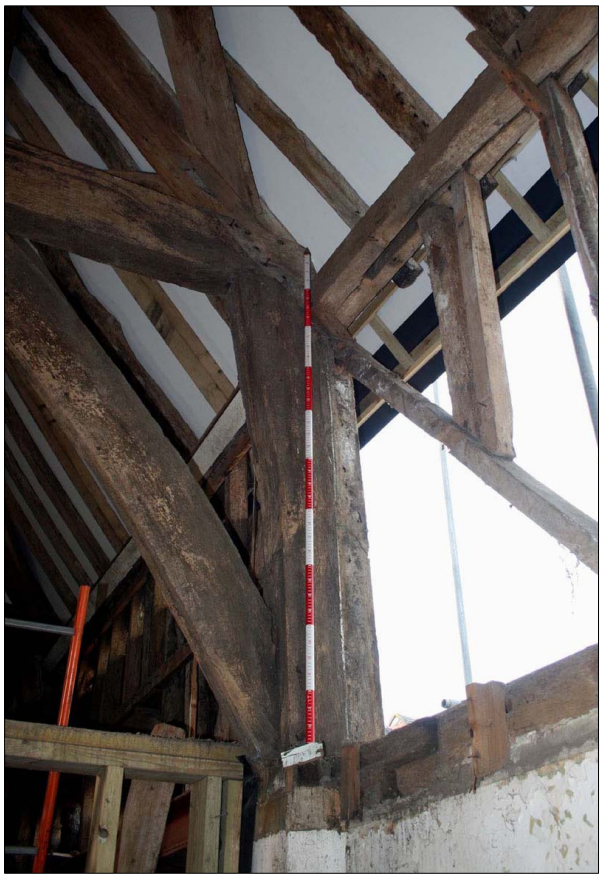


Fig.18 Bay 2, north. Cross-frame 2. Facing north-west.

Fig.19. Cross-frame 3,(S). Principal post (centre) and Phase 2 storey posts, set upon new sill. Facing north-east.

Fig.20. Bay 2. North elevation (partially exposed) and truss 3 (N).

Fig.21. Bay 2, truss 3, facing side. Tie beam-crown post joint, showing a series of superimposed Phase 1 'daisy wheels' and Phase 2 numerals.

Fig.22. Bay 2, south side. Medieval 'daisy wheel' on wind brace.

Fig.23. Bay 2, truss 3, facing side. Crown post-collar beam joint,with medieval carpenter's numerals and 'daisy wheel'. Facing east.

Fig.24. Bay 2. the roof structure. Facing north-east.

Fig.25. Bay 3. A re-used mid-rail acts as a lintel above the entrance to the Phase 2 (i.e. the 18th / 19th centuries) loading bay. Facing north-east

Fig. 26. Bay 3, truss 4. Post and truss joint. Facing north-east.

Fig.27. Bay 4. Condition of Phase 1 and Phase 2 timbers in the south elevation. Facing north.

Fig.28. Bay 4. South elevation. Mortise for Phase 2 manger; principal post 4 Facing south-east.

Fig.29. Bay 4. Floor of rammed chalk forming a raised area, revealed after the removal of the village hall stage. Facing east.

Fig. 30. Bay 4. Brick-lined drain running north-south, and beneath the north and south walls of the barn. Facing north-west.

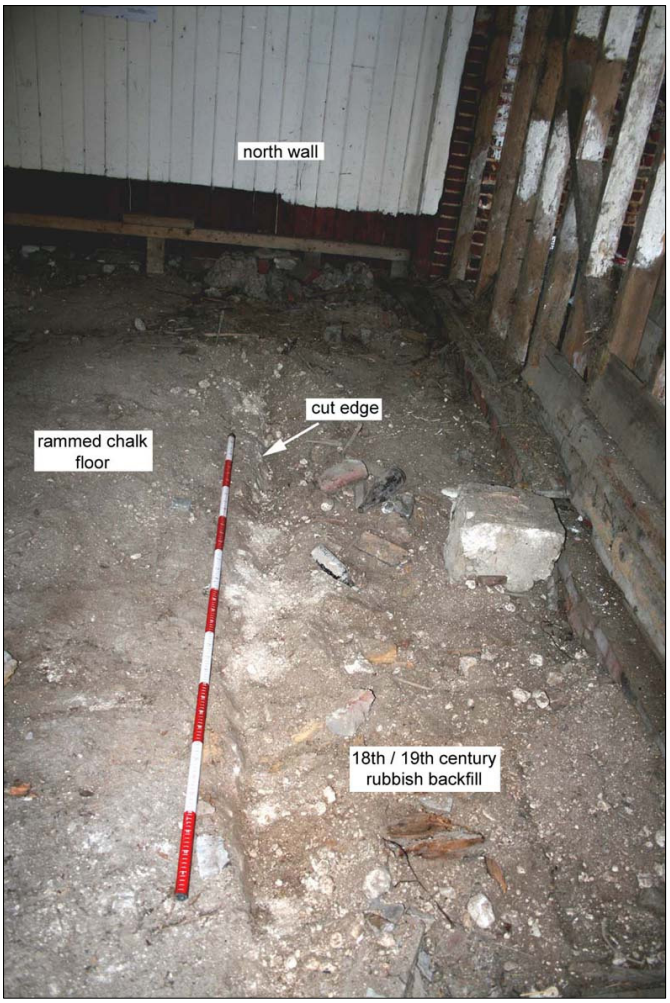


Fig.31. Bay 4. The position of the wall of an earlier building, approximately 1m west to cross-frame 5. Facing north.

Fig.32. Bay 4, truss 5. Facing east.

Fig.33. Bay 4, truss 5; Tie beam-crown post joint, with both medieval and 18th century carpenter's numerals. Facing east.

Fig.34. Bay 4, truss 5. Stave holes on the underside of the tie beam. Facing south-west.

Fig.35. Bay 4, truss 5. 'V' groove on the upper side of the tie beam denoting the position of stud wall. Facing north-east.

Fig.36. Bay 5. Remains of Phase 2 and modern timbers in the south elevation. Facing south

Fig.37. Bay 5. North elevation. Facing north.

Fig.38. Bay 5. North elevation. Wall plate and post-truss (6) joint. Facing north.

Fig.39. Bay 5, cross-frame 6. Phase 1 sill on Phase 2 brick plinth.

Fig.40. Bay 5. The 'fan truss' of the east end frame. Facing east.

Fig.41. Bay 6, truss 6. Principal rafter-collar beam joint, with medieval carpenter's numerals. Facing east.

Fig.42. Bay 5, truss 6. Post and truss joint. Facing south east.

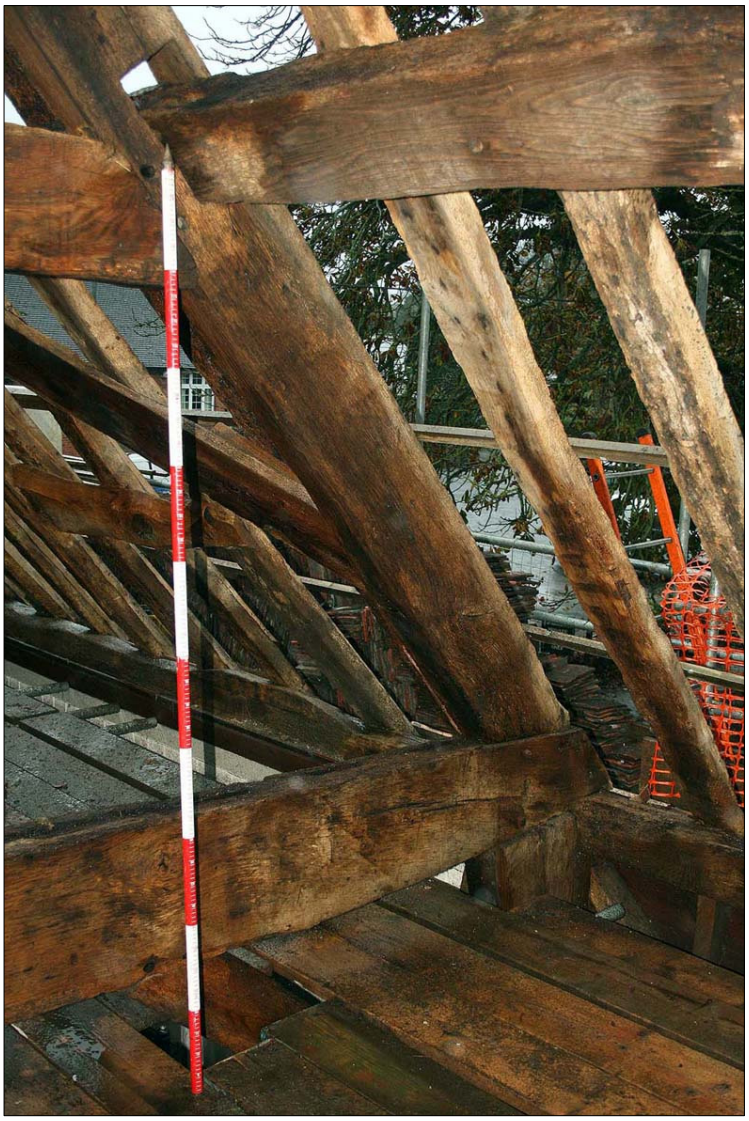


Fig.43. Bay 5. Replacement principal rafter on the north side of cross-frame 5.

Fig.44. Decorated medieval stone fragments recovered from the barn's foundation.

Fig.45. Roof tiles.

Fig. 46. Removal of tiles in progress. Bay 1, south.

Fig. 47. North elevation during tile stripping. Facing south-east

Fig. 48. North elevation after re-tiling, and during the stripping and re-cladding of the wall