

NEWBURY FARM, TONGE: KENT'S EARLIEST KNOWN AISLED HALL HOUSE

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Newbury Farm is located in a rural setting 3 miles to the south-east of Sittingbourne. The farmhouse lies to the rear of a group of modern estate cottages and agricultural buildings fronting Dully Road and is a Grade II* listed building (**Fig. 1**). It is the only historic building that survives within the farmstead. The property contains the remains of one of the earliest timber-framed aisled hall houses in the country and the only known dated example of this period in Kent. A substantial two-storey stone cross-wing was added to one end of the hall in the late thirteenth or early fourteenth century. Both cross-wing and hall were extensively modernised during the sixteenth and seventeenth centuries and again in the nineteenth century (**Plate I**).

The building was examined by RCHME in 1982 and again in 1991.¹ A date range of AD 1280-1310 was suggested on stylistic and structural grounds at this time. Subsequent dendrochronological analysis of one of its timbers provided a date of AD 1099 for the last surviving ring but no sapwood was present and the suggested felling date of c. 1150 was only approximate.² This was thought to be too early and it was suggested that the timber was reused. A brief documentary search was also made but nothing relating to the building's early history was found.

By the time the Canterbury Archaeological Trust undertook its survey the property had fallen into a state of disrepair and was uninhabitable. The condition of its stone cross-wing in particular had deteriorated to such a degree that a large part of its frontage had collapsed. An extensive campaign of repair and restoration was proposed with the intention of turning the property into two dwellings. Archaeological conditions, comprising both historic building recording and a watching brief during groundworks, were included in the planning consent for the proposed works. CAT began its recording in August 1999 after the building had been made safe with temporary shoring. Additional dendrochronological analysis was undertaken at this time following the discovery of several new timbers inside the property.

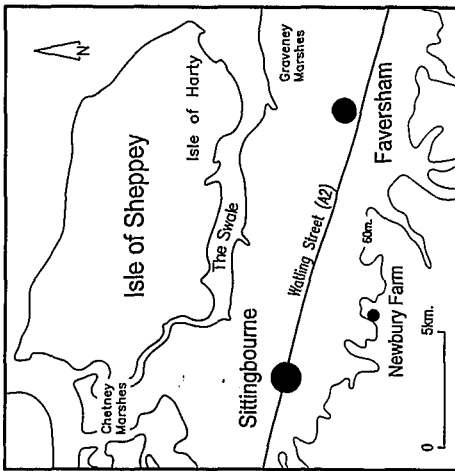
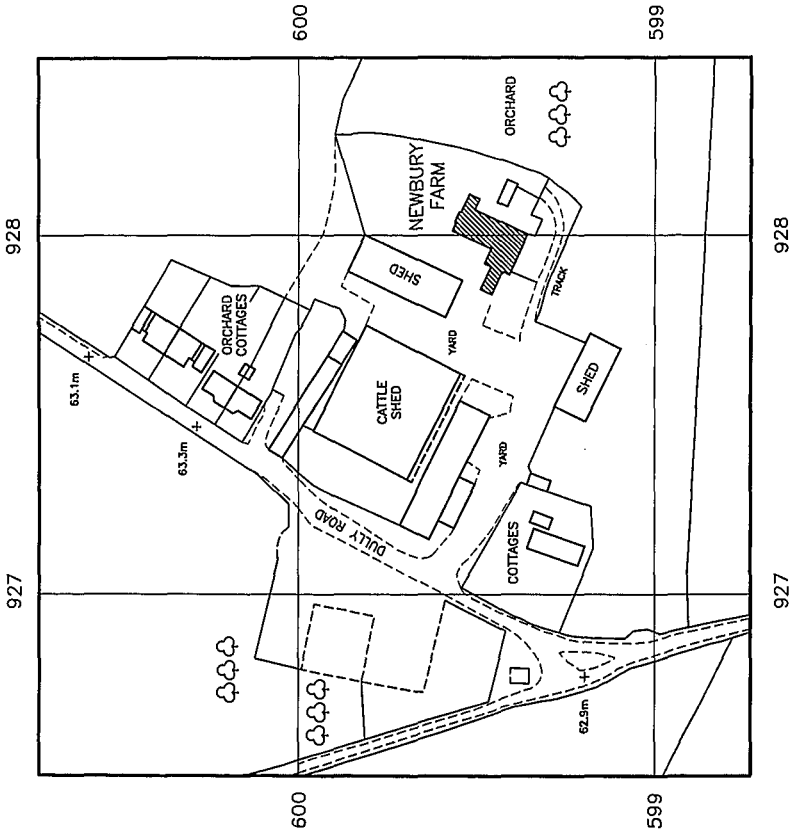


Fig. 1 Location and site plan. Location based on Ordnance Survey Data Licence No. 52855A.



General view of the exterior of Newbury Farm, looking north-west

THE AISLED HALL HOUSE

The aisled hall house at Newbury is one of only nine timber-framed buildings in England dated to before 1230. Of these nine examples, seven are aisled halls,³ viz:

	Timber felling date
<i>Fyfield Hall, Essex</i>	1167 – 1185
<i>Bishops' Palace, Hereford</i>	n.a.
<i>Knight's Templar Hall, Temple Balsall, W Mids</i>	1176 – 1221
<i>Westwick Cottage, Herts</i>	1184 – 1219
<i>Newbury Farm, Tonge, Kent</i>	1187 – 1207
<i>Sycamore Farm, Long Crendon, Bucks</i>	1205 –
<i>Harlowbury, Essex</i>	1220 – 1225

Archaeologists now believe that fully timber-framed buildings appeared in England towards the end of the twelfth century.⁴ All of the nine known early such examples are well built and display sophisticated carpentry techniques, many of which remained in use until the end of the timber-framed tradition 500 years later.

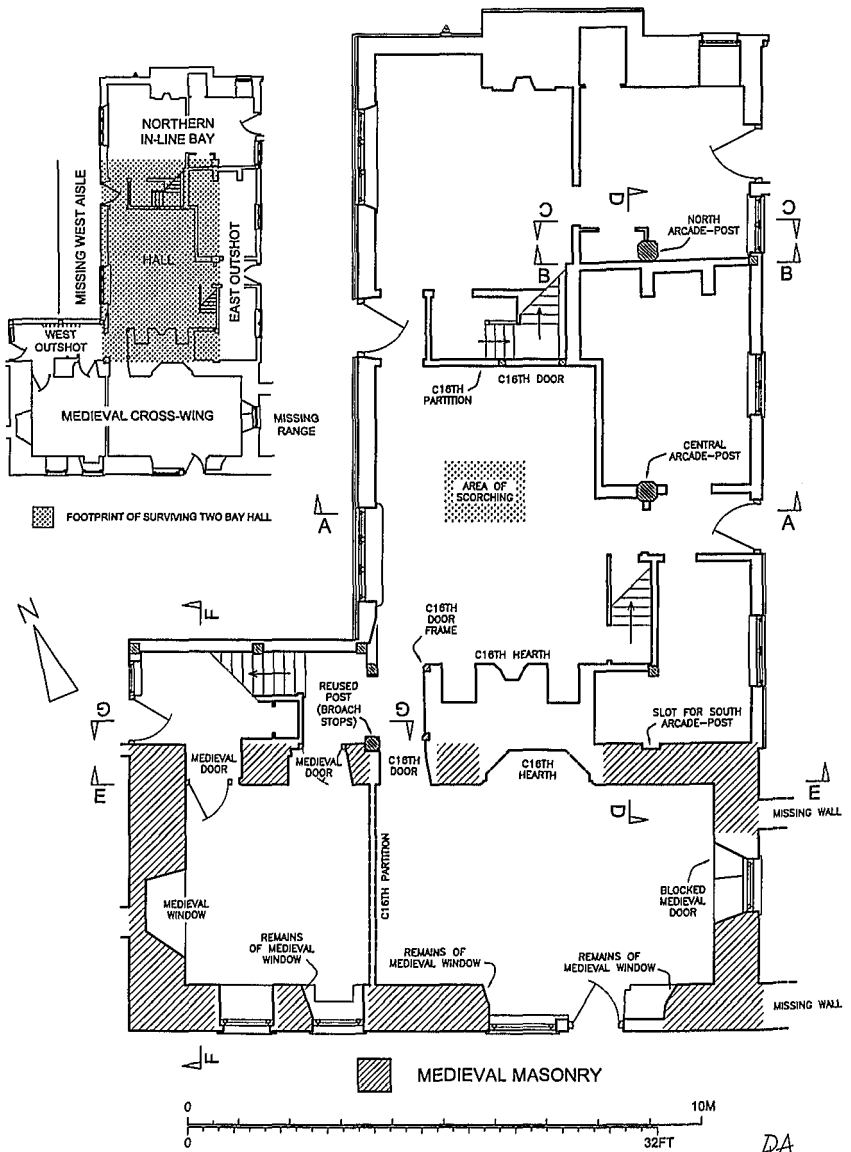


Fig. 2 Ground plan (showing lines of illustrated sections).

All that survives today of the late twelfth- or early thirteenth-century aisled hall house within Newbury Farm are fragments of its two-bay timber-framed open hall. This measures approximately 9.32m in length by 5.13m in width. Both bays are of near identical length, the north bay measuring 4.47m between the arcade-posts, the south bay 4.49m (**Fig. 2**). The arcade-plates of the hall lie approximately 5.60m above existing ground level. Repeated dendrochronological analysis of the timbers of the hall proved more successful and several dateable samples were obtained, one of which had sapwood. The new samples provided a felling date between 1187 and 1207.⁵

Despite its small size it seems likely the building was of manorial status. Hasted accounted Newbury, which was held by the Newburgh family until sometime in the fourteenth century, as a manor.⁶ The early date and quality of work to be found in the property also suggest this to be the case.

Central truss

Eight timbers from the central truss of the open hall survive within the building (**Fig. 3**). These include the east arcade-post, the west arch-brace and its spandrel strut, a tie-beam and an intact roof truss. The arcade-post is certainly the most substantial of the surviving timbers (**Plate II**). At ground level below a carved capital this post is of octagonal section. Typically for an early building the arcade-post is not jowled but has a rear upstand that passes behind the arcade-plate, a feature that is common to nearly all the members of the group.⁷ Evidence for the east aisle of the hall, in the form of two empty mortices, can be seen on the outside face of the post. The first mortice lies below the capital and is for an aisle-tie. The second, for an aisle-brace, is approximately 100cm above the capital.

Archaeology suggests that earthfast posts set directly into the ground or placed on padstones were abandoned at this time in favour of posts supported on cill beams.⁸ The cill beam that lies beneath the extant arcade-post today however is a sixteenth-century insertion. Undisturbed subsoil was exposed during the watching brief approximately 34cm below the extant base of the post but no post-hole was revealed. It is suggested therefore that the arcade-post sat on a padstone.

A flat uncambered tie-beam spans the central truss of the hall. Barefaced dovetails with square housed shoulders secure the ends of this tie-beam to the arcade-plates. Empty mortices for the hall's cornice-beams can be seen on the ends of this timber (**Plate III**). Two arch-



Central truss arcade post, looking north-east

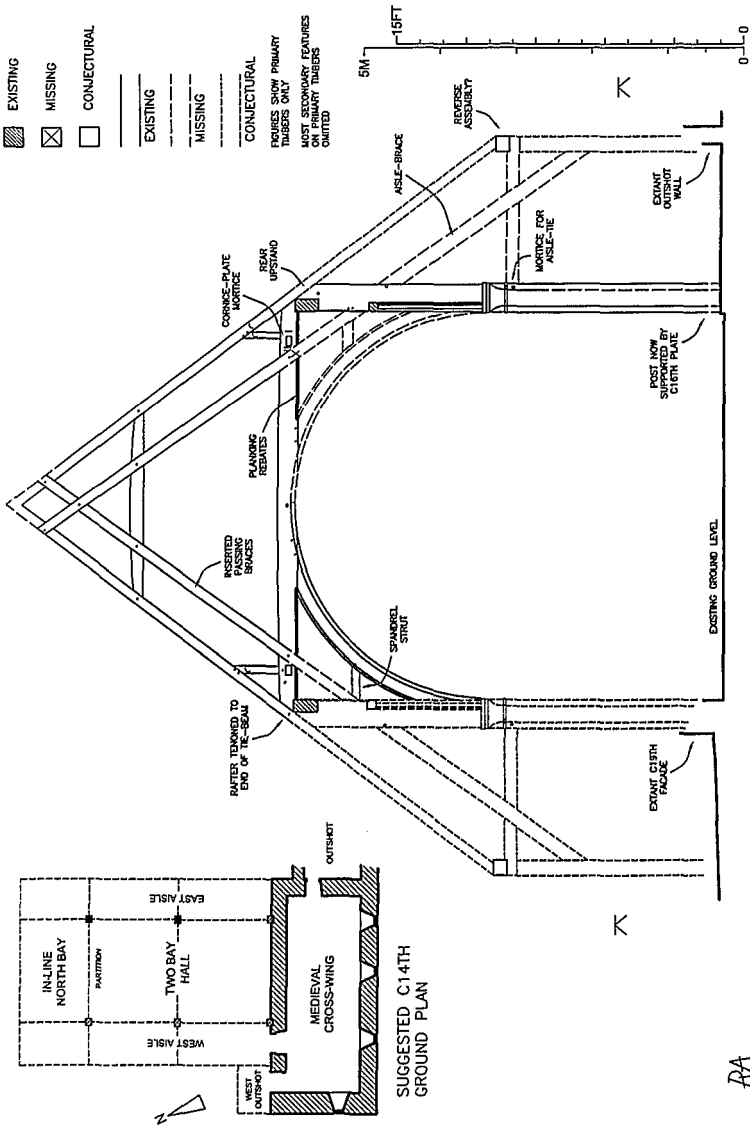
braces lay beneath the tie-beam forming a semi-circular arch across the 'nave' of the hall. Only the westernmost brace, which is decorated with a double roll moulding, survives. Rebates on the tie-beam and surviving brace and grooves in the adjacent arcade-post revealed that wooden planks were once fitted to the spandrels of the arch.

PLATE III



East end of central tie-beam, looking north showing cornice-plate mortice and ashlar piece

A horizontal spandrel strut affixed to the arch-brace was revealed during works; an empty mortice for a similar strut was subsequently found in the east arcade-post. Evidence for struts had been previously observed at the north end of the hall but not here within the central truss. Interestingly this strut is small, measuring only 10.2 x 3.2cm in



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Fig. 3 Restored view of Central Truss, facing north (Section A-A).

section. Such timbers are often seen in later structures but their purpose has never been clear. The strut is clearly too small to have been of structural benefit and is certainly not a decorative element as it would have originally been obscured by the planking.⁹ It is suggested the struts were used during the assembly of the building, temporarily holding the heavy arch-braces in position while the arcade-plates and tie-beams were dropped in place.¹⁰

An important feature of the carpentry at Newbury is the exclusive use of mortice and tenon joints. No lap joints are present on any of the primary timbers (other than those employed in the roof truss). This is unusual; most of Newbury's contemporaries employ lap joints to some degree. Interestingly the mortices have been gouged out rather than drilled and chiselled in the manner of a later medieval building.

Roof structure

Remarkably, an original roof truss has survived above the central tie-beam of the hall (**Plate IV**). This comprises rafters, passing braces, ashlar pieces and collar. Interestingly, the rafters pass behind the outside edges of the arcade-plates and are uniquely tenoned onto the ends of the tie-beam. Both rafters have now been truncated at tie-beam level but must have continued over the aisles in one length.

Barefaced dovetails atop the hall's arcade-plates reveal where the common rafters of the roof were located (**Fig. 4D**). It is suggested that spur ties were located in these dovetails, connecting the common rafters to the cornice-beams (the common rafters must have passed behind the arcade-plates in a similar manner to the principals, **Fig. 4A**). This archaic arrangement differs from that employed in later buildings where the rafters sit in housings atop the plates.

The passing-braces within the roof truss are halved across the south face of the tie-beam and collar. These braces now stop at the tie-beam but originally continued down to meet the arcade-posts. Several details suggest that the passing-braces within the roof are later additions. The brace mortice in the east arcade-post for example lies alongside the spandrel strut mortice. Close inspection of the two mortices here reveals that the brace mortice was cut later, severing the peg that secured the spandrel strut into two pieces. The braces also interfere with the spandrel planks.¹¹ This discovery is something of a surprise since passing-braces are a feature of nearly all the surviving buildings in the group. It is perhaps significant that, unlike Newbury, none of the other examples have spandrel struts in their cross-frames. It is suggested that the braces were inserted at an early

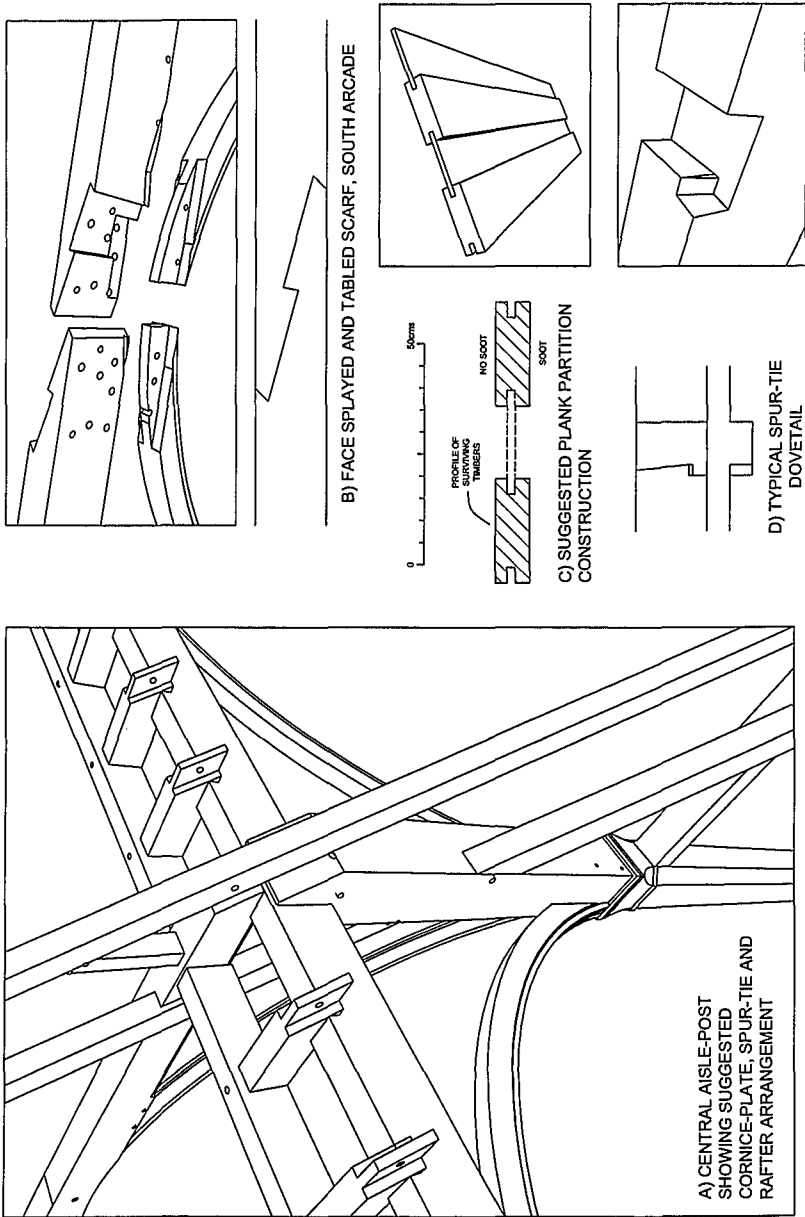


Fig. 4 Aisle Hall House Carpentry Details.

PLATE IV



Central roof truss, looking north showing passing braces

date; one would not expect to see such features employed or introduced into a building much after *c.* 1300. Passing braces were, however, only inserted into the central truss of the roof; none were added to the north end truss, but this is not unusual.¹²

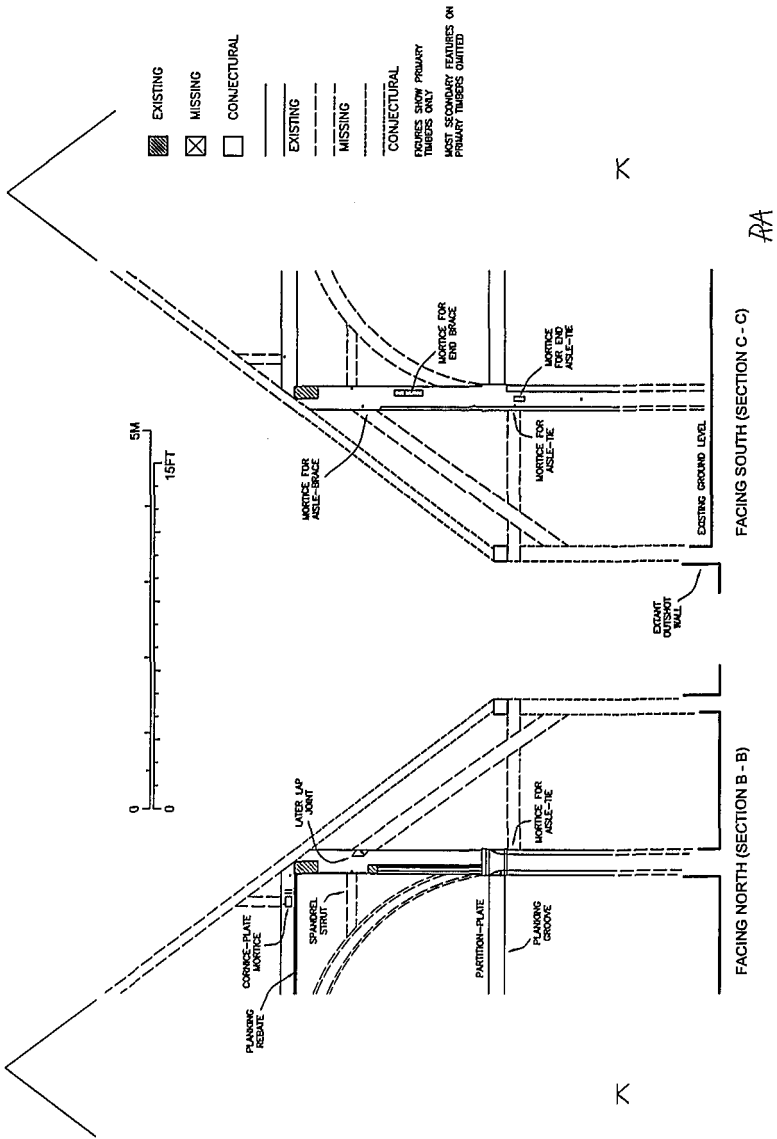


Fig. 5 Partially restored views of north end truss.

North End Truss

Only the east arcade-post, tie-beam and a length of partition-plate survive at the north end of the hall (**Fig. 5**). Fortunately these timbers reveal much about the arrangement of the building here. The surviving arcade-post is similar to that of the central truss but there are several differences that reflect its position at the end of the hall (**Plate V**). Its capital, for example, has only been carved on the hall side of the post, the rear face left plain. Empty mortices for arch-braces can be seen above the capital.

Two sets of grooves can be seen beneath the tie-beam (at its east end) and on the inside face of the arcade-post. The southern grooves are for the planking in the spandrels of the arch. The northern grooves however are for the partitioning that divided the hall from the northern bay of the house. A similar groove lies beneath the partition-plate, confirming that the partition continued down to ground level. This lower groove is wider than that on the soffit of the tie-beam, suggesting perhaps that the partition was more substantial at ground level. Grooves on the outside face of the arcade-post confirm that the partition continued across the aisle. No evidence for doors leading through the partition into the northern bay of the property survived.

Surprisingly, two possible timbers from the aforementioned partitioning were discovered reused elsewhere within the property during works. These measured 23.5 x 7.7cm in section and are heavily soot blackened on one face only. Grooves for the intermediate members of the partition, perhaps thin planks, can be seen on the sides of these timbers (**Fig. 4C**).

Interestingly, a reused timber within a later outshot to the north-east of the hall was seen to have three empty window mullion mortices on its soffit. The mullion mortices are typically set on the diagonal but are surprisingly large, measuring 8.25cm square. This timber is conceivably a reused fragment of the original building, perhaps a section of eaves-plate, and might be evidence for the original fenestration.

Missing Northern in-Line Bay

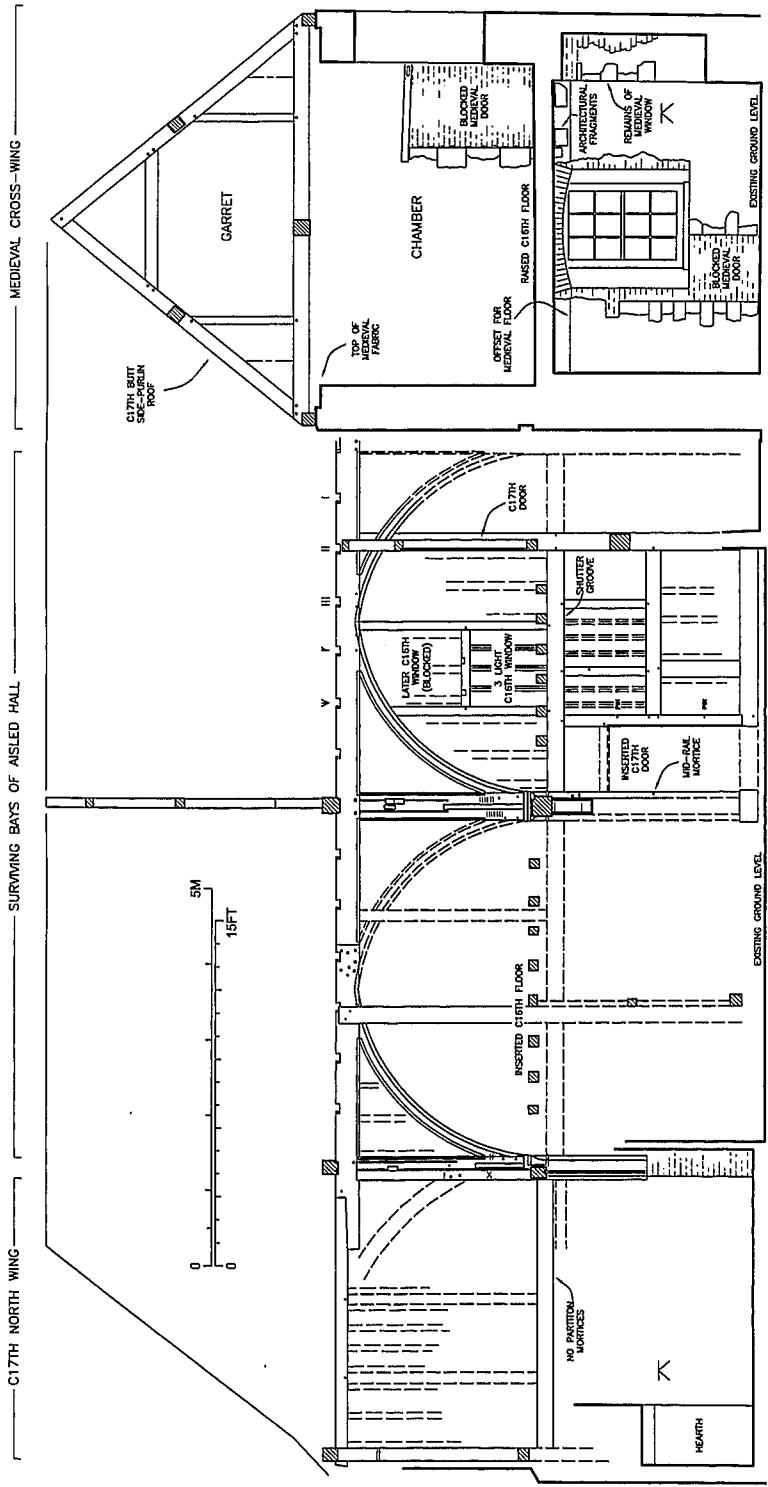
Evidence found on the north end truss confirmed beyond doubt that an in-line bay once lay to the north of the hall and that this was an integral part of the structure. A two storey timber-framed wing of probable late seventeenth-century date is located here today (**Fig. 6**). It seems likely given the evidence and from our understanding of the other examples within the group that the missing bay was unfloored. An empty mortice was discovered below the east arcade-post's



North end truss arcade-post, looking south-east

capital. This is perhaps for a n-s aligned end aisle-tie that secured the north wall of the building to the post, something that implies the building terminated in an end aisle.

A second mortise for a brace was also found above the capital. This



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Fig. 6 Section D-D to east showing later additions to Hall.

brace lay in a higher position than the arcade-braces in the adjoining hall and must have been smaller. The missing northern bay may therefore have been shorter than the extant hall bays. A cantilevered half bay, where the ends of the arcade-plates support a flying tie-beam is possible; such arrangements are common in later structures. Unfortunately the arcade-plate only continues for approximately 90cm beyond the end of the hall, removing any evidence for such an arrangement.

Despite the inconclusive evidence it is suggested that the north end of Newbury Farm was of similar form to the slightly later *Purton Green*, Stansfield, which has a cantilevered half end bay terminating in a return aisle.¹³ Here the end bay appears to have been covered by a half-hip, the gablet beneath the ridge perhaps left open to allow smoke from the open-hearth to leave the building.

South End Truss

A similar in-line bay probably lay to the south of the hall but was removed by the stone cross-wing (see below). Although the south end truss of the hall no longer exists we know that it survived the construction of the wing. The new wing was built directly against the truss, its masonry partly encasing the earlier timbers. Although the timbers have been removed a number of slots and impressions remain in the masonry and render (Fig. 7). These impressions reveal that the south end truss was of similar form to the north end truss. They

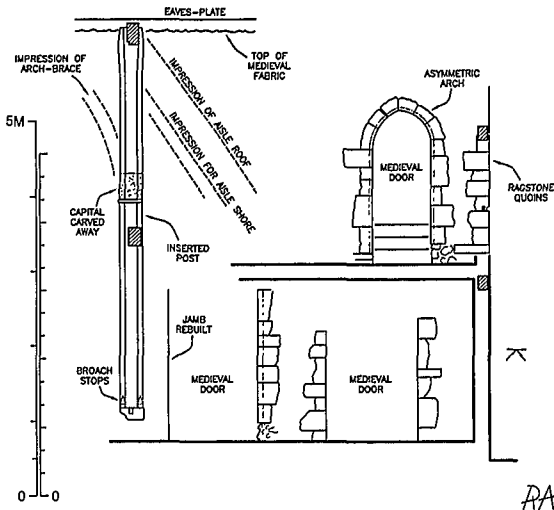


Fig. 7 Section G-G to south.

confirm that the hall was not only aisled to the east but also the west (until now only an east aisle was proven) and that both aisles survived the construction of the cross-wing. The outline of the west aisle roof also survives in the render of the cross-wing, its pitch matching that of the main hall roof at approximately 53-54°.

Interestingly the east aisle-tie appears to have been higher within the south truss than the central and northern trusses, a difference that might be explained by a change from reverse to normal assembly. This could indicate that the method of assembly employed atop the aisle-walls varied around the building. Alternatively the difference might be the result of an early alteration undertaken prior to, or during, the building of the cross-wing. Similar alterations can be seen within other, albeit later, timber-framed buildings.¹⁴

East and West Arcades

Three arcade-braces (one is incomplete) survive beneath the arcade-plate along the east side of the hall (**Fig. 8**). They form similar arches to that spanning the centre of the hall but are slightly pointed rather than semi-circular (**Plate VI**). The braces are similarly

PLATE VI



East arcade (south bay, looking west) showing arcade-braces and inserted window

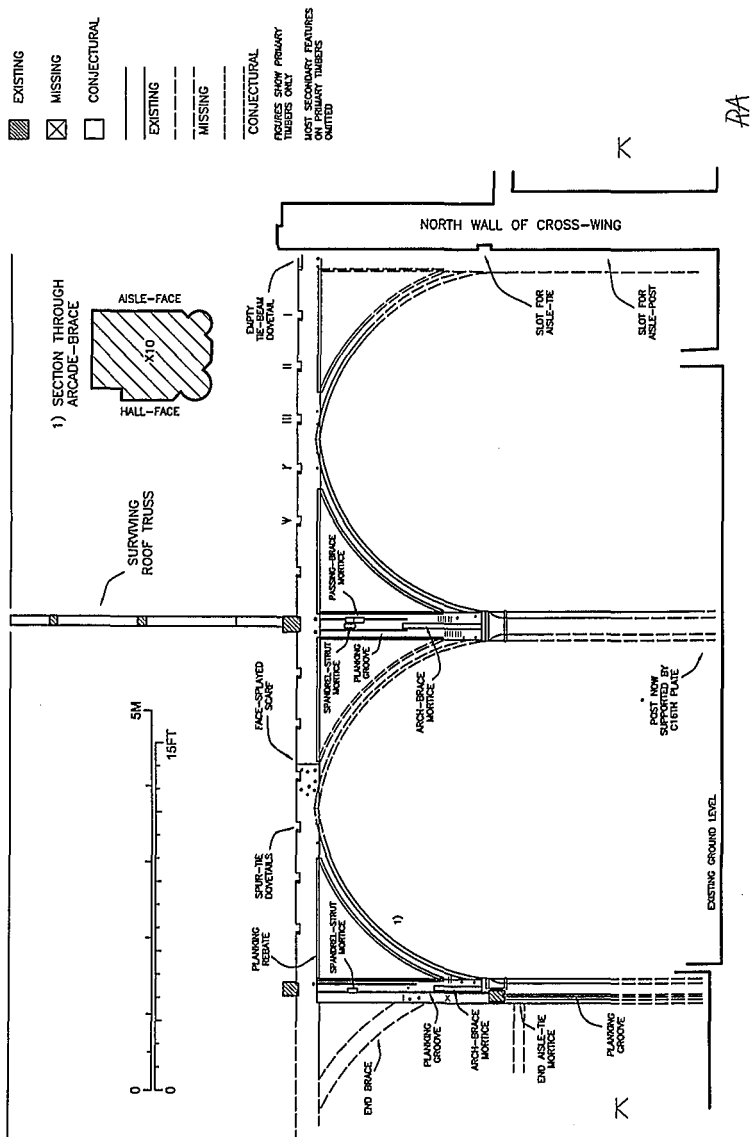


Fig. 8 Partially restored view of East Arcade, facing east (Section D-D).

PLATE VII



East arcade-brace (south bay, looking north) showing planking rebate

embellished with double rolls although the roll facing the hall is more pronounced than that facing the aisle. Rebates for planking can again be seen within the spandrels (**Plate VII**). The outer faces of all the timbers of the east arcade are heavily weathered, indicating that they



Face-splayed and tabled scarf (east arcade, south bay)

were exposed to the elements for some considerable period of time following the removal of the building's aisles in the sixteenth century (see below).

A stop-splayed and tabled scarf with undersquinted abutments was revealed during works joining the two lengths of the east arcade-plate (**Plate VIII** and Fig. 4B). Unlike later examples of its type this is face splayed (laid on edge rather than flat), an orientation that would seem structurally poor. A change to stronger edge splayed scarfs may well have been underway at this time. Two lengths of arcade-plate joined by a second splayed scarf were revealed along the west side of the hall during works but these were the only original timbers to have survived here; the arch-braces have been removed by later brickwork.

Open Hearth

The modern sprung floors within the former hall were removed during restoration. The subsoil beneath was carefully cleaned at this time and a patch of pink scorching revealed.¹⁵ This scorching, which

was certainly caused by heat penetration from an open-hearth, covered a sizeable area that measured approximately 2 x 2m. Such hearths were periodically renewed as they burnt away but were not always replaced in exactly the same spot. A succession of relatively small hearths would perhaps account for the large area of scorching. The heaviest scorching lay roughly within the centre of the former open hall. Thus this evidence did not provide any clues as to which end of the aisled-hall house was which.

THE DEVELOPMENT OF THE HALL

The way in which the aisled hall at Newbury evolved is of some interest as it illustrates the way in which such buildings could be modified to conform to later house design. One reason often cited for the poor survival of early houses is that they were ill suited to such change and therefore demolished in favour of new buildings. Another is that they may not have been built in the same numbers as later medieval structures or have perhaps suffered greater losses due their age.

Demolition of the East Aisle

The first change at Newbury Farm that occurred appears to have been the demolition of the east aisle and the construction of a new elevation beneath the former arcade (Fig. 6).¹⁶ Fortunately the arcade survived the construction of the new elevation; its arcade-braces were simply incorporated into the new work.

The new elevation survives largely intact within the south bay of the hall but has been completely dismantled within the north bay. Dendrochronological samples taken from two of the timbers revealed that they were felled between 1517-20.¹⁷ The open-hall era was certainly in decline during this period but it is clear from the soot blackened internal face of the new elevation that the building's open-hall continued to be used at this time.

A large three-light window, comprising diamond set mullions, survives in the south bay of the new elevation. Except for its single upper light, which is centred above the two lower lights, the fenestration is like that seen in many unaisled hall houses of the period. A cross-passage would presumably have been present within the hall at this time (assuming one was not part of the original arrangement) but no door was included in the south bay of the new elevation. Any passage must therefore have been located within the north bay of the

hall, something that would imply the north end of the building was now the low end.

A door was, however, inserted into the south bay following the construction of a later outshot. This outshot internalises the sixteenth-century elevation and occupies almost exactly the footprint of the former aisle. It was originally timber-framed and dates perhaps to the seventeenth century but little now survives; its east elevation has been underpinned in brick and its roof rebuilt in softwood.

Demolition of the West Aisle

The west aisle of the hall was also demolished and a timber-framed elevation inserted beneath the arcade-plate as before but only fragments of this later work survive. A substantial arcade-post with broach stops formed part of the new work (Figs 2 & 7). This abuts the rear of the cross-wing and looks superficially similar to the original arcade-posts but on close inspection many of its details differ. There are no rebates or grooves for spandrel planks above its braces or indeed for a plank partition to divide the hall from the missing southern bay. No aisle-brace or aisle-tie mortices are present and it is also incorrectly positioned with its upstand against the inside face of the arcade-plate.

Dendrochronology provided a date of 1045 for the last ring on this timber but no heartwood/sapwood boundary was present and its felling date is therefore likely to be several decades later.¹⁸ It is suggested the post was salvaged from another building of broadly similar date to Newbury and inserted here during the alterations. We know the original arcade-post and its braces survived the construction of the cross-wing as they have left impressions in the masonry (see above).

Flooring

The third major change appears to have been the insertion of a floor, and therefore an upper chamber, into the south bay of the hall. Nearly every hall house in the country has been floored, but this change was not always undertaken throughout the length of a building in one go. In many cases one half of the hall was converted first. This allowed the open-hearth to continue functioning in the remainder of the open-hall whilst adding an extra chamber to the house.

Several pieces of evidence show that the south bay at Newbury was floored first, perhaps around the middle of the sixteenth century. An inserted lath and daub partition survives in part beneath the central tie-beam of the hall. This partition once divided the inserted chamber from the adjoining hall. It is heavily soot-blackened on its north face,

something that proves the hall continued in use in the northern bay following the insertion of the chamber in the south bay. Access to the chamber appears to have been afforded by steps in the south-east corner of the room. The upper chamber was open to the roof at first, the extant attic/garret floor inserted at a later date along with the chimney (see below).

It seems likely the north bay of the hall was floored towards the end of the sixteenth century. The inserted joists here are similar to those in the southern bay but comprise timbers of more varied cross-section. Once the hall was fully floored a chimney was necessarily inserted into the building.

A Sixteenth-Century Chimney

The inserted chimney is a substantial affair that incorporates back-to-back hearths at both ground and first floor level. Its features suggest a late sixteenth-century date. The chimney was built within the rear wall of the cross-wing, a large section of medieval masonry necessarily demolished to accommodate it (**Fig. 9**).

The principal hearth was over 2.0m wide and lay at ground level within the cross-wing. This hearth has now been largely destroyed but the surviving evidence suggests it comprised a low four-centred brick arch with ovolo/cavetto moulded jambs. Evidence for splayed reveals could be seen within the opening during works.¹⁹ Within the former hall a less elaborate hearth can be seen. Here a plain oak bressummer supports the opening, suggesting that the hearth may once have been used for cooking.

Internal Reorganisation

Some rearrangement of the interior of the building necessarily followed the flooring of the property and the construction of the chimney. At ground level the former hall was subdivided by a timber-framed partition. This was inserted into the north bay, reducing its length by approximately 2m, thereby creating a ground floor room of more acceptable proportions. A blocked door was revealed here during works leading through to the north end of the property. The door has a square head and ovolo moulded jambs. Similar doors were formed against the west flank of the chimney at this time. A crude opening made good with 2in. red brick was punched through the masonry of the wing to accommodate the south doorway.

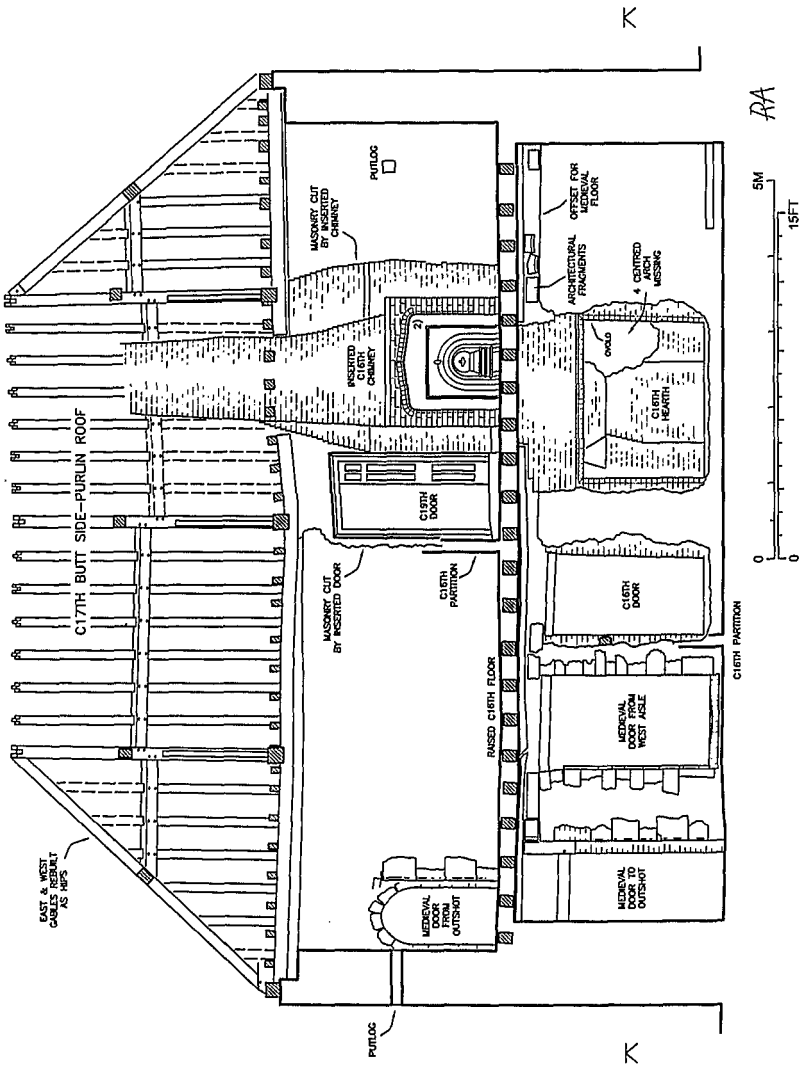


Fig. 9 Section E-E to north.

A MEDIEVAL CROSS-WING

An unheated two storey stone cross-wing now lies to the south of the hall (Fig. 2). This likely replaced a single storey end bay of similar form to the aforementioned north end bay. None of the features of the cross-wing allow it to be dated precisely but similar examples (e.g. *Old Soar*, Plaxtol) were being built during the later part of the thirteenth century. The new wing is necessarily aligned E-W and measures 12.29m in length by 5.61m in width. Its walls are approximately 100cm in width and stand to a height of around 5.7m. They comprise a mixture of roughly-coursed knapped and unknapped field flints, water-rounded flints, numerous fragments of reused Roman tile and the occasional piece of stone rubble.²⁰

No evidence for internal masonry cross walls was seen during the survey but the range is certainly of sufficient size to have accommodated more than one room on each floor. Any divisions must therefore have been timber-framed. An upper chamber or solar to which the family could retire was perhaps located on the first floor. The ground floor may have been used for storage, functioning therefore much like an undercroft. Externally, the only medieval features to remain are the long and short Ragstone quoins running up the north-west corner of the wing (the south-west corner must have been similarly treated). It is within the interior that most of the surviving primary features of the wing are located.

Windows

The splayed reveals of six windows survive internally within the south and west elevations of the cross-wing (Fig. 10). Several of these had not previously been observed. They are all built from Reigate stone, and the first floor windows were taller than the ground floor windows (security was perhaps of more concern at ground level than good illumination). None of the external surrounds of the windows survive but stone fragments recovered from the collapsed section of the south wall during works revealed that the openings were originally small and narrow with plainly chamfered jambs (Fig. 10, inset).

North Elevation Doors

The remains of several medieval doorways can also be seen from within the interior of the cross-wing, two of which had not previously been observed. Five of the doors lead through the rear north wall of the cross-wing into the former hall and associated structures but of

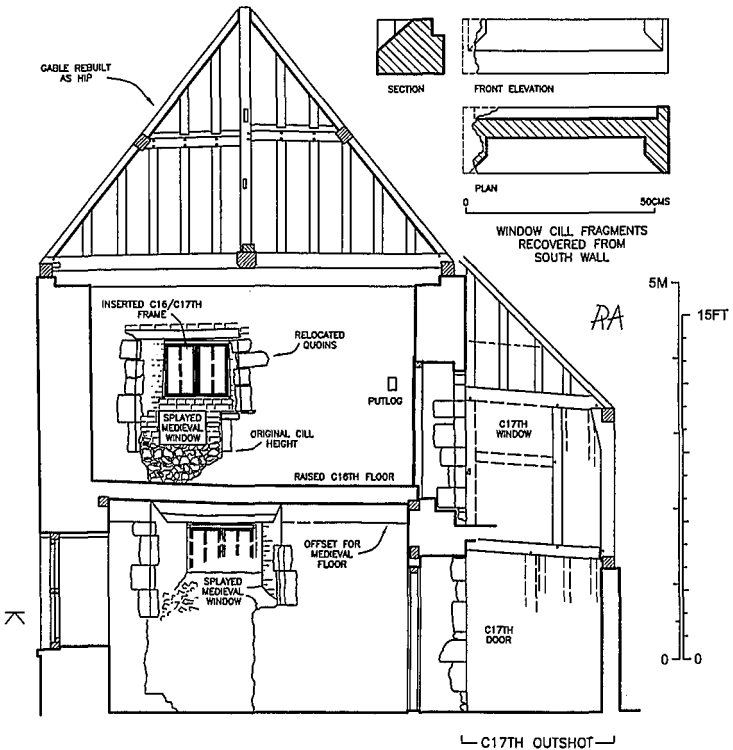


Fig. 10 Section F-F to west.

these only three are medieval (Fig. 9). The medieval doors are of interest as they reveal how the cross-wing communicated with the hall behind.

The first lies at ground level at the west end of the elevation. It comprises a square opening built using a mixture of Ragstone and Caen. A rebate behind its inner jamb reveals that the door opened out of and not into the wing and cannot therefore have been an external opening. A second medieval door lies above the aforementioned door at first floor level. Externally it comprises a pointed two-centred arch (interestingly this arch is asymmetric, the western half springing from a slightly higher position than the eastern half). The rebate here lies behind the outer jambs, revealing that the door opened in towards the wing. The location and arrangement of these two doors, which

both lie beyond the hall and its missing aisle, indicate that some form of two-storey outshot must have been located against the rear of the cross-wing at this point.

Medieval West Outshot

The missing outshot must have been timber-framed, for there is no evidence that masonry walls adjoined the cross-wing, and may have abutted and therefore been partly dependent structurally upon the west aisle of the hall (alternatively elements of the aisle may have been removed by the outshot). The presence of a first floor door confirms that the outshot afforded access to the upper floor of the wing.

Any steps within the outshot cannot however have descended directly from the first floor door for they would have interfered with the ground floor openings below. Perhaps the steps were separated from the rear wall of the cross-wing as they are today by a narrow landing. Alternatively they may have been offset to one side, rising against the rear wall of the cross-wing within the hall or its aisle. The insertion of a door through the rear wall of the cross-wing here in the late sixteenth century might explain the loss of the stairs and the demise of the outshot. A two storey timber-framed outshot of probable late seventeenth-century date now replaces the medieval outshot.

The third medieval door lies at ground level within the north wall of the cross-wing, leading directly into the former aisle of the hall. This was perhaps the only means of access between the two ranges. However, the inserted chimney (see below) may have removed evidence for another door. A rebate lies immediately behind the outer jamb of the square opening indicating that the door opened in towards the wing.

East Elevation Doors

Two blocked medieval doors also survive in the east elevation of the wing at ground and first floor levels (Fig. 6). The first floor doorway is built from Reigate stone and externally comprises a pointed two-centred arch. The ground floor one is built entirely from small blocks of Caen (the other medieval door and window openings comprise larger blocks of Reigate or a mixture of Caen and Reigate). This difference could suggest another phase of work but no disturbance was visible in the surrounding medieval masonry. It seems therefore that the feature is original and that the Caen is reused. A later window has removed the upper part of this door.

The first floor door clearly reveals that the cross-wing once

extended further to the east. Truncated masonry can be seen at the south-east corner of the range, confirming that the south elevation of the wing once continued further. An uneven and heavily pointed area of masonry approximately 1m from the rear north-east corner of the wing is perhaps the point where the rear wall of the missing structure adjoined the extant cross-wing; it seems therefore that the missing element was narrower than the extant range.

Given that access to the upper floor of the cross-wing appears to have been through the aforementioned west outshot it seems reasonable to suggest a function other than a stair tower for the missing element of the wing, perhaps a garderobe or private chapel. Interestingly both doors open into the existing range. One normally expects internal doors to face the better rooms in a house, something that suggests the missing fabric to the east accommodated rooms of higher status than a garderobe.

Alterations to the Cross-Wing

Considerable modifications, many of which appear to have been undertaken during the late sixteenth and early seventeenth centuries, have occurred since the wing was first built. We should not forget though that improvements here were undertaken alongside changes within the adjoining hall. All the splayed medieval windows of the wing were widened and presumably glazed at this time. One internal splay of each window was dismantled and rebuilt to one side reusing either the original masonry or new 2in. red brick. The external surrounds must also have been modified at this time but only one window retains evidence of such change (the easternmost ground floor window along the south elevation). Here a low four-centred brick arch survives in part over the window opening. Fragments of *ovolo*-moulded oak window frames were discovered in the widened openings of the west elevation of the cross-wing during works. These are perhaps all that remain of glazed wooden casements that were fitted to all the modified openings of the cross-wing.

The first floor within the wing was also raised at this time. This had previously been suggested by the RCHME survey and was confirmed once later plaster had been stripped from the walls. A clear change from medieval fabric to a thin band of later material laid in an earthen mortar was revealed some 30 to 40cm below the extant floor level along all four internal elevations of the cross-wing. The later material clearly infills the offset upon which the original cross-wing floor was laid. Numerous architectural fragments (most pieces of medieval window jamb) were revealed in the infill, something that suggests

other parts of the wing were being modified at the time the floor was raised; they may have been salvaged from the demolished eastern end of the wing.

The insertion of a chimney within the rear wall of the wing necessarily occurred when the hall was floored (see above). The upper hearths of the new chimney respect the raised levels within the wing, something that confirms it could not have been built before this alteration. It seems likely the timber-framed lath and daub partitions that divided the cross-wing at ground and first floor level [they were removed during the works] were inserted once the chimney had been built, creating heated rooms within the east end of the wing.

The principal hearth of the new chimney lay at ground level within the cross-wing. This hearth, the increased headroom and better illumination all indicate that the status of this part of the range had now changed. What was once perhaps an undercroft or storage area had become the principal room of the house. One of the last major changes to the cross-wing was the rebuilding of its roof. A staggered butt side-purlin roof of probable late seventeenth-century date now covers the wing, removing any evidence for the original roof.

Significant new information about the construction of the aisled hall within Newbury Farm was gained during the recent survey. It is necessarily difficult to find common patterns within small groups of surviving buildings, but the features of Newbury are for the most part consistent with its contemporaries. In common with six of the seven known examples, Newbury's hall comprises two bays of equal length. In nearly all the known cases rooms were present beyond at least one end of the hall. Evidence for an in-line northern bay with end aisle was found at Newbury during the survey. This was perhaps of cantilevered form. A similar bay is likely to have existed at the south end of the building. Evidence for partitioning, including two timbers that might have come from the partition, was found at the north end of the hall.

Nothing was found to suggest the building had a high or low end or indeed a cross-passage, but such evidence is also absent in the other examples. It has been suggested that the classic three part medieval plan, which is ubiquitous within later buildings, had yet to be established at this time.²¹ Proof of a west aisle as well as an east aisle was found together with confirmation that the pitch of these aisles matched that of the main roof.

Two hitherto unknown splayed and tabled scarfs were discovered during the survey. Several members of the surviving group also employ such scarfs. Unusually those at Newbury are face splayed not

edge splayed; only *Harlowbury*, Essex and the later *Purton Green*, Stansfield employ this unusual form. It has been suggested that the scarf joint in general may not have been fully developed until the early thirteenth century. A change from structurally-poor face splayed scarfs to edge splayed scarfs may therefore have been occurring at this time. Barefaced dovetails with square housed shoulders were revealed on the ends of the tie-beams and spur-ties during the survey, a detail that is again typical of the group.

Three forms of arcade bracing are employed within early aisled halls; these being straight braces, semi-circular arches and curved braces. It has been suggested that straight bracing was superseding the arched and circular forms at this time.²² Those within Newbury are of semi-circular form. The carved capitals at Newbury are consistent with its early date, moulded examples do not appear until towards the end of the thirteenth century. The rear upstands to the posts are also common to nearly all the other examples; jowled posts were not introduced into buildings until later.

In contrast to the other examples within the group no use is made of lap joints at Newbury. Exclusive use is made of the mortice and tenon joint, a carpentry technique that archaeology suggests was re-emerging in the later part of the twelfth century having fallen into disuse since Roman times.²³ The only lap joint to be seen on any of the primary fabric at Newbury was shown to be a secondary feature.

With the exception of the *Bishop's Palace*, Hereford, all the examples within the group employ passing braces, always within the central truss of the hall and sometimes within the end frames. Those within the central truss at Newbury however appear to be later insertions. It is therefore perhaps significant that Newbury is the only member of the group that employs spandrel struts within its central truss.

No evidence for fenestration was found during the survey. Oriels or dormer windows have been suggested as a means by which early aisled halls could be better lit than by the necessarily small windows that could be accommodated within their aisle walls. A short length of plate containing mortices for remarkably large diamond set mullions was however found reused within a later outshot. This may be evidence for the original aisle fenestration of the building, but the origins of the timber were not proven.

Whilst not of the same significance as the aisled hall, the later medieval cross-wing is nonetheless of interest. Many new architectural features were exposed here during the survey including several medieval door and window openings. These features increased our understanding of the arrangement of the wing considerably and confirmed the presence of missing ranges/outshots to the

north and east of the property. The missing range to the east of the cross-wing was of masonry construction and may have been a garderobe or private chapel. That to the north was timber-framed and must have contained stairs to the upper floor of the wing.

The development of the open hall and its cross-wing was also studied. Most of the changes are typical, but the way in which the early aisled structure was modified to improve the illumination within the hall is of interest. This was achieved in the sixteenth century by removing the aisles and building new elevations with large windows beneath the arcade-plates.

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ENDNOTES

¹ S. Pearson, P.S. Barnwell and A.T. Adams, *A Gazetteer of Medieval Houses in Kent* (1994), pp. 128-129.

² S. Pearson, *The Medieval Houses of Kent* (1994), p. 152.

³ J. Walker, 'Late twelfth- & early thirteenth-century aisled buildings: a comparison', *Vernacular Architecture*, Vol. 30 (1999), 21.

⁴ J. Grenville, *Medieval Housing* (1997), p. 35.

⁵ R.E. Howard, Archaeology Department, Nottingham University, Tree-ring analysis of timbers from Newbury Farmhouse, Dully Street, Tonge, Kent (Report 59/2000).

⁶ E. Hasted, *The History and Topographical Survey of the County of Kent*, Vol VI (1798), p. 140.

⁷ In later buildings the post passes in front of the arcade-plate forming a jowl.

⁸ Walker 1999, *op. cit.* (see note 3).

⁹ It is also too narrow to have supported the planking.

¹⁰ Interestingly the timber is now heavily soot blackened, something which indicates that the planks were removed while the building still functioned as an open-hall.

¹¹ It would of course have been possible to fit the planks around the brace but the result would have been clumsy. Without the brace the arrangement afforded by the neatly cut grooves and rebates works perfectly.

¹² Walker 1999, *op. cit.* (see note 3).

¹³ J.L. Walker, 'Purton Green, Stansfield: Some later observations on the early aisled hall', *Proceedings of the Suffolk Institute of Archaeology and History*, Vol. XXXVIII (1994), 126-137.

¹⁴ R. Austin, 'An Architectural Survey of Littlebourne Barn', *Archaeologia Cantiana*, CXVI (1996), 203-219.

¹⁵ A. Linklater, *An archaeological watching brief at Newbury Farm, Tonge, Sittingbourne, Kent*. CAT archive report.

¹⁶ It seems the aisle was only demolished where it lay against the hall. That which lay against the in-line north end bay survived the alterations.

¹⁷ Howard, *op. cit.* (see note 5).

¹⁸ *Ibid.*

¹⁹ Smaller, but similarly detailed, hearths heated the first floor chambers of the cross-wing and hall.

²⁰ The Roman tile (and perhaps the water rounded flint) was undoubtedly salvaged from a nearby Roman villa presumably the one located to the west of Dully Road 100m from the farmhouse, see B. Philp and R. Baxter, 'The discovery of a Roman Villa at Rodmersham', *Kent Archaeological Review*, No. 83, 1986, 51.

²¹ Grenville 1997, *op. cit.* (see note 4), p. 93.

²² Walker 1999, *op. cit.* (see note 3), 30.

²³ Grenville 1997, *op. cit.* (see note 4), p. 35.