

# ◆ An early fifteenth-century barn at Charlton Court, Steyning, West Sussex

by Fred Aldsworth

*with a contribution from*  
Dan Miles

## APPENDIX 2: CONDITION PRIOR TO REPAIR

In the present state of knowledge, it would appear that when the barn was altered, extended and provided with aisles in Phase 2, much of the original fabric was retained and a great deal of this survives to the present day.

However, not all that survived at the commencement of repairs dated either to Phase 1 or Phase 2 and an attempt was made in 1992 to differentiate original from later fabric that survived at that time.

### TRUSS 1

The two main posts, the two downswing braces, the two principal rafters, and the two shoring braces, all appeared to belong to Phase 2, but there were doubts about the tie beam, which was not of the same profile as the others, and the kingpost, which was a re-used rail. If the latter were not part of the Phase 2 extension, then the upper part of the truss had been carefully rebuilt. The wall posts and spurs were presumably original but the post on the east side was jowled at the top, in the same form as the main posts, whereas that at the west end was not.

The mortices for two side braces, like several others in the building, appeared to have been excessively long as if to take much larger braces than the existing and a surviving peg-hole in that on the west side suggested that it has been used.

The existing soleplate, which was in three sections supported on a flint wall, was badly rotted. It was mortised and tenoned into the post at the east end, just above the level at which the post would have sat on the soleplate for the east wall. There were traces of former mortices in the top of the soleplate and, together with a pair in the main posts and probably another in the centre of

the existing tie beam, they indicated the form of the original framing. The existing framing, which included a number of re-used pieces, was evidently not the original, but the evidence did appear to suggest that this had always been an end wall.

There were a number of later repairs to the truss, notably where thin pieces of oak had been nailed on to give support to weakened joints.

### TRUSS 2

This truss was virtually complete in its Phase-2 form, with its upper face on the south side. There was a repair at the west end of the tie beam and the soleplates were partially buried in concrete. The wall post at the east end was again, like the one in Truss 1, jowled at the top and the spur on this side was a re-used rail, possibly from the Phase-1 building.

Mortices and notches on the posts and tie beam, together with nails on the tie beam and side braces, suggested that at some stage the end bay was separated off. The mortice for a side brace on the main post at the east end was excessively long and there were notches on both the main posts which suggested that they had at some time been shored up.

### TRUSS 3

This truss was complete in its Phase-2 form, except for a replacement side brace on the east side, but the soleplates were partially buried in concrete and may have been incomplete. The spur on the east side was a re-used rail, possibly from the Phase-1 building.

There were a few minor repairs, and iron brackets had been nailed on to hold inadequate joints.

### TRUSS 4

This truss was virtually complete as adapted from Phase 1 in Phase 2.

The shoring brace on the east side had been removed, and replaced with two of much smaller dimensions, and there were several repairs on the main east (arcade) post. The spur on the east side had been replaced, its former tenon surviving in the mortice. The principal rafters were mortised and tenoned into the tie beam and may have survived from Phase 1.

#### **TRUSS 5**

This truss was adapted from Phase 1 in Phase 2 and preserved many original timbers (Fig. 9). However, the shore on the west side was missing and its counterpart on the east side had been replaced.

The upper plate for the porch on the west side survives, whilst the former position of that on the east side was represented only by a mortice, the timber having been replaced by a spur at a lower level, which was itself a re-used rail, possibly from the Phase-1 building.

The soleplate on the east side was in good condition, and could be seen to be mortised and tenoned into the soleplate of the east wall, whilst that on the west side was badly rotted.

#### **TRUSS 6**

This truss was adapted from Phase 1 in Phase 2 and preserved many original timbers, but the shore on the west side was missing and the wall plate for the east porch had been removed and replaced by a spur at a lower level (Fig. 10).

#### **TRUSS 7**

This truss formed the south wall of the original, Phase 1, barn and preserved some original features, but it had been altered in Phases 2 and 3 (Fig. 8). The east post and the east side brace were clearly replacements of the Phase 2 members and when the existing timbers were inserted, probably in Phase 3, the shore must have been removed. There was a fragment of the original wall post built into the flint wall on the east wide and this had a jowled head. On the west side the brace had been removed and the spur had been replaced.

The common rafters were mortised and tenoned into the tie beam and appeared to be the originals.

The soleplates did not survive.

#### **TRUSS 8**

The tie beam and kingpost of this truss were both badly rotted but, along with the main posts and downswing braces, they survived from Phase 2.

The main post at the east end was a replacement in elm. The kingpost was a re-used wall plate, with a large mortice in one side and notches for rafters on the other. Both side braces were missing as was the shore on the east side.

Breaks in the main posts and the tie beam meant that the ridge purlin no longer supported the rafters at this end of the roof.

The soleplates did not survive.

#### **ROOF FRAME, TRUSSES 1-4**

The ridge purlin, the side purlin, and the arcade plate, all of which belong to Phase 2, were each made of a single timber.

#### **ROOF FRAME, TRUSSES 4-7**

The timbers here belonged to Phase 1 and of these only the brace from the kingpost to the ridge purlin on the north side of Truss 7 was missing. The ridge purlin was in two pieces, joined by the edged-halved scarf with bridled butts.

#### **ROOF FRAME, TRUSSES 7-8**

The trusses here all belonged to Phase 2 and of these the re-used rail used as a kingpost in Truss 8 was badly decayed.

#### **THE EAST ARCADE, TRUSSES 1-4**

With the exception of the arcade brace to the south of Truss 1, all the timbers were present and belonged to Phase 2.

#### **THE EAST ARCADE, TRUSSES 4-7**

Many of the timbers here belonged to Phase 1 and of these the post and arcade brace on Truss 7 had been replaced (Fig. 11).

The pair of arcade braces in Bay 5 may have been survivors from Phase 1 whilst those in Bays 4 and 6 had been re-used or replaced in Phase 2.

#### **THE EAST ARCADE, TRUSSES 7-8**

The timbers here all belonged to Phase 2 and only the arcade brace north of Truss 7 was missing.

#### **THE WEST ARCADE, TRUSSES 1-4**

With the exception of the arcade braces to the south of both Trusses 1 and 2, all the timbers were present and most belonged to Phase 2.

Several attempts had been made to resolve problems of instability in Bay 1 and this had resulted in the insertion of two secondary arcade plates and several other repairs in the form of thin sections of timber nailed on.

**THE WEST ARCADE, TRUSSES 4-7**

The posts and arcade plate in this area all belonged to Phase 1 (Fig.12). The arcade braces in Bay 5 may also have been original but those in Bays 4 and 6 had been re-used or replaced in Phase 2.

**THE WEST ARCADE, TRUSSES 7-8**

The timbers here all belonged to Phase 2 and were all present, except for the side purlin which had been replaced by a re-used wallplate from another building.

Two secondary arcade plates had been inserted to overcome the problems caused by a break in the original one.

**THE EAST WALL**

There was much re-used timber in the framing for the part of this Phase 2 [or later] wall which has not been replaced by masonry and it was difficult in places to differentiate original fabric from later alterations and repairs.

In Bays 1, 2 and 3 the underside of the wall plate incorporated redundant mortices and stave-holes, but this form of framing, which is similar to that found in the Phase-1 building, was not represented in the intermediate rails or the soleplate. The intermediate rails which survived were probably re-used. A gap in the stave-holes immediately south of Truss 2 may have indicated the former existence of a window.

The framing in Bay 1 had been partially removed and in Bay 3 it had been totally removed, to provide an entrance.

The only other piece of surviving framing in this wall was in Bay 4 and, whilst it was quite dissimilar to that in Bays 1-3, it was probably original, the soleplate containing a redundant mortice for the soleplate of Truss 5. The entrance in Bay 5 included re-used pieces as posts and wall plate and there may not have been any *in situ* timbers from the original porch which it replaced, except perhaps for the lower part of the north post.

There was the head of a post preserved in the masonry wall from Truss 7, but it was not clear how much of the wall plate in Bays 6, 7 and 8, which was in three parts, survived from the Phase-2 barn.

**THE WEST WALL**

As with the east wall, there was much re-used material here and quite a few recent repairs. There was a small piece of wall plate in Bay 8 which included redundant stave-holes on its underside

and this was clearly re-used, but elsewhere the framing conformed to a fairly standard pattern of intermediate posts between trusses, an intermediate rail and short posts between the two.

There was a group of chisel-cut carpenter's numbers in Bays 2 and 3 which were unique to this part of the barn and associated with them was the use of slip or fish tenons for assembly.

The framing in Bay 3 had for the most part been removed for the insertion of a porch and the soleplate and many of the smaller timbers had been replaced in Bays 4, 6 and 8.

Whilst the posts had been replaced in the original porch in Bay 5, the upper plates, tie beam and rafters survived, though the framing within the gable was a recent replacement or insertion.

The framing in Bays 7 and 8 incorporated a re-used post and a re-used section of wall plate with redundant stave-holes, and this whole section was quite clearly a rebuild to incorporate a door. The final two metres of the wall had been replaced in chalk and flint.

**THE ROOF**

The principal rafters on Trusses 1, 4 and 7 were mortised and tenoned into the tops of the tie beams but elsewhere the rafters over the central portion of the barn were birdsmouthed over the arcade plates.

Most of the rafter pairs were halved at the top, and this was particularly true of those over Bays 4, 5 and 6, but in some cases, particularly in Bay 7, only one of the rafters was halved. Many have carpenter's numbers on the underside at the top, and the interpretation was that the rafters were paired but there is no sequence running down the length of either the Phase-1 or the Phase-2 barn.

Near the foot of each rafter, above the arcade plate, there was a hole drilled in the side of almost every rafter, sometime on the north side and sometimes on the south side, but this did not normally pass through the full thickness of the timber. As with the numbers, these were not paired across the building.

There were a few recent repairs to the upper rafters which were for the most part in the form of strengthening timbers added on one or both sides, and the half hip at the south end was a modern feature.

A greater number of rafters on the lower parts of the roof had been replaced.

