

**The Great Barn is open during the Open House Weekend (see publicity) and at other times by appointment 01895 277643 (Winston Churchill Hall)**

## **The GREAT BARN at Manor Farm**

### **Introduction**

Welcome to the Great Barn of Ruislip. It is the oldest barn in the London area. What was the barn used for? It would have been used for storing farm produce – carts, wagons and animals would have been accommodated elsewhere.

In particular wheat and barley could be stored here prior to being threshed. The place for this would have been between the two doors on either side of the barn – open to allow a breeze to separate the chaff during winnowing. The main posts on either side of the east double doors (recent replacements) have mortices at head height for braces (missing), which joined a higher cross-timber. The opposite pair of doors (west side) does not have this, allowing high-loaded carts to enter. After shedding their loads the empty carts could leave via the eastern doorway.

Imagine the produce stacked high in the autumn harvest ready to be worked on. . Nowadays practically all such work is carried out in the fields by the mechanised combined harvesters.

### **The Construction**

The oak for the timbers must have come from the nearby woods, and it has been dated by tree-ring analysis to between AD 1293 and 1328 – that is during the time when the monks of the Norman Abbey of Bec were here. This barn is presumably that referred to in an Extent (inventory) of the manor of 1324 as that ‘which stands northwards and southwards’, with the Little Barn, now the library, at the south end. The ends are what are termed, half-hipped. That is, there are sloping tiles for only half the fall of the roof. See the model on show at the south end of the barn.

It is of aisled construction – a bit like a church really, which has a nave and often aisles on either side. Why?

The reason, of course, is that the trunks of available oak trees were not long enough to

span the full width of the barn (there are no aisles in Little Barn next door and now housing the library.) The timber framing is supported on a plinth, originally of flints some of which still survive. Flints come from the chalk, which outcrops at Harefield. Wooden pegs secured all the joints. Any metal bolts or plates you see are not original.

The main posts are the most important timbers in the barn taking the whole weight of the tiled roof. They go in pairs the length of the barn and each pair are joined by a tie beam at their tops, where the principle rafters are also supported. This combination is called a truss. Each truss is numbered by carpenters' marks starting at the northern end (I – VII). Truss I forms the wall at the northern end. The marks are not now easy to see on the worn surfaces, but have a look at the main post at position II on the west side about 9 feet up. The same mark is near the foot of the main post and also on the cill plate into which the post is tenoned.

The spaces between the trusses are termed bays, of which there are seven here. (In the bays at either end extra trusses have been inserted. The one at the southern end (east side) is made of a reused timber standing on a block of wood and there is an obviously modern one on the west side. That at the northern end has a single post with two supports at the base. You will notice that each main post is standing on a large timber called a cill plate on top of a plinth (this has prevented rotting). Two of these are original (numbers III and VII, west side) with the original pegs still securing the tenon of the post in the socket. The other cill plates are replacements. Some have mortices for floor joists showing they have come from old houses, eg. number IV.

### **Early features**

At the number VII position, on the west side, notice the rectangular piece of wood let into the base of the main post. This fills a rectangular mortice that is now serving no particular purpose. All the main posts have similar mortices but have lost their blocks. These are thought to relate to the original raising of the truss and are only known on a few of the very earliest timber-framed structures. They were presumably subsequently found to be unnecessary.

You will also see that the main posts have swelling at their tops. These are called jowls, and provide enough material to form a lap dove-tail joint of the post, tie-beam, the long timbers running the length of the barn along the tops of the posts (called aisle plates), and the principle rafters. The much later jowls in the Little Barn are larger. The

lap dovetail joint is a particular English piece of carpentry.

The main posts here are standing as the tree grew with root base at the bottom. This was discovered during the tree-ring dating. But in later buildings the trees were placed with their root base at the top. The reason is obvious when you consider it. The jowls require a thickening of the post, which can easily be provided by the thicker lower trunk. With the early carpentry in the Great Barn the large tree base had to be thinned down, and much wood was lost in thinning the post to leave the jowl swelling – a very wasteful, and time consuming, process.

The aisle-plates (already mentioned) extend the full length of the barn from truss to truss on each side. This requires several lengths of timber, which are joined end to end by scarf joints. There are five different types, probably relating to repairs at different times (have a look at the exhibit at the south end of the barn). The aisle plates support the ends of the rafters and transfer the great weight of the roof to the main posts. The outward thrust on the main posts is countered by the tie beams. Much of the timbering you see in the barn is for bracing (stiffening).

A very early type of brace, which was used on each truss, was the so-called passing-brace. Some are missing but their former positions are marked by empty cuts in the main posts. Where they are still present (truss III for instance) it starts at the tie beam and passes down across the main post to the aisle tie-beam (which bridges the main post to the outer wall), and then originally passed to the outer wall. The west aisle tie beam of truss III is an original and has a lap-joint cut but the passing-brace does not pass through it. Why? If you look at the west side of the main post you will see a mortice, which used to house the end of the aisle tie-beam, which has been shifted up. Why? The roof has been lowered at some period, probably in the 18<sup>th</sup> century, thereby altering its slope, and thus making the sidewalls of the barn higher. This meant the positions of the aisle tie beams had to be raised. Many of these aisle tie beams have been replaced and do not show the cut for passing braces, but the mortices for these missing aisle tie beams are all there.

### **Other Alterations**

The original rafters have been much changed as well. The ridge piece along the very top of the roof is a modern addition as is the boarding between the rafters to help keep the place warmer. Old timber-framed buildings in southern England did not have ridge-pieces. Pairs of rafters were simply joined at their tops. Stiffening of the roof came

from the longitudinal timbers along either side, lower down. These are termed purlins. The different bits of the structure had different names. Some sounding more exciting than the piece of timber they named – such as the four short dragon-pieces in the corners of the barn.

Since the aisles were raised their sidewalls are not original. You can see that they are composed of odd bits of timber. The weatherboard covering is all modern. People often ask about the roof covering. Was it always tiled, or did it originally have thatch? Documents refer to tiles at Ruislip in the early 14<sup>th</sup> century and there was a tiler working at the Manor in 1324. We have no reason to think it was not always tiled. The present tiles were laid in the 20<sup>th</sup> century.

How were the timbers worked? On some of the main post timbers it is still possible to see (with oblique torch light) the regular slanting cut marks of sawing, and slightly undulating surface of adze work. Some posts have streak burn marks, which may have been caused by rush-lights. Remember that it would have been rather dark in here, even during the day. The windows at the ends are modern insertions. The stone flagged floor of the barn is also a recent addition. It seems to have remained an earth floor until the 20<sup>th</sup> century. Incidentally, archaeological pits showed nothing under the floor other than natural soil.

The Great Barn continued in use until Manor Farm ceased to be a working farm in 1932.