Wargrave Local History Society

Latest News - April 2003

Timber Framed Buildings

Trevor Ottlewski began by explaining that house construction is a very "regional" subject. The materials most likely to be used for middle class homes would be those to be found locally - due to the cost and problems of transporting heavy and bulky materials. Quite a few houses such as built for yeoman farmers, craftsmen or merchants survive, and Trevor used pictures of these to illustrate his talk.

The timber used for the frames of houses was mainly oak, although elm, ash or chestnut, amongst others, might be used. Oak and chestnut are durable against attack both by weather and beetles, and are easy to work. The initial process would be to convert the tree into beams, by hewing with an axe (the oldest method), splitting it along the grain by driving wedges in, or by sawing it on a trestle or with a pit saw. All of these leave distinctive marks - and quite different to the power circular saws introduced in the 19th century. It is a fallacy to think that houses were built from ‘old ship’s timbers’ - such would have suffered from the effects of Teredos beetles, and be unduly costly to transport from the coast. Trees were selected to use the timber with minimal waste - straight trees for purlins and posts; but curved trees - likely at the edge of the forest - for cruck blades. The heartwood is the strongest part of the timber, but some sapwood would be left on the beam, again to get the maximum useful wood from the tree.

The carpenter of the early 1800s worked in much the same way as he would have done 200 years earlier - with axes, frame saws, draw knives, mallets, chisels and planes, and augers or braces to drill holes. The frame would usually be laid out in a framing field, the various parts marked to indicate where they fitted together, and then moved and reassembled to make the building frame.

The earliest timber framed buildings were simply vertical walls with a roof above. The vertical posts would be held ‘earthfast’ - in much the way a fence post is today. As the end grain of the timber is in the ground, and this is the direction in which the wood mainly absorbs moisture, it would rot relatively quickly. The next style, therefore, was to lay a timber beam horizontally on the ground, and fix the vertical posts into that., removing the end grain from the damp. By about 1200 the horizontal beam was supported on a low brick wall, to further reduce the risk of the timber rotting. An alternative was to place a pad stone under the vertical pillar to protect the end grain.

To make the building, the usual joint used was the mortise and tenon - put together ‘dry’ and held with a wooden peg. The side of the frame was put up and held by props that engaged with the main posts in a cutout called a ‘scotch’ - which can still be seen on a timber frame. To allow for the stresses caused by wind, bracing was added - including in the roof. These would normally be secured with 2 or 3 pegs at each end, and the holes left when a brace has later been removed give clues to the original construction. The earliest roof style was plain rafters, then a collar was added to make an A frame, and later Queen strut, Queen post, King post and Crown post styles evolved,

each bracing and tying the roof frame together. The roof covering would often be thatch (the cheapest and most wide- spread), but tiles or wooden shingles might also be found - and in some areas, slates.

One particular feature of timber framed houses was the jettying, or oversailing, of the upper floors, where they overhang the lower floor (possibly as a way to protect lower parts of the wall from the effects of weather). A sign of wealth of the owner, this normally would be on the front of the building, where it would be ‘seen’, but may also be on the side - a much more difficult structure to make, as the support could not be just by extending the joists.

Trevor also told us about the development of the windows, chimneys and staircases in these early houses. The various house designs were illustrated with many local examples. Members were also able to examine many of the tools of the trade and samples of the timbers and joints used.