

## **Historic Building Analysis of the Granary at Newhouse Farm, Purton End, Debden, Essex.**

**Map Reference: TL 55240 34653**

**SITE CODE: DNNH10**

### **Introduction.**

This historic building recording at Newhouse Farm, Purton End, Debden was initiated by the HEM team at Essex County Council following the approval of a planning application to convert the granary, UTT/1587/09, by Uttlesford District Council. The approval specified that an archaeological investigation of the building be carried out and approved before any work was commenced on site to convert the granary into a studio.

The granary is the last remaining building within the whole farm complex not as yet converted to domestic use. It is listed separately as one of six buildings listed on this site all dated from the seventeenth to the eighteenth centuries by the list descriptions.

### **History.**

Until 1903 the site formed part of the Debden Hall Estate. The Manor of Debden Hall, also known as Depden in early records was one of six manors in the parish. The manor was seized by the Crown in 1155 and was held for the Crown until the time of Henry VIII mainly by the Earls of Essex. Henry granted it to Thomas Lord Audley, Baron of Walden and Earl of Suffolk who held it until sold in 1660 to a Thomas Grove who soon sold it on to Sir Richard Brown. After his death it was sold to a John Edwards esq, who in turn sold it to Richard Chiswell esq. and it was still in the family until the estate was sold complete in 1882.

A further estate sale in 1903 broke up the main holdings of the estate, some 5600 acres, and Newhouse Farm was purchased by the Tetlow family. John Tetlow was the tenant of Newhouse Farm with c181 acres at the time of the sale.

Between the 1882 estate sale and the 1903 date the farm size had been reduced from c260 acres. The farm in 1903 is listed as containing the farmhouse, with detached Wash-house. Stick House and Coal House and the following farm buildings that were described as being of timber and either tiled or thatched - Brewhouse. Loose Box. Fowl House. Piggery. Two bay Barn (One bay converted to cow-house to tie 20). Calf House. Two yards. Another Barn. Piggery. Loose Box. Open Shed. Chaff House. Calf Pen. Stable for seven horses. Granary. Chaise House. Implement Shed.

Ops. Side of road. – Five bay Wagon Shed, timber built and thatched and Stack yard.

All with 181a. 3r. 29p. Some of the land was actually also in Wimbish parish.

Based on the date of present buildings on the site most of the farmstead must have been developed by the Chiswell family. The seventeenth century was an era of considerable investment in farming development to feed the fast growing population. The farm in its larger acreage would have developed through the eighteenth century possibly at that time concentrating on arable crop production.

The farm was a courtyard development set to the south of the farmhouse with two barns at right angles and the other buildings completing the yard. The granary west of the house and on the north side of the farmyard was in a prominent position close to the road to Saffron Walden that runs almost north – south dividing the farmyard from further farm buildings to the west.

The earliest map evidence dates from the eighteenth century with the estate map of 1777 where the main farm buildings, to both sides of the road, already exist. The Chapman and André map published in the same year shows a similar if simplified version but actually with the granary in the correct orientation and the Tithe map of 1845 containing more detail with additional buildings to the west.

The interesting point is that some maps show what would appear to be the granary building as inline with the roadway and not end on in its current position. Many of the earlier maps were not good at showing correct orientation of buildings and many examples exist where buildings are incorrectly detailed but the number of buildings is usually correct.

The Ordnance Survey maps, available for inspection, in large scale from 1897 show all the buildings in correct orientation for the first time although the earlier maps can

generally be related to the buildings as they appear on these maps even if the detail is not always correct.

### **Farming.**

During the medieval period this area of north Essex was renowned for sheep and it isn't until the seventeenth century that arable crops become one of the mainstays of the area.

This is undulating land and generally the highest part of Essex with the larger arable fields developed in the eighteenth century. On Newhouse farm these are located further to the west of the farmstead on the Debden Common area where the land is flatter. The schedule to the eighteenth century estate map is missing so no breakdown of arable to pasture can be given but the Tithe Award of 1845 clearly shows that arable dominated. By the sale in 1903 the ratio was approximately two thirds arable to one third pasture. The increase in pasture showed how dairying had become a major item needing the conversion of one barn to a milking unit for twenty cows.

The great change to arable in this area in the late seventeenth century was helped by the development of the heavy horse for more domestic uses following the Civil War although the ox was still a major draft animal until much later. This, with further development of the plough helped in producing much higher yields from the arable crops. These advances continued into the eighteenth century.

The further doubling of population from 1760 to 1821 to some twelve million placed heavy demands on agriculture and the export of cereals that had existed for nearly two thousand years died away and imports started to back the supply of the English farm.

Returns for Debden parish in 1801 say that it had 4653 acres of which 1709 acres were arable. Of this nearly all was wheat, barley or oats as the land was not suitable for much root crop. As such many farm buildings were modified or rebuilt in this period. The granary at Newhouse almost certainly falls into the period around the end of the eighteenth century.

Granaries other than in great monastic establishments are in general a development from this period as separate specialised buildings on the ordinary farm. Previously

much corn was stored within the house in sacks or even within the barn as it was threshed out through the winter months.

The note in the 1903 sale document showing part of a barn converted for milk production shows the great change in Essex at this period when the amount of permanent pasture has actually increased by about two thirds between 1875 and 1900 and the remaining buildings generally show a mixed farm layout.

### **The Granary.**

The building is timber framed, partially weather-boarded at the lower levels on three sides with plaster above. The half hipped roof is covered in plain clay tiles. It is supported on four brick pier walls across the building respecting the ground level that falls away in two directions from the northern corner. The building overall size is approximately 24' 6" (7.5M) x 16' 6" (5M) and comprises of three bays. This size is approximately 1½ x 1 rod, a common form of measurement found in early buildings. All the main timbers in the building are pine softwood. Conversion is a mix of axe conversion and sawn sections. The four tiebeams ( Av. 8/9" x 7" [200/230 x 180mm]) are converted from single trees as most likely are the corner and bay posts. The floor joists are mainly sawn into four from reasonable sized trees with the infill braces and studs into four from mainly much smaller trees, some of which are barely large enough to provide the small sections required. The wall studs are av. 4" x 3" (100 x 75mm). The trees are almost certainly from the estate as even today a considerable number of pines are still noticeable in the local landscape.

The main frame has properly cut joints with dovetails to the ends of each tiebeam and mortise and tenon unpegged joints to the plates (av. 6" x 6". 150 x 150mm). The only scarf joint visible is in one sill member and it is a simple edge halved joint with two face pegs. The arch braces (5½" x 4". 140 x 100mm) to the tiebeams are carefully formed from oak with small chamfers to the lower edges. They are fixed to post and tiebeam with iron spikes. The roof is a simple collar rafter roof with ridge board and half hips for stability, it has no principle trusses. The rafters are extremely light and similar to the wall stud infill timbers. The collars were not visible to inspect but based on the rest of the structure are most likely nailed to the rafters.

The roof is plastered under the collars and between the rafters below collar level. Nail holes in the rafters suggest a fully internal plastered roof in the original construction.

The walls are primary braced (4" x 4". 100 x 100mm) with full height studs at 1' 3"/ 1' 4" centres. (380/400mm) and are plastered between the studs internally as a thin coat directly onto the outside lathing.

The floor is from machined softwood boarding (8" wide. 200mm) almost certainly imported. In parts it has been double coated with later narrow tongue and grooved boarding. The entrance doorway in the centre of the south west face has a hardwood wear board with tapered edges set to its inside to allow sack trucks to run easily over the sill plate. This is most likely a later nineteenth century addition.

The door is eight boarded (6" wide. 150mm) with three ledges all nailed but no braces. The boards and form suggest the late eighteenth century. The forged iron hinges are of arrow head design again agreeing with this date period.

The floor support structure is an outer sill frame with two intermediate cross beams into which the floor joists are mortised. This sub-frame sits on four brick pier walls across the building. The bricks are a bit mixed, poorly laid, one brick thick under the cross bearers with corner and tee-shaped projections, acting as buttresses, where the area is open to the south west. The north west long face has a complete brick wall also acting as an retaining wall against the rising ground. The whole area of brick work is much patched and repaired but the original was most likely in English bond.

The steps to the entrance door are also built of brick but plastered and painted. The area in front of the door was originally a boarded platform supported by a brick pier to the other side. These boards are now missing.

The east, west and south sides of the building are clad in softwood weather boarding to half height with lime plaster or cement render of various ages above. The north face is plastered to sill level. The plastered area that faces the house from the east side is interesting as it is good hair plaster so possibly original and it is finished smooth with ashlar markings giving the impression of stone towards the house. This face now has a late twentieth century door cut into it accessed from the added garage building on the east end of the granary.

Inside the granary only two main changes have occurred other than the extra doorway. The major one is the insertion of a floor to the east bay, unusually supported from underneath the tiebeam by sawn joists (4" x 3". 100 x 75mm). The only visible method of fixing them is by heavy iron spikes up into the underside of the tiebeam with the square heads of these spikes let into the surface. The support into the end wall is not visible. Placed onto these joists across the building are 1" (25mm) thick butt boards close fitted with fillet strips nailed over the joints on the underside. The boards have been sawn with a very large diameter circular saw. The diameter and roughness of cut suggest a very early local saw, maybe a later nineteenth century addition to the estate workshop. (One has to assume that an estate of this size would have had a considerable workshop facility by the mid nineteenth century). The boards although not long are of great width with sizes up to 19" (nearly 500mm). The joists are also cut with the same saw. A use for this area is not known but it could be an area to store seed corn to keep it segregated from normal stored supplies.

The other change is the addition of a small window in the west end. This is again possibly nineteenth century but the present frame is modern. The point of interest about this window is that in the tiebeam over the window area are two pieces of iron. One is a typical heavy iron spike nail but the other is a spike with a tee-shaped head, the ends of the tees being formed down slightly making it resemble a chain hook as found on certain types of horse implement attachments to allow quick dis-connection of the horse. It may have been used to anchor a wagon to the opening if it was at some time used for loading as the land outside slopes, but it is a much smaller opening than might be expected for that purpose.

### **Conclusions and Discussion.**

This appears to be a late eighteenth century granary, built of softwood almost certainly locally grown. It is minimal in structural form and suggests a relatively quick build maybe to suit the farming needs of the late eighteenth century when many farms were quickly erecting extra buildings.

Other than the floorboards and main door all materials would have been available locally.

It was a very basic sealed box for the storage of grain. The most expensive item would have been roof tiles as thatch is not suitable for a granary due to vermin ingress.

Its position is one of relative security being in direct view of the house and accessed from the farmyard. The closeness to the road allowed easy access for carts and can be seen on other farms in similar positions at this time. Later on many were subsequently moved further within the farm complex.

The granary is a simple utilitarian building with limited historical interest and special features. It would have been interesting to refer to archaeological and historic analysis of the other converted buildings for a fuller picture of the working of the farm.

### **Notes.**

Thanks to the owner Mr D Connell for allowing free access to the building and to the architect Rachel Moses for the use of drawings used as a basis for this report.

### **References.**

Essex Farming in 1801. Gladys A Ward. From ESAH, Vol. 5. 1973.

The Evolution of the English Farm. M E Seebohm. 1927 revised 1952. published by George Allen & Unwin Ltd. London.

English Farmsteads 1750-1914. RCHME. 1997.

All is Safely Gathered In. Granary storage on the Wiston Estate 1300-1900. Gordon Lawrie. Published by West Sussex County Council. 1990. Possibly the only study of granaries completed in any area.

Historic Farm Buildings. Susanna Wade Martins. Batsford. 1991.