

A report for Mr and Mrs Jones

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Project: PJ 106

WSM: 32767

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# 1. Project Background

#### 1.1. Location of the Site

Boat House Farm is located around 5 kilometres to the east of Tenbury Wells, just off the A443 Worcester to Tenbury road (NGR SO 6485 6829). Eastham is a scattered hamlet with many timber-framed and stone cottages. The Norman church stands less than a kilometre away to the northeast adjacent to the Court House (Figure 1).

### 1.2. Development Details

A planning application was made to Malvern Hills District Council for conversion of an existing barn to provide domestic accommodation (reference MH/02/0724). The planning process determined that the proposed development was likely to affect a building listed on the County Sites and Monuments Record (WSM 31098). As a result, the Planning Archaeologist, Worcestershire County Council, placed a 'Programme of Building Recording' planning condition on the application, for which a brief of work was written (WAS 2002).

### 1.3. Reasons for the Historic Building Recording

The data contained within the Sites and Monuments Record suggested that the building conversion work would affect a building contained on the local list of historically important buildings (WSM 31098). The brief of works states that:

'Buildings of this type form an important part of the counties agricultural heritage' (WAS 2002).

In such circumstances a programme of archaeological work is attached to planning conditions for any development. In this instance, an historic building recording was suggested to record the building prior to its conversion.

## 2. The Documentary Research

### 2.1. Background

Eastham lies on the slopes of the Upper Teme Valley; the hamlet perched above the River Teme at around 105 metres above sea level. The fertile loamy soils of the region are ideal for mixed agriculture and hop and fruit growing has been part of the local economy for over 400 years (Pitt 1813, 120).

The first hop fair was held in Tenbury on September 26<sup>th</sup> 1774, where weighing scales and trading facilities were set up for local hop growers and merchants. By this time the plantations

of the area were at their zenith and were exporting to brewing centres such as Bewdley and Worcester (Gaut 1939, 157). Ten years later it is recorded that 16 holdings in Eastham were producing hops. By around 1830 hop production was in decline, in 1825 Eastham had 286 acres of hop production, by 1844 this was down to 207 acres (Gaut 1939, 271).

The immediate area around the site represents the remains of a generally medieval landscape overlain by some modern development. The Worcestershire County Sites and Monuments Record indicates that a medieval deer-park was located a little to the north of Boat House Farm, on the opposite side of the River Teme near Newnham Court (WSM 09921). The focal point of Eastham was just to the south of the village church, St Perer and St Paul's, where a deserted settlement is listed (WSM 06703). Further evidence of medieval activity in the area takes the form of a moated site near the current Eastham Park (WSM 08098). The importance of hop growing to the local economy is visible on the site where former hop kilns stand around 30 metres to the west of the barn (see Cook 2003), these are listed on the Worcestershire County Sites and Monuments Record as post-medieval hop kilns (WSM 29560).

### 2.2. Boat House Farm

The name Boat House Farm may be a little misleading. Linking the pool that stands just to the north of the farmhouse with the name may suggest a 'water boat' origin to the name. However, the pool is a late 20<sup>th</sup> century construction and Boat House Farm appears in records from at least the mid 17<sup>th</sup> century (see below). According to a local glossary (WRO 11,803 b899:1196 - tenure) a 'boat' relates to cloth, also referred to as a 'bolt'. This is supported in the probate inventory of Elizabeth Lewis, who owned Boat House at the time of her death around 1741. This refers to 'linen of all sorts and a boat' (WRO 11,803 b899:1196 – probate). The inventory also refers to three hogsheads in the corn barn, indicating the use of the barn at this time.

The background research turned up further evidence regarding the farm and whilst beyond the realms of the brief, has been included here as it may be relevant for future research. The table below shows the owners or occupiers of the farm as ascertained from the research.

Date of Ownership / Occupation	Owner or Occupier	Reference
1678	John Lewis	Church Wardens Accounts WRO 11,803 899:1196
1679	Rowland Lewis	Poor Law Documents WRO 11,803 899:1196
1741	Elizabeth Lewis	Probate Inventory WRO 11,803 899:1196
1811	Thomas Eckley	Will WRO 11,803 899:1196
1815	? Mr Eckley	Mr Eckley of Boat house was allowed to include a seat in the parish church at his own expense WRO 11,803 899:1196

1843	Ann Eckley in occupation, owned by ? Mrs Wall	Tithe Apportionment map of Eastham
1855	Vincent Eckley	Billing's Trade Directory
1873	Edwin Cooper	Littlebury Trade Directory
1876	Edwin Cooper	Post Office Trade Directory
1884	Thomas Moore	Kelly's trade Directory
1904	Thomas Moore	Kelly's trade Directory
1924	Hubert Moore	Kelly's trade Directory
1932	Hubert Moore	Kelly's trade Directory

### 2.3. The Map Evidence

The Tithe Apportionment map of 1843 shows the barn to have an east-west projection at the eastern end (Figure 2); this is likely to be another building butting up to the barn. The nature of this building is unclear and it does not survive today. The 1<sup>st</sup> edition Ordnance Survey map of 1888 shows a building added parallel to the barn off the end of the projection forming a range of buildings round an enclosed fold yard (Figure 3). The 2<sup>nd</sup> edition Ordnance Survey map indicates that this building was a shelter shed open onto the fold yard. A further building had been added to the south of the barn (Figure 4), this no longer exists. By 1971 the plan was similar except that the east-west projecting building appears to have been split by a central ?access (Figure 5).

## 3. Methods and Process

### 3.1. Project Specification

- □ The project conforms to the Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures (IFA 1999).
- □ The buildings were recorded to a Level 1 as defined by the Royal Commission for Historic Monuments of England (RCHME 1996).
- □ The project conforms to a brief prepared by the Planning Advisory Section, Worcestershire Historic Environment and Archaeology Section, Worcestershire County Council (WHEAS 2003) and for which a project proposal and detailed specification was produced (Cook 2003).
- ☐ Mercian Archaeology adhere to the service practice and health and safety policy as contained within the Mercian Archaeology Service Manual (Williams 2003)

### 3.2. Aims of the Project

The aims of the historic building recording were to compile an archive of the building within its topographical setting. This was to consist of both written and photographic records. The results of the fieldwork were to be used to produce a report chronicling changes and development within the building and where possible, to attach relative dates to individual phases of building. The documentary survey was to be used to assist the chronological phasing of the complex and also, to ascribe function and use to the building.

### 3.3. Background Research

Prior to the commencement of fieldwork all the relevant available cartographic sources were consulted. A search of the Worcestershire Sites and Monuments Record (SMR) was carried out and various archaeological reports were consulted.

Documentary research was carried out at Worcestershire Record Office (WRO) and the following sources were specifically consulted and were of use:

### **Cartographic Sources**

Source	Reference Number	
Tithe Map and Apportionment of the Parish of Eastham (1843)	WRO BA1572 x760/274	
Ordnance Survey 1 <sup>st</sup> Edition 6". Worcestershire Sheet XIX N.E (1888)		
Ordnance Survey 2nd Edition 25". Worcestershire Sheet XIX.3 (1903)		
Ordnance Survey (1971) 1:2500	Plan SO 6468 and 6568	

### **Other Sources**

Source	Reference Number
Local history Society Notes	WRO 11,803 899:1196

Other sources used are referenced within the report.

### 3.4. The Fieldwork Methodology

The building recording was undertaken on 17<sup>th</sup> June prior to any development work being carried out at the site.

The photographic survey was carried out using both monochrome and colour print film. A 2-metre scale was used where possible.

Proforma Building Record Forms were used to record the structure in tandem with site notes and reference to site photographs, to produce the final record contained within this report.

The methodology adopted and the favourable working conditions meant that the aims and objectives of the brief could be fully met and the fieldwork was successfully concluded.

## 4. The Results

## The Fabric Survey

#### The Barn

The barn is built on sloping land between the road to the south and the farmhouse, associated buildings and pool to the northwest (Figure 1). The slope has been slightly exaggerated by terracing to the north and underbuilding of the barn to make a basement floor. The barn is a five bay timber frame post and truss construction below a corrugated iron roof covering. The upper levels of all four elevations are clad in weatherboard, the visible panel infills being of brick. There are two pairs of imitation cart doors to the north elevation and another pair on the opposite southern elevation. There was once a small single story building butting the western gable of the barn. The shadow of the roofline can still be seen on the weatherboarding of the end gable. The westernmost bay has a loft space above reached by an external flight of stairs. The building, which is in very good condition, is now redundant and awaits development (Plates 1 and 2).

For ease of recording the bays have been numbered 1-5 from west to east and the trusses (post and truss frames) have been numbered T1 - T6 (Figure 2). Technical terms are explained in the glossary at the end of the report.

### Truss T1

The roof covering is supported on trenched purlins and ridge purlin throughout the barn. Truss 1 comprises of a pair of principals supported on a tiebeam with a pair of vertical queen struts and collar. There is a pair of raking struts pegged in above the collar. The principals are set around 12 centimetres in from the end of the tiebeam. The frame has been altered to incorporate the three doors, one at 1<sup>st</sup> floor level and two below. The corner-posts have large gunstock jowelled heads. There are no visible carpenters marks on this truss/frame.

### Bay 1

Bay 1 comprises a hayloft above a cow house, probably for housing young cattle. The bay is reached from the outside via a pair of doors in the western elevation; these have been inserted

in the frame. The hayloft is accessed via a flight of timber stairs on the outside of the western gable; again the door is a later insertion. The loft as it stands today is a  $20^{th}$  century addition to the barn. The joists have been built into the brick panel infills, which are also  $20^{th}$  century. It is not possible from the evidence to say if there was an earlier hayloft in this position, although when the barn was originally built it would probably not have had an upper level. An owl hole has been cut through the weatherboarding at the eaves to allow owls to use the barn to roost. Owls were important in keeping vermin down within the barn.

The floor of the cowhouse is partly cobbled and part repaired in brick (Plate 7). It is likely that the cobbled floor was added when the bay was converted to house animals, probably in the 19<sup>th</sup> century. The original floor may have been rammed earth, although there is no visible evidence for this. The wall framing, as throughout the barn, is rectangular panelled with corner downward braces. There is further discussion of the frame below.

#### Truss T2

As Truss T1, but one of the raking struts is missing and the jowels at the top of the posts are less pronounced.

The tie-beam, collar and principals all have stave holes on their undersides to take staves for the vertical component of latticework panel infills (Plate 15). A couple of staves remain in situ above the collar (Plate 16). There are also unused mortises and pegholes on the truss members suggesting that the truss was once framed in square panels and was likely to have been an end truss and frame. Further evidence is provided by chiselled carpenters marks on the west face of the truss members. It was usual practice for the carpenter's marks on inner trusses to face towards the threshing or cart bay (Bay 3 in this case) and the end frames would have the carpenter's marks on the opposite external face. The groove to take the bottoms of the staves on the sill beam does not extend across to the southern post, which may suggest that there was a narrow annexe attached to the outside of the frame on the southwest corner.

#### Bav 2

Many of the timbers of the framework of Bay 2 show evidence of re-use and there are also many newer timbers, some show evidence of having been machine sawn and are probably 19<sup>th</sup> century. This was the case throughout the barn. This bay has a modern concrete screed floor.

#### Truss T3

Truss 3 has a pair of raking queen struts from tiebeam to principals with no collar (Plate 12). Trusses T4, and T5 are of the same style of construction. These too have the principals set around 12 centimetres in from the end of the tiebeam. The posts are braced down to an axial sill beam with long straight braces and there is a supporting central post. The sill beam is set onto a brick plinth some 80 centimetres high. This would have provided a windbreak and divided the barn into separate storage areas. The braces helped secure the outer frames against the outward force of piled up straw / crop. There are chiselled carpenter's marks on the face of the truss members, facing into Bay 3.

### Bay 3

Bay 3 is the central bay (Plate 9). It originally would have been at ground level with full height cart doors to both north and south elevations. Today, the floor has been raised by around 80 centimetres to the level of the windbreak axial sill beams and a room built below (now a wood store, Plate 10). The land on the north side has been excavated away to accommodate the new basement room. The position of the original sill beam on this side can be seen in Plate 3.

This bay would have provided the central threshing bay. This is where the threshing or 'thrashing' process would take place to separate the wheat from the chaff, or the grain from the stalks of the crop. This process involved thrashing the crop on the floor with hand flails. After the separation had taken place, it would be thrown into the air to separate the chaff. This was known as winnowing and a through breeze would aid the process as the heavier grain would fall to the floor and the waste would be blown away. It has been logically suggested, that for this reason the barn, which was the most important building on the early farmstead, would be aligned to take advantage of the locally prevalent wind (Wade-Martins 1991, 167). Some research has been carried out looking at the alignment of barns in relation to the prevalent wind (see Kenworthy 1988). Winnowing was a lengthy process and may have taken several weeks to complete.

#### Truss T4

As Truss T3 except that the queen struts and braces do not fit into the mortises and appear to be later additions, or reused timbers.

### Bay 4

The floor in Bay 4 was not visible as it was full of compacted and rotted straw. The southern side frame has mortise holes and stave holes cut into the rails indicating that the frame was probably originally of two rows with three studs between posts and timber latticework (probably oak) panel infills, although it is possible that the lower panels were wattle and daub and the upper panels latticed to allow ventilation..

#### Truss T5

As Truss T3 except the carpenter's marks were race cut (scribed) rather than chiselled and faced the eastern end of the barn rather than the central bay as expected.

### Bay 5

The floor in Bay 5 was not visible as it was also obscured by compacted and rotted straw. The downward brace on the north frame has two mortises cut into it, these may have been for timbers associated with the east-west projecting building as shown on Ordnance Survey maps (see above).

#### Truss T6

Truss T6 forms the eastern gable end of the barn (Plate 11). The outside was not available for close inspection as the barn butts onto an adjoining property boundary. Internally, the truss is similar in form to Truss T1 at the opposite end of the barn. There are stave holes in both principals but not in the tiebeam or collar. This is likely to indicate re-use of timbers from elsewhere.

# 4. Phasing of the Buildings and Dating

## Discussion of the Fabric and Dating Evidence

Starting at the bottom, the barn has been extensively under built. The bricks used in the under building are mass-produced and are likely to date to the  $19^{th}$  and  $20^{th}$  centuries. There are some late  $17^{th}$  or early  $18^{th}$  century hand formed bricks in the plinth at the western end of the southern elevation (Plate 6). These are  $2\frac{1}{2}$ " thick, typical of bricks predating around 1730. These may represent part of the original build.

The brick panel infills of the lower levels are not original and are likely to date from the 19<sup>th</sup> or 20th century. Unfortunately, their insertion has obscured evidence for the type of earlier panel infills used. Evidence from elsewhere in the barn suggests that they were probably of riven oak woven between vertical oak staves, although they may have been wattle and daub or a combination of both. The survival of two staves in Truss T2 suggests the former.

The barn, as it stands, comprises side framing of two rows of panels, the top longer than the squarer lower ones, sitting on a brick plinth and sill beams. It seems unlikely that this was the original form as many of the studs have unused peg holes suggesting there was once three rows of panels. However, this is not definitive as there is no logical pattern of holes and some studs may be reused from elsewhere. There may also have been some dismantling and reassembly of the barn or parts of the barn.

The roof trusses all appear to date from later than 1700 and there has been extensive rebuilding of the upper tier of panels. The principals of all the trusses sit around 12 centimetres from the ends of the tie beams, a style thought to date from post 1700 (Alcock pers comm).

The carpenter's marks shed little light on the construction. There are two styles of mark, the chiselled type apparently only used on trusses T2 and T3 and scribed marks as used on T4 and on some external faces of frame timbers. Many timbers have no visible marks, either because they have weathered away or the timbers are not original to the building sequence contained within the carpenter's scribing.

The existing plan of the barn is five bays with a central cart bay; this is a fairly common arrangement. However, there is evidence that Truss T2 was once the western end of a four bay barn with an off centre cart bay; there are stave holes and grooves to take vertical staves in the members of Truss T2. Riven oak strips would have been woven through the staves to make a strong panel infill that would allow a good through draft into the barn. There are two staves still in situ below the collar. The truss also has mortises and peg holes to take studs and rails. This would only have been necessary on external timbers. The carpenter's marks on Truss T2 are on the western face, which if the four bay theory is correct, would be the original external elevation and the usual positioning for the marks. There is no evidence for the addition of another bay within the fabric of the side framing, as the carpenter's marks at this end of the barn are obscure. However, again it has to be stressed that many of the timbers in the barn display reuse and it is possible this truss has also been reused. Evidence to support the re-used truss theory comes from the remnants of the late  $17^{th}$  / early  $18^{th}$  century brick plinth that extends further to the west than Truss T2 (Plate 6), although this may have extended into a former annexe or other similar structure for which there is no evidence.

The table below shows a likely development of the structure, although as outlined above, the structure has been the focus of much alteration and repair and has many re-used timbers within its fabric, which hinder accurate dating.

Accurate dating of farm buildings is often problematic as dateable architectural features are often changed, modified or re-used. It is more pronounced with commercial buildings than in domestic architecture. It may also be that domestic architectural style takes longer to manifest within the fabric of buildings reserved for animals. The fabric of the barn at Boat House Farm showed extensive re-use of timber (Plates 13-16), insertion of new timber, under building and rebuilding. Square panelling, which was the original form of the barn fabric, was the predominant type of frame from the 16<sup>th</sup> to 18<sup>th</sup> centuries in the west of Britain. Consequently

any evidence for phasing or close dating of the original structure is very problematic and may only be done satisfactorily by using scientific tree-ring dating.

PHASE	FABRIC of BUILDING	DATE	MAP / FIGURE
I	The barn is built as a four bay threshing barn.	?Late 17 <sup>th</sup> century (although the earliest parts of the barn may be earlier)	Figure 6
II	Bay 1 was added at the western end of the barn and roof trusses renewed.	Early 18 <sup>th</sup> century, possibly less than 30 years after the barn built	Figure 2-6
III	The barn was part demolished and underbuilt with a ?19 <sup>th</sup> century brick plinth. The hayloft was probably inserted around this time.	19 <sup>th</sup> century	
IV	The lower floor wood store was added in the 20 <sup>th</sup> century, the barn also received new panel infills of brick	20 <sup>th</sup> century	

# 5. The Building in Context

The present Boat House Farm appears to date from the 18<sup>th</sup> century. It is not known if this was the first farmhouse on the site, or if there is earlier fabric within the current building.

The barn at Boat House cannot be viewed in isolation, as it is an integral part of an agricultural landscape. It was part of a complex of farm buildings around a central fold yard. There is

evidence for a shelter shed on the northern side, suggesting animals were kept and bay 1 of the barn has been adapted to house animals. The barn was described as a 'corn barn' in a probate inventory of 1741 (WRO 11,803 b899:1196). The probate inventory of Richard Eckley of Eastham, who possibly was of Boat House (based only on the fact that the Eckley family were incumbent from at least the early 19<sup>th</sup> century) indicates other functions of the farm. It lists:

- □ 1 wagon, 2 carts, draw, 2 pairs of harrows, I plough, 6 horses and 1 colt
- 2 cows and 1 heifer, 1 sow and 2 pigs, 8 store pigs and 12 sheep.
- □ 6 acres of corn, 6 acres of grain, hay and clover in the buildings
- □ Hops growing on the poles
- □ Apples and Pears on the trees

There is also evidence of cider making and cheese production, although this may have been for domestic consumption. The Tithe Apportionment of 1843 refers to an apple orchard and a hopyard at the farm (WRO 1752  $\times$ 760/274).

In Eastham there are several timber-framed buildings displaying similar characteristics to the barn at Boat House farm. Old Farmhouse, dated to circa 1600 has 'long straight braces at the corners and 'V struts' (pair of raking struts) at the apex of the truss. Mill House, another circa 17<sup>th</sup> century structure also has twin queen struts and V struts. Lower Bank Farmhouse also has the long downward braces that are so typical of Worcestershire framing. The V strut is a feature at Stonehouse Farmhouse. The seven bay barn at Lower House Farm has similar trusses and trenched purlins. A further two barns, both circa 17<sup>th</sup> century, at Town Farm and Walker's House, both have downward braces and V struts (Images of England). It should be noted that none of the above buildings have been dated using dendrochronology.

## 6. Condusion

The results of the historic building recording determined that the timber-framed barn at Boat House Farm is likely to originally have been a four bay threshing barn dating from the late 17<sup>th</sup> century, with a further bay added in the early to mid-18<sup>th</sup> century when the building was modified. However, the building has

been subject to much repair and alteration reusing timbers from either other structures, or earlier phases of the barn. Much of the upper frame is of non-original timber. The structure has been under built and a lower floor room added to the central bay in the 20<sup>th</sup> century. The carpenter's marks are of two styles and many are missing from the sequences. Consequently, dating and phasing is largely conjectural.

# 7. Acknowledgements

The author would like to thank Martin Cook. Thanks are due to Mr and Mrs Jones, owners of the barn. The author would also like to thank Nick Joyce Architect's for supplying plans and elevations and allowing us to reproduce them; thanks are also due to Mike Glyde, Planning Archaeologist, Worcestershire County Council.

### **REFERENCES**

Cook, M (2003) Building Recording at Boat House Farm, Eastham, Tenbury Wells, Worcestershire

**Cook, M** (2003) Proposal and Specification for an Archaeological project (Recording of a Barn) at Boathouse Farm, Eastham, Tenbury Wells, Worcestershire.

Gaut, R.C (1939) A History of Worcestershire Agricultural and Rural Evolution, Worcester Press

**Institute of field Archaeologists** (1999) Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures

**Kenworthy, A.T** (1988) The Influence of Wind on the Orientation of Threshing Barns, pp 19-23 in, Vernacular Architecture **19** 

**Pitt, W** (1813) General View of the Agriculture of Worcestershire, David and Charles reprints

**RCHME** (1996) Recording Historic Buildings: A Descriptive Specification 3<sup>rd</sup> Edition

Wade Martins, S (1991) Historic Farm Buildings, Batsford, London

**Williams P** (2003) Mercian Archaeology Service Manual Worcestershire

**Worcestershire Historic Environment and Archaeology Section** (WHEAS 2002) Brief for an Historic Building Recording at Boat House Farm, Eastham, Worcestershire

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### THE ARCHIVE

Type	No	Type	No
Black and White Film	2	General Photocopies	√
Colour Film	3	Computer Disc	1
Photographic Record Form	2		
Fieldwork Report	1		
Site Drawing list	1		
Site Drawing Sheet	1		
Building Record Forms	5		
Site Notes	V		
SMR Search Details			

**GLOSSARY** 

Chiseled or scribed marks that match timbers that attach at a common Carpenters mark

ioint together. These are an aid to assembling the pre-fabricated

framework on site

Collar The transverse timber (above the tie-beam) that ties the principals Downward A diagonal timber brace that runs from a vertical to a lower horizontal

brace timber

Frame One complete section of paneling, which is jointed together between

posts

Gable The part of an end wall above the level of the eaves and below the roof

Gunstock A pronounced and angled step at the top of a post.

Jowel

**Jowled Post** A main structural upright post that steps out on the inner face at the top Lap-dovetail The common joint used to tie the post, wall plate and principal together.

ioint

Lattice-work Inter-woven cleft oak (or similar material)

Mortise The female part of a mortise an tenon joint; a slot into which a tenon

(Mortice) slides

Plinth A stone or brick foundation wall or course on which the sill beams sit **Purlin** A timber that runs longitudinally within the roof structure and supports

the rafters

Queen post A post that rises from tie beam to collar, these are found in pairs and

may also be called gueen-struts. They may be vertical or raking

(angled outwards).

**Rafters** Inclined timbers of the poof structure that meet at the apex, their

function is to hold the laths that support the tiles

Rail Any horizontal timber that runs between posts or rails

**Raking Struts** Also 'V' Strut. Appears as a V above the collar. The timbers are

pegged to collar and splay out to join the principals.

Ridge Purlin A timber that runs longitudinally at the apex of the roof structure and

supports the rafters. It is clasped into a right angle in the join of the

principals.

Scarf ioint A range of joints that allows a timber to be extended in length

Sill beam Timbers, either longitudinal or transverse, that sit on the foundation of

the building and the posts and studs are tenoned into

Square Timber-framing consisting of square panels between around 0.75m

panelling and 0.90m square

Stud Vertical timbers that tie into rails, sill or wall plates but do not support

principal rafters

Tenon The male part of a mortise an tenon joint

Tie beam The transverse timber that holds the bottoms of the principals in

position above a pair of posts

**Truss** A complete roof frame, usually comprising a pair of principals and all

the members between and including the tie-beam and the apex of the

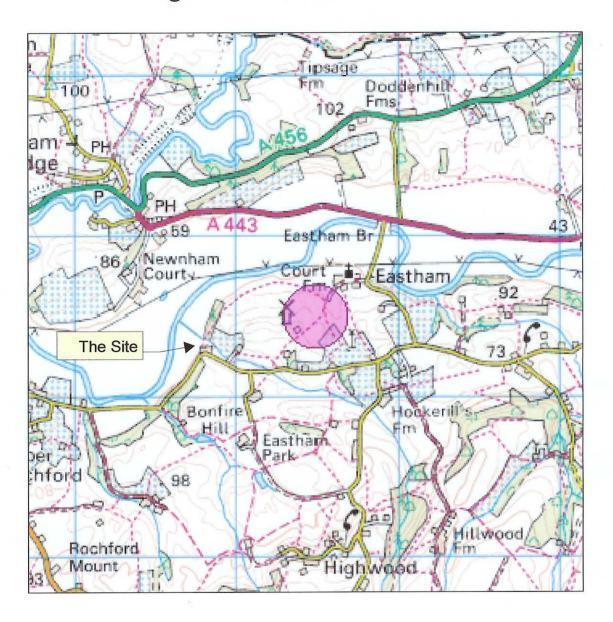
roof

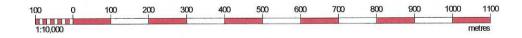
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Figure 1: Location of Site





Location of the site at Boat House Farm, Eastham, near Tenbury Wells

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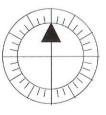
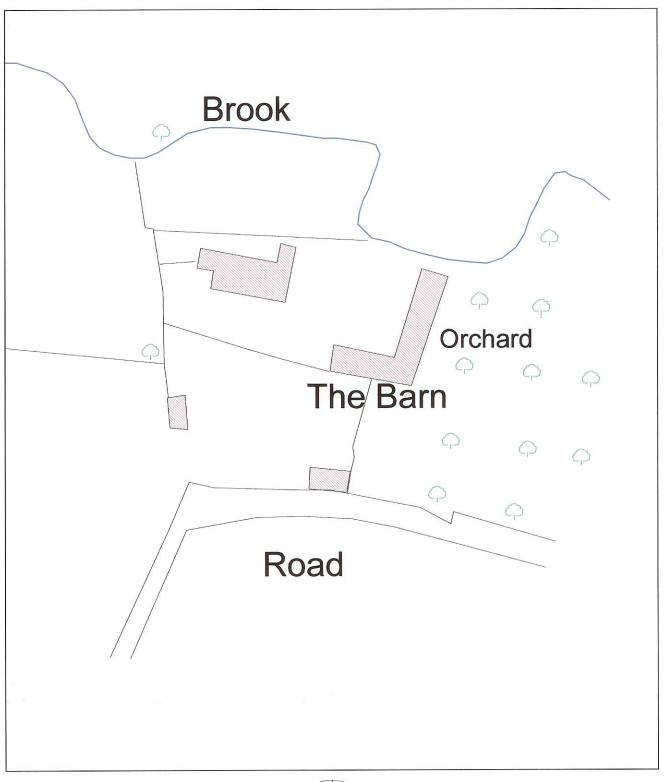




Figure 2. Extract from Eastham Tithe Apportionment Map (1843)

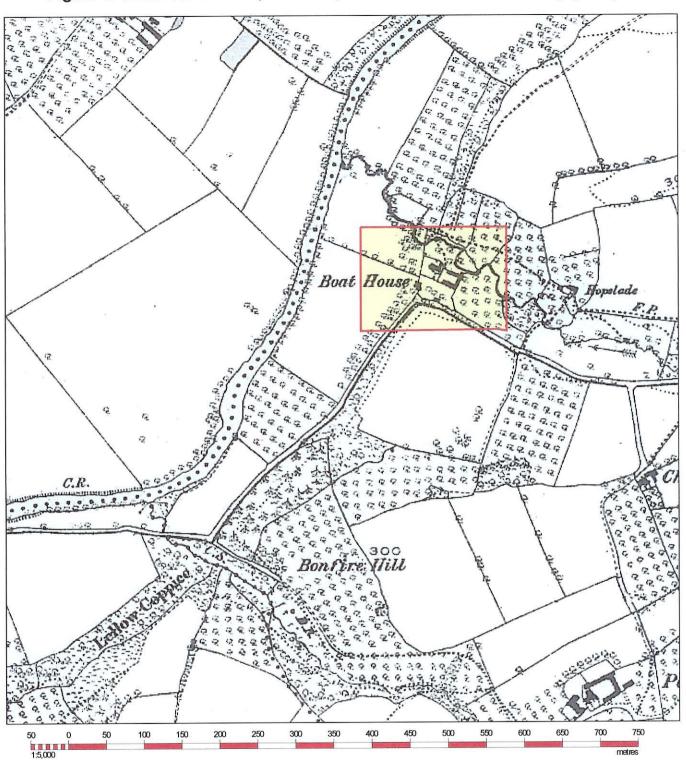


Tithe Apportionment of Eastham (1843) . Scale approx 1:1000. The map shows that the barn and the projecting building at the eastern end were built at least by this time.





Figure 3. Boat House Farm, Eastham; 1st Edition Ordnance Survey (1888)

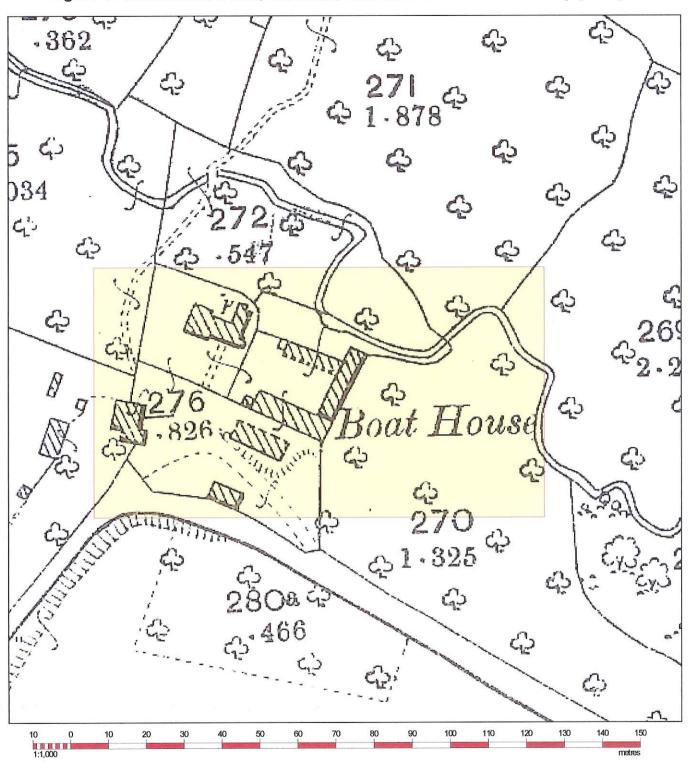


The 1st edition Ordnance Survey map shows the animal shed to the north, with adjoining building to the east and a central foldyard.





Figure 4. Boat House Farm, Eastham; 2nd Edition Ordnance Survey (1903)



The 2nd edition Ordnance Survey map shows the building to the north clearly having pillars across the southern elevation, evidence that it was open into the central foldyard.

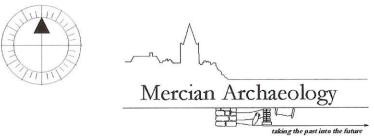
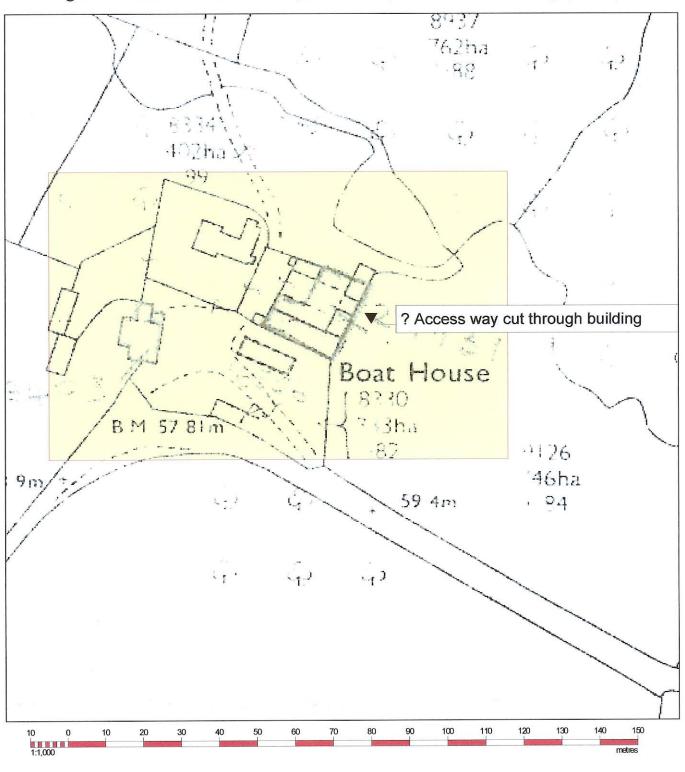


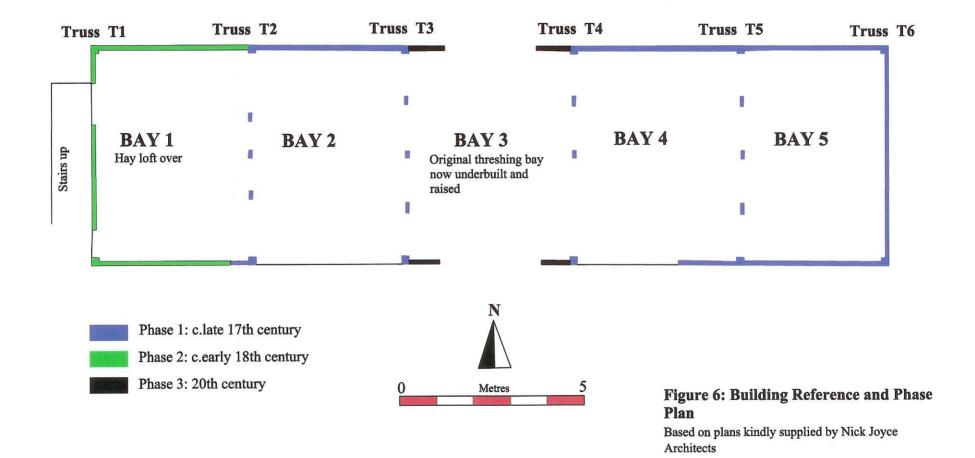
Figure 5. Boat House Farm, Eastham; Ordnance Survey (1971)



The 1971 Ordnance Survey map shows the building on the east apparently cut through the centre.







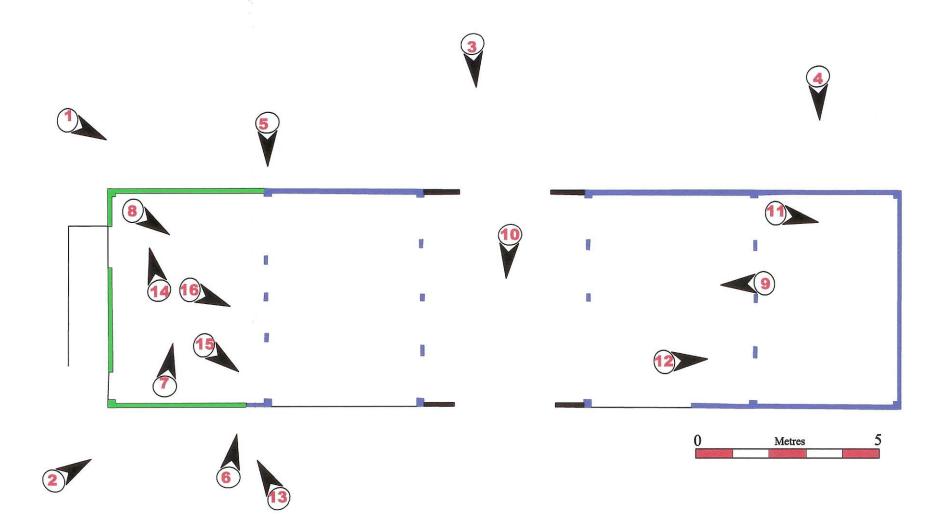




Figure 7: Direction of Photographs Used in the Report

Based on plans kindly supplied by Nick Joyce Architects

## Plate 1



North elevation of the barn



South elevation of the barn

### Plate 3



Post of the cart bay standing on the remains of the original sill beam, highlighting the extent of under-building on this side



Scribed carpenter's marks on a rail on north elevation of the barn

### Plate 5



Detail of frame showing a 'scotch' (notch in post for a supporting strut during the construction process). The diagonal strut (right) is clearly false and is nailed onto the frame



South elevation. The original brick plinth (right) and larger bricks of the plinth rebuild (left). The post of Truss T2 is the one on the right.

## Plate 7

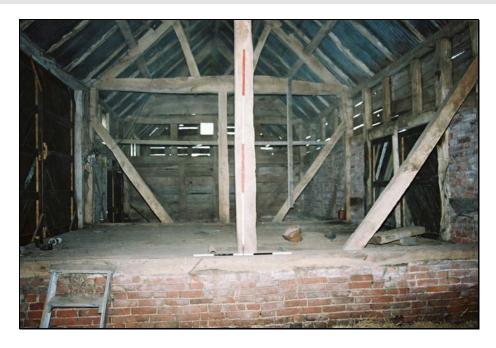


Bay 1 (lower) showing the inserted hayloft above and the part cobbled floor



Truss T2 from the hayloft looking through along the barn to the east.

## Plate 9

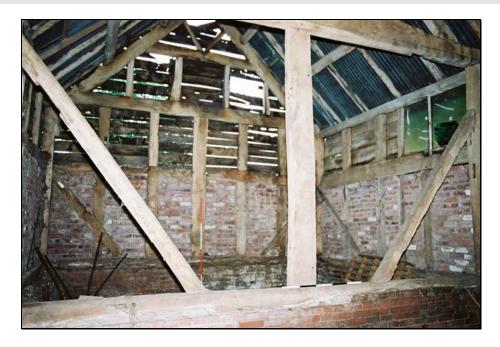


Bay3, originally the threshing bay, but now raised up and a room inserted below on the ground floor (see Plate 10)



Room below the threshing bay (see Plate 9)

## Plate 11



Truss T6 and Bay 5 from Bay 4



View along the barn to the east showing Truss 5 and Truss T6

### Plate 13



Unused peg holes on studs in Bay 2, indicating the position of a former rail forming square panelling



This purlin has been made from a re-used timber. Note the remains of the peg hole; showing the timber has been cut along its length

### Plate 15



Un-used mortises and stave holes in Truss T2 suggesting this was probably originally the external western end truss



A stave can be seen in-situ between the principal and the tie-beam on Truss T2. Note the empty stave holes to either side