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Crown Inn Barns, Lea, Herefordshire
building recording and archaeological monitoring

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2003

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Crown Inn Barns, Lea, Herefordshire: building recording and archaeological monitoring 2003

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Client: Mr Adsehead, Crown Inn Barns owner

Text: Huw Sherlock and Robert Williams

Project Manager: Huw Sherlock

Cover Photograph: Crown Inn Barns during the construction work

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Summary

A programme of archaeological monitoring and building recording was carried out during the conversion of the Crown Inn barns into three dwellings between June and July 2002. The main building was shown to be a typical threshing barn of 17th century date, whilst the adjoining cart shed must have been constructed after 1838. No archaeological features or deposits pre dating the nineteenth century were discovered during the excavation of trenches for underpinning the structure.

1.0 Introduction

NGR: SO 6624 2181

Herefordshire Sites and Monuments Record - **Event No 32133**

Hereford City Museum Accession No.: **HFDMG 2002-38**

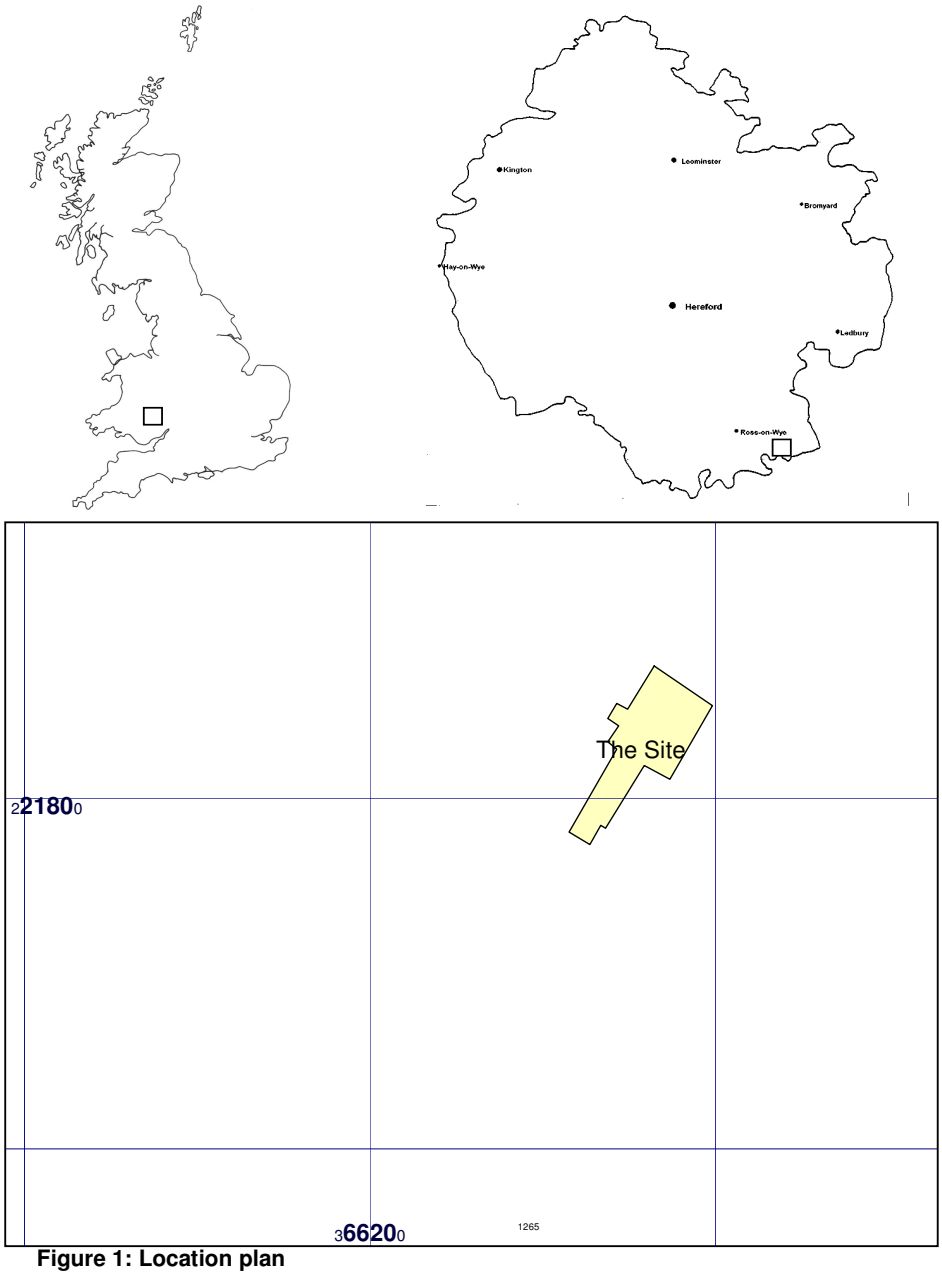

Figure 1: Location plan

Mr David Adsehead (the client) commissioned a programme of archaeological monitoring and building recording in accordance with a brief issued by the Herefordshire Council Archaeology Service. This was issued in response to planning application SE2000/0959/L for permission to convert three agricultural buildings into dwellings.

2.0 Geological, historical and archaeological background

2.1 Geological background and land use

The underlying solid geology is the Lower Old Red Sandstone (British Geological Survey Ten Mile Map, 1979). The site was in use as agricultural buildings and a yard.

2.2 Historical background

For earlier names of Lea, Bruce Coplestone-Crow (1989) records *Lecce* in Domesday, *Leche* in the Hereford Domesday (1160-70) and *Lacu* in 1201. He considers that Lea is simple the Old English *lēah* – 'clearing' although it is also considered that *lēah* might mean the presence of woodland nearby rather than a clearing in the middle of wooded country (Smith, 1956, pp18-22).

Not everyone has agreed with this meaning of Lea. Brian Cave, writing in 1982, uses a more common derivation – that Lea is derived ultimately from the Old English *lacu* – 'stream' or 'water-course'. It would then be similar to Leake in Lincolnshire, which had the name *Leche* in Domesday (Ekwall, 1960).

However, Lea was, until 1844, in two parts – in addition to the Herefordshire part there was also a Gloucestershire part. In Domesday the Herefordshire portion of Lea, in Bromsash Hundred, was a manor of St Peter's abbey at Gloucester – a gift of Walter de Lacy (Thorn and Thorn, 1982) while the Gloucestershire portion, *Lega* in Letberge Hundred, was, a possession of the bishop of Coutance (Duncumb, 1812). In the time of Edward the Confessor, the Gloucestershire Lea had been held by Algar while Ansgot held the Herefordshire Lea.

Like many of the Norman-French immigrant nobility, the de Lacys were benefactors of the church. Walter de Lacy built St Peter's church in Hereford and in 1085 died inspecting it during construction work. His son Roger inherited his lands and is recorded as holding them in Domesday. Another son, Peter, became Abbot of Gloucester.

The two manors of Lea were united in 1592 when the sixth Earl of Shrewsbury, who had the Herefordshire manor, died. The proprietor of the Gloucestershire manor, Richard Hameline, then purchased the other part (Duncumb, 1812, p 401).

When the Ross to Gloucester Road was turnpiked in 1726 one of its toll-gates was at Lea where a riot against it occurred in 1731 (Cave, 1982, p12).

The Crown Inn is a building of the late 15th century with later alterations (RCHM, 1932).

2.3 Archaeological background

Almost no fieldwork has taken place in the area, although a great deal of attention has been paid to the Roman site of Ariconium just to the north of Lea.

In the parish itself a documentary assessment of Castle End Farm was undertaken in 1998 (Boucher, A).

3.0 Project aims and objectives

The aims of the project were: -

- To monitor all groundwork undertaken by the contractor.
- To make a record of the extent and depth of all such groundwork.
- To make a record of any archaeological features or deposits exposed.
- To record the presence of archaeological material within the trenches and in the spoil removed during excavation, and to retrieve any potential dating evidence.
- To make a record of all finds and any environmental material recovered.
- To ensure that if any environmental evidence was preserved, that a sufficient sample be retained to allow for further analysis.
- To ensure that the location of the area excavated was accurately recorded on a suitably scaled plan.
- To record negative evidence and to consider its implications.

4.0 Methodology

4.1 Field methodology

The following methodology was employed: -

- Suitably qualified archaeologists monitored all activity that involved disturbance of the ground surface.
- An assessment of the archaeological significance of finds, structures and deposits was made and appropriate action taken.
- Structures and stratigraphic sequences observed were recorded on scaled drawings and the position of all work disturbing the ground, and any archaeological features, was located on them.
- The presence of artefacts was recorded with a description of type, quantity and original location. The spoil was scanned for significant finds but in fact none were observed.
- All descriptions of structures and deposits, photographic records and drawing numbers were recorded on the relevant data capture documents in accordance with Archenfield Archaeology's standard site recording procedures.
- Significant features were, where possible, photographed next to an appropriate scale rule, and a board displaying a unique context number. Each photographic exposure was recorded in the photographic log.
- Staff carrying out the monitoring of the groundwork followed the guidelines laid down in the Archenfield Archaeology Health and Safety Policy
- Archenfield Archaeology conforms to the Institute of Field Archaeologists' Code of Conduct and code of Approved Practice for the Regulation of Contractual arrangements in Field Archaeology. All projects are, where applicable, carried out in accordance with IFA Standards and Guidance or Draft Standards and Guidance.

4.2 Processing methodology

All retained artefacts and ecofacts were processed, catalogued and conserved as appropriate.

Very few ceramic or other finds were recovered during the fieldwork. The retrieved assemblages were assessed in terms of there potential for further study. It is not considered that sufficient material has been retrieved to allow for any further analysis to be usefully conducted.

All artefacts retrieved during the fieldwork have been included in the site archive and will be deposited with Hereford City Museum.

All data were entered into a Microsoft ©Access relational database.

5.0 The results

5.1 The building

Methodology

The building and its setting were assessed and analysed by suitably qualified employees of Archenfield Archaeology.

A plan at ground floor level at a scale of 1:50, (based on the architects drawing) along with truss drawings were annotated to include archaeological features such as peg holes and empty mortices etc.

The list of truss drawings is as follows: -

Truss A	
North Frame (Internal south face and part reconstruction)	Scale 1:50
Truss B	
North Intermediate Frame (north face)	Scale 1:50
Truss C	
South Intermediate Frame (north face)	Scale 1:50
Truss D	
South frame (north face)	Scale 1:50
South frame (north face) (reconstruction drawing)	Scale 1:50

Scaled photographs were taken of all areas where alterations were to be made both internally and externally using a medium format camera with colour film. Additional photographs indicating architectural features and alterations were taken using a 35mm camera with colour print and slide film.

The building in general

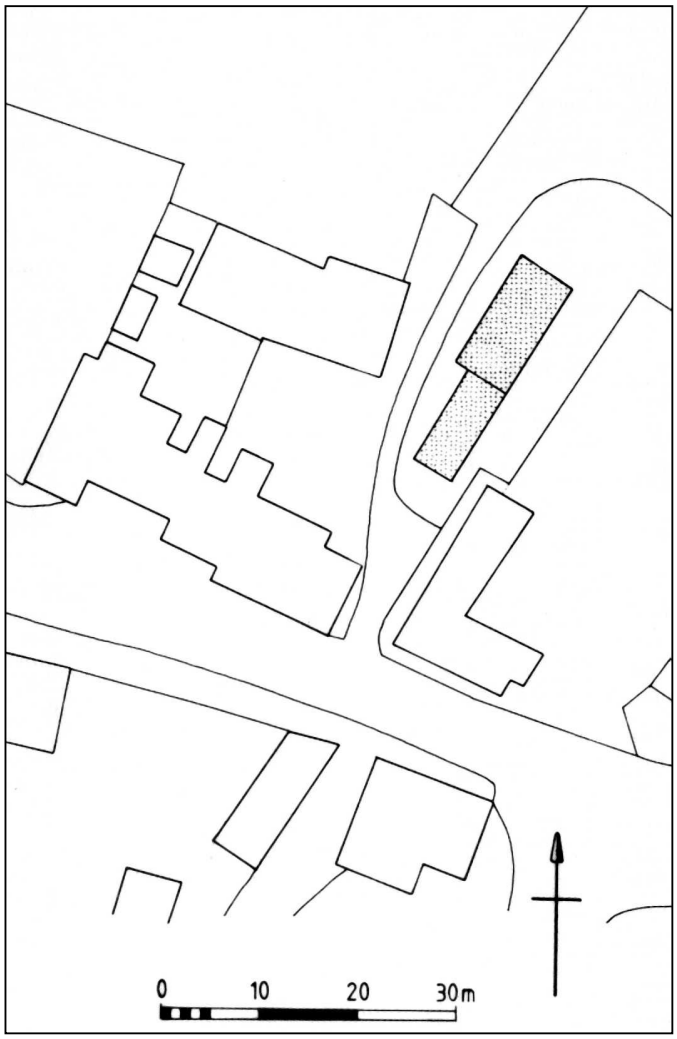

Figure 2: Plan of the site boundaries as they were at the start of the project. The barns are shown in grey.

The barn as it stands today is not listed in the Royal Commission of Historic Monuments and is situated 50m north east of the Crown Inn, public house at Lea, Herefordshire, close to the Gloucestershire border.

The barn lies in a north-east/south-west orientation but for ease of description within this report, a site north indicates that truss A is directly north in relation to the barn complex and truss D is at the south end. Both site north and true north can be seen on the ground floor plan (Figure 3).

As it stands today the barn measures 13m in length by 6.2m wide and is of a box timber frame construction built on a shallow rubble coursed stone plinth. This barn has one storage bay either side of the loading/threshing floor with the usual lay out of doors at opposite ends to it. The original in-fill of the panels has been lost at some stage and now the exterior is clad in horizontal weatherboarding. A narrow out-building extends south from the southern end of the barn.

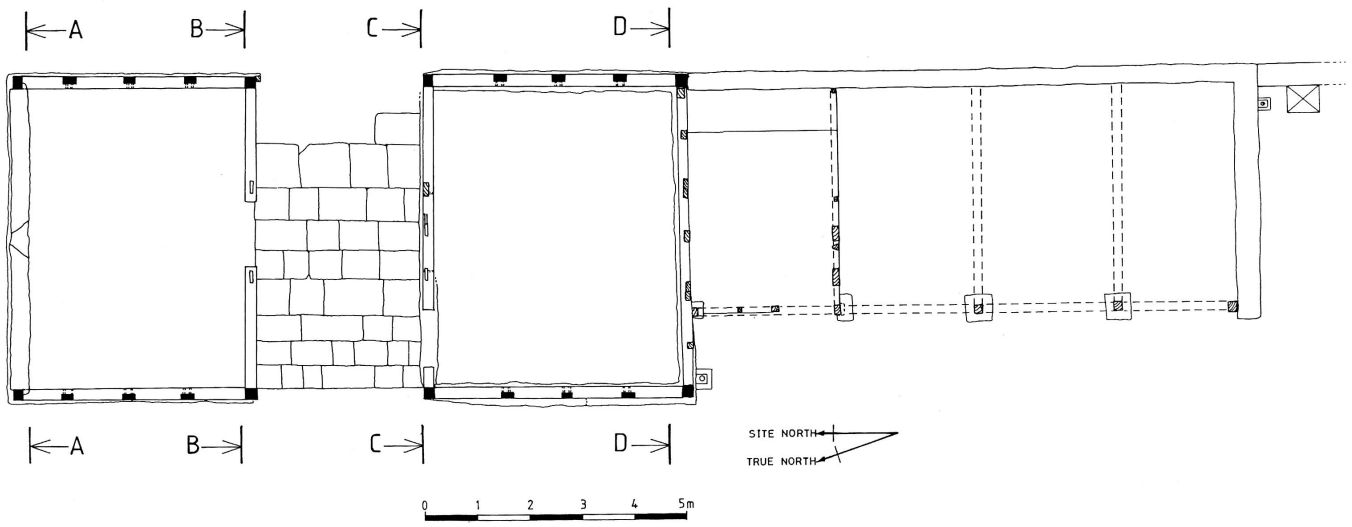

Figure 3: The ground plan of the building.

The Roof

The gabled roof has a high pitch and is presently covered in corrugated iron sheeting: beneath these battens survive. Normally this type of angled roof would have had a covering of thatch. The common rafters also survive making the roof timbers fairly complete. The roof has racked or sloped to one side due to a lack of original wind braces. There are however two inserted wind braces within the roof but these have had little effect in preventing the roof from slipping further. The single tier of through purlins is trenched into the principal rafters.

The Frames

Frame A (see Figure 4)

The west queen strut within the truss of frame A has been re-used, as it contains an empty through mortice, with double pegs. This does not make sense for any other timbers to be joined to it for this frame. The two outermost struts are also inserted as they are simply nailed to the frame. Stave holes are apparent on the underside of the collar suggesting that this end frame was in-filled. The external face has been weatherboarded down to the tie beam and a repaired area within the boarding could suggest a pitching hole. The timber framing beneath the tie beam has at some stage been removed and replaced with a stone in-fill. There are remains of lime plastering on the internal face and lime wash on the external face of this stone wall. The tie beam is in a poor state of repair but still holds enough evidence for the positioning of the original studs.

The jowled posts of this truss are exposed on their external north faces and reveal pegs and mortices for the horizontals or rails for the original framing (see

Figure 5) to see how the frame has been reconstructed from this evidence.

Both posts are sitting on the original sill beam for this frame but it is unclear if the sill has been chopped back or still runs across the frame within the inserted stonework. Vertical construction breaks are evident on the internal south face of this elevation where the posts of the truss are covered with stone. A centrally placed slit shaped air vent within the stonework has splayed internal edges.

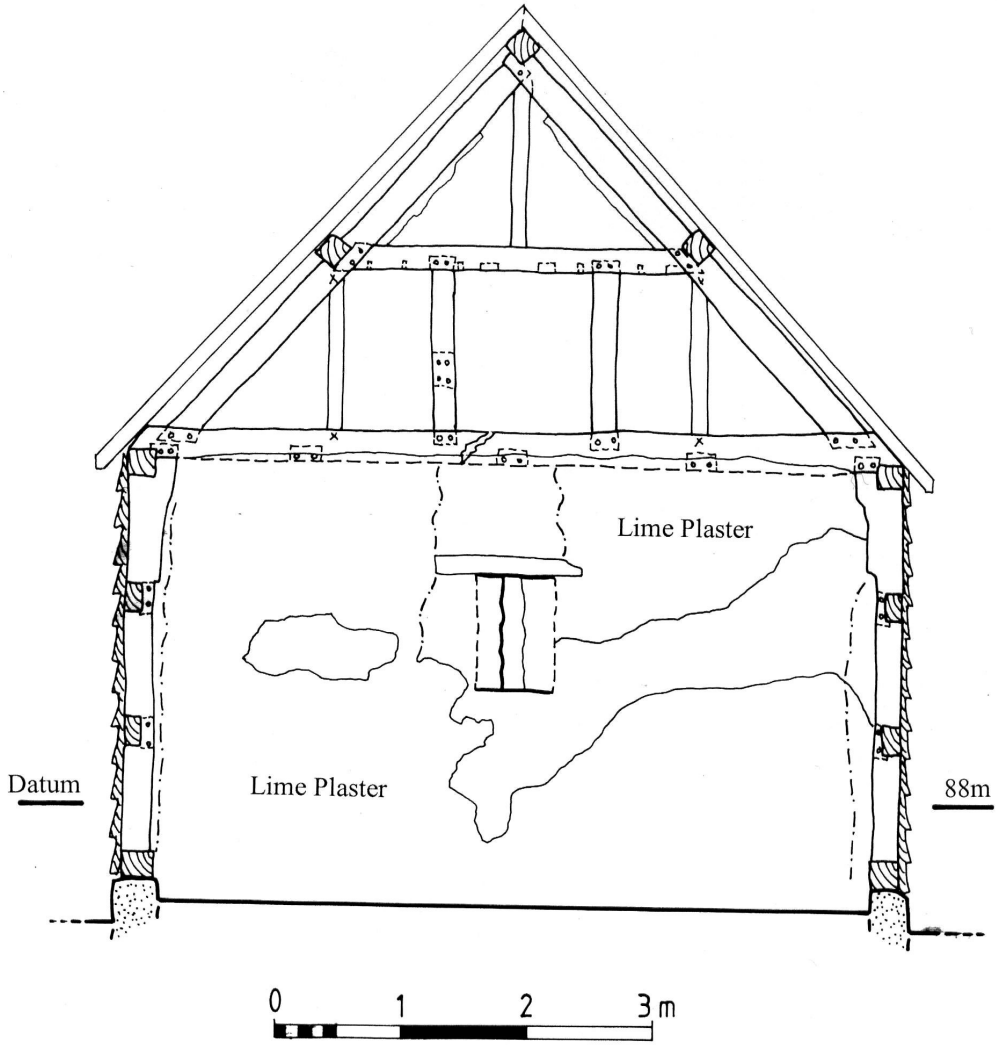

Figure 4: Frame A, south internal face

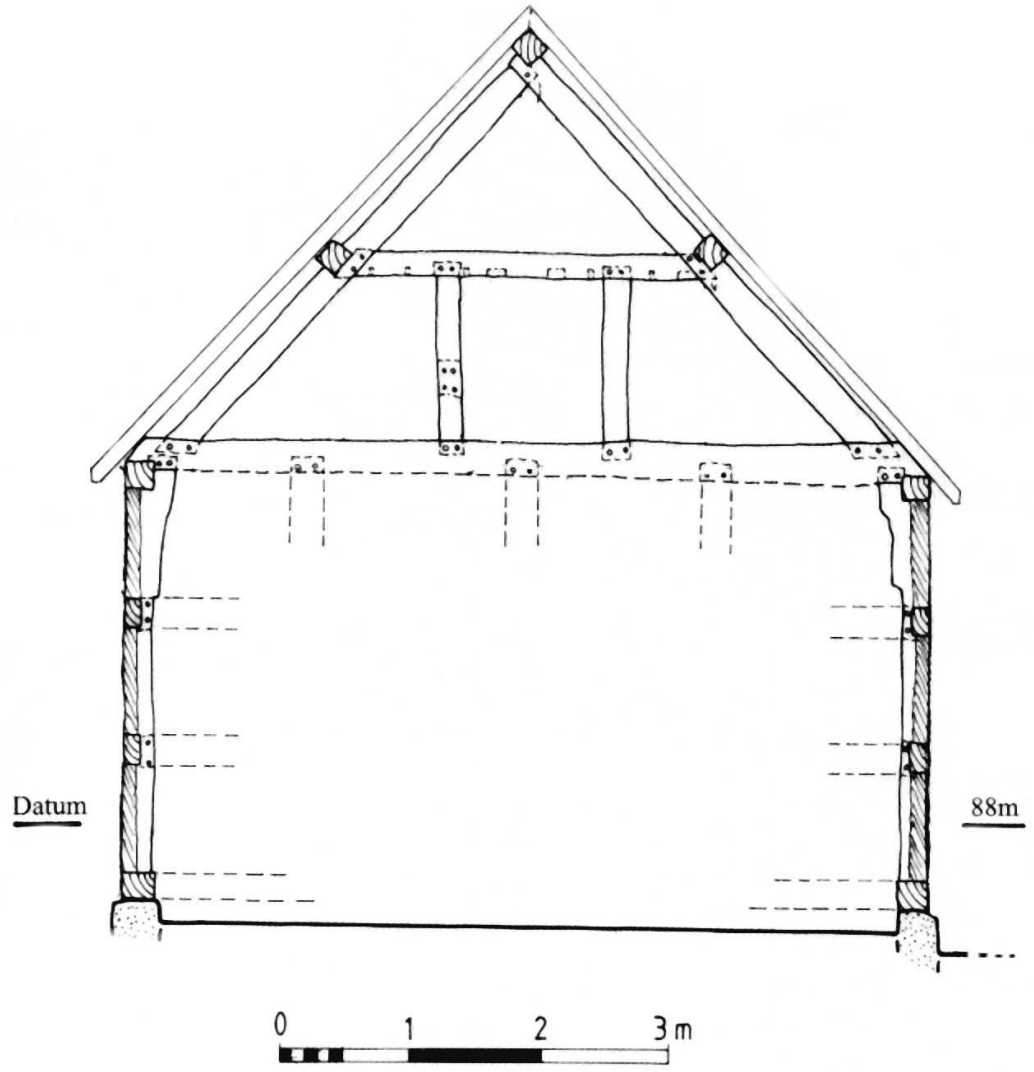

Figure 5: Reconstruction drawing of frame A.

Frame B (north intermediate)

This north intermediate truss was originally open within the truss area, as there are no stave holes on the undersides of the principal rafters. The truss consists of a tie beam with angled struts to the principals and all the timbers are doubled pegged. Both the main posts have jowled heads. On the south face of this truss, carpenters marks on the tie beam were seen consisting of chisel and scribed types.

At the ground level, a sill beam runs from east to west and is cut by a centrally placed opening. This sill beam sits on a stone rubble plinth positioned slightly higher to the sill beam to the rest of the barn. It is double pegged to the feet of the main posts of the truss and also joined to this beam, were two angled timbers from each main post beneath their jowled heads. An empty shallow mortice on the underside of the tie beam was for a vertical timber that also would have joined the sill beam. Unfortunately the stone wall and the cross sill beam had been removed before the frame was recorded. Archenfield Archaeology staff had, however, previously photographed the frame and completed the ground floor plan. As truss C also had a lower stone cross-wall with a sill beam, a presumed reconstruction drawing, together with the photographs was attained. For a clearer picture of how the frame was originally see figure 6.

Frame C (south intermediate)

This truss is of the same design as truss B in detail (see Figure 7). The two angled struts above the tie beam have two outer inserted struts giving the purlins extra support as the western principal rafter has split directly beneath the position of the purlin. As with truss B there is a lower east-west running sill beam sitting on a stone plinth that has also been cut through by an opening. This is positioned towards the western side of the barn. The lower cross sill beam has three mortices cut into its top face. The two outer mortices are single pegged and have carpenters assembly marks and the central one is an un-pegged slip mortice. The centrally placed, shallow mortice on the underside of the tie beam also has no peg holes. Carpenters marks are seen on the north face of this truss and they are of a half moon type.

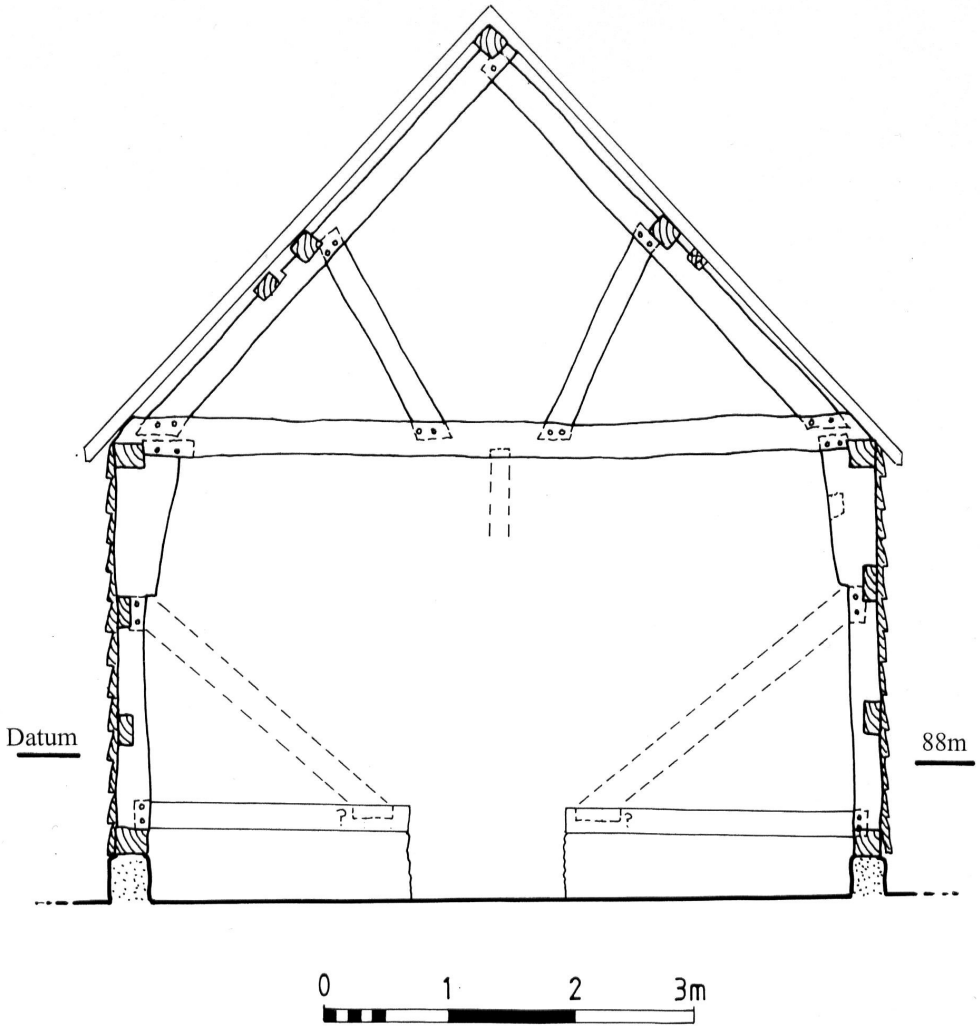

Figure 6: Frame B, north intermediate (partly reconstructed).

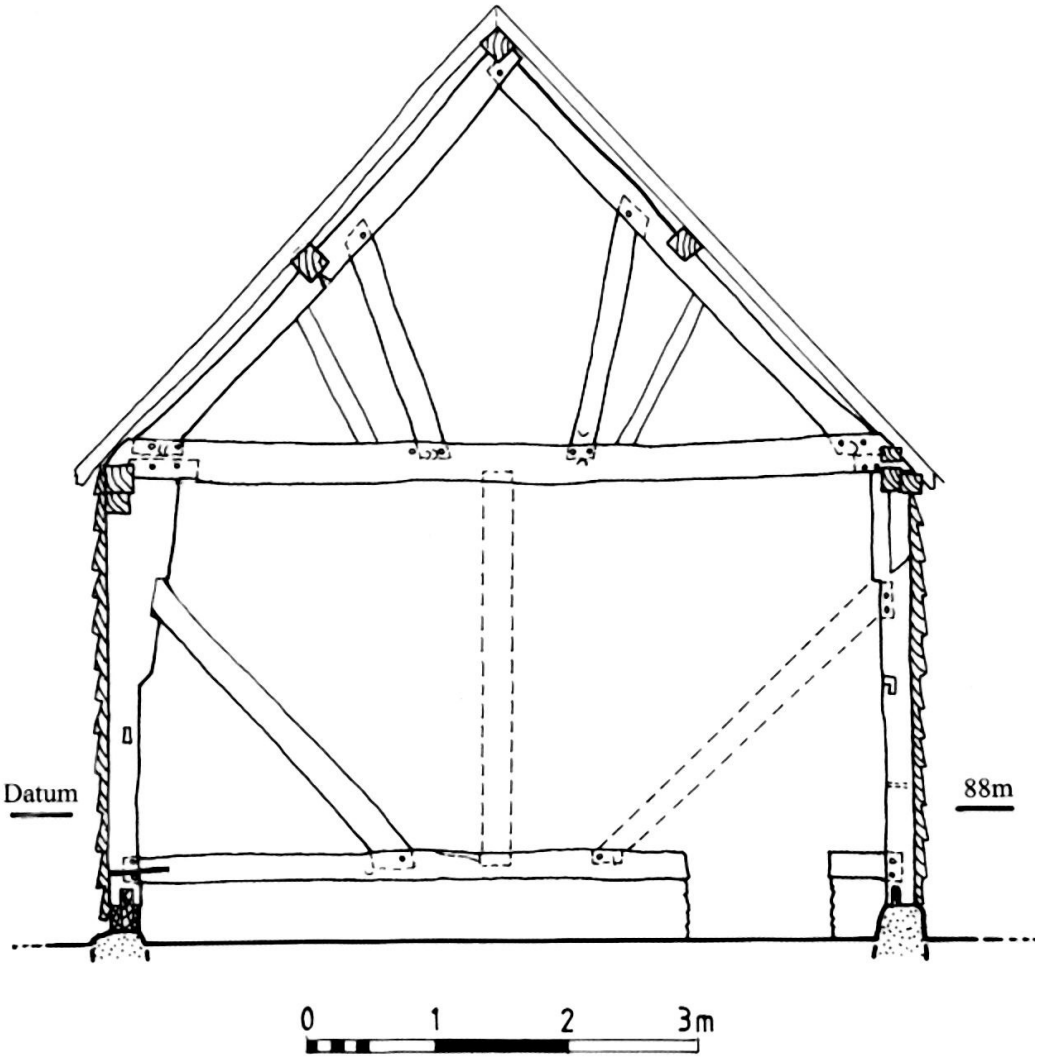

Figure 7: Frame C, south intermediate (partly reconstructed).

Frame D (see Figure 8 and Figure 9)

The stone plinth running east-west supporting this frame has been inserted and its footings are shallower in depth than all the other footings.

The sill beam has been bolted to the bottom of the main posts and positioned just above the original sill beam to the rest of the barn. There are various random peg holes along the face of this timber indicating that it is re-used.

The in-fill timbers making up this end frame are also re-used or are of a modern date. The only original framing seems to be two angled braces attached to the main jowled posts, to the underside of the tie beam. The western brace is missing but the mortice still survives with peg holes. Above the tie beam there are two original angled struts with two outer inserted struts, helping to support the roof. The centrally placed vertical timber is also inserted. Carpenters marks on the north face of the tie beam are of a chiselled type.

On the southern face of the main posts are pegged mortices for lost rails, indicating that the barn continued in a southern direction for at least one more bay. The outer face of this frame is covered in horizontal weatherboarding and over this is corrugated iron.

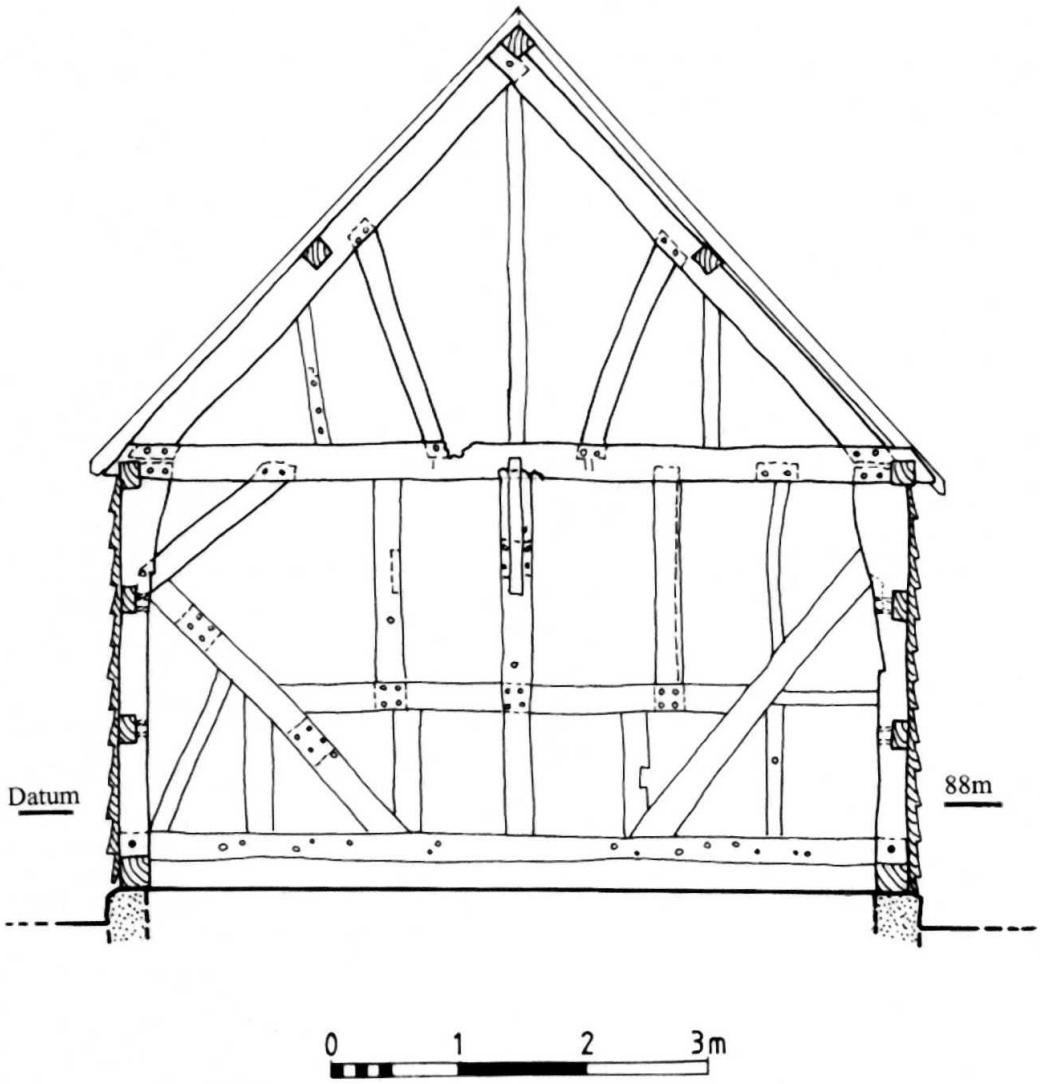

Figure 8: Frame D. north face

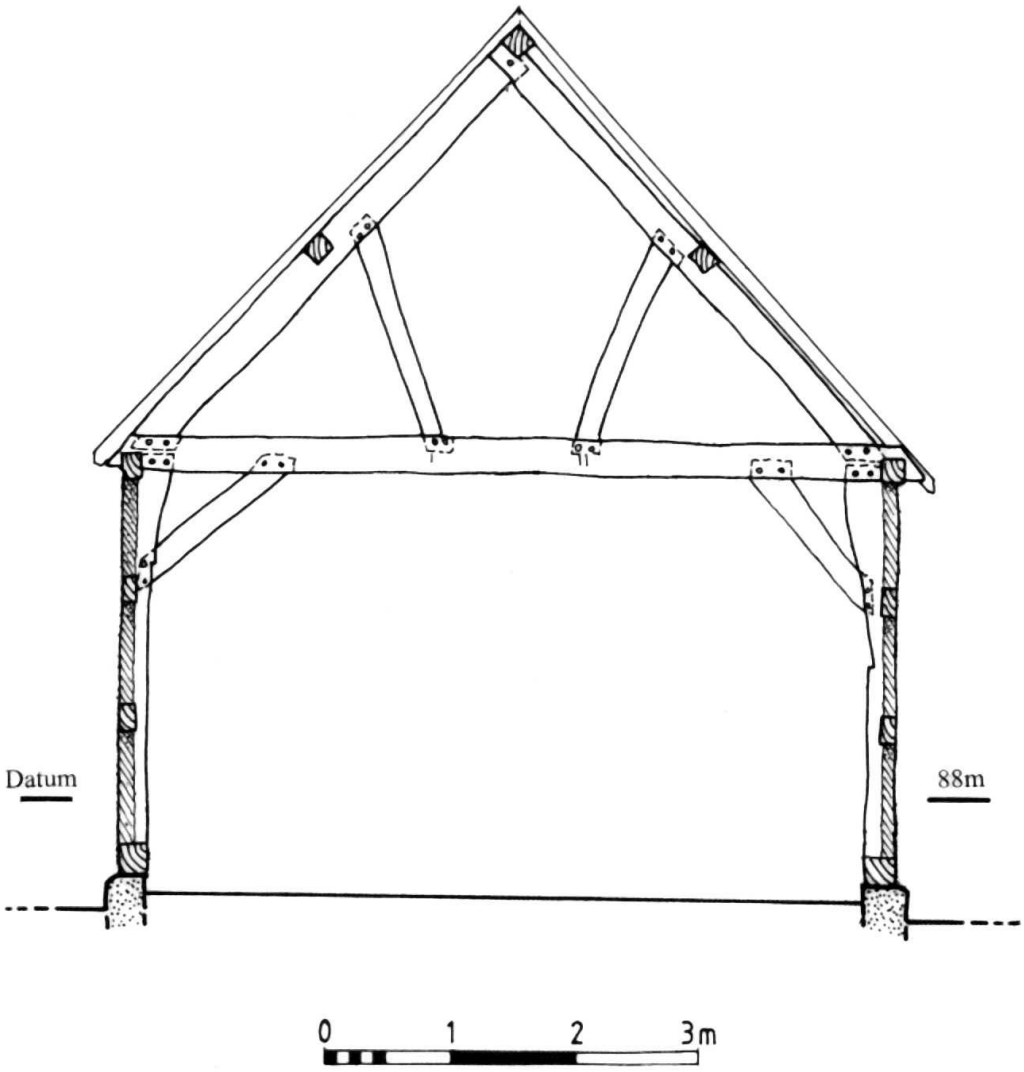

Figure 9: Frame D, showing the original open framing.

Internal

The threshing bay is slightly narrower in width than the storage bays on either side and is losed off by shallow stone plinths with timber framing above. This practice of separating the threshing floor from the bays began in the Midlands in the 17th Century. The type of framing used in this barn is a normal pattern for this area. The bracing reinforced the walls against the wind and pressure exerted by the crops housed inside and might also reinforce the doorposts against the weight of the doors. It also helped to keep the loose crop or straw inside the bays and separate them from the threshing floor. The two entrances cut through the lower stone plinths either side of the threshing floor were for access.

Plate 1: The threshing floor.

The floor of the threshing bay is covered with flagstones set in a deep 0.05 metre bed of lime mortar. These were large, long blocks of well-dressed stone and at the door entrances, long narrow stones were placed. These stones weren't weathered enough to be original and were therefore probably replaced at some stage (see Plate 1).

Internally on the east and west elevations of the southern storage bay, are inserted diagonal bracing. These have been added to stop the barn from racking further.

On the east elevation by the threshing door towards the south end, the stone plinth had collapsed and a short timber has been inserted to help fill the gap. The sill beam and the inserted timber are joined together with the foot of the post with a pegged slip tenon.

Plate 2: Detail showing the slot cut into the sill beam.

On the east and west elevations, the bottom edges of the lower rails and the top face of the sill beam have cut slots, possibly implying that vertical boards filled the bottom panels. This occurs on all the lower rails in the barn. The upper two panels on the east and west frames have the usual upper stave holes with a groove on the bottom to take staves or wattles for the in-fill of the panels.

Southern out-building

This narrow single storey out-building attached to the barn extends in a southern direction. It is of four bays and open on the west elevation. The south and east walls are composed of sandstone rubble walling. The south gable wall has well-dressed squared quoin stones on the east and west corners.

The three trusses in the roof are all identical having a tie beam with angled struts to the principal rafters. All the joints are single pegged and the single tier of purlins are tenoned through the principals. The roof is covered with slate.

The west posts of the trusses have narrow chamfers on all sides and are set on either worked pad stones or modern concrete pads.

The northern bay is a small livestock pen while the other three form a cartshed or shelter shed for cattle. This northern pen has been closed off with re-used timber framing covered in weatherboarding and corrugated iron sheeting.

Conclusions

The barn rests on a stone plinth that goes beneath the present ground level to an average depth of 1 metre. This substantial depth of footing may have been required because of the erosion of the clay subsoil by the nearby springs and Rudhall Brook.

Truss D was originally open framed as all the present in-fill of timbers are either re-used or modern therefore suggesting that this frame could not be an end frame. Some of these timbers could possibly be the framing from the lost bay or bays to the south as evidence of mortices on the southern faces of the posts suggest the building originally continued southwards.

During the excavations around the barn for services, no evidence was found to say how many bays were lost, as the trenches were limited mainly to the edges of the stone plinth. As the cart shed is to be retained, no trenches were dug in what is probably the best area to ascertain the true length of the original barn.

This timber-framed barn is a typical threshing barn of the 17th Century built throughout the Marches and Gloucestershire. The carpenter's marks on the trusses are either scratched, chiselled or of a crescent shape, these types of marks usually date to the later part of the 17th Century.

The adjoining cart or shelter shed, which is a much more modern design, is not seen on the Tithe map of 1838 but is present on the 1886 OS map. Therefore the building dates to around the middle or late 19th Century.

5.2 The watching brief

The excavation of trenches to allow the underpinning of the barns was observed by suitably qualified archaeological staff.

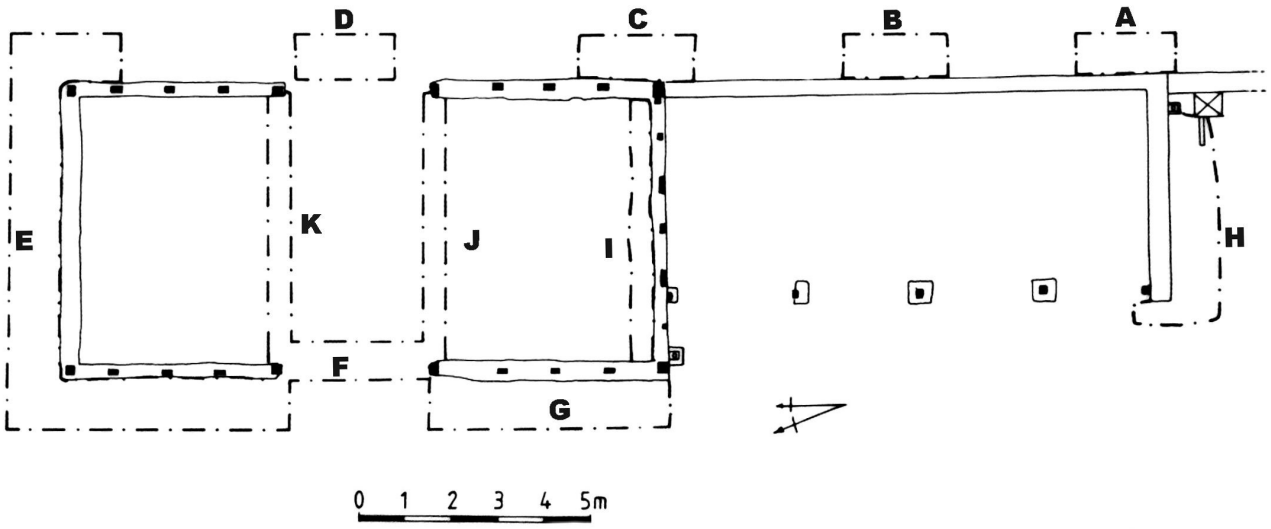

Figure 10: Ground plan of the barns showing the location of the trenches monitored during the watching brief.

On the eastern side of the barn the footings of the building were exposed in a series of trenches dug to allow underpinning work. The footings of the building were shown to be very substantial, being constructed of roughly coursed blocks of unfaced sandstone rubble (up to 1.2 metres x 350 mm), which extended to a depth of between 1 metre to 1.5 metres.

Trench A:

Dark humic topsoil mixed with ash and mortar and very loose and friable up to 0.4 metres deep overlay a mid-red sandy clay which became progressively more waterlogged at the base of the trench. The footings of the building were exposed up to a depth of 1 metre. No archaeological finds or deposits were found to be present in this trench. Excavation stopped at 1.25 metres from ground level (84.05OD)

Trench B:

A thin layer of topsoil (150 mm) overlay a band of decayed lime mortar (200mm thick) that in turn overlay mid-brown sandy silt. This overlay a layer of mid-red sandy clay. The footings of the building were again exposed up to a depth of 1 metre. Excavation stopped at 1.25 metres from ground level (84.05 OD).

Trench C:

A layer of topsoil mixed with hardcore (1) 100 mm thick overlay a band of decayed lime mortar (20) 400 mm thick, which in turn overlay a layer of ash mixed with clinker and charcoal (3) 50 mm thick. This lay over a layer (4) of mid brown sandy silt. At 0.9 metres from the surface a layer (5) of large, irregular pieces of vitreous slag in a matrix of mid-brown sandy silt was encountered. This extended for 1.7 metres along the eastern section of the trench. A sample of slag was kept. This

layer was over the mid red sandy clay. The footings of the building were again exposed up to a depth of 1 metre. Excavation ceased at 1.6 metres (83.70 OD).

Trench D:

Topsoil heavily mixed with ash and hardcore 150 mm deep overlay mid-red sandy clay with patches of grey clay within it. This became progressively more clayey at depth. The trench was excavated to a depth of 1.6 metres (83.70 OD).

Trench E:

A layer of topsoil 150 mm overlay a layer of mid brown clay with silt (450mm) which was very disturbed, with patches of charcoal, ash and building debris within it. This overlay the mid red sandy clay at the base of the trench. The bottom of the trench (at 83.48 OD) was very wet and quickly filled with water. The base of the rubble stone foundations was exposed. These extended below 1 metre below the ground. This trench was extended inside the building to expose the top of the stone plinth. In places it joined through to the trench outside. The plinth was revealed as being of a rubble stone construction consisting of three or four rough courses with a marl binding.

Plate 3: Showing a section through trench E and the exposed footings of the building.

Trench F:

This ran north-south directly at or below the western entrance into the building. This trench was 350 mm wide and 300 mm deep. Both the east and west sections of the trench had a layer of crushed stone/rubble, probably a makeup layer for the stone floor of the threshing bay.

Trench G:

A thin layer (approximately 100 mm) overlay a heavily disturbed layer consisting of mid red sandy clay with frequent inclusions of stone and brick. The trench was excavated to an average depth of 1.5 metres (86.13 OD).

Trench H:

A layer of dark humic topsoil 100-150 mm thick lay over a heavily disturbed mid brown silty soil. This had been previously disturbed by the insertion of footings and a drain which ran parallel to the end of the cart shed. Several sherds of 19th century 'mocha ware' was recorded and retained. At the base of the trench (1.05 metres, 85.87 OD) several pairs of leather shoes, some with rubber soles were recovered.

Trench I:

A layer of mid red sandy clay extended from the floor of the barn to the base of the trench. It had been previously disturbed by the insertion of drainage pipes and a large amount of broken roof tile was observed. Excavation was stopped at 1.2 metres (84.01 OD).

Trenches J & K:

These two trenches were excavated inside the building and were both 0.7 metres deep. They were both cut into the mid red sandy clay and no features were visible within them.

5.3 The pottery

A total of 18 sherds of pottery were retained for further analysis. These consisted of 7 body sherds, 5 rim sherds and 6 base sherds. All were dated to the nineteenth or early twentieth century. The fabrics recorded as present included salt glazed earthenwares, pearl wares, mocha ware and transfer printed wares. All the pottery has been retained and will be deposited with the archive.

6.0 Conclusions

The evidence from the watching brief indicates that no features or deposits of medieval or early post medieval origin survive in close proximity to the building. This may be as a result of the ground level having been lowered, but in any case the only below ground intrusions that were recorded were trenches excavated for the underpinning of the existing foundations. Features and deposits relating to the earlier occupation of the site may still be preserved further away from the building. The foundations of the barns were shown to be very substantial, especially along the eastern side, and this may be because the ground is low lying and tends to be very wet. The lack of any dating evidence earlier than the nineteenth century tends to confirm the evidence from the analysis of the building that the cart shed dates from this period.

7.0 Archive deposition

The primary project archive, consisting of the excavated material and any original paper records, will be prepared and stored in accordance with the guidelines laid down in the Institute of Field Archaeologists' guidelines for the preparation and storage of archives. The primary archive will be stored with Herefordshire Museum Services.

A copy of the digital archive, stored on CD and consisting of context, artefact and ecofact data, together with the site plan and selected photographs, will accompany the primary archive.

The client, in consultation with the project manager, will make provision for the deposition of all finds from the excavation with the Hereford City Museum. On completion of the fieldwork and the processing, collation, recording and analysis of the finds from the excavation all finds will be handed over to the museum staff, along with the project archive. Arrangements will be made with the museum for the transfer of title.

8.0 Publication and dissemination proposals

Paper copies of this report will be lodged with the Archaeological Adviser to Herefordshire Council, Herefordshire Sites and Monuments Record and Hereford City Library. A short note on the project will be prepared for publication in the Transactions of the Woolhope Naturalists Field Club.

CDs of this report, together with the supporting archival material will be available from Archenfield Archaeology.

The complete photographic record, including the negatives, will be retained by Archenfield Archaeology.

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Cartographic material

Tithe Commissioners, 1838	Lea Parish Tithe Map
Ordnance Survey, 1886	1st edition 1:2500 plan. County Series, Herefordshire Sheet LII SW

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