

The investigation of a barn
at
DAIRY FARM, HIGH STREET
CHINNOR, OXFORDSHIRE



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for
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THE INVESTIGATION OF A BARN AT DAIRY FARM, HIGH STREET CHINNOR

Introduction

This report records the fabric of an unlisted barn at Dairy Farm, High Street, Chinnor and was commissioned to fulfil a condition of Conservation Area Consent (Application No P05/E1344/CA) requiring a full written and photographic survey prior to its demolition. The plan and elevations included in the report were supplied by Jeffrey Charles Emmett, the photographs were taken by the author.

Description

The barn was situated on the north-east side of the High Street, parallel to but distant from the street frontage, and backing onto open fields. It had external dimensions of 11.9m by 5.7m, an eaves height of 1.9m and a ridge height of 5m. As surviving at the time of the survey it consisted of four bays, each c.3m long, with a half-hipped roof at the north-west end. It was truncated at the south-east end and replaced by a concrete block building, which had already been demolished (Fig 1). The roof was covered in peg tiles with the initials F.J.N picked out in brighter red tiles on the south-west slope. It was originally an open-sided timber-framed building (probably elm) of pegged construction with five surviving trusses and was clad in weather-boarding at a later date.

Each truss comprised a pair of posts carrying a tie beam and had principal rafters yoked at the apex; these were joined by a straight collar. Queen posts supported the upper purlins which were clasped between collar and rafter, and raking struts the lower. The jowled heads to the posts had small carved basal consoles and were morticed for a continuous wall plate set below the tie beams; three-way curved braces to the wall plate and tie beams were tenoned into the posts. The post feet had rotted and been replaced by stone blocks except for Truss 2 NE which retained its original base; a square, chamfered wooden block set on a low brick pier. The original frame was in poor condition and had been repeatedly repaired; the roof bays had long inserted diagonal braces to counteract racking; structural problems are discussed in greater detail in Emmett 2005.

Bay 1 –Truss 1 which formed the NW end of the building sat on a dwarf wall, 0.7m high, of flint rubble with brick dressings, rebuilt on the NE corner. It was the only

closed truss and had original studs visible between the tie beam and the collar; above this the roof was hipped. The side walls were originally open, as the truss was braced in this direction. A separate room had subsequently been formed on the ground floor with an inner lining of horizontal tongue and groove boarding, a boarded ceiling and a partition incorporating a door on the line of truss 2; externally the weatherboarding was in poor condition; there were windows in the SW and NE walls and a blocked door in the NE corner.

Bay 2 – This had opposed doors and modern weather-boarded walls. Truss 2 NE had an original base; truss 3 was cased in modern boarding and had a carpenter's mark VI on the NW face.

Bay 3 – The modern boarding continued into this bay which was open at the SE end. Truss 4 had carpenters' marks V and VV on the NW face.

Bay 4 – the SW side was void and the NE side part boarded. The NE post to Truss 5 was missing and the gable partly infilled with boarding. There were carpenters' marks IIII on the NW face and mortices in the SE face for the braces to the demolished part of the structure.

Structural development

1 The barn originated as a structure open on both long sides; there were no mortices in the soffits of the wall plates for original studs. It had a closed NW end, weather-boarded above a dwarf wall. The other posts were full-height, set on individual square brick bases. Trusses 3-5 had carpenters' marks IIII-VI running in reverse order (SE to NW) and in correct sequence for trusses 2 and 1 to have been respectively VII and VIII. This suggests that three bays of the original building have been demolished at the SE end. The open sides indicate that it was built as a hay barn (Brunskill 1987, 103) and it probably dates to the end of the 18th or beginning of the 19th century; at this period there were a large number of small farms and smallholdings in the village (VCH 1964, 69).

2 At a later date the barn was fully clad in weather-boarding and a separate room created in bay 1. In the late 19th or earlier 20th century this was lined with tongue and groove boarding. In the 20th century the SE end of the barn was demolished and replaced by a concrete framed building. Piecemeal repairs were made to the structure throughout this period.

List of Photographs

The plan of the barn, Fig 1, shows the location of photographs in Figs 4-8. The external elevations in Figs 2 and 3 show the location of the photographs in those figures; all photographs form a single numbered sequence. A section of the barn appears on Fig 7.

Fig 2

- 1) South-west elevation
- 2) South-west elevation; bays 1 & 2
- 3) South-west elevation; bays 2 & 3
- 4) South-west elevation; bays 3 & 4

Fig 3

- 5) South east elevation
- 6) North-west elevation
- 7) View from the south
- 8) North-east elevation
- 9) North-east elevation; bays 3 & 4
- 10) North-east elevation; bays 1 & 2

Fig 4

- 11) North-east corner (T1) showing rebuilt dwarf wall
- 12) South-west corner (T1) showing braced post
- 13) Truss 2 SW, hidden by later boarding
- 14) Door into bay 1 through boarding infilling T2
- 15) Graffiti on boards adjoining NE door jamb
- 16) Bay 1 looking south-west; secondary boarded partitions and ceiling
- 17) Bay 1 looking north-east; secondary boarded partitions and ceiling

Fig 5

- 18) Bay 2 looking north-east
- 19) Truss 2 NE; original foot detail
- 20) Truss 2 NE
- 21) Truss 3 SW (encased in modern boarding)
- 22) Truss 3 NE (encased in modern boarding)
- 23) Bay 2; eaves detail south-west side
- 24) Bay 4 showing T4 NE with secondary boarding

Fig 6

- 25) Truss 5 SW, post looking south
- 26) Truss 5 SW, post looking north
- 27) Truss 4 SW, post looking north
- 28) Truss 4 SW, post, bracing detail
- 29) Bays 3 and 4 looking north-west
- 30) Bays 3 and 4 looking north-east
- 31) Truss 4 NE post, bracing detail
- 32) Bay 4 looking south-west

Fig 7

- 33) Truss 4 SW; detail of strut and joint in lower purlin
- 34) Truss 2 looking north
- 35) Truss 1 and hipped roof
- 36) Truss 2 looking north-west
- 37) Trusses 4 and 5 looking south ; detail
- 38) Trusses 4 and 5 looking south-east
- 39) Trusses 2-4 looking north-west

Fig 8

- 40) Roof; bay 4 SW
- 41) Roof; bay 3 SW
- 42) Roof; bay 2 SW
- 43) Roof; bay 4 NE
- 44) Roof; bay 3 NE
- 45) Roof; bay 2 NE
- 46) Truss 4 NW side; carpenter's mark VV
- 47) Truss 5 NW side; carpenter's mark IIII

References

Brunskill, R W, 1987 *Traditional Farm Buildings of Britain*

Emmett, J C, 2005 *Preliminary Structural Appraisal*

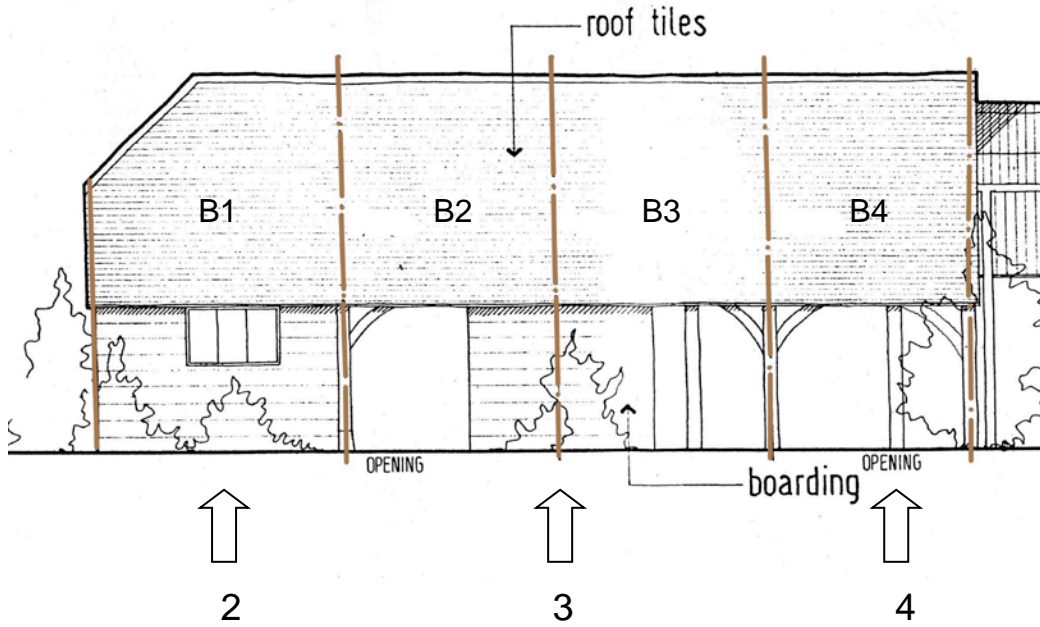
VCH 1964 *Victoria History of the counties of England: Oxfordshire: Lewknor and Pyrton Hundreds*, **8**

Fig 1 Plan of barn

Showing location of photographs (Figs 4-8)

The diagram is a detailed architectural plan of a barn, divided into four bays labeled B1, B2, B3, and B4, and five tie beams labeled T1, T2, T3, T4, and T5. The overall length of the barn is 11.900m, as indicated by a dimension line at the top. A section line 'A-A' is shown at the top and bottom of the plan. The left wall is labeled 'brick' and has a 'DOOR BLOCKED UP ON INSIDE'. The floor is labeled 'CONCRETE FLOOR'. Various structural elements are labeled, including 'boarding' and 'boarding to floor'. A 'blockwork pier' is located on the right side. Numerous numbered points (11-47) are marked with arrows to indicate the locations of photographs. The plan also shows 'OPENING' locations and a 'blockwork pier' on the right side. An arrow points to the right side of the plan, labeled 'existing barn'.

Barn at Dairy Farm, High Street, Chinnor



1

Fig 2 South-west Elevation

2



3



4



Barn at Dairy Farm, High Street, Chinnor



5

6

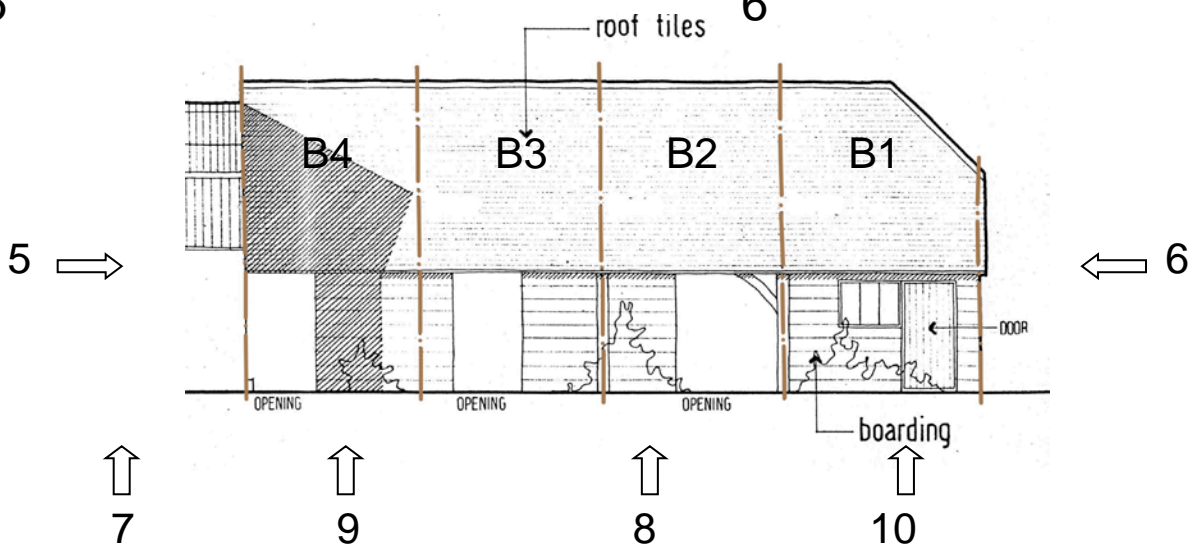


Fig 3 North-east Elevation

7



8



9



10



Fig 4

Bay 1

11



12



13



14



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16



17





18



19



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Fig 5

Bays 2-4



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Fig 6 Bays 3 & 4



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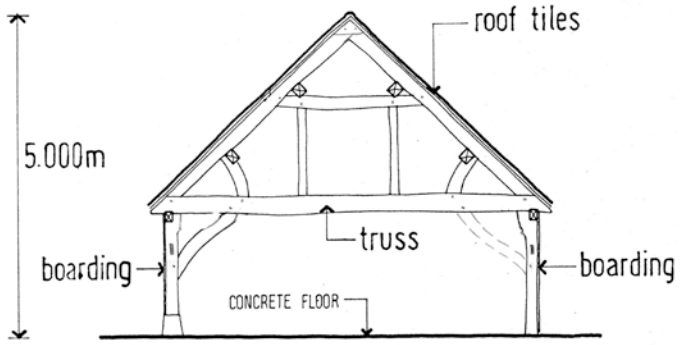


Fig 7 Roof trusses



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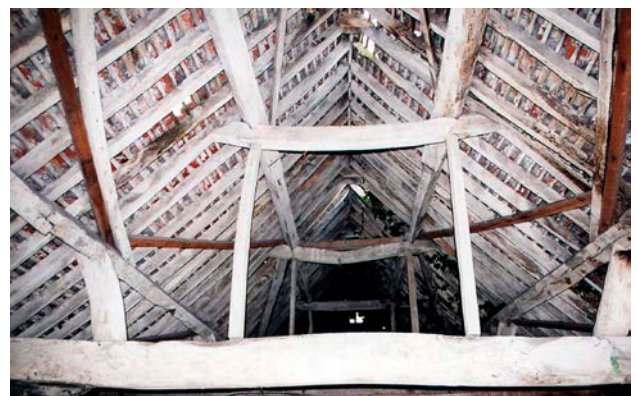
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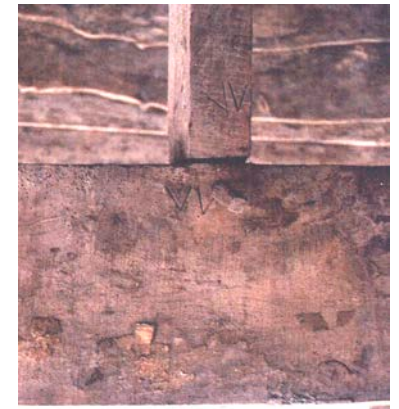
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47

Fig 8 Roof bays