Report for

White Cottage, 26 Manor Road, Didcot, Oxfordshire

Site Code: DID-A

from

The Medieval Peasant House in Midland England

by

Nat Alcock and Dan Miles

Fig. 1. View of the house from the east (Photo: D. Clark)

Oxbow Books

DID-A: WHITE COTTAGE, 26 MANOR ROAD, DIDCOT, OXFORDSHIRE

Grid reference: SU 5206 9034 *Survey Date*: 30 June 1988 *By*: D. Miles

Illustrations: *Page*

The description is based on a 1994 report by Martin Heard.

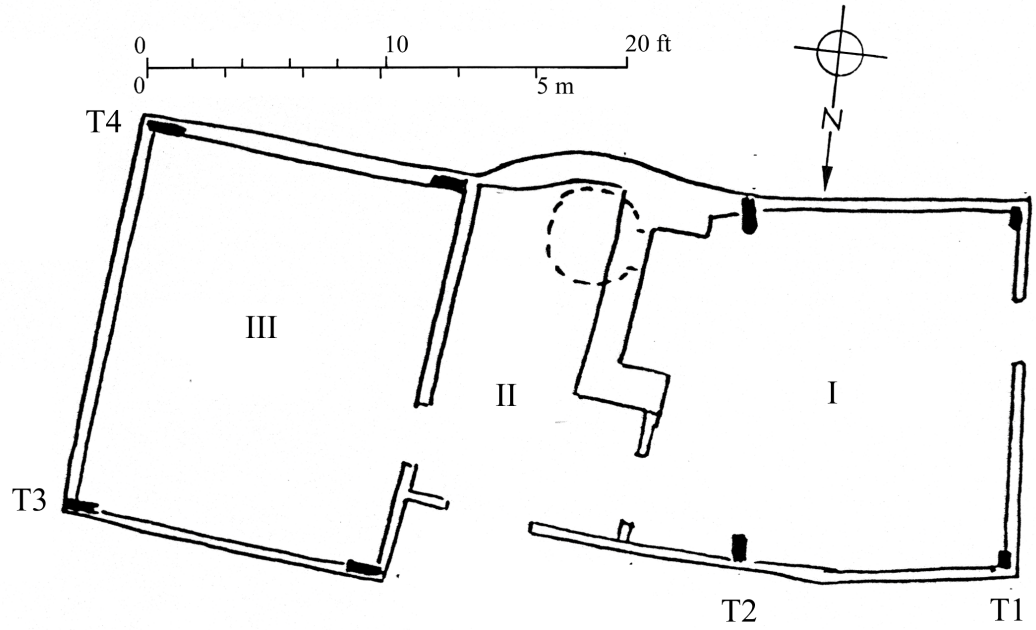

Fig. 2. Plan, showing truss and bay numbering.

ARCHITECTURAL DESCRIPTION

SUMMARY AND HISTORICAL DEVELOPMENT

PHASES 1 & 2: White Cottage is a two-phase cruck building, thatched (until a fire in 1959). The earliest section is the western part, a two-bay hall (bays I-II) oriented with the ridge running east-west and with the upper end towards the west. It probably had another bay at the east end on the site of the second phase wing, presumably a chamber since otherwise the house lacks one. This range contains two cruck trusses. The open truss (T2) is arch-braced with the collar carrying a long king-post (type 'W1' apex); the closed end truss (T1) has a saddle apex (type 'C'). The hall failed to date through dendrochronology, but the form of the truss suggests the early fifteenth or possibly the later fourteenth century, as it is similar to the open truss at Pomander House, Harwell (HAR-D) dated to *cal AD 1305-57*.

In about 1520, a single-bay cruck crosswing (bay III) was built across the east end of the hall range (with its ridge at an angle of 74° to the axis of the hall). The south end of this wing continues the southern (road side) wall of the hall and its northern end projects slightly to the north. This bay also had an open hearth and presumably functioned as a service room/kitchen. The north crosswing truss (T3) has a type 'L2' apex while the south truss (T4) has been truncated above the tiebeam. The cross wing produced a felling date range of ***1517-28***. The wing trusses are notable for having an exceptionally small span.

The felling date range for the wing may also date the insertion of a smoke bay in the hall, although there is no direct structural link between it and the wing. This smoke bay is set towards the lower end of the hall but leaving a wide passage between it and the crosswing; it is parallel to the wing wall and oblique to truss T2. The door which survives at the north end of this passage is presumably original. The probable door at the other end has been blocked by the later oven. At this period, the western bay of the hall must have been converted into a chamber, though whether it was then floored is unclear.

PHASE 3: At a considerably later date the main section of the hall was ceiled over and a chalkstone fireplace was inserted into the smoke bay, with an oven occupying much of the southern end of the passage. A narrow stair, with windows at the bottom, closed off by a door, was placed in the NW corner of the hall to give access to the attic room above which had a window in the W gable end, below and partially cut into the collar.

LATER PHASES: in the mid-nineteenth century a single storey brick and corrugated iron scullery was added to the W end. Further modernisation and additions have been made during the 20th century.

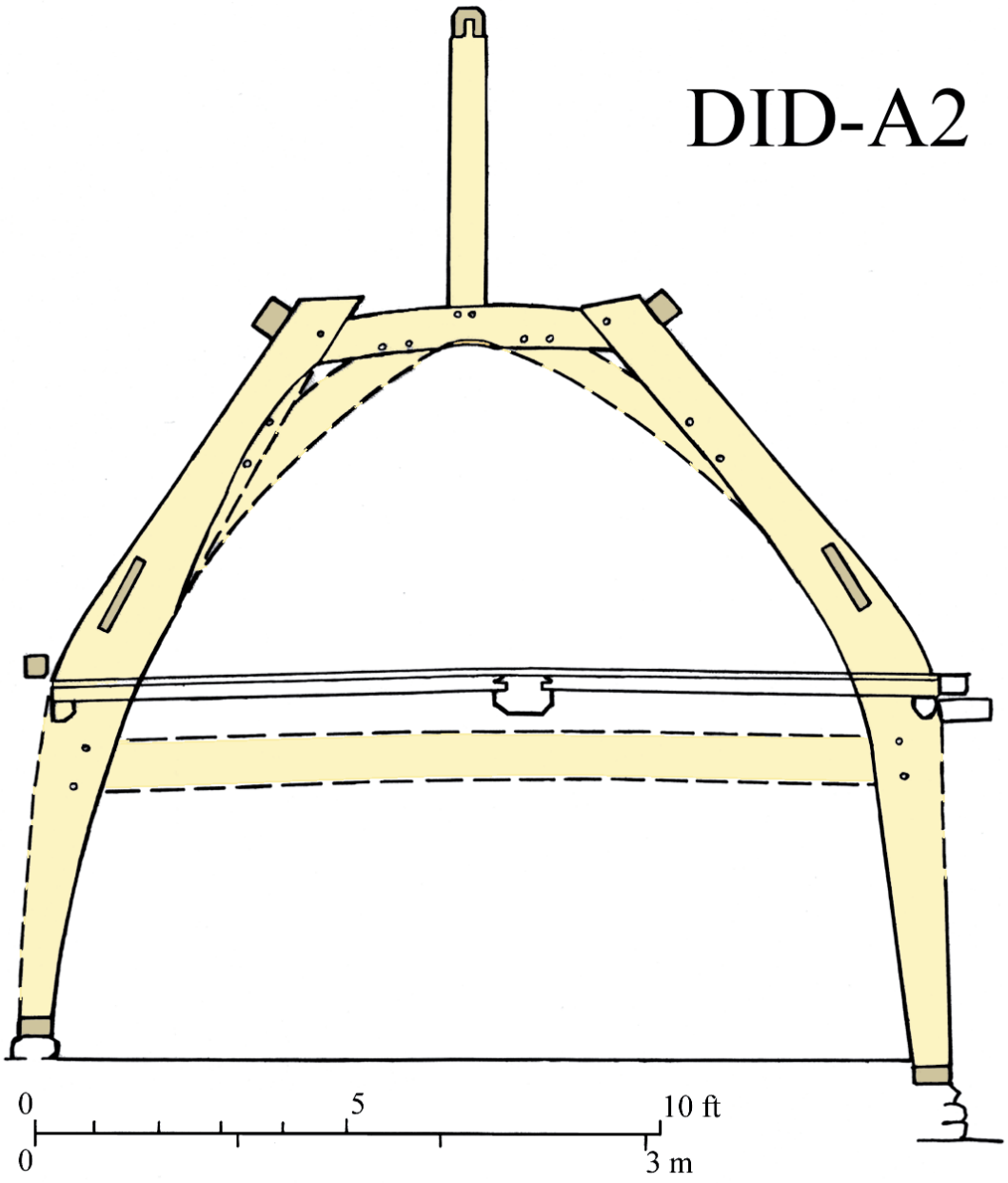

Fig. 3(a). Section of truss T2, from the west.

STRUCTURAL FEATURES

PHASE 1: WEST RANGE: The central open truss of the hall (T2) has blades pit-sawn from a single tree with the fair face towards the west. The arch-braces were removed to improve head room in the attic bedroom (created when the hall was ceiled over). That the braces were chamfered is evidenced by a small central chamfered arc cut in the lower face of the collar. The blades terminate just above collar level and the ridge-piece is supported by a king post. The presence of residual smoke blackening on this post suggests that it is an original feature, certainly pre-dating the insertion of the smoke bay. The foot of

the northern cruck blade sits on a length of the original sill beam which is supported on a low stone plinth. There has been some subsidence on the southern side where the road lies at a lower level and the remains of the sill beam is just below floor level. Cruck spurs support the wall plates.

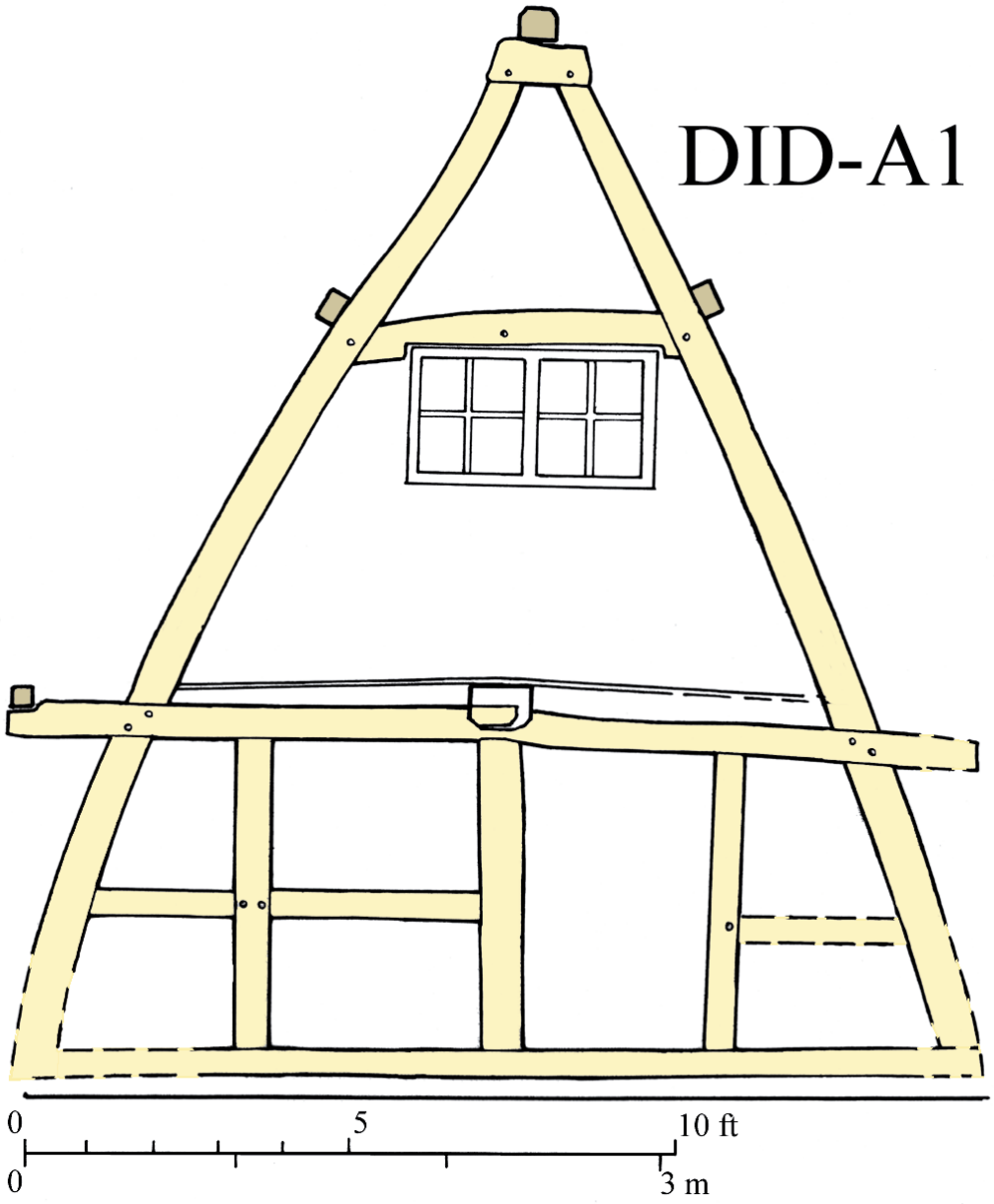

Fig. 3(b). Elevation of truss T1, from the west.

The blades of the western gable cruck (T1) are separate trees, axed square with a considerable amount of sapwood remaining; typical of most of the timbers of the hall section of the house. The cruck blades are slightly curved and stand on a transverse sill beam on a stone plinth. The truss has a straight tiebeam extending to support the ends of the wall plates, a collar, and a saddle carrying the ridge piece.

A small fragment of what appears to be the cruck at the eastern end of the hall is embedded in the south wall. This stands at the junction with the rubble plinth of the crosswing; the latter is not continuous with the stone plinth of the hall, indicating that the wing is either a rebuild or a completely new construction.

The single tier of purlins, set at collar level, are not trenched into the blades but held on the back of the blades by single large pegs. The purlins are boxed-heart, 7 by 5in and have simple splayed scarfs with four face-pegs, adjacent to the central truss by. The wind braces are relatively thick and almost straight (average scantling 5½ by 3½in). They are heart-sawn, or riven, with the heartwood face being roughly adzed and facing inwards. They are morticed and tenoned into the cruck blades but pegged to the outer

face of the purlins by tapering lapped joints so that more than half the thickness of the brace is lapped over the purlin.

The rafters are all fairly straight and roughly squared, halved oak saplings mostly riven but some pit-sawn, laid flat with the heartwood facing downwards. They are pegged to the ridge timber and the wall plate but not to the purlins. Their average size is 2½ by 4½in, set at 15in centres.

PHASE 2: CROSS WING: The carpentry of the cross wing is completely different from that of the hall. The complete cruck truss at the northern end (T3) has a pair of blades sawn from a single fairly straight tree. The markedly cambered tiebeam is halved across the blades, but the collar is tenoned, with two pegs to each mortice (one only for the corresponding joints in T1-2). The blades are joined by a short yoke above which they meet to clasp the square-set ridge piece. The purlins are of good quality, pit-sawn, measuring 8¾ by 5¼in. They are trenched into the cruck blades and supported by packing pieces which extend outwards towards the ends of the tiebeam. The packing pieces also carry the ends of curved windbraces (2½ by 8½in). These are pegged into shallow seatings on the back of the purlins and, unlike the braces in the hall, do not abut upon the lower faces of the purlins.

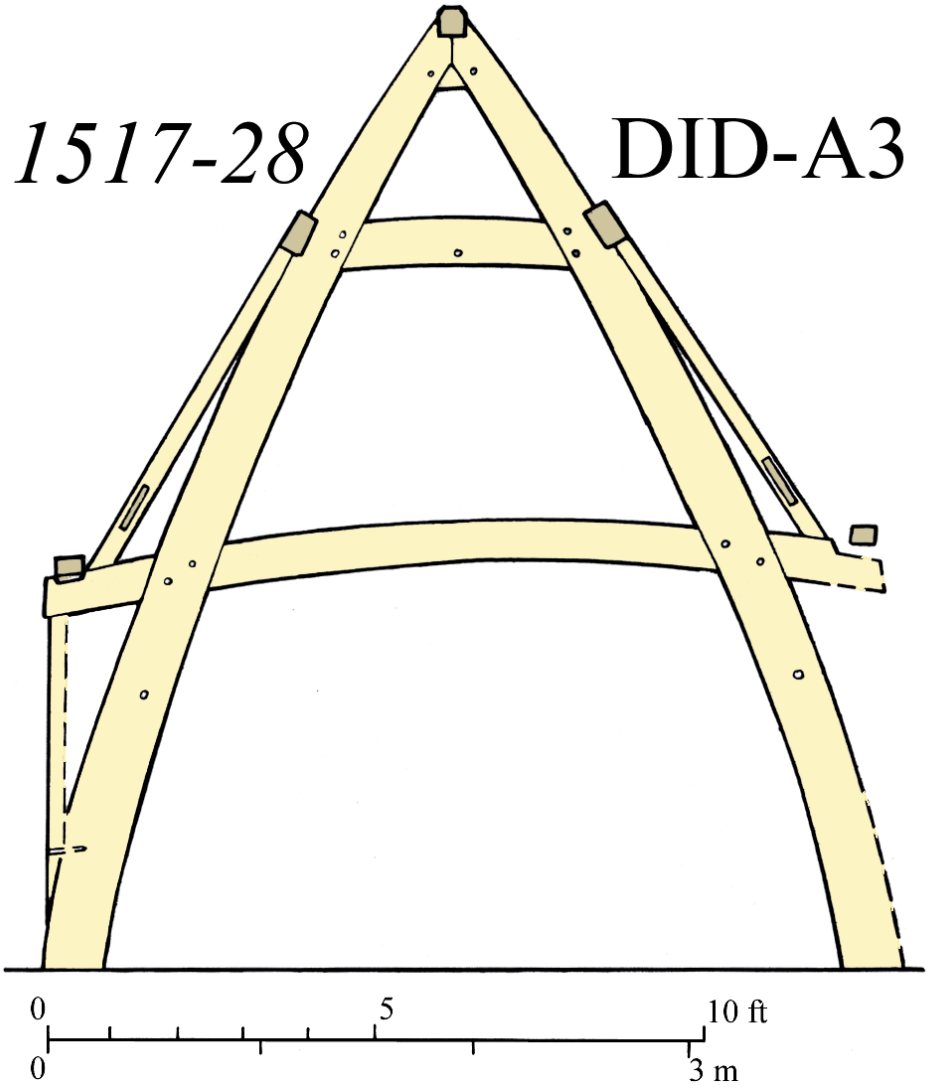

Fig. 3(c). Section of truss T3.

The southern cruck has been cut off just above the tiebeam to produce a hipped end to the roof, set in the same plane as the southern side of the hall roof. This has necessitated the purlins being supported by a makeshift tiebeam and a pair of queen posts. The standard technique of skew-pegging the halved joints between tiebeam and cruck blades can be seen clearly in the southern truss.

The rafters of the crosswing, unlike those of the hall, were pegged to the purlins as well as to the wall plates and ridge piece. The wall plate across the E end of the hall carries the stubs of rafter-pegs

along its whole length suggesting that a complete set of rafters was provided on this side of the crosswing although they would have been mainly within the building. This is an analogous arrangement to that seen at the much earlier 42/42A, High Street, Milton, where a later wing set across the end of the base-cruck hall also has a complete set of rafters within the extended roof of the other range.

No upper storey has ever been inserted into the crosswing and it is ceiled over just above the purlins. There is evidence of smoke blackening on the purlins and other upper timbers so presumably this bay originally had an open hearth. The fireplace and stack were built in 1935, and earlier photographs of the exterior show no evidence for heating.

PHASE 2: SMOKE BAY: The smoke bay is enclosed between two light trusses set between the hall purlins and wall plates. The two slightly-curved oak bressumers span the building, on average, 5ft 7in above the present floor level. Both are re-used timbers with scantlings of 5 by 7in and 5½ by 6in. Above each, a framed wall of wattle and daub panels extended right up to the roof (until the fire in 1959). The framing was of elm, the timbers measuring 6 by 5in. These frames were not properly pegged together but had short chisel tenons forced into shallow mortices and grooved after the style of wattle and daub staving. The collars had birds-mouthed ends and were wedged into position between the purlins. The underside of the rear (east) bressumer carried a series of auger holes for staves for wattle and daub staves together with the mortices for 7 by 4in jambs of a doorway towards the northern end. The angles of the bressumer were chamfered at the head of this door aperture which was 2ft 9in wide. The presence of this doorway indicates that the hearth must have been placed towards the southern end of the smoke bay. The later chalkstone chimney completely filled the gap between the smoke bay walls and obscured any evidence of the smoke outlet.

Timber usage

Following the 1959 fire, a number of roof timbers were removed and saved by the owner. From these, it was possible to make an estimate of the diameters of the trees which had been used in the early fifteenth century first phase of the house. These timbers had been adzed square with some sapwood remaining along the arrises. As the original trees had not been perfectly straight the depth of residual sapwood varied along the length of the timbers. In most cases, it was possible to identify an unambiguous portion of the sapwood surface, and to identify and count both heartwood and sapwood rings. Similar dimensions can be estimated for the timbers cored for dating, although for these, the dimensions are minima, since the bark surface was not preserved, and it is uncertain how close the inner end of the core was to the pith. The results (Table) illustrate clearly the strikingly small size of most of the trees used. It is not surprising that none of the rafters and purlins in the house were suitable for tree-ring dating.

Dimensions of trees

The last six dimensions have been measured on the dendrochronology cores and are minimum values.

Timber	*Conversion*	*Heartwood rings*	*Sapwood rings*	*Mean diameter to underside of bark (in)*
Rafters (14)	Halved	18.4 ± 4.8	13.1 ± 2.4	4½ - 7½
Ridge piece	Boxed heart (?)	37	16+	9-10
Purlin A	Boxed heart	29	17	7¾
Purlin B	Boxed heart	20	13	8
Windbraces	Halved			5½ (avg)
Cruck blade, truss 2 (NE)	Halved	43	11+	10 (min)
Cruck blade, truss 2 (SE)	Halved	59	13+	13 (min)
Collar, truss 2	Halved?	24	?	5¼ (min)
King post, truss 2	Boxed heart	35	16	4½ (min)
Cruck blade, truss 1 (NE)	Boxed heart	41	19	9 (min)
Cruck blade, truss 1 (SE)	Boxed heart	56	20	7½ (min)
Collar, truss 1	Boxed heart	35	10+	9¼ (min)

DENDROCHRONOLOGY

For dendrochronology abbreviations see page facing Introduction.

Sampling Comments: Twelve samples were obtained through coring by Robert Howard on 30 June 1988. The first seven samples were from the west range, but none had over 60 rings and they failed to match either each other or the reference chronologies. However, the five samples from the east range matched each other to form a site sequence of 95 rings. This was successfully matched to reference chronologies with the last measured ring dated to 1509.

TREE-RING SAMPLE RECORD AND SUMMARY OF DATING

Sample Code	Sample Location	Total Rings	Sapwood Rings	FMR Date	LHR Date	LMR Date	Date Cat
DID-A01	W range cruck blade truss 2 NE corner	41 + 2NM	09 + 2NM	—	—	—	—
DID-A02	W range cruck blade truss 2 SE corner	59	13	—	—	—	—
DID-A03	W range collar truss 2	24	HS	—	—	—	—
DID-A04	W range king post truss 2	35	16	—	—	—	—
DID-A05	W range cruck blade truss 1 NW corner	41	19	—	—	—	—
DID-A06	W range cruck blade truss 1 SW corner	56	20	—	—	—	—
DID-A07	W range collar truss 1	34 + 1NM	09 + 1NM	—	—	—	—
DID-A08	E range cruck blade truss 4 SW corner	76	HS	1421	1496	1496	1
DID-A09	E range cruck blade truss 4 SE corner	82	HS	1415	1496	1496	1
DID-A10	E range cruck blade truss 3 NW corner	66	03	1444	1506	1509	1
DID-A11	E range purlin West side	74	HS	1422	1495	1495	1
DID-A12	E range cruck blade truss 3 NE corner	66	01	1441	1505	1506	1
	Average date of last heartwood ring				1500		

Site sequence: (samples 8, 9, 10, 11, 12), 95 rings long dated 1415–1509 with *t*-values, 6.4(S.ENG), 5.6(E.MID). 95% felling date range: 1509-1541 (previously 1513–1538). OxCal refined felling date range: ***1517-28***.