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A Medieval Base Cruck Hall at Westcourt Farmhouse, Shalbourne

by *Jonathan Buxton*

Following a television documentary on BBC ‘South Today’ in early 2002 about the finding during renovation of Arabic numerals in a roof at Salisbury Cathedral (www.bbc.co.uk/wiltshire/features/cathedral_timbers.shtml), similar marks were recorded at Westcourt Farmhouse on behalf of The Shalbourne History Project. Dendrochronology has provided early 14th century dates for the Westcourt timbers. A small group of houses in central southern England, dated to the first quarter of the 14th century, is now identified as being built by the same carpenters using Arabic numerals.

Westcourt Farm lies on the west side of the village of Shalbourne in north-east Wiltshire. The historic parish of Shalbourne consisted of three tithings, Shalbourne or Town, Bagshot in the north and Oxenwood in the south; the last two, which were in Berkshire until 1895, were united by a strip of land which formed the east of the parish. Westcourt has always lain in Wiltshire, in Shalbourne tithing. The early history of the house, which was the manor house of Westcourt (alias Shalbourne Dormer), is described in the *Victoria County History of Berkshire*.¹

There was a period of divided ownership of the manor in the 12th and 13th centuries, but by 1302–3 William de Harden had reassembled most of the manor and would have been the builder of the original hall now dated to around 1319. William de Harden died in 1329–30 and was succeeded by his daughter Anastasia. Her husband, Sir Robert de

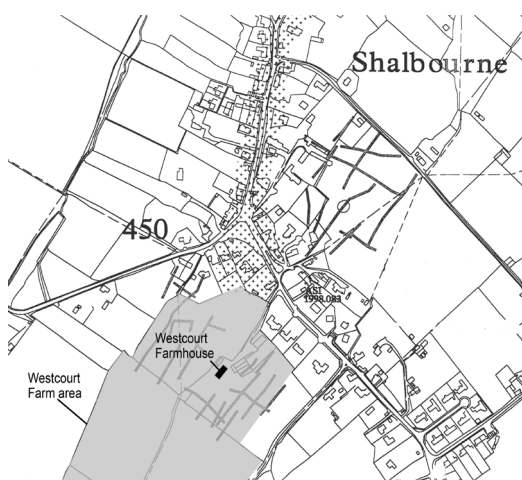


Fig. 1 Westcourt Farmhouse, Shalbourne, showing earthworks. (Sites and Monuments Record Trowbridge)

Bulkemore, was the highest taxpayer in Shalbourne in 1332² and paid 7s 11d in the Tax List for Kinwardstone Hundred (Shalbourne, Harding and East Bedwyn). After the division of the lands in the 16th century, one part was sold to Edward, Duke of Somerset, and the other, in 1600, to his son, Edward, Earl of Hertford, thus reuniting the estate.

A chapel built in 1208 by Bishop Herbert Poore and dedicated to St Margaret stood beside the

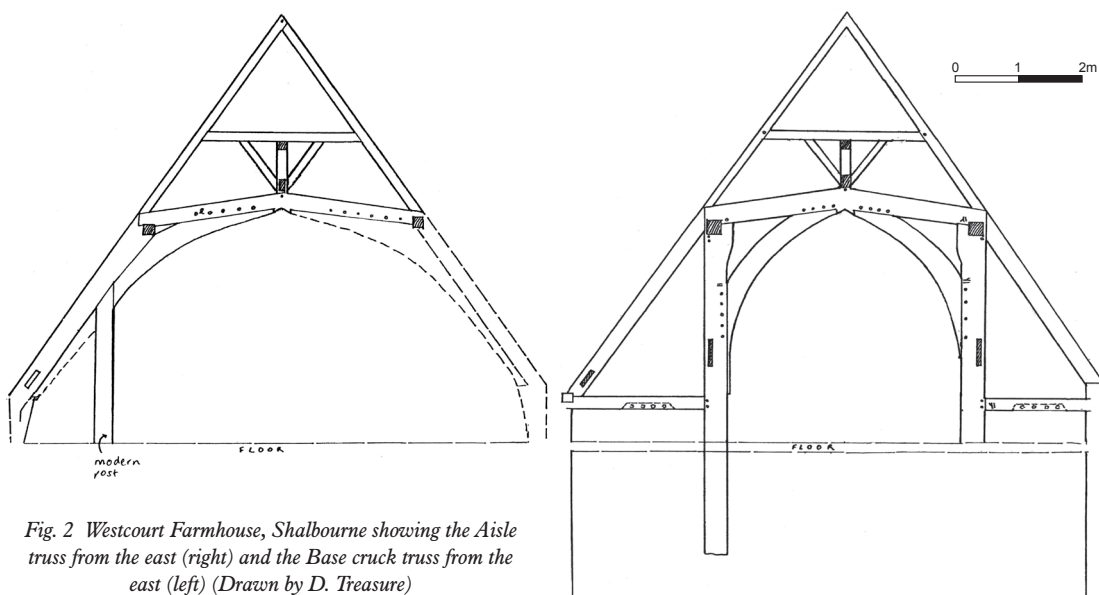


Fig. 2 Westcourt Farmhouse, Shalbourne showing the Aisle truss from the east (right) and the Base cruck truss from the east (left) (Drawn by D. Treasure)

manor house of Westcourt until demolition in 1840. In 1399 the chapel was mentioned in the Bishops Registry of Salisbury and was an appurtenance to the manor until 1545.³ It was then sold with land but later became reunited with Westcourt and was still mentioned in deeds in 1826.⁴ Lewis's *Topography*, Volume 4 (1840) also notes that the Chapel was attached to Westcourt. Extensive earthworks, mapped from aerial photographs taken in 1971 and recorded on the Wiltshire Sites and Monuments Record surround the house (Figure 1).

The front of the building faces northwest with the earliest part between two wings added c. 1600. The Grade II* listing identifies the early structure as a 'two-storey 2-bay central section' with a 'single-storey lean-to infill' at the rear between the wings (Listing Reference SU 36 SW 13/175, Shalbourne, River Road, Westcourt Farmhouse). This structure is formed of an oak timber frame comprising an open hall and was revealed in renovations during 2001. The building includes both a base-cruck open truss and, at the west end, an aisle truss with arcade posts (Figure 2). In the upper part of the roof, which is of crown-post construction, the heavily smoke-blackened medieval structure is largely intact.

Visible at ground floor level is the southern arcade post, which rests 0.91m above the floor on a small timber plate. The foot of the northern post has been cut off for a ground floor door opening. At the western end of the first floor landing there is a 0.25m gap between the massive arcade post and the

frame of the later cross-wing. The post has a 0.125m deep chamfer with a flat stop and shallow step 0.43m above first floor level. About 0.35m further up, five pegs secure chamfered arch bracing. A straight brace rises eastwards to the roofplate. A tiebeam runs out to the eaves, where a common rafter, rather than a principal rafter, supports a heavy wind-brace, also chamfered. In the upper part of the roof, a crown post with straight four-way braces surmounts the cranked tie of the aisle truss. The arch braces from the arcade posts meet at a dropped section of the tie. The roof plates are trapped on top of the arcade posts under the tie.

Half way along the first floor landing, on the north side, the base cruck of the central open truss of the hall can be seen (Figure 2). The arch-bracing has been cut off below ceiling level but survives above, where it is attached to the massive tie with six pegs. Two wind-braces about 3.66m long rise from the base of the truss into tenoned joints on the northern roofplate. In the upper roof the cranked tie of the truss rests on the roofplate. A short central crown post with straight four-way braces is set on the tie.

At the east end, the hall roof originally extended 1.12m further to the east, but was shortened when the east cross-wing was built. Part of a base-cruck blade re-used in this area as a support has peg-holes for arch-bracing to a tie. Between the main trusses of the hall there is a trussed rafter roof supported by the collar purlins of the crown posts and with no ridge pieces. On the north side of the roof, the

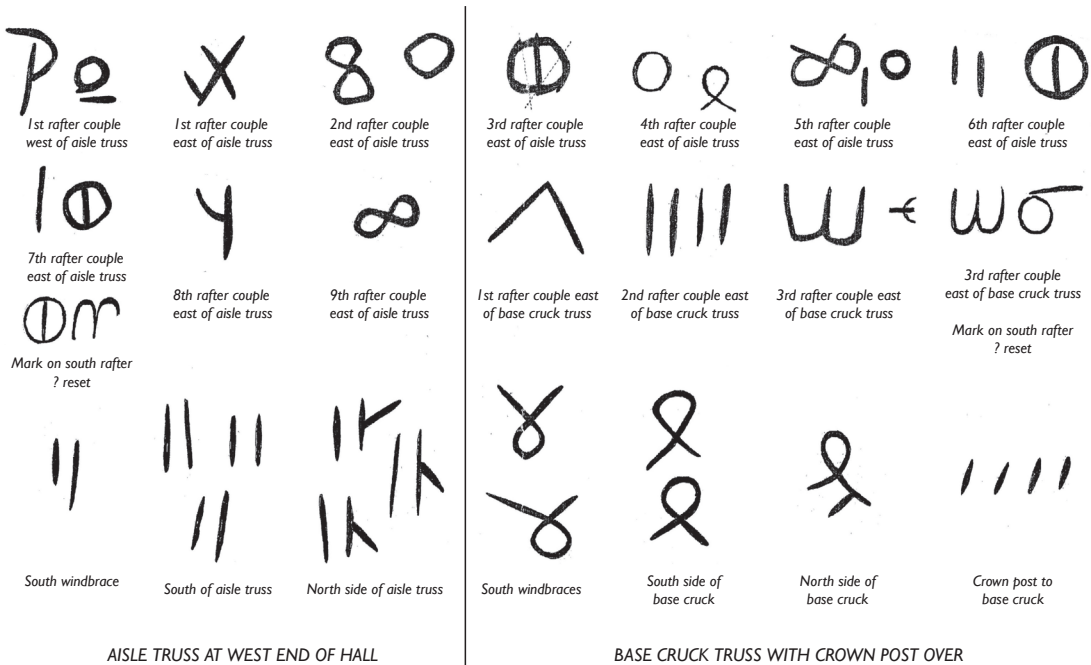


Fig. 3 Arabic assembly marks at Westcourt Farm, Shalbourne, Wiltshire (1319-1320)

Sites:	1	2	3	4	5	6	7	8	9	10	Dendro-dates
Salisbury Cathedral Eastern Chapels	11	77	33	22	6	66	^ ^	88	9	o	1222
Wells Cathedral West Front sculpture	11	7	3	2	43	6	^	88	9	o	1235-42
Salisbury Cathedral Nave & North Porch	1	7	3	2	44	6	^		9	o	1251/2
Great Haseley, Oxon Church Farm Barn					6	66					1313
Wells, Somerset Priory of St John	1111	77	33	22	44	66	^	8	9	o	1314/15
Salisbury Cathedral The Bishop's Palace	11	7	3	2		6	^ ^		9	o o	1315/16
Wells, Somerset The King's Head	11	7	3	2	4	6	^	8			1318/19
Shalbourne, Wilts West Court Farm			3	22	4	6	^	8		o o	1319/20
Abingdon, Oxon St Helen's Church	1	2	3	2	4	6	^	8	9	o	circa 1391

Fig. 4 Arabic assembly marks in English buildings: AD 1200-1400



Fig. 5 Location of dendro-dated Arabic numbers in English buildings

chamfered roofplate runs on to the west beyond the aisle truss for a short distance supporting one pair of original common rafters. This observation shows that before the construction of the west cross-wing the building continued in line at the service end of the hall. When the building had timber front and rear walls, it was probably about 7.92m wide, an imposing size in its day.

The Oxford Dendrochronology Laboratory took seven samples from the medieval roof of Westcourt

Farm, Shalbourne (Table 1). All retained complete sapwood, although this broke on one of the rafters (wfs7). Three of the rafters sampled (wfs3, wfs6, and wfs7) were found to have originated from the same tree and were combined to form the mean wfs367. All samples cross-matched between each other and were combined at the relative offsets to form the 143-year site master WSTCRTFM. This was compared to local and regional reference chronologies, spanning the years 1177-1319. An arcade post was found to have been felled in the spring of 1316, an arcade plate and an arch-brace from the closed truss were felled in the spring of 1319, and four rafters were found to have been felled in the winter of 1319-20. Given the consistency of felling dates, it would appear that the building was under construction during 1320, although the main frame may have begun fabrication as early as the summer of 1319.

Apart from the early date of construction, the roof at Westcourt Farm is especially important as being the latest discovery in a series of high-quality timber-framed roofs employing Arabic assembly marks (Figures 3, 4 and 5). The earliest of these is the tithe barn at Church Farm, Great Haseley, Oxon (1313), followed by the Priory of St John, Wells, Somerset (1314/15), the Bishop's Palace, Salisbury, Wilts (1315/16), and *The King's Head Inn*, Wells, Somerset (1318/19). All of these buildings use Arabic assembly marks together with the conventional Roman system, yet significantly, all of the roofs are of slightly different design. The wide distribution of the buildings suggests the presence of a talented and

Table 1: Summary of tree-ring dating, Westcourt Farm, Shalbourne, Wiltshire

Sample no & type	Timber and position	Dates AD spanning	H/S bdry	Sapwood complement	No of rings	Mean width mm	Std devn mm	Mean sens mm	Felling seasons and dates/date ranges (AD)
*wfs1	c S arcade post aisle truss	1206-1315	1296	19¼ C	110	1.71	0.57	0.181	Spring 1316
*wfs2	c S arcade plate	1177-1318	1271	47¼ C	142	1.04	0.60	0.204	Spring 1319
wfs3	c 1st rafter W of aisle truss S side	1213-1319	1285	34C	107	1.16	0.39	0.184	Winter 1319/20
*wfs4	c 2nd rafter E of aisle truss S side	1264-1319	1304	15C	56	2.11	0.60	0.218	Winter 1319/20
*wfs5	c N arch-brace aisle truss	1243-1318	1297	21¼ C	76	1.63	0.50	0.241	Spring 1319
wfs6	c 3rd rafter E of open truss S side	1202-1319	1282	37C	118	1.21	0.50	0.188	Winter 1319/20
wfs7	c 3rd rafter E of open truss N side	1207-1302	1287	15+15CNM	96	1.32	0.43	0.189	(Winter 1319/20)
*wfs367	Mean of wfs3 + wfs6 + wfs7	1202-1319	1285	34C	118	1.21	0.42	0.169	Winter 1319/20
*=WSTCRTFM Site Master		1177-1319			143	1.47	0.45	0.177	

Key: *, †, = sample included in site-masters; c = core; mc = micor-core; ¼C, ½C, C = bark edge present, partial or complete ring; ¼C = spring (ring not measured), ½C = summer/autumn, or C = winter felling (ring measured); H/S bdry = heartwood/sapwood boundary - last heartwood ring date; std devn = standard deviation; mean sens = mean sensitivity. Sapwood estimate (95% confidence) of 9 - 41 used for English timbers (Miles 1997)

educated master carpenter working for high-status clients within the region. In each case the various carpentry elements in contemporary use were combined to artistic effect in creating remarkably long-lasting structures.

Acknowledgements

Mrs P. M. Slocombe and Mrs D. Treasure are thanked for their investigations, studies and drawings, and full copies of their reports are available at the Wiltshire Buildings Record, Trowbridge. Dr Daniel Miles, Oxford Dendrochronology Laboratory,

facilitated and part-funded the tree-ring dating.

Note: since this paper was written, three more high-status buildings of similar date with Arabic markings have been discovered; two in Somerset and one in Wiltshire.

Notes

- ¹ *V.C.H. Berks.*, Vol. 4, pp. 231-232.
- ² *Wiltshire Record Society Volume 45.*
- ³ *Feet of Fines Wilts. East.* 37 Hen. VIII; *V.C.H. Berks.*, Vol. 4, p. 231, fn. 100.
- ⁴ *V.C.H. Berks.*, Vol. 4, p. 234.

A Lye Pit in Savernake

by *Graham Bathe*¹ and *Dick Greenaway*²

A Q-shaped, mounded pit, situated in Cobham Frith, Savernake, has been identified as a lye pit, constructed for the production of wood-ash in industrial quantities. Wood ash was used as a top dressing for grassland and in the production of lye which served as a cleansing agent, and was a component in the manufacture of soap. The residue was then used in glass making.

Cobham Frith is an ancient woodland on the fringes of Savernake. It has been known by its current name since at least 1486, when Henry VII hunted deer there (Brentnall, 1950). In 1716 it was a coppice of 60 acres (WSRO, 1300-301). In the 20th century the native trees were felled and the site converted to a conifer plantation, although many ancient coppice stools persist as dead stumps. In 2006 Cobham Frith supported dense larch of about 10cm diameter, planted in furrows gouged by machinery from north to south across the forest floor. The furrows have extended into and damaged part of the lye pit, which is situated at SU25412 66886, and at an altitude of 120m, close to the lane from Knowle Hill to Chisbury. The feature is essentially an earthen

pit, shaped like a reverse letter "Q", excavated into alluvial gravels. The interior of the main pit forms a depression of 5 metres diameter and 1.2 m deep, with a bulge at the north-west, where the curving tail of the "Q" would have provided an air-inlet. There is no obvious lining of the pit, nor sign of charcoal or other burnt material, although this is normal for lye kilns. With the banks sloping outside the central depression, the feature is 10m across at its widest (Figures 1 and 2).

Lye is an alkaline liquid obtained by leaching out soluble components from the burnt ashes of terrestrial vegetation and seaweed (a process known as lixiviation). The liquid was then boiled with lime and evaporated in large iron pots, the residue being *pot-ash* – hence the name. It is an impure form of potassium carbonate (Rymer, 1976). There is no traced account of lye manufacture from wood ash in Wiltshire. The Sites and Monuments Record does not have any lye pits listed, and there is no reference to lye in the *Wiltshire Archaeological and Natural History Magazine*. However, recent fieldwork in West Berkshire and literature surveys have shown

¹ Byeley in Densome, Woodgreen, Fordingbridge, SP6 2QU ² The Cottage, Ashampstead Common, Pangbourne, Reading, RG8 8QT