

TREE-RING DATES FROM THE OXFORD DENDROCHRONOLOGY LABORATORY

LIST XXX: GENERAL LIST

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Separate lists cover the work in Oxfordshire (List XXX). Unless otherwise stated, a 95% confidence limit of 9-41 sapwood rings has been used to determine estimate felling date ranges for southern counties, and 11-41 rings for Wales and northern counties D. H. Miles, 'The interpretation, presentation and use of tree-ring dates' VA **28** (1997), 40-56). Some felling date ranges have been calculated using the Dendro function of OxCal (D H Miles, 'Refinements in the Interpretation of Tree-ring Dates for Oak Building Timbers in England and Wales', VA **37** (2006), 84-96); following the proposals of Tyers (VA **39** (2008), 91-106), these dates are given in italics, indicating that they are interpretative dates.

The Oxford Dendrochronology Laboratory maintains a website (www.Oxford-DendroLab.com) displaying all our tree-ring dates. This includes the most recent dates whilst in press, as well as all dates produced over the past 32 years. Before quoting any tree-ring dates from this or previously-published lists, it is advisable to check the entry on the web-site, as occasionally dates are refined in light of new sapwood estimates.

Undated – Oxfordshire, Burford, 113 High Street (SP 2514 1211) and West Sussex, Crawley, 49 High Street (TQ 2678 3658)

BUCKINGHAMSHIRE

1. BLEDLOW-CUM-SAUNDERTON, Bledlow Manor House, (SP 7964 0213)

(a) Roofs and cellar timbers

Felling date: Winter 1718/19

(b) Re-used pine timber

Felling date range: After 1669

(a) Door lintel (1/1) 1696(h/s); hip rafter (1/1) 1691(3+26NM); common rafter (1/1) 1693(3); principal rafter (1/5) 1706(27+12CNM); purlins (3/3) 1684(8+31CNM), 1712(17+5CNM), 1718(26C); valley beams (2/2) 1682(h/s), 1718(42C). (b) Dragon beam (1/1) 1675; principal rafter (1/1) 1628(+28NM); hip rafter (1/2) 1669. *Site Masters* (a) BLEDLOW 1576-1718 ($t = 8.3$ GMBTt23; 6.6 KIBASQ01; 6.5 WIGALL46); (b) bled01 1475-1675 ($t = 9.6$ BERWICK1; 8.7 KRKLSQ01; 7.8 CLANDON); bled175m 1535-1669 ($t = 7.6$ GRNWICH2; 6.9 SPPINEx15; 6.2 VAGDER).

It is known there was a Tudor house on this site, and it was thought several timbers in the core of the building may have originated from this building, but none were found. Ten roofs cover this complicated building, several of them having curved principal rafters but of differing dimensions. Three of the larger roof areas were sampled, and all appear to be contemporaneous, but include re-used pine timbers, probably from

the 1670s phase of remodelling the house by Blancks. Dating commissioned by the owners through Peregrine Bryant Architecture and Building Conservation.

2. MIDDLE CLAYDON, Claydon House (SP 7191 2533)

(a) Primary pine floor beams

Felling date: Winter 1756/7

(b) Secondary oak floor beams

Felling date: Summer 1759

(c) Joists and floorboards

Felling dates: Summer 1760, Summer 1761

(a) Primary floor beams 2/3 1756(C)². (b) Secondary floor beams 5/5 1758(15½C), 1758(16½C), 1758(20½C), 1758(21½C), 1758(25½C). (c) Floor boards 2/2 1728, 1729; joists 3/5 1750(13), 1759(13¼C), 1760(12½C). *Site Masters* (a) CLAYPINE 1673-1756 ($t = 9.5$ PISYGDA1; 7.5 KUJAWPOM; 7.3 PLPINUS); (b and c) CLAYDON2 1618-1760 ($t = 10.4$ BRNGHST1; 10.4 CCL; 8.9 APTASQ02).

Previous work at the site (Tyers, VA 28) identified an oak timber from a tree felled in spring 1757, with other timbers of similar date but without complete sapwood being found. Much has been written about this Grade I listed National Trust property which is the surviving range of a house built by the 2nd Earl Verney in the 1750s, although a smaller Tudor H-shaped manor house probably existed on the site before Verney's rebuilding. Works allowed access to upper storey floor timbers, and the results suggest the joists and floorboards may have been assembled a year or two after the main structure of the floors had been constructed. Dating commissioned by the National Trust.

CAMBRIDGESHIRE

3. CAMBRIDGE, Clare College, Old Court Buildings (TL 4466 5842)

(a) North Range Roof

Felling date: Spring 1686

(b) West Range Roof

Felling dates: Spring 1702, Spring 1704

(a) Wall-plate (1/1) 1685(14¼C); Principal rafters (3/3) 1673(h/s+11NM), 1682(17+1NM), 1685(24¼C). (b) Wall-plate (1/1) 1672(+23NM including 8 sap); Principal rafter (1/4) 1699(29); Hip rafter 1701(14¼C); Purlin (1/1) 1703(18¼C). *Site Masters* (a) CLARE1 1587-1685 ($t = 6.5$ CLRNDNOX; 6.1 CCL; 6.0 FOXGRAPE); (b) CLARE2 1614-1703 ($t = 12.7$ FLTASQ01; 10.9 APTASQ02; 9.5 CCL).

The roof of the West Range has principal rafter trusses with staggered butt purlins, and is ceiled over below collar height. The northern end has two large hip rafters with smaller angled rafters in the corners. The North Range roof suffered a fire in the central area and this area was re-roofed in the early twentieth century, but internal access was possible at the eastern end above the Hall, where the roof form was similar to the west range. Dating commissioned by the College.

4. IMPINGTON, Burgoyne's Manor (TL 446 632) *ex situ* aisle post

Felling date range: 1326–58

Ex situ aisle post (1/1) 1317(h/s). *Site Master* IMPNGTN1 1241-1317 ($t = 6.8$ ANGLIA16; 6.2 BAYLOLLS; 6.2 CAP-LOW).

The barn at Burgoyne's Farm was dismantled in the 1950s, but the importance of the finely-finished aisle post was recognised, and the timber kept. Local vernacular architecture historian Alan Eade recorded it in the 1990s and suggested a possible thirteenth century date based on the detail of the capital and other moulding. Unfortunately, it appears no other timbers from the barn survive. Dating commissioned by the Histon and Impington Village Society.

EAST SUSSEX

5. ALFRISTON, Old Clergy House (TQ 5212 0295)

(a) Primary phase (Hall)

Felling date range: 1399-1407

(b) Roof over west end

Felling date: Summer 1741

(a) Tiebeams (3/3) 1364(h/s), 1383(h/s), 1383(h/s+16CNM); Dais beam (1/1) 1382(h/s); Sill (1/2) 1375(h/s); Door jamb (1/1) 1364(h/s); Posts (2/3) 1368(h/s), 1378(h/s). (b) Principal rafters (3/3) 1729(10), 1740(19½C), 1740(25½C). *Site Masters* (a) ALFRSTN11279-1383 ($t = 6.8$ BLSNSQ01; 6.3 WHBASQ01; 6.2 TODDINGTON); (b) ALFRSTN2 1659-1740 ($t = 5.4$ CHALSCBM; 5.4 COBHSQ02; 5.4 LBC-E).

The first building acquired by the National Trust, this 'Wealden' style house was surveyed in 1993 by David and Barbara Martin who identified four major periods in the development of this property, with three of the original four-bay original house surviving. They dated the primary phase to the late-fourteenth or (more likely) early fifteenth century. The service bay at the west end was demolished, probably in the mid-sixteenth century, and replaced by a two-bay cross-wing. The Hall was probably floored over in the same period. Around 1600 the windows were all glazed, and then in the mid-eighteenth century the rear bay of the replacement service end cross-wing was replaced by a rear lean-to. The roof over the west end has also been replaced. Dating commissioned by the National Trust.

ESSEX

6. BURNHAM-ON-CROUCH, Pinner's Farmhouse (TQ 9372 9723)

Felling date: Spring 1624

Needle beam (1/3) 1612(8+5CNM); Corner post (1/2) 1623(13¼C). *Site Master* PINN42m 1544-1623 ($t = 9.4$ HILLHAL2; 8.6 FENNERS; 7.7 WIMPOLE1).

This relatively small four-bay farmhouse has an attributed date of 1654, but with no explanation of from where this date was derived. Tim Howson recognised the significance of this building with its 'needle beams' – a type of anchor beam, being uncommon in this area. Dating commissioned by Essex Historic Buildings Group.

7. THAXTED, Town Street, The Guildhall (TL 6113 3095)

Brace to king-post (1/1) 1418(h/s); Collar purlin (1/1) 1418(h/s); Wall-plates (3/4) 1416(h/s), 1418(3), 1418(18¼C); Tiebeam (1/1) 1421(h/s); Ceiling joists (3/4) 1405(h/s), 1407(h/s), 1411(1); Stud (1/2) 1403(1); Posts (5/5) 1334+41NM, 1409(h/s), 1410(h/s), 1412(h/s), 1416(h/s); Transverse beam (1/1) 1419(h/s). *Site Master* combined with material from Tyers (VA 24) TXTGHt20 1339-1422 ($t = 9.2$ APTASQ01; 7.8 THAXTED2; 7.7 REDLIONC).

This double-jettied iconic building is timber framed and plastered with an exposed frame. Red plain tile double hipped roofs; three storeys and cellar. The ground floor forms an open flagged market house with open timber ceiling, and heavy cross beams, supported on a great centre post. The cellar is original, and the two upper storeys are jettied on three elevations with moulded bressumers, and curved brackets. The first floor has arcading of two-centred arches. The roof is a simple two-armed crown-post originally gabled to Town Street. One timber from the limited 1990s sampling (Tyers, VA 24) was re-dated, giving an earlier overall date range, but it appears trees were probably felled over a number of years. M.Bridge and C.Tyers “Thaxted Guildhall, Town Street, Thaxted, Essex: tree-ring dating of timbers” RRS forthcoming.

GLOUCESTERSHIRE

8. NORTHLEACH with EASTINGTON, Tudor House, The Green (SP 11299 14609)

(a) West range

Felling dates: Spring 1468, Winter 1469/70, and Winter 1470/71

(b) East range

Felling dates: Spring 1477 and Spring 1480

(a) Transverse beam 1470(29C); Purlin 1469(29C); Common rafter 1467(20¼C); Principal rafters (3/4) 1463(21C?), 1460(12), 1453(6); Joists 1468(8C?), 1466(14); Collar (0/1); (b) Joists 1479(40¼C, 36¼C), 1476(11¼C); Purlins (2/3) 1476(16¼C), 1471(20C??); Axial beam 1476(10¼C); Principal rafters (1/2) 1444(H/S); Transverse beam (1472(16); Tiebeam (0/1). *Site Master* (a & b) THNL 1425-1545 ($t = 9.27$ HANTS02; 9.11 SCENG; 8.53 LONDON).

Tudor House on the south side of The Green is a complex building of which only the two front ranges were investigated. The western range is the earlier, and is of three bays, with a carriageway beneath the eastern-most bay. The roof has double threaded purlins and a threaded ridge, with windbraces to the lowest tier of purlins. The front elevation is jettied, has mid-rails between principal posts, and tension braces to the bottoms of each principal post. The roof would suggest that it have been constructed against the building to the west, as there is a gap between the end truss and the stone wall to the building next door.

The left-hand or east range is occupied by W J Castle, Butchers. This is of three bays and was built onto the eastern end of (a). It too is jettied, list description gives it as having close studding but this is rather wide. There are three planted on casements with transoms to the front elevation. Important features are a stone vault the whole width and depth of the westernmost bay, and the roof having evidence for (and a few remaining) rebated boards between the rafters. These extend a little above the lower purlins, as do the run-out chamfers. The timbers in the roof were affected by to greater degree to degradation, making the identification of complete sapwood somewhat uncertain. The dating commissioned by the owner.

HAMPSHIRE

9. HINTON AMPNER, 4 & 5 Hinton Hill (SU 59747 27901)

(a) Main frame

Felling dates: Winter 1576/7 and Spring 1577

(b) Floor structure

Felling date: Spring 1577

(a) Wall plate 1576(23¼C); Purlin 1576(29C); Common rafter 1576(24C); Posts (2/3) 1576(20C); 1552(6); Tiebeam (0/1); (b) Joists 1576(20¼C), 1564(4+1 NM), 1542(H/S); Longitudinal beam 1536(H/S + c36 NM). *Site Master* (a + b) HNTNAMPR 1398-1576 ($t = 8.86$ WYMERING; 8.72 NETTLE1; 8.55 MERSTHAM).

This cottage is a pair of semi-detached cottages, the core of which was a three-bay timber frame, two bays of which comprise No 5, Hinton Hill, and one bay comprising part of No 4. An extension was added to the west in the eighteenth century (not sampled). The primary structure is aligned east - west with the western bay being open to the roof and heavily smoke-blackened. The centre and eastern bays are floored. Details include run-out stop chamfers and the roof has slightly cranked tiebeams and clasped purlins with half hips at each end. A detailed survey by Maggie Henderson (HB Archaeology & Conservation Ltd) details the building in much more detail. Dating commissioned by the National Trust.

HERTFORDSHIRE

10. ASHWELL, Swan Lane, Town House (Ashwell Museum) (TL 2668 3968)

Felling date range: late 1450s to early 1470s

Ceiling beams (2/2) 1429(2), 1451(h/s); Tiebeams (2/3) 1430(h/s)²; Corner post 1431(3). *Site Master* ASHMT5 1348-1451 ($t = 7.3$ ORACLE2; 7.1 WHTOWR5; 6.9 HAYS_W85).

The two-bay jettied timber-framed building forms the front part of the museum, having two shop windows and close studding. It also has a crown-post roof. A date around 1500 has been proposed, but recent improved understanding of buildings in this area hinted at a possible earlier date. It was repaired in the 1930s when rendering was removed, exposing the timber frame. One timber wit ha later date makes determination of the felling date range a little difficult as it appears to be a coherent structure. It was seen on the VAG Spring Conference 2017. M. Bridge and C. Tyers “Town House (Ashwell Museum), Swan Street, Ashwell, Hertfordshire; tree-ring analysis of oak timbers”, RRS 186-2020.

LONDON

11. CITY OF LONDON, St Paul’s Cathedral (TQ 3204 8114) Wren Library Floor

Felling date range: After 1658

Floor components (5/6) 1540, 1617, 1622, 1628, 1650. *Site Master* WRENLIB 1484-1650 ($t = 8.5$ GER_BEC; 8.3 HUBER; 8.0 DUTCHG).

The Wren Library is thought to have been completed in or around 1709 (the date 1706 is carved in the stonework at the west end of the Library). The main floor consists of an interlocking series of squares, separated by long narrower sections the length of two squares plus the width of these long pieces. It was possible to see the end-grain on some squares and their linking sections at the west end of the main floor where a section had

previously been removed to insert services. The timber comes from Germany, and matches well with German imported timber found by Miles and Worthington in the garden temple at Althorp (VA 30). That structure was originally in the grounds of Admiralty House in London, and the timbers from this structure had two felling dates, Winter 1706/07 and Winter 1708/09 – the timber also matching German chronologies, so it could even be from the same batch of imported material. Dating commissioned by the Dean and Chapter.

12. LONDON, Westminster Abbey (TQ 30114 79393), Infirmary Hall roof *Felling dates: Spring 1364, Winter 1366/7, and Spring 1367*

Rafters (7/8) 1366(30¼C, 29C), 1363(30¼C, 29¼C²), 1361(24), 1341(4); Soulace 1336(H/S); Collar 1335(H/S). *Site Master* WMNSTR23 1253-1366 ($t = 6.5$ SNOXALL; 5.34; NEWDIG1; 4.98 CHARING2).

The roof to the Infirmary (Farmery) Hall is of two bays and of crown post construction. Built on what is thought to be contemporary walls, although the north window appears to be 12th century, although possibly reconstructed. (RCHME 1924 *London – I Westminster Abbey*, p92-3). The roof is notable for its soulaces, the simple crown post is octagonal in shape with broach stops at the bottom. The collar purlin has a very good through splayed and tabled scarf with the brace tenon from the crown post forming a tongue and is through pegged in both directions with the added feature of a face nailed on the soffit before the brace being fitted. However, the most outstanding feature is the base of a smoke louvre with three chamfered upper collars and a central post at each end.

Although nine of the samples cross-matched with each other, the uniqueness of the dating was not clear, therefore one of the timbers of the group was dated through isotopic analysis, allowing dates to be applied to the other eight timbers and confirming the tentative dating (see Isotope List 2 pp XX, this volume). Dating commissioned by the Dean and Chapter.

13. LONDON, Palace of Westminster (TQ 30212 79512) Westminster Hall Pilot Study Truss 13

Felling dates: Spring 1393 and Winter 1393/4

Main lower collar 1393(30C); Main arch brace 1393(26C); Purlin 1392(21¼C); Lower principal rafter 1390(29); Hammer post 1357(6+33¼C NM) *Site Master* WMSTRH1 1185-1393 ($t = 6.4$ CHENIES1; 5.7 NOSTELL1; 5.5 SENGLAND); (b) LMSSDND2 1533-1623 ($t = 13.13$ HANTS02; 11.9 MASTERAL; 11.79 SENG98).

Westminster Hall was originally constructed by William Rufus (William II) and thought to be under construction between 1095-9. This was known as the ‘King’s Hall’ and whilst historically it was thought to have an aisled roof structure, more recent evidence would suggest that the roof was of single span construction of common tiebeam trusses (Harris and Miles 2015). Some three hundred years later the Hall was remodelled and the roof replaced by Richard II.

This was undertaken by Richard II, documented between 1395-9 (Munby 2015). This roof is without question the ‘greatest single work of art of the whole of the European Middle Ages. No such comparable achievement in the fields of mechanics and aesthetics remains elsewhere, nor is there any evidence for such a feat having ever existed’ (Harvey 1971). Cleaning and restoration work carried out between 2016-19 by the

Parliamentary Estates has given access for an assessment and Pilot Study to the southernmost truss (truss 13). This has produced several precise felling dates and shows that the potential for further study are considerable.

The dating of timbers lintels found in the newly rediscovered 'Hidden Room', a blocked door embrasure in the east wall, is described in the Isotope List 2 pp XX, this volume.

14. TOWER HAMLETS, H M Tower of London, the Bloody Tower (TQ 33566 80499)
- (a) Early partition *Felling date range (OxCal Modelled): 1602-18* (Unrefined 1600-32)
- (b) Later partition *Felling date range: After 1729*
- (a) Door post 1590(H/S); Post 1595(3); (b) Pine boards (2/11) 1703, 1729. *Site Masters* (a) **tbl1910** 1544-95 ($t = 4.74$ FRANKLN1; 4.45 BEDFLD2; 4.31 LITTLELY2); **tbl1910o** 1443-1596 ($t = 7.56$ OXYGEN18); (b) **tbl1920** (pine) 1635-1729 ($t = 7.3$ SBMNx21; 7.2 FGMNx34; 6.5 CHAPMNx13).

The Bloody Tower at the Tower of London was originally constructed by Henry III in the early thirteenth century. Upstairs little primary fabric survives, and no wood work, but the low-pitched bowed-shape replacement roof of pine was sampled, but failed to date. However, the timber appeared to be imported hard pine, possibly from north America. A timber partition (a) which is plastered on one side dated through isotope analysis (see Isotope List 2, pp XX, this volume) and provided a date range of between 1602-18, which is roughly the same period of Sir Walter Raleigh's imprisonment there. Finally, a much later rebated and tongue and groove pine partition (b) provided two *termini post quem* dates of after 1703 and after 1729.

15. TOWER HAMLETS, H M Tower of London, the Byward Tower (TQ 33490 80515)
- (a) Portcullis winding gear *Felling date: Winter 1656/7*
- (b) Rope drum (elm) *Felling date range: After 1648*
- (a) Winding handle spoke (6/8) 1656(32C, 29C, 27C), 1628, 1596, 1589; (b) Spoke (elm) 1648. *Site Masters* (a) **TOLBx3** 1550-1656 ($t = 5.43$ CHAWTON5; 4.8 gm7; 4.71 AUKBSQ02; 4.51 SENG98); (b) **tolbelm** (elm) 1579-1648 (no significant matches with reference chronologies; $t = 3.9$ tolB22; 4.4 tolB25); (a+b) **TOLBx3o** 1551-1656 ($t = 6.0$ OXYGEN18);

The Byward Tower at the Tower of London was originally constructed between 1275 and 1281 and protected by an impressive portcullis which still survives. 14C analysis of one of the timbers from the portcullis itself gave a date range of 1236-1302, showing that the original gate still survives. The winding mechanism for this above has had dates of *c.* 1260 for the rope drum and *c.* 1532 for the winding handle proposed (Hewett 1985 *English Cathedral and Monastic Carpentry*), however and the dating here has shown that the whole lifting mechanism was replaced in 1657 in the Interregnum period when particularly poor records were kept by the Protectorate. By using a bespoke miniature drill from silver steel to sample the winding handles, cores were successfully obtained, and despite most of these cross-matching to form a 107-ring site master, it

failed to date conclusively with ring-width dendrochronology. The rope drum was found to be elm, and did not match with ring width analysis either. Therefore, the elm sample and two samples from the winding handle were subjected to isotopic analysis (see Isotope List 2, pXX, this volume). Further details can be found in N J Loader *et al* 2020 ‘Oxygen isotope dating of oak and elm timbers from the portcullis windlass, Byward Tower, Tower of London’, *Journal of Archaeological Science* **116**. The postern gates to this tower had previously been dated to 1440-71 and 1456-76 (VA **48**, p114).

NORFOLK

16. GREAT YARMOUTH, 160 King Street (TG 5251 0741)

Felling dates: Winter 1654/55, Spring 1655

Ceiling beam (1/1) 1654(24¼C); Joists (4/5) 1596, 1627, 1654(16¼C), 1654(20¼C); Principal rafters (7/7) 1628(3), 1642(2), 1643(5), 1648(9), 1653(16+c1-3CNM), 1654(19C), 1654(20¼C). *Site Master* KSGYt12 1551-1654 (*t* = 9.0 KRBHSQ01; 7.9 NRTNSQ02; 7.4 ALDATES2).

The building lies within the historic heart of Great Yarmouth and is thought to be a late-sixteenth century timber-framed house, with an early-nineteenth century brick façade, and a twentieth century shop front. A recent measured survey by the Great Yarmouth Preservation Society raised the possibility that some of the timber-frame could be earlier than the presumed late-sixteenth century date. The roof is of simple collar-rafter construction with four trusses. M. Bridge and C. Tyers “160 King Street, Great Yarmouth, Norfolk: tree-ring analysis of oak timbers and conifer boards”, RRS 111-2019.

SOMERSET

17. STAWLEY, Greenham Barton (ST 0815 2004)

(a) Remnant medieval truss

Felling date: Winter 1279/80

(b) Kitchen range roof

Felling dates: Winter 1755/6 and Spring 1762

(c) Hall range roof

Felling date: Spring 1767

(d) Service range roof

Felling date range: 1766-70

(e) South roof over solar

Felling dates: 1744-48 and Winter 1770/71

(a) Arch-brace (1/1) 1249; Arcade post (1/1) 1279(17C). (b) Principal rafters (5/5) 1711 (h/s+c35NMC), 1713(2+14NM), 1736(h/s+21+≤5NMC), 1740(h/s+20+≤5NMC), 1755(34C); Purlins (2/2) 1761(10¼C), 1761(34¼C). (c) Principal rafters (5/5) 1739, 1740(h/s), 1743(h/s), 1748(h/s), 1766(27¼C); Purlins (3/3) 1721(h/s), 1734(h/s), 1748(2). (d) Principal rafters (5/5) 1684+24NM(+7NM), 1734(2), 1737(8), 1738(2), 1765(26+≤5NMC). (e) Purlins (3/3) 1743(8+≤5NMC), 1752(h/s), 1770(18C). *Site Masters* (a) gmbt1415 1205-1279 (*t* = 6.1 HIRBRWTN; 6.0 CRANE12; 5.7 ENGCOMBE); (b-e) GMBTt23 1576-1770 (*t* = 7.6 BASINGDF; 7.1 SYDMNTN2; 6.9 CHATHAM2).

This manor house is largely medieval and mid-sixteenth century in appearance, with later additions. The porch, screen passage, and kitchen are believed to survive from an earlier house, and recent work by the archaeologist Stuart Blaylock suggested that the shell of the great hall also

dates to an earlier phase. Recent renovation work exposed elements suggesting the original house could be very early in date, and dendrochronological dating was commissioned by Historic England to enhance understanding of the early roof form found, and inform its significance, especially in comparison with a corpus of early structures in South Somerset identified by J. Penoyre, 1998 “Medieval Somerset Roofs”, *PSANHS*, **141**, 78–81. See also M. Bridge and C. Tyers, “Greenham Barton, Stawley, Somerset: tree-ring analysis of timbers”, *RRS* 190-2020.

SUFFOLK

18. HITCHAM, Church of All Saints, Bellframe (TL 9845 5110)

Felling date range: OxCal 1520-29

Posts (4/5) 1490, 1504(h/s), 1508(h/s), 1511(h/s); Head frame (1/1) 1509(h/s); Corner beam (1/1) 1502(h/s). *Site Master* HITCHAM 1425-1511 ($t = 7.0$ DID-B; 6.9 STE-A; 6.9 TREES2).

The frame is of an unusual type, having a superstructure above the area of the bell housings, attached to large corner posts in the corners of the tower. The area housing the bells has large curved braces overlapping each other between the head rail and the sill plate. Subsequent to the dating, Edward Martin rediscovered a mention of a payment of 13s 4d in the will of John Bowell the elder of Hitcham, dated December 1524, towards ‘the making of the bellframe’. Dating commissioned by Hitcham PCC.

19. NAYLAND, Alston Court (TL 9750 3420)

(a) Primary service cross-wing

Felling date range: 1301-06

(b) Gateway and ‘Dye House’

Felling date: Winter 1521/22

(a) Axial joist (1/1) 1287(3+14CNM). (b) Tiebeam (1/2) 1495(h/s); Beam over entrance (1/1) 1509(5); Wall-plate (1/4) 1521(15C). *Site Masters* (a) alsn01 1144-1287 ($t = 10.2$ ELYCSQ01; 8.8 STACSQ02; 8.6 TADMRTN); (b) ALSN976m 1448-1521 ($t = 8.3$ COGASQ02; 7.3 REFIT; 7.1 CHENIES1)

A Grade I-listed multi-phase building, the earliest part of which was identified as of possible thirteenth-century origin, with later, probably late fifteenth and sixteenth century sections, built around a courtyard. A solar above the dining room has a boarded roof with curved arched braces on corbels carved as human figures. Extensively studied by Leigh Alston. The parlour and solar areas were sampled but failed to date. Dating commissioned by the owner.

WORCESTERSHIRE

20. HANLEY CASTLE, Church End, Glebe Cottage (SO 8383 4205)

Felling date: Winter 1457/58

Principal rafters (2/2) 1433(h/s), 1433(4); Tiebeam (1/1) 1427(5); Wall-plate (1/1) 1436(3); Posts (2/3) 1442(19), 1457(29C). *Site Master* GLEBEHC 1359-1457 ($t =$

8.6 HERECB2; 8.6 HIGHTOWN; 7.6 CRADLEY).

The 'cottage' was attributed to c1500 by Freddie Charles when he worked on it in the 1970s. A central open truss in the Hall has fine cusped raking struts above a slightly cranked collar. The two-storey cross-wing is of the same age. Dating commissioned by the owner.

21. WORCESTER, 38-42 Friar Street, Tudor House Museum (SO 8513 5464)

(a) 38 Friar Street, to north of carriageway

Felling date range: 1481-1513

(b) 40-42 Friar Street, to south of carriageway

Felling date: Spring 1554

(a) Ceiling beam (1/2) 1475(3). (b) Axial floor beam (3/3) 1540(h/s), 1551(11+2NM), 1553(16¼C); Ceiling beams (2/2) 1542(4+11NM), 1552(19+1NM); Posts (1/3) 1553(18¼C); Rafters (3/4) 1553(14¼C)², 1553(19¼C). *Site Masters* (a) thmw05 1423-1475 ($t = 7.4$ ELLAND; 6.9 HARTSALN; 6.9 BOWERCT); (b) TUDORHWMW 1396-1553 ($t = 8.8$ MEREHALL; 8.6 LBG-t10; 8.1 AYLTON).

The section to the north of an eighteenth-century inserted carriageway has been incorporated into the property, but was originally a separate building, always considered older than the main range. The main range is four-bay two-storeyed with a jettied upper storey with mid-rail to close studding. Oriel windows have been replaced, and there is a fine seventeenth-century moulded plater ceiling to the south end room. There is a queen-post roof with clasped purlins and straight wind-braces. Dating commissioned by the Worcester Heritage and Amenity Trust Ltd.

WEST SUSSEX

22. CRAWLEY, 44-48 High Street (TQ 2673 3657)

Felling date range: 1564-9

Posts (2/6) 1524(h/s), 1531(h/s); Joists (3/3) 1542(h/s+11NM), 1551(2), 1564(19). *Site Master* CRAWLEY1 1412-1564 ($t = 8.8$ WCKITCH; 8.5 VANN; 8.5 CHAWTON3).

The main frame has been assumed to be sixteenth century, the roof eighteenth-century, but the frame projects up into the roof space, and was thought by some to be possibly earlier. It has square framing with some close studding, but has been much altered with shops inserted at ground floor level. No roof timbers were suitable for sampling. The narrow date range is given as one timber lost a very small number from the bark edge on coring. Dating commissioned privately.