

THE COUNTY MUSEUM BUILDINGS, CHURCH STREET, AYLESBURY:

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The County Museum buildings in Church Street, Aylesbury are described and dated, and their history discussed. The former Grammar School is shown to embody part of a seventeenth-century precursor, and Ceely House to have been originally a timber-framed, jettied building, dated by dendrochronology to 1473. It is argued that it started life as the 'Brother House' of the Fraternity of the Virgin Mary, founded in 1450 and dissolved along with the chantries in 1547. In the seventeenth and eighteenth centuries the Brother House was occupied by a succession of ecclesiastical lawyers in the Commissary Court of the Archdeaconry of Buckingham. In the late seventeenth century the front of the building was probably altered to bring it into line with contemporary notions of fashion; it was also extended at the back. In mid eighteenth century it was further altered inside and fronted with Georgian brickwork, producing essentially the appearance the building presents today.

Buckinghamshire County Museum lies in Church Street, Aylesbury, at SP 81751380 (Fig. 1). The street runs south-east/north-west, and in the following account NW is treated as N. The Museum consists of three distinct but contiguous buildings, now interconnecting: to the north, fronting the churchyard, the former Aylesbury Grammar School (D on Fig. 2), bought by the Buckinghamshire Archaeological Society in 1907, to be the first permanent home of the Society's collections; adjoining it to the south lies Ceely House (A), bought in 1944, and already incorporating the next building to the south (C). Ceely House was fully incorporated in the Museum after 1950, the upper floor having till then been occupied by the vendor as the Society's tenant.

In 1954 the County Council assumed responsibility for running and staffing the Museum, paying the Society a peppercorn rent under a repairing lease. The buildings thus came under the care of the County Architect, and one of his periodic inspections led to a recommendation that a full structural survey should be carried out. The opportunity was taken to conduct an archaeological investigation and

associated archival research, and this was carried out by the writers in 1990. What follows is their report, which starts with the earliest part of the complex to be built.

Ceely House (A on Fig. 2)

The Royal Commission on Historical Monuments reported of Ceely House in 1912 that 'the house is an 18th-century building, but the roof is made up of the timbers of a 15th-century roof. . . [The trusses] appear to have been reconstructed'.¹ Had the present investigators seen nothing but the roof they might have been tempted to the same conclusion: there are features of the roof that do suggest re-setting (though, as will be seen, they are to be explained otherwise), and the proportions of the downstairs rooms would not be in the least out of place in an eighteenth-century house.

When the Society took over the upper floor in 1950 it was quickly realised that RCHM was mistaken, and a report on the lines of the present one was promised.² Unhappily the Hon. Secretary, E. A. L. Martyn, who was also the architect in charge of the conversion and might well have undertaken the report, died

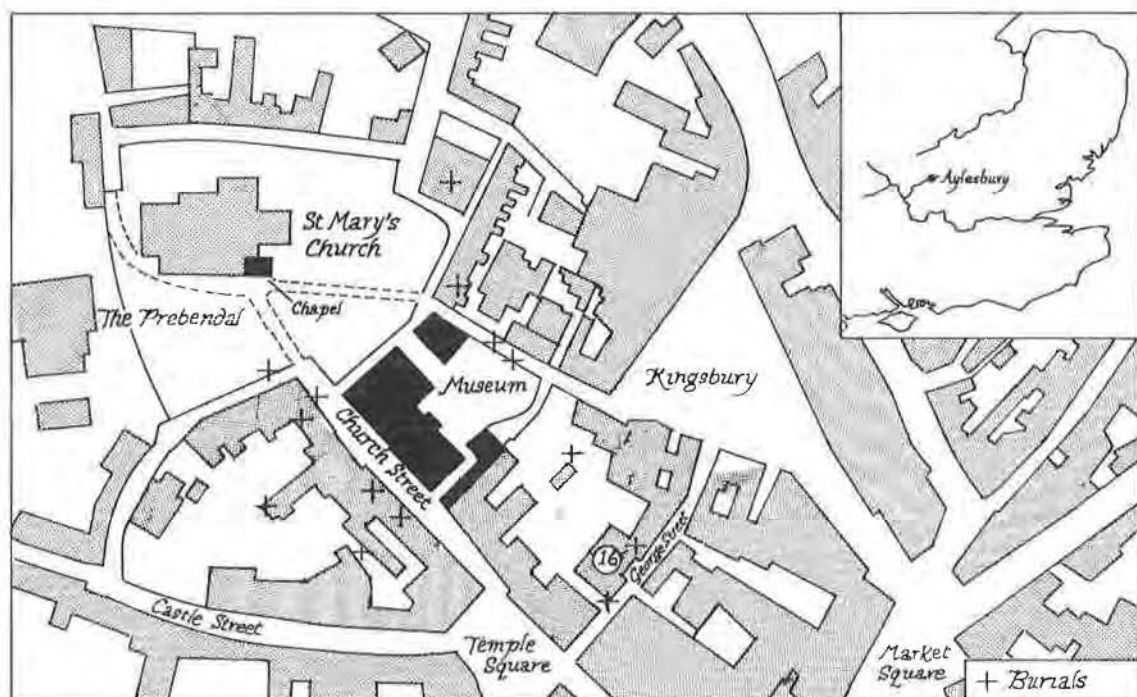


Fig. 1. Central Aylesbury, showing Museum.

soon afterwards; and the then curator, R. C. Sansome, took up an appointment in Taunton. The project dropped out of sight for forty years.

Dendrochronology (dating by the growth patterns revealed by tree rings) has established that the main range was probably built in the years immediately after 1473 (see Appendix).

The building had a two-storey jettied range of five bays fronting the street, and behind, projecting to the E, a part single-storey, two-bay wing, (Figs. 3 & 10), which has not been securely dated, but appears roughly contemporary. The ground floor of the main range is strikingly lofty: 10ft 4ins (3.1 m) to the soffit of the moulded spine beam. It was divided into two rooms, of two bays and three, connected by a rather narrow door: the studs of the partition are at 15-inch centres (325 mm), and only one of these was dispensed with to accommodate the door (Fig. 6). If this door resembled that into the wing, in the middle of the long side of the larger room, extra width was won by reducing the

width of the flanking studs below the lintel (Fig. 4). No evidence survives to suggest where the entrance from the street lay.

Close to its S end the three-bay room is spanned by a bearer beam (in the form of a full-length joist of deeper section than the rest), into which the moulded spine beam is tenoned (Figs. 3 & 4). The gap beyond is not of uniform width, since the S wall of the building is not square to its axis; at its mid point the gap measures 39 ins (975mm). It is spanned by a short length of spine beam, unmoulded and of smaller section than the other, supporting three pairs of joists. Two pairs are of the same scantling as the others in the ceiling, and on one of them part of an assembly mark can be seen; the third is much slighter.

The position of this bearer suggested that it was the bressumer of a smoke bay, supporting a partition to keep the first floor free from the smoke of a fire below; but there are fatal objections to such an interpretation. In the first place the only mortices in the bearer are in its

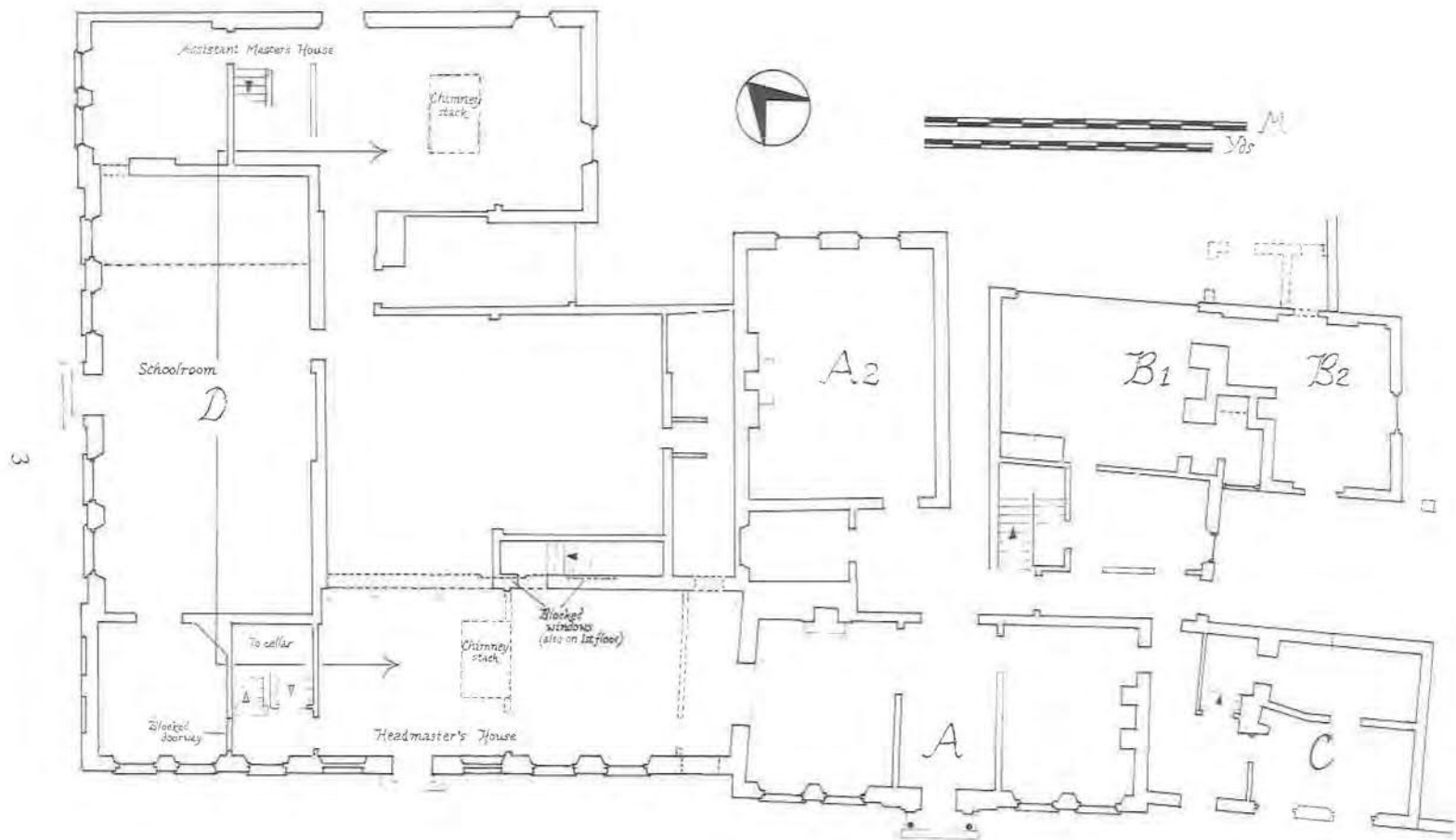


Fig. 2. The Museum buildings, with the parts lettered for reference.

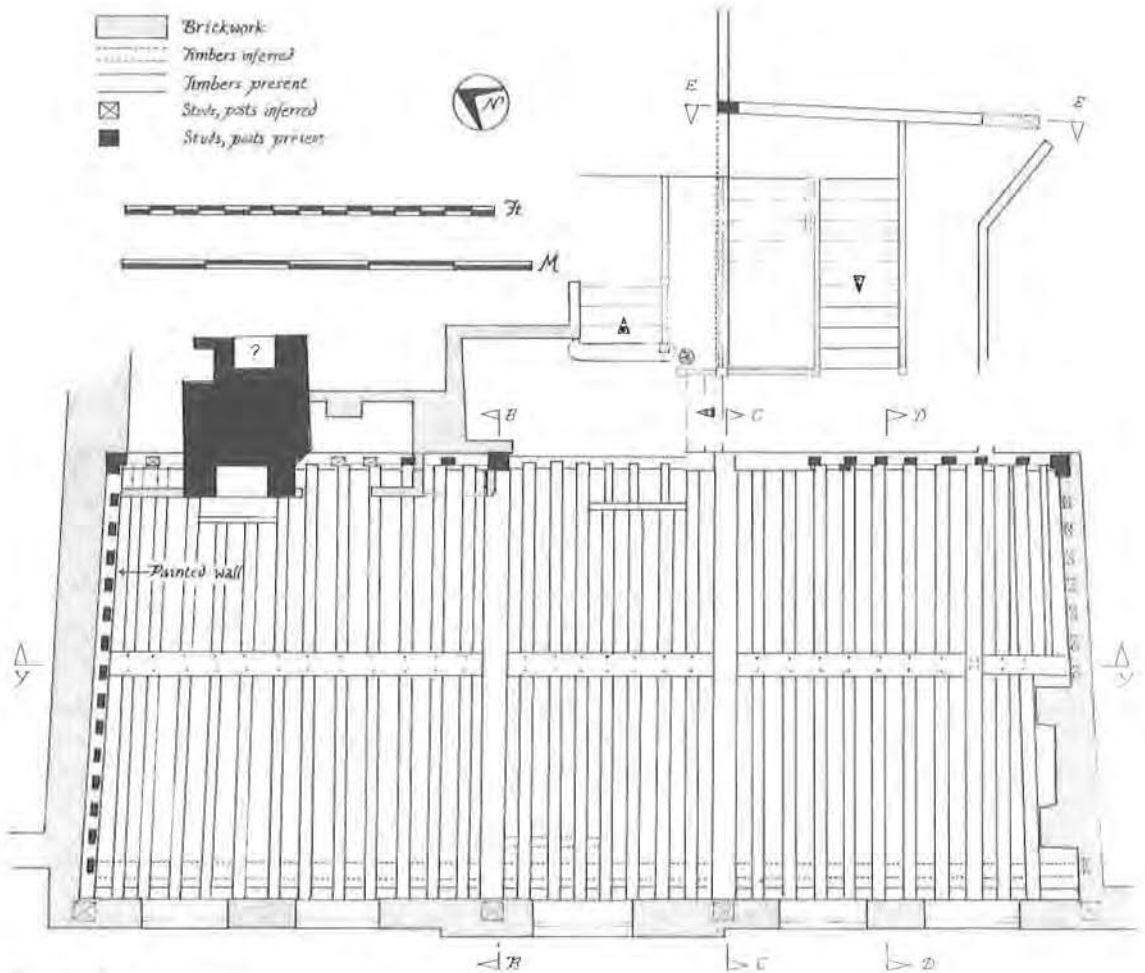


Fig. 3. Ceely House, first-floor plan.

soffit. Since an essential feature of a smoke bay is that it should be partitioned off from the rest of the upper floor, there should be mortices for studs in the upper surface of its bressumer. Mortices in the soffit could in theory have held studs terminating in a lower bressumer five feet or so from the floor; but it is hard to see how such a timber could have been supported, since there is no post or stud in line with it. An equally weighty objection is that there is no sign of smoke-blackening on the inner face of the bearer.

Two alternative hypotheses must also be rejected. There cannot have been a cross passage here, since the sill beam on the E side is uninterrupted. That a smoke bay was in-

tended but never made is theoretically possible, but does not account for the mortices in the bearer. Unfortunately there was no opportunity to examine the floor for traces of a hearth.

Any explanation has to take account of the fact that this space was always floored over, and that the spine beam spanning it, being un moulded, was not intended to be seen from the main room.

Conceivably the tapering space beyond the bearer was some kind of entrance lobby, with a door to the street; but no good parallels are known, and this idea too we reject. The hypothesis that we favour is that the beam

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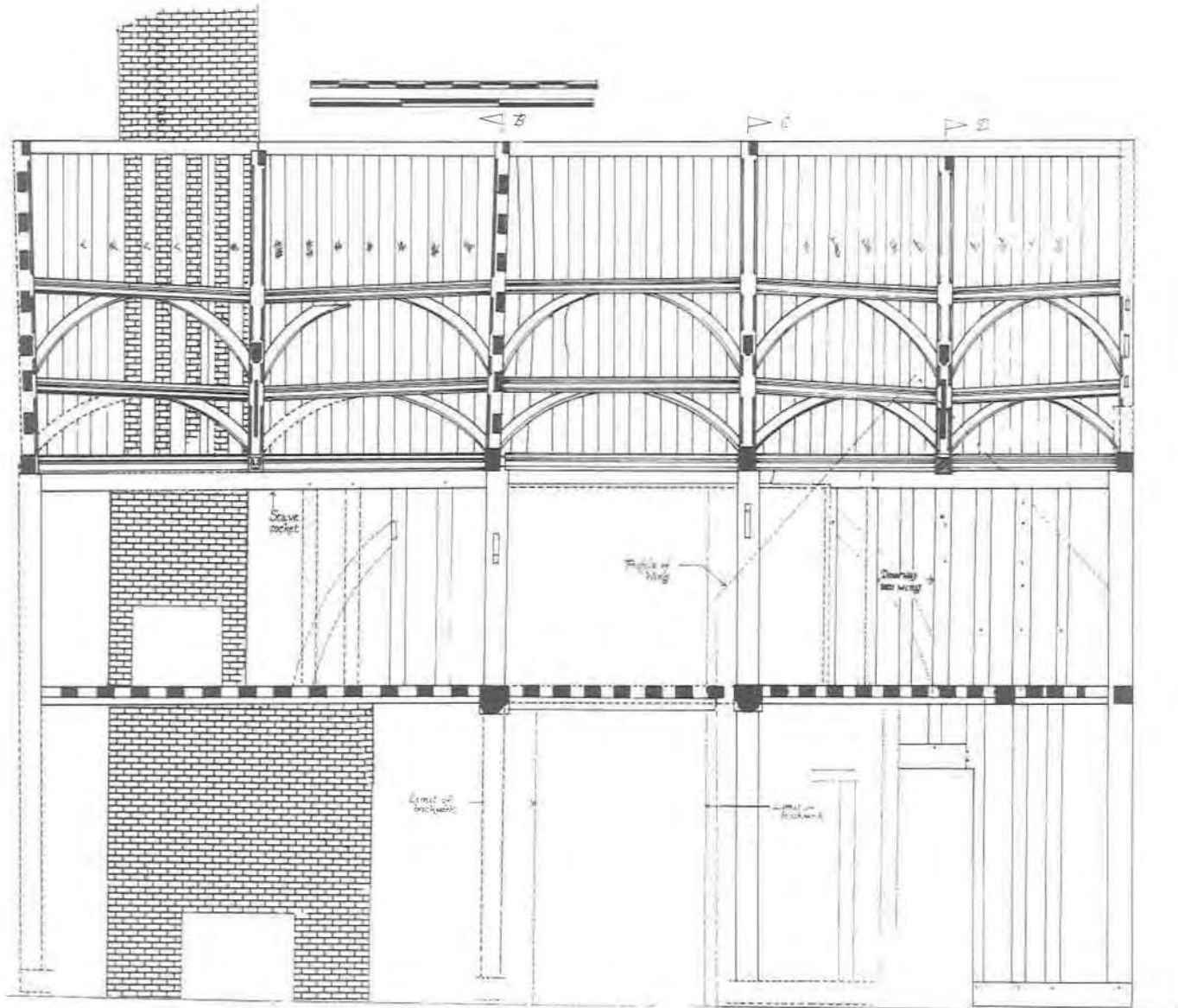


Fig 4. Ceeiy House: Long section (Y - Y).

supported a coved canopy over a dais. This is not without supporting evidence: re-used timbers from a medieval building were found in the roof of the Grammar School, and one of them, there doing duty as a purlin, was a timber with hollow-chamfered arrises, having a three-quarter-round roll mould on one face and, on the other, what appear to be the 'ghosts' of the butts of joists, though of slighter scantling than the floor joists of Ceely House (Fig 4) p.5 A plausible origin for this is as a dais beam, part of the postulated dais canopy. It resembles the roughly contemporary dais beam at No 49 High Street, Amersham, in having hollow-chamfered arrises and a single roll moulding on the face, though there the roll has a cavetto or 'casement' above it. A further possible resemblance is that the joists behind the beam at Amersham butt against its back but are not jointed to it. The lower part of the back of the 'Grammar School' beam is slight weathered, possibly as a result of the entire canopy assembly having been left out of doors for a while after being removed. It will be seen (p.19) that something of this kind is very likely to have happened. A canopy of course requires support for its back, and such support has to be parallel to the front; the S wall of the building will not do. But it can be seen that a line drawn through the SE corner post, at right angles to the axis of the building, intersects the W wall where the second stud should be; support for the necessary rear bressumer would thus have been no problem.

It was in the bearer beam that prompted this discussion that unequivocal evidence for a jetty was found, in the form of a trench in the soffit to fit over the jetty plate (Figs. 3 and 7). When the boarding over the head of the southern window was removed, the jetty bressumer was exposed. It shows that the floor joists were tenoned into the back of the bressumer, and that the first floor front was close studded.

At the N end of the three-bay room provision was made for a wide stair to rise to the first floor. The intention and the dimensions (3 ft 8 ins = 1.1m) are attested by mortices for a

trimmer beam in the ceiling joists (Figs. 3 and 6). But it may never have been built, and if it was it was soon replaced. The joists that now span the gap behind the trimmer beam are of the same heavy scantling as the others, and in fact are distinguished only by not bearing assembly marks. This change seems to have taken place when the rear wing was built. There was a door into the wing from the first floor (Fig. 4) (indicated by rebates in the flanking studs, and by the infill stud being an insertion). It is therefore likely that the replacement stair was built in the wing.

The first floor was divided in the same way as the ground floor, but by a close-studded partition in which there was no doorway. The two-bay N room could only be entered by an outside stair at the back; the door to this must have been where the chimney now is, not in the gable wall: when the eighteenth-century lath and plaster lining or false wall there was cut away, no evidence of an opening was found in the original wall behind. It was noted that there is an anomaly in the spacing of the studs immediately S of the chimney where, instead of a mortice for a stud at the expected interval, there is a stave socket just short of it. This may indicate that the sequence of mortices was interrupted by a doorway at a point that did not fit the regular spacing of the studs.

In 1952 four gold coins of Edward IV were found during work on converting the first floor to museum use,³ and a story grew up that they were in a mortice in a post. The facts are less romantic: they were found among dust and rubbish on the floor while an old cupboard was being removed.⁴ They are gold coins of the kind known as rose nobles, supposed to weigh 120 grains at a value of ten shillings,⁵ and are now in the Museum's collection. There is one of type VII, with a crown as mint mark, one of Type VIII, also with a crown, and two of type IX, with a long cross fitchee as mint mark. All were minted between 1464 and 1470, during Edward's first reign. Found at the same time, and in the same context, was a bone object resembling a bobbin or toggle, but of square section (Fig. 5); the ends bear a pattern of incised lines.⁶ It is likely to be a post-medieval artefact.

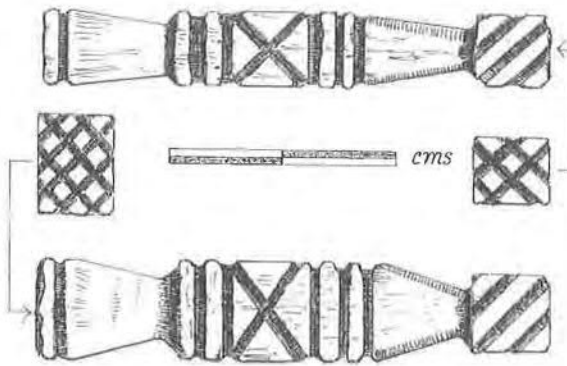


Fig. 5. Bone object from Ceely House.

The two gable ends were close-studded, at least down to the girding beam (first-floor wall plate), and their roof trusses are of tiebeam-and-collar form. The roof is of butt-purlin type with two purlins and two rows of windbraces. All the principals, and all the surviving purlins, have double-ogee mouldings (Fig. 10). The trusses flanking the central bay have tiebeams and collars; that to the south of the central bay had in addition a timber resembling a

crown strut, braced laterally to the collar (Plate I). The trusses intermediate between these and the gable ends are of arch-braced collar form with stub ties, and it was probably these trusses that led the RCHM to think the roof had been re-set: the collars appear lower than in the other trusses; the mortices for the purlins do not align with those on either side; perhaps most striking of all, a ridge piece has been inserted, which certainly forms no part of the original structure, and the rafters have manifestly been reset – those on the W have been turned round to present their weathered faces to the interior, while those on the E are not in their original order as indicated by assembly marks. Moreover the arch-braced trusses have their apexes below the inserted ridge (Fig. 8).

These anomalies are to be accounted for by a collapse of the W ends of these trusses, which have sunk about a foot (c. 300mm) (Figs. 7 and 9). This was evidently caused by mutilation of the timber frame when the masonry carcass was put on. The mutilation



Plate I. Ceely House, central bay, looking W.

can be seen in the exposed length of jetty bressumer, which has not only been re-positioned, but has had its outer face cut back far enough to break into the mortices for the first-floor studs. Evidently these studs were removed altogether, and since the arch-braced trusses had only ordinary studs beneath them, not posts, a collapse at this point is not to be wondered at. At the E end of the S arch-braced truss the joint at the foot has failed as a result of the collapse, and the stub tie is angled quite sharply downwards. The function of this joint was to unite the principal to the wall plate and the post, in such a way as to avoid the thrust of the roof turning the wall plate over about its outer arris. When this problem was solved by the use of stub ties the carpenters were using the joint with which they were familiar when using conventional ties; but since the outward thrust was taken care of by the arch brace, they only needed a short length of tie – enough to accommodate the open dovetail they were used to. The dovetail was intended to withstand lateral tension, not being levered upwards by a vertical turning moment, and when that was applied, the joint failed. (It ought perhaps to be stressed that this is supposition, since the joint cannot be seen).

The original form of the stub is to be seen behind the plaster in the N room. It bears the mutilated remains of a carved female head (Plate II). No doubt the other three were similarly treated.

The N room also contained in its N and E walls the only original plaster. A false wall of lath and plaster had been built in front of both walls in the eighteenth century. The lath and plaster covering the N wall was removed, and it was found that behind this the close-spaced studs had been limewashed, and they and the plaster panels between them had been covered with a repeating geometrical scheme of painted decoration in black and white (Plate III).

There is a close parallel in Byeballs Farm House, Great Sampford, Essex (kindly drawn to our attention by Mrs Muriel Carrick), which likewise has a decorative scheme composed of squares and oblong hexagons combined to form



Plate II. Ceely House: The carved head from the N room, first floor. (Photo County Museum)

large regular hexagons. From the style of its carpentry, Byeballs has been dated to between 1550 and 1600⁷, but it seems certain that the Aylesbury painting is a good deal earlier. The painting has been conserved by Elvira Pluta, who also removed layers of mortar and lime wash to reveal the complete scheme, almost intact.

The E wall was found to have been given a thick coat of hair plaster covering the studs as well as the original plaster between them. A small area of both layers of plaster, close to the top of the wall, was removed, adhesion of the lower layer to the underlying daub being very poor. The thin lower layer was carefully consolidated, and the hair plaster removed, by the County Museum conservator, and here too the lower plaster was found to be painted. The pattern was diagonal lines in a diamond hatching, evidently part of the same frieze design as that revealed on the N wall.



Plate III. Ceely House: wall painting on N wall, first floor.

Ann Ballantyne, formerly assistant to Dr Clive Rouse and now herself a leading conservator, kindly reported on this find. She writes: 'It is interesting to note that the painted plaster does not seem to have any hair in it. I have been told by Dr Rouse that the earliest hair plaster he has ever found (with a date supported by documentary evidence) was a ceiling in one of the houses in the close of Gloucester Cathedral, which was plastered ten years before Elizabeth I came to the throne; hair was commonly added to plaster from the reign of Elizabeth I until the First World War, when materials such as asbestos started to be used in place of animal hair. The fact that a number of the timbers in Ceely House have been dated to 1473, and that this painting is found on the first layer of the earliest (hairless) plaster in this part of the building, as well as on the wooden studs, all contribute to dating this painting rather earlier than might otherwise be the case, probably a little before 1500; I think that one can reasonably safely refer to it as being of the late fifteenth century⁷.

Very few pre-Reformation wall paintings have been found in non-ecclesiastical settings. Most of those known are fragmentary, and few are on timber-framed walls. The only example known to us in Buckinghamshire is an IHS monogram in the Old Vicarage, Wooburn. The discovery of a virtually intact scheme covering an entire wall is therefore very important⁸.

Of the medieval rear wing only part of one truss survives; the truss has lost about a metre (3 ft 4 ins) from its southern end. The tie and the collar are both sooted on the W side. There were studs under the tiebeam, and a substantial rail. Evidently the wing was chambered over E of the tie; it seems reasonable to suggest that the other half was a kitchen. The sooting is the only evidence for the use of fire anywhere in the medieval building.

It was not possible by dendrochronology to determine an absolute date for the building of the wing, but it was established that it was contemporary with the infilling of the stairwell

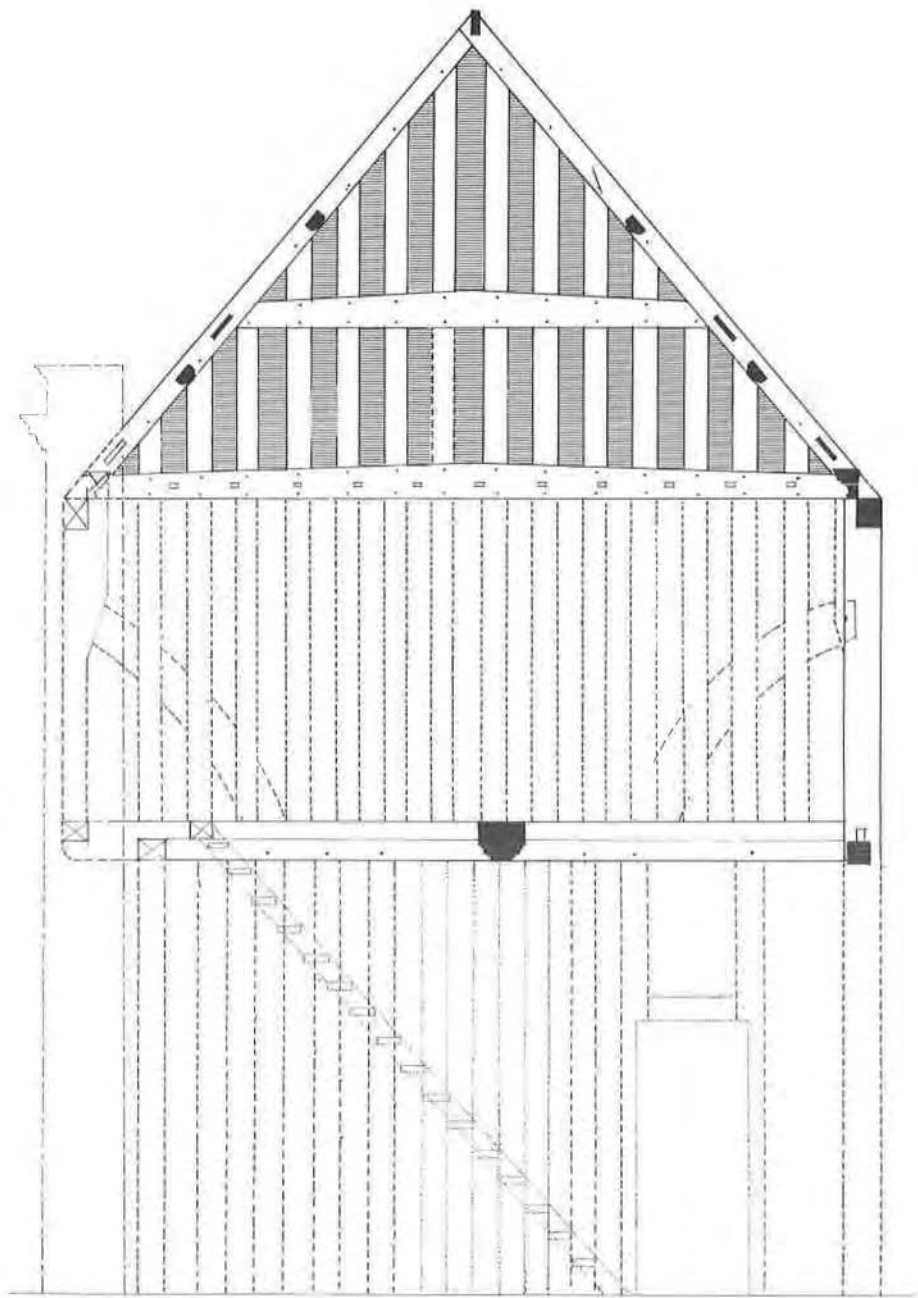


Fig. 6. Section at B, looking north,

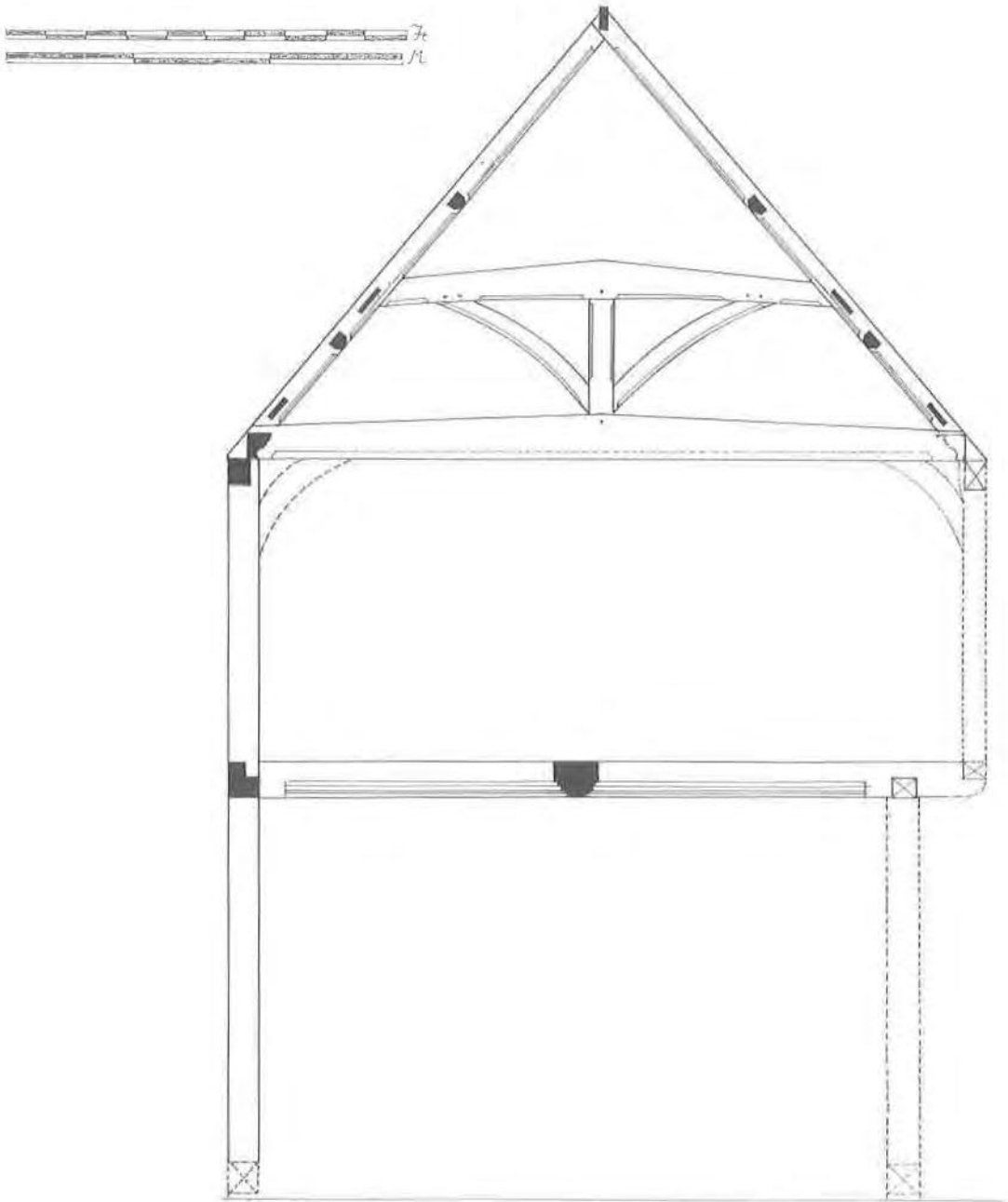


Fig. 7. Section at C, looking south.

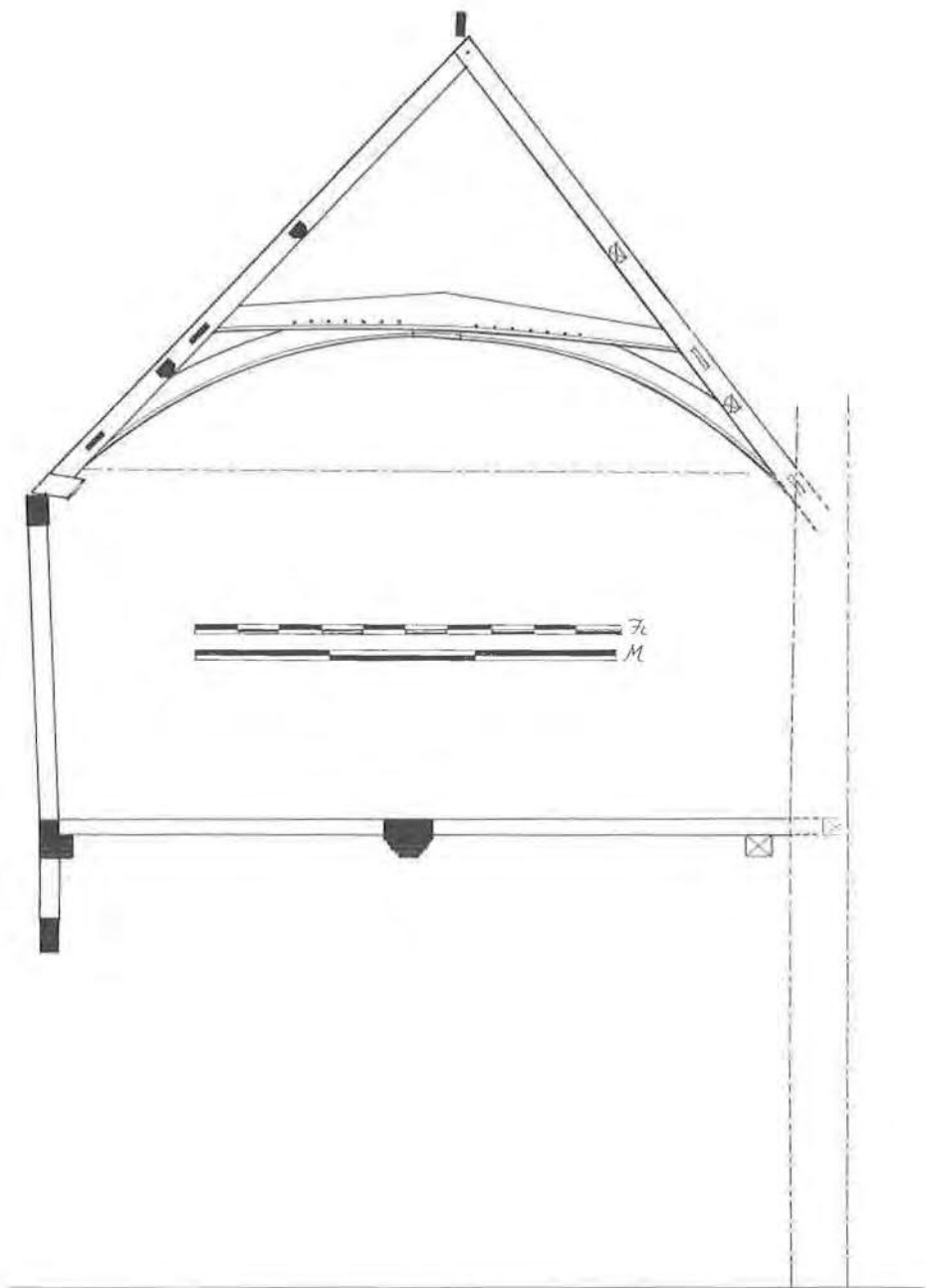


Fig. 8. Section D, looking south, showing inserted ridge and sunken W side of truss

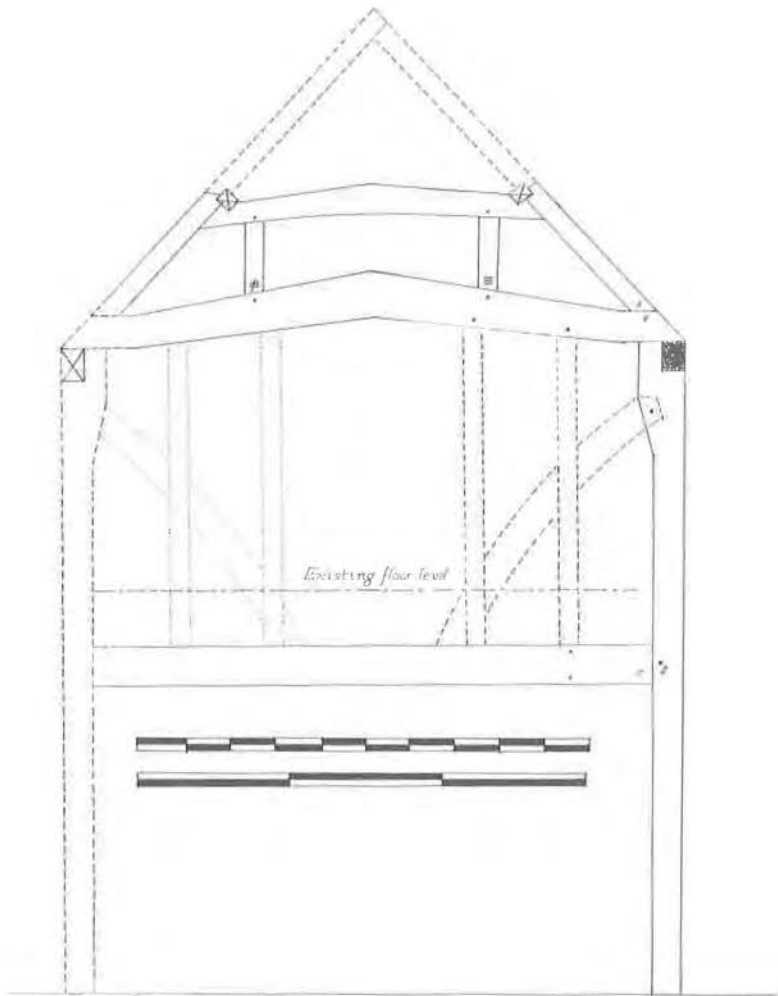


Fig. 9. Ceely House, section of medieval wing

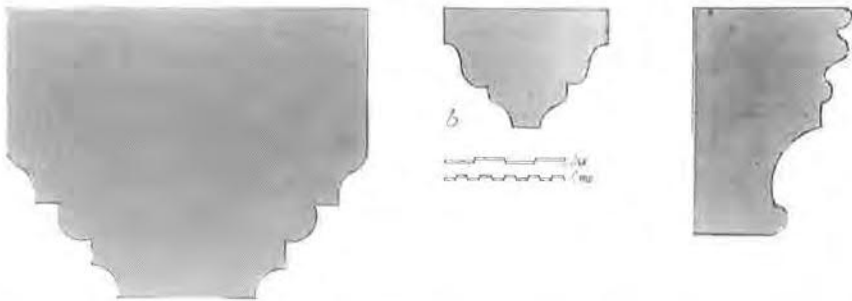


Fig. 10. Fifteenth-century mouldings from Ceely House: (a) ground-floor spine-beam, (b) principal rafters and purlins, (c) cornice beam



Fig 11. Profile of dais beam, reused as purlin in former Grammar School

in the middle bay (See Appendix A). In other words the building of the wing allowed the abandonment of the original stair (which had perhaps been found inconvenient), and the construction of a new one (for which the only direct evidence is the doorway at its head). Of the roof of the wing only the collar of the principal truss, and the lower parts of the principal rafters survive. It is probably the common rafters of this roof that were re-used as floor joists in the Grinnell Room (A1); they have peg holes for sprockets, which carried the eaves out beyond the line of the wall (Plate IV). No doubt the entire roof was sprocketed.

The wing was framed independently of the hall, as is usually the case. It extended further E than the surviving truss, whose E face was unweathered; its original extent and subsequent history are discussed below under 'The southern and eastern parts of the house'.

Before leaving the medieval building, mention must be made of some more re-used timbers in the roof of the former Grammar School. Besides the proposed dais beam there were some that came from oriel windows. There is no way of knowing for certain if these belonged to Ceely House, but first floor oriels would be in keeping with that building, and other considerations make it a likely source of timber for the Grammar School (see p.19).

Discussion: the Medieval Building

The evidence points to a superior building. Continuous jetties were an innovation in the fifteenth century; what survives of the carved head on the stub tie is of high quality (much more sophisticated than, for example, the con-



Plate IV. Rafters re-used as floor joists, Grinnell Room, showing peg holes for sprocket.

(Photo County Museum)

temporary heads on the hammer beams at Rectory Cottages, Bletchley⁹); the mouldings are elaborate and carefully formed, and the lofty ground floor and the close studding are also high-status features. It is a puzzle to suggest who, in fifteenth-century Aylesbury, could have raised the capital to build such a house. But in fact it can hardly be domestic. Although there seems to have been a kitchen at the rear, there was apparently no space heating, and there was one upstairs room that could only be reached from outside.

These features can be explained if it was built for a wealthy body corporate, which would need provision for ceremonial communal eating, a room for council meetings and a private office. Communal meals may not have been frequent, and this could explain why

heating was dispensed with. It is worth noting that none of the many guildhalls in Essex has produced any evidence for heating at all.¹⁰

No trade or craft guilds are recorded for Aylesbury but, like other centres of local importance, it had its religious guild or brotherhood, the Fraternity of the Virgin Mary.¹¹ High Wycombe, Chesham and Newport Pagnell also had guilds with the Virgin as patron, and Princes Risborough a guild of Jesus. This short list is derived from bequests in surviving archdeaconry wills;¹² there must have been others: Amersham, for example, is known to have had a guild of St Catherine,¹³ but this does not feature in any will.

The fifteenth century was the great age for the foundation of guilds, as it was of lay piety in general. Piety indeed was the guilds' inspiration, good works and prayer for departed members their principal activities. At Aylesbury the Fraternity of St Mary supported ten alms houses and four cottages in which poor people lived rent free.¹⁴ Another of its properties had a tenant who lived rent free on condition of providing bread and ale for the poor to the value of 2d per week. The guild also provided a means whereby local people could have some say in the town's affairs.¹⁵ But, like other religious guilds, it employed chaplains to say mass for the souls of departed members, and this brought it within the scope of the Act for dissolving chantries, passed in 1545.

The guild had a 'Brother House' next to the churchyard.¹⁶ Ceely House is separated from the churchyard by the Grammar School, but this is not a serious objection to the identification. The churchyard of the Saxon minster church at one time covered most of the hilltop, extending at least as far as George Street to the SE. (Find-spots of burials are marked on Fig. 1; sixteen were found together at the George Street site.)¹⁷ It has been encroached on over the centuries, and human bones were found when the muniment room of the museum was dug under the former grammar school in 1934.¹⁸ It was thought that they represented burials disturbed during earlier building work. Gibbs indeed wrote that

'The original endowment of the school was a limited one, and the premises used as a school consisted of two small mean houses which were once Church houses',¹⁹ indicating that they were built on the churchyard (but on this see below, 'The former Grammar School').

It may be worthy of note that five of the Essex guildhalls had separate entrances for the priests.²⁰ The upstairs room with its separate entrance may therefore have been lodging for a priest or priests, rather than an office or treasury.

The guild was founded on 12 December 1450,²¹ and the list of founders is headed by John Kemp, Cardinal Archbishop of York, whose involvement demands explanation; he was not only Chancellor of England but a statesman of European stature,²² and he had no obvious connection with Bucks. Seven local names follow: Thomas Singleton, John Baldwin the elder, Thomas Baldwin, John Baldwin the younger, Walter Crouland, John Love and John Robsey. Thomas Singleton was a figure of some consequence in the county: a Commissioner of the Peace (J.P.) from 1441 to 1446 and again from 1453 to 56;²³ Escheator for Bucks in 1452,²⁴ Sheriff of Beds & Bucks in 1454²⁵ (when he was described as 'of Hartwell'), and a Commissioner of Array in 1457.²⁶ It is he who provides the link with Kemp. His work as escheator would have brought him into contact with the Chancellor as a matter of routine; in one instance it involved making over to him land in wardship.²⁷ John Baldwin senior was a landowner in the Aylesbury area;²⁸ one of his descendants became Lord Chief Justice under Henry VIII. Thomas Baldwin was described as 'gentleman' in 1452.²⁹ None of the others feature in any of the printed calendars. They had to pay £24 17s 8d for their licence to found the guild.

The guild was empowered to elect three masters, and to use a common livery.³⁰ As is to be expected, the masters were men of substance. In 1522 they were William Bassett, John Poll and Edmund Walwyn, who had respectively goods worth £40, £10 and £20; the median wealth of the 146 people assessed (if

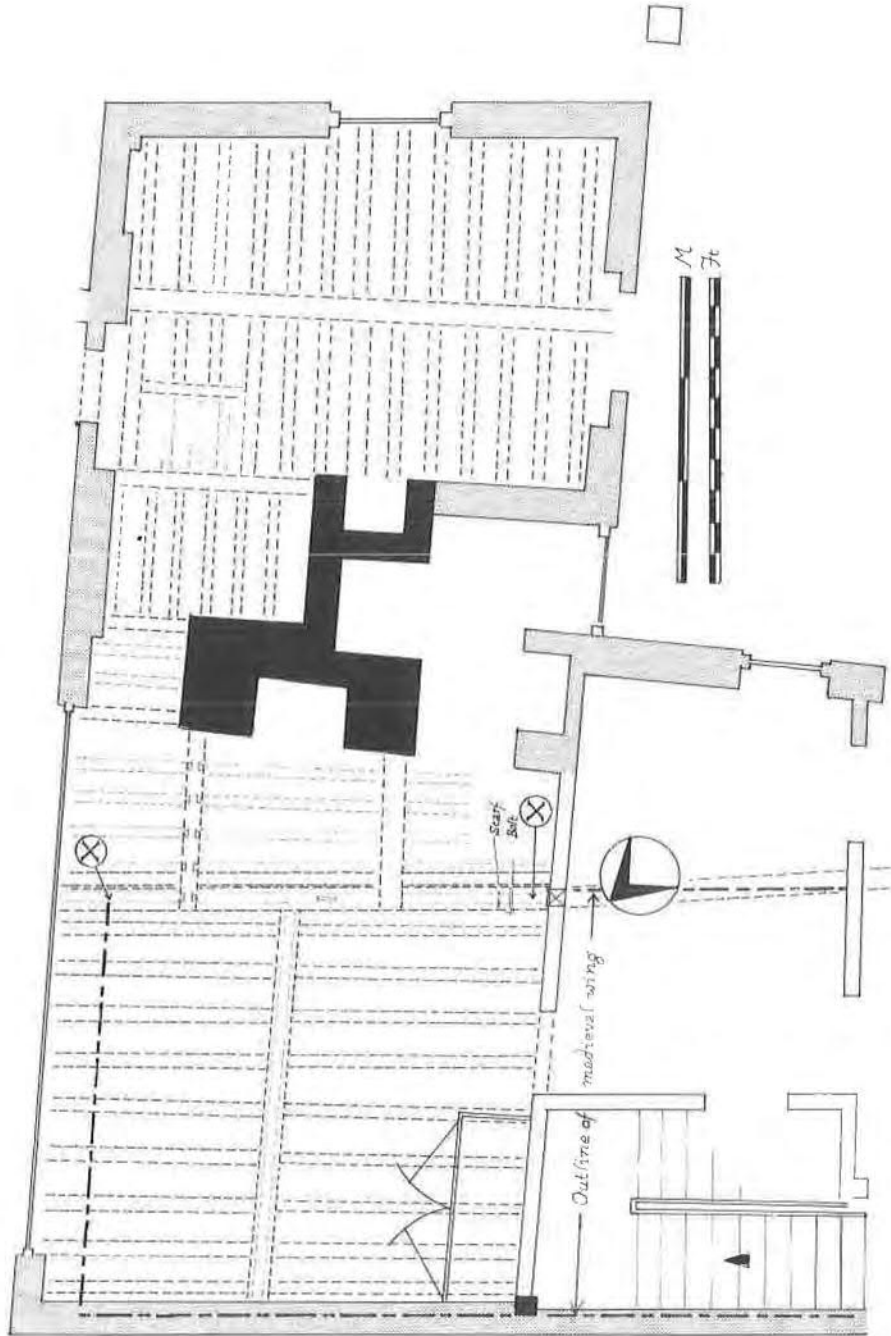


Fig. 12. The southern end south-eastern parts of Ceely House. (B1 and B2 on Fig. 2), with medieval wing

one discounts John Collingbourne with his £300), was £20, the average £12.³¹

At the time of its suppression the guild had sisters as well as brothers, and possessed lands yielding £26 15s 8d (of which £3 10s 5d was 'rent resolute paid to the king's majestie and divers other persons'), and goods worth £3 16s 4d.³² It employed two priests, William Bell and Robert Ellys, who were pensioned off with £5 *per annum* each.³³

The Suppression and after

The guild was suppressed in 1547.³⁴ In 1548 two speculators, Sir Edward Warner and John Gosnold, were eagerly petitioning to be allowed to buy chantry lands all over England, including that at Aylesbury,³⁵ and in 1549 some of it was granted to them, including the Brother House.³⁶ They were to hold it as of the Honour of Eye, Suffolk, a rag-bag of an administrative unit to which many small crown properties, mostly ex-monastic, were indiscriminately assigned. This produced a curious anomaly, for the guild held it of the manor of Aylesbury,³⁷ and the Crown's seizure of the property could not in law disturb this arrangement. Yet land in the Honour of Eye was held in chief. A survey of the Honour, conducted in 1676, did not include the Brother House,³⁸ and two hundred years later it was part of the manor of Aylesbury with Bierton.³⁹ Possibly this clause in the grant was simply void, since it involved wrongful entry on the rights of a subject. Possibly it was rationalised as a result of a measure passed by the Long Parliament in 1649, which authorised the sale of many crown lands, including the Honour of Eye.⁴⁰

After its acquisition by Warner and Gosnold all trace of the Brother House is lost for over a hundred years. No doubt they quickly sold it on, but they did not levy a fine or enroll a deed in the royal courts. Whoever lived there must have had as a first priority the insertion of a fireplace and chimney in the main range, and this is no doubt the context for the rather flimsy trimmer beam spanning five first-floor joists 20ins (500mm) from the east wall of the central bay (Fig. 3). The trimmer would have

been for the first-floor hearth. The stack, probably of brick, was built against the outer face of the E wall, and probably the eaves plate and first-floor wall plate were built into it; this would explain why they have now been replaced by timbers of lighter scantling. The rafters over the E side of this bay are likewise mostly replacements, lacking assembly marks; they would have to have been shortened to fit against the added chimney.

For the next pointer to ownership and occupancy we have to wait for a deed of 1809.⁴¹ Fortunately this takes the enquiry back to the early eighteenth century. Ceely House is described as 'all that messuage, tenement or dwelling house in the street known as Temple Street, alias Church Street or Broad Street, formerly in the occupation of Joseph Bell, gentleman and afterwards in part rebuilt by and in occupation of Hugh Barker Bell, gentleman, since in the occupation of The Revd Jno Stevens DD and of . . . Joseph Burnham . . .'

Joseph Bell was Registrar of the Commissary Court for the Archdeaconry of Buckingham from 1701 to his death in 1739.⁴² The business of the court was much diminished since the collapse of the Laudian system of church discipline in 1640, and it was no longer a niche for the ambitious;⁴³ but it still had jurisdiction over probate and over several aspects of the morals and behaviour of laypeople, all of which involved the payment of fees. It is possible to gain some idea of Joseph's income from these. In the first quarter of 1718 the fees receivable by the court amounted to £51 15s;⁴⁴ if this were apportioned between the Judge and the Registrar in the same proportion as were the fees in 1805,⁴⁵ Joseph would have got £34 6s, or £137 a year. (He had other income, from property in Aylesbury and from land in Great Horwood brought to him by his wife, Celia Barker.⁴⁶)

The work was not onerous. The court was held in Aylesbury parish church, St Mary's, and seems to have sat normally only once a month, though occasionally more often, and

generally on Thursday, from 9 a.m. to 12 noon.⁴⁷ In the former Brother House Joseph was virtually living over the shop. As Registrar his duties were to authenticate and keep a record of all the court's business. The position was reserved for notaries public, who had been through the Inns of Court.

Joseph was an ardent Tory: a portrait of General Monk, initiator of the Restoration, hung in his house,⁴⁸ and the fact that his second son was christened Henry St John, suggests a high regard for Queen Anne's minister, later Lord Bolingbroke. He himself was born in 1679, the son of Henry Bell,⁴⁹ who was a proctor in the same court,⁵⁰ and indeed was still practising there when his son first became Deputy Registrar.⁵¹ Henry's father was another Henry, a maltster, with a cottage and malthouse in Green End, Aylesbury, and his grandfather, also Henry, was a tailor. (The family can be traced back to a Roger Bell in the 1580s.)⁵² Joseph's mother, Anstice, was a sister of Richard Heywood,⁵³ who was Joseph's predecessor as Registrar;⁵⁴ and one of his sisters married into the Burnham family, and had a son, John Patten Burnham, who practised as a proctor; one of *his* sons, Joseph Burnham, became registrar in about 1780.⁵⁵ One of Joseph Bell's sons practised as a notary public, and another as a proctor (see below). In fact this close-knit cousinage monopolised the business of the court for over a hundred years.

There is no direct evidence as to when the Bells first came to the Brother House (Ceely House), nor who was there before them; but a chain of inference allows us to assert with some confidence that their predecessors were the Heywoods. Richard Heywood left no issue; his considerable estate was left to his wife, with remainder to his sister Anstice and her two brothers who were to divide it equally (with an extra £100 for Anstice).⁵⁶ Besides property in Aylesbury there was over £800 in cash and bonds (Richard was evidently a moneylender), and an estate in Saxmundham. The Aylesbury property comprised the house he lived in, a 'little house in the back lane', and land in the fields of Aylesbury by Quarrendon Bridge. Both the latter can be

identified as part of the Bell inheritance in later years.⁵⁷ A 'little house in the back lane' could have been an appurtenance of many houses in Aylesbury (though none so convenient for a Registrar); but the land near Quarrendon Bridge is good evidence that Anstice's share was the Aylesbury property, and that the Brother House came to the Bells through her.

There is nothing at all to indicate when the house came to the Heywoods, but they had been in Aylesbury since the late sixteenth century,⁵⁸ and for much of that time had been prosperous. Richard's father, John, was a maltster like Henry Bell's, but in a bigger way of business; he owned the house where Henry senior lived and the malthouse where he worked,⁵⁹ and for the graduated poll tax of 1660 he paid 2s 6d, plus 6d for his wife, while Henry paid 2s.⁶⁰ (To put these figures in perspective, the great majority of men paid 1s while Sir John Packington, the lord of the manor, paid £12.) Richard's grandfather, another Richard, had lent money for the fortification of Aylesbury in 1648,⁶¹ and in 1642 he had contributed 5s to the voluntary grant towards paying for the suppression of the revolt in Ireland. Since this was voluntary it is not a sure guide to economic status, but it was the only issue on which the country was united, and the sums given certainly reflect what people felt was demanded by their standing in society; only ten people contributed more than Richard Heywood, and no more than twelve contributed as much.⁶²

In 1625 Richard senior and his brother William were assessed for the subsidy on land valued at 20s,⁶³ a figure which tells us only that they were neither poor nor very rich, since only nine taxpayers were assessed on a different figure; the subsidy had become a fossilised formality. In 1628 the assessments were revised upwards, which resulted in Henry Bell (the tailor) being caught in the tax net (for land worth 20s), and Richard and William both being assessed on land worth 30s; no change in their status is implied.⁶⁴

During the lifetime of Richard Heywood the Registrar (d. 1701) the house was brought up

to date by being panelled. Fragments of unpainted panelling of the late seventeenth century came to light in the course of the investigation: parts of panels with feathered edges (one of them from a corner) were used as furring to level the floor upstairs; a length of dentilled moulding, such as was used in the cornices of panelled rooms, was pressed into service as a stud beside the front door; and a length of quarter-round moulding from a style or muntin was used as a cleat to support a tread of the eighteenth-century stair.

At the same time the downstairs rooms were given plastered ceilings, the first of two ceilings now one above the other. In this the laths were nailed to the joists, leaving the moulded ceiling beams exposed. Later these too were covered up. Very likely the upstairs rooms were ceiled at the same time, but we have no evidence of this.

This may not exhaust the catalogue of seventeenth-century changes. The re-used timbers in the Grammar School cannot have reached their final positions until 1718/20, when the school was built (see p. 26). Was there a second episode of modernisation at that time? Applying Occam's razor, we prefer to think that the weathered dais beam supplies the answer: timber discarded by Richard Heywood lay about in the open until a use was found for it. That Joseph Bell was a trustee of the Grammar School pointed to what that use should be.

We therefore suggest that the oriel windows and the dais canopy were both removed in the late seventeenth century. The former were no doubt replaced by fashionable flush sashes, with the symmetrical fenestration that the presence of five medieval bays allowed. The front will have been rendered to hide the timbers and give a smooth surface. The canopy would have had to come out when panelling was installed.

The eighteenth century

In the mid eighteenth century the house was given its present appearance by having its front

entirely encased in brickwork (Plate V). The jetty was underbuilt, the close studding above it removed, and several inches of the other upper timbers cut away, to the depth of a half brick, so that the present front is probably on the line of the jetty.

The brickwork, laid in Flemish bond, is of high quality, with tuck pointing, and flat arches of gauged brick above the windows.

In the newly-designed façade the central bay would be the focal point, so it was given prominence by a slight break forward, and the central window, above the door (which may or may not have been central before) was given a stone entablature of unusual 'artisan' design, its keystone bearing a mask. There seems to be no record of the doorcase, which must have been smaller and shallower than the present porch, whose date and provenance are not known. An uncorroborated tradition has it that it was brought from Eythrope House, which was demolished in 1810.⁶⁵ It has the effect of largely masking the window above it. The anomalous stone parapet cornice may likewise be a later embellishment; it covers a parapet of brick.

It was now possible to insert a new staircase (Plate VI) in the western end of the medieval wing, whose roof was destroyed to create a barrel ceiling above. The strings of the stairs were formed from lengths of medieval moulded cornice from the W side of the upstairs rooms, and as noted above there was at least one cleat cut from late seventeenth-century panelling. The downstairs front rooms were now given their second ceiling, entirely concealing the original moulded spine beam. The large panels, framed with egg and dart moulding, in the ground-floor room to the N probably also belong to this period, as does the coved cornice and lath-and-plaster walling on the N and E wall of the room above. The medieval decoration was now to be effectively and permanently hidden – or so it must have been thought. It is not suggested that this was the first lining of the room; both the upstairs rooms, originally open to the roof, will certainly have been ceiled over during the seventeenth century.



Plate V. Ceely House today, as Georgianised c. 1755/6.

The removal of the chimney stack in the centre of the back wall, and the building of another in the S gable wall allowed the creation of an entrance hall and, to the S of it, a well-proportioned heated room, by the insertion of a dividing wall on the line of the second truss from the south. North of the entrance hall the two-bay room was heated by the new stack in the back wall. Behind the entrance hall was an inner hall, out of which rose the new staircase. It is not clear whether the kitchen and service area beyond was altered at

this time; we argue on p. 5 that it had been enlarged as part of Richard Heywood's improvements.

On the first floor the two front rooms were now approached from the top of the stairs through an entrance lobby. The N room, it will be remembered, was originally shut off from the rest of the house, but a door into it from the three-bay room was probably already in existence in the 1750s. Now, if not earlier, the S room was provided with a bed alcove



Plate VI. Ceely House: the staircase, c. 1755/6.

occupying the central bay of the house (c.f. Colen Campbell's design for a house in Grosvenor Square, 1725).⁶⁶ Its arched opening, with egg-and-dart moulding, can be seen under the second truss from the south (Plate VII); it is now blocked by a partition inserted in 1950.⁶⁷ The alcove would have allowed for closets on either side of the bed, one light and one dark. These changes produced a heated 'master bedroom' with a touch of style and privacy.

Dendro-chronology offers two possible dates for this Georgianisation: 1746/7 or 1755/6. On statistical grounds the latter is thought to be marginally more probable (see Appendix), but the choice between them has to be made on other evidence. This leads us to consider the family history of the Bells.⁶⁸

Joseph left three sons and a daughter, his wife having predeceased him. Hugh Barker Bell, who (according to the deed of 1809)

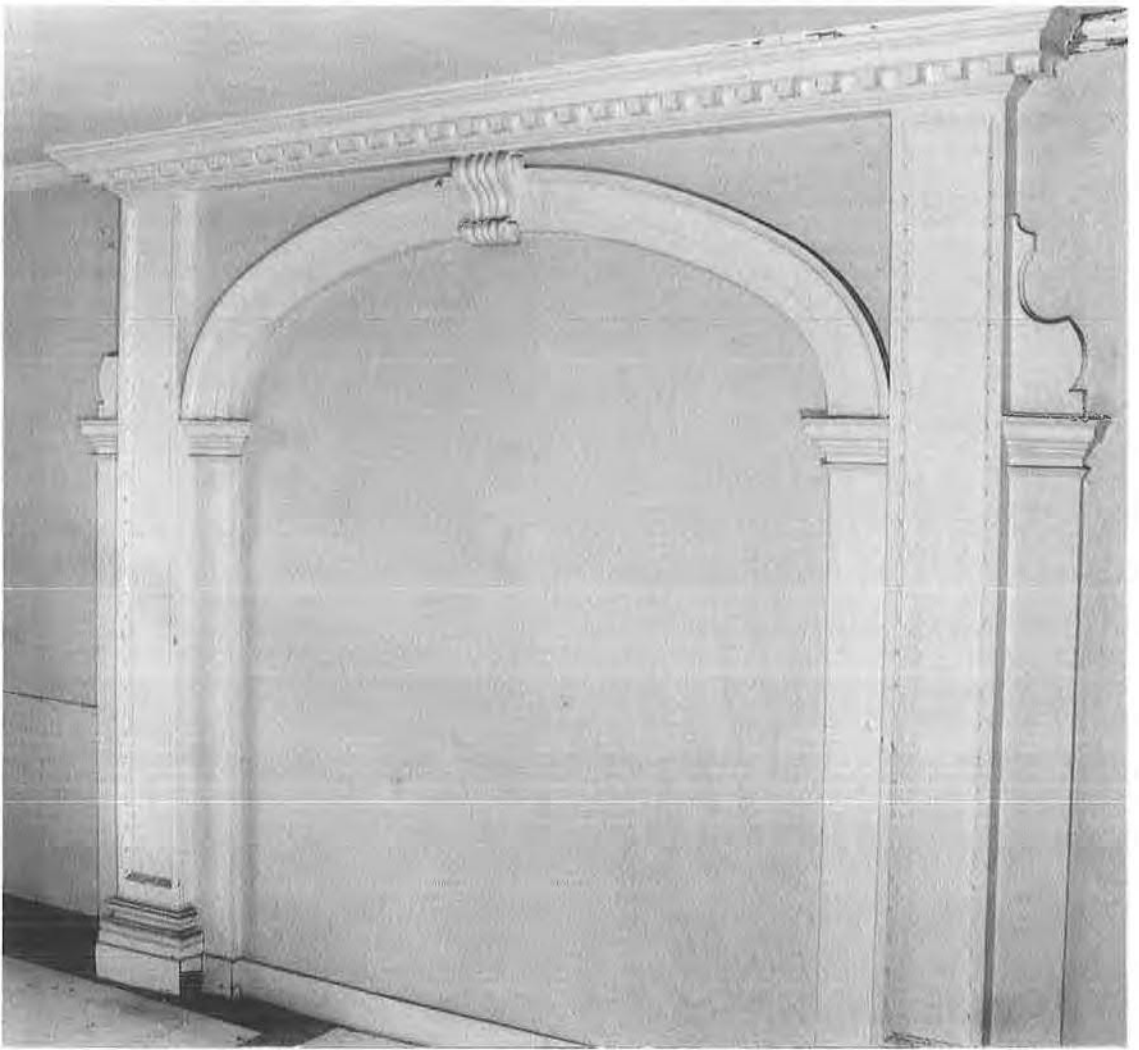


Plate VII. Ceely House: the arched opening to the bed alcove, with later filling. (*Photo County Museum*)

succeeded Joseph and 'partly rebuilt' the house, was not the eldest but the third son. His father's will left him only some small pieces of land and cottages,⁶⁹ and it is not at all clear how he came into possession of the Brother House. The eldest son, another Joseph, received the house and other property later found in the hands of one or other of his brothers. There may be a hint as to how this came about in the provision that legacies were to fail if the beneficiary took legal action against the trustees of Joseph senior's mar-

riage settlement. Joseph junior took holy orders and became Rector of Radclive, Bucks.⁷⁰ On at least one occasion he acted as a surrogate in the Commissary Court.⁷¹

Hugh Barker Bell, born in 1717,⁷² went to Magdalen Hall, where he matriculated at the age of 20,⁷³ and by 1740, aged only 22, was acting as Deputy Registrar in succession to his father;⁷⁴ he must therefore already have qualified as a notary public. He was by then married; an infant son had been buried in

1739.⁷⁵ His wife died in 1749, aged only 33,⁷⁶ and he had married again before 1759. His second wife, Mary Thornbury (*née* Tripp) was the widow of the Rev'd Samuel Thornbury, and brought property with her when she married Hugh Bell.^{76a} Evidently the Rev'd Samuel was dead by 1753, for in that year the trustees of Mrs Thornbury's marriage settlement were admitted tenants of two copyhold yardlands in Long Crendon.⁷⁷ In 1759 her son by Hugh Bell was born.^{77a} It is therefore suggested that 1755–6 is the likely date of their wedding, that the instigator of the Georgianisation was the second Mrs Bell, and that her fortune provided the means. Hugh himself died in 1776,⁷⁸ probably not in Aylesbury.

Whether Hugh Bell's rebuilding included the wing now containing the Baker Room and the Art Gallery (A2 on Fig. 2) is not clear; the wing has not been securely dated. The fine rococo plasterwork in the ceiling of the Baker Room (Plate VIII) should not, on general stylistic grounds, be later than the 1760s. A very similar ceiling at Romeland House, St. Albans, has been dated to that decade.^{78b} But the bricks of which the wing is built are not of the same mean dimensions as those of 1756, nor apparently of the same fabric, as those in the S gable end of the house, where can be seen both the stock bricks of the façade, used in the return, and the place bricks then used for the less important end wall. The stairs from the main landing up to the first floor of this wing have a hand rail and balusters identical to those of the 1756 stairs; it is difficult to know how much weight to attach to this; such items can easily be copied. A more significant point is that the windows in the E wall are set much further in from the face of the wall than those in the street front – 8 ins (200 mm) as opposed to 2 ins (50 mm). However, the present windows are not original: the dressings for them stop some two feet above the ground, the openings having been extended to accommodate French windows. The glazing bars form narrow panels at the sides, top and bottom, giving small square panes at each corner. Similar Oxford glazing may be seen at the end of the narrow passage between this wing and the successor of

the medieval wing; here the corner panes are filled with coloured glass. The evidence points, rather uncertainly, to a date towards the end of Hugh Bell's life.

What became of the former Brother House after Hugh's death is unclear. The Revd John Stephens is named in the deed of 1809 as succeeding Hugh Bell in occupation, but there is a gap in the main source of evidence (at this point the Poor Rate assessments) between 1759 and 1775; and the 1809 deed conflicts with the evidence of the Land Tax assessments (see below). John Stephens ('a very corpulent man')⁷⁹ was an unbeneficed Doctor of Divinity who was named as surrogate in the Commissary Court more often than anyone else in the Archdeaconry.⁸⁰ He was Headmaster of the Grammar School from 1744 until his death in 1770,⁸¹ and therefore had a rent-free house to occupy (see below, 'The Former Grammar School').

When the series of Land Tax assessments begins in 1780, Joseph Burnham, Gentleman, is found in possession of 'Bell's House',⁸² confirming the deed of 1809. He had become Registrar at an unknown date, certainly before 1780,⁸³ but did not at once occupy the house. The tax on 'Bell's house' was £1 12s 8d,⁸⁴ and in 1782 this is the sum assessed on 'Widow Bell – house', whose proprietor is given as Joseph Burnham.⁸⁵ In 1784, 'Bell, Widow' is cancelled, and 'ditto' overwritten: 'ditto' refers to Joseph Burnham being substituted as occupier,⁸⁶ and thereafter, until 1799, £1 12s 8d appears as the tax on a house in Joseph's own occupation. 'Widow Bell' is clearly Hugh Barker Bell's second wife, Mary. (Hugh was only 49 when he died).

Burnham died in 1799, leaving everything to his wife, with remainder to his daughter and nine nephews and nieces. After the death of his wife, one of the nephews, Joseph Rose, bought out the interests of the others.⁸⁷

Rose was a solicitor and, since it is known that he practised in Church Street, (then known alternatively as Broad Street alias Temple Street),⁸⁸ it is virtually certain that he did so at what became No 7, (later Ceely

House) He was still there in 1841,⁸⁹ but had moved to Whitehall Street by 1847.⁹⁰ In 1851 there were no fewer than three professional men living in Church Street.⁹¹ They were Henry Pickess, 28, a surgeon, living with his mother and two sisters; Edward Baynes, 34, attorney and solicitor, whose household consisted of a housekeeper and a groom; and Richard Benson, 53, attorney, with his wife and one female servant. Baynes and Benson were still there in 1851, but Pickess was gone and another lawyer had appeared: Joseph Parrott, 41, solicitor.⁹² There was also 'one house used as offices, not inhabited'. It is reasonable to identify this with the house (C on Fig. 2), now part of the museum complex, lying between Ceely House and the entrance to its stable yard (see below). The occupant of No 7 was not Edward Baynes, for he is still in Church Street when the Ceelys appear on the scene;⁹³ probably Pickess had succeeded Rose, and was followed by Parrott, who had moved to Bourbon Street by 1876, making room at last for the eponymous owners.

In 1866 Rose's son, Richard, and his mortgagees, sold to James Henry Ceely,⁹⁴ who was one of two brothers, both surgeons. Robert, the elder, was the better known; he was FRCS and an authority on vaccination.⁹⁵ Robert had begun to practise in Aylesbury in 1821;⁹⁶ in 1847 the brothers were in practice together in Market Square. They both gave their services gratis to the Buckinghamshire Infirmary as soon as it was founded in 1833.⁹⁷ By 1886 however James Henry was living in Tregunter Road, West Kensington, and had sold Ceely House (as we may at last legitimately call it) to Robert Harvey Hillyard of Aylesbury, physician.⁹⁸ In 1901 the trustees of Hillyard's will let the house to J.C.Baker, MD,⁹⁹ and in 1918 Dr Baker bought it.¹⁰⁰ He had joined the Bucks Archaeological Society in 1903, and in 1906 had been elected Honary Assistant Curator.¹⁰¹ Cicely Baker, Dr Baker's daughter and heiress, sold the property to the Society in 1944,¹⁰² continuing to occupy the first floor as a flat until 1950; part of what became the Art Gallery (A2) was converted into a kitchen for her.¹⁰³

The last alteration to Ceely House took place in 1956, when the room on the right of the entrance was fitted up as the Society's Library and members' room, and renamed The Grinnell Room after a benefactress.¹⁰⁴

The Southern and Eastern Parts of the House (B & C on Fig. 2.)

The medieval rear wing was extended to the south in later centuries, and in at least two stages (B1 & B2), leaving, however, very little datable evidence.

If the lost bay of the medieval wing was the same length as the survivor, the whole wing will have been just over 30 ft long (9.1m), 20 ins (500 mm) short of the present rear wall. 20 ins is exactly the length by which the main spine beam (X on Fig. 9) has been lengthened by the insertion of a tongued scarf at its W end. This timber is on the line of the S side of the medieval wing, and is re-used: it has nine 6-inch mortices at 13-inch centres in its N face, appropriate for close studding; it has evidently been rotated through 90 degrees, and was originally a wall plate or girding beam for the medieval wing. One of the mortices in its N face has been used to support a bearer for the first floor in what was the E bay of the wing, and this timber too may be medieval: it has a four-inch chamfer (now obscured by a plank nailed over the soffit). The joists housed in it slope down from it in both directions; those to the E are haunched and unquestionably re-used: although their upper surfaces are hidden by furring, it is possible to see one assembly mark, and it is cut in worm-eaten sap-wood, not in wood that has decayed after it was cut. The joists in the E part of the floor are bedded in the brickwork of the E wall. The bearer is 20ins closer to this wall than to the central truss.

At the same time as the wing was lengthened it was extended southwards. A stack was built on what was then its S limit, and the beam X was joined to this by two short bearers. Both are re-used: the E one has elongated stave sockets in its soffit, and the joists it supports are housed in open lap dovetails. These joists bear assembly marks cut with a one-inch chisel. There is an analogy

to this technique very close at hand, in the attic storey of the Grammar School, which was finished in 1720 (see below).

The W bearer is of heavier scantling and has a one-inch chamfer but no mortices or sockets in its soffit. The joists are tenoned into it. Both bearers rest on top of beam X, so that the floor of this part of the wing is 6 ins higher than to the N. The reason is no doubt that what is now the S face of X had no mortices suitable for adaptation to support bearers. Conversely the W bearer did have mortices that could be used for joists, whereas the E one did not; hence the lap dovetails.

The S limit of this first extension (B1 on Fig. 2) is defined by the chimney stack, which when built was no doubt external; the second flue, to the south, is not part of the original build: the flue slopes to join the earlier one. The earlier stack may mark the original S limit of the plot; it is further S than the S wall of Ceely House proper, which links with the fact that the eighteenth-century brickwork of the latter has penny-struck pointing, and was therefore presumably intended to be seen: there was nothing built against it. A detailed plan of the adjoining property, made in about 1750, shows no projection from the Ceely House side;¹⁰⁵ this is because it follows not the outline of the house, but the plot boundary.

In the N wall of the wing there is another feature with possible significance for dating: a blocked window. This suggests that the wall is earlier than the late eighteenth-century wing (A2), since the wall of that wing is only four feet away. There is also a blocked door. The dimensions of the bricks of this wall are unlike any others in the house.

S of the stack is another large room (B2 on Fig. 2). It has a much smaller fireplace, and blocked arched openings in its E wall, one of which opened into a small single-storey projection, now demolished.¹⁰⁶ There is a trimmed gap for a ladder in the ceiling joists at the NE corner. In the S wall is a leaded, iron-framed casement window, almost certainly not in its original position.

W of the stack is a small chamber in which another leaded casement window with iron frames looks out on what is now a covered space but was once a courtyard opening off the stable yard. If the first half of the stack is indeed on the original plot line, this window too may not be in its original position. All that these two windows have in common is their materials. They have different numbers of panes, of different dimensions, and their fastenings are different.

As it happens, the attic storey of the Grammar School offers another analogy here. It too has leaded, iron-framed casement windows. They resemble the window W of the stack rather than that in the S wall.

This rather slender evidence allows us to offer a tentative interpretation. It is suggested that the first stage of the extension, when the medieval wing was lengthened and widened, is the work of Richard Heywood in the late seventeenth century. Almost certainly it was his kitchen, and may have been the original home of the two iron windows. As far as the physical evidence is concerned, this part of the house could equally well have been built by Joseph Bell; but it seems reasonable to suggest that a new kitchen would have been part of the modernisation postulated on p. 19.

Perhaps as much as a hundred years later the second extension was built, using a window that was redundant in its original position, now that the wall it pierced had become an internal one. The whole of the E wall may be of the same date. It is in header bond, like the street front of C. Another analogy with this part of the building is the shallow, wide window high up near the ceiling. The precise date is discussed below.

There remains the wing designated C on Fig. 2, the small two-cell two-storey building with header bond on the street front. It is reasonably clear that this was built not long before or after 1800, but it may be possible to be more precise. In 1808 Joseph Rose acquired the freehold of a parcel of land adjacent to his Church Street property, a parcel

which he had until then held on lease, and on which parts of No. 7 had been built.¹⁰⁷ The lease had been granted to Joseph Burnham by the Surveyors of Highways of Aylesbury, who were the owners of considerable property in the town under the 1492 will of John Bedford of Aylesbury.¹⁰⁸ The plot is shown in a terrier of the Bedford Charity, probably prepared in the early 1750s:¹⁰⁹ it shows the land of Hugh Barker Bell to the N, and another plan in the terrier shows abutments on the land of John Wilkes. The boundary to the E was Pebble Lane. There are buildings along the Church Street frontage, and then a gap before Hugh Bell's property is reached. The tenant is shown as Joseph Bell Esq., but this is Joseph junior, Hugh's brother, who has no connection with No 7. He evidently sub-let to a butcher: one of the buildings is a slaughter-house.

The lease was dated 1796. It is suggested that this is the date of the building in question, and also that it was built as offices for the Registrar and continued to be so used after Burnham's death. The Land Tax assessments for 1800 include a section headed 'Sums assessed on Pensions, Offices and Personal Estates', under which we find Thomas Hatton paying £6 for the 'Registry Office'.¹¹⁰ Hatton is known to have been Burnham's clerk, and to have succeeded him as registrar.¹¹¹ This 'office' is not real estate but an office in the sense of 'office of profit'. But real estate was involved too: we also find Burnham's widow paying 9 shillings for a house described as 'Hatton's'. This supplies a context for the fact that the present front door of this small house replaces a window; the brick dressings come down only as far as the sill of the window to the S. There was no need for a street door while Burnham was registrar; on the appointment of someone who was not a member of the household at No 7, independent access became essential.

If this was indeed the 'Hatton's' of the land tax, it had a garden behind it in 1800,¹¹² and not the building that lies there now – B2 on Fig. 2, the second extension to the medieval wing. This implies that the second extension is built on what had been the Surveyors' land, and is not earlier than 1800.

The gate piers of the yard and their flanking walls are of brickwork that superficially resembles that of Ceely House, but the bricks are thinner, 2½ to 2¼ins (58–61 mm), against 2⅝ ins (64 mm) and the wall is not bonded into the SW wing (C). It and the piers must therefore be later than 1796. They were in existence by 1806, however, for the double coach house and stables that they lead to were present then.¹¹³

The Former Grammar School (D on Fig. 2)

At the beginning of the eighteenth century the people of Aylesbury were in no doubt that their grammar school had been founded by Sir Henry Lee of Quarrendon and Ditchley, but they 'had heard that in the Civil Wars the writings which were the title to the premises were lost'.¹¹⁴ There were three gentlemen named Sir Henry Lee, all 'of Quarrendon and Ditchley'. According to Gibbs, the benefactor was the first, who died in 1610, and was MP for Bucks in 1557 and '58 and again in 1571–72. The date of the first benefaction is not stated; there was another in 1598 and a third in 1603.¹¹⁵

The original endowment was modest; Gibbs writes of two small mean houses', which he wrongly thought were 'the premises used as a school'.¹¹⁶ Lipscomb says that 'Sir Henry Leigh (sic) formerly gave a messuage for the residence of a schoolmaster, which is since rebuilt'.¹¹⁷

That there were two houses is supported by the pleadings in a chancery suit of 1715 that preceded the erection of the present building.¹¹⁸ They yielded only £8 a year in rent. Archaeological evidence (see below) supports the idea that one of them was a house for a schoolmaster. The schoolroom was in fact the chapel attached to the S aisle of the church, E of the porch, which is still to be seen today (Fig. 1).^{119a} VCH says intriguingly that it was a chantry chapel, but cites no authority.^{119b} It continued in use as the Latin School into the last century,^{120a} probably until Gilbert Scott's restoration of 1840–69.^{120b}

Not surprisingly, £8 a year did not support a free school; the elderly schoolmaster, the Revd Ralph Gladman, was in the habit of

charging his pupils.¹²¹ The school was governed by trustees, appointed under the founder's will; in 1715 they were Isaac Lodington, Vicar of Aylesbury, Joseph Bell the Registrar, Paul Heywood, an Aylesbury draper and a nephew of Richard (the Registrar),¹²² and a William Church of whom nothing is known.

This situation was transformed in 1714 by a bequest in the will of Henry Phillips of London, gentleman, a member of a prominent Aylesbury family.¹²³ He left £5,000 to his cousins William and John Meade 'to purchase lands of inheritance to be settled for the further enlargement and provision for the present Free School'.¹²⁴ The boys were to be drawn from Aylesbury and Walton but, if these two parishes did not produce enough pupils to fill the school, boys might come from neighbouring parishes. They were to be taught Latin, writing, arithmetic and accounts, so as to be fit to be apprenticed to good trades. If the trustees did not agree, the money was to be used to build almshouses.

The following year the trustees had apparently *not* agreed. Some of the townsfolk decided that things were not moving fast enough, and brought a suit in Chancery against the Meades and the trustees. They alleged that the latter were delaying because they would prefer almshouses to a school, and that they were claiming there was no free school, and therefore nothing to be enlarged under the terms of the will. It emerged that the Meades were in fact in sympathy with the plaintiffs: they had thought the trustees were being unreasonable and had no confidence in Mr Gladman, who had been in post since 1687;¹²⁵ moreover they had already laid out £4,000 on land, and had appointed ten new trustees.

The Lord Chancellor decided that the £5,000 should be laid out as directed in the will, that the present trustees continue in office and that Mr Gladman should remain as headmaster. This did not please the Meades, who petitioned that the latter be not re-appointed (he was 'negligent and unpopular'), and that the old trustees should not continue

(they were 'always cavilling'). In the end only Joseph Bell joined the new body of trustees, and Ralph Gladman was pensioned off with £20 a year. A master in Chancery was appointed to consider whether the existing school could be enlarged 'without incommoding the church' and, if not, what should be done. He reported that 'a new school should be built on or near the place where the old houses, part of the former charity, stand', and also that in addition to the schoolmaster there should be an usher and a writing master. He also recommended that Sir Henry Lee be commemorated in a plaque to be erected in the new school, or the old one if that were to continue in use. Finally this admirable man obtained and recorded an estimate of the costs of building a new school, as follows.¹²⁶

44 rod of brickwork @ £7	£308
46 square yards of tiling @ 20 shillings	£46
472 yards of ceiling @ 12d	£23 12s
1,300 yards of rendering @ 6d	£33 8d
46 ½ rod of mound-wall brick	£45
Timber boards, and carpenter's work	£450
Lead and plumber's wrk	£45
Iron work and nails	£30
Locks and latches	£2
Colouring windows and doors	£3 12s
Glazing	£36 15s
Stone paving for the school	£20
Brick paving for the rest	£8 17s 6d
Digging Cellars and carrying away rubbish	£6
Out offices	£42
	<hr/>
	£1,100 14s 6d
For the old house	£60
	<hr/>
	£1,040 14s 6d

The last item shows that it was intended to build the new school on, rather than near, the site of the old houses; and this, as will be seen, solves a problem posed by the archaeology of the building.

Work began in July 1718, and the last workman was paid off in May 1720.¹²⁷

The building consists of a lofty single-storied school house facing the churchyard

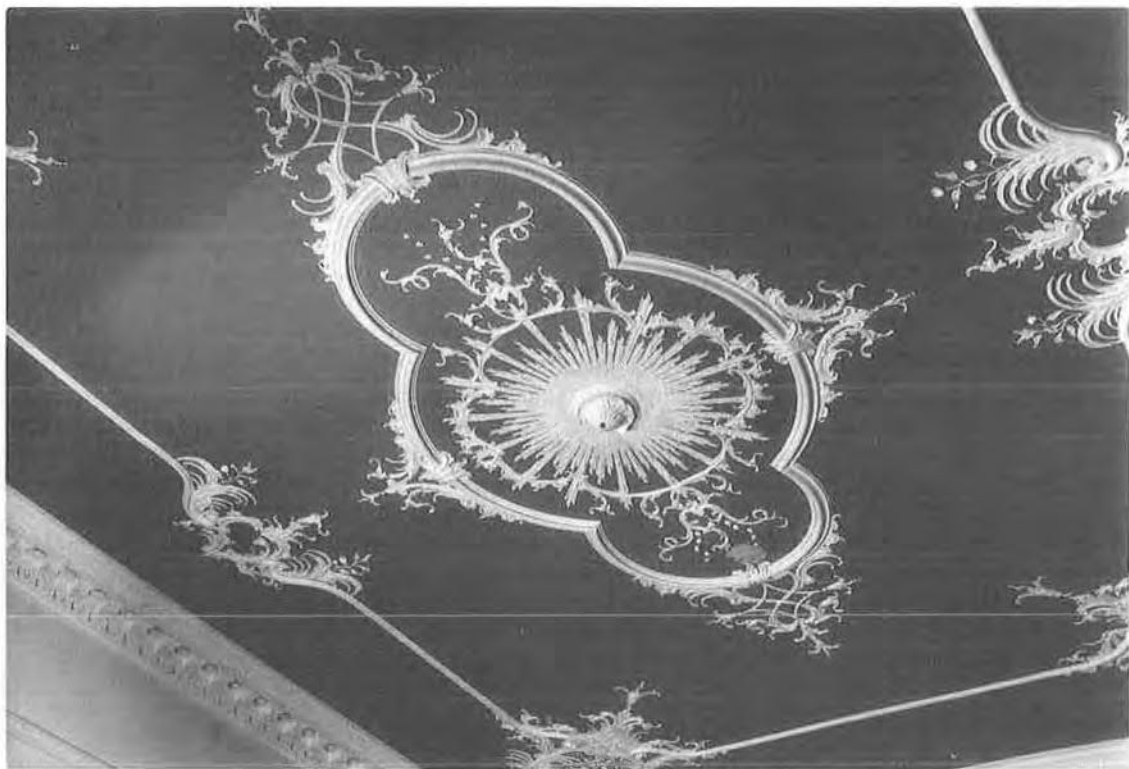


Plate VIII. Rococo plaster work in the ceiling of the Baker Room (A2 on Fig. 2). (Photo County Meseum)



Plate IX. The former Grammar School, north front. (Photo County Meseum)



Plate X. The former headmaster's house; seventeenth-century window, behind later studs.

(Plate VIII), and two masters' houses running back from its eastern and western ends. The school room had a stone floor and in the early twentieth century was heated by an iron stove;¹²⁸ if there were earlier heating arrangements they are not known. The western house, with its fine door case on Church Street, is the headmaster's; the other, smaller house,

east of the School House, was the usher's or Latin master's. Both have two floors of three rooms each, and a range of attics; stairs go up to the attics in the northern ends. Chimney stacks rise midway between the staircase and the S end of each house, but both have had their lower, ground-floor parts removed, and their weight is taken by steel joists (See Figs. 2 and 13).

The recent stripping has revealed evidence that parts of the earlier building or buildings were embodied in the new one. Hidden behind wallpaper and battens in the Headmaster's house were two blocked windows (Fig. 15), which would have looked out onto the inner courtyard. They have thick wooden mullions with quarter-round mouldings, and transoms one third of the height from the top; they are glazed with small panes in lead comes, wired to iron bars let into the mullions (Plate IX). With two exceptions these windows are wider than any others in the two houses, the wider windows all being at the S end of the building. The southernmost on the E has been glazed to resemble the majority. That on the W is blocked. The positions of those on the E do not correspond to the rest of the fenestration, and moreover one of them extends into the narrow space beside the stack. Clearly they are not of the same build as the rest of the house.

Windows of this type were common during the seventeenth century,¹²⁹ but were out of fashion by 1700. They usually have their frames almost flush with the brickwork;¹³⁰ the blocking, at least one brick thick, suggests that a brick skin was put on the outside of the earlier house but, since the brickwork matches all round the inner court, this must have been done after the early eighteenth-century school was built. This brickwork is inferior to that on the front of the building, and the lintels of the window openings are formed of shallow segmented arches with unshaped voussoirs. The brickwork, as noted above, is not necessarily significant; the very different window openings and the fact that the bricks are not of the same dimensions as those in the front ($2\frac{1}{8} \times 9\frac{1}{8}$ ins (53×228 mm) against $2\frac{1}{4}$

× 8¼ ins (56 × 206 mm)) probably are significant. We suggest that the blocking of the windows and the refacing of the courtyard fronts took place later in the eighteenth century.

A further inference from these windows is that the building they belonged to was hardly a cottage. The room or rooms they lit were as lofty as the present ones. But though it had lofty rooms it was not a large house: in the room to the north of the one with these windows, the spine beam supporting the attic joists is a re-used wall plate from a timber-framed building, with mortices and stove sockets in its soffit. The attic joists have been re-set in it higgledy-piggledy, as betrayed by the disordered assembly marks. The marks themselves are of 'medieval' scribed form – which is not to say that they are of medieval date; the term is used merely to distinguish them from the short chiselled characters common from the end of the seventeenth century.

The evidence can be interpreted in at least two ways. There may have been two buildings, as Gibbs indicates, but of two different dates, and very small. But it is hard to imagine the rather superior seventeenth-century windows in a house of only one bay; perhaps a single building of two bays was made by adding a brick-built bay to an earlier timber-framed structure. The windows are unlikely to be as early as Sir Henry Lee's time.

A further feature demanding explanation is the narrow first-floor room abutting Ceely House. The spine beam spanning this in the attic is not continuous with that to the N, but is a curved timber of slighter scantling, with joists whose assembly marks start a new sequence (I to VI). The wall closing this room to the N was of lath and plaster on studs; it can never have been external. This part of the house, it is suggested, occupies a space between the late seventeenth-century house and Ceely House. The roof structure of the former was left *in situ* in 1718; a new one was therefore needed to fill the gap.

The tall windows in the school room have the thick glazing bars typical of the early eighteenth century. Those in the two masters' house are of the thinner kind popular later in the century. This represents modernisation rather than a later date of building. A short length of what is evidently a dado rail survives inside a cupboard on the first floor of the headmaster's house. Since it must be older than the cupboard, it may be a survival from the seventeenth-century house. The cupboard has three shelves of concave outline with a lobe in the middle, the lobes diminishing towards the top. Another survival, this time from the early eighteenth century, is the painted stone fireplace surround on the first floor of the assistant master's house.¹³¹

At an unknown date the windowsills of the schoolroom were raised six courses; possibly it had been found that the height of the original sills had allowed the boys' attention to wander to what was going on in the churchyard.

In 1907 the Grammar School moved to new premises on a green-field site, and the old building was bought by the Society as the first permanent home for its collections and a residence for its curator. At first the purchase excluded the assistant master's house, then known as Church House, counter-bidders having been successful;¹³² it was bought by the County Council in 1965.¹³³

The Society made a number of alterations, beginning with a small exhibition room in the NW corner of the courtyard, built probably in the 1920s or '30s. In the 1950s the court was filled in with a single-storey building;¹³⁴ the lower parts of the schoolroom windows on that side were filled, and their heads raised as far as they would go. At the same time a passage through the building where it abutted Ceely House was blocked off at both ends; its door to the street was replaced with a window. In 1934 a damp-proof cellar was formed for a Muniment Room.¹³⁵ The only other major change to date has been the insertion of a first floor over the schoolroom in 1971.¹³⁶

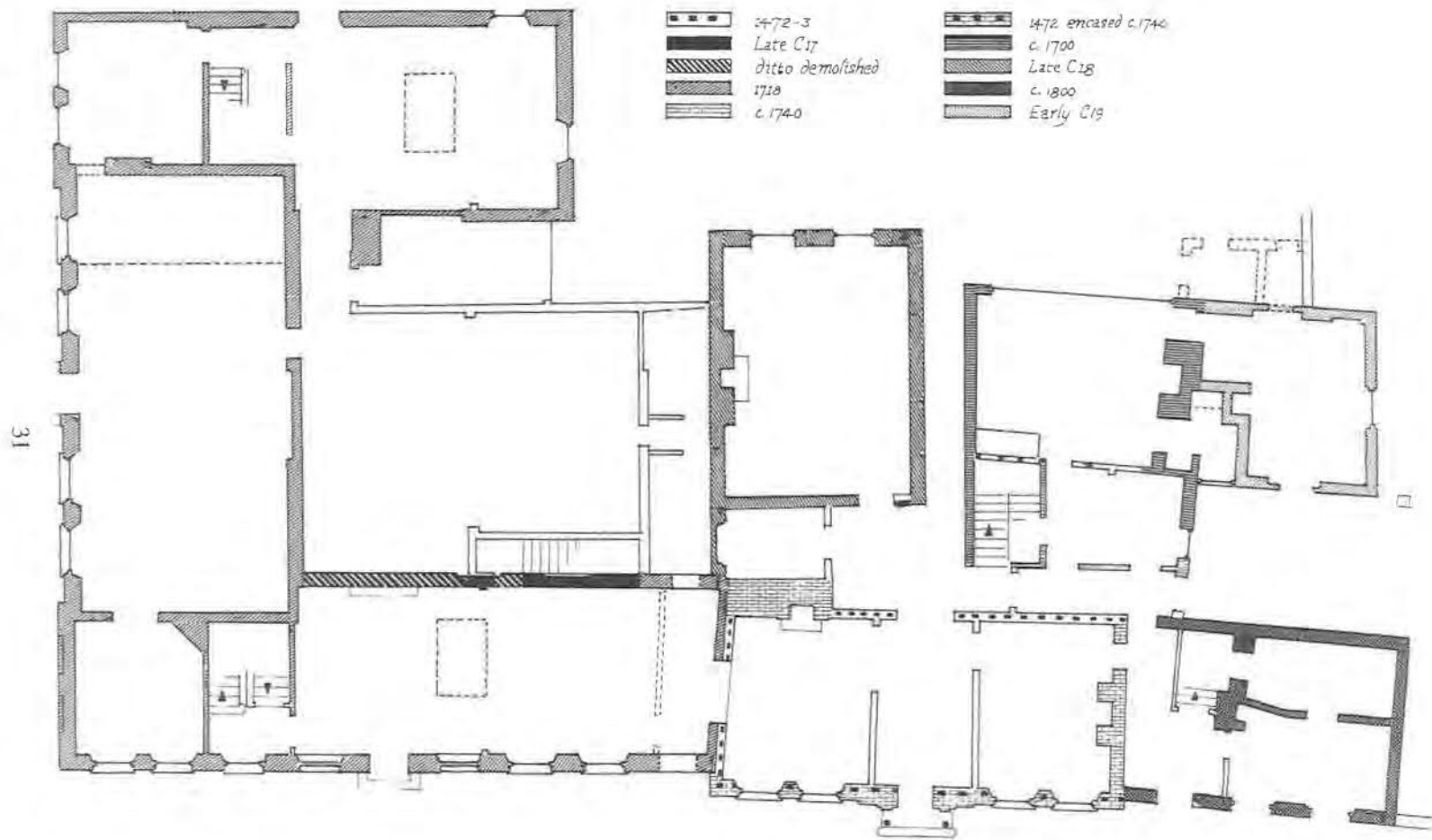


Fig 13. The Museum complex, showing periods of construction.

Conclusions

The Society and its tenants, the County Council, have in their care a great treasure: the Brother House of a religious guild, substantially intact under its later accretions, has only one parallel in this county – the mutilated example at Fenny Stratford¹³⁷ – and with few others anywhere; the wall painting is an exceptionally complete example of secular mural decoration; seventeenth-century windows, untouched and in their original position, are a great rarity. It is encouraging that there is every sign that the refurbishment will treat them with sympathy and respect.

Acknowledgements

The authors acknowledge with thanks the cooperation of many people in the preparation of this report: Brian Grainger, Assistant County Architect, who made us free of the building while it was being stripped down; John Collins, now County Architect; Mr R. J.

Edwards of Messrs Wilkins, the Society's solicitors, who allowed us access to the Society's muniments, one of which proved to be the key to the early history of Ceely House; as ever, the staff at the County Record Office, and Hugh Hanley in particular who drew our attention to an essential document in Birmingham Record Library; to Dan Miles, who spotted things about the structure that we might well have missed, as well as obtaining and processing the cores for dendro-dating; to Ann Ballantyne, who came to look at the wall painting when very little of it was visible, but was able to give us valuable guidance; to her pupil Elvira Pluta, who conserved the painting; and heartfelt thanks to the Francis Coales Charitable Foundation, who funded the conservation. Needless to say, the interpretations we have put on what has been found, and the errors in them, are entirely our own.

Just before going to press we learned of a wall painting in Albany, near Tring, Herts, 'very similar' to the Ceely House example. The design proved on inspection to be identical, and the painting almost certainly by the same hand. The house in question is of two builds, but the older part, containing the painting, was considered by the Royal Commission to be of the sixteenth century. We accept this. The idea that

the Ceely House painting was done when the building was new cannot be sustained. It should be thought of rather as the work of one of the first private occupants.

This incidentally gives a *terminus aute quem* for the first-floor ceiling, which must pre-date the wall painting, since that terminates at ceiling level.

Postscript: the painted room

The penultimate step in the conservation of the wall painting was to remove the studs that had supported the eighteenth-century false wall. This revealed three large peg holes in the medieval studs behind. In position and size the holes parallel those commonly found at the high end of medieval halls, and usually interpreted as being for the support of a bench. This must have been removed before the painting was done.

Also revealed were two parallel diagonal saw cuts, 220 mm apart, near the foot of the second stud from the E. These represent the first step in the forming of a trench for a tension brace, evidently aborted by a change of intention. Changes of mind on the part of medieval builders are often inferred but very rarely attested by such direct evidence.

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Abbreviations used:

BAS: Bucks Archaeological Society;

BRO: Bucks County Record Office;

Cal. Pat.: Calendar of Patent Rolls;

PRO: Public Record Office;

s.a.: *sub anno*;

VCH: *Victoria History of the Counties of England, Buckinghamshire* 4 vols, 1905–1928.

BCM: Bucks County Museum;

Cal. Fine.: Calendar of Fine Rolls;

PR: Parish Register;

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APPENDIX:
THE TREE-RING DATING OF CEELY HOUSE, AYLESBURY BUCKINGHAMSHIRE
D HADDON-REECE & D W H MILES

Table 1: CEELY HOUSE – SUMMARY OF TREE-RING DATING

Sample number	Timber & position	Dates AD spanning	H/S bdry	Sap-wood	No of rings	mean width (mm)	std devn (mm)	mean sens
<i>Main Range</i>								
*ce01 c	Corner post t G	1389-1471	1445	26	83	2.53	1.65	0.248
*ce02 c/s	Jetty joist b IV	1418-1472	1450	22¼	55	3.11	1.76	0.235
*ce03 c	Corner post t B	1406-1468	1449	19	63	2.86	2.05	0.251
*ce04 c/s	Joist b II	1377-1472	1448	24¼	96	1.69	0.94	0.196
*ce05 c	End girt t G	1416-1472	1457	15¼	57	2.78	1.16	0.234
*ce06 s	Transv. beam t D	1454-1472	1460	12¼	19	2.18	0.36	0.153
*ce07 c	Rafter b II	1386-1450	—	—	65	1.47	0.56	0.217
*ce08 e	Princ. post t D	1403-1454	1454	H/S	52	2.77	0.95	0.260
ce09 c	Transv. beam b V	—	—	1	35	2.63	0.82	0.261
ce10 c	Collar t D	—	—	15¼	15	2.78	0.45	0.149
<i>Infilled staircase</i>								
ce11 c/s	Jetty joist b III	—	—	15¼	53	3.48	0.62	0.163
ce12 c/s	Jetty joist b III	—	—	19¼	47	4.21	0.97	0.173
<i>Rear Kitchen wing</i>								
ce13 c/s	Girt t H	—	—	13C	68	2.42	1.20	0.214
ce14 c	Princ post t H	—	—	7	27	4.81	1.08	0.193
ce15 c	Tiebeam t H	—	—	15C	36	4.42	1.72	0.170
<i>Replacement purlin</i>								
ce16 c/s	Lower purlin b II	—	—	15C	55	3.14	0.57	0.133
"Ceely"	site master	1377-1472	—	—	92	2.33	0.88	0.167

Key

* = sample included in site-master;

c, s = core, slice;

¼, C = summer or winter felling (bark edge present; partial or complete ring)

H/S = heartwood/sapwood boundary;

mean sens = mean sensitivity;

t = truss letter;

b = bay number

1. Introduction and objectives

The main objective of the tree-ring dating at Ceely House was to date the main range and to confirm the architectural evidence that the roof is coeval with it. It was also hoped to date three other chronological phases or alterations. These were the infilling of the original stair-opening in the centre bay, the construction of the kitchen wing to the rear of bays IV and V, and the insertion of a new purlin in the front roof slope in the eighteenth century refronting.

It was hoped also that dendrochronology would

establish whether the crown strut of truss E was contemporary with that truss or inserted in the 1950's restoration. However, on closer examination of the strut, its patina and the position of its chamfer stops and assembly marks showed quite conclusively that it must be original. Given this visual evidence – and since there were few rings and no sapwood – it was decided not to sample it.

2. Methods of sample collection

A summary of the timbers sampled and their relative dating is shown in Table 1. All timbers sampled were of oak, *Quercus* sp.

	<i>ce02</i> 1472	<i>ce03</i> 1468	<i>ce04</i> 1472	<i>ce05</i> 1472	<i>ce06</i> 1472	<i>ce07</i> 1450	<i>ce08</i> 1454
<i>ce01</i>	3.83 54	4.90 63	3.06 83	2.68 56	3.35 18	1.63 62	1.89 52
<i>ce02</i>		6.60 51	2.57 55	3.00 55	2.09 19	3.56 33	1.07 37
<i>ce03</i>			2.32 63	2.20 53	1.52 15	2.18 45	0.98 49
<i>ce04</i>				0.76 57	0.15 19	1.73 65	2.45 52
<i>ce05</i>					0.67 19	3.60 35	0.19 39
<i>ce06</i>						0.00 0	0.00 0
<i>ce07</i>							1.46 48

Table 2: Main range – Primary phase – matrix of *t*-values and overlaps

	<i>ce11</i>	<i>ce12</i>	<i>ce13</i>	<i>ce14</i>	<i>ce15</i>
<i>ce09</i>	0.00 35	1.01 35	4.20 35	2.10 26	0.17 30
<i>ce11</i>		0.86 47	0.12 53	1.11 27	1.45 36
<i>ce12</i>			2.20 47	2.65 27	5.81 36
<i>ce13</i>				4.23 27	2.97 36
<i>ce14</i>					2.07 27

Table 3: Stair infilling and Kitchen wing – matrix of *t*-values and overlaps

Normal practice in tree-ring sampling offers a choice of three possible methods: measurements *in situ* on a well-polished beam end (normally prepared by sanding or planing); cores drilled with a hollow auger; or slices cut from the timbers. At Ceely House, cores and small sapwood slices from positions adjacent to them were collected in the latter part of 1990. The cores were drilled with a 5/8" hollow auger with hardened steel teeth. As coring involves the inevitable risk that a core will not run at right angles to the ring boundaries, or that it will meet a hidden area of distortion, some timbers required more than one core.

3. Timbers sampled and particular problems

(See Table 1 and Figure 14.)

The Ceely House tree-ring samples are designated as ce01, ce02, etc. Figure 14 is the first floor plan giving the location of timbers sampled *in situ*.

3a. Main range – Primary phase (samples ce01 – ce10)

Although the timbers themselves are of substantial section, the timber was fast-grown and many floor joists were found to have almost twice as many rings as the largest tiebeam. Combined with a general lack of sound sapwood, this limited the number of timbers suitable for sampling.

3b. Main range – infilled stair opening (samples ce11 & ce12)

Only two samples were found to have retained complete, sound sapwood. These were sampled by coring, extra small sapwood sections being taken adjacent to the core positions. The third joist had too few rings to warrant sampling.

3c. Rear Kitchen wing (samples ce13 – ce15)

Three cores were taken from the only surviving truss. In addition a sapwood section was removed from the lower girt, but apart from this timber, the other timbers visible had very few rings (like the tiebeam). For example, the collar proved unsuitable on sampling as it had only 15 rings and no sapwood.

3d. Main range – replacement purlin (sample ce16)

As this timber would date by association the refronting of the house as well as the construction of the main staircase (timbers removed from the front were re-used in the stairs substructure) it was considered important to date it. To this end, two cores and a sapwood section were removed.

4. Sample preparation and measurement

All timbers were dry, and the samples could therefore be sanded without pretreatment on a finisher

through several grades of abrasive paper ranging from 60 grit to 1200 grit. This prepared a sufficiently clean view of the transverse section of the wood for the ring boundaries to be distinguished and for the ring-widths to be measured.

Once polished, all samples were measured under a $\times 10/\times 30$ microscope using a travelling stage electronically displaying displacement to a precision of 0.001mm. In most instances each sample was measured at least twice, and any complementary sapwood slices were measured several times in order to obtain a representative average. Where they contained breaks, cores were measured in sections for eventual alignment against other samples.

5. Cross-matching principles and procedure

Trees in temperate zones add one growth increment (tree ring) annually, just under the bark. The tree forms large vessels ("pores") in spring for sap conduction, and in the summer adds mainly fibrous material for support. Growth stops from autumn until the following spring. Dendrochronology relies on the similarity in response of trees to their growing conditions. In general, trees of the same species growing under similar conditions will add relatively wide rings in good years and narrow rings in poor years. A series of successive tree-ring widths therefore presents a year by year record of the weather, and the sliding comparison of two such series should somewhere show similarity and hence provide a chronological alignment.

After measurement, the ring-width series for each Ceely House sample was drawn in the usual fashion as a graph of width against year on log-linear graph paper. This paper is translucent so that graphs ("curves") can be visually compared by overlaying.

All ring-width series were also recorded on (an Amstrad PC2386) computer for statistical cross-matching using the Baillie and Pilcher (1973) CROS program in a BASIC version written by DH-R. The CROS program slides the curves past each other calculating the product-moment correlation coefficient r at each position of overlap. The strength of each correlation is tested for statistical significance using the "Student" t -test. ("Student" was the pseudonym of W S Gosset who produced the t -test in 1908.) Values over $t=3.5$ indicate that so strong a correlation should have occurred by chance alone less than 1 in 1000 times, and such positions are selected for further examination.

Dating results and analysis (see Table 1)

The work is described in order of sample number.

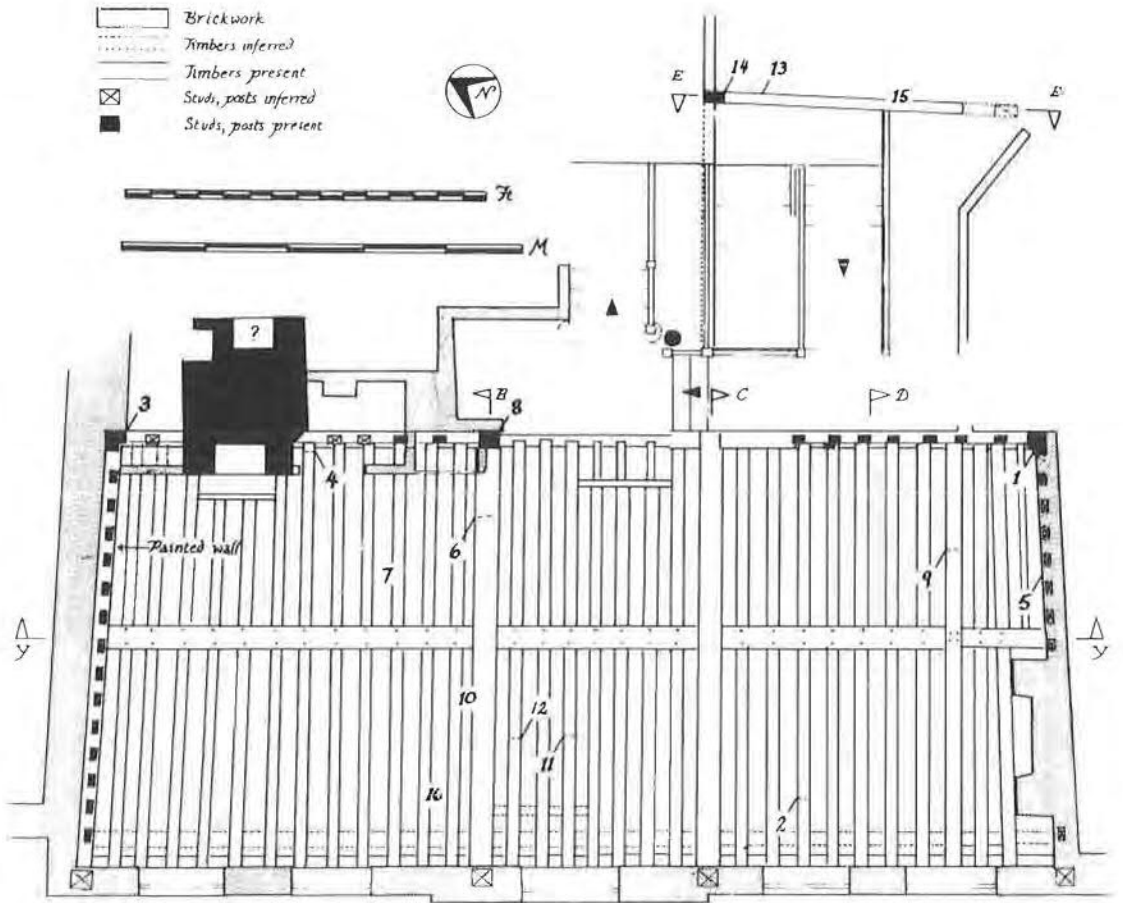


Fig. 14. Ceely House, showing positions of samples taken for tree-ring dating.

Dating of 'Ceely House Aylesbury new purlin ce16' at 1746

VICTORY	<1640-1800>	∴ o/lap = 55	t = 2.50
MAPLEDURHAM (3)	<1618-1740>	∴ o/lap = 49	t = 2.52
MAPLEDURHAM (2)	<1658-1739>	∴ o/lap = 48	t = 2.74
MC19	<1399-1800>	∴ o/lap = 55	t = 2.78
HOLLSTEIN	<1501-1975>	∴ o/lap = 55	t = 2.97
EXCATH2	<1662-1783>	∴ o/lap = 55	t = 3.31
HAMPSHIRE	<1635-1972>	∴ o/lap = 55	t = 3.37
NEWING05	<1582-1738>	∴ o/lap = 47	t = 4.32

Dating of 'Ceely House Aylesbury new purlin ce16' at 1755

MAPLEDURHAM (2)	<1658-1739>	∴ o/lap = 39	t = 2.55
NREPPS	<1564-1949>	∴ o/lap = 55	t = 2.58
ENGLAND	<1404-1981>	∴ o/lap = 55	t = 2.71
DROITWICH ELM	<1692-1745>	∴ o/lap = 45	t = 2.95
HAMPSHIRE	<1635-1972>	∴ o/lap = 55	t = 3.51
FRANCE	<1274-1979>	∴ o/lap = 55	t = 3.62
READING1	<1708-1266>	∴ o/lap = 48	t = 3.78
VICTORY	<1640-1800>	∴ o/lap = 55	t = 3.92
MC19	<1399-1800>	∴ o/lap = 55	t = 4.17

Table 4: Alternative dating of replacement purlin (sample ce16)

Table 1 gives a summary of dating results for individual timbers as well as for the site master.

6a. Main range: primary phase (samples ce01 – ce10) (see Table 2)

The first inter-comparisons of these samples produced low *t*-values, despite promising sample lengths. Initially, samples ce01, ce02, ce03 and ce04 were cross-matched and averaged as site sub-master ce1-4. Against these were matched, again with low *t*-values but acceptable visual correlation, samples ce05, ce06 and ce07. All were combined to form the second site sub-master ce1-7. Although sample ce08 did not match sub-master ce1-7 well, it was

included on the strength of its match with ce01 and ce04 to form the site master CEELY. Sample ce09 did not match the site master of either of the sub-masters (but see section 6c), nor did sample c10. Also sample ce10 was too short (15 rings) to match with any degree of statistical certainty and was therefore omitted entirely.

The final complete ring of the entire sequence dated at AD 1472; taking into account the outer incomplete ring which had a bark edge but only early vessels, this indicates a felling date in the spring of AD1473.

6b. Main range – infilled stair opening (samples ce11 and ce12) (see Table 3)

Samples were taken from two of the three joists used to fill in the original stair opening. If the timbers were architecturally coeval, which would imply approximately similar felling dates, then since both have complete sapwood, the two tree-ring curves should cross-match when their outermost rings coincide (or nearly so). They did not cross-match well, however, either statistically or visually. Moreover, from a visual comparison, two matches were possible: one with felling years corresponding, and the other with sample ce12 felled a year later than sample ce11. It was observed that ce12 had broken twice in coring but both breaks were clean, and considering the high average ring-width (3–4mm) it seems most unlikely that any rings were lost. (The chance of completely losing a ring if the core snaps in drilling is higher with narrow-ringed material, where the weaker spring vessels occupy a greater proportion of the overall ring width.) Thus there was no clear break where a missing ring could have produced this double matching, but the phenomenon is not in fact unusual. The samples were therefore not combined. No date could be found for either ce11 or ce12 when tested individually against master curves.

6c. Rear Kitchen wing (samples ce13 to ce15) (see Table 3)

Of the three samples taken for this phase, two had complete sapwood and one had 7 sapwood rings intact. Since all three cross-matched they were combined to make a site sub-master, ce13–15. This did not match any reference curves or even the other site sub-masters, but it did match the stair infill sample ce12, which was therefore combined with ce13–15 into another site sub-master, ce12–15. Even this sequence did not date conclusively, but it was noted that ce12, ce13 and ce15 were felled in the same year: ce12 in the spring (about March to May), and samples ce13 and ce15 earlier in the winter months (the previous October to March). This indicates at least that the stairs were filled in at the time when the kitchen wing was added. When stair infill sample ce11 was combined experimentally with samples ce12 to ce15 so that all felling dates coincided (making sub-master ce11–15), it was found to reduce the strength of any dates previously suggested by ce12–15. Sample ce09 (see section 6a) was found to match ce13, so sub-master ce09,12–15 was formed to incorporate it; again no dates could be found. No acceptable date can be offered for any sample in this group.

6d. Main range – replacement purlin (sample ce16) (see Table 4)

This timber was sampled three times, one sample having complete sapwood, and these samples were cross-matched and amalgamated to form curve ce16. Style suggested that the purlin was inserted in the eighteenth-century refronting of the house but no conclusive tree-ring date could be found in the eighteenth or preceding centuries. As Table 4 demonstrates, the sample was found to match significantly against a number of reference curves both at 1746/7 and 1755/6 (with a winter felling, i.e. October to the following March). Of the two possibilities, 1755/6 is the better supported (just), but further evidence would be required before an unequivocal choice could be made.

7. Dating of site sub-masters and master curve

Table 5 shows the sub-masters and master curve with their final complete ring matched at AD1472 against 15 local and national reference chronologies. In most cases it will be seen that successive addition of samples improves the matches. It should be noted here that certain references are themselves components of the Oxford Mean and are identified by *.

8. Sapwood: felling dates and seasons

Sapwood is the outermost band of rings, serving for conduction – in distinction to the heartwood, which is effectively dead and non-conductive (acting only for support) as its vessels have been blocked with tyloses. As will be seen in Table 6, the average number of rings of complete sapwood in the Ceely House samples is 18.25, which is very similar to the average of 18.6 found by the authors for 67 other building timbers in Oxfordshire.

It will be noticed that the mean sapwood ring width is in general substantially lower than the heartwood ring width. This is often found, and reflects the reduction in ring width as the tree grows older.

Precise felling dates can be given when a bark edge is present, and this is possible for four of the timbers at Ceely House. Moreover; when the final ring shows that some or all the spring vessels only have formed, this indicates a felling in about March to May and is signified by '¼' in Table 1. (For the purposes of calculating average sapwood widths, the final ¼ ring is not included.) A complete ring shows winter felling, i.e. between about October and the following March, and is marked in Table 1 by 'C'. The felling months are only an approximate guide since they are subject to considerable variation due to the complex

	<i>cel-4</i>	<i>cel-7</i>	<i>cel-8</i>
<i>Pebble</i> (DWHM & DH-R)	3.37 60	3.20 60	3.56 60
<i>Haseley</i> (DH-R)	3.21 48	3.52 48	3.61 48
<i>Hamburg</i> (J Bauch)	4.11 96	3.75 96	3.66 96
<i>East Midlands</i> (Nottm Univ)	3.96 96	3.53 96	3.94 96
<i>High</i> * (J M Fletcher)	3.95 96	3.90 96	4.00 96
<i>MC16</i> (J M Fletcher)	3.79 96	3.85 96	4.10 96
<i>Alton</i> (J Hillam) 96	4.15 96	3.86 96	4.35 96
<i>Martin</i> (M Bridge)	4.41 94	4.03 94	4.42 94
<i>Cowfold</i> (I Tyers)	4.15 96	4.69 96	4.51 96
<i>Nuffield</i> * (DH-R & DWHM)	5.19 69	5.57 69	5.16 69
<i>Kitchen</i> * (J M Fletcher)	5.41 84	5.09 84	5.32 84
<i>Mapledurham (1)</i> * (DH-R & DWHM)	5.64 62	5.40 62	5.64 62
<i>Oxford Mean</i> (DH-R & DWHM)	5.51 96	5.55 96	5.66 96
<i>Queen's Head (2)</i> * (DWHM)	5.47 78	5.81 78	5.93 78
<i>Kent 88</i> (Nottm Univ)	6.44 96	6.05 96	6.77 96

Table 5: Cross-matching at 1472: *t*-values and overlaps

relationships between climate and changes in wood growth.

9. Summary of results and conclusion

Tree-ring dates are reported here for 8 of the 16 timbers sampled at Ceely House in 1990. The timbers used in the construction of the main range are found to have been felled in the spring of AD1473. Five samples from the rear kitchen wing and infilled staircase, together with a transverse beam in bay V of the main range, prove to be contemporary with each other but have not been dated. No conclusive date was found for an eighteenth century replacement purlin, although two possible contenders exist: AD1746/7 and AD1755/6. Each is statistically significant but not so highly that it could be chosen without ambiguity.

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Sample number	Total	heartwood	sapwood	width of sapwood (mm)	felling season in 1473
		number of rings			
		mean ring width (mm)			
ce02	55	33	22	34.8	early spring
	3.11	4.14	1.58		
ce04	96	72	24	19.0	late spring
	1.69	1.89	1.08		
ce05	57	42	15	28.2	early spring
	2.78	3.08	1.93		
ce06	19	7	12	29.2	spring
	2.18	2.02	2.27		
Average values: sapwood rings ring width		2.44	2.78	18.25	27.8
			1.72		

Table 6: Sapwood data and felling dates.

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