

Knole Cellars in Stone Court Sevenoaks Kent



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Prepared by: Deirdre Forde
Position: Historic Buildings Archaeologist

Checked by: Julian Munby
Position: Head of Buildings Department

Approved by: Julian Munby Signed.....
Position: Head of Buildings Department
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Oxford Archaeology

Janus House

Osney Mead

Oxford OX2 0ES

t: (0044) 01865 263800

e: oasouth@oxfordarch.co.uk

f: (0044) 01865 793496

w: www.thehumanjourney.net

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Knole Cellars in Stonecourt, Sevenoaks, Kent

Building Investigation and Record

by Deirdre Forde

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Knole Cellars in Stone Court

Summary

Oxford Archaeology (OA) has been commissioned to undertake a programme of non-interventive archaeological investigation and recording to further understanding of the built structure and historic phasing of the cellar space in Stone Court.

Knole is among the great English country houses built on a palatial scale and it has grown in a series of phases largely from the mid-15th to the 18th centuries. The details of this development are still the subject of inquiry and investigation.

OA has previously produced an 'Archaeological Survey' of Knole in preparation of the Conservation Management Plan in 2007. The archaeological survey was non-intrusive in nature and essentially comprised a systematic investigation of the historic fabric, accessing all areas of the house used directly by the National Trust and those in private occupation of the Sackville-West family. These two works raised some questions and points of interest which would require further investigation in order to have a clearer idea about the origin, historical use and development of the house.

The recent programme of additional investigations has been undertaken to inform continuing research on the medieval and early modern house. In the Stone Court cellar the fabric and painted decoration have been re-considered, to amplify some areas not fully explored in the previous Archaeological Survey. This report adds further understanding of the structure and historic significance of the medieval cellars within the historic complex as a whole. A scaled, metric reflective survey of the roof structure was completed and a photographic survey carried out, and a written report was prepared on the results of the project.

The main area of the cellar as a space appears to be divided in function between east and west. Besides a later wooden lattice divide, the ceiling structure on the east side is more elaborate than that on the west and has applied mouldings. This would suggest a higher status space with a more formal or recreational purpose. In addition, the south wall of this area of the cellar features partially surviving medieval wall painting of heraldic design suggesting that the space served more than a functional purpose when it was built and was likely to have been a servant's hall for recreational use. Examination of the doors at each end of the cellar suggest that direct access was formerly obtained to the Stone Court.



1 INTRODUCTION

1.1 Background

- 1.1.1 Oxford Archaeology was commissioned by The National Trust to undertake a programme of non-intrusive archaeological investigation and recording to further the understanding of the built structure and historic phasing of the cellar space on the north side of Stone Court.
- 1.1.2 In 2007 OA undertook a thorough archaeological survey, along with a Conservation Management Plan for the whole house. These two works raised some questions and points of interest which would require further investigation in order to have a clearer idea about the origin, historical use and development of the house. In 2009, OA was commissioned by The National Trust to undertake a programme of building recording and archaeological investigation on the Orangery at Knole to further the understanding of the origin, historical use and phasing of the structure. This further phase of work, following an assessment of dendrochronological potential at Knole, has turned to look at the Stone Court cellars, and discover what more can be learned from consideration of the fabric (both masonry and carpentry) and the remains of wall paintings.
- 1.1.3 This detailed report of the medieval cellars adds further understanding of its structure and historic significance as part of Stone Court and within the historic complex as a whole.

1.2 Aims and objectives

- 1.2.1 The main aim of the project was to investigate and record the structure of the cellar on the north side of the Stone Court. The work concentrated on a detailed recording of the cellars structure, particularly the roof, as well as an improved understanding of its history and significance. The paint study was separately undertaken and its results have been included here.

1.3 Methodology

- 1.3.1 The project was undertaken to English Heritage conventions Level 1-2 and the building recording consisted of three principal elements: a photographic record, a drawn record and a written record.
- 1.3.2 The *photographic record* was undertaken using 35 mm film (black and white prints) and digital photography. It included both general views of structures and specific details. Digital images were used to provide illustrations to the final report.
- 1.3.3 The *drawn record* consists of a plan of the historic roof structure as well as sections where joinery was visible. These were drawn at an appropriate scale onto archivally stable perma-trace and archaeological or descriptive annotation was added.
- 1.3.4 The *written record* (the final report) complements the drawn record and includes a description of the fabric and features and an analysis of their construction, function and development and relationship to the different phases of the building.



2 HISTORICAL BACKGROUND

2.1 Knole

- 2.1.1 The Manor of Knole was purchased by Thomas Bouchier, Archbishop of Canterbury (1454-1486), from Sir William Fiennes, 2nd Lord Saye and Sele, on June 30th 1456 for a sum of £266 13s 4d. Although it is recorded that a house existed at Knole before this date, no definitive evidence of an early house has to date been identified, though observation made during the current project may indicate that vestiges of an earlier structure/s survive within the standing buildings (Fig. 2). Bouchier enclosed the deer park and immediately began work on a house, ranged around two courtyards (Stone and Water Courts) that was far enough advanced for occupation by 1464, and was already being referred to in documents as a '*great house*' by 1468 (Sackville-West, 1922, 22). Bouchier's two successors as Archbishop of Canterbury, John Morton (1486-1500) and William Warham (1503-1532) both expended significant sums on works improving the accommodation of the Palace and the buildings of the Green Court (or at least the Gatehouse) may originate from this period. It was in 1538, under Warham's successor Thomas Cranmer (1532-1556) that Knole, together with the Palace of Otford, was reluctantly given up to King Henry VIII, part of a prolific campaign of acquisition carried out by the monarch during his reign which saw the number of Royal houses rise to over 60 by 1547 (Thurley 1996, 50). Henry lavished considerable expense on building work at both Knole and Otford, spending £872 in 1541-2, £770 in 1452-3 and £80 in 1543-44, though references to Knole within the *History of the King's Works* are few, suggesting that that much of this money was spent at Otford.
- 2.1.2 Knole remained with the crown until 1570, under the ownership of Edward VI, Mary and Elizabeth I, though being variously assigned to John Dudley (Duke of Northampton), Cardinal Pole (Archbishop of Canterbury) and to Robert Dudley (Earl of Leicester). In 1570, Sir Thomas Sackville, cousin and councillor acquired but promptly re-assigned it to a local landowner for the next 37 years, only taking full possession of the house in 1603. On taking possession, however, Dorset immediately set about a major programme of renovation and refurbishment work that lasted until 1608, creating a magnificent series of state rooms and remodelling the house into the form in which, effectively, it comes down to the present day (including the completion or rebuilding of Green Court). Subsequently the house has remained in the ownership or occupation of successive generations of the Sackville family, being acquired by the National Trust in the middle years of the last century.
- 2.1.3 In 1946, the house together with a part of its collections, the gardens and 100 acres of the 1000 acre Park were handed over to The National Trust, while the Sackville family continue to occupy private apartments within the house under the terms of a 200-year lease. The Sackville Trustees also own the majority of the historic Park, and the surrounding agricultural estate.

2.2 The Cellars in Stone Court

- 2.2.1 The Northern Range of Stone Court is one of the principal surviving parts of the medieval house and retains significant primary fabric and evidence for its development. The upper floors contain a series of high-status apartments, as evidenced by the roof, certain structural features visible amongst later work, and the plan with the series of large garderobe towers protruding on the north side. The range extends from the buttery area



- below the end of the hall range at the east end to the outer wall of the court at the west end. There is evidence of more than one potential entrance on the south side from the courtyard (none of them now operative) and a doorway in the north wall which leads across the Queen's Court to the Brewhouse.
- 2.2.2 The date of the cellars has been the subject of some debate but it is thought likely to be part of the main late medieval building phase of Archbishop Bourchier. The existence of the heraldic painting and the decorative frieze in the cellars and the quality of the decorative ceiling carpentry does suggest an area of a certain status and somewhat higher than a mere beer cellar.
- 2.2.3 Being an older and more remote part of the house means that there is not a large amount of documentation that has been identified. The 'strong beer cellar' and small beer cellar' occur in sequence after the brewhouse in the extensive domestic inventories of 1706 and 1799.
- 2.2.4 In 1706 the 'Strong Beer Sellar' contained 38 Hogsheads, dozens of bottles, 6 small vessels, seven stillyards, four half tubs, two keelers, three old stools and an old table, two bottle racks, two brass cocks and a pewter bason. The Small Beer Cellar contained 30 hogsheads, one leaden cistern cock and pipe, six stilyards, one brass cock, four small casks and three pipes [Ref. E 79/2].
- 2.2.5 The historic use of this area as a beer cellar is attested in the 1741 plan (framed in the house) which shows the cellar's capacity for beer barrels. It is drawn by William Gardiner with titles in a cartouche and entitled 'A Plan of His Grace the Duke of Dorsets Cellars at Knole near 7Oaks in the County of Kent', and shows the walls of the entire cellar area lined with barrels.
- 2.2.6 The 1799 inventory has between the Stable Yard and the Brewhouse '147 Strong Beer Cellar' containing seventeen 4-Hogsheads strong beer tubs and four 2-Hogsheads ditto (Uprights), five 2-hogsheads ditto (to lie down), six single stolders and eight large stolders, a pair of steps, a glass carboy and a stone bottle, a tap Keeler-Tilter, 2 brass cocks, 2 glasses (Consciencs) and two drinking horns, thirteen dozen empty wine bottles and 53 dozen with Liquor. In '148 Small Beer Cellar' were to be found twenty-four Hogsheads, sixteen wort keelers, one tilter, two tap keelers, one wood funnel, one ditto with a Tin Tube, two tin funnells, a wood jut(?) and a copper skimmer, a barrow with two wheels, a forcing pump, a hammer, thirteen stolders of different sizes, a lead cistern, a brass cock and lead pipe, a mallet, a pair of dogs, a cool tub and three keelers. [Ref. E 5]
- 2.2.7 Clearly by the 18th century the cellar space was related to brewing in the nearby brewhouse, and storage of wine in bottles, and there is no hint of other domestic use except perhaps the occasional use of a 'conscience' glass.



3 BUILDING DESCRIPTION

3.1 Introduction and general description

3.1.1 The following paragraph has been extracted from OA's *Knole, Sevenoaks, Kent; An Archaeological Survey* (2009). For the purposes of the survey, the cellar space has been divided into *Cellar Areas 1-4*.

3.1.2 The north range is fully cellared, returning below the northern end of the west range to abut the north side of Bouchier's Tower and, to the east, extending below the service rooms at the north end of the Great Hall and beneath the Kitchen Lobby. The main section of the cellar, which runs below the north range proper (Cellar Areas 2 and 3, L.25 and L.26) is c.30m long x 4.65m wide and stands 2.12m high to the underside of the ground floor. It is terraced into the rising ground to the south such that the base of the northern wall is level with the Queens Court (Plate 1), while the south wall is effectively at basement level, c.2m below the pavement of the Stone Court. It is accessed from the exterior, via a wide, central doorway with four-centred head in the north wall giving onto the Queen's Court and is lit by a series of six, rectangular single-light windows. Internally, the cellar is accessed by a stairway leading down from the Kitchen Lobby (G.98) and via an angled passage, broken through at the south-east corner adjacent to the Cellar Area 1 (L.32).

3.2 Area 1

3.2.1 Area 1 is located to the east of the main cellar area (Areas 2 and 3) at the south side of the passage that leads from the Kitchen Lobby stairway (and beneath the former Buttery). It is a large rectangular room with walls of plastered rubble. The north side of the room is separated from the passage by a timber lattice partition. The west wall is stepped out in the north west corner where there is a large metre-wide foundation pier of brick built into the wall. In the east wall is a stone arched doorway which leads into a small storage space which is part of a separate cellar, seen previously but not accessed at the time of survey.

3.2.2 *The Buttery stair?* The walls in the south east corner of the room show traces of an ascending line, possibly the imprint of a stairway, which appears to meet at a landing, and has a surviving stone door jamb on the south wall (Plate 2). Below this line, the wall is bare and above it, the wall is plastered, indicating a former floor level above that of the present floor. The jamb retains its rebate and pintles but is the only surviving side of a door once projecting into the room (with access gained from east to west). To the west of this is a large horizontal timber and a straight joint indicating a blocked opening, of uncertain function. The door jamb is most likely to be the remains of a door into the cellar on a stair descending from the Buttery (the 1741 may indicate a stair at this point), and later replaced by the present stair down from the Kitchen passage along the east and north walls.

3.2.3 *Ceiling:* Two large beams with stepped chamfer stops run north to south across the ceiling of the buttery cellar. The eastern beam has been truncated on the north side where the staircase has been inserted. Running east to west between these beams are tenoned joists; these have diminished haunch joints with housed soffits and measure between 15-19 cm in width and are approximately 25 cm apart.

3.2.4 *Floor:* The buttery cellar floor is made up of rows of flagstones running north to south on the east side and in rows running east to west on the west side and is somewhat irregular.



The stones are varied, but include some Purbeck Marble paviments (purchase of such stones are included in the early 17th-century accounts). Some small square flagstones at regular intervals were probably laid to support posts (Plate 3). Hollowed stone drains run around the edges of the floor (at about 60 cm inside the east wall, 85 cm to south and 75 cm to west). The channel by the north wall runs down the diagonal corridor leading to the main cellar area, where it drains into a soakaway at the end. There are large timber barrel holders against the south wall, and others elsewhere in the cellar, traditionally constructed of mortised and pegged timbers.

3.3 Area 2 of Cellar

- 3.3.1 *Access:* Area 2 is the east end of the main cellar area. It is accessed through the diagonal passage opening in the south east corner that leads from the Kitchen Lobby stairs and the Buttery. There is a small niche for a lamp in the diagonal passage on the right hand side as you enter Area 2 (Plates 4 & 5).
- 3.3.2 *Walls:* Area 2 is a long rectangular space with walls of rubble and plaster (Plate 6) and the east wall shows a thin layer of plaster over a thicker layer of keyed plasterwork. This does not appear to have been painted, though there are traces of a decorative frieze at the top of the wall. The north wall is mostly plastered and keyed for a later coat that has fallen off and has been white-washed over. It appear to have been continually plastered and whitewashed over a number of years.
- 3.3.3 The east wall features two shallow recesses (Plate 7), one above the other, with a square rebate and pintles for cupboard doors (possibly for holding precious vessels or liquors). In bay 3 of the south wall, there is a stone doorway, which gives access to a small wine cellar (See 3.6). The south wall also features a series of partially surviving medieval wall paintings, which are discussed further below.
- 3.3.4 *North Door:* The north wall of Area 2 has a large door to the courtyard and three evenly spaced windows to the right. The doorway has a pointed arch and a curved ogee chamfer running into the jamb (Plate 8). There are pintles on the east side of the doorway and bolt sockets on the other. The lintel soffit of the doorway is supported with four large planks. The plasterwork on the west side of the shallow doorway passage has been scratched with rough graffiti, including a shield with what appears to be a 'T' inside it. The door itself, is a large wooden panelled door, painted black. This door to the courtyard led directly towards the brewery, and was the largest means of access to the cellar.
- 3.3.5 *Windows:* The windows in the north wall have deep splayed reveals with segmental arched heads (with chamfered edges), with whitewashed plaster. The sills are around 1 m from the floor. The stone window frames have internal rebates for shutters (with two iron pintles) and external ferramenta having four iron crossbars that seem to be an original feature (Plate 9).
- 3.3.6 *Floor:* The floor of Area 2 is of flagstones, which run broadly east to west in rows and is cambered in the centre with a slight hollow on the north and south sides for drainage. The paving stones on average measure around 45 x 30 cm, with larger stones up to around 75 x 45 cm (Plate 10). The south drain is 75cm from the wall, and the north drain is 50cm from the wall. The north drains curves outwards and arcs back in as if to continue out through the doorway in the north wall (Plate 11). However, at this point, the drain has been truncated by modern repair work between the doorway and the south wall opposite, where a manhole has been fitted and some concrete has been set down (the manhole is dated 1957). Besides this intervention, no obvious phasing can be detected in the floor of Area 1, which may all be contemporary and perhaps dates from the 17th century.



- 3.3.7 *Ceiling:* The cellar ceiling in Areas 2 and 3 (the main cellar area) is supported on a series of north-south transverse beams or principal joists which make up twelve bays. Running along the centre of the roof, east to west, and between the principal joists are eleven spine beams or bridging joists (Plate 12). The bays of Area 2 each have five common joists except for bay 2, which has four. The wall plate on the south side is chamfered and stopped (Plate 13). The eight bays of Area 2 vary in width between 1.6m and 2.1m and their ceiling joists are more ornate than those of Area 3 to the west, indicating that it may have been more formal and of a higher status than other areas.
- 3.3.8 *Formation and decoration:* The principal joists have a scantling of approximately 30 cm and have smaller moulded timbers attached to their soffits of approximately 10 x 10cm. Both have plain chamfers and stepped run-out stops in the middle they meet the bridging joists. The bridging joists are the same shape as the transverse principals, but on closer inspection they appear to be one large moulded piece of timber rather than a principle timber with a moulding applied to its soffit. The bridging joists are also chamfered with stepped run-out stops where they meet the principals, creating a moulded cruciform design in the centre to decorative effect (Plates 14 & 15). The means by which the mouldings are attached to the main structural members remains uncertain, and they are perhaps nailed in place. Mouldings carry on into the first bay of Area 3, which suggests that the existing partition was moved or changed at some point. The beams do not appear to have been painted but may have been white washed soon after they were constructed. The common joists are all chamfered and so they were designed to be seen, but they currently have lath and plaster nailed to them (Plate 16).
- 3.3.9 *Lobby area in Bay 1:* The ceiling structure of Bay 1 in Area 2 is more plain than that of the other bays. There are at least 8 visible mortices in the soffit of the first principal joist, which indicates that there was a stud partition here (Plate 17). The beam is chamfered but there are no additional mouldings (and it rests on the wall plate over the window so the partition bisects the window splay). The common joists in this bay are not chamfered, and no paint was identified in Bay 1 (except for some traces of a frieze in the east wall), and the two small cupboards previously described may suggest a more functional purpose for this bay as a lobby or service area distinct from the rest of the bays of Area 2.
- 3.3.10 The carpentry throughout is of high quality and has been loosely dated by Hewett to the 15th century (1400-1510).
- 3.4 The Wine Cellar – a former Access?**
- 3.4.1 A doorway in the south wall of Area 2 leads to a small 18th-century wine cellar. It has vaulted ceiling with large well cut stones (Plate 18). The walls are of ashlar, except for south wall on east side, which is built of rubble and plaster, and there are stone shelves forming the wine bins. The east wall is bricked up to bin level at 95cm, with ashlar above. The south wall appears to be constructed with rubble and plaster with some areas of brick patching, while the west wall is built entirely with ashlar (Plate 19). The roof is made up of two low four-centred vaults of well-cut ashlar intersecting with a fine aris (Plate 20). The north-south vault is 2.05m in length, and the broader one running east to west on the west side of this is 2.77m in length. The springing of the vault is symmetrical with the doorway, which is of medieval date, while the ashlar is very well cut and is probably of post-medieval date.
- 3.4.2 The stone doorway is moulded with a curved ogee jamb and chamfer on the south (inner) side, which, like the doorway in Area 4 (see 3.7.1 below), may suggest that it was once possibly an external doorway to the cellar, approached from the south side (Plate 21).



3.4.3 Thus the wine cellar was perhaps once a medieval lobby, opening on the south side, and may originally have been an entrance to the cellar from Stone Court by means of steps, and was, in the 18th century, reformed as a wine bin. Apart from the irregular nature of part of the south wall of the cellar, there is however no firm evidence of e.g. a blocked door in that wall.

3.5 Wall Paintings in Area 2

3.5.1 The south wall of the main cellar space retains a frieze above large heraldic displays and some figurative scenes (Plate 22 & 23). It is painted onto plaster and although in poor condition, some of the figurative work and heraldic devices can be identified. It was found that the paintings were restricted to that part of the cellar where the ceiling is more ornate than the rest: the seven west bays of Area 2 and the eastern most bay of Area 3. This is a further indication that this part of the cellar was more formal and of a higher status than the other areas.

3.5.2 A survey of these paintings was carried out alongside OA's archaeological survey of the cellar by Tobit Curteis Associates LLP, and reported in the 'Preliminary Survey of the Wall Paintings in Stone Court Cellars' (2010). The aim of the study was to establish the nature and extent of the painting, the layer structure and possible dating, as well as the present condition and conservation requirements. Some of the findings of this report are summarised here for the purposes of the cellar report (For full Survey, see Appendix B).

3.5.3 *Description* Originally, there would have been far more painting on the walls but only two areas are now visible on the south wall. They cover the upper 100cm of the wall space but would have originally extended lower onto the walls where numerous repairs to the plaster can be seen.

3.5.4 The painting in the centre of the south wall is the larger of the two now visible and shows four large coats of arms surrounded by mantles, over which runs an elaborate frieze. On the eastern end is the Tudor Royal Arms, next to which is the arms of Archbishop Thomas Bourchier. The next shield along is the arms of Thomas Bourchier, combined with the Tudor Royal Arms and finally, at the eastern end, there is a very fragmentary coat of arms, again depicting those of Thomas Bourchier, combined with the arms of Cambridge.

3.5.5 Further along to the east of this painting, there is a smaller section of figurative paintwork, above which runs the same frieze. The left side shows a scene in which a figure, apparently a bishop, kneels in prayer. To the right is a Christ like figure with a crossed nimbus, covered with flecks of blood. Above is a linear band of decoration, which runs into the frieze. To the right of these scenes, a fragment of plaited mantle can be seen (See by Tobit Curteis report for further description and discussion of symbolism on and surrounding the two sections of paintings above, Appendix B).

3.5.6 Further fragments of painting survive away from these two main sections. Immediately east of the figurative painting, fragments of the frieze and a mantle are visible. Significant areas of the frieze are visible on the north wall. Further painting survives beneath limewash, and uncovering would likely reveal more details.

3.5.7 It appears from losses in areas of exposed masonry, that the painted plaster did not extend beyond the Royal Arms, the western most section of visible painting. This coincides with the change in decorative detailing of the roof structure from east to west.

3.5.8 *Dating* The fact that there is at least one layer of limewash underneath the paintings suggest that the wall was originally undecorated after construction of the cellar and that



the they were applied at a later date. The presence of Thomas Bouchier's arms indicates that they were applied after 1456 and before his death in 1486.

- 3.5.9 On archaeological evidence of paint stratigraphy the frieze post-dates the arms, and stylistically seems likely to date to the later part of the 15th century or early 16th century. The frieze and the painting, which would have originally been on the wall underneath, cover Bouchier's arms and so indicate that it was painted after his death.

3.6 Area 3 of Cellar

- 3.6.1 *Timber partition:* Area 3 is the west end of the main cellar area. It is separated from Area 2 by a timber lattice work partition (Plate 24). This may be contemporary with the cellar and may have been moved from its original position one bay to the west (where ceiling structure changes) but it is much more likely to be of 17th-century construction. It consists of four timber posts with a middle rail at each side, tenoned into the door and a chamfered lintel. The chamfered door post is rebated and the door is middle railed with an double timber lattice like that on the rest of the partition. The door jambs are fitted around the chamfer of the cross beam. Traces of sealing wax on the door and door jambs suggest that the cellar was closed and secured with a waxed cord, possibly on the occasion of a post-mortem closure of the house for the purposes of making an inventory.
- 3.6.2 *Windows:* Like Area 2, Area 3 features rubble and plaster walls and three evenly spaced windows in the north wall. Windows have deep splayed plaster and white wash recesses with segmental arches (Plate 25). They have square rebates for shutters and two iron pintles with four iron crossbars. The sills are 1m from the floor and all arches are chamfered with the exception of that just to the left of the door in the north wall. The six windows throughout areas 2 and 3 are consistent and show a carefully considered architectural finish.
- 3.6.3 *Floor:* The floor in Area 3 is a continuation of the floor in Area 1 but it becomes markedly less regular, and also rises slightly towards the west, while indications of drains on the north and south sides less clear than in Area 2 (Plate 26).
- 3.6.4 *Ceiling:* The ceiling timbers of the west side of the main cellar space are more plain and, although chamfered, have no applied mouldings and are of a rougher construction than those of Area 2 (with the exception of the first bay, See 3.3.9). The tenth transverse beam from the east has a large crack in it and has been supported with a large oak beam underneath. This appears to date to the later half of the 20th century. The principal transverse joists rest on the wall and a chamfered, double wooden wall plate is tenoned into the sides (Plate 27). Each bay has five common joists with scantling of approximately 10 x 15 cm, which can be seen where areas of later lattice and plaster ceiling between transverse and spine beams has fallen away. The joinery of these joists varies from the south to the spine beams and the north side of the wall. On the south side, where visible, the ends of the joists have haunched tenons and sit in open mortices in the wall plates. On the north side, where visible, joists sit directly on the wall plates. The joinery where the joists meet the bridging joists in the centre is more difficult to identify. Where they are visible, the seem to rest on the bridging joist with a scotched tenon. However it is possible that the joists run continuously from north to south and have a deep trench where they sit on the spine beams. All visible joists have plain chamfers and stepped run-outs. Where joists are visible through the lattice and plaster ceiling, the boarding of the floor above is also visible.
- 3.6.5 Modern supports have been inserted underneath transverse and spine beams in the 11th and 12th bays (Plate 28). Under the transverse beam between these two bays is a wooden



standard and a modern red brick pillar. The spine beam of the last of the twelve bays at the west end, which is wider by over a metre at the south side than the rest of the bays, is out of line with the others. Bays are 4.6 m in length north to south with the exception of the twelfth bay at the west end, which is 5.7 m in length. The western bays all measure approximately 3 m in width with the exception of the twelfth bay, which is just under 5 m.

- 3.6.6 Transverse beam 12 features an empty tenon in the centre, possibly for a post (Plate 29). Just to the south of this there is what looks to be an 18th-century wooden post. It is octagonal with broached stops and the top and curving posts at the bottom, and it sits on a stone plinth.
- 3.6.7 *West Bay*: Bay 12 of Area 3 dog-legs on the south side and widens by approximately three metres (this is where the range turns at the end of the court). Three stone arches in the south wall support the chimney stacks above and give access into Area 4 (Plate 30). In the west end of Area 3 is a deep recess with a small window (possibly, a former entrance though there is no evidence for this). On the left side is a wooden recessed shelf with the year 1745 fingered into the plasterwork underneath (Plate 31).

3.7 Area 4 of Cellar

- 3.7.1 Area four is a small rectangular room accessed through an arch in the south wall of Area 3. Area 4 contains a (re-used) ceiling joist running east to west (this is under the return range at the west end of Stone Court), and the flagstone floor is a continuation of that in Area 3.
- 3.7.2 *A former entrance*: In the east wall is a short passage that leads to a vaulted drain to the east of Area 4. It has a stone arched doorway that is chamfered near the arch (Plate 32). It has pintles on the south side and bolt holes on the north side with a rebate for the door. It has a hollow chamfer on the east side but is less ornate than the wine cellar doorway (See 3.6). Like the wine cellar doorway described above, the mouldings on this doorway are mouldings facing inward, as if the cellar was approached externally from the passage (Plate 33). The passage is well plastered (perhaps not very old), and the ceiling rises slightly to the east where there is a blocked window to the courtyard (Plate 34). This is very likely to have been the location of a former stepped entrance down from the court (or perhaps the level of Stone Court was once much lower and many steps were not necessary at this point).
- 3.7.3 Below the wall and blocked window is an archway leading into a brick vaulted drain passage that runs out under the courtyard for approximately eight metres where it meets a brick wall (perhaps at the edge of the cistern under the court). The passage is 1.40m high and 52 cm wide, appears to be of Victorian brickwork, and contains a large iron pipe.

4 CONCLUSION

- 4.1.1 The main area of the cellar as a space appears to be divided in function between east and west. Besides a later wooden lattice divide, the roof structure in the east side is more fanciful than that of the west and has applied mouldings. This would suggest a higher status space with a more formal or recreational purpose. The location of the wall paintings is a further indication of this.
- 4.1.2 Partitions in the room have been moved or removed. It is likely that, given the existence of applied mouldings and wall paintings in the first bay of the more functional Area 3, that the lattice partition between Areas 2 and 3, if original, has moved one bay to the east.



Also, it is likely that a partition once existed between bay 1 and bay 2 in Area 2. The mortices for studs in transverse beam 1 along with the more plain ceiling timbers and functional cupboards would suggest that this area was separate and fulfilled a different, more functional purpose to the rest of Area 2.

- 4.1.3 A question mark still remains over the original means of access to the cellars. Today it is accessed by the doorway in the north wall of Area 2 from Queen's Court on the exterior and the passage leading from the Kitchen Lobby stairs in the south east corner of Area 2. However, there may have been alternative means of access when the area was first constructed. Both the wine cellar doorway and the doorway in the east wall of Area 4 feature characteristics associated with doorways that would have opened inwardly into the cellar spaces. Mouldings on the inside of the doorways suggest that they were once facing an exterior approach. This would suggest that the practical access for barrels (of beer or wine) was from the Queen's Court, the service access by domestic staff was from the east end lobby, and that the visitor's access may have been from the two doors from Stone Court.
- 4.1.4 The presence of a large cellar later associated with beer storage must suggest that this was always a likely function, whether for storage of wine or ale. There is no doubt that in urban wine taverns, characterised by more elaborate quadripartite vaulted ceilings (e.g. Coventry, Oxford and Winchelsea) that customers would have been served in the same area that the barrels were stored. This may have been just as likely in a domestic or monastic setting (Pantin saw parallels between the tavern cellar of Oriel College's Tackley's Inn and a monastic *stiftskeller* for travellers). Given the size of the large households that accompanied medieval bishops or their guests – Bouchier's household in 1459 numbered 68, and the Duke of Buckingham's some 130 in 1503, for example¹ - there would be every reason to have needed places besides the main hall for providing refreshment with wine or beer, and food.
- 4.1.5 Prominent heraldic and figurative decoration would have been out of place in a mere storage area, and yet quite appropriate for an area of public entertainment, and heraldic display especially relevant to a 'household' milieu. The range above was perhaps fitted out as suites of lodgings, and these may in part have been intended to provide for chaplains and domestic servants of the better sort. For these the provision of a some kind of 'lower hall' for refreshing and feeding would have been especially necessary, and it is to the household ordinances that one may find the best explanation of how such places were used.

Deirdre Forde

Julian Munby

July 2010

¹ C.M. Woolgar, *The Great Household in Late Medieval England* (1999), 12, 20, with reference to Bouchier's household accounts of 1459 (Lambeth ED 1973).



APPENDIX A. BIBLIOGRAPHY

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Preliminary Survey of the Wall Paintings in Stone Court Cellars, Tobit Curteis Associates LLP (2010)



APPENDIX B. *PRELIMINARY SURVEY OF THE WALL PAINTINGS IN STONE COURT CELLARS* TOBIT CURTEIS
ASSOCIATES LLP (2010)

TOBIT CURTEIS ASSOCIATES LLP

KNOLE, KENT
PRELIMINARY SURVEY OF THE WALL PAINTINGS
IN THE STONE COURT CELLAR

36 Abbey Road Cambridge CB5 8HQ Tel 01223 501958 Fax 01223 304190
E-mail tc@tcassociates.co.uk Web www.tcassociates.co.uk

Partners: Tobit Curteis B.A.(Hons.) Dip. Conservation (Courtauld Institute) ACR FHC & Victoria Curteis M.A. (Oxon)
Tobit Curteis Associates is a Limited Liability Partnership Reg. No. OC338996 VAT Reg. No. 636 9463 04

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Report No: NT-KNL04.1 **Date:** 3rd March 2010

Author: Tobit Curteis Associates LLP, 36 Abbey Road, Cambridge CB5 8HQ.
T: 01 223 501958 F: 01223 304190 E. tc@tcassociates.co.uk

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1.0 INTRODUCTION

Although Knole retains substantial parts of its original medieval building structure, most of the wall paintings for which it is known date to a later period. The exception is the fragmentary painting which survives in the cellar below the north range of Stone Court. Discovered in the 1970s, the painting has been restored on at least one occasion. Although occasional investigations have been undertaken, a detailed examination has not been carried out for some decades.

The cellar is currently the subject of a study by Oxford Archaeology, and at the request of Caroline Thackray, Territory Archaeologist for the National Trust, an examination and condition survey of the painting was carried out by Tobit Curteis Associates. The aim of the survey was to establish the nature and extent of the painting, the layer structure and possible dating, as well as the present condition and conservation requirements.

The site examination was carried out on the 1st March 2010. Weather on the day of the survey was sunny and cold.

2.0 BUILDING STRUCTURE

Situated under the north range of Stone Court, the cellar is a long low room approximately 30 m by 4.7 m and 2.5 m in height. The cellar is entered by the staircase at the east end, and a door in the centre of the north wall, which opens to the exterior. Although there is evidence of partition walls, the only separation currently in place is an open timber trellis structure midway along the room.



The walls are constructed of coarse stone blocks, possibly green sandstone or Kentish Rag, and are rendered with a thin lime plaster throughout. The doors within the cellar are simple pointed arches, but the stonework is good and the edges have been carefully chamfered, indicating that, while this might not be a room of high status, it was certainly of some importance. On the external north wall, the ground level is significantly above the internal floor level, but it falls away sharply to the north.

The floor is a mixture of small flagstones, with areas of later concrete repair. The roof comprises a long central beam with periodic crossbeams, running the full length of the cellar. While all of the beams have chamfered edges, those towards the east end are far more ornate, with applied mouldings on the surface. The area between the beams is now covered with lath and plaster. However, where this is missing, it can be observed that the rafters are also chamfered, indicating that they too were originally intended to be seen.

Although the date of the cellar is a matter of some debate, it is thought that it may be part of the late medieval manor, prior to Archbishop Bouchier's phase of building between 1456 and 1486.

3.0 THE WALL PAINTINGS

3.1 Description

Although, originally, there would have been far more painting on the walls, only two areas are presently visible. These are both on the south wall and began about 120 cm above the ground, covering the upper 100 cm of the wall. Originally these would have extended lower onto the walls, but there are numerous repairs to the plaster and most of the painting appears to have been lost.



By far the largest area is the section in the centre of the south wall showing four large coats of arms surrounded by mantles, over which runs an elaborate freeze.

On the eastern end, are the Tudor Royal Arms, with the Lions of England and the fleur-de-lis of France, quartered. Above the shield there is a crown with a cross on one side, sitting on a green striped band, while the whole coat of arms is surrounded with a twisted or plaited mantle.



The next shield to the east is split by the trellis screen. This shows the arms of Archbishop Thomas Bourchier, impaling those of the see of Canterbury. Above the arms is a cardinal's hat with the tassles hanging down beside and, as with the Royal Arms, the whole shield is surrounded by a plaited mantle.¹

¹ E. Clive Rouse, *The Early Wall Paintings At Knole*, unpublished report, 10th July 1979

Further to the left, the third shield is the arms of Thomas Bouchier, combined with the Tudor Royal Arms. The upper part of the shield is not visible, and so it is not clear if there is a further hat above it. However, as with the other arms, it is surrounded by a fragmentary plaited mantle.²

Finally, further to the east, there is a very fragmentary set of arms, which again includes those of Thomas Bouchier, combined with the arms of Cambridge. These may have been the arms of Isabel Bouchier (d.1483), the granddaughter of Edmund Langley, Earl of Cambridge, who was married to Bouchier's brother, Henry. No hat is visible, but fragments of the mantle can be seen on the surrounding plaster.³



Above all the coats of arms runs a frieze, containing motifs reminiscent of the type of northern European grotesque work, which was beginning to influence English painting in the late 15th or early 16th centuries. The way in which the paintings have been uncovered makes the relationship between the frieze and the heraldic decoration confusing. However, it is clear in raking light that the frieze is on a later layer and therefore postdates the coats of arms.

Further along the wall to the east, there is a small section of figurative painting, above which runs the same frieze. The figurative painting is on the lower layer, possibly the same as the heraldic painting, while the frieze is on a later layer and postdates it.

² As well as being a cardinal and an archbishop, Bouchier was also Chancellor of England (and related to Edward IV). The same pairing of his arms and England appears at the top of the famous 'Royal' window in the north west transept of Canterbury Cathedral, which he may well have commissioned c.1480. Email 03/04/08 David Park to Katy Lithgow

³ *Ibid.*



On the scene to the left, a figure, apparently of a bishop, kneels in prayer. This has previously been identified as the Martyrdom of Thomas Becket, but very few details are apparent and it is not clear that this is the case.

To the right, there is a figure, which appears to be Christ with a crossed nimbus, covered with flecks of vermillion blood. The figure stands or kneels within a round arched niche, the spandrels of which are decorated with a foliate motif, typically found in 15th century timber roofs. Above this is a band of linear decoration with small circular motifs, which runs into the frieze. The uncovering has been undertaken in such a way that the junction between the two paintings is not clear, and they may easily be misinterpreted as the same scheme. A little further to the right, a small fragment of a plaited mantle, similar to those around the arms, can be seen.



The subject matter is unclear. However, the kneeling bishop faces right towards the scene of Christ. It therefore appears possible that the figure of Christ is a Man of Sorrows with the bishop praying to him. It is possible that this is a representation of Bouchier himself as donor. However, further iconographic research needs to be undertaken in order to clarify the details. It is also clear that further painting survives beneath limewash, and it is possible that uncovering would reveal more details.

A preliminary examination of other areas of the walls showed that fragments of paintings survive away from the two main areas. Immediately to the east of the figurative painting (just to the east of the adjacent door), fragments of both the painted frieze and a mantle can be seen. On the north wall,

significant areas of the painted frieze are visible on the south end, with small fragments further to the north.⁴

A preliminary examination on the timber beams showed no evidence that they had originally been painted. It is possible that they have been extremely efficiently cleaned, but there seems to be no reason for this to have been undertaken. Therefore, the indication is that they were never painted.

3.2 *Extent of the Painting*

Although a detailed investigation of the plaster on the walls of the western part of the cellar was not undertaken, it appeared, from losses in areas of exposed masonry, that the painted plaster did not extend beyond the Royal Arms, which appears to be the western most section of the painting. This coincides with a change in decorative detailing of the ceiling beams, which are far more elaborate, towards the east of the cellar (in the painted area) and are less ornate in the unpainted area towards the west.



The implication is that the cellar was originally divided into two rooms, one of which was used for social or formal events, and decorated accordingly, while the other was far plainer. It should be noted that this is speculation based on the visible evidence, and a far more detailed investigation of the plaster to the west would be necessary in order to confirm this.

3.3 *Dating Evidence*

The fact that there is at least one plain limewash layer below the ground on which the heraldic paintings are painted, possibly indicates that when the wall was completed it was undecorated and that the paintings were applied at a later date.

The presence of Thomas Bouchier's arms clearly indicated that the heraldic painting and, therefore the figurative painting also, was executed after 1456 and before his death in 1486.

The frieze clearly post dates the arms on archaeological evidence, and on stylistic grounds would seem likely to date to the later part of the 14th century or early 15th century. The fact that the frieze and the painting, which would originally have been on the wall beneath, covered Bouchier's arms, indicates that it was painted after his death.

3.4 *Original Technique*

The course block work of the wall is covered with a thin layer of relatively rough and uneven lime and sand plaster, which appears to vary in depth from about 5mm to 15 mm. This is coated with up to 2 layers of limewash and then the earlier of the two paintings is applied directly onto the limewash ground. A further limewash ground has then been applied over the heraldic painting and the monochrome frieze has been applied above.

⁴ It is possible that this latter area was only uncovered when the fire alarm was attached to the wall, which had caused significant damage and loss.

Although no pigment analysis has been undertaken, it appears likely that the palette for the early paintings includes red and yellow ochre, red lead, vermilion, lime white, carbon black and a synthetic copper green. The medium would have been organic, possibly glue or casein, and there is no original varnish or other organic coating.

The frieze appears to be painted solely in carbon black and lime white, with grey achieved by a mixture of the two. As with the earlier painting, the medium would have been organic, and there is no varnish or other coating.

3.5 Previous Interventions

It appears that the painted decoration was keyed and that a hair, lime and sand plaster, approximately 10 mm in depth, was applied over the surface. This was subsequently painted with numerous layers of limewash and, at least one, dark distemper. Subsequently, large areas of this plaster fell away, pulling with it some of the original plaster and also, presumably, revealing some areas of painting. Several coats of limewash were then applied directly over the paintings and the remaining hair plaster.

The paintings appear to have been re-discovered in the 1970s. Although there are no records, it seems likely that the areas exposed at the time came to light when sections of the hair plaster were removed, rather than areas of limewash being scraped away.⁵

An examination was carried out by E. Clive Rouse, in 1977. At the time the paintings were obscured by heating pipes, which have subsequently been removed.⁶ In 1979, Rouse carried out a two day programme treatment assisted by Madeline Katkov. This involved uncovering and repairing some areas and was apparently intended to lead to further work, which never took place.⁷ It appears that, in order to expose the heraldic painting, any surviving later painting below the frieze, was removed.



At some point after this date, wooden batons with sheets of Perspex were screwed into the wall above and below the main areas of exposed painting, in order to prevent mechanical damage.

The paintings have been subsequently examined on a number of occasions, but it appears that no further treatment has been undertaken.

4.0 PRESENT CONDITION

4.1 Substrate and Plaster

Although there appears to have been some damage in the past, there was no sign of significant recent structural movement in the wall, in the area of the painted decoration. However, extensive historic repairs suggest that problems have occurred in the past.

⁵ This is said to have first been observed by a Mr Kenneth Garvett.

⁶ E Clive Rouse, *Painted Decoration at Knole Kent*, unpublished report, 26th April 1977

⁷ Op. Cit. Rouse 1979

The plaster in most areas retains a weak, but satisfactory level of cohesion. In general, it is reasonably well bonded to the stone substrate below, but there are numerous small sections where the plaster sounds hollow and detached. However, in the absence of mechanical damage, most of these areas should not deteriorate further. There are numerous areas of historic loss, generally as a result of mechanical damage. Although many of these losses are stable, some edges are vulnerable to mechanical damage..



The early plaster has been keyed widely, prior to the application of the later lime and hair plaster. In some areas, these key marks are stable and on the Royal Arms they have been repaired with a fine lime plaster, presumably during Rouse's intervention.

In many areas the hair plaster was in a vulnerable condition and, while this layer is not historically significant, there is a risk that falling areas could pull away some sections of the painted plaster.

4.2 *Paint Layers*

The larger part of the original paint layer has been lost due to the historic deterioration of the plaster, and also due to preparation for redecoration and later replastering. In surviving areas, the paint layer was generally found to retain a weak level of cohesion. While this would make it vulnerable to abrasion and mechanical damage, given its location and the level of protection, this is relatively unlikely.

However, there are numerous areas of delamination between the paint layer and the ground, generally, but not always, on the painted frieze. Typically, on the edges of some major areas of loss, there is separation between the later and earlier paint layers, which leads to delamination and flaking. While much of this is historic, there are some areas on the paintings where this type of deterioration is active.



There appears to have been some discolouration of the pigment, typically with the lead and vermilion paints, both of which appear to have darkened. This is most notable on the arms of the cardinal and also on the drops of blood on the face of Christ.

On close inspection, it was seen that the paint layer was often covered with a fine white blanching. Under magnification this appeared to be an inorganic veil, probably the residues of the later lime wash, but also, possibly, fine salt efflorescence.



It was noticeable that on the lower baton, behind the Perspex, there was an accumulation of fragments of limewash, paint, dust and, in some areas, small pieces of plaster.

There is a slight accumulation of dust and cobwebs on the surface of the painting, but as it was only uncovered in 1979 and has since been covered with Perspex, it is not surprising that this is limited.

Uncovering tests on the areas adjacent to the exposed paintings showed that significant other sections of painted decoration remained beneath the limewash coating. In general these appeared to be in a similar condition to the exposed painting, with a low, but acceptable level of cohesion and weak adhesion to the limewash ground

The condition of the paint and plaster on the east wall was worse than that on the south wall, presumably as this has been uncovered and damaged during the installation of the fire alarm sounder. There are numerous small areas where both the plaster substrate and the paint layer have delaminated and losses are likely to occur.

4.3 Rate of Change

Accurate historical data is limited and, therefore, judging the rate of change of condition should be regarded with caution.

Images taken by Katy Lithgow in 1996 show the paintings, covered with the Perspex sheets, in a similar condition to today. However, there are at least two small areas where paint loss appears to have occurred. Both of these are in the frieze, rather than in the earlier layer, and are in areas where the painting is still very unstable.



The flakes of limewash and plaster on the lower baton also suggest that deterioration is active, albeit relatively slow.

5.0 ENVIRONMENTAL ASSESSMENT

The cellar is a substantial structure with thick internal and external walls. It has small windows and only two doors to the exterior. The door in the south wall is loose fitting, and at least one pane of glass is missing, both of which will allow increased air leakage. However, in general, it is likely that the internal microclimate is relatively stable.

Electrical capacitance readings indicated relatively high levels of moisture in all the walls. There was a slight increase in moisture levels towards the base of the north wall, but on the south wall, this was not as apparent. It was noticeable, that the moisture levels on the south wall appeared to be higher than on the external north wall, despite the external ground level.⁸

It was unclear the extent to which the moisture identified in the walls was a result of liquid water or hygroscopic moisture. However, the curious distribution appears to indicate that a significant level of hygroscopic moisture was present.

There are a large number of heating pipes running through the cellar, which appeared to have been re-insulated during the recent work on the heating system. It is possible that there is some variation in temperature (and therefore relative humidity) caused by the heating system, although this is likely to be relatively limited.

Therefore, while the conditions are far from ideal, it is likely that the probable stability of the environmental conditions means that they are less deleterious for the paintings than would be the case in many similar situations.

The Perspex in front of the paintings is likely to cause a microclimate to form in the air gap, which might have deleterious effects. However, the level of damage indicated that, while undesirable, this did not appear to be too severe.

⁸ Electrical capacitance readings were taken with a Brookhuis FMW.

6.0 DISCUSSION AND RECOMMENDATIONS

The paintings in the cellar are of considerable significance. Not only are they the earliest paintings at Knole, but they are important evidence for the possible use of part of the earliest structure of the house. The quality of decoration of the roof timbers and the use of decorative paintings clearly suggests that the cellar was used for more than storage.

What is more, the fact that there are two phases of painting indicates that the cellar continued in its more elaborate role for some considerable time, probably until after the death of Thomas Bouchier, when it would have been acceptable to cover his coat of arms. However, the use of a low cellar of this type for formal or ceremonial functions appears unlikely. It is hoped that the results of the archaeological survey will throw further light on this.

The fragments of painting found elsewhere in the east part of the cellar show that the painting continues, probably on all walls. It is likely that further painting survives beneath plaster and limewash throughout this area.

Although it appears unlikely that painting is present further to the west, more detailed investigations would be necessary to confirm this.

The condition of the painting varied considerably. While some areas were stable, there were significant sections which were unstable and vulnerable to further loss. While the location of the painting and the Perspex covers reduces the risk of mechanical damage, it is recommended that limited emergency treatment is undertaken on these areas to prevent further loss. In conjunction with this, the alarm sounder on the east wall should be relocated to an unpainted surface.

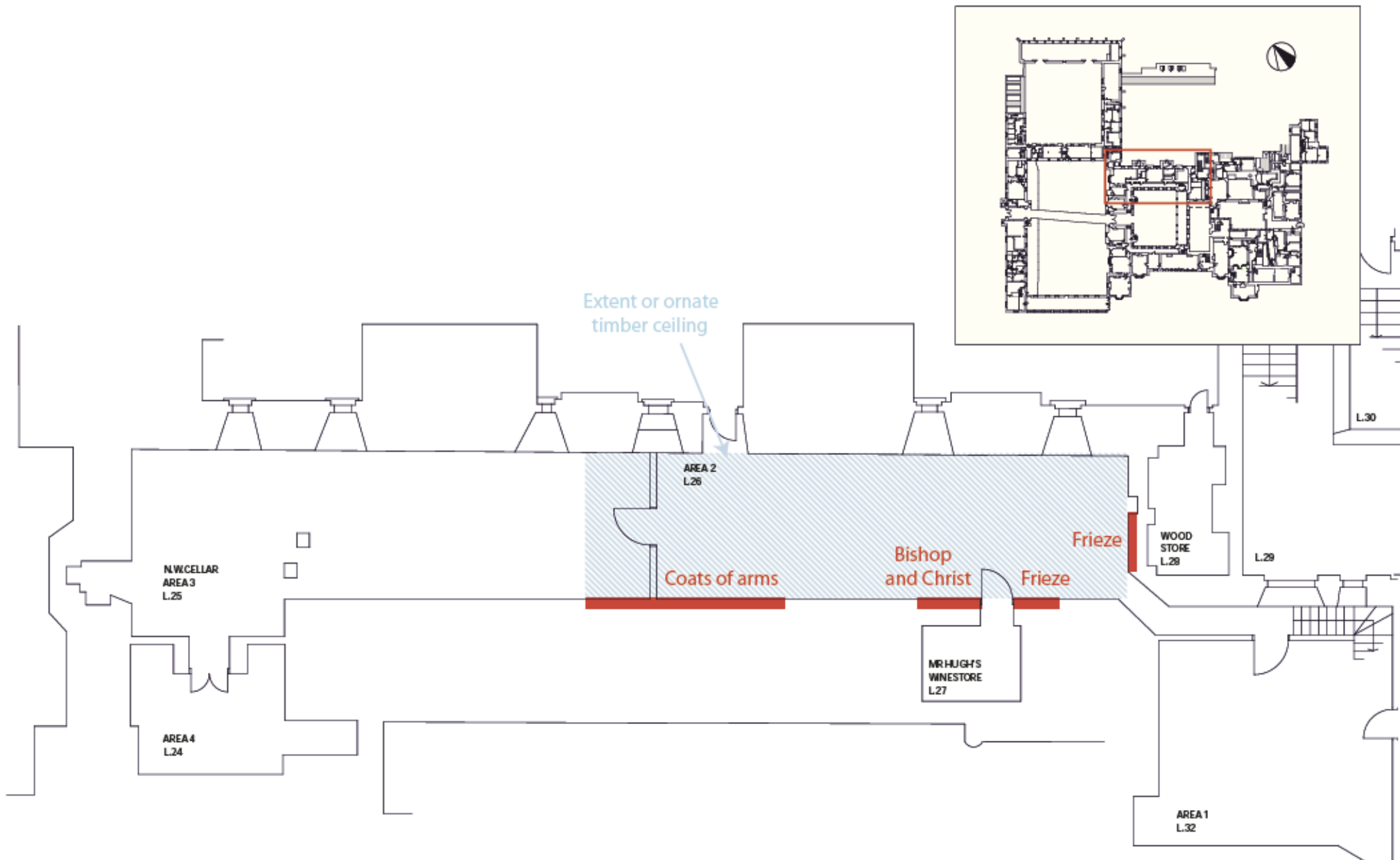
A full scale programme of uncovering and conservation, although extremely interesting, is not essential for conservation reasons and, therefore, is not recommended at this stage.

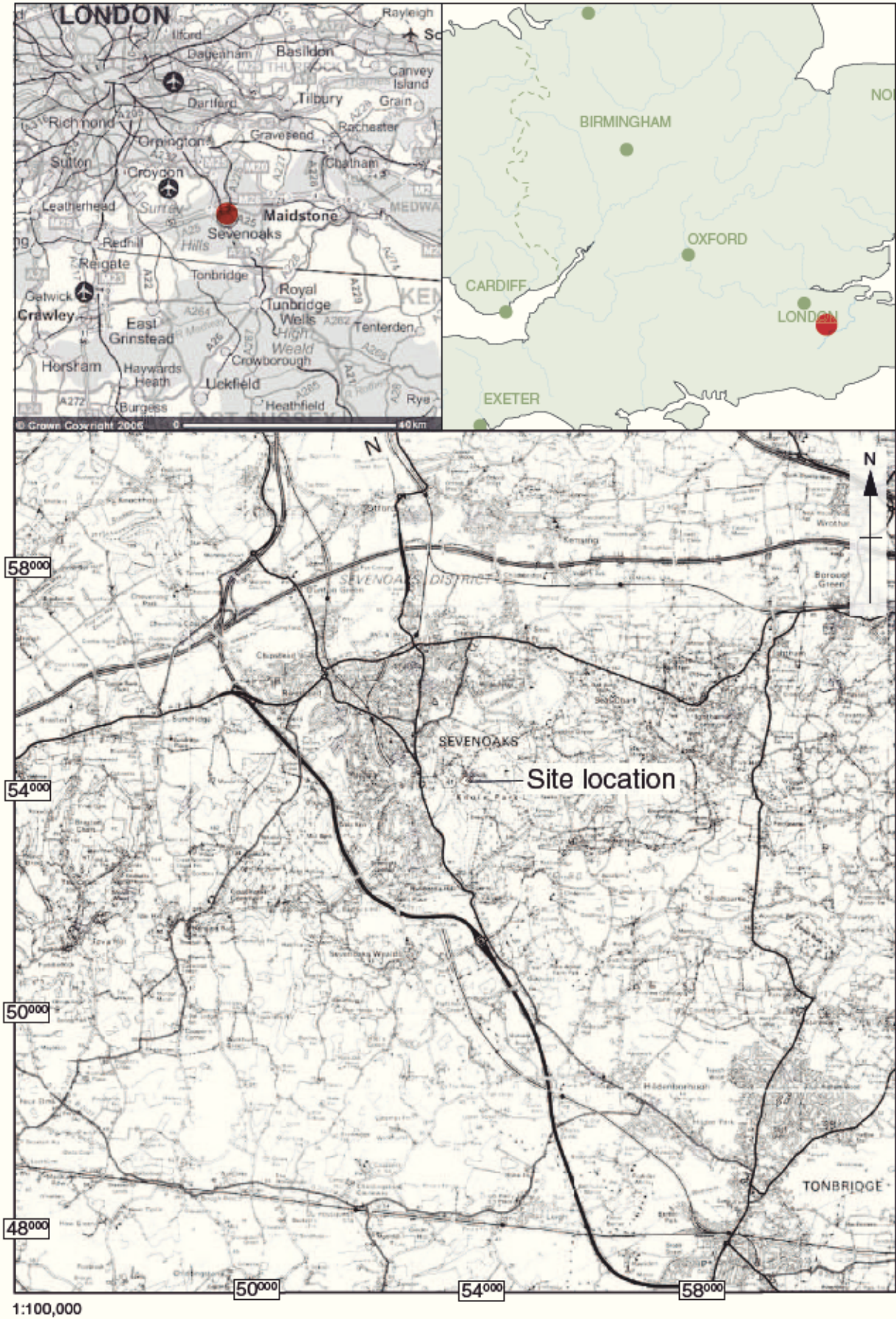
Ideally, the Perspex covers and wooden baton should be removed. It is possible that the Perspex is contributing to a deleterious microclimate in front of the painting and both it and the batons are highly disfiguring. However, this would also require measures to be put in place to protect the painting from mechanical damage. It is difficult to see how this could be achieved if the cellar continues to be used for ad hoc storage of furniture and other materials.

The paintings would clearly be of considerable interest to visitors. While there is presently no access to this area of the building, consideration should be given to whether, in the longer term, access would be possible. If this were to be the case, it would be necessary to carry out basic conservation measures and provide presentation and educational material.

7.0 LIMITATIONS

The examination was limited to those areas which were safely accessible and it is possible that the condition might vary in areas which could not be examined. With the exception of the instrumental examinations indicated, no analysis or other monitoring or measurement has been undertaken. Comments on the condition of the building structure are in general terms only. Where deterioration has been noted, this should be confirmed by a suitably qualified architect, surveyor or engineer.





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Figure 1: Site location

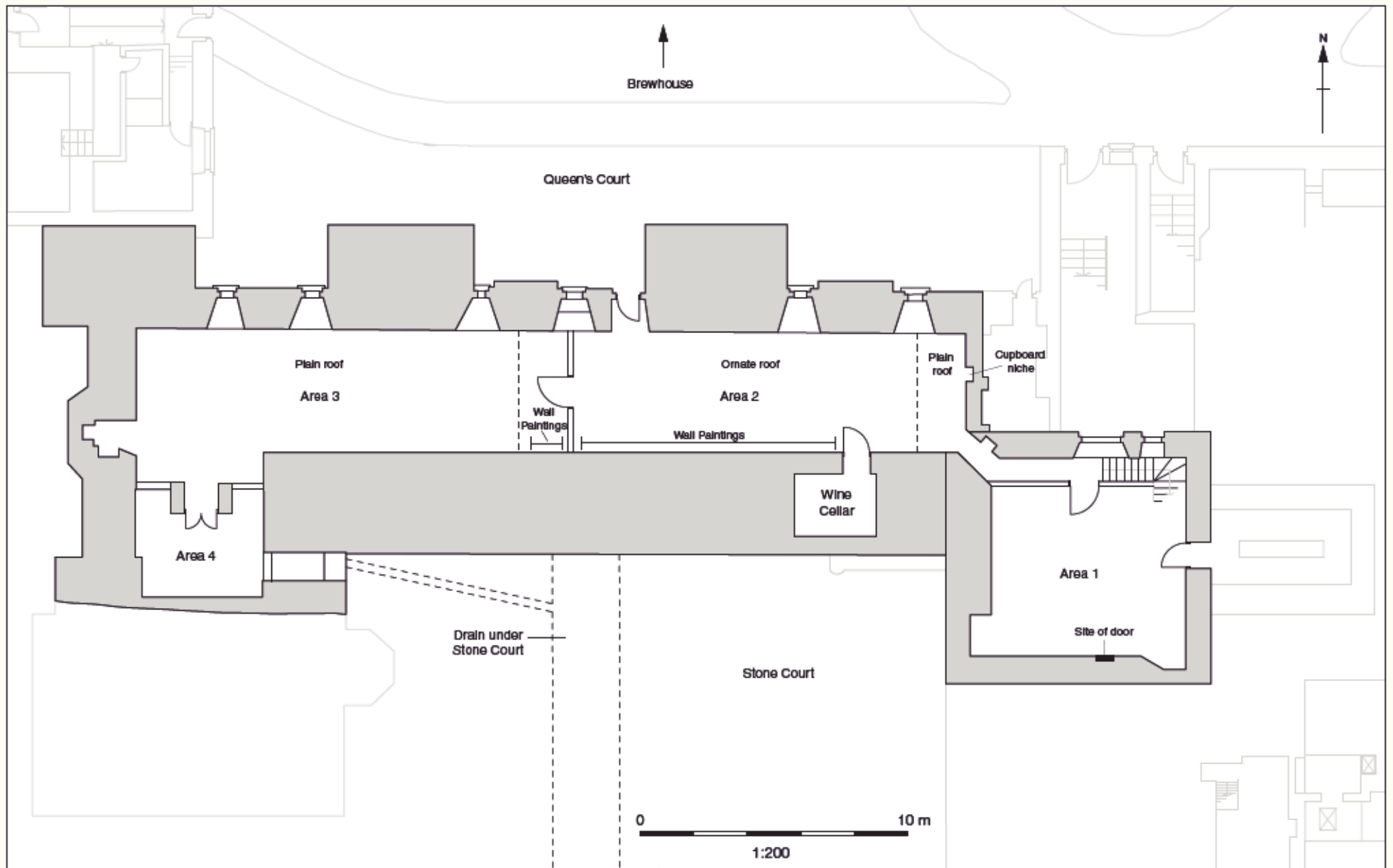


Figure 2 : Plan of Knoie Cellars based on Purcell Miller Tritton (PMT) survey



Figure 3 :Reflected plan of joinery in roof structure (OA 2010)

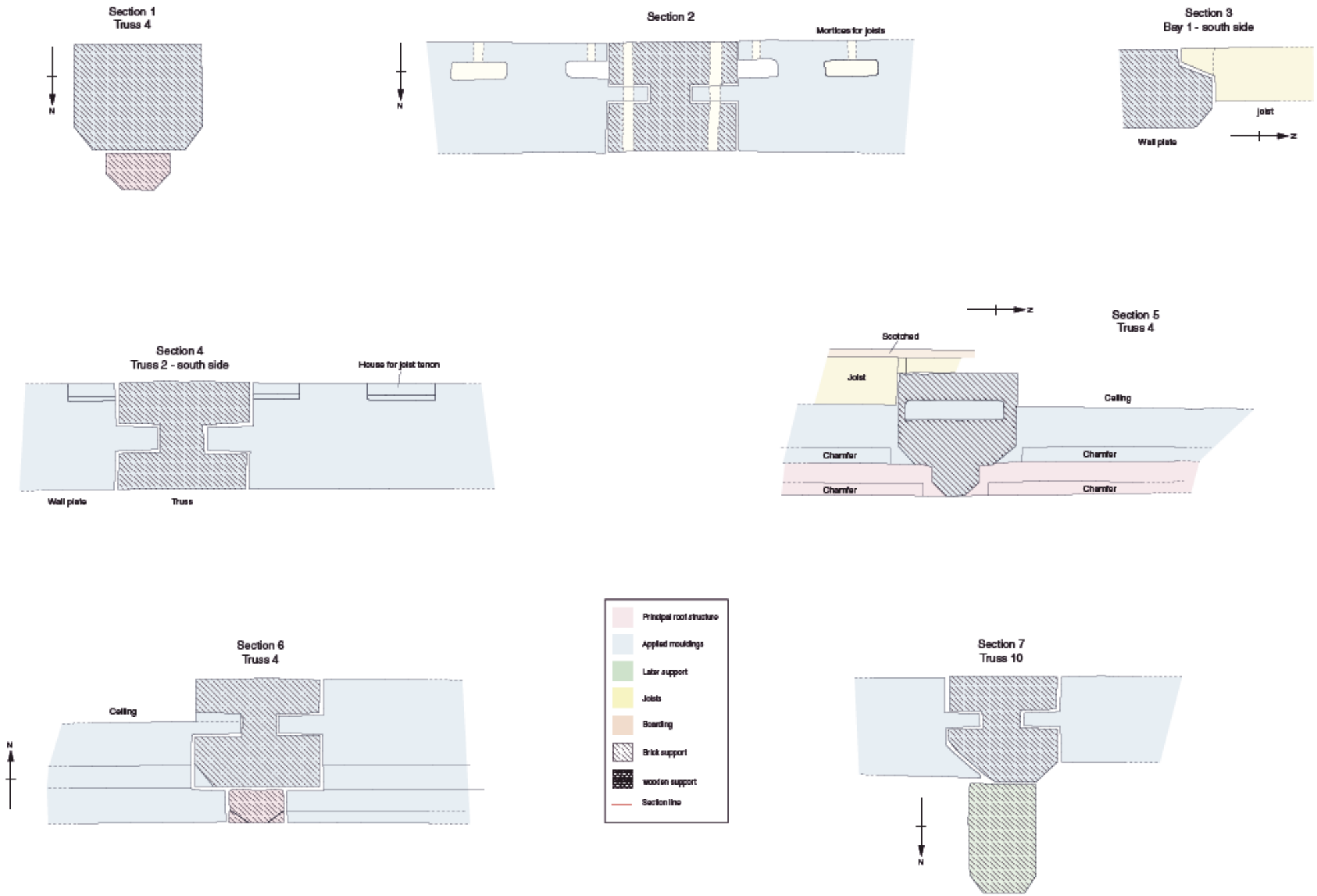


Figure 4: Sections of joinery in roof structure

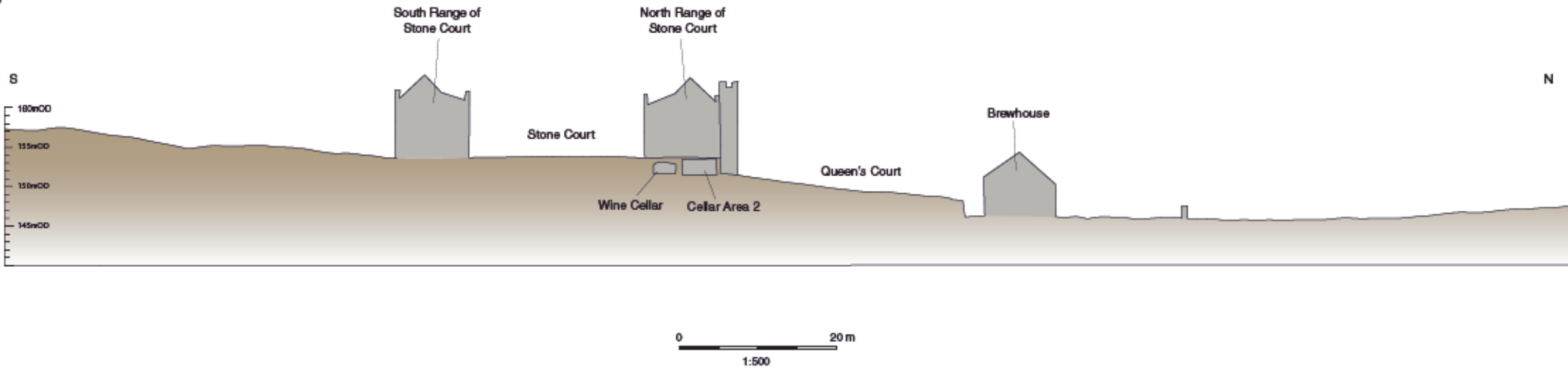


Figure 5: Section through Knole showing cellars and courtyards



Plate 1: North exterior elevation of Cellars



Plate 2: South wall of Area 1



Plate 3: Flagstones in Area 1



Plate 4: Passage leading from Area 1 to Area 2, facing west



Plate 5: Niche in passage leading from Area 1 to Area 2, facing east



Plate 6: General, Area 2, facing east



Plate 7: Cupboards in east wall of Area 2



Plate 8: Doorway leading from Queen's Court to Area 2 of Cellars



Plate 9: Window in North wall of Area 2



Plate 10: Flagstone floor in Area 2, facing east



Plate 11: Drain in north side of floor in Area 2, facing north



Plate 12: Roof Structure in Area 2, facing west



Plate 13: Transverse beam and wall plate in Area 2, facing south west



Plate 14: Applied mouldings in roof structure of Area 2, facing west



Plate 15: Applied mouldings in roof structure of Area 2



Plate 16: Chamfered common joists in Area 2, facing south



Plate 17: Transverse Beam 1 in Bay 1 of Area 2



Plate 18: Doorway and south wall of Wine Cellar, facing south



Plate 19: West wall of Wine Cellar, facing south west



Plate 20: Vaulted roof of Wine Cellar



Plate 21: Doorway of Wine Cellar, facing north



Plate 22: Medieval wall paintings in Area 2



Plate 23: Medieval wall paintings in Area 3



Plate 24: Lattice partition between Areas 2 and 3



Plate 25: Window in north wall of Area 3



Plate 26: Flagstone floor in Area 3, facing east



Plate 27: Oak beam support in roof of Area 3, facing west



Plate 28: Brick and wood supports for roof structure in Bay 12 of Area 3



Plate 29: Tenon in Transverse Beam 12 in Area 3



Plate 30: Support arches in wall dividing Areas 3 and 4, facing south



Plate 31: Window in west wall of Area 3



Plate 32: Doorway in east wall of Area 4



Plate 33: Chamfer on dooray in east wall of Area 4, facing south west



Plate 34: Blocked window at the end of passage in Area 4, facing east



Plate 35: Drain running from east side of Area 4 under Stone Court

**OA East**

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0)1223 850500
f: +44(0)1223 850599
e: oaeast@thehumanjourney.net
w: <http://thehumanjourney.net>

OA North

Mill 3
Moor Lane Mills
Moor Lane
Lancaster LA1 1GF

t: +44 (0)1524 541 000
f: +44(0)1524 848 606
e: oanorth@thehumanjourney.net
w: <http://thehumanjourney.net>

OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0)1865 793 496
e: Info@oxfordarch.co.uk
w: <http://thehumanjourney.net>

OA Grand Ouest

7 Rue des Mondralnes
ZI - Ouest
14650 Carpiquet
France

t: +33 (0)2 49 88 01 01
f: +33 (0)2 49 88 01 02
e: Info@oago.fr
w: <http://oago.fr>

OA Méditerranée

115 Rue Merlot
ZAC La Louvade
34 130 Maugulo
France

t: +33 (0) 4.67.57.86.92
f: +33(0)4.67.42.65.93
e: oamed@thehumanjourney.net
w: <http://oamed.fr/>

Director: David Jennings, BA MIFA FSA



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Head Office: Janus House, Osney Mead, Oxford, OX2 0ES, t: +44 (0) 1865 263 800*