



Northern Green Westminster Abbey

Archaeological Evaluation and Assessment of Results



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**NORTHERN GREEN, WESTMINSTER ABBEY
LONDON**

Archaeological Evaluation and Assessment of Results

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Archaeological Evaluation and Assessment of Results

Summary

Wessex Archaeology was commissioned by Videotext Communications Ltd to carry out archaeological recording and post-excavation analysis on an archaeological evaluation by Channel 4's 'Time Team' on the Northern Green of Westminster Abbey, London Borough of Westminster, centred on NGR 530050 179530. The Northern Green, lying adjacent to the nave, is part of a World Heritage Site encompassing Westminster Abbey, Westminster Palace (the Houses of Parliament) and St Margaret's Church.

In the winter of 1869/70, groundworks were undertaken by Henry Poole, the Abbey mason, on the north side of the Abbey. They revealed a re-used Roman stone sarcophagus, other medieval burials and a series of wall footings forming an L-shaped structure considered to represent several different phases of construction and a number of separate buildings. These perhaps included a mid 13th century sacristy ordered by Henry III and various prebendal houses and tenements known to have stood on the site from the mid 16th century until their demolition in 1737.

The evaluation aimed to further investigate these remains. Fieldwork consisted of five machine-excavated trial trenches as well as geophysical and topographic surveys. The trenches examined salient features of the L-shaped structure. The use of a distinctive mortar was found to unify and characterise all elements of this structure, showing it to be of a single phase of construction, although at the eastern end at least, its foundations were extensively incorporated into those of the later, mid 16th century buildings.

Six *in situ* burials were discovered, as well as significant quantities of redeposited human bone. A sample of bone from one burial, morphologically similar to, and on the same alignment as, two others identified by Poole, was radiocarbon dated to Cal. AD 1025 – 1155, and the alignment of these three chalk block-lined graves, at odds with that of the present Abbey, may provide some indication of the previously unknown orientation of the mid 11th century abbey constructed by Edward the Confessor. Although not independently dated, the other *in situ* burials share their alignment with that of the present Abbey, and are likely to be of 13th century date.

Although the Victorian works, and the subsequent insertion of numerous services have clearly had a significant impact on the archaeological remains, the Time Team evaluation successfully demonstrated their extent, character and condition, showing that substantial stratified remains of medieval and post-medieval date do survive below the Northern Green.

The results of the evaluation warrant further publication, and a report will be prepared in conjunction with Professor Warwick Rodwell, based on the results presented in this assessment report, to be submitted to an appropriate journal (e.g. *Transactions of the London & Middlesex Archaeological Society*, the *Archaeological Journal* or *Post-Medieval Archaeology*) for publication.

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Acknowledgements

The evaluation, and all subsequent post-excavation work, was commissioned and funded by Videotext Communications Ltd, and Wessex Archaeology would like to thank the staff at Videotext, and in particular Michael Douglas (Series Editor), Jane Hammond (Production Manager), Jim Mower (Assistant Producer), Louise Ord (Researcher) and Emily Woodburn (Production Coordinator) for their considerable help during the recording and post-excavation work.

Surveying was undertaken by Henry Chapman of the University of Birmingham, and the geophysical survey was undertaken by GSB Prospection Ltd. The excavation was undertaken by Time Team's retained archaeologists, Phil Harding (Wessex Archaeology), Tracey Smith, Faye Simpson, Matt Williams and Raksha Dave, assisted by Jacqueline McKinley (Wessex Archaeologist) and local archaeologists Neville Constantine, Richard Hewett and David Saxby. Local metal detectorist Steve Brooker also provided much help and support. The recording, finds co-ordination, processing and on-site identification was undertaken by Rachael Seager Smith and Susan Nelson, both of Wessex Archaeology.

The archive was collated and all post-excavation assessment and analysis undertaken by Wessex Archaeology. This report was compiled by Rachael Seager Smith, with specialist reports by Lorraine Mephram (finds), Jacqueline McKinley (human bone), Lorraine Higbee (animal bone), Nicholas Cooke (coins), Kevin Hayward (stone identifications and ceramic building material). The illustrations were prepared by Kenneth Lymer. The post-excavation project was managed on behalf of Wessex Archaeology by Lorraine Mephram.

Thanks must also be extended to the Dean and Chapter of Westminster Abbey, and all other staff who helped to initiate the project, in particular Sir Stephen Lamport (Receiver General), Victoria Ribbans (Press and Communications Officer), Jim Vincent (Clerk of Works), and Christopher John Vyse (Legal Secretary to the Dean and Chapter). Wessex Archaeology is particularly grateful to Professor Warwick Rodwell (Consultant Archaeologist for Westminster Abbey) and Jane Sidell (English Heritage, London Region) for their help and advice throughout the project.

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Archaeological Evaluation and Assessment of Results

1 INTRODUCTION

1.1 Project Background

- 1.1.1 Wessex Archaeology was commissioned by Videotext Communications Ltd to carry out the recording and post-excavation analysis for an archaeological evaluation undertaken by Channel 4's 'Time Team' on the Northern Green of Westminster Abbey, London Borough of Westminster, centred on NGR 530050 179530, and henceforth known as 'the Site' (**Figure 1**).
- 1.1.2 Westminster Abbey lies on the north bank of the River Thames at a height of approximately 4m aOD. The geology of the area consists of alluvial sands, silts and clays (British Geological Survey 1:50,000 270). The Northern Green is currently an area of public open space, consisting of a flat, neatly mown lawn punctuated by modern floodlighting wells and other services.
- 1.1.3 Westminster Abbey has been England's coronation church since 1066 and is the burial place of 17 monarchs. The present church, begun in 1245, is one of the most important Gothic buildings in the country, with the medieval shrine of Edward the Confessor still at its heart. In 1987, the international importance of the Abbey and its environs, comprising Westminster Palace (the Houses of Parliament) and St Margaret's Church, was recognised by their inscription as a World Heritage Site. Together, these buildings, all Grade 1 listed, encapsulate the history and development of the English parliamentary monarchy and its institutions over at least nine centuries. The Northern Green, lying adjacent to the nave of the Abbey, has the potential to reveal information concerning the constructional sequence of the Abbey building itself, as well as the changing use of the area immediately outside.
- 1.1.4 As part of a World Heritage Site, Westminster Abbey is overseen by UNESCO, advised by English Heritage, although responsibility for the Abbey itself is vested in the Dean and Chapter. The Abbey was selected for archaeological evaluation and filming following discussions with staff, including Sir Stephen Lamport, Receiver General; Victoria Ribbans, Press and Communications Officer; Professor Warwick Rodwell, Consultant Archaeologist; Jim Vincent, Clerk of Works; and Christopher John Vyse, Legal Secretary to the Dean and Chapter. Jane Sidell, Inspector of Ancient Monuments and Diane Walls, Archaeological Adviser, both of English Heritage, London Region, were also consulted.

1.2 Historical Background

- 1.2.1 Westminster Abbey or, more formally, the Collegiate Church of St Peter, Westminster, has a long and complex history, although little is known of its earliest years. One 11th century legend tells of an abbey founded on Thorn Ey (Thorn Island) in perhaps the 7th century, after a fisherman on the River Thames saw a vision of St Peter near the site. Early monastic records also claim that an earlier abbey was destroyed by the Danes in the 9th century.

Around AD 960, however, a community of Benedictine monks was established on Thorny Island by St Dunstan, Bishop of London, and was rapidly granted lands by King Edgar (AD 959-975), thus forging the links between crown and church that continue through the whole of the Abbey's history.

- 1.2.2 King Edward the Confessor (AD 1042 – 1066) built a palace adjacent to the Abbey and, as part of this complex, began the construction of a new stone abbey church, dedicated to St Peter, between 1045 and 1050. The new church, built in the Norman style, was consecrated on the 28th December 1065, shortly before Edward's death; his successor Harold (AD 1066), and later William the Conqueror (AD 1066-1087) were both crowned there. Extant remains of these early (11th century) monastic buildings include the undercroft and main walls of the dormer and the remains of the reredorter and frater range. The Bayeux Tapestry includes the only surviving contemporaneous depiction of this original abbey and adjacent palace.
- 1.2.3 Edward the Confessor was canonised in 1161, and in 1163 his remains were moved into a magnificent new shrine in the Abbey in the presence of King Henry II (AD 1154 – 1189) and Thomas Becket, Archbishop of Canterbury. Continued patronage by Henry II, extensive lands and the saint's shrine meant that the Abbey became a wealthy and powerful religious house as well as a place of pilgrimage and in the succeeding centuries a thriving town grew up around it.
- 1.2.4 In 1245, Henry III (AD 1216 – 1272), an intense devotee of the cult of the Confessor, began work on a new church to further honour the saint by providing an even more magnificent shrine, and to house his own tomb nearby. This building was modeled on the French Gothic cathedrals, such as those at Reims and Amiens, and rapidly became home to a great number of other religious relics, ensuring a steady income from pilgrims. In 1251 (Close Rolls 34-36), the King ordered a sacristy 120 feet long, to be built on the north side of the nave, at his own expense (except for the timber). The choir and eastern sections of the new church were completed by October 1269 but only five bays of the nave had been constructed by the time of Henry's death in 1272. Work continued, however, but in 1298 a fire destroyed part of the Abbey and the long period of rebuilding lasted until 1517, with much of the work undertaken during the reign of Richard II (AD 1377 – 1399). Henry VII (AD 1485 – 1509) added a Perpendicular style chapel dedicated to the Blessed Virgin Mary in 1503. This was later described as a '*miraculum orbis*' and is one of the finest Late Perpendicular structures in Europe, largely built of imported stone, from Caen and the Loire Valley in France as well as the Isle of Portland on the Dorset coast.
- 1.2.5 Henry VIII (AD 1509 – 1547) assumed direct royal control of Westminster Abbey in 1539, creating a 'Royal Peculiar' – a church directly responsible to the sovereign rather than a diocesan bishop. A charter granted by Henry in 1540 bestowed cathedral status on the Abbey, and it was thus largely spared the destruction widely inflicted during the Dissolution of the Monasteries at this time, the abbot becoming the first Dean and the prior and several monks becoming clergy of the new cathedral. In 1556, the Catholic Queen Mary (AD 1553 – 1558) restored the Abbey to the Benedictines but they were ejected again in 1559 by Elizabeth I (AD 1558 –

1603), a Protestant, who re-established the Abbey's status as a Royal Peculiar and made it the Collegiate Church of St Peter (church with an attached chapter of canons, headed by a dean) in 1560.

- 1.2.6 The Abbey suffered some damage during the Civil War of the 1640s, but was again protected by its close ties to the state. Oliver Cromwell's funeral was held in the Abbey and his body buried there, only to be disinterred in 1661 and posthumously hanged from a nearby gibbet. The two western towers, built in the Gothic Revival style, were added between 1722 and 1745 by Nicholas Hawksmoor, and the whole church was extensively rebuilt and restored under the supervision of Sir George Gilbert Scott, Surveyor of the Fabric, 1849-1878.
- 1.2.7 The Abbey Lease Books indicate that the area of the Northern Green was occupied by houses and other buildings from at least the middle of the 16th century. The earliest reference (1546) is to a prebendal house near the north door of the nave, with another near the west towers being leased from 1626. From 1590 onwards there are also references to a Mason's Lodge or tenements, located between the two prebendal houses. These buildings are not shown on Wenceslas Hollar's 1654 engraving of the north front of the Abbey although they are present on his (presumably earlier) sketches, now kept in the Pepys Library, Cambridge. Similarly, the buildings are not shown on any of the early maps of the Abbey, which tend to be from a bird's eye perspective so that the North Green is largely out of sight. The earliest cartographic representation is on Hawksmoor's General Plan (1731) of the Abbey complex, while somewhat fanciful and sanitised views are provided in a series of paintings dating to the 1730s or 1740s by the Italian artist, Pietro Fabris. These buildings were demolished in 1737.

1.3 Archaeological Background

- 1.3.1 No archaeological investigations or watching briefs have been carried out on the Northern Green in modern times, but an operation to clear and lower the ground on the north side of the Abbey undertaken in 1869-70 revealed much evidence of its former usage (Poole 1870). This work was conducted by Henry Poole, the Abbey mason, under the supervision of Scott.
- 1.3.2 The earliest evidence comprised a stone sarcophagus (Poole 1870, 18-23; fig. 2, F) containing skeleton of an adult male, found at a depth of about 4 feet. The coffin itself was inscribed and probably of 4th century AD date, but the precise east-west alignment of this burial, the poor quality workmanship of the lid and the long cross carved into its upper surface suggest that the burial belongs to a much later period and is perhaps early medieval in date, the coffin being re-used in this context. The coffin lid was also broken when found; this, coupled with the unusual position of the skeleton within (prone with the skull towards the feet), was interpreted as evidence for the later examination and disturbance of the burial at some unknown time over the intervening centuries.
- 1.3.3 Two other inhumations, the skeletons surviving in 'perfect' condition, with 'not a bone out of place' were also investigated slightly further to the west (Poole 1870, 22; fig. 2, G). These burials were surrounded by rough blocks of chalk and aligned north-west to south-east. Poole interpreted these as the remains of early ecclesiastics, their orientation perhaps pointing to the

original shrine of the Confessor, which was held in highest regard during the reign of Henry III. Other burials were noted in the same area but were not investigated.

- 1.3.4 Poole also stated that he found masses of early brickwork and loose rubble, probably related to the post-medieval prebendal houses, to the west of the north door into the nave. However, in addition to the massive footings of the Abbey itself, a series of "... ancient stone and rubble walls ..." were located in the eastern part of the area "...approaching the Early English portion of the nave ..." (Poole 1870, 119). Under the direction of Scott, the surfaces of these walls were exposed and holes were dug to find out how deep they were. In essence, the footings formed an L-shaped enclosure, approximately 15 feet wide, linking the north door of the nave and the first two buttresses of the west transept, with a separate room or building at the eastern end. The walls on the south and west sides of this room (Poole 1870, fig. 2, B) were found to extend down about 5 feet below the floor level of the Abbey, with two flights of steps in the south wall and a fire-place (fig. 2, H) in the 'cellar' at the bottom.
- 1.3.5 Differences in depth and construction led Poole to conclude that the footings represented several different phases of construction and a number of separate buildings. Subsequently, the walls were topped with concrete or had piers added to level them so that they could be displayed in the surrounding turf, while the deeper, cellar area was converted into a store room. Other structures are known to have existed until the 18th century on the northern edge of the site, including a hexagonal Gothic building, known as the Watch House, but no surface traces of these exist today.

2 AIMS AND OBJECTIVES

- 2.1.1 The Time Team project aimed to carry out a limited programme of non-intrusive investigation and intrusive excavation over three days. The Northern Green lies immediately adjacent to a Grade 1 listed building of international importance, emphasised by the World Heritage Site status of Westminster Abbey and its environs. The site is known to contain significant archaeological features and deposits with the potential to address regional and national research questions (e.g. Clark 2002) as well as providing more specific information about the nature, significance and condition of the remains themselves, the developmental sequence of the Abbey and the changing use of its immediate hinterland through time. The results of the evaluation, enhanced by the topographic and geophysical surveys, form an important resource for the future management of the area.
- 2.1.2 The following specific research aims were proposed:
- to identify and characterise any surviving remains of the medieval sacristy known to have been erected by Henry III in the area, investigating, where possible, the relationship of these remains with the river gravels below, defining a plan of the structure and refining the chronology of its construction;
 - to identify and characterise any surviving remains of the post-medieval prebendal houses and other buildings known to have existed on the area

now known as the Northern Green, defining their plans and refining their chronology;

- to characterise the location, layout and chronology of any further human burials surviving in the area.

3 METHODS

3.1 Topographic Survey

3.1.1 The survey focused on areas to the north of the Abbey and was carried out according to the guidelines set out by Chapman and Van de Noort (2001), using a Trimble Real Time Differential GPS. The survey accurately recorded the precise locations of the evaluation trenches and the geophysical survey grid.

3.2 Geophysical Survey

3.2.1 A Ground Penetrating Radar survey was undertaken GSB Prospection Ltd in three areas on the north side of the Abbey (**Figure 1**), using a Noggin Smartcart with a 250 MHz antennae. The results were analysed using a mixture of GSB and commercial software. In general, the conditions for the survey were good, although sporadic heavy rain resulted in some variations in the data collected at different times.

3.3 Evaluation Trenches

3.3.1 Five machine trenches were excavated (**Figure 1**). A mechanical excavator (mini-digger) fitted with a toothless bucket and working under constant archaeological supervision, removed the overburden from all the trenches. Machining ceased as soon as significant archaeological deposits were identified. The trenches were cleaned by hand with limited sampling of the underlying archaeological deposits. All spoil arising from the evaluation trenches was scanned by experienced metal detectorists.

3.3.2 All contexts and features were recorded using standard Wessex Archaeology *pro-forma* record sheets. A record of the full extent in plan of all archaeological deposits encountered was made, usually at a scale of 1:20; sections were drawn as appropriate. The OD height of all principal strata and features was indicated on the appropriate plans and sections. A photographic record of the investigations and individual features was also prepared. All trenches were related to the National Grid/Ordnance Datum by local control.

3.3.3 The work was carried out between the 15th and 18th September 2009. The archive and all artefacts were subsequently transported to the offices of Wessex Archaeology in Salisbury where they were processed and assessed for this report.

4 RESULTS

4.1 Introduction

4.1.1 Details of individual excavated contexts and features, the full geophysical report (GSB 2010), of which a summary is presented below, and all artefactual and environmental data, are retained in the archive. Summaries of the excavated sequences can be found in **Appendix 1**.

4.2 Geophysical Survey

Area 1

4.2.1 The outer wall of the Sacristy is relatively well defined as is the internal cross wall, although the latter response is somewhat complicated by the remains of a medieval sunken chamber as well as the adjacent floodlight housing. Other post-medieval structures and responses pertaining to the 19th century excavation of the site are likely to have caused the majority of responses around and to the east of the sunken chamber, where further structural remains and a buried surface were uncovered between the services.

4.2.2 Some amorphous reflectors, which are within the Sacristy footprint, are difficult to interpret but it seems likely that these are of archaeological origin. The question that remains, however, is whether they relate to something contemporary with the Sacristy (i.e. burials or other former subterranean feature) or are a result of the 17th century prebendal buildings that stood on the site after the Sacristy was demolished. There is a similar question about responses to the north of the Sacristy and within the cloistered area – there are known to have been burials across this area, but the aforementioned buildings may well have had footings running through here.

4.2.3 Although a drainage pipe flanks the edge of the Abbey buttresses, it seems likely that the responses seen at depth, between and around them, are an effect of the original stepped foundations.

Area 2

4.2.4 The upper levels are dominated by the effects of services, such as drains, cables and pipes which have complicated interpretation. The western end of the Sacristy is likely to have run down the eastern side of this survey area towards the buttress immediately west of the north door into the nave, but only a short section of this is visible and, even then, the interpretation is somewhat tentative.

4.2.5 There is a broad zone of increased response and more discrete, yet still somewhat amorphous, higher amplitude anomalies running through the centre of the survey area. Given that the Sacristy is assumed to have stopped before this point, it seems likely that these reflectors relate to the aforementioned buildings which ran along this side of the Abbey. There are certain hints of rectilinearity within the distribution, but defining individual wall lines, exact footprints or layout of these properties has not been feasible. It remains a possibility that some of the high amplitude anomalies are not structural elements but, in fact, a result of burial structures, perhaps partially collapsed - thus accounting for the less obvious responses in the radargrams.

Area 3

4.2.6 This survey area was designed as a speculative attempt to find the Watch House, a hexagonal gothic building recorded on a plan of the site from the 18th century. Whilst it was not possible to identify this feature, a number of isolated but very strong reflectors were recorded. This area was recorded as being the 'Church Yard' in the 1761 plan and, as such, burials are to be expected. Only the strongest, most likely intact, examples have been recorded. Some of the other smaller reflectors may be fragmentary responses from collapsed caskets. It may be the case that the hexagonal structure still lies just beyond the survey area, either immediately north or west.

4.3 Evaluation trenches

4.3.1 All five evaluation trenches were positioned to examine salient features of the walls of the L shaped structure identified by Poole (1870, 122-4; **Figure 2**), testing his conclusion that the walls actually represented a conflation of several different phases of construction and a number of separate buildings.

4.3.2 Details of individual excavated contexts and features, as well as the results of artefact and environmental analyses are retained in the archive. Brief context descriptions are presented in **Appendix 1**. A summary of the results is presented here.

Early Medieval Burials

4.3.3 The earliest remains were encountered in Trench 4 (**Figure 7**) and comprised a rectangular grave (411) (**Figure 7, Plate 11**), aligned west-north-west/east-south-east and containing the well-preserved skeleton (413) of an adult male in his early to mid twenties (c. 23 – 25 years old) and approximately 5 feet 11 inches tall. The grave was lined with a single row of large, flat-faced, rectangular chalk blocks, up to 0.2m across, bonded with pale yellow sand and lime mortar (414). A small sondage excavated on the south side of the grave indicated that the backs of these blocks were angled, suggesting that they had been cut away by a later construction trench (416; see below). However, in contrast to the two similar chalk-lined graves identified in the immediate vicinity (Poole 1870, 22; fig. 2, G), the block(s) defining the eastern end of grave (411) were absent although a restricted area of more recent intrusion (410) into the upper part of the grave fill (412) in this area may provide the explanation, as Poole also notes that "traces of other similar coffins were seen, but these two only were exposed". Radiocarbon dating of a sample removed from the left femur of skeleton (413) indicated that this individual was buried between Cal. AD 1025 – 1155 (**Table 4**). Other, disarticulated fragments of human bone, some very degraded, recovered from the slightly gravelly, yellow-brown sandy loam (412) which filled the grave, highlight the possibility of other earlier medieval burials in the vicinity. One tiny sherd of medieval pottery (an undiagnostic sandy ware) was also found within the grave fill.

Abbey's Raft Foundation

4.3.4 Parts of the 13th century Abbey's massive raft foundation were examined by Trenches 1 and 3 (**Figures 3 and 6**). Poole (1870, 122-3) described the foundation of the north transept as extending 5 feet (c. 1.5m) beyond the face of the buttresses, 16 feet (c. 4.88m) beyond the wall in between, and

descending in a series of steps to a depth of 9 feet (c. 2.7m) below the floor of the Abbey, with a 'concrete' footing about 3 feet wider beneath. Although not excavated to its full width/depth, four corbels (115) of the raft were exposed in Trench 1 (**Figure 4, Plate 1**). These were composed of Reigate stone blocks; the surface of uppermost corbel (0.24m wide, 0.56m high) was located at 4.8m aOD, and it was built from two courses of large, neatly dressed, rectangular blocks bonded by pale yellow-brown sand and poorly-slaked lime mortar. Corbels 2 (0.35m wide, 0.2m high) and 3 (0.27m wide, 0.25m high) were each built from single courses of less carefully finished blocks with mortar apparent on their faces and treads. Only the tread (0.17m wide; surface at 3.93m aOD) of the fourth step was exposed. On the north side of the trench, the stone facing blocks had been removed from the uppermost corbel, probably during the 1869/70 construction of the store room/cellar, indicating that the core was composed of re-used ashlar and small (up to 0.1m across) unworked stones set in fairly regular courses c. 0.1m high and bonded by pale yellow-brown sand and poorly-slaked lime mortar (although this area may have been tidied-up during the Victorian works).

- 4.3.5 Only the upper part of raft foundation of the fourth buttress of the nave was examined in Trench 3. Here, a hard, dense, compacted layer of undressed limestone and chalk fragments bonded with creamy yellow-brown sand and poorly-slaked lime mortar (312, surface at 4.62m aOD) extended beneath the four lowest courses of the buttress and projected at least 0.45m from its north face where it was cut by a modern storm drain (**Figure 5, Plate 7**).

13th century Sacristy Building

- 4.3.6 Evidence for this structure was uncovered in all five trenches, confirming it to be an L-shaped building, linking the north door of the nave with a second doorway (located between the first two buttresses), into the north transept. Although no external traces of this second doorway survive, visible remains are apparent inside the north transept but were not recorded as part of this project. The use of a distinctive creamy yellow-brown sand and poorly-slaked lime mortar characterised all elements of this structure.
- 4.3.7 Trenches 1, 3 and 4 examined elements of inner wall of the sacristy, identified as walls B and C by Poole (1870, fig. 2; **Figure 2**). At the eastern end of Trench 1, wall foundation (141)/(142) (**Figure 3; Figure 4, Plate 2**) was built directly on the surface of the top corbel of Abbey's raft foundation (115). Although cut by a modern drainage trench (106), mortar on the surface of the raft, beneath the plastic drain pipe, indicated that the two foundations were part of the same build, giving an original width of around 1.4m in this area. Both were composed of roughly dressed and undressed chalk and limestone blocks bonded with the characteristic mortar. The remains of (141), adjoining the second buttress of the north transept, survived to a height of only 0.15m, but (142) to the north was better preserved, at least 0.48m high, and faced with dressed and undressed chalk and limestone blocks, including a Reigate stone door jamb re-used to form the north-east corner of the foundation. Further west, the line of this foundation survived as a single course visible below post-medieval foundation (117) and, as shown on Poole's plan, part of the curved southerly extension to wall B was noted (as 153) in the west-facing elevation of entrance chamber (110). This suggests a depth of at least 1.8m (5 feet, 11

inches) for the foundation in this area; Poole (1870, 128) recorded their full depth as being 7 feet (2.13m).

- 4.3.8 At the western end of Trench 1, the line of (141)/(142) continued as foundation (124) (**Figure 4, Plate 3**). Here the foundation was 0.80m wide and 0.6 m high, comprising five to six courses of rough, undressed limestone blocks, bonded with the characteristic mortar. A north-south wall foundation (123) appears to have formed part of a single build with 124, its courses more or less following around the corner. This foundation was 0.4m wide, with four courses of undressed limestone blocks exposed in the west face, surviving to a height of 0.48m. The northern end of this wall was discovered in Trench 2 (foundation 206) (**Figure 5**).
- 4.3.9 Approximately 0.6m west of the junction between (123) and (124), the latter foundation terminated abruptly in a neat, squared end (**Figure 3; Figure 4, Plate 3**). This was immediately butted by another foundation (139/152), built of slightly smaller undressed limestone blocks than those used in foundation (124) and positioned so that their long axis was at 90° to those of (124). Foundation (139/152) survived to a height of at least 0.48m (four courses were exposed) but was slightly wider (c. 1m) than (124). The two were separated by an unexcavated modern ducted electricity cable trench. Although a break in construction clearly occurred at this point, it remains uncertain whether this represents very slightly different construction dates, different gangs of builders or loads of stone, while the differences in width may simply result from the robbing of an extra stone or two from the north face of foundation (124).
- 4.3.10 Further west, in Trench 4, the line of foundation (139/152) continued as 404 (**Figure 7, Plate 10**) and, as shown by Poole (1870, fig. 2, C; **Figure 2**) turned a right-angled corner to run south, back towards the north wall of the Abbey's nave. The full width of foundation (404) was not exposed, but it was at least 0.7m wide and three courses of roughly-squared chalk blocks, with some of Greensand used to form the corner, bonded with the sand and lime mortar, survived to a height of 0.4m. These courses rested on a mortared rubble footing (415), at least 0.6m deep, built within construction trench (416), which cut the chalk blocks lining grave (411). The construction trench was not fully investigated, but its north and west sides were approximately 0.2 – 0.3m from the face of the foundation and it was filled with a layer (420) of light grey sandy loam mixed with small chalk pieces and crushed mortar fragments. A small sondage excavated on the north side of foundation (404/415) showed that (416) was at least 0.3m deep, with a straight, almost vertical side.
- 4.3.11 In Trench 3, foundation (311) rested on the uppermost corbel of the Abbey's raft foundation (312) (**Figure 6**). Here, it was only 0.6m wide and composed of mortared, undressed limestone pieces; no facing stones survived and it was only investigated to a depth of 0.1m. Foundation (311) was flanked by deposits (308 and 309) of collapse/demolition/robbing debris, up to 0.16m deep, probably derived from the wall itself.
- 4.3.12 Trenches 2 and 5 examined the outer, northern wall of the sacristy (Poole's wall A; Poole 1870, fig. 2; **Figure 2**). In Trench 2 (**Figure 5**), this east-west wall foundation (205) was 1.1m wide. Its core was composed of chalk and

limestone rubble bonded with the characteristic mortar, and faced with well-dressed, regularly-coursed chalk and limestone blocks. The south side survived in better condition than the north, which had suffered considerable robbing and disturbance, being partially cut away by a later construction trench (212; see below) and a Victorian exploration trench. Two courses of facing stones were exposed in this north face and could be seen in plan continuing to the east beneath the later wall (208; see below). On the south side, two courses of small, square limestone facing blocks survived to a height of 0.3m above a 0.13m wide corbel, with a further seven courses (c. 0.8m deep) exposed below this. The small facing stones above the corbel continued across the line of a north-south foundation (206), indicating that although the two walls were probably broadly contemporary, (206) was slightly later than, and was bonded, to (205). The eastern side of foundation (205) had been disturbed and probably partly cut away by a modern (un-numbered) service trench, but it was at least 0.55m wide; three courses, surviving to a height of 0.34m, were exposed in the west face but the foundation continued down beyond the limits of the investigation. Its core was composed of mortared sandstone rubble and it was faced with roughly dressed, rectangular sandstone blocks. Together with foundation (123) in Trench 1, this wall formed an internal division within the sacristy building, forming a room some 16.5m long and 4.5m wide adjacent to the north transept.

- 4.3.13 In Trench 5 (**Figure 8**), ephemeral traces of the western corner of the sacristy building were visible only beneath later deposits associated with the works of Scott. Traces of chalk block masonry survived to a height of c 0.4m in the east-west wall (514) but a 0.15m deep deposit of the characteristic creamy yellow-brown mortar was all that remained of the north-south return beneath the later Victorian additions. Assuming that the Victorian concrete and rubble capping accurately reflects the medieval foundation below, this trench also provided evidence of the possible buttress at the western end of the structure shown on Poole's plan (1870, fig. 2, A; **Figure 2**), but this area was not investigated further during this evaluation.

Other Medieval Burials

- 4.3.14 Although not independently dated, the five *in situ* burials in Trenches 1, 2 and 4 all share their alignment with that of the present Abbey, while their location in relation to the 13th century sacristy suggests that they may be broadly contemporary with it. However, these graves were not fully excavated and, although the human remains were examined and recorded on site, none of the bone was lifted. The burials were only partially exposed but all survived in good condition and appeared to be extended and supine with their heads to the west.
- 4.3.15 Grave (133) was located in the north-western corner of Trench 1 (**Figure 3**) and contained the remains of a 5-6 year old juvenile (132). The grave survived to a depth of just 0.05m, and was cut into a deposit of soft grey-orange silty sand (134), perhaps representing the top of the natural alluvial sands and gravels of the area. A small iron nail and a disarticulated 5th metatarsal were noted (but not collected) on the surface of this layer. Grave (133) was filled with soft, orange-brown, slightly gritty sand (131), very similar to the underlying natural. Within this material, another iron nail was

located immediately south of the proximal end of the radius but was not collected.

- 4.3.16 In Trench 2, the edges of grave (215) could not be established (**Figure 5**), the northern, southern and eastern sides having been cut away by 19th or 20th century features (207) and (218), while the western end was located beyond the limits of excavation. However, the remains of an adult male, 25 and 40 years old (224), indicated that the grave was aligned west to east. The grave was filled with a layer (214) of light brown sandy loam with rare flint gravel up to 0.2m deep; fragments of redeposited human bone present within this material provide further evidence of the disturbance of earlier burials in this area.
- 4.3.17 The edges of the grave(s) containing skeletons (408) (a juvenile, 10-11 years old) and (409) (an adult male over 50 years old) found in Trench 4 (**Figure 7, Plate 11**) were not located, and their relationship with the 11th/12th century burial (413) was not investigated. These burials, however, were clearly earlier than that of another adult (405), more than 18 years old and probably a male, found in grave (407). This grave continued beyond the western edge of the trench but was 0.55m wide, in excess of 0.2m deep and cut into the brown silty loam layer (417) overlying skeletons (408) and (409). The fill (405) of grave (407) consisted of grey-brown sandy loam with rare flint gravel, chalk grits and further redeposited human bone fragments.

Prebendal Houses

- 4.3.18 The evidence for these 16th century structures was much slighter, but in Trench 2, wall footing (208) perhaps formed the east side of a doorway or other opening in the north front of one of these structures (**Figure 5, Plate 8**). The construction trench (212) for this footing was approximately 1m wide and 0.65m deep with a flattish base and chopped through the earlier wall foundation (205), only the facing stones on the south side of wall (205) remained *in situ*, their rear surfaces apparently forming the southern side of this trench; its north side had been destroyed by one of the Victorian exploration trenches (218). Soil and rubble layers (209) and (210) identified on the northern side of Trench 2, sloping down from north to south, may represent piles of rubble tossed aside when foundation (205) was demolished to insert wall (208). Both included numerous broken building stones with the characteristic 13th century mortar still adhering, but all direct evidence of the relationship between these deposits and construction trench (212) had been cut away by the later trench (218).
- 4.3.19 Within (212), wall (208) had been constructed directly on top of the remnants of the earlier foundation (205); only the north face of (208) was exposed but it was 0.8m wide and survived to a height of 0.66m. Four courses of facing blocks consisted of re-used rectilinear limestone blocks with a variety of sawn, pecked and dressed surfaces, including one large Purbeck marble slab (0.65m x 0.28m x 0.1m) forming the north-west corner of the uppermost surviving course. More rubble elements were used within the core of the wall and the whole was bonded with dull grey-green sandy mortar.
- 4.3.20 Although extensively reworked during in the 1869/70 works, part of an early post-medieval (Tudor) stairwell (137) was also identified in Trench 1, again chopped into and partially built on the earlier 13th century wall foundation

153 (**Figure 3; Figure 4, Plate 5**). Part of one stair tread survived *in situ*, together with a few randomly-coursed facing blocks of roughly-dressed limestone, all bonded with pale brown sand and poorly-slaked lime mortar) in the courses immediately above the tread. The core was composed of limestone and brick rubble bonded with the same mortar. The original entrance to this stairwell was probably on the west side (blocked during the Victorian works), while the north side provided access into a low-height cellar, described by Poole (1870, 124) as having an earth floor and, on the west side, a fire-place (which he removed) formed of thin bricks with a floor or hearth of firestone blocks in front of it.

- 4.3.21 A re-used grave slab or memorial stone (101) may have formed part of the roof of this cellar (**Figure 4, Plate 4**). It was tied into brick wall stub (117), itself constructed on the earlier foundation (142), although not as wide. The exposed south face of wall (117) was composed of a single, large, re-used limestone block resting on and bonded into foundation (142) so that their faces coincided. On the north side, the upper courses were composed of bricks with their headers forming the face of the wall, overlying a course of re-used limestone blocks, with slab (101) apparently replacing the upper courses of bricks at the western end. As in Trench 2, wall (117) was bonded by a dull grey-brown, fine sandy mortar. An irregular patch of similar mortar (145) noted on the surface of slab (101) indicates that the foundation extended over it, while other patches of mortar surviving on the surfaces of the north transept's raft (143 and 144) and foundation (124), indicate the more extensive reuse of the 13th century foundations at this time. Similarly, in Trench 5, the alignment of a 0.17m wide linear feature (506) on the east side of the 13th century foundation (514) did not quite coincide with it. Numerous 16th or 17th century brick fragments present in its fill (505) suggest that it may represent the robbing of a brick foundation, perhaps of 17th century date, again built on top of the earlier foundation (514).

19th and 20th century works

- 4.3.22 Considerable evidence for the works undertaken by Poole and Scott in the winter of 1869/70 was encountered in all five trenches while a variety of modern services had also impacted on the underlying archaeological deposits, especially in Trenches 1 and 3. Although not described in detail here, the extent of these modern services can be seen in **Figures 3 and 6**.
- 4.3.23 In Trench 1, the Victorian works concentrated on the conversion of the early post-medieval low-height cellar into a 'store-cellar' (Poole 1870, 124). This was done by excavating to the top of the concrete footing of the transept wall, underpinning the south and west walls to the same depth, making all the walls the same height and covering the whole with a Dennett's Arch, supported by a central pillar, with access provided on the southern side. This rectangular entrance chamber (110) was built within and adapted from the remains of the early post-medieval circular staircase (137), using large rectangular stone blocks in regular courses bonded by hard grey cement; occasional bricks, roof tiles and smaller stone pieces were used to form the corners and fill gaps. One large block with relief carving, used in the east-facing elevation, may be of Romano-British date and re-used here (**Figure 4, Plate 6**). The entrance chamber was excavated to a depth of 1.45m and filled with a series of sandy silt (146 and 146) and rubble (116) layers, with a capping of sand (102). To the north, a layer of concrete (104), defined by the

Abbey raft to the east, wall foundations (117) and (118) to the south and (123) to the west, form the roof of this structure.

- 4.3.24 Exploration trenches dug by Poole and Scott to locate, investigate and follow the medieval walls were also encountered on both sides of wall foundation (205) in Trench 2 (218 and 221) and on the south side of foundation (514) in Trench 5 (511) (**Figures 5 and 8**). This latter feature was itself cut by trench (513) which may once have held the shuttering used by Poole when adding the concrete (503) and brick rubble (504) capping, here up to 0.4m deep, to the surface of the 13th century foundation (514) to consolidate it for display in the turf of the North Green. Similar but shallower (0.05m and 0.15m deep) deposits of concrete (314 and 403), capping the surfaces of foundations (311) and (404) were also found in Trenches 3 and 4 (**Figures 6 and 7**). Although not excavated during this investigation, a soil and rubble layer (306) identified in the north-west corner of Trench 3, could be the fill of another of these exploration trenches on the western side of foundation (311).
- 4.3.25 Other evidence of probable Victorian activity included a small, localised intrusion (410) into the eastern end of the fill of early medieval grave (411) where a 19th century clay tobacco pipe bowl fragments and a small group of pottery sherds, the latest of late 18th/early 19th century date, were found. In the north-east corner of Trench 3 (**Figure 6**) and continuing beyond its limits, feature (313) was cut from the base of the topsoil to insert concrete and slate surface (304) probably during the 19th or early 20th century although the purpose of the structure remains unclear.

5 FINDS

5.1 Introduction

- 5.1.1 Finds were recovered from all five trenches. The assemblage is very largely of post-medieval date, with a few Romano-British and medieval items.
- 5.1.2 All the finds were quantified by material type within each context, and totals by material type and by trench are presented in **Table 1**. Following quantification, all finds were visually scanned, in order to ascertain their nature, probable date range, and condition. Spot dates have been recorded for datable material (pottery). This information provides the basis for an assessment of the potential of the finds assemblage to contribute to an understanding of the site, with particular reference to the construction of the Abbey and its associated structures.

5.2 Pottery

- 5.2.1 The range and quantities of the different fabrics present are summarised in **Table 2**. The earliest sherds are two in Early Medieval Shelly ware (EMSH) found in the fill (410) of the Victorian intrusion into early medieval grave (411). Other medieval wares fall into two groups: London-type wares (LOND), and various products of the Surrey whiteware industry - Kingston-type ware (KING), Coarse Border ware (CBW), Cheam ware (CHEA) and 'Tudor Green' ware (TUDG). The London-type ware, comprising sherds from white-slipped and glazed jugs, is of 13th or 14th century date. A similar date is likely for the sherds of Kingston-type ware, again probably all from glazed

jugs (one carries stamped decoration), while the Coarse Border ware and Cheam ware extend the range into the 14th and 15th century. The Tudor Green ware is of 15th or 16th century date and includes a candlestick rim.

- 5.2.2 The post-medieval wares also demonstrate a wide chronological range, and include coarse redwares (PMR), some white-slipped (PMSR) and one slip-decorated (METS), and some white-firing Border wares (BORD), from the early post-medieval period, later augmented by tinglazed earthenwares (TGW) and German stonewares (KOLS/FREC). The Nottingham stoneware (NOTS), white salt glazed stoneware (SWSG), imported porcelain (CHPO) sherds are of 18th century date with the creamware (CREA) and pearlware (PEAR) sherds slightly later. The latest wares are modern refined whitewares, some transfer-printed (REFW, TPW).

5.3 Ceramic Building Material (CBM) and Fired Clay

- 5.3.1 The CBM includes fragments of roof tile, floor tile, wall tile and brick. Roof tile forms the majority, and there are examples of both medieval and post-medieval tiles, including a few pantile fragments, of 17th century or later date.

- 5.3.2 There are several fragments of floor tiles, none complete; some were decorated, but none of the original designs are decipherable, either through excessive wear, or the small size of the fragments, although one piece from the topsoil of Trench 4 could match one of the Westminster designs (Betts 2002, W112). There are other Westminster and Penn tiles amongst the plain, white-slipped fragments, and post-medieval glazed and unglazed Flemish tiles. Three modern wall tiles were also found among the rubble (116) backfilling the Victorian cellar entrance chamber (110).

- 5.3.3 No complete bricks were recovered; the only piece with measurable dimensions is a post-Great Fire brick also found in the backfilling (102) of the Victorian cellar entrance chamber (110). Two other bricks of the same type and part of a London Stock came from other layers (102 and 116) within this structure.

- 5.3.4 Seven pieces of brick/tile identified as being of Romano-British date were of particular interest. Six were found in rubble layer (116) in the Victorian cellar entrance chamber 110; the seventh was from the fill (202) of one of Poole and Scott's exploration trenches (218). All these pieces had been reused, evidenced by the presence of mortar over the broken edges, and as no other artefacts of Romano-British date were recovered, it is likely that they had been brought in from elsewhere.

5.4 Clay Pipe

- 5.4.1 Most of the clay tobacco pipe comprises stem fragments. There are four bowls, one dated 1610-40 (topsoil, Trench 5), and the other three of 19th century date, all of them decorated (Victorian exploration trench 218; fill of the Victorian intrusion into early medieval grave 411). There is also one decorated stem, stamped ..]ES STREET WEST[MINSTER] from trench 2 (218), and a stem with a spur shaped as a horse's hoof (topsoil, Trench 1).

5.5 Stone

- 5.5.1 All of the stone recovered comprises building materials. These include fragments from ashlar, slabs (paving or funerary), and mouldings. Pieces probably derived from the medieval development of the Abbey include two ashlar fragments in glauconitic sandstone (Reigate Stone from the Upper Greensand in the Reigate/Merstham area of Surrey), from post-Victorian levelling/consolidation layers (105) and (502); a painted column fragment in the same stone, from the rubble backfill (116) of cellar entrance chamber (110) and a second column fragment (context 102) in Taynton stone from west Oxfordshire also found in the rubble backfill (102) of cellar entrance chamber (110). Three mouldings, one in Caen stone (rubble backfill 116), and two in Reigate stone (rubble backfill 116 and topsoil, Trench 4) may also belong to this period. Post-medieval and modern pieces include two paving slabs (one in a shelly limestone - either Forest marble from Oxfordshire or from Purbeck, and the other in York stone), three paving slabs or ashlar fragments, all oolitic limestones (one of Bath stone and two of Portland Stone), a column shaft fragment also in Portland stone, two paving or funerary slabs in Carrara Marble, a machine-sawn slate roofing or paving slab and two large mouldings, one (with a Lews hole) in Triassic Sandstone, which is used in the main construction of the Abbey, and the other in a white sandstone of undetermined source, probably a Yorkshire freestone.
- 5.5.2 The wide variety of rock types reflects the longevity of occupation at the Abbey. Reigate stone and Taynton stone are both well-known in the medieval construction phases – both were used in the Pyx Chapel (built in 1060) and were certainly still in use during the early 16th century. Portland stone, Forest Marble, Carrara Marble and York stone were all materials in circulation from the 17th century onwards.

5.6 Glass

- 5.6.1 This category includes both vessel and window glass; the latter is presumed to derive from the Abbey. All pieces appear to be plain, and of post-medieval date, although a few are in relatively poor condition with degraded surfaces and near-opaque appearance, and one very opaque piece from Trench 1 topsoil, with grozed (chipped) edges could be of earlier, medieval date. Some of the other quarries have flame-rounded edges. Three very thick, clear fragments found in Trench 1 are thought to have derived from the cellar light.
- 5.6.2 The vessel glass is nearly all of modern date, from bottles and jars of various forms; there are a few pieces of earlier post-medieval green wine bottles, all very abraded.

5.7 Metalwork

Coins

- 5.7.1 Three coins and one token were recovered. Two of the coins are modern: a halfpenny of 1890 and a farthing of 1944, both from the fill (202) of Victorian exploration trench (218). The third is a medieval silver coin, folded in half, from the fill (410) of the Victorian intrusion into grave (411). The token came from topsoil of Trench 1, and is an issue of Hans Krauwinkel II (1586-1635).

Copper alloy

- 5.7.2 The most common objects were coffin studs of post-medieval type (41 examples, some from each trench). These are all plain, domed types, ranging in diameter from 10mm to 15mm. Two examples from Trench 4 still have wood from the coffin adhering.
- 5.7.3 A rowel spur was recovered from the post-Victorian levelling/consolidation layer (401). This object has a short neck with a simple moulding at the junction with the spur sides and a small, eight-pointed rowel secured by a rivet (corrosion products suggest that the latter is iron). The sides are horizontally straight, the spur slightly downward-pointing; both terminals are missing. The straight sides suggest a date in the late 15th century or later (Ellis 1995, 130); a similar example from Exeter is dated to the late 17th or early 18th century (Goodall 1984, M146).
- 5.7.4 Other identifiable objects comprise small dressmakers' pins (two examples, both from Trench 2); buttons (three examples, 102, 209, 501); a rowel spur (401); a small shoe buckle (209); four small plate fragments, one triangular, one square (decorated) and two trapezoidal, possibly mounts of some kind (202, 100, 102, 209); a small, annular object, decorated on one side, again possibly a mount or fitting (209); and two small pipe brackets (202). A small, hollow spherical object (diameter 16mm, 202), a small rectangular block (116), two small rod fragments (209), and three amorphous lumps (202, 401) are of unknown function.
- 5.7.5 With the exception of the spur, all of the datable objects are post-medieval or modern in date.

Lead

- 5.7.6 The lead consists largely of melted waste fragments and offcuts. There are also some window came fragments (16 examples), and a short length of narrow (c.10mm diameter) pipe, now flattened. The comes all appear to be milled rather than cast, although with some of the smaller fragments it is difficult to tell. The earliest documentary evidence for the lead mill is mid 16th century (Knight 1985, 156). Two small, disc-shaped objects are probably weights rather than seals or tokens; a piece of lead shot was also recovered from the topsoil of Trench 4.

Iron

- 5.7.7 The majority of iron objects consisted of nails (76 examples); these were especially frequent (46 examples) in the fill (202) of Victorian exploration trench (218). Other structural fittings included screws, a door handle, pieces from T-hinges, one with a decorative trilobate head, and two U-shaped objects with screw threads at the ends of each arm. Two heel irons were also identified, while unidentifiable fragments of folded sheet metal may derive from coffin bindings or plates. Two spikes from wrought iron railings were also found in the topsoil of Trench 3. All the iron objects are likely to be of post-medieval or modern date and, with the exception of two T-hinge fragments and a curved binding strip from levelling consolidation layer (122).

5.8 Other Finds

- 5.8.1 Other finds comprise very small quantities of worked flint (waste flakes, presumed to be of prehistoric date), and slag, resulting from some form of pyrotechnical activity but not necessarily metalworking, probably of medieval or later date.

5.9 Human Bone

Introduction

- 5.9.1 Human remains were found in all five evaluation trenches. The remains of six *in situ* burials were observed (**Table 3**), one each from Trenches 1 and 2, and four from Trench 4. A bone sample from the stratigraphically earliest deposit (413 in Trench 4) was submitted for radiocarbon dating and demonstrated the burial to have been made in the 11th-12th century (**Table 4**), rendering it commensurate with the 9th century abbey building constructed by Edward the Confessor. The other *in situ* burial remains all lay on the same alignment as the current Abbey. Given their location in relation to the mid-13th century sacristy, they are also likely to be of 13th century date but probably preceded its construction. Their stratigraphic location and the absence of coffin furniture render it unlikely that these burials were made in the later post-medieval period, the sacristy having been replaced with a prebendal house(s) in the early 16th century which remained in place to the mid-18th century.
- 5.9.2 A total of 1086 skeletal elements/fragments of redeposited human bone (12,333g) was recovered from 27 contexts; the majority derived from Trenches 2 (c. 42%) and 4 (c. 37%), both of which also contained *in situ* burial remains. The majority of these contexts were modern (40%), with a high proportion of post-medieval (36%) and 24% of medieval date, demonstrating the level of post-medieval activity in the area and the reworking of the disturbed remains, the majority of which are likely to be medieval in date. A fragment of redeposited bone from the original fill of grave (411) demonstrates the presence of earlier medieval burials in the area. Two contexts (one each in Trenches 2 and 4) were associated with the construction of the 13th century sacristy. However, the recovery of copper-alloy coffin studs from each of the trenches indicates the presence of disturbed post-medieval burials, probably of 17th or 18th century date and derived from the general vicinity.

Methods

- 5.9.3 None of the *in situ* bone was lifted and the remains of only one of the burials – (413) in grave (411) - were fully exposed. The *in situ* remains were examined on site and assessed for basic demographic data with a note on condition and any readily observable pathological lesions. The disarticulated material was subject to a rapid scan to assess minimum numbers of individuals (MNI), some detail of age/sex and readily observable pathology before most of it was reburied in the south-west corner of Trench 2.
- 5.9.4 The minimum number of individuals was assessed from counts of the most commonly occurring skeletal elements in association with contextual information and distribution (McKinley 2004). Age and sex were assessed from the stage of skeletal development (Scheuer and Black 2000) and the sexually dimorphic traits of the skeleton (Buikstra and Ubelaker 1994). The

degree of erosion to the bone was recorded using the writer's system of grading (McKinley 2004, fig. 7.1-7). Measurements were taken on some of the long bones from grave (411) to enable the individual's stature to be estimated (Trotter and Gleser 1952, 1958); no other measurements were taken and consequently no further skeletal indices were calculated.

Results

- 5.9.5 The bone, both *in situ* and redeposited, was generally in good condition (Grade 0-1). Only five fragments of disarticulated bone (mostly from modern/post-medieval contexts) were abraded, indicating repeated reworking and/or exposure. The latter includes a heavily abraded fragment from the original fill of the 11th-12th century grave (411), suggesting that remains from a possibly much earlier burial had been subject to repeated disturbance or burial in a more aggressive environment (?higher water-table and/or different soil matrix e.g. gravels).
- 5.9.6 The remains of a minimum of 17 individuals (MNI) were recorded; 10 adults (>18 yr.; minimum four males and three females) and seven immature individuals (neonate (0-6 months), young infant (0.5-3 yr.), infant (0.5-5 yr.), three juveniles (6-12 yr.) and one subadult (13-18 yr.). The actual number is undoubtedly greater but since much of the material derived from the topsoil and re-worked post-medieval soils, several of which represented levelling or demolition layers, remains from any one individual could have been spread across the whole area of investigation, particularly since the trenches were located in close proximity to one another. The most commonly recorded adult skeletal element was the left femur and, for the immature individuals, the left clavicle, although the MNI in this latter group was estimated from a variety of skeletal elements clearly representing different age groups. At least three additional individuals were probably present, two adults and one juvenile; these are amongst the incompletely excavated *in situ* remains where the full skeleton is likely to have been present but the appropriate skeletal element was not uncovered and observed to be included in the minimum number count.
- 5.9.7 All the males identified, with the exception of the *in situ* individual (413) (moderately robust), had very large robust skeletons. At 1.82m (c. 5' 11") the estimated stature of the young adult male (413) is well above the average of 1.71m given by Roberts and Cox for the 11th-16th centuries (2003, 248), being 80mm higher than the previously recorded maximum. These observations on size may be reflective of the generally good health and nutritional status of the males (at least) buried in this area in the earlier medieval period, and may, in turn, be indicative of their status. However, these observations can only be viewed as tentative due to the limited data obtainable during the evaluation.
- 5.9.8 A few pathological lesions were observed among the fragments of redeposited bone and from two of the *in situ* burials (409 and 413; **Table 3**). Three individuals had mild dental lesions (calculus (calcified plaque); caries; abscess; *ante mortem* tooth loss) and three others had lesions indicative of infection (two adults, one child), one a gross case of osteomyelitis in the femur and another with lesions on the visceral surface of the ribs indicative of a lung infection. Most of those affected are likely to have been medieval,

but some of the cases of infection could have been in post-medieval individuals.

Stable isotope analysis

- 5.9.9 A bone sample from the 11th-12th century adult male (413) in Trench 4 was submitted for stable isotope analysis to provide an indication of the main dietary protein sources over the last decade or so of life. The very enriched stable nitrogen ratios combined with typically terrestrial carbon signals (**Table 4**) suggest that this individual enjoyed a mixed diet, including cereals and protein from terrestrial, marine and freshwater sources, in line with that of other medieval individuals (albeit of slightly later date) from the north of England (Müldner and Richards 2005).

5.10 Animal Bone

- 5.10.1 The assemblage comprises 648 fragments (c. 4.247kg) of hand-recovered animal bone. Once conjoins are taken into account this figure falls to 539. Bone fragments were recovered from all five trenches and reasonably large groups were recovered from the rubble backfill (116) of the Victorian cellar entrance chamber (110) and the fill (202) of the Victorian or later trench (218). The assemblage has been dated to the post-medieval period.

- 5.10.2 The assemblage was rapidly scanned and the following information was quantified where applicable: species, skeletal element, preservation condition, fusion data, tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database and cross-referenced with relevant contextual information and spot dating evidence.

Preservation condition

- 5.10.3 Bone preservation is generally good, but in a few contexts (e.g. 105, 116, 201, 402 and 510) it was recorded as 'mixed' because they included fragments in different states of preservation. This is usually an indication that bones have been subjected to different taphonomic processes and could therefore indicate the presence of residual material. This is supported by the presence of residual medieval pottery from some contexts.

- 5.10.4 Gnaw marks were recorded on less than 2% of post-cranial bones; this is a fairly low proportion and suggests that bones were rapidly buried after being discarded.

Species represented

- 5.10.5 Approximately 21% of fragments are identifiable to species and element. It was possible to assign a further 46% to general size categories and the majority of these fragments fall into the sheep/goat/pig-sized category, which is consistent with the results for the identified part of the assemblage.
- 5.10.6 The following species have been identified and are listed in order of their relative abundance: sheep/goat (45%), domestic fowl (13%), cattle, pig, rabbit (10% each), fish (5%), duck, pigeon (2% each), fallow deer and jackdaw (<1% each).

5.10.7 The relatively large group of bones from context (116) includes 20 post-cranial elements from a minimum of five sheep/goat. This context also includes a number of sheep-sized vertebrae that have been split in half down the midline of the centra (i.e. dorso-ventrally); this is a common butchery technique in the post-medieval period and is still practised today.

5.10.8 Also of note are a fallow deer distal metatarsal from the topsoil of Trench 1 and a domestic fowl humerus with a healed fracture from a post-Victorian levelling/consolidation layer (105).

5.11 Worked Bone

5.11.1 Two worked bone fragments were found. The first has been identified as the end plate from a one-piece, double-sided bone comb (fill of Victorian exploration trench 511), of probable late medieval date or later (see MacGregor 1985, 81-2, fig. 47d-f).

5.11.2 The second is section of rib (topsoil, Trench 3) from a cattle or horse that has been roughly modified and worn through repeated use. The rib fragment is c.120.5mm long with rounded ends and a polished surface; numerous randomly distributed striations across both the dorsal and ventral surfaces probably represent damage caused during use rather than decoration. The precise function or use of this object is unclear and no direct parallels could be found.

5.12 Marine Shell

5.12.1 The marine shell consists largely of oyster, with one example each of cockle and mussel. The oyster includes both right and left valves, i.e. both preparation and consumption waste. The date of the shell is uncertain, but all came from post-medieval or modern contexts.

5.13 Potential of the assemblage

5.13.1 The evaluation produced a relatively small finds assemblage, with the majority derived from the topsoil, subsoil and other insecurely stratified contexts. Most of the finds are of post-medieval date; the medieval items all appear to have been redeposited. The presence of two prehistoric flint flakes and Romano-British stone and ceramic building material is of interest but none of this material was found *in situ*, and the building materials had probably been brought from other parts of London.

5.13.2 Not unexpectedly from a site such as this, the range of material culture was relatively restricted and few items could be directly related to the Abbey structure (stone architectural fragments, window glass and lead). Much of the remainder appears to comprise modern refuse. The pottery provides some evidence for the changing sources of supply, but the small quantities and redeposited nature of the assemblage does not provide any further potential for the refinement of the chronological sequence. Similarly, a small proportion of the animal bones could provide more detailed information concerning the age of, and biometric and butchery data for, the animals reaching the site, but this data is of little interpretative value and better studied from the far larger, better stratified assemblages retrieved from other parts of London.

6 DISCUSSION

- 6.1.1 Evidence from Trenches 1, 2 and 4 indicates that this area on the north side of the Abbey was used as a burial ground from at least the 11th to 13th centuries. The recovery of copper alloy coffin studs from each of the trenches may indicate that the area was again used for burial during the 17th and 18th centuries although no *in situ* remains belonging to this period were discovered. The three earliest, chalk block-lined graves (grave 411 and the two identified by Poole), all shared similar alignments, slightly at odds with that of the present Abbey. Poole interpreted this as evidence of their association with the earlier abbey, constructed by Edward the Confessor during the mid 11th century. This is now supported by the radiocarbon dating of skeleton (413) (Cal. AD 1025 – 1155) and the alignment of these graves may therefore provide some indication of the previously unknown orientation of this earlier abbey structure.
- 6.1.2 Although not independently dated, the five other *in situ* burials in Trenches 1, 2 and 4 shared their alignment with that of the present Abbey, while their location in relation to the 13th century sacristy suggests that they may be broadly contemporary with it. The density of the surviving *in situ* burial remains in the area of Trench 4 may appear fortuitously high, but it probably results from this area not having been subject to as much later disturbance as observed in the other trenches. The large quantity of redeposited material from Trench 2 suggests that the original density of burials in this area is likely to have been similarly high. Overall, the human remains covered a broad range of ages (neonate or infant to adult) while adults of both sexes were found in Trenches 1 and 4. This suggests a 'normal domestic' cemetery with no distinction in location on the basis of age or sex. It could be significant that only infant remains were found in Trench 3, closest to the Abbey walls (Daniell 1997, 128; Gilchrist and Sloane 2005, 66-7), but the presence of the remains of young children in the other trenches argues against a general 'zonation' of infants, and the nature and paucity of the evidence does not enable any confident statements to be made.
- 6.1.3 Although not investigated to its full depth, evidence from Trenches 1 and 3 confirmed Poole's description of the Abbey's raft foundation (1870, 122-123). Elements of the L-shaped sacristy, linking the north door of the nave with a second doorway into the north transept, with a separate room or building at the eastern end, were also identified in all five trenches. Differences in depth and construction had led Poole to conclude that these footings probably represented several different phases of construction and, perhaps, a number of separate buildings (Poole 1870, 128). However, the results of this evaluation have shown that despite certain differences (in surviving height, the sizes and stone types used - limestone, sandstone, chalk blocks as well as re-used architectural fragments - and the differential survival of facing blocks, for example), the use of a distinctive creamy yellow-brown sand and poorly-slaked lime mortar characterised and unified all elements of this structure. Although the northern end of the internal cross-wall (206) was found to be slightly later than, and bonded, to the outer, north wall (205), its southern end (123) appears to have formed part of a single build with the southern wall (124) of this structure, its courses more or less following around the corner. One deliberate break in the construction was noted, occurring in the southern wall (between elements 124 and 139) but its

significance remains uncertain. However, the evaluation provided little additional artefactual evidence with which to refine the chronology of this mid 13th century structure.

- 6.1.4 A sacristy is generally a room, occasionally an annex or separate building, where the clergy's vestments, altar hangings, linens and vessels are stored, where the clergy prepare and vest themselves for services and where other business of the church and care of its equipment may be done. In the mid 13th century, when Henry III ordered the construction of a new sacristy, Westminster Abbey was already provided with two. One of these, now St Faith's chapel, opened off the south transept, but is far too small and narrow to have served such a rich and important church, and it may have been reserved for the use of the Abbot himself (Bond 1909, 40). The second, now the Pyx chapel, was more securely located in the eastern arm of the cloister and more probably served as a treasury for the Abbey's treasures, sacred vessels, holy relics and wealth. Given the many precious items housed within them, sacristies are generally located on the south and east side of the church (eg. Chichester, Durham and Lincoln cathedrals), in the heart of and surrounded by the associated monastic complex for additional security. The positioning of Henry III's new sacristy, in a relatively insecure location on the north side of the Abbey, is therefore somewhat unusual. However, a consideration of other peculiarities in the plan of Westminster Abbey indicate that this was a very convenient location, providing easy access, via the north door, to the choir, unusually positioned at the eastern end of the nave, while the choir altar, under the crossing, and the eastern end of the Abbey could be accessed via the north transept. It is likely then, that this sacristy served the specific purpose of providing storage for the clergy's vestments etc and space for them to vest themselves and prepare for processions and services. The inner courtyard formed by the L-shaped plan would also have prevented the structure from completely blocking the light from the nave windows.
- 6.1.5 The builders of the 16th century prebendal houses clearly made extensive use of the foundations of the 13th century sacristy. Little evidence for their general nature and appearance was recovered, although it was apparent from foundation (208) that the outer, northern wall, at least, was of a substantial nature, incorporating re-used stone from earlier buildings. In Trench 1, the remains had been significantly adapted and altered during the Victorian period, masking their true nature and extent. Although the Victorian works, and the insertion of numerous, more modern services (drains, lightning conductors, electricity cables and lighting wells) over the subsequent 140 years, has clearly had a significant impact on the surviving archaeological remains, the Time Team evaluation successfully demonstrated their survival, character, condition and extent.

7 RECOMMENDATIONS

- 7.1.1 An article of up to c. 5000 words, summarising the works and describing their results, with three or four supporting illustrations, will be prepared in conjunction with Prof. Warwick Rodwell, based on the results presented in this assessment report. No further analysis of the artefacts is proposed. The assemblage has already been recorded to an appropriate archive level (eg. pottery fabric types, coin identification, animal bone species) as part of this

assessment and it is anticipated that the reports presented here will, with some modification be incorporated into the final publication.

- 7.1.2 This publication report will comprise a brief introduction considering the circumstances of the project and its aims and objectives, a results section detailing the structural remains, with finds information integrated into the text as appropriate, and a brief discussion of the results. It will be submitted to an appropriate journal (eg, LAMAS, the *Archaeological Journal* or *Post-Medieval Archaeology*) for publication.
- 7.1.3 The results of this project can also be incorporated into any ongoing research and re-development programmes, being undertaken by the Dean and Chapter and/or their appointed representatives.
- 7.1.4 The results of the evaluation will be included in an online entry through the OASIS project.

8 ARCHIVE

- 8.1.1 The archive, which includes all artefacts, written, drawn and photographic records relating directly to the investigation is undertaken, is currently held at the offices of Wessex Archaeology in Salisbury under the project number 71510. It comprises 11 boxes of finds, one file of records, 13 A3 and three A4 sheets of drawing film, eight X-ray plates, and digital data including photographic images. In due course, the archive will be deposited with the Museum Co-ordinator, Westminster Abbey Museum.

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Table 1: Finds totals by material type and by trench (number / weight in grammes)

Material	Tr 1	Tr 2	Tr 3	Tr 4	Tr 5	TOTAL
Pottery	30/556	42/826	9/108	18/92	14/177	113/1759
Medieval	5/31	6/52	1/3	10/60	2/7	24/153
Post-medieval	25/525	36/774	8/105	8/32	12/170	89/1606
Ceramic Building Material	37/11214	19/2878	-	21/1727	12/630	89/16449
Fired Clay	-	-	-	1/231	-	1/231
Clay Pipe	13/45	15/61	1/6	5/23	2/13	36/148
Stone	15/35158	1/287	1/641	2/275	2/1346	21/37707
Flint	-	1/6	1/4	-	-	2/10
Glass	89/1201	39/251	12/169	4/3	4/17	148/1641
Slag	2/14	-	4/239	-	-	6/253
Metalwork	54	157	24	17	36	288
Coins/tokens	1	2	-	1	-	4
Copper Alloy	10	37	1	6	10	64
Lead	16	64	10	5	24	119
Iron	27	54	13	5	2	101
Worked Bone	-	-	1/39	-	1/1	2/40
Animal Bone	234/1408	255/1489	23/177	73/679	63/494	648/4247
Marine Shell	5/43	4/39	-	9/28	-	18/110
Unknown	-	-	1/9	-	-	1/9

Table 2: Pottery totals by ware type

Date Range	Ware	No. sherds	Weight (g)
MEDIEVAL	Early medieval shelly ware	3	34
	Kingston-type ware	9	48
	London-type ware	3	24
	Misc. sandy ware	1	1
	South Herts greyware	1	5
	Tudor Green	2	4
	<i>sub-total medieval</i>	<i>19</i>	<i>116</i>
POST-MEDIEVAL	Border ware	5	141
	Cheam ware	4	31
	Coarse Border ware	1	6
	Cologne/Frechen stoneware	2	130
	Creamware	3	21
	English stoneware	13	316
	Metropolitan slipware	1	1
	Nottingham stoneware	1	5
	Pearlware	1	9
	Porcelain	2	7
	Post-med black-glazed ware	1	28
	Post-med redware	35	565
	Post-med slip-coated redware	5	65
	Refined whiteware	6	62
	Tinglazed earthenware	4	27
	Transfer-printed whiteware	9	220
	White salt glazed stoneware	1	9
<i>sub-total post-medieval</i>	<i>94</i>	<i>1643</i>	
OVERALL TOTAL		113	1759

Table 3: Summary of *in situ* human remains

context	cut	age/sex	pathology
132	133	juvenile c. 5-6 yr.	
224	215	adult c. 25-40 yr. male	
406		adult >18 yr. ?male	
408		juvenile c. 10-11 yr.	
409		adult >50 yr. male	extensive <i>ante mortem</i> tooth loss
413	411	adult c. 23-25 yr. male	mild calculus; very small dental carious lesion

Table 4: Radiocarbon date for sample taken from the left-femur of inhumation 413

Context	Material	Lab Code	Uncalibrated date	$\delta^{13}\text{C}$	$\delta^{15}\text{N}$	C:N Ratio	Cal. BC (2 sigma) 95.4%
413	Human bone (left femur)	UBA-13502	947±25	-19.3‰	11.78	3.24	cal. AD 1025-1155

APPENDIX 1: TRENCH SUMMARIES

bgl = below ground level

CBM = ceramic building material (brick and tile)

TRENCH 1		Type:	hand dug
Dimensions: 11.2 x 4.2m			
Context	Description		Depth
100	<i>Topsoil</i>	Topsoil; finds from the spoil-heap and initial hand-cleaning of the trench also included under this number.	0.2m
101	<i>Masonry</i>	Capping slab, probably re-used grave slab or memorial stone associated with the cellar reputed to have been part of the early post-medieval structures on the site. 1.7m long, 0.95m wide, 0.1m thick. Tied into wall foundation (117); traces of mortar (145) on upper surface indicate that the foundation continued over it.	0.1m surface at 4.85m aOD
102	<i>Layer</i>	Rubble fill of stone-lined structure (110); mixed, banded material (clean yellow-brown sand/dirty dark grey-brown sandy loam) with common to abundant broken stone, including part of Italian Carrara marble paving / funerary slab; sweet wrappers and crisp packets indicate modern date. Below (100); above (116).	0.05m
103	<i>Layer</i>	Rubble layer; dark grey-brown sandy loam with abundant broken stone and brick fragments up to 0.15m across. Equivalent to (121); below (119); above (104).	0.25m
104	<i>Structure</i>	Solid, pale grey-brown concrete roof to cellar; under (103) and (121).	-
105	<i>Layer</i>	Subsoil/rubble layer in SE corner of trench; light grey-brown sandy loam; very common broken stone and CBM fragments, pottery, animal bone, metal. Probably accumulated after the 1869/70 works. Cut by modern drainage trench (106) and lightning conductor (112); equivalent to (111), (114), (119), (120) and (122); above (115).	0.44m surface of SE corner at 4.88m aOD
106	<i>Cut</i>	Cut of modern drainage trench; straight, vertical sides, flat base, 0.4m wide; 0.30m deep. Cut from base of topsoil; at eastern end of trench, base coincides with surface of raft foundation (115) of the Abbey itself. Filled with (107), (108), (109); cuts (105)/(111), walls (141) and (142).	-
107	<i>Layer</i>	Fill of drainage trench (106); clean yellow builders' sand surrounding plastic drain pipe (108). 50mm deep; replaces (109) above raft foundation (115) of Abbey.	0.12m
108	<i>Drain</i>	Modern brown plastic drain pipe in cut (106); 120mm diameter. For most of exposed length, rests on surface of gravel (109), with sand (107) above.	-
109	<i>Deposit</i>	Basal fill of drainage trench (106) (but replaced by 107 over raft foundation 115); yellow-brown sand with abundant flint gravel (<30mm).	0.05m
110	<i>Structure</i>	Rectangular 1870s entrance chamber into Scott's cellar, created to house "new warming apparatus" for Abbey. Built within and adapted from circular staircase of early post-medieval (Tudor) prebendal house, using large rectangular stone blocks (0.5m x 0.2m) in regular courses bonded by hard grey cement. Occasional bricks, roof tiles and smaller stone pieces also used to form corners and fill gaps. 1.7m x 1.06m x 1.45m (min.). One large block with relief carving, used in the east-facing elevation, may be of Romano-British date and re-used here. Filled with (102), (116), (146) and (147).	-
111	<i>Layer</i>	Subsoil/rubble 0.7m wide located between (and cut by) modern service trenches (106) and (112); mid grey-brown sandy loam mottled with patches of clean yellow builders' sand with sparse flint gravel and rare chalk pieces up to 40mm across, CBM fragments and dust, crushed mortar, redeposited human bone and charcoal flecks.	0.06m

		Probably accumulated after 1869/70 works. Equivalent to (105), (114), (119), (120) and (122); above (126).	
112	<i>Cut</i>	Cut of lightning conductor trench; 0.25m wide, 0.12m deep with straight, vertical sides and flat base coinciding with surface of slab (101).	-
113	<i>Layer</i>	Fill of lightning conductor trench (112); very dark grey sandy loam with rare flint gravel <40mm across, crushed brick and mortar fragments. Lightning conductor consisted of copper band 25mm wide and 5mm thick.	0.12m
114	<i>Layer</i>	Subsoil/rubble located south of entrance chamber (110); mid grey-brown sandy loam mottled with patches of clean yellow builders' sand with sparse flint gravel and rare chalk pieces up to 40mm across, crushed CBM, mortar and charcoal flecks. Probably accumulated after the 1869/70 works. Equivalent to (105), (111), (119), (120) and (122); above (126).	0.06m
115	<i>Structure</i>	Reigate stone raft foundation of medieval Abbey. Composed of at least 4 corbels; the upper one (0.24m wide, 0.56m high) built from 2 courses of neatly dressed (intended to be seen?) rectangular blocks 0.44m x 0.3m x 0.28m bonded by pale yellow-brown sand and poorly slaked lime mortar. Corbels 2 (0.35m wide, 0.2m high) and 3 (0.27m wide, 0.25m high) were built from single courses of less carefully finished blocks with mortar apparent on their faces and treads. Only the tread (0.17m wide) of fourth step exposed. On north side of trench, stone facing blocks had been removed from uppermost corbel, probably during 1869/70 construction of store room/cellar, indicating that core was composed of re-used ashlar and small (up to 0.1m across) unworked stones set in fairly regular courses c. 0.1m high and bonded by similar pale yellow-brown sand and poorly slaked lime mortar.	surface at 4.8m aOD
116	<i>Layer</i>	Rubble backfill of entrance chamber (110); light grey-brown sandy loam with abundant broken building stone, architectural fragments, CBM, pottery, glass, animal bones and modern finds including nails, wire, tin can, plastic sheeting and crisp packet advertising a competition with a closing date in 1976.	1m
117	<i>Structure</i>	Post-medieval/modern brick wall stub; cut and tied into walls (118) and (142) so that it was constructed partially (eastern end) on the same line as the earlier wall (142) but not as wide. Exposed part of south face composed of single re-used limestone block (530mm x 170mm x 70mm) resting on and bonded into earlier wall (142), so that the two faces coincided. On north side, exposed upper courses composed of bricks with headers forming face of wall, overlying course of re-used limestone blocks (0.45m long, 0.14m high). At western end, slab (101) replaced upper courses of bricks. Bonded by dull grey-brown, fine sandy mortar. Exposed length 0.65m; surviving height 0.2m.	-
118	<i>Structure</i>	Post-medieval/modern wall defining south side of concrete capping (104); north face only exposed, most of core covered by slab (101). Composed of single course of irregular dressed, broken and unshaped limestone blocks with smaller stones making up height of larger ones, set in a light grey sandy lime mortar. Appears to tie into upper part of entrance chamber (110), but relationship with wall (117) unclear; they may be the same. Exposed length 2.3m; height 0.1 – 0.3m.	-
119	<i>Layer</i>	Subsoil/rubble layer in NE corner of trench; mid grey-brown sandy loam with common flint gravel <50mm across, small CBM fragments, crushed mortar, animal bones and charcoal flecks. Equivalent to (105), (111), (114), (120) and (122). Below (100); over (103).	0.05m
120	<i>Layer</i>	Subsoil/rubble layer located over and to south of medieval east-west	0.05m

		wall (124); mid grey-brown sandy loam with rare broken stones up to 0.15m across, chalk fragments and flint gravel <50mm across, broken CBM fragments, crushed mortar and charcoal flecks. Equivalent to (105), (111), (114), (119) and (122).	
121	Layer	Brick rubble layer; brick red sandy loam with abundant crushed and broken bricks up to 0.1m across. Equivalent to (103); below (122); over (104).	0.18m
122	Layer	Subsoil/rubble layer located over medieval wall (123) and to the north of wall (124); very dark grey-brown sandy loam with rare broken stones <0.1m across, sparse broken CBM, crushed mortar and chalk pieces. Equivalent to (105), (111), (114), (119) and (120); below (100); above (121) and (123).	0.37m
123	Structure	North-south wall foundation, 0.4m wide; four courses of undressed limestone blocks (the largest 0.38m across) bonded by creamy yellow-brown sand and poorly-slaked lime mortar exposed in west face (east face not examined), surviving to a height of 0.48m. Composition of core probably similar but largely covered by mortar. Part of single build with wall (124), and together with wall (206) in Trench 2, forms part of an internal division with the 13th century sacristy building.	-
124	Structure	East-west wall foundation, 0.8m wide; five-six courses of rough, undressed limestone blocks, up to 0.2m across, bonded by creamy yellow-brown sand and poorly-slaked lime mortar survive in north face to a height of 0.6m. (south face not exposed). Part of a single build with wall (123) – courses more or less follow around the corner; same mortar used. Relationship with (139) uncertain (see 139 for further discussion). Foundation of the 13th century sacristy building.	-
125	Layer	Modern builders' sand associated with post-medieval/modern alterations to entrance chamber (110) and associated cellar; clean yellow-brown sand; not fully excavated, continued down below the tread of the fourth corbel of raft foundation (115); less brightly coloured but otherwise similar to (126).	0.5m (min)
126	Layer	Modern builders' sand associated with the filling/sealing of entrance chamber (110); clean, stone-free orange-brown sand. Surface undulates (never levelled off) so depth variable – deepest close to entrance chamber (110) and continues under the outermost stone blocks of this structure.	0.18 – 0.22m surface at 4.43 – 4.54m aOD
127	Layer	Subsoil between the first two piers of the north transept; dark grey-brown sandy loam with rare flint gravel and chalk pea-grits <30mm across, crushed bricks, mortar and charcoal flecks. Below (100); above raft foundation (115).	0.19m surface at 4.89m aOD
128	Layer	Rubble lens adjacent to the second pier of the north transept; very dark grey-brown sandy loam with common stone fragments up to 80mm across and one piece of clay tobacco pipe stem from the base of the layer. Below (100); above (129).	0.11m surface at 4.87m aOD
129	Layer	Subsoil between the first two piers of the north transept; dark grey-brown sandy loam with rare flint gravel and chalk pea-grits <30mm across, crushed bricks, mortar and charcoal flecks. Below (128); above raft foundation (115).	0.13m
130	Layer	Fill of modern drainage trench (106); dark grey-brown sandy loam with rare to sparse flint gravel <10mm across. Largely replaces sand (107) and flint gravel (109) layers over raft foundation (115) of Abbey – although small amount of sand (107) used under pipe itself. Below (100), above (108).	0.1m
131	Layer	Fill of Grave (133); soft, orange-brown, slightly gritty, silty sand with iron nail located immediately south of proximal end of radius of Skeleton (132); this was not collected. Below (136), above human skeleton (132).	0.05m

132	<i>Skeleton</i>	Human skeleton in Grave (133); parts of lower right arm and hip only evident in the edge of the trench. Juvenile – 5-6 years old – appeared supine and extended; west-east alignment. Left <i>in situ</i> . Below (131).	-
133	<i>Cut</i>	Grave; not fully excavated but apparently rectangular and aligned east-west. Eastern edge very difficult to define. Filled with (131) and (132); cuts layer (134).	0.05m
134	<i>Layer</i>	Layer cut by Grave (133); soft grey-orange silty sand. Surface only exposed; small iron nail and disarticulated 5 th metatarsal were noted but not collected. Perhaps represents top of natural alluvial sands and gravels of the area; below (136).	– Surface at c. 4.15m aOD
135	<i>Layer</i>	Oval patch of more compacted mid orange-brown silty sand with occasional flints <50mm across and redeposited human bone fragments. Surface only exposed; not further investigated but apparently below (136).	-
136	<i>Layer</i>	Redeposited sand; mid orange-brown silty sand with rare chalk flecks and flint gravel pieces, crushed mortar and charcoal flecks. Continues beyond limits of excavation in corner formed by walls (123) and (124).	0.55m (min)
137	<i>Structure</i>	Part of early post-medieval (Tudor) stairwell visible in north- and west-facing elevations of entrance chamber (110). Part of one stair tread survived <i>in situ</i> in north-facing elevation, together with few randomly coursed facing blocks (roughly dressed rectangular limestone blocks bonded with pale brown sand and poorly-slaked lime mortar) in courses immediately above it. Core composed of limestone rubble with rare brick and flat roof tile fragments bonded with the same mortar. Stairwell was mostly destroyed during 1869/70 works when (110) was created. In turn, construction of stairwell chopped through and partially built on earlier 13th century wall foundation (153). Original entrance to stairwell on west side (now blocked), while north side probably provided access into low-height cellar, later adapted to house Abbey's heating system.	-
138	<i>Layer</i>	Lens of clean, light yellow sand located adjacent to north face of wall (124). Not fully investigated.	0.05m (min)
139	<i>Structure</i>	East-west wall foundation; probably same as (152) but separated from it by unexcavated modern ducted electricity cable trench; survives as narrow band (0.2m wide) on east side of service trench. Composed of undressed limestone blocks bonded with creamy yellow-brown sand and poorly-slaked lime mortar, surviving to height of at least 0.48m. Western end of (124) and eastern end of (139) show dirty line (10mm wide) between them, with stones of (139) being aligned in opposite direction. (139) also slightly wider (c. 1m) than (124) (c. 0.8m), while on west side of modern cable trench, east-west wall foundation (152) same width as (139). Junction between (124) and (139) definitely represents break in construction, but reasons for this remain uncertain; differences in width could simply result from loss/robbing of extra stone or two from rough, irregular north-face of foundation (124). Foundation of 13th century sacristy building.	-
140	<i>Layer</i>	Mortar, irregular patch (0.7m x 0.7m) of dull grey-green sandy mortar on surface of wall foundation (124), indicating re-use of earlier, medieval, foundation for later wall, probably belonging to one of the 16th century structures known to have occupied the Site. Below (120); above (124); equivalent to (143), (144) and (145).	30mm
141	<i>Structure</i>	Wall foundation on top corbel of Abbey raft foundation (115), adjacent to second pier of north transept; single course (0.15m high) of roughly dressed and undressed chalk and limestone blocks bonded with creamy yellow-brown sand and poorly-slaked lime mortar. Part of same build as foundation (142) (mortar on raft provided evidence	-

		of this) but cut by modern drainage trench (106). Foundation of the 13th century sacristy building.	
142	<i>Structure</i>	East-west wall foundation; 0.75m wide, 0.48m high (min), four courses exposed. Faced with dressed and undressed chalk and limestone blocks, including Reigate stone door jamb (with 45° chamfer and right-angled rebate), re-used to form NE corner of foundation, bonded with creamy yellow-brown sand and poorly-slaked lime mortar. Core composed of chalk and limestone rubble in similar mortar. Eastern end sits on Abbey raft foundation (115); to west, line of this foundation survives as single course below post-medieval foundation (117) and further west as foundations (124), (139) and (152). Part of same build as foundation (141) (mortar on raft provided evidence of this) but cut by modern drainage trench (106). Foundation of the 13th century sacristy building.	-
143	<i>Layer</i>	Mortar; irregular patch (0.62m x 0.23m) of dull grey-green sandy mortar on surface of raft foundation (115), indicating re-use for a later wall, probably belonging to one of the 16th century structures known to have occupied the Site. Below (127); above (115); equivalent to (140), (144), (145).	20mm
144	<i>Layer</i>	Mortar; small irregular patch (0.2m x 0.14m) of dull grey-green sandy mortar on the surface of raft foundation (115), indicating re-use for later wall, probably belonging to one of the 16th century structures known to have occupied the Site. Below (127); above (115); equivalent to (140), (143), (145).	20mm
145	<i>Layer</i>	Mortar; irregular patch (0.65m x 0.3m) of dull grey-green sandy mortar on the surface of capping slab (101), indicating re-use for later wall, probably belonging to one of the 16th century structures known to have occupied the Site. Below (100); above (101); equivalent to (140), (143), (144).	20mm
146	<i>Layer</i>	Fill of entrance chamber (110); very dark grey-brown sandy silt with charcoal flecks and very crushed brick fragments. May represent short-lived stabilisation horizon or result from gradual accumulation of soil and organic material washed through highly permeable rubble fills above (102, 116), and trapped on the surface of less permeable material (147) below.	40mm
147	<i>Layer</i>	Fill of entrance chamber (110); greyish-orange sandy silt with common chalk and flint gravel <40mm across, crushed brick and mortar fragments. Not fully investigated but continues underneath stones of Tudor stairwell (137) surviving within this structure.	0.12m (min)
148	<i>Layer</i>	Soil and rubble layer; dark grey-brown sandy loan with sparse chalk and flint gravel pieces <40mm across, crushed brick and mortar fragments and charcoal flecks. Not fully investigated. To south of wall foundations (117) and (142), copper lightning conductor (which, at east end of trench lay on surface of raft foundation 115 and wall foundation 117) was surrounded by this material, lying just above third corbel of raft (115). It remains unclear whether this material filled the lightning conductor trench (no cut could be seen disturbing the subsoil (127) in west-facing section of trench), or simple represents a rubble layer associated with 1869/70 groundworks and creation of cellar/entrance chamber. Cut by modern drainage trench (106).	0.5m (min)
149	<i>Layer</i>	Redeposited soil and rubble layer located to east of modern drainage trench (106) and lightning conductor (148); mid grey-brown sandy loan with chalk and flint gravel pieces <40mm across, occasional broken limestone fragments, brick rubble, crushed mortar and charcoal flecks. Not fully investigated.	0.1m (min)
150	<i>Layer</i>	Fill of (151); mid grey loamy sand with chalk and flint gravel pieces <40mm across, occasional broken limestone fragments up to 0.3m across, brick rubble, crushed mortar and charcoal flecks. Full	0.37m

		northern extent not investigated but continues beneath the fills of drainage trench (106).	
151	<i>Cut</i>	Modern north-south linear feature with straight, vertical sides and flat base, 0.5m wide and 0.37m deep. Eastern side coincides with face of first corbel of Abbey's raft foundation (115). Western side approximately two-thirds of way across tread of second corbel. Cuts subsoil/rubble layer (105); filled with (150).	-
152	<i>Structure</i>	East-west wall foundation; 1m wide, 0.40m high (min), four courses exposed. Faced with roughly dressed and undressed limestone blocks, bonded with creamy yellow-brown sand and poorly-slaked lime mortar. Core composed of similar limestone rubble and mortar. Continues to west, beyond limits of excavation. Of same width as foundation (139); likely to be part of same build but foundation has been cut through by modern electricity cable trench (unnumbered), hence the (139)/(152) division. Stone blocks used in the construction of (139)/(152) slightly smaller than those used in (124), the continuation of this foundation further east, indicating break in build, although reasons for this remain unclear. Below (120). Foundation of the 13th century sacristy building.	-
153	<i>Structure</i>	East-west wall foundation 0.54m high, seen in west-facing elevation of entrance chamber (110). Composed of limestone blocks, bonded with creamy yellow-brown sand and poorly-slaked lime mortar. On same alignment as foundations (124) and (141), suggesting all three are part of the same build. Foundation of the 13th century sacristy building. Under (137).	-
154	<i>Layer</i>	Subsoil/rubble at western end of trench, to north of foundation (152). Mid grey-brown sand with very rare stone and flint gravel up to 50mm across, crushed CBM, oyster shells and charcoal flecks. Cut by modern electricity cable trench (unnumbered); not fully investigated.	0.3m (min)

TRENCH 2		Type:	hand dug
Dimensions: 2.75 x 2.0m			
Context	Description	Depth	
200		NOT USED	
201	<i>Topsoil</i>	Topsoil; finds from spoil-heap and initial hand-cleaning of trench also included under this number.	0.15m
202	<i>Layer</i>	Soil and rubble fill of 19th century trench (218); dark brown sandy loam with rare limestone fragments <0.1m across, broken brick and tile and pottery. Below (201).	0.7m
203	<i>Layer</i>	Fill of construction trench (212); yellow-brown sandy loam with rare limestone fragments, chalk and flint gravel. Located in thin (0.05-0.1m wide) strip against north face of wall (208), continuing around west face to fill sub-circular recess cut into north side of earlier wall (205).	0.5m
204	<i>Layer</i>	Soil and rubble layer located in angle between walls (208) and (205) and partially covering surviving surfaces. Mid brown sandy loam with sparse flint gravel, chalk flecks and broken stones <0.1m across. Depth variable. Below (201); equivalent to (219).	0.1 - 0.23m
205	<i>Structure</i>	East-west wall foundation, 1.1m wide; up to nine courses (c. 1m high) exposed in south face. Core composed of chalk and limestone rubble bonded with creamy yellow-brown sand and poorly-slaked lime mortar, and faced with well-dressed, regularly-coursed chalk and limestone blocks. South side survived in better condition than north, which had suffered considerable robbing and disturbance, being partially cut away by construction cut (212) for 16th century wall (208). Two courses of facing stones were exposed in this north face	-

		and could be seen in plan continuing to east beneath later wall (208). On the south side, two courses of small, square limestone facing blocks survived to a height of 0.3m above a 0.13m wide corbel. These continued across the line of north-south wall (206), indicating that although two foundations are probably broadly contemporary, (206) is slightly later than, and is bonded, to (205). Part of 13th century sacristy building.	
206	Structure	North-south wall foundation, at least 0.55m wide; three courses, surviving to a height of 0.34m, were exposed in the west face but the foundation continued down beyond the limits of the investigation. Core composed of sandstone rubble bonded with creamy yellow-brown sand and poorly-slaked lime mortar, faced with roughly faced, rectangular sandstone blocks. The eastern side was disturbed and probably partly cut away by a modern (un-numbered) service trench. Bonded to the south face of wall (205), and, together with wall (123) in Trench 1, forms part of internal division with 13th century sacristy building.	-
207	Layer	Soil/rubble layer; brownish-grey sandy loam with sparse flint gravel, chalk grits and rare broken stone and brick rubble, crushed mortar fragments and disarticulated human bones. Cut by trench (218); above (214). Probably of 19th century origin.	0.3m
208	Structure	Wall foundation built within construction cut (212); aligned east-west, it extends 0.7m into the trench before terminating in squared end, and continues to east beyond limits of excavation. North face only exposed, wall (208) 0.8m wide with four courses surviving to height of 0.66m. Built on and cut into remnants of earlier, 13th century, wall foundation (205). Facing material consisted of re-used rectilinear limestone blocks with sawn, pecked and dressed surfaces, including one large Purbeck marble slab (0.65m x 0.28m x 0.1m) forming NW corner of uppermost surviving course. More rubbly elements used within core of wall and whole was bonded with dull grey-green sandy mortar comparable with that of 16th century date seen in Trench 1 (contexts 140, 143, 144 and 145).	-
209	Layer	Soil and rubble layer located in NE corner of trench; grey-brown sandy loam with rare flint and chalk gravel, sparse limestone building rubble and mortar (some adhering to stone fragments) of same recipe as that used in construction of wall foundations (205) and (206). Surface of this layer slopes down from north to south. Probably rubble tossed aside in 16th century when foundation (205) was chopped through to insert wall (208). Cut by trench (218).	0.17m
210	Layer	Redeposited soil layer in NE corner of trench; dark grey-brown sandy loam with rare flint and chalk gravel, stone building rubble and mortar (some adhering to stone fragments) of same recipe as that used in construction of wall foundations (205) and (206), broken bricks, tiles and roofing slates. Surface of this layer slopes down from north to south under (209); not fully investigated.	0.25 – 0.4m (min)
211	Layer	Redeposited sand in SW corner of trench; yellow-brown sand with common chalk pieces <80mm across. Depth variable; this layer dips down over (223) below, falling into the 0.08m wide gap between (220) and (223) – possibly fill of construction trench for wall foundation (205), robber trench or similar, edges of which were not seen.	0.15 – 0.5m
212	Cut	Construction cut for wall foundation (208); approximately 1m wide and 0.65m deep with flattish base, this trench chopped through earlier wall foundation (205), rear of facing blocks of south side of wall (205) seeming to have formed southern side of this cut. The northern side was cut away by trench (218).	-
213		NUMBER NOT USED	

214	<i>Layer</i>	Fill of grave (215); light brown sandy loam with rare flint gravel up to 40mm across. Cut by trench (218).	0.2m
215	<i>Cut</i>	Grave; edges unclear – south side and east end cut away by trench (218), western end located beyond limits of excavation. Upper part of north side had also been destroyed by the possible feature containing (207). Filled with (214) and (224).	-
216		NOT USED	
217		NOT USED	
218	<i>Cut</i>	Trench of fairly recent origin; vertically sided with flat base, 0.2 – 0.4m wide; up to 0.7m deep. Cut from base of topsoil; crosses trench from east to west on north side of and parallel with wall foundations (205) and (208). Southern edge seems to coincide with poorly-preserved north face of wall (205), but (208) is not affected by it (203 fills the space between). This trench may be associated with robbing of (205), but could have contained some sort of modern services (now removed) or is perhaps another of Scott's exploration trenches. Cuts grave (215).	-
219	<i>Layer</i>	Soil/rubble layer north of wall foundations (205) and (208); mid brown sandy loam with rare flint gravel and chalk pieces, stone rubble, broken bricks and tiles and crushed mortar fragments. Below (201); equivalent to (204).	
220	<i>Layer</i>	Fill of Scott's exploration trench (221); dark brown sandy loam with sparse chalk and flint gravel, broken stone and CBM, crushed mortar and redeposited human bone. Below (204); above (222).	0.34m
221	<i>Cut</i>	Part of Scott's system of exploration trenches; vertically sided, L-shaped trench, 0.4 – 0.5m wide, and at least 1m deep, adjacent to west face of wall foundation (206) and south face of wall foundation (205). Filled with (220) and (221); cuts (211) and (223).	-
222	<i>Layer</i>	Fill of Scott's exploration trench (221); light grey-brown sandy loam with very common chalk pieces (<50mm across), broken stone and CBM, crushed mortar and part of 19th century drainpipe found towards base of layer. Soft, fairly loose material with brick rubble concentrated in upper part of layer and greater proportion of sand than overlying material (220).	0.6m
223	<i>Layer</i>	Redeposited sand; seen in and against north-facing section in SW corner of trench. Various tip-lines of light/dark grey-brown sand with chalk and flint gravel (<40mm across), indicate that this material was tipped in from westerly direction, possibly to fill an earlier feature (but edges of this not seen). Below (211); cut by 19th century exploration trench (221).	0.7m
224	<i>Skeleton</i>	Human skeleton in grave (215); very incomplete with only left side of body (from shoulder to knee and part of foot) surviving, rest cut away by trench (218). Aligned west to east; extended and supine. Adult male; c. 25 – 40 years old. Below (214). Bones recorded <i>in situ</i> and not lifted.	-
225	<i>Layer</i>	Redeposited sandy soil seen only in NE corner of trench; dirty yellow-brown loamy sand with sparse chalk, rare flint gravel and CBM chips. Surface of this material slopes down from north to south but northern edge destroyed by trench (218). Below (219); above (209).	0.2m

TRENCH 3		Type:	hand dug
Dimensions: 2 x 2m			
Context	Description		Depth
300	<i>Unstrat.</i>	Finds from the spoil-heaps.	-
301	<i>Topsoil</i>	Topsoil; finds from the initial hand-cleaning of the trench also included under this number. Above (302).	0.15m

302	<i>Layer</i>	Subsoil; dark brown sandy loam with rare chalk and flint gravel, broken stone and ceramic building materials, mortar and charcoal flecks. Cut by modern storm drain (unnumbered).	0.45m
303	<i>Layer</i>	Soil/rubble layer overlying 19th century surface (304); very dark grey sandy loam with Victorian pottery (not collected), iron and glass, charcoal, ash and clinker. Fill of feature (313); above (305).	0.4m
304	<i>Surface</i>	Concrete and slate surface filling cut 313, located in NE corner of trench and continuing beyond limits. Not fully investigated. Probably of 19 th or early 20 th century date.	-
305	<i>Layer</i>	Fill of feature (313); narrow strip 0.9m long and 0.18m wide of dark yellow-brown sandy loam with rare chalk and flint gravel, crushed mortar and small CBM chips, located between concrete surface (304) and wall foundation (311). Surface only exposed; not excavated. Below (303).	-
306	<i>Layer</i>	Soil/rubble layer in NW corner of the trench; dark yellow-brown sandy loam with rare flint gravel, crushed mortar and small CBM chips. Not fully investigated; could be fill of another of Scott's exploration trenches. Below (302).	0.1m (min.)
307	<i>Layer</i>	Fill of modern storm drain (unnumbered); grey-brown sandy loam with rare small stone and CBM fragments and crushed mortar.	0.6m
308	<i>Layer</i>	Debris, probably derived from collapse/demolition/robbing of wall foundation (311), resting on uppermost corbel of Abbey nave raft foundation (312). Loose layer of creamy yellow-brown sand and poorly-slaked lime mortar with rare broken stone and ceramic building material fragments up to 0.1m across. Equivalent to (309).	0.16m
309	<i>Layer</i>	Debris, probably derived from collapse/demolition/robbing of wall foundation (311), resting on uppermost corbel of Abbey nave raft foundation (312). Creamy yellow-brown sand and poorly-slaked lime mortar with small amount of dark brown sandy loam and rare broken stone fragments up to 0.1m across. Equivalent to (308). Surface exposed but not further investigated.	-
310	<i>Layer</i>	Soil/rubble layer; dark grey sandy loam with rare broken stones up to 0.15m across and common fragments of grey sand and poorly-slaked lime mortar. May fill cut feature or other disturbance on west side of wall foundation (311) (between 311 and 309), most probably of Victorian date, its alignment fitting with the band of concrete (314) added to the surviving surface of (311) further north by Scott.	-
311	<i>Structure</i>	North-south wall foundation; 0.6m wide and 0.1m high, resting on uppermost corbel of Abbey's raft foundation (312). Composed of undressed limestone pieces up to 0.15m across, bonded with creamy yellow-brown sand and poorly-slaked lime mortar; no facing stones survived. Cut by modern storm drain and feature (313). Part of 13th century sacristy building.	-
312	<i>Layer</i>	Hard, dense, compacted layer of undressed limestone and chalk fragments bonded with creamy yellow-brown sand and poorly-slaked lime mortar, similar to that used in the construction of the 13th century sacristy building. Appears to extend below fourth course of roughly dressed blocks forming part of Abbey's buttress and projects at least 0.45m from its north face but cut by modern storm drain. Part of Abbey's foundation, possibly adapted/alterd in the 13th century when sacristy constructed.	0.2m surface at 4.62m aOD
313	<i>Cut</i>	Feature cut from base of topsoil to insert concrete and slate base/structure (304); exposed area is subsquare with straight, almost vertical sides (south and west; north and east edges beyond limits of trench). At least 0.4m deep; filled with (303), (304) and (305); cuts wall foundation (311).	-
314	<i>Structure</i>	Concrete; narrow (0.2m wide) band of light grey cement mortar with common flint ballast, resting on surface of wall foundation (311).	0.05m

		Associated with the works of Scott in 1869/70, marking position of 13th century sacristy building in his garden design.	
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TRENCH 4		Type:	hand dug
Dimensions: 1.6 x 3.0m			
Context	Description	Depth	
400	<i>Topsoil</i>	Topsoil; finds from the spoil-heap and initial hand-cleaning of trench also included under this number. Above (401).	0.2
401	<i>Layer</i>	Levelling/consolidation layer forming a subsoil; dark grey sandy loam with moderate flint gravel <30mm across, brick, tile and pottery pieces, disarticulated human bone. Below (401); above (402).	0.25m
402	<i>Layer</i>	Redeposited natural; orange-brown sandy loam with moderate flint gravel <30mm across, brick, tile and pottery pieces, disarticulated human bone. Full depth not investigated. Below (401); above (403), (405).	0.55m (min)
403	<i>Structure</i>	Concrete; 0.6m wide band of light grey cement mortar with common flint ballast resting on surface of wall foundation (404). Associated with works of Scott in 1869/70, marking position of 13th century sacristy building in his garden design. Below (402); above (404); equivalent to (503).	0.15
404	<i>Structure</i>	East-west wall foundation continuing the line of (139)/(152) in Trench 1, with part of southerly return running towards north wall of Abbey nave (aligns with 311 in Trench 3); 0.7m wide and 0.4m high. Composed of three courses of roughly squared chalk blocks with some Greensand used in corner, bonded with creamy yellow-brown sand and poorly-slaked lime mortar. Fill of (416); above (415). Part of the 13th century sacristy building.	-
405	<i>Layer</i>	Fill of grave (407); mid grey-brown sandy loam with rare rounded flint gravel <30mm across, chalk grits and disarticulated human bone. Below (402); above skeleton 406; not fully excavated.	0.2m
406	<i>Skeleton</i>	Human skeleton in grave (407); incomplete with only area of lower legs exposed (left side partially preserved; right mostly missing). Aligned west to east; extended and supine. Adult; more than 18 years old; probably male. Below (405). Bones recorded <i>in situ</i> and not lifted.	-
407	<i>Cut</i>	Grave; eastern end only exposed, continuing beyond limits of trench to west, 0.55m wide and at least 0.2m deep. Filled with (405) and (406); cuts (417).	-
408	<i>Skeleton</i>	Human skeleton; head and upper part of torso only exposed; no grave cut apparent. Aligned west to east; extended and supine. Juvenile, c. 10 – 11 years old. Below (417). Bones recorded <i>in situ</i> and not lifted.	-
409	<i>Skeleton</i>	Human skeleton; skull and small part of right shoulder only exposed; no grave cut apparent. Aligned west to east; supine and probably extended. Adult (more than 50 years old) male; extensive <i>ante mortem</i> tooth loss. Below (417). Bones recorded <i>in situ</i> and not lifted.	-
410	<i>Layer</i>	Probable Victorian intrusion into fill (412) of grave (411); orange-brown sandy loam with rare flint gravel <30mm across, clay tobacco pipe stem fragments and pottery. Located at eastern end of grave (over the lower limbs of skeleton 413). Below (402); above (412).	0.25m
411	<i>Cut</i>	Grave; aligned WNW/ESE; roughly rectangular and lined with large, neatly-dressed chalk blocks (recorded as context 414) The chalk blocks not removed during these investigations, so full dimensions and nature of base/sides not established. Filled with (410), (412), (413) and (414).	-
412	<i>Layer</i>	Fill of grave (411); yellow-brown sandy loam with rare flint gravel	0.15m

		<30mm across, one tiny sherd of medieval pottery and disarticulated human bone, some very degraded. Below (410); above (413).	
413	<i>Skeleton</i>	Human skeleton in grave (411); complete, aligned WNW/ESE, extended and supine with hands under pelvis. Adult male, 23 – 25 years old; mild calculus and very small dental carious lesion. Samples for radiocarbon dating (Cal. AD 1025 – 1155) and isotope analysis removed from left femur, but otherwise bones recorded <i>in situ</i> and not lifted. Below (412).	-
414	<i>Layer</i>	Chalk block lining of grave (411); single row of large (c. 0.2m across) chalk blocks with vertical joints bonded with pale yellow sand and lime mortar. Small sondage excavated on south side of grave indicated that back of these blocks were angled, suggesting that they had been cut away by construction trench (416). Lining did not extend around eastern end of grave (foot area), more or less coinciding with area of probable Victorian intrusion (410), but unclear whether stones were robbed at this time or never existed in this area.	0.35m
415	<i>Structure</i>	Mortared rubble footing for wall (404); fill of construction trench (416). Composed of random, uncoursed chalk, flint and Greensand rubble bonded with creamy yellow-brown sand and poorly-slaked lime mortar; up to 0.65m wide and at least 0.6m deep; not bottomed. Part of the 13th century sacristy building.	-
416	<i>Cut</i>	Construction trench associated with wall (415)/(404); north side straight and steeply-sloping but south side and base not examined as (415)/(404) not removed. Cuts chalk lining of grave (411); filled with (404), (415), (420).	-
417	<i>Layer</i>	Layer overlying skeletons (408) and (409) and probably filling grave although no cut(s) seen; mid brown silty loam with occasional chalk and charcoal flecks, crushed mortar, charcoal. Cut by grave (407).	0.2m - 0.4m
418	<i>Layer</i>	Soil/rubble layer; light brown sandy loam with small chalk pieces and crushed mortar fragments. Not fully excavated and relationships uncertain (especially with grave 411) but occurred only in eastern end of trench, sloping down to south, probably cut by (416).	0.08m
419	<i>Layer</i>	Disturbed natural; light reddish brown silty sand with rare chalk and flint gravel, charcoal and mortar flecks. Not bottomed. Below (418); cut by (411) and (416).	0.4m +
420	<i>Layer</i>	Fill of construction trench (416); light grey sandy loam with small chalk pieces <0.1m across and crushed mortar. Below (402).	0.3m

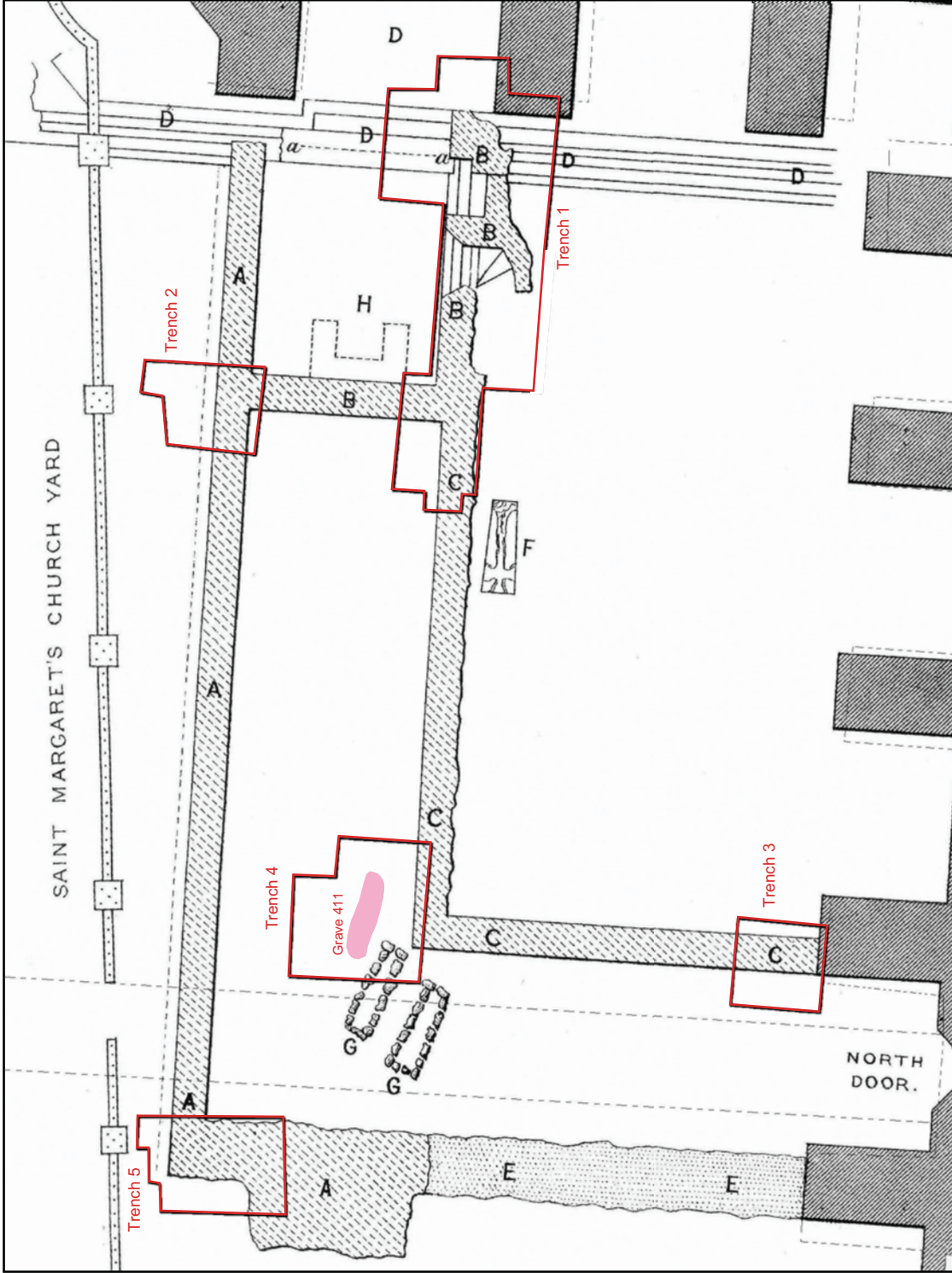
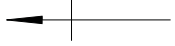
TRENCH 5		Type:	hand dug
Dimensions: 3.5 x 2.3m			
Context	Description		Depth
501	<i>Topsoil</i>	Topsoil; finds from the spoil-heap and initial hand-cleaning of the trench also included under this number.	0.2m
502	<i>Layer</i>	Levelling/consolidation layer forming a subsoil; mid grey-brown sandy loam with moderate flint gravel <30mm across, chalk brick, tile and pottery pieces, disarticulated human bone. Below (501); above (504).	0.28m
503	<i>Structure</i>	Concrete; fill of (513). North-south strips, each 0.2m wide, flanking brick rubble layer (504) and capping wall foundation (514). Western strip turns right-angled corner at southern end. Composed of light grey cement mortar with common flint ballast. Equivalent to (403). Associated with works of Scott (1869/70), marking position of sacristy building in his garden design, and, assuming that this concrete and rubble (504) accurately reflects the medieval foundation below, provides evidence of possible buttress at western end of 13th century sacristy structure. Below (504); above (512).	0.4m
504	<i>Layer</i>	Brick rubble; fill of (513). Abundant red brick fragments and dust	-

		combined with small quantity of brown sandy loam. Surface only exposed, flanked by (503), with similar westerly extension at southern end. Associated with works of Scott (1869/70), marking position of sacristy building in his garden design. Below (502); above (503).	Surface at 4.35m aOD
505	<i>Layer</i>	Fill of (506); yellow-brown sandy loam with chalk and flint gravel, brick of 16 th -17th century date, tile, pottery pieces and broken building stones. Cut by (511).	0.3m
506	<i>Cut</i>	Linear feature, approximately 0.17m wide on east side of wall; aligned broadly north-south but does not quite coincide with that of medieval wall foundation (514). Filled with (505); cuts (508). May represent robbing of brick foundation, perhaps of 17th century date, built on top of medieval wall foundation (514).	-
507	<i>Layer</i>	Disturbed natural; yellow-brown silty sand with moderate chalk and flint gravel, charcoal, pottery broken ceramic and stone building materials and mortar flecks. Not bottomed. Cut by (509).	0.3m (min.)
508	<i>Layer</i>	Fill of robber trench (509); yellow-brown silty sand with moderate chalk and flint gravel, broken ceramic and stone building materials and mortar flecks.	0.55m
509	<i>Cut</i>	Robber trench; only tiny area of this east-west aligned feature survives against the west-facing section of the trench). 0.57m wide; filled with (508); not fully excavated.	-
510	<i>Layer</i>	Fill of Scott's exploration trench (511); grey-brown sandy loam with moderate chalk and flint gravel, broken ceramic and stone building materials, mortar flecks, pottery, bone, oyster shell. Cut by (513).	0.54m
511	<i>Cut</i>	East-west aligned linear feature extending beyond limits of trench, apparently cut to locate and explore western return of medieval wall foundation (514). South side straight and almost vertical (north side outside limits of trench), flat base. Filled with (510); cuts (505).	-
512	<i>Layer</i>	Backfill of Scott's reconstruction trench (513); grey-brown sandy loam with moderate chalk and flint gravel, broken ceramic and stone building materials, charcoal and mortar flecks. Below (503).	0.45m
513	<i>Cut</i>	North-south linear feature, 1.2 – 1.8m wide; part of eastern side excavated (straight, almost vertical edge) but rest seen only in plan. Appears to cut exploration trench (511) and may once have contained shuttering used when adding concrete (503) and brick rubble (504) to the surface of medieval foundation (514).	-
514	<i>Structure</i>	East-west wall foundation with evidence for southerly return at western end. Traces of chalk block masonry survived to height of c 0.4m in base of Scott's exploration trench (511) but only creamy yellow-brown sand and poorly-slaked lime mortar up to 0.15m deep, visible beneath concrete (503), marked line of north-south foundation. Part of buttressed outer wall of 13th century sacristy building.	- surface at 3.78maOD



Site location and results of geophysical survey

Figure 1



SAINT MARGARET'S CHURCH YARD

NORTH DOOR.

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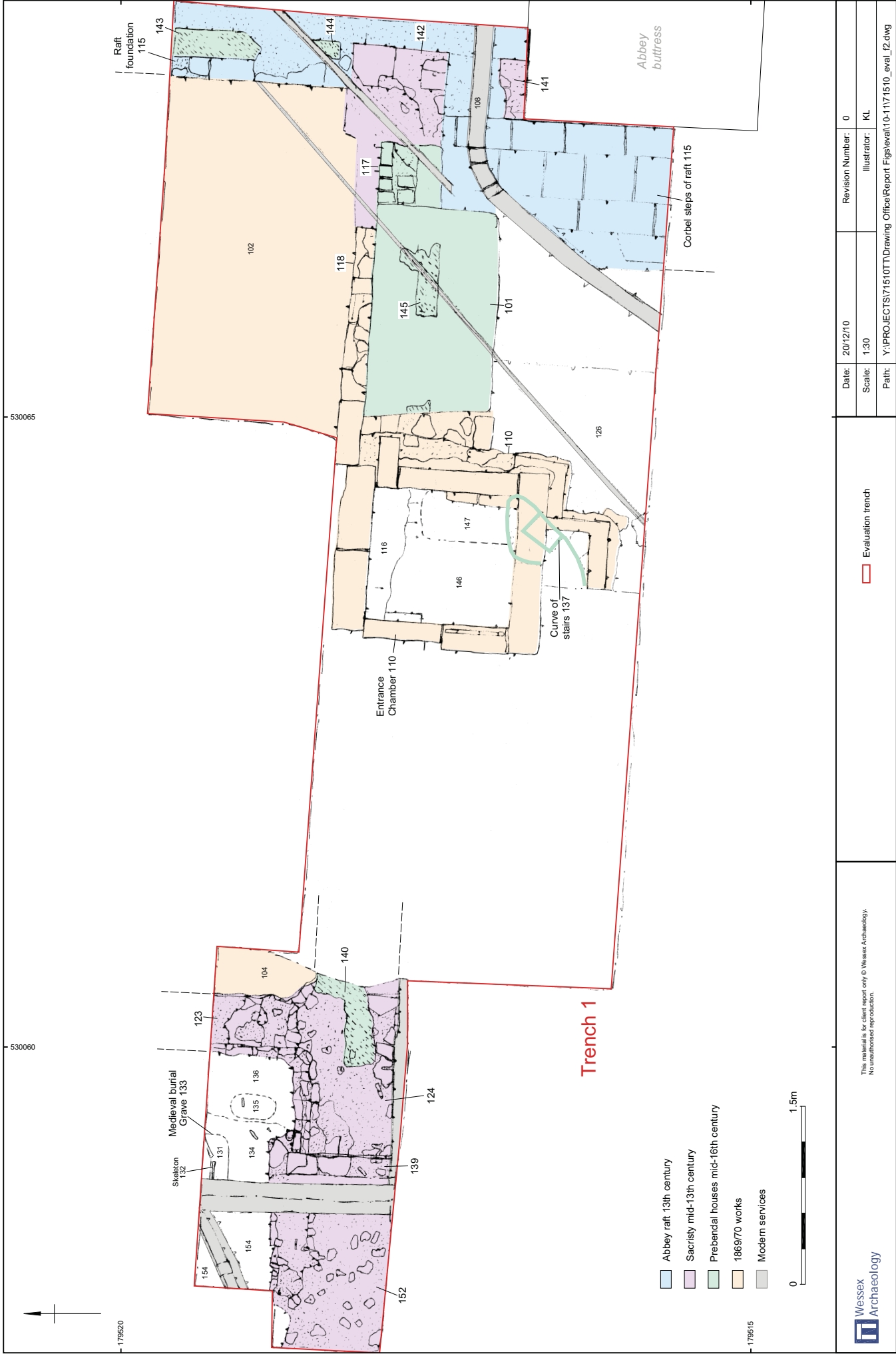
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Evaluation trench



Location of features discovered during the 1869/70 works (after Poole 1870)

Figure 2



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			Scale: 1:30	Illustrator: KL
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Trench 1: plan Figure 3



Plate 1: Abbey's raft foundation 115



Plate 2: West-facing section showing wall foundations 141 and 142



Plate 3: Foundations 123, 124, 139 and 152; bones of skeleton 132 visible against the section in centre of the picture



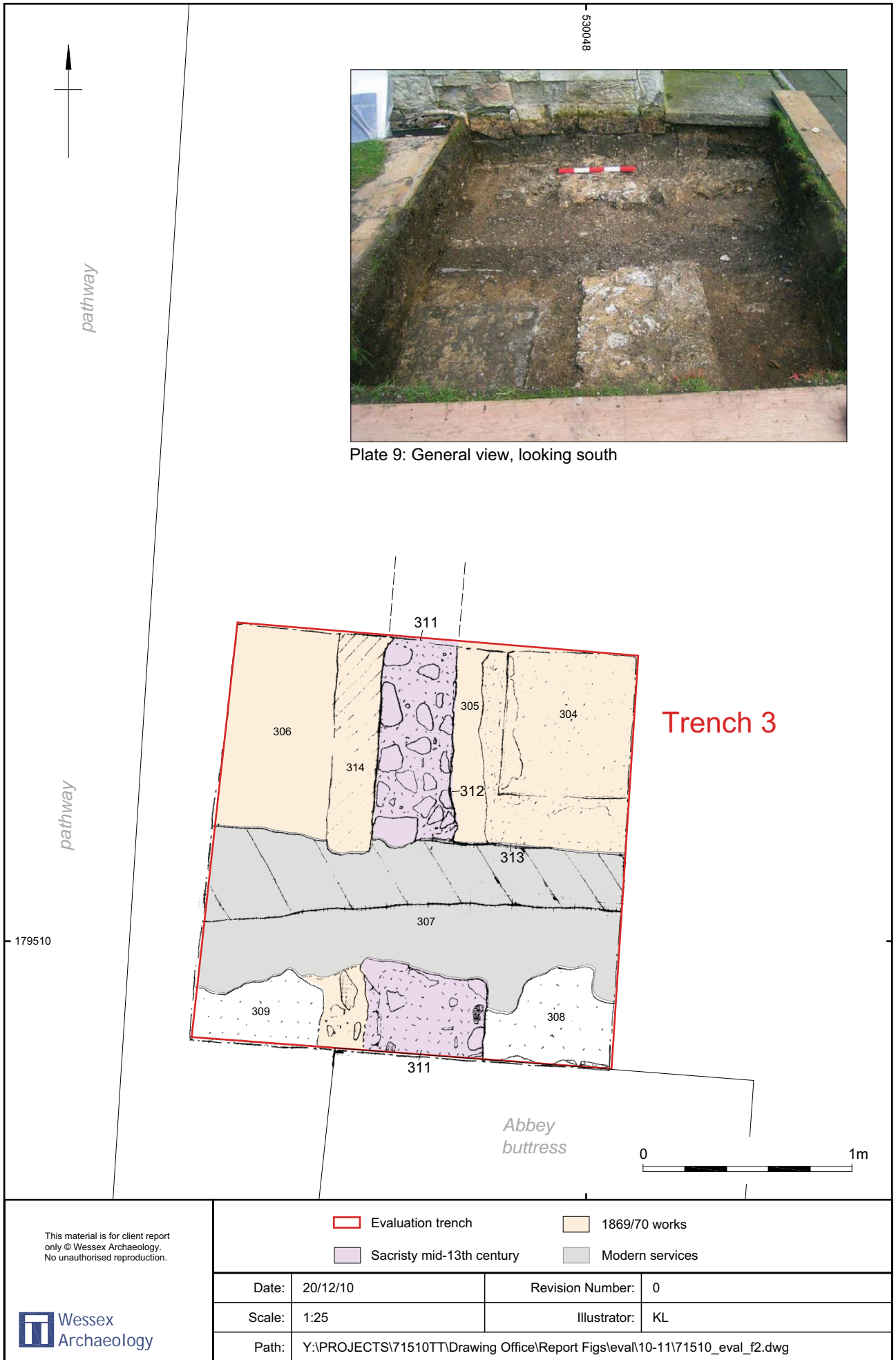
Plate 4: 16th century mortar on slab 101 and surface of Victorian cellar entrance chamber 110



Plate 5: Remains of Tudor stairwell 137 in the north-facing elevation of Victorian cellar entrance chamber 110



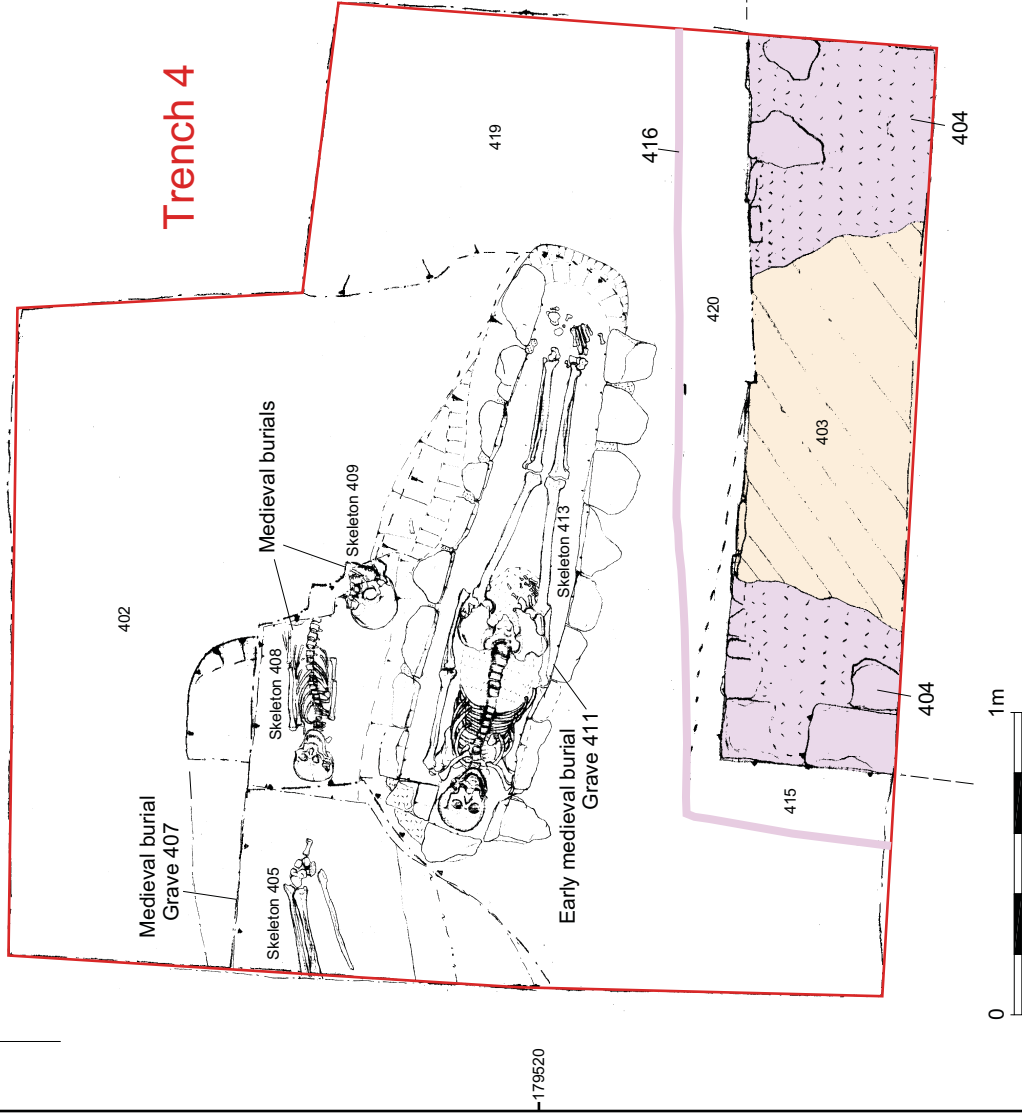
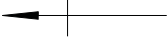
Plate 6: Roman stone block re-used in the west-facing elevation of Victorian cellar entrance chamber 110



Trench 3: plan and photograph

Figure 6

530050



Trench 4



Plate 10: Foundation 404 with Victorian concrete capping 403



Plate 11: Detailed view of grave 411 and other *in situ* burials

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Trench 4: plan and photographs

Figure 7

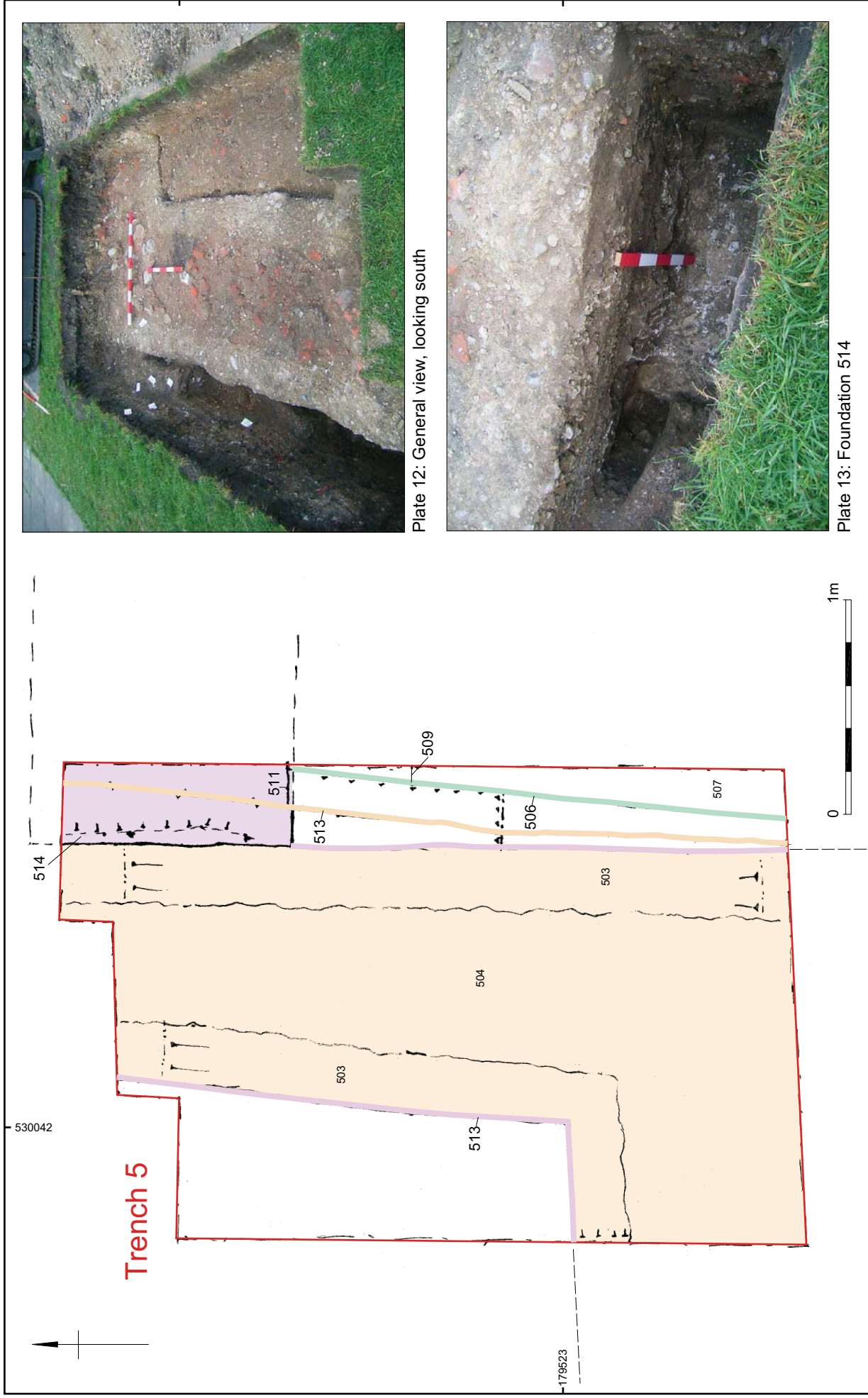


Plate 12: General view, looking south

Plate 13: Foundation 514

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Trench 5: plan and photographs

Figure 8



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