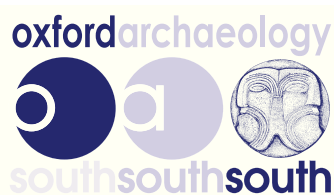


St Mary's Church
Wendover
Buckinghamshire



**Archaeological
Watching Brief Report**



March 2011

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**St Mary's Church,
Wendover, Buckinghamshire**
Archaeological Watching Brief Report

Written by Mike Sims

with a contribution by Helen Webb and illustrations by Julia Collins and Hannah Kennedy

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Summary

Between November 2010 and January 2011, Oxford Archaeology carried out an archaeological watching brief at St Mary's Church, Wendover, Buckinghamshire (SP 871 073). The work was carried out on behalf of the Parochial Parish Council during the installation of a new suspended floor within the church.

The watching brief revealed clusters of truncated burials around the aisle pier bases and two brick burial vaults within the central aisle of the nave. Ground reduction and underpinning within the south porch revealed burials predating the building of the porch. These probably relate to the three relocated headstones adjacent to the south-west corner of the south aisle. This work also exposed two possible chalk surfaced paths leading to the south door. No evidence was found for any of the earlier internal medieval floor surfaces, or for any earlier phases of the church's construction.



1 INTRODUCTION

1.1 Scope of work

- 1.1.1 In October 2010 the existing suspended floor within the main body of the church, dating to the 19th century, was removed. After removal it was apparent that the bases of the chancel arch, tower arch, arcade piers, font and pulpit had been protected by the construction of brick walls, which had preserved early deposits around these features. Installation of under floor heating and the new floor required that these walls and the deposits be partially removed and that foundation trenches for the new sleeper walls be excavated.
- 1.1.2 The preserved deposits were examined by the Diocesan Archaeological Adviser (DAA) on October 26th 2010. In the majority of areas there was evidence for a series of layers, possibly representing earlier floors, and in at least two places parts of articulated human burials could be seen.
- 1.1.3 It was determined that the proposed works had the potential to disturb archaeological remains both during ground intrusive works and during works to the building itself. More specifically:
- The removal of the deposits and brick walls may expose evidence for the pre-Victorian building work and former floors.
 - The clearance of the deposits may lead to the disturbance of human burials.
 - The insertion of the sleeper walls may disturb significant archeology of a similar character.
 - The removal of the Victorian floor has provided an opportunity to record burial vaults and coffins present within the church.
- 1.1.4 In order to mitigate these impacts an archaeological watching brief during the period of the reflooring works was required in accordance with an archaeological recording specification set by Julian Munby, the Diocesan Archaeological Adviser (Munby 2010).

1.2 Location, geology and topography

- 1.2.1 The town of Wendover is located 7.5 km south-east of the town of Aylesbury (Fig. 1). The church of St Mary is situated approximately 650 m south of the town centre. The church is sited at the eastern edge of a level churchyard at a height of approximately 131 m AOD. The underlying geology is Lower Chalk (Geological Survey of Great Britain, sheet no. 238).

1.3 Archaeological and historical background

- 1.3.1 St Mary's Church dates from the early 14th century but was heavily restored in 1838-9 by E.B. Lamb and in 1868-9 by G.E. Street (Pevsner and Williamson 1994, 716). The exterior consists of flint with Bath stone dressings and, with the exception of one or possibly two of the windows, has been renewed. Internally an early 14th century south doorway, chancel arch, tower arch and the two west bays of each arcade with octagonal piers, survive. The other three piers each side are later 14th century (*ibid.*, 716). The stained glass, pulpit, font and floor were replaced in the 19th century. The southern porch was also constructed during the 19th century (*ibid.*, 716).
- 1.3.2 The west tower has battlements, a small spire, large composite north-west and south-west buttresses and a square southern stair turret with a hipped roof. The northern side



of the tower was rebuilt by G.H. Fellowes Prynne in 1914. The whole tower was refaced and a steel frame inserted at the same time (*ibid.*, 716).



2 WATCHING BRIEF AIMS, OBJECTIVES AND METHODOLOGY

2.1 Aims and objectives

- 2.1.1 The aim of the watching brief was to mitigate the impact of the proposed works on the buried archaeology in the interior of the church, in accordance with the specification set by the DAA.
- 2.1.2 The objectives of the watching brief were:
- To minimise the impact of the development on any surviving remains of the earlier church.
 - To investigate the archaeological potential of the preserved deposits next to the eight aisle piers, the font and the pulpit.
 - To determine the extent to which human remains survive in the affected areas, and to generally observe the presence of burial vaults and graves.
 - To signal, before work continued, the discovery of an archaeological find for which further action was required.
 - To provide a report and ordered archive for the investigation.

2.2 Methodology

- 2.2.1 The watching brief observed all reflooring works that had the potential to affect or reveal archaeological deposits. This included the reduction of the ground level in the nave, aisles and south porch (Plate 1), the excavation of shallow foundation trenches for new sleeper walls, moving the font and constructing an associated new base, the excavation of service trenches for new wiring ducts, reduction of a brick burial vault, reduction of the floor level within the south porch and underpinning the south porch walls.
- 2.2.2 Excavation was undertaken by a combination of a mini digger with a toothless bucket and hand.
- 2.2.3 Archaeological investigation paid particular attention to former floors, burials and evidence of pre-Victorian building activity, in line with the archaeological recording specification (Munby 2010).
- 2.2.4 All excavation, lifting and recording followed procedures detailed in the *OA Fieldwork Manual* (OAU 1992). Archaeological features and deposits were issued with unique context numbers. Three brick built burial structures had already been assigned numbers on the digital base plan provided by the architects (B1, B2 and C1). These previously assigned numbers have been employed in this report. Archaeological features were recorded in plan (1:20), in section (1:10) (where appropriate) and plotted onto the digital base plan (1:50) supplied by the architects. Where appropriate, black and white negative and colour digital photographs were taken of major contexts.
- 2.2.5 Any articulated skeletons to be disturbed during the works were recorded, exhumed and examined by an Osteoarchaeologist. Remains were reburied in the church during the reflooring works. The location of any disturbed, disarticulated human skeletal material was recorded and reserved for re-burial.
- 2.2.6 Any coffins and coffin fittings, including the coffin in the south aisle brick built shaft grave (Elizabeth Edmonds, 1786), were recorded with reference to accepted standards (Mytum 2000).



- 2.2.7 Where possible, coffin plates were described and classified with reference to the taxonomy of coffin fitting styles compiled by Reeve and Adams (1993) and to the corpus of styles recorded by OA (Boston *et al.* 2009; Boyle *et al.* 2006). New styles identified from St Mary's were added to this corpus and pre-fixed with the code: WESTMC. Classifying coffin fittings in this way assists with dating burials and provides insight into funerary material culture.

3 RESULTS

3.1 Presentation of the results

3.1.1 All observations made during the watching brief are fully described and discussed below. The architect's note and plan on the burial ledgers from the west tower is presented in Appendix C, as per Munby 2010.

3.2 Soils and ground conditions

3.2.1 The majority of the excavations took place within a mixture of disturbed and redeposited soils. The underlying natural was not encountered in any of the excavations. The disturbed nature of the soil within the nave and aisles of the church made individual grave cuts indistinct and impossible to plan accurately. Groundwater was not encountered in any of the excavations.

3.3 Description of archaeological deposits

3.3.1 A deposit of dark grey-brown silty-clay loam (numbered 4 and 17) was exposed throughout the nave and aisles of the church. This contained frequent charnel, brick, tile and stone.

3.3.2 Cut into this layer were 13 graves (1, 2, 5, 6, 7, 8, 9, 10, 12, 14, 13, 15 and 16) (Plates 2-10) and several brick-built burial structures (24, 25, B1, B2 and C1) (Fig. 2). The graves had been backfilled with the same material that had been excavated when digging them. This material was the internal equivalent of a churchyard soil and its disturbed nature meant that it was impossible to determine individual grave cuts.

3.3.3 During the excavation of trenches for the new sleeper walls tops of two brick built barrel vaulted graves were encountered in the centre of the nave. The largest (24) measured 2.2 m in long by 1.1 m wide and was constructed using a plain red brick and lime mortar. The void within the barrel vault was exposed during the excavation of the foundation trench and this showed approximately 0.6 m of space over a mixture of brick rubble and mortar. No coffin or human remains could be observed. After measurement of the level of the top of the arch, lintels were used to span the vault. The construction cut for the vault could not be seen.

3.3.4 A second, smaller brick-built barrel vaulted grave (25) was observed at the western end of the nave (Fig. 2). This was of a similar red brick and lime mortar construction to those in the central nave. It measured 2.2 m in length, but was only 0.7 m in width. The excavation of the sleeper wall trench disturbed part of the collapsed arching of the barrel vault. This revealed that the vault was almost completely full with a mixture of brick fragments, mortar and soil. This vault was also spanned using lintels.

3.3.5 As part of the works it was necessary to reduce the height of the large brick shaft grave (B1) in the southern aisle in order to pass the lintels supporting the sleeper walls above it (Fig. 2, Plate 11). This was done by removing the top two courses of brick of the grave. The grave was capped by three slabs of limestone, two approximately 1 m square and the third measuring 1 m wide by 0.6 m long. The slabs had been dressed on the upper surface, but the undersides were as quarried. The grave itself was coffin shaped and measured 2.02 m long internally, 0.49 m wide at the eastern (foot) end, 0.74 m wide at the widest part and 0.59 m at the western (head) end. It could be seen to be in excess of 0.8 m deep. The sides of the grave had been constructed in a plain machine made brick, 0.223 m by 0.105 m by 0.072 m, and lime mortar. The walls had been laid using English stretcher bonding and measured 0.223 m thick.



- 3.3.6 At the eastern end of the grave were the remains of disturbed burials, represented by disarticulated human bone (including two skulls) and coffin remains (Plate 12). The coffin remains comprised decomposed fragments of wood covered in black fabric, fastened with brass dome-headed studs. At the western end of the grave was an embossed tin breastplate depicting two figures, possibly angels, holding bunches of laurel, or possibly ears of wheat, with foliage below and an urn underneath a crown supported by angels, at its head (Plate 13). The centre of the plate had been enameled or painted black and had the lettering "Mrs Eliz. Edmonds died March ...7" painted on in white. The style of this breastplate does not appear to match any in the catalogue of coffin fittings from Christ Church, Spitalfields (Reeve and Adams 1993, Appendix D), or any others in Oxford Archaeology's catalogue of coffin fittings. This breastplate has therefore been assigned the new code WESTMC1 (Plate 13).
- 3.3.7 Breastplate WESTMC1 rested directly above an intact wooden coffin with a lid motif depicting what appeared to be a crown held by angels on either side. This appears to be identical to the Christ Church Spitalfields CCS6 lid motif (Reeve and Adams 1993, Appendix D). This lid motif was in a much poorer condition than WESTMC1 above. The coffin was only partially observable but looked to be single-break in shape (widest at the shoulder), with lead sides. The wooden lid was covered in black fabric secured with brass dome-headed studs. The studs were arranged in a double-row pattern around the edge of the lid. No other coffin fittings were visible.
- 3.3.8 After removal of the two courses of brickwork the stone slabs were replaced.
- 3.3.9 A second smaller brick shaft grave (B2) measuring approximately 1.5 m long by 1.1 m wide was exposed between the previous shaft grave (B1) and the Lady Chapel (Fig. 2, Plate 14). This had been constructed using a plain hand-moulded brick measuring 0.24 m by 0.117 m by 0.055 m and lime mortar, and capped by three slabs of limestone, the largest measuring approximately 1 m² and the two smaller ones measuring 0.6 m wide by 0.35 m long. The walls were laid using English stretcher bonding. As with the previous shaft the top two courses of bricks were removed. Exposed within the rectangular shaft was a small (child's?) lead coffin. No coffin plate was observed within the shaft but the size of the bricks suggests a probable mid 18th century date.
- 3.3.10 Layer 17 was also cut by the foundation trenches for brick collars or platforms built around the bases of the column piers (Plate 1). These were of a poor quality plain red brick bonded with lime mortar. As well as encompassing the flint foundations of the piers they extended lengthways by approximately 1.3 m to the west of each pier. The purpose of the collar around the pier bases was evidently an attempt to strengthen or support them but it was unclear what the purpose of the platforms were and they may relate to the Victorian suspended floor. Also cut into layer 17 were channels containing two brick ducts each approximately 0.5 m wide and 0.15 m deep. These ran from under the chancel area and along the north and south aisles. The eastern ends of these ducts immediately west of the chancel and Lady Chapel were smoke blackened suggesting that they were heating ducts and probably associated with the suspended floor.
- 3.3.11 The font was moved approximately 5 m to the west of its original site following the excavation of the sleeper wall trenches and the laying of a concrete plinth. This exposed a circular brick foundation. The brick foundation had been constructed in the form of hollow tube, similar to a well shaft, using frogged bricks and lime mortar. It measured approximately 0.6 m externally and 0.3 m internally. The centre had been filled with rubble forming a soakaway for the font drain.



- 3.3.12 After moving the font a light-grey silty-clay (31) was removed to a depth of approximately 0.25 m. This material produced a quantity of disarticulated human bone, but no evidence for articulated burials or grave cuts was observed. The material removed was different to that observed during the ground reduction elsewhere and it is possible that it had been imported to form a base for the new font.
- 3.3.13 Sealing the graves (see 3.3.2) and butting up to the brick collars and the aisle piers was a 0.25 m deep layer of loose yellowish-grey sandy-clay silt (3). This deposit contained fragments of stone, brick and tile as well as some disarticulated human bone. It is probable that this material originated with the Victorian refurbishment of the church, possibly from excavations relating to the construction of the brick enclosures around the base of the piers.

The Lady Chapel

- 3.3.14 Part of the 19th century glazed tile floor within the south-west corner of the Lady Chapel was removed as part of the works. This exposed a loose mixture of rubble and soil, which sealed the top of a barrel vaulted brick burial chamber (C1) (Fig. 2, Plate 15). This measured approximately 3.2 m long by 2.3 m wide and had been constructed with a plain hand moulded brick (0.23 m by 0.12 m by 0.07 m) and lime mortar. The interior of the vault was not visible. The size of the bricks suggest a late 18th or early 19th century date.

The South Porch

- 3.3.15 The floor level was reduced within the south porch by approximately 0.5 m in order to allow a new insulated floor to be laid. The east and west walls of the porch were underpinned at the same time.
- 3.3.16 A layer of light grey-brown clay-silt (26) was exposed throughout the area of the porch. This material contained flint, brick and tile fragments and some chalk flecking. This deposit was relatively soft and disturbed, indicating that it was probably a churchyard soil. Encountered during the reduction of this deposit were six east-west aligned burials (18, 19, 20, 21, 22 and 23) (Fig. 2, Plates 16-17). Because the graves had been backfilled using the material excavated previously the edges of the grave cuts were unclear.
- 3.3.17 Exposed within the north-west corner of the porch were the truncated remains of an adult inhumation (19). It is probable that this skeleton had been truncated both by the foundation cut for the southern wall of the south aisle and by the eastern wall of the south porch. A similarly truncated skeleton (22) was encountered in the north-western corner of the porch. This had been truncated by the western wall of the porch.
- 3.3.18 In the centre of the porch a sequence of burials was exposed. The earliest, burial (23), had been truncated and was represented by the right leg and arm only, that of an adult male. Immediately north of this was the supine (lying on their back) skeleton of an adult female (21). This had been disturbed along its northern edge by a later inhumation of a supine adult male (20) (Plate 17).
- 3.3.19 All of these burials were very shallow, averaging only 0.4 m below floor level. Two earlier burials consisting of adults were exposed immediately below these, but they were below the depth of impact and were left in situ.
- 3.3.20 Overlying the western half of porch layer 26 was a 0.14 m deep layer of compacted chalk (27) (Fig. 3). This layer was very even and may represent a path leading up to the original south door of the church. This was overlain by a 0.1 m deep layer of light grey



clay-silt (28) containing sub-angular flints and fragments of both brick and peg tile. This material was very similar to, and possibly associated with, layer 26.

- 3.3.21 A second 0.1 m deep layer of compacted chalk (29) had been deposited over layer 28. This extended underneath the west wall of the porch but only intruded partway within the porch. This may represent a later path leading to the south door. Overlying this was a 0.2 m deep layer of light grey clay-silt (30), probably a redeposited lense of layer 26.
- 3.3.22 The construction cuts for the foundations of the east, west and north walls of the porch had been cut through this deposit and also layer 26, truncating burials 19 and 22 in the process.

3.4 Articulated human skeletal remains summary (see Appendix B)

- 3.4.1 A total of 19 skeletons were examined. The majority were very incomplete as a result of truncation by later church structures, including the south aisle and porch, and burial activity.
- 3.4.2 Skeletons ranged in age from neonate to older adult. Males and females were equally represented.
- 3.4.3 Among the pathological conditions observed were dental disease, joint disease and a developmental defect of the sacrum. All of these are common in archaeological skeletal populations. Trauma, in the form of a healed hip fracture, was also observed in one individual.



4 DISCUSSION

4.1 Interpretation

The nave and south aisle

- 4.1.1 Layer 4 (=17) represents a disturbed soil mixed by successive intercutting burials. A large quantity of disarticulated human bone was recovered from these contexts and may indicate that burials within both the nave and the side aisles took place over a lengthy period of time with successive burials disturbing and truncating earlier ones. No dating evidence was recovered from these burials. Fragments of brick, tile and stone were recovered from layers 4 and 17 but it is probable that this was deposited during the renovation work from within the church, particularly during the Victorian period, rather than during the burials.
- 4.1.2 The brick-built burial structures encountered within the nave and south aisle can be dated to the 18th or early 19th centuries based on the size of the bricks and the type of coffin fittings observed in B1.
- 4.1.3 The brick plinths, built to encase the bases of the pillars, appear to be 19th century in origin, as are the brick heating ducts.
- 4.1.4 It is probable that when the suspended wooden floor, removed in 2010, was installed (probably in the 19th century) the original floor (stone or tile) was removed and the floor level reduced in order to provide space for air to circulate under the wooden flooring. It is possible that this reduction exposed the flint and rubble foundations of the column bases and necessitated the construction of the brick plinths in order to prevent them from spreading.
- 4.1.5 This reduction in level may also account for the apparent shallow depth of burials within the church.
- 4.1.6 Other than the activity mentioned above no evidence for any earlier phases of the church's construction was observed during this period of work.

The South Porch

- 4.1.7 The south porch is recorded as having been built in the 19th century. It is therefore likely that this area formed part of the graveyard prior to this, and that the three 18th and early 19th century headstones, now placed adjacent to the south-west corner of the south aisle, but facing southwards, originated from this area.
- 4.1.8 The layer of light grey clay silt (26) exposed during the ground reduction in the porch represents an overall layer of churchyard soil formed by the repeated disturbance and redeposition of material during successive burials. This disturbance and mixing of the soil made determination of individual grave cuts extremely difficult. Layer 30 is a probable continuation of this deposit.
- 4.1.9 Both 26 and 30 were seen to run underneath the walls of the porch indicating that they originated before the construction of the south porch.
- 4.1.10 Burials 20 and 21, together with 23, may be the burials associated with the three displaced headstones.
- 4.1.11 Layers 27 and 29 are layers of compacted chalk and are only found on the western side of the porch. They also run under the west wall of the porch suggesting that they are not related to, and predate, the construction of the porch. It is possible that they represent two phases of a path that lead up to the south door of the church from the



west. The layer of material separating them (28) is probably a layer of churchyard soil (similar to 26 and 30), possibly cast up when inhumations raised the ground level around the south door necessitating a newer, higher path.

- 4.1.12 The construction cuts for the foundations for the porch have cut into the top of layer 26 by approximately 0.4 m truncating inhumations 19 and 22.
- 4.1.13 No evidence for the original topsoil was observed, and no evidence for structures predating the construction of the porch were encountered.

4.2 Significance

- 4.2.1 The watching brief has shown that the ground in the interior of the church has been heavily disturbed and mixed by a substantial number of burials, many of which cut earlier burials. As a result, most of the burials were heavily truncated and incomplete. No inscriptions, or other evidence, were observed in association with these burials to assign them to an exact date, therefore their significance is limited.
- 4.2.2 While it is probable that there is a large quantity of burials in the church, only a fraction were removed during the course of the ground reduction prior to the installation of the new floor. The reduction also revealed the full extent of the Victorian alterations and additions to the interior of the church.
- 4.2.3 No evidence for any of the earlier phases of the church's construction was observed during the course of the watching brief. This may be due to the limited depth of excavation. Another possibility is that the later additions to the church have completely obscured or destroyed the earlier building. It is possible that the sanctuary and the northern wall of the chancel are all that remain of the earlier church because they are on a slightly different alignment (in plan) to that of the remainder of the present church.

**APPENDIX A. CONTEXT INVENTORY**

| Context | Type | Depth | Width | Comments | Finds | Date |
|---------|----------|-------------|-------|--|------------------------------------|-------|
| 1 | Skeleton | - | - | Articulated burial | - | - |
| 2 | Skeleton | - | - | Articulated burial | - | - |
| 3 | Layer | Up to 0.3 m | - | Made ground, redeposited material | Brick, disartic. bone | C19th |
| 4 | Layer | > 0.3 m | - | Equivalent of churchyard soil (same as 17) | Brick, stone, disartic. bone | - |
| 5 | Skeleton | - | - | Truncated adult articulated burial | - | - |
| 6 | Skeleton | - | - | Truncated neo-natal articulated burial | - | - |
| 7 | Skeleton | - | - | Truncated adult articulated burial | - | - |
| 8 | Skeleton | - | - | Truncated adult articulated burial | - | - |
| 9 | Skeleton | - | - | Truncated adult articulated burial | - | - |
| 10 | Skeleton | - | - | Articulated burial | - | - |
| 11 | Fill | 0.12 m | - | Grave fill | - | - |
| 12 | Skeleton | - | - | Articulated burial, Adult male | - | - |
| 13 | Skeleton | - | - | Truncated adult articulated burial | - | - |
| 14 | Skeleton | - | - | Truncated adult articulated burial | - | - |
| 15 | Skeleton | - | - | Articulated burial | - | - |
| 16 | Skeleton | - | - | Truncated adult articulated burial | - | - |
| 17 | Layer | > 0.3 m | - | Equivalent of churchyard soil (same as 4) | Brick, tile, stone, disartic. bone | - |
| 18 | Skeleton | - | - | Articulated burial | - | - |
| 19 | Skeleton | - | - | Articulated burial | - | - |
| 20 | Skeleton | - | - | Articulated burial | - | - |
| 21 | Skeleton | - | - | Articulated burial | - | - |



| Context | Type | Depth | Width | Comments | Finds | Date |
|---------|-----------|---------|-------|--|------------------------|---|
| 22 | Skeleton | - | - | Articulated burial | - | - |
| 23 | Skeleton | - | - | Articulated burial | - | - |
| 24 | Structure | > 0.6 m | 0.9 m | Brick built barrel vault | - | C18th |
| 25 | Structure | > 0.6 m | 1 m | Brick built barrel vault | - | C18th |
| 26 | Layer | > 0.4 m | - | Churchyard soil | Brick and peg tiles | - |
| 27 | Layer | 0.1 m | - | Compacted chalk, possible path or floor level | - | - |
| 28 | Layer | 0.12 m | - | Churchyard soil | Brick and peg tiles | - |
| 29 | Layer | 0.18 m | - | Compacted chalk, possible path or floor level | - | - |
| 30 | Layer | > 0.4 m | - | Churchyard soil, probably a continuation of layer 26 | Brick and peg tiles | - |
| 31 | Layer | 0.25 m | - | Silty clay deposit, possibly imported to provide base for font | Disartic. bone | - |
| B1 | Structure | > 0.8 m | 0.8 m | Brick shaft grave | - | C18th |
| B2 | Structure | > 0.5 m | 1.1 m | Brick shaft grave | - | C18th |
| C1 | Structure | - | 2.3 m | Brick built barrel vault | - | Late C18th – early C19 th |



APPENDIX B. ARTICULATED HUMAN SKELETAL REMAINS

By Helen Webb

Methodology

Data on the completeness, condition, age, sex and pathology were recorded for each skeleton where possible. This recording was undertaken on-site by a qualified osteoarchaeologist. Recording of adult age and sex was based on the recommendations set out by Buikstra and Ubelaker (1994), Brickley and McKinley (2004) and Bass (1995, 26). Subadults were aged based on epiphyseal fusion and long bone lengths (Scheuer and Black 2000) and dental development (Morrees *et al* 1963). Only gross pathological lesions were recorded.

Results

A summary of the osteological data recorded on site is given in Table 1. A total of 19 articulated skeletons were excavated during the watching brief. The vast majority (14 skeletons) were less than 25 percent complete. Only two skeletons (20 and 21) were over 75% complete. Most of the skeletons (14) were in good condition, meaning that the bone surfaces had suffered only slight post mortem surface erosion. Only five skeletons displayed more significant surface erosion, with condition recorded as fair in two skeletons, and poor in three skeletons.

Table 1 Osteological data

| Skeleton no. | Completeness (%) | Condition | Age | Sex | Observations/pathology |
|--------------|------------------|-----------|-------------|-----|--|
| 1 | <25% | Good | Young adult | F | |
| 2 | <25% | Good | Older adult | M | Osteophytosis of CVs; periodontal disease and calculus |
| 5 | <25% | Good | Adult | ? | |
| 6 | <25% | Good | Neonate | / | |
| 7 | <25% | Good | Adult | F | |
| 8 | <25% | Good | Young adult | F | Spina bifida occulta |
| 9 | <25% | Good | Prime adult | M | OA at left wrist; osteophytosis of LV5-SV1 |
| 10 | <25% | Good | Adult | ? | |
| 12 | 25-50% | Good | Adult | ?M | Ante-mortem tooth loss |
| 13 | <25% | Poor | Adult | ?M | |
| 14 | <25% | Poor | Adult | ? | |
| 15 | <25% | Poor | Adult | ? | |



| | | | | | |
|----|---------|------|--------------|---|--|
| 16 | 50-75% | Good | Young adult | F | |
| 18 | <25% | Fair | Adult | ? | |
| 19 | <25% | Fair | Adult | ? | |
| 20 | 75-100% | Good | Adult | M | Dental calculus; ossified thyroid; Schmorl's nodes |
| 21 | 75-100% | Good | Older adult | F | Healed fracture of left femoral neck |
| 22 | <25% | Good | Older child | / | |
| 23 | <25% | Good | Mature adult | M | |

Key: M = male; F = female; ?M = probable male; OA = osteoarthritis; CV = cervical vertebra; LV = lumbar vertebra; SV = sacral vertebra.

Of the 19 skeletons, 17 were adult and two were subadult. Of the adults, three were young adults (18-25 years), one was a prime adult (26-35 years), one was a mature adult (36-45 years) and two were older adults (over 45 years). The ten other adults (over 18 years) could not be aged more specifically. Of the subadults, one was a neonate (less than 1 month) and one was an older child (6-12 years).

Sex could be estimated for ten of the adults. Numbers of males and females were equal, with five females, three definite males and two probable males.

Pathology was noted in six skeletons. Skeleton 2, an older adult male, displayed osteophytosis of the cervical (neck) vertebrae. Nodules of new bone (osteophytes) can form around the margins of the vertebral bodies, and may cause stiffness and intermittent aching in the affected region of the spine (Roberts and Manchester 1995, 107). Spinal osteophytosis is an extremely common pathological condition and is associated with increasing age. Skeleton 2 also had periodontal disease and dental calculus (tartar). Calculus is probably an indication of poor oral hygiene. As calculus accumulates between the teeth and gums, it causes inflammation of the soft tissue, which can then lead to periodontal disease. This can subsequently lead to antemortem tooth loss.

Skeleton 8, a young adult female, displayed a condition called spina bifida occulta. This developmental condition is observed in the skeleton as an absence of one or more of the posterior parts of the sacral vertebrae that enclose the lower part of the spinal cord. In life however, this bony defect would have been bridged by cartilage or membrane, thus protecting the spinal cord. Individuals with this condition would have been able to function quite normally and in most cases, were probably unaware that they had this defect (Roberts and Manchester 1995, 36). Spina bifida occulta is common in archaeological populations, being found in 2.7 percent of some early British skeletons (Brothwell and Powers 1968).

Skeleton 9, a prime adult male, had osteoarthritis of the left wrist joint. This was observed as eburnation (polishing) of the distal ulna joint surface. Such polishing occurs as a result of bone-to-bone contact, where the smooth cartilage that normally covers the the bone joint surface is lost. Osteoarthritis is extremely common in both past and modern populations, and is often associated with increasing age. The wrist is one of the less commonly involved joints however, except when secondary to trauma (Aufderheide and Rodríguez-Martín 1998, 95). No trauma



was observed in Skeleton 9, so perhaps the osteoarthritis was activity/occupation related, particularly given the relatively young age of the individual (26-35 years). Skeleton 9 also displayed osteophytosis in the lower spine. The fifth lumbar and first sacral vertebral bodies had osteophytes around the margins.

Skeleton 12, an adult, probably male, displayed ante-mortem tooth loss. Inflammation of the soft tissues of the jaw (gingivitis, or gum disease) can subsequently transfer to the bone (periodontitis). This can result in resorption of the bone and exposure of the tooth roots (Roberts and Manchester 1995, 56). This periodontal disease is the primary cause of ante-mortem tooth loss in modern populations, and becomes more severe and more prevalent with advancing age (Levin 2003, 244). Ante-mortem tooth loss may also result from abscess development secondary to caries, periodontal disease secondary to calculus formation, pulp exposure and abscess formation secondary to severe attrition, deliberate extraction, accidental trauma or fighting (Waldron 2007, 117).

Dental calculus was observed in Skeleton 20, a probable male adult. In addition, this skeleton also had Schmorl's nodes. Schmorl's nodes involve the spine and are extremely common in both modern and archaeological populations. They are caused by intervertebral disc herniation into the vertebral body and appear on dry bone as depressions, either on the superior or inferior surface of the body. Although associated with degenerative disease, Schmorl's nodes have been linked to activity and trauma, especially in adolescence (Jurmain 1999). Skeleton 20 also had ossified thyroid cartilage. This is not pathological but occurs with increasing age (Scheuer and Black 2000, 168).

Skeleton 21, an older adult female, had a healed, but malaligned, fracture of the left femoral neck (top of the thigh bone, at the hip) (Plate 18). The amount of healing indicates that the injury had occurred a long time before death. Irregularity in the shape of the greater trochanter (at the top of the femur) probably represents muscle/soft tissue damage incurred with this injury. A direct blow to the hip (e.g. falling onto the hip) may have been the cause (Galloway 1999, 174). It is also worth noting that the left leg bones in this individual were of equal size and robusticity to the right leg bones. This suggests that use of the injured leg was not restricted, once the fracture had healed. Often in cases of severe trauma, use of the affected limb is restricted and as a result, the muscles, and subsequently the bones, atrophy (wither).

No further work is recommended.



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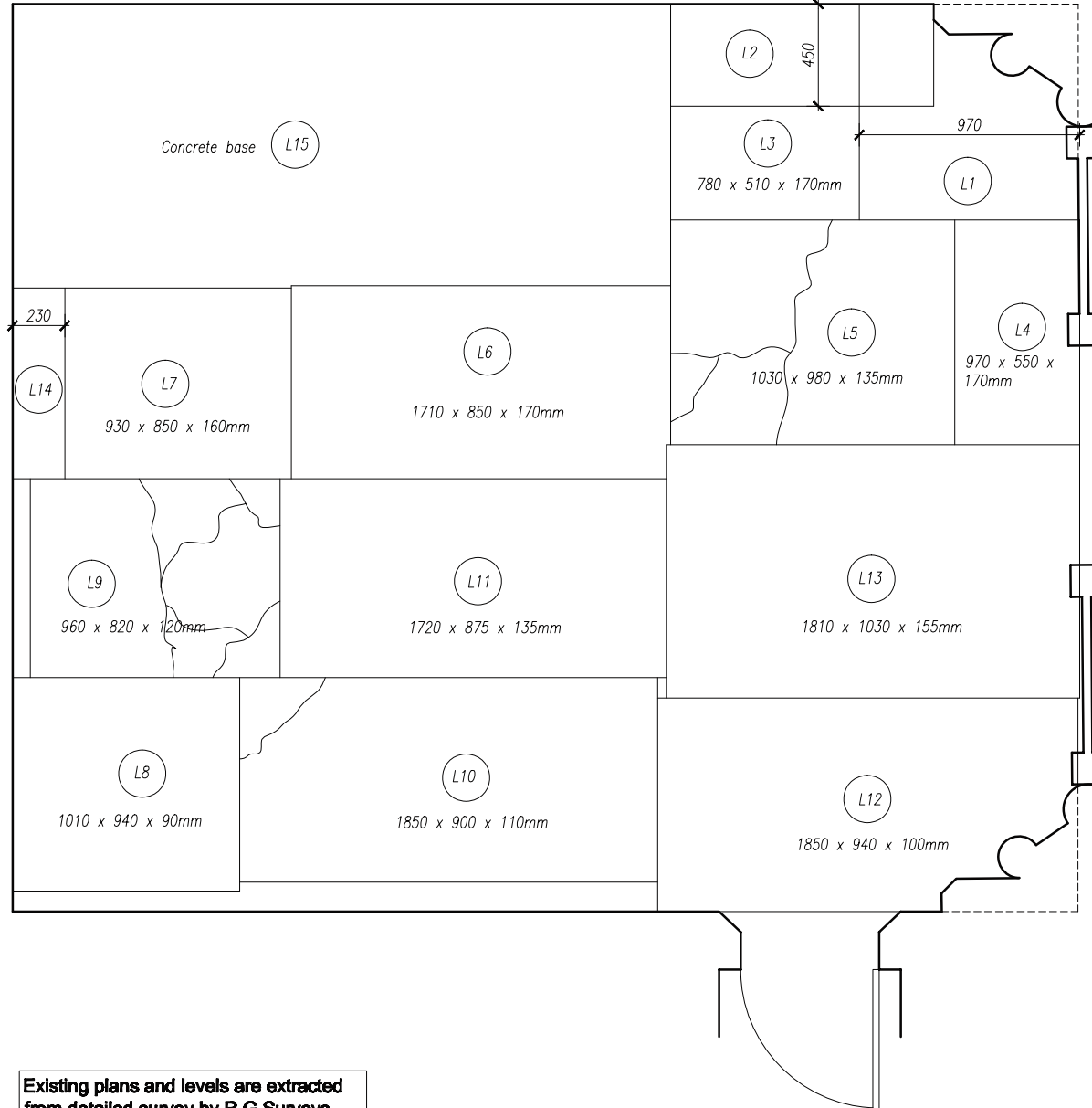


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APPENDIX C. ARCHITECT'S NOTE AND PLAN ON THE BURIAL LEDGERS FROM THE WEST TOWER

APPENDIX C. ARCHITECT'S NOTE AND PLAN ON THE BURIAL LEDGERS FROM THE WEST TOWER



LEDGER STONE DETAILS

| REF. | DESCRIPTION | MATERIAL | CONDITION |
|------|---|-----------|-------------------|
| L1. | TOMAS WHO DIED 28th.....1778 ELIZABETH TOMAS Died March..... | LIMESTONE | SCRIBED TO COLUMN |
| L2. | JOHN CLEMENTS Died this..... | SLATE | CUT |
| L3. | | SLATE | CUT |
| L4. | | LIMESTONE | CUT |
| L5. | | LIMESTONE | FRACTURED |
| L6. | Her lyeth inter the body of ELIZABETH HAKEWELL late the wife of WILLIAM HAKEWELL so one of the masters in ornary of the high court of Ilancery daughter of Sr HENRY GOODHOUSE of Waxham in Norfolk knight shee having bene married 35 years and died being 54 years of age died 25 of Ivne 1652 most piously beffed arc'y dead Wch dye in ye lord | LIMESTONE | WHOLE |
| L7. | 1648 aged in years and 4 months when she had bin married 27 weeks and 2 days LUCY SIACO 1776 | SLATE | WHOLE |
| L8. | In memory of WILLIAM HALLISON a native of Boulton in the county of Cumberland and late of thios parish who departed this life on the eighth of October J78 aged 64 years ELLANDR wife of the above who parted this life the 13th of June 1814 aged 87 years | SLATE | WHOLE |
| L9. | Here lyeth the body of LOUIS gent wh..... reputation..... and dyed the 5th November 166.. aged 63 | SLATE | FRACTURED |
| L10. | Scared to the memory of THOMAS HALLISON who departed this life the 10th of June in the year of our loard 1820 aged 67 years IN DEO CONFID & SPES MEA IN CHRISTO Also JAMES HALLISON brother of the above who died 27th June 1835 aged 65 years | SLATE | WHOLE |
| L11. | Here lieth y body of WILLIAM HAKEWILL Eso sometimes solicitor to her late maiesty Queene Ann and one of the high court of chance who departed this life y 31st October 1655 being aged 81 years | SLATE | WHOLE |
| L12. | Hear lyeth the body of THOMAS MACHELL gent of this towne who departed this life the 68th year of his age | SLATE | WHOLE SCRIBED |
| L13. | An epitaph upon y death of HENRY PLAYSTOW 4th son of Richard Playstow who departed this life January y 12th 1675 about y 40th year of his age So here..... | SLATE | WHOLE |
| L14. | No inscription | SLATE | CUT |
| L15. | Concrete.....No description | | |

Existing plans and levels are extracted from detailed survey by R G Surveys Ltd

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Client:
 The P.C.C. of St Mary Wendover
 Project:
 Re-ordering of St Mary's Church

Drawing title:
 Existing Plans
 Tower Ledger Stones

Scale: Date: Drawn by:
 1:25 Aug 10 mtl
 Drawing No: Rev:

07384/C23 B
 original size 78mm - A3 at full size



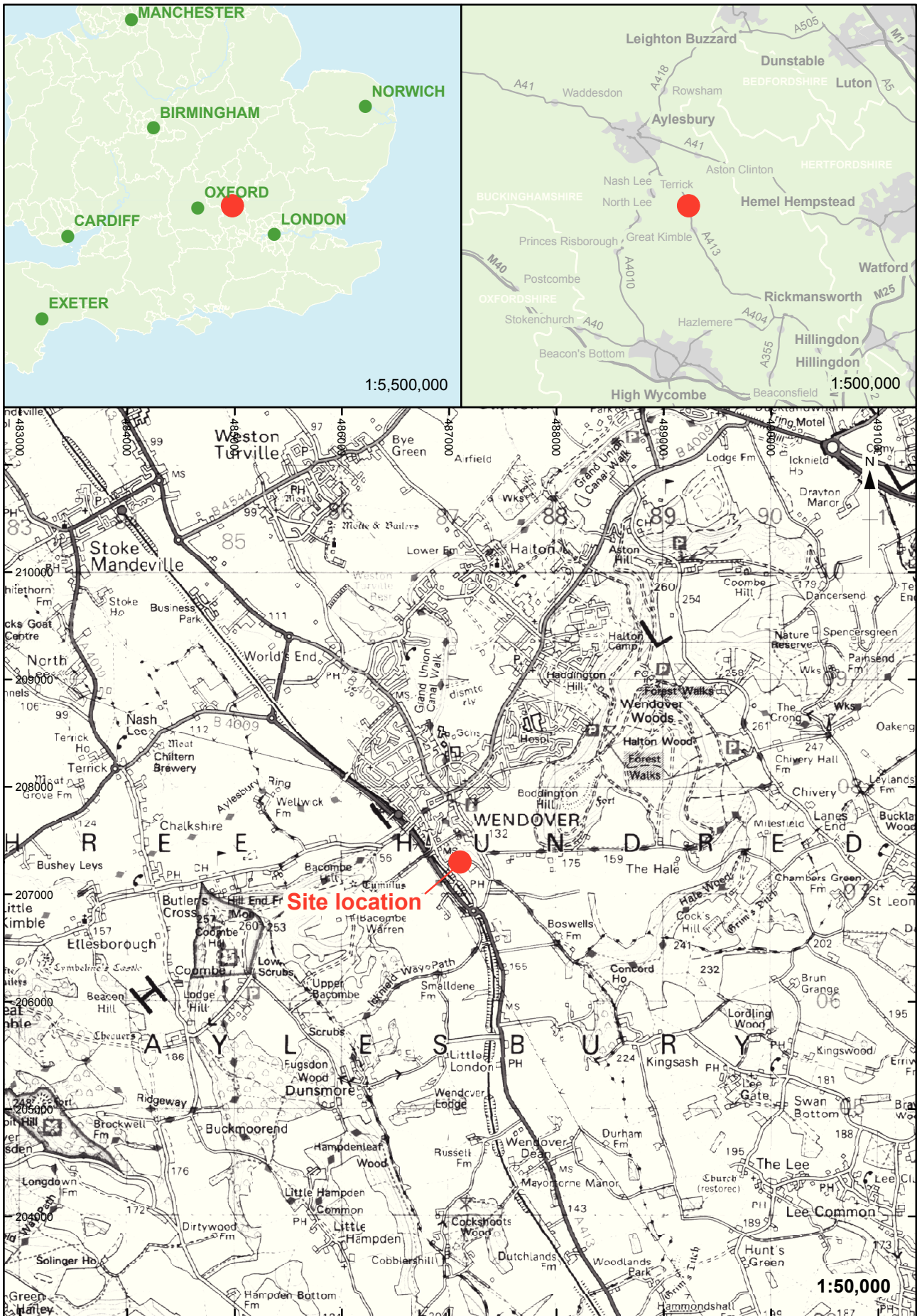
APPENDIX E. SUMMARY OF SITE DETAILS

| | |
|---------------------------|--|
| Site name: | St Mary's Church, Wendover |
| Site code: | WESTMC 10 |
| Grid reference: | SP 871 073 |
| Type: | Watching brief |
| Date and duration: | November 2010 to January 2011, 7 site visits |
| Area of site: | c800 m ² |

Summary of results: The watching brief revealed evidence for a large number of inhumations within the interior of the church together with details of the extent of the Victorian alterations and additions below floor level. Evidence for two phases of possible pathway leading to the south door predating the construction of the south porch was also encountered.

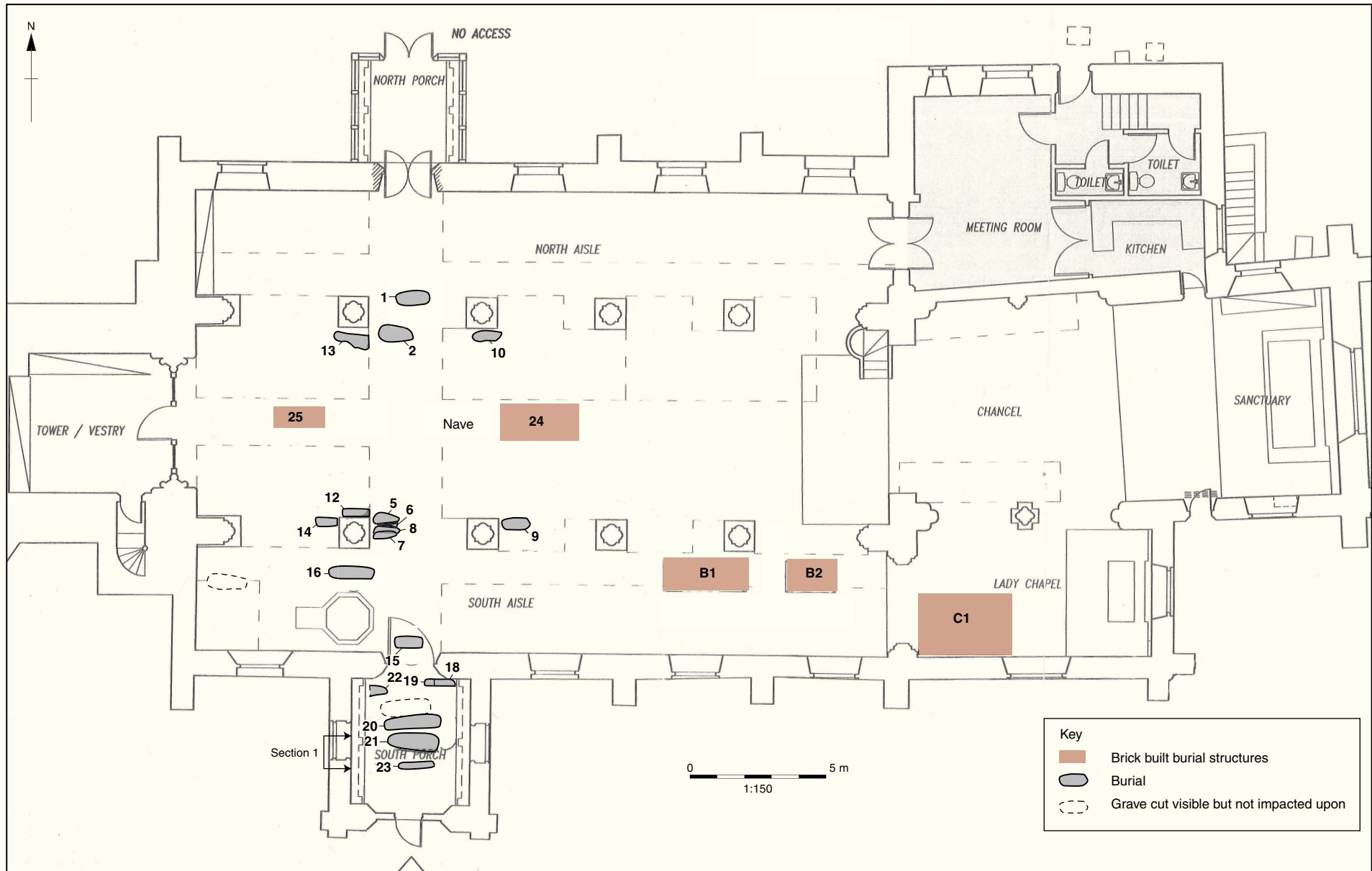
No evidence for any of the earlier phases of the church's construction was observed.

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Buckinghamshire County Museum in due course, under the following accession number: AYBCM:2010.199



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Figure 1: Site location



Adapted from an original drawing by Robin Nugent Architects, Nov 10

Figure 2: Site plan

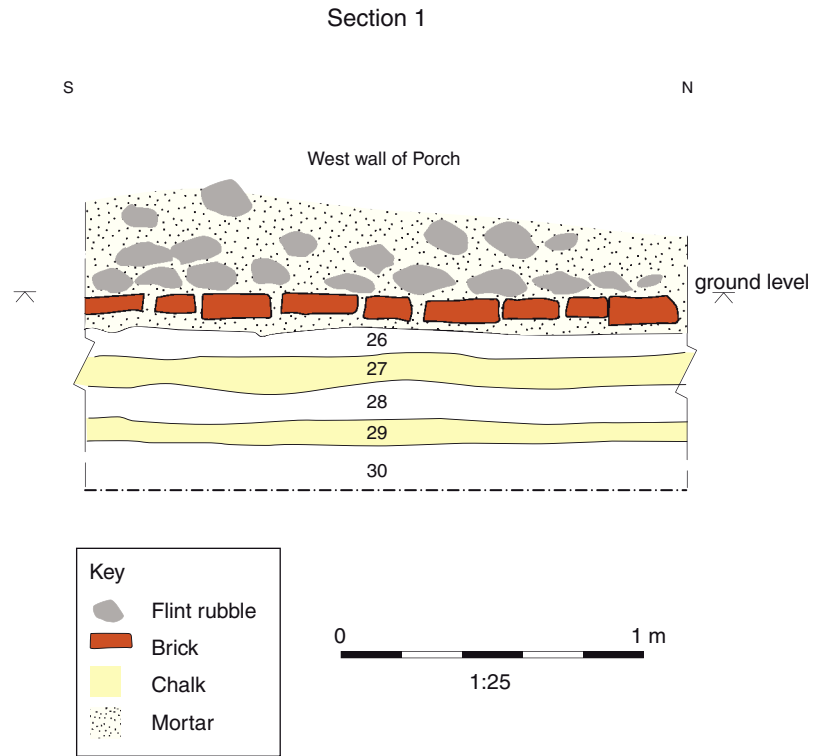


Figure 3: Section 1



Plate 1: Interior of the Church following ground reduction



Plate 2: Skeleton 1



Plates 3: Skeleton 2



Plate 4: Skeleton 5 (right hand and forearm only),
Skeleton 6 (neonate)



Plate 5: Skeleton 7



Plate 6: Skeleton 8



Plate 7: Skeleton 9



Plate 8 : Skelaton 12



Plate 9: Skeleton 13



Plate 10: Skeleton 16



Plate 11: Brick shaft grave B1 prior to removal of capping slabs



Plate 12: Brick shaft grave B1 after removal of capping slabs. Note the disarticulated bone at the foot end of the grave. (View west)



Plate 13: Breastplate WESTMC1 and lid motif CCS6 from brick shaft grave B1



Plate 14: Brick shaft grave B2 (view east)



Plate 15: Brick barrel vault C1, in Lady Chapel (view east)



Plate 16: Skeleton 18



Plate 17: Skeletons 20 (right) and 21 (left)



Plate 18: Left and right femora from Skeleton 21. Note the abnormal angle of the left femoral head due to a healed fracture of the femoral neck (arrowed)



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