

QUANTON
(BUCKS)

BUCKINGHAMSHIRE

Church of Holy Cross and
St Mary
Quainton
Buckinghamshire



**Archaeological
Watching Brief Report**



Oxford Archaeology

October 2004

**Client: Architects Design
Partnership LLP**

Issue N^o: 1
OA Job N^o: 2298
NGR: SP 749 201

Client Name: Architects Design Partnership LLP

Client Ref No:

Document Title: Church of Holy Cross and St Mary, Quainton,
Buckinghamshire

Document Type: Watching Brief

Issue Number: 1

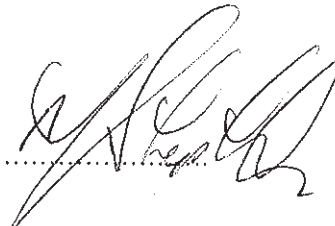
National Grid Reference: NGR SP 749 201
Planning Reference:

OA Job Number: 2298
Site Code: QUCHSM 04
Invoice Code: QUCHSMWB
Receiving Museum: Buckinghamshire County Museum
Museum Accession No: ABYCM 2004.57

Prepared by: Annie Bingham
Position: Senior Project Manager
Date: 22nd September 2004

Checked by: Andrew Holmes
Position: Head of Small Works
Date: 1th October 2004

Approved by: Nick Shepherd
Position: Head of Fieldwork
Date: 13th October 2004

Signed.....

Document File Location H:\PROJECTS\Buckinghamshire BU\Aylesbury Vale
AV\4974 Holy Cross and St Mary's Church, Quainton
WB\Final report and osteo rep.doc

Graphics File Location Server
10:/oaupubs1_ItoQ*QUHSMWB*QUCHSM04*Church
of Holy Cross and St. Mary, Quainton*jm*09.10.04

Illustrated by Julia Moxham

Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

Oxford Archaeology

© Oxford Archaeological Unit Ltd 2004

Janus House

Osney Mead

Oxford OX2 0ES

t: (0044) 01865 263800

f: (0044) 01865 793496

e: info@oxfordarch.co.uk

w: www.oxfordarch.co.uk

Oxford Archaeological Unit Limited is a Registered Charity No: 285627

Church of Holy Cross and St Mary, Quainton, Buckinghamshire

NGR: SP 749 201

ARCHAEOLOGICAL WATCHING BRIEF REPORT

CONTENTS

Summary.....	1
1 Introduction	1
1.1 Location and Scope of Work.....	1
1.2 Geology and Topography.....	1
1.3 Archaeological and Historical Background	1
2 Project Aims and Methodology.....	1
2.1 Aims	1
2.2 Methodology.....	2
2.3 Finds	2
2.4 Palaeo-environmental Evidence	3
3 Results: Descriptions.....	3
3.1 Excavation Area	3
4 The Artefacts	6
5 The Human Skeletal Assemblage.....	8
6 Discussion and Conclusion.....	17
Appendix 1 Archaeological Context Inventory	19
Appendix 2 Bibliography and References	24
Appendix 3 Summary of Site Details.....	26

LIST OF FIGURES

- Figure 1 Site location
Figure 2 Plan of excavation area

PLATES

- Plate 1 Gravestone
Plate 2 Brick-lined shaft grave
Plate 3 Skeleton 33
Plate 4 Skeleton 16
Plate 5 Skeleton 14
Plate 6 Skeleton 38
Plate 7 Skeletons 57 and 59
Plate 8 Skeleton 63
Plate 9 Skeleton 36
Plate 10 Skeletons 20 and 22
Plate 11 Working shot

SUMMARY

In June 2004 Oxford Archaeology (OA) carried out an archaeological watching brief, and subsequently an excavation, at the Church of Holy Cross and St Mary, Quainton, Buckinghamshire (NGR SP 749 201). The work was commissioned by Architects Design Partnership LLP on behalf of the Parochial Church Council in advance of the construction of a new north porch with a WC. The watching brief revealed a post-medieval brick-lined shaft grave and gravestone, twenty-five graves and an assemblage of pottery mostly of Saxo-Norman or medieval date. The remains of six mostly complete skeletons were exhumed for osteological analysis.

1 INTRODUCTION

1.1 Location and Scope of Work

1.1.1 In June 2004, Oxford Archaeology (OA) carried out an archaeological watching brief, and subsequently an excavation, at the Church of Holy Cross and St Mary, Quainton, Buckinghamshire (Figure 1). The work was commissioned by Architects Design Partnership LLP on behalf of the Parochial Church Council in advance of the construction of a new north porch with a WC.

1.1.2 A project brief was set by Julian Munby, Diocesan Archaeological Advisor to the Diocese of Oxford (DAC 2003). OA operated in accordance with this document during the project.

1.2 Geology and Topography

1.2.1 The site lies on pale grey mudstone of the Ampthill clay formation at 102 m above OD. The excavation area is situated on the north side of the church, which is to the east of the village centre.

1.3 Archaeological and Historical Background

1.3.1 The archaeological background to the church appeared as part of the archaeological specification (DAC 2003) and is reproduced below.

1.3.2 The Church of Holy Cross and St Mary was built in the 14th-century with a nave, chancel and aisles. The west tower, south porch, clerestory and north chapel were added in the 15th-century when the nave piers were raised. During the 1877 restoration work, the north aisle and south porch were rebuilt. The 19th-century north vestry may also have been added at this time.

2 PROJECT AIMS AND METHODOLOGY

2.1 Aims

2.1.1 To identify and record the presence/absence, extent, condition, quality and date of archaeological remains in the areas affected by the development.

- 2.1.2 To determine the character of the fabric (above and below ground) in the vicinity of the new works, especially where it was to be removed.
- 2.1.3 To determine the presence of any remains of earlier buildings in the immediate vicinity of the new works.
- 2.1.4 To record the known grave that would be affected by the works.
- 2.1.5 To determine the extent to which human remains survive in the affected area.
- 2.1.6 To generally observe the presence of burial vaults and graves.
- 2.1.7 To signal, before work proceeded, the discovery of an archaeological find for which further action would be required.
- 2.1.8 To make available the results of the archaeological investigation.

2.2 Methodology

- 2.2.1 The archaeological investigation comprised two stages of work. Initially the project brief stipulated a program of monitoring works within the footprint of the proposed development area. This led to an open area excavation and full excavation and osteological recording of exposed burials as requested by the Diocesan Archaeological Advisor to the Diocese of Oxford.
- 2.2.2 The investigation area consisted of a 5.3 m x 4.3 m trench (Fig. 2). A 360° tracked excavator fitted with a bladed ditching bucket was initially employed to remove overburden in the area that would form the foundation cut for the concrete raft designed to support the new north porch. This was carried out under constant archaeological supervision until relevant archaeological horizons were uncovered. At this point the area was cleaned by hand and the features revealed excavated until the depth of the formation level was reached. Burials threatened by the development were removed. Partial or disarticulated skeletal bones were generally recorded but once exhumed, left with the Church for reburial at its discretion. It was intended that a full burial recording action would take place on any complete burials to include those of significance.
- 2.2.3 All archaeological features were planned at a scale of 1:10 before being excavated and a representative section of the excavation area was also drawn at a scale of 1:10. All excavated features were photographed using colour slide and black and white print film. A general photographic record of the work was made. Recording followed procedures detailed in the *OA Field Manual* (OAU 1992).

2.3 Finds

- 2.3.1 Finds were recovered by hand during the course of the excavation and bagged by context in accordance with the *OA Field Manual* (OAU 1992). No small finds of special interest were recovered requiring a unique small finds number.

2.4 Palaeo-environmental Evidence

- 2.4.1 No deposits suitable for environmental sampling were identified during the excavation.

3 RESULTS: DESCRIPTIONS

3.1 Excavation Area

3.1.1 The geological clay was not revealed during the excavation. The earliest stratigraphic horizon encountered was a compact blue-grey clay (8), which represented the homogenous graveyard fill into which the graves had been cut. Eleven sherds of 15th-century pottery were present within this deposit. The graveyard fill was sealed by a compacted crushed limestone layer (26) which measured 0.21 m in thickness. Layer 26 was overlaid by a further compacted layer (2) of orange gravel measuring 0.14 m in thickness which was in turn sealed by tarmac (1). The investigation area was excavated to a total depth of 0.72 m (Fig. 2, Sect. 1).

3.1.2 The centuries of continuous grave digging resulted in a general lack of distinction between the graveyard fill and the individual grave fills. The homogenous nature of both types of deposit meant that in some cases grave cuts could not be defined, and many grave cuts were only evident upon the point of truncation with an earlier grave.

The graves (Fig. 2)

3.1.3 All the graves uncovered were aligned east-west. In total twenty-five skeletons were revealed, of which six were fully excavated, processed and underwent full osteological analysis. The remainder were recorded, planned and boxed for reinterment.

Area towards the west

3.1.4 Graves 88 and 92, located in the western part of the investigation area, were both truncated by a modern pipe trench. Grave 88 contained the remains of a sub-adult skeleton (33) which had been truncated below the pelvis. Grave 92 contained parts of the upper torso of an adult skeleton (42). Grave 94, was truncated by later grave 77 and contained only the legs of an adult skeleton (47). All of the graves were filled with a dark blue-grey clay, which was very similar to the graveyard soil (8).

3.1.5 Grave 77 was only partially excavated and no skeletal remains were revealed. The grave consisted of a rectangular cut (5) measuring 2.22 m x 0.9 m. The earliest fill identified within the grave was a deposit consisting of dark blue-grey compacted clay (6), covered by a fill of mid blue-grey clay measuring 0.3 m in thickness with crushed pieces of white mortar (4), sealed by a brick plinth (3), interpreted as the top of a brick shaft grave. The 'plinth' comprised two layers of brick laid in a stretcher pattern at 90° to each other surrounded by a series of bricks placed on edge, bonded by a heavily degraded lime mortar. This grave was delineated by grave stone 105 seen below the made ground make up of the tarmac path which indicated the resting

place of three people, George Adams, deceased 1842, and his first and second wife, deceased 1832 and 1843 respectively¹ (Plate 1).

Area to the north-west and north

- 3.1.6 In the north-west corner of the excavation area grave 102 was encountered, containing only the right arm of sub-adult skeleton (67). Similar to elsewhere across the site, the nature of the grave backfill (66) and the graveyard soil (8) made it difficult to determine the stratigraphic relationship between graves 102 and 90, but the truncated remains of skeleton 67 suggested grave 102 was earlier.
- 3.1.7 Grave 90, to the east of grave 102, contained the remains of an adult skeleton (38) and was backfilled with a grey/brown clay silt (37). The lower half of skeleton 38 had been truncated by the construction of grave 82 which contained a near complete adult female (16). Three 13th-century pottery sherds, and the disarticulated leg bones and pelvis of an adult male (presumably skeleton 38) were present within the homogenous silt clay backfill (17).
- 3.1.8 The construction (cut 64) of grave 79, which measured 1.5 m x 0.6 m, removed the feet of the female skeleton within grave 82. Grave 79 contained the complete skeleton of a young adult (14) and the grave backfill contained three mid 11th-century pottery sherds.
- 3.1.9 Grave 97 was located directly to the north of grave 82. This grave was only partially uncovered during the excavation with approximately half remaining beyond the northern limit of the investigation area. The grave contained an adult skeleton (53) and was backfilled by a grey-brown silt-clay (52). The right hand of skeleton 53 was not present suggesting it was truncated by the construction of grave 82, which could not be determined due to the similarity of the grave fill.
- 3.1.10 The upper half of skeleton 51 within grave 96 had been completely removed during the cutting of grave 97, with only the partial remains of the leg bones surviving.

Area to the north-east

- 3.1.11 In the north-east corner of the investigation area a series of intercutting graves were exposed. The earliest of these were graves 98 and 99. Grave 98 contained the near complete remains of an adolescent child (57) aged 15-17 years old whilst grave 99 contained a child skeleton (59) aged 8-10 years old. Despite their close proximity to each other, a relationship could not be established as no discernible grave cuts were present. Grave fill 55 within grave 98 contained two sherds of pottery dating to the mid 12th century. Both skeletons were truncated by grave 100 which removed the feet of 57 and the lower legs of 59.
- 3.1.12 Grave 100 contained the shoulder only of an adult skeleton (61). The rest of the body remained unexcavated as it continued beyond the eastern limit of the excavation. The

¹ Grave stone reads: Erected to the memory of George Adams who died September 3rd 1842 Aged 42 Years, and of Jane his first wife who died June 4th 1832 Aged 30 Years, also of Jemima his relict who died January 1st 1843 Aged 36 Years.

skull had been truncated by the digging of grave 85 (see below). The full extent of the grave cut was not clearly discernible in plan, but a slight deposit change was noted within the grave fill (60) at the point of truncation with earlier graves 98 and 99.

- 3.1.13 Grave 85 contained the upper part of an adult male (30), with the remainder of the skeleton continuing beyond the eastern limit of excavation. The skull and rib cage had suffered slight damage from the construction of later grave 87. Grave cut 106 was only clearly visible at the point where it cut through earlier grave 100. The grave fill (71) contained a single sherd of 12th-century pottery.
- 3.1.14 Grave 93 contained the poorly preserved upper half of adult skeleton (43). The remainder of the skeleton was beyond the eastern limit of excavation and most likely would have been damaged by modern drain 25. Coffin nails and some degraded wood fragments were recovered from the dark blue-grey clay grave fill (44), along with a single sherd of 12th-century pottery. No coffin stain survived, and the line of the grave cut (119) was only visible at the point of truncation with earlier grave 85.
- 3.1.15 To the north of grave 93 lay grave 87 which contained the incomplete remains of adult skeleton 28; the remainder continuing beyond the limit of excavation. A large proportion of the left side of the skeleton had been removed during the initial excavation of later grave 86. Grave fill 75 comprised a dark blue-grey clay which contained two residual sherds of Romano-British pottery. Grave 86 contained the skull of an adult skeleton (29), possibly female, and was filled by a dark blue-grey clay (74). The grave cut (72) was clearly visible around the western edge of the grave, and along the southern edge at the point where it truncated grave 87. The remainder of the grave was completely removed by later grave 103, which did not contain skeletal remains but was filled by the characteristic dark blue-grey clay grave fill.
- 3.1.16 Grave 101 was to the north-west of grave 103 and contained the upper body of a sub-adult skeleton (63) aged 10-13 years, the lower part of the legs truncated by grave 84 to the east. Again no grave cut was visible, and the grave fill (62) was indistinguishable from the surrounding graveyard fill (8). Grave 84 contained the articulated skull and partial shoulder remains of an adult skeleton (31) which had in turn been truncated by grave 83. Grave cut 70 was difficult to distinguish and was only visible at the point where it cut through earlier grave 101.
- 3.1.17 Grave 83 was only partially exposed revealing the head and shoulders of an adult female (32), the remainder of the skeleton continuing beyond the eastern limit of investigation. The grave cut (68) was not clearly defined and was only apparent where earlier grave 84 was truncated. As with the all graves recorded, the dark blue-grey clay grave fill (27) was again indistinguishable from the graveyard soil (8).

Area towards the east and south-east.

- 3.1.18 Grave 89 was located towards the eastern part of the investigation area and contained the near complete remains of a mature adult male skeleton (36) at least 40 years of age. The grave was backfilled with a dark blue-grey clay (35) which contained

containing a single pottery sherd dating to the mid 12th-century. As with the other graves in this area, a grave cut could not be distinguished.

- 3.1.19 Adjacent to grave 89 was grave 81 which contained the partial remains of an adult skeleton (22) within the dark blue-grey clay grave fill (21). The skull, upper torso and arms, and the left femur were present within the grave, the remainder was truncated by later grave 80. A single sherd of late 13th-century pottery, and a number of iron nails were present within the grave fill.
- 3.1.20 Grave 80 contained the partial remains of an adult skeleton (20) protruding from the eastern section of the trench from the pelvis upwards. The body had been disturbed along its south side by the digging of a modern service trench and the grave was backfilled by the characteristic dark blue-grey clay (18) similar to graveyard soil (8) through which the grave had been cut.
- 3.1.21 Grave 78 was located at the south-east corner of the investigation area, and continued beyond the eastern limit of excavation. A rectangular coffin stain (11) was clearly visible within the grave cut (10) comprising a mid brown clay measuring 0.55 m width. Remnants of coffin nails, in the form of regularly spaced iron residue spots, were present along the edge of the coffin stain. The grave backfill (12), a dark blue-grey clay, contained two sherds of pottery dating from the mid 11th-century.

Area towards the south-west

- 3.1.22 Grave 91 was located within the south-western corner of the investigation area. Only part of the grave was exposed in plan, the remainder continuing beneath the western limit of excavation. The grave contained the pelvis and upper legs of a sub-adult (40), the lower legs below the knee had been truncated by a modern drain cut. The grave fill consisted of a dark blue-grey clay (18).

The service channel

- 3.1.23 Grave 95 was exposed in the cut of the service channel dug outside the main trench area to the west. Only part of an adult skeleton (49) was revealed including the pelvic region, the upper legs and the lower left arm. No grave cut was visible due to the similar nature of the grave fill (48) and the graveyard fill (8). There was no evidence to suggest the body had been placed in a coffin.

4 THE ARTEFACTS

- 4.1.1 A total of 25 sherds of pottery was recovered from ten different contexts. A number of coffin nails, fragments of decomposed wood and charnel deposits were also recorded but not retained.

The Pottery

By Paul Blinkhorn

- 4.1.2 The pottery assemblage comprised 25 sherds with a total weight of 190 g. The entire assemblage, two Romano-British sherds aside, was Saxo-Norman or medieval.

4.1.3 The location of the site means that the assemblage comprised some types which are well-known in Buckinghamshire and others which are not, but are common finds in Oxfordshire. Consequently, the Buckinghamshire types were recorded using the coding system of the Milton Keynes Archaeological Unit type-series (eg Mynard and Zeepvat 1992; Zeepvat *et al.* 1994), here prefixed with 'MK', whereas the Oxfordshire types utilized the coding system and chronology of the Oxfordshire County type-series (Mellor 1984, 1994), prefixed with 'OX', as follows:

MK SNC1: *St Neots Ware*, c.AD 900-1100. 2 sherds, 23 g.

OXAC: *Cotswold-type ware*, AD 975-1350. 2 sherds, 24 g.

MK MC1: *Shelly Coarseware*, AD 1100-1400. 2 sherds, 24 g.

MK MS3: *Medieval Grey Sandy Ware*, Mid 11th/late 14th century. 16 sherds, 98 g.

MK MC6: *Potterspury ware*, ?AD 1250/75-?1600. 2 sherds, 7 g.

MK MC9: *Brill/Boarstall Ware*. 1200-?1600. 1 sherd, 14 g.

4.1.4 In addition, two sherds (13 g) of probable Romano-British pottery were also recorded.

4.1.5 The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a *terminus post quem*.

Table 1: Pottery occurrence by number and weight (in g) of sherds per context by fabric type

Context	RB		SNC1		OXAC		MS3		MC1		MC9		MC6		Date
	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	
8			1	16	1	18	8	52			1	14			15thC?
12					1	6	1	8							M11thC
15							3	10							M11thC?
17			1	7			1	1					1	3	L13thC
21													1	4	L13thC
28	2	13													RB??
30									1	10					12thC?
36							1	5							M11thC?
44									1	14					12thC?
55							2	22							M11thC
Total	2	13	2	23	2	24	16	98	2	24	1	14	2	7	

5 THE HUMAN SKELETAL ASSEMBLAGE

By Annsofie Witkin and Ceridwen Boston

Introduction

- 5.1.1 In the course of excavation, the articulated remains of 25 inhumations were revealed, recorded and exhumed for later reburial. Of these, a sample of six of the more complete skeletons underwent full osteological analysis. A moderate quantity of disarticulated bone from earlier disturbed burials was also discovered and collected and will be re-interred with the other human remains.

Methodology

- 5.1.2 Seven of the most complete and best preserved skeletons were selected for full macroscopic osteological analysis. The following methodologies were utilized where appropriate, in accordance with the guidelines for best practice set out by BABAO (Brickley and McKinley 2004).
- 5.1.3 Adults were aged using a combination of methods, including ageing from the pubic symphysis (Todd 1921; Suchey and Brooks 1990), auricular surface (Lovejoy *et al* 1985), cranial suture closure (Meindl and Lovejoy 1985) and sternal rib ends (Iskan and Loth 1984; Iscan *et al* 1985), dental attrition (Miles 1962). Sub-adults were aged by dental development (Moorees *et al* 1963), epiphyseal fusion (Bass 1987; Schwarz 2000) and diaphyseal long bone length (Hoppa 1992).
- 5.1.4 Sexing of adults was determined from the skull and pelvic morphology (Buikstra and Ubelaker 1994), and from metric data (Workshop 1980). No attempt was made to sex sub-adults, in accordance with accepted practice.
- 5.1.5 Stature of the adults was estimated from combined long bone length measurements, using the regression formulae developed by Trotter (1970). Wherever possible combined femoral and tibial measurements were used. In the absence of either bone, stature was calculated using one long bone, preferably from the lower limb, but where this was unfeasible, the upper limb long bones were utilised.

Preservation

- 5.1.6 Bone preservation appeared to vary considerably between burials, from very poor to good. Inter-observer error appeared to have been considerable. Whilst the cortical bone was sufficiently well preserved on the skeletons selected for analysis to identify a range of pathologies, the bones were very fragmented. This probably reflects the difficulties of excavation of the tenacious clay soil present on the site.

Completeness

- 5.1.7 In common with many other ancient churchyards that have been used as a place of burial for many centuries, considerable intercutting of graves was observed in Holy Cross and St Mary's churchyard. Due to the truncation of earlier graves by later burials, most skeletons from the site are incomplete. For example, only the upper half of skeletons 11, 22 and 38 remained in their graves undisturbed, whilst only the legs of skeleton 51 remain in their original resting place. During the construction of

the Victorian ? brick-lined shaft grave (5), dated to 1840, the lower half of skeleton 33, and all but the lower limbs of skeleton 47 were removed.

- 5.1.8 In accordance with the method statement, only those skeletal elements that lay within the area of excavation were exposed, recorded and lifted. Body parts extending beyond the limit of excavation were not investigated, and were left in situ, despite the removal of the other exposed parts of the skeleton. The partial exposure of seven skeletons has considerably curtailed the amount of osteological information that might have been recovered had the skeletons been viewed in their entirety. Of the entire assemblage, skeletons 14, 16 and 36 were the only skeletons that were recovered more or less complete.

Assemblage composition

- 5.1.9 The remains of 25 individuals were uncovered during excavation. Of these, 18 were adults, 2 were older children (skeletons 59 and 63), and 1 was an adolescent (skeleton 57). There were also four children of unspecified age. No newborns or infants were present in the assemblage.
- 5.1.10 Six individuals were formally osteologically analysed. It was possible to estimate the age and sex of these individuals more accurately than was undertaken on site with the remaining 20 skeletons. There were two older children, aged 8-10 years and 10-13 years (skeletons 59 and 63 respectively); one adolescent, aged 15-17 years (skeleton 57); one young adult of indeterminate sex, aged 18-24 years (skeleton 14); one prime adult female, aged 30-44 years (skeleton 16); one mature adult male, aged 40+ years (skeleton 36). Unfortunately, the assemblage from the Holy Cross and St Mary's churchyard was too small to undertake any meaningful palaeodemographical analysis.

Stature estimation

- 5.1.11 Stature estimation was not attempted on sub-adults. Due to the severe fragmentation of most long bones of this assemblage, stature estimation was only possible on two adult individuals. The young woman (skeleton 14) was 1.581 ± 0.037 m or 5'2" tall. Skeleton (16), an adult male of unspecified age, had an estimated stature of 1.678 ± 0.337 m or 5'6" tall. Whilst skeleton (14) is in keeping with the average stature estimates for women in the late Medieval period (1.59 m or 5'2.5"), skeleton (16) fell slightly below the crude stature estimate for men in this period (1.71 m or 5'7") (Roberts and Cox 2003, 248).

Skeletal pathology

- 5.1.12 All the skeletons that underwent osteological analysis displayed skeletal pathologies.

Degenerative joint disease

- 5.1.13 Only one individual (skeleton 16) showed any evidence of degenerative joint disease. However, in this prime adult, the spinal degenerative joint changes were slight, with slight osteophytosis to the bodies of C1, 2, 4, 5 and 6, and slight to moderate macroporosity observed on the bodies of C3-6. The thoracic vertebrae of this skeleton were too fragmented for pathology to be assessed. Slight degenerative

changes were also observed in the right hip joint, with minor lipping noted on the acetabulum. Such bony changes are commonly age related, although physical activities, lifestyle and diet all play a role (Roberts and Manchester 1995; 114).

Metabolic disease

- 5.1.14 The most widespread pathology noted on the skeletons from Holy Cross and St Mary's church, Quainton, was porotic hyperostosis, which manifested on the cranial vault bones, and as *cribra orbitalia* within the eye orbits of five skeletons (14, 16, 57, 59 and 63). Porotic hyperostosis is widely thought to occur in response to a deficiency of iron during childhood, most commonly as a result of an inadequate dietary intake of iron, and/or as a result of severe intestinal parasite infestation (Roberts and Manchester 1995, 166-167; Stuart-Macadam 1991, 101-113; Aufdehede and Rodriguez-Martin 1998, 348-350). Red bone marrow produces red blood cells, which require iron for the transportation of oxygen in the blood. To compensate for low serum iron levels, the bones of the skeleton containing red marrow hypertrophy. In children, the diploe of the cranial vault are most significantly affected. Osteologically, this manifests as thickened porous areas in the orbital sockets (known as *cribra orbitalia*) and on the cranial vault, most commonly on the parietal bones.
- 5.1.15 *Cribra orbitalia* is often used as a generic indicator of physical stress in childhood. Following the cessation of iron deficiency anaemia in childhood, and once individuals attain adulthood, these lesions begin to remodel, and may disappear altogether over time. Skeleton 59 (an 8-10 year old child) displays active *cribra orbitalia* Type 2 (according to the standards of severity set out by Stuart Macadam 1991, 109). The older child, skeleton 63, manifests with marked *cribra orbitalia* (Type 3), which was active at the time of death. By contrast, the adolescent skeleton (skeleton 57) displays considerable healing of lesions on the left and right parietal bones, with slight thickening of the diploe and minor macroporosity apparent. Similarly, in the young adult female (skeleton 14), parietal porotic hyperostotic lesions display evidence of healing, with moderate porosity still evident.

Trauma

- 5.1.16 Skeleton (16) had also suffered a depressed fracture of her left parietal bone. Located superio-distally, just inferio-distal to the parietal bossing, was a circular area, diameter 14.2 mm, depressed approximately 2.1 mm below the level of the outer surface of the bone. The lesion appeared well healed, and evidently did not contribute directly to her early demise. Depressed fractures of the skull are the most commonly seen type of head injury in archaeological populations (Roberts and Manchester 1995, 81), and are often the result of assault with a heavy blunt instrument. The position of the blow on the left parietal bone of skeleton (16) suggests that she was attacked face-to-face by a right-handed assailant. Although accidental falls may also induce depression fractures of the skull, Aufdehede and Rodriguez-Martin (1998, 23) report that inter-personal violence appears to have been the predominant cause of such injuries in the past.

5.1.17 Such a blow often leads to temporary or permanent brain damage, secondary to extradural or subdural bleeding around the brain depending on its severity and location (Roberts and Manchester 1995, 81). There was no indication on the post-cranial skeleton that this individual had suffered any prolonged neuro-muscular deficits, which sometimes manifest on the skeleton as demineralisation and wasting of particular skeletal elements or body parts.

Infection

5.1.18 The vast majority of infections, only involve the soft tissue of the body, leaving no trace of their presence on the bones of the skeleton. In addition, many infectious diseases have a very acute course, lasting only several days. Even where an infection does involve bony tissue, with such short-lived diseases there is insufficient time for the bone tissue to display an observable reaction to this infection. As such, the majority of diseases suffered by people in the past do not manifest on their skeletons.

5.1.19 In this assemblage, only one skeleton presented bony changes indicative of infection. The medial aspects of the right and left tibial shafts of skeleton (14) showed striated lamellar bone overlying the normal bone cortex. The infection was non-specific in origin, and was probably secondary to injury and infection of the soft tissue overlying the bone. Due to the shallow tissue depth over the medial tibial shafts, lesions in the skin may easily penetrate to the surface of the bone, leaving the tell-tale traces of localised infection described above. In skeleton (14) the periostitis had healed well before the death of that individual.

Dental pathology

5.1.20 A summary of the dental pathology is displayed below in Table 2. The prevalences cited below relate to the permanent dentition only.

5.1.21 Dental pathology, such as periodontal disease, caries and ante-mortem tooth loss (AMTL) frequently relates to the consumption of carbohydrates and to poor oral hygiene practices. Food residues left on the teeth following consumption of carbohydrates rapidly become colonised by bacteria, and are broken down to form a corrosive plaque. It is this plaque that is responsible for the development of carious lesions on the teeth. Plaque may also mineralise, forming a hard immovable coating of calculus on the tooth surface, colloquially known as tartar. Periodontal disease is the inflammation of the soft tissues of the mouth, namely the gums, and/or the periodontal ligament and alveolar bone. Retraction of the gums exposes the vulnerable root of the tooth to attack by acidic plaques, commonly resulting in caries, abscesses and ante-mortem tooth loss. Periodontal disease may be localised to two or three teeth (as were both cases cited in Table 2 below), or may be more diffused.

Table 2: Prevalence of dental pathology in the permanent dentition of skeletons from Church of Holy Cross and St Mary, Quainton (n = 6)

Dental Pathology								
Skeleton	Age	Sex	Dental caries	DEH	AMTL	Peridontal disease	Dental abscess	Calculus
14	18-24 y	unidentifiable	1/32	4/32	0/32	-	0/32	32/32
16	30-44 y	female	0/27	12/27	1/29	moderate	0/29	24/27
36	40+ y	male	4/22	7/16	4/30	-	1/30	14/22
57	15-17 y	unknown	1/22	6/20	0/32	-	1/32	10/20
59	8-10 y	unknown	0/13	7/13	0/30	-	0/30	0/13
63	10-13 y	unknown	0/32	2/25	0/32	-	0/32	4/25
Prevalence			6/148 (4.05%)	38/133 (28.57%)	5/185 (2.70%)	1/6 (16.67%)	2/185 (1.08%)	84/139 (60.43%)

Dental Caries

5.1.22 Dental caries were evident on 6 of 148 teeth with erupted and intact crowns. This is a prevalence of 4.05 %. These caries ranged in size from slight to moderate and were found on all aspects of the tooth crown. Dental caries develop as a result of poor oral hygiene and a diet high in carbohydrates. The relatively low rate of caries, and dental disease in general probably relates closely to the young age of the sample.

Ante-Mortem Tooth Loss

5.1.23 Ante-mortem tooth loss (AMTL) was present in two skeletons (skeletons 16 and 36). These were the two oldest individuals in the sample. The prevalence in this population was 5 teeth lost from the 185 sockets present (2.07 %). Although teeth were sometimes drawn electively, in anticipation of the agonies of toothache in later life, or lost as a result of trauma, it is likely that most teeth were lost as a result of periodontal disease and caries. AMTL is age-related and hence it is no surprise that the older members of the skeletal population suffered higher rates of tooth loss.

Periodontal disease and dental abscesses

5.1.24 Periodontal disease encompasses any ailment of the supporting structures of the teeth, including the gums, periodontal ligament and alveolar bone. It may be divided into two distinct but not mutually exclusive processes: gingivitis or inflammation of the gums, and periodontitis, the destructive loss of bone and connective tissue attachments that anchor the teeth in the jaw (Levin 2003; 244). On skeletal tissue this is evident from the resorption of the alveolar bone leaving the roots of the teeth exposed. Deposition of calculus below the cemento-enamel junction is frequently noted. In this assemblage, only one individual had periodontal disease (16.67 %). This was moderate in severity and involved all four quadrants of the mouth.

5.1.25 Severe disease of a tooth may result in infection tracking down to root canal or around the root to the apex of the root, resulting in a dental abscess. In untreated cases the pressure of the inflammation and accumulated pus forces a path through the alveolar bone, leaving behind a smooth-sided lesion in the jaw. Two individuals displayed such lesions (skeletons 36 and 57).

Dental Enamel Hypoplasia

5.1.26 Dental enamel hypoplasia (DEH) manifests on the buccal surface of the crowns of teeth as pits, horizontal lines or lines of pits. It is a thinning of the enamel of the

crown that reflects an interruption or slowing of the normal deposition of enamel during crown formation in the first six or seven years of life (Goodman and Rose 1990). This may be due to a prolonged episode of illness or malnutrition during childhood. Unlike bone, enamel does not remodel throughout life and so remains as a permanent indicator of such an episode of stress in the early years of life.

- 5.1.27 In the Quainton sample, all the six individuals with dentition displayed DEH. The number of lines per tooth ranged between one and three, the latter revealing repeated episodes of physical and/or emotional stress during early childhood. In the sample, 38 of 133 crowns with clearly visible buccal surfaces displayed DEH (28.57 %).

Burial practices

- 5.1.28 All the skeletons excavated at Holy Cross and St Mary's church, Quainton, were orientated west-east, and laid out in a supine and extended position. This is in keeping with traditional Christian burial practices. All but one burial lacked any evidence of a coffin. This is in keeping with medieval burial traditions in which all but the most wealthy and socially prominent individuals were buried in shrouds without a coffin.
- 5.1.29 Adult skeleton (13) was buried within a coffin. This coffin was of wood, which had completely decayed, leaving only a dark stain within the grave backfill. Considerably corroded iron fixing nails were recovered from the head and sides of the coffin stain. The stain suggests that the coffin was rectangular in shape. This simple box-shape tends to predate the single-break coffin form that we traditionally associate with coffins today. Single break coffins became popular in the latter half of the 17th-century (Litten 1991, 99). In the medieval period, the use of coffins was restricted to the more socially prominent or wealthy members of society, and was to some extent a status symbol. No 15th-century peasant or artisan would expect to be buried in a coffin, but by contrast, no noble would be buried only in a shroud within a churchyard (Litten 1991, 86). The presence of the coffin and the close proximity of this individual to the north door of the church suggests that the individual was of greater social standing than the other burials in the immediate vicinity. However, the north side of a churchyard was the least favoured part of the churchyard for burial, commonly held to be dark and unlucky, and was often associated with the devil and his minions.

Skeleton	Grave group	Age	Age category	Sex	Preservation	Completeness	Body parts present	Orientation	Body position	Coffin
13	78	unknown	unknown	unknown	fair	60-70%	pelvis, hands and feet not excavated	west-east	supine	present
14	79	18-24 y	young adult	indeterminate	good	70-80%	<i>very fragmented</i>	<i>west-east</i>	<i>supine</i>	absent
16	82	30-44 y	prime adult	female	good	60-70%	<i>feet absent</i>	<i>west-east</i>	<i>supine</i>	absent
20	80	adult	adult	unknown	poor	20-30%	only L upper arm, thorax and vertebrae present	west-east	supine	absent
22	81	adult	adult	unknown	poor	25-30%	upper body and L femur present	west-east	supine	absent
28	87	adult	adult	unknown	poor	50-60%	skull & upper body present	west-east	supine	absent
29	86	adult	adult	? Female	poor	15-20%	skull & forearms only	west-east	supine	absent
30	85	adult	adult	male	poor	20-30%	skull & upper torso only	west-east	supine	absent
31	84	adult	adult	unknown	unknown	20-30%	skull, cervical vertebrae & L upper arm only	west-east	supine	absent
32	83	adult	adult	female	fair	15-20%	skull, cervical vertebrae and clavicles present	west-east	supine	absent
33	88	subadult	subadult	unknown	poor	50-60%	truncated from pelvis down	west-east	supine	absent
36	89	40+ y	mature adult	male	good	80-90%	<i>very fragmented</i>	<i>west-east</i>	<i>supine</i>	<i>absent</i>
38	90	adult	adult	unknown	poor	40-50%	complete from pelvis upwards	west-east	supine	absent
40	91	subadult	subadult	unknown	good	20-25%	pelvis & femori only	west-east	supine	absent
42	92	adult	adult	unknown	good	5-10%	upper thorax, L humerus & R shoulder only	west-east	supine	absent
43	93	adult	adult	unknown	very poor	10-15%	skull & L arm fragments only	west-east	supine	absent
47	94	adult	adult	unknown	fair	20-25%	legs only	west-east	supine	absent
49	95	adult	adult	unknown	good	20-25%	L lower arm, femori, pelvis only	west-east	supine	absent
51	96	adult	adult	unknown	fair	25-30%	legs only	west-east	supine	absent
53	97	adult	adult	unknown	fair	35-40%	R side of body & L lower leg	west-east	supine	absent
57	98	15-17 y	adolescent	unknown	good	90-95%	<i>feet absent</i>	<i>west-east</i>	<i>supine</i>	<i>absent</i>
59	99	8-10 y	older child	unknown	good	60-70%	<i>hands & lower legs absent</i>	<i>west-east</i>	<i>supine</i>	<i>absent</i>
61	100	adult	adult	unknown	fair	10-15%	shoulder region only	west-east	supine	absent
63	101	10-13 y	adolescent	unknown	good	60-75%	<i>lower legs missing</i>	<i>west-east</i>	<i>supine</i>	<i>absent</i>
67	102	subadult	subadult	unknown	poor	5-10%	R arm only	west-east	uncertain	absent

Table 3. Summary of the age, sex and completeness of skeletons (n = 25). Aspects of burial practices are also included. Entries displayed in italics indicate full osteological analysis (n = 6).

Catalogue

- 5.1.30 The dental notation employed in the catalogue is as follows:
- | | |
|--------------------|----------------------|
| / post mortem loss | X ante mortem loss |
| C caries | A abscess |
| NP not present | U unerupted |
| E erupting | PE partially erupted |
| K calculus | |
| B broken | |

- 5.1.31 Abbreviations used in the catalogue are as follows:

- R right
L left
DEH dental enamel hypoplasia
AMTL antemortem tooth loss
SDJD spinal degenerate joint disease

*Articulated human skeletons:**Skeleton number 14**Completeness:* 70-80%*Preservation:* good but severely fragmented*Age:* 18-24 years (young adult)*Sex:* unidentifiable*Stature:* 1.581 ± 3.72 m (female estimate)*Dental inventory:*

K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	
8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8	
C																
K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	

Dental Pathology caries x 1; DEH 4/32; calculus 32/32*Pathology* Healed periostitis on medial aspects of L and R tibial shafts; Healed porotic hyperostosis present on L and R parietal bones*Indices:* Robusticity index: ; Platymetric ratio: 85.25; Platycnemic ratio: 77.62*Non-metric traits:* third trochanter present on L and R femora; hypotrochanteric fossa present on L femur

Skeleton number 16**Completeness:** 60-70%**Preservation:** good but many bones fragmented**Age:** 30-44 years (prime adult)**Sex:** female**Stature:** no complete long bones present (stature unknown)**Dental inventory:**

			K	K	K	K				K	K	K	K	K		
-	-	6	5	4	3	2	1		1	2	3	4	5	6	X	-
8	7	6	5	4	3	2	/		1	2	3	4	5	6	7	8
K	K	K	K	K	K	K			K	K	K	K	K	K	K	K

Dental Pathology Moderate periodontal disease; calculus 24/27; DEH 12/27; AMTL 1/28**Pathology** Bilateral healed *cribra orbitalia* (type 1); healed depressed fracture of the L parietal bone;

DJD: slight lipping on the R acetabulum

Non-metric traits present: lambdoid ossicle bilaterally; patent parietal foramen bilaterally; patent L frontal foramen; patent mastoid foramen bilaterally; patent L anterior condylar canal;

hypotrochanteric fossa present bilaterally; double facet form on L calcaneus

Indices: Robusticity index: platymeric index 75.06; platyneic index: 66.82**Skeleton number 36****Completeness** 80-90%**Preservation:** good but very fragmented**Age:** 40+ years**Sex:** male**Stature:** no complete long bones present (stature unknown)**Dental inventory:**

				K	K	K	K									
-	-	X	5	4	3	2	1		1	/	3	4	6	X	X	8
8	7	6	5	4	3	2	1		/	2	3	4	5	X	/	/
K	K		K	K	K	K	K				K	K	K			

Dental Pathology DEH 7/16; caries 4/22; dental abscess 1/30; AMTL 4/30; calculus 14/22**Pathology** Slight SDJD (thoracic and lumbar)**Non-metric traits:** L humeral septal aperture; L third trochanter of femur**Skeleton number 57****Completeness:** 90-95 %**Preservation:** good but very fragmented**Age:** 15-17 years**Sex:** unknown**Dental inventory:**

				K													K
PE	A																U
8	X	6	5	4	-	-	1		1	2	3	4	5	6	7	8	
8	7	6	/	/	3	2	/		1	2	3	4	5	6	7	8	
U									B					C		U	
	K				K	K				K	K	K	K	K			

Dental Pathology Caries 1/22; abscess 1/32; AMTL 0/32; calculus 10/20; DEH 6/20**Pathology** healed porotic hyperostosis of posterior L and R parietal bones**Non-metric traits:** ossicles present on R side of lambdoid suture; R & L hypotrochanteric fossa present

Skeleton number 59**Completeness:** 60-70%**Preservation:** good but heavily fragmented**Age:** 8-10 years (older child)**Sex:** unknown**Dental inventory:**

U	U		U	U									U						U			
8	7	6		5	4	e	3	d	/	1		1	2	/		4		/	6	/	8	
8	7	6		5	4	e	3	/	2	1		1	2	3	d	4	e	5	6	7	8	
-	U			U	U											U		U			U	-

Dental Pathology DEH 0/4 (deciduous); DEH 7/13 (permanent); calculus 0/13; caries 0/17**Pathology** active *cribra orbitalia* (Type 2) bilaterally**Skeleton number 63****Completeness:** 60-75 %**Preservation:** good but fragmented**Age:** 10-13 years**Sex:** unknown**Dental inventory:**

																						U
	8	7	6	5	4	3	/	1		1	/	3	4	5	6	7	8					U
	8	7	6	5	/	3	2	1		1	2	3	4	5	6	7	8					U
	U																					U
												K	K	K	K							

Dental Pathology DEH 2/25; caries 0/25; calculus 4/25**Pathology** active *cribra orbitalia* (Type 3) bilaterally**6 DISCUSSION AND CONCLUSION**

- 6.1.1 The investigation uncovered a total of 25 graves orientated on a west-east alignment keeping with established Christian burial practices. Due to the nature of the project, it was not possible to establish a complete date range for the burials within the graveyard or the depth of any natural geological horizon.
- 6.1.2 Pottery found during the excavation suggests a grave assemblage dating from the early medieval or Norman periods through to the late medieval/early post-medieval periods for those bodies uncovered with two residual sherds of Romano-British pottery present on site. However due to the continual reuse of the graveyard and the limited quantity of pottery uncovered, this date range must be treated with a degree of caution. It must also be remembered that not all the graves identified were fully uncovered during the excavation. For instance, grave (77) seen in plan and delineated by gravestone (105) clearly depicting three late post-medieval burials was only partially investigated during the excavation.
- 6.1.3 Only one burial was laid in a wooden coffin, the remains of which were extremely poorly preserved surviving only as a stain. The staining suggests a rectangular coffin which predates the latter half of the 17th-century. It is possible that other coffins have been used but have almost completely decayed away as suggested by coffin nails and pieces of decayed wood found from other areas of the excavation. Only

individuals of some social standing could expect to be buried in such a way during the medieval period.

- 6.1.4 The 25 burials uncovered at Quainton constitute a very small selection of the total medieval burial population within the churchyard. The six skeletons selected for osteological analysis are too small a group to retrieve much useful palaeodemographical data, and should not be seen as a representative sample of the wider churchyard population, since they were selected solely on the basis of completeness of the skeletons. The group is composed of several sub-adults, but no infants. Amongst the adults there is a greater spread of ages but no older individuals were present. Due to the youth of the population, the prevalence for most skeletal and dental pathologies is very much lower than if the population represented a more realistic spread of ages.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Width</i>	<i>Length</i>	<i>Height</i>	<i>Comments</i>	<i> Finds</i>
1	Layer	0.05 m				Tarmac	
2	Layer	0.2 m				Hardcore	
3	Structure	0.225 m	0.6 m		1.4 m	Brick plinth	
4	Fill	0.3 m				Fill of burial 77	
5	Cut		0.88 m	2.22 m		Cut for burial 77	
6	Fill					Unexcavated fill of burial 77	
7	Layer	0.2 m				Turf and top-soil	
8	Layer					Cemetery soil	Pottery
9	Structure		0.3 m		0.4 m	Retaining wall, marks path boundary	
10	Cut					Cut for burial 78	
11	Coffin		0.55 m	0.75 m		Coffin	Coffin nails
12	Fill	0.2 m	0.55 m	0.75 m		Fill of burial 78	Pottery
13	Skeleton					Skeleton in burial 78	
14	Skeleton					Skeleton in burial 79	
15	Fill	0.1 m		1.6 m		Fill of burial 79	Pottery
16	Skeleton					Adult female skeleton in burial 82	
17	Fill	0.15 m				Fill of burial 82	Pottery, disarticulated human bone
18	Fill					Fill of burial 80	
19	Cut					Grave cut of burial 80	
20	Skeleton					Adult skeleton in burial 80	
21	Fill					Fill of burial 81	Pottery
22	Skeleton					Adult skeleton in burial 81	
23	Cut					Land drain cut	
24	Drain					Drain in cut 23	
25	Fill					Backfill of drain cut23	
26	Layer					Hardcore	
27	Fill					Fill of burial 83	
28	Skeleton					Adult skeleton in group 87	
29	Skeleton					Adult, female? skeleton in group 86	

<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Width</i>	<i>Length</i>	<i>Height</i>	<i>Comments</i>	<i>Finds</i>
30	Skeleton					Adult male skeleton in group 85	
31	Skeleton					Adult skeleton in group 84	
32	Skeleton					Adult skeleton in burial 83	
33	Skeleton					Skeleton in burial 88	
34	Fill					Fill of burial 88	
35	Fill					Fill of burial 89	Pottery
36	Skeleton					Adult skeleton in burial 89	
37	Fill					Fill of burial 90	
38	Skeleton					Adult skeleton in burial 90	
39	Fill					Fill of burial 91	
40	Skeleton					Sub-adult skeleton in burial 91	
41	Fill					Fill of burial 92	
42	Skeleton					Adult skeleton in burial 92	
43	Skeleton					Adult skeleton in burial 93	
44	Fill					Fill of burial 93	Coffin nails, disarticulated human bone, pottery
45	Cut					Cut of burial 92	
46	Fill					Fill of burial 94	
47	Skeleton					Adult skeleton in burial 94	
48	Fill					Fill of burial 95	Disarticulated human bone
49	Skeleton					Adult skeleton in burial 95	
50	Fill					Fill of burial 96	
51	Skeleton					Adult skeleton in burial 96	
52	Fill					Fill of burial 97	
53	Skeleton					Adult skeleton in burial 97	
54	Cut					Cut for burial 97	
55	Fill					Fill of burial 98	Pottery
56	Cut					Cut for burial 100	
57	Skeleton					Skeleton in burial 98	

<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Width</i>	<i>Length</i>	<i>Height</i>	<i>Comments</i>	<i>Finds</i>
58	Fill					Fill of burial 99	
59	Skeleton					Sub-adult skeleton in burial 99	
60	Fill					Fill for burial 100	
61	Skeleton					Adult skeleton in burial 100	
62	Fill					Fill of burial 101	
63	Skeleton					Adult skeleton in burial 101	
64	Cut	0.15 m	0.6 m	1.5 m		Cut for burial 79	
65	Cut	0.15 m	0.5 m	1.6 m		Cut for burial 82	
66	Fill					Fill of burial 102	
67	Skeleton					Sub-adult skeleton in burial 102	
68	Cut					Cut for burial 68	
69	Fill					Fill of burial 84	
70	Cut					Cut for burial 84	
71	Fill					Fill of group 85	Pottery
72	Cut					Cut for burial 86	
73	Cut					Cut for burial 103	
74	Fill					Fill of burial 86	
75	Fill					Fill of burial 87	Pottery
76	Fill					Fill of burial 103	
77	Group number					Grave group number for 3, 4, 5, 6 and 105	
78	Group number					Grave group number for 10, 11, 12 and 13	
79	Group number					Grave group number for 14, 15 and 64	
80	Group number					Grave group number for 18, 19 and 20	
81	Group number					Grave group number for 21, 22 and 104	
82	Group number					Grave group number for 16, 17 and 65	
83	Group number					Grave group number for 27, 32 and 68	
84	Group number					Grave group number for 31, 69 and 70	
85	Group number					Grave group number for 29, 71 and 105	
86	Group number					Grave group number for 29, 72 and 74	

<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Width</i>	<i>Length</i>	<i>Height</i>	<i>Comments</i>	<i>Finds</i>
87	Group number					Grave group number for 28, 75 and 107	
88	Group number					Grave group number for 33, 34 and 108	
89	Group number					Grave group number for 35, 36 and 109	
90	Group number					Grave group number for 37, 38 and 110	
91	Group number					Grave group number for 39, 40 and 118	
92	Group number					Grave group number for 41, 42 and 45	
93	Group number					Grave group number for 43, 44 and 119	
94	Group number					Grave group number for 46, 47 and 111	
95	Group number					Grave group number for 48, 49 and 112	
96	Group number					Grave group number for 50, 51 and 113	
97	Group number					Grave group number for 52, 53 and 54	
98	Group number					Grave group number for 55, 57 and 114	
99	Group number					Grave group number for 58, 59 and 115	
100	Group number					Grave group number for 56, 60 and 61	
101	Group number					Grave group number for 62, 63 and 101	
102	Group number					Grave group number for 66, 67 and 102	
103	Group number					Grave group number for 73 and 76	
104	Cut					Arbitrary cut for grave 81 not seen during excavation	
105	Structure					Grave stone, part of group 77	
106	Cut					Arbitrary cut for grave 85 not seen during excavation	
107	Cut					Arbitrary cut for grave 87 not seen during excavation	
108	Cut					Arbitrary cut for grave 88 not seen during excavation	

<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Width</i>	<i>Length</i>	<i>Height</i>	<i>Comments</i>	<i>Finds</i>
109	Cut					Arbitrary cut for grave 89 not seen during excavation	
110	Cut					Arbitrary cut for grave 90 not seen during excavation	
111	Cut					Arbitrary cut for grave 94 not seen during excavation	
112	Cut					Arbitrary cut for grave 95 not seen during excavation	
113	Cut					Arbitrary cut for grave 96 not seen during excavation	
114	Cut					Arbitrary cut for grave 98 not seen during excavation	
115	Cut					Arbitrary cut for grave 99 not seen during excavation	
116	Cut					Arbitrary cut for grave 101 not seen during excavation	
117	Cut					Arbitrary cut for grave 102 not seen during excavation	
118	Cut					Arbitrary cut for grave 91 not seen during excavation	
119	Cut					Arbitrary cut for grave 93 not seen during excavation	

APPENDIX 2 BIBLIOGRAPHY AND REFERENCES

- Aufdeheide, AC, and Rodriguez-Martin, C, 1998 *The Cambridge encyclopaedia of human palaeopathology*; Cambridge University Press
- Brickley, M and McKinley, M, 2004 Guidelines to the standards for recording of human remains; *IFA Paper No 7*
- Buikstra, JE and Ubelaker, DH, 1994 *Standards for data collection from human skeletal remains*, Arkansas
- DAC, 2003 Church of Holy Cross and St Mary, Quainton Archaeological Recording Specification
- Goodman, AH and Rose, J, 1990 Assessment of systemic physiological perturbations from dental enamel hypoplasias and associated histological structures; *Yearbook of Physical Anthropology* **33**, 59-110
- Hoppa, RD, 1992 Evaluating human skeletal growth: an Anglo-Saxon example; *International Journal of Osteoarchaeology* **2**, 275-288
- Iscan, MY and Loth, SR, 1984 Determination of age from the sternal rib in white males: a test of the phases method; *Journal of Forensic Sciences* **31**: 122-132
- Iscan, MY, Loth, SR and Scheuerman, EH, 1985 Determination of age from the sternal rib in white females: a test of the phase method; *Journal of Forensic Sciences* **31**: 990-999
- Levin, J, 2003 Peridontal disease (Pyorrhoea); in Kiple KF (ed) *The Cambridge historical dictionary of disease*; Cambridge University Press
- Litten, J, 1991 *The English way of death- the common funeral since 1450*; Robert Hale, London
- Lovejoy, CO, Meidl, RS, Prysbeck, TR and Mensford, R, 1985 Chronological metamorphosis of the auricular surface of the ilium: a new method for the determination of skeletal age at death; *American Journal of Physical Anthropology* **68**; 15-28
- Meindl, RS and Lovejoy, CO, 1985 Ectocranial suture closure: A revised method for the determination of skeletal age at death based on the lateral-anterior sutures; *American Journal of Physical Anthropology* **68**, 29-45
- Mellor, M, 1984 A summary of the key assemblages. A study of pottery, clay pipes, glass and other finds from fourteen pits, dating from the 16th to the 19th century in TG Hassall, CE Halpin and M Mellor, *Excavations at St Ebbe's Oxoniensia* **49**, 181-219.
- Mellor, M, 1994 Oxford Pottery: A Synthesis of middle and late Saxon, medieval and early post-medieval pottery in the Oxford Region *Oxoniensia* **59**, 17-217
- Miles, A, 1962 Assessment of age of a population of Anglo-Saxons from their dentition *Proceedings of the Royal Society of Medicine* **55**, 881-886.
- Moorees, CFA, Fanning, EA and Hunt, EE, 1963 Age variation of formation stages for ten permanent teeth. *Journal of Dental Research* **42**, 1490-1502

- Mynard, DC and Zeepvat, RJ, 1992 *Great Linford* Bucks Archaeol Soc Monog Ser 3
- OAU, 1992 *Field Manual* (ed. D. Wilkinson)
- Roberts, C and Cox, M, 2003 *Health and disease in Britain*; Sutton Publishing UK
- Roberts, C and Manchester, K, 1995 *The archaeology of disease*, 2nd edn, New York
- Suchey, JM and Brooks, S, 1990 Skeletal age determination based on the os pubis: a comparison of the Acsádi-Nemeskéri and Suchey-Brooks method *Human Evolution* 5, 227-238
- Schwarz, 2000 *Skeleton keys*; Routledge, USA
- Stuart-Macadam, P, 1991: Anaemia in Roman Britain; in Bush, H and Zvelebil, M (eds): *Health in past societies*; BAR International Series 567; Tempus Reparatum, Oxford
- Todd, TW, 1921 Age changes in the pubic bone, I: the male white pubis; *American Journal of Physical Anthropology* 3; 285-335
- Trotter, M, 1970 Estimation of stature from intact limb bones; in Stewart TD (ed) *Personal identification in mass disasters*
- Workshop of European Anthropologists, 1980 Recommendations for age and sex diagnoses of skeletons *Journal of Human Evolution* 9 517-49
- Zeepvat, RJ, Roberts, JS and King, NA, 1994 *Caldecotte, Milton Keynes. Excavation and Fieldwork 1966-91* Bucks Archaeol Soc Monog Ser 9

APPENDIX 3 SUMMARY OF SITE DETAILS

Site name: Church of Holy Cross and St Mary, Quainton

Site code: QUCHSM 04

Grid reference: SP749201

Type of watching brief: Continuous

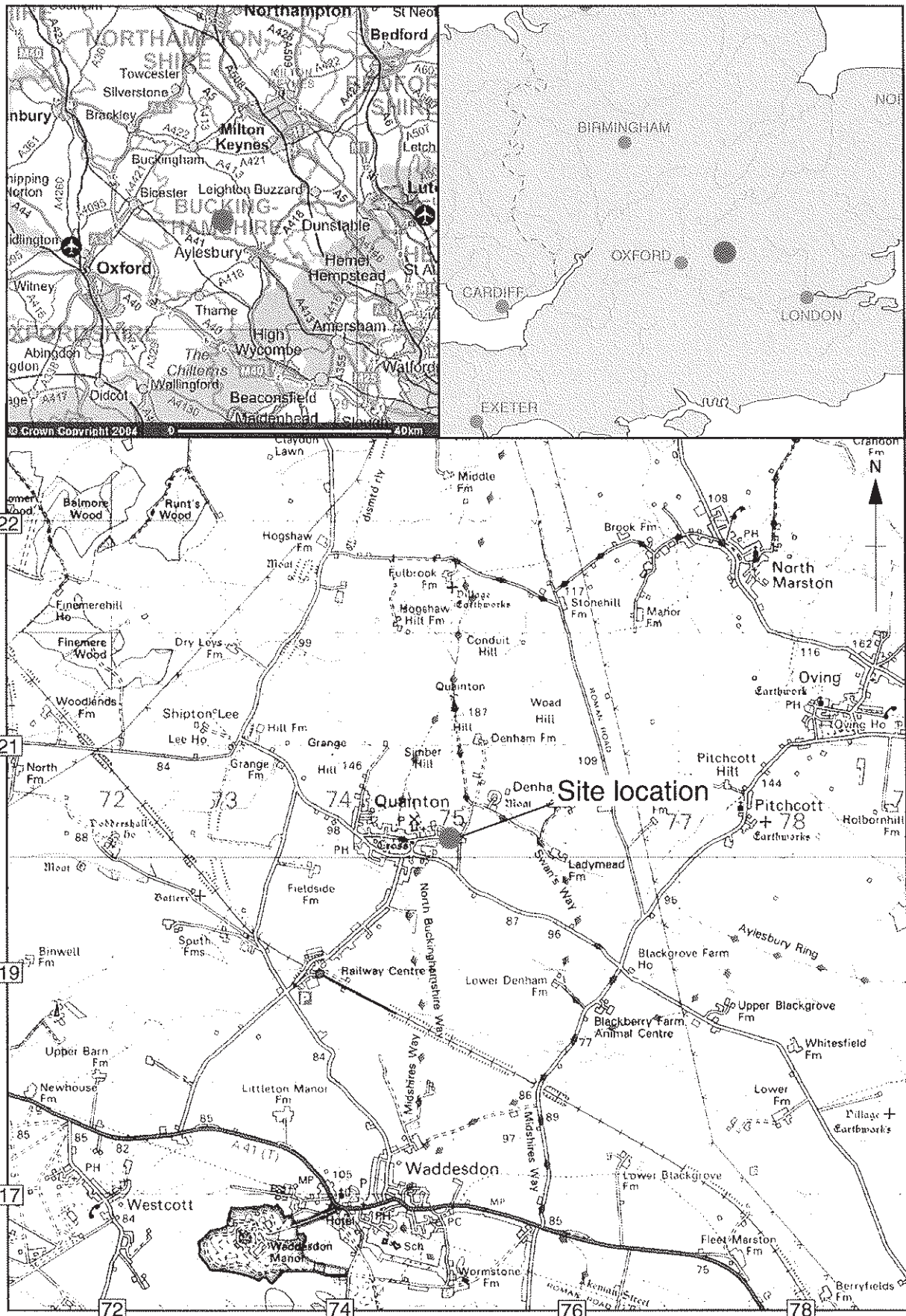
Date and duration of project: 8th-23rd June 2004

Area of site: 0.4 ha

Summary of results: The watching brief revealed the presence of 25 graves and an assemblage of pottery mostly of Saxo-Norman or medieval date. The remains of 6 skeletons underwent detailed osteological analysis.

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: ABYCM 2004.57

Server 10:\camps\pubs_1\toq\OQHSMWB\OQLCHSM04\Church of Holy Cross and St Mary, Quanton.jfm*09.09.04



Scale 1:25,000

Reproduced from the Landranger 1:50,000 scale by permission of the Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office
© Crown Copyright 1999. All rights reserved. Licence No. AL 100005569

Figure 1: Site location

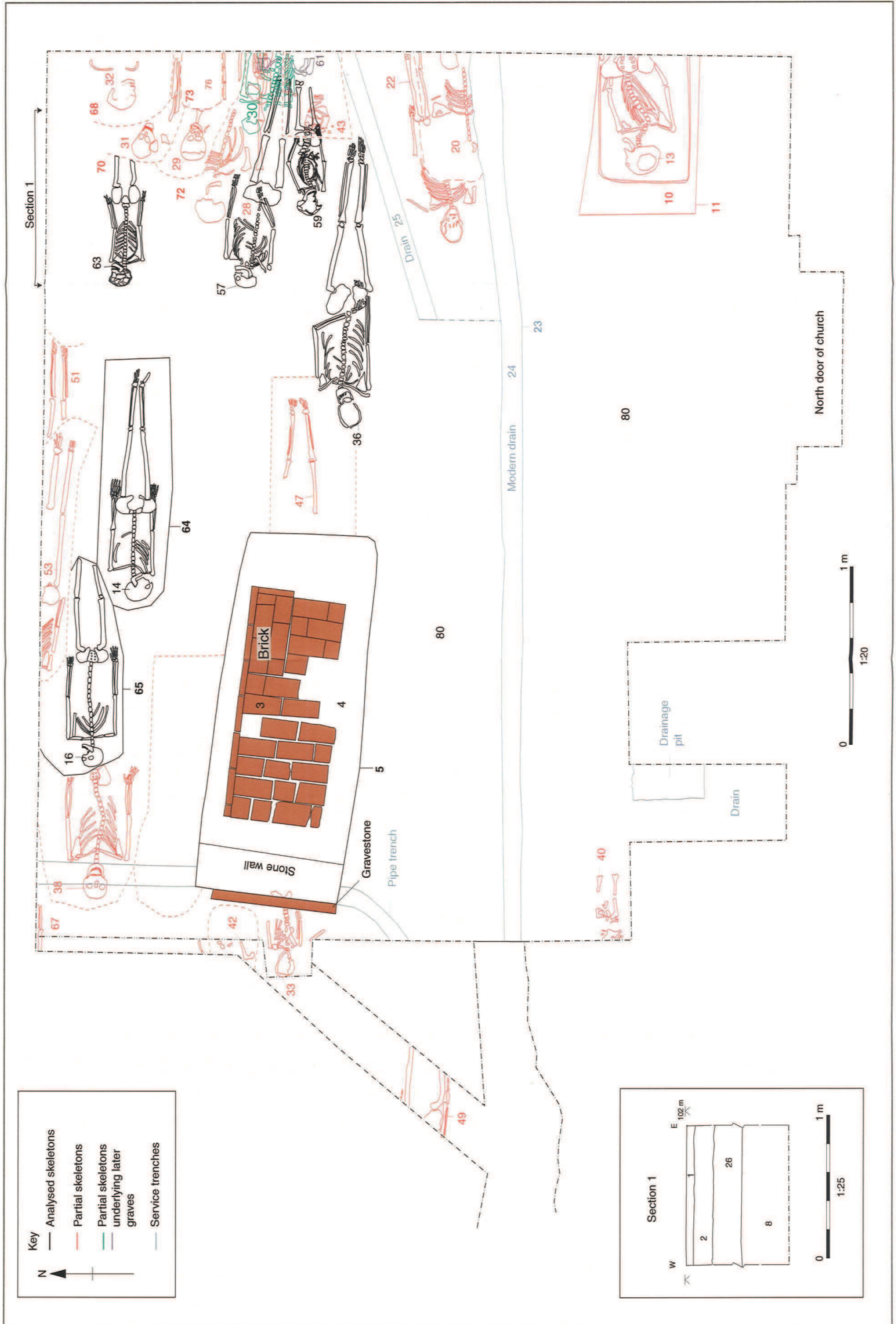


Figure 2: Plan of excavation area

Section 1

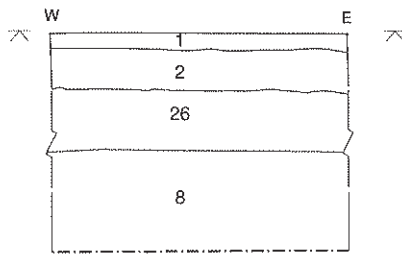


Figure 3: Section



Plate 1: Gravestone



Plate 2: Brick-lined shaft grave



Plate 3: Skeleton 33



Plate 4: Skeleton 16



Plate 5: Skeleton 14



Plate 6: Skeleton 38

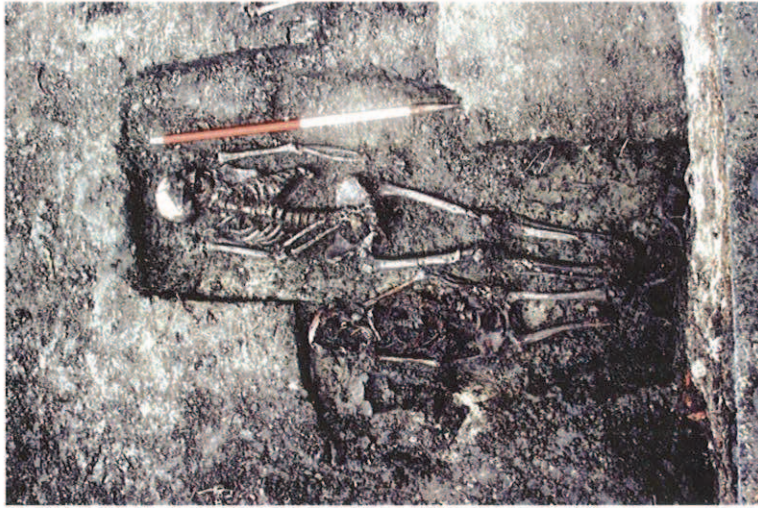


Plate 7: Skeletons 57 and 59



Plate 8: Skeleton 63



Plate 9: Skeleton 36



Plate 10: Skeletons 20 and 22



Plate 11: Working shot



Oxford Archaeology

Janus House
Osney Mead
Oxford OX2 0ES

t: (0044) 01865 263800
f: (0044) 01865 793496
e: info@oxfordarch.co.uk
w: www.oxfordarch.co.uk



Oxford Archaeology North

Storey Institute
Meeting House Lane
Lancaster LA1 1TF

t: (0044) 01524 541000
f: (0044) 01524 848606
e: lancinfo@oxfordarch.co.uk
w: www.oxfordarch.co.uk



Director: David Jennings, BA MIFA FSA

Oxford Archaeological Unit is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627

Registered Office:

Oxford Archaeological Unit
Janus House, Osney Mead, Oxford OX2 0ES