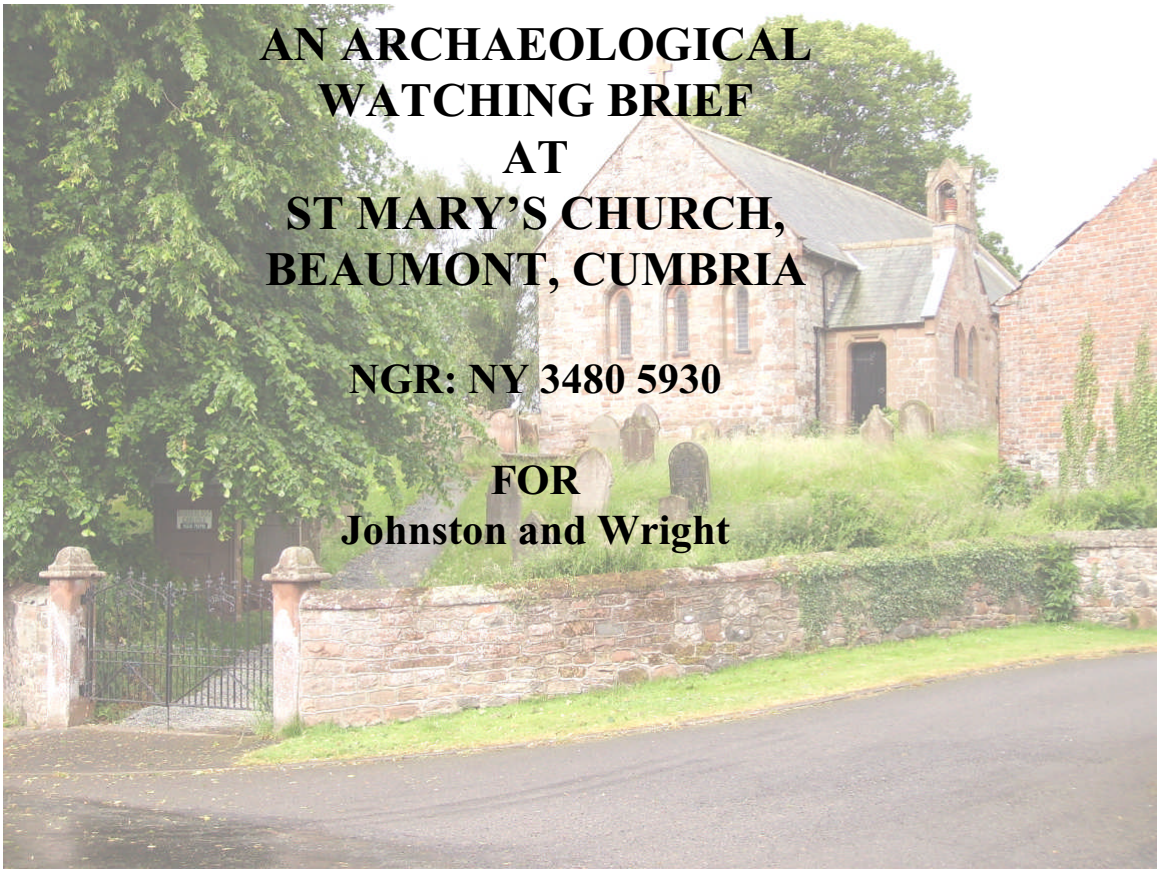
NORTH PENNINES ARCHAEOLOGY LTD

Client Reports No. CP/341/06



AN ARCHAEOLOGICAL WATCHING BRIEF AT ST MARY'S CHURCH, BEAUMONT, CUMBRIA

NGR: NY 3480 5930

FOR
Johnston and Wright

Gareth Davies BA, MA and Charlotte Burrill BA, MA
North Pennines Archaeology Ltd
Nenthead Mines Heritage Centre
Nenthead
Alston
Cumbria CA9 3PD
Tel: (01434) 382045
Fax: (01434) 382294
Email: info@nparchaeology.co.uk

July 2006

North Pennines Archaeology Ltd is a wholly owned company of North Pennines Heritage Trust
Company Registration No. 4847034 VAT Registration No. 817 2284 31

CONTENTS

Page

CONTENTS

LIST OF ILLUSTRATIONS AND TABLES

EXECUTIVE SUMMARY

Between the 20th June and the 3rd of July 2006, North Pennines Archaeology Ltd undertook a watching brief at St. Mary's Church Beaumont on behalf of Johnston and Wright Architects (NGR NY 3480 5930).

This watching brief area was located within the Hadrian's Wall World Heritage Site on top of the presumed line of Hadrian's Wall; at this point, the wall is overlain by a medieval motte and the medieval and later Church of St.Mary's. Proposed underpinning works to the south east corner of the Church had the potential to impact on both Roman and Medieval archaeological remains and because of this, English Heritage, advised Johnston and Wright that a condition should be attached to the planning permission requiring that all of the groundworks be excavated under a full watching brief condition.

The watching brief covered a small area L-shaped area (0.8m wide, 4m east-west, 4m north-south and 1m in depth) along the wall line of the south east corner of the church and revealed a number of archaeological features of interest though no evidence for Hadrian's Wall was encountered due to the existence of the medieval motte over the presumed wall line.

The earliest finds from the watching brief were two late 3rd century Roman coins from the unstratified topsoil and the main cemetery layer (101). These finds confirm the expected Roman presence in the vicinity of St. Mary's Church Beaumont, but are residual in their present contexts and do not add any information about the nature and scale of this occupation.

The majority of the archaeological features observed during the watching brief were dated to the Medieval period or later. Of particular significance was the recovery of two east-west aligned articulated human burials. The first excavated burial, SK1, was an adult buried in an east-west aligned supine position. Osteological analysis has shown that SK1 was a young female adult with a few interesting points of pathological note. The burial was unfortunately undated, but due to the fact that this burial was truncated by later burials, a medieval or early post-medieval date is thought most likely. The second excavated burial, SK3, was a neonate buried in an east-west aligned apparently supine position. Due to the paucity of good dating evidence for churchyard burials in general, it was pleasing to be able to recover a series of small copper alloy pins with SK3 that allowed the burial to be dated with a degree of confidence to the 14th or 15th centuries. The pins were also associated with preserved fragments of a possible woollen shroud which offered a glimpse into the funereal care provided for the very young who have died.

Burial SK3 was both overlain and underlain by significant quantities of disarticulated human remains suggesting that a number of burials in this area of the cemetery were interred during or prior to the 14th or 15th centuries. It is possible that some of the disarticulated burial remains located within cemetery layer (101) were disturbed when the east end of the Church was altered in the 14th and 15th centuries.

The findings of the disarticulated bone analysis have been very illuminating. They suggest that the churchyard demography not only contains individuals drawn from across all age ranges but within the watching brief area also displays a distinct bias towards the recovery of immature remains with six individuals out of a possible thirteen being two years old or younger. One theory as to why this might be that has been put forward is that the children were buried under the eaves-drip of the church in order to ensure continual baptism from water dripping off the roof.

The foundations of the south [105] and east [106] church walls were also observed during the watching brief. The eastern wall foundations [106] consisted in general of less regular

stonework than wall [105] and included more irregular sandstone and river-rounded stone. These contrasting constructions perhaps hint at some sequence associated with alterations to the east end of the church by the 14th or 15th centuries. A reused column fragment was observed in the upper course of the south church wall foundation [105]. It is likely that this fragment is of Medieval date; but a Roman date cannot be fully ruled out.

The successful excavation of a medieval neonate burial securely dated by associated artefacts from a churchyard is a rare and important find. It is recommended that further funding (beyond the scope of this watching brief report) might be found in order to bring this piece of work to publication perhaps as an article in the Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society.

ACKNOWLEDGEMENTS

North Pennines Archaeology Ltd would like to thank Alistair MacGregor of Johnston and Wright for commissioning the project, and Alan Roper and Sons Ltd for undertaking the groundworks, and for their assistance throughout the fieldwork. Thanks are also extended to the Church Warden and Rector of St.Mary's, the Beaumont Parochial Church Council, and to Mike Collins, Hadrian's Wall Archaeologist, English Heritage for their assistance during this project.

The watching brief was conducted by Tony Liddell and Kevin Mounsey, kindly assisted by Charlotte Burrill and Alan James (who also undertook the metal detecting on site). The report was written and the figures compiled by Gareth Davies and Charlotte Burrill. The shroud pins were kindly identified by Dr. Naomi Payne, Finds Liaison Officer for Dorset and Somerset County Councils. The Roman coins were identified by Frank Giecco, who also identified the lead 'wedge'. The window glass was identified by Gareth Davies. The environmental analysis was undertaken by Patricia Crompton. The project was managed by Gareth Davies, NPA Project Officer. The report was edited by Matthew Town.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 An archaeological watching brief was undertaken by North Pennines Archaeology Ltd on behalf of Johnston and Wright at St.Mary's Church, Beaumont, Cumbria (NY 3480 5930). The aim of the watching brief was to record any significant deposits uncovered during the underpinning of the southeast corner of the church. The underpinning involved the excavation of an L-shaped trench (see below for dimensions) abutting the south and east walls of the south east corner of St.Mary's Church, and repairs to associated drains around the existing structure. The watching brief area is located within the Hadrian's Wall World Heritage Site on top of the presumed line of Hadrian's Wall, which at this point is overlain by a medieval motte and the medieval and later Church of St.Mary's (see Figure 1).

1.1.2 This report sets out the results of the work in the form of a short document outlining the results of the archaeological recording undertaken during the watching brief.

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design was submitted by North Pennines Archaeology Ltd in response to a request by Johnston and Wright Architects, on behalf of their client Kirkandrews-on-Eden with Beaumont Parochial Church Council, for an archaeological watching brief in accordance with a verbal brief prepared by Mike Collins, Hadrians Wall Archaeologist English Heritage. Planning Permission has been applied for these works, and, due to the archaeological sensitivity, English Heritage advised Johnston and Wright that a condition should be attached to the permission requiring that all of the groundworks be excavated under a full watching brief condition.

2.1.2 St Mary's Church was originally constructed in the twelfth century on top of the earthwork remains of a Norman motte. The motte probably lies on top of the site of Hadrian's Wall, a Scheduled Ancient Monument and World Heritage Site. It was possible that the structural repairs would impact on all of these archaeological remains, but the most likely impact related to the medieval and post-medieval archaeology relating to St Mary's Church and the surrounding graveyard.

2.1.3 Following acceptance of the project design, North Pennines Archaeology Ltd was commissioned by the client to undertake the work.

2.1.4 The proposed repair works involved the excavation of a right-angled trench along the wall line of the south east corner of St Mary's Church. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists (IFA), and generally accepted best practice.

2.1.5 It was a requirement of these works that the remains of Hadrian's Wall would be left *in situ*, as well as making every effort to preserve any other archaeological features encountered. Mike Collins, Hadrians Wall Archaeologist, English Heritage was consulted regarding these matters during the course of the fieldwork.

2.2 SITE SPECIFIC METHODOLOGY

2.2.1 The work consisted of an archaeological watching brief on the underpinning works and associated drainage. This involved the excavation of a right-angled trench (0.8m wide by 4m east-west and 4m north-south) along the wall line of the south east corner of St Mary's Church to a depth of 1m below ground level and the repair of a drain immediately to the south and west of the south east corner of the church.

2.2.2 The aims of this watching brief, identified in the Project Design (Davies 2006), can be summarised as follows:

2.2.3 To identify the presence/absence, nature, extent and state of preservation of archaeological remains and to record them.

2.2.4 To sample and assess for environmental potential any suitable deposits identified during the watching brief. The recommended sample size was 30-60 litres for dry

deposits and approximately 5 litres for wet deposits. Dr Jacqui Huntley, English Heritage Regional Science Advisor for Hadrian's Wall was consulted prior to the fieldwork. Appropriate proposals for any necessary further analysis are included in this report.

2.2.5 To create a photographic record of all contexts, in colour transparency and black and white print, including a graduated metric scale;

2.2.6 To follow appropriate procedures under the relevant legislation in the event of the discovery of artefacts covered by the provisions of the Treasure Trove Act 1996.

2.2.7 If in situ burials were encountered during the watching brief it was proposed that Mike Collins, Hadrians Wall Archaeologist, English Heritage and the client would be contacted and further mitigation agreed. This was likely to involve the excavation of both *ex situ* and *in situ* human remains within the footprint of the structural repairs. Mike Collins requested that *in situ* burials within the footprint of the structural repairs extending beyond the footprint of the structural repairs were fully exposed, lifted and recorded. In this event North Pennines Archaeology Ltd was to procure and comply with all statutory consents and licences under the Burial Act 1857 in conjunction with Beaumont Parochial Church Council. The relevant English Heritage guidelines, in particular the recently published 'Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England (English Heritage 2005), was also adhered to at all times.

2.2.8 To recover artefactual material, especially that useful for dating purposes. The use of a metal detector was required to aid artefact retrieval from excavated spoil;

2.2.9 To prepare a report for the Client setting out the salient conclusions and recommendations for further analysis if applicable.

2.2.10 Depending upon the results of the work, to prepare a report for publication in a relevant journal such as the Transacations of the Cumberland and Westmorland Antiquarian and Archaeological Society (TCWAAS)

2.3 PROJECT ARCHIVE

2.3.1 A full professional archive has been compiled in accordance with the project design, and in accordance with current English Heritage guidelines (1991).

3. BACKGROUND

3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

3.1.1 Beaumont is a village and civil parish in the City of Carlisle district of Cumbria. According to the 2001 census it had a population of 447. The parish covers an area west of Carlisle, including Grinsdale, Kirkandrews-on-Eden, Monkhill and Beaumont. The eastern boundary of the parish is marked by the River Eden, (http://en.wikipedia.org). The village of Burgh-by-Sands is located 2km to the west of Beaumont.

3.1.2 The underlying solid geology consists of Triassic mudstones overlain to the east of the Beaumont area by Jurassic Lower Lias (BGS, 2001). The solid geology is masked by Devensian tills covered by seasonally waterlogged soils of the Clifton and Brickfield Associations.

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.2.1 ***Roman Period:*** The line of Hadrian's Wall, a Scheduled Ancient Monument and World Heritage site, passes under the Church of St Mary's, Beaumont. The Roman advance on the northwest during the 70s and 80s AD may have been launched from bases in the northwest Midlands such as Wroxeter and Little Chester, proceeding north via the valleys of the Eden and Lune. By 72 AD the earliest timber fort was constructed at Carlisle (Philpott ed. 2004), and the campaigns of Agricola, governor of Britain AD 78-84, consolidated the Roman hold on the North. During the Roman period, there was certainly a heavy military presence in Cumbria. Hadrian's Wall, perhaps begun in 122 AD, was built to define the northern limit of the Roman empire and a network of military roads, forts and settlements soon sprung up around the focus of Hadrian's Wall (Breeze and Dobson 1976).

3.2.2 ***The Stanegate System:*** by the turn of the first and second centuries AD, the Roman armies had formally withdrawn from Scotland to the Tyne-Solway isthmus. The total abandonment of lowland Scotland is evidenced only by the destruction of the forts on Dere Street at Newstead and Corbridge, and the burning of forts at Dalswinton, Cappuck, Glenlochar, Oakwood and High Rochester, all of which were abandoned sometime between A.D.100 and 105 (Salway 1985). Following this, the so-called northern frontier in Britain fell upon the line of forts running across northern England from the supply depot at Corbridge on the Tyne to the Flavian fort at Carlisle on the Solway, both of which sites were notable as they were positioned upon the two Roman lines of advance into lowland Scotland, Dere Street in the east and the imperfectly-known western route through Annandale. Between these two military highways a number of forts were established to act as a buffer against the lowland tribes just recently conquered, these were arranged along the line of a Roman road now known by its medieval name, the Stanegate (*ibid*).

3.2.3 It is likely that the road was extended to the east of Corbridge, possibly heading for the fort at Washing Well and subsequently to South Shields. Along the Stanegate a number

of military sites have been discovered suggesting that they may be part of the Trajanic frontier. On pottery evidence forts at Corbridge, Vindolanda, Nether Denton and Carlisle had been in existence since the Flavian period (AD 75 -120). Carvoran fort 2km east of Thirlwall has been generally assumed to be of similar date, though what evidence there is from the pottery assemblage, indicates that the fort was occupied during the Trajanic period. The fort at Brampton Old Church is thought to have had a short occupation of about the time of Trajan. Newbrough has yielded pottery of the 4th century, however an earlier fort on this site is generally postulated as it fits a regular spacing of forts along the Stangate.

3.2.4 The garrison along the Stanegate was also supplemented by the establishment of new 'fortlets' and 'small forts' between the larger stations, at Newbrough, Haltwhistle Burn, Throp and Boothby. In addition, beyond the known terminus of the Stanegate there were further forts, at Burgh-by-Sands overlooking the Solway estuary and at Kirkbride on the River Wampool in the west (Breeze and Dobson 2000). Another fort overlooking the Tyne at Washing Wells near Gateshead in the east was discovered by aerial photography in 1970 shows evidence of several phases and is thought to date from the Trajanic period (*ibid*).

3.2.5 The recent discovery of a timber palisade running beneath the Trajanic fort at Burgh-by-Sands and traces of the same linear work associated with a timber watch-tower along the whale-backed ridge at Fingland, coupled with evidence of a Roman road east of Kirkbride, aligned towards the fort at Burgh-by-Sands, points to some sort of frontier work, very-likely contemporary with the Stanegate system and evidence of pre-Hadrianic frontier management in northern Britain (Higham & Jones 1985). This transient and elusive palisade and watch-tower system overlooking the Solway perhaps evidences a change in strategy on the part of the Roman military (*ibid)*.

3.2.6 The Stanegate system was not efficient enough to police the local tribes of the Brigantes, Selgovae and Novantae effectively. It is suggested that there may have also been interaction between the Brigantes (within Roman Provincial territory) and the Selgovae (in Lowland Scotland). British threats to the Empire had become a pressing concern at the beginning of Hadrian's reign; this is indicated by his biographer who mentions that `The Britain's could no longer be kept under control` (Taylor 2000).

3.2.7 ***Hadrian's Wall****:* the Wall in its final form, comprised five separate elements; a stone wall fronted by a V-shaped ditch, a number of purpose-built stone garrison fortifications such as forts, milecastles and turrets, a large earthwork and ditch, built parallel with and to the south of the Wall, known as the Vallum and a metalled road linking the garrison forts, which is known as the 'Roman Military Way'.

3.2.8 The Wall begins in the east at Wallsend in Tyneside and continues to the west terminating at Bowness-on-Solway in Cumbria, a distance of 80 Roman miles (73.5 English miles or 117 kilometres). The Wall conceived by Hadrian was to be ten feet wide and about fifteen feet high. The front face of the wall most likely sported a crenulated parapet, behind which the soldiers patrolled along a paved rampart-walk. The foundations of Hadrian's ten-foot wide Wall were laid from Newcastle-upon-Tyne eastward for 23 Roman miles to Chesters in Northumberland, but thereafter, apart from a few short lengths further west, the wall is reduced to eight or sometimes, six feet in width. We can assume that at some time during the early construction of the Wall, a

decision was made to reduce its width, probably in order to speed-up the work during times of threat from the tribes of southern Scotland.

3.2.9 The wall to the west of the River Irthing was originally built out of turf and about sixteen feet wide, topped by a wooden palisade and walkway and punctuated by timber-framed turrets and milecastles. This 'turf-wall' did not endure long, and it was all replaced in stone within a few years, section by section. It is thought that the reason the western part of the Wall was built of turf was due to the fact that there were no ready supplies of stone or lime close to hand at the time of construction, and it was left to a later date to replace this with a regular stone wall.

3.2.10 The interior structures in each milecastle seem to have varied, but all contain at least one recognizable barrack-block. They housed a varying number of men with a conjectured maximum of approximately 64 soldiers, and were effectively large gate-houses, whose garrison were originally stationed to control egress through the Wall, and perhaps to levy a tax on goods carried through.

3.2.11 Between each milecastle were two smaller turrets, equidistant from each other and the milecastles to either side. They were of a uniform pattern, about 20 feet square, recessed into the Wall and built-up above the height of the Wall rampart walk.

3.2.12 In the original plan the Wall was to be garrisoned and patrolled from the milecastles, and there was no requirement for any large forts to be built on the Wall itself. The wall was to be reinforced when needed, from the forts already in existence along the Stanegate, which runs parallel, to the rear of the wall. This format was to prove inadequate, however, and the wall was soon modified by the inclusion of several auxiliary forts along its length. These garrison forts were of a standard 'playing-card' profile, but varied in size between 3 and 5 acres, depending on the type of unit it was built to house. In the infantry forts, the Wall itself generally formed the northern defences of the camp, which projected wholly to the south, as is the case with the milecastles and turrets. In the cavalry forts, or those of part-mounted units, the forts were generally built across the line of the Wall with three of its major gates opening out onto its northern side, part of the wall having to be demolished in order to accommodate the fort. In some cases forts were sited on top of milecastles, which had to be demolished, as at Bowness on Solway.

3.2.13 ***The Vallum:*** shortly after work on the Wall had been completed, a large earthwork was constructed a short distance to the south, which followed along almost the full length of the Wall. This earthwork, known as the Vallum, consisted of a continuous steep-sided trench, with a flat-bottom. Unlike the ditch fronting the Wall to the north, which had a normal Roman military V-shaped profile, this flat-bottomed ditch, twenty Roman feet (5.9m) wide and 20 feet deep, was flanked by 10 feet (3m) high and 20 feet wide mounds, positioned 30 feet (8.9m) away on either side. These features combined to create a 120-foot (35m) wide system of earthworks.

3.2.14 The Vallum usually diverts around forts therefore, it is probably safe to assume that it was created after work on the Wall had commenced. The Vallum may have formed part of the original plan but was perhaps not scheduled to be constructed until Hadrian's Wall was substantially completed. The Vallum followed the route of the Wall closely for almost its entire length, being conspicuously absent in the stretch from Wallsend to Newcastle, but running uninterrupted from the bridge over the River Tyne

to the large auxiliary fort at Bowness on the Solway Firth. The Vallum runs almost parallel to the Wall all the way to the fort at Stanwix in Carlisle deviating from this route for only a short stretch at Castlesteads. Beyond the large cavalry fort at Stanwix, the Vallum proceeds westwards to the Bowness terminus with only three or four relatively minor re-alignments, and mostly ignores, the meandering course of the Wall in this part of the Solway region. It is thought that the Vallum was intended to mark-out a kind of rearward boundary or "exclusion zone" behind the Wall, another school of thought is that its main purpose was as a communication route. An idea recently expounded, is that the Vallum served no other purpose than to punctuate the northern frontier of Rome, and was deliberately built on a monumental scale on the orders of emperor Hadrian.

3.2.15 ***The Military Way:*** at first, the Wall garrisons were supplied along roads, which issued from the gates at the rear of each fort and were possibly connected to the Stanegate, which ran parallel with the Wall. These supply-roads were provided to each of the main forts on the Wall, and also to a few of the milecastles. Around the time that the Vallum went out of use *c* AD 140, the Wall was provided with its own purpose-built, metalled supply road, which ran between the Wall and the Vallum. This new road connected each of the garrisons on the Wall, and ran through the rear portion of each fort. In addition to providing a shorter and more secure route between each fort, there were branch-roads serving the milecastles, and pathways to all of the turrets probably branched-off from it (Bedoyere 1998). The modern name for this road is the Roman Military Way.

3.2.16 ***Medieval Period***: St Mary's Church, Beaumont lies on top of the earthwork remains of a Medieval motte. There is now a house on the site of bailey (see Fig. 1). The Beaumont motte was the castle of the Le Brun or de la Ferte family, who were lords of Beaumont in 1296. They left Beaumont for Drumburgh in 1307 after which the motte was probably abandoned (www.ads.ahds.ac.uk). No archaeological work has been carried out on the motte earthwork itself.

3.2.17 St Mary's church at Beaumont was constructed in the late 12th century from stones allegedly provided by the nearby Hadrian's Wall. The east end of the present Church has a late 12th century arcade continued on north wall, which stops short of south wall. The main entrance to the Church contains reused Norman arches featuring engaged columns with waterleaf capitals. The Church interior contains a 15th century king-post open timber roof. The church was restored in 1784, 1872 and 1888. The church has a timbered 19th century porch, pointed lancet windows of 1888, a small original trefoil-head window is suggested lepers' squint, a 12th century 3-light east window, a 2-light west window of 19th century date, a Piscina dated MDCCCLXXII, possible aumbry recess and 19th century stained glass. The west wall features 2 medieval grave slabs (www.ads.ahds.ac.uk).

3.2.18 An entry in 'The Carlisle Local Journal' (Feb 6th 1885) states that: '*From the churchyard around well justified the Norman name of the Beaumont, the fair hill, which we had now corrupted into "Beemunt". It's church, so far as we could see it, was interesting, Norman originally, and built of Roman materials, but the chancel arch was gone, and a coat of rough cast covered many features of interest. In the churchyard were some 14th century sepulchural slabs*' (Anon, 1885)

3.2.19 **Archaeological Investigations**: in 1998 a watching brief was conducted at Linsum, Beaumont; finds recovered consisted of a fragment of Roman worked stone, a large sherd of a Roman glass vessel and a shallow ditch of unknown date (Carlisle Archaeology Unit 1998). A number of other archaeological investigations have taken place around the Roman fort at Burgh-by-Sands 2km west of Beaumont village; the most recent published work being an excavation in the associated vicus area (Masser and Evans, 2005). Recent unpublished geophysical surveys have also been carried out around Milecastle 71 (see www.ads.ahds.ac.uk).

4. WATCHING BRIEF RESULTS

4.1 WATCHING BRIEF RESULTS

4.1.1 Summary results of the watching brief are presented below. Figure 2 shows the location of the underpinning trench in relation to the southeast corner of St.Mary's church and Figure 3 shows the location of two burials that were excavated during groundworks within the footprint of the underpinning works. The groundworks were hand excavated by Alan Roper and Sons Ltd under archaeological supervision.

4.1.2 The excavation was undertaken between the 20th June and the 3rd of July 2006. As Figure 2 shows, the nature of the underpinning works meant that the excavation occurred in three separate phases (A, B and C). Phase A consisted of the excavation of 2 areas measuring 1m by 0.8m in plan and 1m in depth, and 1 corner-area measuring 1.3m east-west by 0.8m and 2.2m north-south by 0.8m in plan and 1m in depth. During the excavation of Phase A an extant headstone was removed to allow underpinning to commence (see Plate 6). It was the intention of A. Roper and Sons Ltd to replace this upon completion of the underpinning works. Underpinning Phases B and C consisted of 4 excavation areas measuring 1m by 0.8m in plan and 1m in depth. The easternmost section of Phase B was extended from the original eastern baulk by a distance of 1.5m east-west, by 0.6m north-south and 0.8m in depth in order to fully expose a burial (SK1) impacted upon by the underpinning works. The stratigraphy observed in the three separate phases of work was subsequently matched together in post-excavation and is presented here as a single stratigraphic narrative.

4.1.3 The first, and stratigraphically latest, deposit encountered was a topsoil (100) (see Figures 2 and 4). Topsoil (100) was a dark brown naturally accumulated friable silty loam, a maximum of 0.17m in depth, covering the entire extent of the watching brief area. The topsoil was overlain by a coarse gravel path at the south west extent of the excavated area and by grass over the rest of the excavated area.

4.1.4 A number of artefacts were recovered from topsoil (100) (see Section 5) including 45 iron coffin nails, 10 undiagnostic lead artefacts (including 2 pieces of possible lead window came), 2 undiagnostic iron artefacts, 4 fragments of animal bone, and human remains (see Sections 5 and 7). The preservational conditions of the animal bone fragments suggested a relatively modern date. It therefore appears that after formation, topsoil (100) had been disturbed at various points up to the modern period. In addition, lead artefacts were not observed in any of the deposits underlying topsoil (100), perhaps suggesting that their deposition at the site was an exclusively late event.

4.1.5 A number of unstratified artefacts were recovered by the use of a metal detector within the spoil of topsoil (100), including 15 iron coffin nails, 4 undiagnostic lead artefacts and 1 Roman coin. The residual Roman coin, a late 3rd century Barbarous radiate, confirms the presence of Roman occupation in the vicinity of St.Mary's Church Beaumont (see Section 5 for additional discussion).

4.1.6 After topsoil (100) had been excavated away, a post-medieval (probably 19th century) horseshoe-type drain ([103]/(104)) was observed running in a north-south direction at the eastern extent of the north-south aligned arm of the watching brief area (see Fig 2,

inset). The cut for the drain, [103] was observed running over a north to south length of 4m, and it continued running beyond both the northern and southern limits of the watching brief area. Drain cut [103] was straight sided and flat-based (0.3m width and 0.4m in depth). Within cut [103] was a ceramic pipe (see Fig 2, inset) overlain by the light brown friable sandy silt fill of the drain, (104).

4.1.7 The fill the drain, (104), contained a single residual fragment of possibly medieval window glass (see Section 5 below). As mentioned above the construction of drain [103] suggests a possible 19th century date.

4.1.8 Drain cut [103] truncated into an underlying layer, (101). Layer (101) was a homogenous mid brown friable silty loam subsoil with frequent inclusions of small building rubble and mortar (<10cm, <5%). Layer (101) was a maximum of c. 0.8m in depth, and covered the entire extent of the watching brief area. Layer (101) is interpreted as the main cemetery layer and was probably formed by repeated episodes of natural accumulations, grave digging and churchyard levelling episodes; subsequently disturbed by frequent bioturbation.

4.1.9 Cemetery layer (101) can justifiably be labelled as an 'active' deposit. This means that although the depth (and finds content, see below) of layer (101) suggests that it was perhaps laid-down from the medieval period onwards, the amount of later disturbances that have occurred to this deposit (e.g. bioturbation, grave digging and the levelling of the churchyard) mean that it appears apparently homogenous. Within subsoil deposits such as layer (101), a number of different soil horizons and/or archaeological cuts, can be rendered invisible due to the active nature of the deposit.

4.1.10 A number of artefacts were recovered from cemetery layer (101) (see Section 5) including 2 sherds of modern pottery (C19th-C20th), 1 sherd of Medieval pottery (C13th-C15th), 31 iron coffin nails, 3 undiagnostic iron artefacts, 1 post-medieval Cu alloy weight, 12 fragments of animal bone and large quantities of disarticulated human remains (see Section 7). The range of artefacts (both in type and date) perhaps give an indication as to the amount of disturbance that had occurred to layer (101) from medieval to modern times.

4.1.11 Although the distarticulated human bone contained within deposit (101) clearly represents numerous disturbances and clearances of burials over time; no obvious *deliberately* placed deposits of charnel were identified. It is possible that some of the disarticulated burial remains located within layer (101) were disturbed when the east end of the Church was altered in the 14th and 15th centuries, although this must remain conjectural.

4.1.12 As the main cemetery layer (101) was excavated away, two articulated human burials were observed. A further skull was observed at the south east corner of the watching brief area, but it was possible to preserve this potential burial in situ (see Fig 2 labelled 'Skull Within Possible Later Grave Cut').

4.1.13 NB: Burial number SK2 was not used as it was originally attributed to a skull observed in the Phase B underpinning that subsequently was observed in the Phase C underpinning as disarticulated human remains.

4.1.14 The first excavated burial, SK1, was observed within the central portion (underpinning Phase B) of the eastern extent of the watching brief area, at a depth of 0.81m below the

modern ground level, almost underlying cemetery layer (101) (see Figures 2 and 3). Burial SK1 was an adult buried in an east-west aligned supine position (0.8m east-west by 0.45m north-south). The extended positions of the arms perhaps indicate that this was a coffin burial, although this must remain conjectural. The burial had evidently been truncated immediately east of the pelvis by at least three later grave cuts. These later cuts were not investigated as it was possible to preserve them *in situ* (see Fig 2 labelled 'Later Grave Cuts'). Burial SK1 was evidently unrelated to the positions of any of the presently extant churchyard grave-stones. The grave fill (108) and cut [107] of burial SK1 was indistinguishable from the surrounding cemetery layer, (101). Upon removal, SK1 was found to truncate into the underlying natural clay, (102).

4.1.15 The second excavated burial, SK3 was observed within the central portion (underpinning Phase C) of the southern extent of the watching brief area at a depth of c.0.5m below the modern ground level (see Figures 2 and 3). Burial SK3 was a neonatal juvenile buried on an east-west alignment and apparently supine position (0.4m east-west by 0.2m north-south). The burial was both overlain and underlain by significant quantities of disarticulated human remains (see Section 8 for further discussion). The grave fill (110) and cut [109] of burial SK2 was indistinguishable from the surrounding cemetery layer, (101) and the grave was evidently not as deeply cut as that of burial SK1 (see above).

4.1.16 Burials SK 1 and SK3, along with the large amounts of disarticulated human remains recovered during the course of this watching brief, are assessed and discussed in more detail in Section 7.

4.1.17 Throughout the course of the watching brief, the foundations of the south [105] and east [106] church walls were observed as elevations and recorded archaeologically (Fig 4). The above ground elements of the south and east church walls consisted of large blocks of regularly bonded sandstone and bluestone (max. 0.4m length and max 0.25m high). Below ground level, the foundations were further observed to a maximum depth of 0.81m. The southern wall foundations [105] consisted of a mixture of regular sandstone blocks, irregular sandstone blocks, rounded bluestone and re-used Roman building stone (max. 0.43m by 0.23m). Of particular note was a re-used fragment of a ?Medieval (possibly Roman) Romanesque column base within the western observed extent of the upper foundation courses of the southern wall [105]. The eastern wall foundations [106] consisted in general of less regular stonework than wall [105] and included more irregular sandstone and river-rounded stone (<0.3m). These contrasting constructions perhaps hint at some sequence associated with alterations to the east end of the church by the 14th or 15th centuries.

4.1.18 The church walls [105]/[106] were built within a construction cut, [111], which was only observable at the base of the rubble foundations. Construction cut [111] sat tight to the basal rubble of the church foundations and extended across the entire observed area. The church walls [105]/[106] were apparently abutted by the main cemetery layer (101). Construction cut [111] may have initially been present beyond the eastern and southern extents of the church walls, but this cut has subsequently disappeared due to a number of later disturbances.

4.1.19 The natural substrate was an orange clay located, on average, at a depth of 0.8m below the modern ground level. Natural clay (102) was only observed in close association

with church walls [105] and [106] and, as a result, appeared to have been deliberately compacted or rammed hard in places. The construction cut for the church foundations, [111] directly truncated natural clay (102). As mentioned above, the grave cut for SK1, [107], directly truncated the natural substrate, deposit (102).

4.1.20 The stratigraphic sequence, from earliest to latest, can now be summarised as follows:

- Natural clay geology (102) is laid down. This would have subsequently been overlain by a subsoil and topsoil.

- The church is constructed, including at first a construction cut, e.g. [111], into which rubble, e.g. (105)/ (106), topped by the church walls, was placed. Construction cut [111] may have initially been present beyond the eastern and southern extents of the Church walls, but this cut subsequently disappears due to a number of later disturbances.

- Burial starts to occur during the medieval period, e.g. perhaps SK1 (cut 107, fill 108) and certainly SK 3 (cut 109, fill 110). These would have been cut through the gradually accumulating contemporary subsoil and topsoil (although the cuts are now rendered invisible).

- Between the medieval period and modern periods, cemetery layer (101) is transformed and added to by a number of active processes until it forms the homogenous deposit encountered during this excavation.

- Modern topsoil (100) forms.

5. THE FINDS

5.1.1 A number of artefacts were recovered during the watching brief. All finds were washed, bagged and labelled as part of the creation of the site archive. The individual classes of artefacts are discussed below.

5.1.2 **Pottery**: As Table 1 below shows, 3 fragments of pottery, 1 clay pipe fragment and 1 piece of ceramic with plaster adhering to it, were recovered from the watching brief at St.Mary's Beaumont.

5.1.3 The pottery recovered from cemetery deposit (101) supports the notion that this deposit was continuously disturbed between the medieval to modern periods. The recovery of medieval pottery further evidences the medieval occupation (either associated with the motte or the church) at the site. The fragment of plaster is undated, but may be from the Church itself.

5.1.4 No further work is required on this assemblage.

Table 1: The Pottery

Context	Material	Quantity	Weight (g)	Period
101	Pottery (Hard Paste Earthenware with a white glaze, C19th-C20th).	2	18	Modern
101	Pottery (Brown Glaze Oxidised ware, C13th-15th, undiagnostic fragment).	1	8	Medieval
101	Hard red ?earthenware with white plaster adhering	1	5	Unknown
101	Clay pipe (stem fragment undiagnostic)	1	1	Post-Medieval

5.1.5 **Animal Bone**: As Table 2 below shows, 16 fragments of animal bone were recovered from the watching brief at St.Mary's Beaumont. The four fragments from the topsoil (100) may be relatively modern in date. The twelve fragments from the cemetery layer (101) may be medieval or post-medieval in date.

5.1.6 The animal bone identified as cattle and caprovine elements recovered from deposit (101) may reflect occupation related to the medieval or post-medieval church, but little further can be said of the assemblage. The four fragments of small mammal bone recovered from deposit (101) may be associated with the expected bioturbation associated with a cemetery.

5.1.7 No further work is required on this assemblage.

Table 2: The Animal Bone

Context	Material	Quantity	Weight (g)	Period
100	Animal Bone (2 x bird bone, 1 x cattle rib, 1 x undiagnostic)	4	16	Unknown
101	Animal Bone (1 x mature cattle tooth, 4 x caprovine leg, 4x small mammal bones, 3 x undiagnostic)	12	76	Post-Med/Med

5.1.8 **Metal Artefacts (Bulk Finds):** As Table 3 below shows, 108 fragments of metal artefacts were recovered from the watching brief at St.Mary's Beaumont. These artefacts included 91 coffin nails, 5 undiagnostic iron artefacts (probably post-medieval or modern tools and agricultural implements), 14 undiagnostic lead artefacts (including two fragments of possible window came perhaps derived from the medieval church) and a copper alloy weight of possible post-medieval date.

5.1.9 The large quantities of coffin nails recovered, including 31 nails from the stratigraphically secure cemetery deposit (101), is unsurprising. A number of the nails may be of possible medieval date. A number of the nails could be identified as hand-made and many had square heads; suggesting a date of manufacture prior to the 19th century. A single nail was attached to a fragment of preserved wood, presumably a piece of the associated coffin.

5.1.10 No further work is required on this assemblage.

Table 3: The Metal Artefacts (Bulk Finds)

Context	Material	Quantity	Weight (kg)	Period
U/S	Fe (Iron Coffin Nails)	15	51	Post-Med/Med
U/S	Pb (Undiagnostic lead artefacts)	4	13	Unknown
100	Fe (Iron Coffin Nails)	45	118	Post-Med/Med
100	Fe (Undiagnostic iron artefacts)	2	12	Unknown
100	Pb (Undiagnostic lead artefacts, including 2 x window cames)	10	29	?Med/ Unknown
101	Fe (Iron Coffin Nails)	31	111	Post-Med/Med
101	Fe (Undiagnostic iron artefacts)	3	42	Unknown
101	Cu alloy (?weight)	1	6	Post-Med/Med

5.1.11 **Window Glass,** *by Gareth Davies*: As Table 4 below shows, 2 fragments of window glass were recovered from the watching brief at St.Mary's Beaumont. Both fragments were of a very poor durability indicative of a glass made using plant ash of probable medieval date (Biek and Bayley, 1979, 4) and may have originated from the church itself.

5.1.12 No further work is required on this assemblage.

Table 4: The Window Glass

Context	Material	Quantity	Weight (kg)	Period
101	Window Glass (Light Green-blue)	1	2	?Medieval
104	Window Glass (Light Green-blue)	1	1	?Medieval

5.1.13 **Coins,** *by Frank Giecco*: Two late 3rd century barbarous radiates in a highly corroded condition were recovered during the watching brief at St.Mary's Church, Beaumont. It

is possible that the coins are both of Tetricus III (270-3 AD), but the condition of the coins does not allow for a definite identification. Barbarous radiates are a common find in northern Britain and are of crude production.

5.1.14 The finds of two Roman coins confirm the expected 3rd century presence of Roman occupation in the vicinity of St. Mary's Church Beaumont. However, the finds are residual in their present contexts and do not add any information about the nature and scale of this occupation.

5.1.15 No further work is required on this assemblage.

Table 5: The Coins

Context	Material	Quantity	Weight (kg)	Period
U/S	Coin (Barbarous Radiate Minim) Late 3rd century	1	2	Roman
101	Coin (Barbarous Radiate Minim) Late 3rd century	1	2	Roman

5.1.16 **Metal Artefacts (Small Finds):** A single lead alloy artefact (60g), apparently some kind of wedge-like tool or building accessory, was recovered from the cemetery deposit (101). The tool measured 33mm (length) by 22mm width and 14mm maximum depth at the thick end. The function of this artefact is uncertain, but it may represent some kind of stone masons tool of a potential medieval date (see Plate 1 below).

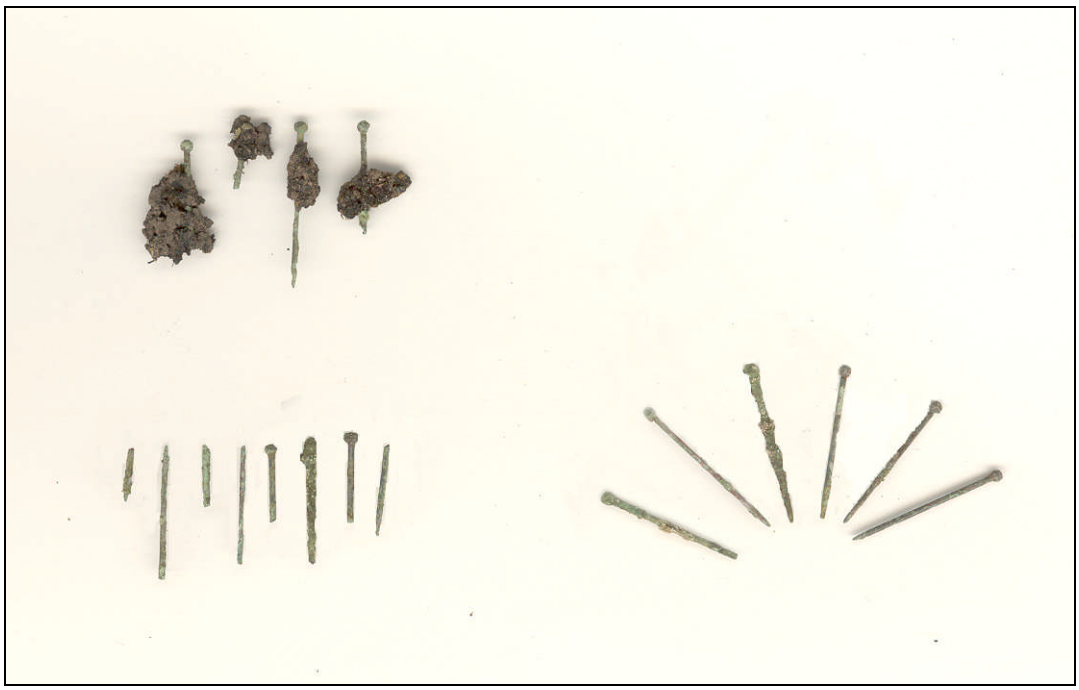
5.1.17 No further work is required on this artefact, but it would possibly benefit from being drawn and published in the future.

5.1.18 **Plate 1: Showing Lead alloy artefact from context (101) at a scale of 1:1**.

5.1.19 Perhaps the most significant metal artefact small finds recovered from the watching brief at St.Mary's Church, Beaumont were a number of small copper alloy pins found in association with a neonate burial (SK3, grave fill (110)). These finds were recovered during the wet-sieving of grave fill (110) (the wet-sieving aimed to retrieve any small elements of human remains not recognisable during hand excavation, see Section 6 below).

5.1.20 Six complete Cu alloy pins were recovered measuring, in general, c.14mm in length, 2-3mm in diameter, with small rounded heads. Fragments of another eight pins were also recoverd. A further four pin fragments (1 nearly complete) were recovered with undiagnostic organic matter, possibly decayed wood with the remains of a woollen shroud, adhering to them (see Section 6 below).

5.1.21 **Plate 2: Showing Copper alloy pins from context (110) at a scale of 1:1**.



5.1.22 **Discussion**, *by Gareth Davies and Naomi Payne:* The pins recovered from the grave fill of SK3 are likely to be shroud pins. This suggests that the burial was shrouded, possibly in a woollen shroud on the further evidence of preserved organic material adhering to four of the pins (see Plate 2). It is also a possibility that the shrouded burial was then interred within a coffin; possible wood remains were also found adhering to the shroud pins, but this must remain speculative.

5.1.23 The pins appear to have plain spherical solid heads (occasionally with an incised horizontal line), which have been made separately from the shanks. They would have been used to fasten veils and other items of (thin) clothing. They are probably 14th or 15th century in date, but could be as early as c. 1150. Similar examples have been found in medieval London (Egan and Pritchard 1991, 297-299) and York (Spall and Toop 2005).

5.1.24 The probable 14th or 15th century date of the pins appears to confirm that the date of burial SK3 is indeed later medieval. The 14th or 15th century date for burial SK3 also provides a useful *terminus ante quem* for charnel recovered from below SK3 but within the homogenous cemetery deposit (101) (see section 8 for conclusions).

5.1.25 No further work is required on these artefacts, but they would possibly benefit from being drawn and published in the future.

6. THE ENVIRONMENTAL REMAINS

6.1.1 **Introduction**: *by Patricia Crompton*. Two contexts from the excavated area were sampled for environmental remains. The first was the main cemetery layer (101) bearing fragments of disarticulated skeletal material, mainly fragmentary, and the second was the grave fill of articulated adult burial SK1 (108); recovered from the matrix within the torso area. The two samples were selected for processing in order to assess their environmental potential. This will help provide further information as to the depositional processes involved in their formation.

6.1.2 **Methodology**: The methodology employed required that the whole earth samples be broken down and split into their various different components. This was achieved by a combination of water washing and flotation. The recovered remains were then assessed for content.

6.1.3 Flotation separates the organic, floating fraction of the sample from the heavier mineral and finds content of sands, silts, clays, stones, artefacts and waterlogged material. Heavy soil and sediment content measuring less than 1mm falls through the retentive mesh to settle on the bottom of the tank. Flotation produces a 'flot' and a 'residue' for examination, whilst the heavier sediment retained in the tank is discarded. The method relies purely on the variation in density of the recovered material to separate it from the soil matrix, allowing for the recovery of ecofacts and artefacts from the whole earth sample.

6.1.4 The retent, like the residue from wet sieving, will contain any larger items of bone, or artefacts. The flot or floating fraction will generally contain organic material such as plant matter, fine bones, cloth, leather and insect remains. A rapid scan at this stage allows further recommendations to be made as to the potential for further study by entomologists or palaeobotanists. Favourable preservation conditions can lead to the retrieval of organic remains that may produce a valuable suite of information in respect of the depositional environment of the material, which may include data pertaining to anthropogenic activity, seasonality and climate, and elements of the contemporary economy.

6.1.5 **Results**: The contents of the samples are listed below in Tables 6 and 7.

Table 6: Details of samples and contexts

SAMPLE NUMBER	CONTEXT NUMBER	SAMPLE SIZE (litres)	FLOT SIZE (cm^3)	RETENT SIZE (cm^3)
1	101	6	50	1700
2	108	4	50	2000

Table 7: Contents of flot and retent residues from samples.

DETAILS			RETENT FRACTION							LIGHT FRACTION													
Context	Context type	Sample number	Root material	Charred wood	Waterlogged wood	Burnt bone	Bone	Gravel	Stones	Insects	Charred wood	Root material	Charred grain	Ranunculus	Sambucus nigra	Grasses	Chenopodium	Raspberry	*Tilia* sp.	Snail shells	Other seeds	Charred organic	Woody plant parts
108	Dep	0	0	0	0	0	0	2	3	0	1	3	1	1	1	0	0	0	1	1	0	0	1
108	Fill	0	0	0	0	0	0	2	3	0	1	3	0	0	0	0	0	0	0	0	0	0	1

Key to tables: Fill = ditch, posthole or pit fill, Dep = deposit. Contents assessed by scale of richness 0 to 3. 0 = not present, 1 = present, 2 = common, 3 = abundant.

6.1.6 **Sample 1 (Context 101):** This sample was from the subsoil associated with the fragments of disarticulated skeleton. The matrix was a dark brown loamy silt with inclusions of small rounded pebbles and grit. The retent was made up of stones and gritty gravel with no organic matter present. The flot contained some tiny snail shells, very diagnostic of well formed soil conditions, and a lot of root material. *Ranunculus* and *Tilia* seeds were present and also a small amount of charred wood and charred grain, as probably oat, but very fragmentary.

6.1.7 **Sample 2 (Context 108)**: This sample came from the material within the body cavity of Skeleton 1. This was the articulated adult skeleton recovered from the site. The retent of this sample was made up of gravel and stones. The flot contained only root material and charred wood.

6.1.8 **Discussion of Bulk Samples**: The flot samples recovered yielded only a few seeds. The most diagnostic material recovered from Sample 1 were the snail shells. These can determine the type of soil from which they are extracted and other environmental factors leading to their deposition. In this case though the palaeo-environment is not an important issue. Artefacts recovered from this context (101) included both Post-Medieval and Medieval pottery and glass. This layer has probably seen a lot of mixing through successive periods of grave digging throughout the area. The material recovered from within the skeleton torso cavity (108) produced very little material of diagnostic use as only roots and charred wood, gravel and stones making up the retent. Neither of these samples is worth further investigation.

6.1.9 **Wet Sieving of Grave fill (110):** Further to the two bulk environmental samples, organic material was also recovered during wet-sieving of the grave fill of SK3, (110). Several shroud pins were recovered from the grave fill (110) of SK3; the neonatal burial excavated from the site. These pins were associated with a small amount of organic material; sometimes still adhering to the pins (see Plate 2). The pins were made of copper alloy and are discussed in Section 5 above.

6.1.10 The organic material comprised several different components. The main component was an undiagnostic charred/preserved wood and was distinct from the other organic components from the rest. In cases where this charred wood was still attached to the pins, the material was amorphous. It did, however, have identifiable amorphous material attached to it though. Residue of the copper alloy could also be seen in some areas.

6.1.11 The amorphous organic material attached to the pins was very small and fragmentary. In one case it was associated with a black, wiry material that looked like very small tightly coiled woollen fibres, only distinctly visible under a x10 microscope. Another portion, where the pin still formed part of the matrix, had several hairs with roots, probably human from their cylindrical appearance, adhered to it. A small amount of other material was associated with the hairs and could have been skin, blackened by preservation processes. The amorphous organic material is almost certainly to be associated with the degradation of the human burial judging by its close association with the burial.

6.1.12 **Conclusion and recommendations**: The presence of charred/preserved wood, woollen fibres and preserved human hair fragments suggest three things. Firstly, the wood adhering to the pins may represent the fragmentary remains of coffin material, although this is somewhat conjectural. Secondly, the presence of woollen fibres adhering to the pins suggests that burial SK3 was inhumed within a woollen shroud. Thirdly, the presence of possible human hairs adhering to the pins perhaps suggests that either the pins were used to pin the hair, or more likely that they were used to pin down the head area of the shroud.

6.1.13 Although the material seen associated with the neonate burial SK3 is interesting, it does not warrant further investigation. The other material recovered from the bulk flotation samples did not add any more information to that gleaned from the site and it does not warrant any further investigation. The potential for further information being gained from the examination of this material is limited and so it is recommended that no further work be done.

6.1.14 **Mollusca Remains**: The only mollusc remains recovered from the site were the tiny snail shells from Sample 1. As stated above, palaeo-environmental data is not considered a high priority in this study, so no further work will be carried out on this material.

7. THE HUMAN REMAINS

7.1.1 **Introduction**: *by Charlotte Burrill*. Two articulated skeletons were recovered from the watching brief at St. Mary's church Beaumont which shall henceforth be referred to as SK1 and SK3 (a third skeleton was initially labelled as SK2 but upon further excavation proved to be disarticulated remains); distinct grave cuts could not be identified. A quantity of disarticulated remains were also recovered, a small amount from the churchyard topsoil (100) and a much larger quantity from the subsoil (Context 101). The subsoil (101) contained ferrous metal artefacts including nails possibly from coffins and small quantities of animal bone, pot and clay pipe. Fragments of 18 small copper-alloy pins were also found in close association with SK3 with some leaving a green staining on the bones of the upper chest and head region. These pins, which have been provisionally dated to the later medieval period, provide a good date indicator for SK3 but due to the long use of St. Mary's as a place of burial, which was established in the 12th century and is still in use today, all other human remains included in this report cannot be closely dated.

7.1.2 The following report is set out in the following way: initially a brief statement will explain the aims and rationale underpinning this analysis followed by an exposition of the methods used. The report will then be split into two parts. The first part will be a full consideration of SK1 and SK3 as discrete burials which will include the state of bone preservation and recovery, information on ageing, sexing, metric and non-metrics and a discussion of any pathological changes. The second part will be a discussion on the findings from the disarticulated remains, which will include the proposed MNI (Minimum Number of Individuals) and the calculations used to reach this figure. The appendices contain copies of the recording sheets and relevant data.

7.1.3 **Aims & Rationale:** One key reason why osteological analysis was carried out was to obtain information on the demographics present in the churchyard. Such data is useful in order to ascertain whether any zoning or exclusion, for example, by age or sex was in use in the cemetery. Although, in this case, the sample was small it is imperative that full recording is carried out in order that the data is then compatible with other skeletal material either from future excavations on the same site or from elsewhere. This is particularly crucial where, as in this case, the material is to be reburied immediately following recording.

7.1.4 The specific aims of the articulated remains analysis were to gather data and make observations in order to establish the following:

- The state of preservation of skeletal material.
- The completeness of individual skeletons.
- The sex determination of an individual, if possible.
- The age estimation of an individual, if possible.
- The incidence of non-metric traits
- The level of metric recording possible and its use in stature estimations
- The incidence of pathology (both skeletal & dental)

7.1.5 The specific aims of the disarticulated remains analysis were to gather data and make observations in order to establish the following:

- The identification of non-human bone inclusions for removal and forwarding to relevant specialist
- The human skeletal elements present.
- The specific segment(s) of any long bones present.
- The human skeletal elements which could be sided.
- The human skeletal elements which could be aged.
- The human skeletal elements which could be sexed.
- The human skeletal elements which had other distinct metric or morphological traits
- The human skeletal elements with identifiable pathology or non-metric traits.
- The calculation of a MNI (Minimum Number of Individuals) figure.

7.1.6 **Methodology:** The skeletal material was observed and recorded in accordance with the systems used by SHARP (Sedgeford Historical & Archaeological Research Project), based in Norfolk, UK, which were felt to be particularly relevant as they were established in order to obtain full and detailed recording for remains that will be re-buried. This recording system is derived, with some modification to aid clarity and improve cross-referencing with other systems, from the following recognised standards:

- Buikstra, J. E. & Ubelaker, D. H., 1994, *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archaeological Survey Research Series No. 4, Fayetteville. The visual recording, inventory, non-metric traits, metrics, ageing, sexing & dentition are all adopted from this source.
- Trotter, M. & Gleser, G. C., 1952 'Estimation of stature from long bones of American Whites and Negroes', *American Journal of Physical Anthropology* 10, pp.463-514 (taking into account later 'Corrigenda' to the calculations).
- Brothwell, D., 1981, *Digging up Bones*, Oxford University Press, Oxford. The dental wear scoring system and additional non-metric traits have been derived from this source.
- Scheuer & Black, 2000, *Developmental Juvenile Osteology*, Academic Press, London. This source was used to provide ageing guidelines and comparative data on epiphyseal fusion and bone development.

7.1.7 The disarticulated bone was analysed according to the system established by SHARP which alongside the usual methodology, set out in the official guidelines listed below, also records the particular segment of any given long bone present in order to minimise multiple recording of the same fragmented bone.

7.1.8 The systems used follow the *Guidelines to the Standards for Recording Human Remains* recommended by the British Association of Biological & Anthropology &

Osteoarchaeologists (BABAO) on behalf of the IFA (Institute of Field Archaeologists) published in 2004 and are in accordance with the following English Heritage publications: *Human Bones from Archaeological Sites*, 2004 & *Guidance for Best Practice for treatment of human remains excavated from Christian burial grounds in England*, 2005.

7.1.9 At the point of excavation SK1 was excavated in situ with small hand tools and Sk3 was block lifted and then fine mesh sieved in order to aid the level of bone recovery. All disarticulated bone was recovered during excavation with both small and large hand tools.

7.1.10 During post-excavation analysis the material was analysed macroscopically with the aid of digital photography where necessary. Metrics were recorded using sliding digital callipers, spreading callipers, a tape measure and an osteometric board as appropriate.

7.1.11 **Articulated Skeletons.**

7.1.12 **Skeleton Number 1 (SK1):** For a full copy of the recorded data the reader is referred to Appendix 2.

7.1.13 **State of Preservation:** The condition of the bone present has been recorded in three ways in order to give the reader a clear and compatible understanding. The first method forms part of the general inventory whereby bones or bone elements are not simply rated as present or absent but are given one of the following grades:

Table 8: State of Preservation Grading

GRADE	MEANING
0	Absent
1	75%+ & Research Quality (RQ) i.e. the element is not eroded or is fragmentary.
2	75%+ but not RQ i.e. the element is fragmented or eroded
3	75%-50% present
4	50%-25% present
5	25% or less present

7.1.14 The second method involves a description and, if deemed appropriate, visual recording on the 'Post Burial Modification Recording Form' which seeks to link any notable truncations or intrusions seen at the point of excavation to observations made in post-excavation. The third method involves using the grading system provided by BABAO and the IFA in *Guidelines for Recording Human Remains*.

7.1.15 In the case of SK1 the state of bone preservation was variable ranging from good – with only low cortical bone surface erosion and primarily sutural fragmentation of the cranium to bad in the post cranial skeleton. The condition of the bone declines exponentially post cranially with both clavicles (collar bones) exhibiting epiphyseal erosion and the ribs and vertebra in considerably worse preservation at the upper than lower thorax. The lower arms, sacrum and pelvis are in particularly poor condition and

exhibit both cortical and trabecular bone erosion alongside bone profile modification. All of these observations are in line with the fact that this burial had been truncated by a later inhumation at roughly waist level and therefore that temporary exposure and intrusive digging are the likely cause of these modifications.

7.1.16 **Completeness**: For a clear understanding of the level to which this skeleton was complete the reader is referred to the visual recording form and inventory (which uses the aforementioned gradation scale of 0-5) included in Appendix 2. Approximately 60% of this skeleton was present from cranium to partial pelvic girdle and partial lower arms due to a later waist level truncation.

7.1.17 **Sexing:** The criteria used for sexing this skeleton are those set down in Buikstra & Ubelaker, 1994, *Standards for Data Collection from Human Skeletal Remains*, p.15ff. alongside one additional criteria, mandibular gonial flaring derived from the more recent sexing recommendations set down by BABAO. These sexing techniques concern a series of observations of morphological elements of both the skull and pelvis which are known to be divergent between adult males and females once full skeletal maturation has been reached. Sexing has been shown to have a relatively high level of accuracy.

7.1.18 For SK1 it was unfortunate that most of the pelvis was lost to a later intrusion and although a portion of the right ilium (hip bone) did survive the observations made on this cannot be seen as reliable. Fortunately the cranium and mandible were in a very good state of preservation allowing all sexing criteria observations to be made at least uni-laterally. Based on the skull this individual was rated as strongly female. The mandible is shallow and rounded with no marked muscle attachments and the cranium likewise exhibits no masculine traits. Further confidence can be placed on this individual being female if the gracile nature of the long bones, which also have no marked areas of muscle attachment are also taken into account.

7.1.19 **Ageing:** The criteria used for ageing a skeleton are those set down by Buikstra & Ubelaker, 1994, *Standards for Data Collection from Human Skeletal Remains*, p.15ff. All of these standards look at joint surface changes in the pelvic girdle which have been observed as changing with age in the adult skeleton. The second criteria used for ageing purposes was the level of enamel surface wear evident on the teeth otherwise known as dental attrition which was drawn from D. Brothwell*, Digging up Bones*, 1981, p.72. The third criteria used for ageing skeletons is to record the degree to which the skeleton is fully matured, this relies on making observations of epiphyseal appearance and fusion. To give an example of this the ends of long bones are known as epiphysis and these do not become attached to the main shaft of the bone until the rate of longitudinal bone growth has diminished. Such fusion has been observed to occur at particular times in an individual's life and is therefore considered a reliable indicator of age. Supplementary information on skeletal development and maturation was taken from Scheuer & Black, *Developmental Juvenile Osteology,* 2000. The fourth and final method of ageing is tooth formation and eruption which was recorded according to the standards established by Buikstra & Ubelaker. This method is useful in individuals up to their early 20s when full dental maturity is normally reached with the eruption and root closure of the third molars, also known as 'wisdom teeth'.

7.1.20 Due to the absence of both the left and right pubic bone and poorly preserved auricular surfaces it was not possible to use ageing criteria number one listed above.

7.1.21 The Brothwell scale dental attrition scores can be found on the relevant recording form in Appendix 2. According to this scale the individual was aged in the 17-25 years category but this does need to be treated with caution due to the fact that dental attrition is heavily dependant on diet. Dental attrition is most useful when making observations on a known population grouping rather than on isolated skeletons and is not applicable to post-medieval populations. Given that the date at which this individual was interred is not known it therefore follows that this age categorisation cannot be seen as reliable as a sole indicator of age.

7.1.22 The third criteria, bone development and epiphyseal fusion, proved to be initially problematic but ultimately enlightening. The only well-preserved long bones were the left and right humeri which were fully fused with no recent lines of fusion evident which would place this individual beyond their mid-later teens. The best indicators of establishing whether this individual was considerably older than this are then taken to be the level of fusion seen in the clavicles (collar bones) and the sacrum (the bone that sits between the two hip bones). The clavicles were too eroded to be observed and the sacrum was in a poor state of preservation. It was, however, possible to make some observations that would indicate that this person was a young adult at the time of death. The portion of the sacrum that was extant was composed of segments 1 and 2, which sit immediately below the vertebral column and are the last segments to fuse as the skeleton matures. Although the anterior bone is eroded it is clear that the two segments were still in the final stages of fusion as there is a notable gap between the two bodies. This is one of the last areas to fuse on the adult skeleton and as such places the individual at c.18-24 years. This age categorisation received further support when a closer inspection of the vertebral epiphyses was made whereby it was noted that the superior and inferior epiphyseal rings were clearly recent and in a few cases not fully fused to the vertebral bodies. This would place the individual at c. 17-24 years of age at time of death. Both of these observations are in agreement with the age categorisation provided by the Brothwell dental attrition scale. The reader is referred to the photographs of the mandible where the clear progression of wear is evident from molar 3 where the wear is at its slightest through molar 2 and to molar 1 where the wear is greatest.

7.1.23 The fourth and final criteria for ageing is the degree of dental eruption. The maxillary (upper) teeth were unfortunately missing both left and right molar 3 (wisdom teeth) and the associated bone although the wear evident on the opposing mandibular (lower) teeth confirms that this was not a congenital absence but a post-mortem loss. Both mandibular molar 3 teeth were present and clearly fully erupted and in occlusion, which does imply an age of least 18-25 years but, the slight degree of enamel polishing also present on these teeth does imply an older rather than younger age. It was not possible to observe the roots in order to confirm the age. At best and with due caution it is only possible to state that the dental eruption indicates that this was an adult.

7.1.24 In sum this individual can, with a good degree of confidence, be placed in the category of Young Adult (20-35 years). This age categorisation system follows that outlined by Buikstra & Ubelaker, 1994 and is the one recommended by BABAO in order to minimise error.

7.1.25 **Non-Metric Traits:** Non-metric traits are minor variants in skeletal and dental morphology that exist to varying degrees in some but not all individuals. These non-metric variations are asymptomatic and of no functional purpose. The purpose in recording them is to assess the extent to which they exist in and between different population groups and it is often suggested that they can enable the recognition of genetic relationships. This is, however, hugely problematic not least because not only genetics but also environmental factors, sex, age and physical activity have been put forward as contributory factors. Various lists have been drawn up outlining the most common examples and those recorded for SK1 were taken from Buikstra & Ubelaker, 1994 with additions from Brothwell, 1981.

7.1.26 The reader is referred to the actual data, in Appendix A, there is little to be said at this particular time due to the lack of comparative data.

7.1.27 **Metrics & Stature**: In order to establish the height of an individual from their skeletal remains it is necessary to have complete long bones. All the long bones of the arms and legs can be used for this purpose although the femur is usually considered to be the most reliable. Once the maximum lengths of the long bones have been established then the use of a series of regression formulae created by Trotter & Gleser, 1952 (with later amendments) can then be used to estimate height.

7.1.28 In the case of SK1 the only surviving long bones were the humeri (upper arm bones). Based on the regression formula this gave an estimated height range of 161cm-170cm which correlates to an average, in imperial measurements, of 5ft 5".

7.1.29 **Pathology (Skeletal & Dental):** Pathology refers to any skeletal or dental modifications that are indicative of trauma, nutritional deficiency, degenerative change, congenital conditions, infection, disease or other underlying health problems. It is usually possible, dependent on bone preservation, to make suggestions about whether any noted modifications were active or healed at the time of death although it is rare to be able to ascertain cause of death with any degree of confidence. Pathological changes can, however, be used to make inferences about the health status of an individual or for larger sample sizes about population groups. All pathological changes to bones or dentition are described and located on the recording forms (see Appendix 2) and full and comprehensive descriptive statement accompanied with relevant photographs is adopted in preference to diagnosis in order to ensure that all such data can be used with greater ease by future osteological researchers without restriction or complication.

7.1.30 Pathological changes were noted in three areas of SK1: the frontal bone, mandibular dentition and thoracic vertebra.

7.1.31 **The Frontal Bone**: Pitting and bone remodelling was observed in the roof of both eye orbits. The full extent was difficult to ascertain due to post-mortem damage to this area. See Plate 3.

Plate 3: Skeleton SK1: Frontal Bone (left & right orbital roofs) – Note the porosity and bone remodelling.

7.1.32 Such changes in the eye orbits are usually referred to as *cribra orbitalia* although there continues to be great debate about whether all such similar pathological changes really ought to be considered as having the same underlying causation. The most frequently suggested cause is iron deficiency anaemia although recent studies have sought to stress that this need not be due to a diet lacking in iron but may be due to traumatic injury, serious illness, menstruation, pregnancy or parasitic conditions such as intestinal worms which have inhibited the uptake of iron. The lesions seen in this particular individual appear to have been active at the time of death as can be seen from the disorganised appearance of the bone, which is in the process of remodelling. Although slight porosity is evident at the margins it is clear that the openings in this instance have coalesced to form larger apertures, which is seen as a more advanced stage of this condition. The reason or reasons why SK1 has such lesions are not known although it should be born in mind that osteological analysis indicated that this individual was a female of childbearing age.

7.1.33 **Mandibular Dentition**: Linear enamel anomalies were observed on the canines and both lateral and medial incisors of the mandibular dentition. These consisted of a depressed band of irregular enamel formation. See Plate 4 below for more clarity.

Plate 4: Skeleton #1: Mandibular Dentition (Canines & Incisors) – Linear enamel depressions

7.1.34 These linear depressions are referred to as hypoplasic lines or hypoplasia and are a permanent change in the enamel that takes place when the tooth crowns are forming in crypt (within the mandibular bone) prior to eruption at a later age. They are indicative of periods of ill health or malnutrition during early childhood. In the case of SK1 the time at which this enamel will have been forming is within the range of 2-4 years.

7.1.35 **Thoracic Vertebra**: Pathological changes were noted in three thoracic vertebra: T3, T4 & T5. T3 and T4 were observed to be fused at the neural arches and along the spinous processes with the fusion appearing to have started at the point where the inferior facets of T3 meet the superior facets of T4. The bone remodelling is obviously longstanding and were it not for a small gap approx 30mm long by 2mm wide that is evident between the fused spinous processes on the posterior left hand side then it would be difficult to ascertain from the posteior aspect that these two bones were ever separate elements. There is, however, the maintenance of a gap between the vertebral bodies of roughly 2mm. The reader is referred to the photos below for greater clarity.

Plates 5 and 6: Skeleton SK1: Thoracic vertebra (T3 & T4) – Note the fusion along the spinous processes and note also the elargement of the left inferior articular of T4 evident at the bottom of the photo on the right-hand side.

7.1.36 The reason for this pathological change is felt to be a due to a developmental anomaly. There is no good evidence of trauma or injury and the changes that would accompany spinal joint disease, arthritis or other spine altering pathologies are simply not present such as pitting, porosity, extra bone growth or marginal lipping. The only notable impact that this fusion appears to have had is that the superior facets of T5 have become enlarged, more notably on the left-hand side, in order to successfully articulate with T4 above (which likewise as developed enlarged facets as can be seen in the above photos). These changes are presumably to compensate for the loss of flexion due to the fusion of T3 to T4. It is highly unlikely that the individual was aware of having such an abnormality in life and any suggestions of back pain or joint stiffness must remain pure conjecture.

7.1.37 **Skeleton Number 3 (SK3):** For a full copy of the recorded data the reader is referred to Appendix 2.

7.1.38 **State of Preservation:** For the methods used to record bone preservation the reader is referred to the section on this topic for Skeleton SK1 above.

7.1.39 In the case of SK3 the level of bone preservation was excellent with a very low level of bone degradation or erosion. The reader is referred to the recording sheets and specifically the 'Inventory' and 'Post Burial Modification Form' in Appendix 2 for fuller details.

7.1.40 **Completeness:** For a clear understanding of the level to which this skeleton was complete the reader is referred to the visual recording form and inventory (which uses the aforementioned gradation scale of 0-5) included in Appendix 2. Approximately 90% of this skeleton was present from cranium to lower legs.

7.1.41 **Sexing:** There is currently no known reliable and non-intrusive method for determining the sex of immature skeletal remains. In accordance with standard practice and recommended guidance this individual must remain unsexed.

7.1.42 **Ageing:** Unlike adults which must be assigned to broad age categorisations such as young or old adult in order to minimise error it is possible to age immature individuals with a good degree of confidence to narrower age groupings. The reason for this is that there are a number of indicators present on the juvenile that are known to develop in a series of relatively consistent stages. These indicators include dental development, bone length growth and epiphyseal appearance and bone fusion. When skeletal preservation is good it is possible to use these indicators together in order to gain a clear insight into the most likely age at death.

7.1.43 In the case of SK3 the dental development, bone metrics and stage of epiphyseal fusion were all in agreement that this individual was perinatal, in other words, that death took place at or around the point of birth. Due to the fact that babies do differ considerably at the point of birth it must be born in mind that the range must be broadened to encompass a scope of approximately one month either side of this median point. The reader is referred to the data in the recording sheets included in Appendix A and to a consultation of Scheuer & Black, 2000 for more detail on the material used to create the comparative data.

7.1.44 **Non-Metric Traits:** It is not possible to make observations about non-metric traits in immature human remains, as there has not been sufficient development for observers to be certain that any observed traits would remain as permanent non-metric traits into adulthood.

7.1.45 **Metrics & Stature:** It is not standard practice to try and calculate the stature of immature individuals for the obvious reason that they are still in the process of growth and development. The detailed recording of metric data does, however, have an important role to play in ageing and for this reason the remains of the very young (two years or less) are subjected to a series of thorough measurements that can then be use to estimate age. The reader is referred to the above section on ageing for the relevant references.

7.1.46 **Pathology (Skeletal & Dental):** No pathological abnormalities or modifications were noted in this individual.

7.1.47 **Disarticulated Remains**

7.1.48 **Introduction:** Disarticulated remains are those that do not come from recognisable burials and have been disturbed by varied means such as later intrusions including successive graves, animal activity, building work or root growth. The aim of the analysis of disarticulated remains is to establish a demographic profile from the recovered remains which gives an estimate of the number of people represented by the sample, the age groups present and, if possible, the ratio of sexes also represented. Such data can provide an additional insight into the sectors of society being buried in the cemetery and permit the recognition of any areas of zoning where specific sectors of society are buried in preference to others. In addition to demographical data disarticulated remains also provide an opportunity for the gathering of supplementary pathological and non-metric data which can be used in order to strengthen, question or even undermine other arguments formulated from the recovered articulated remains.

7.1.49 **Methodology:** The human bones have been recorded according to a specifically designed system, which was created by SHARP (Sedgeford Historical &

Archaeological Research Project), which incorporates bone element, siding and completeness. Fragments have been recorded by weight and where appropriate, such as for ribs, vertebra or hand and foot bones a count has been given. Where possible basic demographic data of age and sex was also recorded. One problem with disarticulated bone is that elements may become fragmented and an individual bone may be recorded two or more times. To reduce the likelihood of this happening, identified long bones have also been recorded by segment. The PE, P, M, D & DE used in the columns headed Seg.1 & Seg.2 refer to the bone segment present and stand for Proximal Epiphysis, Proximal Third, Metaphysis, Distal Third & Distal Epiphysis. Teeth have also been recorded according to type – the codes which start with either a 'D' or 'P' in the column headings, refer to deciduous (milk teeth) or permanent (adult) dentition. The bones are coded using readily identifiable 3-letter codes, e.g. FEM for Femur and MTA for Metatarsal. The column headed Comp. Refers to completeness and a series of codes from 1-5 have been used where 1 = 80% +, 2 = 60-79%, 3 = 40-59%, 4 = 20-39% and 5 = less than 20%.

7.1.50 Where possible sex and age has been designated. The age groupings have been kept simplistic and are Adult, Adolescent, Older Child, Younger Child, Infant and Fetal-Neonate. Where appropriate, particularly with fetal remains, metrics have been taken into account in order to minimise the incidence of over or underestimation.

7.1.51 The bones were further divided into three contextual groupings: 100 = Topsoil, 101 = churchyard subsoil and U/S = Unstratified. The other contextual details recorded in the tables refer to specific trench information although it was ultimately not possible for reasons of overlapping to separate out the data into these smaller groupings with any degree of confidence – the comments in the final column refer to these earlier groupings.

7.1.52 The reader is referred to the tables of data in Appendix 3 for full details of the data.

7.1.53 **Results**:The total number of remains recovered exceeded 179 individual components; the results have been given individually and as a composite figure where, context numbers were entirely discounted. The MNI (minimum number of individuals) represented is as follows:

Table 9 MNI Calculations.

CONTEXT	MNI (Minimum Number of Individuals)
U/S	2 Adults (one probable male), 1 Adolescent and 2 of Fetal-Neonate age.
100	1 Adult (solely represented by 3 small elements) – TO BE TREATED WITH CAUTION
101	3 Adults, 1 Adolescent, 1 Older Child, 2 Younger Children, 2 Infants, 4 Fetal-Neonate Age
Composite	3 Adults, 1 Adolescent, 1 Older Child, 2 Younger Children, 2 Infants and 4 Fetal to Neonate age.

7.1.54 The few pathological observations that were made have been noted in the comments section of the data tables due to the fact that the disarticulated nature of the remains prohibited further elaboration. No additional non-metric trait observations were made.

7.1.55 **Discussion**: The findings of the disarticulated bone analysis have been very illuminating in that the MNI demographics not only contains individuals drawn from across all age ranges but also displays a distinct bias towards the recovery of immature remains with six individuals out of the thirteen who comprise the composite figure being two years old or younger. This is at a divergence with the normal recovery pattern observed in articulated burials from cemetery excavations, although it has been postulated that due to the small and fragmentary nature of the remains of the very young they are more likely to be recovered from disarticulated bone than excavated as discrete burials (Jo Buckberry pers.comm.).

7.1.56 It was said at the outset of this report that one of the key reasons for carrying out disarticulated bone analysis is to ascertain the existence of any areas of demographic zoning within the cemetery. Although it is unwise to extrapolate from these small-scale excavations that there was a preference for burying the very young close to the church walls it is certainly a pattern that has known precedents dating to the mid-later medieval period. One theory as to why this might be that has been put forward is that the children were buried under the eaves-drip in order to ensure continual baptism from water dripping off the roof (see Taylor 2001, p.175-6 for site references). Another rather more prosaic reason is that the burials of the very young require only shallow graves, which it would be strategically wise to place near wall footings.

7.1.57 In sum it has proven very beneficial to carry out analysis of the disarticulated bone, not least because it enabled a greater insight into the spread of ages represented in this sector of the cemetery. Given the known existence of grave intercutting, as seen in SK1, this exercise has probably provided a better insight into the demographics represented than further excavation of articulated burials would have done.

7.1.58 **Conclusions on the assemblage**: Most of the relevant points have already been drawn out in the above discussion and general report and it simply remains to state that the excavations at St. Mary's Church permitted the recovery and analysis of some very well preserved skeletal remains. SK1 was found to be a young female adult with a few points of pathological note but unfortunately could not be dated due to the lack of diagnostic finds. The good level of recovery of skeletal remains from those aged 2 years or less at the point of death, although in keeping with known higher incidence of childhood mortality in the pre-modern world, is at odds with the usual pattern of recovery on archaeological sites. The reasons for this may be varied but in this instance it is clear that burial away from the church grounds was not a factor. It is unfortunate that most of these observations must remain highly conjectural due to the paucity of good dating evidence which is why it was additionally pleasing to be able to recover a series of small pins with SK3 that allowed it to be dated with a greater degree of confidence. This also provided a glimpse into the funereal care provided for the very young who have died. It is often assumed that the higher incidence of infant mortality in the past generated a more stoic approach to the death of a child whereas the recovery of evidence that shows that care has been taken in the burial of a child goes some way towards challenging, or at least forcing us to ask the question about,

whether this was ever really the case. In this respect alone the excavations of human remains at St. Mary's has raised some very interesting questions.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSION

8.1.1 The watching brief on the underpinning works at St.Mary's Church Beaumont, although only covering a small area (0.8m wide, 4m east-west, 4m north-south and 1m in depth) along the wall line of the south east corner of the church, has evidenced a number of archaeological features of great interest.

8.1.2 As expected, no evidence for Hadrian's Wall was encountered due to the existence of the medieval motte over the presumed wall line. As a result no additional data on this matter can be added to the archaeological background given in Section 3.

8.1.3 However, the earliest finds from the watching brief were indeed from the Roman period. Two Roman coins from the unstratified topsoil and the main cemetery layer (101), were late 3rd century barbarous radiates in a highly corroded condition (possibly coins of Tetricus III, 270-3 AD). Barbarous radiates are a common find in northern Britain and are of crude production. The finds of two Roman coins confirm the expected 3rd century Roman occupation in the vicinity of St. Mary's Church Beaumont. However, the finds are residual in their present contexts and do not add any information about the nature and scale of this occupation.

8.1.4 A reused column fragment was observed in the upper course of the south church wall foundation [105]. It is likely that this fragment is of Medieval date; but a Roman date cannot be fully ruled out. St. Mary's Church certainly does include in its fabric a number of pieces of Roman building stone and it is worth postulating that an undiscovered Roman building lies close to the site of the later church.

8.1.5 The majority of the archaeological features observed during this piece of work were dated to the Medieval period or later. Of particular significance was the recovery of two east-west aligned articulated human burials.

8.1.6 The first excavated burial, SK1, was an adult buried in an east-west aligned supine position). The extended positions of the arms perhaps indicate that this was a coffin burial, although this must remain conjectural. The burial was truncated immediately east of the pelvis by at least three later grave cuts; implying some dense intercutting in this part of the cemetery. Osteological analysis has shown that SK1 was a young female adult with a few interesting points of pathological note. The burial was unfortunately undated, but due to the fact that this burial was truncated by later burials, a medieval or early post-medieval date is thought most likely.

8.1.7 The second excavated burial, SK3, was a neonate buried in an east-west aligned apparently supine position. Due to the paucity of good dating evidence for churchyard burials in general, it was pleasing to be able to recover a series of small copper alloy pins with SK3 that allowed the burial to be dated with a degree of confidence to the 14th of 15th centuries. The pins were also associated with preserved fragments of a possible woollen shroud, which offered a glimpse into the funereal care provided for the very young who have died. It is often assumed that the higher incidence of infant mortality in the past generated a more stoic approach to the death of a child whereas

the recovery of evidence that shows that care has been taken in the burial of a child goes some way towards challenging, or at least forcing us to ask the question about, whether this was ever really the case.

8.1.8 Burial SK3 was both overlain and underlain by significant quantities of disarticulated human remains suggesting that a number of burials in this area of the cemetery were interred during or prior to the Fourteenth century. It is possible that some of the disarticulated burial remains located within layer (101) were disturbed when the east end of the Church was altered in the Fourteenth and Fifteenth centuries, although this must remain conjectural.

8.1.9 The findings of the disarticulated bone analysis have been very illuminating. They suggest that the churchyard demography not only contains individuals drawn from across all age ranges but within the watching brief area also displays a distinct bias towards the recovery of immature remains, with six individuals out of a possible thirteen being two years old or younger. This is at a divergence with the normal recovery pattern observed in articulated burials from cemetery excavations. This hints at some demographic zoning within the cemetery. Although it is unwise to extrapolate from these small-scale excavations that there was a preference for burying the very young close to the church walls, it is certainly a pattern that has known precedents dating to the mid-later medieval period. One theory as to why this might be that has been put forward is that the children were buried under the eaves-drip in order to ensure continual baptism from water dripping off the roof (see Taylor 2001, p.175-6 for site references). Another rather more prosaic reason is that the burials of the very young require only shallow graves, which it would be strategically wise to place near wall footings, indeed burial SK3 was indeed shallowly buried in comparison to SK1.

8.1.10 Finally, the foundations of the south [105] and east [106] church walls were observed during the watching brief. The eastern wall foundations [106] consisted in general of less regular stonework than wall [105] and included more irregular sandstone and river-rounded stone. These contrasting constructions perhaps hint at some sequence associated with alterations to the east end of the church by the 14th or 15th centuries. The church walls [105]/[106] were sitting within a construction cut, [111], that was only observable at the base of the rubble foundations. These observations offer an insight into the varied construction practices of medieval church building.

8.2 RECOMMENDATIONS

8.2.1 As demonstrated in the conclusion above, the results of the watching brief at St. Mary's Beaumont have offered a rare opportunity to observe burial practices and building construction immediately adjacent to a medieval church. This site is important because it is a rare occasion where a churchyard burial of an infant has been securely dated by associated artefacts to the medieval period.

8.2.2 This report is largely self-contained, and specialist assessment and osteological analysis has already been successfully carried out. However, as it is unlikely that further archaeological work will be carried out in the Churchyard of St. Mary's, Beaumont in the near future it is suggested that further funding (beyond the scope of this watching brief report) might be found in order to bring this piece of work

(especially the stratigraphic sequence, the copper alloy pins and the lead wedge) to publication; perhaps as an article in the Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society.

9. BIBLIOGRAPHY

9.1 PRIMARY SOURCES

Anon, Carlisle Local Journal, Feb 6th 1885

British Geological Survey, 2001 Solid Geology Map, UK North Sheet, 1:625 000 scale, 4th ed., NERC

http://en.wikipedia.org

www.ads.adhs.ac.uk

9.2 SECONDARY SOURCES

Bedoyere, G, 1998, *Hadrian's Wall, History and Guide,* Tempus, London

Biek, L and Bayley, J 1979 Glass and other vitreous materials in World Archaeology 11 (1), p.1-25

Brickley, M. & McKinley, J. (eds), 2004, *Guidelines to the Standards for Recording Human Remains,* IFA Paper No.7, published by BABAO & the IFA, Southampton & Reading.

Brothwell, D, 1981, *Digging up Bones*, Oxford University Press, Oxford.

Breeze, D J and Dobson B, 1976, *Hadrian's Wall*, London

Breeze, D J and Dobson, B, 2000, *Hadrian's Wall 4th edn*, London

Birley, E, 1961, *Research on Hadrian's Wall,* Kendal

Buikstra, J. E. & Ubelaker, D. H., 1994, *Standards for Data Collection from Human Skeletal Remains*, Arkansas Archaeological Survey Research Series No. 4, Fayetteville.

Carlisle Archaeology Unit, 1998, Watching brief at Linsum, Beaumont, Cumbria, CAU Report No 10/98

Davies G 2006 Project Design for an Archaeological Watching Brief at St. Mary's Church Beaumont, Cumbria, NPA Ltd. Unpublished document

Egan, G and Pritchard, F 1991, Dress Accessories: Medieval Finds from Excavations in London (London, HMSO) pp. 297-299.

English Heritage, 1991, *Management of Archaeological Projects (MAP2).* London: English Heritage

English Heritage, 2004, *Human Bones from Archaeological Sites*, Swindon.

English Heritage, 2005, *Guidance for Best Practice for treatment of human remains excavated from Christian burial grounds in England,* Swindon

Giecco, F.O, 2003, *North Pennines Heritage Trust Excavation Manual*. unpubl rep, NPA Ltd

Higham, N and Jones, B, 1985, *The Carvetti,* Sutton, London

IFA, 1994, *Standards and Guidance for Archaeological Desk-Based Assessments*. Reading: Institute of Field Archaeologists

Masser and Evans, 2005, Excavations Within the Vicus Settlement at Burgh-by-Sands, *Trans Cumberland and Westmorland Antiq and Archaeol Soc* ***3rd Ser*** **5,** 31-64

Philpott R, (ed), 2004, The Romano-British Period: Resource Assessment, *North-West Region Archaeological Research Framework, Draft Report* www.liverpoolmuseums.org.uk/arf

Scheuer, L. & Black, S., 2000, *Developmental Juvenile Osteology*, Academic Press, London.

Salway, P, 1985, *Roman Britain,* London

Spall, C. A. and Toop, N. J. (eds.) 2005. Blue Bridge Lane & Fishergate House, York. Report on Excavations: July 2000 to July 2002

Taylor, A., 2001, *Burial Practice in Early Medieval England*, Tempus, Stroud.

Taylor, J A, 2000, *The Forts on Hadrian's Wall, A comparative analysis of the form and construction of some buildings,* BAR 305, Oxford

Trotter, M. & Gleser, G. C., 1952 'Estimation of stature from long bones of American Whites and Negroes', *American Journal of Physical Anthropology* 10, pp.463-514.

Trotter, M. & Gleser, G. C., 1953, 'A re-evaluation of estimation based on measurements of stature taken during life and of long bones after death', *American Journal of Physical Anthropology* 16, pp.79-123.

Trotter, M. & Gleser, G. C., 1977, 'Corrigenda to 'Estimation of stature from long bones of American whites and Negroes', *American Journal of Physical Anthropology* 47, pp.355-56.

Wilmott, T, 1997, *Birdoswald: Excavations of a Roman Fort on Hadrian's Wall and its successor settlements: 1987-92,* English Heritage

APPENDIX 1: CONTEXT INDEX

Context	Type	Description
100	Layer	Topsoil
101	Layer	Subsoil (Main Cemetery Layer)
102	Layer	Natural orange clay
103	Cut	Modern Drain
104	Fill	Of Modern Drain [103]
105	Wall	South wall of church foundations
106	Wall	East wall of church foundations
107	Cut	Grave cut for SK1
108	Fill	Grave fill for SK1
109	Cut	Grave cut for SK3
110	Fill	Grave fill for SK3
111	Cut	Foundation cut for Church

APPENDIX 2: ARTICULATED BONE DATA

APPENDIX 3: DISARTICULATED BONE DATA

APPENDIX 4: FIGURES AND PLATES

Plate 7: Gravestone removed during underpinning works. Looking west.

Plate 8: Column fragment exposed in south facing church wall, [105].

Plate 9: Plan view of SK1.

Plate 10: Plan view of SK3

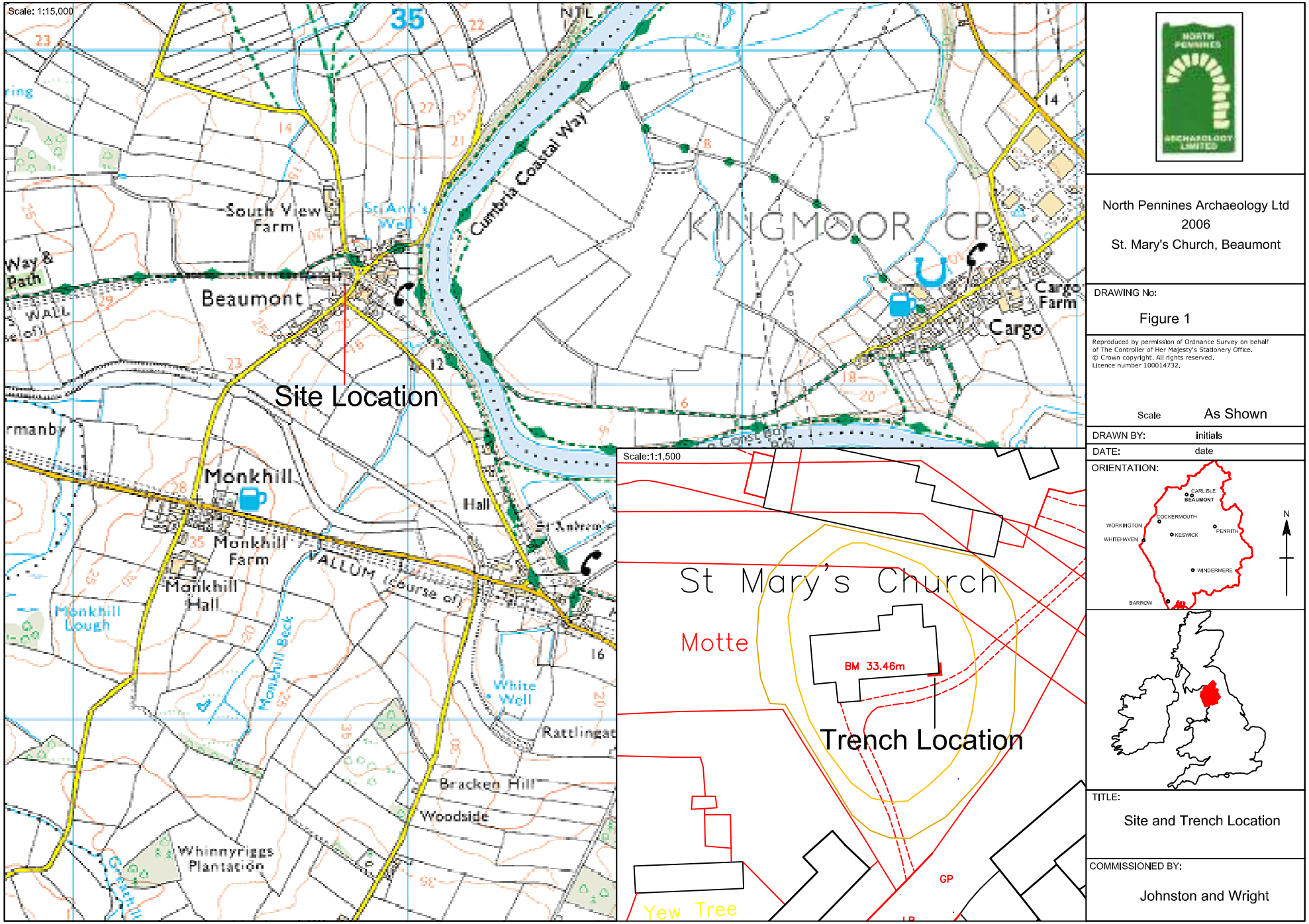
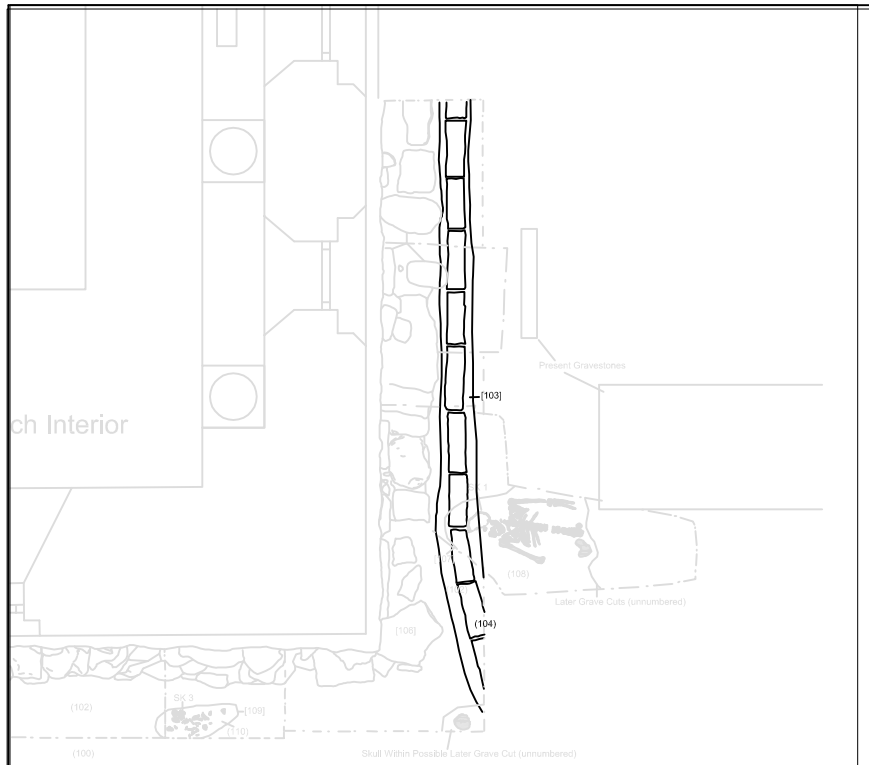


Figure 1: Site and Trench Location



Scale:1:50 Showing cemetery truncated by drain [104]

Church Interior

Location of EFS Fig 4

D

Present Gravestones

33.3 AOD

SK 1

[107]

(108)

32.49 AOD

(102)

Later Grave Cuts (unnumbered)

[106]

B

Location of SFS Fig 4

A

[105]

33.19 AOD

C

Column Fragment

(102)

SK 3

[109]

(110)

(100)

Skull Within Possible Later Grave Cut (unnumbered)

NORTH PENNINES ARCHAEOLOGY LIMITED

North Pennines Archaeology Ltd
2006
St. Mary's Church, Beaumont

DRAWING No:
Figure 2

SCALE: (Main Dwg) 1:20

DRAWN BY: GJD

DATE: July 2006

Orientation:

N

Letters A-D refer to section points.

See Figure 4

Phase A Underpinning

Phase B Underpinning

Phase C Underpinning

TITLE:
Trench Plan

COMMISSIONED BY:
Johnston and Wright

Figure 2: Trench Plan

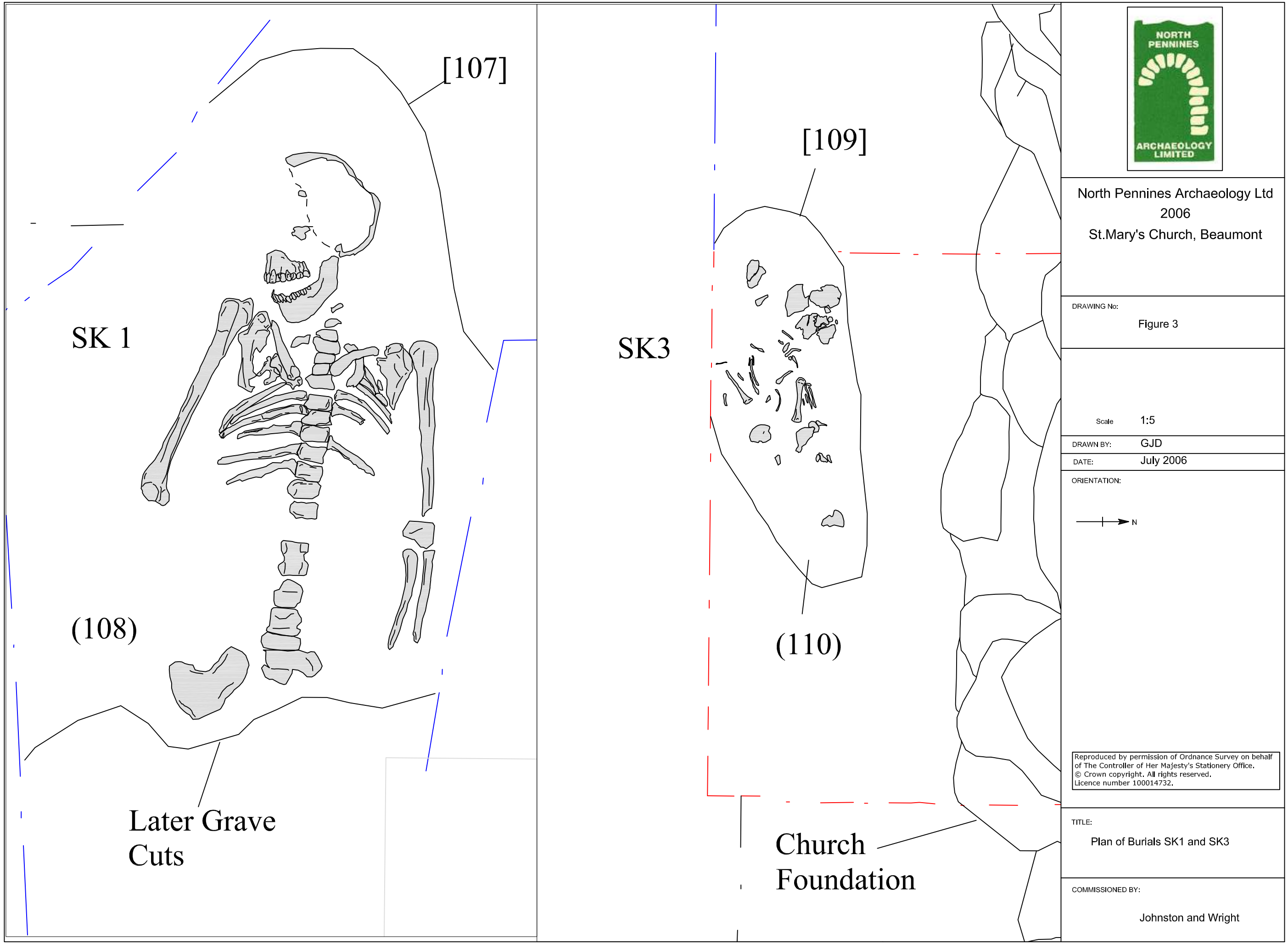
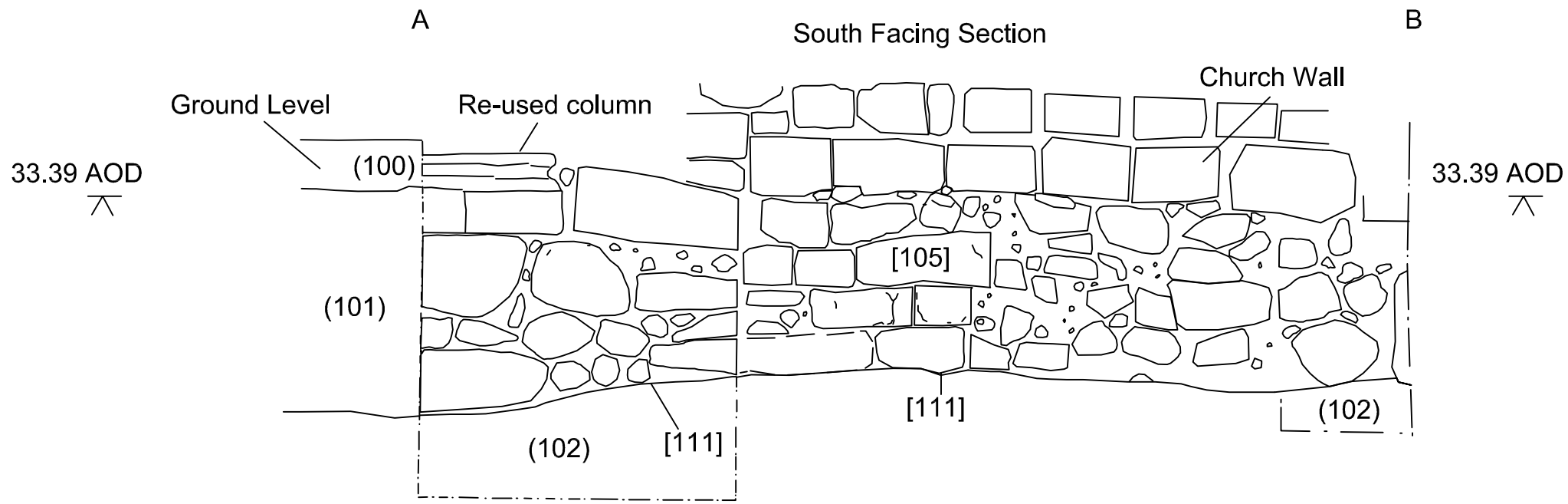
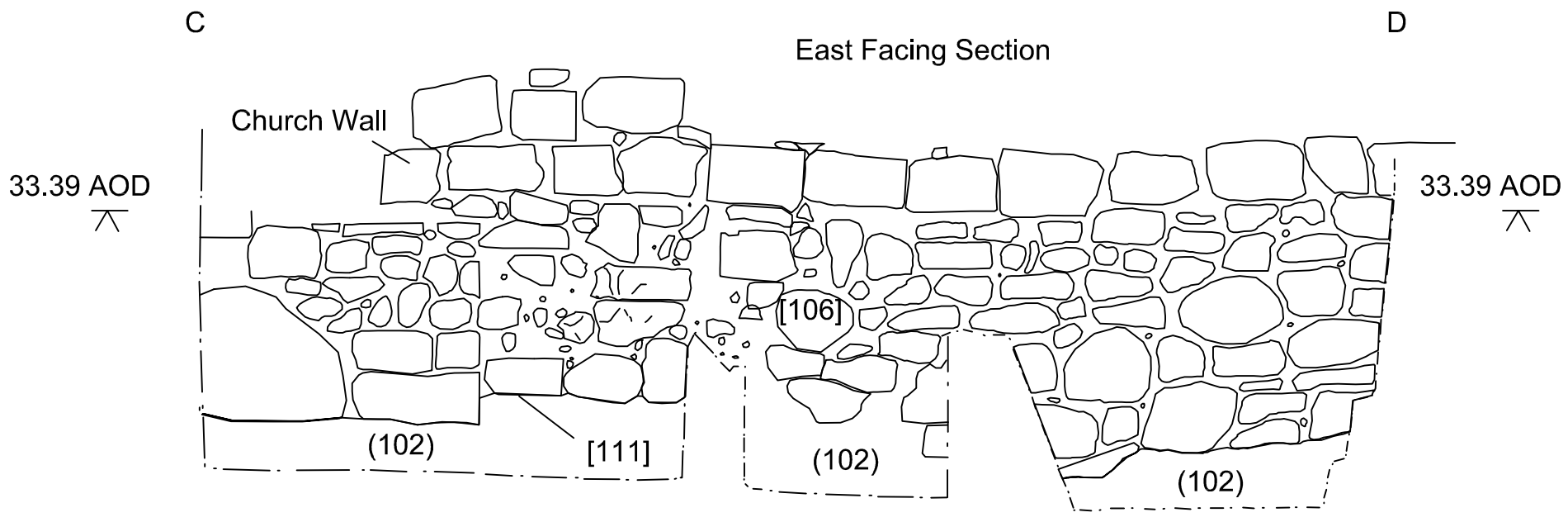


Figure 3 : Plans of SK 1 and SK 3





North Pennines Archaeology Ltd
2006
St. Mary's Church, Beaumont

DRAWING No:
Figure 4

Scale 1:20

DRAWN BY: GJD

DATE: July 2006

Letters A-D refer to points located on Figure 2

TITLE:
South and East Facing Elevations

COMMISSIONED BY:
Johnston and Wright

Figure 4: South and East Facing Elevations of underpinned area