

CONTENTS

SUMMARY	3
1 INTRODUCTION	4
1.1 Project origins	4
2 METHODOLOGY	5
2.1 Project design	5
2.2 Walkover survey	6
2.3 Archive	7
3 BACKGROUND	8
3.1 Location, topography and geology	8
4 HISTORICAL CONTEXT	9
4.1 Historical background	9
5 RESULTS	9
5.1 Methodology	9
5.2 Evaluation results; Churchyard	11
5.3 Evaluation results; Church interior	15
5.4 Excavation Results; Stratigraphic	19
5.5 Excavation Results; Human remains	38
5.6 Watching Brief Results	40
5.7 Finds and environmental material	43
5.8 Discussion	45
6 ARCHIVE	47
7 ACKNOWLEDGMENTS	47
8 BIBLIOGRAPHY	47
Appendix A List of contexts	49
Appendix B Coin report	58

FIGURES

Figure 1.	Location of the study area	8
Figure 2.	Location of St Andrew's Church, Thursby	10
Figure 3.	Location of Test Pits 1-7, St Andrew's Church, Thursby	11
Figure 4.	Test Pit 2 showing soke-away	13
Figure 5.	Test Pit 5 showing human remains	13
Figure 6.	Location of Test Pits 8-10, St Andrew's Church, Thursby	16
Figure 7.	Plan of Test Pit 8	16
Figure 8.	Test Pit 9	18
Figure 9.	Test Pit 10	18
Figure 10.	Location of excavation areas 1-14	20
Figure 11.	Grave <u>174</u> , skeleton <u>33</u>	22
Figure 12.	Grave <u>172</u> , skeleton <u>26</u> with skeleton <u>24</u>	22
Figure 13.	Grave <u>138</u> , skeleton <u>7</u>	22
Figure 14.	Grave <u>172</u> , skeleton <u>2</u>	22
Figure 15.	Grave <u>156</u> , skeleton <u>25</u>	22
Figure 16.	Grave <u>198</u> , skeleton <u>15</u>	22
Figure 17.	Grave <u>98</u> , skeleton <u>3</u>	23
Figure 18.	Grave <u>191</u> , skeleton <u>38</u> with burial <u>39</u>	23
Figure 19.	Grave <u>178</u> , skeleton <u>31</u>	23
Figure 20.	Grave <u>206</u> , skeleton <u>43</u>	23
Figure 21.	Grave <u>151</u> , skeleton <u>20</u> with burial <u>21</u>	24
Figure 22.	Grave <u>84</u> , skeleton <u>34</u> with burial <u>35</u>	24
Figure 23.	Grave <u>165</u> , skeleton <u>28</u>	24
Figure 24.	Grave <u>95</u> , skeleton <u>6</u>	24
Figure 25.	Grave <u>269</u> , skeleton <u>4</u>	25
Figure 26.	Grave <u>208</u> , skeleton <u>44</u>	26
Figure 27.	Grave <u>183</u> , skeleton <u>37</u>	26
Figure 28.	Grave <u>166</u> , skeleton <u>29</u>	26
Figure 29.	Grave <u>185</u> , skull <u>36</u>	26
Figure 30.	Grave <u>127</u> , skeleton <u>17</u>	27
Figure 31.	Grave <u>168</u> , skeleton <u>30</u>	27
Figure 32.	Grave <u>175</u> , skeleton <u>32</u>	27
Figure 33.	Grave <u>159</u> , skeleton <u>23</u> with burial <u>22</u>	27
Figure 34.	Grave <u>163</u> , skeleton <u>27</u>	28
Figure 35.	Grave <u>139</u> , skeleton <u>18</u>	28
Figure 36.	Grave <u>195</u> , skeleton <u>41</u>	28
Figure 37.	Grave <u>133</u> , skeleton <u>19</u>	28
Figure 38.	Grave <u>119</u> , skeleton <u>14</u>	29
Figure 39.	Grave <u>188</u> , skeleton <u>12</u>	29
Figure 40.	Grave <u>235</u> , skeleton <u>251</u> with burial <u>252</u>	30
Figure 41.	Grave <u>239</u> , skeleton <u>253</u>	30
Figure 42.	Grave <u>233</u> , skeleton <u>45</u>	30
Figure 43.	Grave <u>242</u> , skeleton <u>261</u>	30

Figure 44.	Skeleton <u>11</u>	31
Figure 45.	Grave <u>212</u> , skeleton <u>42</u>	31
Figure 46.	Grave <u>200</u> , skeleton <u>40</u>	31
Figure 47.	Grave <u>274</u> , skeleton <u>258</u> with burial <u>259</u>	33
Figure 48.	Grave <u>272</u> , skeleton <u>256</u>	33
Figure 49.	Grave <u>248</u> , skeleton <u>257</u>	33
Figure 50.	Grave <u>218/244</u> , skeleton <u>250</u>	33
Figure 51.	Grave <u>125</u> , skeleton <u>13</u>	34
Figure 52.	Grave <u>131</u> , skeleton <u>255</u>	34
Figure 53.	Plan of masonry structure <u>150/204</u>	35
Figure 54.	Grave <u>210</u> , skeleton <u>10</u>	37
Figure 55.	Vault <u>214</u> with skeleton <u>254</u>	37
Figure 56.	Grave <u>123</u> , skeleton <u>46</u>	37
Figure 57.	Grave <u>123</u> , skeleton <u>9</u>	37
Figure 58.	Skeletons <u>47</u> , <u>48</u> and <u>49</u>	37
Figure 59.	Skeleton <u>264</u>	37
Figure 60.	Skeleton <u>264</u>	38
Figure 61.	Watching brief area with the church	41
Figure 62.	South facing section showing possible original stonework <u>302</u> and rebuild <u>303</u>	41
Figure 63.	Possible earlier church fabric <u>302</u> and <u>303</u>	42
Figure 64.	Possible stone-lined inhumation <u>311</u>	42
Figure 65.	Plan of the watching brief area near the altar inside the church	42
Figure 66.	Low wall <u>305</u>	43
Figure 67.	Removal of floor within the church	43
Figure 68.	Grip plates and handles from burials <u>17</u> (SF 4 left) and <u>35</u> (SF 11 right)	44

SUMMARY

A total of sixty seven individuals were recovered during archaeological fieldwork at St Andrew's Church Thursby.

The assemblage corresponded with a largely mature adult group, from a relatively affluent social profile but probably beneath the gentry in terms of social class, who had died during the later 18th and early 19th centuries.

It was not possible to deduce kin groups although it is highly likely that such affinity existed.

There was little direct evidence for pre-eighteenth century activity either structurally or defined by burial practice due to the mitigation strategy implemented. Such deposits would have been present, albeit heavily truncated by later development and burial.

1. INTRODUCTION

1.1 Project origins

Gerry Martin was commissioned by Mr Ernest Shimmins, the client, to prepare A Specification of Works for a Programme of Archaeological Excavation Brief (to include a limited archaeological excavation) relating to the ground works within St Andrews Church, Thursby as requested under the faculty issued by the Cathedral Diocesan Authority.

Because of the archaeological significance of this location, the statutory authority, the Diocese of Carlisle, stated that permission to build is subject to the contractor securing the implementation of a formal programme of archaeological observation and investigation during the forthcoming development (English Heritage 2005, 4).

In conversation with Mr Brian Cook representing the church Faculty, he asserted that any human burial once isolated will require removal by hand digging. Although a watching brief condition has been placed on this work, no specification existed nor were there plans to issue a formal brief

As potential and significant archaeological remains were anticipated, an archaeological programme of works was requested. The results of the evaluation determined that a limited level of formal excavation was required within the footprint of a proposed drain from the church to the small churchyard gate and from the church boiler room to link into the drain mentioned above.

Any development within the burial ground was covered by Point 2 of the English Heritage Guidance;

“Any subsequent exhumations should be monitored, and if necessary carried out, by archaeologists. The developer, whether a religious or a secular organisation, should be responsible for the cost, including study of excavated remains and their reburial or deposition in a suitable holding institution.” (English Heritage 2005, 4).

A written scheme of investigation (WSI) was produced by the archaeological contractor in response to a request issued by the Diocesan Advisory Committee and detailed the methods and procedures to be employed during the fieldwork programme. It was submitted to the above curatorial authority for their approval.

The development of the site involved the hand removal of superfluous earth within the proposed services footprint as well as possible construction works within the church.

In order to assess the archaeological merits regarding the archaeological impact involving this development an archaeological evaluation was required. The evaluation results informed the Diocesan Advisory Committee whether permission should be granted and the response for any further archaeological works.

The fieldwork adhered and sought to address the Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England (2005) published jointly by English Heritage and the Church of England and also the note issued by Joseph Elders, Archaeology Officer, Cathedrals and Church Division (2009).

On November 29th 2009 an arson attack on Thursby Church resulted in serious damage to the fabric of the building that required wholesale refurbishment. As a result, a number of improvements have

been proposed regarding those invasive works that could compromise the integrity of human remains and archaeological deposits of considerable antiquity.

The Diocese of Carlisle issued a Faculty allowing these works to be undertaken subject to an “Archaeological Watching Brief” being undertaken.

Gerry Martin Associates Ltd were approached to offer a fee proposal for the archaeological works effected by the development. Upon visiting the site, it was clear that any invasive action would almost certainly compromise prior burials, verified by subsequent evaluation. The appointed archaeological contractor drew attention to the principal contractor (Cubby Construction Ltd) and the Project Manager (Ernest Shimmins) that a) there was no specification issued within the watching brief condition and b) that “best practice” outlined by English Heritage and the Church of England should be adhered to.

In seeking to address this problem, GMA Ltd learnt that the Diocese of Carlisle has not formally appointed a Diocesan Archaeological Advisor, the last incumbent being Dr Mike McCarthy formerly of Carlisle Archaeology Ltd.

It was also confirmed that curatorial authority was not subject to the jurisdiction of the County Archaeologist.

Therefore in the light of this impasse, the programme outlined below provided both the project design and specification for this programme of archaeological works.

2. METHODOLOGY

2.1 Project design

The general objectives of the excavation were to:

- Excavate and record archaeological remains
- Recover, identify and conserve as appropriate any archaeological artefacts
- Recover, assess and analyse as appropriate any palaeo-environmental, palaeo-economic and organic remains
- Produce a suitable archive
- Produce a client report that addresses the aims of the brief
- Publish significant results in an appropriate journal if required

The remit was identified as the drain run from the boiler room to the south-side of the church to the small gate and to include any floor reduction within the church.

The external area was to be reduced of any extraneous overburden by hand excavation and if necessary modern intrusive features were removed.

The underlying horizon was hand cleaned in order to identify archaeological features.

Excavation followed a purely stratigraphic sequence and obeying standard archaeological principles when excavating human remains (Rodwell 2005, 186-188), with intrusive features to be excavated before excavation of horizontal strata.

In order to achieve these objectives, a record of all archaeological informative deposits encountered during the ground operations was undertaken, consisting of detailed context records on individual pro-forma sheets, according to the protocols set out in the GMA manual.

Each layer, fill and cut were individually numbered and described in terms of soil detail, stratigraphic position, dimensions, artefact content, environmental samples and interpretation. The context system was cross-referenced to other records. Registers were maintained for all photographs, levels, plans, section, finds and samples taken, made or gathered in the field.

Horizontal deposits were cleaned, photographed, planned and documented as per the protocols outlined in the Gerry Martin Associates Ltd Field Manual.

All scaled plans were related to a base plan fixed to the OS grid. All levels were calculated to Ordnance Datum. Digital images were used to record the proceedings. All photographs were numbered and labelled with subjects, orientation and scale. General shots of the site were also be taken.

All finds from stratified deposits were collected, processed and recorded as expressed in the GMA Manual, forming an individual section within the final report.

Sealed and anaerobic deposits or deposits of archaeological merit were not present and did not constitute part of the final report.

Intrusive or discrete features were half-sectioned where necessary, the half-section being photographed, drawn and documented prior to excavation of the remaining half as per the protocols outlined in the Gerry Martin Associates Ltd Field Manual.

Human remains within graves were 100% recovered within the confines of the study trench. Excavation proceeded in accordance with English Heritage guidelines, namely that controlled excavation will be confined to the pipe trench and human remains will not be pursued beyond the limits of excavation. Effectively this meant that approximately 0.60m content of each grave was exhumed.

The study area was discreetly screened behind Heras fencing covered by fabric.

A human osteologist (Kate Griffiths) was present at all times to provide advice and to ensure that the highest standards and ethical treatment of human remains was strictly adhered.

Any human remains that were uncovered were treated with due respect during the archaeological programme and were later reburied on 15th April 2011 according to Christian tradition within a single grave in the new churchyard that lies just to the north of St Andrews.

2.2 Walkover survey

At the invitation of Paul Atkinson (Cubby Construction) and accompanied by Chris Sewell (Cubby Construction), Gerry Martin (Gerry Martin Associates Ltd) a free-lance archaeologist undertook a site walk-over of the study area in order to highlight the construction issues that may impact upon the integrity of human remains within the churchyard.

The main area of potential impact lay with the insertion of a drain and water pipe of uncertain depth along the course of an informal path leading from a stone gate up to the eastern end of the church whereupon the trench skirted around the edge of the church fabric before entering the building at the eastern end.

The following observations were noted:

- The course of the proposed drainage trench will probably clip the eastern ends of a series of twelve grave plots
- That there exists a possibility that excavating a trench close to a further row of gravestones could destabilise the headstones leading to collapse
- That the graves were as early as 1746 but appeared to fit a broad period between *circa* 1774 and 1870
- That the presence of elaborate gravestones probably indicates burials of relatively wealthy people
- That each plot contained multiple inhumations typical of family burial
- Kin groups appeared to cluster around certain plots
- That not all plots were marked by gravestones
- The untended ground in front of the gravestone was raised
- There was a considerable fall between current ground level outside the church precinct and the churchyard
- St Andrews church was located on a small knoll with a circular plan graveyard that may indicate considerable antiquity
- The extant church was rebuilt in 1846 replacing an earlier Medieval endowment
- The average distance between headstones was 2.30m
- The distance between headstones in Rows 4 and 5 (Row 4 being the study area) was between 2.70 and 3.30m perhaps identifying either a former path between Rows 3 and 4 and Rows 4 and 5
- No grave plan exists for the “old graveyard”, the current study area pers comm. Mrs Eileen Wilson, Churchwarden

Based on previous experience whilst undertaking churchyard archaeology, the following comments were suggested:

- A trench over 0.30m in depth has a strong possibility of encountering historic burials
- That each plot is likely to possess multiple burials with coffins stacked above each other
- Inhumation of wealthy individuals before 1830 may include interment in lead coffins
- That individual grave plots may have been formalised by a brick chamber or vault
- Rogue burials such as infant burials between grave plots may exist
- Unmarked Medieval and late Medieval burials are quite probable and could extend up to the church building

2.3 Archive

The archive has been compiled in accordance with the project design and the guidelines set out by English Heritage (1991, 2006) and the Institute of Field Archaeologists (1994, 2008).

Accepted best practice has been used whilst compiling the archive (Rodwell 2005, 205-206). The archive will be deposited with an appropriate repository and a copy of the report donated to the County Sites and Monuments Record, as requested by the curatorial authority.

Human remains were later interred at a Christian service within the churchyard on 15th April 2011.

3. BACKGROUND

3.1 Location, topography and geology

The study area NY 3230 5020 is situated on the south-eastern side of St Andrews Church Thursby.

Reference to the geological map of the area indicates that the underlying geology of the area consist of Permian and Triassic sandstones, overlain by pink Boulder Clay and moraine drift deposits of yellow sands, the outwash from glacial activity between 2,000,000 and 10,000 years ago.

The Church was founded on a small knoll providing an elevated position above the surrounding flat area overlooking Whinnow Beck to the west and River Wampool further to the south. This prospect has been enhanced in Church Lane where there exists a considerable fall from the churchyard to the road.

During the Roman period, a road linked Carlisle with Papcastle via Old Carlisle (Symonds 2009, 58). This route passed just to the south of the church being an important communication link thereafter, currently the A595.

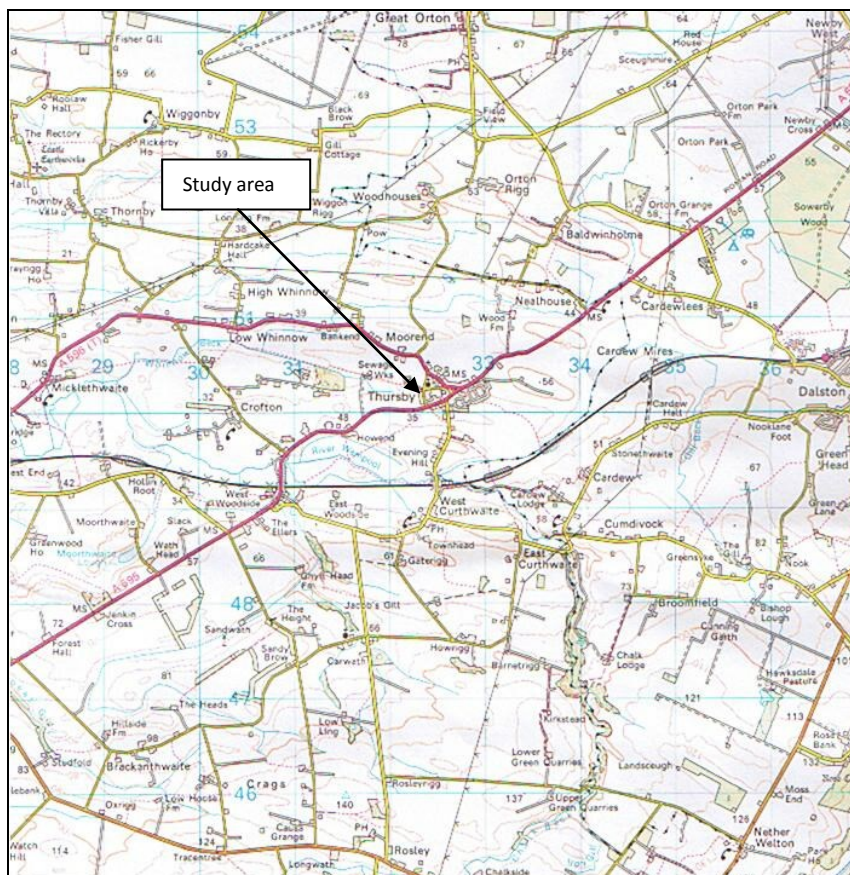


Figure 1. Location of the study area (OS Copyright, Licence no. 100044205)

4. HISTORICAL CONTEXT

4.1 Historical background

The location of Thursby Church near a junction along a Roman road and its etymology (Thurs-by =Thors settlement) suggests that the site may have considerable antiquity. Half a mile to the north-west a temple dedicated to Thor was excavated in 1774 revealing foundations of a building presently on the site of Woodriggs Church.

It is thought that the first Christian church was built of wood and stood on this location during the 7th Century AD (Crossman 1996, 2).

The present church, dedicated to St Andrew was erected in 1846 on a small knoll a little to the west of the village, replacing an earlier church probably built by David I, king of Scotland between 1124 and 1142. Its architectural style is believed to replicate that of the 12th Century, the former church on this site, whilst the rounded precinct to the church yard and its raised position may also be indicators of antiquity equivalent to a 12th Century date associated with David I.

It is believed that the chancel was much earlier and stood higher than the body of the church. This placed the chancel, the most important part of the church, on the peak of a small hillock on which the church was sited and overlooking the nave that stood below. Built of freestone and roofed with red sandstone shingles it possessed a small bell-cote with two bells (Ibid 1996, 2).

The benefice was a rectory until 1469, when Sir Robert Ogle granted it to the priory and convent of Carlisle later to become a vicarage between 1788 and 1805 within the patronage of the dean and chapter of Carlisle (Mannix and Whellan 1847).

In 1836, the old church was totally demolished leaving no trace of its previous fabric. Foundations were laid in 1845. Re-built in the Gothic Revival style in ashlar blocks to seat two hundred worshipers, it was dedicated to St Andrew on 13th August 1846. Further alterations also took place in 1878 (Crossman 1996, 2-3).

The old church yard has gravestones that date to the mid 18th Century and appears to have been in regular use until the mid 19th Century, its catchment area traditionally extending to the inhabitants of East and West Curthwaite, Howrigg and Woodside.

The Parish Register is held at the Carlisle Record Office and covers the periods 1649-1743 (PR/33/1), 1754-1804 (PR/33/4), 1805-1812 (PR/33/6) and 1813-1878 (PR/33/9).

No grave plan exists for the old churchyard, the area under study.

5. RESULTS

5.1 Methodology

The fieldwork undertaken at St Andrews Church, Thursby comprised of four elements.

1. An initial evaluation to ascertain the complexity and density of surviving human remains summarised in section 5.2

2. An evaluation to ascertain an archaeologically sterile zone in order to insert the new floor within the church summarised in section 5.3
3. Formal excavation of the contents within the drain run involving lifting of human remains summarised in sections 5.4 and 5.5
4. A watching brief beside the church-gate summarised in section 5.6

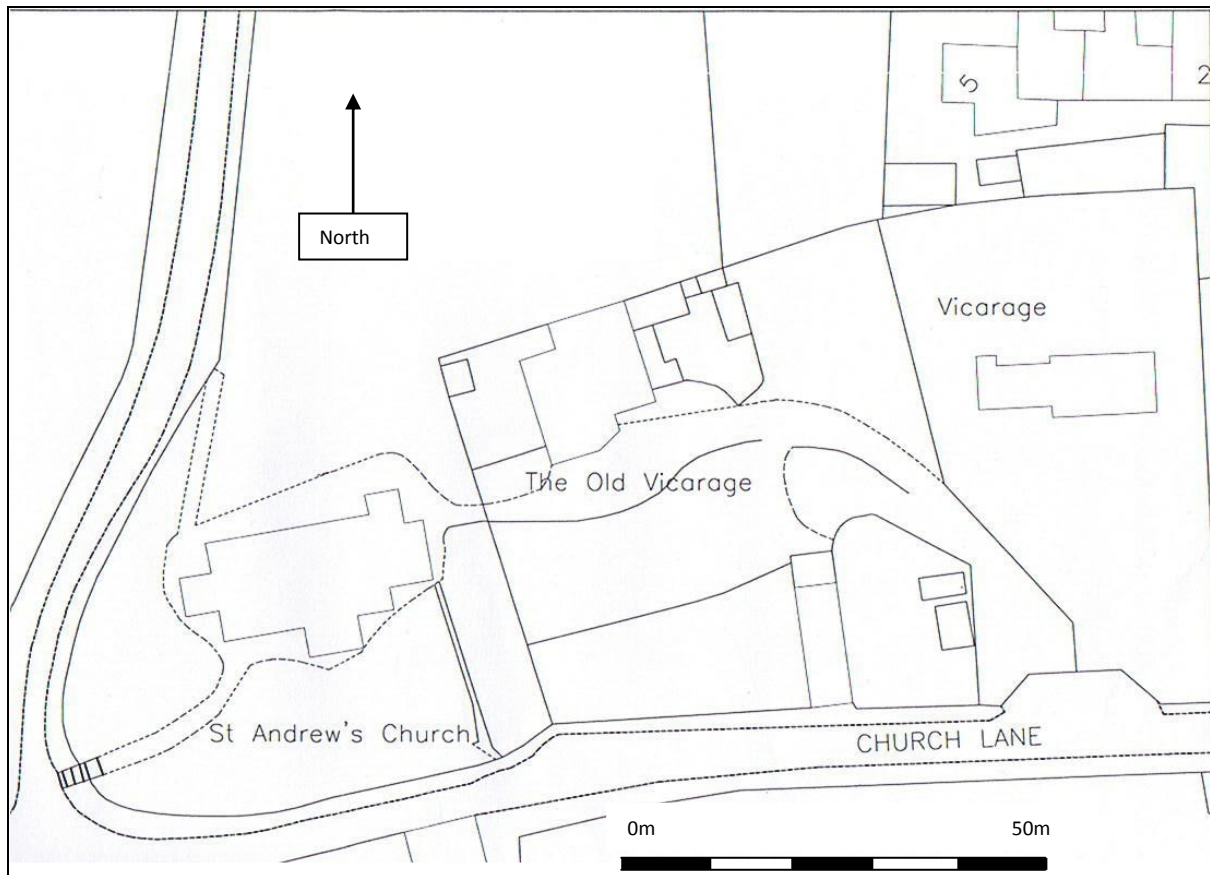


Figure 2. Location of St Andrew's Church, Thursby.

The archaeological response was a rolling programme of interventions based on the evidence uncovered by the initial evaluation.

It was apparent at an early stage that historic human remains would impact upon the development.

Once commissioned, GMA Ltd recorded and lifted any human remains that would be compromised by the development in a controlled manner, as per the protocols set out in the Working Scheme of Investigation (WSI).

The archaeological investigation principally involved excavation of a drain run. This trench was divided into areas based on the initial location of the test pits described below. The gaps between each test pit were granted the nomenclature "A" e.g. the space between Test Pit 1 and Test Pit 2 was titled area 1A.

The length of trench from the church to the church gate contained areas Test Pit 1 to Area 7A, fourteen areas in total.

Test Pits 8-10 were located within the church.

Areas 11-14 covered the trench dog-leg from the church to the boiler room.

5.2 Evaluation results; churchyard

The evaluation took place during November 1st-5th 2010 and involved four excavation staff. At this juncture in the project human remains were not to be lifted and the exercise was to assess the impact of the proposed development upon the archaeological record, hence the non-attribution of context numbers.

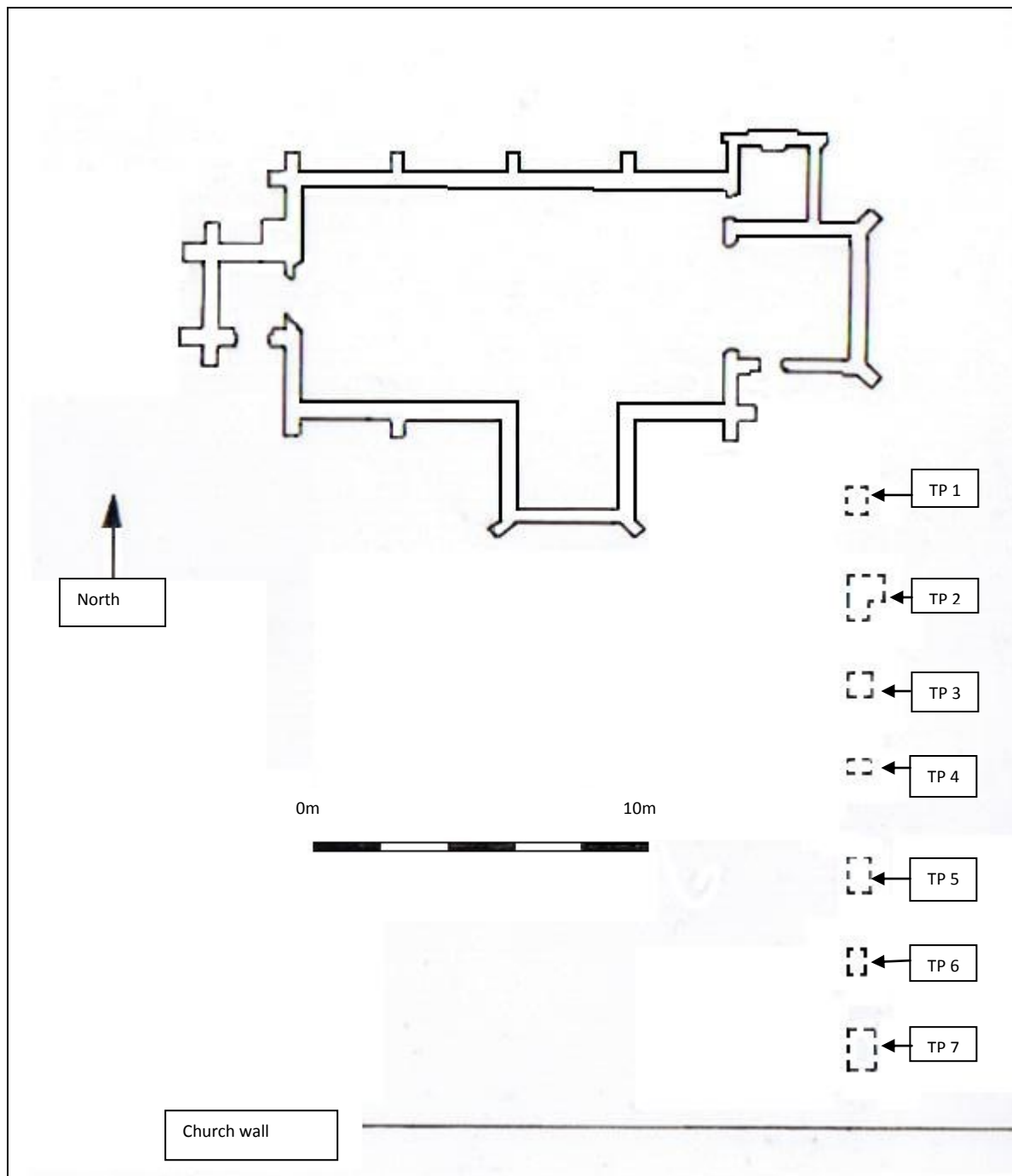


Figure 3. Location of Test Pits 1-7, St Andrew's Church, Thursby

The evaluation comprised of seven hand dug 0.60m x 0.60m test pits at 2m intervals along the projected route of the trench to a depth that was comparable to the finished invert level, where natural drift geology was present or until a cultural horizon has been encountered (human burial).

These pits (figure 3) were located at intervals of two graves approximately 1.80m eastward from the headstone in order to provide a deposit model across the graveyard that determined the depth of human remains.

If the test pits produced a considerable quantity of human remains then revision of the construction methodology would be required as hand excavation of human remains would be deemed necessary.

Heras fencing and an attached tarpaulin along the line of Row 4 within the graveyard afforded privacy and protection for the archaeologists and respect for the exposed human remains.

The results are summarised below

Test Pit 1

Located between 3.70m and 4.65m from the church and measuring 0.65m x 0.95m and excavated to a depth of 0.75m.

This rectangular plan test pit uncovered an unknown modern gas pipe and a salt-glazed storm drain at depth of 0.30m within its eastern section, occupying 0.20m of the trench.

The trench contained ostensibly a re-worked topsoil of very pebbly coarse sandy gravel within a brownish-grey silty sand matrix containing a high level of disarticulated human bone. This material was generally in a poor condition.

It was impossible to identify whether this was heavily worked topsoil or grave fill until natural was encountered at a depth of 0.70m below the surface. The natural comprised pinkish brown coarse sand developing into gravel.

The test pit identified three inhumations left *in situ*:

1. Long bones and feet within an east-west aligned grave cut
2. A skull that appeared to be at a lower level than the other burials, no grave cut visible
3. A skull and rib cage on its side at the southern end of the test pit.

Test Pit 2

Located between 6.40m and 7.75m from the church and measuring 1.28m x 1.03m with an eastern limb extending 0.59m eastwards and 0.54m in width and excavated to a depth of 0.66m.

This L-shaped trench (figure 4) contained very loose, dark brown homogenous silty sand with a high degree of poorly preserved residual human bone.

Natural drift geology was not observed.

The test pit identified two inhumations left *in situ* and a soak-away linked to the drain observed in Test Pit 1:

1. Residual bone possibly belonging to a grave
2. A skull that appeared to be at a lower level than the other burials, no grave cut visible
3. A modern, square plan, brick soke-away built from frogged red bricks supporting a flat lid



Figure 4. Test Pit 2 showing soke-away

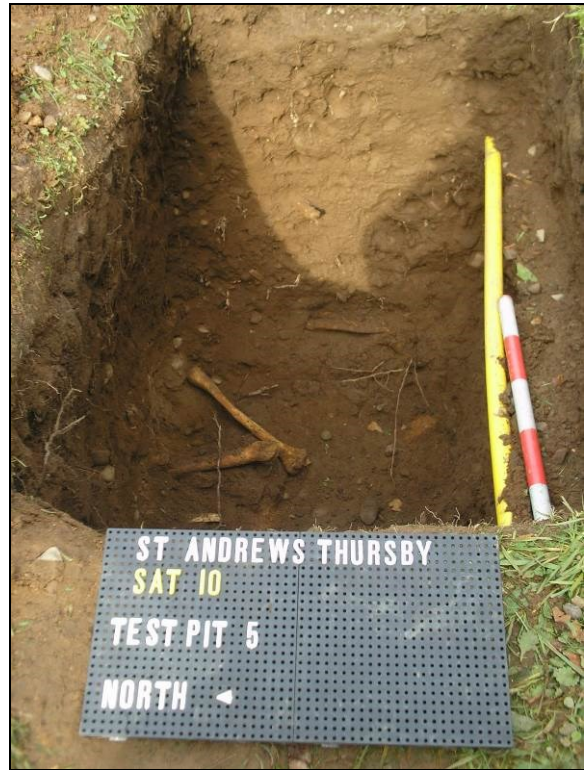


Figure 5. Test Pit 5 showing human remains

Test Pit 3

Located between 9.10m and 10.00m from the church and measuring 0.63m x 0.90m and excavated to a depth of 0.89m.

This rectangular plan trench illustrated two fills.

Firstly, a top soil consisting of dark brown loose and homogenous silty sand with occasional residual and degraded human bone to a depth of 0.74m. Secondly, a lower horizon of light brown, very loose silty sand.

Natural drift geology was not observed

The test pit identified the following archaeological elements:

1. A skull, part of a skeleton within an unseen grave
2. Residual skull fragments in the north section, possibly not a grave

Test Pit 4

Located between 11.75m and 12.45m from the church and measuring 0.67m x 0.73m and excavated to a depth of 1.02m.

This rectangular plan trench illustrated two fills.

Firstly, a top soil consisting of dark brown loose and homogenous silty sand with occasional residual and degraded human bone to a depth of 0.80m. Secondly, a lower clean horizon of pale brown, very loose silty sand.

Natural drift geology was not observed.

The test pit failed to unearth any human remains although two probable rows of coffin nails were observed. The area was heavily disturbed by an extant tree root.

Test Pit 5

Located between 14.78m and 15.95m from the church and measuring 1.20m x 0.67m and excavated to a depth of 1.02m.

This rectangular plan trench (figure 5) comprised brown sandy silt with a heavy pebble content at the surface but developed into very loose, clean brown silty sand, with occasional red sandstone chippings. At a depth of 0.80m it became pale brown loose, powdery sandy silt.

Pale brown loose sand formed the drift geology at a depth of 0.90m.

The test pit identified the following archaeological elements:

1. Arm bones in the northern side of the trench probably indicative of an articulated burial
2. Long bones within an east-west aligned grave, 0.90m below the surface
3. A possible articulated bone protruding from the western side of the trench
4. Remains of a pine coffin with fabric still attached

Test Pit 6

Located between 17.70m and 18.60m from the church and measuring 0.91m x 0.67m and excavated to a depth of 1.35m.

This rectangular plan trench comprised lightish brown sandy silt with a heavy pebble content at the surface but developed into very loose, clean brown silty sand, with occasional red sandstone chippings. At a depth of 0.80m it became pale brown loose, powdery sandy silt sealing the remains of a largely unseen wooden coffin at a depth of approximately 1.30m.

Test Pit 7

Located between 17.70m and 18.60m from the church and measuring 0.91m x 1.07m and excavated to a depth of 0.83m.

This rectangular plan trench comprised mid brown sandy silt with a high pebble content at the surface but developed into very loose, clean pale brown silty sand at a depth of 0.60m.

Natural was not observed and it is quite feasible that coffins survive but remain unseen.

Discussion

Test pits 1-3, 5 and 6 all produced *in situ* human remains that corresponded to Christian, east-west aligned burials inserted during historic time.

At least nine graves were identified of which eight inhumations would be compromised by the development proposals.

The human remains that have been recovered and those uncovered were undated but were almost certainly buried from the mid 18th Century onwards. The graves however, did not accurately respect the deliberate rows of gravestones that are extant within the Old Churchyard. Most probably, the churchyard furniture was rearranged circa 1878 when there is a recorded scheme of reorganisation to form the present spatial order.

It remains uncertain whether those deceased kin groups mentioned on the gravestones were collectively interred within familial plots or that the gravestone is merely a memorial stone.

The depths of the burials varied considerably. On average, the burial horizon appears to have been around 0.70m in depth but some heavily disturbed burials may have been at a higher level.

The deeper burials in Test Pits 4 and 6 consisted of wooden coffins at least 1.10m in depth. These interments probably post-date the 1852 Burial Act that stipulated a minimum depth for any burial.

The high propensity of residual human bone indicates frequent re-working of the soil as new graves were dug. This bone may be of Medieval and Post-Medieval date when burial was generally shallower whilst of course only the latest burial will remain complete and undisturbed, unaffected by later grave digging.

The evaluation revealed two modern services, a plastic gas pipe and a salt-glazed ceramic drain leading into a crude, rectangular plan brick-built soak-away.

Preservation of the bone tended to improve towards the base of the test pits and indeed, pine coffins with attached fabric were observed. Possibly, the effects of the soak-away had degraded the bone within the higher reaches of the test pits.

Towards the church, there appeared to be a higher build-up of topsoil and disturbed soil. This may indicate redistribution of spoil when the church was rebuilt around 1845-46 and account for the high propensity of residual human bone. Equally, the favoured area for burial may have been nearest to the church upon elevated ground suggesting that over time, a greater number of graves were dug in this area.

From a horizon of approximately 0.80m and deeper, the soil developed into a pale brown, very loose silty sand. This indicates a high level of reworking of the natural drift geology and sub-soil suggesting that further human burials are present.

5.3 Evaluation results; within the church

In order to ascertain any extant archaeological deposits pertaining to the Medieval church three archaeological test pits (figure 6) were inserted. Test Pit 8 was located in the chancel whilst Test Pits 9 and 10 were located in the nave.

Test Pit 8

Test Pit 8 (figure 7) measured 1.30m x 1.18m and was excavated to a depth of up to 0.60m.

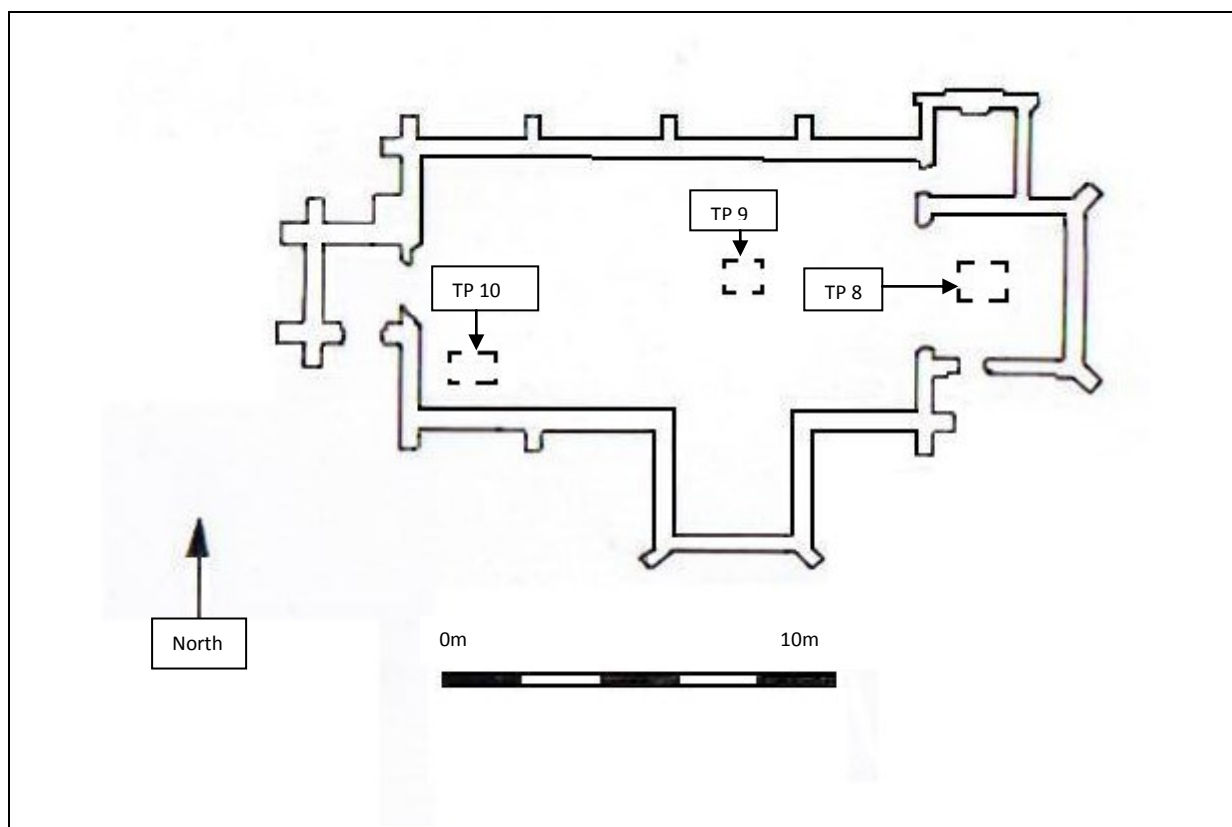


Figure 6. Location of Test Pits 8-10, St Andrew's Church, Thursby

The earliest stratigraphic element was compacted yellow brown sandy gravel 56 that lay beneath a deposit of yellow gravelly sand 53 that rested below a yellow brown sandy gravel 52 that formed a make-up level for the re-built church circa 1846.

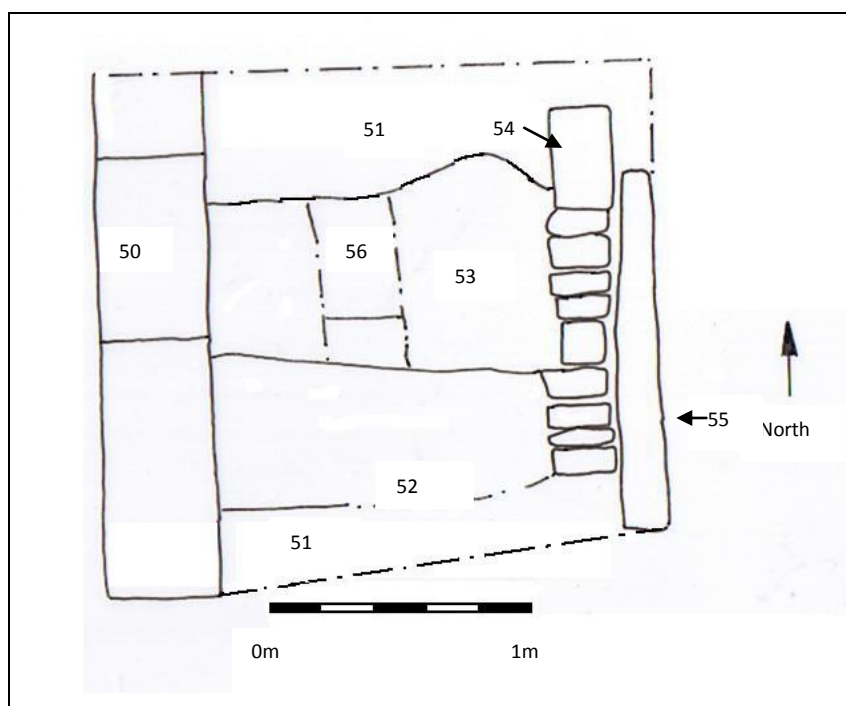


Figure 7. Plan of Test Pit 8



Figure 8. Test Pit 9



Figure 9. Test Pit 10

Discussion

Sand 87 probably represented natural drift geology but has been probably penetrated by unseen interments and considerably reworked.

Demolition debris 86 contained painted plaster and large fragments of worked sandstone and probably represented the demolition of the Medieval church between 1836 and 1845.

Blinding 85 provided bedding sand for the flagstone floor 50 to the nave and can be no earlier than 1846 but may be part of the major refurbishment in 1878.

Test Pit 10

Test Pit 10 (figure 9) measured 1.80m x 1.40m and was excavated to a maximum depth of 0.36m.

The earliest deposit was a series of unbonded, pale red rectangular sandstone flags 90 overlain by compacted pale brown sand 89 containing small rounded pebbles and some broken rubble. This material was cut by rectangular east-west aligned grave 92 that contained human skeleton 5 and was backfilled with dark brown silty sand 91.

Grave 92 was sealed by pale brown and white sand 88 that contained building debris overlain by a blinding of reddish brown sand 93 that supported flagstone floor 50.

Discussion

Sandstone flags 90 appear to represent an earlier floor probably associated with the Medieval church that may have developed into a coarse floor 89.

Grave 92 was later inserted containing inhumation 5. This burial probably pre-dates the construction of the Victorian church that replaced the earlier medieval endowment but it is of unknown date. Certainly, this form of intra-mural burial would not have been possible after 1853 when the Metropolitan Burial Act of 1852 was extended to the whole of England and Wales (Litten 1991, 225).

Blinding 88 provided bedding sand for the flagstone floor 50 to the nave and can be no earlier than 1846 but may be part of the major refurbishment in 1878.

5.4 Excavation results; stratigraphic

The excavation component comprised of a series of linear trenches (figure 10) that stretched from the boiler room of the church to the church-gate adopting Test Pits 1-7 within its course. The nomenclature adopted was as follows:

- From the brow of the church yard beside the chancel door to the church-gate, the excavation encompassed Test Pits 1-7, each interval being entitled Area 1A, 2A, 3 A up to Area 7A.
- The east-west aligned limb from the chancel door was titled Area 11
- The widened right-angled junction between Area 11 and Area 13 was titled Area 12
- The north-south limb parallel to the chancel was titled Area 13
- The return into the boiler room was titled Area 14

The depth of the trench was governed by the invert level for the proposed drain. This varied from 0.60m to up to 1.20m in order to maintain a constant fall.

The constraints of the drain run impacted upon the documentation of the stratigraphic record. These limitations may be summarised as:

1. Amorphous definition of grave cuts through the upper stratigraphic sequence
2. Only contact with the excavated trench justified formal excavation, therefore features were only partially excavated, the stratigraphic matrix often illustrating merely physical relationships
3. Difficulty in isolating cross-cutting grave cuts
4. Re-working of soil containing disarticulated human bone
5. Poor condition of the human bone especially closer to the surface
6. Identifying multiple burials within a single grave

In order to isolate finds within generic layers e.g. topsoil and graveyard soil (charnel) a unique number was attached to each number.

The following matrices provide the stratigraphic framework for the archaeological sequence.

Test Pit 1, Area 1A, Test Pit 2, Area 2A, Test Pit 3

The area between Test Pit 1 and Test Pit 3 appeared to exhibit three phases of burial separated by two horizons of graveyard soil containing charnel remains. Each area was covered by grass and topsoil 57-61.

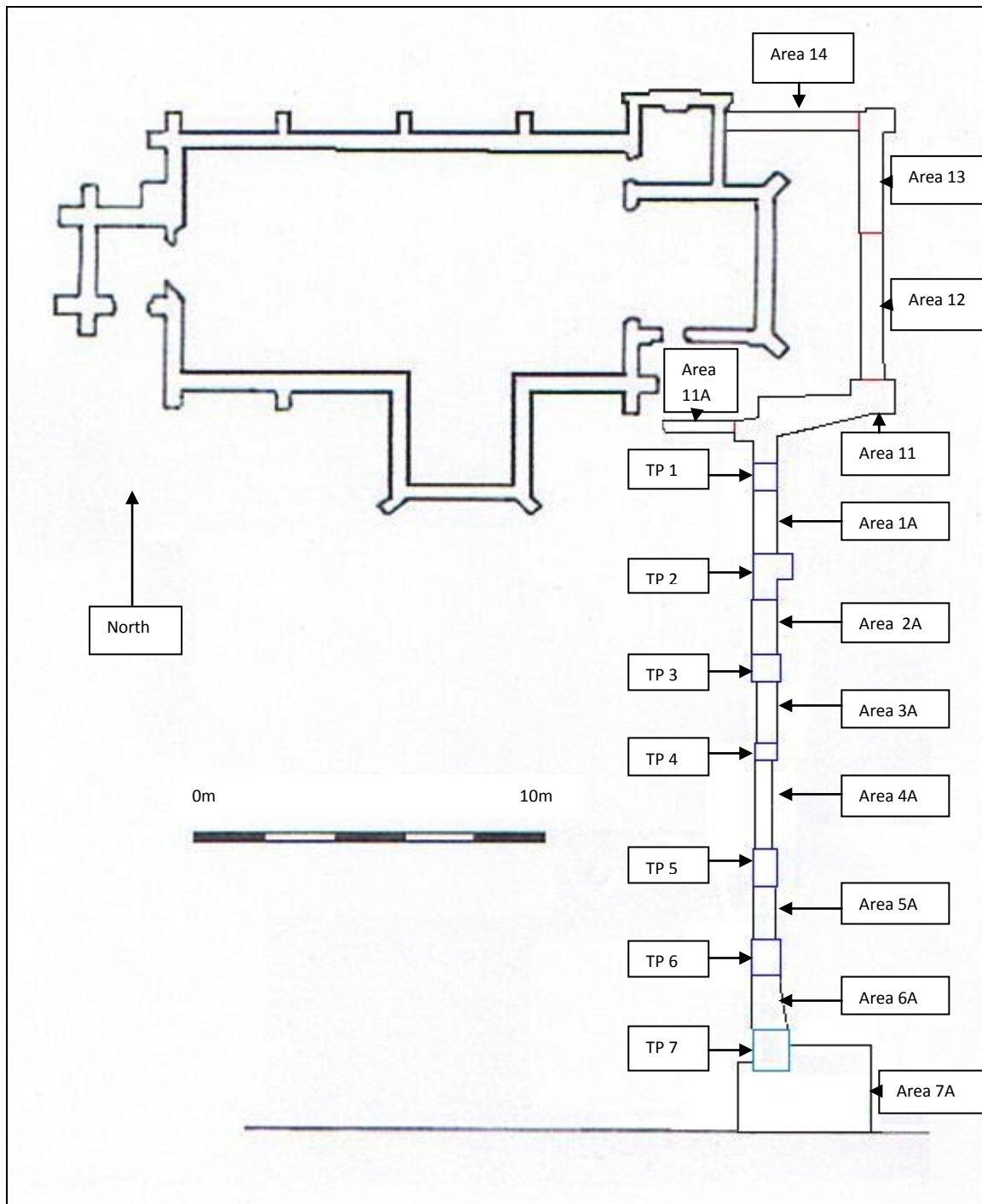


Figure 10. Location of excavation areas 1-14

Phase 1 human burial

Within Area 1A was an east-west aligned grave 174 (figure 11) that contained the lower legs and feet of an adult Christian inhumation 33 within a former timber coffin covered by pale brown silty sand 173. This grave was cut by an east-west aligned grave 172 (figure 12) that contained the left arm and torso of an adult burial 26 aged 19-24 backfilled by pale brown silty sand 171.

This grave was covered by pale brown silty sand 155 that formed a graveyard soil and was probably the same as similar pale brown silty sand 160 observed in Area 2A.

Excavation of the graveyard at St Andrews Church, Thursby, Cumbria

	Test Pit 1	Test Pit 1	Area 1A	Test Pit 2	Test Pit 2	Area 2A	Area 2A	Area 2A	Test Pit 3
	0								
Topsoil	57	=	58	=	59	=	60	=	61
Charnel	70	=	71	=	72	=	73	=	74
Graves	128	169	191	205	177				
	1	24	38	43	31	21	35		4
	129	170	190	206	178	152	83		269
	97		192					164	94
	3		39			20	34	28	6
	98		193			151	84	165	95
Charnel	154					153			96
Graves	135					25			103
	2					156			15
	136								198
	137								122
	7							267	268
	138								121
Charnel	155					160			
Graves	171								
	26								
	172								
	173								
	33								
	174								
Natural	Natural								

Matrix showing the stratigraphic record uncovered in Test Pits 1-3 and Areas 1A-2A



Figure 11. Grave 174, skeleton 33



Figure 12. Grave 172, skeleton 26 with skeleton 24

Phase 2 human burials

Within Area 1A was an unseen east-west aligned grave 138 (figure 13) that contained the left shoulder and upper torso of an adult Christian inhumation 7 covered by mid brown silty sand 137. This grave was cut by an unseen east-west aligned grave 172 (figure 14) that contained the left side of a juvenile 2 backfilled by mid brown silty sand 135.



Figure 13. Grave 138, skeleton 7



Figure 14. Grave 172, skeleton 2

Within Area 2A was an east-west aligned grave 156 (figure 15) that contained the pelvis, spine, ribs, lower arms and upper legs of an adult skeleton 25 aged 50-59 covered by a loose mid brown silty sand 153 that formed a graveyard soil.



Figure 15. Grave 156, skeleton 25



Figure 16. Grave 198, skeleton 15

Within Test Pit 3 was an east-west aligned grave 121 that contained a pair of adult feet 267 and a second pair of adult feet 268 slightly lower within the grave, covered by soft grey-brown silty sand 122. This material was truncated by grave 198 (figure 16) that contained the right legs and arms and pelvis of a juvenile skeleton 15 aged over seven, covered by a fill of mid brown silty sand 103 and sealed by a mid brown silty sand 96 that formed a graveyard soil.

Phase 3 human burials

Within Test Pit 1 was an east-west aligned grave 98 (figure 17) that contained a complete skull and upper body of an old female adult 3 covered by dark brown silty sand 97. This material was truncated by a remnant grave cut 129 that contained a pair of adult feet 1 covered by dark brown sandy silt 128.

Within Area 1A were three graves of which two of these 170 and 190 were sealed by grey brown sandy silt 71.

An east-west aligned grave 170 that contained a complete skull and upper body of an adult 24 aged 25-35 covered by a dark brown silty sand 169.

An east-west aligned grave 193 that contained the left arm and partial torso of an adult 39 covered by dark brown silty sand 192. This material was truncated by an east-west aligned grave cut 191 (figure 18) that contained a complete skull and upper body of an elderly adult 38 within a timber coffin covered by dark brown sandy silt 190.

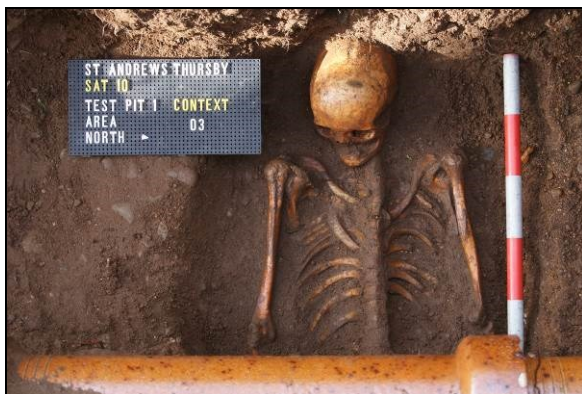


Figure 17. Grave 98, skeleton 3



Figure 18. Grave 191, skeleton 38 with burial 39

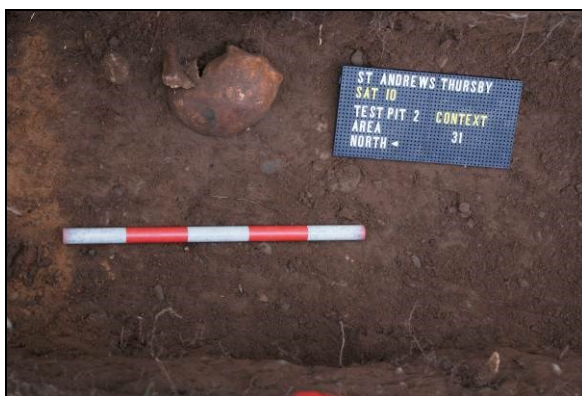


Figure 19. Grave 178, skeleton 31



Figure 20. Grave 206, skeleton 43

Within Test Pit 2 were two graves sealed by grey brown sandy silt 72.

A remnant grave 178 (figure 19) containing adult skull 31 aged over 45 covered by dark brown silty sand 177.

An east-west aligned grave 206 (figure 20) that contained male adult leg bones 43 aged 45-49 covered by dark brown silty sand 205.

Within Area 2A were five graves of which three of these 152, 83 and 165 were sealed by grey brown sandy silt 73.

An unseen grave cut 151 (figure 21) containing a lower left leg for a sub-adult 20 truncated by an unseen grave cut 152 containing a skull 21 for a sub-adult aged 7-10.

An unseen grave cut 84 (figure 22) containing a pair of adult feet 34 truncated by an unseen grave cut 83 also bearing a pair of adult feet 35 within a timber coffin.



Figure 21. Grave 151, skeleton 20 with burial 21 Figure 22. Grave 84, skeleton 34 with burial 35

An east –west aligned grave cut 165 (figure 23) containing a pair of lower legs and feet 28 belonging to a sub-adult aged 8-9 covered by mid brown soft sandy silt 164.



Figure 23. Grave 165, skeleton 28

Figure 24. Grave 95, skeleton 6

Within Test Pit 3 was an unseen grave cut 95 (figure 24) containing a pair of adult feet and a left tibia 6 covered by mid brown silty sand 94. This fill was truncated by an unseen grave cut 269 (figure 25) that contained a pair of adult lower legs 4 sealed by grey brown sandy silt 74.



Figure 25. Grave 269, skeleton 4

Area 3A, Test Pit 4, Area 4A, Test Pit 5, Area 5A

	Area 3A	Area 3A	Test Pit 4	Area 4A	Area 4A	Area 4A	Test Pit 5	Area 5A	Area 5A
	0								
Topsoil	62		63			64	65	66	
Charnel	75		76	102 =	99 =	77	78	79	
Graves	184	126	101	176	161	100	194	120	
	36	17	16	32	19	22	41	14	
	185	127	286	175	139	157	195	119	
					162	158		132	
			30		27	23		18	
			168		163	159		133	
Charnel	104	181							
Graves		182		179	167			228	196
		37			29				
		183		180	166			186	197
		207							
		44							
		208							
Natural	Natural								

Matrix showing the stratigraphic record uncovered in Test Pits 4-5 and Areas 3A-5A

The area between Area 3A and Area 5A appeared to exhibit two phases of burial separated by a single horizon of graveyard soil containing charnel remains. Each area was covered by grass and topsoil 62-66.

Phase 1 human burials

Within Area 3A was an east-west aligned grave cut 208 (figure 26) that contained the adult feet and lower legs of a human burial 44 bearing traces of a wooden coffin and covered by brown sandy silt 207. This material was truncated by an east-west grave cut 183 (figure 27) that contained a set of adult feet and lower leg bones 37 within a timber coffin covered by brown sandy silt 182 sealed by a horizon of brown sandy silt 181 that formed a graveyard soil.



Figure 26. Grave 208, skeleton 44



Figure 27. Grave 183, skeleton 37

Within Area 4A were two graves 166 (figure 28) and 180 covered by grey brown sandy silt 75.

An east-west aligned linear grave cut 166 containing one adult right foot and right lower leg 29 covered by brown sandy silt 167. This grave was truncated by graves 168 and 175 discussed below.

An east-west aligned grave 180 filled with brown sandy silt 179 and left unexcavated. This grave was truncated by graves 163 and 175.



Figure 28. Grave 166, skeleton 29



Figure 29. Grave 186, skull 36

Within Area 5A were two unexcavated graves 186 (figure 29) and 197.

An east-west aligned grave 186 filled with brown sandy silt 228 and left unexcavated. This grave was truncated by grave 133.

An east-west aligned grave 197 filled with brown sandy silt bearing a wooden coffin 196 and left unexcavated. This grave was situated beneath grey brown sandy silt 79.

Phase 2 human burials

Within Area 3A were two graves 127 (figure 30) and 185.

A sub-rectangular east-west aligned grave cut 185 that contained the top of an adult skull 36 covered by a brown sandy silt 184.

An east-west aligned grave cut 127 containing a pair of adult lower legs 17 within a wooden coffin covered by soft brown silty sand 126.

Within Test Pit 4 was a poorly defined grave cut 168 (figure 31) containing a right foot and some heavily decayed adult bones 30 that was truncated by undefined grave cut 286 that bore the left leg of adult skeleton 16 covered by coffin and brown silty sand 101 beneath grey brown sandy silt 76.



Figure 30. Grave 127, skeleton 17



Figure 31. Grave 168, skeleton 30

Within Area 4A were five graves 139, 157, 159, 163 and 175 (figure 32).

An east-west aligned grave cut 175 containing a pair of adult feet and lower legs 32 filled by brown sandy silt 176 and covered by grey brown sandy silt 102 that formed a churchyard soil.



Figure 32. Grave 175, skeleton 32



Figure 33. Grave 159, skeleton 23 with burial 22

An east-west grave cut 159 (figure 33) containing adult left foot and left lower leg 23 filled by brown sandy silt 158. This material was truncated by an unseen grave cut 157 that contained an adult left arm and left upper leg 22 filled by brown sandy silt 100 covered by grey brown sandy silt 77 forming a churchyard soil.

An east-west aligned grave cut 163 (figure 34) containing the left torso and arm of an adult 27 filled by brown sandy silt 162. This feature was cut by an east-west aligned grave cut 139 (figure 35) containing a pair of adult feet and lower legs 18 within a timber coffin filled by brown sandy silt 161 sealed by grey brown sandy silt 99 that formed a churchyard soil.



Figure 34. Grave 163, skeleton 27



Figure 35. Grave 139, skeleton 18

Within Test Pit 5 was an east-west aligned grave cut 195 (figure 36) containing two adult male leg bones 41 filled by brown sandy silt 194 covered by grey brown sandy silt 78 that formed a churchyard soil.



Figure 36. Grave 195, skeleton 41



Figure 37. Grave 133, skeleton 19

Within Area 5A was an east-west aligned grave cut 133 (figure 37) containing a pair of adult legs and feet 19 within a timber coffin filled by dark brown silty sand 132.

This material was truncated by an east-west aligned grave cut 119 (figure 38) containing an adult left leg 14 filled by a dark brown silty sand 120 covered by grey brown sandy silt 79 that formed a churchyard soil.



Figure 38. Grave 119, skeleton 14



Figure 39. Grave 188, skeleton 12

Test Pit 6, Area 6A, Test Pit 7, Area 7A

The area between Test Pit 6 and Area 7A appeared to exhibit a single phase of burial sealed by a horizon of brown silty sand graveyard soil 80-82 and 117 containing charnel remains.

Each area was covered by grass and topsoil 67-69 and 116.

	Test Pit 6	Area 6A	Test Pit 7	Area 7A	Area 7A	Area 7A	Area 7A
	0						
Topsoil	67	68	69	116			
Charnel	80	81	82	117			
Graves	229				238	232	241
		12		11	253	45	261
	187			u/x	239	233	242
		230	231		236		
					252		
		188	189		237		
					234		
					251		
					235		
Natural	Natural						

Matrix showing the stratigraphic record uncovered in Test Pits 6-7 and Areas 6A-7A

Human burials

Within Test Pit 6 was an east-west aligned unexcavated grave cut 187 filled by brown sandy silt 229 covered by grey brown sandy silt 80 that formed a churchyard soil.

Within Area 6A was an east-west aligned unexcavated grave cut 188 (figure 39) filled by brown sandy silt 230 overlain by a single adult right femur 12 covered by grey brown sandy silt 81 that formed a churchyard soil.

Within Test Pit 7 was an east-west aligned unexcavated grave cut 189 filled by brown sandy silt 231 covered by grey brown sandy silt 82 that formed a churchyard soil.

Within Area 7A were five graves 233, 235, 237, 239 and 242 and a burial 12.

An east-west aligned grave cut 235 (figure 40) containing an adult skull and right upper arm 251 within a coffin burial filled by brown sandy silt 234. This material was truncated by an east-west aligned grave cut 237 that contained an adult male skull, left arm and pelvis 252 aged 40-70 filled by brown sandy silt 236. This material was cut by an east-west aligned grave cut 239 (figure 41) containing the skull and upper body of a well-preserved middle-aged adult skeleton 253 covered by brown sandy silt 238.



Figure 40. Grave 235, skeleton 251 with burial 252 Figure 41. Grave 239, skeleton 253

An east-west aligned grave cut 233 (figure 42) containing a female adult skull and right shoulder 45 who died in old age within a coffin burial filled by brown sandy silt 234.



Figure 42. Grave 233, skeleton 45

Figure 43. Grave 242, skeleton 261

An east-west aligned grave cut 242 (figure 43) containing the mid portion of two adult legs 261 within a coffin burial filled by brown sandy silt 241.

The poorly preserved remains of an adult male arms and legs 11 (figure 44) covered by brown silty sand 117.



Figure 44. Skeleton 11

Area 11 and Area 12

Areas 11 and 12 appeared to exhibit a single phase of burial sealed by a horizon of brown silty sand graveyard soil 110-112 containing charnel remains. Each area was covered by grass and topsoil 105-107.

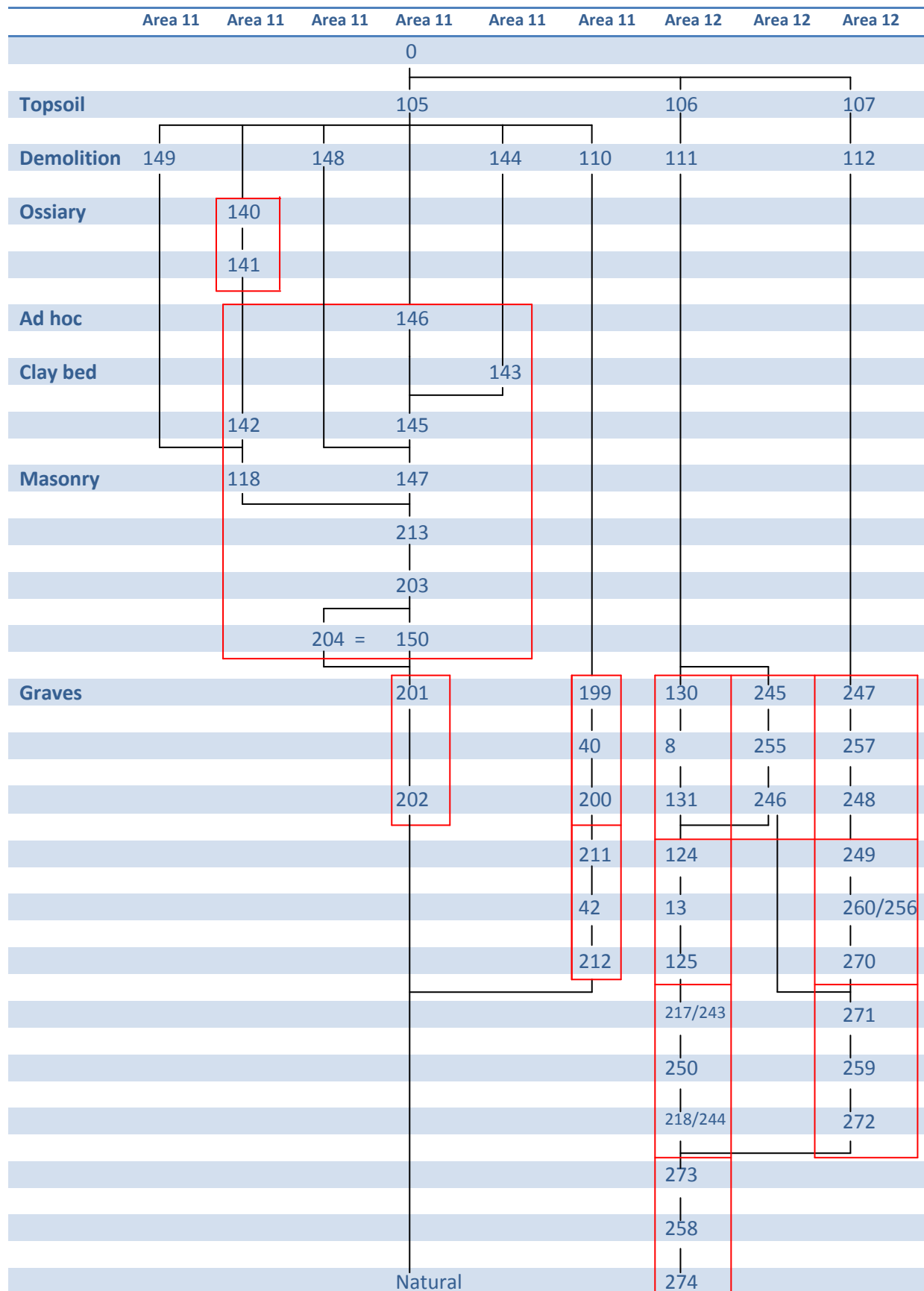
A masonry structure 150 and a demolition horizon 148 and 149 associated with the re-building of the church were also evident.



Figure 45. Grave 212, skeleton 42



Figure 46. Grave 200, skeleton 40



Matrix showing the stratigraphic sequence uncovered in Areas 11-12

Human burials

Within Area 11 were three graves 200, 202 and 212.

An east-west aligned grave cut 212 (figure 45) containing an adult left foot 42 filled by dark grey brown soft silty sand 211. This material was truncated by an east-west aligned grave cut 200 (figure 46) that contained a pair of adult lower legs and feet 40 covered by a dark brown soft silty sand 199.

An east-west aligned probable grave cut 202 filled by mid grey brown silty sand 201, although no burial was recovered.

Within Area 12 were eight graves 125, 131, 218/244, 246, 248, 270, 272 and 274.

An east-west aligned grave cut 274 (figure 47) containing a partial spine and pelvis 258 belonging to a female adult covered by mid brown soft silty sand 273. This grave fill was cut by two graves 218/244 and 272.



Figure 47. Grave 274, skeleton 258 with burial 259 Figure 48. Grave 272, skeleton 256 and 260

An east-west aligned grave cut 272 (figure 48) containing pelvis, spine and ribs 259 belonging to a sub-adult aged 8-9 filled by mid brown soft silty sand 271. This material was truncated by a poorly defined grave cut 270 containing an adult right arm 256 and male adult spine 260 (probably the same individual aged over 40) covered by mid brown soft silty sand 249. The backfill was in turn cut by east-west aligned grave cut 248 (figure 49) containing an adult left hand, upper legs and pelvis 257 within a timber coffin filled by dark brown soft silty sand 247.



Figure 49. Grave 248, skeleton 257

Figure 50. Grave 218/244, skeleton 250

An east-west aligned grave cut 218/244 (figure 50) containing an adult skull and upper body 250 who died in old age filled by a dark grey brown soft silty sand 217/243. This material was truncated by a poorly defined grave cut 125 (figure 51) containing a virtually complete juvenile 13 aged 4-5 filled by a dark brown silty sand 124 penetrated by graves 131 and 246.



Figure 51. Grave 125, skeleton 13 Figure 52. Grave 131, skeleton 255

Cut by grave 124 were an unseen grave cut 131 (figure 52) containing a disturbed sub-adult 8 filled by a dark brown silty sand 130 and an east-west aligned grave cut 246 containing a pair of female adult upper and lower leg bones 255 covered by a mid brown soft silty clay 245.

Masonry

Within an amorphous and unseen cut 150/204 (figure 53) was a rectangular plan, masonry structure of uncertain form and function.

Rubble, stone and mid brown sandy silt 203 was the base for a red sandstone foundation 213 that supported a set of three flat stones 118 that stood at least two courses high. These rough hewn dressed blocks formed a north-south aligned wall bonded by clean pink clay 142.

Extending eastwards from stones 118 were dressed sandstone slabs 147 that may have formed a crude wall or base and appeared to link a broken sandstone dressed masonry block bearing a slight chamfer 146. This stone appeared to be bonded to slabs 147 via a bed of clean pink clay 145.

It would appear likely that some structural elements from this feature had been robbed as a bonding surface of pink clay 143 very similar to clay 145 was overlain by mid brown sandy clay 144, a material that appeared to infill a void.

A rectangular plan cavity 141 formed within masonry 118 and 147 contained a cache of loose human limb bones within a loose brown silty sand 140. These bones appeared to be deliberately interred but consisted of only long bones and are presumably residual from a previous burial.

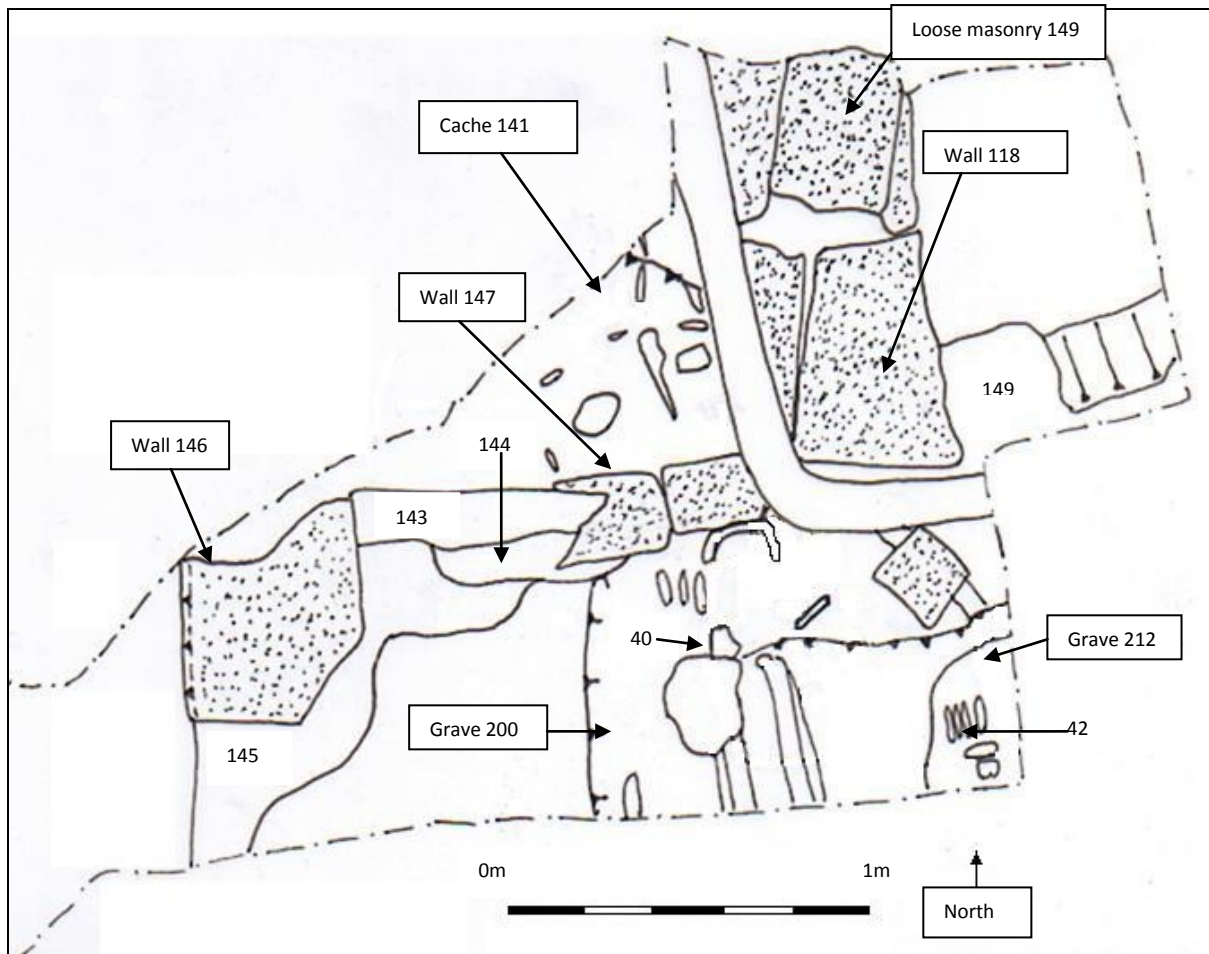


Figure 53. Plan of masonry structure 150/204

Demolition horizon

Butting wall 147 was a spread of flat pebbles and cobbles grouted into coarse pebbly sand 148 whilst butting wall 118 was a spread of loose lime mortar with large red sandstone blocks 149. Both deposits probably represented a demolition horizon associated with the demise of the medieval church.

Area 13 and Area 14

Church foundation

Brown sandy silt 283 with building debris filled a north-south aligned vertical foundation trench 284 that contained the foundation to the church. Much of this material probably relates to the modern rebuilding of the church circa 1846 but as the foundation cut is recorded as being beneath a graveyard soil comprising brown sandy silt 282, then the lower, undisturbed fill 283 probably relates to the medieval church fabric.

	Area 13	Area 13	Area 13	Area 13	Area 14	Area 14	Area 14	Area 14
				0				
Gas pipe								281
								280
Topsoil				107	108 =			277
Ditch				226				
				227				
Charnel				112	113 =			278
soil				219				
Graves	216	134	224	220	262/263	279		
	214	9	48	47		265 = 266		264
	254	46	225	221		285		
	215	123		222				
	10			49				
	210			223				
Soil	209					282		
Church						283		
Foundation						284		
				u/x				

Matrix showing the stratigraphic record uncovered in Areas 13-14

Human burials

Area 13 yielded six graves 123, 210, 215, 221, 223 and 225 and two other burials 262 and 263 of which graves 123, 215 and 225 lay beneath a spread of brown silty sand 112, constituting a graveyard soil .

Cutting brown sandy silt 209 was an east-west aligned grave cut 210 (figure 54) containing upper legs and lower arm 10 belonging to a sub-adult aged 5-7 truncated by an east-west aligned grave cut 215 that contained sandstone slabs 214 forming a vault (figure 55) for the extant remains 254 of Robert Jackson who died in 1827 aged 76.

An unseen grave 123 (figures 56 and 57) that contained male adult upper arms and torso 46 with adult legs and hands 9 aged 50-59 lain above. The grave was filled by dark brown silty sand 134.



Figure 54. Grave 210, skeleton 10



Figure 55. Vault 214 with skeleton 254



Figure 56. Grave 123, skeleton 46



Figure 57. Grave 123, skeleton 9

An east-west aligned rectangular grave cut 223 (figure 58) containing an adult skull 49 covered by grey brown silty sandy gravel 222. This material was truncated by an east-west aligned grave cut 221 containing an adult skull and shoulder bones 47 who died in old age filled by grey brown silty sandy gravel 220.



Figure 58. Skeletons 47, 48 and 49



Figure 59. Skeleton 264

A sub-rectangular plan grave cut 225 that yielded a pair of adult feet 48 covered by grey brown gravelly silty sand 224.

Two burials that had no discernible grave cuts were the mid portion of two adult legs 262 and a foot or feet 263 belonging to an adult aged 40-70, both covered by graveyard soil 112.

An upper leg and spine 264 (figure 59) belonging to an adult aged 40-70 below grey brown sandy silt 278 that represented a graveyard soil and lay beneath modern topsoil 277, disturbed by a modern cut 280 filled by light grey brown silty clay 281, an action required to isolate the gas main when the church was alight in 2009.

Within Area 14 was an east-west aligned grave cut 285 that contained an adult skull, left arm and leg 265 (figure 60) aged 50-59 and an adult female long bone 266 aged 40-70, filled by dark grey brown sandy silt 279. This arrangement was beneath brown sandy silt 113 that represented a graveyard soil beneath topsoil 108.



Figure 60. Skeleton 265

Ditch

Cutting graveyard soil 112 was an east-west aligned linear ditch 227 with a V-shaped profile filled by dark brown silty sand 226. This feature may have been associated with the rebuilding of the church.

5.5 Excavation results; human remains (Kate Griffiths)

General Assemblage Condition

In general, the condition of the excavated bone was good, with, in most cases only moderate surface erosion. It was possible to recover the small bones of the hands and feet from many of the graves, and, as the graveyard had been well tended and kept clear of vegetation bioturbation was minimal.

Assemblage Demography

In total the articulated remains of sixty-seven individuals were recovered from the excavation at St Andrews Church. When considering this assemblage, it is worth noting that the surrounding headstones were elaborately carved, that probably indicated the burial of relatively wealthy individuals, whilst the burial ground itself (south side, near the east end of the church) was

traditionally the more desirable, and therefore more expensive part of the churchyard in which to be interred.

Sub-Adults

There were ten sub-adults in the assemblage, and only one of these was a neonate (0-3 months). In most late post medieval cemetery assemblages a higher proportion of very young children can be expected as 19th century rates of infant mortality were high, with around 25% (appreciably greater in urban communities) of babies dying within the first year of life. It is probable that this is the result of variable formation processes or a sampling bias in which further young children would have been encountered if a larger area of the cemetery had been excavated. However, this variation could reflect relatively high standards of hygiene, sanitation and nutrition for a proportion of the children born in Thursby during this period especially those from a wealthier social echelon.

Adults

It was not possible to assign sex to twenty-nine of the adult individuals due to the incomplete nature of the remains. Of the remainder, nine were positively identified as male and seven as female. There were ten individuals who were possibly male, and two who were possibly female.

As always, with incomplete archaeological remains the potential to assign sex depends on preservation and recovery, and there is a recognised bias of around 12% in favour of the identification of males (Weiss, 1972), which may well account for the higher number of males than females identified in this assemblage.

Approximately one third (eighteen of fifty-seven) of the adult sample appeared to have been at least 50+ years of age, if not considerably more, when they died. Average life expectancy in 1837 was in the late thirties whilst the 1841 census records averages of 40.2 years for men and 42.2 years for women.

These mortality rates had advanced to approximately 48 years by 1901, therefore many of the individuals from Thursby appear to have had relative longevity in comparison with the national averages. This could either be due to the fact that the assemblage consists of the wealthier individuals from this community, or reflect a generally higher standard of living in a rural community compared to the chronic poverty, overcrowding and insanitary conditions that were prevalent in urban areas at this time.

Almost certainly the relative late age of death is due to the sample group representing a relatively affluent and influential section of the local community who could afford the cost of a gravestone and sought to be remembered following death.

Pathology

The majority of the pathologies observed in the St Andrew's Church assemblage were age related degenerative changes. Intervertebral disc disease was observed in eleven individuals, and varying degrees of osteoarthritis was also common.

There were two instances of osteoarthritis in the elbow, which may indicate that these individuals had at some point during their lifetime been engaged in heavy manual labour.

The only pathology that was likely to have been the result of trauma was the probable ossified ligament observed on skeleton 29.

The periosteal bone growth seen in the distal fibulae of skeleton 17 may have been the result of stress or trauma in these areas, but may equally have been age related.

There was little evidence of obesity in the assemblage, with only two individuals (18 and 261) showing signs of this condition.

The dental health of the sample was generally poor, but this is not at all unusual for assemblages from this period. The prevalence of dental disease in English post-medieval populations can be seen in the Spitalfields Collection where 87% of 968 individuals had dental caries, and a common cause of death recorded in the 18th century London Bills of Mortality was 'teeth' (Waldron, 2009, 240).

5.6 Watching brief results

The watching brief (figure 61) consisted of a monitoring exercise within the church to observe any putative archaeological remains upon lifting of the flagstones within the nave.



Matrix showing the stratigraphic record uncovered within the church

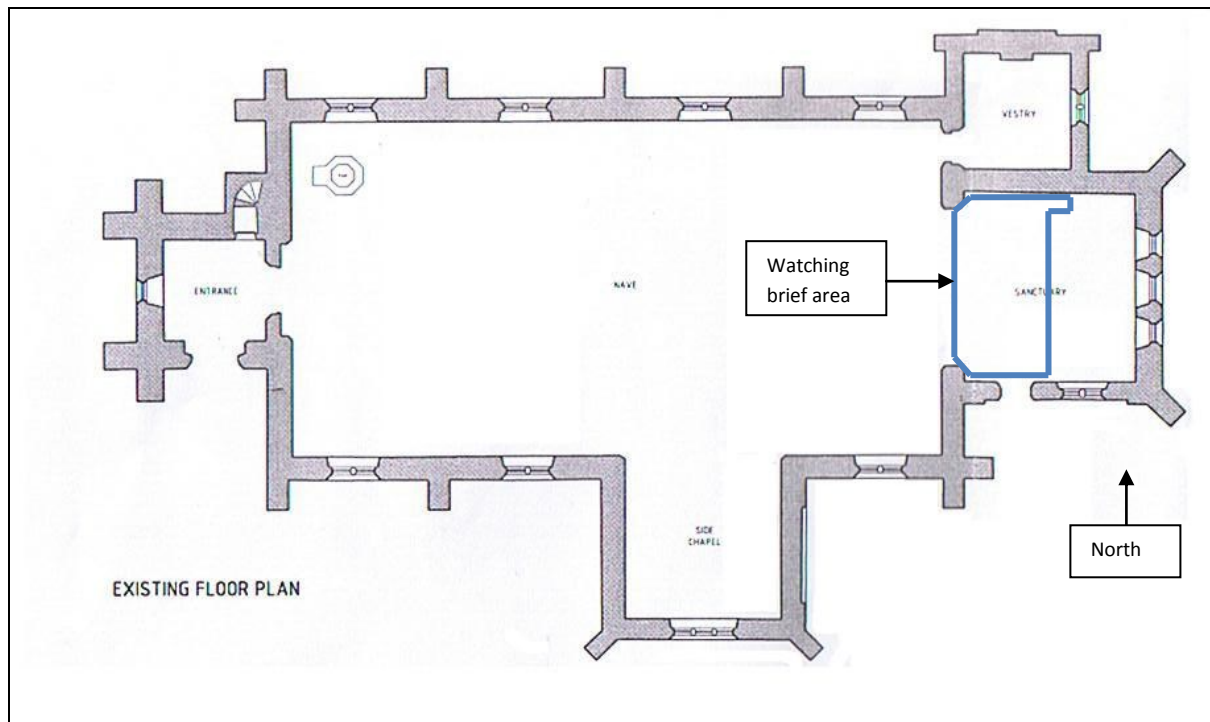


Figure 61. Watching brief area with the church

The new floor required a reduction of 0.25m in order to insert the blinding and bedding for the new surface. Only the area around the altar (sanctuary) was sufficiently reduced whereupon archaeological remains were observed and recorded, elsewhere only modern masonry waste and sand was encountered.

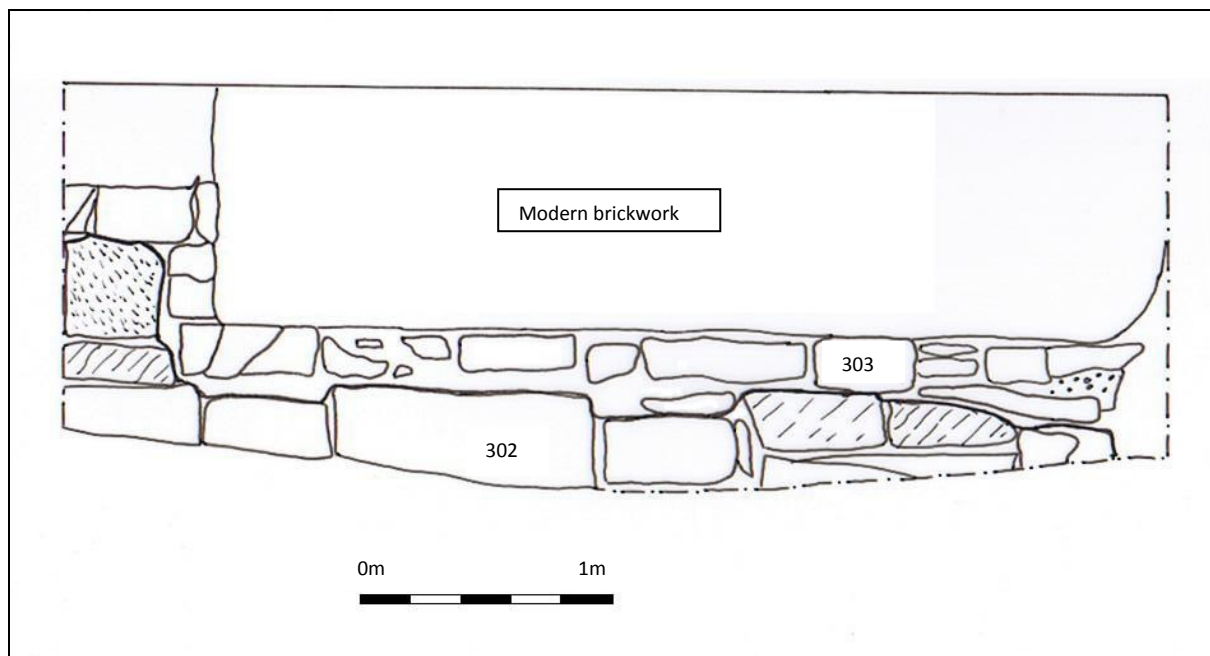


Figure 62. South facing section showing possible original stonework 302 and rebuild 303

Altar area

The earliest deposit encountered was the probable truncated remains of the Medieval church.

A well-dressed masonry pier base 302 (figure 62) indicated that the former ground surface was 0.20m lower than the current level. This pier supported an octagonal red sandstone column subsequently rebuilt during the Victorian restoration.

Aligned east of this pier, a wall was observed comprising dressed but coarse stone blocks that may have been a foundation for the Medieval church. Above this footprint was a coarse wall 303 (figure 63) formed from smaller stone blocks lacking a bonding agent that was truncated by a modern brick wall probably post-dating the Victorian rebuilding of the church.

A hard compacted orange-brown sandy surface 310 (figure 65) may represent a contemporary ground surface.



Figure 63. Possible earlier church fabric 302 and 303 Figure 64. Possible stone-lined inhumation 311

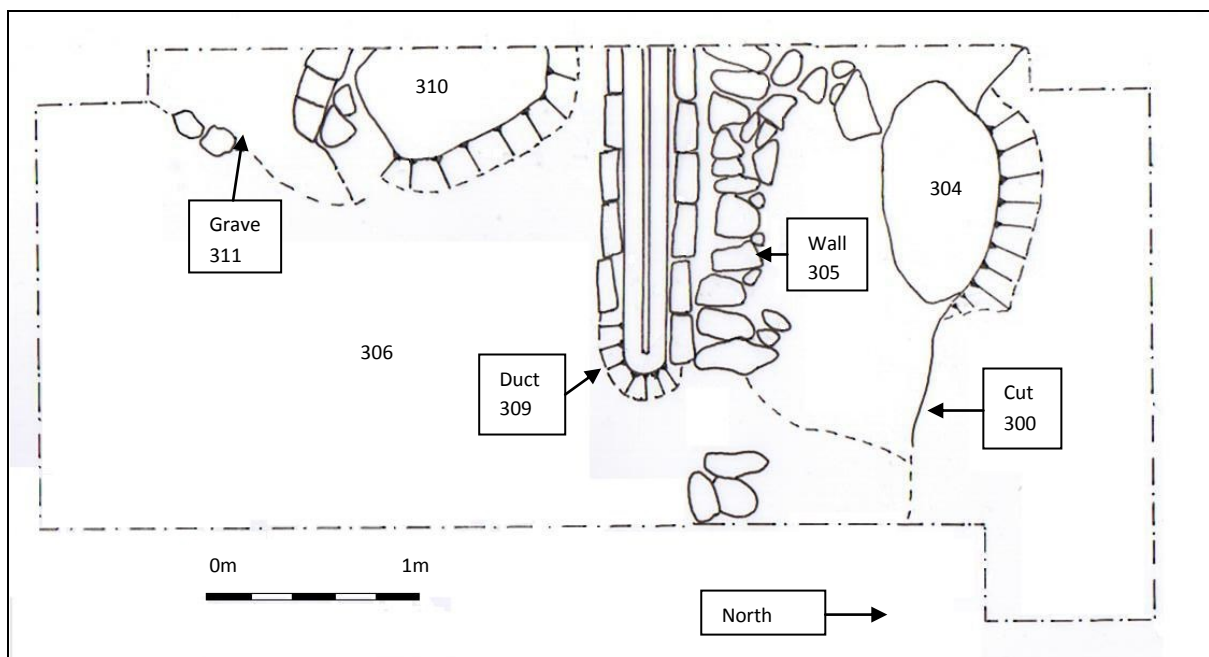


Figure 65. Plan of the watching brief area near the altar inside the church

Within the Medieval church was a grave 311 (figure 64), lined with stone 312 and filled by brown sand 313 with articulated human bones being present. This feature was left unexcavated but penetrated mixed red-brown pebbly sand 304 that probably indicates re-worked natural drift geology that may yield further unseen burials. This horizon was repeated throughout the church as mixed orange-yellow sand 316.

A crude low stone wall 305 (figure 66) aligned east-west comprising rounded boulders lacking mortar may belong to the pre-Victorian church, perhaps surmounted by a crude timber partition. However, the lack of stratigraphic security regarding this feature provides considerable doubt and it may have served as a crude joist supporting the floor of the later 19th century church.



Figure 66. Low wall 305



Figure 67. Removal of floor within the church

Following demolition of the Medieval church in 1836, the rubble appears to have been spread into a levelling deposit of light orange brown sandy gravel 306, a horizon that was largely left untouched.

Following construction of the Victorian church, an organ pit 300 (figure 65) was inserted filled with brown sandy silt 301 and a heating duct 307 filled by a low casing wall 308 and a looped pipe 309.

The latest and final action (figure 67) was the laying of sandstone flags 315 upon a bedding sand 314.

5.7 Finds and environmental material

Headstones

The excavated trench ran parallel to two rows of headstones arranged north-south along the path from the southeast door of the church to the southeast gate of the churchyard, with inscriptions naming multiple family members and dates of interment ranging from 1746 to 1870. However, although it was not possible to consult a grave plan, it is likely that these headstones were not in their original positions. There were a number of interments that did not appear to relate to a headstone, and a depiction of the church (date unknown, but probably 19th Century) shows the path aligned diagonally across the churchyard from the gate to the southwest door of the church. The headstones may well have been reorganised in order to accommodate the new alignment of the path when the church was refurbished in 1878.

Coffins and Fittings

Coffin grip plates (figure 68) with handles applied to the side of the casket were encountered in burials 17 (SF 4 and 5), 18 (SF 9), 35 (SF 11) and 126 (SF 10) and graveyard soil 153 (SF 8). These grip plates and handles were made from spelter (except handle 126), a zinc alloy containing lead, used as a substitute for bronze frequently used in the 19th century for cheap, mass-produced ornate items.

Heavily corroded Fe coffin nails were recovered from human burials 18, 19, 33, 37, 38 and 257, grave fills 101 and 126 and generic graveyard soils 75 and 181.

Heavily desiccated timber planks forming wooden coffins were recovered from burials 18, 32, 35 and 37. The wood was impossible to identify with certainty (possibly pine) but appeared to be approximately no more than 10mm in thickness.

Unidentified textile was recovered from graveyard soil 100 indicating that some coffins had been embellished with a lining.

The coffins encountered during the excavations at St Andrew's Church were all constructed of wood (with evidence of lead and copper alloy lining in some cases) and a selection of fittings such as shroud pins, nails, grip plates and handles were also recovered. The iron fittings were badly corroded but some of the fittings were relatively well preserved and show designs typical of the 19th century (Litten, 1991).



Figure. 68. Grip plates and handles from burials 17 (SF 4 left) and 35 (SF 11 right).

Pottery

Two pot sherds were recovered during the fieldwork:

- A single rim sherd of orange sandy ware 120 belonging to the Roman period discovered within grave 119.

- A single body sherd of green-glazed orange sandy ware 107 dating to the 13th-15th Century discovered within the topsoil near the eastern end of the church.

Both sherds were from residual contexts and possess little significance.

Building materials

From context 52 (Test Pit 8) fragments of broken dressed stone masonry possibly Medieval in origin were encountered as were fragments of plain lime plaster, probably deposited during the demolition of the church in 1836.

Small finds

Eleven small finds were recovered. These are briefly described below in the following table.

SF	Context	Area	Description	Identification
1	283	14	A small square stone 11mm x 10mm probably a die but lacking detail	Die
2	107	13	Charles II sixpence dated 1679	6d coin
3	111	12	Small thin cylindrical lead tube with decoration	Vial?
4	17	3A	Plain spelter coffin handles, south side of burial	Coffin handle
5	17	3A	Plain spelter coffin handles, north side of burial	Coffin handle
6	24	1A	Undecorated cu alloy shroud pin 16mm x 1mm, poorly preserved	Shroud pin
7	86	9	Fe shield-shaped padlock 70mm x 85mm x 24mm	Padlock
8	153	2A	Plain spelter coffin plate with cu alloy handle	Coffin handle
9	18	5A	Two plain spelter coffin plates with handles	Coffin handle
10	126	7A	Heavily corroded Fe coffin handle	Coffin handle
11	35	2A	Decorated spelter coffin plate with handle	Coffin handle

The small “die” (SF 1) was found within the backfill albeit adulterated belonging to the Medieval church and may have a Medieval origin.

The sixpence (SF 2), the possible lead vial (SF 3) and padlock (SF 6) were discovered in topsoil and are attributable to chance loss.

Environmental samples

Due to the frequent re-working of soil due to grave-digging within the church yard, no environmental samples were worthy of collection.

5.8 Discussion

The prominent location of the study area and the relative antiquity of the church suggested that archaeological deposits of academic interest may potentially have been encountered.

These considerations may be summarised as

- A conspicuous location that may have been suitable for a Roman watchtower
- Trace archaeology that may have indicated a pre-Medieval church
- Masonry and ancillary structures associated with the Medieval church
- Medieval burials within the church especially in close proximity to the altar (sanctuary) typically associated with the higher ranks of the clergy

The results of the archaeological reconnaissance did not provide any evidence for these possibilities. Maintaining the strictures of “preservation in situ” further denied exploration. Moreover, the limitations of small-scale excavation and thereby drawing misleading detailed interpretation as outlined by Warwick Rodwell (Rodwell 2005, 169) were also borne out.

The human bone assemblage recovered appeared typical of an 18th to early 19th century rural burial practice with no graves appearing to be of a conspicuously earlier date.

The majority of interments were simple graves with the corpse placed in a timber coffin. The timber fabric slowly desiccated leaving little tangible remains. However, burials at a greater depth tended to exhibit improved preservation (Ibid, 177).

Embellishments such as grips or coffin plates were evident on some coffins but the majority of inhumations appeared to be lacking such ornamentation.

Evidence for kin groups could not be derived from the bone assemblage but almost certainly occurred as multiple burials were present within graves. Moreover, epigraphic evidence on individual gravestones often detailed three or four generations of the same family, whilst spatial clustering of family groups was also intimated by recurring surnames occurring on adjacent tombstones. Assuming that this practice was commonplace, a roughly equal male/female sex ratio would be expected. The partial nature of the sampling strategy however precluded whether this assertion could be challenged.

Attempts to identify excavated individuals from the grave marker proved unreliable.

During a re-organisation of the churchyard in 1878, gravestones were displaced and ordered into rows approximately 2.30m apart. This spatial order did not accurately respect the location of individual grave plots, corroborated during excavation.

Identification of only individual could be ascertained; Robert Jackson who died in 1827 aged 76 corresponding to skeleton 254 and whom was interred in the only tomb that was a stone vault 214.

The social profile of the assemblage probably obeyed an economically successful and socially stable farming community who could afford the cost of a conspicuous funeral rite and memorial stone.

Beneath the squire and gentry social strata who would have been buried within established family vaults or the church itself (Ibid, 174-175), this social group would have reflected small-scale landowners or tenant farmers who endured a generally physically exacting lifestyle but avoided

crushing poverty, synonymous with premature death in the lower social orders; the labouring class found in both rural and urban environments.

Masonry structure 150 was not understood. Comprising unbounded dressed sandstone blocks, it did not appear to possess any superstructure and may not have been visible above ground. However, it did not appear to be a vault although burials were located in close proximity. Possibly, this was either an *ad hoc* structure possibly associated with the adjacent church or a partially demolished monument such as a *mausoleum*.

6. ARCHIVE

The archive has been compiled in accordance with the project design and the guidelines set out by English Heritage (1991) and the Institute of Field Archaeologists (1994, 2001 and 2007).

The archive will be deposited with an appropriate repository, namely Tullie House Museum, Carlisle and a copy of the report donated to the County Sites and Monuments Record, as requested by the curatorial authority.

7. ACKNOWLEDGMENTS

I am grateful to Mr Ernest Shimmins, the Project Manager and commissioning officer from A.L.Daines Ltd for his collaboration on this project and Mr Paul Atkinson from Cubby Construction Ltd for his technical expertise regarding the redevelopment of the site.

I am also very grateful to Stephen Blake (Cubby Construction Ltd) for his day-to-day assistance with the project and sound advice and also to his staff who were very co-operative and helpful.

I would also like to thank the staff of Carlisle Library with my research into the local history of the area and the staff of Cumbria Record Office, Carlisle with the map regression and other documentary research.

Churchwarden Eileen Wilson provided invaluable assistance regarding the history of St Andrew's Church, Thursby whilst Brian Cook from Carlisle Cathedral clarified the condition requested by the Diocesan Advisory Committee.

Thanks are especially due to Richard Woolley who supervised the fieldwork, Kate Griffiths for the extensive osteological report and her expertise on site whilst the remains were lifted, Carl Savage for his assistance in the field and identifying the coin, Marcus Headifen for his fieldwork and Jo Beaty for undertaking the watching brief within the church. All showed admirable tolerance and fortitude as the fieldwork was undertaken in extremely inclement weather.

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APPENDIX B

Coin report

Site Code: SAT10 **Small finds Number:** 2 **context Number:** 107 (area 13)

Monarch: Charles II (r1660-85)

Obverse description: Laureate bust facing L with short hair, bust is draped and is in the centre of the flan with the legend on the edge reading L-R

Obverse Inscription: CAR II D G SCO AN FR ET HIB R (Charles II by the grace of god king of Scotland, England, France and Ireland)

Reverse description: Crowned thistle in the centre, legend reading R-L date at the end of legend at 10 O'clock

Reverse Inscription: NEMO ME IMP[UNE LACE]ESS[ET] 1679 (No one attacks me with impunity)

Denomination: Bawbee (Six pence)

Date: 1679

Mint Mark: None

Place of mint: Edinburgh

Manufacture Method: Early milled (Screw Press)

Material: Copper alloy

Die axis: ↑↓

Diameter: 21mm

Condition/Grade: Fine

Reference: SPINK 5628

General notes: The coin is in good condition. The detail on the centre of the thistle shows that the coin couldn't have been in circulation for a long time, though the obverse does show a bit more degree of ware from circulation due to the smoothness. The coin does have a moderate amount of environmental ware due to the green/dark brown colour and the reverse legend is slightly erased. There is also a small degree of roughness on the obverse mostly the bust caused by environmental ware.

Found by and date: Carl Savage 12/11/10

Identified by: Carl Savage Bsc

Recorded by: Carl Savage Bsc

