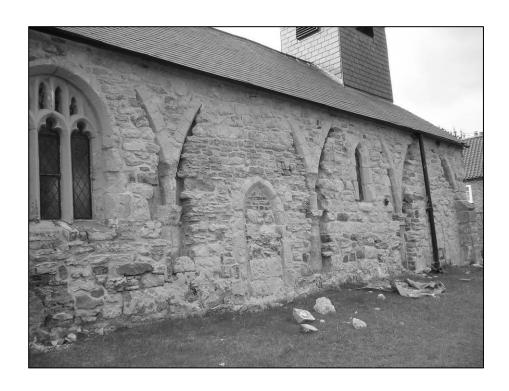
ST GILES' CHURCH, BIELBY, EAST YORKSHIRE

ARCHITECTURAL AND ARCHAEOLOGICAL SURVEY



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ARCHITECTURAL AND ARCHAEOLOGICAL SURVEY, ST GILES' CHURCH, BIELBY, EAST YORKSHIRE

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EXECUTIVE SUMMARY

In September 2006, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by St Giles' Church Parochial Church Council (PCC) to undertake a programme of architectural and archaeological survey during external renovation work to St Giles' Church, in Bielby, East Yorkshire (NGR SE78854374). The architectural and archaeological recording was made a requirement of an English Heritage grant.

The project involved the production of a detailed drawn record of the external elevations of the church, based on a rectified photographic survey, together with a new plan of the church. Particular attention was paid to a former arcade in the church's north elevation which was exposed as part of the renovation work. Two trial trenches were also excavated to investigate ground conditions and archaeological remains in the immediate area of the church.

The combined structural and archaeological evidence demonstrates that the church was once substantially larger, and that by the early 13th century it comprised at least a nave with a north aisle. This may have developed through the remodelling of an earlier church, as re-used carved fragments indicate the former presence of a doorway of 12th century date. The north aisle may have been demolished during the later medieval period and the arcade openings blocked, although the very substantial alterations undertaken in 1792 have removed much of the evidence for the church's early structural history.

1 INTRODUCTION

Reasons and Circumstances for the Project

- 1.1 In September 2006, Ed Dennison Archaeological Services Ltd (EDAS) were commissioned by St Giles' Church Parochial Church Council (PCC), via the project architect Peter Gaze Pace, to undertake a programme of architectural and archaeological survey during external renovation work to St Giles' Church, in Bielby, East Yorkshire (NGR SE78854374). The archaeological work was made a requirement of an English Heritage grant but no recording condition was attached to a Diocesan faculty granted on 27th June 2006.
- 1.2 The project involved the production of a detailed drawn record of the external elevations of the church, based on a rectified photographic survey, together with a new plan of the church. Particular attention was paid to a former arcade in the church's north elevation which was exposed as part of the renovation work. Two trial trenches were also excavated to investigate ground conditions and archaeological remains in the immediate area of the church.
- 1.3 The restoration works were defined by a specification produced by the project architect (Pace 2005). In addition to the external fabric repairs, which involved the removal of the cement-based render and repointing the exposed stonework, and repairing and securing the windows and doors, the internal works comprised the replastering and redecoration of the internal wall faces, and the repairing of wooden furniture such as the box pews, pew platforms, panelling and pulpit.
- 1.4 No formal written scheme of investigation or methods statement was required to define the scope of the architectural and archaeological recording, as a broad outline of the work was contained in an English Heritage report (Proctor 2003). The recording methodology was determined following discussions between EDAS and the project architect.

Site Location and Description

- 1.5 St Giles' Church lies in the village of Bielby, which is located some 5km to the south of Pocklington in East Yorkshire (at NGR SE78854374) (see figure 1). The church is situated on the south side of Gale Carr Lane, towards the north end of the present village, at its junction with the main street (see figure 2). The church sits on a small prominence at an elevation of c.11m AOD, some 1.5m higher than the adjacent roads (see plate 1). It is bordered by residential properties to the south-east and south-west, and is enclosed by a small hedged churchyard; the churchyard contained no gravestones or other grave markers at the time of survey.
- 1.6 The church is a Grade II* Listed Building (see Appendix 2) and is also recorded on the Humber Sites and Monuments Record (HSMR site 991). An archaeological watching brief was undertaken during external drainage works in 2003 (Dennison & Dennett 2004) but, as far as can be determined, the building has not been the subject of any previous detailed survey work. The church is also briefly described by Pevsner and Neave (1995, 324).

Aims and Objectives

1.7 The primary aims of the recording work were two fold:

- to produce a pre-intervention survey of the church once the external render had been removed, recording all exposed architectural features through a combination of drawn, photographic and written records; this preintervention survey was then enhanced as necessary by additional records made during the external renovation and conservation works;
- to undertake limited ground investigations around the church, to investigate ground conditions to inform future works and to resolve archaeological questions.

Survey Methodology

1.8 Three elements of work were involved in the architectural and archaeological survey, as follows.

Documentary Research

1.9 A limited amount of documentary research was undertaken by EDAS to illustrate the history of the site and to provide a context for the standing/buried remains. Consultations were also carried out with local architectural historians David and Susan Neave in order to locate any primary and secondary materials. In the event, only secondary sources were found to be available, and these are listed in the bibliography below.

Photographic and drawn record

- 1.10 Following the removal of the external render, a rectified photographic survey of the external elevations of the church was undertaken in November 2006 by Photarc Surveys Ltd of Harrogate using a Zeiss UMK survey camera. The resulting survey data was presented in the form of plane rectified black and white mosaics printed onto photographic quality paper at a scale of 1:50 and 1:20. Mosaiced digital images were also provided. Photo-control was achieved using standard 40mm square plastic targets on points of architectural detail; these were surveyed using total station equipment and heights AOD were obtained by reference to the Ordnance Survey benchmark located on the church.
- 1.11 The 1:20 photographic mosaics were used as the basis for the drawn record. Film overlays were made of the mosaics and these were then amended/enhanced on site between December 2006 and January 2007 to produce 1:20 scale stone by stone drawings of all external elevations. Following the removal of loose masonry to the north elevation, which exposed further architectural features, a second drawing of this elevation was made at a scale of 1:20 to record the new features. In addition, a 1:50 scale ground floor plan was constructed, as well as more detailed drawings (e.g. at 1:4, 1:2 etc to show moulding profiles etc), sketch illustrations, phased plans etc. where appropriate or relevant. The drawings, which show all significant details such as openings (blocked or unblocked), constructional detail, fixtures and fittings etc, were prepared according to the guidelines established by English Heritage (2006, 8-10). Sufficient notes were also taken to allow the preparation of a detailed description of the church.
- 1.12 A general photographic record, using 35mm colour prints and digital photography, was made of the features exposed in the external elevations during the renovation works. English Heritage guidelines were followed and each photograph was normally provided with a photographic scale, subject to practicalities and access (English Heritage 2006, 10-12); artificial lighting in the form of electronic flash was

used where necessary. All photographs have been clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and are cross referenced to film and negative/file numbers. A photographic register detailing the location and direction of each shot has been completed. A selection of the photographs have been used to illustrate this report.

Archaeological recording

- 1.13 Two small trial trenches were excavated adjacent to the church to assess ground conditions and to try to locate any surviving archaeological remains associated with the historic form of the church. This work took place on 20th November 2006. Following standard archaeological procedures, each discrete stratigraphic entity (e.g. a cut, fill or layer) was assigned an individual context number and detailed information was recorded on pro forma context sheets. A total of 18 archaeological contexts were recorded; these are all described in the following text as three digit numbers (e.g. 005; see Appendix 1). In-house recording and quality control procedures ensured that all recorded information was cross-referenced as appropriate. The positions of the trenches were surveyed relative to the plan of the church, and more detailed drawings were made of each area as necessary. A photographic record was also maintained using 35mm colour prints.
- 1.14 In addition to the above, some limited renovations were undertaken to the interior of the church, principally the removal of pew bases and the resetting of the pews, and the repair of internal plasterwork which exposed the remains of a wall painting of possible late medieval date. These works, which involved virtually no ground excavation, were not subject to archaeological monitoring. However, the wall painting was the subject of an initial investigation by Hirst Conservation (2007; see Appendix 3), but the condition of the painted fragment was such that it collapsed before a detailed record could be made.

Report and Archive

- 1.15 A detailed written record of the church was prepared from the observations made on site, which analyses its form, function, history, and sequence of development, as far as is possible using the previously gathered information. The church is also placed within its historical, social and architectural context, where possible, as are the buried archaeological remains which were uncovered.
- 1.16 An archive of material relating to the project, which includes field notes, survey data and drawings, rectified photographs and photographic prints and slides, has been ordered and indexed according to the standards set by the National Archaeological Record (EDAS site code SGB 06). It was deposited with the East Riding of Yorkshire Museum Service (museum accession number 2009/34) at the end of the project. The small amount of artefactual material recovered from the trial trenches was not retained with the project archive.

2 HISTORICAL BACKGROUND

- 2.1 A brief historical publication was produced by a local resident in 1980, on the 800th anniversary of the founding of the church (Whitaker 1980); this builds on and reproduces an earlier publication produced by Stapleton (1966), now held in the East Riding Archive Office (ERAO DDX 127/4). In the absence of other information, many of the details summarised below are taken from these publications.
- 2.2 The church is dedicated to St Giles, a hermit saint and one of the most popular late Medieval saints in western Europe. The centre of his cult is Saint Gilles near Arles in France, and he may have been a hermit in that area before the 9th century. St Giles is considered to be a patron of cripples and the indigent, and there are over 150 churches dedicated to him in England. The church is a "chapel of ease" to Hayton, and so never had its own vicar. The parish was only separated from Hayton in 1959 and added to the Benefice of Seaton Ross with Everingham and Harswell. In 1980 the Benefice was again enlarged to take in Thornton and Melbourne.
- 2.3 The building retains its original simple Norman rectangular plan, but in the 13th century, presumably because of the increase in population, a north aisle was planned. In c.1450 this aisle, if it was ever completed, was removed and the north wall blocked up. An old lancet window (c.1210) was re-inserted and another of three lights was created to light the altar. Whitaker notes that, when the rendering on the north wall was temporarily removed in 1963-65, some large Norman faced stones were revealed, together with two blocked doorways or archways of 14th century date, and the three pillars and associated arcading of the 13th century aisle the original colour decoration of foliage and flowers could be seen on one of the pillars and the western pier is visible internally. Also seen at this time were fragments of old gothic lettering, probably of 16th century origin; Whitaker suggested that this might represent a biblical text, such as the Lord's Prayer or the Ten Commandments, but it was not decipherable due to the fragile nature of the plaster. Their exact location within the church is uncertain.
- 2.4 At the end of the 18th century, major repairs and alterations were carried out to the church, as noted in an entry in the Hayton parish registers: "Bielby chapel was taken down, at least the roof, east end and south side and rebuilt 1792, the door changed from the south side to the west end, cost £51 odd' (quoted in Whitaker 1980, 3). Whitaker also notes that the damaged stonework of the west door and other fabric affected by weathering had recently been repaired by residents of the village in 1980. The church has two bells, one dating to 1300 (one of the oldest in Yorkshire) and the other dated 1638. Further repairs were undertaken in 1861, at a cost of £25, when a seat was provided for every person in the parish; prior to this, benches attached to the walls ran around the north, east and south sides and the altar, actually an old chest, stood in the middle of the building (Procter 2003). It is probable that the stained glass medallions were inserted as part of this work, when the former flat plastered ceiling, presumably dating from the 1792 alterations, was removed; the line of the former ceiling can still be seen internally along the wall tops (Pace 2006). It is not known when the existing cement-based render was added to the exterior of the church, but it was perhaps as a result of or soon after the 1792 works to create a more unified appearance, or possibly later in 1861; Bulmer's History and Directory of East Yorkshire of 1892 notes that some render was in place by then although it has obviously been renewed more recently.

- 2.5 In 1901, the church architect, Temple Moore, drew up plans for the restoration of the church. These included proposals to move the west door back to its original position in the south wall, with the addition of an external porch. The bellcote was also to be moved from its present position to the south-west corner, and made of an "open timber" construction. All the windows were to be replaced in the gothic style. Internally, Moore planned a font at the west end with a vestry on the left of the new south door, under the tower, and there was to be a chancel screen with return stalls on either side (Whitaker 1980, 4). However, none of these proposals were carried out (Pevsner & Neave 1995, 324). It is also possible that earlier rebuilding plans were proposed by William Hey Dykes in 1858, but again these were never implemented (www.churchplansonline.org).
- 2.6 The existing roof was re-slated in 2002-03, when the bellcote was also repaired, the stonework of the west door conserved, and the rainwater goods and drainage improved (Procter 2003, 2-3).

3 ARCHITECTURAL DESCRIPTION

Introduction

3.1 The surviving structure of the church is discussed below, starting with a description of the plan form, structure and architectural detailing, followed by the external elevations and a circulation of the floor plan. Relatively little renovation work was undertaken to the interior of the building, and so the description of the church is necessarily dominated by the exterior; similarly, only a brief description is given of the furnishings.

Plan Form (see figure 3)

- 3.2 The church has a sub-rectangular single-cell plan, and comprises a five bay continuous nave and chancel, with bellcote over the west end (see plate 1); the long axis is orientated north-east/south-west, although for the purposes of the following description, it is considered to lie east-west. The existing church has neither aisles nor porches, although there was formerly at least one aisle (see below).
- 3.3 The church has maximum external dimensions of 13.25m east-west by 6.55m north-south (excluding buttresses), and the square bellcote rises to a height of c.8.12m above the external ground floor level at the church's west end. There is a short buttress with offsets at the west end of the north wall, and a taller buttress in a similar position against the south wall; both post-date the main body of the walls.
- 3.4 A number of irregularities are visible within the church's plan. The north and south walls run approximately parallel to one another, but the east and west gables are not set at right-angles to them but rather are shallowly angled, producing a very slightly trapezoidal shape. There are several places in the north wall where the two wall faces are not parallel in plan, and there are also wide variations in the width of this wall. The east gable averages some 0.50m in width, the west gable 0.60m, the north wall up to 0.80m and the south wall over 0.90m (including the step at the base of the internal face); above the level of the step, the south wall is substantially thicker to the west of the eastern window here than it is to the east.

Structure and Materials

- 3.5 The nave and chancel of the church are of a single storey, open to ridge height internally. The bellcote is of a single stage, and was not accessible at the time of the survey. The nave and chancel are covered by a pitched slated roof, while the bellcote has a slated pyramidal roof surmounted by a weathervane. With the exception of the west face, which was formerly rendered, all sides of the bellcote are tile-hung. There are square louvred openings to the north and south faces, with a pair of narrow unglazed openings to the west face.
- 3.6 The church has clearly undergone many alterations during its lifetime, and this is reflected in the variety of the building materials surviving within the standing fabric. These are described in more detail under the circulation and external elevations paragraphs below, but a summary is given here. The early work, principally the remains of the north aisle arcade, exposed during the current renovations is of finely cut and moulded magnesian limestone (see plate 3). The subsequent blocking of the arcade incorporates some large coursed and squared blocks of oolitic limestone but also sandstones and brick (see below), some of which are laid as random rubble or are roughly coursed. The east and west gables, and the

south elevation, are built from a similar mixture of stones, although the east gable probably has more sandstone than elsewhere. Where it survived, all stonework appears to have been originally set with a lime mortar; the joints to the north aisle arcade are particularly fine. Re-used carved and moulded fragments are scattered throughout the church, and these are described under the external elevations below. As stated above, brickwork has been used as a patching material on all four external elevations of the church, although the majority is concentrated in the bellcote. After the removal of the external render, the west face of the bellcote was revealed to be built of red handmade brick (average dimensions 220mm by 110mm by 5-6mm) laid in a rough stretcher bond and set with a cream lime mortar.

3.7 The structural framework of the church is formed by the load-bearing external stone walls, with two later external buttresses to the west ends of the north and south walls. The interior of the church was floored with carpet laid over concrete at the time of the survey. The roof structure over the nave and chancel comprises three modern king-post trusses, dividing the space between into five bays; the westernmost bay is ceiled beneath the bellcote.

Architectural Detailing

- 3.8 Prior to the removal of the render, the external appearance of the church was rather drab and primarily of the late 18th century, with the exception of some obviously re-used earlier fragments. However, earlier descriptions (for example, the Listed Building description made in 1967; see Appendix 2) noted the presence of *in situ* features which suggested that the former north aisle arcade survived intact, having been plastered over internally only as recently as 1965. The removal of sample areas of render prior to the main phase of works showed that it was between 0.12mm-0.75mm thick (see plate 2).
- 3.9 The 12th century arcade is the largest surviving element of the earlier form of Bielby church, although there are many other fragments of similar date re-used within the fabric. A lancet window and a three-light pointed window with Perpendicular tracery in the north elevation suggests modifications to the church's plan in the later medieval period but, given that both are located within blocked arcade openings, their original place within the church is uncertain (see plate 3). The windows in the south elevation and east gable are late 18th century, and the bellcote is probably of the same date. It is possible that the church was rendered externally soon after the late 18th century alterations in order to present a more unified appearance, although the coat of render removed during the renovation work may be far more recent, perhaps dating to the second half of the 20th century.

External Elevations

3.10 The following description of the external elevations of the church is based on the architectural recording work carried out between December 2006 and January 2007, combined with relevant information contained in earlier photographs, historic descriptions and other sources. The elevations are described in a logical clockwise direction, starting with the south elevation.

South elevation (see figures 4A and 4B)

3.11 The majority of the south elevation rises from a chamfered plinth. This plinth is interrupted in two places, once below the east window and secondly to the west of the west window. The break below the east window is 1.20m wide, and has more

well defined "edges" than that to the west of the west window, which is slightly wider at c.1.70m. To the either side of the eastern break, and as far as the west break, the chamfered plinth supports a course of limestone blocks, many of which are roughly 0.35m square. Similar "courses" occur intermittently in the upper parts of the wall and similar stones are used for the corner quoins, although above the plinth, the elevation is generally of mixed rubble and roughly squared stone with a very small amount of brick and tile. There are three re-used fragments of earlier masonry at the upper south-east corner of the elevation, comprising a piece of chevron moulding, a moulded fragment similar to the chevron moulding over the west door (see below), and the possible head/sill of a narrow window; there may be another such fragment to the west, situated mid-way up the elevation. A single circular cast-iron wall tie remains to the west of the west window, while the stepped buttress at the south-west corner is probably a 19th century addition.

3.12 The elevation is pierced by two tall round-headed chamfered windows, each with a re-used beakhead as a keystone. The beakheads are of different forms; that to the east window has a raised ridge to the beak and protruding eyes, while the west window beakhead is generally in lower relief, although this may be the result of later damage or erosion. Each window is of a single light, fitted with a grid of leaded diamond-set plain glass panels set within coloured margin glazing; there are three stained glass roundels to each window, all of foliate design.

West elevation (see figures 5A and 5B; plate 5)

- 3.13 The chamfered plinth visible in the south elevation of the church does not continue around the base of the west gable, although the lowest visible quoin to either end of the gable projects some 0.20m out from the wall face above. The gable is built from the same mixture of rubble, roughly squared limestone blocks and brickwork as characterises the rest of the church's exterior, although the majority of the limestone blocks are concentrated in the gable's upper half. The north-west corner quoins of the gable are inset twice, once at 1.50m above ground level and again at 2.30m; the lower inset re-uses a chamfered arcade stone. A symmetrically arranged pattern of eight circular cast-iron wall ties survives to the gable.
- 3.14 The centrally positioned round-headed west door has jambs of large quoins; the north jamb is very faintly chamfered, while the head of the doorway is formed from re-used chevron ornament with a beakhead keystone; Hirst Conservation (2007, 6) note that the detail of the chevron ornament to the south side of the door is still very crisp compared to the north side, and that it may therefore be an 18th century piece of work rather than a re-used Norman fragment. The beakhead is similar to that seen above the east window of the south elevation, with a long narrow beak over a roll moulding, protruding eyes and a prominent furrowed brow. Immediately above the doorway, there is a single-light window with a chamfered sill formed from a re-used fragment and an arched cusped head comprising two re-used pieces of window tracery, perhaps originally from trefoiled lights. The window is fitted with a grid of leaded diamond-set plain glass panels set within coloured margin glazing, and has a single stained glass roundel bearing a Cross. There are at least two fragments of arcade stones re-used in the walling to the south of the window, and four more pieces to the north. A second narrower single-light window is positioned above the first but again has a head formed from a re-used chamfered fragment. The stonework above the upper window suggests that there was once a plain apex to the gable, similar to the east gable, pre-dating the brick bellcote which now surmounts it.

- 3.15 It is noticeable that the south-west corner of the church is bowing significantly, which explains the positioning of the later buttress here. In the west elevation, there are a number of bricks suggesting that the quoins have been reset here.
 - North elevation (see figures 6A and 6B; plate 3)
- 3.16 The north elevation is the most complex of the four external walls of the church. The roughly squared limestone blocks noted in the other elevations are here largely confined to the blocking of the former north aisle arcade, although they are also used for the corner quoins. Approximately 1.10m above ground level, the north-east corner of the elevation is inset slightly and the projecting lower part can be traced for a short distance to the west and south before merging with the main wall lines. In addition, there are three large areas of brick patching along the base of the wall.
- 3.17 The principal feature of the elevation is the remains of the former north aisle arcade. Three full bays of the arcade survive, with the remains of a further bay at either end; the full bays have an average width of between 2.90m to 3.00m (from pier centre to centre). They once rose to pointed arches but have since been truncated; by extrapolating the curve of the surviving masonry, it might be estimated that the highest point of the arch's underside was set c.1.90m above the top of the capital. The double-chamfered arches spring from cylindrical piers (c.0.45m in diameter) of deep ashlar courses (see plate 7). Three of the piers are complete, and have moulded octagonal capitals; the fourth pier (at the very west end of the elevation and now largely concealed by a later buttress), is slightly taller than the other three, and the capital, while still octagonal, has both plainer moulding and a more deeply chamfered profile than the others (see figures 7 and 9). No pier bases were clearly exposed during the renovation works, although in Trench 2 (see below), a large sandstone slab was observed in the north wall beneath the second pier from the west end; the surface of the slab was set some 1.75m below the top of the capital, giving an approximate height for the piers. The 1967 Listed Building description notes that a "cylindrical respond to the west end" of the former north aisle was visible internally (see Appendix 2); this is presumably the westernmost pier noted externally, but it is no longer visible from the interior. The listing description also states that the remaining piers, by then hidden beneath plaster, were "painted". This presumably refers to a decorative scheme of historic interest, but no paint was observed on the remains of the arcade exposed externally. The stonework above the arcade is not markedly different to that used in the blockings below, although it is generally smaller.
- 3.18 At a later date, the north aisle was demolished and the arcade truncated, both in height and possibly also substantially at the west end (see Chapter 5 below). The remaining parts were then blocked. Several features were exposed within the blocking when the external render was removed, although it is not certain whether they were all placed here at the same time as the arcade was blocked or inserted into the blockings at a later date from elsewhere within the church. Commencing at the arcade's easternmost end, there is a large window with a very shallow chamfered pointed arch containing Perpendicular tracery comprising three trefoiled lights with four much smaller lights over. To the west, the first complete bay has a blocked chamfered doorway with a pointed arch, and in the next bay, a lancet, again chamfered externally. The westernmost surviving complete bay also houses a blocked doorway, although this appears to have once had a flattened threecentred arched head, rather than the pointed arch of the other doorway. There appear to be no re-used fragments within the arcade blocking, the only examples noted being those already described in the north-west corner guoins and another

possible piece in the stonework of the arcade above the easternmost surviving pier.

East elevation (see figures 8A and 8B; plate 4)

- 3.19 The chamfered plinth at the base of the south elevation continues around the south-east corner of the church and along the east gable, although it stops short of the north-east corner by about 1.10m. Above the plinth, there are the remains of two courses of the squared limestone blocks as noted on the south elevation, but with more sandstone mixed in. Above, there is a narrow band of much smaller, thinner stones before the gable returns to the same mixture of stonework noted elsewhere. The gable is pierced by a tall round-headed chamfered window, similar to those described in the south elevation. The window has a keystone and a hollow moulding with beaded detail to the head; Pevsner and Neave (1995, 324) describe this as a hoodmould and date it to c.1200. The window is fitted with a grid of leaded diamond-set plain glass panels set within coloured margin glazing; there is a single stained glass roundel to the window, bearing a lamb and flag design.
- 3.20 There are numerous re-used fragments incorporated into the east gable. To the south of the window, there is a piece of arcade stone, a chamfered jamb fragment, and the head/sill of a narrow window opening. To the north, there are three further chevron fragments and three chamfered jamb pieces (see plate 6). Three similar jamb pieces survive in the upper part of the gable, while immediately above the window, there is a small piece of stone with recessed ribbed triangular ornament. The gable is surmounted by a stone cross.

Circulation

- 3.21 As stated above, only a small amount of restoration work was undertaken to the interior of the church and so the opportunities to examine any historic fabric were limited. The following brief description is therefore based largely on earlier sources, e.g. the Listed Building description (see Appendix 2) and Pevsner and Neave (1995, 324), together with other details gathered during the survey programme.
- 3.22 The only access to the interior of the church is through the west doorway, which is fitted with a heavy plank and batten door. Mouldings have been applied to the external face of the door in the form of ribs to create intersecting tracery, while the chamfered patterns to the rear are set in a St Andrew's cross-type arrangement, rather than horizontally. The door appears to be 19th century in date, although the form of the massive strap hinges is suggestive of the 17th century, and the latch and door-handle the mid 18th century (Alcock & Hall 1994), so these parts may have been re-used from an earlier door.
- 3.23 The doorway leads into a small area occupying the westernmost bay of the church, with a low ceiling over, beneath the bellcote. On the north side of the door is a holy water stoup, perhaps the re-used fluted bowl of a late 18th century font. The remainder of the church's interior is largely occupied by box pews, with a pulpit towards the east end of the south wall; Pevsner and Neave (1995, 324) suggest that the pews date from the 1792 works, although the Listed Building description describes the pews as "a complete and unaltered set of early 19th century box pews", which is incorrect. The pulpit obscures part of the thickened base of the south wall, which steps outwards from the wall face above at 1.26m above floor

- level. The ornate mid 19th century font is in the Decorated style, and was brought here from Brayton church, near Selby, in 1947.
- 3.24 Pews also run along the very east end of the north and south walls, flanking the altar. To the south wall, the pew is carried on a stone base, standing 0.48m high and projecting some 0.36m from the wall face; it was not possible to tell if the base is continuous with the wall, or butts up to it. In contrast, the pew to the north wall has a stone base only at the very east end, again standing 0.48m in height but measuring only 0.31m in length (east-west) and 0.26m in width (north-south).
- 3.25 As part of the renovation works, the pews and the pew platforms were lifted, although no excavation into the ground was carried out. It was observed by the project architect that the central walkway through the church was floored with brick paviours, presumably dating from the Victorian renovations (Peter Pace, pers. comm.). However, apparently set below these, record photographs appear to show the remains of an earlier floor level, formed by bricks or clay tiles, orientated north-south across the main body of the church but east-west in the south-west corner. These might represent the remains of a new floor laid down as part of the late 18th century works. The removal of the pews along the south side of the church interior also partly exposed the internal plasterwork of the south wall here. This appeared to contain no features of historic interest, although by comparison with the rest of the interior (see below), the plasterwork is likely to have comprised several different phases of work. The partial dismantling of the pulpit allowed the thickened base of the south wall to be seen; it appeared to have been substantially cut back below, to allow the pulpit to be inserted.
- 3.26 As has already been noted above, an assessment of the internal plasterwork of the church was undertaken by Hirst Conservation in 2007, including some initial recording of fragments of wall painting exposed during the renovation works (Hirst Conservation 2007; see Appendix 3). In general, it was noted that the earliest surviving plasterwork was restricted to the west internal wall. A basecoat of daub and straw finish was first applied to the wall to even out its surface, before a fine lime mortar plaster with fine hair additives was applied over the top. It was this plaster that retained the fragment of wall painting. Although traces of wall painting were noted to both the north and south of the central doorway in the west wall, the main fragment was situated at a high level to the south of the doorway. It measured c.1.30m wide by 0.68m high and appears to be a figurative composition, comprising the legs of a human body, and was preliminarily dated to the second half of the 15th century. Traces of later two-coat plaster systems were also uncovered, as well as those belonging to later repairs. The two-coat plaster systems were not datable, but at least one might be thought to result from the late 18th century works.

4 RESULTS FROM THE TRIAL TRENCHES

Introduction

- 4.1 On the 20th November 2006, two trial trenches were excavated against the exterior of the church, to assess ground conditions in the immediate vicinity, to inform future works and also to try to locate any surviving archaeological remains associated with the historic form of the church. In both cases, the trenches were hand-excavated by an archaeologist with assistance from the building contractors.
- 4.2 One trench (Trench 1) was dug west from the north-west corner of the church while another (Trench 2) was dug north from the north side of the church (see figure 10). Prior to the excavation, the ground level on the north side of the church lay at an average height of 10.34m AOD, sloping away at first gently and then more steeply towards the hedged boundary forming the north side of the churchyard. To the west of the church, the ground level lay at an average height of 10.22m AOD. A total of 18 archaeological contexts were recorded; these are all described in the following text as three digit numbers (e.g. 005) (see Appendix 1).

Summary Trench Descriptions (see figure 10)

Trench 1

- 4.3 Trench 1 ran west from the north-west corner of the church. The trench measured 3.25m long (east-west) by 0.75m wide (north-south) and was excavated to a maximum depth of 1.15m BGL (9.00m AOD).
- 4.4 Beneath the turf and topsoil (001), which had an average depth of 0.14m, a south-east/north-west aligned cut (005) was exposed. The cut was 0.20m deep and had been made for a 0.13m diameter ceramic drain pipe (003). The uppermost deposit disturbed by the pipe cut was a soft dark brown silty sand (002), 0.31m deep, which overlay a layer of compact gritty mid-brown sand (004) containing a high proportion of pale orange/cream mortar and very small rounded stones; the surface of this layer sloped slightly downwards from east to west, becoming shallower as it did so (maximum depth 0.34m). The fill of the ceramic pipe trench (006) was a mixture of deposits 002 and 004.
- 4.5 The gritty mid-brown silty sand (004) overlay a clean mid-brown sand (008), which was 0.24m deep and appeared to have been deposited over two areas of foundations. The first area (007) projected a maximum of 0.75m to the west of the north-west corner of the church, and the stonework was crudely stepped. These footings were a maximum of 0.70m deep and were comprised unmortared pieces of sandstone rubble, some of which were up to 0.30m long and roughly squared (see plate 8). They almost certainly once extended further to the west, but they had subsequently been truncated by a deposit of soft mid-brown sand (008). The second area of footings (009), which may once have been continuous with 007, was set c.1m to the west, and comprised a faint spread of unmortared sandstone and mudstone rubble (0.14m deep), more clearly visible in section than in plan. The soft mid-brown sand (008) then continued to the west. Both footings rested directly on the surface of a clean mottled orange/brown sand (010) which was exposed for a depth of 0.34m in the trench; this deposit was the natural geology which continued below the base of the trench. Unfortunately, the precise relationship between the soft mid-brown sand (008) and the two areas of footings (007 and 009) was not entirely clear, although the sand appeared to overlie the footings.

Trench 2

- 4.6 Trench 2 ran north from the base of the north elevation of the church. It measured 2.65m long (north-south) by 0.75m wide (east-west) and was excavated to a maximum depth of 1.10m BGL (9.10m AOD).
- 4.7 Beneath the turf and topsoil (001), which had an average depth of 0.14m, the peagravel fill (018) of a north-east/south-west aligned cut [017] was exposed; the cut was 0.15m deep and had been made in June 2003 for a plastic service pipe (Dennison & Dennett 2004). The uppermost level disturbed by the cut was a soft dark brown silty sand (012), 0.18m deep, which overlay a deposit of compact gritty mid-brown sand (013), 0.32m deep, very similar to deposit 004 seen in Trench 1. This in turn overlay a soft clean mid-brown sand (014), which was 0.56m deep.
- In the south section of the trench, the sand (014) was observed to run beneath the footings of the north elevation of the church (011). Within the trench, the footings comprised a single large sandstone slab, supporting the base of the arcade pier buried in the wall at this point, which rested on a level bed of squared sandstone rubble, some of which had been burnt. However, in the east and west sections of the trench, the sand (014) overlay a section of east-west aligned wall footings (015), 0.22m deep and running parallel to the church's north elevation. These footings were built of unmortared sandstone rubble, some roughly shaped into pieces c.0.30m square, and they lay directly on the surface of a soft greyish-light brown mottled sand (016) (see plate 9). This was only visible in the base of the trench and was a natural deposit.

Artefacts

4.9 A small number of artefacts were recovered from the two trenches (see Appendix 1). In Trench 1, context 002 yielded three small pieces of 20th century white porcelain, one sherd from an oxidised red glazed jar of probable 18th-19th century date, and two pieces of animal bone (one possibly the bottom of a sheep's metacarpal and one chicken wing bone), while a single piece of clay pipe of 17th-18th century date was recovered from context 004. One small fragment of a locally produced gritty 13th century cooking pot and a piece of badly decomposed animal bone were recovered from the surface of context 010. In Trench 2, four pieces of animal bone were recovered from context 014, representing the bottom part of a tibia and part of a metatarsal from a cow, and a fragment of a possible radius and a molar from a horse. None of the artefacts were particularly significant, and none were considered to be worthy of retaining for the site archive.

5 DISCUSSION AND CONCLUSIONS

- 5.1 The remains of the north arcade exposed in the north wall of the church, and the footings (007 and 009) seen in Trench 1 and Trench 2 (015), all demonstrate that the church was once substantially larger than its existing form. It is not certain that all of the features noted above are contemporary; for example, the clean midbrown sand (014) recorded in Trench 2 overlies the wall footings (015) but runs beneath the slab (011) forming the base of an arcade pier, perhaps indicating that the two belong to separate structural phases. Nevertheless, if all the features were contemporary, then it would appear that the church was once formed by a nave with a narrow north aisle. The church would have measured some 9m in width externally (north-south), with a north aisle with an internal width of c.1.60m. The external length (east-west) is more difficult to estimate. If the fourth arch of the arcade as represented by the surviving pier at the very west end of the north elevation was of the same width as the others, then the church would have been over 16m long. However, the footings (009) exposed in Trench 1 suggest that it was not quite as wide, perhaps just over 2m, giving an external length of c.15m. The church was presumably also somewhat taller, as the tops of the arcade arches have been truncated. No evidence was uncovered that the church had ever been provided with a tower during its early history, nor a chancel, and there would seem little space to fit such features into the rather constrained flattened area on which the church is located.
- 5.2 The extent of subsequent alterations to the church makes it difficult to establish its early form in anything other than the general terms offered above. Although the north arcade has been previously assigned a 12th century date, comparison with other regional churches (for example, Fridaythorpe in East Yorkshire) would suggest that it is surely very late in that century, and more likely to date to after c.1200. An early 13th century date would make it an addition to an earlier church, rather than an original feature, as the amount of re-used chevron and beakhead decoration around the structure suggests that there was once a 12th century decorated opening somewhere within the building, perhaps the original south doorway rather than a chancel arch. If the former, its position may be marked by one of the breaks visible in the chamfered plinth to the south elevation; the late 18th century works are noted as moving the doorway from the south side to the west end. The windows in the blocked arcade openings may show that the aisle was demolished in the later medieval period (as suggested by Whitaker, see Chapter 2 above), while the door in the same location shows that a new entrance was created on the north side of the church during the same period. Given that a fragment of possible late medieval figurative wall painting was exposed to the interior of the west wall, at least some of this wall must have been present during this period, and it may have been rebuilt on this line at the same time as the north aisle was demolished. The placing of the painted figure suggests that it may once have been one of a pair flanking the narrow window above the doorway.
- 5.3 The 1792 rebuilding was obviously very extensive, and must have amounted to the virtual demolition of the south and east walls of the church to ground level; as has been noted above, the extent of the works to the west wall are less certain and they may have been restricted to the insertion of a new doorway re-using earlier architectural fragments. Many other fragments from the earlier building were incorporated into the rebuilt walls. Some minor repairs were also carried out in brick during the same period, when the bellcote was also constructed. The roof trusses all date from the second half of the 20th century, and the external walls were also rendered during the same period, perhaps not for the first time.

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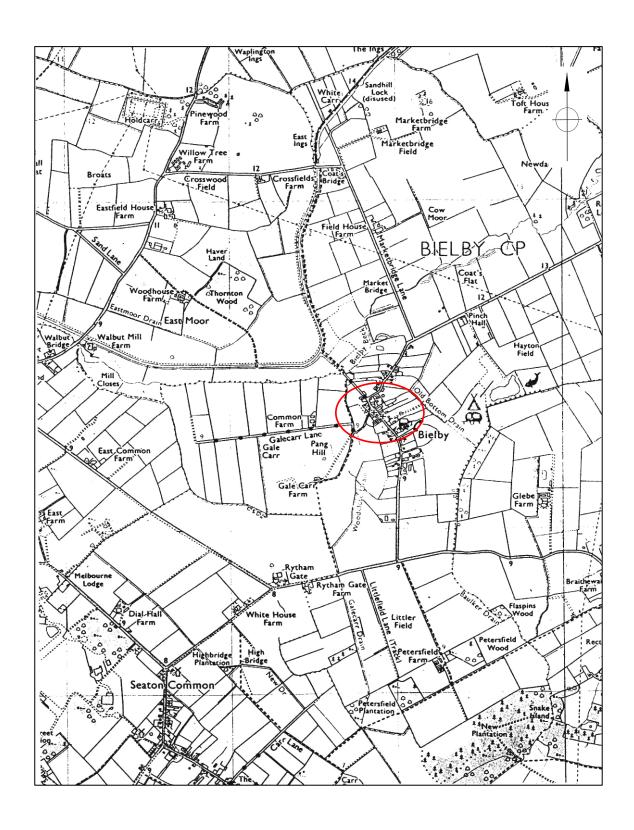
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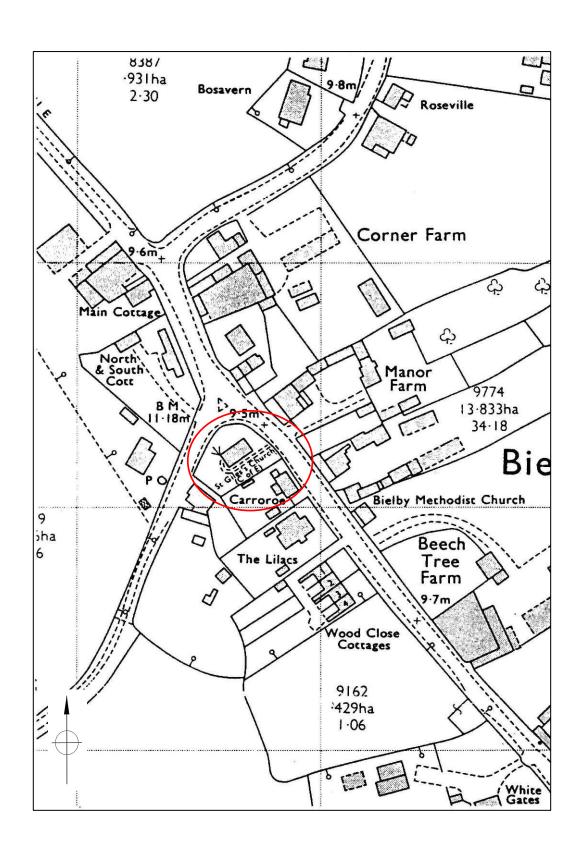
7 ACKNOWLEDGEMENTS

- 7.1 The archaeological and architectural recording was commissioned by St Giles Church PCC, via the project architect, Peter Gaze Pace, with funds being provided by English Heritage and the PCC. EDAS would like to thank all those concerned for their assistance and co-operation in carrying out the survey work.
- 7.2 The rectified photographic survey was undertaken by Photarc Surveys Ltd of Harrogate, and the subsequent on-site recording was undertaken by Shaun Richardson and Richard Lamb. The building contractors, Ebor Stone of York, also assisted with the excavation of the trial trenches, and Rod Mackey helped with the identification of the recovered artefacts. Shaun Richardson produced the site archive and a draft report, together with the stone-by-stone elevation drawings. The final report was produced by Ed Dennison of EDAS, with whom the responsibility for any errors remains.



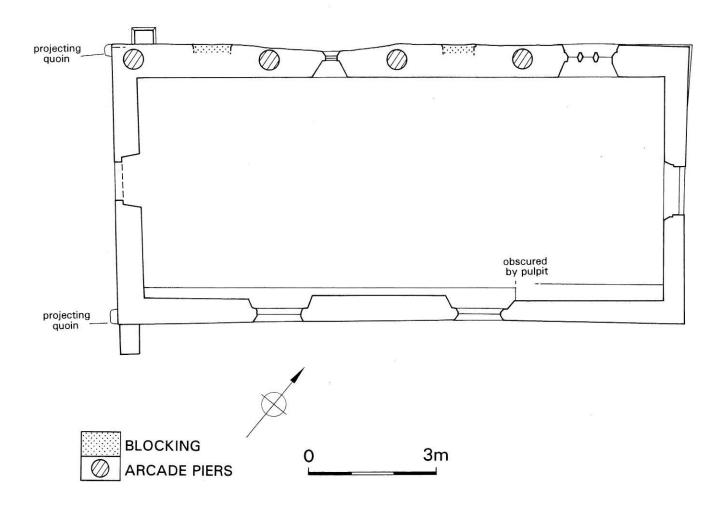
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GENERAL LOCATION			
SCALE NTS	DEC 2009		
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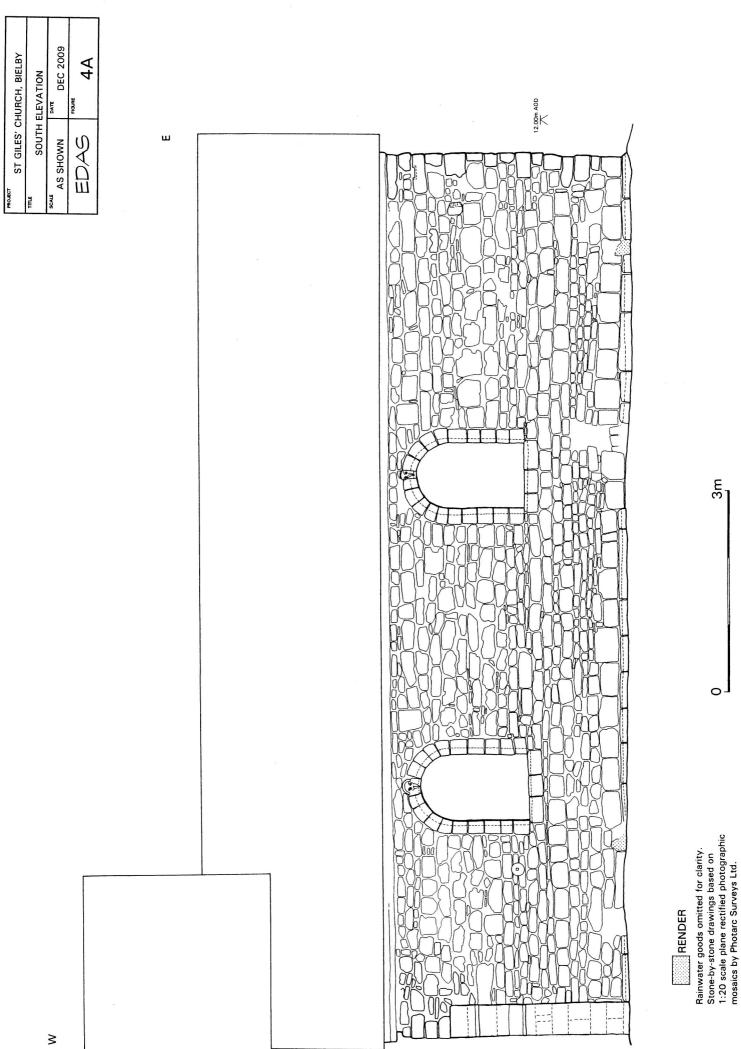


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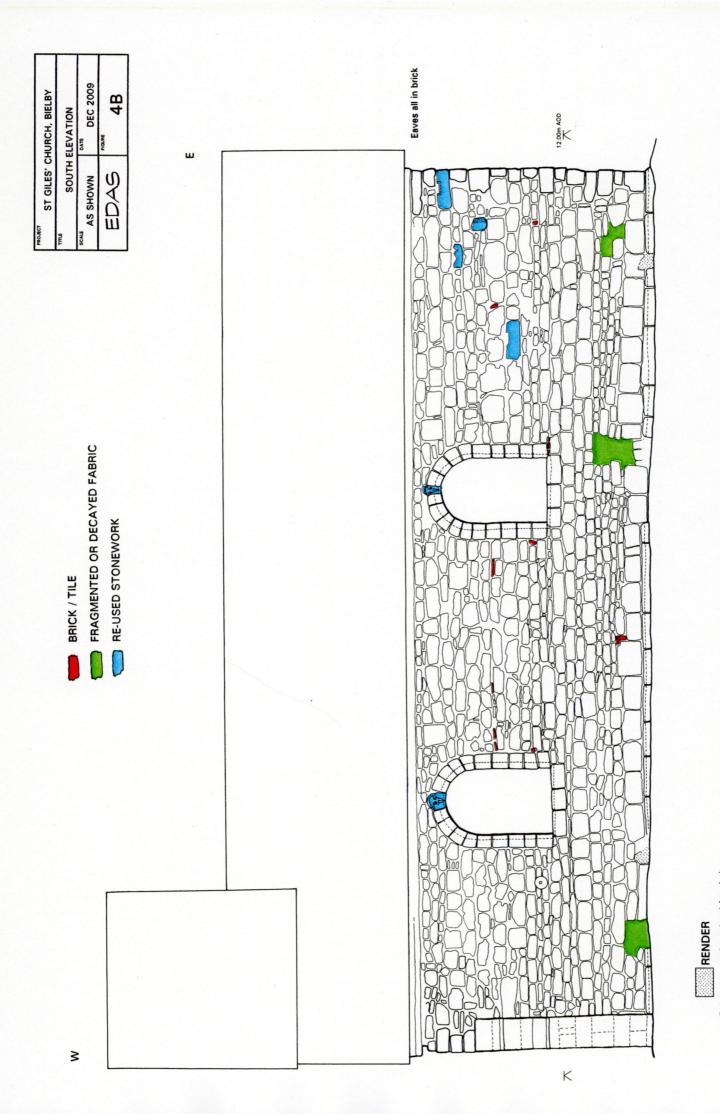
ST GILES' CHURCH, BIELBY		
LOCATION		
NTS	DEC 2009	
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ST GILES' CHURCH, BIELBY		
GROUND PLAN		
AS SHOWN	DEC 2009	
EDAS	FIGURE 3	

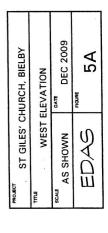


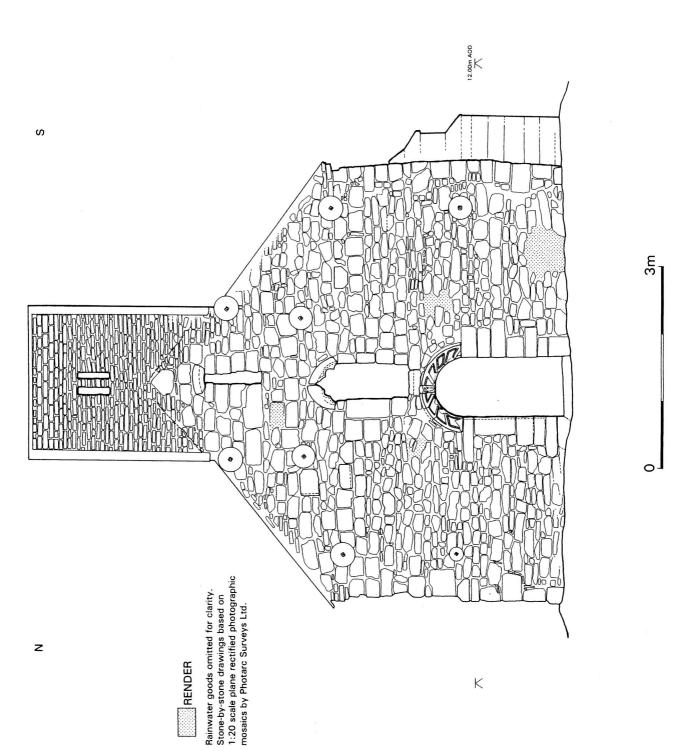
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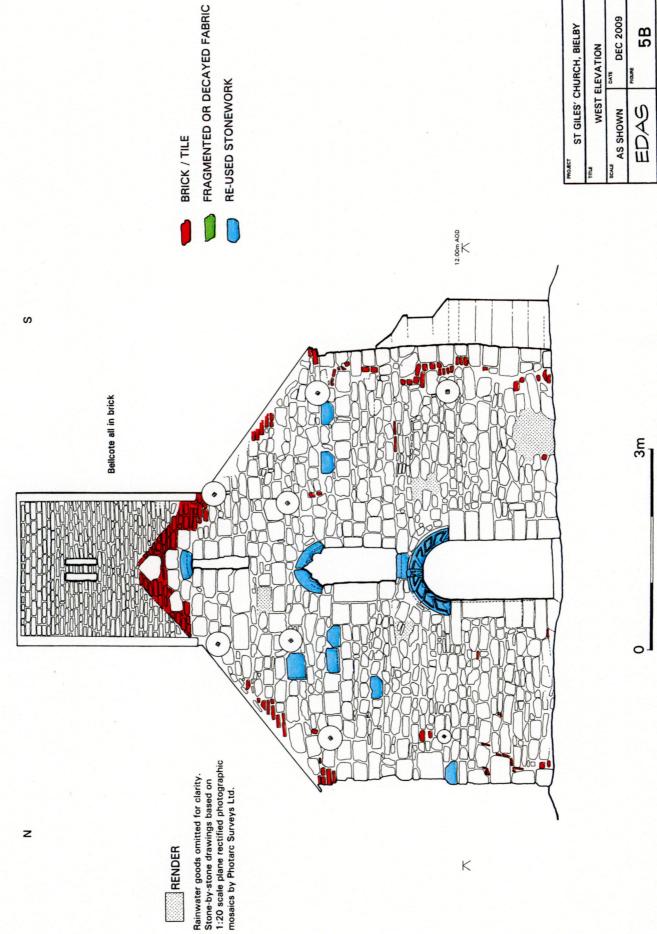


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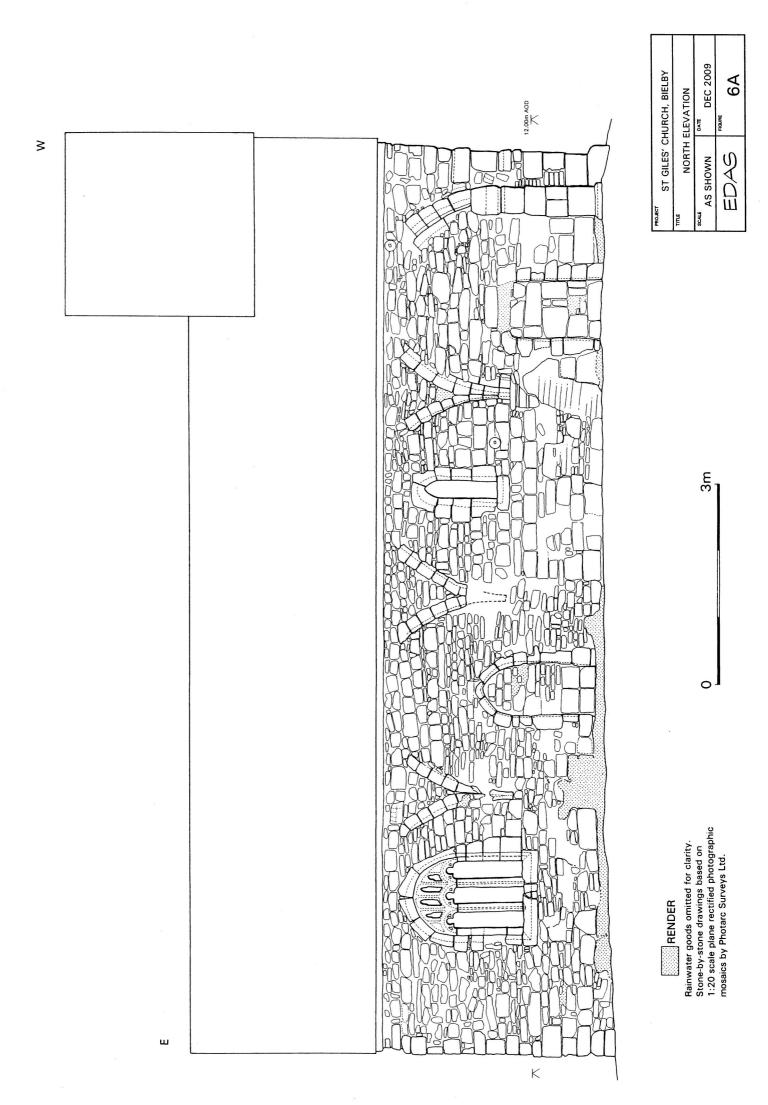
Rainwater goods omitted for clarity.
Stone-by-stone drawings based on
1:20 scale plane rectified photographic
mosaics by Photarc Surveys Ltd.



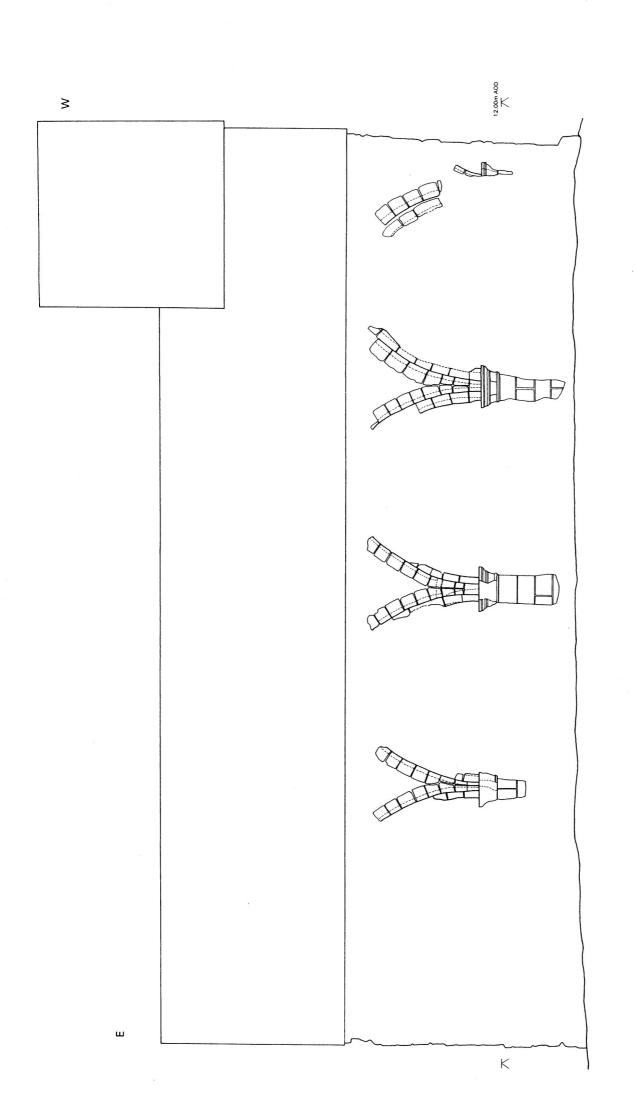




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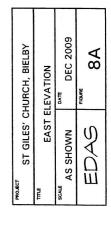


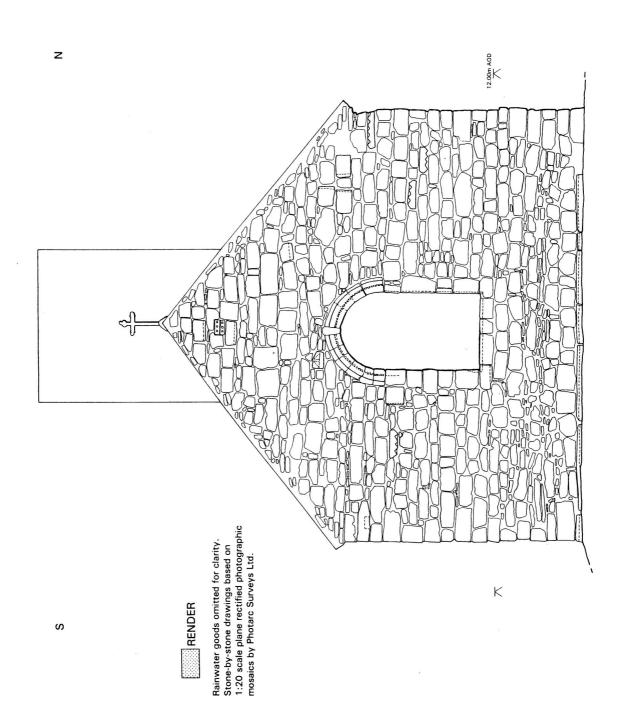




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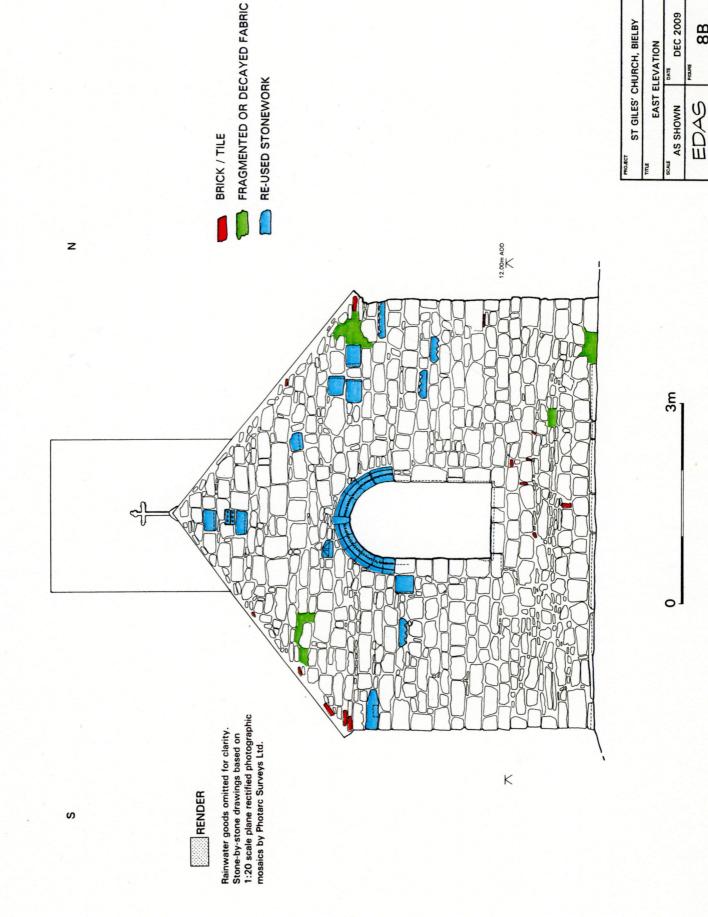
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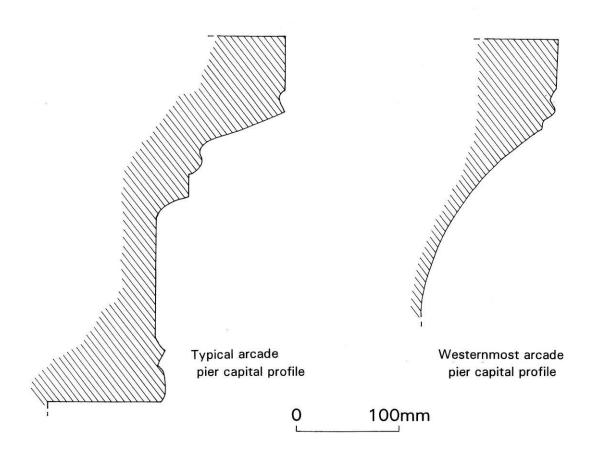
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ST GILES' CHURCH, BIELBY		
MOULDINGS		
AS SHOWN	DEC 2009	
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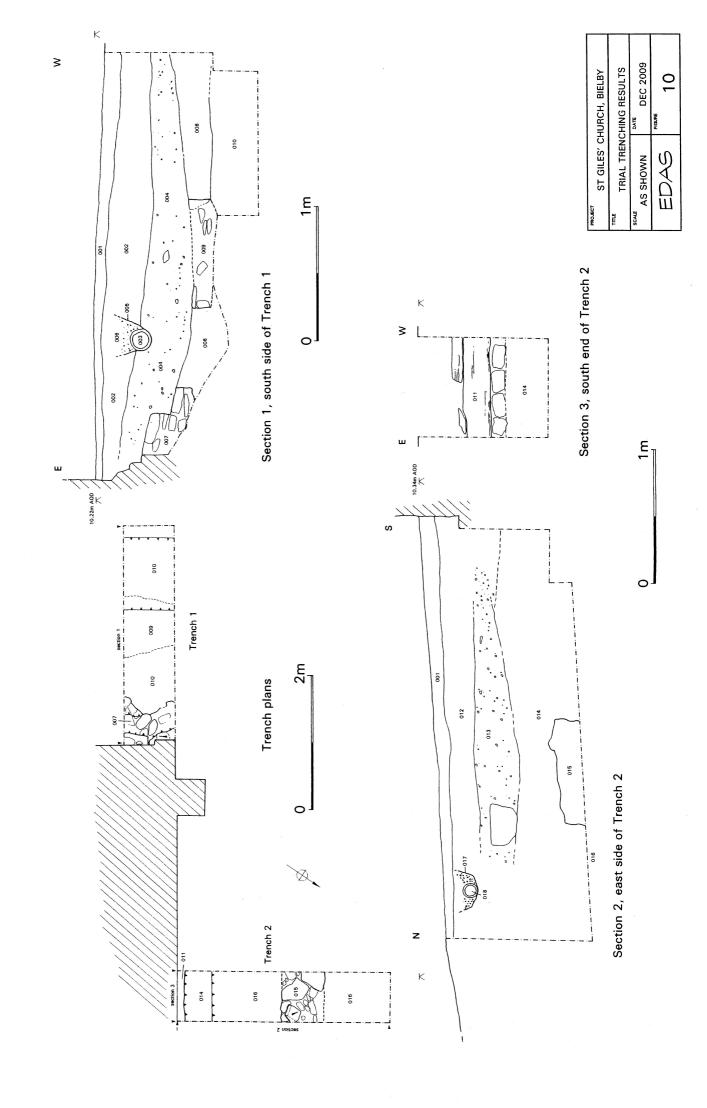




Plate 1: General view of church, prior to renovations, looking E.



Plate 2: Sample render removal, west end of north elevation, looking SE.

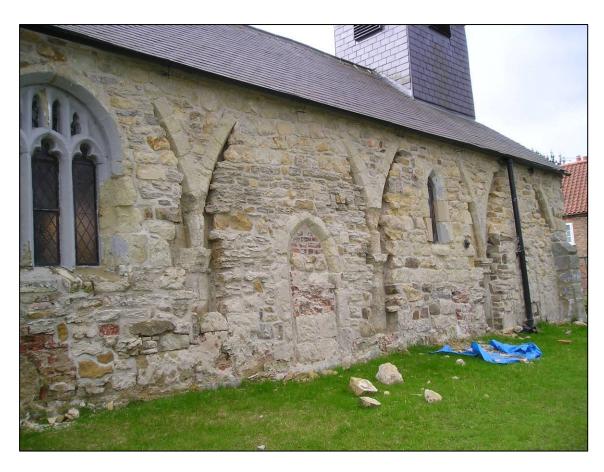


Plate 3: North elevation after removal of render and partial consolidation, showing exposed arcade, looking S.

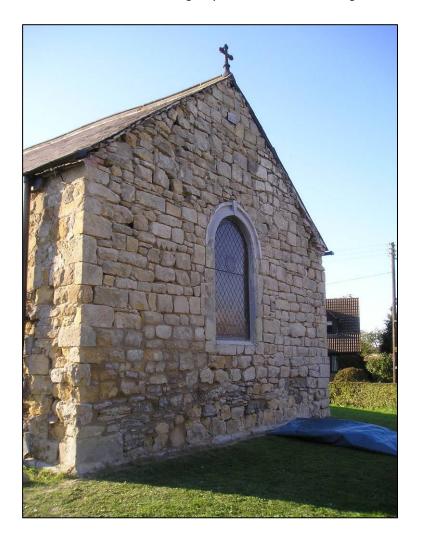


Plate 4: East elevation after removal of render and pointing, looking E.



Plate 5: West elevation, renovations complete, looking NE.



Plate 6: Detail of reused stonework in north side of east elevation, looking E.



Plate 7: Detail of exposed arcade pier, after consolidation, looking S.



Plate 8: South side of Trench 1 showing footings (007), looking SE.



Plate 9: Trench 2 after excavation, showing footings (015), looking S.

APPENDIX 1

APPENDIX 1: LIST OF CONTEXTS AND ARTEFACTS

Trench 1

Context	Description
001	Turf and firm black silt loam topsoil, up to 0.14m thick.
002	Soft dark brown silty sand, 0.31m thick.
003	Ceramic drain pipe, 0.13m diameter.
004	Compact gritty mid-brown sand, up to 0.34m thick.
005	Cut for 003, aligned NW/SE across trench. 0.20m deep and 0.30m wide.
006	Mixed fill of cut 005 - 50% of 002 and 50% of 004.
007	Unmortared sandstone rubble footings, 0.5m wide and 0.24m deep.
800	Soft mid-brown sand, up to 0.24m thick.
009	Unmortared sandstone/mudstone rubble footings, 0.75m wide and up to 0.14m deep.
010	Clean soft mottled orange-brown sand - natural?

Trench 2

Context 001	Description Turf and firm black silt loam topsoil, up to 0.14m thick.
011	Footings of north aisle under former column arch - one stone slab overlying squared sandstone
	pieces, 0.40m thick overall.
012	Soft dark brown silty sand, 0.18m thick.
013	Compact gritty mid-brown sand, up to 0.32m thick.
014	Soft clean mid-brown sand, 0.56m thick.
015	Unmortared sandstone rubble footings, 0.22m thick.
016	Soft greyish-light brown mottled sand - natural.
017	Linear cut for plastic drain pipe laid in June 2003, 0.30m wide and 0.15m deep.
018	Fill of cut 017 - plastic pipe and gravel infill.

Artefacts

Context 002	Description Three sherds of white/off white modern C20th porcelain, 6gms overall. One sherd of C18-C19th jar, with oxidised red glaze, 22gm. One fragment of ?sheep bone - lower part of metacarpal. One bird (?chicken) wing bone.
004	One fragment of clay pipe stem, 7mm diameter & 26mm long, 2gm.
010	One sherd of C13 cooking pot, gritty fabric, unglazed, 2gm. One fragment of badly decomposed animal bone, unidentified.
014	One fragment of cow tibia (bottom half). One fragment of cow metatarsal. One fragment of badly decomposed animal bone, unidentified. One horse tooth, molar or pre-molar.

APPENDIX 2

APPENDIX 2: LISTED BUILDING DESCRIPTION

Location: BIELBY, EAST RIDING OF YORKSHIRE, EAST YORKSHIRE

loE number : 167018 Date listed : 26 JAN 1967

Date of last amendment: 26 JAN 1967

SE74SE GALE CARR LANE

5/1

26.1.67 Church of Saint Giles

||*

Church. Late C12; east and south walls and roof rebuilt 1792 re-using some old materials. Stone, rendered and colourwashed; slate roofs, with slate hanging to bellcote. 5-bay continuous nave and chancel with bellcote. Bellcote: square louvred openings under pyramidal roof. Nave and chancel: buttress with offsets to west. Tow round-headed chamfered windows incorporating C12 beakheads as keystones. North wall has lancet to west, 3-light pointed window with Perpendicular tracery to east. Round-headed east window under recessed headed hoodmould with keystone. Round-headed west door rebuilt c1792 incorporating C12 chevron and beakhead ornament. Interior: fluted stoup to west wall, close to north jamb of door. Cylindrical respond to west end of former C12 north aisle visible: remainder, which are painted, hidden behind plaster c1965. C19 octagonal font on column and base. Complete and unaltered set of early C19 box pews and pulpit.

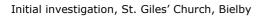


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An initial investigation of the wall paintings in St. Giles' church, Bielby, Nr Pocklington, East Yorkshire

November 2007

ST GILES' CHURCH BIELBY DIOCESE OF YORK



Hirst Conservation June 2007

Introduction

At the request of Peter Gaze Pace (Chartered Architect), Hirst Conservation made an initial investigation of the figurative wall painting revealed March 2007 on the internal West wall of St.Giles' church, with a view to making recommendations for its conservation and presentation.

An inspection was also made of the building envelope, and recommendations made for the its stabilisation to prevent water ingress

The site was visited on the 14th May 2007 by Sabina van de Bruck.

History and Description of St Giles' Church

St. Giles' is a 12th century Norman church located in the village of Bielby, near Pocklington, West Yorkshire in the Diocese of York.

According to 'The Story of St. Giles' Church and the village of Bielby' by O.J.F. Whitaker, the building originally consisted of a simple two-cell plain interior with a round apse at the East end. It retains its original Norman rectangular plan and has features which suggest that the building was substantially complete by 1180.



Figure 1: St. Giles' church, North elevation, showing evidence of alterations.

Known alterations to the building fabric include:

Features on the North elevation (see figure 1 above) make it clear that the configuration of the was different in the past and that it has since been down-scaled, for example the roof line appears to have been much higher and there is evidence of at least four large pointed arches, possibly leading to the North aisle which no longer exists. There are capitals and columns exposed to the North-West corner, however there is evidence that the other columns and capitals are also still in place, now blocked in to form the North external wall.

Year Alteration

C. 1450:

The aisle was removed (if ever completed) and the North wall blocked up. An old lancet window (c1210) was reinstated and three windows built to the East side.

Late C18th:

Major repairs and alterations were carried out and were registered in a memorandum in the Hayton Register: "Bielby Chapel was taken down, at IEast the roof, East end and South side and rebuild in 1792, the door changed from South side to the West end, cost £51 odd."

At the same time the two South windows are believed to have been built incorporating the original ravens head ornaments of 1180.

"The old South doorway was replaced at the West end probably sustaining damage to part of the 1180 chevron mouldings". The South half of the chevron moulding is of different stone material and much crisper in the

detail suggesting that this is the later replacement. Therefore, no paint layers are present to this part.

1963: Removal of exterior render, work to the interior, reredos on the altar was removed in 1963 to form a screen for the vestry.

1963/5: Renovation work in 1965 revealed two blocked doorways/archways of 14th century date (now presently exposed due to the removal of render to the exterior of the building). Restoration work in 1963/1965: the full extent of the work is unknown but the CCC archives may hold information.

During current restoration work, the exterior render material has been completely removed. The exterior is currently being re-pointed.

Preliminary Condition Survey of the Building Exterior

General Observations

Renovation works to the church are already in progress, with repairs to the exterior stone work and re-pointing taking place. The majority of the East elevation has already been re-pointed and the upper part of the South elevation is currently undergoing the same. The West elevation has not been treated so far, and the render has been removed to the North elevation but no further work has been carried out.

Removal of the render has revealed some structural problems, which include deteriorated stone blocks, particularly in the lower levels at South elevation to the West corner and within the West elevation where a large fracture that displays some movement is apparent. The East elevation is in generally good condition.

Large core-stone drill holes are visible within the foundation and were probably made to insert a damp proof treatment.

South Elevation (see photographs 4,5 and 6 in appendix 2):

The stone window surrounds to the South elevation are currently painted in a grey coloured paint beneath which are visible several other paint layers. In most areas, the paint layers are flaking and are delaminating. The top grey layer appears to be a modern masonry paint while the layers below are most likely various limewashes of blue/grey colour. The same grey masonry paint has been applied to the buttress. The buttress has been added at a later stage as a structural support against the extensive monuments to the West wall, which have caused the North and South wall to clew away.

West Elevation (see photographs 1,2 and 3 in appendix 2):

The stone surround to the arched doorway is painted in the same grey masonry paint as the window of the South-East, although the carved details of the upper elements are different, being decorated with a single chevron across the moulding and a beaked animal on the keystone. Stone repairs were executed to the moulded elements in 2003 in a sympathetic manner, but some of the repairs have since failed and further delamination of the stone has occurred, especially to the North side.

The North side of the door surround is coated with several different paint layers whilst the South side is exposed stone. The carved detail on this South side is in quite good condition and remains crisp apart from a few losses and some minor flaking. This part of the moulding is believed to have been replaced with a different stone material during the restoration phase of the 18th Century. However, the North side of the door surround is in extremely bad condition, with the zigzag profile completely lost and the stone below flaking and de-scaling to its core. The element above the door shows similar fractures and detachment, with the loss of larger elements and carved detail. Most of the damage is associated with moisture ingress and salt movement. At lower level, the stone shows some remains of render and possibly some previous repairs. The stone is in very bad condition.

North Elevation (see photograph 9 in appendix 2):

The North elevation exhibits several earlier architectural features including pointed arches, columns, capital and doorways which have been subsequently blocked up to

form the present exterior North wall. To the West end a buttress has been added as structural support to prevent any further movements.

The current structure of the North elevation contains two windows. The simple lancet window is coated with the remains of the same grey paint and also a cement mortar which has been extended in to the reveal, possibly in an attempt to repair water damaged stone. The use of this cement mortar has, however, been detrimental to the condition of the stone and is likely to have caused further damage. There are several wooden dowels and metal fixings which may once have held a protective grill over the window, which is now no longer in place.

The East window to the North elevation is larger and contains tracery. Again, it has been repaired with a (possibly cementitious) render material and then painted grey over previous layers of limewash. The upper part of the window is now coated in the grey paint but the stone appears to be in good condition. There is a major fracture in the centre of the window which runs down the stone. The stone to the lower area is badly eroded, with scaling and larger fragments detaching. Below the render are metal fixings, possibly from an earlier metal grill which may have been set in front of the window for protection

The stonework of the Western-most arched window with the beaded frieze appears to be in good condition.

East Elevation:

At the time of the investigation the repairs and re-pointing to the East elevation have almost been completed, apart from the lower reveals. Built into the current wall structure are former stone elements including some architectural details with a zig-zag frieze.

The window surround shows some beaded decoration and the stone material is in good condition. The arched detail is still covered with the grey masonry paint.

Some limited uncovering to painted areas was undertaken during the investigation to establish how to remove the paint layer from the external stone elements. The following sequence of paint layers have been established (investigation was carried out to the West window on the South elevation):

- Grey masonry paint (current top layer)
- White undercoat
- Light blue, most likely limewash
- Possibly second coat of light blue limewash
- Several layers of white/off-white
- Light grey-blue layer, quite thick and hard, well adhered to the stone

The same sequence of paint layers can be found to the buttresses which are a later addition, therefore, it is believed that the moulded elements of the window were not painted originally.

The paint layers are now delaminating in many places and the thickness of the paint disfigures the decoration. A removal or at least reduction is desirable.

Description of the Building Interior

Notes on Condition Survey

During the renovation work in 1963 and 1965 a scheme of polychrome decoration consisting of foliage and flowers became visible on one of the columns. Also visible during the restoration of 1965 were fragments of old gothic lettering, which was dated at the time to the 16th century. O. F. J. Whitaker notes that this lettering "may have been biblical texts or possibly the Lord's Prayer and the Ten Commandments, but deciphering was not possible due to the fragile nature of the plaster". The exact location of this decoration is now unknown.

The whole interior is currently painted in a very soft, modern white paint that has a slight sheen. The paint is water soluble and limited tests suggest a modern distemper being used with titanium white as pigment. Several areas have discoloured to a yellow tone, possibly due to moisture ingress and/or salt presence. In several localised areas the layers of paint are flaking. This has occurred mainly on the South wall within the South-East area as a result of salt presence and moisture ingress.

Visual inspection has revealed that up to seven different plaster systems are present with additional smaller repairs around windows and fittings. The main plaster systems have been recorded and can be seen in drawings 1 - 4, appendix 1.

Limited paint investigation (by uncovering small areas) was carried out in areas where top plaster systems were removed for further investigation purposes. In the inspected locations, the upper plaster systems did not contain any decorative paint schemes, other than a number of monochrome paint layers, most of which appear to be limewashes, white and off-white colour. Some plaster areas show, in earlier colour schemes of yellow ochre and pink.

A more detailed investigation of the various plaster systems was conducted to the West elevation, especially to the area where an earlier plaster layer (which contains the remains of figurative decoration) has been exposed. A visual inspection only was carried out and further analysis of plaster layers may be required to establish sequences of plaster systems and their composition.

The following findings were made with regard to the fabric and coatings on the internal walls of the church:

- The wall consists of irregular stone blocks, mainly limestone.
- Some of the stone blocks show thick powdery deposits on their internal faces, believed to be salt efflorescence.
- The first plaster layer apparent on the stonework is a **basecoat** of daub and straw finish, applied to even out the surface.
- Above this basecoat is **plaster 01** a fine lime-based mortar applied in one coat. This plaster layer is only several millimetres thick (in thickest areas no more than 8mm and 5mm on average). It is very light, slightly orange colour containing fine hair additives. The exposed fragment of the above described plaster contains the newly exposed **painting**, which shows what appears to be the lower part of a human body. The outline drawing is executed onto a white limewash layer in black paint. The SouthWest side shows a black painted area with no recognisable details. The exposed fragment is approx. 130cm wide and 68cm high.

The chronology of the subsequent plaster layers cannot be established with certainty as only fragments remain and they are disconnected. However, from the investigation to the South wall and the NorthWest area to the West wall, the following sequence of plaster layers is most likely (refer also diagrams in Appendix 1):

- **Plaster 02** is a two coat plaster system of lime based mortar. The base coat is a very thick layer, containing aggregates up to 5mm and large inclusions of calcium carbonate pockets in warm brown colour with the addition of hair bundles. The top coat is a thin, very light lime based layer with fine aggregates covered by several limewash layers, the earliest of which appears to be pink and yellow ochre followed by several layers of white. In several areas the top coat is missing
- **Plaster 03** is further two coat plaster system of lime-based mortar, which is very similar to plaster system 02, the only difference being that the base coat is much harder and greyer in appearance. The topcoat is missing in places. This plaster system was applied as a repair incorporating the earlier plaster.
- **Plaster 04** is executed in two layers. The plaster is very smooth and hard, whilst the base coat is grey, possibly a "bonding plaster", most likely containing cement and gypsum. The topcoat is pink in appearance, suggesting the use of gypsum and other additives. This plaster is overlying the other plaster systems including the plaster containing the wall painting.
- **Plaster 05** towards the South side of the door a further modern repair mortar has been introduced (plaster 05). This plaster is very smooth and hard and joints the plaster 03 at the top and 04 at the bottom.
- **Plaster 06** at lower level in this area is a hard grey repair mortar, which most likely contains a high content of cement. It has been introduced to the lower level as moisture barrier to rising damp.
- **Plaster 07** a white repair plaster (possibly containing gypsum) has only been identified at the North wall.
- **Plaster 08** is a lime-based repair mortar that has been applied during the current renovations (2007)

A further, limited visual inspection was carried out to the West wall above the ceiling. Access to the gable was provided through a hatch door in the ceiling. It is evident that the ceiling, which only exists to the far West end, was an addition that was possibly installed to accommodate the bells. However, two different lime-based plaster layers have been identified within the roof space, the earlier one could correspond with the plaster 01 which contains the wall painting. Further investigation to this area will be necessary as photographs suggest the presence of a circular outline, which could be part of the lower design.

Visual examination of the West wall to the North-West side reveals that the upper part is plastered in lime-based mortar (identified as plaster 03), whilst the lower section contains a modern plaster system (identified as plaster 04). Around the stone basin some repairs have been carried out in cementitious mortar (plaster 06).

The work specification for this area includes the partial removal of damaged plaster to upper areas and re-plastering in modern lime-based plaster. In order to carry out this work safely, limited uncovering tests have been conducted to identify any areas of surviving wall painting. The examination of paint layers to the existing plaster has not revealed any decorative paint schemes.

During the limited removal of the covering material (plaster 03) within the North-West side of the West wall fragments of an earlier plaster system containing possible wall paintings has been uncovered. Clearly visible are areas of limewash with fragments of black paint, which could be part of an outline drawing, belonging possibly to the wall painting of plaster system 01. The uncovering has only been conducted to establish the extent of the wall painting and no attempt has been to expose the wall painting in full. From the tests it can be assumed that the surviving fragment is over 110cm wide and 90cm high and may even extend below the modern plaster system (plaster 04) at lower level. A further investigation at lower level was disregarded as the removal of the overlying plaster system 04, which is very hard and possibly contains cement components, may have inflicted further damage to the already fragile surface of the underlying historical building fabric. The upper areas of the wall were also investigated but no remains of any earlier plaster systems have been found.

The South-West corner of the South wall has been further investigated as repair work to the stone structure will be required in this area. However, apart from the plaster 02 at higher level and plaster system 03 to lower areas no earlier plaster schemes have been found. A darker area within the corner contains what appears to be black paint. However, further examination confirms that this discolouration is more likely to be a cementitious grout material which has been injected into the wall, possibly to fill any voids within the stone structure, leaving a dark discoloration below the painted surface. This area contains some large open voids through which daylight is visible.

These later plaster systems and smaller areas of further repair are distributed throughout the building. In addition, new repairs during the current restoration phase have been already carried out to the South elevation, using a modern lime-based material (plaster 08).

Preliminary Condition Survey of the Figuratively Painted Plaster Fragments and their Support Structure

West wall, South side:

The loss and removal of the plaster layers from the South side of the West wall has exposed the irregular limestone blocks that make up the fabric of the building. In the South-West corner smaller stone fragments are present, suggesting that this area has exhibited structural problems in the past and has been repaired. Any decorative plaster systems may have been lost during these interventions.

The exterior of the building displays evidence of major movement of this area with large crack formations. Historically, structural pinning has been carried out, and buttresses introduced to prevent the South and North wall from cleaving away. The South side of the West wall still shows large open voids, which extend into the interior. These voids allow moisture ingress into the building, increasing the risk of salt movement.

Salt contamination is clearly visible on some of the stone blocks, which exhibit thick white deposits on their surface. Periodical changes of the moisture content and salt crystallisation processes in the stone have caused the daub and straw base layer to disintegrate. It has now become soft and powdery and provides insufficient support for the subsequent plaster layers. As a result, the exposed plaster fragment above, which contains the decorative elements, is very fragile and moves if gently touched. The damage has been accelerated by the inadequate depth of the plaster layer, which is on average only 5mm thick. Additionally, its structural integrity is at risk from several fractures and minor losses within the plaster and the edges of the fragment are brittle.

The black outline drawing of the exposed painting was executed on a white limewash layer. The surviving part shows the lower part of a human body with two legs in a walking position, with the right leg being straight and the left leg bent and possibly off the ground. On the South-West side there is an area painted black with a coarse texture due to deep brush marks. There are no recognisable details in this area. The painted decoration is obscured by the remains of overlying mortar fragments, limewashes and a grey slurry possibly from the upper plaster layer. Localised areas of limewash show flaking and the black paint is powdery in some locations. The lower part of the fragment is still covered by subsequent plaster systems of which the latest is a hard plaster, possibly with cement and gypsum components.

The detached plaster fragments from this area are lying on the ground where they fell. There are fragments from all the different plaster systems. It is possible that some of the fragments belong to the earlier plaster scheme containing remains of the figurative decoration, which could provide vital information regarding the composition of the design. However, the fragments have been further damaged as the area in which they fell has been used to store materials and equipment. To prevent any further fragmentation of the plaster elements the stone masons were asked to protect the area with planks and is no longer used to store equipment.

West wall, North side:

The investigation to the North side of the West wall revealed remains of an earlier plaster scheme, believed to be the same as the exposed plaster fragment containing the figurative decoration.

The condition of the remains cannot be evaluated in full as the fragments are not entirely exposed; the overlying plaster has been thinned in areas and only edges of the

fragment are visible. The areas that have been exposed have brittle edges with loose fragments. Some losses are visible within the plaster, which is now filled with the mortar from the upper plaster layer. These may have been deliberately inflicted to key the surface in preparation for re-plastering.

The surface shows several limewash layers with remains of black paint. The limewash is flaking in localised areas and the black paint is powdering. It is possible that any uncovering of an area in which the limewash/paint layer is unstable may cause damage to the decorative surface. The surviving fragment to this area is within the lower wall. By comparison with the exposed elements to the South side, it can been assumed that if a similar composition of a figurative decoration has been executed in this area only the lower parts of legs survive, while the upper bodies and heads are most likely missing.

The date of the plasterwork containing the remains of a figurative painting is unknown, however the West end of the church has been extended in the 13^{th} century while the North aisle has been added and later altered (moved forward) during the renovation phase of the 15^{th} century. Therefore it is believed that the wall painting dates from the second half of the 15^{th} century.

Recommendations

Exterior

The general repair work to the stonework has been currently carried out by Ebor Stone Co Ltd. However, some further repairs will be necessary to the historically important 12th Century stone elements and the stone surround to the window. The chevron moulding to the West door is in particularly bad condition and immediate action is required to prevent any further loss of material.

The following treatments are recommended:

- Consolidation of delaminating stone material.
- Some areas of badly delaminating stone may be made more structurally stable by injecting small amounts of epoxy or polyester resin into the voids.
- As the stone colour, texture and relative strength vary in different places the mortars have to be individually matched using different sands and stone-dusts.
- To establish the most suitable mortar mixes a range of samples will be prepared. For lime-mortar repairs use one part lime-putty to two or three parts selected well-graded dry sands and stone-dusts with the addition of 10% pozzolana (yellow brick dust or pulverised fly ash).

Instead of lime-putty and without the addition of pozzolan, feeble to moderate hydraulic lime could be used. This will be determined after site tests and samples.

The results of the stone analysis will give indications about the size and character of the aggregates.

• The repairs should prevent water ingress without making any attempt at reconstruction.

Some stones of the windows surrounds may require pinning with stainless steel pins.

Removal of the Exterior Paint:

The removal of the later paint layers can only be achieved mechanically using scalpels and/or a micro-abrasive unit (with a suitably fine granulate) operated a skilled conservator.

Structural Consolidation:

- Voids and cavities can be filled using a fine grade, lime-based mortar.
- The application of a protective lime shelter coat, composed of materials that are compatible with the stone types, to areas with granular disintegration will improve visual interpretation of the details and slow down the rate of deterioration. It should be applied only after the current limewash layers have been removed or thinned down.

The protective shelter coat can be made using one part non-hydraulic lime putty to three parts finely sieved sands and stone dusts with the addition of pozzolan or alternatively with one part feeble to moderate hydraulic lime with three parts

aggregate mixed with water to achieve a creamy consistency. The shelter coat should match the colour, texture and structure the appearance of the stone material.

A sacrificial shelter coat composed of lime and suitable aggregates should be applied to all surfaces of the stringcourse to prevent further erosion of the stone. The shelter coat should be applied by brush and rubbed into the stone surface with hessian. In order to prevent uncontrolled drying, the area may need to be covered after application depending on the weather conditions.

Consolidation of Flaking and Scaling Areas of Stone:

- The same mortars used for the fracture repairs can be used to secure scaling areas.
- The filleting should be carried out with a 45° bevel to allow the water to run off. If necessary, a small opening should be left within the mortar repair to allow the injection of grout-materials. For lime-based grout mixes use lime putty or feeble to moderate hydraulic lime and fine-grained stone-dust as well as silica sand as aggregates.
- Before grouting the voids should be flushed out and pre-wetted with a 1:1 mixture of deionised water and ethyl-alcohol. After the grouting has been completed, the holes need to be filled with suitable mortars.

Recommendations

- Consolidation to the chevron moulding to the West door
- Removal of paint from stonework
 - Protection to window and doors
 - West Door
 - South Elevation
 - East Elevation
 - North Elevation
- After removal of paint stone consolidation may be required.
- Price for further stone conservation can be provided once the paint has been removed.

Interior

General

The following treatment proposals are based on the initial site inspection and require further appraisal following a more detailed condition survey. Long term conservation of the paintings is only practical when the fabric of the building has been found to be stable in terms of moisture movement and the internal environment. The work being carried out to the building at present should make it watertight and prevent any excessive moisture ingress.

Different options can be considered for the conservation and restoration of the wall painting, dependent on the choice of its final presentation. Whichever decision is made the main requirement is to preserve all fragments of original material.

Consideration must also be given to the treatment of all fabric contaminated with salt. Recommendations for this are subject to further investigations in the form of salt analysis and profiling which will help in the formulation of treatment proposals. These

proposals may include such measures as the control of moisture movement in the fabric of the building and interventive desalination where required.

The recommended works fall into three phases. Phase 1 will be investigative, to inform the recommendations for conservation treatment. Assessment of the painted surface suggests that no emergency consolidation will be required to the exposed fragment as part of phase 1. However, it is essential that both painted surface and support are monitored throughout works to the building and, as the environment within the building dries out, to establish if failure is accelerating. If this occurs, immediate action should be taken to instigate emergency conservation measures.

Phase 1

- A detailed, illustrated condition survey of the exposed fragments of wall painting to the West wall shall be conducted to serve as a record of the present state of the painting and to allow the appropriate treatment recommendations to be made.
- Moisture and salt analysis to the West wall to establish if salt and moisture levels present any risk to the exposed wall painting.
- Limited plaster analysis to evaluate the composition, which would help with the dating of the plaster system and to establish suitable repair mortars.
- Paint analysis to the fragment containing the decorative paint scheme to establish the sequence of paint layers and their pigment and media type.
- Investigation of the wall above the ceiling with limited paint research to establish if the circular outline shown in the photograph 15 is part of the exposed wall painting, and if any further conservation treatments are required within this area.
- Investigation of the detached fragments (if required) to establish if any fragments containing decorative plaster scheme have survived in the rubble.

Phase 2:

The exposed fragments of figurative painting on the South side of the West wall require essential consolidation independent of whether further treatment is carried out or not .

The area to the North side of the West wall should be only recorded and consolidated where exposed.

The work to the South side of the West wall should include:

- Dry clean all plaster edges (including fragments to South and North wall).
- Capping repairs/filleting to all plaster fragments and all plaster edges in appropriate lime-based mortar. Repairs should be undertaken to all layers of original plaster. Material analysis will establish the exact composition of the mortar.
- Carefully remove all deleterious fixings within the wall painting using small mechanical and hand held tools.
- Fracture repairs.
- Where delamination has occurred, grout with appropriate materials to achieve good adhesion between layers and the substrate.
- Surface cleaning using dry cleaning methods.
- Consolidate fragile paint layers of the original paint surface. Tests will establish the most appropriate methods and materials.

Phase 3:

If the decision is made to leave the wall painting exposed, the following additional work may be evaluated:

- Carefully remove remains of loose subsequent plaster and limewash layers obscuring the original wall painting and decorative paint scheme.
- Repairs to all surface layers within this area in appropriate lime-based repair mortars.
- Additional cleaning if required following analysis and testing.
- Toning to all repairs and to paint losses within the wall painting to improve the general appearance.

The surrounding areas should be treated as follows:

- Salt and moisture analysis will establish causes of deterioration and will determine the course of action required to improve the current situation. The results of which shall be collated in a report with recommendations.
- All loose salt efflorescence should be gently removed from the surface using a brush in conjunction with a vacuum cleaner to prevent relocation to other areas.
- If salt concentrations indicate a risk for future repairs, interventive desalination may be required. Further recommendations will be given once the results of the salt and moisture analysis are available, however this may be impractical given the thickness of the structure.
- Re-plaster all exposed stone areas to West wall up to the original plaster using appropriate lime-based plasters (material analysis will establish the exact composition of the mortar – check with letter could delete if unecessary). The same plaster mixes may be used to re-plaster all other walls.
 The exposed plaster fragments to the South and North wall should be integrated into the new plaster system
- 2 coat plaster system will be required.
- Allow sufficient drying times between the application of subsequent plaster layers.
- Provide a key to the under coats to facilitate the adhesion of subsequent layers.
- Apply limewash to new plaster at lower level that matches the background colour of the wall painting.
- In the event that any fragments of wall painting are found amongst the rubble they will need to be evaluated for assembly, relocation and reattachment to the wall.

Phase 3 of the work to the interior should be scheduled at the same time as the work to the exterior as some work may require waiting time (plaster repair/limewashing)

Appendix 1:

The following diagrams illustrate the locations and types of plaster on the internal wall of St. Giles' church:

KEY:

x x x	Large open voids
\searrow	Stones with thick white deposits
000	Daub and straw plaster
	Investigated area
	Lime plaster system, 01, with figurative decoration
	Lime plaster system, 02
	Lime plaster system, 03
	Repair plaster modern, 04
	Plaster modern, 05
	Cement plaster, 06
	Repair plaster gypsum/modern, 07
	Repair plaster – lime based restoration phase 2007, 08
\mathcal{G}	Other plaster repairs
2	Not established or not with certainty

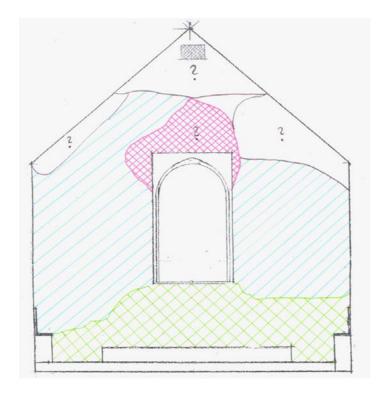


Diagram 1: East elevation

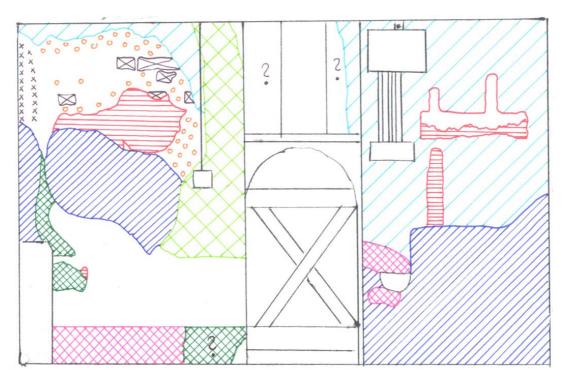


Diagram 2: West elevation

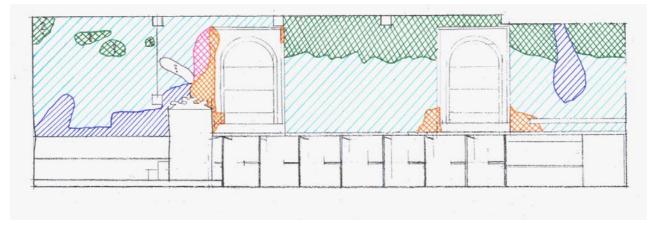


Diagram 3: South elevation

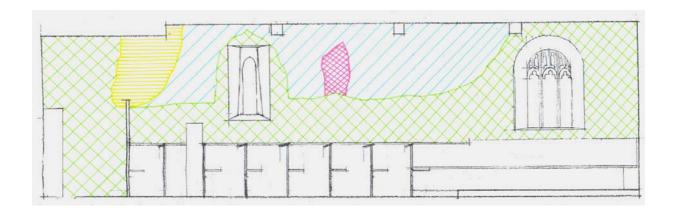


Diagram 4: North elevation

Appendix 2: Photographs



Photograph 1 – West elevation: Doorway with chevron decoration and paint remains



Photograph 2 – West elevation: Detail of deteriorating stone to the carving



Photograph 3 – West elevation: Detail of deterioration to the carvings of the West doorway



Photograph 4 – South elevation: Keystone



Photograph 5 – South elevation: Uncovering trial to keystone revealing further layers of paint



Photograph 6 – South elevation: Uncovering trial to window stone surround



Photograph 7 – South elevation: Detail of stone damage to the window sill



Photograph 8 – South elevation: Detail, damage to the stone work at low level



Photograph 9 – North elevation: Blocked up arches with columns from the previous North aisle



Photograph 10 – West wall: Area with exposed fragment containing painted decoration



Photograph 11 – West wall: Detail of the wall painting



Photograph 12 – West wall: Detail of the wall painting with over layers and dirt



Photograph 13 – West wall: Lower area showing fragments of detached plaster fallen to floor



Photograph 14 – West wall: Wall panting fragment; plaster detaching from the substrate



Photograph 15 – West wall: Plaster fragments above the current ceiling showing what appears to be a circular outlining