

Archaeological investigations at the Church of St Lawrence, Warkworth

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SUMMARY

Four phases of archaeological and structural investigations carried out between June 2008 and July 2009 at St Lawrence's Church, Warkworth, have enhanced its status as one of the most important medieval parish churches in Northumberland. The greater part of the archaeological work was associated with a scheme to strengthen the leaning north wall of the nave, but additional monitoring work was carried out during drainage works within and outside the tower, and in the roof of the south aisle. The most notable result of this work was the discovery of the substantial footings of what is considered likely to be part of the porticus of a pre-Conquest church surviving outside the present twelfth-century north wall of the nave. It is concluded that whilst the overall structural history of the standing building is relatively easy to read, surviving underground remains within and outside it potentially hold the key to unravelling continuing areas of uncertainty regarding the origins and early history of the building.

INTRODUCTION

THE PARISH CHURCH OF ST LAWRENCE, containing some of the best Romanesque work in rural Northumberland, consists of a nave with a west tower, a five-bay south aisle with a south porch, and a chancel with a vestry on the north (figs. 1 and 2). It is situated on the south bank of the Coquet at the lower, north end of Warkworth village (fig. 3), on a site known to have been occupied by a church since before AD 737 when King Ceolwulf of Northumbria gave the church and village to the Abbot and monks of Lindisfarne. The church site marks the north end of the village which is bounded at its south end by Warkworth Castle, a seat of the Percy family, Earls and Dukes of Northumberland since the later fourteenth century. The importance of the present church rests to a large extent on the importance of the surviving early twelfth-century work, which includes the chancel and the entire north wall of the nave.

This paper is a summary report on a programme of archaeological work carried out at St Lawrence's between 2008 and 2010,¹ the main focus of which was associated with structural works to stabilise the leaning north wall of the church (figs. 1, 2 and 5). Archaeological investigations associated with the stabilisation scheme were initiated in June 2008 and concluded in March 2009, but subsequently, in 2009–10, additional monitoring was carried out during sub-surface and structural works required for implementation of the wall strengthening scheme, as well as during refurbishment and drainage work in the ground floor of the tower, and during repairs to the roof of the south aisle.

The evaluation and recording strategy undertaken between 2008–10 was motivated by the consideration that the site is located within an area considered to be of high archaeological potential, being adjacent to an unusually complete Norman church wall, part of a Grade I listed church within a Conservation Area. Although not carried out primarily as a research



Fig. 1 St Lawrence's: the north wall of the nave, following strengthening work, including the construction of two new buttresses to the left of the blocked north door.

project, this was a rare opportunity to provide insight into hidden structural features and the sub-surface archaeological remains of an important parish church, where a number of unanswered questions remained from earlier investigations.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The only controlled archaeological work carried out in the church or churchyard prior to that reported here was a watching brief carried out by the Archaeological Practice in 2001 during the installation of a new heating system² which required sub-floor pipework and the insertion of a new gas supply across the churchyard. The works inside the church were largely confined within the footprint of an existing sub-floor heating system, but three small areas outside of this were excavated archaeologically and a number of stone features noted. Three of these were probably sepulchral, and one structural, possibly a buttress. The latter was revealed in an external trench at the north-east corner of the vestry; evidence of a post-medieval vault was found adjacent to the same north wall of the vestry.

Some observations were made during the restoration of the church carried out in 1860, when the footings of the east end of an earlier church, considered to be pre-Norman, were



Fig. 2 Part of the north wall, centred on the blocked north door, showing the new and the original buttresses.

recorded, set at a slightly skew angle to the present building (fig. 4).³ Much later, a 1968/9 survey of the nave by G. E. Charlewood and Curry, Architects, carried out in 1968/9 in relation to structural repairs to the north wall, recorded a 'foundation wall' or off-set around a metre wide seen at two points on the internal face of the wall. It is not clear, however, how this feature relates to the foundations recorded in 1860, and it is unfortunate that specific archaeological recording was not carried out at this time. Another opportunity seems to have been missed in the 1970s or 1980s when the south aisle was re-floored in Caithness stone.

Also worthy of mention in the context of previous archaeological enquiry is a dowsed survey of the church (Bailey *et al.* 1988) which suggests the footings recorded in 1860 are the thick-walled chancel of an aisle-less church with the north wall of its nave partly underlying that of the present building. (This tallies with the off-set footing recorded in 1968/9.) The survey also recorded a structure on the north of the vestry which might tally with the evidence for a vault there seen in 2001,⁴ and a porch outside the north door. However, the two apsidal east ends shown, one beneath the centre of the chancel and one beyond its east end, appear more doubtful (fig. 32).

More recently, in relation to the current development proposals, geotechnical data was obtained for the churchyard area by Patrick Parsons Limited, Consulting Engineers,⁵ using

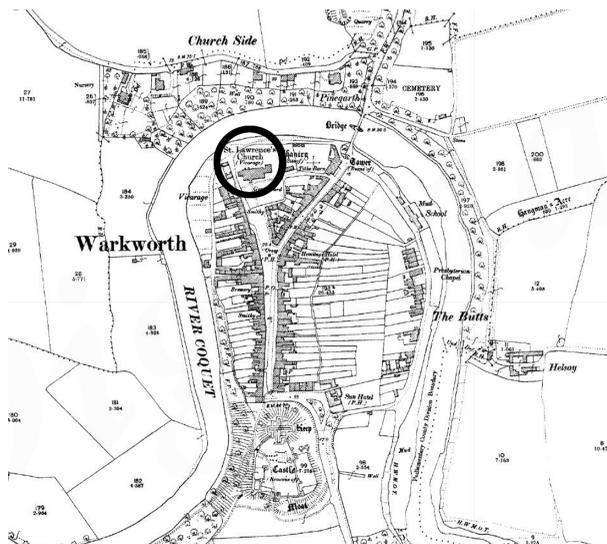


Fig. 3 1920s Ordnance Survey plan of Warkworth, showing the position of the church (ringed) at the north end of the village.

bore holes placed outside the North Wall. The results of the geotechnical study appear to indicate that topsoil extends to a depth of 0.91 metres, but in one case (Borehole 1) extends to 3.66 metres. The latter may indicate the cut of a structural feature, such as a grave, or could indicate the position of a natural gully.

SUMMARY STRUCTURAL HISTORY OF THE CHURCH

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The Saxon building

There is documentary evidence of a significant early church at Warkworth; Ceolwulf gave a church here, which he had built himself, to the Lindisfarne community in AD 737. The two headstone crosses and grave marker now in the chancel are of later Saxon date, perhaps of the eleventh century (Cramp 1984 230–1). The earlier footings recorded during the 1860 restoration and in the 1968/9 trial pits have already been noted, but their precise date remains uncertain; more likely to be of Saxon origin are the building remains found during recent works (see below).

The twelfth century. A high-status church

The present church was built as a high-status and elaborate building from the start, as shown by its dimensions and by its rib-vaulted chancel. The County History account (Hodgson 1899, 170–82) suggests that the construction of this building commenced around 1120, and this may correlate with the gift of the church of Warkworth by Henry I to Richard de Aurea Valle c. 1110–1120, but more recently it has been pointed out (Pevsner *et al.* 1992, 612) that the ribbed vault of the chancel, with its zigzag decoration, is unlikely to be earlier than similar work of c. 1130 at Durham Cathedral, which would put the building of the church into the period after its grant to the Augustinian priory of Carlisle in 1132 (Hodgson 1899, 170).

CHURCH OF ST LAWRENCE
WARKWORTH

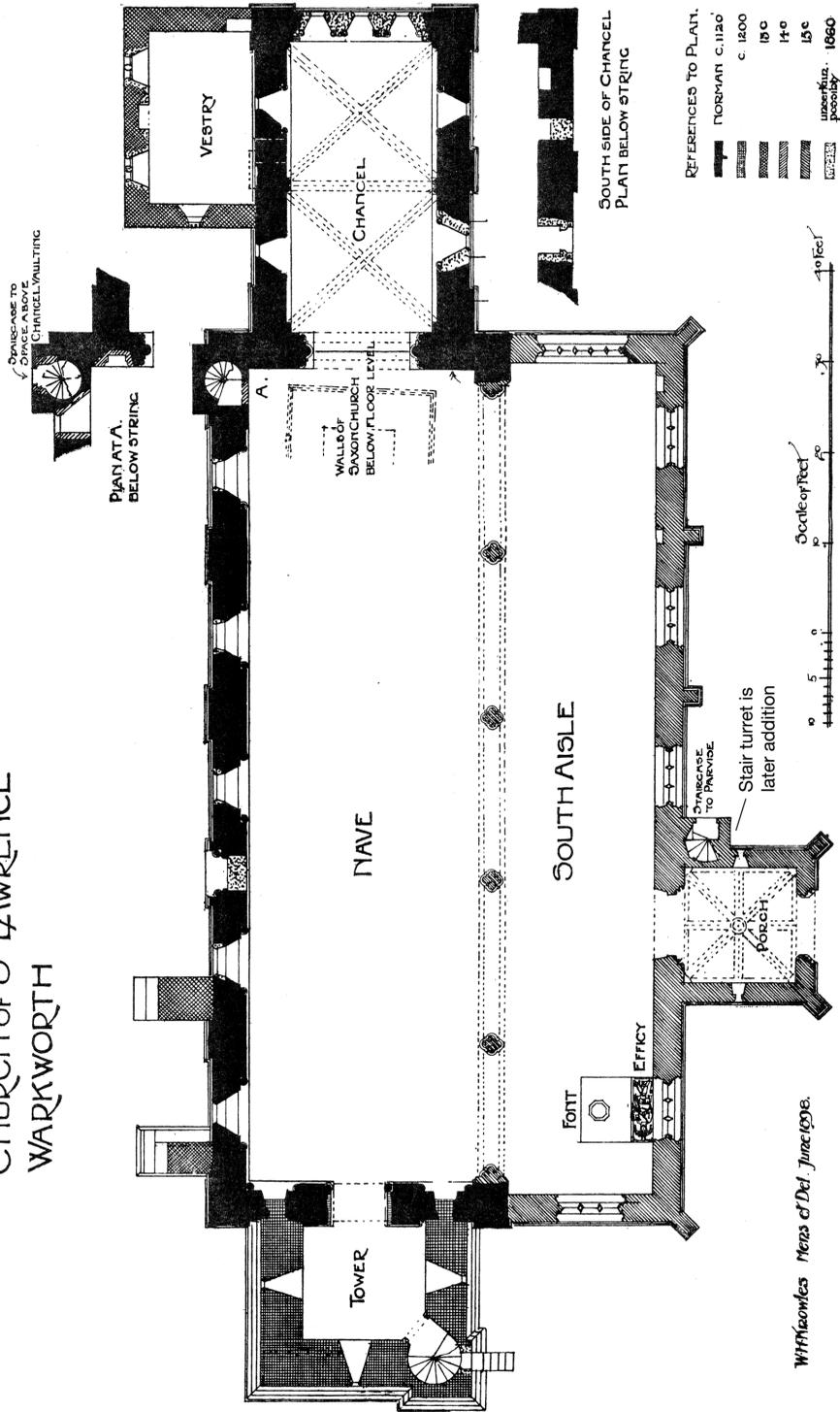


Fig. 4 Knowles' plan of St Lawrence's Church showing the foundations seen in 1860 (Knowles 1899, facing p. 172).

The high-level chamber above the chancel is of considerable interest, with its quite elaborate, albeit constricted, access via the stair in the north-east corner of the nave. Brooke (2000, 149–50) considers it a defensive feature, but some sort of ritual function, either as a treasury, or for the housing for relics, seems more likely.

It seems certain that the Romanesque church of nave and chancel was completed by the time of the sack of Warkworth by the Scots in 1173, when either a hundred or three hundred villagers were killed inside it; some accounts suggest that the church was burned, but there is no evidence for this in the fabric.

The thirteenth century

The west tower has been dated to c. 1200, probably replacing an earlier bellcote, which would appear to have been retained as its eastern wall (fig. 4). There is some puzzling evidence of rebuilding in its north wall, and also a hint that the newel stair that now gives access to the fourteenth-century belfry originally continued to a higher level than at present. It would seem reasonable to suppose that the tower of c. 1200 was provided with a proper belfry, although this might conceivably have been of timber.

The lancet windows in the vestry would seem to point to its being an addition of the thirteenth century. Its original internal arrangements are uncertain; the positioning of the windows suggests that there may have been an upper floor, possibly the residence of a priest or anchorite.

The fourteenth century

The present belfry stage of the tower and its spire have been thought to be of fourteenth-century date; recent dendrochronological dating of the bell frames gives a felling date of 1385/6 for their timbers, but the ceiling beams of the winding chamber give rather later dates, with felling date ranges of 1386–1411 and 1405–30 (Arnold, Howard and Litton 2011, 102–3). Structural problems in the tower would appear to have commenced prior to this date, as can be seen from the manner in which the belfry and spire are vertical, whilst the tower below leans markedly away from the west wall of the nave (fig. 1). It could have been these problems that prompted the removal of the original belfry. The two large buttresses, built to counter the outward thrust of the north wall of the nave, may be roughly contemporary with the tower. Another fourteenth-century feature is the cusped recess on the north side of the chancel arch, which probably relates to the usual medieval proliferation of chantry chapels and their altars within the body of the building.

The fifteenth century

The final medieval addition came with the addition of the south aisle (fig. 4). There has been some past controversy over its date; some have seen it as a mid-fifteenth-century addition; others (e.g. Bailey *et al.* 1988, 128; Salter 2002, 75) see the arcade as of the fourteenth century and the aisle itself, or at least its windows, as a century later. Hodgson sees the aisle as evidence of the ‘munificence of the third Earl of Northumberland’ and a little later in date than the castle donjon (now seen as c. 1400). Alnwick, another parish church sheltering beneath the umbrella of a great castle belonging to the Percy family, was almost totally rebuilt

in the Perpendicular style, whereas at Warkworth the family had contented themselves with adding a broad aisle. The low-pitched roof of the nave, bearing 'certain armorial devices' of the Percies, was probably also contemporary (Wilson 1870, 85). Recent dendrochronological analysis of timbers in the aisle roof (Arnold *et al.* 2011) has given a felling date of 1428–31, but it remains difficult to ascertain exactly which elements of the ceiling/roof frame date to the initial construction of the aisle and which to subsequent periods (Ryder forthcoming).

The south porch seems to be of one build with the aisle (fig. 4), although it poses some puzzles; the upper chamber or parvise appears part of the original design, yet its stair turret is clearly a later addition; its roof timbers have now been dated to 1443 (Arnold *et al.* 2011). There is no sign of any link between the parvise and body of the church, so access must always have been external, presumably through a doorway in the present position, reached by an external stair or ladder. It is not clear whether the former clerestory (which consisted of five square-headed two-light windows) was coeval with the aisle or of rather later medieval date.

Post-medieval changes

In the post-medieval centuries, the church escaped any major structural changes, although there were the usual alterations to fittings and furnishings, with the insertion of box pews and panelling; the walls were whitewashed, and there was a gallery (Wilson 1870, 85). The large windows in the south and east walls of the chancel, perhaps inserted in the fourteenth or fifteenth century, appear to have been remodelled as well, along with the priest's door below the south windows.

The restoration of 1860 and subsequent changes

The Victorian era brought a wave of church restorations all across the country, and Warkworth did not escape; a major programme of works took place in 1860, the Newcastle architect John Dobson (not known for his sensitivity to medieval fabric) being responsible for the nave, and Ewan Christian for the chancel. Both architects acted, as was common at the period, with the aim of returning parts of the church to what was perceived as their 'original' form. Dobson destroyed the late medieval clerestory and nave roof, substituting the present high-pitched roof, which Hodgson termed 'mean and paltry', following the old roof-line visible on the tower; he also renewed the tracery in the aisle windows and significantly widened the single light-windows in the Norman north wall of the nave (see figs. 1 and 2). Christian acted similarly in the chancel, reinstating what he presumed was the original twelfth-century form of the south wall and east end, and also re-medievalising the vestry by substituting paired lancets for its sashes. He followed Dobson in re-instating a high-pitched roof, sadly destroying the original high-level round-arched doorway from the mural passage and stair, and rebuilt the east gable with its spurious circular window.

A ground plan of the church and its furnishings as it appeared shortly after the restoration is given by Wilson (1870b), but less than forty years after these structural changes, Hodgson (1899, 178) found it 'impossible to speak without regret at what was done'. Subsequent alterations have been much more minor. In 1877 the present tiled floor in the chancel covered an old slabbed floor 'paved with grave stones, some of them enriched with coats armorial' (Knowles 1899, 182).

EXCAVATIONS CARRIED OUT IN 2008–10

In support of the first part of a programme of works aimed at stabilising and providing structural support to the leaning north wall of the church, trenching was first carried out in June 2008 (T1 in fig. 6) in a location where it was proposed to construct a pile cap to receive the heavy reinforced base of one of a series of massive L-shaped columns to be built into the thickness of the wall behind the flat pilasters between the windows. This scheme was subsequently abandoned in favour of buttressing the North Wall, including building two new buttresses (T2 and T3 in fig. 6) and strengthening existing ones (T4 and T5 in fig. 6) towards the west end of the external north wall; a further scheme of investigation was carried out in October 2008 in connection with that scheme. Subsequently, two of the trenches excavated in support of the revised scheme were re-opened in March 2009, and an additional small pit (T6 in fig. 6) excavated on the eastern edge of the churchyard to receive the disarticulated skeletal material recovered during the works programme. A watching brief was also maintained during the implementation of the north wall strengthening scheme both inside and outside the church. Finally, in early 2010, work to lower the floor of the west end of the church and insert service pipes both inside and outside the building (P1–P5 and C1–C4 in fig. 6) was monitored for finds of archaeological significance and in order to recover disarticulated skeletal material.

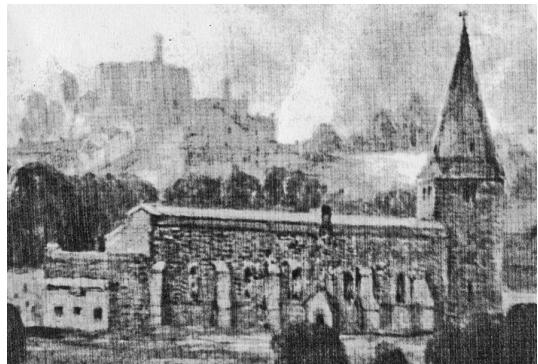
Trench 1 (figs. 7 and 8)

In June 2008 a single trench, 3 m by 2.26 m (max) and up to 1.40 m deep, was opened in the churchyard on the north side of the church between two central medieval buttresses, some 1.60 m from the plinth of the north wall (see T1 in fig. 6).

Excavation into the dark, humus-rich topsoil revealed disarticulated human remains, suggesting the disturbance of several burials in this area by a modern services trench. The depth of the services cut reached 1.36 m below ground level and stretched 1.65 m south along the trench. Several sherds of green-glazed medieval pottery of thirteenth- to fifteenth-century date were discovered in the disturbed upper deposits.

Immediately below and to the south of the modern services cut, a total of six complete articulated skeletons were exposed at depths between 0.76 and 1.40 m, and two additional skeletons were found to be only partly-articulated (fig. 7). The fully- and partially-articulated

Fig. 5 Print of St Lawrence's Church dated 1837, in the possession of Warkworth PCC and currently hanging in the church, putatively showing five original buttresses against the north wall of the nave.



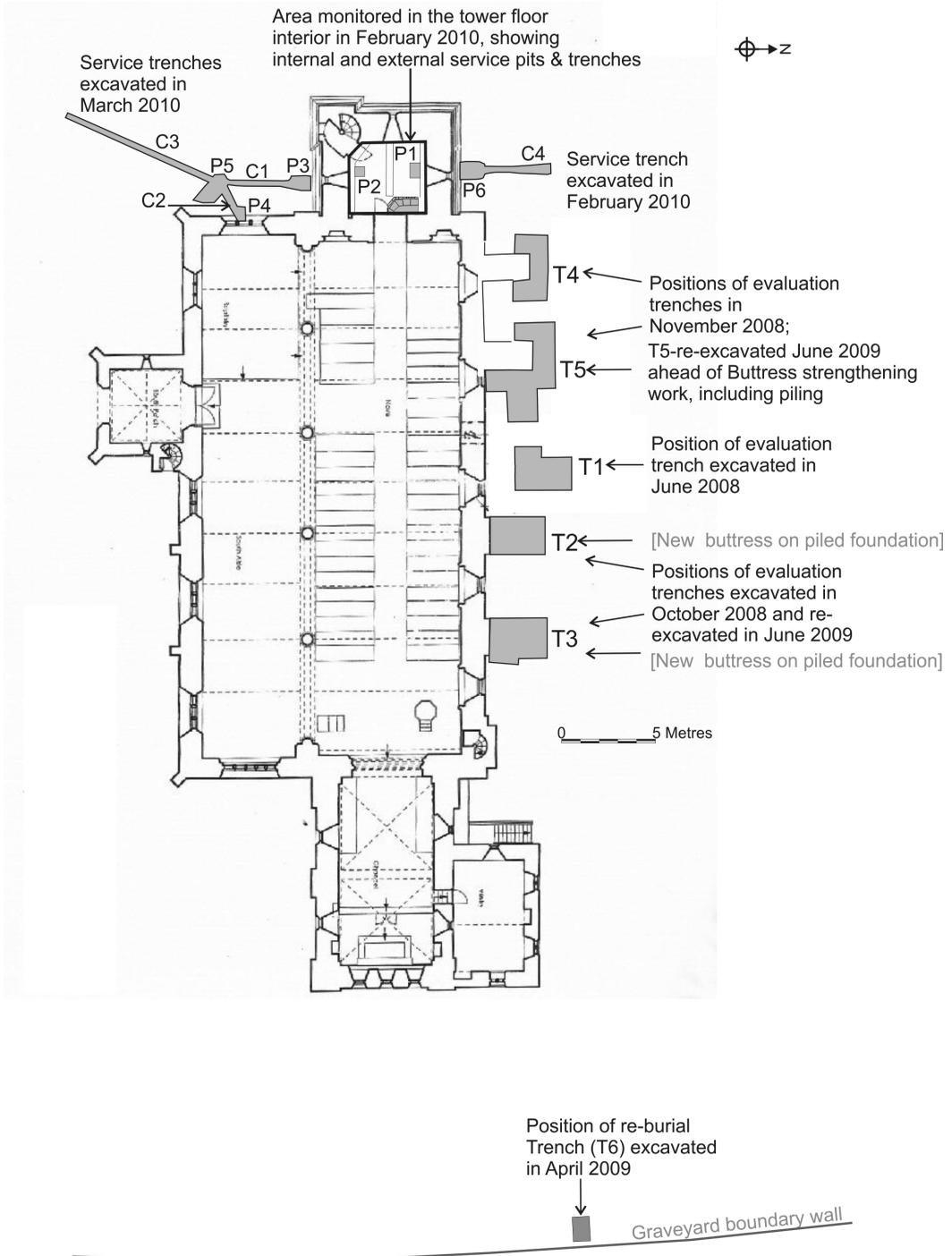


Fig. 6 Plan of archaeological works carried out between 2008 and 2010.

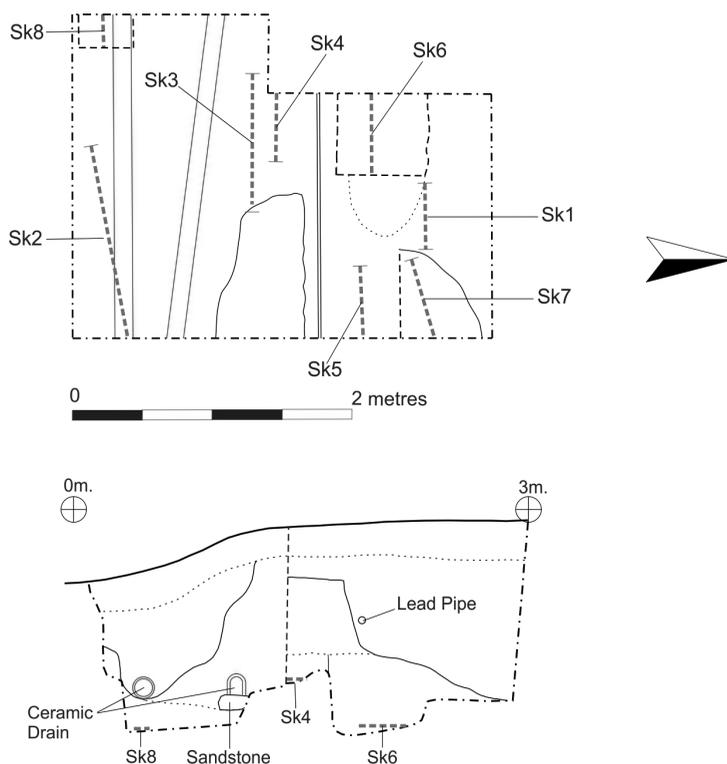


Fig. 7 (upper drawing)
Plan of Trench 1.

Fig. 8 (lower drawing)
East-facing section of
Trench 1.

skeletons were revealed for recording purposes, but left *in situ* prior to back-filling. No primary dating evidence could be established for any of the skeletal remains, although the depth and order of the burials, their good preservation and locally well-attested reordering of the churchyard in the early to mid nineteenth century argues for a post-medieval date. Despite attempts to cut through to underlying deposits, the abundance and compacted nature of the human skeletal remains made it impossible to establish the depth of the natural subsoil which borehole evidence suggested should occur at a depth of 0.91 m throughout most of the upper part of the burial ground. It was considered a distinct possibility that skeletal remains from earlier periods could exist *in situ* at greater depths, although further excavation and the removal of intact skeletal remains would have been necessary to establish this.

A possible bedding deposit of crushed sandstone was observed running across the trench between 0.90–1.75 m from its south end, at a maximum depth of 0.70 m. This feature is perhaps best interpreted as a levelling and fixing course for a paved area — possibly a walkway outside the church, or serving as the floor a porch recorded in early pictorial representations outside the blocked north door. The bedding layer was cut by an eighteenth century ‘horse-shoe’ land drain and a nineteenth century cylindrical land drain at the north end of the trench, but could still clearly be seen in the north-facing section of the trench close to the standing north wall of the church.

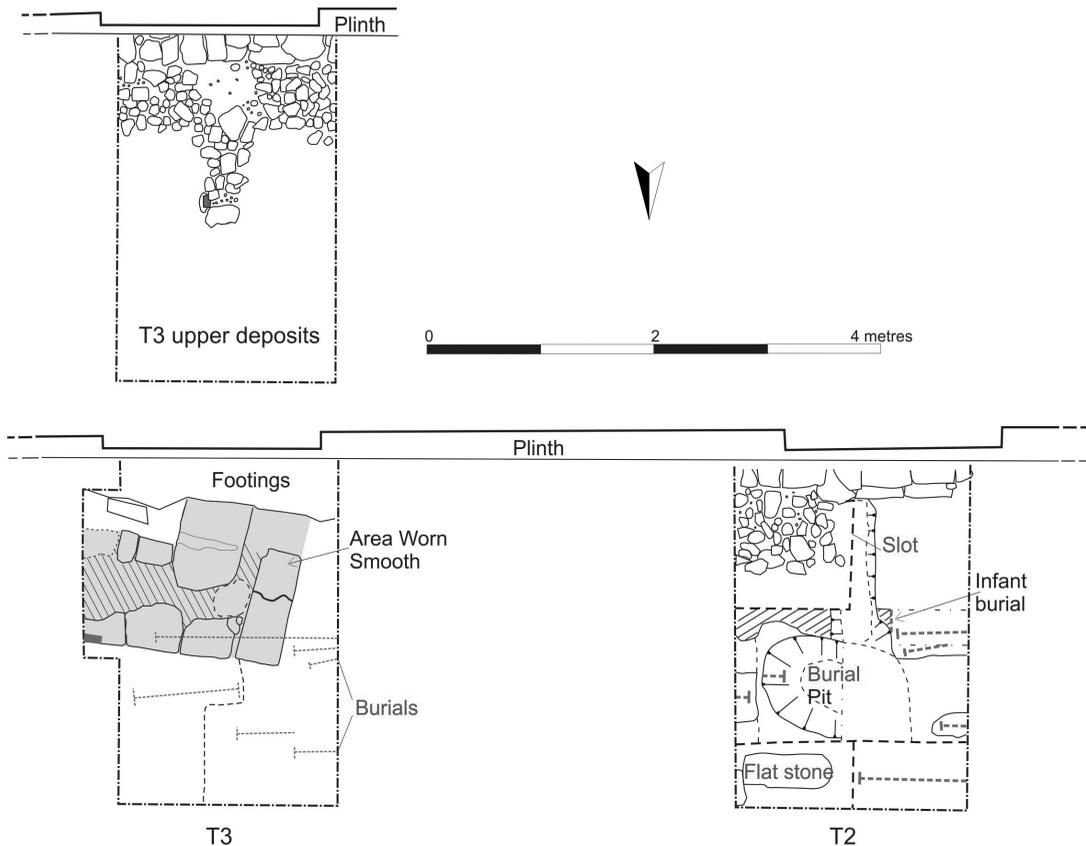


Fig. 9 Plan of Trenches 2 and 3, showing the extent of wall foundations excavated in Trench 3.

Trenches 2 and 3 (figs. 9–13)

In October 2008, two further trenches (Trenches 2 and 3 — see figs. 6 and 9) were opened in the churchyard against the north wall east of two medieval buttresses and immediately east of the blocked north door, which occupies a position slightly west of centre in the north wall of the nave. The positions of the trenches were determined by the apparent presence of buttresses in these positions — corresponding to the position of two pilasters — on a newly rediscovered print of the north side of the church dating from 1837 (fig. 5). (Trenches 2 and 3 were subsequently re-excavated between March and April 2009 to remove skeletons threatened by the development, but no new archaeological finds of significance were made at that time.)

In Trench 2 a shallow deposit of rubble was found below the turf layer running next to the church wall footings (fig. 9). Cut through this in the middle of the pilaster was a deep north-south slot, the upper part of which also contained some rubble of probable nineteenth-century origin, including at least one brick fragment.

Running from the east edge of the trench roughly parallel with, and about one metre from the wall footings, but interrupted by the central slot and by a large, oval pit in the middle of

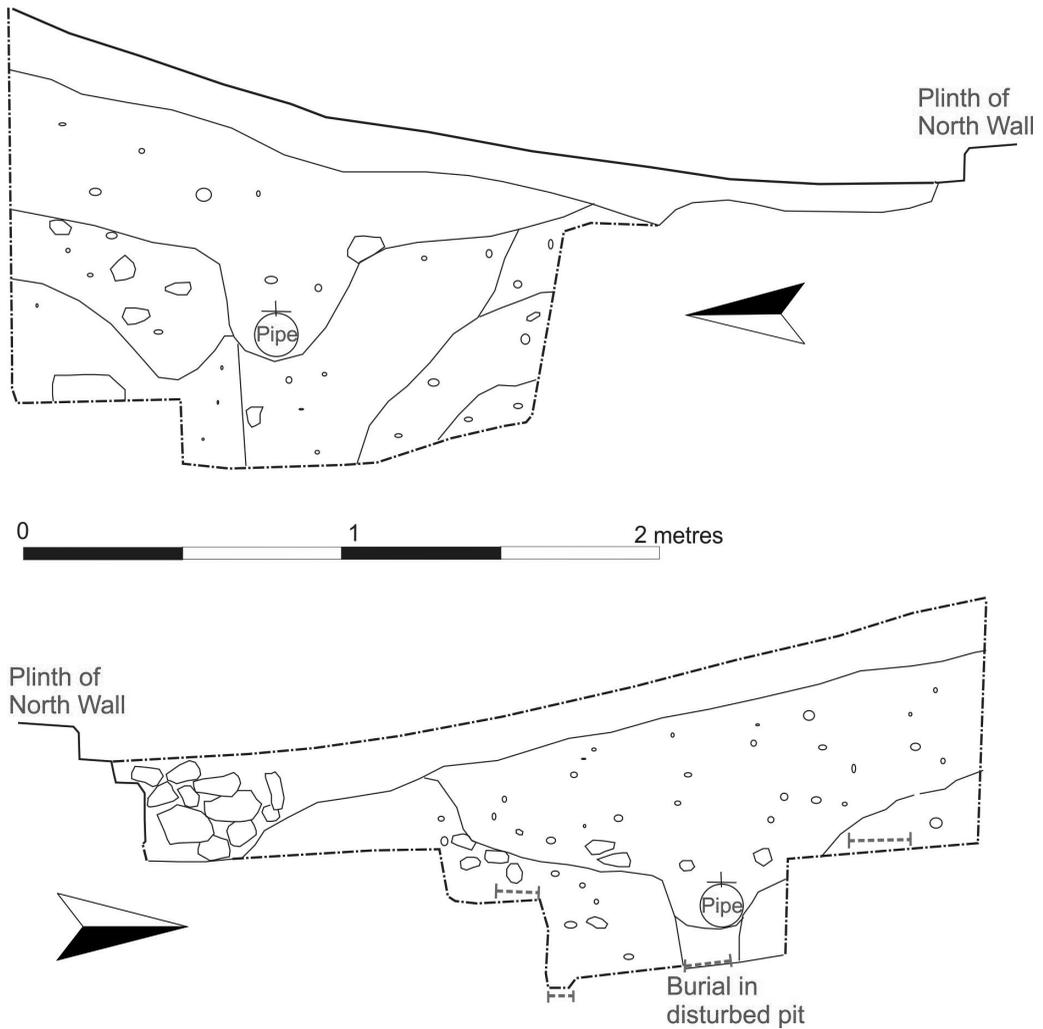


Fig. 10 (upper drawing) West-facing section of Trench 2, showing in-fill deposits.

Fig. 11 (lower drawing) East-facing section of Trench 2, showing in-fill deposits above burials.

the trench, was a shallow, compacted deposit of degraded sandstone (figs. 9–11). In the centre of the trench the deep, oval-shaped pit contained a disturbed burial at a depth of some 1.5 m below the exposed plinth, one of seven skeletons revealed in the trench. At the north end of the trench, parallel with the church wall and at a depth of some one metre below the current ground level at its lowest point, was a long, rectangular stone some 0.75 m long which abutted another in the west-facing section (fig. 10). The possible significance of this is discussed below.

Excavation of Trench 3 revealed the same T-shaped arrangement of rubble (fig. 9) along the side of the north wall with a central slot, shallower than in Trench 2, cutting it from north to south. The slot was filled with the same kind of rubble as the deposit against the church wall.

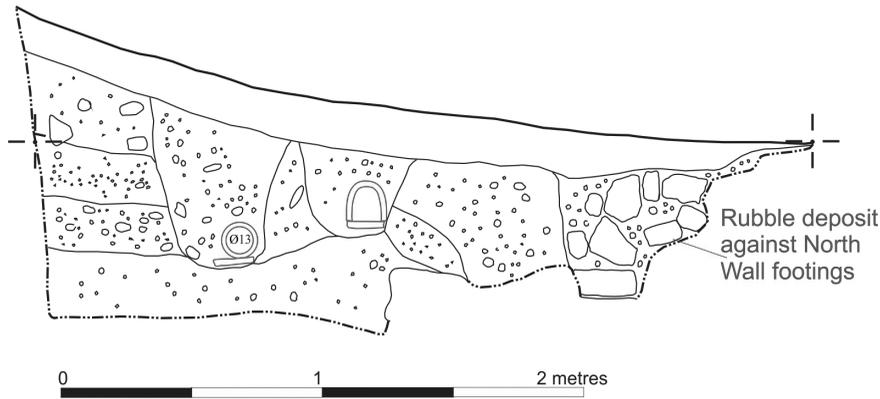


Fig. 12 West-facing section of Trench 3, showing field drains within infill deposits.

The upper deposits of the remaining north part of the trench comprised mixed topsoil, interrupted towards the centre of the trench by a shallow charnel pit.

The shallowness of the slot noted above was explained by the presence of substantial wall footings running north-south at a depth of 0.47m below the plinth of the current building (figs. 14 and 15). The top of this wall, 1 m wide, was exposed to reveal that it was constructed of large, squared blocks up to 1.02 m long, apparently clay-bonded with internal voids filled with yellow, sandy rubble. A right-angled return was apparent at the west end of the wall footings, suggesting that the greater part of the structure lay within the area of the current nave. This structure, clearly the footings of a wall that pre-dates the present nave — which probably dates from the 1130s — ran at an angle askew to the nave and was set less than 1 m outside its wall. Its thickness and this misalignment leads to its interpretation as part of a Saxon *porticus* structure forming part of an early pre-Conquest church (see fig. 32).

As well as a charnel pit in the upper deposit, at least six definable complete human burials were uncovered in Trench 3 (fig. 14) — one resting directly upon the north part of the substantial wall footings and partly cut by the central slot — three of which were removed and reburied.

Trenches 4 and 5

In 2009, two further trenches were excavated to examine the footings and immediate context of two medieval buttresses to the east of the blocked north door of the north wall (figs. 6 and 16–29), and Trench 5 was re-excavated in order to remove skeletons threatened by piling and by capping works.

The excavation of Trench 4 exposed the lower face and footings of the north face and parts of the east and west faces of the western of the two surviving buttresses of supposed medieval date at the west end of the nave (figs. 16–19). The excavation revealed that the lower offset plinth visible above the surface rested upon a rubble base which extended between 0.20 and 0.40 m outwards from the bottom of the plinth on all sides and was up to 0.70 m deep. The topsoil deposits surrounding the buttress and its base had been disturbed by a drainage trench running north-south along the west side of the trench, but on the east side of the trench, where drainage works had not caused disturbance, a very shallow deposit of sand or



Fig. 13 (above left)
View of Trench 2
from the north.



Fig. 14 (above
right) View of
Trench 3 from the
north.

Fig. 15 (right) View
from the north-west
of masonry remains
revealed in Trench 3.



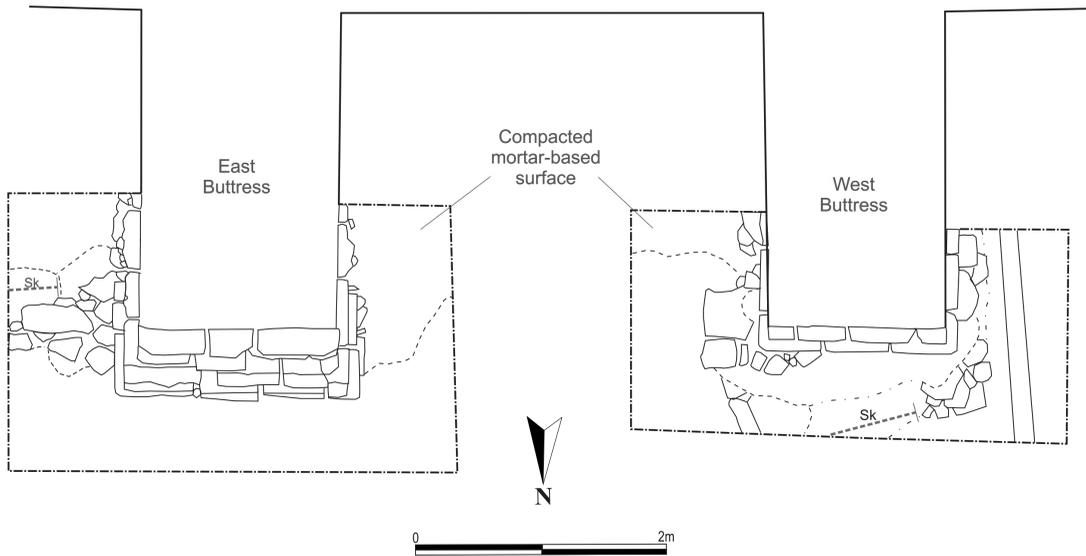


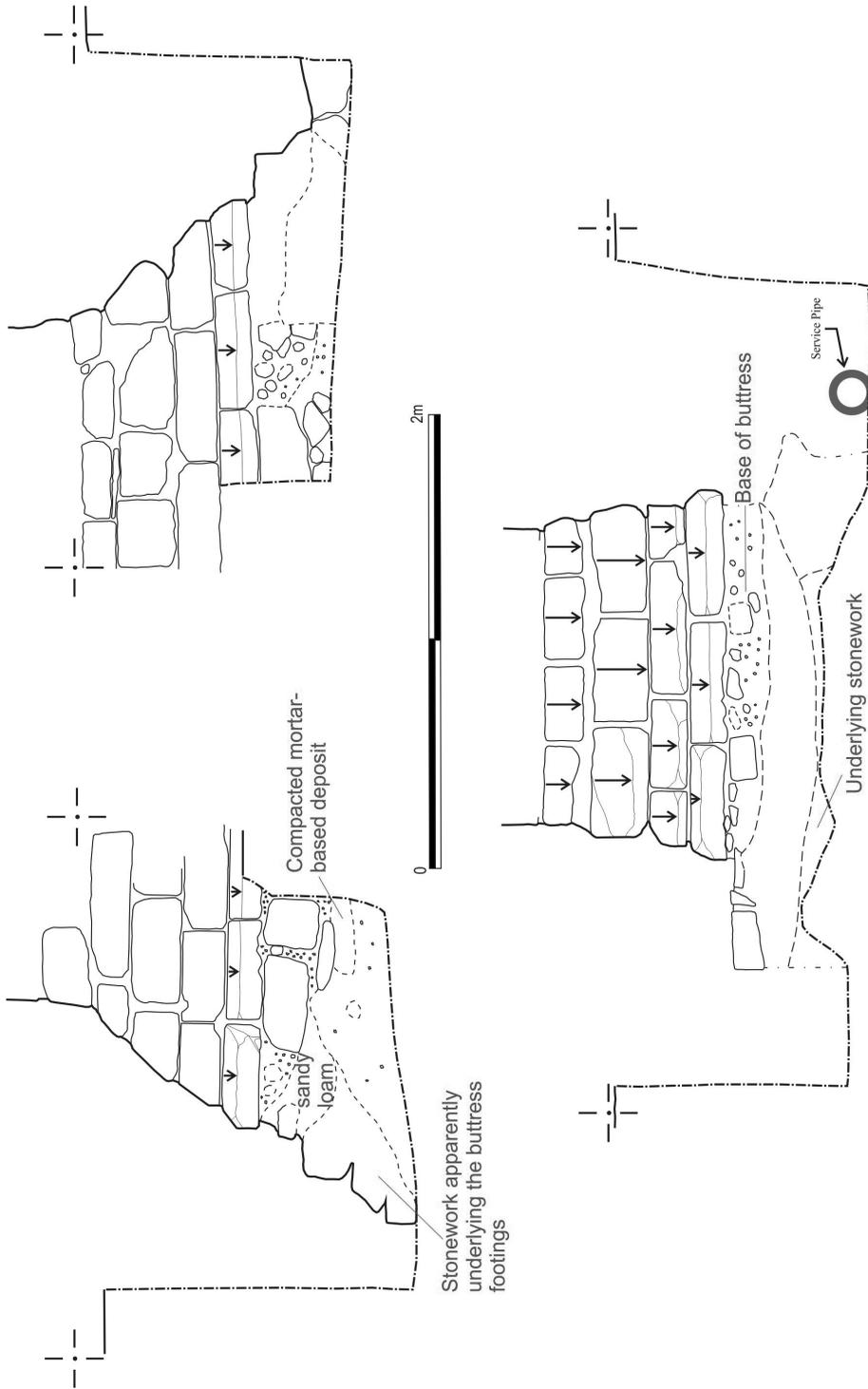
Fig. 16 Plan of excavations carried out against the original buttresses in Trenches 4 and 5.

degraded sandstone (5mm thick) was apparent, similar in character to a deposit seen in Trenches 2 and 3 at a similar depth and in a similar position in relation to the north wall. A similar deposit was also recorded in Trench 5 (see below).

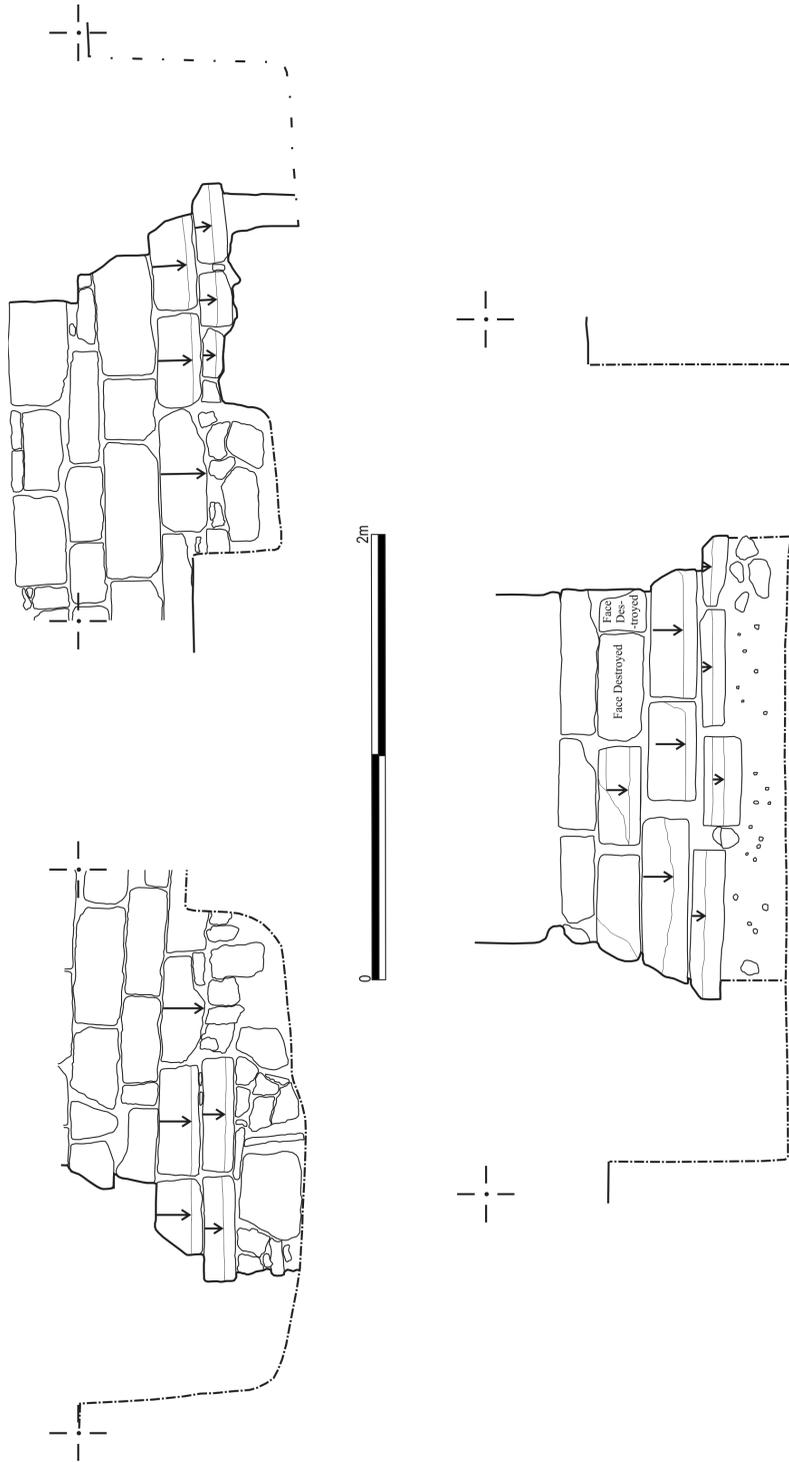
No further structural remains were discovered in the trench, but one of several human burials was recorded within 0.55 m of the north side of the buttress, and it was regarded as likely that *in situ* skeletal remains from earlier periods could exist at greater depths.

The excavation of Trench 5 (figs. 20–29), uncovering the north end of the eastern of the two surviving buttresses at the west end of the nave, revealed an offset plinth below the upper plinth. This rested upon an insubstantial rubble base which did not extend significantly outwards from the bottom of the plinth and was only 0.35 m deep. The topsoil deposits surrounding the buttress and its base had been disturbed by a water pipe running east-west along the north side of the trench, whilst on the east and west sides of the trench a very shallow deposit of sand or degraded sandstone, similar to that described in Trench 4 was apparent. Against the east wall of this buttress at foundation level were the apparent remains of an insubstantial stone-built feature. No further structural remains were discovered in the trench, and despite attempts to cut through to underlying deposits it was impossible to establish the depth of the natural subsoil.

The re-excavation of Trench 5 in 2009 (figs. 26–7) involved a slight extension to the trench on the east side, revealing a deposit of crushed sandstone, more substantial and at a deeper level than that previously recorded in Trenches 2–5. This deposit, which underlies the buttress, is interpreted as a structural deposit, possibly associated with the Saxon porticus wall recorded in Trench 3, although no corroboratory evidence in the form of artifacts or dateable ecofactual materials were discovered. A slot apparently cut through this deposit from N–S was tentatively interpreted as a construction trench for the porch which once occupied the position outside the north door of the church (now blocked), although grave-cuts elsewhere in the same deposit (figs. 27–9) suggest an alternative explanation. Two skeletons, one partly



Figs. 17-19 Trench 4 section drawings. Top left (fig. 17): west. Top right (fig. 18): east. Bottom (fig. 19): north.



Figs. 20-22 Trench 5, section drawings. Top left (fig. 20): west. Top right (fig. 21): east. Bottom (fig. 22): north.



Fig. 23 View from the north of the east buttress following excavation: Trench 5.



Fig. 24 View from the north of masonry remains revealed against the east side of the east buttress: Trench 5.



Fig. 25 View from the north of the extension to Trench 5, showing burials.

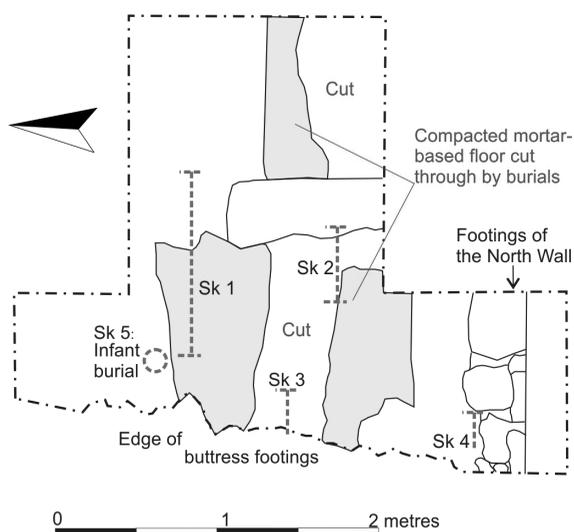
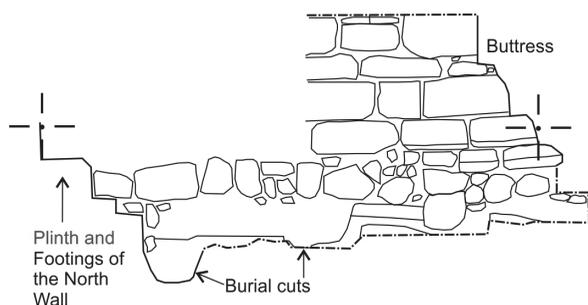


Fig. 26 (top) The east-facing section of Trench 5 following its re-excavation and extension.

Fig. 27 (bottom) Schematic plan of the extension to Trench 5, showing burials which post-date earlier burial cuts through a compacted mortar floor deposit.

underlying the north wall plinth (fig. 26), and therefore placed there before *c.* 1130, were removed from this trench and reburied in Trench 6 (see below).

Trench 6

A small trench was excavated on the south side of a brick-built shed at the eastern boundary of the graveyard (fig. 6) in order to rebury the skeletons removed from Trenches 2, 3 and 5. During excavation of this trench no skeletal material was exposed, but several blocks of worked masonry were revealed in the trench bottom and interpreted as the remains of a wall. Examination of documentary sources, historic pictures and maps has failed to provide evidence for buildings on this site, the closest building being a tithe barn which appears on historic maps further south, adjacent to the east end of the church. Therefore it seems likely that the remains excavated relate to a phase of construction and demolition pre-dating the early eighteenth century. No artefacts were recovered to shed light on the origins and character of these remains. The skeletons recovered from Trenches 2, 3 and 5 were reburied in this pit without disturbing the masonry remains.



Fig. 28 View from the north-east of burials revealed in the extension to Trench 5.



Fig. 29 Vertical oblique view from the east of burial cuts into a compacted sandy floor on the east side of the eastern old buttress in Trench 5.

DISCUSSION

The following discussion relates particularly to remains uncovered in Trenches 2–5.

Consideration of the results of excavation indicate that the structural traces found in the upper deposits of both trenches 2 and 3 relate to a structure against the north wall which may once have provided support to the building, perhaps a wooden buttress or scaffolding. However, these remains appear to be of no great age and do not seem to relate to the buttresses apparently shown in a print of 1837 (fig. 5), although this cannot be regarded as an entirely reliable source.⁶ Further, it seems reasonable to suggest that the slot and associated pit (in the case of Trench 2) were the remains of an attempt, perhaps in the eighteenth or nineteenth centuries, to erect scaffolding or similar supports to the exterior of the North Wall.

How the remains excavated in Trenches 3–5, and those previously excavated within the church or suggested by dowsing, relate (if at all) to the possible wall found at a depth of one metre at the north end of Trench 2, is uncertain, but, as noted above, there is documentary and archaeological evidence of a significant early church here (Cramp 1984, 230–1).⁷ The walls seen in 1860 were recorded as being 4 ft (1.2 m) thick which seems a little too robust for Saxon fabric, and the two-part plinth shown on the depiction of this walling on the plan published in the *Northumberland County History* (Knowles 1899, facing p. 172) is also a little unusual for pre-Norman work. The walls seen in 1860 and the structural remains found in Trenches 2 and 3 are set askew to the standing fabric. The 4 ft thick walls with a two-part plinth, recorded in 1860, could conceivably represent the square-ended chancel of an early Norman (perhaps late eleventh-century) church — although this would perhaps have been slightly unusual at a period when apses were characteristic. The structure found in Trench 3 looks very much like a lateral chamber or *porticus* — a subsidiary room or cell opening from the main body of the church — which is a typical feature of pre-Conquest buildings, rarely seen at later dates.

Porticus have been identified in association with some of the earliest churches in the North of England, such as Jarrow/Monkwearmouth in the late seventh century, and examples continue to be discovered at northern church sites, with Houghton-le-Spring (Carlton and Ryder 2010) and Scrayingham (Ryder forthcoming) being two of the most recent additions. They vary considerably in position, size, and design, and perhaps also in function. Aisle-like ranges of such chambers flank the nave in basilican structures such as the western church at Jarrow, and Brixworth in Northamptonshire, whilst single chambers may be attached to the west end where they may (but not necessarily) have served as entrance porches. Others take the unusual but characteristic North-of-England position of being ‘wrapped around’ the junction of nave and chancel, as evidenced at Escomb, Bywell St Peter, Monkwearmouth and Scrayingham. The example at Warkworth may have been of this type, if the nave/chancel of the early church is correctly shown on Denis Brigg’s dowsed survey.⁸ Some undoubtedly served as burial chambers, others may have been reserved for private contemplation or, in cases such as Escomb where they were entered from the chancel rather than from the nave (Cherry 1976, 163–4), served as vestries.

Although not proven by artefactual or other dating evidence, and in the absence of a complete plan of sub-surface features within and outside the present standing building, it is considered likely that the remains uncovered in 2008 are indeed those of a Saxon *porticus*. Consideration of the relationship between structural remains revealed in 1860 and 2008 in relation to the current (Norman) church suggests that the *porticus* remains represent the first of three phases of building on the site: a Saxon church, of which the *porticus* survives; an early

Norman church, parts of which were revealed in 1860; and the later Norman building which still stands.

Other potentially significant remains recorded in Trench 2 include the elongated worked stone, found at the north end of the trench at a depth of 1.0 m, perhaps abutting another to the east; this may have been the remains of a wall, but could not be investigated further. A shallow deposit of sandstone cut through by both the deep slot and oval pit was interpreted as a construction (or destruction) deposit, and may relate to similar spreads of material found in Trenches 4 and 5.

Human burials, including an unusually high number of infants, were uncovered in all trenches — eight from Trench 1, seven from Trench 2, six from Trench 3, one from Trench 4, and four from Trench 5. No dates can be assigned to these, although the uppermost burials in Trench 3 clearly post-date the substantial wall footings and pre-date the construction of the slot discussed above. The undated burials found adjacent to the buttresses in Trenches 4 and 5 showed signs of previous disturbance, making it difficult to establish relational chronology with the buttresses or other features. All of the intact burials in Trench 1, and all but five in Trenches 2 and 3, were at depths of 0.5 m or more below current ground level. The burials uncovered in Trenches 4 and 5 were found to occur at rather shallower depths than those encountered in the excavations of Trenches 1–3 to the east, perhaps suggesting that the ground here has been truncated to a greater degree. Comparison with the results of Trench 1 suggests that the topography of the graveyard close to the north wall east of the tower is such that any excavation close to the foot of the slope from the principal level of the churchyard will encounter burials at depths over 0.70 m, whilst excavation in the raised area to the north is likely to encounter burials from around 1.0 m below the current surface.

The evaluation excavations revealed that the east and west buttresses of the north wall of the nave are different in character and appear to sit upon or in close proximity to other fragmentary structural remains of potential importance, as well as burials. The west buttress examined in Trench 4 is reasonably well constructed upon a substantial rubble base which is wider than the buttress of dressed stones above it. The east buttress, examined in Trench 5, is poorly constructed; it has gaps between the dressed stones below turf level, and rests upon very shallow, rubble foundations. It appears that this east buttress, which is shorter (north-south) than its neighbour, has been rebuilt at some stage, a conclusion supported by structural evidence above ground.

Shallow deposits of sand or degraded sandstone (c. 5 mm thick) found in both trenches at or below the foundation level of each buttress, are similar in character to a deposit seen in Trenches 2 and 3 at a similar depth and in a similar position relative to the north wall. In the latter case they were interpreted as construction deposits associated with the north wall, and such an interpretation remains valid in the absence of compelling evidence to the contrary. However, since these deposits underlie the buttresses and may extend below the north wall, it is also possible that they relate to the substantial, stone-built structural remains found in Trench 3 (see above) and, as such, could represent the remains of, or features associated with, the putative Saxon *porticus*. The apparent remains of a wall running from (or underneath) the east side of the east buttress also appears to be related to the deposits of sand/degraded sandstone and much more substantial (possible *porticus*) walls recorded in Trench 3. However, no primary dating evidence could be established for any of the remains.

MONITORING IN 2009

Outside the north wall

An intermittent watching brief was maintained during piling and related works, but no additional archaeological remains were recorded. Likewise, the eastern of the two existing medieval buttresses, dismantled to allow a big east-west concrete beam to be inserted just below ground level, was inspected and photographed but no significant archaeological features were noted.

The roof structure of the south aisle

During an extensive programme of repair and conservation, limited access became possible to the roof structure of the south aisle which had suffered damage consequent upon the continued structural movement that has plagued the building. A description of the stone and timber structural elements visible within the roof space is provided elsewhere (Ryder 2014); summary comments are set out here.

The aisle has been seen as an addition of *c.* 1400 to the twelfth-century nave, and its roof structure is thought to be contemporary; recent dendrochronological analysis (Arnold, Howard and Litton 2011, 102–3) gives felling dates between 1428 and 1431 for its timbers. However, it was not easy to ascertain exactly which elements of the ceiling/roof frame date to the construction of the aisle *c.* 1400, and which to subsequent periods. The assignment by Arnold *et al.* of what they term the lower and upper roofs as ‘both part of the original structure’ is questionable, since the form of the lower frame might suggest that the original roof of the aisle was a low-pitched gabled one. Although the history of the roof cannot be regarded as having been satisfactorily resolved, some elements of its structure — the inserted struts and their purlins in the eastern section, and the brackets at the head of the aisle wall — are clearly of 1860 or more recent origin.

The infilled north doorway

Inside the church, a minor repair to the stone work infilling the twelfth-century north door opened a hole through into what was revealed to be a flue; this ties in with a chimney shown on the wall-top in a 1837 print (fig. 5, which also shows the ‘dubious’ buttresses now ‘replaced’) and presumably served a stove, probably the first generation of church-heating, prior to successive under-floor systems.

MONITORING DRAINAGE WORKS IN 2010
WITHIN AND OUTSIDE THE TOWER

An archaeological watching brief carried out in 2010 was focused on works related to the installation of a lavatory and kitchen facilities within the fourteenth-century church tower. During these works the wooden Victorian floor of the tower was removed and drainage pits were excavated adjacent to the interior and exterior of the tower walls, with further channels for drainage pipes being excavated within the churchyard (fig. 30).

The Victorian floor comprised wooden floor boards and joists sitting on three parallel single-coursed sandstone sleeper walls capped with cement. A series of sandstone flags were

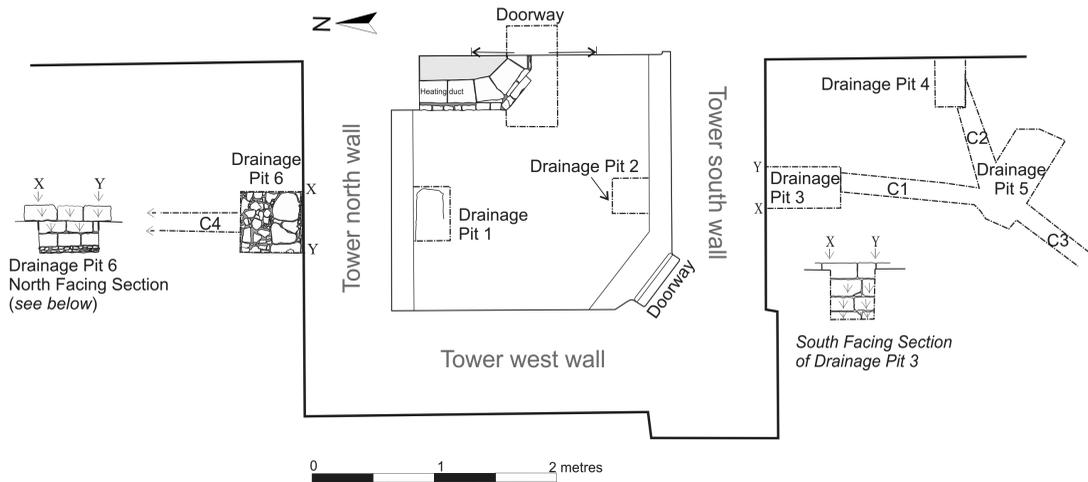


Fig. 30 (above) Plan of works monitored inside the tower.

Fig. 31 (right) View of footings revealed in Pit 6 on the north side of the tower.



observed at the same level as the wooden floor protruding 0.84m west into the tower from the threshold of the doorway. The underside of one of these flagstones bore an inscription which identified it as a re-used early nineteenth-century gravestone which appeared to have been a practice or flawed piece. Towards the north of the flagged area, the remaining stones were smaller and rougher; one was identified as part of a re-used medieval window jamb, probably taken from the north-west corner of the chancel in the Victorian period when building the hot-air flue.

A small cast-iron Victorian coal furnace with a red-brick vertical flue was observed in the north-east corner of the tower, and a corresponding red-brick and sandstone-capped subterranean heating duct, used to convey the hot air from the furnace into the church, ran south-eastwards into the nave.

Drainage Pit 1 (P1) revealed an offset foundation bedding for the tower, consisting of flat sandstone slabs, at some 0.45 m below floor level. Pit 3, along with Channels 1 and 2 uncovered three courses of offset, straight chamfered sandstone foundation blocks for the tower at a maximum depth of 0.78 m below ground level. P6 and C4 also revealed tower foundation blocks reaching a maximum depth of 0.40 m below ground level, sitting on a foundation deposit comprising rubble, cobbles and flat sandstone flags (fig. 31). The flags closely mirror those observed within the tower, but were suffering from compression fractures. A substantial quantity of disarticulated human bone was encountered at very shallow depths (up to 0.40 m) in the drainage channels, especially at the southern end of C 1.⁹ In the same area, south of the south wall of the tower, adjacent to the west wall of the south aisle, a cluster of worked stones was observed within the topsoil at some 0.70 m deep, but, rather than being significant built remains, these appeared to be part of tumbled masonry from an earlier phase of construction or, perhaps, the remains of material use in tower or porch construction or repairs.

CONCLUSIONS

It is possible that the early church was destroyed during the first Scandinavian incursions of the late seventh or early eighth century, but it is also quite possible that this could have taken place at any time between the seventh and the eleventh century.¹⁰ The apparent fact that the current, twelfth-century church was not built on the same alignment as its predecessor is perplexing, but does not necessarily suggest that the early church survived poorly, or had been razed to ground level by this time. There is no artefactual or environmental evidence to date the other, less substantial traces of surfaces and of a fragmentary wall, apparently associated with massive wall-footings, Burials cut into these fragmentary surfaces and, in some cases, lying under the north wall of the current church, indicate that some, at least, pre-date the latter, but whether they should be directly associated with the suggested *porticus* or with a period of hiatus following its abandonment is unclear.

Figure 32 sets out the positions of structures and features uncovered during the various phases of archaeological works on the site. It is of some potential interest that a deep, oval pit uncovered in Trench 2 sits in line with the projected extension of the *porticus* wall, as do more ephemeral features in Trench 1. Furthermore, various fragmentary walls and surfaces found in Trenches 4 and 5 lie inside the wall of the *porticus*, as projected, indicating that they were probably not associated with the interior of the putative early church.

Later remains uncovered included the footings of the two medieval buttresses at the west end of the north wall. These were shown to vary considerably in several respects, not least in the quality of their construction, suggesting that they were an *ad hoc* response to the long-term problem of the leaning north wall.

Amongst the numerous intact and partially intact human burials found at various depths in the graveyard north of and partially underlying the north wall of the church (all of them undated, but likely to range from later medieval to post-medieval), an apparent pit burial in Trench 2 (noted above), oval in plan, was of greatest potential interest, although no dateable remains were associated with it.

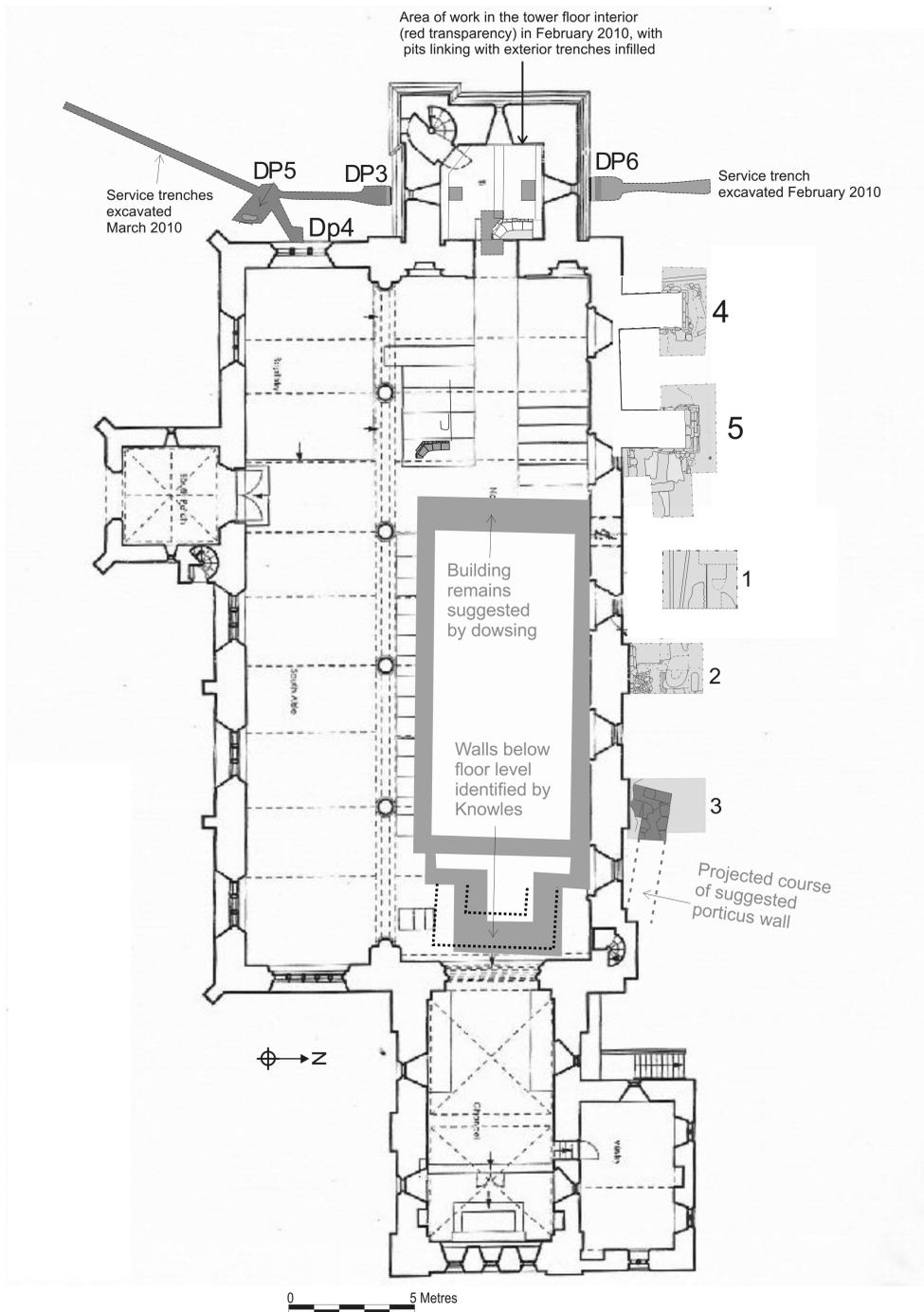


Fig. 32 The position of archaeological interventions and remains discovered, 2008–2010, with suggested interpretations of the evidence.

The recent work carried out on and around the standing building has enhanced its status as one of the most significant medieval parish churches in Northumberland. However, whilst its overall structural history is relatively easy to read, it is clear that surviving underground remains, both within and outside the present standing structure, potentially hold the key to unravelling the origins and early history of the building. Furthermore, the later extant fabric still contains much minor detail that has not been properly appreciated or understood.

NOTES

- ¹ This report is a summary of the full archive report lodged with English Heritage and Archaeological Data Services (ADS), York.
- ² The Archaeological Practice, 2001, Church of St Lawrence, Warkworth, Northumberland, Archaeological Watching Brief (AP Project Code: 01/10/682).
- ³ The Rev. J. W. Dunn (1863, 54) relates the following: 'during the alterations made to the church in 1860 there were discovered 2 feet below the present floor level the east end of a pre-Norman church measuring internally 7 or 8 feet in width ... with walls 4 feet thick. These curious remains lie buried low near the chancel arch, and consist of the angles of a building with a south wall running some distance westward. A huge stone rested upon the south-eastern corner of this wall, which on being raised disclosed in the block beneath it a longitudinal cavity'.
- ⁴ The side walls of this are in fact visible on the surface.
- ⁵ Patrick Parsons Limited, Consulting Engineers, report ref.: 05154/North Wall Report 20.11.2006.
- ⁶ It is a relatively distant view, and inaccurate in a number of respects.
- ⁷ See note 3.
- ⁸ Brigg's survey does not show the *porticus*, despite the substantial nature of its remains. One author (PFR) maintains a sceptic approach to such techniques as, in an increasing number of cases, excavated evidence, or a more detailed examination of church fabric, fails to corroborate and sometimes negates their findings.
- ⁹ Under instruction by the church authorities, this skeletal material was re-interred at the same location upon completion of the works.
- ¹⁰ On Holy Island, where the destruction of the early monastery is recorded and a Norman refoundation claimed by contemporary chroniclers, most of the pre-Conquest sculpture found on the site has been shown to be of ninth- and tenth-century date, implying that a significant ecclesiastical centre either survived the flight of the monastic community, or was re-founded at an earlier date than had been thought.

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