

ST HELEN'S CHURCH SKIPWITH NORTH YORKSHIRE

Assessment Report on an Archaeological Investigation

by Toby Kendall

Part 1: Excavation and Building Survey

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PART 1: THE EXCAVATION and BUILDING SURVEY

Cover Illustration:

St Helen's Church, Skipwith, from the south-west

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List of Abbreviations

AFs Architectural Fragments

BGL Below Ground Level

CBM Ceramic Building Material

NGR National Grid Reference

OD Ordnance Datum

SF Small Find

YAT York Archaeological Trust

SUMMARY

Between February and August 2004 York Archaeological Trust undertook the excavation of 31 trenches, in and around the tower, at St Helen's Church, Skipwith, North Yorkshire. In addition the standing tower was subjected to a thorough building recording exercise started during the autumn of the same year and continuing into spring of the following year. These excavations and linked building recording, which follow a smaller evaluation in 2001, represent the first major investigation of this regionally important building.

The excavations and building recording took place as the initial part of a regime of structural repairs and foundation enhancement on the tower of the church. This was made necessary by centuries of gradual movement in the tower being exacerbated by coal mining several hundred metres below the church in the past few decades.

The trenches involved excavation of virtually all of the archaeological deposits within the tower and, outside, to a distance of 2m from the standing tower. Those which ringed the outside of the tower were excavated to a depth of 1.8m below ground level well into the natural drift geology, whilst those on the inside were excavated to variable depths depending on ground conditions.

Datable archaeological features were identified from as far back as the Anglo-Saxon period and related to the construction of a building earlier than the standing tower. A number of burials that respected the foundations of this earlier structure were excavated, both inside and outside the tower, and appear to have been buried in wooden coffins. The reduction of this earlier building, and subsequent construction of the standing tower, sealed in the earlier burials and features. Externally numerous burials were associated with the early medieval period in the history of the tower. Internally there seemed to be little in the way of remains from the construction of the standing tower as the earliest surviving floor deposits were 12th-13th century. During the medieval period the tower had been flanked by aisles. This has left behind traces of where they were attached to the tower as well as their foundations. Internally a sequence of floors, build-ups and evidence of industrial activity linked with the development of the church were represented by a complicated sequence of very truncated deposits. Post-medieval burials and even later modern activity had greatly disturbed the earlier archaeological deposits, leaving only traces of what proved to be a very interesting story.

1. INTRODUCTION

Between the 23rd February 2004 and 26th August 2004 York Archaeological Trust (YAT) carried out excavations of the interior and of a zone up to 2m wide around the tower at the western end of St Helen's Church, Skipwith, North Yorkshire (NGR: SE657385; Figure 1). The work entailed excavation and recording of 31 individual trenches, which exposed the foundations of the tower, prior to their consolidation by engineers. In addition to the below ground investigations a comprehensive regime of building recording took place on the tower, taking advantage of the scaffolding in place during the remedial work on the fabric. This work was undertaken under the supervision of Colin Briden, Historic Buildings Consultant to YAT.

The archaeological excavations were carried out in accordance with a Written Scheme of Investigation created by YAT which was approved by the Heritage Unit of North Yorkshire County Council and the York Diocesan Archaeological Advisor. All work was carried out in accordance with a Faculty granted to Skipwith PCC by the Diocese of York.

The work was commissioned by William Anelay Ltd on behalf of Ferrey and Mennim, architects and generously funded by British Coal PLC.

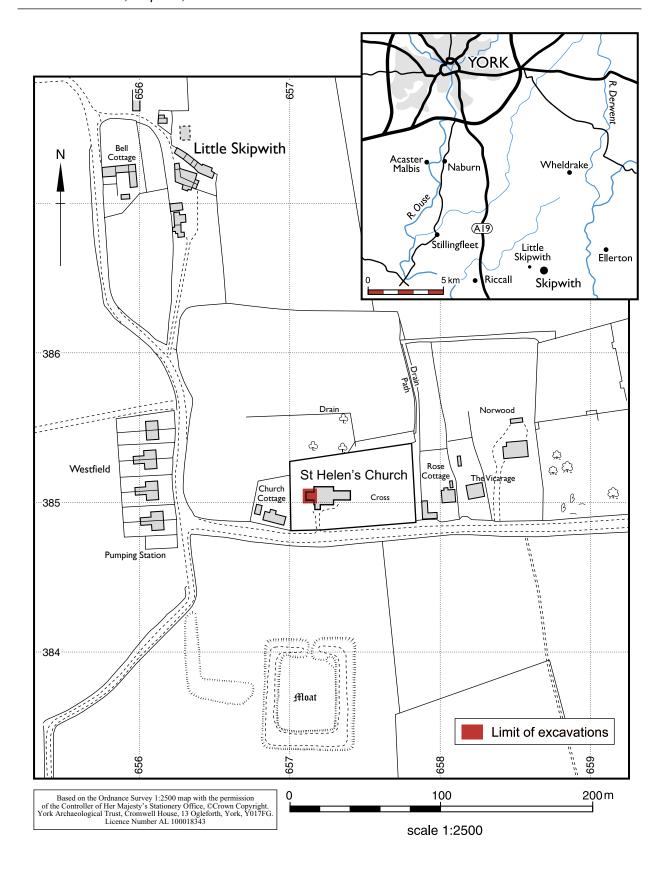


Fig. 1 Site location

2. METHOD STATEMENT

The methodology applied to the excavations was initially informed by the results of trial excavations conducted by Field Archaeology Specialists (Timms 2001). A full description of the methodology to be employed was laid out and may be seen within the original Written Scheme of Investigation.

However, it was soon apparent that the structural composition of the foundations was different from what was expected following the excavations in 2001. This led to numerous delays and pauses during the excavations whilst solutions were found to complex and unpredictable engineering problems. During the process of the works the archaeological methodology changed on several occasions at the behest of the engineers working for the commissioning body. Regular inspections by the engineers were undertaken to assess the structural integrity of the foundations which were revealed and in the trenches different to the specification internally, the compaction of the archaeological deposits which were left in-situ.

This methodology for the building recording exercise is discussed in more detail below (see Section 6 for the results of the building recording exercise).



Plate 1: excavation and recording underway inside the tower

Excavation methodology

The archaeological excavations were conducted in two main phases, excavations on inside of the tower (Plate 1) were followed by excavations on the outside (Figure 2). The two areas, inside and outside, were divided into numerous small trenches so that excavations would not compromise the foundations that were being consolidated. The consolidation work was undertaken in a standard bay system, common for underpinning jobs on all types of structures, see the excavation areas (Figure 3).

It was soon realised that the foundations were not the same as had been predicted by the engineers, and because of this the excavation strategy was changed. The internal trenches were excavated to a depth where firm deposits were encountered, as agreed by the site

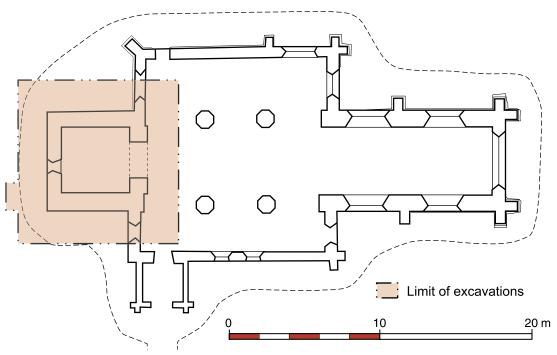


Fig. 2: Works location

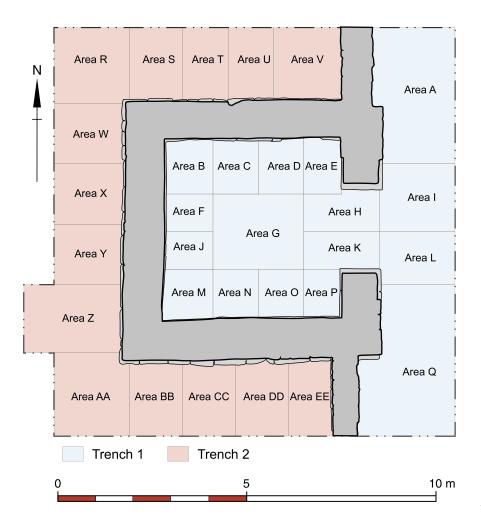


Fig. 3: Trench/ Area location

engineers. Externally the work was carried out according to the specification in the WSI except where the trench sequence was adjusted. In addition the area excavated in t2/Z was extended 0.80m to the west because of extant foundations from other phases of building.

All recording was completed in accordance with the YAT Site Recording Manual (2004). With the exception of breaking up concrete, stonework and areas contaminated with asbestos, all excavation was carried out using hand tools in a stratigraphic order. In some cases this was not possible because of intrusive features that could not be moved. All contexts (stratigraphic units) identified were digitally photographed, individually planned at a scale of 1:20 and recorded on separate pro-forma context cards. All sections and elevations were drawn at a scale of 1:10. The stratigraphic relationships between the individual contexts were recorded to enable subsequent construction of a stratigraphic matrix. Additional 35mm black and white, and colour slide photographs were taken of significant features throughout the excavation. Environmental sampling was conducted on any deposits which included organic material, industrial waste and unidentifiable materials. The labelling of areas during the excavation was split in two separate ways. All of the excavations inside the church, which could be physically linked, were called Trench 1, and all those outside were called Trench 2. Further to this a single sequence of letters was used for each individual area of excavation, giving results such as: t1/A and t2/X etc.

All areas under excavation were fenced off from the public to prevent access. Additional screening was used to prevent any member of the public from being able to see any of the human remains whilst in-situ or prior to removal for study. Where human skeletons extended beyond the limit of excavation care was taken not to disturb the surrounding deposits. The long bones were removed whole wherever possible, though in some cases it was only possible to excavate the part which would have been destroyed by the subsequent backfilling procedure.

When trenches had reached an appropriate depth shoring was inserted to ensure the safety of the excavation team and other contractors working within the trenches.

During the excavations Ian Panter, the Regional Science Advisor for English Heritage, visited the site to inspect the work and offer guidance on suitable methodologies for sampling.

All finds and the site archive are currently stored by YAT under the Yorkshire Museum accession code YORYM: 2004.18.

Building recording methodology

The basis of the recording of the fabric was the rectified photography survey previously produced by Colin Briden and Graham Moore. This was digitised to give a stone-by-stone line drawing of all four elevations of the church: following demolition of the lean-to hut against the north elevation of the tower the newly revealed masonry was added to the drawn and photographic record. These photographs were originally created for use during the structural repairs of the tower, but proved to be more than adequate as a basis for the building recording information. Digital line drawings were created from the photographs using Adobe Illustrator software. This allowed drawings to be created that were exportable in engineering and image formats for the separate specialists involved. The line drawings were then used as a reference point for the stone type and structural features to be recorded.

The stone types were recorded using colour coded markers on the reference drawings during a stone by stone investigation of all faces of the standing tower. Where access was restricted by the scaffolding it proved to be more difficult, though still possible. This data was then added to the digital drawings. Some further work following the main survey was carried out in conjunction with Paul Buckland (University of Bournemouth), a specialist in the use and source of stone from archaeological contexts.

Detailed examination was undertaken of each of the elevations of the tower, specifically looking for any putlogs (remnants of earlier wooden scaffolding from construction or alteration of the tower), scarring from previous roof lines and any other visible clues to the history of the tower. This information was recorded on the reference drawings and then transferred onto the digital images.

Samples were taken from within the fabric of the tower (timber/bark scraps), these and an insitu timber were assessed for their dating potential using scientific methods. Unfortunately the in-situ timber was not suitable for dendrochronology, whilst the small timber fragments would not be datable precisely enough to enhance the radiocarbon (C14) dating (Section 17).

Internally, the west facing elevation of the first floor within the tower was drawn at a scale of 1:20, taking specific care to record the blocked doorway and altar recess. Again this was then converted to a digital format. Internally also the position of previous floors and other features was recorded. This was not carried out to the same level of detail as the external walls because they would still be accessible after the works had been finished, whereas externally once the scaffold was removed the faces of the tower would be inaccessible.

The final product was a series of digital drawings of the tower with information on separate layers. Once it was possible to see all the elevations of the tower simultaneously it was far easier to make sense of the complicated sequence of construction and alteration than hitherto.

The building record archive is currently stored by YAT under the Yorkshire Museum accession code YORYM: 2004.18.

3. LOCATION, GEOLOGY AND TOPOGRAPHY

Skipwith is located c.14km to the south-east of the City of York and St. Helen's Church is situated at the western end of the village. The building sits towards the western side of the current rectangular shaped graveyard and is bounded by fields to the north, the road to Little Skipwith to the south and residential properties to the east and west. The church and graveyard is currently still in use, with burial activity now concentrated to the north, especially the north-west, of the graveyard.

The landscape in this area is low lying and gently undulating, though the area of the church and its associated graveyard appears to form a slightly elevated platform. This is not wholly unexpected after a millennium of burials. Recent topographical survey by York University on a moated site, across the road to the south of church, has revealed a similar elevated platform. Earthworks can also be seen in the field to the north of the church, although their date and function is unknown.

The mining of coal seams below the area under investigation has resulted in the ground level dropping by tens of centimetres, thus the current OD (Ordnance Datum) on the side of the church is inaccurate. However, on the basis of the datum on the building modern ground level is c, 9 - 9.1m OD.

The solid geology of the area is boulder clay overlain by drift geology of outwash silt and clay with sand, including windblown sand. In additional there are areas of alluvium in closer proximity to the river Derwent, its source. (Geological Survey 1973)

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The excavation and building survey at St Helens, Skipwith was undertaken because the tower is recognised as one of the most important Anglo-Saxon monuments in Yorkshire, if not the north of England.

A detailed review of the documentary sources was carried out by Field Archaeology Specialists in advance of the 2001 excavation and survey (Timms 2001). What follows is a summary of the historical and structural history of the church with contributions from Colin Briden.

Anglo-Saxon/Anglo-Scandinavian

The origins of St Helen's church lie in the Anglo-Saxon period. Previous study by Taylor and Taylor (1965, 550-4) suggested that the earliest structure was a two-bay nave with a western porch, constructed between AD 600 and 950. In c.1050, they proposed, this western porch was built up to form the lower section of the tower that can be seen today. Immediately east of the tower the walls of the Anglo-Saxon nave survive, pierced by a 12th-century arcade. Medieval

The 1086 Domesday Book records the Anglian settlement of 'Scipewic' having 'a church and a priest', but the first reference to the church came a few years earlier when in 1084 the Anglo-Saxon foundation of Skipwith church was granted to the Bishop of Durham. In c.1120 the Bishop gave it to the priory at Durham and it remained in a peculiar jurisdiction. The priory also owned the church at Howden; this was made collegiate in 1267. When the prebend of Skipwith was established by the college in 1280 it was endowed with Skipwith church. The church had a subordinate chapel at North Duffield. In 1226 the minister lived on a toft near the church; in 1280 the prebendary was required to build a parsonage.

The structural history of the medieval church is reviewed by Pevsner and Neave (1995, 687-8), but in summary the two western bays of the nave aisles are of different builds but of 12th century date and they appear to have been formed by breaking through the north and south walls of the earlier (presumed Anglo-Saxon) aisle-less nave. Late in the 13th century the aisles were extended by one bay to the east before an unusually well-detailed chancel was built; probably by Bishop Bek (d. 1311) whose arms appear in the east window. The belfry at the top of tower was added in the 15th century, and presumably the previous belfry was closed as part of this phase of works.

Post-medieval and Modern

The tower at one time supported a wooden steeple, the repair of which is mentioned in the church warden's accounts nine times in 1746–79.

In 1876 the church was subjected to thorough but conscientious restoration at the hands of J L Pearson. Pearson's brief was a wide one. Among other things he was asked to:

- Shore up the south aisle wall (or restore or replace it)
- Take down the parapets and corbels of the tower and thoroughly restore the fabric
- Take down the roofs
- Construct and place a wooden floor above the tower arch at the north end [sic] and if found

necessary to rebuild the said arch

- Entirely remove the gallery
- Carry out any other works found necessary

It is a tribute to Pearson's good sense and restraint that there is today no sense that the church was over-restored; his work on the south aisle wall, though mysterious, retained much of the early fabric, while the tower suffered only the rebuilding of the first floor structure (on new stone corbels), and not of its arch.

The clock was installed in 1925 as part of the parish war memorial for World War I and the tower was strengthened with steel girders in 1929.

5. THE EXCAVATIONS

The results of the excavation are presented on a trench by trench basis, inside and outside the standing building. Where possible any correlation between features inside and outside are noted then discussed further in Section 18 (Archaeological Implications, Discussion). The archaeological features are described in relation to their position relative to the standing tower instead of just to the excavation area within the trenches, as this reduces the possibility of confusion. The archaeology is described in stratigraphic sequence, beginning with the earliest material first, moving chronologically forward in time to the present day. Different phases of activity, where identified, are identified by sub-headings. Wherever possible approximate dates have been given to these phases.

The alignment of the burials, with some notable exceptions, was in accordance with Christian tradition, i.e. east-west, with the head at the west end of the grave and the feet at the east. Unless stated otherwise, the bodies were laid supine, on their back, with the legs straight and arms by their side (See Appendix 1 for a table detailing the burials). A detailed osteological study can be found in Section 14.

The standing tower was not the first building on the site, and in fact uses some the foundations from an earlier structure as its own. Because of this, the standing tower is referred to as such, whilst the first building before this is called the 'earlier' building.

5.1 TRENCH 1 (INSIDE THE CHURCH)

The archaeology revealed during the excavation of Trench 1, inside the standing tower, was characterised by periods of activity relating to construction and alterations to the fabric of the church, separated by build-up and trample deposits relating to its use. There were also numerous burials inserted throughout the history of the building. During the backfilling of excavated trenches by the contractors archaeological deposits in unexcavated areas were often badly disturbed and this has resulted in a loss of data and difficulties in interpreting the evidence.

5.1.1 Natural deposits

Natural alluvial material, a firm to compact, reddish orange sand, was the earliest deposit revealed (32050). This was initially excavated to c.7.45m OD (1.80m BGL) in the corners of the tower. Following a change in methodology it was only dug to the same depth in areas tr1/I and tr1/L, and exposed to a lesser extent in tr1/N. Where it was encountered natural first appeared at as high a level as c.8.25m OD (1m BGL) in the south-east corner of the tower, and at c.8.05m OD in the northern corners. This suggests a possible gentle natural ground slope down from north to south. The firm sand (32050) was overlain by yellowy orange, slightly silty sand (32037), where not truncated by later activities. This was assumed to be a subsoil which had developed over the firm natural alluvial material. The subsoil was visible from c.8.40m OD in the south, c. 8.30m OD in the north and at c. 8.45m OD to the east (areas tr1/I and tr1/L), giving it a thickness ranging from c.0.2m to c.0.35m.

The slope in natural ground level down from the south-east corner of the tower was also recorded in Trench 2 (see 5.2.1), on the outside of the tower. It should also be noted that the natural deposits inside the tower have been disturbed to a lesser extent by the later, intrusive, archaeological features than those found externally.

5.1.2 Early features (Figure 4) (Anglo Saxon or earlier)

The earliest features revealed during the excavations appear in the north-west, south-west and south-east corner of the tower and may relate to activity before the earlier building, or the construction of the building itself. The change in the specification and resulting restrictions imposed on the depths of excavation after the investigations had begun make it difficult to identify the true form and possible origins of early features such as these. It also resulted in any further features not being exposed, recorded and interpreted.

In the north-west corner of the tower (t1/B) there appeared to be an irregular-sided cut feature (2052) which truncated the natural deposits below. The cut extended to the east to a distance of c.1m from the western wall of the tower and was up to 0.3m deep; the uppermost fills were visible at 0.7m BGL. The exact form of the feature is unknown as excavations were not carried out to a similar depth in t1/F to the south. The feature contained two separate fills, the earliest being 2051, a firm, slightly mottled pink/orange brown, sand which closely resembled natural. This was overlain by a more friable, dark greyish brown sandy silt (2050). Cut into the top of this was 2049, a roughly rectangular shaped cut with slightly irregular, in some places undercut by a small amount, sides and an irregular base. This was filled by friable, slightly mixed orange

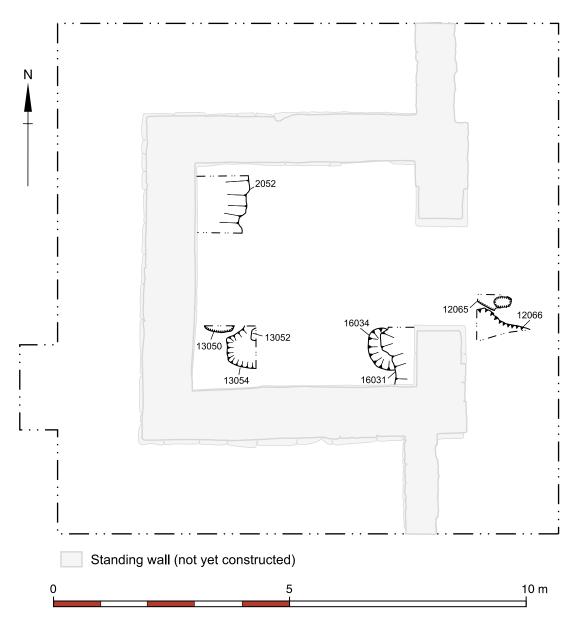


Fig.4 Early features pre-dating earlier building (Trench 1)

and dark grey brown sandy silt (2048). However regular in form it looked, it was apparent that this was a natural feature, linked with the disturbance described above or later animal burrowing.

In the south-west corner of the tower there was a confusing and mixed series of deposits which apparently cut into and overlay natural. The western and southern extent of Area t1/M was dominated by dumping, or possibly disturbed natural (13036, 13037 and 13038) both of which were orangey brown and sandy in nature. At the northern extent of this excavation area were discrete traces of a cut feature which appeared to truncate these deposits. As only a small part of this feature, which continued into t1/J but was below the limit of excavation, was excavated only a minimal description can be offered. The cut (13050) was perhaps subcircular with sides that curved from a steep top to a rounded base. The backfill (13049) was a mottled orangey

brown silty sand. To the western extent of t1/M a much larger feature was excavated. The cut 13054 was a subrectangular, almost rounded, shape in plan and rounded to a concave base from steep sides. The backfill (13053) was a similar material to 13049 being mottled silty sand. There was also possible evidence for a degraded post towards the northern extent of this feature (cut 13052 and fill 13051). There is an obvious parallel between this feature and 16034, described below, which may be linked to the period of the construction of the earlier building.

The south-east of Trench 1, where excavated to natural, revealed a substantial cut feature. A rectangular/sub-rectangular cut was visible in the south-east corner of the tower as well as on the outside of the tower (although it was seen in two separate trenches it was assumed to be a single feature, rather than two separate ones). The steep-sided, relatively flat-based, cut (12066 = 16031) was up to 0.65m deep and in excess of 3m across where exposed. The cut contained a mixed backfill of firm mottled yellow/grey/orange sandy silt which was in bands with soft mid to dark grey sand (12065 = 16030). Examination of the sample taken showed intrusion by root activity had disturbed the deposit (see Section 16).

Cutting 12065 to the east of the tower was 12064, what appeared to be a circular shaped possible post hole. In profile 12064 had vertical sided and a rounded base with a deeper section to the east, suggesting a post impression. The backfill (12063) was orangey dark brown sandy silt. There were no features similar to this so if it were part of a more extensive series of post holes they were not excavated or had been truncated by later activities (Plate 2) - feature cut (12066) and possible posthole (12064), to the west, in the southeast corner of the tower.



Plate 2Early features

An additional feature, which may have pre-dated the larger cut feature described above, was also visible in the south-east corner of the tower. The cut (16034) was circular in plan, although potentially truncated by 16031, and c.0.90m in diameter. In profile the sides were initially vertical and then curved gently to a concave base at 7.71m OD, giving a depth of up to 0.70m for the feature. The backfill, 16033, was firm brownish orange sand.

These features appear to relate to activity before the construction of the earlier building (Section 5.1.3). It must be noted that where uncovered these features were ephemeral and irregular in nature, and may be the results of activities earlier than the first building or ground work which related to its original construction.

5.1.3 Construction of the Earlier Building (Anglo-Saxon) (Figure 5)

Within the limits of Trench 1 the earlier building was visible as a foundation and possible features associated with its construction. This foundation was visible to a greater or lesser extent in Areas t1/A, t1/B, t1/D, t1/E, t1/M, t1/N, t1/P and t1/Q. The floor or surface deposit laid down immediately after the construction of the building was recorded in all parts of where the building is presumed to have been located.

A construction cut (32064) for the earlier building, which appeared to be rectilinear in plan, was the earliest structural evidence observed in Trench 1 cutting into 2050 and 16030 (see 5.1.2 above). As it was only exposed in a few areas (t1/A, t1/B, t1/D, t1/E, t1/M, t1/N, t1/P and t1/Q) the exact form it took was difficult to confirm. Where seen the cut appeared to have a slightly rounded break of slope at the top, very steep almost near vertical sides (up to c.0.65m deep), although the base is unknown. It was visible running along the line of the south and north walls, continuing through t1/A along the same alignment as the northern wall of the tower.

Inside the construction cut a foundation had been formed with at the base a layer of cobbles, up to 0.24m in diameter, deliberately laid flat so only being c.0.12m deep. The next c.0.40m above this was a mixture of friable, brownish orange/yellow, slightly silty, sand with frequent



Plate 3 Construction spread for earlier building - (light red coloured) visible below elements of standing tower

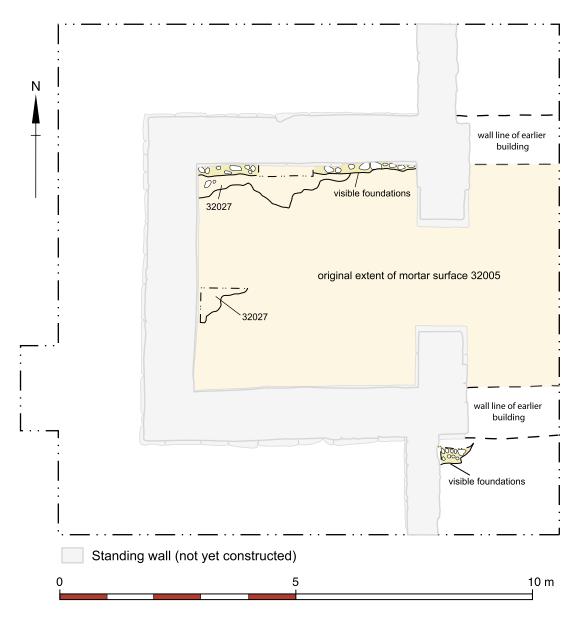


Fig.05 Construction of earlier building (Trench 1). Scale 1:80

cobble and occasional limestone and gritstone fragment inclusions (32065). Subsequently an additional layer of more squared in shape cobbles and gritstone fragments, up to 0.29m across, was laid down (32066). A final component of the foundation, which also spread slightly beyond the construction cut, was (32027) a layer of stiff, bluish grey, clay, which also contained patches of small gritstone fragments and sand (surface level c. 8.62m OD). 32027 also contained a fragment of Roman brick (Plate 3).

Immediately on top of the clay and gritstone spread was a friable, perhaps degraded, slightly brownish, light yellow silty mortar (32005). It was possible to see this mortar layer throughout the tower and it continued to the east, within the outline of the earlier structure. It was only a few millimetres in thickness and the surface was relatively level at c.8.65m OD. This layer

has been very heavily truncated by later activities, but can be seen as a floor or trampled surface within the earlier structure, its presence indicating the form of the earlier building. The analysis of the deposit sample from 32005 showed intrusive disturbance by both amphibians and rodents, backing up the evidence of burrowing which was visible during the excavations (see Section 16).

To the east of the tower in Area t1/I there was an isolated patch of friable, brownish grey, sandy silt (9088) at c.8.7m OD. This appeared to pre-date any of the building, though the deposit was too isolated and small to be given any meaningful interpretation.

5.1.4 Activities relating to the earlier building (Anglo-Saxon) (Figure 6)

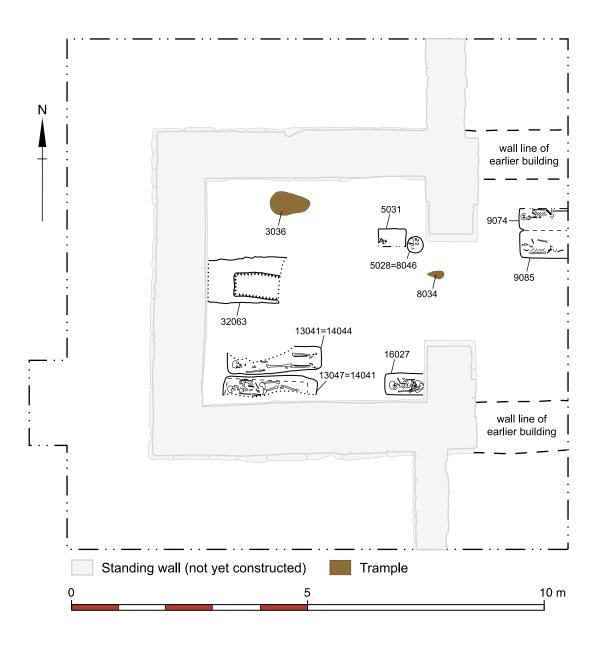


Fig.06 Activity and burials within earlier building (Trench 1). Scale 1:80

Traces of build-up and trample deposits were visible in a number of places above the original floor deposit for the earlier building, though these deposits were largely disturbed by later truncation. A number of burials, seven excavated and a further two, or perhaps three, left insitu, also appeared to belong to this phase of activity.

Patches of friable, greyish brown, sandy silt with occasional charcoal flecks (3036 and 8034) trample or build-up less than 20mm in depth had formed over the top of the mortar surface (32005). These were recorded beneath the tower arch and to the north of the tower interior. It is highly likely that the trample deposits existed elsewhere and were just too degraded to be identified because of their truncated nature and because of the small areas visible during the excavations.

Inside the earlier structure the mortar floor (32005) and subsequent trample deposits (3036 and 8034) had been cut by a number of inhumations graves.

In the south-west corner of the tower Grave Cuts 13041 = 14044 and 13047 = 14041 cut through the floor deposits. It was not clear which one was dug first, although it is more likely to have been the southernmost (13047 = 14041). This was sub-rectangular in plan with slightly rounded ends. It was in the region of c.0.45m deep. The inhumation was of an adult female (13046 = 14040) apparently inside a coffin (13045 = 14045) represented as a dark, organic stain seen within the backfill (13044 = 14039). Radiocarbon dating of this burial gave a date of 1070 +/- 40 BP, calibrated to 790 - 990 AD (for further information see Section 17). The grave backfill (13044 = 14039) was friable, slightly greyish brown, sandy silt with occasional charcoal flecks and small clay patches from the disturbed construction spread (see 32027

above). Analysis of the sample produced little which could add to the interpretation of the deposit, with trace evidence of small mammal remains.

The northernmost of the two burials had been very badly disturbed by later cuts, see below. Even though it had been disturbed, the cut (13041 = 14044) was very similar to 13047 = 14041 to the south and it was also c.0.45m deep. There were no clear signs of a darker stain in the backfill, suggesting a rotted coffin, though this may be as a result of the later disturbances and poorer survival. As already mentioned the burial, 13039 = 14043, had been disturbed, but the bones had been pushed back into place so that it was possible to retrieve the full skeleton, a

Plate 4 Burials linked with the earlier building: legs of burials at southern side of the standing tower; note the graves cutting through the mortar floor surface.



young adult male. The backfill (13040 = 14042) was also similar to that in the grave to the south, being friable, slightly greyish brown, sandy silt with occasional charcoal flecks and small clay patches. Pottery in 13040 proved to be unidentifiable because of the small size of the sherds. The proximity of these two graves, and similarity in their form, may suggest a link which was not only restricted to when they were buried. It could be that they were linked during life, perhaps as part of the same family (Plate 4).

Cutting into the backfill layer 14042 was a small, shallow cut (14033) that had been backfilled by 14032, mortar rich silt. The significance of this feature is minimal though it may be linked with similar sized and shaped cut 15036 to the east. 15036 was filled by 15035, again with lots of mortar Inclusions.

In the south-east corner of the tower another inhumation was cut through the floor deposits of the earlier structure, though it was not possible to excavate it fully as it passed underneath the east wall of the tower (Plate 5); burial (16029). The cut (16027) was rectangular in plan,

with a rounded western side (eastern side not excavated). It was greater than 0.90m long and c.0.50m deep. The young adult male inhumation (16029) was excavated to the top of its femora, leaving the remainder and lower legs in-situ (beneath the tower wall). The radiocarbon date from this burial was 1080 +/- 40 BP, a range of 770 - 980 AD when calibrated. There was very faint darker staining within the backfill of this grave, though not enough to confirm the presence of a coffin with the original burial. The backfill (16023) friable, orangey grey brown, sandy silt with inclusions of charcoal flecks and clay lumps was similar to that seen in the contemporary burials to the west. The source of this clay inclusion was most probably the clay layer within the foundations described above (32027).

Plate 5 Burial covered by the construction of the standing tower - burial (16029) not fully excavated as covered by east wall of standing tower



On the western side of the tower two, perhaps three, burials partially disturbed during the backfilling process were left almost entirely in-situ. Their presence was assumed because of the obvious cut through the yellow mortar surface (32005), and the visibility of coffin stains at the base of a later, post-medieval grave cut (32047) (Plate 6). Only one, perhaps two, of the burials were exposed and subsequently partially recorded in-situ, as they were exposed during the removal of shoring for an adjacent trench. The grave cut or cuts (32063) were



Plate 6 Unexcavated burials from the earlier building: backfill for unexcavated graves with possible coffin stains visible.

visible in tr1/F and continued into tr1/J. In addition they extended to the east of the western wall, where they had possibly been truncated by later activities in Area t1/G. The full extent of the grave cut or cuts is unknown as they were unexcavated. The older middle adult burial or burials disturbed (6039) appeared to be inside a coffin or coffins (6040) as there were darker organic stains, similar to those described above, visible at the limit of excavation in this area of the church. The human remains which were seen in-situ (6039) appeared to be laid eastwest like the other burials of this period. The backfill of the grave or graves (32062) was again similar to the others already discussed from this period: friable, orangey brown, sandy silt. In this case there were slightly more small limestone fragment inclusions. Unfortunately little can be said about these burials because they were exposed by accident, with the original intent being to leave them in-situ. However, it was obvious that these burials were contemporary with the earlier building and the presence of an iron coffin fitting of 7th – 9th century date (see Section 11) within the backfill of the later, post-medieval burial which had truncated this group of early burials may confirm their date. They were sealed by 32026 a rubble layer linked with the demolition / dereliction of the earlier building. Analysis of the sample from 32026 showed little which could add to the interpretation of the deposit.

To the east of the tower, in Area t1/I, two badly disturbed burials may also have been from this period of activity. They were outside the standing tower, although they would have been within the outline of the earlier structure. As with the two burials in the south – west corner of the tower it was not possible to say which of these two burials came first, and it may be that they were in fact both within the same grave cut. Cutting into natural at the northern end of tr1/I 9074 was rectangular in shape, heavily truncated by later burials, but had been cut to a depth of 0.55m. The mature adult male burial (9073) within the grave cut had been disturbed down its right hand side. The backfill of this grave (9072) was friable, greyish brown, sandy silt. To the south was Grave 9085 which had been disturbed to an even greater extent, though was initially cut to a similar depth of c.8.10m OD. The adult female burial (9084) was fragmentary in its survival with large portions of the left hand side of the body missing. Around the edge of the grave, where less disturbance had taken place, there were traces of a dark brown staining within the backfill (9082). It was assumed that this staining was the degraded remains of a

coffin, as seen in other burials of the same date within the tower. The backfill (9082) was identical to that of 9072 to the north. Even though there was CBM from a later medieval date within this grave backfill it is likely that this was intrusive, and a result of the later disturbance from medieval burials above.

Two additional burials cut into natural, that of an infant and a neonate baby in the north-east corner of the tower, have also been grouped with activity within the earlier building. Immediately to the west of the base of the north side of the tower arch grave cut 5028 = 8046 had been excavated to a depth of c. 8.30m OD, though the original depth of the grave cur was not possible to determine. This small cut, circular in plan and c.0.40m in diameter had been largely truncated by the flue channel running through this area. The burial inside (5027 = 8045) was that of an infant. The backfill was a firm, greyish brown, sandy silt with occasional limestone flecks (5026 = 8044). Roughly 0.80m to the west was the cut for another burial (5031). It was not possible to see the shape of this cut in plan, although it was assumed to be sub-rectangular and had been excavated to a depth of 8.24m OD, again the original depth of the grave cut was not visible. The burial within, 5030, was that of a neonate. The subsequent backfill was firm, dark greyish brown, sandy silt (5029).

Tentative links between the deposits sealing the inhumation burials and this phase of activity within the tower could be made, but with no certainty. All such deposits have been included with the dereliction and demolition of the earlier building (see 5.1.5 below).

5.1.5 Dereliction and Demolition of the Earlier Building (Late Anglo-Saxon)

A thick layer of mixed deposits signalled the end of the earlier building and the construction of the standing tower. The make up of these deposits and other linked deposits suggests that a great deal of disturbance has taken place both as part of the demolition of the earlier building and also due to later activity such as clearance.

The earliest deposit (32026) overlying the activity within the earlier building was found in the north - west corner of the tower, though later truncation meant it was not possible to establish the complete extent of this layer. 32026 was friable, brownish grey silt which contained fragments of mortar, small limestone fragments and charcoal flecks. The maximum thickness of this material was only c.20-40mm, so if this represented large scale disturbance and demolition of the earlier structure, it had been cleared away in a very effective manner.

Sealing 32026, all of the burials noted above, and other activity relating to the earlier building, was a mixed layer of friable, brownish grey / grey, sandy silt / silt (32004). It contained charcoal flecks, small limestone fragments and mortar fragments, though their distribution varied across the area of Trench 1. Deposit 32004 was visible throughout the trenches inside the limits of this earlier building, though was obviously truncated by later activities. At its maximum depth it was about 0.20m thick and survived in places well enough to be visible at 8.90m OD (0.35m BGL). Although as a single deposit this has a great deal of relevance to the chronology of the site, it is not possible to determine the length of time that it took to build up, especially because of the later disturbance. Analysis of the samples showed intrusive animal bones, further reinforcing the suggestion that the deposit had been disturbed. The environmental evidence also showed the opportunity for AMS (C¹⁴) dating to be possible with this deposit, however the intrusive

activity could prove the results to be erroneous. In Area t1/C, immediately on top of the makeup deposit, there was a small patch of material (3012). This was cut by the later post-hole 3009 and truncated to an extent that further interpretation could not be made.

In addition to the deposits described above was another patch of very similar material (32054), with more in the way of rubble and other inclusions, which overlay 32004 on the northern side of the tower. Again these deposits numbered 32054 were probably far more extensive than recorded and only in the places where they have survived and been recorded separately to 32004 have we got evidence of their distribution.

Caution must be taken when looking at this phase of activity because of the possibility of disturbance as a result of later intrusive activity (see Sections 5.1.6 - 5.1.9 below). It appears that this group of deposits could have been disturbed a number of times after they were initially laid down, resulting in later artefacts being present (and excavated with) this material. This is confirmed by the noticeable lack of demolition rubble in this group of layers.

5.1.6 Construction of the Standing Tower (late 10th Century) (Figure 7)

The standing tower structure was built upon a sometimes very small foundation which was positioned upon and overlapped the foundation for the earlier structure, as described over the preceding pages. The picture had been further complicated by later disturbance and burrowing animals, which habitually followed the edge of this foundation whilst burrowing.

As already described it was possible, throughout Trench 1, to isolate a thick layer pertaining to activity before the construction of the standing tower. The layer sealed all activity that could be related to the earlier building and its associated usage, and was interpreted as some sort of build



up. Later burrowing, cut features and clearance events (see 5.1.9, earliest floors) had compromised the date of this material, with intrusive finds collected in more than one area.

Cut into this build up, and related deposits, was the construction cut for the standing tower (32007). The cut appeared to have three different forms,

Plate 7 Section through foundations of standing building, clearly showing the construction cut for the standing tower cut through the building-up after the earlier building and mortar surface

depending on where it was and what purpose it served. The top of the construction cut for the foundations was visible at c.8.90m OD, 0.35m BGL and continued to a depth of c.8.55m OD on the northern and southern walls, its full depth was never determined on the eastern side of the tower (Plate 7).

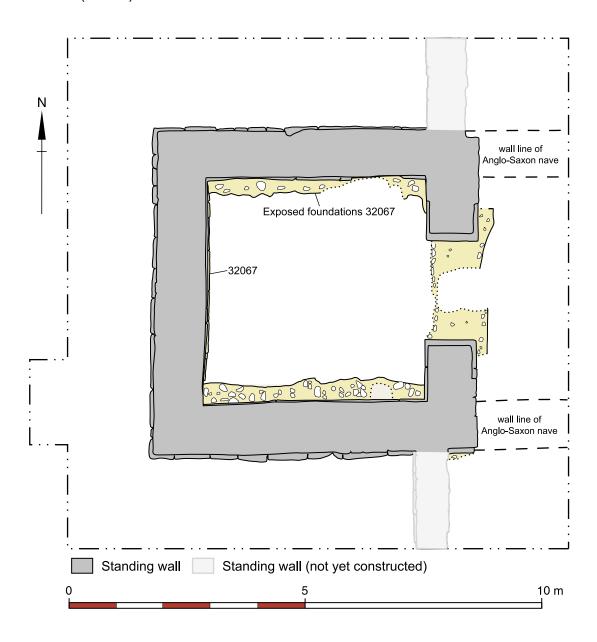


Fig.07 Construction of the standing tower (Trench 1). Scale 1:80

Along the western wall it was impossible to determine if a cut had actually been present, with the wall seemingly sitting directly on top of a line of gritstone blocks (32067) which may have been a course of stonework remaining from the earlier building. If there had been a cut present later truncation or clearance may have removed any visible traces. 32067 was made of large, rounded edged, perhaps even weathered, gritstone blocks c.0.80m long and c.0.25m high, the eastern face of which still had a friable pale plaster/render adhering in places (Plate 8). There was no sign that these stones had been bonded as the gap between them was filled with



Plate 8 Plaster/ render on side of reused gritstone blocks

loose, dark brown, sandy silt. When seen on the outside of the tower (5.2.6) a lower course of gritstone blocks was also recorded which again could have been part of the earlier structure, although just as easily part of the standing tower.

Along the north and south wall of the tower the construction trench could be seen as a slightly irregular linear cut, with sides that broke gradually to a moderate slope, breaking gradually again towards the base (the uppermost part of the previous building's foundations). The depth of the cut was c.0.35m, as did the distance it was visible from the standing structure (up to c.0.60m). Disturbance during the backfilling rounded the top edge further and resulted in an associated construction spread seen in isolated areas. It could be argued that the cut was also used to rob the earlier stone course at the base of the original building, though it is not possible to determine if this was the case or not.

The construction cut was at its deepest underneath the eastern wall of the tower. The profile of the uppermost part of the cut was the same as that for the north and south walls of the tower, this continued to a depth of c.0.35m at which point the cut appeared to continue vertically down, beyond the limit of excavation. The full width of the cut was c.1.25m at the top and had narrowed to c.1m by the point where it appeared to go to a vertical fall. It was assumed that the apparent lack of earlier stone foundations created the need for a foundation of such a scale on the eastern side of the tower. Late medieval (waste pit) and modern (soak away) truncations had compromised the central portion of this part of the foundation to a large extent.

Built up against the gritstone blocks to the west and within the visible cut elsewhere was 32008, the foundations. This was firm, in some places friable, slightly brownish light yellow, gritty sandy silt which contained frequent mortar flecks and fragments, frequent angular limestone fragments (up to 100mm across), moderate gritstone fragments (again up to c.100mm across) and occasional cobbles. In the section beneath the east wall of the tower it was possible to see more cobbles, which were almost acting as an edge to this foundation. It was assumed that there were more cobbles in this part of the foundation, giving it more in the way of structural

integrity. The foundations produced no dating evidence for the construction of the standing tower.

The small section of this foundation that was exposed to the east of the tower, in tr1/Q, mirrored what was seen internally (Plate 9). It was also possible to see similar material in t1/A which followed the line of the original nave, before the aisles were pierced through the walls at this point. However in this area excavation was limited and the deposits were massively truncated by the construction of the coal bunker.



Plate 9 Truncated standing building foundations in area t1/Q, over the top of the earlier cobble foundation.

Built on top of the foundation material were the standing walls of the tower (32006). They were made up of large gritstone blocks of varying dimensions. The standing structure is described in Section 6 (below). The gritstone was bonded with a firm, light yellow / white, slightly gritty sandy mortar.

A relationship between what was excavated inside and outside the tower can be made, although it is made difficult due to the level of disturbance on the outside. A clearance cut made during the late 19th century renovation of the tower reduced the ground level externally by several centimetres, resulting in truncation of many relevant deposits. The external foundation material also appeared have been badly weathered, burrowed and disturbed by root action, resulting in a loss of the mortar and other softer and soluble constituents.

In the north-west of the tower, potentially cutting the demolition deposits as well as the earlier floor (32005) was 2043 a sub-ovoid shaped post hole cut. This had vertical sides and a rounded base, whilst the backfill (2042) was made of orangey brown sandy silt.

On the northern side of the tower, at the point where t1/D and t1/E met, was a stone lined feature that could have been a post-hole. The cut 4032 = 5025 was circular in plan, c. 0.45m in diameter and c.0.50m deep. This had been lined with a small number of flat cobbles, gritstone and limestone fragments (4031 = 5023). The backfill of the rest of the feature (4030 = 5023) was friable, greyish brown, sandy silt. If this feature was later in date it was not possible to tell because of the later truncation.

Just to the west of the tower arch, in Area t1/K, were the truncated remains of a post hole which dated from similar period. The cut (11054) was sub-circular in shape and it had a shallow concave profile. The backfill was friable dark brown sandy silt.

5.1.7 Early Activity in the Standing Tower (11th – 12th century)

The earliest activity identified relating to the standing tower was potentially over a century later than its construction. As discussed above (Section 5.1.6) it was apparent that early floor layers and activity have been removed, leaving little in the way of remains contemporary with the first use of the standing building. The features that have been attributed to this period are primarily cuts and fills which have survived later clearance events.

The foundation of the standing tower and to a greater extent the deposits into which is had been constructed were truncated by at least one clearance event. However, the true extent and shape of this were not possible to determine, and not recorded during the excavations. The presence of finds from the 13th century or later, post dating the late 10th century construction of the tower, in the deposits which immediately post date the construction of the tower further suggested that this was the case. The uppermost deposits of the demolition and clearance phase had been burnt in situ by some of the earliest activities within the standing tower. This burning was concentrated on the northern side of the tower.

Cutting into 32004 in the north-west corner of the tower a small post hole cut, 2041, roughly circular in shape 0.38m in diameter and c.0.30m deep. This was filled with friable grey sandy silt with occasional charcoal flecks and small limestone fragments, 2040, and could be linked with this period of early activity within the standing tower.

Further towards the south-west corner of the tower was a large pit cut or even a huge posthole, again cutting 32004. The cut appeared to be a rounded rectangle in shape (10030 = 13035 = 14035) with near vertical sides and a base of at least 0.50m (8.19m OD) in depth. It was not fully excavated in areas tr1/G and tr1/J because of the depth limits imposed in these trenches, and thus its true form was not possible to determine. The backfill (7084 = 10029 = 10039 = 13034 = 14034) contained architectural fragments which may date from as late as the medieval period, though this was not entirely clear because of limited tooling. It is just as likely that the architectural material could be re-used Roman as is found elsewhere in the tower.

Yet further into the south – west corner, over 32004 there were a group of disturbed deposits. The purpose for these deposits was unknown, though perhaps they were for levelling in this part of the tower. 13027 = 13028 was overlain by dumping (13022). This had then been cut by an ephemeral, perhaps not even deliberately made, shallow feature (cut 13021 and fill 13020). The level of disturbance by later activity in this part of the tower allowed little in the way of interpretation. These contexts were all sealed by the later burnt floor deposits (32028).

On the south side of the tower the foundations were overlain by 15028, a firm/friable, brownish yellow sandy mortar which contained small angular limestone fragments. Although described here, this deposit may in fact be a spread from the original construction. This had been cut by 15024 = 15027 = 16026, a small post-hole sub circular in plan, c.0.40m in diameter, which had been subsequently filled by 15023 = 15025 = 16025. 15023 = 15025 = 16025 a soft, light

orangey, brown sand, with the uppermost section being light yellowy brown and containing mortar fragments. This was in turn sealed by the first recognised floors in the tower.

Cutting 32004 towards the east of tr1/G an extremely truncated shallow feature was apparent (cut 7103 and fill 7102) but the level of truncation gave little chance of interpretation. This was sealed by a thin layer of trample 7100 = 11046 that had then apparently been cut by a small post-hole (cut 7045 and fill 7044). This was subsequently truncated by later industrial activities which are described in more detail in Section 5.1.9 below.

Further east beneath the tower arch and cut into 32004, was a very small disturbed area less than 0.18m in diameter and 0.15m deep (8028). The backfill was friable, grey/brown, silty sand (8027). What this small, seemingly isolated, disturbed feature was relates to is unclear, but it may be relatively insignificant.

Outside the tower, within the nave to the east, was another isolated deposit of friable, mottled orange/grey, sandy silt (9035). Again little interpretation could be made because of the extreme level of truncation and fragmentary nature of the material.

5.1.8 Creation of the Aisles (12th century)

Limited excavation complemented by thorough recording has allowed the interpretation of deposits seen in section in t1/A. This activity which related to the expansion of the nave to the north is the only place where it was recorded, it was not possible to see any clear evidence of similar activity relating to the south aisle.

Later medieval and post-medieval burials had removed virtually all evidence of the expansion of the nave, but some clues to this phase of activity were still visible. Where the cobble foundation for the earlier building was overlain by the foundation for the standing building, the upper foundation had been obviously disturbed (Plate 10). The disturbance visible was not as a product of the burials, but the removal of the wall above. The cut appeared to be irregular



where visible in section, continuing to a maximum depth of c.8.80m OD. The backfill was not wholly different from the foundation that it had cut into, being made up of disturbed angular stone fragments, cobbles and mortar. It was the action of this cut which opened up the arch into the northern arcade in the 12th century.

Plate 10 Truncated foundations for earlier building and later nave, in the eastern section of Area t1/A

5.1.9 Medieval activity within the Tower and Nave (13th – 15th century) (Figure 8)

A whole series of floor deposits, trample, build-up materials and lead working hearths related to the medieval period inside the church. As the rest of the building underwent a series of changes, extensions and modifications during this period, it was reflected in the archaeological remains that survived within the tower and western end of the nave. Burials from this period are described separately in section 5.1.10 below.

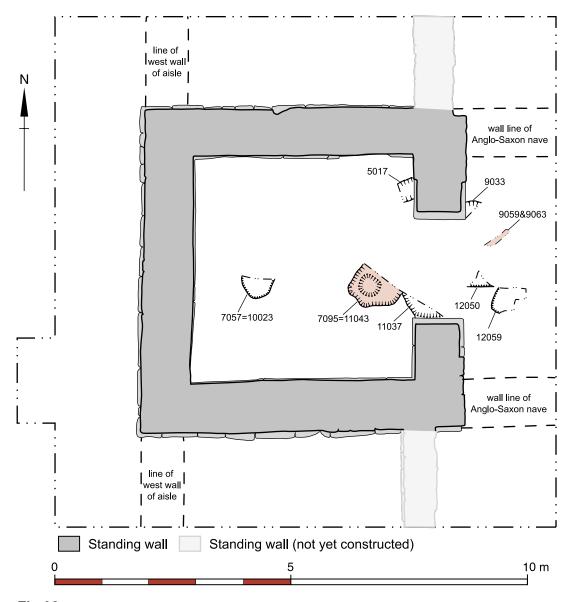


Fig.08 Medieval activity in trench 1. Scale 1:80

The medieval period was characterised by a series of floor deposits which could be followed as a relatively coherent sequence of the activity within the tower and nave. This sequence of activity (floors, build up, trample etc.) was no greater than 100mm thick at any point within Trench 1. Its surface lay at 8.9m – 9m OD throughout the tower. However, smaller localised differences were present, and later truncation had removed a large percentage of the material.

The sequence was as follows:

- In-situ burning and trample
- Compacted mortar surface/s
- Build up and trample over the top of the mortar surface
- Deliberately laid silty floors
- Finally patches of a softer mortar spread.

On the eastern side of the central area within the tower there was activity relating to small scale lead working. This overlay earlier disturbance and possible structural elements in this area, whilst the heat had discoloured much of the surrounding area and associated archaeological features (Plate 11). The first feature that related to lead working activities was



Plate 11 Section through early lead working feature

a cut too truncated to identify (7099 = 11052). This cut had been relatively small at c.0.30m across, and was shallow at only 0.20m deep, reaching 8.72m OD at its deepest point. The cut had been filled by 7096 = 7097 = 7098 = 11051, friable below a harder surface, mottled grey/black, ashy silt with mortar flecks. This was in turn cut by the construction cut for a lead working hearth (7095 = 11043), circular in plan, although truncated to the north – east, and roughly 1m in diameter and up to 0.44m deep (8.36m OD at its deepest point). The hearth contained a compact, yellowy grey, combination of silt and lead slag/waste with sandy lenses and charcoal interpreted as traces of an early use fill or damaged lining (7094 = 11042). On top of this was another lining or use deposit (7093 = 11041) made up of firm/stiff, grey (coloured red where heated), silty clay with frequent charcoal flecks. This contained pottery from the Anglian or Anglo-Scandinavian period, though the identification was limited by the volume recovered. Finally the cut had been backfilled by friable, slightly greyish orange, silty sand with moderate patches of grey silt/clay and charcoal flecks (7092 = 11040). This had presumably occurred immediately after it was no longer in operation.

Sealing early activity within the tower, as described in 5.1.7 above, and the lead working described in preceding paragraph, was a series of thin laminated firm, light grey/brown, silty

mortar floor surfaces (32056). They appeared to extend over the area of the south – east of the tower, where they had not been truncated by later features (Plate 12). Environmental sampling of these deposits proved this material contained little in the way of charcoal, and thus little which could be used to date the floor surfaces.



Plate 12 Floors and trample deposits in the south-east corner of the tower

Over the top of this first surface (32056), seemingly throughout the tower, was a series of linked mortar floors, 8033, 9034 = 9075, 12060, 32042 and 32044. All of these floors shared the characteristics of being firm/compact, very light yellow/brown, slightly sandy mortar. It is more than likely that they were all part of the same series of floor deposits. In time these surfaces had been cut or sealed by various later activities.

On the southern side of the tower arch (t1/K) the mortar floor had been cut by 11037, a truncated, slightly irregular, shallow in profile, cut sub-circular in plan. 11037 was up to 0.90m across and had been cut to a maximum depth of 0.15m OD. The feature was filled with a mortar rich backfill of dark brownish grey sandy silt (11036).

At this stage in the history of the tower it was very hard to relate the deposits on the inside and outside of the tower because of the truncation underneath the arch. What was left to the east of the tower had itself been truncated to a considerable extent.

Cutting the mortar floors to the east of the tower there was a very large cut feature, again truncated by later activity. The cut (12059) was sub-oval in plan with near vertical sides and had been excavated to a maximum depth of 8.35m OD (0.50m deep). The backfill (12058) was made up of friable, orangey-brown sandy silt which contained a single gritstone fragment, and occasional charcoal and mortar flecks. This was subsequently sealed by a mixed deposit of loose, grey/orange yellow, mortar/silt sand makeup (12054) which had pottery from the 12th century. In turn this was overlain by a thin layer of firm light brownish-yellow sandy mortar, possible a floor (12053) which produced 15th-century pottery. 12053 had been sealed by 12052, a layer of firm/compact, slightly pinkish yellowy grey silt with frequent inclusions linked to lead working waste, see Area t1/l below. Subsequently 12052 had been sealed by a series of thin friable, light grey/grey silty laminated floor layers (32053).

Cutting the mortar floor layer further north in Area t1/I, up against the north wall of the tower arch, there was a shallow cut feature (9033). What remained of the cut suggested that it was

perhaps originally sub circular in plan with shallow irregular sides. 9032, the backfill, was made up of firm, dark grey brown, slightly sandy silt with occasional mortar fragments and small clay lumps. As a feature it could be the same as that seen in Area t1/K (11037 cut and 11036 fill). 9032 was then sealed by 32053, the thin floor layers described above.

Further east features, again cut into the mortar floors, related to apparently intercut lead working hearths. In this case the archaeology had been truncated to a massive extent leaving only a thin strip of upstanding material to excavate. The hearth construction cut (9063), moderately sloping and concave towards the base, was sealed by a compact dark red silty clay lining (9062). This feature had then been backfilled with 9061, a friable, brownish grey, sandy silt with frequent lead waste fragments and charcoal flecks. The feature was then sealed by 9060, a layer of light yellow mortar and sand floor or spread. A further cut (9059), moderately sloping and concave towards the base was filled by firm, greyish blue, sandy silt with frequent charcoal flecks (9058). This had then been sealed by a series of thin floor layers (32053).

Yet more activity in the form of a spread of compacted yellowy grey mortar silt with gritstone and mortar fragments as well as smaller pebbles (12045) was visible in Area t1/L. This had then been cut by 12050 a small feature which was filled by a mixed deposit of orangey brown silty sand and grey sand with occasional mortar flecks (12049). 12049 was subsequently overlain by more laminated, light grey, silt floor deposits (12044). Over the top of 12044 there was a thin build up of friable yellow/grey silty mortar material (12043), which was then sealed by a series of thin dark grey silt trample layers (32052). This was the point at which the grave cuts for medieval burial were first evident in this part of Trench 1.

This activity at the west end of the nave may be contemporary with the thin burnt trample layers (32038) seen inside of the tower or if not then with floor layers, 32053.

A series of thin, laminated floor deposits (8026 = 32038 and possibly 32052 = 32053) sealing earlier activity within the tower and nave were removed as one, as excavating them separately proved to be impossible. This included the removal of any build-up or trample over the top of the mortar floors described above. The layers were made up of firm dark grey brown fine silt, burnt to a deep red and black in places, with occasional thin gritty and sandy lenses. It could be that the thin floor layers were the result of trample and built up over time, however the regularity and composition suggested a deliberate formation processes were involved. These thin layers may be the result of decades of build-up and cleaning processes.

Separate from the series of thin floor layers described above, and butting up against the north-east corner of the tower where the earlier archaeology survived truncation by the later flue, a sequence of activity linked with dumping and build up was excavated. 5019 = 5020, firm/friable greyish brown sandy silt, was overlain by more of the same in 5018. 5018 had been cut by a cut irregularly shaped in plan (5017), which was then filled by mottled grey/brown sandy silt with frequent mortar flecks (5016), the purpose of which was not possible to establish.

Overlying these thin floor deposits on the south side of the tower were a number of additional thin build ups and spreads which may have just survived better in this area than elsewhere in the tower. 15021, a soft/loose layer of residue from lime mortar, was overlain by friable, grey brown sandy silt with frequent mortar and limestone flecks (15020). In turn 15020 was sealed

by fragmented soft grey/white mortar (14022 = 15019), which was truncated by the shallow disturbed edge from the later bell casting pit (see Section 5.1.12 below).

In the central and eastern part of the tower there was a firm greyish (heat discoloured red) silt with frequent small pebbles and silt surface (11033), and a compacted area of brownish grey gritty mortar (7087 = 11034). These deposits were disturbed by a later shallow disturbance/cut (7086) which was backfilled with a mixture of grey/brown sandy silts with inclusions of mortar and clayey lumps (7085). This had been sealed by 32045, a later build up extending from the south-east corner (see below).

In the western side of the central part of the tower there was a post-hole cut (7057 = 10023). This had been truncated by later activity and was not fully excavated because of the depth restrictions on the excavation, but it was possible to establish that it was circular in plan with vertical sides and had been excavated to a depth of at least 8.52m OD, 0.40m deep. The backfill (7055 = 7056 = 10022) was made up of friable, brownish grey, silt with frequent angular gritstone and limestone fragments acting as packing or a footing for the post. The irregular fragments of sandstone, possibly packing the now gone, post suggest a possible medieval deposit, though this could also be just disturbed wall facing block fragments which date from an earlier period.

Further north another irregular, disturbed, shallow cut (7074) and firm, mottled brownish grey, sandy silt backfill (7073) was present.

In Area t1/J a small area of mottled orange, grey, brown and yellow, silty sand levelling (10027) was overlain by friable greyish brown silt (10024).

32051, a compact light grey mortar spread, seemingly made up of several layers, perhaps from repeated waste dumping, sealed all this activity at the west of the tower. A spot sample of this context showed the impressions left by organic material which had long since rotted away.

5.1.10 Medieval burials in the nave (13th – 15th century) (Figure 9)

During the medieval period burials were outside the tower at the west end of the nave. It was apparent that the expansion and creation of the aisles led to their use for burials soon after construction. Accurate dating of these burials was difficult because of the degree of truncation by the later structures and graves. The datable materials that were recovered show a possible date range of 12th to 15th century, whilst radiocarbon dating on the stratigraphically earliest example gave a calibrated date of as early as 1270 – 1320 AD.

In the two areas that were fully excavated to the east of the tower within the nave (t1/I and t1/L) the earliest burial which dated from the medieval period was a juvenile inhumation (12056) (Plate 13). This was dated using radiocarbon dating, giving a date of as early as AD 1270 –1320 (Section 17). 12057, the grave cut for this burial, was cut into natural; later burials had removed the original floors or deposits which it had cut into. The grave cut was also the deepest in this area, being cut to a depth of 8.03m OD (more than 0.80m deep). However the original depth of the grave was not possible to tell due later graves truncating the top of the cut. The backfill (12055) was firm, dark orange, sandy silt.

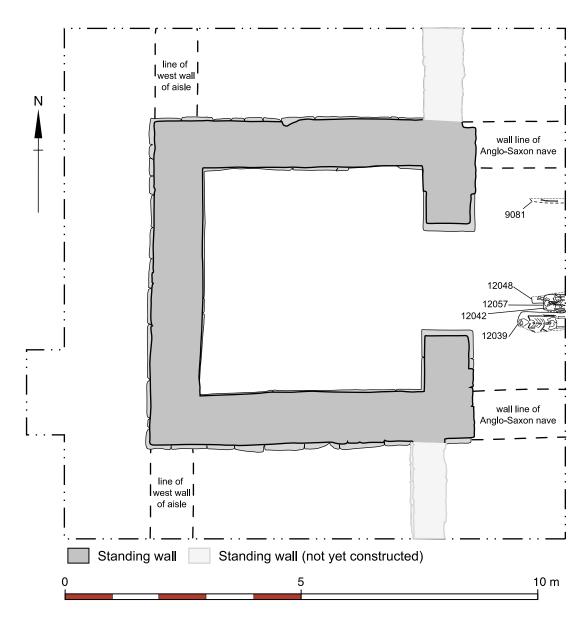


Fig.09 Medieval burials in the nave (Trench 1). Scale 1:80

Cutting backfill layer 12055 and trample layers to the west (32052) was grave cut 12042. This had been cut to a maximum depth of 8.24m OD (c.0.55m deep), though as it was virtually completely truncated by a post-medieval burial to the north it could have been deeper in that direction. What was left of the adolescent inhumation (12041) was sealed by the friable, light brownish grey, sandy silt backfill (12040).

12040 was subsequently cut by a further grave cut (12039). This was less disturbed by later activity than the two earlier grave cuts giving a more accurate final depth for the grave of 0.70m deep. The adult male burial (12038) had only been disturbed along the right hand side. The backfill for this grave (12037) was friable, brownish dark grey, silt. Another grave (12048) was cut into 12037, the adult female skeleton (12047) was truncated to the left (northern side)

Plate 13 Earliest medieval burial in the nave

and the backfill (12046) was made up of orangey brown sandy silt. The truncation of this grave was partially the result of the collapse of the southern section of Area t1/l during the backfilling process.

To the north of the three burials just described were the disturbed remains of



another grave from the medieval period. At the northern edge of Area t1/I, cutting into one of the burials linked with the earlier building (see Section 5.1.4 above), was Grave 9081. As a length of only c.100mm of this grave was exposed, little in the way of a description could be recorded. The adult inhumation within (9080) was only exposed in the region of the right arm, though would have been disturbed to a significant level further north anyway because of the coal bunker construction. The backfill (9079) was soft (probably due to disturbance), orangey grey/brown, silt.

Two other badly disturbed burials excavated within Area t1/I (9073 and 9084) may have been from this period. However, they have been linked with earlier structure because of the form of the graves and the preservation of the bone.

5.1.11 Construction of the West Wall of the Northern Aisle (15th century)

Compared to the outside of the building (see Section 5.2.10) there was limited evidence for the construction of the west wall of the northern aisle. Once again this was in Area t1/A in which little in the way of excavation took place. It was, however, possible to piece together some clues from what was recorded.

Where the structure of a later coal bunker was not masking the foundations for the west wall of the northern aisle, it was possible to make out what could have been a construction cut, a wall foundation, and the construction cut backfill below the wall itself. These deposits have not been assigned context numbers as part of the assessment report; further investigation of the records will be conducted as part of the later publication process No deposits were excavated, or associated finds recovered, so the dating of this phase of construction cannot be dated from the evidence recovered during the excavations in Trench 1.

5.1.12 Late medieval and early post-medieval activity in the tower and nave (15th – 17th century) (Figure 10)

The most striking archaeological feature of the late medieval or early post-medieval period was a large circular cut feature, probably a bell casting pit. In addition there were further floors, trample deposits, lead working hearths, and burials. The paucity of accurately datable material made it difficult to separate the earlier and later medieval activity in the tower and nave.

The complexity of the late medieval and early post-medieval archaeology means that it was not possible to separate the two periods clearly. Thus both periods are described in a single narrative.

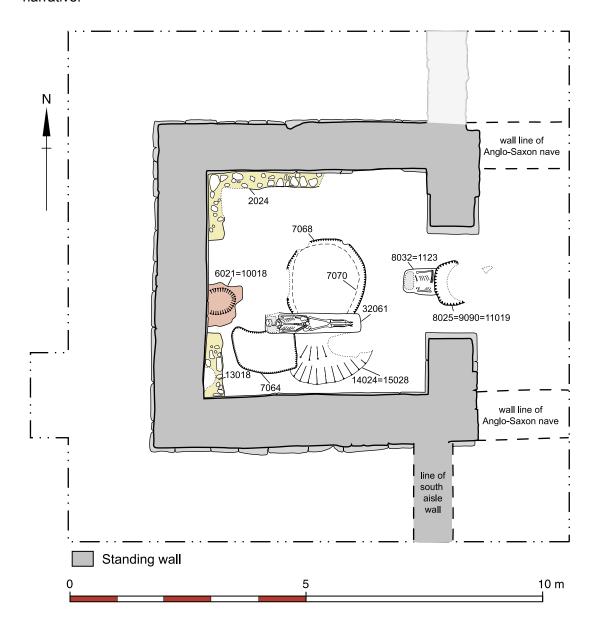


Fig.10 Late medieval and early post-medieval activity (Trench 1). Scale 1:80

Cutting through the earlier medieval floor deposits in the centre of the tower (Area t1/G) was the construction cut circular in plan for a possible bell casting pit (7068) (Plate 14). This cut was c.1.80m in diameter, with a sharp break of slope to vertical sides. The cut appeared to step in by 0.16m at a depth of 8.52m OD and at this point was given a separate context number (7070). A firm mottled brown/orange grey silty sand (7069), c.160mm around the edge, may have been lining although this could not be confirmed due to the depth limit imposed on the excavations in this area.



Plate 14 Cut for the possible bell casting pit visible in section of a later grave cut

A sequence of backfills (7061, 7062, 7059, and 7058) was made up of different deposits, primarily orange/brown sands/silts, grey clays, with inclusions of charcoal and in some case mould fragments. Further mixed levelling took place over the top of these deposits (7046, 7047, 7048 and 7049). Separated from the bell casting pit by a later burial (see 36061 below) to the south there was a shallow area of disturbance which seemed to be associated with the pit due to similar backfill materials. The shallow cut (14024 = 15018) sloped down to the north and contained 14023 = 15017, a mixed deposit of brownish grey silty clay and yellowy brown sandy silt. The same deposits which overlay, seemingly levelling, this backfill were identical to those over the top of the probable bell casting pit to the north.

This shallow cut (14024 = 15018) was sealed by a spread of mixed brown silt and greyish brown silty sand with occasional cobbles and limestone fragments (14021). It contained pottery from the 14th century. This was then cut by one or perhaps two separate features. If two features were present, the earliest would have been almost completely truncated by the second, later cut. The earlier was defined by and cut 14018 and was backfilled with loose light grey/brown sandy silt with frequent mortar fill 14017. The later, possibly separate, cut of 7064 = 10032 = 13033 = 14016 was rectangular in plan with vertical, in some cases undercut, sides. The base was only excavated in Area t1/M. The backfill was very soft, mottled light and dark grey sandy silt with inclusions of charcoal (7063 = 10031 = 13032 = 14015). If the feature was in fact just a single cut and fill, it could have been that the 'earlier' cut and fill was just in-situ remnant of a box, or frame, within the cut. This would explain the regularity of the cut and the 'metal sheet' (small find number SF00051) in 14017 (see conservation report Section 12 below).

The large regular shaped pit and the bell casting pit had been cut by a grave (32061). The cut was rectangular in shape with slightly rounded ends. The sides fell vertically with a moderate break of slope to a flat base, at a maximum depth of 8.30m OD (0.66m deep). A soft dark brown stain beneath the head of the burial (7067) suggested the body had been originally laid on a pillow during burial. The skeleton (32060) was that of an old middle adult (?) male with extensive pathologies. The narrowness of the grave and compacted way in which the body was positioned suggested that it had originally been wrapped or bound in a shroud. A soft/friable, mottled grey/brown, sandy silt backfill (32059) filled the rest of the grave cut and contained pottery dating from the 15th century. Sealing the grave backfill were a number of levelling dumps (7038 and 7054) which were made up of friable grey brown silt.

Sealing the pit, or pits, to the south was orangey grey/brown sandy silt with patches of mortar and charcoal flecks (14014 = 15016) acting as a levelling deposit. Sealing this and other activity along the south wall was a mortar spread (32058). These levelling deposits were very similar to the deposits (13012) excavated in the south-west corner of the tower. Over the top of 13012 was 13014, a narrow spread of loose mortar material that was linked with the construction of 13018, cobbles bonded with a brownish yellow sandy mortar (see 20024, in the north-west of the tower, described below)

This activity along the southern wall of the tower was sealed by a mixed deposit of burnt, patchy silt and soft white mortar (33048). All of this activity in the south – west corner of the tower predated 32057 = 7050, a compact mortar surface extending part way across the tower. Further to this were dumps of orangey brown sand and silt also in the south-east corner (13007-8). This was subsequently sealed by another extensive build up deposit (32045) in the south-east corner.

Moving north, along the western wall, the earlier mortar spread or surface (32051) was overlain by friable mottled grey/orange sand make up or levelling (6026). Over the top of this was a layer of similar material with mortar inclusions, perhaps trample (6027 = 10020). This layer was cut through by the construction of a small lead working hearth. The cut circular in plan (6021 = 10018) for the hearth was up against the western wall of the tower. In profile it had moderately sloped side which curved at a rounded base. A degraded orangey yellow silty sand deposit (10019) lined the construction cut, whilst a friable/loose mixture of grey ash and orange/red sand (6020 = 10017) was the backfill or use fill. Over the top of the feature was 10016, loose pinkish grey silt with frequent inclusions of lead waste and charcoal flecks, levelling the top of the disturbed area. This was again sealed by later, post-medieval, makeup and levelling (32049).

In the north and north – east corner of the tower overlying the burnt floors (32038) there was a spread of mottled silty sand (32055). This was followed by further build ups and spreads, friable and mortar rich in nature: 7039 to the south, and to the north 3023 = 4017. Further to 3023 = 4017 in the north was an isolated patch of compact greyish brown mortar (3020). This activity was subsequently sealed by 32043, grey / dark brown silt, along the north side of the tower.

Cutting into 32043 was the construction cut for a possible shallow footing. The cut (2026 = 3024) was shallow and slightly irregular, following the base of the wall around the north-east

corner, and had been excavated to a maximum depth of 0.13m. It was filled by 2025 = 3019, a cobble and mortar footing, very similar to 13018 in the south-west corner. In addition, further cobbles were present in an unbonded yet still mortar rich matrix (2024). This activity was then sealed by a spread of soft light grey/white mortar (2023) which was then sealed by 2017 = 3018, a dark grey/brown (black in places) ashy silt deposit. This was followed by 2014 = 3013, friable light grey mortar. Finally, all this activity was post-dated by the post-medieval floor levelling deposits (32039).

Plate 15 Heavily truncated burial beneath the tower arch



Beneath the tower arch, cutting through the burnt floor deposits (32038) was a burial which had been disturbed by numerous later features, leaving only part of the torso from the original burial (Plate 15). The cut (8032 = 11023) was positioned at the centre of the arch and what remained had been originally dug to a depth of c8.48m OD (c.0.40m deep). Beneath the burial, or beneath where the skull would have been positioned before it was removed during the construction of the southern flue, were the degraded remains of a possible pillow (8041 = 11022). This deposit soft, dark grey, silty deposit was only c.20mm thick and had a slightly irregular, rounded rectangular shape. The remains of the adult burial (8042 = 11021) were extremely fragile as they had been denatured by the heat from the flue above. The friable, grey, sandy silt backfill (8031 = 11020) had also been affected by the heat from the flue.

Cutting into the eastern side of this burial was a pit which may have related to the bell casting further west. Industrial waste had been buried within a pit, the cut of which was sub-rectangular in shape, surviving at a maximum of 0.95m wide (8025 = 9090 = 11019). The sides of the pit broke sharply from the surface and were vertical down to the limit of excavation. Backfilling this pit was 8024 = 9089 = 11018, a mixture of debris and waste from metal working which was then sealed with a blue grey clayey deposit. The depth of this feature is not known as it continued beneath the depth limit of excavations in Area t1/H. Where a small area still survived in Area t1/I the depth appeared to be 8.10m OD. It is likely that there was some material which was sealing the grave before the pit cut. However, this was not very clear during excavation because of the number of truncations to the archaeology, some of which were very modern. The position of this pit in such a prominent position beneath the tower was unusual because it would have restricted access into the tower itself, and perhaps there was some significance in where it had been situated. Sealing this pit was 8023 = 11017, slightly brownish grey sandy

silt containing mortar flecks, perhaps spread / trample before the post-medieval floor levelling deposits (32049).

To the west of the tower activity other than burials and floor deposits was limited with just a very truncated possible pit cut (9056) which was filled by firm light grey silt sand with occasional mortar flecks (9055). Again this was sealed by the later post- medieval floor levelling deposits levelling.

5.1.13 Later post-medieval activity (Figure 11)

The later post-medieval period was indicated by a levelling of earlier deposits and the raising of floor levels in the tower, nave and aisles. In addition, a number of new burials took place, predominantly in the nave and aisles but a single burial was placed in a very prominent position towards the west of the tower. Again there was evidence of more lead working.

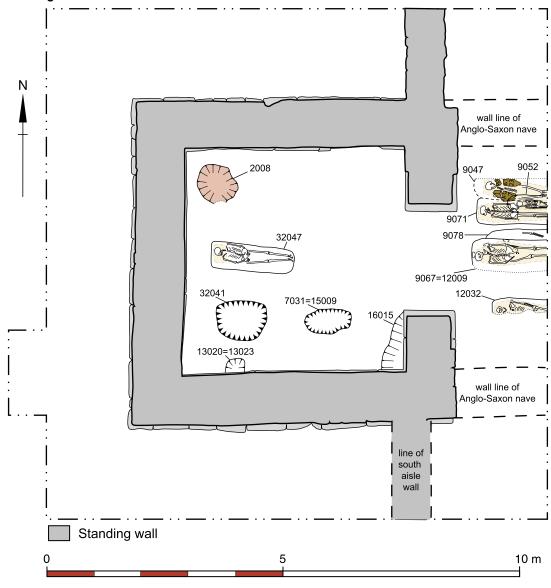


Fig.11 Later post-medieval activity (Trench 1). Scale 1:80

Levelling and make up for post-medieval floors

In the south-west corner of the tower earlier activity was sealed by another extensive friable, orangey brown/grey, sandy silt build up deposit (32045).

A further group of mixed friable sand and compact patches of light grey mortar dumping deposits (7043, 11031, 14009) were present within the tower before the recognisable levelling for post-medieval floor deposits in the tower (see the earliest, 32049, below).

A levelling deposit to the west of the centre of the tower (Area t1/G), before the sandy levelling deposits described below and after the post-medieval build ups, backfilled the depression over the top of an earlier pit. This loose, light brown orangey grey, silty material (7035) contained brick which had been deliberately placed flat, further adding weight to the fact it was a levelling deposit.

In the south-east corner there was a large area of disturbance within a shallow irregular cut (16015). The friable/soft, dark brown silt backfill contained cobbles, limestone and gritstone fragments up to c.120mm in diameter (16014). 16014 was sealed by the later mottled floor make-up deposit (32003).

Sealing the features described above, along with late medieval and early post-medieval deposits throughout the tower, nave and aisles was a series of uniform levelling and make-up deposits. The earliest of these deposits (32049) a friable mottled orange brown silty sand was seen in eastern side of the tower. Slightly later in the sequence 32039, another deposit of friable brownish orange, mottled sand, as well as 3016, brownish grey sandy silt and also 6017, a more reddish sand, could be grouped together with 32049 as a sequence of levelling deposits which had been spread around the inside of the structure.

At the south-west side of the tower, sealing 32049, was a deposit of greyish brown sandy silt with occasional charcoal and limestone (10014 = 13005) which in turn was covered by a spread of loose gritty mortar (10013).

Cutting 32039 in the north-west of the tower was a regular cut square in plan (2018) which was a shallow U-shape in section. It had been excavated to a maximum depth of 8.67m OD (0.32m deep). The backfill was a mottled yellowy orange sand deposit (2016). This feature originally looked as though it should relate to the later lead working event (see below) but in fact did not as it was earlier than 32003.

All of the above levelling deposits and earlier archaeology were sealed by firm, friable when disturbed, mottled yellowy brownish grey (32003). This deposit ranged in depth but was up to 200mm thick in some places. It was interpreted as a make-up deposit used to raise the floor levels internally before a floor was laid, and subsequently removed, perhaps during the 19th century (see 5.1.14 below).

To the north of the tower over 32003 was 3012, a small patch of firm, light brown, silt with little linking it to later activity. It was assumed that this was just part of the make- up and levelling procedure.

Of all the lead working and industrial activity which had occurred within the tower the latest was seen in the north-west corner in Area t1/B. Cutting into 32003, the make- up deposits, was the construction cut for a lead-working hearth (2008). The cut was the most complete of all such features excavated and was c0.80m wide and up to 280mm deep, being a slightly irregular bowl shape in profile. The hearth contained a firm orangey red (brownish red to the east) silty sand lining (2007) (Plate 16). This was sealed by a compact, almost solid, deposit of yellowy grey lead waste and slag, interpreted as a use deposit (2006). Finally at the end of its usage it had been backfilled using soft, grey, gritty silt and ash, waste from the last phase of working/manufacture and other material (2005). This feature had been cut by the modern clearance cut to the north of the tower.



Plate 16 Postmedieval lead working hearth and lining

On the south side of the tower, cutting 32003, there was a rectangular pit or post-hole (7031 = 15009). This was a slightly rounded rectangular shape in plan. It had been filled by 7030 = 15008, orangey brown, sandy silt with mortar and limestone flecks, firm towards the top but softer lower down. If this feature was modern in origin it was not possible to tell from the data recovered during the excavations. It had been sealed by a modern compact surface (32028).

In the south - west corner of the tower, against the southern wall in Area t1/M, the make-up deposit (32003) had been cut by an irregular shaped cut (13020 = 13023). This had been excavated through the medieval deposits and slightly into the foundation of the standing tower. The backfill of loose, dark brown sandy silt with frequent small angular limestone fragments (13019 = 13010) had been disturbed at the top by modern clearance.

One of the most interesting features discovered during the excavation was also attributed to this phase of activity. Cutting into the make-up deposit (32003) described above was a pit cut rectangular in plan (32041). The corners and base were slightly rounded, though the sides were regular and near vertical in profile. Backfilling the pit was 32040, a firm (softer lower down), greyish orangey brown, slightly sandy silt with inclusions of tile and mortar fragments.

It also contained fragments of a broken up carved and decorated alabaster tablet. A full description of this can be found in Section 5.11 below. The feature was sealed by compact mortar surface (32028).

To the east of the tower, within the northern aisle, in Area t1/A it was possible to see a brownish grey silty deposit (1023), possibly backfilling a feature, at the northern end of the area of excavation. This overlay 32003 and was beneath the later, modern, compacted surface, 32032.

Burials

The post-medieval burials in the nave and aisles were typified by the construction of the coffin and the fact they were all cut into the floor make-up deposit (32003) described above. The earliest burials appear to date from the early part of the 18th century at the latest.

Cutting through 32003, the floor make-up deposit, in Area t1/L was the grave cut (12032) of one of three possibilities for being the earliest post-medieval burial. Although virtually all of southern side of the grave had been removed during the construction of the boiler, it was still possible to determine that it had been excavated to a depth of 8.18m OD (in excess of 0.80m deep) The adult male skeleton (12031) was in a relatively poor condition which may have been a result of heat from the boiler or the degrading coffin (12033). The grave backfill (12030) was friable yellowy grey, sandy silt with occasional mortar and tile fragments. The backfill also contained pottery from the 12th century, though this material was residual and did not indicate the date of the burial.

Further north, in Area t1/I, was an almost entirely truncated grave (9078) which may also be one of the earliest post-medieval graves. What survived indicated that it must have been cut to a depth of at least 8.03m OD. The adult inhumation within (9077) was represented by part of the left arm which had survived *in situ*. Backfilling the grave was 9076, a slightly firmer, orangey brown sandy silt with occasional mortar and limestone flecks. The finds recovered from the grave backfill suggested a medieval date, as did the lack of a coffin; however it appeared to be cutting a post-medieval deposit (32003).

The final candidate for the earliest post-medieval grave was found further north again, but still within t1/l. Cutting through 32003 was 9071, a grave cut rectangular in plan which had been dug to a depth of 8.16m OD. The adult female burial within (9070) was complete apart from the lower legs which were beyond the limit of excavation. There was evidence of a coffin (9069) from staining and finds within the trench. The firm / friable, orangey brown, sandy silt grave backfill (9068) contained occasional mortar flecks and residual tile from the medieval period.

Cut into grave backfill 9068 was 9047, another grave in very similar position to the north. This grave cut truncated earlier burials and was excavated to a depth of 8.26m OD (0.84m deep). The adult (possibly male) burial (9046) was again only visible from the lower legs upwards. The coffin (9045) was still relatively well preserved in places because the solution in water of copper alloy decorative studs on the lid had acted as a biocide on bacteria and fungi which would have rotted the wood. It was still possible to make out 'J W, AG 61, 1723' formed using the decorative studs; this corresponds to one of the burials that was mentioned in the church

records (F. Underwood pers. comm. 2004) (Plate 17). The rest of the grave cut had been filled with friable, mottled grey brown, sandy silt with occasional mortar fragments (9044). To the west of the cut for the northernmost flue was the extreme western end of this grave (Cut 9023 and backfill 9022).

Plate 17 (left and below) Burial, and detail of partially preserved decorated coffin lid

Between grave cuts 9047 and 9071 was 9052, the cut for the grave of a juvenile. This was shallow, only cut to a depth of 8.47m OD (c.0.50m deep), but was still rectangular in plan. The burial (9051) had been in a coffin, indicated by organic staining (9050). The friable, light orangey grey, silty sand backfill (9049) filled the rest of the grave cut. When the three graves just described were looked at together they gave the impression that they had been deliberately grouped, and could be part of the same family.

Cutting into 9076 was 9067 = 12009, a very large and deep grave cut, excavated to a depth of c.1.0m deep. The young middle adult male burial (9066) was that of a very large individual, displaying both metric traits and pathologies. The skeleton had been buried within a substantial coffin (9065 = 12008) with a lot of metal components. The grave backfill (9064 = 12007) was friable, orangey light brown, sandy silt which contained residual pottery and tile from the medieval period.

The intercut nature of the post-medieval burials to the east of the tower, linked with the later disturbance, meant that they were difficult to define during excavation. Because of this a 50mm thick spit of material (9043) was removed from the top of all the above backfills to aid with the identification of the individual burials.

At the western side of the centre of the tower there was also an inhumation from the post-medieval period. Cutting through the make-up deposit 32003 was Grave 32047. It was rectangular with slightly rounded ends in plan, and had vertical sides which were slightly rounded to a flat base. It was apparent that the burial had been laid on a pillow or cushion

(6010) as this was visible under the head and shoulders. The skeleton was that of an adult male (6008 = 7019) (Plate 18). Backfilling the grave was 32046, a friable/loose deposit of greyish light brown sandy silt, containing tile from the 17th-18th century. This was subsequently cut by the modern clearance cut, 32025.

Burials in Area t1/A

Because of the excavation methodology which was employed within area A of trench one it was not possible to establish an accurate chronology for the burials recovered. A series of record photographs were taken and measured sections were drawn before the removal of any burials.

The burials and associated details are listed below in Table 1.



Plate 18 Burial central to the west side of the tower

CONTEXT	TYPE	INTERPRETATION
1016	Burial	Adult inhumation
1017	Burial	Juvenile inhumation
1018	Burial	Adult inhumation, possibly male
1019	Burial	Young adult inhumation, male
1020	Burial	Adult inhumation
1021	Burial	Adult inhumation
1025	Burial	Old middle adult inhumation, female
1026	Burial	Adult inhumation
1027	Burial	Neonate inhumation
1028	Burial	Juvenile inhumation

Table 1 Burials in Area t1/A

5.1.14 Modern 19th and 20th Century activity in the tower and nave (Figure 12)

The modern period, the 19th and 20th centuries, was represented by features relating to the refurbishment and repair of the church. Large scale excavations to the east of the tower, through the tower arch and towards the northern wall were responsible for the removal of virtually all the archaeology in those areas. It was not possible to remove the boiler, and parts of the soak away and coal bunker which were constructed during these works, though it was possible to fully excavate the flues running from the coal bunker and the furnace.

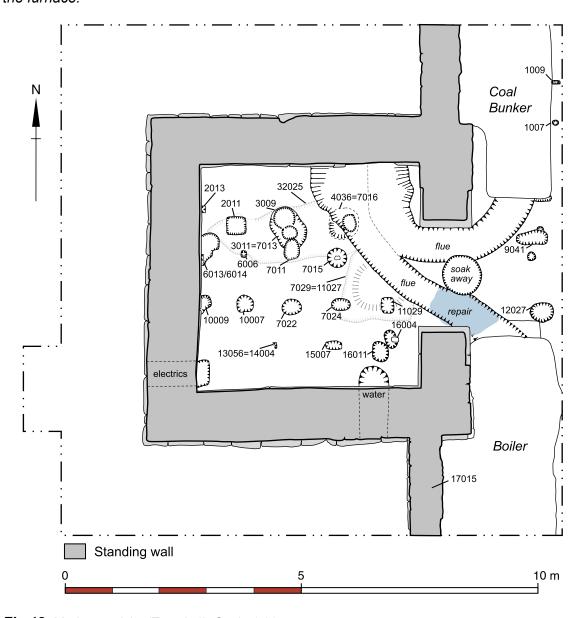


Fig.12 Modern activity (Trench 1). Scale 1:80

Again, as in the case of the division between the medieval and late medieval archaeology, it was difficult to define the exact point at which the post-medieval and modern archaeological sequences could be divided. In this case the archaeological sequence has been divided up

according to already established events in the history of the church.

The first activity that could be securely placed in this phase of activity was the clearance of the floor or surface which had presumably overlain 32003, the thick floor make-up deposit. The clearance cut was horizontal and continued to the depth of the surviving remains of 32003. Towards the walls of the tower it rose slightly, though only by up to 25mm. Although it was described as a cut, this may turn out to be a misnomer, perhaps the use of clearance alone would be more appropriate since the lower deposits may have been undisturbed.

Re-build of the western wall of the south aisle

As part of the late 19th century renovations to the structure of the tower the western wall of the southern aisle had been rebuilt. This was visible to a greater extent externally, within Area t2/EE. However, the limited excavations around the structure of the boiler left in-situ did allow a glimpse of the sequence of events. Cutting into the foundation of the standing building was 17016, the construction cut for the rebuild of the wall. This north - south linear cut continued beyond the limits of excavation at c.8.80m OD and later disturbance had made it impossible to tell how wide it originally was. The way in which the subsequent brick and limestone foundation (17015) had been laid suggested it may have been only as wide as that, with the brick, limestone and mortar filling the cut in its entirety. It is possible that this cut had served a dual purpose, robbing the stone from the foundation of the wall being rebuilt, and then acting as the construction cut for the new wall, though this was not possible to tell with the limited investigations in this area. The foundation to the re-built wall (17015) was made up of bricks and various sizes of re-used limestone blocks. This was all bonded with a compact, light grey, sandy mortar which was smeared beyond just the joints in the brick and stonework.

Post-holes

In addition to the remaining structural elements from the modern period were a number of post and stake holes which appeared to be roughly contemporary in date. Where the postholes survived it was possible to group them together, chronologically and spatially, into distinct groups.

On the northern side of the tower were two very deep post holes, the western of which appeared to have been re-cut. At the southern end of are t1/C was post hole cut 3011 = 7013. This had been backfilled by loose material containing large amounts of rubble (3010 = 7012). Cut into the backfill of 3011 = 7013 was a similar circular post hole cut (3009), which contained evidence for a rotted post (3008) and loose backfill (3007). Further east a similar shaped cut (4036 = 7017) and similar material backfill (4035 = 7016) was excavated at the southern end of Area t1/D.

Further east in Area t1/B was a square shaped cut (2011) which was only relatively shallow at 0.30m deep. The backfill (2010) was friable brownish grey gritty silt.

The postholes described above had been partially truncated by a clearance cut at the northern side of the tower. The cut (32025) was an irregular ovoid in shape and concave in profile, continuing a maximum depth of c.0.25. The loose rubble rich backfill (32024) had been

truncated by later, smaller, postholes and the construction of a brick flue. A similar area of clearance was also present to the east. The cut (7029 = 11027) was again an irregular ovoid in plan, whilst the backfill (7028 = 11026) was identical to 32024. Again this was cut by smaller post holes and a brick flue.

Cutting into the clearance cuts were two parallel lines of postholes which extended across the centre of the tower, running from east to west. All were roughly 0.30-0.40m in diameter, circular or ovoid in shape and had a slightly irregular concave profile, up to 0.20m deep. At the base of some it was still possible to see the impression left by the original timber post. The backfill deposits were made up of loose orangey grey sandy silt with frequent rubble inclusions. The northern line began in t1/F with cut 6013 and backfill 6012 up against the western wall. This had been cut into an irregular shaped shallow feature (cut 6014 and fill 6013). Further east was cut 6006 and fill. Moving into the central area of the tower were cut 70011 and fill 7010. Further east again were cut 7015 and fill 7014. An additional small cut feature which could be linked with 6013 was found in Area t1/B. The cut (2013) and backfill (2012) were almost identical to those described above. The southern line had a western limit in area t1/J. Near the west wall was cut 10009 and fill 10008, cut 10007 and fill 10006 to the east. In the central area was cut 7022 and fill 7021, with cut 7024 and fill 7023 further east. Finally at the far eastern side of the tower, in area t1/K was cut 11029 and fill 11028.

At the southern side of the tower a row of three small post holes, or the backfilled voids from where a driven post had been inserted, were present. Cut 13056 = 14004 and fill 13055 = 14003 was driven at an angle between t1/M and t1/N. To the east, in area t1/O, was vertical cut 15007 and fill 15006. Finally in Area t1/P a final vertical cut 16004 and fill 16003 had been made through a shallower feature (cut 16009 and fill 16008). Which in turn had been cut through a deeper post hole to the south (cut 16011 and fill 16010).

Amore confused picture was seen outside the tower to the east. A potentially linear arrangement of small irregular postholes (c.0.20m in diameter) was visible with cut 1009, fill 1008 and cut 1007, fill 1006. Backfill 1006 contained medieval brick, though this was obviously residual and from earlier activity in this area.

To the east of the tower arch in Area t1/I, cut into the post-medieval grave backfills, were two small possible postholes or post voids. The cuts 9028 and 9030 with the respective fills 9027 and 9029 had been sealed by later make up deposits 9019 = 12011. In turn 9019 = 12011 was covered by a compacted surface 32032. Two larger sub ovoid postholes or pits were present further south. Cut 9041 and fill 9040 was the more irregular of the two. With cut 12027 and backfill 12026 being more regular in shape.

The numerous post holes were interpreted as scaffold or similar structures linked with the refurbishment of the tower. The scale of the works which took place (as described in Section 6 below) would certainly lead to below ground features surviving. Another possibility for the origins of the post holes would be the footings for no longer present timber partitions or similar.

In the far south – east corner there was further disturbance recorded as a patch of very dark, possibly burnt, silty material 16012. This had been deposited on top of 32003 and was subsequently sealed by the floor for the church. This may represent a patch of localised

burning and could be linked with the postholes described above.

Boiler, coal bunker and associated flues

Cutting through the compacted mortar surface (32032) were the structures associated with the boiler, coal bunker, flues and soak away for the font.

The boiler was placed inside a large cut sub-rectangular in plan (12025 = 17008). The cut had vertical sides which continued to beyond 1.80m BGL (7.45m OD), but the base level is unknown as it was unexcavated. On the eastern side of the construction cut, beyond the limit of excavation for t1/L and t1/Q, it was apparent that the cut (17023) was undercutting deposits further east. It is likely that this was a result of collapse of loose deposits from the section, rather than a deliberate undercutting of the section during construction of the boiler. The true extent of this collapse was not possible to determine because of the limits of excavation and extant structure of the boiler. The backfill of the collapse (17022) was different to that of the construction backfill (12023 = 17006), being a soft, slightly mottled pinkish orange sand with inclusions of bone and patches of grey silt. The structure for the boiler (12024 = 17007) stood on a stone flag base and was built from bricks bonded with extremely strong dark grey cement.

The boiler itself was mounted within this structure. There may have been more than one boiler in this structure and / or repairs to the structure itself, therefore more than one construction event, but archaeologically this was not possible to see. The gap between the structure of the boiler and the construction cut was backfilled with loose, light grey brown, sandy silt with frequent inclusions of brick rubble (12023 = 17006). There was also a pair of vents built into the side of the boiler, the western of which was excavated. The cut for the vent (17021) was made at the same time as the construction cut for the boiler and was slightly irregular in shape, running east-west from the wall of the boiler to the re-built aisle wall. The vent, sections of orange ceramic field drain, and the backfill (17020) were loose within the construction cut. The southern and western walls of the aisle had limestone blocks perforated with holes that correspond to the line of the air vents seen leaving the boiler. Though the boiler structure was not dismantled in the same way as the coal bunker (see below), it was possible to see that the construction backfill had not completely filled the gap between the structure and the construction cut. A series of voids were present in the whole area excavated.

In t1/A there was a large cut, perhaps originally oval in plan (1015) which appeared to immediately precede the construction of the coal bunker (1007). This cut was backfilled with soft, brownish grey, sandy silt which contained tile from the medieval period and mortar fragments (1013). Cut 1015 cut through the compacted mortar surface 3032 which again contained fragments of medieval brick. There were two possible origins for this feature, either it was part of the construction process, and just a different layer of construction backfill (see 1006 = 9020 below), or it was a large cut which was occurred just before the construction of the coal bunker.

The coal bunker was built in a similar manner to the boiler. The construction cut (1008 = 9021) was cut through the pre-existing compacted surface 32032. It was sub-rectangular in plan, with near vertical sides and a sharp break of slope to a flat base (where exposed) (Plates 19

and 20). The coal bunker (1007) was brick built and constructed upon a base of flagstones (1014). Again, as with the boiler, the gap between the construction cut and the structure was backfilled with loose, grey / brown, sandy silt (1006 = 9020). In places there were voids, as in the case of the boiler, where this backfill had not completely filled the gap between the structure and the cut.



Plates 19 and 20 Earlier features and graves disturbed during the construction of the coal bunker - revealed once the walls were stripped

Sealing the coal bunker and the northernmost two (1009 and 1011) of these post holes was a make-up layer of loose, light brownish grey sandy silt with mortar flecks 1005. This was earlier than the deposits which went to make up the church floor.

Both the brick flues, one running from the boiler (cut 32009) and another, redundant as not used as a flue, running from the coal bunker (cut 32016), were later than the boiler and coal bunker. Why there were two flues built yet only one used was a mystery, perhaps an explanation would be that there were initial plans for the coal bunker to be used as a boiler as well. This would explain the air vent holes in both of the structures.

The construction cut for the flue from the boiler (32009) appears to be the first of the two, cutting through the clearance events on the north and east of the tower (32024 and 7028 = 11026) It was curvilinear in plan with a sharp break of slope at the surface and near vertical sides which

broke sharply to a flat base. The construction cut for the flue had been excavated to a depth of over 0.50m (c.8.58m OD), thus truncating virtually all of the archaeological deposits in its way. The built structure of the flue comprised a stone flag base (32010) upon which there were two parallel walls (32011 to the south and west, 32013 to the north and east) each a single skin of bricks thick. The walls had been repaired at a later date (see below) though they were originally bonded with a friable, yellowy white slightly gritty mortar. On top of the walls was a capping of stone flags (32015) again bonded with the same mortar. The gap between the sides and top of the construction cut and the flue structure had been subsequently filled by construction backfill (32012) to the south and west, and 32014 to the north and east, both loose brownish grey sandy silt with inclusions of tile, mortar and small stones. All of the deposits that were in close contact with this flue, whilst it was in use, had been discoloured by the effects of extreme heating. This extreme heating resulted in an orange or red tint.

The brick flue running from the coal bunker was almost identical to that from the boiler. The construction cut (32016) was curvilinear in shape with a profile similar to that of 32009 to the south. This had been excavated to a similar depth, truncating virtually all archaeological deposits below. The base (32017) was different to 32010 in that it was made of brick pavers laid flat. The walls (32018 to the west and south, 32020 to the north and east) were also a single skin thick and bonded with a friable, yellowy white slightly gritty mortar. The walls had again been capped with flagstones (32022) and the gap between the structure and construction cut backfilled (32019 to the west and south, and 32021 to the north and east) with loose brownish grey sandy silt with inclusions of CBM, mortar and small stones. As the top of this flue had not been deliberately destroyed there was further construction backfill (32023), the same material as described above, over the top of the flue, backfilling the remainder of the construction cut. Overlying the backfill of the flue in Area t1/E was 5007, an isolated dump deposit made up of friable, brownish light grey, slightly sandy silt.

Again cutting the compacted mortar surface (32032), between the two flue runs and beneath the tower arch, was the construction cut for a soak away (32031). The construction if this appeared to be contemporary with the construction of the brick flues described above. The construction cut (32031) was circular in plan, and had vertical sides. Although the base was unexcavated it was roughly 1.3m deep. The brick structure of the soak away (32030) was circular in plan, a single skin of bricks wide and bonded with friable, light yellowy white, gritty mortar. The gap between the construction cut (32031) and the structure (32030) had been backfilled with 32029, firm, mottled orange and brown, silty sand. The composition of the construction cut backfill reflected the deeper sand natural into which it had been cut. On top of the soak away a small footing of bricks had been used to act as a base for the font. Church floor

Sealing all of the archaeology described above were the make-up deposits for the floor (32002) present before the work had begun. This was loose grey/brown sandy silt with frequent inclusions of mortar, CBM and stone fragments. This was the first deposit recorded using archaeological techniques.

The original tile and wood floor (32000), cement levelling and adhesive for the floor tiles and wood (32001) along with subsequent repairs to it in the area under investigation was recorded and removed by the contractor prior to the start of the archaeological work on site.

20th century activity

Immediately to the north - east of the southern side of the tower arch where areas t1/K and t1/L joined, the southern flue had been repaired. The heat damaged and degraded bricks had been cut away (32036), the repair (32035) to the brickwork was made using heat proof bricks (as used in kilns).

Adjacent to the north wall of the tower, where the flues had been inserted into the wall, the top of the flues had been cut by 4033 = 5004. This cut had been made to insert an inspection grill into the flues (4003 = 5003).

The coal bunker had been backfilled by two deposits (1003-4) and then levelled over the top. How it went out of use and what it originally was covered by is uncertain, though it was deliberately backfilled using the levelling deposits mentioned above. The boiler had also been deliberately decommissioned and subsequently backfilled. The cut for the demolition (17005) was of an unknown shape, although it was within the original structure of the boiler. The loose stone backfill (17004) covered the boiler and the part which was used to gain access for loading fuel and stoking. This had all been sealed by a new section of quarry tile flooring (17003). During the excavation process this caused problems because of the asbestos sheeting which surrounded the boiler had been disturbed during this process. The southernmost of the flue runs, which ran towards the boiler, had been deliberately destroyed. The top was breached by an irregularly shaped cut (32034) which roughly followed the line of the structure. This was subsequently backfilled with the destroyed cover and additional rubble (32033).

In the south – west corner of the tower cutting through the make-up deposits for the floor (32002) was a cut for the insertion of the mains electricity (13004). The cut was sub-rectangular in plan, 0.56m long and 0.28m wide, and cut to a depth of at least 0.24m deep as it was cut deeper the further it went beneath the west wall of the tower. The backfill (13003) was relatively loose, grey / brown sandy silt with frequent inclusions of rubble and stone which had been disturbed during initial excavation.

Against the south wall of the tower, again cutting through the make-up deposits for the floor, was the cut for the insertion of mains water (15004 = 16006). This cut sub- rectangular in plan was roughly 0.56m in diameter and the depth was greater than 0.40m, as the cut was deeper beneath the south wall of the tower. The backfill (13003), was similar to that seen where the mains electricity had been inserted though here there was more in the way of angular limestone fragments as an inclusion as the foundation material for the standing tower (32008) had been disturbed.

At the west of the tower a layer of trample (10003 = 6002) sealed 6005 and 10006 and was the latest deposit excavated in this area. It was probably modern in origin and a result of the disturbance which took place during the backfilling of the trenches in the corners of the tower, in this case Area t1/M.

5.2 TRENCH 2 (OUTSIDE THE CHURCH)

The archaeology on the outside of the church was, unsurprisingly, markedly different to that which was seen internally. Not only were the deposits heavily truncated by more than a millennium of inter-cutting burials, but also by burrowing animals and clearance during the refurbishment of the church. The difficulty in separating burials into phases means that many have only been tentatively dated and they have been grouped together into wider date brackets than those internally. The descriptions of the grave cuts vary depending on when they were first seen; in many cases a cut was not isolated until articulated skeletal material had been found.

5.2.1 Natural Deposits

Natural alluvial material, a firm to compact, reddish orange sand, was the earliest deposit revealed (33007). This was excavated to depths of between 7.20m and 7.50m OD (1.80m BGL). The range in depths of natural relative to ordnance datum is due to the variations in ground level around the tower which depended on how much later disturbance had taken place. It was encountered as high as c.8.10m OD (1m BGL) at the eastern extent of the south side of the tower. Along the western and northern sides of the tower natural was encountered at a uniform c.8m OD, which perhaps indicates the presence of a gentle slope falling to the north-west from the south-east corner of the tower. To the south-eastern side of the tower the natural changed dramatically from the sand described above to stiff reddish grey clay at a depth of c.1.7m BGL. Again this may be further evidence of a pre-existing ground slope. Where not removed by later truncations, the firm natural sand was overlain by softer yellowy orange, slightly silty sand (33013). This was assumed to be natural subsoil that had developed over natural alluvial deposits and was c. 0.2m thick where not disturbed. The subsoil was found in greater abundance to the north of the tower, as there were fewer intrusive features. There were traces of a possible earlier feature (26065) at the south-west corner of the tower but it may have been just an area of darker subsoil.

5.2.2 Earliest Features (probably Anglo-Saxon) (Figure 13)

In some parts of Trench 2 it was possible to see glimpses of features that appeared to predate the earlier building. These, unfortunately, did not appear to have any links with the features seen internally (see Section 5.1.2).

Cutting natural to the north of the tower (areas t2/T and t2/U) an amorphous shaped feature (20025 = 21015) with irregular shallow sides, no greater than 0.15m deep, appeared to cut into the natural subsoil. The soft, slightly pinkish orangey brown backfill (20018 = 21014) contained no datable material. It is possible that this was in fact a natural feature, though the difference in composition suggested otherwise. This appeared to be cut by the foundations for the earlier structure (32014).

To the west of the tower, in Area t2/W, there was an unusual patch of greyish brown silty sand which appeared to contain charcoal flecks (23038). Overlying 23038 and cut by the foundations of the earlier structure (32014) was another spread of material (23037). This firm orangey brown sandy silt deposit with occasional mortar flecks was again material which may have had a natural origin.

In Area t2/x to the west of the tower a shallow cut (24037) and subsequent friable light orangey brown backfill (24036) were recorded, though again may have been of natural origin.

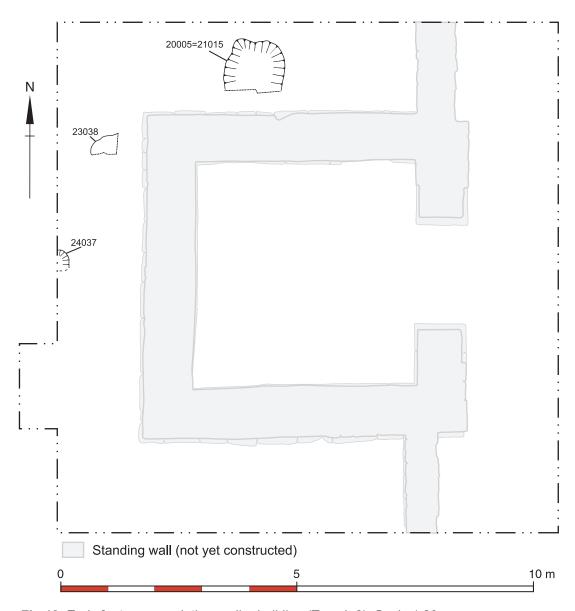


Fig.13 Early features pre-dating earlier building (Trench 2). Scale 1:80

5.2.3 The construction of the earlier building (probably Anglo-Saxon) (Figure 14)

The archaeology relating to the construction of the earlier building was heavily truncated by later burials. A cobble foundation projecting from underneath the standing building was revealed, as expected following the previous evaluation and excavations internally. In addition foundations for an apse or porticus, which extended to the west of the tower, survived where not truncated by later graves. Other ephemeral remains could also be grouped with this phase of activity, though truncation meant that their place in the sequence could not be confirmed with any certainty.

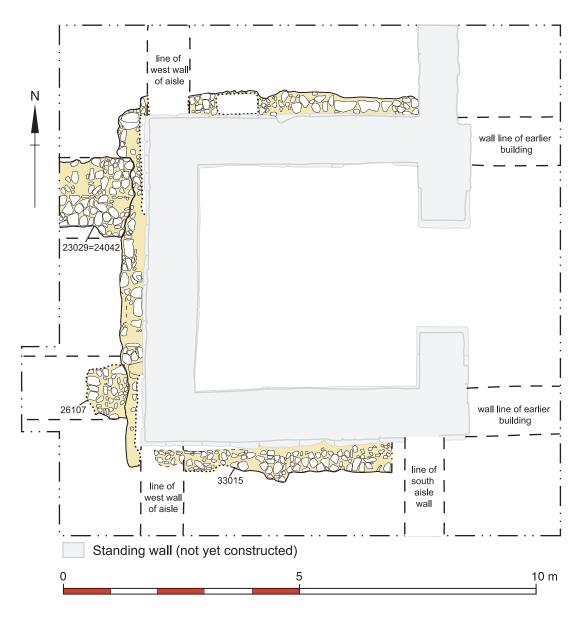


Fig.14 Construction of earlier building (Trench 2). Scale 1:80

Cutting into natural, and the features described in the preceding Section (5.2.2), was the construction cut (32014) for the foundations of the earlier building. The cut was entirely filled by the foundation (33015) itself, and thus was difficult to record and describe as the foundations were not disturbed during excavation. In plan the construction cut appeared to be rectilinear in plan with additional spurs that projected to the west of the western side of the tower (foundations in north spur 23029 = 24042 (Plates 21 and 22), south spur 26107 (Plate 23). In profile it appeared to have a sharp break of slope at the surface and near vertical sides which broke more gradually to a flat base. The foundations (23029 = 24042, 26056 and 33014) were made up of various sizes of cobbles, up to 0.40m in diameter, in a matrix of friable brownish orange sand. Where visible the cobbles at the base of the cut were laid flat, in precise positions, rather than just thrown into the foundation trench. This corresponds to what was seen internally (see Section 5.1.3), however there was no evidence of a clay layer over the top of the foundation



Plates 21 and 22 Northern foundation of possible apse/porticus





Plate 23 Southern foundation for possible apse/ porticus

as seen inside. The foundations were truncated by later burials, primarily to the south of the standing tower, and the foundations for the standing building (Plate 24).



Plate 24 Rubble foundations for standing building overlying cobble foundations for earlier structure

The foundations of the earlier building were visible projecting c.0.4-0.5m from the base of the standing tower, with the projection being most evident to the south of the standing tower. When both structures are looked at in plan it appears that the tower was constructed slightly offset from the building, the tower being positioned slightly to the north of the central east-west line of the earlier building.

A single course of unbonded gritstone blocks was present over the top of the cobble foundations to the north, north – west, south and south - west. Initially they were thought to be traces of the earlier building that survived in situ. However, during the post-excavation process it became apparent that they are more likely to belong to the construction of the standing building (see Section 5.2.6 below).

At the eastern end of the north side of the tower there was an enigmatic, possible post hole (22027) with a fill (22026) and then a capping of the grey blue clay (22024) similar to that seen on top of the earlier foundations internally. The position of this feature and the overlaying stratigraphy suggested links with the construction of the earlier building.

Illustrations detailing of all the external foundations, with features from the earlier building onwards, can be found in Appendix 2.

5.2.4 Burials relating to the earlier building (Anglo-Saxon) (Figure 15)

The burials that related to the earlier building were identifiable by their proximity to its cobble foundation as well as by the form and depth of the grave cuts. The C14 dating carried out on one of the skeletons gave a date of AD680-880 which was the earliest of all the C14 dates for the site.

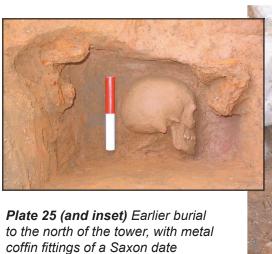


Fig.15 Burials linked with the earlier building (Trench 2). Scale 1:80

To the north of the tower, cutting into 20018, were the faint remains of an infant burial. The cut (20012) appeared to be rectangular in plan, with shallow sides and a slightly concave base to a deepest point of c.8m OD (c.0.30m deep). Staining suggested the presence of a coffin (20014) for the fragmentary neonate remains (20015). Immediately to the west of this burial, at a similar depth, was a smaller rectangular stain roughly 0.28m x 0.16m (Cut 20016, Fill 20017). This may have been the remnants of a grave marker at the head end of the burial.

Cutting into natural subsoil (33013), close to the earlier building foundation (33014) at the western end of the north side of the tower, was Grave 18033 = 19017. This cut was rectangular in plan with steep sides and a flat base, and contained 18032 = 19022, an adult male skeleton. The grave cut was excavated to a maximum depth of 7.7m OD (perhaps c.0.4m deep orginally) as it was not possible to excavate further without disturbing the foundations which had to be left in-situ. However, the depth of 7.7m OD was probably very near to, if not actually, the base

of the grave cut. The body had been buried in a coffin (18031 = 19023), although all that remained were the iron brackets and faint darker stains where the wood, probably of a chest, had once been (Plate 25). A chest burial would suggest an Anglo-Saxon date. Unfortunately it was not possible to back this up with C14 dating as the bone had been compromised by fuel oil which had been leaking from the tank previously positioned in this area. The backfill of the grave (18030 = 19016) was firm pinkish orange/grey slightly silty sand. This had been sealed by later build-up (18017 = 23015) which contained pottery from as early as the 12th century.

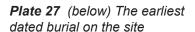


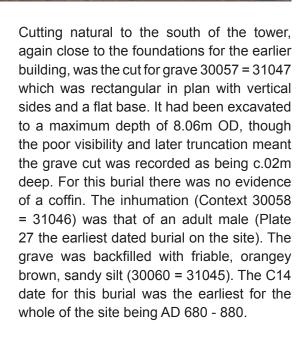
In Area t2/X to the west of the tower the truncated remains of a burial were found, part of which had been exposed during the 2001 excavations. The grave (24025) cut natural deposits below to a depth of 8m OD, and although it was not possible to determine the depth of the grave originally it must have been in excess of 0.30m deep. The young female adult inhumation (24024) had been disturbed from the knees downwards by later activity. The firm slightly greyish orangey brown sandy silt backfill (24023) contained CBM, possibly Roman in date.

To the western side of the south of the tower, within Area t2/BB, there were two highly truncated burials that appeared to date from the earlier building phase (Plate 26). The northernmost of the two survived as just a left leg (28049) from an adult, possibly male. This was buried in a cut (28048) that was excavated into natural immediately to the south of the earlier building's foundations. The backfill was made up of soft greyish brown sandy silt (28047). Cutting into natural deposits to the south were the remains of another grave cut (28033). In this case only the lower legs of an adult (28034) were present whilst the friable/soft, orangey brown, sandy silt backfill (28032) was identical to 28047 to the north. Both of these burials had been

cut by the construction cut for the wall of the south aisle extension and also by medieval and later burials. The foundation of the south aisle extension (see Section 5.2.8 below) contained fragments of bone which were more than likely from these two disturbed burials.

Plate 26 Highly truncated early burials





Cut into natural to the south of this burial, near the southern limit of the area under investigation, was Grave 30064 = 31038. It was rectangular in plan, with rounded corners, and was excavated to a maximum depth of 8.08m OD (again only c. 0.2m deep. The burial (30065 = 31037) was of an adult female. The grave cut was backfilled with orangey brown sandy silt material (30066 = 31036) identical to that observed to the north (30060 = 31045).

5.2.5 Dereliction and demolition of the earlier structure (Late Anglo-Saxon)

Deposits to the north of the standing tower, overlying the natural subsoil and very earliest features, contained fragments of white painted plaster. This may have come from the earlier building and related to its dereliction/demolition. Later truncation meant it was not possible to evaluate the scale of the disturbance which took place during this period, however it is likely that substantial portions of the earlier building and its surrounds were cleared and reduced in height.

Although fragmentary traces of what could have been material from the earlier building were found all around the tower, it is on the northern side that they were less disturbed, and thus it was possible to record them as single contexts, instead of inclusions within later deposits.

Deposit 19015, firm, orange/brown, silty sand with occasional small limestone and mortar fragments, to the north of the tower may relate to the demolition/reduction of the earlier building. It did contain finds though it was not possible to get an accurate date from the material recovered. Deposit 20011, friable brown sandy silt, could be of a similar date and sealed the possible early burial/disturbance on the north side in t2/S

To the north-west of the building in areas t2/R and t2/W there was an unusual patch of stiff orangey brown silty clay (23027). Pottery evidence from this context suggested the deposit could have been compromised by later activity. The 12th century pottery recovered dates from two centuries later than the period to which this activity is associated. This was covered by firm, orangey brown, silt build up (23026). Deposit 23026 was subsequently sealed by friable orangey brown silt with occasional cobbles, limestone and mortar fragments (18017 = 23015) and then firm orangey brown sandy silt (23016). It is not clear how exactly this series of deposits related to the history of the buildings on the site although it was earlier than the construction of the standing tower. The deposits had been cut by later burials and sealed by make-up (33022) on the north side of the tower.

Deposit 33022, slight brownish yellow mortar and mortar fragments, was a make up on the north side of the tower which may have been later than or related to the demolition of the earlier building. It was sealed by 33021, a medieval deposit, dated by 14th century pottery.

5.2.6 Construction of the standing tower (10th century) (Figure 16)

The archaeological evidence for the construction of the 10th century tower was very limited probably as a result of later disturbance and clearance.

Cutting the foundations for the earlier building was 33009, the foundation construction cut for the standing tower. The cut was rectilinear in shape and followed the approximate line of the foundations for the earlier structure. It was not possible to see the shape of the construction cut in profile, as later truncation and the standing tower obstructed any view, although it appeared to be roughly 0.35m deep. It is possible that the apse/porticus of the earlier building to the west of the standing tower was also removed and or reduced during the cutting of these foundations. However, it was not possible to determine if this was the case because of a lack of rubble or other indicators. At the north-west corner (32016) and south-west corner (32017) a single course of gritstone blocks had been laid at the base of the foundation. These blocks

were of a similar size to those within the tower, being c.0.70m long by c.0.30m deep. At first these were interpreted as remnants of the earlier structure, but it is more likely that they were used to support the new tower.

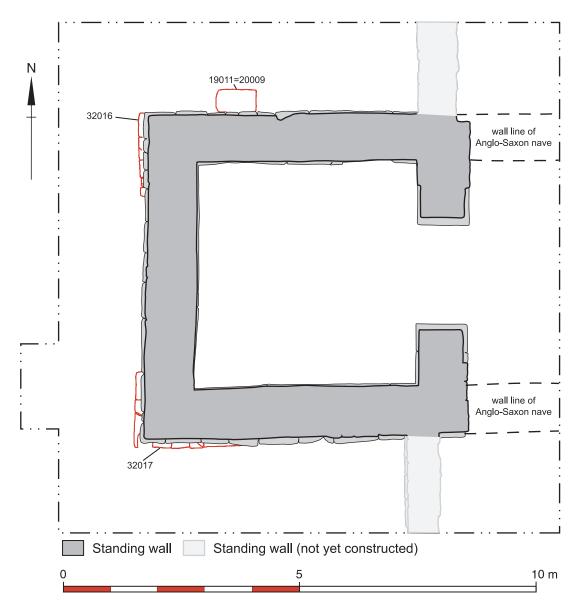


Fig.16 Construction of the standing tower (Trench 2). Scale 1:80

Where the gritstone blocks were not present, a foundation (Context 33011 = 33012) of dark brown gritty silt with frequent inclusions of limestone and gritstone fragments (as well as patches of pale yellow/brown mortar) similar to the foundation seen internally, see 5.1.6 above) had been created (Plate 28). One possible interpretation for the use of gritstone blocks in certain areas of the tower foundation is that they may have been placed at points where the earlier building had noticeable structural weakness and an attempt was made to strengthen the foundations at these points. Built upon the foundations was the standing tower (33008). The lower levels were built from large gritstone blocks. The masonry in the lower section of

the standing tower was being used for perhaps the third time within a building, and this was reflected in the mixed nature of the material and the evidence for re-use. A more complete description of the standing tower can be seen in Section 6 below.

An unusual gritstone block (19011 = 20009), which appeared to belong to the tower foundations, was visible in t2/S and t2/T. A size of 0.82m long, 0.45m wide and 0.30m deep suggests it is very similar to the blocks apparently use to lay out the position of the walls (described above). This block probably would been within the construction cut (33009) for the standing tower, but as already mentioned the construction cut was not visible on the outside of the building.

Towards the eastern end of the north side of the tower there was a complicated sequence of cut and fill deposits, some of which may relate to the construction of the tower. Context 22023, an orangey brown sandy silt with mortar inclusions had been truncated by a deep cut feature (22022) which was only partially excavated. However, it was possible to tell that it was sub oval in shape with a vertical-sided and rounded base profile, excavated to a maximum depth of 0.5m. The softer silt backfill (22021) proved to



Plate 28 The gritstone block and rubble foundations for standing tower, over the earlier cobble foundations at the south of the tower

contain frequent angular oolitic limestone fragments. In addition, there was a later cut feature (22017), possibly sub oval in plan with an irregular concave profile. The backfill was made up of a friable, light brownish orange silty sand with occasional mortar flecks (22016). It could be that 22017 was not even a feature because of the limited access that was available during excavation. All of the archaeology in this area (t2/V) was difficult to both excavate and interpret as it was very confined. The later ash box (see Section 5.2.12 below) had to be left in situ at the request of the engineers, whilst earlier deposits were excavated and only afterwards were the excavation team allowed to strip the brick structure. These earlier deposits had been cut by a burial (see below).

5.2.7 Early burials and activity around the standing tower (c.10th – 13th century) (Figure 17)

The earliest burials inserted around the standing tower date from the late 10th century onwards. A total of 14 burials were attributed to this period of activity.

In the north-east corner of the area excavated, cutting into 22016 the unusual cut and filled features described above (Section 5.2.6), was a truncated grave cut (22019) which seemed to contain two separate burials. The cut was truncated to the east and west by later activity though it was possible to tell that it was regular in shape with vertical sides that had been excavated to a maximum depth of 7.98m OD (c.0.3m deep). The earlier of the two burials (22025) was that of a juvenile infant, whilst the later burial was that of an infant (22020). The rest of the grave was filled with a friable/soft orangey grey backfill (22018). This burial was sealed by the later deposit (33021).

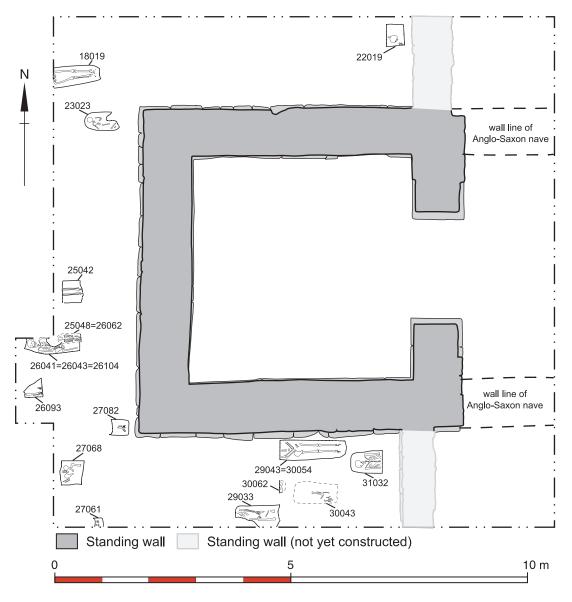


Fig.17 Early burials around the standing tower (Trench 2). Scale 1:80

In t2/R, seemingly sandwiched within the early medieval deposits around the tower was the lower half of a young middle adult female (18019). The grave cut appeared to be slightly north-north-east / south-south-west aligned but was difficult to define from the surrounding deposits, although it had been originally excavated to a depth of c.8.2m OD. The burial 18019 was laid out supine with hands in the area of the pelvis. This had then been backfilled by 18018, friable/soft orangey grey/brown silt. This burial was again sealed by 33021.

To the south, 23024, the skeleton of a juvenile, was buried inside a seemingly shallow (0.3m deep) grave cut (23023). The inhumation and backfill of the grave (23025), a firm orangey brown sandy silt appeared to have been disturbed by a later irregular cut (23022) which was not possible to date securely. This was sealed by a later build-up of greyish brown silt with charcoal flecks (23012 = 24010). This also contained Splashed ware pottery from the 12th century.

In Area t2/Y, cutting into natural deposits was Grave 25042. The cut was truncated by later burials, but what remained had vertical side which broke quite gradually to a concave base. This had been excavated to 7.95m OD at its deepest point (c.0.4m deep). The burial (25041) was that of an adult. Backfilling the rest of the cut was friable/firm, mottled yellowy orange brown, sandy silt (25040). This grave had also been cut by the unusual 'empty' grave as described below (Section 5.2.9)

Also cutting natural deposits further south was 26041 = 26043 = 26104. What remained of this disturbed cut was regular in form and had been excavated to a depth of 8.1m OD (c0.5m deep). The burial, 26044 = 26103, was an older middle adult female (Plate 29). The backfill for this grave (26029 = 26042 = 26102) was friable soft orangey brown silt. Radiocarbon (C14) dating on this burial gave a range as AD 1020 - 1200 when calibrated. Cut into the backfill was another grave, that of a child. The cut (25048 = 26062) was a slightly rounded rectangle in plan and had been excavated to a depth of 7.98m OD, 0.4m deep. The burial (25047 = 26060) was that of a juvenile. The backfill for the grave was unsurprisingly similar to the grave that it had been cut into, being yellowy grey/brown sandy silt (25046 = 26061). Again this had been cut by the later 'empty' grave (25050 = 26064).



Plate 29 Burial 26044 = 26103

Cutting into natural to the south a further burial was found in Grave 26094. Where visible, 26094 was a slightly irregular rectangle in plan and a little over 0.34m deep. The burial (26093) was of an adult. The grave backfill (26092) was similar to 25046 = 26061 and contained 14th century pottery.

The south-west corner of the tower, Area t2/AA, had three burials cut into natural that appeared to belong to the early period of activity round the tower. Grave 27082 was the northernmost of the three. What remained had a sharp break of slope at the surface and vertical sides which broke gradually to the base at 8.15m OD (0.51m deep). The fragmentary human remains (27081) were those of an adult. The backfill was firm orangey brown sandy silt (27080). Virtually all of this burial had been removed by a later medieval grave cut (26056 = 26088 = 27076). Another severely truncated burial to the south was buried within grave cut 27068. This cut had vertical sides and a moderate break of slope to a slightly concave base, excavated to a maximum depth of 8.26m OD (visible as 0.25m deep). The skeletal remains (27067) were those of an old middle/mature adult male. The backfill was made up of light grey brown sandy silt with occasional limestone flecks (27066). Further south again were the remains of yet another massively truncated grave (27061). It was not very easy to see but appeared to be similar in form to the two described above and as deep as 8.2m. The burial (27060) was made up of just a few foot bones whilst the backfill (27056) was again similar to those described above.

Moving east along to south of the tower, cutting natural in Area t2/CC, was the truncated cut for another grave (29033). What was left of the cut had been excavated to a depth of 8.1m OD. The burial (29032) was of an adult. The backfill was orangey grey sandy silt (29031).

At the north-eastern extent of t2/CC was the previously excavated remains of cut 29043 = 30054 which was perhaps as deep as 8.24m OD. This contained (FAS burial c1003) 30055, the burial of a middle/mature adult female. The backfill (29042 = 30056) was made up of firm, orangey brown silt with occasional rounded cobbles. The way in which this burial had cut into the foundations had prompted a lot of the concern about the stability of the foundations of the tower (Cut shown in Plate 24 above).

Cutting natural further to the east was a possible grave cut (30062). This cut had been excavated to a depth of 8.25m OD (0.23m deep). The pelvis interred within (30061) was that of a mature adult male. The backfill (30063) was made up of friable, silty sand. The limited human remains suggest that if this was once a grave, it had been for only partial remains or has been massively disturbed.

Also within Area t2/DD was Grave 30043. This was rectangular in plan and cut to a depth of 8.24m OD (0.2m deep). The burial (30045) was an adult. The backfill of the grave (30042) was brownish orange silty sand. This grave had been disturbed by several later charnel/reburial features.

Finally, cut into the earlier foundations in Area t2/EE was Grave 31032, 8.25m OD at its maximum depth (c.0.3m deep) with vertical sides and a flat base. It contained the burial of an adult (31031) which continued beyond the limit of excavation to the east. The grave had been backfilled by 31030, a friable orangey brown sandy silt.

5.2.8 Expansion of north and south aisles westward (possibly 13th/14th century) (Figure 18)

Two separate wall foundations, to the north and the south of the tower, revealed that the tower had been flanked by aisles during at least part of the medieval period. This was later confirmed during the building recording exercise, by the presence of feint scarring showing where the roofs had been tied into the tower. The foundations were made of completely different materials suggesting they were constructed at different dates.

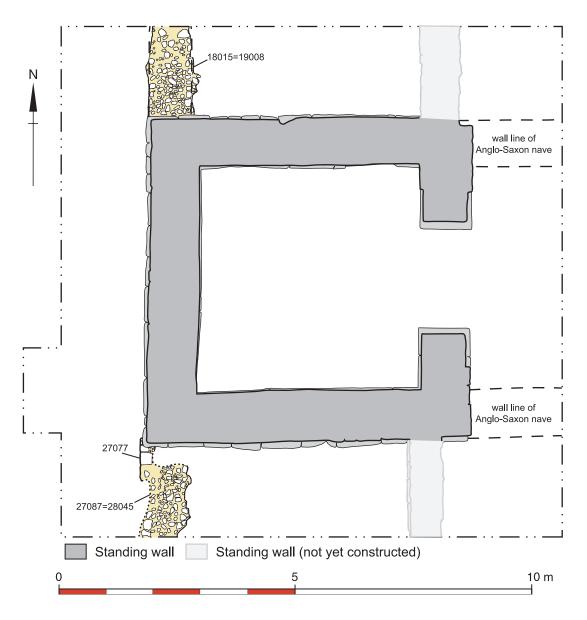


Fig.18 Construction of western walls of north and south aisles (Trench 2). Scale 1:80

On the northern side of the tower it was possible to identify a discrete layer of silty sand with mortar fragments (33021) which pre-dated the expansion of the northern aisle. Cutting through 33021 at the western end of the north side of the tower was the construction cut (18016 = 19009) for a north - south wall foundation. The cobble and sand backfill (18015 = 19008) of the

foundation trench completely filled the cut, but it was possible to see that it had vertical sides and was a minimum of 1.3m deep. An isolated fragment of ceramic building material suggested a 13th-16th century date range for the foundation. The foundation was not excavated and left in-situ as instructed by the engineers (Plates 30 and 31).

Plates 30 and 31 showing the northern aisle foundation in plan and section





Cutting up against the building at the western extent of the southern side of the tower was the north-south construction cut for another foundation (27089 = 28046) (Plate 32). This cut had vertical sides which continued to a depth deeper than 8m OD. The cut was filled by a layered foundation of oolitic limestone fragments (27088) up to 0.23m in diameter, with cobbles (27087 = 28045) over the top. Standing upon the foundation, immediately adjacent to the south-western corner of the tower, were two stones (once part of the wall above; 27077) (Plate 33 (and inset) southern aisle wall structure and foundation). Again the foundation material was left in-situ under the instruction of the engineers. The manner in which these in-situ elements of the wall were constructed (see plate 33 for inserted stonework) suggests that there had been some subsidence at this corner of the tower before the construction of the aisle wall. The subsidence had created space for the insertion of the stonework which would not have been present if there had been no movement of the earlier foundations. Unfortunately the more recent insertion of a repair to the base of the wall (see Section 5.2.12 below) masked any further evidence.

Perhaps contemporary with the southern aisle, and definitely predating a mortar surface (33023) was a pit or grave cut (31017) with brownish grey backfill (31016) which contained 12th century pottery. This was only recorded in section as the deposits immediately to the west of the standing wall of the southern aisle were not excavated.



Plate 32 Southern aisle foundation



foundation

5.2.9 Later medieval burials and activity around the standing tower (14th - 16th century) (Figure 19)

The burials during this period could be split into three, apparently separate, phases. Where no relevant relationships were seen, the burial was included with the latest phase. Burials aligned east-north-east / west-south-west

Three early burials were on a noticeably different alignment from the other burials made during the later medieval period. They were aligned east - north - east / west - south - west and all lay beyond the south - west corner of the standing tower. The northernmost of the three in Area t2/Z was an adolescent burial (26096). It was situated within a grave cut (26097) that went as deep as 8.12m OD. The backfill (26095) was friable, dark grey brown, sandy silt which contained medieval tile. Further south, in the south- west corner of Area t2/AA, an adult burial (27043) lay in Grave 27044 which was cut to a greater depth of c.7.95m OD. The backfill of the grave (27042) was friable, dark grey/brown, sandy silt. Cutting the earlier burial backfill (27056) immediately to the south, burial 27046 (an adult) was in a cut of the same depth (27047) and contained backfill of an identical nature (27045).

In Area tr2/Z, cut into the foundations for the cell at the west of the earlier building, was cut 26052 = 26080. This was truncated on virtually all sides but appeared to be rounded rectangular in plan, with a slightly concave base, and was excavated to a maximum depth of 8.03 m OD (0.51 m deep). The adolescent burial had also been truncated and was excavated in two separate parts (26051 = 26079). Backfilling the grave was a deposit of soft greyish brown sandy silt (26050 = 26078).

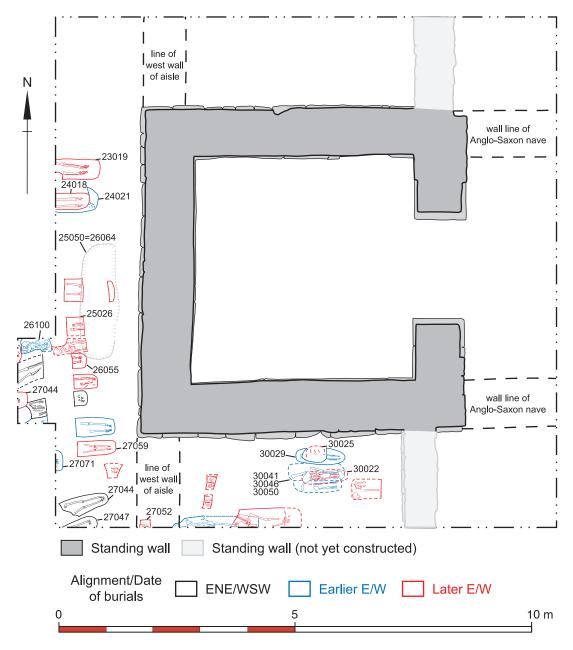


Fig.19 Later medieval burials and other activity (Trench 2). Scale 1:80

Earlier east / west burials and activity

The burials within this section that were positioned directly to the south of the tower may have been within the southern aisle of the church, as described in Section 5.2.8 above.

Within Area t2/X, cutting into the foundations for the cell of the earlier building, was 24021, an almost completely truncated grave cut. This cut was a rounded rectangle in plan, with steep sides and a slightly irregular base at c.8.24m OD (c.0.15m deep). All that was left of the original adult burial (24022) was the collection of foot bones excavated. The backfill (24020) was indistinguishable from that of the later burial (cut 24018) that had truncated it.

Cutting into natural further south in Area t2/Z was Grave 26100 which had been excavated to a maximum depth of 8.36m OD and was rectangular in plan. The top of the grave did not survive, so the original depth of the grave was not recorded. The burial (26099) was that of a juvenile, whilst the backfill (26098) was similar to others in graves of this period.

Cutting into 27080 at the southern end of area t2/Z and the northern end of t2/AA was grave cut 26059 = 26088 = 27076, what remained of this was a rounded rectangle in shape, with vertical sides and a flat base excavated to 8.15m OD (c.0.40m deep). This contained an adult burial 26058 = 26087 = 27075. Again the backfill of the grave was soft slightly orangey grey/brown sandy silt (26057 = 26086 = 27074).

Cutting into 27066 further south was Grave 27071. The cut was again rectangular in plan and excavated to 7.91m OD (c.0.6m deep). The adolescent inhumation (27070) consisted of only a few bones from the feet. Again the backfill (27069) was orangey brown silty sand in nature.

Truncating 29031 to the east, in Area t2/CC, was Grave 28030 = 29030. The cut was nothing out of the ordinary, being rectangular in plan and excavated to a depth of 8.09m OD. The skeleton buried inside the grave was a young adult, possibly male (28031 = 29029). The rest of the grave cut was backfilled with orangey brown sandy silt (28029 = 29028). This backfill also contained brick which may have dated from as early as the Roman period, although in this case it would be residual.

Further east was Burial 30028, a juvenile. This had been buried within 30029, a grave cut rectangular in plan, excavated to a relatively shallow depth of 8.45m OD (0.34m deep). Friable, orangey brown sandy silt made up the backfill (30027) filling the rest of the grave cut.

Within the same area, t2/DD, there was also a group of charnel deposits, which may or may not have been linked. The cuts (30041, 30046 and 30050) contained charnel/reburial materials: 30044, 30048 (juvenile), 30051 = 30052 and 30059 (adult). The backfills (30040, 30047 and 30053) were all the same orangey brown silty material.

Cutting the first burials around the standing tower to the south was a north-south aligned rectangular feature, for which little explanation can be offered. The cut (25050 = 26064), as already mentioned, was rectangular in plan, whilst in profile it had vertical sides and a U-shaped base at 7.7m OD (up to 0.9m deep). The firm, mottled pinkish/yellow orangey brown fill also contained occasional cobbles and plaster fragments as well as scraps of human bone. (25049 = 26063). This had been investigated during the FAS excavations and again little in the way of an explanation could be offered. The results of environmental sampling and analysis produced evidence for intrusive animal burrowing as well as small fragments of redeposited human bone.

Later east / west burials and contemporary activity

At the southern end of Area t2/w, to the west of the tower, the legs of a burial which continued beyond the limit of excavation were excavated. The grave cut (23019) was rectangular in plan, continuing to a depth of 8.3m OD, with a depth of c.0.20m. The firm, brown sandy silt backfill (23021) and adult inhumation (23020) had been truncated in the south – west by later burial activity (23017).

Cutting 24020 to the south was Grave (24018) containing an adult inhumation (24019). Also continuing beyond the western trench edge this had been dug to a depth of 8.24m OD. The similarity between the backfill and surrounding deposits made it difficult to determine that the grave was any deeper than c.0.2m. Backfilling the grave was 24017, friable greyish brown sandy silt with occasional cobbles.

At the northern end of tr2/Y where it had not been previously excavated by FAS and cutting into the earlier 'empty' grave, was 25033 = 25038, a grave cut excavated to 8.11m OD (0.55m deep). The adult burial (25037) was sealed by the backfill, a mixed, orange dark grey/brown sandy silt with occasional limestone fragments (25032 = 25036).

In Area tr2/Y, cutting an earlier burial was Grave 25026, excavated to 8.3m OD (0.56m deep). The burial within the grave (25025) was that of a juvenile. The remainder of the grave was backfilled with 25024, a friable, dark greyish brown, sandy silt. This had been truncated by later north - south aligned burials.

Cutting into the 'empty' grave to the south was a juvenile grave (26033), c. 0.20m deep. The burial (26031) was covered by soft silt backfill (26032).

Continuing south and cutting into the foundation of the western cell of the earlier building were the bases of two graves. Cut to a maximum depth of 8.14m OD (0.35m deep) was Grave 26055. Inside, the adult burial (26054) had been backfilled by orangey brown sandy silt with occasional cobbles (26053). Further south a similar picture where grave 26049 was cut to 8.23m OD (0.35m deep). This contained an adult burial (26048) and was backfilled with sandy silt containing cobbles (26047).

Truncating 26078 was 26084, the cut for a grave which had been excavated to a depth of 7.96m (0.7m deep). The adult burial (26083) was covered by backfill (26082) of dark brownish grey sandy silt with occasional yellow sand patches.

At the southern end of Area t2/Z, truncating earlier grave backfill (26057 = 26086 = 27074) was a charnel pit (26090). This contained charnel deposit 26089 and then backfill 26085, firm dark brownish grey sandy silt.

Grave 26076 truncated the earlier graves in the north-west corner of tr2/Z, continuing to a depth of c0.7m. It contained the toes (26105) of an adolescent and friable mottled yellow/brown sandy silt grave backfill (26075), with 16th century pottery.

To the south, cutting into slightly disturbed, natural subsoil, was a shallow grave cut, 27059 (0.3m deep). This contained a juvenile with rickets (27058) and then brownish grey backfill (27057) all in a shallow irregular grave (Plate 34). This had been truncated by a later, post-medieval, burial.

Plate 34 Juvenile with rickets



Central to Area t2/AA was the truncated grave for a neonate (27054). The grave cut appeared to be shallow and slightly irregular (27055) and the backfill (27053) was friable, orangey brown, silty sand with occasional limestone and gritstone fragments.

At the western extent of tr2/AA, cutting into 27069, were the edges of two possible graves or charnel deposits: Cuts 27065 and 27086 filed with friable, sandy silts (27064 and 27085).

In Area t2/BB to the south of the tower, cutting into the backfills of burials related to the earlier structure were two juvenile burials at a similar depth of 8.15m OD. The northern in Grave 28043 was a juvenile burial (28044) with an orangey brown silty sand backfill (28042). To the south was Grave 28040, with a juvenile burial (28041) and then identical backfill (28039). Both of these burials had been massively truncated by the later north / south aligned burials.

To the south - east, cutting into 28029 = 29028 was Grave 29027 = 30038 (excavated to a depth of 8.27m OD) containing an adult female burial (29026 = 30039) and then backfilled by 29025 = 30037, brownish orange silt. This had subsequently been cut by an unusual pit/post-hole: cut 29024 and fill 29023, as well as a series of post-medieval charnel features.

Also within tr2/DD was Grave 30022, cutting to a depth of 0.3m into earlier burials. It contained a juvenile burial (30021) sealed by an orangey brown sandy silt backfill (30020).

Cutting 30027 to the north was the disturbed shallow grave (30025) of a neonate (30026) backfilled with orangey brown sandy silt with occasional charcoal flecks and mortar fragments (30024).

Finally at the eastern end of the south side of the tower was a disturbed grave cut (31034), excavated to 8.31m OD, containing burial (31035) of a young adult, and backfill 31033, friable orangey brown sandy silt.

At the southern end of the western side of the tower was a spread of material (33020) which overlay 25014 and 26046 and consisted of firm, dark brown sandy silt containing frequent angular oolitic limestone fragments. The relationship between this and the medieval burials was not clear, though it appeared to be of a similar date.

Sealing 23012 = 24010 were 23009 and 24008, all of which were layers of sandy disturbance/ build up with limestone inclusions, followed by 23008 = 24009, a cobble rich deposit, as well as 23007, a mortar rich deposit. 24008 contained pottery which may have been from as late as the 14th century. A similar deposit (25019) was seen further south in Area t2/y. Within 25019 several pottery sherds were recovered, the latest dated from the 18th century. This deposit was truncated by the post-medieval clearance cut (33006; see 5.2.12 below) and the later pottery can be explained by this intrusion.

Possibly disturbed by the robbing described below (Section 5.2.10) was Grave 27052, which was nearly 0.5m deep. This contained an adult skeleton (27051) and dark greyish brown sandy silt backfill (27050). The proximity to later robbing and limited excavation of the grave made it difficult to interpret the chronology for this burial. It may in fact be that the burial was cut into an earlier phase of robbing or demolition which was not recorded during the excavations.

5.2.10 Reduction of north and south aisles and construction of the north aisle (c.15th century)

The re-positioning of the western end of the north and south aisles took place in about the 15th century. The archaeological evidence was better in respect of the north aisle as the 19th century rebuild had removed a lot of the evidence for the structure on the south of the tower.

Overlying the earlier medieval deposits were a group of deposits of firm, dark grey brown slightly gritty sandy silt with inclusions angular limestone fragments and mortar flecks (19007 = 20004 = 21007, 21010 = 22010 and 22011). 21010 contained a German stoneware pottery

Plate 35 Western wall and foundation of northern aisle



sherd which dates from the 15th century. This group of deposits ran along the north side of the tower, and could in fact have been part of the process involved with reduction of the previous aisle and construction of a new western wall to the northern aisle on this side of the standing tower.

Cutting into the 33021 was 22012, the construction cut for the western wall (22030) of the north aisle. It continued beyond the limit of excavation (at c.8.55m OD) and was filled by 22013-4 the foundations of the standing wall. The foundations were made up of limestone blocks, cobbles and large quantities of grey (gritty) mortar. The wall above the foundations was constructed of Magnesian Limestone blocks and some re-used gritstone blocks (Plate 35).

To the south it was possible to see that the wall foundation had been robbed of re usable stone, presumably as part of the process of its reduction. Early robbing was seen cutting to a depth of 0.57m within cut 27079. This had a rubbly fill 27072 = 27078, either at the same time or very soon afterwards was cut 27049 = 28012, to a similar depth, filled by 27048 = 28011, again a predominantly rubble based material.

There was seemingly more robbing which took place later on, during the post-medieval period, which post-dated grave 27052 as described above (Section 5.2.9). However, as already described, the relationship was not clear.

5.2.11 Post-medieval burials and other activity (16th-19th century) (Figure 20)

There were at least two distinct phases of post-medieval burial on the outside of the tower. The most intriguing were the burials on a north/south alignment of which at least eight and possibly a disturbed ninth were excavated. Other activity which can be attributed to this period included the renovation of the church tower.

Earliest east - west aligned burials

Cutting through earlier deposits in Area t2/U to the north of the tower was a shallow grave (21009) for an infant (21011). The grave cut was only c. 0.3m deep and had been truncated at the eastern end by the post-hole for the later renovations (21006), the west end being at the point where Areas t2/T and t2/U met. Backfilling the cut was 21008, a friable sandy silt.

At the far south – west corner of Trench 2 was 27040 cutting into the backfill of medieval burials below. The skeleton (27038) was that of an infant, buried in a coffin (27039) and then backfilled with friable, orangey brown, silt (27037), obviously truncated to the east by 27025. North - south aligned burials

To the west of the tower, in the western part of Area t2/X and possibly t2/Y, were the fragmentary remains of what may have been a burial cutting into earlier deposits. The grave cut (24013), c. 0.3m deep, contained some elements of a juvenile inhumation (24014), with associated degraded coffin (24011) and was backfilled by 24012. The composition of the coffin plates suggested a date of the late 18th century or later. This had been disturbed by a later cut (24016), perhaps during the construction of the path around the tower.

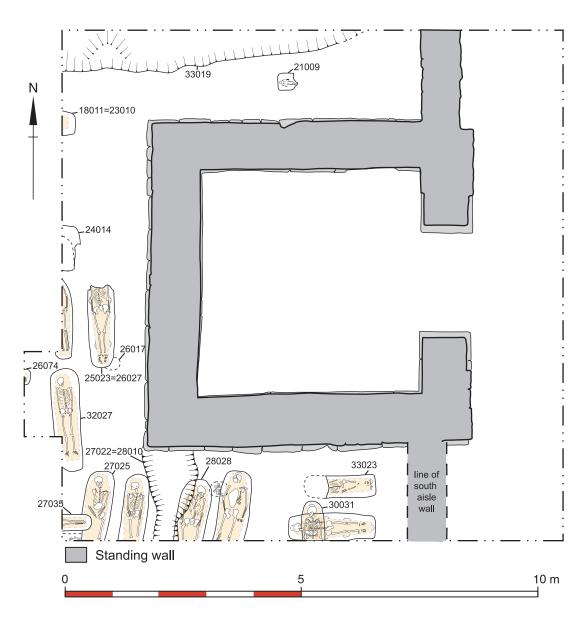


Fig.20 Post-medieval burials and activity (Trench 2). Scale 1:80

Eight north - south aligned burials were visible around the south and southern half of the west side of the tower cutting earlier medieval graves. The two furthest north of these burials were recorded in area t2/Y, in Graves 25023 = 26040 and 25030 = 26036. The grave cuts and respective backfills were more clearly visible, and visible closer to the current ground levels, which was common to all of the burials which were post-medieval in origin due to less disturbance from later grave and burrowing animals. The cut closest to the tower (25023 = 26040) was rectangular in plan with vertical sides and continued to a depth of 8.03m OD (c.0.9m deep). At the base of the cut was the burial (25022 = 26039) of a young adult male, and degraded remains of a coffin (25021 = 26038) which had been previously excavated by the evaluation trench in 2001. The backfill (25020) contained material which dated from the 18th century. Further west Grave 25030 = 26036 was almost identical to 25023 = 26040, with vertical sides down to 7.99m OD (c.0.9m deep) and a flat base. The burial (25029 = 26077)

was also found within the degraded remains of a coffin (25028 = 26034). The backfill (25027 = 26035) was also similar, but the finds dated from the 18th century.

The grandest of the north – south burials was seen in Areas t2/Z and t2/AA. The cut (32027) was rectangular in plan, c. 2.4m long and 0.8m wide. The vertical sides of the cut continued to the flat base at c.8m OD (c.0.8m deep). The adult male burial (26028 = 27019) was inside the degraded remains of a coffin (26026 = 27018). The backfill (32026) contained material from the 18th - 19th centuries. Over the top of the backfill a small wall footing had been constructed for a grave slab (32025).

Cutting 27037, in area t2/AA at the south – east end of the tower, was 27025, the cut for another north - south grave. It had been excavated to a depth of c.8m OD (0.8m deep). The young adult male inhumation (27024), coffin (27032) and backfill (27023) had all been truncated in the approximate position of the right leg by a later burial (27035) (Plate 36). Pottery from 27023 gave a date of 18th century. 0.16m to the east of grave cut 27025 was 27028, the cut for another north - south grave. This grave was again cut to a depth of 8m (0.8m deep). The adolescent inhumation (27027) had been buried within a degraded coffin (27029) sealed by the backfill: friable, orangey brown, silty sand (27026) which contained pottery from the 18th - 19th centuries.

Cutting medieval burials to the east in Area t2/BB another north - south aligned grave was present. The cut (28028), sub-rectangular with vertical sides, was to a slightly shallower depth of 8.18m OD. The young adult inhumation (28026) was in a coffin 28027 and the grave was backfilled by 28025. The coffin fragments that had survived as part of 28027 may be the same as those seen in a catalogue of coffins from 1783 (see conservation assessment Section 12)



Plate 36 North – south burial truncated by later east – west burial

Cutting medieval burials in Area t2/CC, and just coming into the east of t2/BB, was another north - south aligned grave. The cut (28036 = 29022) went to a depth of c.8.1m OD. The inhumation (28037 = 29021) was an old adult female who was buried inside a degraded coffin (29020). The remainder of the grave cut had been filled by friable sand/silt (28035 = 29019); again finds dated from the 18th - 19th centuries.

The final north - south burial to be described was at the south of Area t2/DD. Cutting into medieval deposits below was a cut (30031) that had been used to bury an adult male (30033) in a coffin (30032) and was backfilled by 30030.

Later burials aligned east - west

The very latest burials excavated outside the tower had been aligned in the normal east - west fashion, and cut through the slightly earlier north - south aligned burials.

Grave 18011 = 23010 lay in to the extreme western edge of the excavation areas t2/R and t2/W at the northern end of the tower. Only 0.2m of the grave cut was within the excavation area, although it continued to a depth of just over 1m. The staining from a degraded coffin (18022) was recorded at the base of this grave cut. The backfill (18010 = 23011) was made up of friable - loose, mottled orange dark grey, silty sand. As this may have been the lower portion of a burial from marked grave the human remains disturbed (foot bones) were re-buried.

In the northern part of Area t2/Zn there was an almost completely truncated juvenile burial, even the alignment was not clear. Grave 26017 contained a juvenile inhumation (26018) which was covered by backfill 26016.

Further west in the western extension to Area t2/z earlier medieval graves were truncated by the bottom end (lower 0.3m) of Grave 26074. This had been excavated to a depth of 8m OD (0.9m deep). Within the cut only parts of the feet of an adult (26081) were recovered from within the degraded remains of a coffin (26073). The backfill (26072) was friable, slightly orangey brown silt which contained pottery from the 18th century.

To the south – west of the tower, cutting into 27023, was the grave (27035) for the burial of a juvenile (27034) in a degraded coffin (27036). The grave cut was rectangular in plan and was cut to a depth of 7.95m OD (0.84m deep), whilst the backfill (27033) was friable orangey brown sandy silt with finds from as late as the 19th century.

Cutting earlier build-up and north-south aligned graves at the junction between Areas t2/BB and t2/CC there were the disturbed remains of two infants (28016 and 28021) buried in the same grave. The cut numbers assigned to this were 28015 = 28023 = 28024 = 29014. They were backfilled by 28014 = 28020 = 28022 = 29013.

Cutting an earlier backfill and mortar spread (33023) the grave cut 30009 = 31021 (Areas t2/DD and t2/EE) was relatively shallow at only 8.68m OD (c. 0.2m deep). The juvenile burial (30012 = 31020), coffin (30014 = 31019) and backfill (30008 = 31018) had both been truncated by a later post-hole.

To the south of this was Grave 30017 = 31025 at the very southern edge of the area cutting the mortar spread 32023 and earlier graves. The grave cut continued to a depth of 8.40 m OD (c. 0.42 m deep). The old adult inhumation (30015 = 31024) and coffin (30016 = 31023) were sealed by the backfill (30013 = 31022). What was unusual about the backfill was the presence of 20 th century material, although this may have been intrusive.

Cut into 30037 and 30042 was 30035, the cut for a charnel pit. The contents of the pit (30036) were made up of at least five separate individuals. The rest of the pit was backfilled with 30034.

To the west of the tower, in the south-west section of Area t2/w, there may have been a burial, but limited excavation meant it was not possible to determine if human remains were present. The grave cut (23017) had truncated earlier deposits and was backfilled by friable silty sand (23018).

Graveyard soil and build up

Throughout the excavation on the outside of the tower it was not always possible to identify distinct layers and features in the disturbed graveyard soil. However a number of possible deposits and cut features were recorded as a precautionary measure to ensure that no subtle features were missed. In many cases their interpretation was changed once they were excavated and they could be grouped together as graveyard soil and build-up that had accumulated around the tower. The description for all the deposits was identical, being friable/soft slightly orangey brown silty sand with occasional inclusions of human bone, CBM and small stones. Any cut features which were recorded appeared to be of an irregular sub-circular plan with shallow sides and irregular concave bases. It was not possible to give accurate dates for many of these deposits and features so they have been grouped together with the post-medieval activity as they often contained material of this date.

The following table shows the context numbers in question, their position around the tower and what type of deposit they were recorded as.

 Table 2
 Graveyard soil and associated build ups

CONTEXT	LOCATION	TYPE OF DEPOSIT
20011	tr2/T	Graveyard soil
25035	tr2/Y	Graveyard soil
25039	tr2/Y	Graveyard soil
25040	tr2/Y	Graveyard soil
26013	tr2/Z	Graveyard soil
26014	tr2/Z	Graveyard soil
26015	tr2/Z	Graveyard soil
26023	tr2/Z	Possible fill
26024	tr2/Z	Possible cut
27016	tr2/AA	Graveyard soil
27041	tr2/AA	Graveyard soil
27063	tr2/AA	Graveyard soil
27073	tr2/AA	Graveyard soil
27083	tr2/AA	Graveyard soil
28008	tr2/BB	Graveyard soil
28013	tr2/BB	Graveyard soil
28017	tr2/BB	Graveyard soil
28018	tr2/BB	Possible fill
28019	tr2/BB	Possible cut
28038	tr2/BB	Graveyard soil
29006	tr2/AA	Possible fill
29006	tr2/AA	Possible fill
29007	tr2/AA	Possible cut
29008	tr2/AA	Possible fill
29009	tr2/AA	Possible cut
29010	tr2/AA	Possible cut
29011	tr2/AA	Graveyard soil
29015	tr2/AA	Possible fill
29016	tr2/AA	Possible cut
29017	tr2/AA	Possible fill
29018	tr2/AA	Possible cut
30023	tr2/DD	Graveyard soil
31027	tr2/EE	Graveyard soil
31028	tr2/EE	Possible fill
31029	tr2/EE	Possible cut

Up against the south of the south – west corner of the tower was an irregular, roughly linear trench (27022 = 28010). The cut had slightly irregular, steeply sloping sides which continued down to a depth of c.8.3m OD (up to 0.45m deep). This post-dated the robbing of the southern aisle foundation (see Section 5.2.10 above). The backfill was made up of stone rubble and sandy silt, containing material from as late as the 18th century (27021 = 28006 = 28007 =

28009). This robbing was cut into earlier medieval grave fills. These deposits, to the south of the tower, contained a quantity of medieval window glass which must have come from the building alterations or demolition. It is possible that the glass had been disturbed when c.14th deposits were disturbed by later activity, though the volume of this material suggests it was post-medieval in origin.

Truncating the medieval deposits to the north of the tower was an irregular linear cut (33019). The cut continued in a roughly east-west alignment along the length of the trench edge on the north side of the tower. The full width is unknown though it was observed up to be c.1m wide within the trench. At its deepest point it was c.0.6m deep (8.13m OD). The backfill of the linear feature (33018) was made up of friable, dark grey brown, silt. This contained pottery from a number of periods though dated from as late as the 18th century.

Cut into the rubble-rich spreads north of the tower and up against the west wall of the northern aisle a cut (22009) backfilled with 22008 in Area t2/V, is a bit enigmatic and could be linked with activity immediately after the construction of the new western wall for the northern aisle.

The foundation for the earlier structure had been truncated by Cut 29035, originally thought to be a charnel pit, and backfilled by 29034.

5.2.12 Modern activity (late 19th century onwards) (Figure 21)

A massive clearance cut represented renovation of the tower in 1876. This removed graveyard soil around the base of the tower, and probably material which related to the construction of the tower itself and of the flanking aisles. As part of the renovation the western wall of the southern aisle was rebuilt. A number of stones around the base of the tower were repaired and a larger brick chamber was constructed at the eastern end of the north side of the tower. The creation of a path around the tower had also disturbed

archaeological deposits and is perhaps the reason that some of the grave markers were moved.

Building repairs and alterations

The earliest evidence for the rebuilding of the western wall of the south aisle was the wall itself (Plate 37). The wall (31015) was constructed of limestone blocks bonded with a light grey sandy mortar above a mortar surface (33023). It was not possible to see a construction cut or foundation as deposits adjacent to the wall were left in-situ under the instruction of the engineers. The rebuilding appeared to have left a spread of material which continued partway across the excavated

Plate 37 Rebuilt western wall of the southern aisle



area to the south of the tower. Deposits 30005 = 31010 = 31011, made up of smaller rubble fragments and mortar, fit within this category. This had then been cut by a further shallow feature (31009), filled with 31008, before being sealed by the earlier path.

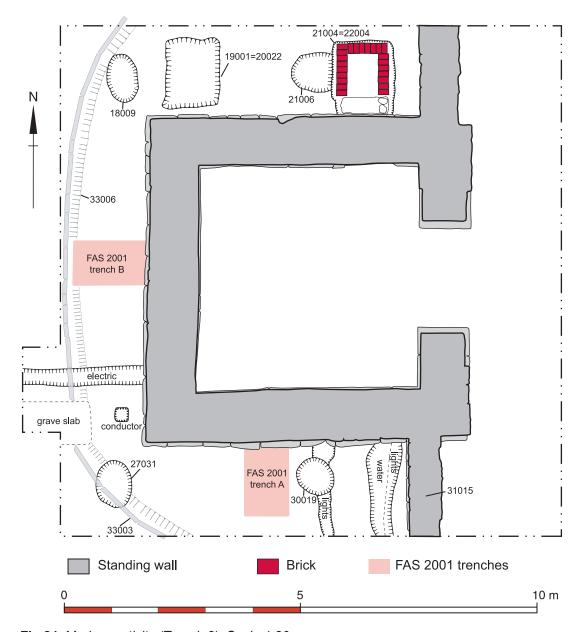


Fig.21 Modern activity (Trench 2). Scale 1:80

Beyond the north-west and south-west corners of the tower, and also near the eastern end of the tower on its north and south sides were large post-holes that may have been used for scaffold during the renovation process. Cutting the linear feature (33018), roughly 0.50m away from the north – west corner of the tower, was the post-hole cut (18009). It was sub-oval in plan, 0.6m wide and 1.06m long, the sides fell very steeply to a rounded base, giving a maximum depth of 0.85m. The backfill (18008) was made up of friable / soft, orangey brown sandy silt, with inclusions of tile and a large lump of clay (c.0.2m in diameter). Further east along the north side of the tower in Area tr2/U, cutting a post-medieval burial (21011), was

21006, a post-hole sub circular in plan. The cut was c.0.85m across at its widest point and up to 0.82m deep (8.06m OD). The south-east corner of 21006 was slightly less certain because of an earlier burial (21011) that it had truncated. The backfill of the post-hole (21005) was made up of friable / soft, orangey brown sandy silt. To the south - west of the tower, cutting into grave backfills 27023 and 27026, was 27031. This cut, sub-circular in plan, up to c.1m across with very steep sides that curved to a concave base at 8.25m OD, was backfilled with friable / soft, orangey brown sandy silt (27030) and contained pottery from 19th century. Further east in Area t2/DD, cutting through a post -medieval burial (30008), was a post-hole (30019) the last of this group of four. The cut was circular in plan, roughly 0.7m in diameter, with steep sides which curved gradually to a concave base at 8.5m OD (0.4m deep). The backfill (30018) was friable / soft, orangey brown sandy silt. Finds indicated these features are probably associated with the renovation in the 19th century.

During the 1876 renovations clearance of external build up of soil around the base of the tower resulted in the clearance cut (33006) which went as deep as c.03m below current ground level. There is reference in the faculty to the reduction of the ground level on the outside of the tower by up to 8 inches (c.0.20m).

At a similar, if not identical time to the clearance around the tower, there was a cut for the foundation for a path. However, this was not assigned a separate number to 33006 and was considered to be part of the same action. The foundation material of the path (33005) was made up of very friable, very dark brownish grey sandy silt with inclusions of tile and mortar. This survived at c.8.85m OD around the base of the tower and was overlain by 21001 a rubblerich deposit in Area t2/U to the north of the tower. The original path (33001) was made up of loose, light grey gravel. This survived at up to c.8.96m OD. The make-up and, in some places, the original path had been subsequently cut by 33004, a construction cut for the insertion of a stone edging to the path. The width of this cut varied, though was usually c.0.3m, and the depth of the cut was c.0.2m. It ran around the tower and had slightly irregular moderately sloping sides with a concave base except where there was a grave slab at the southern end of the west side of the tower. Set within the cut was a row of kerb stones (33003), all of which were laid on edge. The gap between the stones and the construction cut had been backfilled with friable, dark grey silt (33002), which contained architectural fragments from as far back as the medieval period. This was then sealed by 33000, the new gravel for the pathway, which survived at a height of c. 9m OD around the tower. Grass and recent topsoil (33024) butted up against the kerb of the path and again survived at a height of c.9m OD around the tower.

To the west of the tower (Areas t2/X and t2/Y) there was an irregularly shaped, relatively shallow cut (24016). It was excavated to a maximum depth of 0.3m, and although the sides were difficult to define, they appeared to be irregular in profile. This had been backfilled by 24015, friable, dark grey silt. This feature was interpreted as the deliberate emptying of an earlier grave (24012), perhaps as part of the construction process for the kerb around the pathway.

In several places the plinth around the base of the tower had been repaired by the insertion of limestone blocks (33010). These were bonded together, and with the tower, using a light grey sandy mortar.

The renovations and associated activities were also responsible for the construction of a very large ash box at the eastern end of the north side of the tower. Cutting the clearance cut (33006) was (21004 = 22004), the construction cut for a brick built structure linked with the flues up the inside of the north wall of the tower. The cut was excavated to a maximum depth of 8.1m OD (0.9m deep) but also continued into the wall to the south. In plan, the cut was square with vertical sides and a sharp break of slope to a flat base. The main structure (22005) of the ash box was made from firmly bonded bricks. However, the brick structure was built around the edges of the cut and there was no base. In addition, the gap between 22005 and the tower had been bridged by a gritstone block and further brickwork construction (22006). The gap between the brick structure (22005) and the construction cut had been filled with loose rubble and mortar (21003 = 22003). This structure was interpreted as an ash box, providing access for cleaning the flue within the north wall of the tower. During excavation several wheelbarrow loads of ash and other material had to be removed from the void within the tower as they were repeatedly falling into the trench below.

To the west of the tower a patch of mortar (23007) was present at 8.94m OD and was perhaps from repair work during the renovation of the tower.

Almost completely truncated by the mains water pipe was the remains of cut (31013) which had been made into 31022 a late east west burial. The friable, slightly orangey brown backfill (31012) contained medieval material, but this was probably residual in nature. The purpose of this feature was unknown but may be something to do with the construction of the aisle wall or renovation of the tower.

Services

Cutting into the gravel pathway deposits trenches for services such as electricity at the southern end of the west side of the tower, and water to the south - east of the tower. The electricity services construction cut (26003) was excavated to a depth of 8.47m OD (0.54m deep) at its deepest point next to the tower and was c.0.4m wide. It had subsequently been filled by 26002, friable, dark grey, silt with inclusions of pebbles and CBM. The cut for the insertion of mains water (31004) was c.0.5m wide and up to 0.55m deep. The backfill (31005) was a friable, dark grey silt with frequent inclusions of pebbles, rubble and some human bone.

On the northern side of the tower the ash box was partially destroyed and backfilled with loose material (22002) and the hole capped (22007) before the make-up (22001) and construction of a concrete base (22000) for the shed which housed the oil-fired heating system. The timber uprights for the back of the shed had been set into the lower course of stones of the tower. In conjunction with these works was the irregularly shaped construction cut (19001 = 20022), up to c.0.22m deep, for the concrete and brick footings (19000 = 20000) upon which stood the oil tank for the heating system.

Cutting the gravel pathways on the western side of the tower an earth rod for the mains electrics (25018 cut and 25017 fill) had been inserted. A roughly circular area, 0.4m across had been disturbed by this activity.

To the west of the tower, in Area t2/Z, was the cut (26005) for the insertion of a lightning

conductor. It was c.0.3m square and backfilled with 26030, the earth rod for the conductor and the casing in which it was situated.

On the southern side of the tower, cutting the path in Area t2/DD was 30002, the cut for the insertion of cabling for floodlights. It was c.0.4m wide and cut to a depth of 8.64m OD (0.5m deep). The backfill (30003) was dark grey silt which contained a surprisingly large amount of disarticulated human bone. Further east, partially truncating 31004, the backfill for the mains water trench, was another cut for the insertion of floodlights (31002). The width and depth of this cut was not possible to determine as it had followed virtually the same line as the eastern edge of the pipe trench. The backfill (31003) was identical to the backfill for the mains water trench (31005).

The most recent disturbance on the outside of the tower was the previous archaeological evaluation of the site. Two trenches were excavated, 1.5m long and 1m wide, one against the west wall of the tower and the other against the south wall, in an effort to gain some insight into the foundations of the building. To the west of the tower the excavation (24007 = 25007) was. This had been labelled Trench B during the previous excavation. The backfill (24006 = 25006) was made up of compacted hardcore towards the base, sealed by the excavated material which included the re-interred human remains. The trench south of the tower (29003), in Area t2/CC, had similar backfill (29002). This had been labelled Trench A during the previous excavation.

6. THE BUILDING RECORDING by Colin Briden

6.1 INTRODUCTION

The structural repairs, in addition to those linked with the consolidation of the foundations, required a near complete scaffold frame around the standing tower. This gave the opportunity to record stonework before repairs took place and record any features in the external fabric of the tower which were not visible from the ground levels. Investigation and recording also took place on the inside of the tower to complement the work on the external fabric.

The repair work was carried out over the winter and spring of 2005 and comprised:

- The taking down and rebuilding of the late medieval belfry parapet and pinnacles
- The jacking-up of the 19th century tower roof and the replacement of the wall tops
- Drilling, pinning, and grouting of the walls of the tower
- Detailed stonework repairs to weathered areas of the external fabric, especially at high level
- Re-pointing to other selected areas.

The stonework repairs included a certain amount of stone removal and replacement. This allowed inspection of the pre-Conquest core work. Re-pointing was limited in scope but revealed further information regarding mortar types.

As a result it was possible to describe the fabric of the tower in some detail.

6.2 RESULTS OF RECORDING EXERCISE

Three phases of work have previously been identified in the tower; an earlier phase, represented only by footings, was found beneath during the excavations. No reason was found, in the course of the present survey, to dispute this traditional interpretation of its development. For the first time however scientific dating methods have been applied to the dating of the earliest phase: the ground floor stage.

Teeth from individuals which were found beneath the foundations of the western tower itself were subjected to C14 dating (see Section 17). A date range of AD 770 to AD 990 was offered by the results of the C14 examination. This is not terribly helpful, but is sufficient to reinforce the conventional view that the lower stage of the tower dates from the 10th century; although a date in the late 9th century is not impossible. The function of this single-storey structure is discussed below.

In the next phase the tower was raised to provide three more floors: a first floor chamber with a high-level east door and an altar position; a low, unlit, and rather mysterious chamber above it; and a belfry. Externally these three floors are expressed as two stages; by analogy with other very similar towers the work has been dated to the 11th century.

Finally, in the late medieval period, the tower was provided with a higher, crenellated, belfry enriched with crocketed pinnacles. Pearson's contribution was a new first floor structure and a

new roof; neither is particularly distinguished and they are not further described here.

The southern elevation has been used to illustrate what is discussed in the text below. A full set of illustrations for the stone types and recorded features from the building recording can be found in Appendix 3 and Appendix 4 at the end of this report.

6.2.1 Phase I (10th century) (Figures 22 and 23)

Materials

There seems little reason to doubt that the lowermost stage of the tower is almost entirely constructed of re-used Roman material. The chief constituents are massive and varied blocks of gritstone: many of these, including those in the heavy quoins, are of similar size, suggesting that they have been robbed from a well-planned and well-executed Roman building. It is also possible that the north and south windows and the tower arch (excluding the strip-work) have been taken in their entirety from a high-quality Roman structure. Some blocks have lewis cramp holes visible in their faces — an evident indication of re-use. Other material includes Oolitic limestone and Tadcaster (Magnesian) limestone; the latter is probably repair work of later date.

Coursing has been attempted on both the external and the internal elevations; the bonding material is a creamy white lime mortar. The excavation work in 2004 revealed the footings on the north, west, and south sides; these are notable for the deliberate selection of very long stones, suggesting a sound understanding of the engineering of heavy masonry structures. Nevertheless the footings were allowed to pass over the remains of the earlier building: with predictable results. The footings are stepped beneath a chamfered plinth.

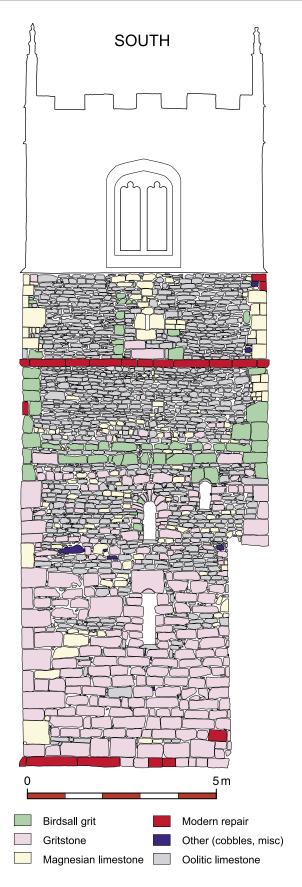
General arrangement

The ground floor stage is more or less square on plan. The junction with the succeeding phase is defined externally by a marked change in building materials; internally, there is a slight reduction in wall thickness in the later work and also a change in materials. This change in build comes immediately below the level of the 19th century first floor structure, which partly disguises it; as described below this is also the level of the Phase II first floor structure. No evidence was seen for a west gable in this phase: presumably, if it existed (and this is likely) it was removed before Phase II construction works commenced.

Openings

There are now four openings at this level: a Phase I tower arch; Phase I north and south windows centrally-placed in their respective internal elevations; and an off-centre embrasure for a west window which appears to be a later insertion. The present window is 19th century or later but it may have been restored.

The question arises as to whether the tower ever possessed a west door. On the external elevation there is perhaps a suggestion of straight joints and masonry disturbance, or infilling; but on the internal elevation the Phase I masonry is undisturbed except for the very evident



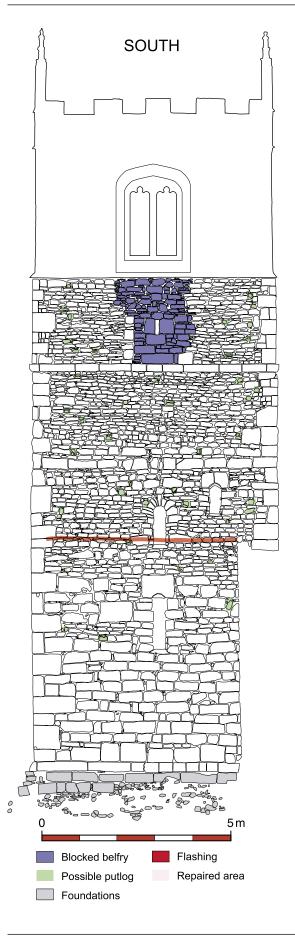
chisel marks associated with the west window, roughly cut through the fabric of the west wall. This apparent and rather surprising absence of a west door has a bearing on the interpretation of the Phase I chamber. No doors existed in the north and south elevations.

The tower arch is a major feature in the church: all the more so since the building lacks a chancel arch. It comprises two elements: a round-headed arch on rectangular impost blocks with square reveals carried on square plinths; and two bands of stripwork, the inner half-round, the outer square in section. The arch is built of gritstone and the masonry is accurately set out and cut. The stripwork is less accomplished; nevertheless measurement reveals that it follows the line of the soffit of the arch reasonably well. The masonry of the crown of the soffit of the arch has been renewed: this may have been done during Pearson's restoration.

There are two features of the tower arch that are particularly interesting: firstly, the arch and its decoration are structurally distinct; secondly, stripwork has been used to decorate both sides of the arch. The fact that the arch and its decoration do not share a single stone - that there is, in effect, a straight joint between them - could be taken to mean that they have different origins: that the arch is a re-set Roman item, and that the stripwork is a 10th century embellishment of the older detail. The placing of stripwork on both sides of the tower arch further implies that it was intended to be seen, and to impress, from both the east and the west. This has implications for the interpretation of the ground floor chamber as originally built.

The north and south windows which light this chamber are very similar. Both are narrow double-splayed windows under round heads; the splayed reveals are made of well-cut gritstone. The interior reveals, however, display

Fig.22 Tower (south elevation) stone types. Scale 1:100



a very curious feature. The west reveals of each window return deeply into the face of each wall, forming an integral part of the internal elevations. The east reveals, on the other hand, barely return at all. The only sensible explanation – that each window was taken from the very end of a room or of a building, where the splays closely adjoined a wall face on one side, and so could not return – seems far-fetched. But the feature is undoubtedly there, and it is not likely to be the result of faulty workmanship.

In general the ham-fisted character of the Phase II masons' work, to be described below – the attempt at making radial joints over the high-level east door is a good example – encourages the notion that the builders of Phase I had indeed used Roman details when constructing the tower arch and ground floor windows. To do so systematically, however, would require the kind of careful marking-up and dismantling which is habitual with masons today. This process is suggested by the arrangement of the reveals in the north and south ground floor windows.

The west window, as noted above, seems to be a much later insertion. It has an internal splay only, and one that is crude and irregular. The head and reveals have been rendered to disguise the exposed core of the west wall. There is no suggestion in the internal elevation that this embrasure has been achieved by the partial infilling of a west door.

Other details

There are two carved stones to be seen in this lowermost stage of the tower, both presumably of pre-Conquest date.

On the south external elevation, at the same level as the head of the south window – which is very close to Phase I eaves level – is the so-called Bear Stone: a gritstone block in which some have seen the outline, in low relief, of the fore part of a bear (Plate 38). This carved animal

Fig.23 Tower (south elevation) features. Scale 1:100

shares the elusive nature of its natural counterpart.

At the base of the north internal elevation is the well-known Wolf Stone, now interpreted as a depiction of the end of the world (Plate 39). This piece has been described elsewhere; it manages at one and the same time to be a naïve representation and a masterly example of the use of outline. Its position, so close to the floor, surely implies that it was carved elsewhere and brought to site to be re-used. Whether this was done at the time of building, or whether it is a later insertion, is unknown. At the time of this survey it was inaccessible behind a protective screen.



Plate 38 The Bear Stone



Plate 39 The Wolf Stone

6.2.2 Phase II (11th century)

Materials

As noted above there is a slight but well-marked reduction in wall thickness, visible internally as a narrow offset, at the junction between Phases I and II.

The nature and quality of the materials change markedly in Phase II. Initially, close to the junction with Phase I, large gritstones continue to be used for quoins although the nature of the walling material changes; but these gritstones give way, after five or six courses, to softer and more friable sandstone blocks ('Birdsall Grit' sandstone). This continuing use of gritstone for quoins may suggest an intermediate phase of work in which the first floor chamber was added; all that can be said is that internally there is evidence for a break in construction between the ground floor and the first floor, but not for a break between the first floor and the second floor.

The mass-walling material changes dramatically at about first floor level to oolitic limestone with occasional blocks or slabs of other materials. The oolitic limestone slabs are very roughly coursed: the quality of the work, in this respect, improves with height. It is possible that much of the stone was quarried for this building. There is no pitched-slab work, and no obviously re-used Roman masonry, brick, or tile. Magnesian limestone was barely used; what there is of this material was probably taken from other buildings.

The bonding material is a very homogenous light brown mortar with inclusions of chips of unburnt limestone; pauses in the work were indicated by subtle but abrupt changes in the composition of the mix. Mixed in with the corework were occasional pieces of heavily rotted timber; the species could not be identified but they may be offcuts of scaffold-poles and hurdling, possibly of alder. The largest seemed to be around 50mm in diameter and to retain its bark. All the pieces seen were too decayed for further examination.

At about the level of the second floor there is a band formed by one or two courses of sandstone separated by limestone slabs. More resistant limestone has been used for two string courses: the upper is medieval or later; the lower string course, not quite at the level of the third floor, is probably original but has been extensively restored.

General arrangement

Externally the upper levels of the pre-Conquest tower appear to be of two stages: in fact there were three floors. The evidence for these is described below. The first floor was inserted into the Phase I fabric at about Phase I eaves level; the second floor was placed about 3.0m above that; the third floor, 1.75m above that. The first floor chamber was well lit, and may have provided some domestic accommodation for a priest. The second floor chamber was unlit, while the topmost floor was a belfry. Today there is ladder access only between the floors and no indications of any other earlier arrangement. There is some evidence, described below, to suggest that the tower was topped off with a gabled roof aligned east-west.

Openings (Figures 24 and 25)

There are four openings at first floor level: a high-level east door, centrally-placed windows in the south and west walls, and a smaller window, at a slightly higher level, in the south wall. The latter seems intended to cast light on an altar position. At belfry level there were originally four openings, one to the centre of each elevation: in the late medieval period these were reduced to rectangular slit windows.

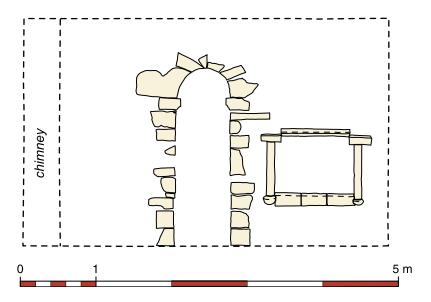


Fig.24 Blocked doorway and altar recess. Scale 1:50

The high-level east door to the first floor chamber probably served a timber gallery or stair at the western end of the nave although the presence of these doors, not uncommon in 11th



century west towers, has never been satisfactorily explained. The Skipwith example shares the tall and narrow proportions of many of its fellows; it is constructed of roughly-tooled blocks and has what can only be described as a paraboloid arch springing from deeply chamfered imposts (Plate 40 1st floor blocked door opening). The masons have made a stab at radial joints but with only limited success. Beneath the south impost, in the jamb of the doorway, there is a re-used edge-moulded slab of unknown provenance. The door is blocked with masonry. From the east side of the wall it can be seen that the threshold is in the form of an inverted shouldered arch. The structure of the first floor itself is 19th century but this door demonstrates that the present level of the floor and the 11th century level broadly coincide.

Plate 40 First floor blocked door opening



Plate 41
Altar recess

The room is lit by double-splayed west and south windows which are smaller versions of those in the Phase I building but constructed in coursed rubble. The heads of the larger windows are turned in tapered gritstones (they are hardly voussoirs) while that of the smaller south window is cut from a single block.

The four centrally-placed belfry openings were about 1.1m wide with reveals of sandstone blocks; straight joints are plainly visible in the interior of the belfry although the blocking, presumably medieval, has been more skilfully finished on the external elevations. All trace of the window heads has been removed from each elevation; probably they were paired narrow round-headed openings separated by a mid-wall shaft. The heads may have been turned in rubble, in a similar manner to that over the high-level east door.

Other masonry details

There is an external chamfered string course at the level of the base of the blocked Phase II belfry openings. Much of it has been renewed but it appears to be an original feature.

The only other masonry detail of note is a shallow oblong recess at the south end of the east wall of the first floor chamber (Plate 41). This has been interpreted as an altar position. The feature is flanked by colonnettes which rise from unmatched carinated corbels to carry impost blocks and a flat chamfered arch of two recessed orders; all these elements are probably reused from elsewhere. The back of the recess is plastered and must once have supported a painting.

There is sufficient lime mortar adhering to the walls of this chamber to encourage the view that it was rendered and plastered throughout although all traces of fine finishing plaster have long fallen; all that is left is the lowermost layer. This detail and the altar position suggest that it was in regular use; access and function are discussed below.

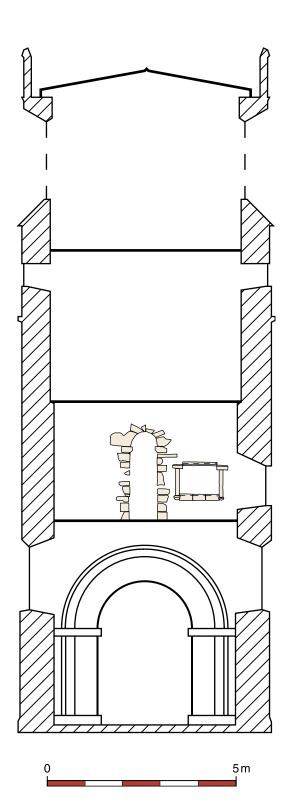


Fig.25 East elevation (internal). Scale 1:100

Floor structures and bell-frame

As noted above there is evidence for three timber floors within the tower in this Phase.

There are no physical remains of the first floor: its existence, and its level, can only be deduced from the positioning of the high-level east doorway and to some extent from the altar position. The present floor, a 19th century insertion, has probably disguised the original joist sockets.

Some components of the second floor structure still survive, albeit in truncated form. From the first floor chamber it is possible to see the sawn-off ends of earlier joists immediately beneath the present second floor. There are two of these on the north side of the chamber, and one on the south. All are securely lodged in purpose-made sockets and in one case it is clear that wet Phase II mortar has been allowed to slop over the timber where it has taken up the cross-sectional shape of the joist before going off. Empty sockets survive at the same level: in all there appear to have been seven or eight joists, about 150mm square in section, running north-south.

The present second floor is probably post-medieval with 19th century repairs. It is almost entirely boarded out in T & G boards apart from a small area in the south-west corner. Here there are the remnants of three massive oak boards measuring 350mm wide and 50mm thick; they are all now 1750mm long but have evidently been cut down when the floor was remodelled. Apparently of oak they lack any edge joints or overlapping chamfers: they are simply butted together, and always have been. Their date is unknown but boards of this scantling are uncommon after the 16th century. They may be considerably older.

The second floor chamber had an unusually low floor-to-ceiling height and was evidently unlit; the third floor itself is represented only by a series of joist sockets blocked in red engineering brick. There are seven of these, aligned east-west, measuring about 150mm square. Their date is

unknown but their number and dimensions, and the fact that they appear to be part of the original construction (although this is less clear than it is at second floor level) supports the view that they, too, represent the site of a Phase II floor. But the purpose of such a dark and low chamber is not at all obvious. It is surely too cramped even for the simple requirements of early medieval campanologists; while the need for high-level storage must surely have been rather limited in this period.

The third floor chamber was, of course, the belfry. As described above the openings have been severely reduced in size to form slit windows. However there is some evidence for the type of bell-frame common in 11th century west towers. Either side of the east belfry opening there are two vertical slots, infilled; there is another on the south side of the west opening, which has been much rebuilt. These carried a pair of beams between which the bells were swung.

Roof structures

The Phase II pre-Conquest fabric terminates immediately above the level of the 19th century floor of the medieval belfry. In the internal north elevation there are visible, within the belfry, three or four courses of oolitic limestone, carefully laid, beneath an oak member 80mm high which runs the full width of the chamber, without joints (Plate 42). Initially this was thought to be a medieval trimmer, since medieval and later fabric rests upon it. However it does appear to be embedded in the Phase II mortar; moreover, and more convincingly, it is abutted at its west end by the west internal elevation where several courses of similar Phase II masonry in oolitic limestone abut and slightly oversail it. There are two possible conclusions that can be drawn from this:

- The timber is an inner wall-plate of the Phase II roof;
- The abutting Phase II courses in the west wall imply a west and, presumably, east gable.



Plate 42 Possible wall plate

On the south side of the medieval belfry chamber there is a precisely comparable situation; here there is no timber, but there is instead a long 19th century repair where one has been

removed. This may be the site of the south inner wall-plate of the pre-Conquest roof.

The Phase II nave

Within the body of the church the north and south arcades spring from the east elevation of the west tower, as is normal. There is nothing to be learned from the north arcade (the earlier of the two): it makes a simple butt joint with the east elevation of the tower. However at high level the south arcade makes a ragged straight joint with the broken stub of a wall which seems to be integral with the Phase II fabric of the tower itself, and is built of much the same material. This must be the remnant of a pre-Conquest nave south wall. The remainder was presumably demolished when the south aisle was added: no other masonry of early character can be seen in the spandrels of the arcade.

6.2.3 Phase III (15th century)

In the late medieval period a belfry, conventionally-detailed for its period, was added to the tower above a chamfered string course. It has been heavily restored at various subsequent periods but was originally constructed of good quality ashlar in magnesian limestone. Each elevation has an opening of two trefoil-headed lights under a four-centred arch. Beneath a moulded string course there is a crenellated parapet with crocketed pinnacles to the corners. Nothing is known of the medieval roof: the present roof is entirely 19th century. In 2005 it was jacked up and the supporting material replaced: when this was done it was possible to see that the medieval wall had an inner and outer skin and loose rubble corework.

As part of this work the east and west gables of the tower, if they existed, were lowered; they may have supplied the material used to infill the Phase II belfry openings, which matches – presumably as a deliberate choice by the 15th century masons – the remainder of the Phase II fabric. No serious attempt was made to disguise the straight joints which resulted although here and there the infill is toothed into the older work. Narrow slit windows were left to illuminate the Phase II belfry chamber, now empty; and possibly the Phase II second floor chamber, if the Phase II belfry floor was removed at the same time. This is uncertain, as the joist-holes are now infilled with 20th century red brick and cement mortar.

Some of the pre-Conquest quoins may also have been replaced in this period; another major repair was at any rate carried out to the east face of the tower immediately above the north pitch of the nave roof. Here there is a large area of disturbed fabric with blocks of magnesian limestone and inclusions of clay tile.

6.2.4 Phase IV Later work

In general the 19th century repair work to the tower is unobtrusive. One addition, however, was the large brick flue which runs up the inside of the north-east corner of the Phase II stage of the tower. Further support was given to the second-floor joists, where the flue passed between them, in the shape of a diagonally-placed oak trimmer. This turns out to be a fragment of a late-medieval moulded joist, possibly from the replaced first floor structure.

In the first floor chamber there still stands a tower clock, largely intact, but now superseded by a later clock installed as a war memorial in 1925. The gilded iron clock face on the south elevation is fitted with gilded timber hands; it is very similar indeed to that at Terrington.

A plaque in the nave records the restoration of the tower in 1929; this is very probably the date of the repairs in red engineering brick and Portland cement which are a prominent feature of the internal elevations of the Phase II belfry. Fortunately use of this material was confined to the interior. Bands of such repair work indicate concern with settlement of the tower.

6.3 DISCUSSION

The watching brief on work to the tower has, in general, confirmed what has always been assumed about the building: that it probably belongs to the 10th and 11th century, that it is largely constructed of re-used Roman materials, and that it combines many of the features considered to be diagnostic of pre-Conquest west towers. The accepted phasing of the construction of the tower has also been confirmed although there is some room for doubt that such a simple account is the whole story.

However more can now be added. Systematic examination of the materials has shown that complete Roman elements – the tower arch and the two ground floor windows – have been re-used in an operation that implies not merely careful dismantling but a certain amount of recording or marking-up of the Roman fabric prior to demolition and re-erection. Only in this way can the odd disparity in the internal window splays be explained. The use of gritstone blocks of standard size in the quoins suggests that a well-engineered Roman structure was at least one of the sources for the building materials while the almost complete absence from the fabric of magnesian limestone – one of the commonest surviving Roman building materials in this area – is perhaps an indication of its use by an organised lime production industry. Patterns in the mass walling material are tantalising evidence for – we know not what: maybe no more than the delivery arrangements. The use of massive gritstones at the base of the tower and coursed rubble at higher levels may be taken as a demonstration of the basic principles of civil engineering.



Features have been recorded within the building which, though not unique, are perhaps rare, or at any rate have not often been recorded: they include the remains of the second floor structure (and perhaps of some boards that once were laid upon it) while infilled sockets allow a third floor structure to be deduced as well as a simple bell-frame. Off-cut sections of falsework or scaffolding (perhaps alder poles) were seen in the corework of the walls where they had

Plate 43 Putlog hole of post-medieval date

been trapped or thrown during construction; a regular system of putlog holes, however, could not be plotted. Later phases of construction may have confused any semblance of a system of putlog holes further (see Plate 43). Junctions between slightly different mortars in the walls are probably evidence for regular breaks in construction to allow the slow-drying mixes to go off; unfortunately too few of these were revealed to allow any analysis of the progress of the construction work (Plate 44 mortar working phases in tower core). One possible Phase II wall-plate was noted as well as an indication of the relatively recent removal of another; the relationship between these wall-plates and the adjoining walls implies a gabled roof, aligned east-west, over the Phase II tower.

The function of the west tower in Phase I remains something of a mystery. The placing of stripwork on both sides of the tower arch surely implies that it was regularly viewed from the west, as well as from the more usual east; and yet the building entirely lacks doors, and has always done so on the evidence of the undisturbed internal skin. Excavation of the floor levels failed to offer any evidence for its use. The tower was evidently not a porch; but it may have been a baptistery. In Phase II the building gained height, as befitted a bell tower; gained a contemporary nave; and also acquired that feature commonly seen in towers of later date: a highlevel east doorway. As usual no obvious function for this doorway suggests itself. But at Skipwith the altar position in the first floor chamber - at the south end of the east wall – offers a stronger hint than usual that the chamber was regularly used, if not actually inhabited. Under the circumstances the east doorway



Plate 44 Mortar working phases in tower core

may simply have been an entrance to the chamber reached by a stair, possibly via a gallery, at the west end of the nave. Evidence for a stair within the tower was not seen.

Of the medieval belfry little need be said: its most important function was to trap two pre-Conquest wall plates until the late 19th century, when one of them was removed. It is well-built, elegantly proportioned, and rather dull.