Report of Work under Archaeological Supervision and Control

St Nicholas' Church, West Lexham, Norfolk; removal of cement render from west tower, drainage and other improvements

NHER ENF 141561

Prepared for West Lexham PCC

Sarah Bates and Simon Underdown, Report no. 50
May 2020

OASIS ID. sarahbat1-323874, NMAS Accession no. 2019.149

Contents

Illustrations

Project name	**St Nicholas' Church**
Parish	**West Lexham**
District	**Breckland**
Grid reference	**TF 8425 1721**
NHER reference	**ENF 141561**
Date of fieldwork	**22nd March 2018 - 6th November 2018**
NCCES reference	**CNF47238**
OASIS ID	**sarahbat1-323874**
NMAS Accession no.	**2019.149**

Summary

Archaeological monitoring was undertaken during drainage and building improvements at West Lexham Church.

Removal of render from the round tower walls by the contractor led to the discovery of four 11th or early 12th-century double-splayed windows (three round headed and one circular) in the central/upper part of the tower. These, and other details, were recorded in an unwrapped elevation drawing of the tower walls. Three main stages in the tower's original construction were identified. Of particular note was the relatively extensive use of chalk blocks. In some areas of the lower stage chalk was sometimes used exclusively or in distinct 'bands' within the coursed flint wall. The chalk and flint courses continued to the east side of the tower, apparently abutting the pre-Victorian nave wall (although only a very small area of that wall survived). Integral within the lower part of the tower were two triangular headed windows, also of chalk blocks, which were discovered during work on the tower in the 1990s. Four blocked putlogs holes were identified in the upper part of the tower and some other possible openings or putlog holes may have existed but this was uncertain. Later bell openings (14th and 18th century) were recorded as well as evidence for the rebuilding of the upper eastern part of the tower possibly in the 18th century. The line of a higher and more steeply pitched former nave gable was recorded and, also, numerous cracks and areas of modern repair in the tower wall.

Only small areas of the existing church's footings were exposed but part of a substantial wall/footing survived at the south-west corner of the building, in line with the west end of the nave but truncated by previous drains. Evidence recorded at the south-west corner of the chancel suggested the former position of another wall and, together, these recorded features suggest that a south aisle may once have existed.

Thirteen burials including those of adults, juveniles and infants were recorded (most were excavated but it was possible to leave some *in situ*). Other burials were evident at greater depths and undisturbed by the works. One burial was of note due to large

flints which may have been deliberately placed beside its head. No evidence for coffins was seen and it seems likely that many of the recorded burials were medieval.

Prehistoric worked flint was found; most of it, sharp, within a subsoil spread. Other finds were from grave fills, churchyard soil or topsoil and included pottery of Roman, Late Saxon, medieval and post-medieval date (the majority Late Saxon), and fragments of fired clay. A Roman coin, a 12th-century silver penny, a medieval strap end and two copper alloy strips were also found as well as a cattle bone fragment and tooth, and an oyster shell.

Church officials reinterred the human remains is a trench dug for the purpose in the north-west area of the churchyard.

1.0 Introduction

St Nicholas' Church is located centrally within the small village centre of West Lexham which is located about 3km north-west of Castle Acre and just over 8km NNE of Swaffham in western central Norfolk TF 8425 1721 (Fig. 1). The two small villages of West and East Lexham, each with its own church, are both within Lexham parish.

Building repairs and improvements were being undertaken at the church by Nicholas Warns Architect Ltd and S&L Restoration contractors for West Lexham PCC.

Brick retaining walls and drainage gullies were removed from around the building and a new drainage system was installed. This included new rainwater goods and drainage gullies, with 'Fildrain' type ground drains at the north side of the building and around the tower and drains leading to new soakaways (with plastic crates) to the south-west, south-east and north-west of the church (Fig. 2). Regrading soil level was undertaken at the north side of the church to concur with the new drains and the existing level and slope of the ground in the area.

A major part of the project was the removal of cement render from the round tower at the west end of the church. This facilitated the close inspection of the exposed external surface of the tower and enabled observation and recording of the architectural features within the walls, as well as cracks and previous repairs. On completion of this recording significant repairs were made to the tower wall including the replacing of some areas of coursed chalk block as well as flintwork repairs. At the top of the tower the parapet wall was repaired and a new roof and access hatch was installed.

Other improvements to the building included repairs to areas of walls, parapets and abutments, the vestry and south chancel windows, relaying the roofs of the porch chancel and vestry, and other repairs to the building.

A record of the condition of the building prior to the work is included in the project archive Nicholas Warns Architect Ltd 2016 and 2017) and a record of the work undertaken as part of the project is held by Nicholas Warns Architect Ltd.

Archaeological work involved observation and recording during the drainage and other groundworks and during the work on the tower. It followed a Written Scheme of Investigation prepared by Sarah Bates to meet the requirements of an archaeological brief set by Norfolk Historic Environment Service (NHES Brief for the Monitoring of Works under Archaeological Supervision and Control, Stephen Heywood, 09/08/17 with an addendum by Steve Hickling 9th May 2018).

West Lexham PCC funded the repairs, improvements and archaeological work with the aid of a National Heritage Lottery Fund grant.

The archaeological archive will, on completion of the project, be deposited with the Norfolk Museums and Archaeology Service, following the relevant policy on archiving standards. An OASIS form is included below as Appendix 1.

2.0 Geology and topography

The church is located in West Lexham village centre and at the south-east end of a slight 'spur' of higher ground which rises towards a high point at Burrow Hill about 600m to the north. To the south and east of the church the ground slopes steeply to the existing road and towards the River Nar the general flow of which is from east to west but which winds along the valley between the higher ground to either side and which was adapted by earthworks and channels associated with floated water meadows in the 19th-century (see below). From the road to its south, the church appears to sit atop a natural mound.

The church itself is situated at a height of around 52m OD (OS benchmark at 52.35m OD on the south-west corner of the nave.

The underlying solid geology in the area of the site is chalk. This is overlaid by sands and gravel deposits of glacial origin (British Geological Survey 2017). Soils are lime-rich loams (LandIS 2019).

Maps and aerial photographs of the vicinity of the church show that an existing plantation just to the north has been developed through the 20th century (Norfolk County Council 2011) and old photographs show the previously more open aspect of the area of the churchyard (Historic England 2020; Images 4269_208 and 4269_211).

Chalk or Clunch?

During work on the tower it transpired that large amounts of a soft white limestone had been used in its construction. This was referred to variously as clunch or chalk; hence, below, para 3.0, (and in other reports held in the project archive (Richmond 2017, Nicholas Warns Architect Ltd 2017) the term clunch is used. During the site works, however, the material was referred to as chalk by the contractors and archaeologists and the term chalk is used in paras 5.0, 7.0 and 8.0 below. *Chalk* is the geological term used to describe soft white porous sedimentary limestone composed of calcium carbonate. Norfolk has the greatest range of chalk strata in Britain with outcrops in West Norfolk, at the north Norfolk Coast and in river valleys near Norwich (Holt-Wilson 2010, 12). The term *clunch* can be defined as a soft limestone (Hislop 2016, 59), or a particularly hard well cemented chalk with specific local types being well known as building stone (for example in South Cambridgeshire and Bedfordshire (Spain 2012). The term clunch is often used locally, in different regions, for any sort of chalk used as building stone

3.0 Archaeological and Historical Background

NHER and historic images of the church

The existing church building comprises chancel and nave of equal width but with the nave being higher and with a more steeply pitched roof (Plate 1). There is a slightly horseshoe-shaped 'round' tower, a south porch and north vestry.

The Norfolk Historic Environment Record (NHER no. 4019) records St Nicholas' west tower as '*Early Norman with a later brick parapet'* ….and notes that *'some original openings*' are preserved. There is also mention of '*Late Saxon windows found in the tower in 1993*' The NHER describes the church as mostly remodelled around 1300 with the south door and Y-traceried windows as of this date and the church (largely) rebuilt in the 19th century. A medieval font, piscina and coffin lid are mentioned.

A drawing by R. Ladbrooke shows the church *c.* 1820 when it had a consistent roof level, lower-pitched than the present nave roof, extending across both nave and chancel (Plate 2). The drawing also shows the east window with two round-headed openings (in contrast to the triple headed window seen today). The windows on the south side of church appear as today, although they must have been re-set during the 19th century rebuilding. The positions of the south buttresses shown in the 1820 drawing also differ to those present today. Ladbrooke also shows a conical roof to the tower and a small feature, possibly a bell cote, at its south side.

A later 19th-century drawing (held by the church (Plate 3) shows the church during its rebuilding then, although the accuracy of this drawing is uncertain; it shows the chancel buttresses more consistent in position (although not entirely in style) to those seen today rather than those shown by Ladbrooke some years earlier. In this later drawing, however, the nave has been demolished and not yet rebuilt, and there is a small part of the original nave wall still attached to the south side of the tower. A gabled roof is visible on the tower. The sequence of the 19th-century rebuild represented in the drawing does not, therefore, concur with that suggested elsewhere (Richmond 2017, and see below).

Photographs of St Nicholas' Church held in Historic England 'Red Box' archive (date unclear but probably 1968) show the tower rendered and in poor repair with large cracks visible running down from beneath blocked openings near the top (Historic England 2020)

Repairs during the 1990s

Significant repairs and re-rendering of the church tower occurred during the 1990s. A report of the building written just prior to that repair work records the structure as '…*rendered, but large patches have fallen and large cracks have appeared*' (Rose 1993). A '*pre-14th-century*' date is given for the tower. This report also describes a memorial in the chancel to '*the foundation stone 'of the new church' laid by Frances Abby Reavely on 26 August 1881*; the nave was rebuilt then although the south doorway dates from *c.* 1330 and was probably reused from an earlier nave. Rose also dates the chancel, south porch and vestry to the 19th century (although these as slightly later than the nave).

The church tower was repaired and cement-rendered in the early 1990s; sketches made by Feilden and Mawson architects are held in the NHER and show areas of cracking and other damage (including some cracks possibly suggesting the positions of blocked small windows). The sketches also show proposals for a steel wire 'corset'

around the tower. In 2017, at the start of the present project, these wire bands were partly visible beneath the 1990's render and two small blocked triangular-headed windows with chalk dressings (assumed to be those mentioned in the NHER as discovered in 1993) were visible (see below).

Recent research

During the architect's opening-up day for the present project some of the 1990s render was removed from around the chalk dressings of the small blocked windows (Nicholas Warns Architect 2016). This showed that blocks of chalk were also used in the tower wall (Richmond 2017, see below). There is evidence for the use of this material in other Norfolk churches during the medieval period; for example, in window dressings and in the nave arcade at Litcham Church about 4km east of West Lexham, and, more commonly, in north-west Norfolk. Its use is likely to have depended on its local availability. The use of locally available 'as-found' building materials is discussed by Godfrey in relation to early medieval church building (2007, 85-87), and mooted as possibly supporting a pre-Conquest date - although such material was clearly also used in later periods (see below *Conclusions*). The style of the triangular headed blocked windows suggests a date *c.* 1100 but a pre- or post-conquest date is difficult to confirm as the same building techniques and styles continued into the later period (Stephen Heywood 2005, and see below). Prior to the present work a slight bulge was apparent in the rendered wall of the tower in its central part, this was thought possibly to relate the slumping of the render as it was plastered in the 1990s (Nicholas Warns Architect 2016, 25).

Prior to the present work, low retaining walls and brick-lined drainage gullies ran along each side of the nave, the bottom of which was approximately 0.40m below the existing floor level of the nave. The external wall faces and buttress plinths continued down to the base of the gullies suggesting that the gullies were contemporary with the 19th-century restorations. The ground around the tower remained a higher level – although the architect's sketch from the early 1990s showing a cross section of the tower from the north suggests that, at that time, a small gully may have existed around the base of the tower (Feilden and Mawson 1991). Around the chancel the land sloped naturally down to the east.

Conservation Report 2017

Following the Opening-Up day a conservation report was prepared for the current project by Hugh Richmond (2017) and his description and suggested dates of the development of the building are summarised here but do not take into account the discoveries made during the present project (also, see above on the use of term *clunch*). Richmond describes the church as on an elevated site, and the historic churchyard as '….*oval and the church is at its centre. An oval enclosure on high ground could indicate a significant early site*'. (It is noted here, however, that the present churchyard is rectangular and there is no apparent cartographic evidence supporting its oval shape (Steve Hickling, NHES, pers. comm. 13/05/20)).

Richmond's report describes the earliest part of the building as the clunch built western part of the tower. Small windows in its north and south sides have triangular heads, each formed by two pieces of clunch, and the north window has jambs of eroded clunch blocks (the south window detail has been hidden by later work). Richmond dates the detail of the windows as Saxon and the thickness of the tower wall (0.84m) as supporting an 11th-century date. The piscina has plain semi-circular openings, and the

east window of the chancel windows shown in the 1820 Ladbrooke drawing (see above) is of the same style. They are of likely 12th-century date. Richmond dates the tower arch to the 14th century and, prior to the discoveries made during this project (see below), suggested that its building may have required the demolition of the eastern part of the tower and the rebuilding of that and the west wall of the nave to enable a wider arch. It was thought that this may have resulted in the tower's side walls being straighter in their eastern parts and the whole tower thus being slightly horseshoe-shaped rather than circular. The lancet in the west wall of the tower is probably contemporary with the tower arch. The chancel arch, south doorway, entrance to the south porch and belfry are also 14th century. The church is described by Blomefield in the late 18th century as being 'a single pile with a chancel covered in thatch and a round west tower' (Blomefield 1809), and a lithograph by Ladbrooke was published in the early 19th century (see above). Restoration occurred during the 19th century; evidence from a foundation stone in the chancel suggests that the nave, porch and tower were restored first, followed soon after by restoration of the chancel at which time the vestry was probably built. During this restoration the nave was raised in height and its roof steepened, and the church's south windows and buttresses were altered from those shown by Ladbrooke.

Other sides sites and finds from the vicinity of the church

A search of the records held in the NHER for an area 500m in radius around the church was carried out in 2016 at the development stage of this project. A recent check of the updated records has shown that a few finds have since been made in a nearby field but that these are not of great significance in relation to the work at the church (Peter Watkins, NHER, pers. comm. 19/05/20).

The NHER mentions the recovery of prehistoric flint flakes, sherds of Roman, Late Saxon and medieval pottery and a Roman coin from the churchyard and another Roman coin from just to its north-east. Also recorded is the site of West Lexham medieval village, known from a map of 1575, immediately east of the church. It was mostly abandoned before 1711 and no evidence for it survives on the ground or can be seen on aerial photographs.

Other sites and finds recorded in the NHER include a few prehistoric worked flints and a sherd of Bronze Age pottery, Middle Saxon, Late Saxon, medieval and post-medieval pottery, Roman coins, and metal finds of late Iron Age to post-medieval date. A large area, south of the church and to both north and south of the River Nar is the site of floated meadows built between 1803 and 1811; they comprise channels and other earthworks and associated features.

Less than 2km to the east of St Nicholas' Church is another early round-towered church, that of St Andrew, at East Lexham. This is described in the NHER as having extremely unusual bell openings cut from single slabs of shelly limestone in the shapes of a patée formée cross to the east and two lights divided by a baluster shaft to the north-west. They date from *c.* 1050 and were reset c. 1100, with the nave of similar date. A NHER entry made in 2016 for St Andrew's Church mentions '*repairs in progress*' and '…*round windows identified amounting to 12. Only the facings are blocking the windows leaving them as hollow spaces*'. The NHER parish summary for Lexham records that there were two entries for the parish in the Domesday book and that these include reference to a church (which seems to be assumed to have referred to St Andrew's Church).

Less than 600m to the west of St Nicholas Church the site of a post-medieval lime kiln is recorded in the NHER; identified from map evidence at the south end of Limekiln

Breck and indicating the ready availability of chalk as a raw material in this part of Norfolk. About 6.5km to the east, at Litcham, two other post medieval lime kilns are recorded one of them with large chalk pits to its north. It is noted here that several small ?hollows one just to the west of the church and others slightly further to the north-east are clearly visible on the first edition Ordnance Survey map and an aerial photograph from 1946 and discernible on a 1988 air photograph(Norfolk County Council 2011). The nature and date of these features in unknown but, possibly, they might represent quarries

4.0 Methodology

Archaeological monitoring aimed to observe and record the presence or absence, location, nature and date of any surviving archaeological deposits within the areas affected by improvement works.

The trenches in the churchyard were dug by machine, with some smaller areas dug by hand, by the site contractors under archaeological control and supervision.

The location of the areas of work was recorded and trenches were assigned context numbers for the purpose of reference and description (Figs 2 and 3). *Pro forma* context sheets were used to record the excavated trenches, features and deposits and the many burials which were partly exposed during the work, most of these within the area of the soakaway. The human remains, and other disarticulated and fragmentary human bones found, were left in the care of the church and reinterment took place during the latter stages of the work on site (see below).

Digital photographs recorded the archaeological deposits and the work at the site generally.

Finds of archaeological significance were retrieved. Spoil heaps were metal detected. No deposits required sampling for environmental assessment.

General photographs were taken of the tower prior to the scaffold being erected and showed its condition before to the improvement works. Additionally, photographs from the scaffold platforms showed areas of most of the existing (blocked) openings at this stage of the work. A more detailed photographic record was made following the removal of the cement render. An ‘unwrapped’ elevation of the entire tower wall was recorded by drawing at a scale of 1:50, with detailed drawings, at a scale of 1:20, made of three of the four blocked windows which were discovered during the work (very little of the original fabric of the fourth window survived).

Photographs were also taken following conservation work on the windows after completion of work on the tower. A separate specialist report describes the conservation work on the four newly discovered windows (Wilson 2018).

Site conditions (weather, light and access) were mostly good. Access to the tower wall was enabled by the contractors scaffold but the relatively narrow platforms, the convex wall surface and the presence of scaffold poles did not allow the perpendicular photographing of extensive areas. Perpendicular photographs were, however, taken of the newly exposed windows.

5.0 Results (Figs. 2-8, Plates 4-52)

5.1 Excavated evidence

Introduction

Context numbers are shown in square brackets and listed in Appendix 2. Depths given below were measured from the ground surface existing at the time of work. All burials lay with the skull to the west and where depths of burials are cited they represent measurement to the highest point on the skull from ground level at the side of the trench nearest to it (or where skulls were not present in the trench, to the highest point on the exposed skeleton). No evidence for coffins, in terms of wood remains, nails or fittings, was seen.

Deposits below the topsoil which had accumulated due to the repeated digging into underlying subsoil and redeposition of material by grave-digging or other activity are referred to as churchyard soil – this varied slightly in different areas but was generally mid to light brown/slightly orangey brown silty sand. Topsoil was brown sandy loam.

Drains at the north side of the church (Figs 2 and 3)

A substantial existing brick gully which ran along the north side of the church from the west end of the nave to the west side of the vestry was removed by the contractors and the area was prepared for the new drainage system. This involved excavating the area to the required depth (Fig. 2, trench [41]) and the formation of a 'bank' of soil sloping down at 45° from the wall of the building (Plate 4). It had been agreed that the contractor could remove the brickwork but excavation was extended to a greater depth than had been expected, and the soil bank formed, before the arrival of the archaeologist. The trench ranged in depth from 1.0m at its west end to 1.16m at the westernmost buttress (with depths measured from the bottom of the chamfered plinth course). The trench was cut through churchyard soil and, in places, extended down into previously undisturbed natural sand and gravel. It was reported by the contractor that the only features seen during the preparation of the area related to the brick gully and previous drainage scheme. A sherd of late 10th to 11th-century pottery was found in the area of the work.

At the east end of the trench a very short length of solid chalk-flecked mortar and flint survived at the base of the chancel wall just to the west of the vestry and outside/to the east of the area of the removed brick gully and 're-formed' soil bank [64] (Fig. 2, Plate 5). It appeared to be part of the wall footing. Its solid upper part was underlain by compacted mortar to a total depth of approximately 0.40m. A footing was not seen by the contractor during the work alongside the nave to the west; any such feature would have been removed in the 19th century (prior to the construction of the brick gully in that area.

Nothing else of interest was seen in the area of trench [41].

To the north-west of the vestry the east end of a burial was partly exposed in the trench excavated for a drain (the trench was wider in this area to facilitate drains from the two gullies installed at each side of the nave's eastern buttress). Only a few foot bones and the lower leg bones of skeleton [46] extended into the trench at its west side (position shown in Fig. 2). The unfused epiphyses of the bones showed that this was the burial of a juvenile.

Several burials were exposed and excavated in the main west to east drain trench [42] which was 0.60m wide and sloped down from west to east (being 0.75m to 1.20m in depth) (Figs 2 and 3). Near the west end of the trench was adult burial [43] (depth 0.70m) (Plate 6). The skeleton was notable for the absence of its left foot bones and the degraded nature of the sacrum (only its upper part was well preserved). Some irregularities in the base of the grave suggested that animal burrowing might have occurred in the area and, perhaps, the bones had been gnawed or displaced (a toe bone was recorded just to the north of the left femur). The missing foot bones might also be explained by truncation by another burial to the north-east – but no other evidence for one was seen. The base of grave cut [43] was, otherwise, quite well-defined, particularly at its west end, There was no evidence of a coffin and the quite widely 'splayed' position of the arm bones suggested there had not been one. The femurs were long (420mm) but slender – which might suggest a female and the rather shallow broad pelvis also suggests a female (although this was uncertain). Noteworthy in the burial were several largish flints which lay alongside the skeleton, including at each side of the skull. Unfortunately, however, these were not recorded in detail and some, at least, were thought to be accidental inclusions in the grave fill (but see below Trench 54). The only other finds from burial [43] were fragments of fired clay (43 fragments were retained but there were some other smaller pieces), some of which seemed to be concentrated in the irregular hollows in the base of the grave.

Two metres to the east was adult burial [48] (depth 0.78m) Plate 7 shows the skeleton as initially excavated and lifted. The lower leg and foot bones lay beneath burial [49] (see below) and were excavated following removal of [49] from the trench. Again, the bottom of the grave [48] was well-defined, cut into an area of reddish stained slightly clayey natural subsoil. Two long bones found in the pelvic area were probably the left lower arm bones of the skeleton although this is uncertain (as is how they became dislodged and in the position where they were found). A few pieces of fired clay came from the grave fill. Just to the north of burial [48] the partial remains of infant burial [51] extended outside the trench (depth 0.80m), and immediately to the east of burial [48] was adult burial [52] (depth 0.89m) (Plate 8). Only the left side of the latter extended into the trench and the skull was missing. It was thought most likely that the skull, being at a slightly higher level than the other bones, had been removed when burial [49] occurred above it at a later date. The lower part of the left leg and foot of [52] was missing; it might have been truncated by another burial to the east or may have been damaged and removed during the machine excavation of the trench. A sherd of possible Roman or Late Saxon pottery was found in soil below burial [52]. Above both burials [48] and [52] was burial [49] (depth 0.70m). The skeleton was that of a large adult, almost certainly a male (femur length 455mm, and the all the bones were robust; note, for example, the size and thickness of the clavicles (Plate 9). Single sherds of late 10th to 11th- and 11th to 12th-century pottery came from the grave fill.

To the east of these burials evidence of others was seen in the bottom of trench [42]. Some bones were disarticulated but others were articulated and clearly represented *in situ* burials. At depths of between 1.10 and 1.20m, they were below the level required for the drain and they were re-covered with soil and left in place.

Due to the regrading of soil levels to the north of the nave virtually no topsoil remained in the area of trench [42] in the area next to the nave; it had been used to form the bank for the drain alongside the wall of the church.

Further to the east an area of quite soft brown silty sand with relatively few inclusions was recorded in the base of the trench [44]. Although distinct from the general churchyard soil, its edges were not well-defined. It may have been a spread of soil or, possibly, the fill of an underlying feature. A 'concentration' of prehistoric struck and

utilised flint came from the deposit and showed that the soil had been undisturbed by activity relating to the church. An east to west feature [45], clearly a grave, extended into the north side of the drain trench and cut into the soil deposit. No human remains were exposed at the excavated depth but a sherd of late 9th-11th-century pottery was found.

Further to the east again, the burial of child was exposed and excavated [50] (Plate 10). It had been disturbed by animal activity; some vertebrae in its lumbar area were displaced and the lower bones of its right arm were missing. Its left arm extended outside the trench. The thoracic vertebrae were, notably, unfused/incompletely formed. A sherd of late 9th-11th-century pottery, some fragments of fired clay and an oyster shell came from the grave fill.

Trenches for new gullies and drains from them were dug from the north-east corners of the vestry and chancel. At the base of the chancel wall irregular medium-sized flint cobbles in cream mortar formed the wall footing but this did not extend out from the base of the wall. It was 0.35m deep. Just to the north of this gully some loose flint and mortar rubble was seen below the topsoil in the west side of the trench. It was a dump of building waste and probably related to work on the building in the 19th century. Below it, at a depth of 0.40m was churchyard soil.

As well as the flint mentioned above a few other struck flints of prehistoric date were found in drain trench [42]. Other finds from the trench were sherds of Roman pottery of 1st to 4th century BC, and pottery of late 9th to 11th-century date. A piece of fired clay, two pieces of copper alloy sheet of likely medieval date (one of them a probable vessel repair piece), a fragment of lava, probably from a quern of Roman or Saxon date, and two pieces of cattle bone were also found.

Soakaway trench 47 (Figs 2 and 4)

Trench [47] was located approximately seven metres north-east of the chancel. It was 5.0 x 1.20m in size and between 0.85m and 1.0m deep (Figs 2 and 4, Plate 11). Patches of mottled yellow sand exposed in the base of the trench may have included areas of undisturbed natural subsoil (although it is possible that they represented disturbed and redeposited natural soils). Brown silty sand extended across most of the area and two or three burials were partly exposed.

The right side of burial [61] extended into the north-east corner of the trench at a depth of 0.90m and just to its west were the right ribs and humerus of burial [62] at just over 0.80m depth. In the centre of the trench a skull was partly exposed and its position suggested that, it too, was *in situ*. All these burials were below the depth required for the soakaway and were re-covered with soil and left in place.

Drains at the south side of the church (Fig. 2)

The existing brick gully was removed from along the south side of the nave and the area infilled and 'graded' to the required ground level (Fig. 2, T29). Also recorded within this area were two small circular holes (approximately 0.50m in diameter) dug for new gullies, one just to the east of the porch and another at the south-west corner of the chancel (although a change in the design of the drainage led to the latter being infilled and a new gully being installed further eastwards). Some hard grey mortar rubble was seen in the north-west side of the western gully hole but probably related to the previous drainage gully. Some cream mortar and flint rubble was seen within the eastern excavated hole although its extent was unclear [68] (Plate 12). It was cut

through by the former drain (the drain pipe can be seen in the photograph). At the time of recording it was thought that the flint and mortar represented a footing to the buttress (similar to, but more extensive, that seen at the south-east corner of the chancel – see below) which had been heavily disturbed by the former drain. The more extensive nature, and other evidence seen in the chancel wall makes it possible, however, that it related to a former wall running south from the wall of the church (see below paras 7.0 and 8.0).

The gully hole at the south side of the chancel was mostly within the area of former drains and some large diameter ceramic drains were removed by the contractor who mentioned their unusual nature and relatively early (19th-century) date. Nothing else of note was seen. At the south-east side of the chancel in trench [39] the solid footing of the corner buttress was recorded (Fig. 2, Plate 13). It extended 0.25m west and south of the buttress and to a depth of 0.90m below the bottom of the upper chamfered plinth stone of the buttress. The solid footing comprised flints in yellowish cream mortar. Otherwise, only churchyard soil and topsoil were recorded in the excavated small trench.

Drains from the three new gullies ran south-eastwards into a main drain which ran east to new soakaway [40] (Fig. 2, T37). The trench was 0.35m wide along most of its lengths (although a wider machine bucket was used near the soakaway at its east end). It sloped slightly down from west to east although this largely followed the natural slope of the ground (the trench was 0.30m to 0.50m in depth). The only observation of note was a former drainage chamber the top of which was exposed in the base of the trench [38]. The contractor broke open the top of the feature to ascertain its nature. It was constructed of brick fragments (mostly red bricks but with a few cream bricks) and chalk-flecked cream mortar, its walls coursed and its top roughly vaulted. The void was infilled prior to laying the new drain. The feature probably related to the large ceramic pipes seen to the north-east (see above) and also, probably, to the brick gully removed from alongside the nave. Sherds of 10th to 11th-, 11th to 13th-, and 17th to 18th-century pottery were found in the soils from the drain trench.

Soakaway trench 40 (Fig. 2)

Trench [40] was located approximately five metres south-east of the chancel (Plate 14). It was 3.5 x 1.20m in size and between 0.6m and 0.8m deep (deeper in the higher ground to its north side). Slightly orangey brown silty sand churchyard soil continued below the bottom of the excavated trench with some slightly sandier patches but undisturbed natural sand was not reached and the redeposited nature of the exposed soils showed that burials existed at a greater depth. In the north-east part of the trench some human bones were slightly exposed at a depth of 0.85m and were probably part of an *in situ* burial but they were below the depth required for the soakaway and they were immediately re-covered with soil.

A sherd of pottery of possible Roman or Late Saxon date was found in the soakaway trench.

Drains to the south-west of the church (Figs 2 and 5)

Trench [53] was dug for a new drain running from the west side of the porch to a new soakaway to the south-west. At its north-east end the trench ran into the area of the existing brick gully where a new downpipe gully was to be installed in the small area between the nave buttress and the south porch. This gully was not installed while the

archaeologist was present but it is highly likely that deposits in the area would have been disturbed by the previous drainage works.

Just to the west of the porch, part of a wall or footing was exposed in the side of the trench [58]. It ran from south to north, its north end truncated by the construction of the 19th-century brick gully and its south end outside the area of the excavated trench (Figs 2 and 5, Plates 15 and 16). The solid wall base of medium to large flints in cream mortar was 0.80m wide and survived to a maximum height/depth of 0.35m. It appeared to sit directly upon soil although it was not investigated beyond the base of the trench. Its west face was of roughly coursed quite large flints while the east side appeared to be of more neatly coursed, slightly smaller, flints (although only a very small part of it was exposed). The core comprised irregularly placed flint rubble in mortar. The purpose of the former wall was uncertain but it aligned with the west end of the nave and was too far to the south to represent a former buttress. The apparent lack of evidence for a deeper foundation seems unusual, but this was rather uncertain, it not being investigated further. A possible interpretation could be that it represents a west wall to a former south aisle. No evidence for such a compartment has been recorded or documented previously but the probable footing [68] seen to the south of the chancel can be seen to support this suggestion (see above, and Conclusions for further discussion).

To the west of wall base [58] the eastern edge of a brick surface was exposed [63] (Figs 2 and 5, Plate 17). The exposed red bricks (dimensions 225 x 110 x 70mm) were mostly slightly damaged during the machine excavation of the trench but most of them were laid on their sides (the three northernmost exposed bricks in the lower 'surface' flat on their widest face). The brick surface was at least 1.50m from south to north (it extended northwards of the excavated area). The function of the brick feature was uncertain but its position roughly corresponds with that of an area enclosed by railings (presumably a tomb) which is shown in a late 19th-century drawing of the church (see above: *Archaeological and Historical Background*). The bricks may have formed a base for the railings or have represented a tomb or underlying grave. It is most likely that this was of 19th-century date.

Immediately to the south-east of the brick feature, burial [57] was partly exposed in the bottom of the drain trench (depth 1.10m). Most of the burial lay outside the trench to its east and another skull was seen protruding into the side of the trench just above it (Figs 2 and 5). The left arm bones of [57] may have been removed during machining the trench although it is possible that truncation by other (unidentified) burials in the area might have occurred. Adult burial [56] was exposed (depth 0.90m) at the south-west end of the drain trench (Figs 2 and 6). The lower part of the skeleton was missing and a quite large number of bones, including some which were likely to be from the skeleton were recovered from the spoil during machine-excavation. However, some additional bones were also recovered from the area and it was unclear as to whether skeleton [56] was entirely truncated by the machine activity or whether previous truncation (by other burials) had occurred. Some *in situ* small bones found just to the east were in a position to suggest they were of the left hand of skeleton [56]. Single sherds of late 9th and late 10th to 11th-century pottery were found in the grave fill.

Soakaway trench [54] (Figs 2 and 6)

Trench [54] was dug for a new soakaway located approximately nine metres to the south-west of the church. The trench was 1.80 x1.2m in area and 0.90m deep. The upper left part of a burial was exposed within the area of the trench [55] (depth 0.80m) (Fig. 6, Plate 18). Its bones appeared to be fairly slight in nature (humerus 285mm),

but were fused and, therefore, an adult. Of particular note were two flints, one each side of the skull. These might have been deliberately placed to support the head at burial (see below *Conclusions*. The larger flint, to the north, was a long wedge-like piece and has been struck along two edges, possibly to shape the piece (see below; *Flint*).

Finds recovered from the excavated trench include a total of ten pottery sherds of late 10th to 11th-century date and one sherd of possible Roman or Late Saxon date.

Drain around west tower (Fig. 2)

A trench was dug for a ground drain around the tower. This comprised a wide trench with its inner side sloping down at 45° from near the base of the wall. The trench was between 1.30m and 1.70m wide at its top and 0.75m maximum depth. The bottom of the wall was not exposed except in a very small area at its north-east side where an internal downpipe drained rainwater from the tower roof (Plate 19). Here, the lowest part of the wall (or uppermost part of its footing) was exposed with a large flint cobble set in the chalk-flecked mortar seen elsewhere in the tower's wall (Plate 20). This mortar had been cut through to enable the pipe to exit the building.

Elsewhere, only churchyard soil and topsoil were exposed in the sides and base of the trench. A slight 'concentration' of flints occurred at a depth of 0.25 – 0.50m below the new limewash but these flint were loose inclusions in the soil, probably resulting from previous repairs to the building. Loose mortar visible on the ground surface (in Plate 19) was from the recently completed work on the tower walls.

A sherd of late 10th to 11th-century pottery was the only find from this trench.

Reinterment of the human remains

The human remains recovered during the excavations were kept securely on site until the completion of the groundworks and were all reburied, in the presence of the Vicar, in a trench dug specifically for the purpose in the north-western area of the churchyard (Plate 21). Details of the location are included in the project archive and the approximate position is shown in Figure 1B.

5.2 The west tower (Figs 3, 7 and 8, Plates 22-52)

Introduction

Four main 'phases' of masonry were identified in the tower wall. Three of these could be seen in the north, west and south sides of the tower and represented the main stages of its construction. The fourth was within an area of rebuilding around its upper east part. For the purpose of recording, each of these main areas was assigned an overall context number ([33] – [36]). Windows/openings and significant areas of repair were also allocated context numbers. In the case of the openings, context numbers were allocated to both the features themselves and to their later infills (see Appendix 2). Only the features numbers, however, are referred to below and in the Figures and Plates in this report).

Lower stage of tower [33]

The earliest part of the wall extended upwards from ground level to a height of approximately four and a half metres and could be sub-divided into several areas although the mortar throughout this lower area of the tower was the same; light brownish cream sandy lime mortar with frequent small fragments and flecks of chalk and occasional small flints grits and chips (Fig 7, overall context [33]). Up to a height of between 1.6m and 1.9m (dependent on the varying ground level) were regularly-coursed, mostly medium to large, flint cobbles (100-200mm in size) with little breaking or facing of the flints apparent (Plates 22 and 23). Above this flint section were alternating bands of coursed chalk blocks (two and three courses respectively) and single courses of flints (see annotations in Figure 7) (Plates 23 and 24). The chalk blocks were 100-150mm in size and the upper, wider, area of chalk formed a very consistent band around the entire tower with single courses of flint below and above it (Fig. 7, and e.g. Plate 23). The lower two courses of chalk were slightly intermittent due either to flint inclusions or later repairs but, nevertheless, could also be traced as a band around the tower. Near the abutment of the tower's south wall with the nave, and level with the banded chalk and flint, some additional chalk blocks were included at the end of the flint courses (Fig. 7 and Plate 24).

Above the banded flint and chalk, and to a height of just under four metres, the original wall appeared to consist almost entirely of coursed chalk blocks although various areas of later repair existed particularly in the southern part of the tower (Fig. 7, Plates 25-27). Some of the chalk blocks were large (up to 350mm in size). Above the chalk, a single course of flints (with a double course running for a short length at the east end of the north wall), and a single course of chalk blocks ran from the nave wall at the north side of the tower to a large repair [23] on the south-west side of the tower and formed the upper delineation of the wall section recorded as [33], but the single chalk course did not continue to the east of [23].

At its north lower side, the tower wall appeared to abut the surface of an 'original' nave wall (Plates 27 and 28),. This latter, seen in a very small area between the coursed stones of the tower and the regular, but un-coursed, flint cobbles of the 19th-century nave wall, had a very similar mortar as the lower part of the tower but the two mortars were distinct in tone, the mortar of the tower being of a yellower tone and that of the nave slightly pinkish. As mentioned this was only observed in a small area but it does suggest that a small part, at least, of the former nave wall survived when the nave was rebuilt (this concurs with the artist's representation of south side of the tower of the partly demolished church (see above, *NHER and historic images of the church*).

Openings within the lower part of tower

Two small windows (those discovered and exposed in the 1990s, see above) were positioned within this part of the wall at about two and a half metres above the ground. Window [30] at the north side of the tower had roughly squared blocks of chalk forming the jambs, with a larger block at each side at the base, the blocks becoming smaller towards the top and with two longer blocks forming a simple triangular head (Fig. 7, Plate 25 and 29). The opening was constructed directly upon the uppermost single course of flint; there was no separate sill. The window opening was blocked with flints set in a quite hard greyish mortar. It was difficult to identify any 'original' mortar due to the weathered nature of the window.

Window [31] at the south side of the tower was slightly wider and not as completely preserved; chalk blocks survived at the upper sides and two long blocks of chalk formed its triangular head (alike to window [30]) (Plate 30). The lower part of the window was lost; replaced by the later flint infill and repairs. Some blocks of chalk irregularly set at its west side were not in their original position and the original mortar of the window surround was not exposed, a gritty light greyish cream mortar bonded the flint blocking of the widow and continued around the chalk blocks.

At the west side of the tower was the tall, glazed, lancet [32] (it was protected by boards for the duration of the work on the tower, only being uncovered as necessary for the contractors work or archaeological recording) (Fig. 7); it may be 13th-century, but probably dates from the early 14th-century (Richmond 2017, 3). Some damage to the tower wall at either side of the window, at the level of the single course of flints on which windows [30] and [31] sit, suggests the possibility that this window replaced an earlier one similar to those to the north and south. The stone blocks in the upper parts of its jambs are larger than those lower down and this might also support the suggestion that an earlier, slightly wider, window was removed.

Central part of tower [34]

This area extended from above the uppermost course of chalk blocks on the north and west sides of the tower to a height of approximately eight metres above ground level. Its main fabric mainly comprised coursed flint cobbles, mostly 100 – 200mm in size with occasional larger ones (<300mm). In the north part of the tower there were also occasional to moderate numbers of chalk blocks 100 – 200mm with very rare larger lumps The chalk was more frequent in the west part of the tower with, possibly, more chalk than flint in some areas at the west side (Plates 31 and 32). The mortar was light brown, quite hard and with occasional to moderate amounts of chalk flecks and small fragments and small flints and grits. In both the north and west walls the flints and chalk lumps become slightly smaller with height within this second stage. At the south side of the church the original fabric was heavily repaired and no longer had the same regular appearance as the west and north parts of the wall (see Fig. 7). Plate 33 shows the better preserved 'coursed' flint and chalk to the west of repair [23] in the south-west part of the tower wall and the more irregular south wall to its east. Plate 34 shows the south wall during the present repairs with the sandy mortar of the core exposed.

Openings within the central part of tower

Four previously unknown double-splayed windows were discovered by the contractors during their removal of the concrete render from the tower. The windows are not visible in pre-1990s images of the tower; they had long been blocked and hidden and there is no record of their having been seen during the 1990s' work on the tower. The four

windows all appeared to be original to the wall in which they were formed; the mortar in their construction was the same dark brownish cream with chalk flecks and small flints (see above, [34]). The external splays of the four newly discovered openings were seen, and further investigation revealed the internal splay of at least one of them (Wilson 2018, 4).

The lowest of the four revealed windows was a small circular opening or *oculus* positioned at the west side of the tower at a height of approximately six metres above the existing ground level [27]. At the time of the archaeological recording the edges of the circular feature and part of the mortar-rendered splayed area around the upper part were visible (Figs 7 and 8A, Plates 32 and 35). The opening was about 0.55m in diameter at its outer edge, its upper part formed by the inclusion of neatly placed elongated flint and chalk 'voussoirs'. Following removal of some of the blocking material by the conservator, the rendered splay was seen to be well-preserved and relatively little reconstruction was required (Plate 36). The render of this, and the other splayed windows (see below) is described in the specialist conservation report as having '….*extensive chalk content and a lighter orange sand than pointing elsewhere on the tower. There are also large river pebbles within the mix giving it a robust quality'* (Wilson 2018, 2).

Centrally positioned in the north wall, its base at slightly over seven metres from the existing ground level, a semicircular-headed splayed window was revealed [17]. The splayed opening, at its outer edges, was approximately 0.60m wide and 1.0m high (Figs 7 and 8B, Plates 37 and 38). Its sides and arch were formed by a mixture of flints and chalk blocks of irregular size and shape and it was built upon a flint course in the wall. A mid to light cream mortar render survived over much of the splayed surface. It included frequent flecks of chalk and very small flints. The rendered surface was particularly well-preserved at the upper west side and around the top of the window although a crack in the tower wall running diagonally through the area from top east to bottom west had also cracked the mortar surface in its upper east and top of the splayed area. In the upper west area a thin layer of light grey material appeared to adhere to the mortar render surface; it is uncertain what this represented. It may have been the remains of a limewash of some kind, or was possibly a natural accretion. Some of the (outer) flint blocking of this window was removed by the contractor but other loose blocking material was removed by the conservator and voids and cracks in the original render were filled to match the historic render (Wilson 2018, 3), (Plate 39).

A similar splayed, semicircular-headed window, [21], was exposed in the west wall of the tower at approximately the same level as the window in the north wall but, here, built upon a course mostly of chalk blocks (Figs 7 and 8C, Plates 40 and 41). The centre of this window was slightly to the north of the centre of the circular opening below it. It was narrower and very slightly taller than window [17] (0.40m x 1.08m at its outer edges). The jambs and base of the window opening were entirely of chalk blocks with some particularly large pieces at the north side. The arch was formed from neatly placed small flints acting as voussoirs (Plate 41). On discovery of the window, the mortar render was visible at the upper north side and around the splayed top of the arch. It was the same as the render seen in the north window and, again, small patches of light grey material survived, adhered to its surface. The south splay of the window was unclear. Following the removal of the blocking material the splayed opening was more clearly defined and the edge of its internal splay was seen but there was no evidence of any timber frame or boarding (Wilson 2018, 4). Plate 42 shows window [21] following conservation work and prior to the lime-washing of the tower.

Evidence for a third semicircular-headed window [24] survived in the south wall of the tower but the window was far less well-preserved; it was not recorded by detailed drawing and conservation work was not possible as so little of its original fabric survived. The mortar render of its splayed upper part was, however, discernible (Plate 43). The former window appeared to be of similar size as that to its west [21], possibly slightly taller although this was unclear due to the nature of the blocking and, also, due to repairs to the wall in the area.

The three semicircular-headed windows span the interface of the upper two phases of the tower construction ([34] and [35]) their bases and jambs are within of [34] but their heads are within [35] (see below, *Upper part of tower [35]*) and are perhaps more crudely formed of rather more irregular flints than the jambs although this might be due to the more difficult nature of the upper construction. The lower circular window [27] is entirely within [34].

Various other smaller areas of repair or infilling were evident in [34]. They include several small circular areas in the central section of the tower on approximately the same level as the oculus; [71] just to its north (Plates 32 and 35), [66] (below and west of window [17] (visible top left in Plate 31), and a roughly circular area (not separately numbered) just south of the oculus and extending from the north side of large repaired area [23] (visible in Plate 33). These may be blocked former openings but this was not obvious during the recording work and is perhaps unlikely considering their position relative to the existing openings (but see below para. 7.0). They may possibly be infilled putlog holes although these would normally be smaller and squarish in shape like those [8] higher up (see below).

Blocking of double-splayed windows

The flint infill of the double-splayed windows consisted of small to medium-sized flints and chalk lumps set in slightly pinkish greyish cream mortar which was slightly lighter in colour than that of the tower wall and, although also including small flints and chalk fragments (occasionally up to 20mm in size), its matrix was somewhat finer-textured and 'harder' than that of the tower wall (although it was crumbling in places).

Apart from some of the blocking material removed by the contractors from window [17] (and smaller amounts from windows [21] and [27]), the infill material was removed by the conservator during his work. Not all stages of this work were seen by the archaeologist but are the subject of Mark Wilson's report. The blocking material was thought to be (mostly) of quite early date, probably 14th century, and possibly contemporary with the inserting of later cusped openings (Wilson 2018, 2), (see below, *Openings within the upper part of tower*). The circular window and, especially, the south window also had some later patching and repairs to the infill including a whitish grey mortar, and one or two pieces of brick and tile.

Upper part of tower [35]

A change in the general fabric of the tower wall was seen at a height of approximately eight metres above the existing ground level. The change in the wall fabric from [34] to [35] occurred towards the top of the semicircular-headed splayed windows, level approximately with the 'springing point' of those windows (Fig. 7, Plates, 37 and 40). Above this level, the wall mostly comprised slightly smaller flints (70-140mm, occasionally up to 250mm) [35]. Although still roughly coursed, the wall surface here had wider mortar-filled spaces ('joints') between the flints than [34] lower down the wall.

Chalk blocks were included, but very rarely and, again, where present they were slightly smaller than seen in fabric [34]. Although the mortar was recorded as 'the same as [34]', it appears in photographs to be of a slightly darker more gingery brown colour).

Apparent within this upper part of the wall was a series of regularly spaced infilled putlog holes; four were recorded around the western part of the tower at a height of about 8.5m above ground level (collectively [8]) (Fig. 7, and e.g. Plate 44 which shows the blocked putlog hole just south of opening [11]). The blocked putlog hole to the south of that also had a large flint roughly framing its top (although less obvious; photo. in archive) The infill of the putlog holes consisted of small to medium-sized flints in a mortar which was slightly greyer in colour than that of the surrounding wall.

Openings within the upper part of tower

Belfry openings positioned at the NE, NW, SW and SE sides of the tower were recorded, [9], [11], [13] and [5] (Fig. 7). Their bases, at a height of eight metres above ground level, coincided with the change within the wall fabric (see above, [34] and [35]). The openings are of early 14th-century date (Richmond 2017, 3).

The openings had worked limestone blocks with a plain chamfer forming their sills and jambs. Three had chamfered cusped heads (Fig. 7, and e.g. Plates, 45 and 46). The south-east opening [5] had a pointed head, thought to be a later restoration (Richmond 2017, 3). The two western belfry openings, [11] and [13], had been blocked with masonry and the two eastern openings, [5] and [9], had been fitted with iron grilles. The infill of the south-west opening [13] consisted of small to medium flints is a light slightly pinkish greyish cream mortar with flint grits, while the blocking of the north-west opening [11] comprised closely set large flints and appeared to be of more recent date It also had a lead water spout from the roof exiting through its uppermost area upper.

The belfry openings had been inserted into the early fabric of the upper tower [35]. Although most of the fabric around them had been obscured by later repairs (see below *Historic wall repairs)* it was possible to see in a few small areas, notably on the south side of the second stone above the sill of opening [11], that a slightly lighter coloured mortar than the gingery brown early mortar had been used to bond the fabric [69] immediately around the opening and the flints within that mortar are not quite lined up with the courses of the main tower fabric (Plate 45).

Two later blocked belfry-openings were also recorded [1] and [3] (Fig. 7 and upper parts visible in Plates 47 and 48). These have dark pinkish red brick sides and segmentally arched heads. The two arched tops were constructed slightly differently and it could be suggested that the south opening [3] was slightly more carefully/neatly constructed, possibly due to its more conspicuous aspect (see Fig. 7, although brick detail was only recorded for the arched tops of the features). The bricks in the blocking appeared to be very similar to those in the structures themselves. The brick belfry openings are probably 18th century (and the southern one may just be discernible in the Ladbrooke drawing of the church in *c.* 1820). It has been suggested that they may date to 1753 – the date of the bell surviving in the tower (Richmond 2017, 4).

In the random rubble repair above the north-east belfy opening [11], a small pentagonal opening with sides formed of pieces of brick was uncovered at a late stage in the contractors work and, thus, is not shown in Fig. 7 but was within an area of repair shown there above opening [9]. It was infilled with a few fragments of brick and one or two flints [70]. It was positioned just above and slightly west of the smaller opening that had been used for rainwater drainage of the east roof slope of the tower (Plate 49). From the inside of the wall it could be seen that the blocked opening was positioned at

the bottom of a rebate for lead roof cladding and it was presumably a former opening for a rainwater spout (Plate 50).

The existing brick gables at the tower roof post-date the Ladbrooke drawing. Again, it is suggested here that the south gable was constructed in a slightly more elaborate and neater fashion (Plates 47 and 48).

Rebuilt area at upper east side of tower [36]

A large area of flintwork represented the rebuilding of the upper part of the tower from below and eastwards of the bell openings [9] and [5] and above the nave roof [36] (Fig. 7). The wall comprised flints (mostly 100 – 150mm, occasionally <200mm) with rare inclusions of broken brick (which were probably later inclusions). The mortar was very light whitish cream and slightly crumbly, and the flints were unevenly coursed giving this part of the tower wall a far more irregular appearance than the areas of undisturbed original wall to the west (see Plate 46).

Nave gable scar

Just above the gable of the existing nave roof, the scar of a former roofline was apparent in the east wall of the tower with the rebuilt wall [36] constructed directly above it (Fig. 7). The apex of the former roofline, [15], was 0.8m above that of the present roof (Plate 51). Near the lower end of the scar on the north side of the roof a small piece of a horizontal timber, presumably a remnant of the earlier roof; possibly the end of a purlin, was slightly embedded in the flint wall although it was quite rotten and crumbled on removal (visible immediately adjacent/above the weathering of the existing gable in Plate 52). The wall fabric within the area of the gable scar included flints, chalk lumps and brick fragments.

The former roofline as well as being higher than the existing late 19th-century roof was also of a slightly steeper pitch (Fig. 7). The earlier gable wall was mostly constructed of random flints but with two early bricks on its north side near the apex – although there was a lot of later mortar on the wall surface from repairs/repointing and it was difficult to be certain whether those bricks were original to the roofline. Lower down, the gable wall had clearly been repaired with later bricks, some of which may have filled voids left by removal of timbers or other elements of the roof as two areas of brick infill were positioned level with each other and adjacent and parallel to each former roof slope. Between these two brick infill's and immediately above the ridge of the current roof were a few more bricks some of which appeared to be of more recent date and were probably inserted when the present late 19th-century roof was constructed (Plate 51). The two early bricks near the former apex have been left without limewash at the completion of the restoration work and the former roofline is, therefore, visible (2019).

Historic wall repairs

Several significant previous repairs to the tower were revealed (Fig. 7). These included areas immediately surrounding the belfry openings and large irregular vertical areas [20] and [23] running down from beneath the two westernmost cusped belfry openings (Plate 33 shows [23]); the cracks in the tower wall in these areas were discernible to ground level. A similar, slightly smaller area [26] existed beneath the pointed south-eastern opening and a further repaired crack ran down the south side of the north-eastern opening [72] and continued below it almost as far as the bottom of the central

tower wall fabric [34]. There was also a crack emanating from below brick belfry opening [3] which, lower down, had been repaired in a narrow band which widened out into a larger area [67] to the west side of window [31] (Plate 26).

The infill of these areas, which mostly consisted of flint, with occasional lumps of chalk, suggested that more than a single phase of repair had occurred with some areas including brick and tile, and others just tile laid 'piled' horizontally. The mortar type also varied between the different areas; it was predominantly a quite hard slightly greyish light cream mortar with very few inclusions while in some areas of the horizontal tile repairs the mortar was darker gingery cream-coloured.

The 'piled' tile repairs are those recommended by the Society for the Protection of Ancient Buildings (SPAB) in certain circumstances to show that repairs are modern interventions and avoid them later being mistaken for original fabric (Slocombe undated).

6.0 The finds

by Sue Anderson

Introduction

Table 1 shows the quantities of finds collected during the fieldwork. A full quantification by context is provided in Appendix 3.

Find type	No.	Wt/g
Pottery	32	443
Fired clay	57	308
Copper alloy	2	24
Lava quern	1	70
Stone	1	132
Animal bone	2	357
Shell	1	30

Table 1. Finds quantities.

Pottery

Thirty-two sherds of pottery weighing 443g came from 11 contexts. Table 2 shows quantification by fabric. A summary by context is included in Appendix 4.

Description	Fabric	Date range	No	Wt/g	eve	MNV
Roman colour-coated ware	RBCC	1st-4th c.	1	1		1
Roman greyware	RBGW	1st-4th c.	1	4		1
Saxo-Norman wares	SXNO	9th-M.12th c.	1	2		1
Thetford-type ware	THET	10th–11th c.	4	51		4
Grimston Thetford-type ware	THETG	L.10th-E.12th c.	16	255	0.44	14
Unidentified	UNID	Rom or Late Sax?	3	39	0.25	3
Early medieval ware	EMW	11th–12th c.	1	3		1
EMW Blackborough End type	EMWBE	11th–13th c.	3	54		3
Staffs-type Slipware	STAF	L.17th–18th c.	1	27		1
Unidentified handmade	UNHM	-	1	7		1
Totals			**0**	**0**	**0.69**	**0**

Table 2. Pottery quantification by fabric.

Eve – estimated vessel equivalent based on percent of rim; MNV – minimum number of vessels

Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. All fabric codes were assigned from the author's post-Roman fabric series, based on Jennings (1981). Form terminology for medieval pottery is based on MPRG (1998). Thetford-type ware fabrics are based on Dallas (1984), and forms on Anderson (2004). The results were input directly onto an MS Access database, which forms the archive catalogue.

Two sherds of Roman pottery were recovered, a small abraded fragment of black colour-coated ware with a fine orange fabric, and an abraded sherd of greyware, both from trench fill (42).

The majority of pottery recovered was Thetford-type ware of Late Saxon (L.9th–11th c.) date, found in nine contexts. These fragments were generally body sherds, but there was one piece of a possible sagging base from burial (50), and rims of three vessels were found in trench fill (37) (large jar with square rouletting on the shoulder), trench fill (41) (small fragment of everted jar rim from a medium jar), and trench fill (54) (fragment of a bowl with a flat-topped everted rim). All three rims were in fabrics typical of Grimston, although a similar fabric was used at the production site at Bircham, and it is possible that another more local but unknown production site could have made some or all of these vessels. One other small greyware sherd from a wheelmade vessel has been recorded as 'SXNO' – it may be a gritty version of Thetford-type ware but it has similarities with reduced Pingsdorf ware and could be an import.

Three sherds were unidentified and could be of Roman or Late Saxon date. Two sherds were in a fine sandy fabric with abundant very fine oolites which were only visible in section under the microscope. One of these was a finely-potted thin-walled grey jar rim of cavetto form and the other was a thick body sherd which was partly oxidised. They were found in soakaway trench fill (40) and deposit (59) respectively. Given their geological inclusions, an origin in the Northamptonshire or Cotswold area appears most likely. One other sherd, a fine silty hard fragment with oxidised surfaces and a grey core, was heavily abraded and was found in trench fill (42); this could be Roman, Late Saxon or later.

Four body sherds of handmade early medieval wares were recovered from trench fills (37) and (42) and burial (49). Three were similar to samples from the production site at Blackborough End, near Kings Lynn, and one was finer with sparse mica. These sherds date broadly to the 11th–13th centuries.

A single fragment from trench fill (37) was post-medieval. This was a fragment of Staffordshire-type slipware with brown and white slip decoration under a yellow glaze. The fragment is of later 17th or 18th-century date.

An unidentified fragment of silty clay containing organic (?grass) impressions was heavily abraded and only one original surface survived in part. It may be a fragment of prehistoric pottery or possibly fired clay. It was found in soakaway trench (54).

Fired clay

Fifty-seven fragments of fired clay were collected from four contexts (Appendix 5). Fifty-three of these were in a silty, poorly mixed orange and cream clay, occasionally with red clay pellets. These fragments were dense, hard and amorphous. The majority (43 fragments, 227g) came from burial (43), with a further nine fragments (25g) in burial

(48) and one other piece from trench fill (42). Some fragments from burial (43) had grass impressions. The remaining four fragments were in a similar silty clay but these were less dense, softer and contained voids which were the remains of organic inclusions. These fragments came from burial (50), and two joining pieces had a flattish surface. Unfortunately there were no diagnostic features on any of the fragments and their function is unknown.

Lava quern

A fragment of lava quern was found in trench fill (42) (Appendix 6). Although no original surfaces survived, the fragment is likely to be from a quernstone. Lava querns, imported from Germany, were in use in the Roman and Saxon periods, and they were widely re-used in the fabric of medieval churches in the county (Ayers 2016, 22).

Stone

A water-worn pebble of granular ?granitic type was also recovered from (42) (Appendix 6). This is a non-local stone, but it may be a glacial erratic recovered from the boulder clay. It is of interest because granite-tempered pottery was made in the area in the Early Anglo-Saxon period and granite pebbles may have been curated for this purpose.

Metalwork

Two pieces (24g) of copper alloy sheet were found in trench fill (42) (Appendix 7). One piece was a curving, roughly rectangular piece with straight edges and a rolled-over rim. The outer surface was rough and the fragment is likely to represent a repair, perhaps welded to a metal vessel as no rivet holes or other means of attachment were apparent. The vessel would have had an internal diameter of 150mm and the piece represented 17% of the circumference. Found with it was a fragment of a ?circular sheet with a diameter of 160mm (20% complete), which had been cut to form two straight edges with a third tentative cut on one of these edges. The curving edge was slightly wrinkled and there was sooting on one surface. Again, the fragment could have been part of a vessel. Both pieces were relatively thin (0.8-0.9mm). Condition of the fragments may indicate a medieval or later date, but an earlier date cannot be ruled out.

Copper alloy strap end

by Rebecca Sillwood

A single copper alloy find was recovered from the south-west drain [53] (Appendix 7). The object is a simple medieval strap end, consisting of a rectangular strip, folded in half widthways to form a rough square. The piece measured 18mm x 16mm and weighed 2.4g. There was a single rivet in the attachment end.

This simple type of strap fitting was common in the medieval period, and examples such as those from London point to a date in the 14th century (Egan & Pritchard, 2013, 127, fig. 83, no. 578).

Coins

by Andrew Barnett

Two coins were recovered by metal detector survey during the excavations at West Lexham church (Appendix 7). Both coins were found in the spoil heaps. One was an antoniniani of Victorinus 269-271 and the other a silver penny of Henry II 1184-1180.

The antoniniani of Victorinus is in a fair condition, but the dies were misaligned during its striking. The beginning of the obverse legend is missing but the incomplete emperors name is still readable. The reverse of the flan is very off centre with nearly a quarter of the design missing from the left side of the coin. Again, enough of the legend remains to identify it as a depiction of Providentia. The coin was probably minted at Cologne during Victorinus' brief reign although a specific date is not known.

The other coin, a silver penny of Henry II, is in quite good condition. The flan has been cut into a square with the corners removed which has turned it into a rough non-equilateral hexagon. Much of the obverse and reverse legends are missing but enough remains to see Henry's name. The reverse has only three letters visible, […]OLD[…], which probably represent the moneyers name. The British Museum Occasional Paper Number 71 cites two moneyers with these letters in their names; Goldhavoc and Goldeep. Both of these moneyers produced coins in Canterbury, Goldeep from 1163-1167 and Goldhavoc from 1154-1180. These dates span the whole of Henry II reign. Further analysis may show which moneyer produced this coin.

Finding coins in a churchyard are not a particular rarity and this small assemblage is no exception. These coins can be put down as stray losses

Flint

by Sarah Bates

The assemblage

A total of nineteen struck flints were recovered from the site. The flint is summarised in Table 3, and listed by context in Appendix 8.

Type	Number
struck fragment	3
flake	5
blade	1
bladelet	1
spall	1
retouched flake	3
retouched blade	1
utilised flake	3
utilised fragment	1
Total	**19**
burnt fragment	1

Table 3: Flint summarised by type

There are three struck fragments one of which is a quite large, and very irregularly fractured, cortical fragment [44]. It has been struck on one flat cortical surface although this looks more accidental than deliberate (with several percussion points clearly visible on that surface. Another very short edge also shows signs of being struck. A smaller fragment from the same context is from a repeatedly struck edge. The third fragment is a large longish wedge-shaped cortical fragment with its other main surface being thermally fractured [55]. The piece has been deliberately struck along two edges

but no flakes, as such, resulted from this trimming which might have been to blunten or neaten the edges. 'Testing' for use as a core seems unlikely due to the unsuitability of the lump in terms of shape and flint nature. There is slight iron staining at several of the struck areas which could suggest the use of an iron hammer, although very slight iron staining is also present on another (non-struck) edge. It is *possible* that the piece could have been used as a crude tool of some sort, but see below regarding its context and possible interpretation.

Five flakes were found. These are mostly small and irregular but one larger flake is present [44]. It has multi-directional dorsal scars and cortex around its proximal and lateral sides. It has previously been struck from its distal ventral edge and might have been bifacially flaked, or from a large multi platform core. There is also part of a small blade. (A splinter-like 'bladelet' is very fresh/sharp and probably not prehistoric; it has been discarded).

There are three retouched flakes. These include a small subcircular flake with slight retouched at its proximal edge and patchy dark reddish brown staining or, possibly, it might be slightly heat-affected. It has slightly glossy opaque surfaces [50]. The two other pieces are a small broken flake with part of a scraper-like retouched edge surviving and a very small squat flake with very slightly retouched edge [54].

A quite large and wide blade with abraded platform edge is very slightly retouched at part of its convex left edge with other slight edge damage probably relating to use as a knife [44].

Three utilised flakes are present; a small longish thin cortical flake has its distal edge utilised [52], and a small blade-like flake and a slightly larger flake (both [44]) show slight signs of use of their edges. A thermal flake may also have been utilised or slightly retouched [59].

Distribution and discussion

Most notable are eight flints from a deposit of brown silty sand [44] in the bottom of trench [42]. Included is part of a small blade and a quite large blade-type piece which is slightly retouched and used as a knife. Its nature and that of its platform edge show that it was struck from a prepared core. A small blade-like piece and a flake from the same deposit are slightly utilised. Other than the use-related damage, the flint is quite sharp. These flints are of prehistoric date and their nature, with several being blade-like in form and some evidence of careful production, suggests they are Neolithic, probably earlier Neolithic (Butler 2005, 121). Other flints of prehistoric date, including a small number of retouched or utilised pieces, came from unstratified contexts or graves fills, mostly from the north drain trench (and, possibly, deriving from activity relating to other flint from that area).

Also notable is a large irregular wedge-shaped flint which is a thermally broken cortical lump with two of its edges deliberately modified [55]. It is possible that the edges were bluntened for use as a crude tool but this flint was found beside the skull of burial [55] (with another, slightly small, and unmodified flint at the other side of the skull, see Fig. 6). Perhaps the flint was deliberately shaped, or reused, as a head support stone in the grave. (Rodwell 2012, 318, fig. 310A, Gilchrist and Sloane 138-139, and see below; *Conclusions*).

Biological evidence
by Sue Anderson

The proximal part of a left cattle tibia with an unfused epiphysis and a cattle lower right third molar were recovered from trench fill (42). The third molar showed little wear and the two finds may represent a single individual. The tibia had been butchered by chopping through the midshaft. A complete oyster shell (Ostrea *edulis*) was collected from burial (50). These were associated with Saxon and medieval pottery and are likely to represent domestic waste.

7.0 Discussion of building evidence

by Simon Underdown

The west tower

The total number of standing round tower churches of medieval or earlier date known in England is recorded by Heywood (2005) as 174 with 123 of these being in Norfolk and almost all the rest elsewhere in East Anglia. Dating of round tower churches has, historically, been uncertain with pre- and post-Conquest dates considered likely by different researchers and for varying numbers of churches (Hart 2003, 8-14, and see footnote [1]). They have often been seen as an indication of a Saxon date due to a lack of French or Norman parallels and the quite common occurrence of architectural features characteristic of Saxon building techniques (for example, double splayed windows, triangular-headed and tall narrow openings and decorative stripwork). It is, however, highly likely that building methods would have continued in use into the later period and, anyway, some of these 'Saxon' features occur in buildings known to be of post-Conquest date (Heywood 2005, Hart 2003, 31-33). Heywood suggests that the post-Conquest appearance of round church towers may be due to cultural influences from north Germany brought to Norfolk during trading between the two regions (Heywood 1988, 2005). Cultural or aesthetic reasons are seen as the most likely for the building of round, rather than square or rectangular towers. The lack of freestone in the region for building quoins has often been suggested as a reason for their construction but it is apparent that some square towers were built without freestone and some round structures used limestone blocks (Heywood 2005).

The tower at West Lexham was built in three stages, the lowest one is approximately four and a quarter metres in height and the central one is about half a metre shorter. Stages of roughly these heights are frequently identifiable in round towers and probably represent one season's work (Stilgoe 2001, 87). Lime mortar is slow to dry, particularly when used in flint rubble walls as the flint is not absorbent and thus does not exert much, if any, suction on the mortar, Chalk is more absorbent and the mortar would dry somewhat more quickly in chalk walls. At West Lexham there is mixture of chalk and flint. There would be a danger of slumping in each 'lift' of wall construction and would have limited each lift (usually a day's work) to about 0.5-0.6m (Rodwell 1999, 202-3). Some fine variations in the mortar probably denoting lifts within the main stages were seen at West Lexham (but not recorded). Similarly there would be a danger of collapse of a whole stage of work if a wall was built too high before the mortar could fully dry out. This is likely to have limited a season's work to around four metres.

[1] Further information about round-towered churches, including some of the legends surrounding them, may be found on the website of the Round Tower Churches Society.

A slight bulge in the tower at West Lexham (although not as obvious following removal of the concrete render, it is still discernible) seems to correlate with its central stage and might indicate that this stage started to slump during construction. This may be why it is not quite as high as the first stage and also why the central stage finishes halfway up the round headed double-splayed windows whose tops were formed within the upper stage. The upper stage is only just over two metres in height; it may have only been built to this height or may have lost some of its upper fabric, the top had been repaired and repointed and later brick gables constructed there so it was not possible to see any evidence of it having been originally completed at that height.

The lowest stage contained two quite crude triangular headed windows made of chalk blocks. Triangular headed windows and bell openings are a feature known from buildings that are probably late Saxon in date, these often comprise double openings separated by a shaft with single triangular openings being more rare. The tower at Earls Barton in Northamptonshire, with characteristic stripwork decoration, has single triangular headed openings in its third stage and is generally considered to be Late Saxon in date (Kerr 1983, 21). Sompting church tower in Sussex with its Rhenish helm roof was considered to be Late Saxon but its dating is now less certain and the upper part of the tower which contains a triangular headed window and bell openings may be post-conquest (Allen undated). The use of triangular headed windows certainly continued in Britain in the post-conquest period (as did other Saxon features) as seen locally in later towers at Sedgeford and Bylaugh (Hart 2003, 32). It has been noted elsewhere that most early round towers were not built with windows in the ground level stage (Hart 2004, 4). This makes West Lexham unusual, although some others do exist e.g. Roughton, Norfolk, which has splayed openings. Later insertions at the lower level are not uncommon.

The lower stage was also unusual in being horseshoe shaped, rather than circular, and the present examination showed that it appeared to abut the nave west wall thus indicating that the nave wall, or part of it, was earlier than the tower. However, detailed examination was only possible in some small areas and the walls would require further investigation to confirm this. The horseshoe shape of the lower stage was previously thought to be the result of rebuilding sections of the eastern parts of the tower walls after their demolition to allow a new nave wall and more substantial tower arch to be built (the tower having formerly been circular) (Richmond 2017, 3). No evidence of any rebuilding was seen and the horseshoe shape is the original form, and is more likely to be the result of the tower being built against a pre-existing nave wall, as it would be easier to build the tower with slightly straightened sides abutting the nave than to build a circular wall which would have abutted the nave wall at an acute angle. The flatness of the east wall of the tower is also likely to result from the tower being built onto an existing church (Mansfield 1976, 48). The lower east wall being part of, or on the line of, the original straight nave wall and the upper east wall being flat as it was supported on top of the nave wall.

The other unusual, and possibly unique, aspect of the lower stage in particular and to a lesser extent the central and upper stages is the use of chalk blocks as an outer facing material. The authors are unaware of its use in this position to any noticeable extent in other round towers although its use in the wall core of round towers is known e.g. at Feltwell St Nicholas and West Dereham (Goode,1994) although in both cases this is in conjunction with an outer facing of conglomerate. The upper part of the lower stage is faced almost entirely in coursed chalk blocks and includes the two triangular headed windows also completely formed in chalk. Below this there is some chalk and flint banding which may possibly have been intended as a decorative element, the lower half of the stage being of coursed flint.

The central stage, as mentioned above, is not as high as the lower one and may have slumped a little. This stage has double-splayed windows which is also known to be a feature used during the Saxon period but, again, can date to the post-conquest period. There was a single circular splayed opening in this stage but also some, apparently, blocked circular areas patches at almost the same level that may also have represented been circular openings, although this is uncertain. Certainly many of the round tower churches with circular splayed openings have several at one level, often three if lower down a tower such as at Gissing, and sometimes more such as at Forncett St Peter where there are eight around the top stage and three lower down. Recent work at nearby East Lexham church revealed at least twelve blocked circular openings (NHER no.4019, further detail currently unavailable).

Only the lower halves of the round headed double-splayed windows were completed within the central stage of the tower and as suggested above, perhaps this was because the stage started to slump and could not be made higher or, possibly, the heads were built but the top of the stage collapsed, in either case the heads of the windows are within the upper stage. Above the double-splayed windows four openings with chamfered stone surrounds have been inserted into the earlier fabric in the upper stage of the tower. Three of them have tri-cusped heads of early 14th-century type and the south-east opening has a pointed head (probably a later replacement). All four openings have repairs around them and repaired significant cracks extending from below them, two of them to ground level (see below).

Within the upper stage are four evenly spaced putlog holes at the same level, these have been blocked but were clearly visible. Two of them have larger flints at the top representing framing of the holes showing that they were probably built over horizontal beams (the putlogs) *in situ.* The putlog holes, therefore, appear to be original to the tower fabric and as they are framed in flint and not brick they are probably early in date. Although only four blocked putlog holes are visible it seems likely that originally they would have existed all around the tower at this level. If they were roughly equally spaced there probably would have been eight in total. Two would have been positioned where the two eastern belfry openings were later inserted and so have been lost. Putlog holes positioned on the east face of the tower would have been lost when that side was rebuilt or refaced. The putlog holes suggest scaffolding platforms of boards supported on the putlogs were used at the top of the tower, usually one would expect these to be supported by a whole scaffolding of poles and putlogs necessitating putlogs holes roughly in line at intervals below the existing ones which supported lower platforms used as the tower rose in height (Hart 2003, 57). However no other putlog holes were definitely identified although the circular patches of infill in the central stage, if not blocked openings, may be infilled putlog holes, and do roughly line up with the upper blocked putlog holes. The flint blocking of the upper putlog holes is bonded with a greyish lime mortar and this suggests a later date for the blocking, the mortar is similar in colour to that of the 18th-century brick belfry openings which suggest they could have been blocked at the time when those were constructed.

It is not certain exactly how round towers were built but scaffolding was clearly used as the surviving putlog holes testify. The inner and outer faces of the walls would be built up for a few courses and then the core between them would be filled in (Hart 2003, 4). Rodwell in discussing Saxon church construction (1999, 203-4) suggests shuttering was used on round towers as well as on straight walls where evidence of its existence has been recorded. However, for round towers, the use of shuttering is a matter of debate; if it was used around the outer face of towers it may have consisted of boards, or of curved wickerwork panels as were used in an experimental construction of a

round tower section in 2001. However that resulting construction, with wickerwork impressions in the mortar and the irregular appearance of the flintwork, was unlike any surviving round tower (Hart 2004, 4-5). It is possible, however, that excess impressed mortar could have been removed after the shuttering was dismantled, or perhaps shuttering, if it was used, was only used where a tower was intended to be rendered. Goode (1994, 35), rejects the use of shuttering largely due to the lack of shuttering impressions on existing round towers.

The brick gables at the top of the tower were at either end of a small pitched roof the lower slopes of which extended down inside the tower wall to just about level with the top of the cusped openings. To drain the rainwater from this roof small openings were made in the tower walls, one of these, of brick and pentagonal in shape, had subsequently been blocked in brick. The cracks and damage around and below the cusped openings are likely to have been caused by rainwater running down the walls and this has been a major cause of damage to the tower fabric.

The east side of the upper tower had been rebuilt or at least refaced at some time. This may have been at the same time as, or not too much later or earlier than, the brick openings and brick gables were added, possibly in the 18th century, as the mortar used was similar in tone and consistency.

Nave Roof Gable

The rebuilding of the east side of the tower mentioned above sat directly over the earlier nave gable wall thus preserving the line of an earlier roof, which had been slightly higher than the existing late 19th-century structure. The gable wall has been described above, it had been repaired with later bricks after removal of the earlier roof, which must have taken place prior to the construction of the shallow roof shown in the early 19th-century Ladbrooke drawing. There does appear to be the scar of an earlier roof in the Ladbrooke drawing but it does not look as high or steep as the surviving scar (Fig 7 and Plate 2). The fabric of the wall itself was, however, of flint and could be early in date, although it is hard to say whether two early bricks at the apex of the former gable were part of it, or later insertions. As it appears that the lower tower wall abuts the nave wall then there is a possibility that the gable is also part of the original masonry nave wall and that the roofline preserved in the fabric is the line of the original church roof.

Evidence for former south aisle

There is no documentary evidence, as far as is known, for a former south aisle or other structure south of the present nave and, prior to the presently discussed works, no physical evidence for such a structure had been noted.

Blomefield, writing in the late 18th century described the church as ‘a single pile’ in other words a building one room deep, this implies the chancel and nave were single rooms of similar depth with no aisles or additions. A drawing by Ladbrooke of *c.*1820 confirms this description on the south side showing no aisle, side chapel or other extension to the south (save the south porch) (Plate 2). If there was once a south aisle, as the physical evidence now suggests there might have been, it had gone by the time Blomefield was compiling his information in the late 18th century and probably some time before that date or it seems likely that he might have come across evidence, or a mention, of it.

During the works at the church two areas of masonry were revealed which may represent parts of walls or wall footings relating to a former structure or structures immediately south of the present nave. A section of flint rubble wall footing seen to the south of the west end of the nave lined up with the nave's west wall and was the same width as the existing wall at the tower arch. It had almost certainly formerly joined or abutted the nave wall but had been truncated by a later drain (Fig. 2, Plates 15 and 16). Its full southern extent was not seen but it extended at least as far as the south wall of the porch which was too far south for it to have been a footing for the nave's south-west buttress

At the east end of the nave, just east of a buttress that is on the line of the chancel arch, another section of flint and mortar footing was revealed below ground just south of the nave wall (Fig. 2, Plate 12). Only a small part of this was seen and as it is near the buttress it might be related to it. Its position, however, is about where one would expect to find the east wall of a south aisle. It was not seen in the drainage trench further south but, even if it had extended that far, it could have been truncated by a later brick cistern seen in the trench that was in line with it.

At the base of the church wall itself, immediately east of the buttress and north of the mortar footing, there appears to be some early flint masonry in line with the footing (Plate 12). This masonry is below a vertical line of bricks with offsets keying into the flint facing of the chancel. These bricks and the flint facing, which must be part of the Victorian rebuild of the church, stagger to the east at the base to respect the earlier flint masonry suggesting that the flintwork is substantial and might represent the position of a wall which formerly projected out from the nave on the footings seen to the south. This piece of masonry also appears to have been noticeable enough, before the Victorian restoration work, to have been recorded in Ladbrooke's early 19th-century drawing (Plate 2).

8.0 Conclusions

Orange brown natural sand and gravel was seen in places in some of the deeper trenches dug to both the north and south of the church. In all areas, however, undisturbed natural subsoil was not exposed across large areas and had been cut into by burials at the depths reached.

Some struck flints were the earliest finds made during the work in the churchyard. They included, found together, a few retouched or utilised pieces and several blade-like pieces with evidence of careful preparation. The nature of these flints suggests that an earlier Neolithic date is likely for them. Although they were not from an obvious feature, they were from an area of distinctive brown sand which is cut by a grave. This suggests a pre-churchyard context, possibly a truncated feature or spread of soil, but clearly indicating activity nearby. A few other struck flints found elsewhere, but mostly from north of the church, include pieces of a more irregular nature, possibly of later prehistoric date. Flint flakes are recorded in the NHER as previously having been found in the churchyard but no specific details are recorded, it is assumed that they were surface finds or otherwise unstratified.

Late Saxon pottery has been found in the churchyard on several previous occasions and most of the pottery found during the present work (21 sherds, 66% of the sherds from the site by number) is of Late Saxon date (late 9th to 11th-century) with three

other pieces possibly also of that date. A fabric typical of that from Grimston was identified although it is possible that it may be from another production site. The relatively large number and unusually high percentage of Late Saxon sherds can be compared with three other round tower churches where pottery of this date has been found by the writer during similar interventions (although in much smaller numbers). At Herringfleet, Suffolk (HRF 015) a single Late Saxon sherd comprised 33% of the pottery, at Burgh Castle, Norfolk (ENF 136223) four sherds formed 19%, and at Gissing, Norfolk, (ENF 139401) two sherds were 17%. The pottery was found residually in the fills of graves, or was from unstratified contexts. Its presence, while not providing dating evidence for the present church building itself, shows that occupation certainly occurred in the vicinity of the site during the Late Saxon period. A church probably existed. This may have initially been a timber church but it is possible that it *might* have been replaced by a masonry structure and the current tower prior to the Conquest. Heywood has said it is not possible to date the earliest Norfolk round tower churches more precisely than to the second half of the 11th century (1988, 170). More recently, Godfrey considers masonry churches to be unlikely to pre-date the mid-11th century (2007, 92), and Heywood considers it unlikely that any existed in Norfolk in the pre-Conquest period (pers. com. 2018).

The triangular headed windows found in the tower in 1993 are described in the NHER as Late Saxon. The issue of the continuation of the use of 'Saxon' features such as these into the post-conquest period is, however, discussed above, and elsewhere, and makes it impossible to date the church based upon their presence. Nevertheless, these lower windows are of a quite crude nature, and very unusual in the use of the material chosen (?possibly unique). This, as well as the use of a locally sourced building material could support a relatively early date while the newly discovered double-splayed openings, although not common, are seen in quite a few late 11th-12th-century Norfolk round tower churches. The nature of windows is often one of the main dateable elements in a church building with features of the same type seen as contemporary, and developments in their design helpful in determining phases of construction or alteration. A development from the installation of the lower triangular headed windows using rough chalk block to the construction of the double-splayed openings in the upper part of the tower suggests a change in the fashion of window design during the period of construction of the tower although it does not provide certain dating evidence.

The restoration work on the tower has not only led to the discovery of the four double-splayed windows but has also enabled recording of the triangular headed windows and the phases of construction, rebuilding and restorations of the tower. The change in the nature of the early lower and upper windows reflects the use of different building materials in the different stages of the tower wall itself with an unusual predominance of chalk blocks in a large part of its lower stage. The use of local materials in early church buildings has been seen as possibly supporting a pre-Conquest date, although chalk is not among the material types usually seen utilised (Goode, 1994, 32-33, Godfrey 2007, 100). However, evidence of post-medieval chalk quarrying exists a few miles away (see above, 3.0 *Other sides sites and finds from the vicinity of the church)* and a modern chalk quarry exists in Castle Acre so it is unsurprising that the material, clearly available in the vicinity, was utilised at an earlier period. Hart (2003, 61-62) mentions several Norfolk round towers whose lower stages are notably early in style and suggests a possible 'overlap' period around the time of the conquest. The different window styles and wall fabrics might also reflect conditions such as the availability of materials (which might have changed from year to year), the changing taste of commissioners or the skill of the builders. The absence of limestone in the tower overall (other than in later insertions or repairs) could support a pre-conquest date as the

material, unavailable locally, is unlikely to occur in buildings of that date (Hart 2003, 33, Godfrey 2007, 97). The absence of the stone is not, however, proof of such a date as some church buildings without limestone are as late as 14th century (Godfrey 2007, 101).

The present recording work strongly suggested that the upper stage was part of the original build of the tower – other than around its eastern side where it had been rebuilt, or at least refaced. Putlog holes were probably integral to the original build and there was evidence that the 14th-century belfry openings had been inserted into the upper wall of tower. At the top of the tower slight differences in the construction of the northern and southern 18th-century belfry opening and, later, gables, may represent an attachment of greater importance to its south aspect. A former higher, steeper nave gable was recorded with two medieval bricks seen its apex. The date of the former roof was, however, uncertain.

Due to truncation by previous drainage features (the 19th-century linear brick gully and former downpipe gullies) and the nature of the new drainage system at the north side of the church and around the tower (with the trench sides sloping outwards from the wall base) very little of the footings of the existing building were exposed. They included a very small area of solid flint and mortar footing which survived at the north wall of the chancel – outside the area of the 19th-century brick gully, and part of a buttress footing at the south-east corner of the chancel.

The discovery of a substantial flint and mortar wall/footing at the south-west corner of the nave and aligned with its west wall, along with the evidence of another flint and mortar footing at the south side of the building, just east of the nave/chancel buttress could signify the presence of a former south aisle. Further supporting evidence for this was seen in the form of distinct flintwork visible at the base of the chancel wall (and possibly evident in Ladbrooke's 19th-century drawing) which may have represented the position of the east wall of a former aisle. No other evidence for an aisle was seen in the excavated drain trenches but could have been removed or truncated by previous drainage features. It is difficult to find an alternative interpretation of the recorded wall footings.

Evidence for a total of at least fifteen burials was recorded with further human remains also possibly representing *in situ* burials. Most of these were found in the main drain trench in the northern part of the churchyard. No evidence for coffins was seen with any of the burials and although grave cuts was not always well defined there were no square-ended cuts or obvious recesses in the bases of graves to suggest their former presence. It is likely that burials were placed directly into earth-cut graves, possibly with shrouds (although no shroud pins were found). This suggests a medieval, date is most likely (Roberts 2012, 50). No finds post-dating the 11th-12th centuries were recovered from any of the grave fills and although, clearly, this does not provide a date for the burials as the finds comprised pottery sherds already broken, and mostly abraded, at the time of burial, it may support a medieval date for the burials. Of interest was a burial from south-west of the church which included a flint at either side of the skull with one wedge-shaped piece being repeatedly stuck along two edges suggesting its selection, possibly its deliberate shaping, and the deliberate placing of stones to support the head at burial. Such stones are sometimes found in early medieval burials, in both coffined and earthcut graves, the practice seems likely to have been more common in the 11th and early 12th centuries than in other periods.(Rodwell 2012, 318, fig. 310A, Gilchrist and Sloane 2005, 138-139). The use of head support stones is thought to have been for the purpose of physically supporting or, for liturgical reasons, emphasising the importance of the head, during and after burial. The practice may have been an attempt to replicate stone coffins with head niches as stone coffins would

not have been affordable by many people. Another burial, in the northern drain trench also included several quite large flints some of which might have been similarly placed although this was unclear.

Evidence relating to the later use of the churchyard included a brick ‘surface’ or feature just to the south of the tower. Only its eastern edge was exposed. It probably related to a 19th-century tomb or other grave/memorial and was in approximately the same position as some railings (presumably making such a feature) shown in a 19th-century drawing of the church. A brick chamber relating to the 19th-century drainage system was uncovered to the south-west of the chancel.

Finds recovered during the work include struck and worked flint, some of it probably of earlier Neolithic date, and pottery of Roman, Late Saxon, medieval and post-medieval date. Pieces of fired clay, mostly recovered from gave fills, is not dateable. A Roman coin and an early medieval silver coin were found and a medieval strap end and two copper alloy strips which are probably medieval. A cattle bone fragment and tooth, and an oyster shell were also found. All of the finds were found residually in graves fills or were from unstratified contexts.

Human remains recovered during the work in the churchyard were reinterred by church officials in the north-west part of the churchyard.

Acknowledgements

The archaeological work was commissioned and funded by West Lexham PCC. The improvement works were undertaken by Nicholas Warns Architect Ltd and S&L Restoration site contractors.

The advice and interest of Domenico D'Alessandro (formerly Nicholas Warns Architect Ltd) is gratefully acknowledged as is that of Nils Olsen (West Lexham PCC). Thanks are also due to Steve Miles, Lee Jenkinson and colleagues at S&L Restoration for their cooperation and help in facilitating the archaeological work. The archaeological brief was set by Stephen Heywood (formerly Norfolk County Council Environment Service) with an addendum during the site work by Steve Hickling NCCES. The reburial of the human remains was arranged with Rev. Canon Heather Butcher who carried out the reinterment service.

Archaeological site work was undertaken by Sarah Bates, Simon Underdown and Andrew Barnett. Finds (other than flint and metal finds) were examined and reported on by Sue Anderson with the strap end reported on by Rebecca Sillwood, coins by Andrew Barnett and flint by Sarah Bates. Figures 2 and 5 are based upon the drawings provided by Nicholas Warns Architect Ltd.

Sarah Bates is very grateful to building archaeologist Simon Underdown for his contribution to the project with particular regard to the recording work at the tower and its interpretation, and for his ideas and discussions about the tower and the masonry remains at the south side of the nave.

The reports on the architect's Opening Up Day (Nicholas Warns Architect Ltd 2017), the background and development of the church building (Richmond 2017) and the conservation work on the windows discovered during the work (Wilson 2018) are referred to above and the authors gratefully acknowledged. Copies of these reports will be deposited with the NHER along with this archaeological report which has been commented upon and approved by Steve Hickling NCCES.

References:,

Allen, J., undated	https://sussexparishchurches.org/church/sompting-st-mary/ (accessed 1/5/20)
Anderson, S., 2004	'The pottery', in Wallis, H., *Excavations at Mill Lane, Thetford*, East Anglian Archaeology 108, 67–86
Ayers, B., 2016	*The German Ocean. Medieval Europe around the North Sea.* Equinox
Blomefield, F., 1809	*An Essay towards a Topographical History of the County of Norfolk*
British Geological Survey 2017	http://mapapps.bgs.ac.uk/geologyofbritain/home.html
Butler, C, 2005	*Prehistoric Flintwork* (Tempus)
Dallas, C., 1984	'The pottery', in Rogerson, A. and Dallas, C., *Excavations in Thetford 1948-59 and 1973-80*. East Anglian Archaeology 22, 117–66
Egan, G. & Pritchard, F., 2013	'Dress Accessories c.1150-c.1450', *Medieval Finds from Excavations in London*: 3. Boydell Press
Gilchrist, R and Sloane, B., 2005	*Requiem, The medieval monastic cemetery in Britain* (Museum of London Archaeology Service)
Goode, W.J., 1994	*Round Tower Churches of South East England,* Round Tower Churches Society
Godfrey, M., 2007	*The Churches, Settlements and Archaeology of Early Medieval Norfolk*, PhD Thesis, https://core.ac.uk/download/pdf/42016197
Hart, S., 2003	*The Round Tower Churches of England* (Lucas Books)

Heywood, S., 1988	'The Round Towers of East Anglia' in Blair, J., (Ed) *Minsters and Parish Churches: The Local Church in Transition 950-1200*. Oxford Committee for Archaeology Monograph No. 17, 169-177.
Heywood, S., 2005	'Round-Towered Churches' in Wade-Martins, P., (Ed) *An Historical Atlas of Norfolk* (Norfolk Museums Service)
Hislop, M., 2016	*Medieval Masons* (Shire Archaeology)
Historic England 2020	*England's Places* https://historicengland.org.uk/whats-new/news/englands-places-photo-collection/
Holt-Wilson, T., 2010	*Norfolk's Earth Heritage – valuing our geodiversity* (Norfolk Geodiversity Partnership)
Kerr, M & N., 1983	Anglo-Saxon Architecture (Shire Archaeology)
LandIS 2019	http://www.landis.org.uk/soilscapes/ Cranfield University, Soil and Agrifood Institute, Land Information Service
Jennings, S., 1981	*Eighteen Centuries of Pottery from Norwich*. E. Anglian Archaeol. 13, Norwich Survey/NMS
Mansfield, H. O., 1976	*Norfolk Churches* (Terence Dalton)
MPRG, 1998	*A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Group Occasional Paper 1
Nicholas Warns Architect Ltd 2016	*Restoring the round tower church of West Lexham, GP-15-05206, Investigation Report, Church of St Nicholas, West Lexham* (Architect's Opening-up Report)
Nicholas Warns Architect Ltd 2017	*Restoring the round tower church of West Lexham, GP-15-05206, Investigation Report, - Addendum, Church of St Nicholas, West Lexham* (Architect's Opening-up Report)
Norfolk County Council 2011	'1988 Aerial', and '1946 Aerial' http://www.historic-maps.norfolk.gov.uk/mapexplorer/
Richmond, H., 2017	*The Church of St Nicholas, West Lexham, Norfolk,* Conservation Report, Heritage Lottery Fund Grant Ref: GP-15-05206
Roberts, C.A., 2009	*Human remains in archaeology: a handbook,* CBA Practical Handbook 19
Rodwell, W, 1999	'Anglo-Saxon Church Building: Aspects of Design and Construction' in Karkov. C. E., (Ed) *The Archaeology of Anglo-Saxon England: Basic Readings* (Garland Publishing)
Rodwell, W, 2012	*The Archaeology of Churches (Amberley)*
Slocombe. M., undated	*The SPAB Approach to the Conservation & Care of Old Buildings*, SPAB. https://www.spab.org.uk/sites/default/files/documents/MainSociety/Campaigning/SPAB%20Approach.pdf (accessed 4/5/20)
Spain, J., 2012	*The Clunch pits of South Cambridgeshire (Jonathan Spain's Blog)* https://jonathanspain.wordpress.com/2012/01/09/the-clunch-pits-of-south-cambridgeshire/

Appendix 1

OASIS DATA COLLECTION FORM: England

OASIS ID: sarahbat1-323874

Project details

Project name	St Nicholas Church, West Lexham, drainage and repairs to tower
Short description of the project	Contractor's removal of render from round tower revealed four 11th/12th-century splayed windows (three round headed, one circular) in central/upper tower. Three main stages in original construction identified; notable extensive use of chalk, sometimes exclusively, or in distinct 'bands' within lower stage. Chalk and flint courses continued around tower, ? apparently abutting an earlier (than existing Victorian) nave. Integral within lower stage, two chalk triangular headed windows (discovered 1990s). Four putlogs identified in upper stage with other possible openings or putlogs uncertain. Evidence for rebuilding upper E part of tower, possibly 18th century. Position of higher, more steeply pitched former nave gable recorded, and numerous cracks/modern repairs in tower. Following recording, splayed windows were conserved, repairs included replacing degraded chalk and repointing, and tower was limewashed. Only small areas of existing church's footings exposed but part of substantial wall/footing survived S of, in line with, W end of nave. Evidence at SW corner of chancel suggested position of another former wall. Together, these features may have represented a former S aisle. Thirteen burials (adults, juveniles and infants) recorded with others evident. One of note had flints beside skull, possibly deliberately placed. No evidence for coffins; it seems ?likely that burials were medieval. Prehistoric worked flint; most of it quite sharp and found in a subsoil spread. Other finds from grave fills, churchyard soil or topsoil: ?Roman, Late Saxon, medieval and post-medieval pottery (majority Late Saxon), fired clay fragments, Roman coin, 12th-century silver penny, medieval strap end, two copper alloy strips, cattle bone fragment and tooth, oyster shell. Human remains reinterred in a trench dug for the purpose in NW churchyard.
Project dates	Start: 01-05-2018 End: 06-11-2018
Previous/future work	Not known / Not known
Any associated project reference codes	141561 - HER event no.
Type of project	Recording project
Current Land use	Other 4 - Churchyard
Monument type	FOOTING Medieval
Monument type	INHUMATION Medieval
Monument type	PUTLOG Medieval
Monument type	WINDOW Early Medieval
Monument type	WINDOW Medieval
Significant Finds	POTTERY Early Medieval
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	WORKED FLINT Late Prehistoric
Significant Finds	COIN Roman

Significant Finds	COIN Medieval
Significant Finds	STRAP END Medieval
Investigation type	""Part Survey"","Watching Brief""
Prompt	Faculty jurisdiction

Project location

Country	England
Site location	NORFOLK BRECKLAND LEXHAM St Nicholas' Church
Study area	0 Square metres
Site coordinates	TM 2350 8438 52.411164858632 1.286597232474 52 24 40 N 001 17 11 E Point

Project creators

Name of Organisation	Sarah Bates
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Sarah Bates
Project director/manager	Sarah Bates
Project supervisor	Sarah Bates
Type of sponsor/funding body	PCC
Name of sponsor/funding body	West Lexham PCC

Project archives

Physical Archive recipient	Norfolk Museum and Archaeology Service
Physical Contents	"Worked stone/lithics","Ceramics","Metal"
Digital Archive recipient	Norfolk Museum and Archaeology Service
Digital Contents	"Ceramics","Metal","Stratigraphic","Worked stone/lithics","other"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Norfolk Museum and Archaeology Service
Paper Contents	"Stratigraphic","other"
Paper Media available	"Context sheet","Miscellaneous Material","Plan","Report","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Report of Work under Archaeological Supervision and Control, St Nicholas' Church, West Lexham, NHER ENF 141561
Author(s)/Editor(s)	Bates. S and Underdown, S.
Other	Report No. 50

bibliographic details	
Date	2020
Issuer or publisher	Sarah Bates
Place of issue or publication	Norwich
Description	A4 grey literature report
Entered by	Sarah Bates (sj.bates@yahoo.co.uk)
Entered on	6 May 2020

OASIS:

Appendix 2: List of contexts

Context	Type	Area	Category	Description
1	Masonry	tower	Window	N brick window, upper tower
1	Masonry	tower		
2	Masonry	tower	Infill	blocking of window [1]
3	Masonry	tower	Window	S brick window, upper tower
4	Masonry	tower	Infill	blocking of window [3]
5	Masonry	tower	Window	SE cusped opening upper tower (with metal bars)
6	Masonry	tower	Wall	small brick infill/repair, upper W of [5]
7	Masonry	tower	Wall	modern brick repair above [5]
8	Masonry	tower	Wall	blocked putlog holes in upper tower wall [35]
9	Masonry	tower	Window	NE cusped opening, upper tower (with metal bars)
10	Masonry	tower	Wall	brick repair ?feature above [9]
11	Masonry	tower	Window	NW cusped opening upper tower, blocked
12	Masonry	tower	Infill	blocking of opening [11]
13	Masonry	tower	Window	SW cusped opening upper tower, blocked
14	Masonry	tower	Infill	blocking of opening [13]
15	Masonry	tower	Roof	brick scar of former gable of nave
16	Masonry	tower	Wall	repair W of opening [9]
17	Masonry	tower	Window	arched splayed window in upper N side of tower
18	Masonry	tower	Infill	blocking of window [17]
19	Masonry	tower	Wall	repair to crack below E side of window [1]
20	Masonry	tower	Wall	repair to crack below opening [11]
21	Masonry	tower	Window	arched splayed window in upper W side of tower
22	Masonry	tower	Infill	blocking of window [20]
23	Masonry	tower	Wall	modern repair below [13]
24	Masonry	tower	Window	arched splayed window in upper S side of tower
25	Masonry	tower	Window	blocking of window [24]
26	Masonry	tower	Wall	repair below W side of [5]
27	Masonry	tower	Window	splayed circular window, W side of tower
28	Masonry	tower	Infill	blocking of window [27]
29	Trench	S	Contractor's trench	trench for new gully S side of nave
30	Masonry	tower	Window	chalk block window lower N side of tower (including its blocking)
31	Masonry	tower	Window	chalk block window lower S side of tower (including its blocking)
32	Masonry	tower	Window	narrow window (existing) lower W side of tower
33	Masonry	tower	Wall	lowest construction phase of tower - discrete bands of chalk and flint
34	Masonry	tower	Wall	middle construction phase of tower - mixed chalk and flint
35	Masonry	tower	Wall	upper construction phase of tower - small coursed flint cobbles
36	Masonry	tower	Wall	rebuilt upper E side of tower, flint more randomly laid
37	Trench	S	Contractor's trench	trenches for drains S of church
38	Masonry	S	Drain	brick soakaway
39	Trench	S	Contractor's trench	trench for new gully at SE of chancel
40	Trench	SE	Contractor's trench	trench for new soakaway SE of chancel
41	Trench	N	Contractor's trench	trench for Fildrain N of nave
42	Trench	N	Contractor's trench	trenches for drain runs N of church
43	Burial	[42]	Burial	Grave, skeleton and fill, within trench
44	Deposit	[42]	Layer	brown sand in base of trench (flint from this area)

45	Deposit	[42]	Grave fill	unexcavated grave fill
46	Burial	[42]	Burial	skeleton and fill, leg and foot bones within trench
47	Trench	NE	Contractor's trench	trench for new soakaway NE of chancel
48	Burial	[42]	Burial	grave, skeleton fill, within trench
49	Burial	[42]	Burial	grave, skeleton, fill, largely within trench
50	Burial	[42]	Burial	skeleton and fill, partly within trench
51	Burial	[42]	Burial	skeleton, infant burial, partly within trench
52	Burial	[42]	Burial	skeleton, partly within trench and truncated by [49]
53	Trench	SW	Contractor's trench	trench for drains SW of church
54	Trench	SW	Contractor's trench	trench for new soakaway SW of church
55	Burial	[54]	Burial	grave, skeleton, fill, partly within trench
56	Burial	[54]	Burial	grave, skeleton, fill, partly within trench
57	Burial	[54]	Burial	skeleton, partly within trench
58	Deposit	SW	Footing	truncated flint footing exposed W of S porch
59	Deposit	[42]	Finds	finds from below burial [52]
60	Trench	W	Contractor's trench	trench for Fildrain around tower
61	Burial	47	Burial	burial partly exposed, left *in situ* below level of trench
62	Burial	47	Burial	burial partly exposed, left *in situ* below level of trench
63	Deposit	53	Layer	brick surface, possibly tomb-related
64	Masonry	41	Footing	small length of footing exposed at N chancel wall
65	Trench		Contractor's trench	trench for reinterment of human remains in NW churchyard
66	Masonry	tower	Infill	infilled ?opening/putlog in central part of tower
67	Masonry	tower	Wall	repair below window [3], runs down tower wall
68	Masonry	29	Footing	probable footing, for buttress or former wall
69	Masonry	tower	Infill	mortar relating to insertion of opening [11]
70	Masonry	tower	opening	pentagonal opening/for drain in upper tower wall
71	Masonry	tower	Infill	infilled ?opening/putlog in central part of tower (N of [27])
72	Masonry	tower	Wall	repair below opening [9]

Appendix 3: Finds list

Context	Pottery No	Pottery Wt (kg)	FC No	FC Wt (kg)	Cu Alloy No	Cu Alloy Wt (kg)	Stone No	Stone Wt (kg)	A Bone No	A Bone Wt (kg)	Shell No	Shell Wt (kg)	Other	Spotdate
37	4	141												L.17th c.+
40	1	25												Rom/LSax
41	1	5												L.10th-11th c.
42	6	53	1	6	2	24	2	202	2	357			1 is lava quern	11th-13th c.+
43			43	227										
45	1	3												L.9th-11th c.
48			9	25										
49	2	21												11th-12th c.
50	1	43	4	50							1	30		L.9th-11th c.
54	12	126												L.10th-11th c.
56	2	10												L.10th-11th c.
59	1	11												Rom/LSax
60	1	5												L.10th-11th c.

Appendix 4: Pottery

Context	Fabric	Form	Rim	No	Wt/g	MNV	Spot date
37	THETG	AC jar	3?	2	102	1	L.10th-11th c.
37	EMWBE			1	12	1	11th-13th c.
37	STAF			1	27	1	L.17th-18th c.
40	UNID	jar	cavetto	1	25	1	Rom or LSax?
41	THETG	AB jar	4	1	5	1	L.10th-11th c.
42	RBCC			1	1	1	1st-4th c.
42	RBGW			1	4	1	1st-4th c.
42	THET			1	4	1	L.9th-11th c.
42	SXNO			1	2	1	L.9th-11th c.
42	EMWBE			2	42	2	11th-13th c.
45	THET			1	3	1	L.9th-11th c.
49	THETG			1	18	1	L.10th-11th c.
49	EMW			1	3	1	11th-12th c.
50	THET			1	43	1	L.9th-11th c.
54	UNHM			1	7	1	?

54	THETG			1	13	1	L.10th-11th c.
54	THETG			8	34	7	L.10th-11th c.
54	THETG	bowl	flat-topped everted	1	69	1	L.10th-11th c.
54	UNID			1	3	1	Rom or LSax?
56	THET			1	1	1	L.9th-11th c.
56	THETG			1	9	1	L.10th-11th c.
59	UNID			1	11	1	Rom or LSax?
60	THETG			1	5	1	L.10th-11th c.

Thetford ware jar forms based on Dallas (1984) and Anderson (2004)

Appendix 5: Fired clay

Context	Fabric	Type	No	Wt/g	Colour	Surface	Impressions	Abrasion	Notes
42	sx		1	6	orange/cream				dense, hard, amorphous
43	sx		43	227	orange/cream		occ grass?	+	dense, hard, amorphous
48	sx		9	25	orange/cream			+	dense, hard, amorphous
50	scpo		4	50	orange	flattish	grass	+	softer, up to 21mm thick

Fabrics: sx – silty poorly mixed; scpo – silty with clay pellets and organics.

Appendix 6: Stone

Context	Type	No	Wt (g)	Notes	Date
42	granite?	1	132	water-worn pebble of granular ?granitic stone - glacial erratic?	
42	lava	1	70	frag of ?Niedermandig lava, no original surfaces, but probably part of a quernstone	Rom/Sax?

Appendix 7: Metalwork including coins (catalogue of coins in archive)

Context	Find type	No	Wt	Description	Measurements	Date
42	CuA	1	14	curving cut rectangular sheet with one edge curved over to form a rim - repair of vessel with internal diameter 150mm (17%)	78 x 28 x 0.8mm	med+?
42	CuA	1	10	part of a ?circular sheet frag (160mm diam, 20%) - curving wrinkled edge, 2-3 cuts across, sooted on one surface	80 x 45 x 0.9mm	med+?
53	Cu A	1	2.4	strap end, formed from folded rectangular strip with single rivet	17 x 15mm	med
41	Cu A	1	-	Antoninani of Victorinus, 269-271	-	Roman
42	Silver	1	-	Penny of Henry II, 1154-1180	-	med

Appendix 8: Flint

Ctxt	Type	No.
42	flake	2
42	burnt fragment	1
42	bladelet	1
44	struck fragment	1
44	struck fragment	1
44	flake	2
44	blade	1
44	utilised flake	2
44	retouched blade	1
50	retouched flake	1
50	spall	1
52	utilised flake	1
54	retouched flake	2
55	struck fragment	1
59	flake	1
59	utilised fragment	1

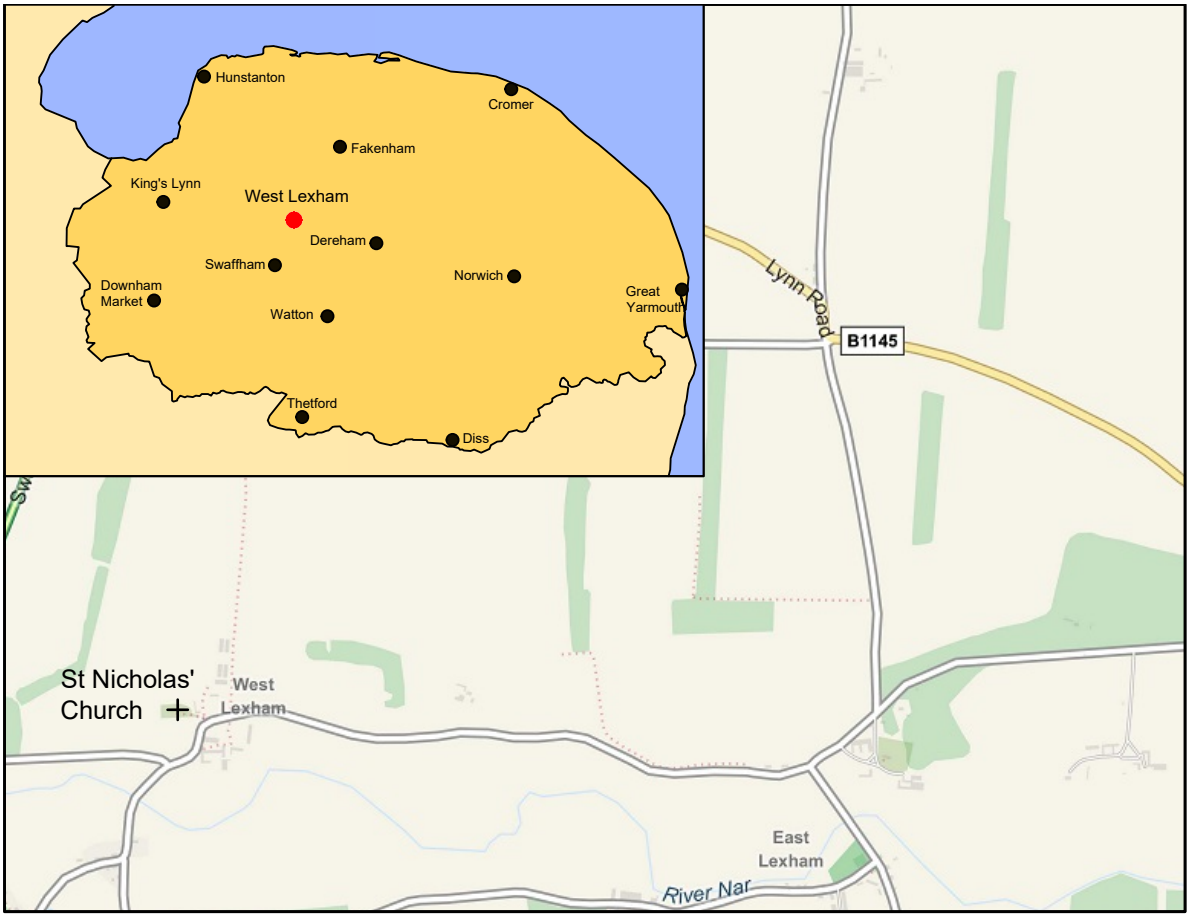
Appendix 9: Animal bone

Context	Species	Part	No	Wt (g)	MNI	Notes
42	Bos	L Tibia prox	1	335	1	unfused prox epiph. Large. Chpped across midshaft
42	Bos	Lower R M3	1	22		not heavily worn

Appendix 10: Shell

Context	Species	No	Wt (g)	Notes
50	Ostrea edulis	1	30	complete flat shell 75 x 71mm

A



B

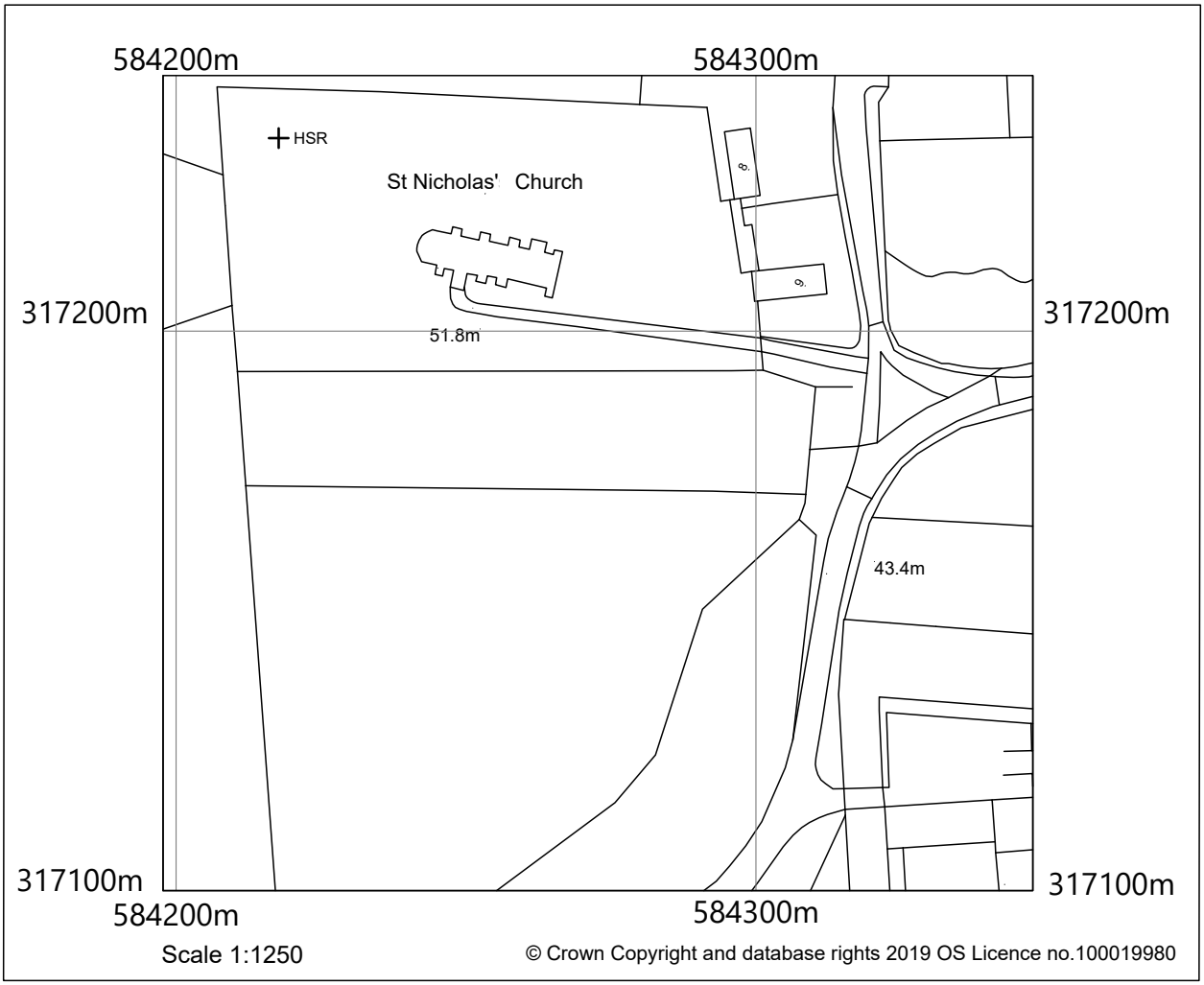


Fig. 1: Site location

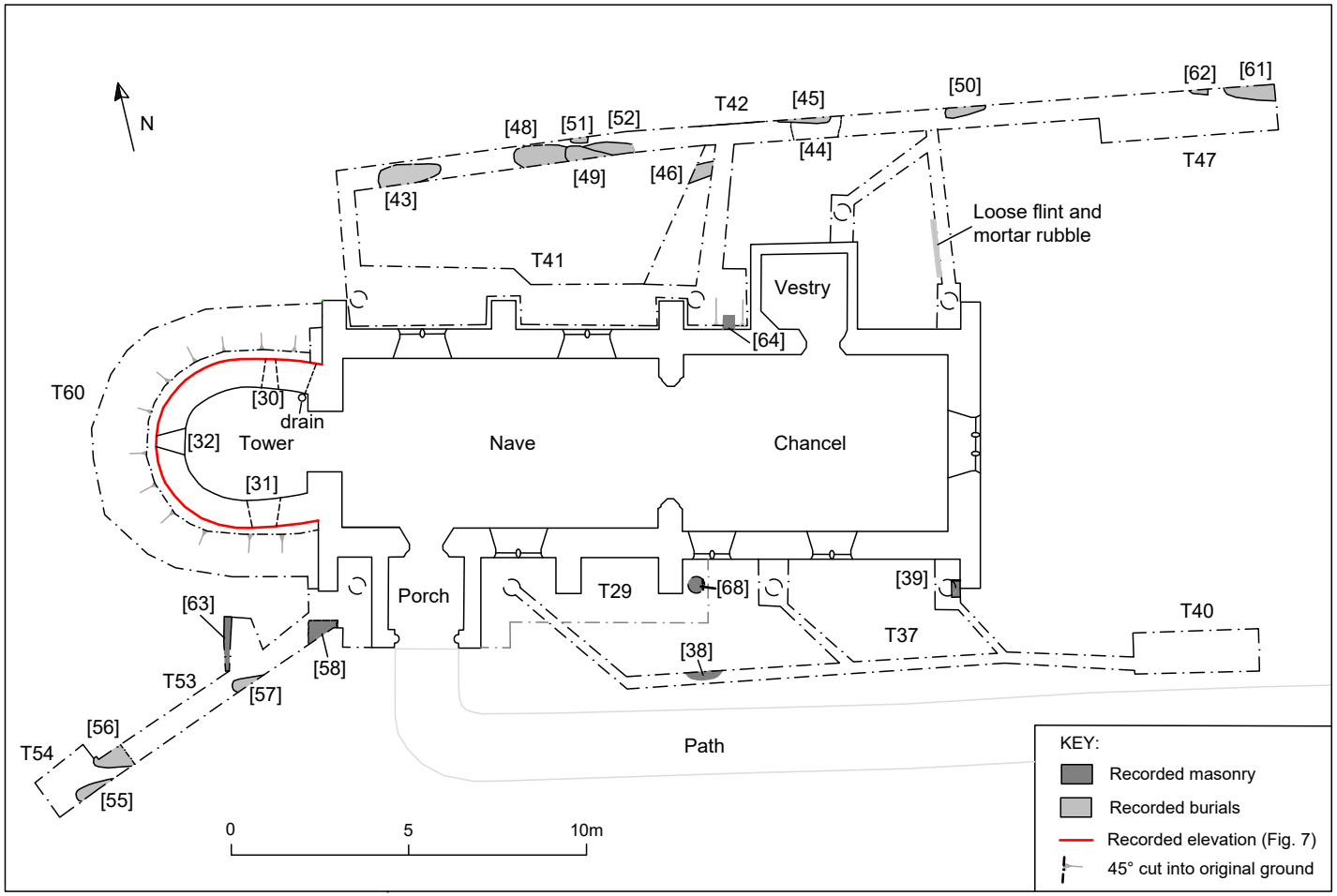


Fig. 2: ENF 141561; Plan of St Nicholas' Church with location of trenches and results of work. Scale 1:200
(plan of church based upon architect's drawing)

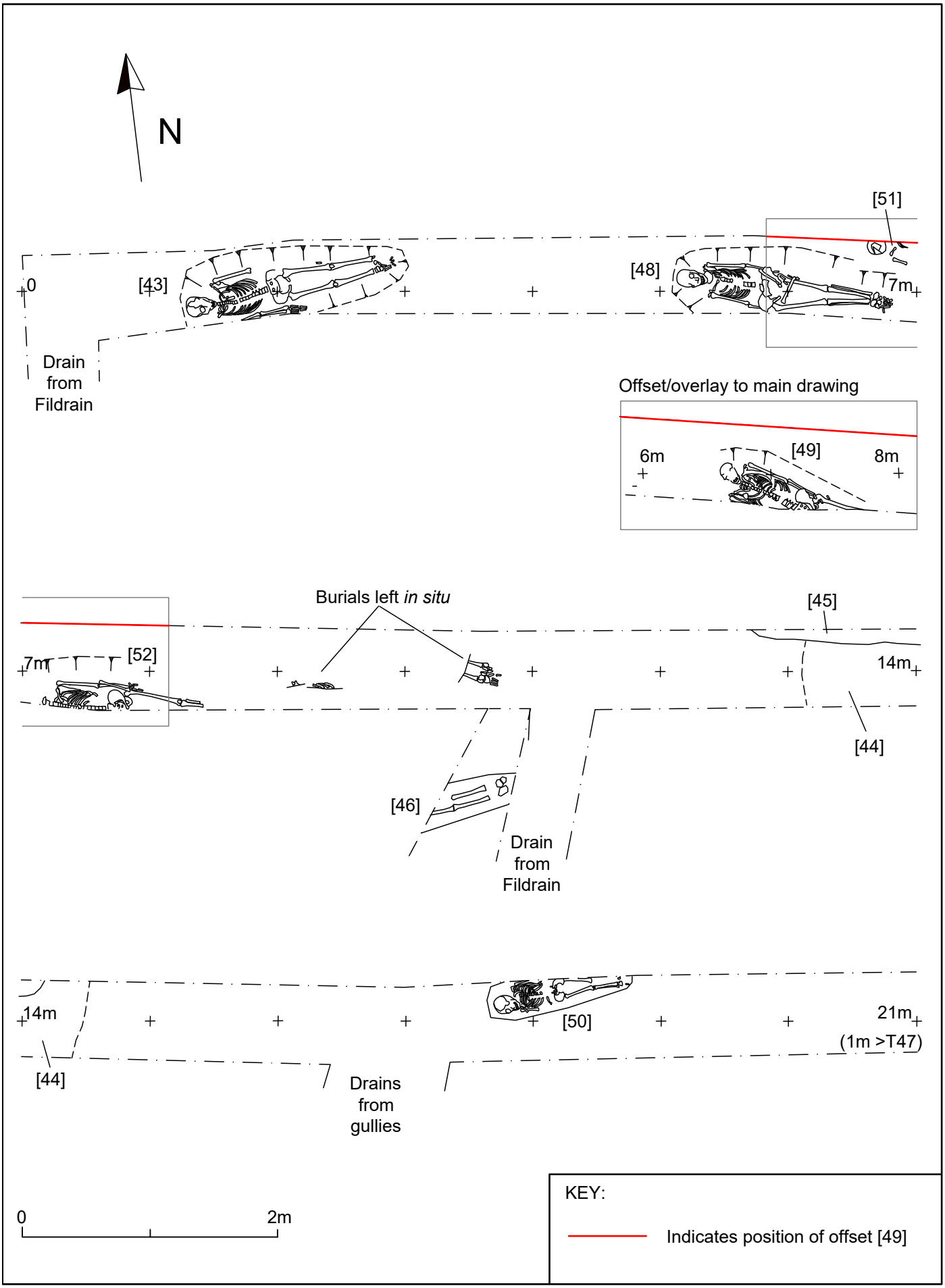


Fig. 3: ENF 141561; Trench 42, drain N of the church. Scale 1:40 (for location see Fig. 2)

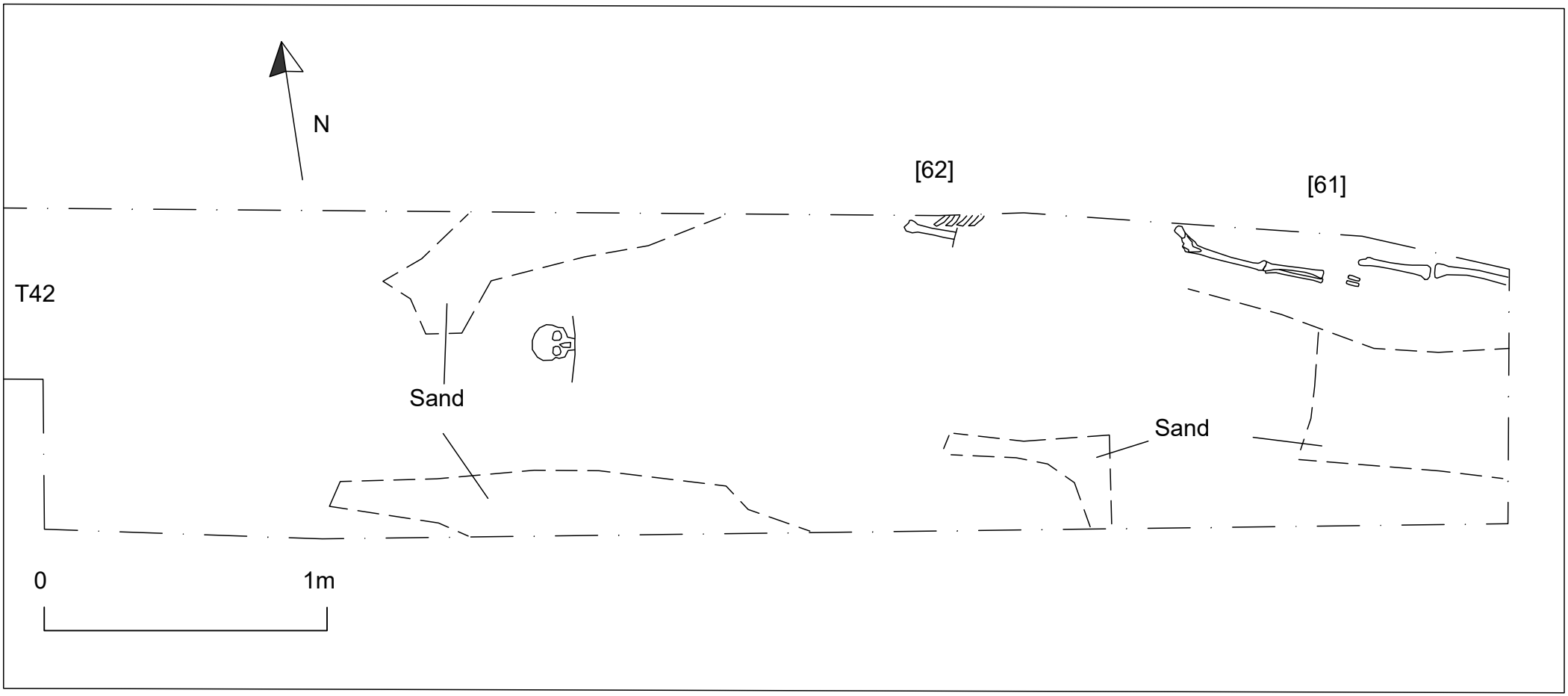


Fig. 4: ENF 141561; Trench 47, plan. Scale 1:20

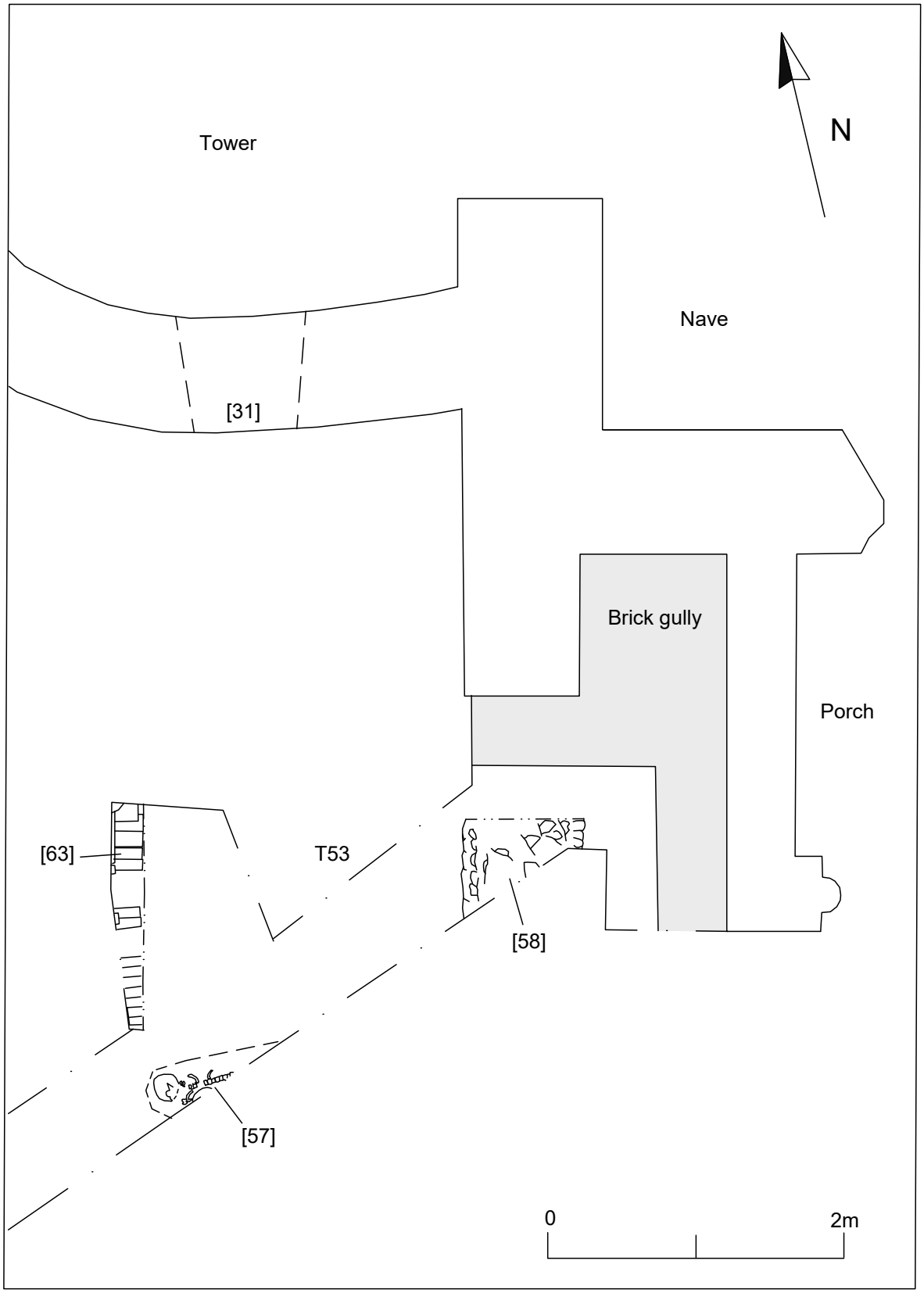


Fig. 5: ENF 141561; Footing [58] and brick surface [63]. Scale 1:40

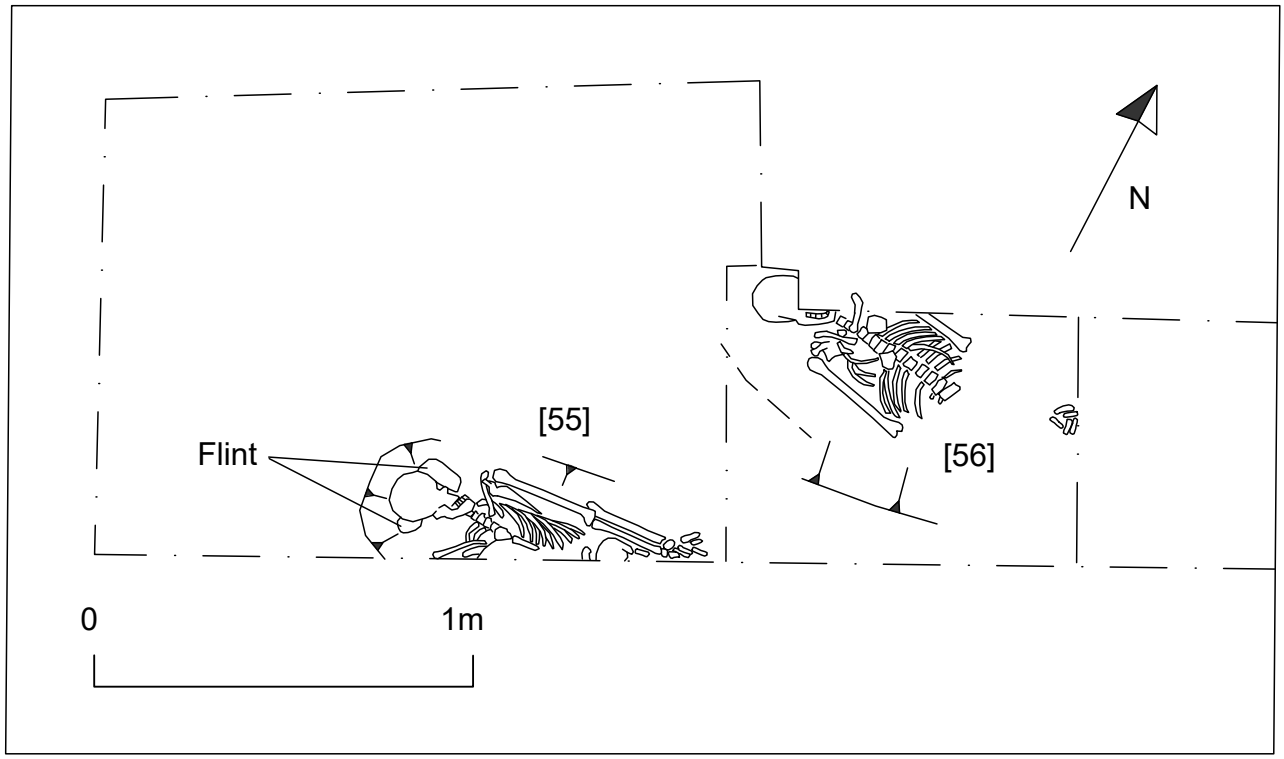


Fig. 6: ENF 141561; Trench 54, plan. Scale 1:20

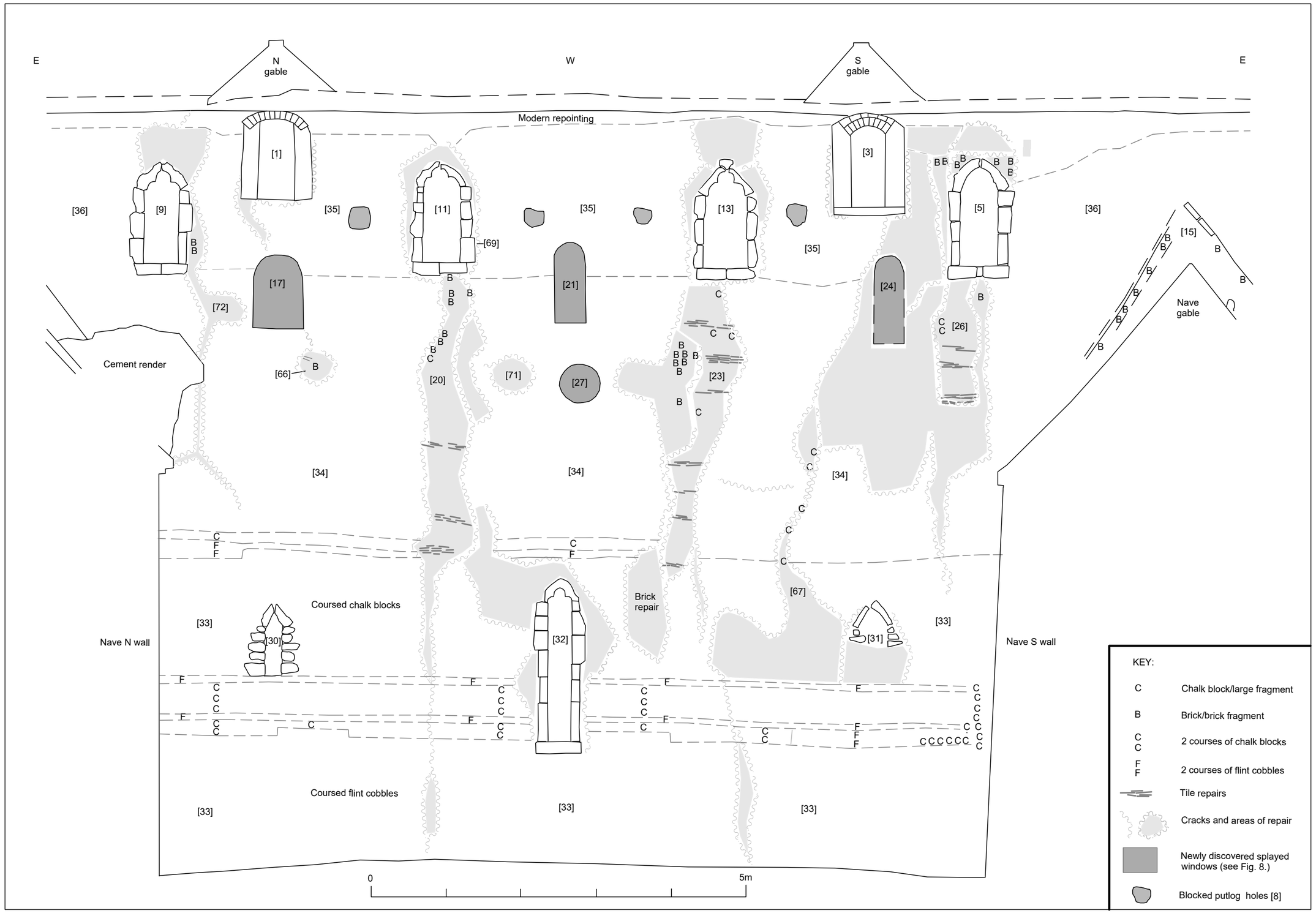


Fig. 7: ENF 141561, St Nicholas' Church, unwrapped elevation of west tower. Scale 1:50

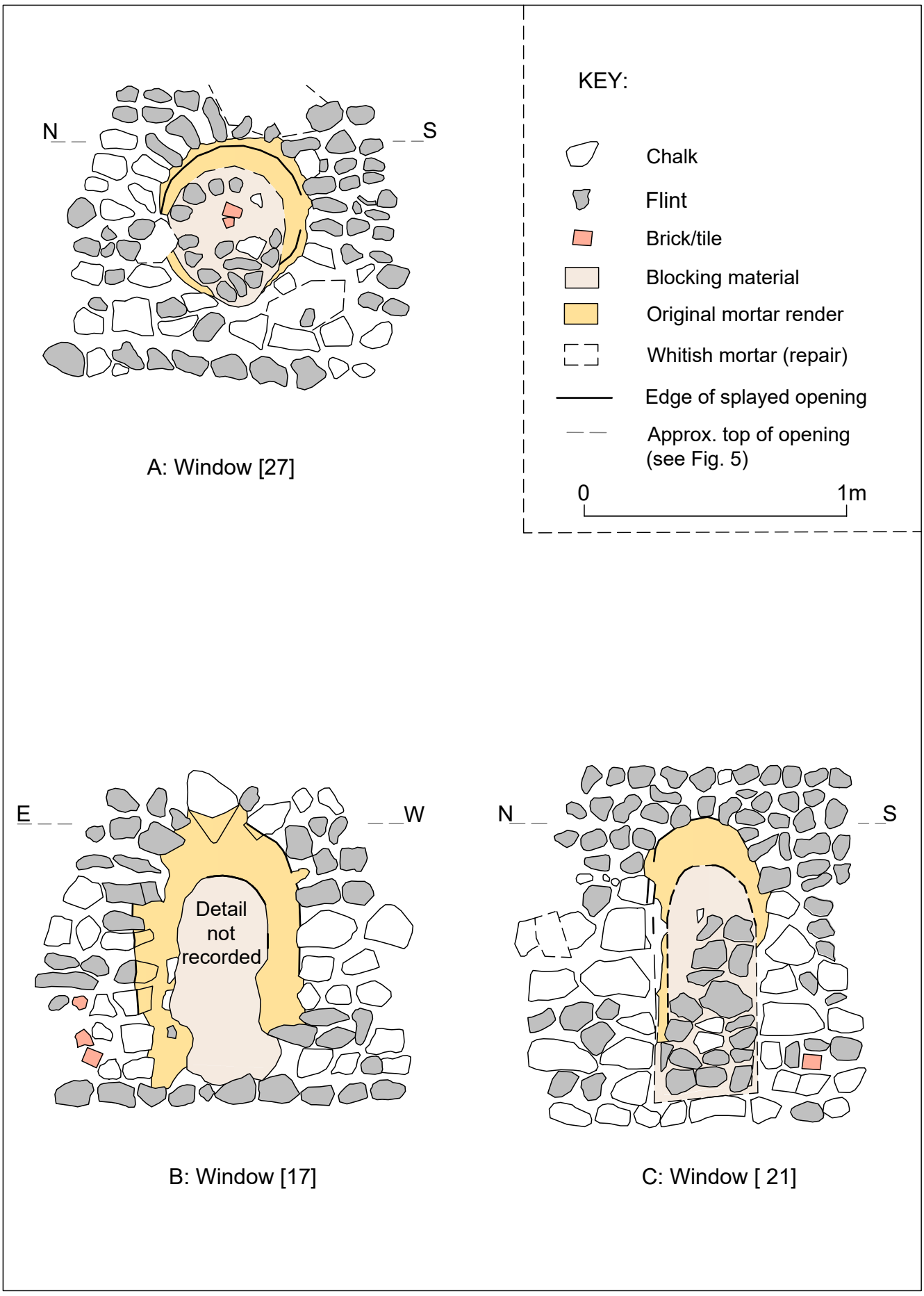


Fig. 8: ENF 141561; Elevations of splayed windows discovered in wall of W tower, Scale 1:20

Plate 1: St Nicholas' Church, prior to work in 2018

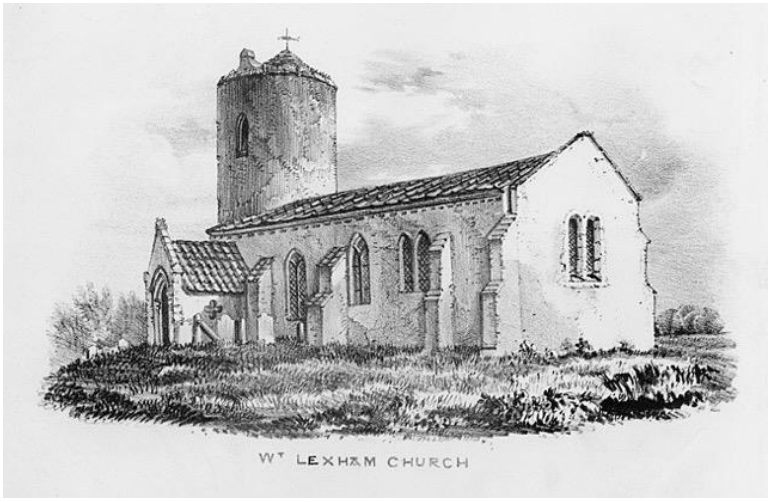


Plate 2: St Nicholas' Church, R. Ladbrooke *c.*1820

Plate 3: Artist's impression of St Nicholas' Church during restoration in late 19th century (date and accuracy of drawing uncertain)

Plate 4: Trench 41; with soil slope formed at wall of church, looking E, 1m and 0.5m scale

Plate 5: Trench 41;?footing at wall of chancel looking S, 1m scale

Plate 6: Trench 42; burial [43], looking S, 0.5m scale

Plate 7: Trench 42; burial [48], skull [49] to E, looking S, 0.5m scale

:

Plate 8: Trench 42; burial [52], leg and foot bones [48], infant [51] looking S, 0.5m scale

Plate 9: Trench 42; burial [49], leg bones [48], looking S, 0.5m scale

Plate 10: Trench 42; child burial [50], looking N, 0.5m scale

Plate 11: Trench 47; looking E, 0.5m scale

Plate 12: Trench 29, flint and mortar rubble [68] at nave's SE buttress, looking N, 0.5m scale

Plate 13: Trench 39, footing at chancel SE buttress, looking E, 0.5m scale

Plate 14: Trench 40, looking W, 0.5m scale

Plate 15: Trench 53, wall footing [58], looking N, 0.5m scale

Plate 16: Trench 53, wall footing [58], looking E, 0.5m scale

Plate 17: Trench 53, brick surface [63], looking N, 0.5m scale

Plate 18: Trench 53, burial [55], worked flint beside skull, from above, looking S, scale 0.5m

Plate 19: Trench 60, looking SW, 1m scale

Plate 21: Trench 65, for reinterment of human remains in NW churchyard, looking ESE (contractor's site hut in place)

Plate 20: Trench 60, base of tower N wall and new downpipe looking S, 0.5m scale

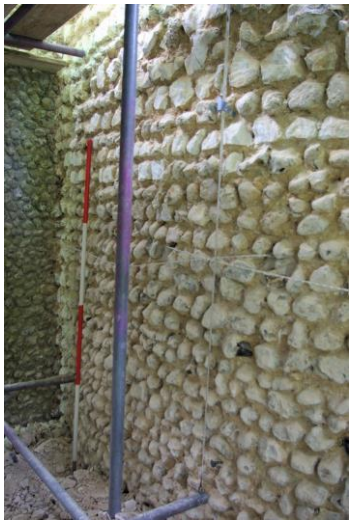


Plate 22:Tower N side, lower stage [33], ground level, (chalk courses at top), looking E, 2m scale

Plate 23: Tower S side, lower stage [33], ground level, (chalk courses at top), looking E, 2m scale

Plate 24: as Plate 23, detail of chalk blocks (upper/right)

Plate 25: N side, lower stage [33], chalk courses, window [30] visible (bottom left), looking E, 2m scale

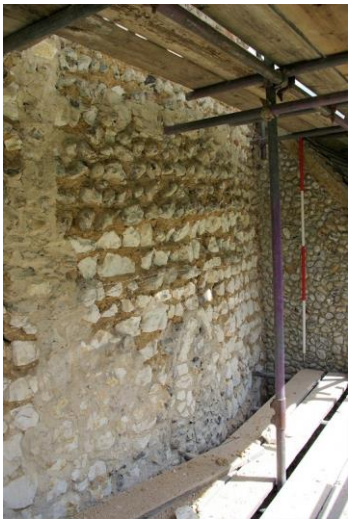


Plate 26: S side, lower stage [33], with [34] above, window [31] visible, looking E, 2m scale

Plate 27: N side of tower abutting former nave wall, with Victorian flint wall, looking ESE. 0.5m scale

Plate 28: Tower abutting former nave wall (detail), Victorian wall to left, looking SE

Plate 29: N side, window [30], looking S, 0.5m scale

Plate 30: S side, window [31], looking S, 0.5m scale

Plate 31: N side, central stage [34], infilled patch, [66] (top left, brick visible), looking ESE, 2m scale

Plate 32: W side, central stage [34], infilled patch, [71] (top left), window [17] to left of 2m scale, looking S

Plate 33: SW side, central stage, repair [23] with different wall fabric to either side, looking NE, 2m scale

Plate 34: S side, central stage, wall exposed with on-going repairs in progress, looking E, 2m scale

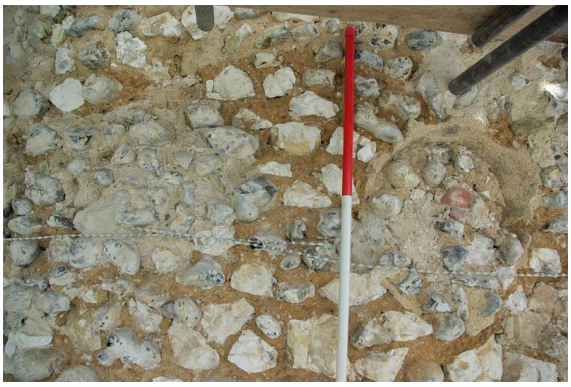


Plate 35: Window [27], with blocking (right), infilled area [71] (left), looking E, 1m scale

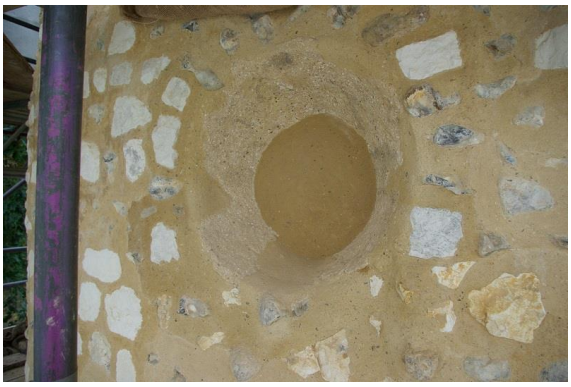


Plate 36: Window [27], conserved, looking ENE

Plate 37: Window [17], blocking mostly removed, looking SE 0.5m scale

Plate 38: Window [17], blocking mostly removed, looking S 0.5m scale

Plate 39: Window [17], conserved, looking S

Plate 40: Window [21], blocking partly removed looking SSE 2m scale

Plate 41: Window [21], looking E

Plate 42: Window [21], conserved, looking E

Plate 43: Window [24], blocked and with surrounding repairs, looking N, 0. 2m scale

Plate 44: Blocked putlog hole ([8]), north of window [11], flint 'framing' at top and lighter mortar within, looking E 0.5m scale (red)

Plate 45: Cusped bell opening [11], looking SE, 0.2m scale

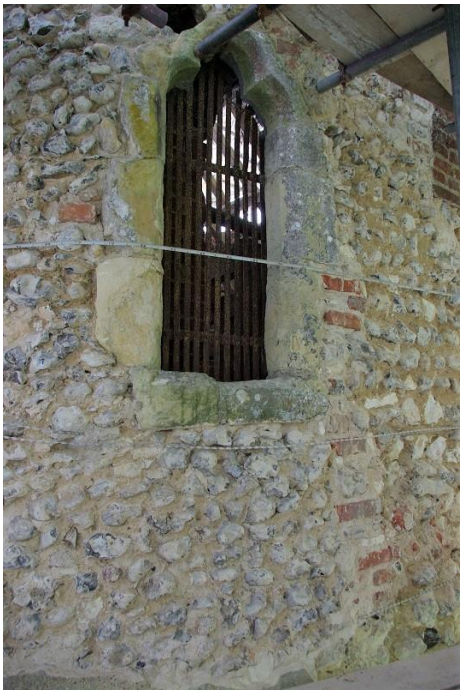


Plate 46: Cusped bell opening [9] and repair [72], with wall fabric [35] (right) and [36] (below and left), looking SW

Plate 47: Bell opening [1] and N gable, looking SW, 0.5m scale

Plate 48: Bell opening [3] and S gable, looking NNW, 0.5m scale

Plate 49: N gable and pentagonal opening [70] above cusped opening [9], looking SW, 0.5m scale

Plate 50: Internal view of area of blocked pentagonal opening, and gable roof rafters exposed, looking N

Plate 51: Nave former gable scar [15], looking WSW, 0.5m scale

Plate 52: Nave former gable scar [15], N side, timber visible (left/central) looking W, 0.5m scale