

ST THOMAS BECKET CHURCH, TUGBY, LEICESTERSHIRE
Archaeological monitoring of improvements
to drainage and internal facilities



Network Archaeology
for
Tugby Tower Project
on behalf of
Tugby PCC

DOCUMENT CONTROL SHEET

Project title	St Thomas Becket Church, Tugby, Leicestershire					
Document title	Archaeological monitoring of improvements to drainage and internal facilities					
Report no.	17006					
Listed building no.	1326673					
Project code	TUG16					
Accession no.	TBA					
Local Authority	Leicestershire County Council, Melton District Council					
Parish	Tugby and Keythorpe					
Postcode	LE7 9WD					
NGR	486178 301014					
Distribution	Madeleine Wang, Project Leader: Tugby Tower Project; Michael Hawkes, Leicester Diocesan Archaeological Advisor; Leicestershire County Council HER					
Document comprises:	Doc. Control	Contents and Summary	Text	Figures	Photos	Appendix
	1 page	4 pages	13 pages	3 (3 pages)	48 (14 pages)	1 page

Ver	Status	Author	Reviewer	Approver	Date
0.1	First draft	Richard Moore	Claire Lingard	Chris Taylor	27/07/2017
1.0	Revision	Richard Moore	Claire Lingard	Chris Taylor	21/09/2017

<p>Northern Office 15 Beaumont Fee Lincoln LN1 1UH Tel: 01522 532621 Email: enquiries@netarch.co.uk</p>		<p>Southern Office 22 High Street Buckingham MK18 1NU Tel: 01280 816174 Email: enquiries@netarch.co.uk</p>
---	---	--



Network Archaeology delivers a complete consultancy and field service nationwide. The particular expertise of the company is linear infrastructure: pipelines, roads, rail and cables. Our emphasis is upon good communication and recognition of the individual needs and priorities of each of our clients. Network is known for delivering professional support, taking care of the archaeology and enabling projects to keep moving forward.

Our operating systems have been verified by:



© Network Archaeology Ltd, September 2017

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, whether electronic, mechanical, photocopying, recording or otherwise, unless the permission of the publisher has been given beforehand.

This report has been prepared for the Client in accordance with the agreed terms and conditions of appointment. Network Archaeology cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

Contents

DOCUMENT CONTROL SHEET	i
Contents	ii
List of figures	ii
List of photographs	ii
Summary	1
Introduction	1
The church and churchyard	1
Location and layout	1
The church building	1
The churchyard	2
Construction work monitored	3
Objectives and methods	4
Observations	5
Drains north of nave and chancel, and the northern soakaway pit	5
Trench arch drain	5
Drains south-west of porch and tower	7
Drains and soakaway south-east of chancel and aisle	7
Water supply and waste water pipe	8
Interior of the church	9
Artefacts	9
Discussion and conclusions	11
Archive	13
Acknowledgments	13
References	14

Figures

- 1: Location of St Thomas Becket Church, Tugby
- 2: Plan showing locations of the newly installed drains and other works
- 3: Reconstructed plan showing the locations of graves within the trench arch drain
- 4: Comparison of Ordnance Survey maps from 1886, 1904 and 1952

Photographs

- 1: The church looking north-westward from the church gate on Main Street
- 2: South face of the tower
- 3: West face of the tower

- 4: Hood-mould of window in lower storey south face of the tower
- 5: Detail of bell chamber opening: north face of tower
- 6: Selection of corbels from under the parapet of the tower roof
- 7: The tower roof during removal of the old asphalt layer
- 8: The south-eastern part of the churchyard, showing repositioned headstones to the south of the chancel
- 9: The northern part of the churchyard, looking eastward
- 10: The western extension to the churchyard
- 11: Part of the northern boundary to the old vicarage, showing repositioned headstones
- 12: Excavating trench from north-east corner of chancel
- 13: Northern soakaway pit, showing drain from north wall of nave, and drain crates in place
- 14: Skeleton from northern soakaway, showing remains of coffin timbers and staining
- 15: Brass button found associated with skeleton in northern soakaway (5p piece for scale)
- 16: Skull from manhole to at inlet to trench arch drain, showing pathological thickening
- 17: The top of the same skull, showing rough, pitted surface, probably the result of infection
- 18: Jaws from same skull. The green staining on the angle of the left jaw (right in photo), was probably caused by corrosion of a shroud pin
- 19: Teeth and jaw fragments from a child's skull, found in the entrance to trench arch drain
- 20: Marking out the extent of the trench arch drain, showing its location in the churchyard and the where the electricity cable to the end of the nave crosses at its west end
- 21: Coffin stain in trench arch drain
- 22: Skull with corroded shroud pin...
- 23: ...and the corresponding soil mark left in the base of the trench
- 24: Skeleton truncated from left hip to right thigh by later grave; also showing the drain from the nave to the soakaway pit
- 25: Skull uncovered by machining in south side of trench arch drain, looking east
- 26: Intercutting graves: right femur, tibia and fibula with right humerus, radius and ulna, and displaced scapula, clavicle and ribs of later grave, looking west
- 27: The eastern end of the trench arch drain, with juvenile skeleton truncated above the lumbar vertebrae, and showing the drain from the east end of the chancel crossing towards the northern soakaway
- 28: Installation of the trench arch drain
- 29: Rim sherd of shell-tempered pottery, probably from 14th to 16th century, found directly beneath one of the skeletons in the trench arch drain
- 30: Nails and coffin handles from north side of churchyard
- 31: View from the tower of the trenches from the porch and the western end of the aisle

- 32: Trenches of drains from north-west corners of porch and aisle
- 33: The drain to the south-west soakaway running along the north side of the path
- 34: Excavating the south-west soakaway pit, between the path and the upstanding headstones
- 35: Redeposited skull retrieved from the drains to the south-eastern soakaway, close to the wall of the chancel aisle
- 36: Articulated remains of truncated skeleton from the northern part of the south-eastern soakaway
- 37: Skull and upper vertebrae from the south-eastern soakaway, close to the north-east corner. This skull one of a number of bones which showed patches of green copper staining, probably from the corrosion of shroud pins
- 38: The deepest of the burials exposed in the south-eastern soakaway, this had been truncated by later graves from elbow to elbow across the upper body and across the lower legs
- 39: The back of the churchyard retaining wall, as seen in the pit to bring water onto the site from the water main on Main Street
- 40: Another view of the back of the churchyard wall, showing how the brickwork was added to the front of the earlier stonework
- 41: Posthole beneath floor of nave
- 42: Inscription of grave slab that had been laid face down in flooring of nave: Eliz. wife of Valentine [??Collin]
- 43: Brick vault beneath floor of nave, as first exposed, looking east
- 44: Brick vault, looking west, towards the entrance to the tower
- 45: Brick vault during capping
- 46: Brick vault sealed and with original grave slab replaced
- 47: View of the tower through the west door, showing excavated service trenches
- 48: Butchered animal bones from water-pipe trench in north-east corner of churchyard

[Appendix](#)

OASIS Summary Form

Summary

Works monitored at St Thomas Becket's Church, Tugby, Leicestershire, included: installing new drains to carry rainwater from the roof to three new soakaways; excavation of a trench for a water pipe from the street frontage to new kitchen and lavatory facilities; and installing a trench arch drain, with associated pipework. Concurrent work on the building included tower roof and stonework repairs, relaying of the floors in the west end of the nave and aisle, and renewal of the heating system.

Parts of at least thirty-four articulated human skeletons were disturbed during the course of the groundworks in the churchyard, along with quantities of disarticulated bone redeposited from earlier disturbance. Finds were scarce but included a medieval or possibly Roman pottery sherd, a copper alloy button and a small assemblage of coffin nails and handles.

Introduction

Network Archaeology was commissioned to monitor works, carried out between 26th January and 18th May 2017, at the parish church of St Thomas Becket, Tugby, Leicestershire (Fig 1), grid reference: SK 7618 0101. The works were initially prompted by the urgent need for repairs to the tower. The building had been placed on the Historic England Register of Heritage at Risk, because of water penetration through the asphalt cover of the wooden roof.

A Tower Project team was set up and secured Heritage Lottery Fund support for necessary roof repairs, and for additional improvements, including refurbishment of the heating system, lifting and relaying of the floor in the west end of the nave and aisle, provision of the small kitchen area at the west end of the aisle and lavatory facilities in the tower, and repair and restoration of pews and panelling. The work was carried out within the provisions of the Faculty Jurisdiction Rules 2015.

The church and churchyard

Location and layout

The village of Tugby lies 18km east of Leicester in the rolling landscape of the Leicestershire Wolds. The parish church (Photo 1) is on the west side of Main Street, around 100m south of the junction with the A47 Uppingham Road. South of the church, the land slopes quite steeply down through the newer parts of the village, so that the church occupies a prominent position on a locally high point in the landscape, at a height of just over 175m OD.

The bedrock locally is a Jurassic mudstone of the Whitby Formation, laid down around 180 million years ago (www.bgs.ac.uk/discoveringGeology/geologyOfBritain). Slightly older iron-rich limestones outcrop on the lower ground to the north of the A47 and below the village, and may have provided the stone for much of the early construction of the church. The bedrocks are overlain by varying thicknesses of Ice Age outwash and moraine deposits.

The church building

The tower is the oldest part of the surviving building. The three lower stages are of ironstone rubble with dressed limestone quoins (Photos 2 and 3). The stages are articulated externally by string courses of flagstones. The lower stage of the tower was considered by Pevsner (1984) to possibly date from the late Anglo-Saxon period, in contrast to the three upper stages, which he thought post-conquest. The south-facing window in the lower stage has a rather crude round-headed arch externally (Photo 4). Its opening splays out through the considerable thickness of the walls, so that the internal arch of this window closely matches the arch of the west door. This

door appears to have been made smaller, in two stages, by the successive insertion of smaller arches.

Opposite the west door, a similar arch, similarly infilled to form a square topped opening, leads through to the nave. A notable feature of this doorway is a pair of deep, rectangular holes cut into the masonry on either side of the opening; these would have held a wooden beam that could have been slid across to securely lock the door from the inside. The tower was clearly intended to serve a defensive function should the need arise.

The second stage of the tower, which houses the ringing chamber, has a larger south-facing window, with paired round-headed lights and a central shaft decorated with a chevron pattern. The first two storeys are buttressed on their south-west and north-west corners. The third storey, the clock chamber, is of a different build, of smaller, more regularly coursed rubble blocks, and carries the newly restored church clock on its south-facing wall.

The upper storey of the tower is of coursed limestone blocks. Louvred openings on each face of the bell-chamber have paired monolithic rounded heads lacking any central column (Photo 5). Externally, the top of the belfry is marked by a row of corbels bearing carved faces (Photos 6 a-d). These have suffered to a greater or lesser degree from weathering, but some could have been caricatures of real people while others are clearly grotesques. Above, the shallowly sloping tower roof rises behind a low parapet (Photo 7).

The nave is considered to be early fourteenth century, and would have replaced an earlier structure, possibly of wood. The rather narrow, high-walled proportions might reflect the dimensions of its predecessor. The south aisle is almost as wide, so that the arcade between nave and aisle divides the internal space almost into two halves. The aisle was substantially rebuilt in the mid-nineteenth century, when a chancel aisle was added to provide an organ chamber. Externally, the eastern end of the chancel aisle incorporates a number of eighteenth-century headstones. The tracery of the east window of the chancel dates to the Victorian period, and glazing of the other windows was also replaced at various times in the nineteenth century.

The south door into the aisle from the porch, and the south door of the porch are both in a similar, round-arched Norman style. The inner doorway was thought by Pevsner to be twelfth century and therefore a possible survivor from the original stone building. A blind doorway on the external face of the north wall of the nave, near the west end, is not easily explicable. Its relationship to the adjacent window is unclear, though the arches of both the door and the window are stylistically similar.

The churchyard

The western end of the churchyard is around one metre higher than the street level, and is revetted behind a brick retaining wall. The ground continues to rise quite steeply towards the eastern end of the church. The main gateway to the churchyard is in the south-west corner, where a semi-circular flight of steps curls around the gate-post, providing an alternative to the initial steep gradient of the path. The path runs initially alongside the wall and hedge of the neighbouring cottage but once the land flattens out at the top of the slope, a broad border to the south of the path provides the location of the new Physic and Herb Garden, created as one of the elements of the Tower Project. Beyond the church, the path continues through a second gate to the churchyard as a footpath running westward down to Chapel Lane.

The church building is set slightly obliquely to the axis of the churchyard, creating three different areas of the churchyard of markedly different characters. The slope of the ground and the width of the road frontage give the east and south sides an open aspect, despite the mature lime trees along the road frontage (Photo 8). By contrast, the northern part is shaded by the bulk of the chancel, nave and tower, and closed in by an overgrown hedge on the boundary with the old vicarage to the north (Photo 9). Sycamore, yew and pine trees along this boundary add to the

rather gloomy aspect. To the east of the church, the graveyard has been successively extended, and although this area is shaded beneath a canopy of foliage from half a dozen mature lime trees, there are open views to the east, beyond neighbouring agricultural buildings, to the fields stretching out towards Skeffington and Rolleston.

The western extensions retain most of their grave markers in their original positions (Photo 10) but elsewhere, many of the headstones have been moved into neat rows, dividing the space into open grassed areas. Two rows extend south of the chancel, one row across the east end of the chancel with part of a second row, further east, towards the road frontage. To the north of the church, grave markers form a continuous line inside the boundary to the old vicarage (Photo 11), and two lines of headstones run northwards from the tower and the west end of the nave. There are some grave markers in their original positions towards the north-east corner of the churchyard and a small group of very recent graves, the newest from October 2016, occupy the area to the north of the chancel.

Construction work monitored

Construction work was monitored for all or part of eighteen days, between 26th January and 18th May 2017. The work carried out is briefly summarised here.

Following earlier repairs to gutters, new drains were installed to conduct rainwater away from the building. Brick-lined gullies beneath downpipes were replaced with new grids above polypropylene silt traps: two on the north wall of the nave, and others on the north wall of the chancel (Photo 12), south-east corner of the chancel, either end of the aisle and the west side of the porch. Polypropylene 100mm-diameter drain pipes were laid, in trenches at least 400mm deep, to one of three soakaways. The soakaways were sited at least 5m away from the building, to the north, south-west and south-east of the church, and held arrays of 1000x500x400mm polypropylene drainage crates wrapped in double layers of Terram geotextile. The pits to take the crates were up to 200mm wider on each side than the crate arrays and were deep enough to allow at least 400mm of cover. The spaces around the crates were back-filled with pea-gravel.

Mains water supply to the tower was provided from an existing main below the pavement outside the north-east corner of the churchyard. The supply pipe was laid in a 250mm-wide and 800mm-deep trench running along the northern boundary of the churchyard, before turning south to enter the church below the west door of the tower.

From the west wall of the aisle, external to the new welcome area, the waste water pipe runs west and north. Opposite the west door of the tower it is joined by a pipe leading from the newly installed lavatory area and running out beneath the threshold of the door. The waste water pipe then continues around the north side of the tower, avoiding the standing grave markers in this area, to discharge into the trench arch drain, running diagonally eastward to the north of the nave.

Ground permeability tests had indicated that the trench arch drain needed to be larger than originally proposed, necessitating the excavation of a trench 12m long and 2m wide. This ran on an oblique alignment relative to the church and churchyard boundary, from just north of the north-eastern buttress of the tower and stopping well short of the group of recent graves north of the chancel.

The trenches for the waste water pipe were initially no more than 550mm deep, although to maintain sufficient fall, a greater depth, to 900mm, was required along the northern side of the tower. The trench arch drain, installed between the 12th and 18th May 2017, therefore needed to be deeper still, at up to 1300mm below the existing ground surface.

Ground level was subsequently reduced along the north walls of the chancel and nave, where the build-up against the outside of the building was causing rising damp internally. Immediately up

against the wall, this work included removing an old brick and gravel drain from an earlier attempt to resolve the problem, and was carried out by an enthusiastic team of volunteer labour on 22 April 2017. The regrading and re-seeding of the remainder of this area, away from the wall, was completed, using a mechanical excavator, by the groundworks contractor in the week beginning 28th May.

The site plan in Figure 2 indicates the locations of the groundworks. The visible elements – the grids and inspection chamber covers – should be fairly readily locatable on the ground surface, allowing the positions of the buried pipes and soakaways to be located and avoided, when any future works are carried out in the churchyard.

While the main focus of the work was on the drainage work in the churchyard, the opportunity was also taken to monitor internal works in the west end of the nave and aisle, and in the base of the tower. The flooring, mostly of limestone flags and much of it reused memorial stones, was removed, allowing pipe-work for the heating, water supply and waste water disposal to be laid, as well as raising and levelling of the floor to improve accessibility. Woodwork in the west end of the church, including pews and panelling, was also replaced or restored as necessary.

The most pressing construction task was the replacement of the tower roof. The previous attempt at water-proofing had used asphalt, laid over a wooden roof, but this had cracked, allowing water penetration. The roof was replaced and a galvanized steel covering installed. Restoration and repair work was also undertaken on the stonework and pointing of the tower.

Objectives and methods

The prime objective of the archaeological fieldwork was to mitigate the impact on the archaeological resource of the groundworks within the churchyard and restoration and improvement works in the west end of the church building (Lingard 2017). This was to be achieved by:

- establishing the presence or absence, extent, condition, character, quality and date of any archaeological remains
- locating, investigating and recording archaeological deposits
- recovering, recording and conserving significant archaeological finds
- producing a site archive and report for submission to the receiving museum and Leicestershire HER, as appropriate.

The purpose of this report is to provide an archive record of the work that was carried out and observations made. As well as contributing to an understanding of the history of the church, it is hoped that it will also be of use in the planning of any future work in the church or churchyard.

It was proposed originally that the groundworks in the churchyard would be carried out by hand digging, but in the heavy soil, this proved to be far too time-consuming and it was agreed that a mechanical mini-excavator could be used.

Where human skeletal remains were encountered, work in that area was temporarily halted to allow rapid exposure and cleaning. The remains were then photographed and lifted, to allow work to continue. Where time permitted, the bones were cleaned after lifting and groups were re-photographed, to provide an approximate record of quantities and bone elements present.

The aim was to try to characterise the churchyard as a whole, rather than to attempt any detailed recording of individual skeletons, as it was considered that a more rigorous recording protocol would be unduly time consuming and very unlikely to produce useful data for any further analysis.

Observations

The areas of the churchyard excavated had a broadly similar deposit sequence, with a rich loamy turf layer around 100 to 150mm thick, over a similar depth of friable dark greyish organic clay loam. This lay over a paler yellowish-brown clay-rich subsoil. There was a marked contrast in the lower deposits between the south and north sides of the churchyard, the ground to the south of the building being freer draining than the heavier clays to the north. This contrast could be partly explained by the topography, with the downhill slope to the south producing better drained soils, but probably also reflects a variation in underlying glacial deposits.

Bone preservation was variable but was generally quite good. Smaller bone elements were less likely to survive but much of the bone retained coherence and was fairly dense. Especially in the damper ground to the north of the churchyard, both the organic and mineral components of the bone structure had survived quite well.

Drains north of nave and chancel, and the northern soakaway pit

The three trenches, from the gullies at the western end of the nave, alongside the central buttress of the nave, and at the north-eastern end of the chancel (Photo 12), were all fairly shallow, not needing to be more than 500mm below ground surface. Apart from very occasional finds of small pieces of disarticulated human bone, there were no significant finds from any of these drains.

The northern soakaway was the largest of the three soakaway pits excavated, taking twelve drain crates in an array 2m long, 1.5m wide and 0.8m deep (Photo 13).

The legs and feet of an adult skeleton were exposed in the northern half of the soakaway pit at a depth of 1.20m below the ground surface. In the southern half of this pit and at a depth of around 1.40m, a juvenile skeleton extended across the width of the pit (Photo 14). In the wet anaerobic conditions at this depth, traces of some timbers had survived, showing that this individual had been buried in a coffin. Two heavily corroded nails, presumably from the coffin, were retrieved, along with the remains of a button in brass or similar copper alloy (Photo 15). The face of this button has a pattern of three pairs of incised lines radiating from the centre, and it has a loop fastening at the back. Originally, it was probably cloth- or leather-covered.

Trench arch drain

At a later stage, the trench arch drain was installed in the same part of the churchyard, north of the nave. Waste water discharges into the trench arch from an inspection chamber just north of the tower, by way of a short length of pipe. This pipe passes beneath the underground cable carrying the electricity supply to the church, running from the base of the service pole in the churchyard boundary to the western end of the nave, at a depth of 400 to 500 mm.

The remains of two human skulls were found while digging the pit for the inspection chamber, both at a depth of around 900mm. The larger one was of particular note. It showed marked thickening, which seems to have been the result of 'woven bone formation' on the inner surface, probably caused by inflammation, still active at the time of death (Photo 16). Meningitis could have been a possible cause (Malin Holst pers. comm.). The lumpy, pitted outer surface of this skull is further evidence of chronic infection (Photo 17). The left mandible of this skull was one of a number of bones found during the groundworks that showed green staining, probably from a corroded shroud pin (Photo 18). The other skull from the inspection chamber pit had unfused sutures, showing that it was from a young child (Photo 19).

From this point, to the north-east of the tower, the trench arch runs obliquely to the church and to the churchyard boundary (Photo 20). This alignment, close to due west-to-east, took it beneath the newly installed drains from nave and the chancel and south of the south-eastern corner of the northern soakaway. It was not possible during the course of the monitoring to accurately record

and locate all of the human remains seen in the trench arch drain, but Figure 3 provides a diagrammatic reconstruction with the approximate locations of graves interpolated.

A paired left tibia and fibula found in the south-western western corner of the trench arch may have belonged with the child skull in the inspection chamber pit, the rest of the skeleton having been truncated when the electricity supply to the church was installed through the area. A second skull was uncovered in the base of the western baulk of the trench arch drain, towards the north-western corner.

Two further skulls were found in the base of the western third of the trench. Neither of these had any associated post-cranial skeletal elements, although as no attempt was made to excavate below the base level of the trench arch, there may have been more of the skeletons present deeper down. An area of staining against the base of the southern baulk, probably from the decomposition of a coffin, indicated the location of another grave (Photo 21).

The central part of the trench, up to the point where the drain from the nave crossed over it, uncovered a confusing area of intercutting graves. To some extent, this increase in the density of burials may have been a product of the fall in the base level of the trench, which resulted in a deeper stratum of burials being disturbed. Eight skulls were uncovered in this area, of which three had other elements of the skeleton, particularly the thoracic region, also present. In most cases, these were at the level of the base of the trench, up to 1300mm below surface level, but a couple of the skulls were notably shallower, at 900 to 1000mm depth.

One of the skulls was of particular note as it had the very corroded remains of a pin within an area of green staining on its surface (Photos 22 and 23). This probably implies that the body had been wrapped in a shroud, pinned at the back of the head.

There were also at least four truncated parts of skeletons, particularly from the leg region, present. In this part of the trench in particular, it was noted that the articulated skeletons were on two slightly different alignments. The burials closer to the church were more likely to be aligned parallel to the axis of the church, which is displaced in a north-west to south-east sense, while those further north tended to be on a more strictly east-to-west orientation.

East of the drain pipe from the nave to the northern soakaway, it was the lower body elements, particularly femora and tibias, that had best survived truncation. In all, seven pairs of leg bones were noted in this part of the trench (Photos 24 to 26). This might suggest that in successive phases of re-use, the pattern in which graves were dug had been displaced westward, so that the later graves removed the upper skeletal elements of their predecessors.

Although the methods preclude any systematic analysis, it appeared that a high proportion of the human remains to the north of the church were of young children or adolescents (Photo 27). This may simply be a reflection of child mortality rates at the times when this part of the churchyard was in use, but there is also a possibility that this area was reserved for child burials at one time. It should be noted that weather conditions had deteriorated considerably when the eastern third of the trench arch was excavated, and this could have adversely affected the visibility of human remains (Photo 28).

Towards its eastern end, the southern side of the trench arch clipped the corner of a sub-surface brick structure. It was not possible to investigate this, but from the little that was visible, it seemed most likely to have been an old manhole or soakaway from earlier drainage works. If so, it is of minor archaeological significance. However, the possibility, that this was a brick-lined grave or the corner of an infilled crypt cannot be ruled out, and any future work in this part of the churchyard should take note of its presence.

There was little to date the remains from the trench arch, but beneath the tibia of one of the skeletons, probably the skeleton belonging to the skull with the shroud pin, was a sherd of a

shell-tempered pottery vessel (Photo 29). This most likely dates from the late twelfth to the fourteenth century, although similar shell-tempered jars were used in Roman times so it is not possible to assign a definitive period to it (Jane Young, pers. comm.) It is, in any case, likely to have been residual, but would provide an earliest possible date for the inhumation. In addition to the sherd of pottery, the corroded remains of coffin nails and two coffin handles were recovered from this area, providing evidence for coffin burials (Photo 30).

Drains south-west of porch and tower

The drains from the gullies in the angle of the porch and aisle (Photo 31), and at the west end of the aisle (Photo 32) produced almost no human skeletal remains. These drains led to along the north side of the footpath to the soakaway pit, near the gate to the Chapel Lane footpath (Photo 33). The soakaway held ten drain crates, in an array 2.5m long by 1m wide and 0.8m deep (Photo 34). Excavation of this pit produced a very small quantity of disarticulated human bone, which included a left innominate and a humerus shaft. No articulated skeletons were disturbed.

Drains and soakaway south-east of chancel and aisle

Drainage gullies sited below the downpipes in the angle of the chancel and the aisle and against the south-eastern buttress of the aisle, discharge by way of an inspection chamber into the smallest of the three new soakaway pits. This pit holds six drain crates in an array 1m by 1.5m by 0.8m.

While clearing out the old gullies and drains close to the aisle wall, a largely intact human skull (Photo 35), along with substantial fragments of another, were uncovered at a depth of no more than 400mm below the ground surface. These bones are likely to have been found during earlier groundworks in the graveyard, and the base of the drainage trench provided a convenient site for their reburial.

There was a moderate quantity of disarticulated bone from the trench leading to the soakaway, including three cranial fragments, a mandible with four teeth, and articulating distal humerus and proximal ulna and radius fragments. The fall of the drain followed the natural slope of the ground so that the trench remained relatively shallow along its length.

Excavation of the soakaway pit revealed that this part of the churchyard had a high density of burials, with parts of at least seven skeletons uncovered within its small area. The shallowest of these burials was just over 700mm deep, and the deepest was in the base of the pit, below 1200mm.

Of the shallowest, in the eastern side of the soakaway, only the paired femora and upper parts of the tibias had survived later truncation (Photo 36), along with a handful of metacarpals. To the south of this, a similar assemblage included paired femora, tibias and the lower part of a humerus. These were not seen in the ground as an articulating group and they may have been re-buried together as chanel after earlier disturbance; however, the possibility that they were disrupted by the mini-excavator prior to being seen can certainly not be ruled out.

In the west side of the soakaway, towards the north-western corner, a well-preserved cranium with other skull fragments, mandible, and six vertebrae was slightly deeper, at around 800mm below the surface (Photo 37). This cranium showed green copper staining, probably again from corrosion of a shroud pin.

There was a second skull from the same area of the pit but closer to the north-west corner and deeper, at around 950mm below ground level. Halfway along the eastern side of the pit, at a depth of 1150mm, the remains of a skull, mandible and fragments of vertebrae were recovered, the remainder of the skeleton presumably extending eastward into the baulk.

Towards the south-west corner of the soakaway, a skeleton, at a depth of 1200mm, was represented by a skull, left scapula, clavicle and humerus, and ribs. And finally, at the lowest

excavated level, at a depth just below 1200mm, a skeleton in fairly good condition had been truncated above the elbows, but the lumbar and pelvic region survived along with lower arms, the right leg and most of the left leg. The left ankle and foot had also been lost to later disturbance (Photo 38). As this skeleton was below the base level of the soakaway, it was not lifted.

Unsurprisingly, considering the degree of intercutting and disturbance, there was a considerable quantity of disarticulated human bone recovered from this soakaway, in addition to the articulated remains.

Water supply and waste water pipe

On the south-west side of the church, the results from the trench for the waste water pipe, were similar to those from the drains in this area, with only very occasional fragments of bone noted. The trench for the pipe was no more than 500mm deep in this area, apart from where it changed direction at the inspection pits to the south-west and west of the tower. From beneath the west door, the waste water drain ran above the water supply pipe, in the same trench. Though this trench was deeper, at a minimum of 800mm below ground, there continued to be very few finds as the trench ran by way of a third inspection pit to the north-west corner of the tower.

From this point, the waste water pipe travelled along the north side of the tower towards the trench arch drain, as described above. The water pipe continued northwards, along the west side of a row of relocated grave markers, before turning eastward. Again, there were very occasional finds of disarticulated human bones: mostly fragments of long bone shafts or ribs but including the top of a cranium.

Concentrated in that part of the boundary around the old gateway to the vicarage, the water pipe trench uncovered a number of stone slabs and pieces of grave furniture, including a couple of large fragments of stone kerbing. This material was probably laid down to consolidate the ground around the gateway which otherwise would have become very muddy in wet weather. There were also a few scattered pieces of redeposited human bone in this part of the water trench.

Moving eastward, the water pipe trench crossed the line of relocated gravestones and continued alongside the boundary hedge. There was a change in the ground as the trench approached the Main Street frontage; the soil was looser and with a higher organic content here, with inclusions of small quantities of brick fragments. Large scale Ordnance Survey maps, up to the third edition six-inch surveyed in 1950, show this corner of the churchyard as part of the vicarage grounds (Figure 4). The boundary must have been straightened since then, perhaps at the same time as the retaining wall was renewed.

The finds from the water pipe trench in this area included single sherds of eighteenth-century Staffordshire mottled ware and late eighteenth- to nineteenth-century pearlware vessels (Pers comm. Jane Young). There was also a small assemblage of animal bone; from cattle: two sawn-off ribs, a piece of radius shaft with chop marks, and the distal end of a metatarsal; and from sheep or goat: a right calcaneum and the proximal end of a left metacarpal. The widespread use of saws for butchery is a relatively recent practice, dating from the time that mass-produced hacksaw blades became readily available in the later nineteenth century.

To connect with the mains supply in Main Street, the water pipe needed to pass beneath the churchyard wall at a depth of at least 800mm below pavement level. To achieve this, the trench on the churchyard side needed to be around 1.90m below the ground surface. This gave a rare view of the back of the churchyard wall, showing that the brick retaining wall had been built up against an earlier wall of large limestone blocks, with maximum dimensions up to 400mm long, 300mm high and 250mm deep. (Photos 39 and 40). Part of a buried brick wall, running westward from the back of the churchyard wall was also partly exposed. This may have marked the former boundary between the churchyard and the garden of the vicarage.

Interior of the church

The lifting, relaying and renewal of the flooring at the west end of the nave provided an opportunity to view a number of features not normally visible. In the western end of the nave, the removal of the paving revealed a posthole, centred 1.82m from the west wall and 4.72m from the south wall of the aisle. This had been cut into the hard-packed sandy clay that underlay the church and, as found, had a void at the top, either from incomplete backfilling or from consolidation of the rather loose darker grey sandy backfill. Excavation of the remaining fill showed that the feature was up to 560mm deep from the ground surface or 790mm from the floor level of the nave. It was roughly square, 280mm by 260mm at the top and tapering to around 140mm square at the base (Photo 41).

The previous paving of the church had made extensive use of old memorials, and their removal allowed these to be recorded by volunteer photographers as an element of the community engagement component of the Tower Project. A large slab from the nave was a notable example (Photo 42), which, when turned over, revealed an inscription to 'Elizabeth, wife of Valentine...'. The rest of the detail had been lost as the surface had spalled away, but the church marriage records suggest a likely candidate in Valentine Collin, married in the late 1640s.

One of the more unexpected findings was the presence of a brick-lined vault beneath a grave slab just to the east of the doorway to the tower (Photo 43). The grave slab had been laid over a brick, barrel-vaulted cover, which partly collapsed as the slab was lifted, exposing the void beneath (Photo 44). There was an accumulation of debris in the base of the vault, which appeared to include coffin timbers, but further investigation was considered to be unnecessarily intrusive and these remains were left undisturbed. Instead, the void was partially back-filled, the brick vaulting and the top two courses of bricks from the walls were removed, and the void capped with paving slabs (Photos 45 and 46). Curiously, when the upper brick courses were removed, a human first metatarsal bone was found lodged between them.

In the nave and aisle, the removal of the floor also exposed the bases of the walls and piers, which seemed to have been laid onto bare earth without any masonry foundations. Medieval churches often have very shallow foundations, relying on the mass of the walls and pillars to compress and stabilise the ground beneath and, based on what could be seen during the works, Tugby provides a good example of this. The paving in the base of the tower also seemed to have been laid directly onto the compacted ground, perhaps bedded onto a layer of crushed lime (Photo 47).

Artefacts

Surprisingly few artefacts were recovered during the watching brief, and none were of any great archaeological significance. A summary of all the retained finds are given in the table below.

Pottery finds were limited to the single piece of medieval or possibly Roman pottery described above, found in close association with one of the skeletons in the trench arch drain, and five later post-medieval or modern sherds from topsoil or poorly stratified grave fills.

Metal finds included a button, probably of brass, found with the juvenile skeleton in the northern soakaway pit. Altogether, thirteen very corroded ferrous metal nails were collected, of which eleven are of broadly similar appearance and have been interpreted as coffin nails. Two larger, square section nails retrieved during the reduction in ground level next to the north wall of the church are larger with square- or rectangular-section shafts, and are more likely to have been structural, perhaps from old roofing timbers. Six animal bones from the main part of the churchyard may have been accidental inclusions with reburied charnel, or simply stray food or butchery waste, that had found its way down into the ground by worm action.

Location	Material	Description
SW soakaway	Pottery	Staffordshire press-moulded slipware sherd, late C17th to 18th
NE corner, water pipe by churchyard wall	Pottery	Staffordshire mottled, body sherd, 18th century
NE corner, water pipe by churchyard wall	Pottery	Pearlware, body sherd, blue and white glazed, late C18th to 19th
Surface find, south of porch	Pottery	Red slipped pottery rim fragment, Victorian garden pot
Surface find, north of nave	Pottery	Light-bodied Midlands slipware, C18th, rim and handle sherd from bowl/chamber pot
N soakaway (with skeleton)	Cu alloy	Button
N soakaway	Fe metal	Coffin nail
SE soakaway	Fe metal	Coffin handle
SE soakaway	Fe metal	Coffin nail
Trench arch drain	Fe metal	Coffin nails x 9
Trench arch drain	Fe metal	?Nail or ?coffin furniture
Base of external nave wall	Fe metal	Square section nails x 2: ?structural rather than coffin nail
Base of external nave wall	Slate	Piece with inscribed design, split from the surface of a grave marker
N soakaway	Wood	Preserved fragment of coffin timber
Brick vault, nave, in front of entrance to tower	Brick	Brick: sample from structure of brick lined vault: 227x109x64mm
Base of external nave wall	Brick	Brick: sample from old drainage gully along exterior of north wall: 227x114x51mm
NE corner, water pipe pit	Brick	Half brick: sample from wall running back from churchyard wall: 106x67mm
NE corner, water pipe pit	Glass	Fragment of brown beer bottle, ?C19th or early 20th
NE corner, water pipe pit	Glass	Fragment from rim of screw-topped jar, C19th or early 20th
SW soakaway	Bone	Cattle left mandible, with pm2, 3, 4, m1, 2
SE soakaway, 800mm deep	Bone	Sheep/goat, distal half of tibia
Trench arch drain	Bone	Sheep/goat, left mandible, with pm3, 4, m1, 2, 3
Trench arch drain	Bone	Sheep/goat, left metatarsal proximal half, cut mark
Trench arch drain	Bone	Sheep/goat, right metatarsal, unfused distal end missing, chop mark
Trench arch drain	Bone	Sheep/goat, right humerus, distal end
NE corner, water pipe pit	Bone	Cattle rib blade, sawn both ends
NE corner, water pipe pit	Bone	Cattle rib blade, sawn
NE corner, water pipe pit	Bone	Cattle shaft (?radius) fragment, prominent chop marks
NE corner, water pipe pit	Bone	Sheep right calcaneum
NE corner, water pipe pit	Bone	Sheep left metacarpal, proximal half

Table 1: List of finds

The pit for the water pipe, against the inner face of the north end of the churchyard wall produced a small assemblage of bones from butchery waste (Photo 48). All the identifiable animal bone was from cattle or sheep/goat. The same area also produced two pieces of eighteenth- or nineteenth-century pottery and two pieces of bottle glass.

Three representative samples of bricks were taken: from the brick-lined vault, from the earlier gully along the north wall of the church and from the possible old boundary wall in the north-east corner of the churchyard.

Discussion and conclusions

The ground-disturbing activities were planned to avoid all memorials and obvious grave indicators, where possible by a wide margin, so that there was no direct impact on any marked graves. But in a churchyard with over eight hundred years of history, some disturbance of human remains was almost inevitable. The impact was greatest to the north of the church. The upper layers here, to a depth of a metre or more, contained very little human skeletal material, but at depth, as seen in the base of the northern soakaway pit and especially in the trench arch drain, the burials were packed close together, with later burials cutting or laid just above the earlier ones. In places, at least three separate phases could be discerned.

The density of burials was greater to the south-east of the church, but the relatively small soakaway in this area provided a much more restricted view. The popularity of this part of the churchyard is unsurprising: the south and east areas of churchyards are often the most favoured, and at Tugby the slope of the ground and the open views to the south and east make these areas particularly attractive.

The lack of burials in the south-west soakaway, coupled with the very small quantities of redeposited human bone was, at first sight, surprising. But this was explained by reference to historic mapping. The first edition 25-inch Ordnance Survey map, from 1886, shows that this area was right on the edge of the churchyard at that time, the boundary running from the entrance to Chapel Lane (Figure 4). By the 1904 second edition, this boundary had been squared off, extending the area of the churchyard, but the grave markers are likely to survive from most burials after this date.

Burials throughout the churchyard were all in the usual head-to-the-west orientation, but in the northern part, there were two slightly differing alignments: those nearest the church taking their alignment from its axis, while those further north being closer to due east-to-west, or perhaps aligned with the northern boundary of the churchyard.

A high proportion of the earlier inhumations are likely to have been simple shroud burials, which were quite normal before the nineteenth century, but there was also ample evidence of coffin burials. Within the area of the northern soakaway, the deeper burial had small fragments of fairly coherent wood surviving, while others in the same area, as seen in the trench arch drain, had the remains of coffin timbers outlined by peaty deposits or soil stains. A number of the human bones showed green staining; in a couple of instances, from the south-eastern soakaway and the trench arch drain, the ghosts of shroud pins were clearly visible as flaky copper salt deposits.

The small number of artefacts provide no evidence of any former use of the land, with the exception of the small area in the north-east corner, added since the 1950s in a rationalisation of the northern boundary. In particular, there was no evidence for any activity pre-dating the foundation of the church. But that does not, of course, imply that there was no earlier activity: apart from the burials themselves, the meagre artefact assemblage would hardly hint at the known history and antiquity of the site.

Both south-eastern and northern parts of the churchyard had been re-used for burials on multiple occasions, but there were contrasts between these two areas. In the northern part, the highest graves were deeper, at least relative to the current ground surface. There are various possible factors that could have contributed. There may have been differential preservation, with bone decaying more in the wetter ground north of the church. And relative ground levels had almost certainly changed, with a build-up of soil to the north of the nave and possible erosion of the slope to south-east of the chancel. Another possibility is that the graves in the northern area are of later date, with the deeper burials reflecting a change in normal practice.

But perhaps the most likely reason is that the burials in south-east are simply more densely packed. Although many of the skeletons had been cut by later graves, there were also instances where it seemed that the sexton had left the grave relatively shallow to avoid disturbing an earlier burial. This will have resulted in increasingly shallow burials in busier parts of the graveyard.

The depositional history of the small area in the north-east corner of the churchyard was clearly different from that elsewhere, with rather loose, disturbed ground containing occasional fragments of ceramic building materials and modern pottery. It therefore came as little surprise, on checking historic mapping, that this was part of the vicarage garden until quite recently, the boundary having been rationalised at some time in the last seventy years or so. Church records may be able to provide a firm date and to confirm whether or not this corresponds to the former vicarage becoming a private dwelling.

Further west along the boundary, the former gateway from the vicarage to the church had also left its mark, with stone rubble, including pieces of old grave kerbs, having been dumped in the topsoil to aid drainage and consolidate the ground around the access point.

Opportunistic observations in the interior of the church, including the discovery of the unfilled posthole beneath the nave floor and the brick vault in front of the entrance to the tower, have made small, but interesting, contributions to the known history of the building. The posthole may be related to the former position of the font at this location or perhaps from scaffolding from an earlier phase of construction or repair.

In thinking about an overall appraisal of the project, it is worth considering the impact of the works on the archaeological resource and, more broadly, on the cultural significance of the churchyard. Laying of drains within a burial place will always have the potential to disturb human remains and decisions on the appropriate level of archaeological response have always to be made. There was clearly a loss of archaeological information, but in many cases, the skeletons had been previously disturbed by intercutting graves, and constituted an undated and unsystematic sample. The extent to which a greater amount of useful archaeological information could have been recovered had more time-consuming methods been employed is debatable but, in the present case, the methods of rapid recording and lifting probably constituted a proportionate response to the impact of the groundworks.

The use of trench arch drain systems in rural churchyards has become common in recent years, and the available evidence suggests that, although they are generally effective as drains, their siting is critically important when considering their risks to archaeological remains and 'their potential indirect effects on archaeological remains may have been underestimated' (Loe and McIntyre 2016). In the case of Tugby, the installation of the trench arch drain had a relatively large direct impact. At least twenty graves, and probably rather more, were disturbed by its installation.

The topography of the site and the layout of the waste water pipe, resulted in the trench arch drain needing to be up to 1300mm deep, well below the level of the shallowest burials. In addition, the relative permeability of the heavy, poorly draining ground, required a double width trench arch to achieve a sufficient rate of drainage. With hindsight, disturbance could have possibly been reduced had more archaeological and historical evidence, together with the results of permeability tests, been available at an earlier stage in the design of the groundworks.

Apart from any loss of information available to future archaeological studies, there are cultural and ethical concerns about disturbance of graves. There is a spectrum of views, from those who are comfortable with the re-use of old and unmarked graves after the passage of a respectful period of time, to those who would pursue the ideal of graves being forever sacrosanct. In practice, few people object to inadvertent disturbance of human remains during grave digging, which is viewed by the Church 'as a natural consequence of the use of churchyards for their

intended purpose' (Mays 2017, 7). Disturbance for drainage works, especially where a mechanical excavator is used, causes more unease, though it still seems to be broadly accepted. The presence of an archaeologist, who can record the limits of the disturbance and ensure that human bone is collected, as far as possible, and kept for proper reburial offers some reassurance.

A specific issue with trench arch drainage systems is that the discharge of waste water over and around graves is felt, by some people, to be disrespectful. As well as expressing more general qualms about digging through graves, one or two of the workforce of the groundworks contractors, for instance, were uneasy about this aspect of the work. This is an aspect that should, perhaps, be given more careful thought when making decisions about these systems.

There has been a recent trend in dealing with human remains towards greater public involvement, and a realisation that screening excavations of human remains from the public gaze, may not always be appropriate, especially where this is interpreted as a blanket prohibition on allowing interested members of the public to view the excavation. Current guidelines reflect this: 'Many people are interested in seeing the archaeological excavation of human remains, and this interest should not be discouraged' (Mays 2017, 8).

With a churchyard sited at a focal point of the village, opposite the village school and with a well-used footpath running through it, it was inevitable that the work would attract interest. There was some unease expressed about the disturbance to the graveyard but this was countered by an overwhelmingly positive interest among many members of the public. There is a considerable learning potential from seeing and handling human bones, in appreciating both the physical structure of our bodies, and their impermanence. A comfortable familiarity with bones may well be a help in dealing with the emotional consequences of our mortality.

More generally, the Tower Project attracted lively interest and support from the church family and the village as a whole. An engagement with the archaeology of the churchyard and the history of the church building was one of the contributing elements in which people found creative ways to appreciate and embrace their heritage. Despite the mud and rain of an English spring, working in Tugby churchyard was an interesting and positive experience, made more rewarding by the sense of being embraced by a supportive church community.

Archive

In addition to a copy of this report, there is a small documentary archive of site records and drawings. This will be lodged with the Leicester Museum Service. The artefacts recovered are from unstratified or poorly dated deposits and have little or no research value; no recommendations are made for their retention within the archive. They may, however, have some local interest or educational value.

All of the human skeletal remains were returned to the churchwardens and were reburied in a common grave to the north of the north-west corner of the tower.

With the approval of the clients, a copy of this report will be uploaded to the OASIS website of Archaeological Data Service (ADS).

Acknowledgments

Network Archaeology acknowledges the support of Tugby Parochial Church Council and the Heritage Lottery Fund assisted Tugby Tower Project. We would especially like to thank Madeleine Wang, and Carl Andrews of Soul Architects for commissioning the work. We also wish to thank the staff of the main contractor, Stone Edge, and drainage sub-contractor Brown and Shaw for their help and irrepressibly good-humoured co-operation throughout.

Particular thanks are due to Jane Young for identification of the pottery sherds and to Malin Holst for her thoughts on the skull with evidence of possible meningitis.

References

Lingard, C. 2017. *St Thomas a Becket Church, Tugby, Leicestershire: Archaeological Method Statement*, Network Archaeology, Lincoln

Loe, L. and McIntyre, L. 2016. *Assessing the Impact of Trench Arch Drain Systems on Archaeological Remains in Churchyards*, Oxford Archaeology, Oxford

Mays, S. 2017. *Guidance for Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England*, Advisory Panel on the Archaeology of Burials in England, Historic England

Pevsner, N. 1984. *The Buildings of England Leicestershire and Rutland*, 2nd ed. Yale University Press. New Haven and London

BGS website: www.bgs.ac.uk/discoveringGeology/geologyOfBritain

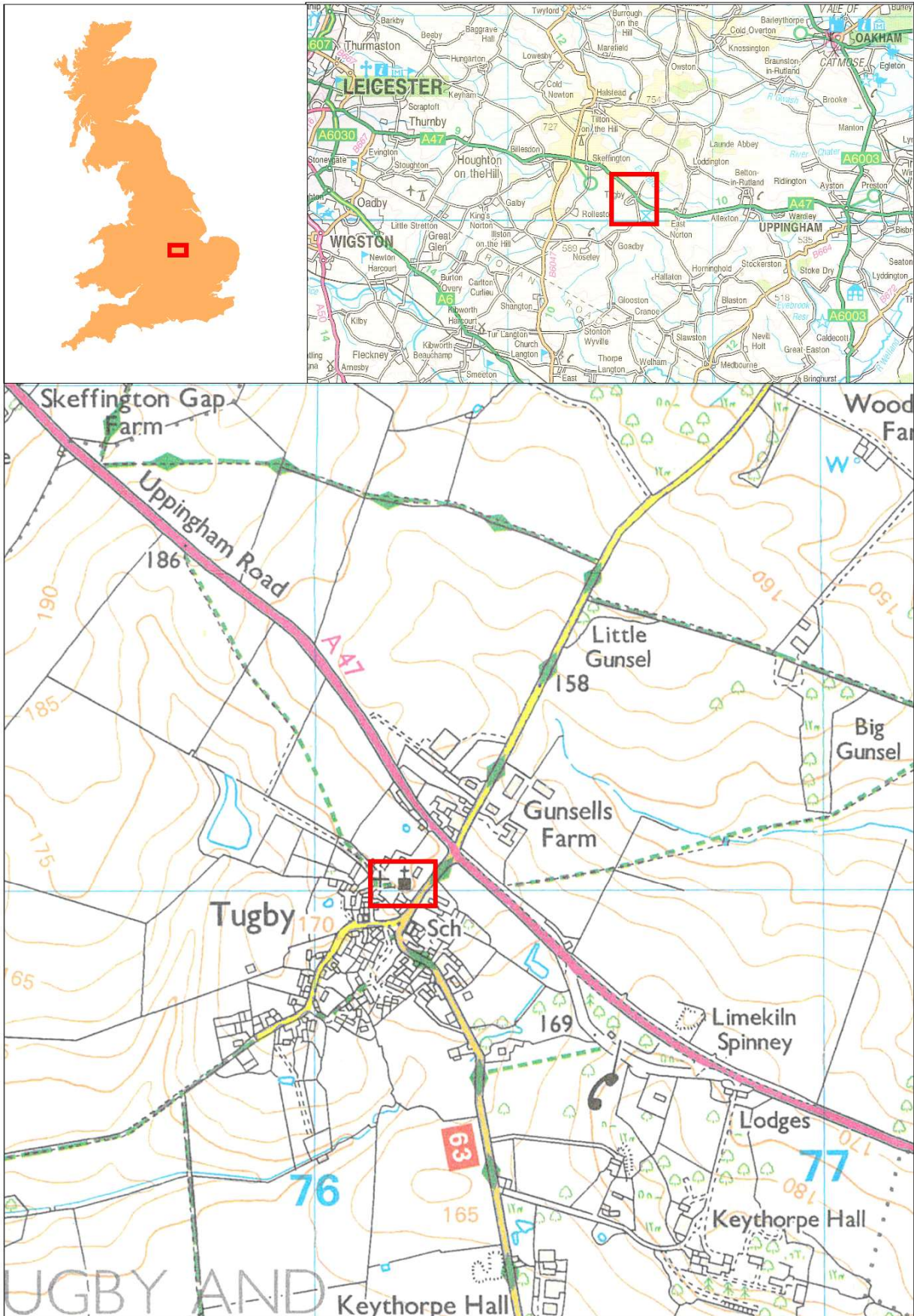
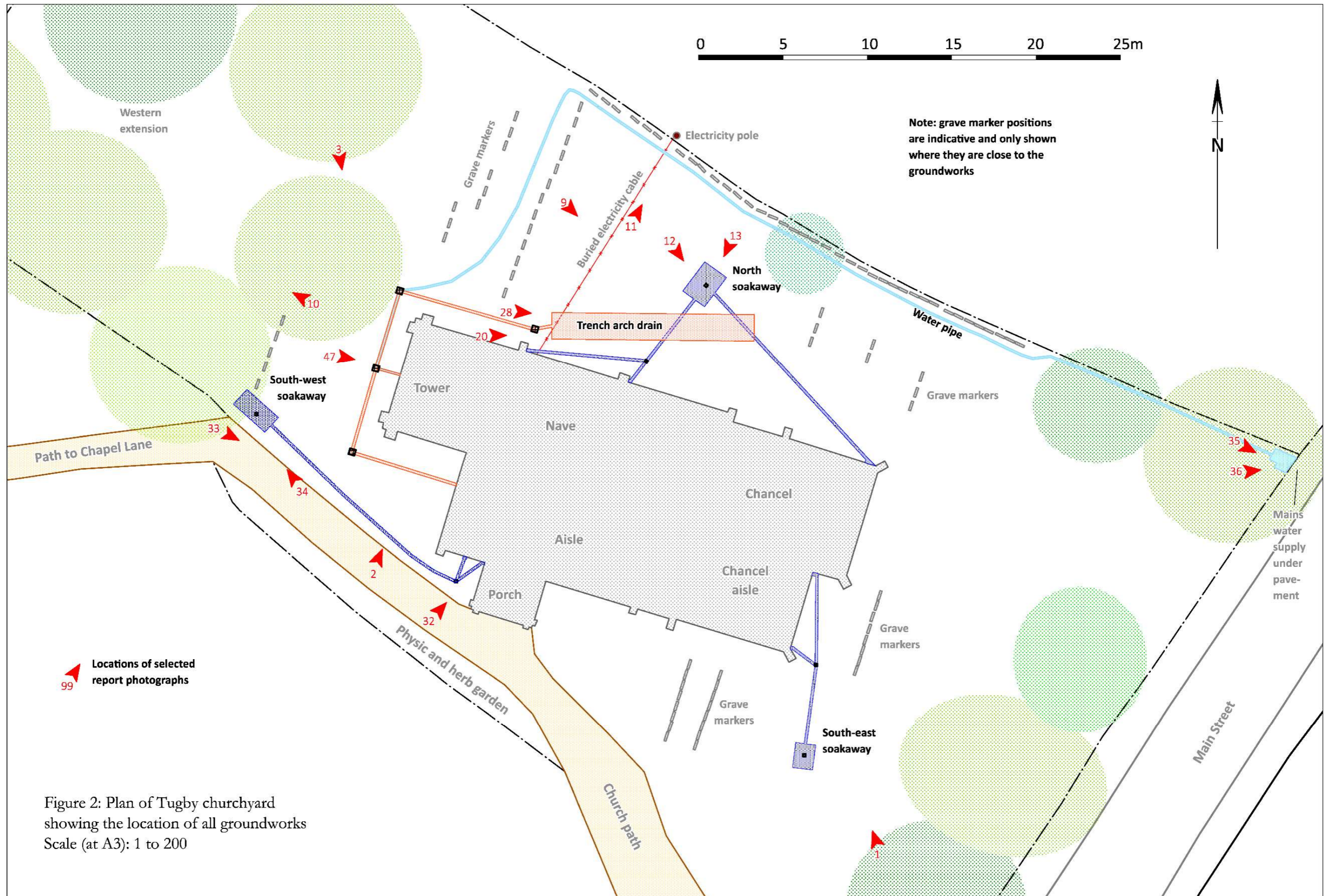


Figure 1: Location of St Thomas Becket Church, Tugby

(Extracts from Explorer 233 and Travelmaster 6 © Ordnance Survey 2015 and 1996)



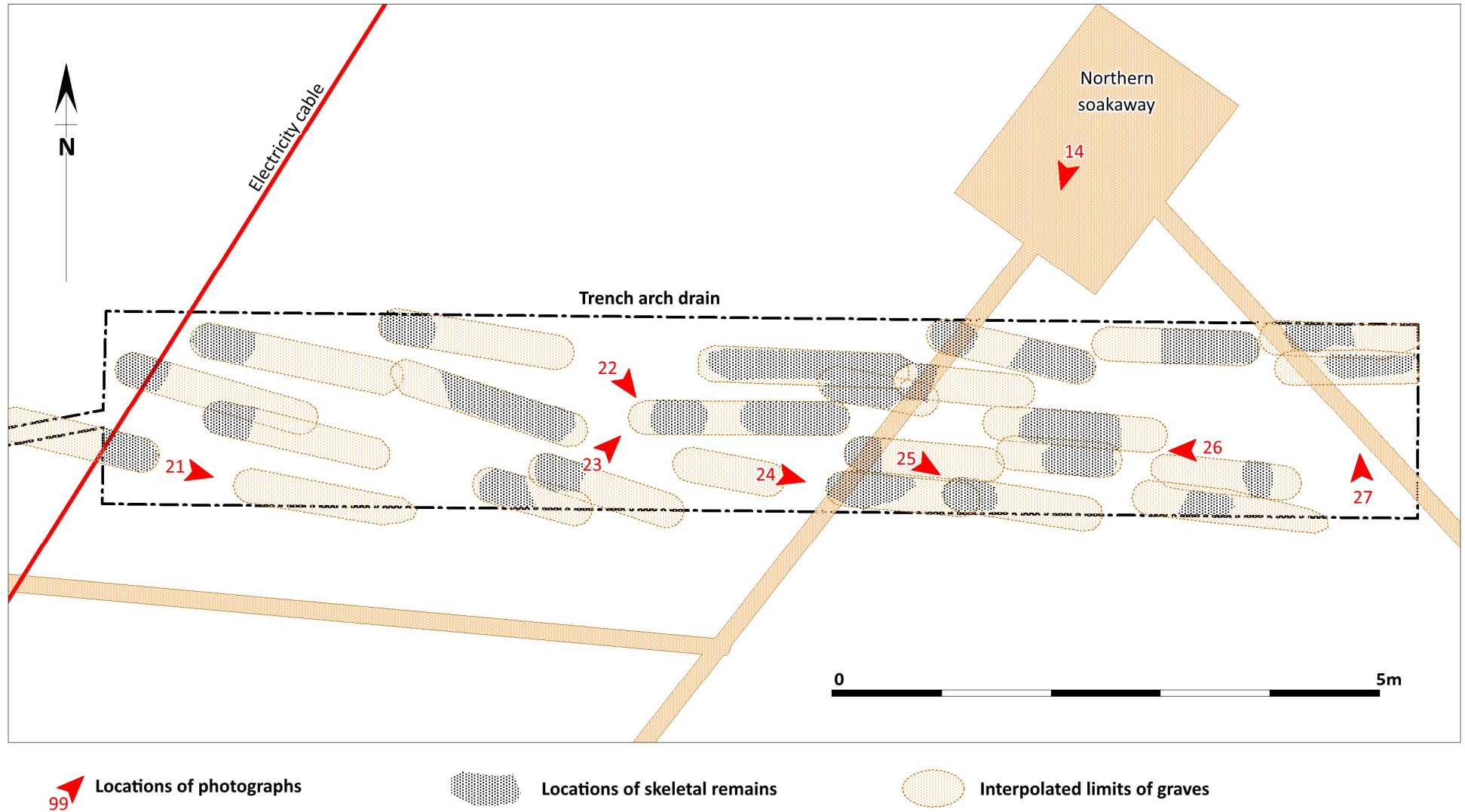
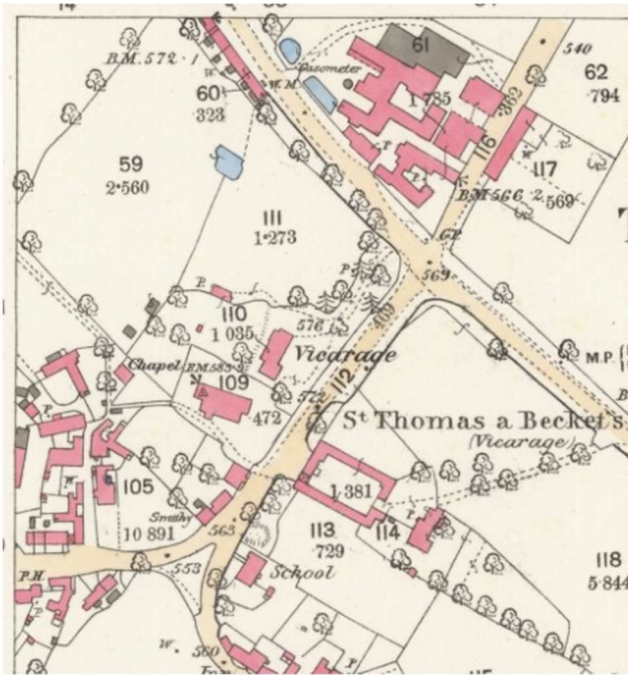


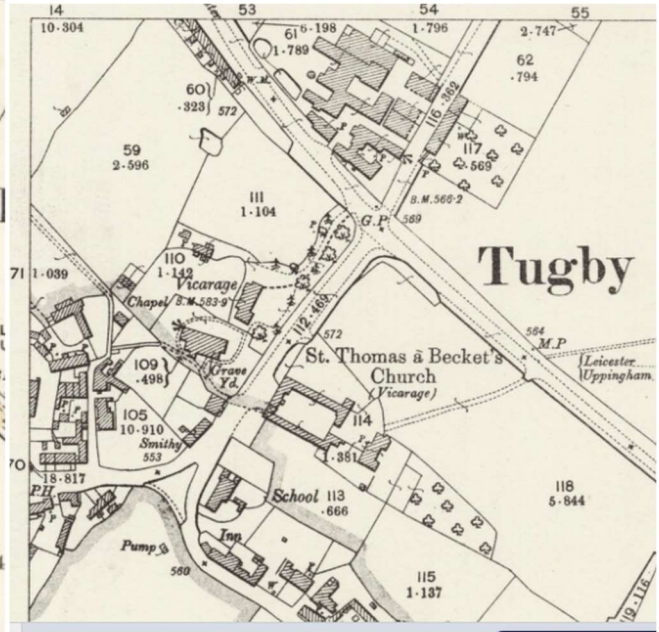
Figure 3: Reconstructed plan showing the approximate locations of graves within the trench arch drain

FIGURES

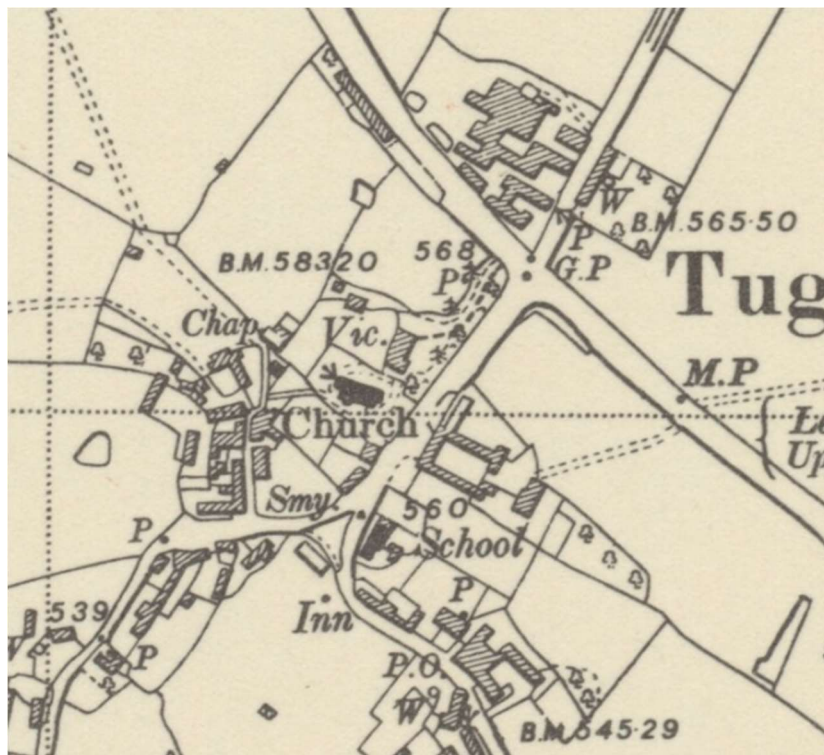
St Thomas Becket Church, Tugby, Leicestershire
 Archaeological monitoring of drainage, restoration of the tower, improvement of facilities and associated works



Extract from first edition 25" Ordnance Survey map 1886, showing the western boundary of the churchyard running from the Chapel Lane gateway



Extract from second edition 25" Ordnance Survey map 1904: note the realignment of the western boundary, so that it now encompasses an area to further west



Extract from 3rd Edition 6" Ordnance Survey map 1952: the present north-eastern extent of the churchyard is still shown as part of the vicarage garden. The most recent eastward extension of the churchyard also post-dates the survey for this map

Figure 4: Comparisons of Ordnance Survey maps: 1886, 1904 and 1952



1: The church looking north-westward from the church gate on Main Street



2: South face of the tower



3: West face of the tower



4: Hood-mould of window in lower storey south face of the tower



5: Detail of bell chamber opening: north face of the tower



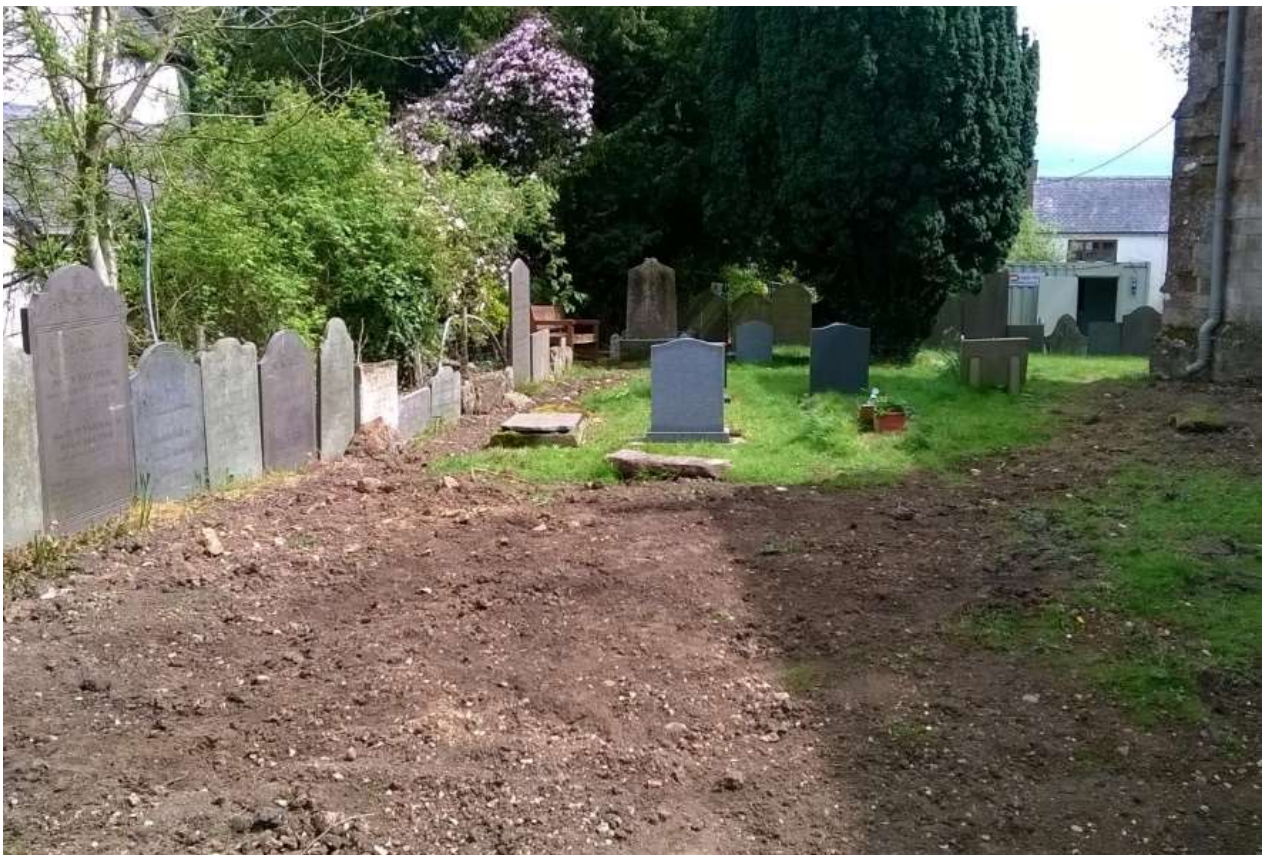
6: Selection of corbels from under the parapet of the tower roof



7: The tower roof during removal of the old asphalt layer



8: The south-eastern part of the churchyard, showing repositioned headstones to the south of the chancel



9: The northern part of the churchyard, looking eastward. This photograph was after the drains and soakaway had been installed but before the trench arch drain and reprofiling of the ground



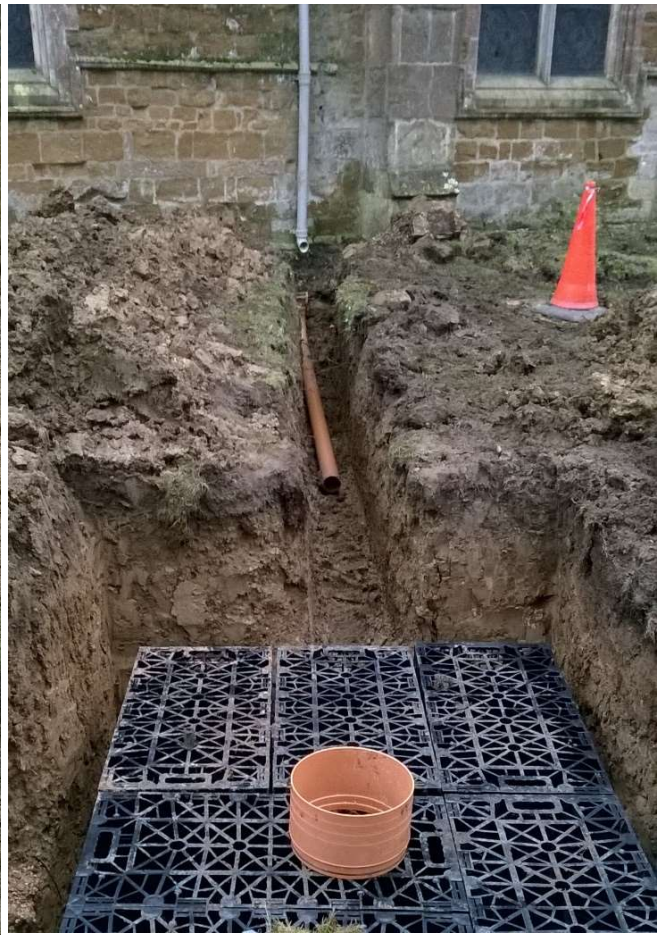
10: The western extension to the churchyard, looking west



11: Part of the northern boundary to the old vicarage, showing repositioned headstones, looking north



12: Excavating trench from north-east corner of chancel, looking east



13: Northern soakaway pit, showing drain from north wall of nave, and drain crates in place looking south



14: Skeleton from northern soakaway, showing remains of coffin timbers and staining, looking south



15: Brass button found associated with skeleton in northern soakaway (5p piece for scale)



16: Skull from manhole to at inlet to trench arch drain, showing pathological thickening



17: The top of the same skull, showing rough, pitted surface, probably the result of infection



18: Jaws from same skull. The green staining on the angle of the left jaw (right in photo), was probably caused by corrosion of a shroud pin



19: Teeth and jaw fragments from a child's skull, found in entrance to trench arch drain



20: Marking out the extent of the trench arch drain, showing its location in the churchyard and the where the electricity cable to the end of the nave crosses at its west end, looking east



21: Coffin stain in base of the trench arch drain, looking east



22: Skull with corroded shroud pin...



23: ...and the corresponding soil mark left in the base of the trench



24: Skeleton truncated from left hip to right thigh by later grave; also showing the drain from the nave to the soakaway pit, looking east



25: Skull uncovered by machining in south side of trench arch drain, looking east



26: Intercutting graves: right femur, tibia and fibula with right humerus, radius and ulna, and displaced scapula, clavicle and ribs of later grave, looking west



27: The eastern end of the trench arch drain, with juvenile skeleton, truncated above the lumbar vertebrae; also showing the drain from the east end of the chancel crossing towards the northern soakaway, looking north



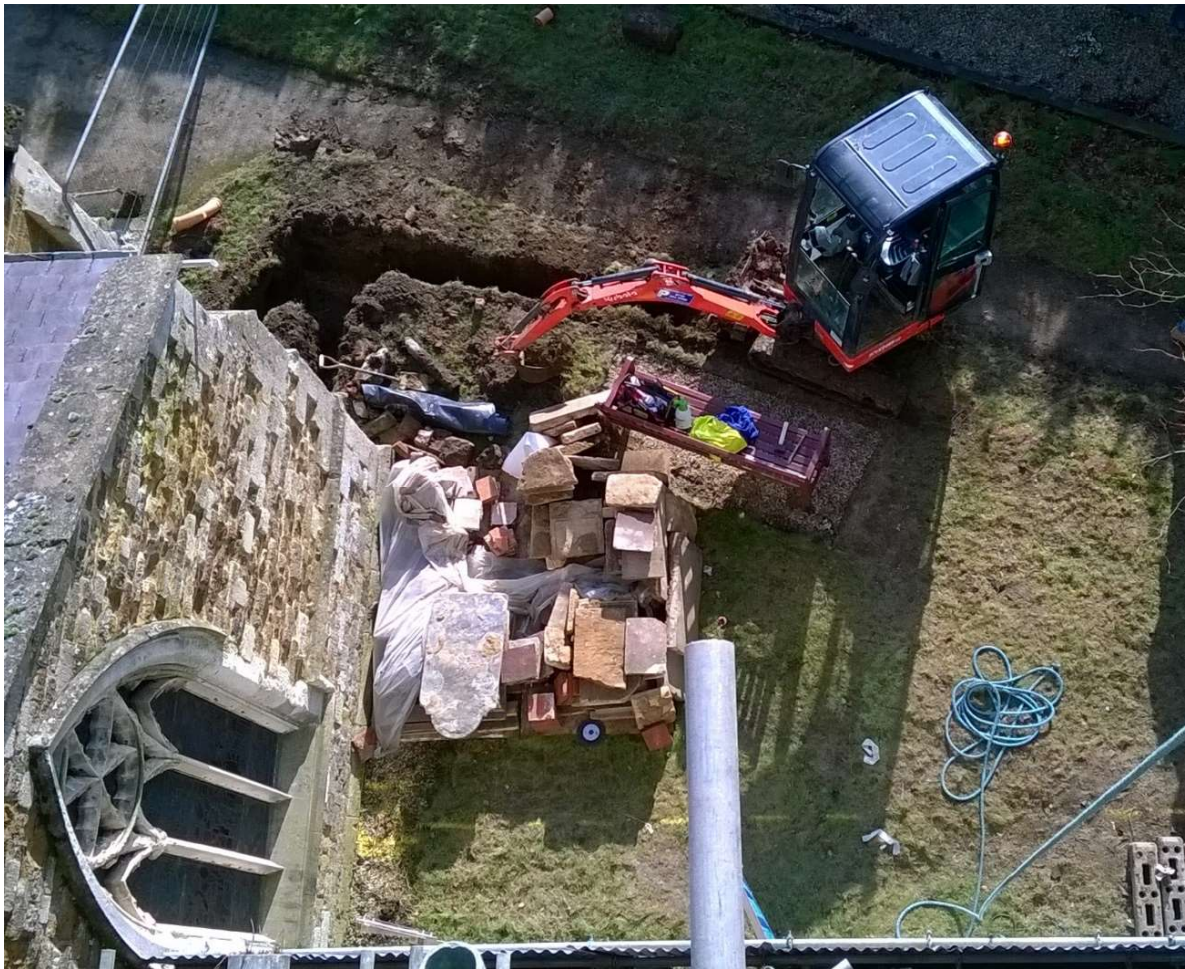
28: Installation of the trench arch drain. The three rows of hollow concrete blocks support a double row of paving slabs leaving a 200mm cavity into which the waste water drains discharge



29: Rim sherd of shell-tempered pottery, probably from 14th to 16th centuries, found beneath skeleton in trench arch drain



30: Nails and coffin handle from north side of churchyard



31: View from the tower of the trenches from the porch and the western end of the aisle



32: Trenches of drains from north-west corners of porch and aisle, looking north-east



33: The drain to the south-west soakaway running along the north side of the path, looking east



34: Excavating the south-west soakaway pit, between the path and headstones, looking west



35: Redeposited skull retrieved from the drains to the south-eastern soakaway, close to the wall of the chancel aisle



36: Articulated remains of truncated skeleton from the northern part of the south-eastern soakaway



37: Skull and upper vertebrae from the south-eastern soakaway, close to the north-east corner. This skull is one of a number of bones which showed patches of green copper staining, probably from the corrosion of shroud pins



38 The deepest of the burials exposed in the south-eastern soakaway, this had been truncated by later graves from elbow to elbow across the upper body and across the lower legs, looking north



39: The back of the churchyard retaining wall, as seen in the pit to bring the waterpipe onto the site from the main on Main Street (scale = 1500mm)



40: Another view of the back of the churchyard wall, showing how the brickwork was added to the front of the earlier stonework, looking north-east



41: Posthole beneath floor of nave (scale = 200mm)



42: Inscription of grave slab that had been laid face down in flooring of nave: Eliz. wife of Valentine [??Collin]



43: Brick vault beneath floor of nave, as first exposed, looking east



44: Brick vault, looking west, towards the entrance to the tower



45: Brick vault during capping



46: Brick vault sealed and with original grave slab replaced



47: View of the tower through the west door, showing excavated service trenches



48: Butchered animal bones from water-pipe trench in north-east corner of churchyard

Appendix: OASIS summary page

OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

St Thomas Becket Church, Tugby - Network Archaeology Ltd

OASIS ID - networka2-289100

Versions

View	Version	Completed by	Email	Date
View 1	1	Richard Moore	richardm@netarch.co.uk	30 June 2017
View 2	2	Richard Moore	richardm@netarch.co.uk	22 September 2017

Completed sections in current version

Details	Location	Creators	Archive	Publications
Yes	Yes	Yes	No	1/1

Validated sections in current version

Details	Location	Creators	Archive	Publications
No	No	No	No	0/1

File submission and form progress

Grey literature report submitted?	No	Grey literature report filename/s
Boundary file submitted?	No	Boundary filename
HER signed off?		NMR signed off?

[Grey literature](#) [Upload images](#) [Upload boundary file](#) [Update project entry](#) [Request record re-opened](#) [Printable version](#)

[Email Leicestershire HER about this OASIS record](#)

OASIS:

Please e-mail [Historic England](#) for OASIS help and advice
© ADS 1996-2016 Created by [Jo Gilham](#) and [Jen Mitcham](#), email [Last modified Tuesday 9 August 2016](#)
Cite only: <http://www.oasis.ac.uk/form/formctl.cfm?oid=networka2-289100> for this page

