

The Roman fortlet or defended watch-tower/pharos at St John the Baptist, Reedham, Norfolk and the early medieval origins of the church

Article

Published Version

Creative Commons: Attribution 4.0 (CC-BY)

Open Access

Fulford, M. ORCID: <https://orcid.org/0000-0002-8780-9691>,
Clarke, A. ORCID: <https://orcid.org/0000-0003-0556-2312>,
Durham, E., Machin, S., Pankhurst, N. ORCID:
<https://orcid.org/0000-0002-9711-1131>, Fry, R. ORCID:
<https://orcid.org/0000-0002-9711-1131>, Thornley, D. and
Williams-Burrell, R. (2024) The Roman fortlet or defended
watch-tower/pharos at St John the Baptist, Reedham, Norfolk
and the early medieval origins of the church. *Archaeological
Journal*, 181 (2). pp. 208-242. ISSN 0066-5983 doi:
10.1080/00665983.2024.2412412 Available at
<https://centaur.reading.ac.uk/118914/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1080/00665983.2024.2412412>

Publisher: Royal Archaeological Institute

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online



The Roman fortlet or defended watch-tower/*pharos* at St John the Baptist, Reedham, Norfolk and the Early Medieval origins of the church

Michael Fulford, Amanda Clarke, Emma Durham, Sara Machin, Nicholas Pankhurst, Rob Fry, David Thornley & Rory Williams-Burrell

To cite this article: Michael Fulford, Amanda Clarke, Emma Durham, Sara Machin, Nicholas Pankhurst, Rob Fry, David Thornley & Rory Williams-Burrell (2024) The Roman fortlet or defended watch-tower/*pharos* at St John the Baptist, Reedham, Norfolk and the Early Medieval origins of the church, *Archaeological Journal*, 181:2, 208-242, DOI: [10.1080/00665983.2024.2412412](https://doi.org/10.1080/00665983.2024.2412412)

To link to this article: <https://doi.org/10.1080/00665983.2024.2412412>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 26 Nov 2024.



[Submit your article to this journal](#)



Article views: 444



[View related articles](#)



[View Crossmark data](#)



The Roman fortlet or defended watch-tower/*pharos* at St John the Baptist, Reedham, Norfolk and the Early Medieval origins of the church

Michael Fulford, Amanda Clarke, Emma Durham, Sara Machin, Nicholas Pankhurst, Rob Fry, David Thornley and Rory Williams-Burrell

Department of Archaeology, University of Reading, Reading, UK

ABSTRACT

To locate the source(s) of the Roman building materials re-used in the church of St John the Baptist, Reedham, Norfolk, survey by ground-penetrating radar within the church and churchyard identified areas of potential interest. These were investigated by small-scale excavation. Roman fabric employing Leziate grey quartzite rock, and brick and tile, was found in two locations about 25 m apart. The style of Roman build is consistent with that of a military structure such as the Saxon Shore fort at Brancaster built using the same stone as at Reedham. Tenth-century pottery was found incorporated in patches of mortar flooring located in one trench within the outline of a rectangular structure, c. 11.5 m by 3.75 m, partly confirmed by excavation and aligned parallel with the north wall of the nave. Radiocarbon dates give an approximate *terminus post quem* for the mortar floor of the mid-seventh to mid-eighth century. The trench was situated opposite a stretch of nave wall built solely of Roman brick and tile and cut by an arch of c. 1200, subsequently blocked c. 1300. Our results suggest an Early Medieval side chapel or *porticus* built against the north wall of an Early (mid-seventh to mid-eighth-century) Medieval church.

Introduction

St John the Baptist, Reedham lies at 6 m above Ordnance Datum (AOD) on a small promontory of sand and shingle close to the end of a peninsula which overlooks the estuaries of the Rivers Waveney and Yare in East Norfolk (Figures 1 and 2). Apart from the west tower of mid-fifteenth-century date the church is considered by Pevsner to be mostly of c. 1300 (Pevsner and Wilson 1997, 644). Although it has long been known that there are large amounts of Roman brick and tile in its fabric (e.g. Fox 1911, 286–287; cf. Pearson 2002, 108), a fresh study of the fabric of the church was made possible following a disastrous fire in 1981 (Rose 1994). This showed that the stone, too, was also re-cycled from a Roman building or buildings and that it matches that used in the Saxon Shore fort of Brancaster, North Norfolk (Rose 1994, 5) (Figures 3 and 4). The

CONTACT Michael Fulford ✉ m.g.fulford@reading.ac.uk

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

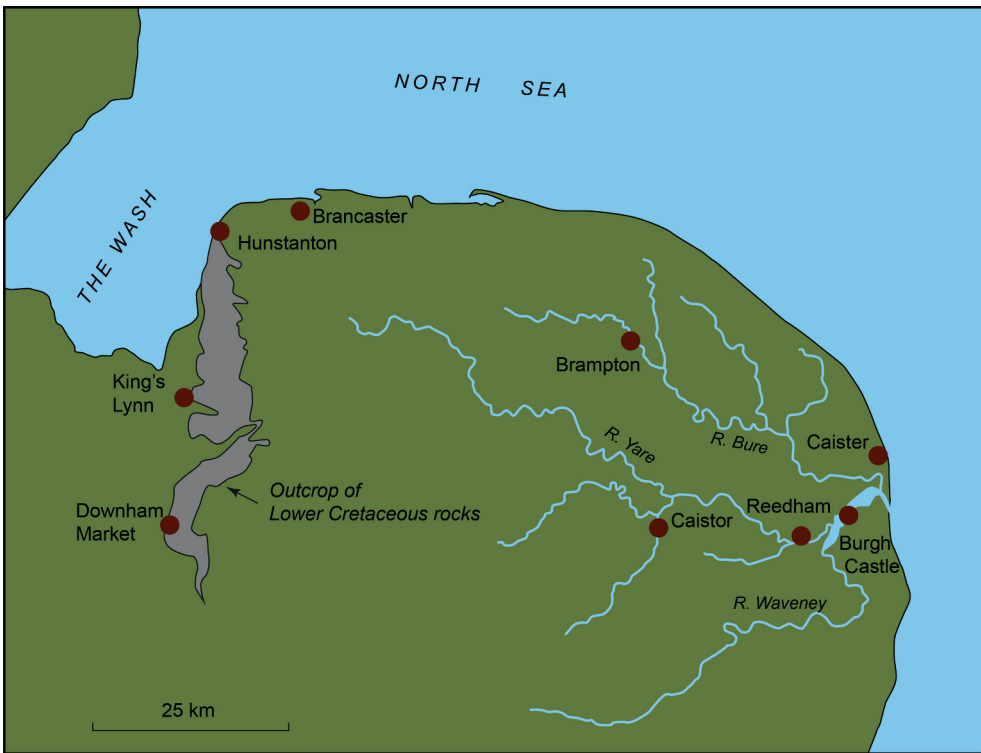


Figure 1. Location of St John the Baptist, Reedham, Norfolk, Brancafter and the Lower Cretaceous rocks of north-west Norfolk.

main body of the church is therefore built almost entirely out of re-used Roman building materials.

Further research on the materials used in the construction of successive phases of the church has demonstrated that the abundant grey quartzite stone can be provenanced to the Leziate Beds which contribute to a narrow outcrop of Lower Cretaceous rocks overlooking the shores of the Wash in the Hunstanton-King's Lynn-Downham Market area at a distance by sea from Reedham of some 130 km (Allen, Rose, and Fulford 2003) (Figure 1). Since the stone used at Reedham is the same as the facing stones used in the construction of the Roman fort at Brancafter, it has been argued that the fort and whatever the building was from which the church of St John the Baptist was built were contemporary and of late second/mid-third-century date (Allen, Rose, and Fulford 2003, 138). Given the distance that the stone used at Reedham was transported, it has also been suggested that the Roman building had an official, probably a military function (Allen, Rose, and Fulford 2003, 138). It should also be noted that the grey quartzite used in the Roman structure at or near Reedham is quite different from the stone, predominantly flint, used in the defences of the nearby coastal forts of Caister-on-Sea and Burgh Castle and the *civitas* capital at Caistor-by-Norwich. Beside the distinctive stone, Roman brick and tile are also abundant in the fabric of the nave and chancel of the church.

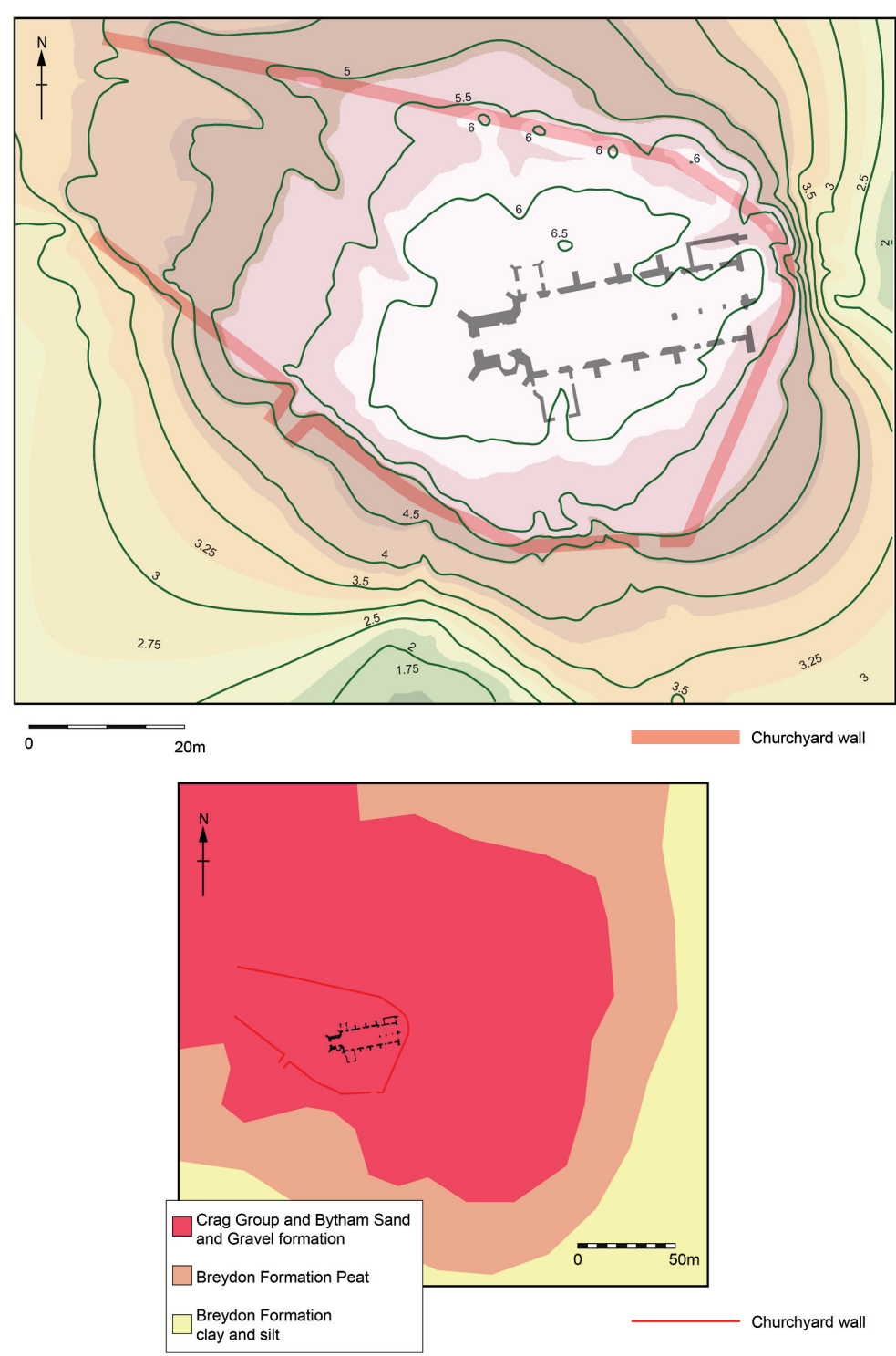


Figure 2. The topographic (above) and geological (below) settings of St John the Baptist, Reedham.



Figure 3. St John the Baptist, Reedham: (A) re-used Roman brick and tile at the east end of the nave on the north side; (B) internal elevation of (A): re-used Roman brick and tile at the east end of the north wall of the nave.



Figure 4. St John the Baptist, Reedham: (A) south wall of the nave with a mix of grey quartzite and Roman brick and tile; (B) south side of the tower, grey quartzite blocks and flint.

Survey by ground-penetrating radar

In an attempt to resolve the question of the location of the Roman building or buildings and, if possible, learn something of its character, it seemed logical to commence the search at the church itself. A geophysical survey using ground-penetrating radar (GPR)

was undertaken both inside and, within the confines of the churchyard wall, outside of the church between 2013 and 2015. A further survey close to the walls of the church was carried out in 2017 (Figures 5–9). The survey within the church was made possible because the pews are movable. The surveys were conducted using a GSSI SIR20 SIRveyor system. The surveys conducted between 2013 and 2015 were undertaken using a GSSI 400 MHz antenna; whilst the targeted 2017 survey was undertaken with a GSSI 900 MHz antenna, to attempt to achieve a higher resolution dataset of the near surface (<1 m depth) directly around the extant church walls. The data were collected in parallel traverses, with an in-line resolution of 0.02 m, and a traverse interval of either 0.5 m (for the 400 MHz survey) or 0.25 m (for the 900 MHz survey). The positions of the survey grids were recorded using a Leica RTK GS09 GNSS system, with an accuracy of approx. 0.02 m.

The data were processed using GPRslice v7.0. Data processing steps included a time-zero correction to define the first reflection of the GPR trace; a bandpass filter to remove any high or low frequency noise outside of the working antenna range; and background removal, to reduce any artificial horizontal banding within the data, created during the collection process. The data were migrated, based on hyperbola fitting across several transects using the Kirchhoff method, to reduce hyperbolas in the data to point features, and ascertain likely relative dielectric permittivity (RDP) values for the soil. Finally, a Hilbert transform was applied to the data for the time-slice visualization.

Strong reflectance anomalies were recorded at a depth of 0.7 m along the north and south side of the nave (see profile image, Figure 8). On the north side the buried feature is 2 m wide at the west end, gradually thinning out some 7 m to the east. On the south side the feature is also about 2 m wide at the east end, gradually thinning out some 7 m to the west. The features are approximately parallel with one another but not parallel with the extant walls of the nave, deviating from them by about 10°. The strong reflectance of this feature within the data suggests they could be potential wall features and levelling and/or rubble deposits which extend to a depth of just over a metre beneath the ground surface. The strong reflectors on the south side continue into the chancel. Strong reflectors were also recorded next to the altar, but these coincide with monumental grave slabs and are probably to be attributed to the burials.

In the churchyard GPR dataset, there are multiple hyperbolic reflectors which are assumed to be attributable to graves. Other reflections within the data were confirmed to be attributable to the gravelled drive to the west door and the path and services to the north porch. In addition, on the north side of the nave two north–south-aligned linear features with indications of eastward returns were detected by the 400 MHz survey at an approximate depth of 0.7 m (Figures 5–7 and 9). Further clarity on the east–west alignment was achieved with the 900 MHz survey at a depth of 0.4 m to suggest two sides of a rectangular structure against the north wall of the nave (Figures 7 and 9). The western of the two north–south-aligned linear features corresponds with the location of a modern drain. Hints of a curved feature were detected on the west side of the tower with the 900 MHz survey.

Two further areas of interest were found to the west and south of the church tower at a depth of 1.5 m with the 400 MHz survey (Trenches 1 and 2 on Figure 7). In the latter area reflectors defined a rectangular feature measuring some 10 m by 8 m with a central void.

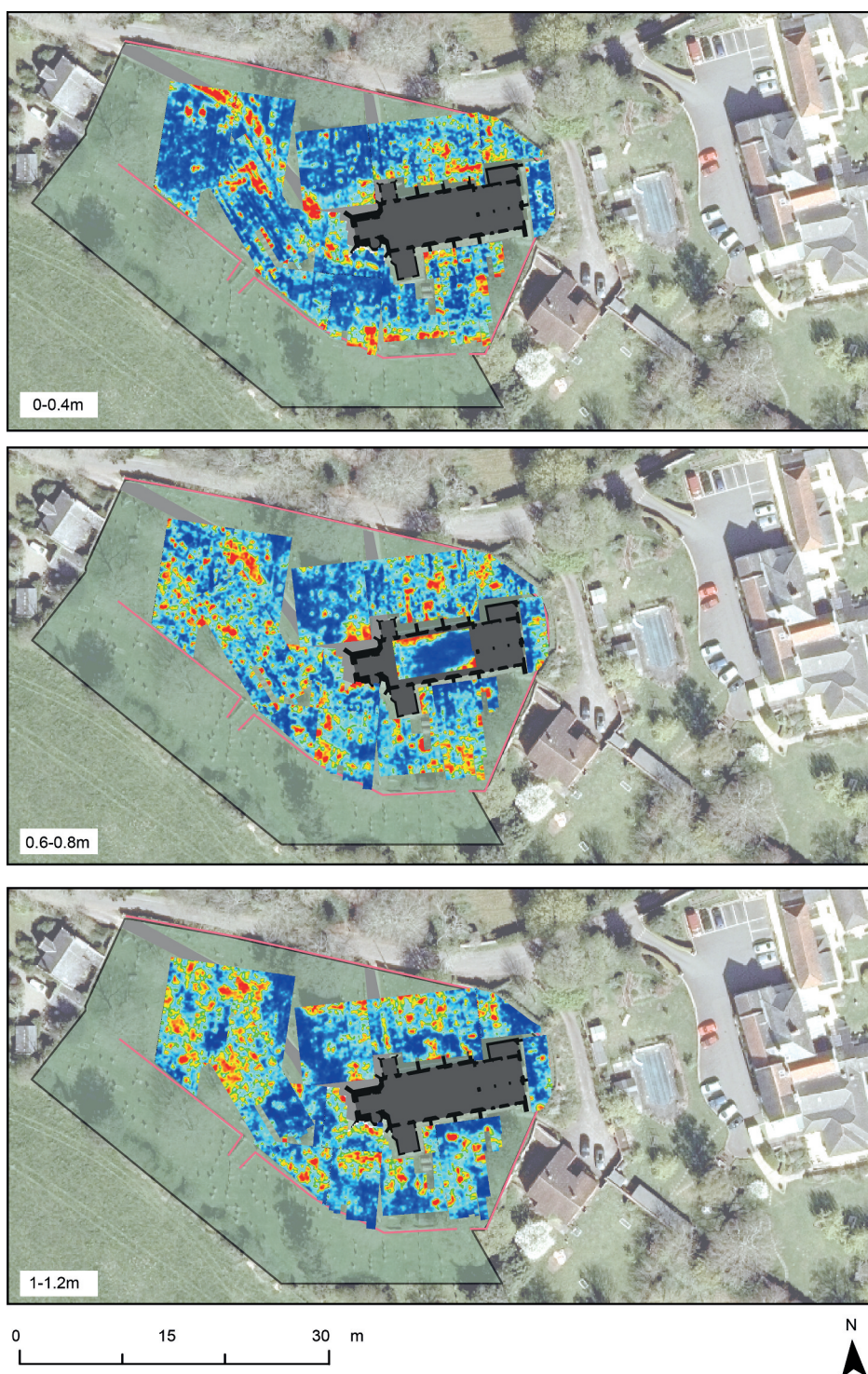


Figure 5. Ground-penetrating radar survey of the church and churchyard of St John the Baptist, Reedham at three depths between 0–0.4 and 1–1.2 m using a 400 MHz antenna (for key, see Figure 6).

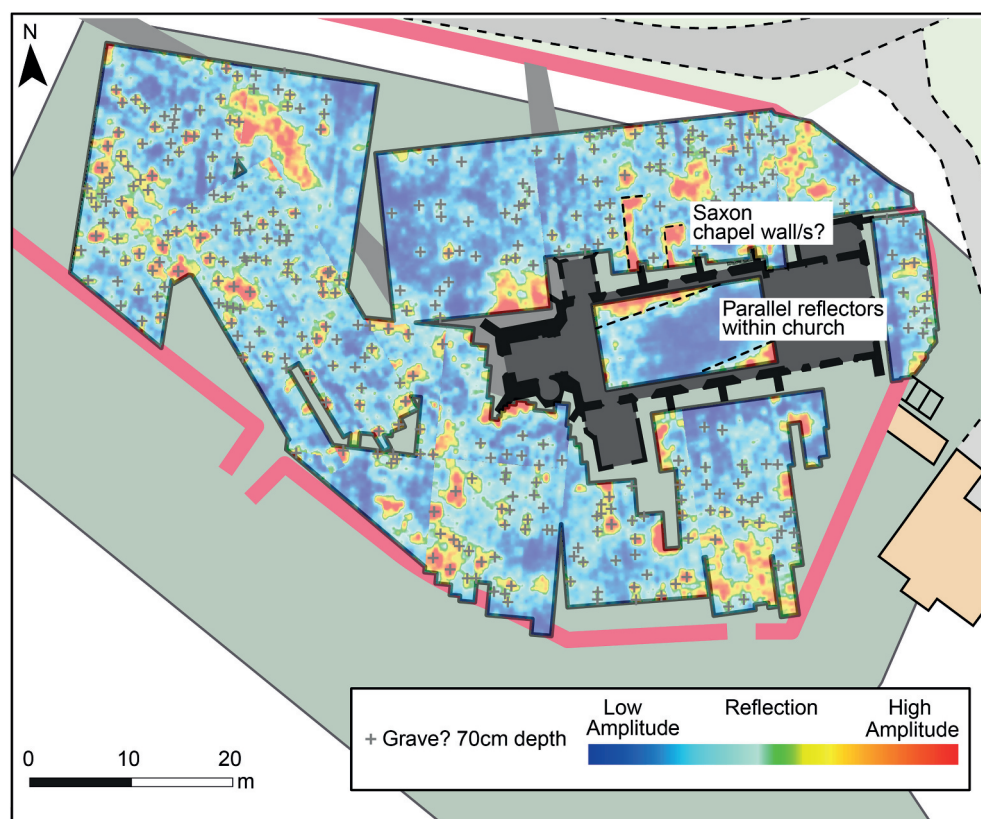


Figure 6. Ground-penetrating radar survey of the church and churchyard of St John the Baptist, Reedham at a depth of 0.7 m using a 400 MHz antenna.

Excavations

While it was not possible to evaluate the high reflectors inside the church, it was thought feasible to evaluate the areas of high reflectance in the churchyard with small trenches, provided locations could be found without obvious burials present. The excavation policy was not to disturb intact burials. In addition to trenches which evaluated the two areas of high reflectance described above at a short distance from the church, a further six were excavated adjacent to the walls of the nave and the areas of high reflectance within the church and adjacent to the tower. Altogether eight small trenches were excavated between 2016 and 2018, of which three produced evidence of structures, two of Roman and one of Early Medieval date. To minimize disturbance the trenches at the outset measured 2 by 1 m in plan, their purpose simply to determine whether Roman masonry or any other trace of Roman occupation could be identified. In the event, the three with traces of structure were slightly extended.

All but Trench 6 on the south side of the tower were largely characterized by grave cuts and grave fills, but it was possible to avoid intact burials and reach hard structural remains and/or the natural geology of sandy gravel in limited areas. Trenches 1 and 2 to the south and west of the church tower proved negative as far as any traces of structural remains were concerned, with the natural geology reached at between 1.25 and 1.8 m

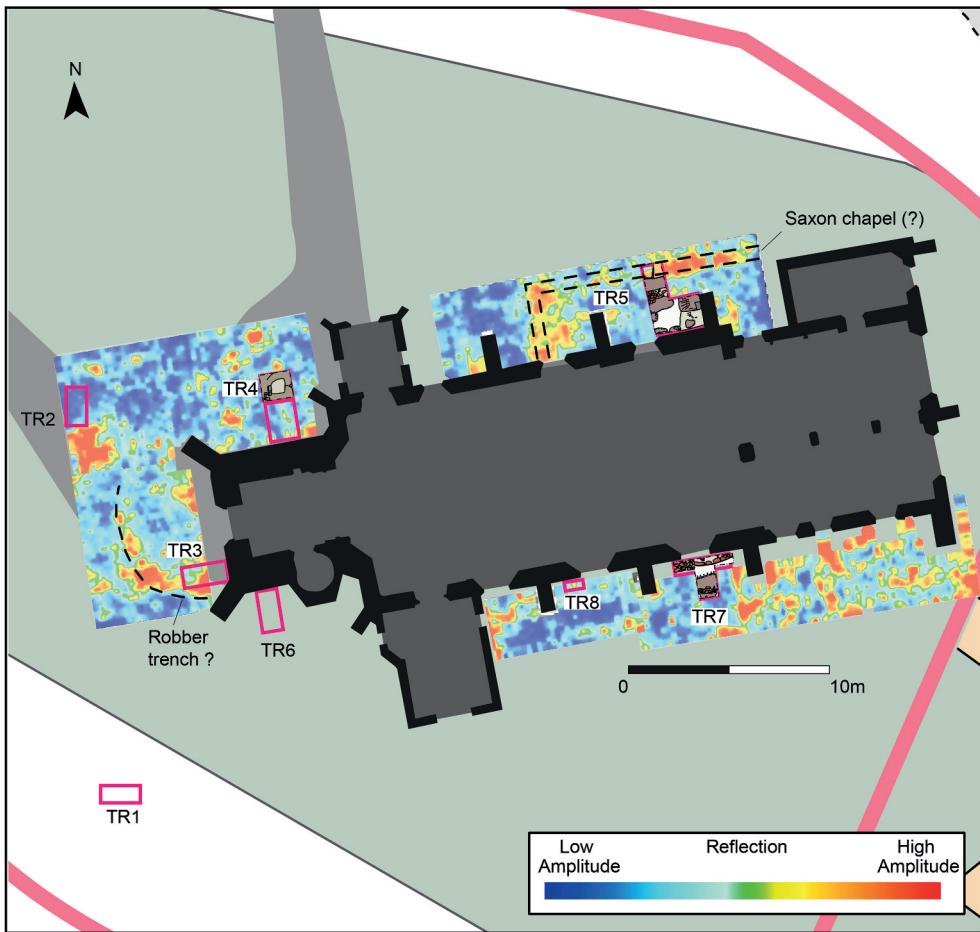


Figure 7. Ground-penetrating radar survey of the exterior of the church of St John the Baptist, Reedham at a depth of 0.4 m using a 900 MHz antenna and showing the location of the excavation trenches.

below the present ground surface. Half of Trench 6 on the south side of the church tower was occupied by a modern brick-lined structure and excavation was abandoned at a depth of about 1 m. Trench 3 was excavated against the west wall of the tower. Although no masonry was encountered, the principal context [3002] was tentatively interpreted as the fill of a robber trench on account of the incidence of pieces of mortar, grey quartzite and Roman brick and tile. The 900 MHz GPR survey of 2017 (Figure 7) shows traces of a curving feature outside the west wall of the church tower, part of which coincides with the location of Trench 3.

The Roman evidence

Trench 4 was located on the north side of the church tower in order to see if any evidence might be found with which to understand the line of high reflectance along the north side of the interior of the nave. At a distance of 1.8 m north of the tower, a small

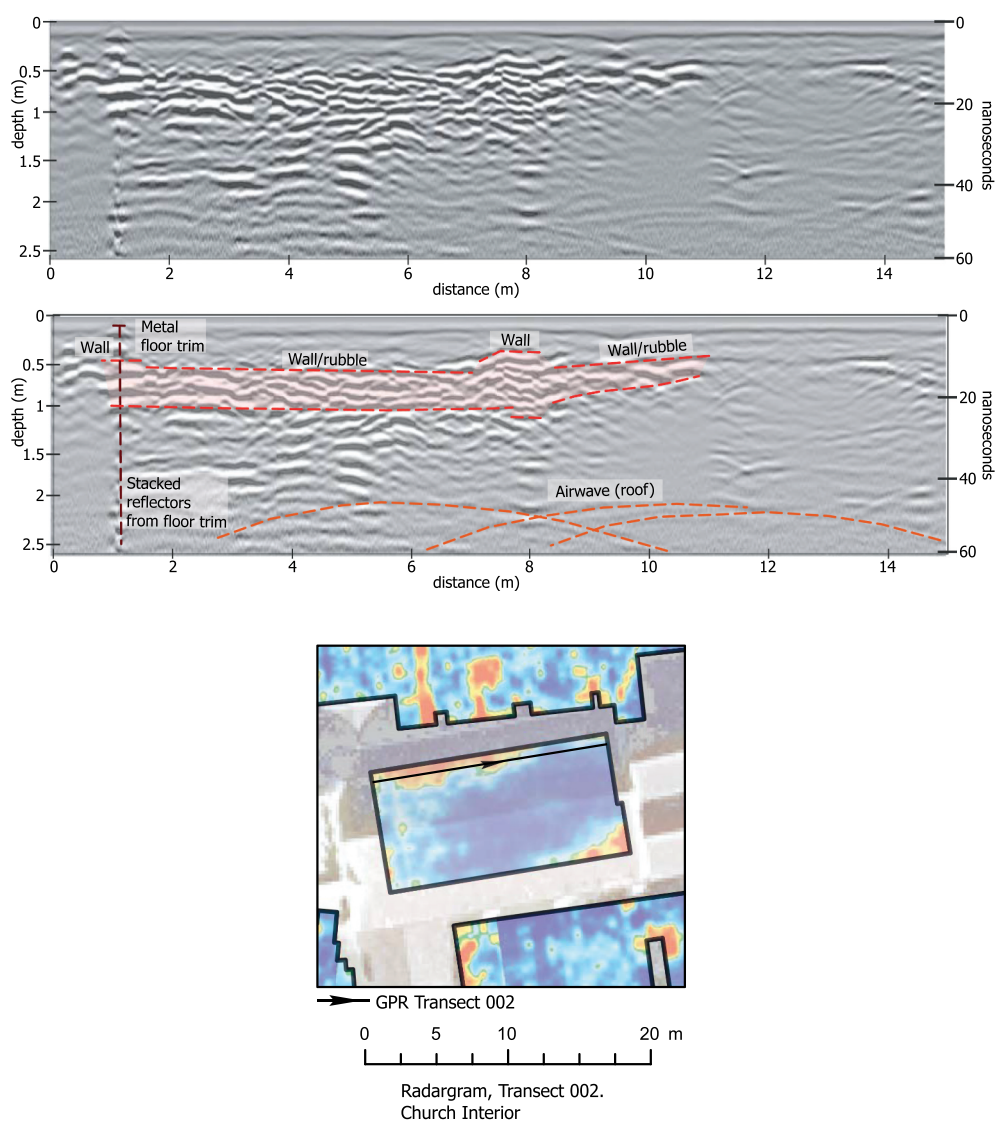


Figure 8. Selected radargram of the nave survey, E–W transect showing a cross-section of the wall/levelling deposits.

area (1 m by 0.6 m) of blocks of unworked grey quartzite set on a yellow-cream mortar [4014] was found in 2017 at a depth of 0.4 m (Figure 10(A)). The trench was extended the following year a further 1.2 m to the north, revealing more of the yellow-cream mortar spread over an area of 1 m by 0.45 m (Figure 11). With a thickness of 0.04–0.06 m, it was edged to the west by two blocks of the grey quartzite, each roughly dressed on their west-facing face. This was all that remained of the lowest course of masonry. Beneath the mortar layer were the foundations: roughly coursed, unworked blocks of stone with length measurements of 0.2–0.6 m (Figure 10(B)) and beneath that a further spread of mortar [4019] (Figure 10(C)), sealing a further layer of rubble [4021] (Figure 10(D)). The rubble extended deeper still to a depth of >2 m below the present

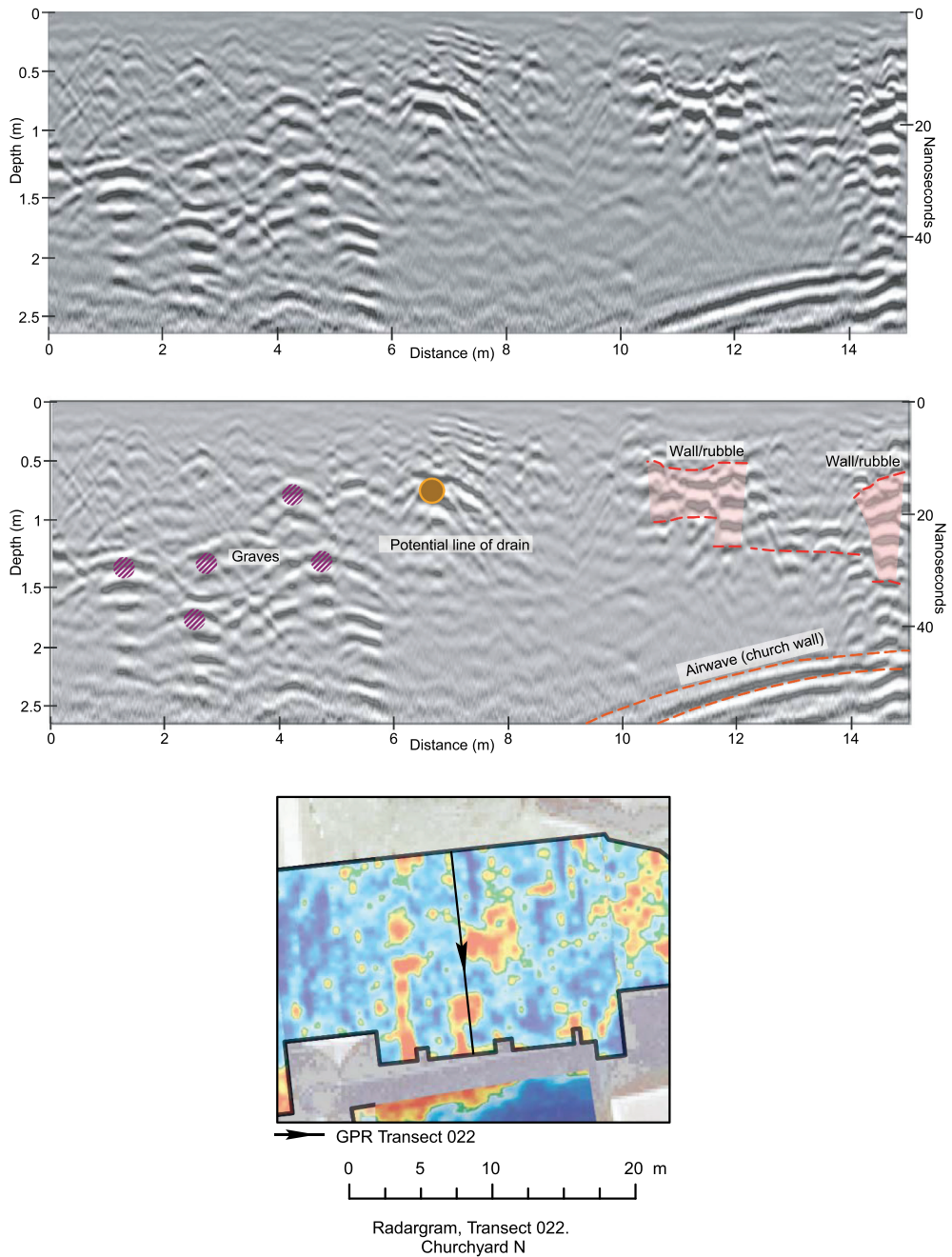


Figure 9. Selected radargram of a N-S transect across the north side of the churchyard, to the north of the nave, crossing graves, a drain and possible wall feature.

ground surface [4022, 4023], the lowest stones packed in orange clay [4024]. Limitations of space prevented excavation reaching the natural subsoil. The rubble was predominantly of grey quartzite, but with some nodular flint and fragments of Roman brick and tile. At least two blocks of a coarse shelly limestone, identified by the



Figure 10. Trench 4: (A) collapsed rubble layer [4013], view to north, 2017 (scale: 1 m); (B) rubble [4021] and quartzite facing blocks below [4019] (Figure 11), view to south, 2018 (scale: 0.5 m); (C) mortar-rich layer [4022] below [4021] (B), view to south, 2018 (scale: 1 m); (D) rubble [4023] below [4022], view to west, 2018 (scale: 1 m).

late Professor J. R. L. Allen as Barnack stone, and lumps of chalk were also recovered from this rubble. Cut by burials to north and south, the total area of masonry exposed was c. 1 m by 1.05 m with a depth of >0.5 m. It was not possible to further enlarge the trench and explore how far the structure extended to the north and east, but it is a reasonable assumption that it relates to the linear feature of high radar reflectance found inside the north wall of the nave and is, perhaps, its westernmost limit. To summarize, we appear to have a fragment of wall made up of rubble core faced by dressed blocks of the grey quartzite sealing foundations of further rubble interleaved with spreads of mortar. The wall was at least 1 m in width, oriented approximately north–south, with just a hint in the spread of the mortar of it curving round to the east.

Dating: The trench was sealed throughout by a layer of flint flakes [4001], waste from the dressing of the flint used in the construction of the fifteenth-century church tower. The construction trench for the tower contained pieces of Caen stone and other fine-grained, well-sorted oolite [4004, 4010]. All the burials and the fragment of wall foundation therefore pre-date the fifteenth century. The only other dating evidence is provided by pottery identified by Alice Lyons: a rim sherd of a Thetford-type ledged-

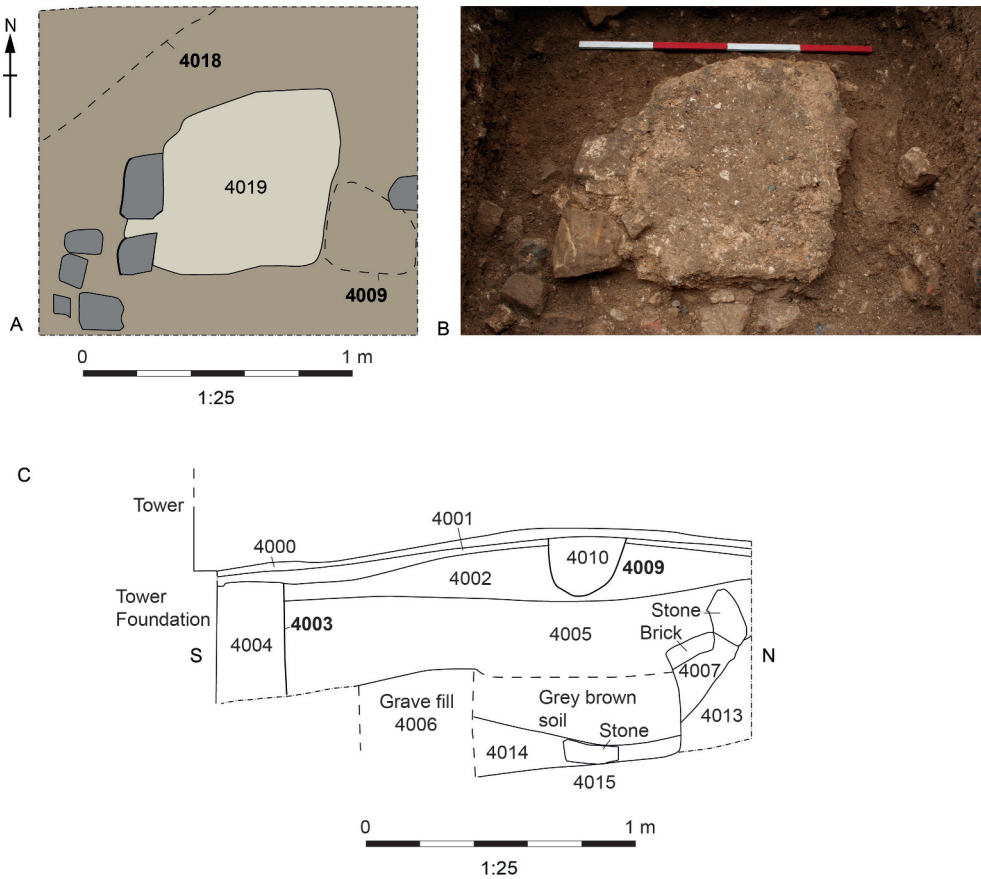


Figure 11. Trench 4: (A, B) plan and photo of mortared layer [4019] and dressed quartzite facing blocks, 2018 (scale: 1 m); (C) east-facing section (2017).

rim jar of eleventh- to thirteenth-century date from [4016] and the body sherd of a Roman jar in a grey sandy fabric from [4022]. While the former is associated with the fill of a grave to the north of the foundation, the latter was clearly stratified beneath the mortar spread [4014/4019] between [4021] and [4023] and is the only independent evidence for the date of the masonry.

Trench 7 was located diagonally opposite Trench 4 in 2018 on the south side of the nave adjacent to the chancel in order to see if there was any evidence to explain the corresponding area of high reflectance inside the nave. At a depth of 0.3 m, well-preserved, coursed masonry was found overlain by the wall of the nave and projecting up to 0.4 m from it [7020] (Figures 12 and 13). The trench was extended from its original 2 m by 1 m dimensions by a further 1 m by 0.5 m to the east and west, respectively, to recover as much of the structure as possible. Overall, the surviving masonry measured 2.2 m in length, the eastern extension tracing it a further 1 m to where it disappeared under the nave wall. To the west the mortared structure returned under the nave wall after a further 0.2 m, then giving way to unmortared rubble [7008] (Figure 14(A)). The structure curves gently to a maximum distance of 0.4 m from the

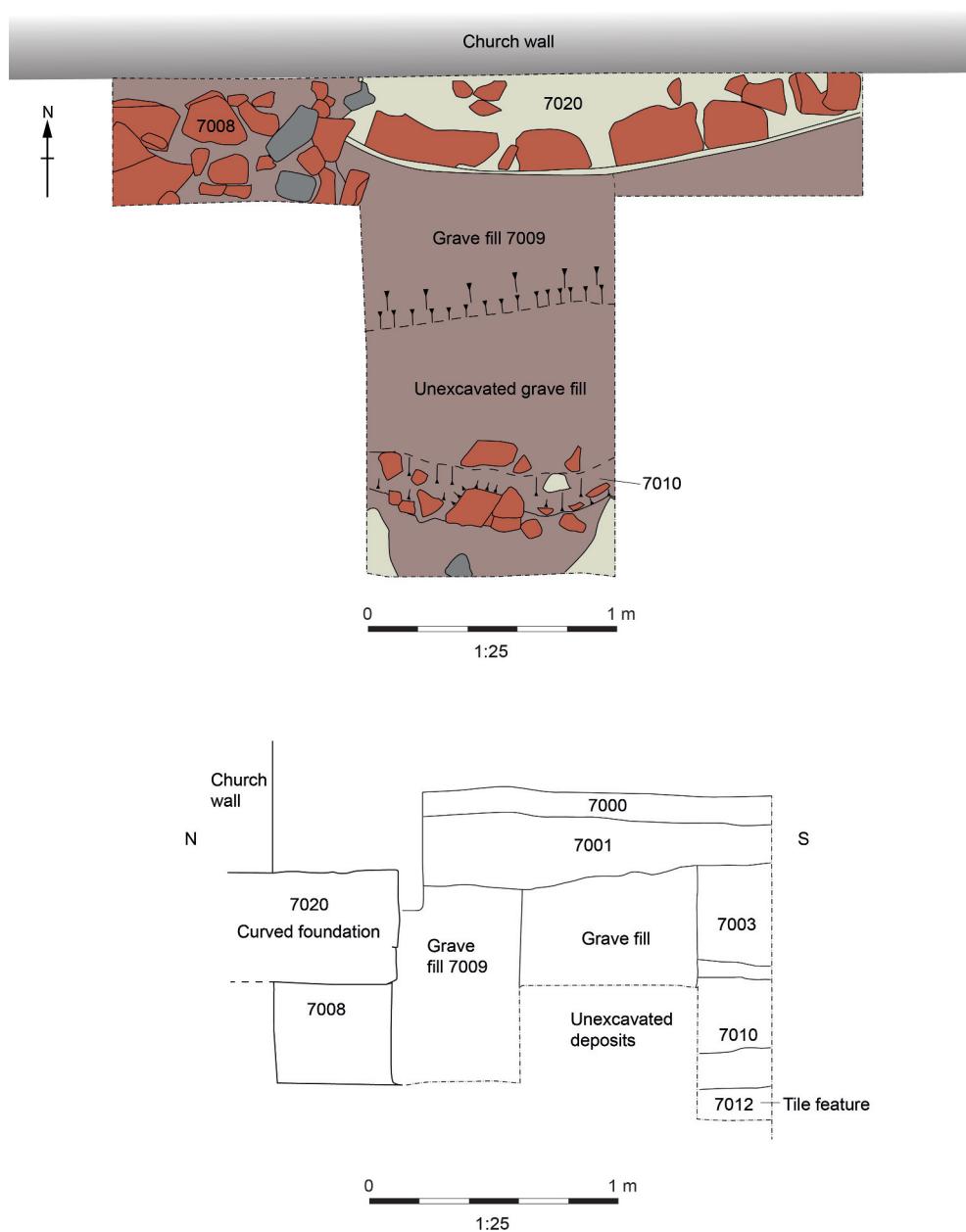


Figure 12. Plan and west-facing section of Trench 7.

nave wall. It consists of a core of grey quartzite rubble and broken tile in a hard cream mortar faced with the remains of three courses of Roman brick sealing two courses of dressed grey quartzite, largely concealed by a skin of pale cream plaster. Beneath the coursed masonry which survived to a height of 0.4 m were traces of broken tile and mortar foundations [7008]. Against the wall was a mixed context of clay, mortar and tile fragments [7009] which proved to be the fill of a grave cut, which was itself cut by



Figure 13. Trench 7: Roman masonry of grey quartzite and Roman brick [7020] viewed (A) from the south, (B) from above (scales: 0.5 m).

a further, unexcavated grave between the wall and tile feature (below) (Figure 12). The confirmation of the remains of a Roman structure at this point strongly suggests that the area of high radar reflectance on the other side of the nave wall also corresponds with Roman masonry. This would give the masonry in Trench 7 a width well in excess of 1 m.

A second mortared structure, in this case only of Roman brick and tile, at least 0.3 m wide, was discovered 1.2 m south of the Roman masonry, 1.6 m from the wall of the nave, at a depth of 1.25 m (Figures 12 and 14(B–C)). It was not possible to explore its full extent to the south and it had been cut by a grave on its northern side. Above the solid structure [7012] was a layer of brown soil, 0.15 m thick, and above that was a 0.4 m-thick deposit of crumbly mortar, Roman tile and flint [7010], above which was a thin layer of crumbly mortar and broken Roman tile [7003].

Dating: Apart from the Roman brick and tile, the only datable artefact from Trench 7 was a sherd of post-Medieval red-glazed pottery from the topsoil.

A very small trench (8) was opened against the south wall of the nave 5 m to the west of Trench 7 with negative results. There was no trace of a continuation of the Roman masonry.

The Roman structures: summary

Remains of Roman and possible Roman masonry have been identified in three locations, one in Trench 4 and two in Trench 7. The remains in Trench 4 and the curving wall and foundation in Trench 7 are of a similar style of construction: external blocks of dressed grey quartzite and brick/tile (Trench 7) facing a rubble core of stone and brick/tile in a hard creamy mortar. This suggests they belong to either the same building or to

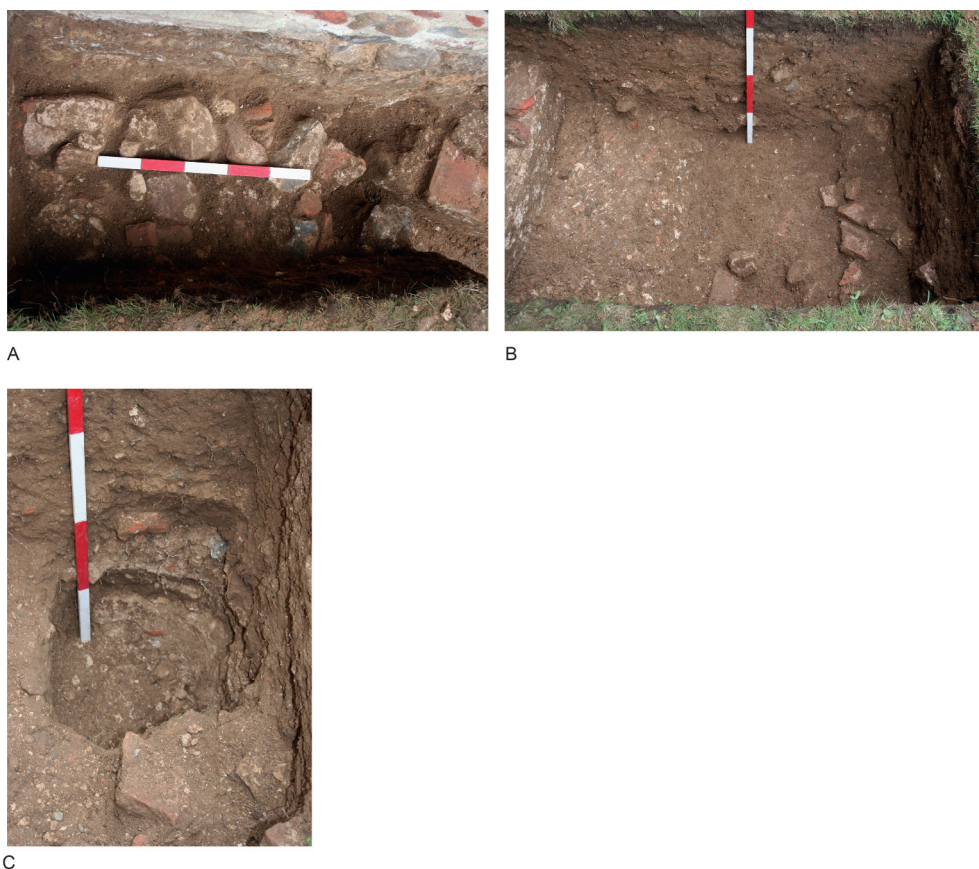


Figure 14. Trench 7: (A) unmortared rubble [7008] parallel with the south wall of the nave west of Roman masonry (scale: 0.5 m); (B) weakly mortared structure of Roman brick and tile at the south end of the trench from the west [7003] (scale: 0.20 m); (C) profile of tiled feature showing mortared deposits interleaved with deposits of brown soil [7003, 7010, 7013, 7012] (scale: divisions of 0.20 m).

two separate structures built in the same style, whose minimal dimensions would be 20 m (E–W) by >12.5 m (N–S). If the curving feature detected by the radar west of the church tower represents the remains of robbed Roman foundations (above, [Figure 7](#)), it would increase the east–west dimension by approximately a further 9 m. Although the maximum surviving width of wall is c. 1 m, on the basis of the GPR survey within the nave a width of c. 2 m seems likely. Also, the GPR data would support the evidence from Trench 4 of a depth to the foundations of c. 1.5 m. The tiled structure in Trench 7 is not in a typical style of Roman build and will be discussed further below.

Roman material culture

Besides numerous small pieces of grey quartzite, the finds assemblage is overwhelmingly dominated by fragmentary Roman brick and tile: 982 pieces weighing 213 kg across the eight trenches (Machin [2024](#)). Over half the assemblage (537 pieces) was recovered from Trench 7 with significant numbers from Trenches 4 (157 pieces) and 5

(165 pieces). The great majority of the fragments are of brick (>30 mm in thickness) (377 pieces) and tile (<30 mm in thickness) (109 pieces), with 24 fragments of roofing tile (*tegula* and *imbrex*) and six of flue tile. Most of the fragments are of a single local fabric, Group A, as are the pieces of brick incorporated in the fabric of the church. Brick and tile in this same fabric are also found at nearby Burgh Castle and Caister-on-Sea.

Opus signinum: A few pieces were observed incorporated in the fabric of the church; one large fragment from Trench 4 [4022].

Lava quern: A few pieces of lava quern were observed incorporated in the fabric of the church. Previously, Rose had identified 60 pieces of lava quern, which he assumed to be Saxon, re-used in the structure (1994, 2, 7). It is quite possible that some fragments are of Roman date.

There is a single body sherd of Roman grey ware pottery, not closely datable.

It may seem puzzling that there is so little Roman material culture other than brick and tile, but a simple explanation may be the proximity of the marshland below the Roman structure and the ease with which rubbish could be disposed of there.

The Early Medieval evidence

Trench 5 was located directly opposite Trench 7 against the east end of the north wall of the nave, positioned to see if any trace could be found of whatever structure was causing the line of high radar reflectance along the inside of the north wall of the nave. The trench straddled the junction between the nave wall built entirely of re-used Roman brick and the blocked arch of c. 1300 (Figures 3, 15 and 16). The excavation exposed the base of the nave wall which, in the case of the brick-built section, was covered with a white plaster. The original 2 m by 1 m trench proved to be opposite the disturbance created by the flue of a modern boiler and, to compensate, was extended east to the adjacent buttress. Altogether it measured 2.4 m (E–W) by 2.6 m (N–S). Although the trench was badly disturbed by grave cuts, remains of a layer of creamy-coloured mortar [5005, 5009, 5011], <0.1 m thick, was found at a depth of 0.45 m, corresponding with the exposed base of the nave wall (Figures 15 and 16(A)). The condition of the mortar was variable: quite compact in the centre and west, crumbly and yellow to the east. With a 2–6 mm gravel matrix, it contained pieces of Roman brick or tile, <0.1 m in length, and pieces of grey quartzite of similar size. Associated with [5005] were six body sherds of Late Saxon, tenth-century jars, including two sherds of Ipswich ware, a sherd of St Neots ware and three unattributed unglazed sherds, all identified by Alice Lyons. Except for a 1.0 m-wide strip along the east-facing section, the mortared surface was left undisturbed. Beneath the mortar was the natural sand [5012]. Charcoal from a sample taken at the interface of mortar and natural (indicated on Figure 15) provided two radiocarbon dates from, respectively, juvenile *Quercus* and juvenile *Betula* charcoal: 1305 ± 34 BP = 656–770 cal AD at 95.4% probability (SUERC-75101) and 1330 ± 33 = 647–768 cal AD at 95.4% probability (SUERC-75100). In 2018 the trench was extended 2 m by 1 m northwards, the west edge a continuation of the west edge of the 2017 trench. At the north end at a depth of 0.5 m and cut by graves on both sides, was a further area of hard white mortar similar to that found in 2017 [5011] (Figure 16(B and C)). Between it and the north edge of the 2017 trench at a depth of c. 0.45 m was a possible foundation of re-used Roman brick laid flat in a light brown sandy clay and mortar [5019, 5020] and appearing to be aligned east-west (Figures 15 and 16(D)). It was sealed by a thin lens

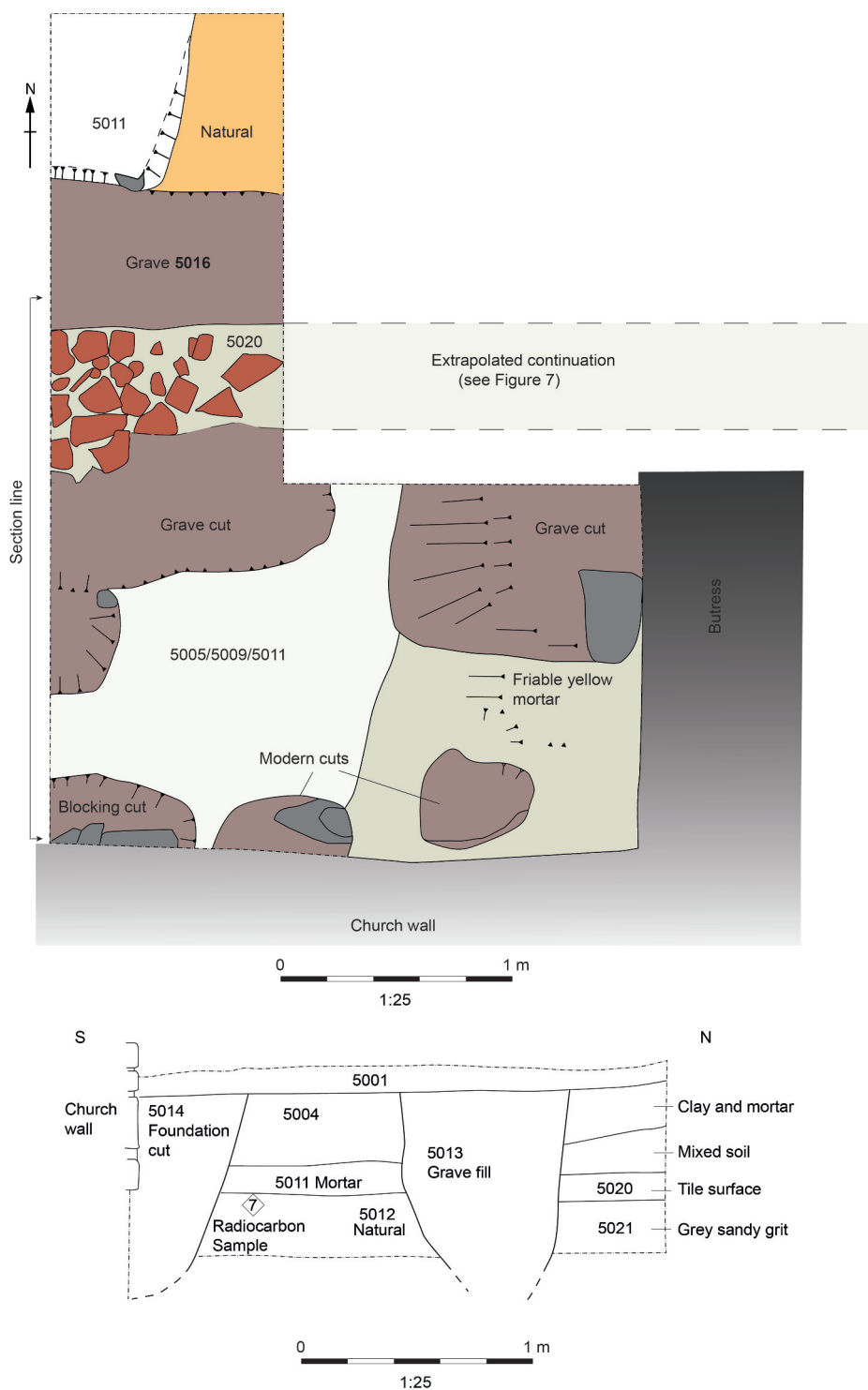


Figure 15. Plan and east-facing section of Trench 5.



Figure 16. Trench 5: (A) view to south showing the mortared surface in 2017, plastered base of brick-built nave wall and cut in the wall for flue of nineteenth/twentieth-century stove (scale: 1 m); (B) a further area of hard mortar in 2018 (scale: 0.5 m); (C) mortar layer in profile 2018 (scale: 0.5 m); (D) foundation of re-used Roman brick in a crumbly mortar at north end of trench (2018) (scale: 0.5 m).

of white mortar or plaster and traces of a further lens can be seen c. 5 cm higher in the section. This structure coincides with the position of the east–west-aligned linear feature of high reflectance from the 900 MHz GPR survey (Figure 7).

The combination of the GPR data and the evidence of the excavation suggests a rectangular structure measuring c. 11.5 m (E–W) by c. 3.75 m (N–S) against the north wall of the nave of the present church. The foundations suggest that it was brick-built. There was no indication of a return at the east end of the east–west feature which may extend beyond what appears to be a corner of the extant brick-built structure (Figure 17). In contrast with the herringbone patterning to west and east, the bricks of this feature are laid horizontally with a stone block at the base. The relationship of the corner with the brick walling to the west is obscured by a later buttress. Perhaps this feature marked an original east end of the brick-built church, the butt joint indicating the eastern, brick-built extension, the chancel, is later.

Dating: The radiocarbon dates give a *terminus post quem* of c. AD 650–770 for the construction of the mortared surface, but the tenth-century sherds found within the crumbly mortar layer may be associated with its laying down, but equally could have been trampled in later. A further two sherds of unglazed Medieval pottery dated tenth



Figure 17. North-east corner of nave with quoining of re-used Roman brick and tile.

to fourteenth century by Alice Lyons were recovered from, respectively, the topsoil [5000] and a clayey fill [5003] above the mortar surface.

While mindful of the *terminus post quem* provided by the mid-seventh- to mid-eighth-century radiocarbon dates from immediately beneath the mortar floor, the tenth-century date of the pottery from the mortar layer [5005] gives certainty to our interpretation that the flooring in Trench 5 is associated with an Early Medieval side chapel or *porticus*. The south wall of the proposed chapel is represented by the section of the north wall of the nave of the present church which is built exclusively of re-used Roman brick and tile (Figures 18–20). This structure is largely truncated by the cutting through it of an arch, subsequently blocked, with only a little of the fabric surviving above and around the arch and extending no further westward than the east face of the middle buttress of the north wall of the nave. The form of the arch suggests a date in the 1200s (Rose 1994, 6), certainly earlier than the window cut through its blocking and the other windows on the north side, all of the same design and thought to be c. 1300 (Pevsner and Wilson 1997, 644; Rose 1994, 7).

The feature defined by the GPR extends a little further west beyond the central buttress and the end of the surviving brick-built wall and also beyond a vertical join visible externally just west of the central buttress (Figure 18). This join was also recorded internally by Rose before the replastering of the interior following the 1981 fire and so no longer visible today (1994, 4, pl. IA, reproduced here as Figure 19). This image also shows a second vertical join, approximately 0.3–0.4 m to the east of that visible externally, but its outer face is concealed by the central buttress. The material abutting the now concealed join is grey quartzite, the blocks interpreted by Rose as quoins which rise to the full height of the nave wall. Towards the base they appear to be of one build with the brick fabric and may therefore possibly represent the west end of the brick-built structure, though the west end of the GPR-defined *porticus* feature extends a little further west. To the east the feature defined by the GPR more or less coincides with the furthest surviving eastward extent of the brick-built wall. The blocked archway in the north wall of the nave is approximately central to the GPR-defined feature. It indicates that the Early Medieval structure still stood and formed an integral part of the build of the 1200s but was presumably demolished at the time of the blocking which took place a century or so later. The function of the narrow strip of walling between the two joins is unclear – remains of a buttress against the north-west corner of the brick-built church or the stub of a north–south wall?

The brick-built structure: What is remarkable about the surviving brick-built section of the north wall of the nave is that it is composed entirely of re-used Roman brick and tile, unlike the rest of the north wall which is built very largely of re-used grey quartzite blocks with only a very small amount of brick scattered through the fabric. Re-used Roman brick is more common in the fabric of the south wall of the nave, but used horizontally in random fashion (Figure 4). If we assume that this material was employed consistently throughout the Early Medieval structure, as the surviving fragment suggests, it implies a very considerable scale of robbing of the Roman building where it would have been used as string coursing or decoratively, as we see in the surviving fragment of the Roman build in Trench 7. Here, the remains of three courses of facing brick seal the dressed grey quartzite blocks below. Bricks used in this way or as string courses through the full width of the wall are a distinctive and common feature of

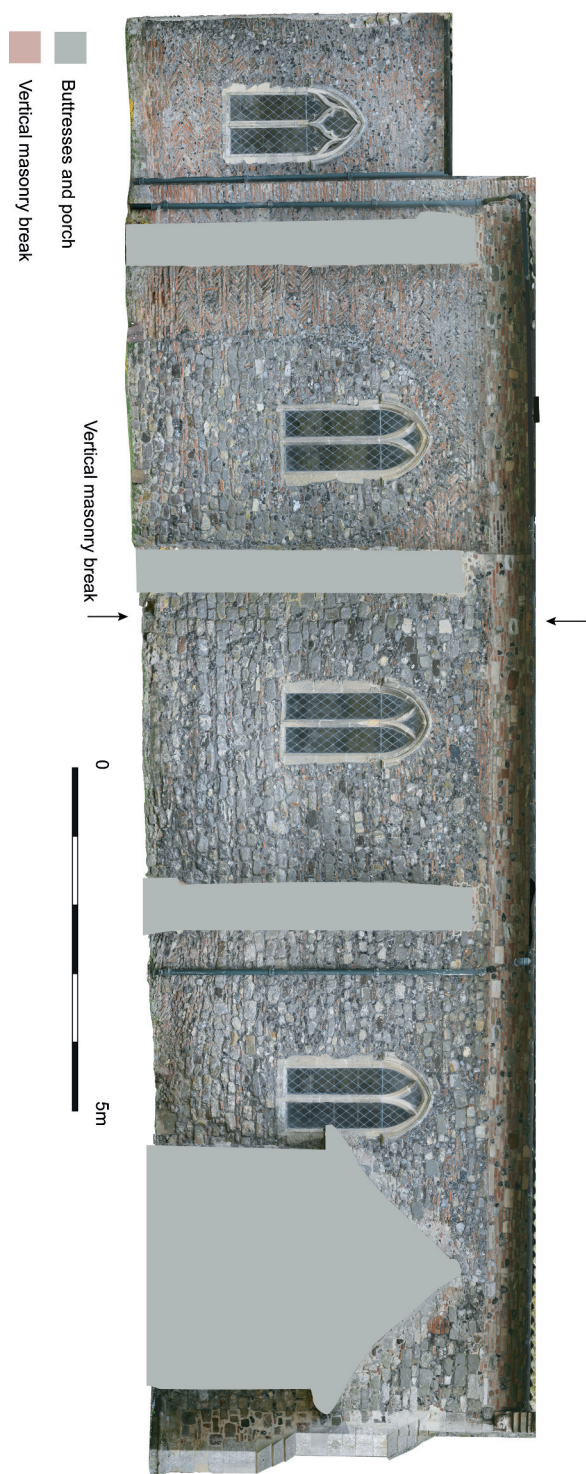


Figure 18. Rectified photograph of the north wall of the nave of St John the Baptist; arrows indicate the break in masonry west of the central buttress.

Roman building technique, as can be seen, for example, in nearby Burgh Castle. There, the construction is predominantly of flint and the build is generally of five courses of the stone sealed by three courses of bricks. Whether the latter extended through the full

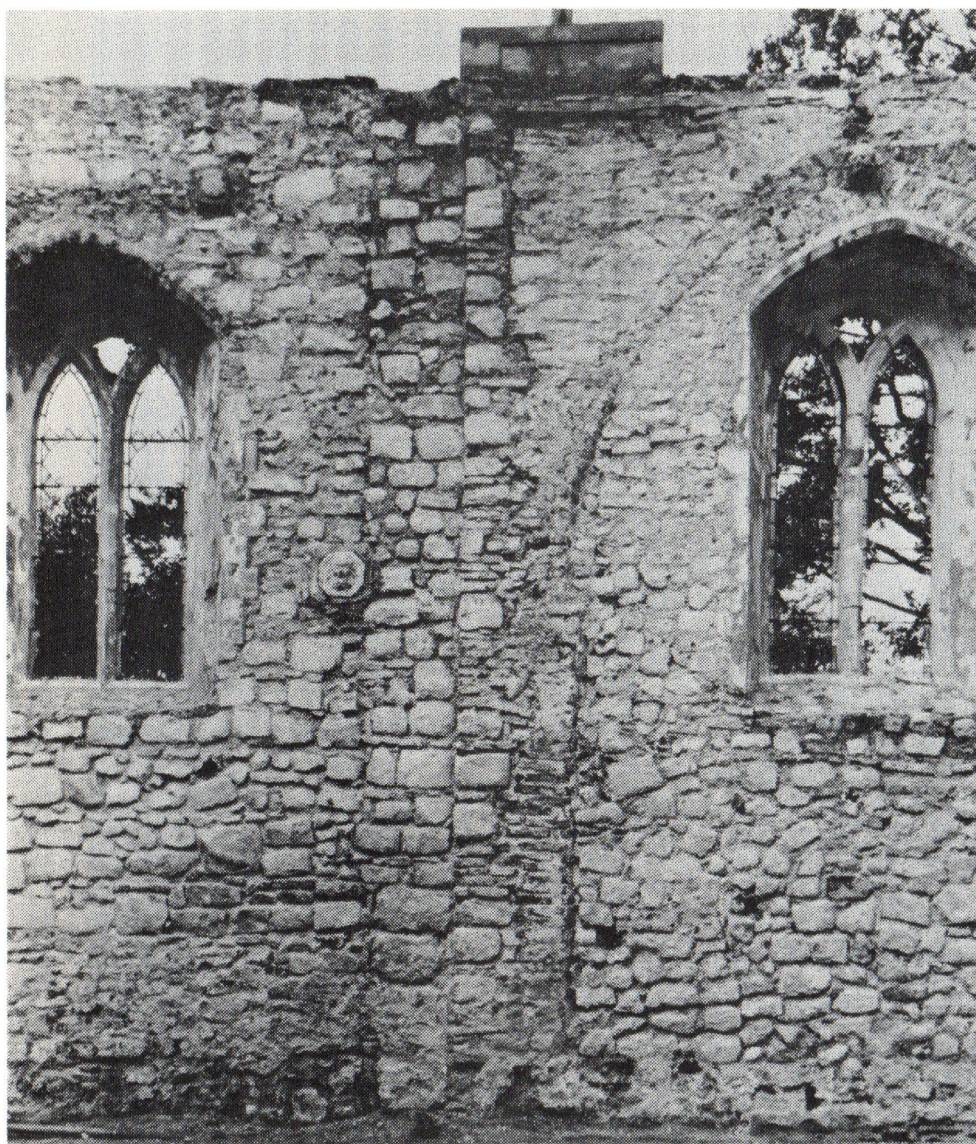


Figure 19. Interior view of the north wall of the nave (Rose 1994, pl. 1A, reproduced by kind permission of the British Archaeological Association). The arrows indicate the vertical joins in the nave wall.

width of the wall is not known. In order to extract the tile at Reedham we would therefore estimate up to around five courses of stone had to be demolished to recover around three courses of bricks.

Roman bricks were made in a variety of sizes ranging from the *bipedalis* (two by two Roman feet) to the *bessalis* (two thirds of a Roman foot square), with the *lydion* (one by one and a half Roman feet) the most likely type to have been used at Reedham. It was widely employed for bonding or lacing courses in the walls of large public buildings or defences (Brodribb 1987, 37). The smallest brick, the *bessalis*, was used to build the *pilae* stacks to support the suspended floors of hypocausts (Brodribb 1987, 34). Prising the tiles apart from one another and from the hard mortar without breaking them would have been difficult and time-consuming and the variation in the lengths of the visible edge of the bricks is testimony to how successful this process was. Without exposing them in plan, we cannot be certain that any bricks used in the church were recovered complete. The most likely dimension to be expected if recovery was good would be the width of a *lydion*, one Roman foot (c. 0.3 m), but few either reach or exceed that measurement. Those with at least two good edges, with average surviving lengths of 0.25 m, were reserved for the quoins. Otherwise only one sound edge of each of the bricks used in the rest of the fabric is visible. Pieces with the longer edge, averaging about 0.25 m in length, tend to be used in the horizontal courses, with the best-preserved pieces in the lowest courses, while the shorter fragments, averaging about 0.20 m in length, were arranged in herringbone style, the better-preserved pieces towards the base of the wall.

Given their fragmentary character, it is likely that each brick fragment visible on the outside was complemented with at least one other to make the full (0.6 m) width of the nave wall. We might also speculate that one *lydion* might fracture into two or more usable pieces to achieve this. Taking account of the unknowns outlined above, and discounting how little we know of the plan and form of the church, it is difficult to estimate with any degree of accuracy the number of Roman bricks used in the construction of the Early Medieval church. And we should not overlook the considerable waste generated by the demolition process – almost a thousand small fragments of brick were recovered from our eight small trenches alone. However, if we assume the west end of the nave coincided with the vertical break in the masonry visible in Figure 19 we estimate some 2100 pieces were used in the north wall with a further 180 in the quoins and some 800 in the north wall of the chancel, 3080 in total, and 6160 if we include the south wall of the nave and chancel. We still need to factor in a west wall of the nave or narthex of uncertain width, perhaps two thirds the length of the nave, a potentially apsidal end to the east end of the chancel and allow for windows and a door – perhaps another 3000 bricks, to make a total of 9160 bricks, or, allowing for a wastage rate of about 10%, a grand total of about 10,000 bricks.

We should also note the fact that the church seems to lie directly on top of the Roman structure, which implies the latter's total demolition. What was done with the discarded quartzite blocks and rubble through the demolition process is not known. However, from its later use in the building of the church, it was clearly left strewn or stacked close to or within the remains of the Roman building. The evidence from Trench 5 indicates that the build there was on clear ground, suggesting that the discarded stone was stacked elsewhere.

In summary, a brick-built side chapel or *porticus* with dimensions of at least 11.5 m by 3.75 m had been constructed by the tenth century, if not by the mid-eighth, against the north wall of the nave of a pre-existing, brick-built church constructed on a slightly different alignment to that of the underlying, presumed Roman structure indicated by the GPR survey (Figures 6 and 7). It survived to be incorporated into the build of a new and larger church of c. 1200, one which made extensive use of the previously discarded grey quartzite, but was demolished when the archway linking it to the new church was blocked and a new window inserted in the blocking c. 1300.

Discussion

Roman

The excavation has confirmed Roman masonry in two locations, approximately 20 m apart, adjacent to the standing fabric of the church. Taken with the results of the GPR survey inside the church, a single, substantial building is suggested, perhaps measuring about 20 m (E–W) by >12.5 m (N–S). If we include the shadowy evidence from GPR (Figure 7) and the possible robber-trench in Trench 3 against the west side of the tower, the potential east–west dimension increases to c. 30 m. Trench 7 indicates the building was provided with at least a rounded corner or, possibly, a tower or bastion, with, from the 900 MHz GPR survey, the tentative possibility of a second at its west end. There is also just the hint of a curve in the fragment of foundations in Trench 4, otherwise aligned north–south. The purpose of the brick structure at the south end of Trench 7 is far from clear, and it may not be of Roman date, but it could have served as a retaining wall as its position is close to the point where the ground falls away sharply to what would have been tidal marshland to the south (see further below). This function is now carried out by the modern churchyard wall a few metres further to the south, with made-up ground between it and the church, and a pronounced fall in ground level beyond it (Figure 2). Like the church, the Roman building appears confined to the highest ground: the two trenches to the west of the church provided no evidence of any structure and the steep fall in ground level precluded the possibility of any extension to the east and to the south. As the ground falls away gently to the north, it is possible for the structure to have extended in that direction and the fragment of masonry in Trench 4 aligned north–south is evidence that this was probably the case. While there are other possible indications of further remains north of the church in the GPR survey (cf. Figure 6) Trench 5 was negative as far as Roman remains are concerned.

The combination of the likely dimensions of the structure, the confirmation of the use of the Leziate rock, sourced at a considerable distance from the north–west of Norfolk, and the tile in the build, strengthen the case for an interpretation as a military structure as put forward first by Rose (1994, 7; cf. Allen, Rose, and Fulford 2003, 138–141). An alternative possibility that the remains are of a villa or agricultural building can be ruled out on several grounds: even if we do not have the complete width of either of our wall fragments, their thickness in excess of 1 m is greater than the average 0.6–0.75 m thickness derived from a survey of the walls of Roman domestic buildings, including villas, across southern Britain. The curved foundation in Trench 7 would be an unlikely feature of a rural villa, as would the style of build employing lacing

courses of brick alternating with courses of stone and typical of major public building works in the Roman province. The use of a distantly procured stone as a basic material with which to construct the walls rather than to provide architectural features like columns and architraves can also be paralleled in public building works and, in this case, uniquely with the fort at Brancaster. Given the relative massiveness of Roman fortifications, it is highly likely that the building we envisage, its remains now largely sealed beneath the church, was the source of the stone and Roman brick and tile re-used in quantity in its construction, and in smaller amounts in churches in the surrounding district, especially at Halvergate and Limpenhoe (Allen, Rose, and Fulford 2003, Figure 1). To conclude, we need to look no further than the site of St John the Baptist, Reedham for the location of the source of the Roman building materials.

Bearing in mind how little we have to go on, the dimensions and rectilinear plan of the Roman structure suggest a fortlet, which, if square in plan, would measure c. 20 m by 20 m. However, its length east–west *might* be as much as twice that of its north–south dimension. The structure had a rounded corner or, conceivably, a tower or bastion at the south-east corner. While the north–south dimension (>12.5 m) is a little less than the average length (c. 15.2 m) of the walls of the towers of the late fourth-century signal stations on the Yorkshire coast and their continental parallels recently reviewed by White (2022), only the maximal, c. 30 m east–west dimension compares with the lengths of the outer walls of these structures, while the assured length of c. 20 m is, perhaps, greater than would be needed for a tower, but on the small side for a fortlet (cf. Symonds 2017). On the other hand, a tower with a maximum plan dimension at ground level of c. 11 m, the same as the unenclosed, octagonal Dover *pharos* of probable second-century date, could just about be accommodated within a c. 20 m by 20 m enclosure (Amos and Wheeler 1929). However, the walls of the Dover *pharos* are a massive ‘nearly 12 feet thick’ (c. 3.65 m) at the base compared with the thickness of the walls of the towers at the Yorkshire signal stations of Goldsborough (1.5 m), Scarborough (1.68 m) and Filey (2.2 m) (Amos and Wheeler 1929, 33; White 2022, 49–51). Reedham shows no sign of a wall thickness as great as at Dover, but, even though we do not have a complete width in masonry, we estimate a likely thickness of c. 2 m (see above). This would incline us towards an interpretation which reconstructs the remains at Reedham as a tower or lighthouse (>12.5 m square) within a defended enclosure (>20 m square). This is considerably less massive than the unenclosed *pharos* at Dover and more modest than the defended towers of the Yorkshire signal stations.

To conclude, while without an obvious parallel of the same date as that proposed for Reedham, a defended lighthouse or watch-tower would be acceptable at a time when other measures were being taken to build new forts along the east coast. Other clues to the character of the structure include the small quantity of ceramic *tegula* and *imbrex*, evidence for roofing, and the ceramic flue-tile indicating the presence of a hypocaust. The relative scarcity of roofing and hypocaust tile in the fabric of the present church may suggest a phase of robbing before the Early Medieval construction.

Can anything more be said about date? It was previously argued that the shared and dominant use of the Leziate stone at both Brancaster and Reedham pointed to them being of similar date, late second to mid-third century AD (Allen, Rose, and Fulford 2003, 138). The find of coarse shelly limestone in the masonry in Trench 4 may

complicate the question of date. This material is present in small quantities in the shore forts of Burgh Castle and Walton Castle, if we are right to infer the latter as the source of the shelly limestone blocks in the fabric of St Peter and Paul, Felixstowe, the closest church to the likely location of the latter fort. It is also present in larger quantities at Bradwell-on-Sea, where the predominant Roman material built into the fabric of St Peter's Chapel within the confines of the fort is a wide variety of limestones including coarse shelly types. It has not been noted at either Brancaster or Caister-on-Sea (Allen and Fulford 1999, 164–172). The dating evidence for the construction of these three forts is poor. Nevertheless, Stephen Johnson has suggested a later third-century date, 276–285, for Burgh Castle, Bradwell-on-Sea and Walton Castle, while Andrew Pearson has argued for a broader timescale, 260–300, for their construction (cf. Dhaeze 2019, 112–113, 129; Johnson 1976, 96–100, 109; Pearson 2002, 57–58, 65–66).

On the basis of materials used in their construction an argument can now be made for adding Reedham to the above group, strengthened by the similarity in the way brick is used at Reedham and Burgh Castle. If the curved wall in Trench 7 proves to be part of a bastion or tower, it would further strengthen the case for a date for Reedham in the second half of the third century. On the grounds that it is highly unlikely that stone otherwise only documented at Brancaster would have been specially sought out in the later fourth century for Reedham, a later fourth-century date can be discounted.

The potential contemporaneity of Reedham and Burgh Castle points to a particular concern for ensuring the security from pirates and raiders from entering the Yare and Waveney rivers in the later third century, the former, of course, giving direct access to the *civitas* capital of Caistor-by-Norwich (*Venta Icenorum*), and both to the hinterland of East Anglia. If we are right to conjecture that the Roman structure at Reedham was a defended watch-tower, signal station or lighthouse, the height of the latter, following the argument of Wilson (1991) regarding the signal stations along the coast of North Yorkshire, might have been around 20 m, though that is only 4 m short of the estimated height of the Dover *pharos* (Amos and Wheeler 1929, 33), but considerably less than the c. 36 m calculated using the 1:3 ratio of basal width to height proposed by Bell for Whitby (1998, 314–317). The enclosing walls with wall walk might have been about 4.5 m high, as at Filey (Ottaway 2000, 183–184).

We made a very approximate estimate that the building of the Early Medieval church might have required about 10,000 Roman bricks, probably of the *lydion* type. Here we can explore whether such a number would have been sufficient to build a defended watch-tower or *pharos*. If we suppose a watch-tower 12 m square with a height of 20 m within an enclosure 20 m square where the walls with wall walk stood 4.5 m high, we estimate about 12,240 bricks would have been required. This assumes string courses of brick one Roman foot wide approximately every metre of height in the tower (20) and enclosing wall (5). The number of courses of brick used at each level would have varied from three (as here in Trench 7) or four at the base to two or three thereafter (cf. Brodribb 1987, 38–40). We also do not know the width of the walls for sure, nor how often the lacing courses would have been taken across their full width as opposed to being used for the facing only (as appears to be the case in Trench 7). For the purpose of this exercise we have taken an average of three courses of brick at each level. The total we have arrived at is not completely at odds with the estimate of bricks needed for the church and it only

requires a reduction in the height of, say, the tower by 5 m, requiring 10,080 bricks altogether, to bring the two into alignment (with a total of 10,080). These estimates, rough and ready as they are, give us some confidence that the bricks used in the construction of the early church could have been derived from a defended watch-tower or *pharos*, roughly similar in scale to late Roman equivalents such as the Yorkshire signal stations.

Early Medieval

Given the narrow width of the structure we have identified built parallel with and against the north wall of the nave of the present church, it seems appropriate to interpret it as a side chapel or *porticus* of an earlier church. Of the pre-existing church all that survives is a section built entirely (if we extrapolate from what survives) of re-used Roman brick and tile, standing to a height of 5.2 m (Figures 18–21). The best-preserved section is on the west side of the easternmost (and later) buttress where, viewed from the outside, the base of the wall is made up of about 15 courses of horizontally laid bricks or tiles above which are seven courses in herringbone style interleaved with between two and five courses of horizontally laid brick or tile. Putlog holes can be seen in the second and fifth course of herringbone. Above the seventh course of herringbone there is a band of about ten courses of horizontally laid brick or tile, with a further putlog hole and, above that, two further courses of herringbone separated by five courses of horizontally laid brick or tile. The uppermost course of herringbone has been disturbed by the insertion, removal and blocking of the later arch. The brick build does not continue west beyond the (later) central buttress and only traces of the seventh and eighth course of herringbone survive on the west side of the later (blocked) arch. Inside the church this section of wall has been left unplastered and it shows the same characteristics, including putlog holes, as the outside face (Figure 21). Quoins behind the central buttress revealed by the fire of 1981 and described by Rose, but now plastered over, suggest a possible north-west corner of the brick-built church.

Next to the easternmost and later buttress of the present church is quoining of horizontally laid brick or tile above a basal block of grey quartzite, together standing to a height of 6.3 m (the top metre or so perhaps re-built) (Figure 17). This is suggestive of an original east end of the brick-built church, giving the nave an approximate east–west length of 6.5 m. This would suggest a small church, more comparable with St Martin's, Canterbury, whose original nave was c. 6 m in length, than with the other early Canterbury churches (below). Butted against the quoins to form the north wall of the present chancel, the same style of build of herringbone alternating with horizontally laid brick or tile continues east for a further 2.1 m with good preservation below the later chancel window. It is possible that the brickwork ends at the point where it might have turned to form the apse of the Early Medieval church.

While the re-use of Roman brick and tile is 'a common feature throughout England' (Taylor and Taylor 1965, 12) Early Medieval churches with evidence of build exclusively, or potentially exclusively, of re-used Roman brick and tile are rare in England and all are to be found in Kent, especially outside the city walls at Canterbury (Cambridge 1999; Gem 1997).



Figure 20. Rectified photography of the brick-built north wall of the nave with the later, blocked arch highlighted.

Potentially the earliest, if it is accepted that it was originally built as a Roman mausoleum, is St Martin's, which is identified as that used according to Bede by Bertha, the Frankish Queen of Kent, before the arrival of St Augustine in 597. The earliest fabric, whether Roman or post-Roman, forms part of the chancel of the present

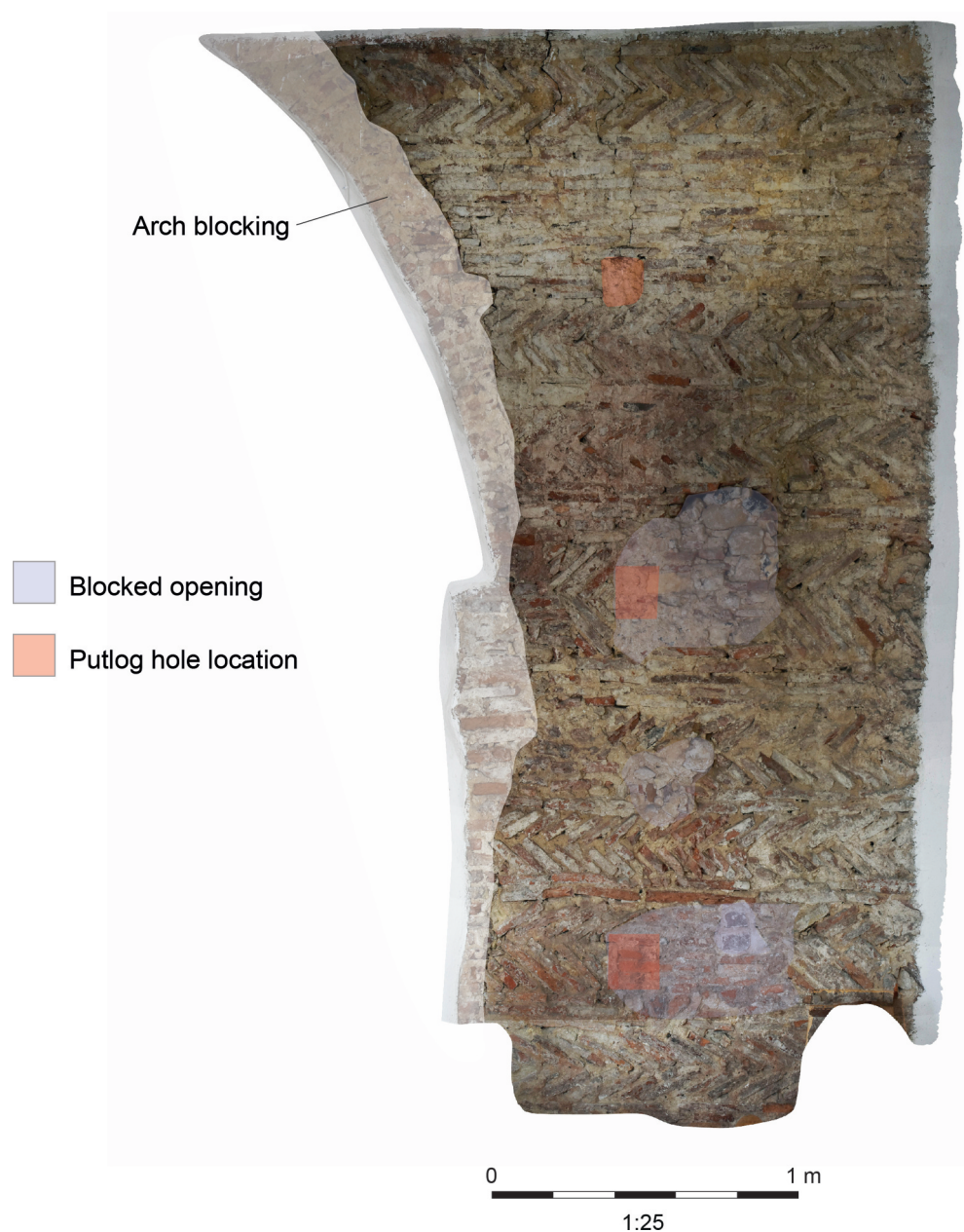


Figure 21. Rectified photograph of internal elevation of brick-built north wall of the nave.

church. The better-preserved south wall of the chancel, formerly the nave of the earliest church, is built of well-laid Roman brick and tile in horizontal, but slightly undulating courses, as are the pilasters or buttresses (Figure 22). There is also flint, possibly added in later restorations, interspersed among the brick and tile. A later addition at the east end where courses of flint are interspersed with courses of Roman tile more closely



Figure 22. The north wall of the chancel, originally the nave, of St Martin's, Canterbury.

imitates the Roman style of building. The nave of the present church, widely accepted as Early Medieval, is of mixed stone and Roman brick and tile (Cambridge 1999, 213; Dark 2022, 14–17; Gem 1997, 93–94; Taylor and Taylor 1965, 143–145).

Close by, at St Augustine's Abbey, the remains of the primary church of St Peter and St Paul dated between 597 and 619 are, judging by the foundations, also built of Roman brick and tile, though the eighth-century extension of the north *porticus* is of stone rubble (Gem 1997, 95; Taylor and Taylor 1965, 140–141). The surviving remains of the west end of St Mary's of c. 620 are also of Roman brick and tile, but, as with St Peter and St Paul, nothing survives above foundation level and we cannot therefore be sure how extensively brick was used above ground level (Taylor and Taylor 1965, 145). Further east from St Mary's are the better-preserved remains of St Pancras, also probably dating from the seventh century, perhaps even from the early seventh century, and built of re-used Roman brick and tile (Cambridge 1999, 212–216; Dark 2022, 30–32; Gem 1997, 101–103; Hope 1902). The north wall of the west porch stands over 3 m in height (Figure 23). It is entirely built of horizontally laid re-used Roman brick and tile as were the north and south *porticuses*, both of which, like the west porch, were added to the pre-existing brick-built church, probably in the early-to-mid-eighth century (Dark 2022, 29–30; Gem 1997, 103).

The extent to which Roman brick and tile might be re-used in church building was closely linked to its availability and those surviving chapels and churches with abundant Roman brick and tile in their fabric are closely linked to Roman towns and forts where



Figure 23. St Pancras, Canterbury. The south-facing elevation of the north wall of the west porch.

the material was in abundance and a choice could be made to select brick over other materials for the build, as seems to have been the case at Canterbury and Reedham. But that preference does not seem to have lasted very long and may not have been pervasive. As far as we can tell, neither of the Early Medieval churches built at the

Saxon Shore forts of Bradwell-on-Sea and Reculver, where Roman brick and tile would have been abundant, chose the latter as the dominant material in preference to stone, the brick and tile being used selectively (Andrews 2023; Peers 1928, 244). At Canterbury, though lacking independent evidence of date, the secondary build at St Martin's, i.e. the nave of the present church, and at St Peter and Paul, employed stone rubble (Gem 1997, 93–94; Taylor and Taylor 1965, 41–43). The latest dated instance where Roman brick and tile appears to have used as the dominant building material is the second phase of St Pancras dated towards the middle of the eighth century (Gem 1997, 103).

Roman brick and tile continued to be used in church building but for more decorative purposes, such as the west tower of Holy Trinity, Colchester of eleventh-century date. The fabric is of stone rubble liberally interspersed with Roman brick and tile, sometimes horizontally coursed, but not to the extent of regular bonding courses. However, the quoining is more exclusively of Roman brick and the triangular-headed west doorway is framed and faced with Roman brick and tile (Taylor and Taylor 1965, 162–164). Slightly later, the bonding courses of the twelfth-century west towers of St Mary, Reculver, otherwise built of flint and stone rubble, are of re-used Roman brick and tile robbed from the adjacent Roman Saxon Shore fort (Peers 1928, 244–245; Taylor and Taylor 1965, 503–509).

The evidence, such as it is, for the exclusive or dominant use of re-used Roman brick in the walling of Early Medieval churches, points to an early date, with examples from Canterbury from the early seventh until, as at St Pancras, perhaps about the mid-eighth century. Unlike Reedham, none of these appear to have used the herringbone technique, which, as Taylor and Taylor comment, 'was widely used by Roman, Anglo-Saxon, Norman and later masons' (1965, 13). While we can find no parallel for wall building in brick in the herringbone technique, as evidenced at Reedham, in either the Roman or the Early Medieval period in Britain, there is evidence for its use in stone, along with shingling, in Britain, for example in the flint core of the town walls of Silchester, as well as on the Continent (Adam 1989, 156–157; Allen 2013, 27–34). Where evidence for the herringbone technique using brick (*opus spicatum*) is found in Roman Britain it is in flooring, as, for example, in the baths basilica at Wroxeter (Barker et al. 1997, 52–57, figs 64–65; Brodribb 1987, 50–52). Nor is there evidence for the exclusive or dominant use of brick in Roman-period building in Britain, though it was used extensively in bath building, for example to create hypocausts and vaulting. Rather, we need to look to Rome and Ostia for a very extensive use of brick or, nearer to Britain, to Constantine's brick-built and white-plastered *aula palatina* and the granaries which became the seventh-century church of St Irminio in Trier (Boëthius and Ward Perkins 1970, 517–520, pls 269 and 271).

Strictly, there is no independent evidence for the date of the brick-built section of the north wall of the nave of the current church at Reedham and of its extension eastward. The *porticus* or side chapel, presumably also brick-built judging by its foundations, is also secondary and it has a mid-seventh to mid-eighth-century *terminus post quem* with tenth-century pottery trampled into its mortar floor. If church building in the south-east of England was being more selective in how it re-used Roman brick and tile from the eighth century onwards, it is hard to see how Reedham, including the side chapel, could be later than the eighth century. The charcoal sample which provided the two

radiocarbon dates was taken approximately 0.5 m away from the nave wall of re-used Roman brick and so could very well relate to clearance in advance of the building of that wall and of the first church. Tentatively, then, on the basis of the archaeological evidence, we suggest the initial build of the Early Medieval church, of which only part of the north wall of the nave and chancel survives above ground, was either just before 650 or between c. 650 and c. 770.

Context

Reedham enjoys an estuarine setting comparable to that of the early churches and monasteries founded around the coasts of East Anglia and Essex. Bede mentions the episcopal see established among the East Angles at Dommoc, Dunwich or Walton Castle, by Bishop Felix in the late 620s/early 630s (Bede 1990, 133 (II.15); Hoggett 2023, 136–138; Rigold 1977, 72), while further south among the East Saxons Bishop Cedd founded a church in the 650s at Ythancaestir, equated with Roman Othona and identified as Bradwell-on-Sea (Andrews 2023; Bede 1990, 179 (III.22)). Closer to home the Irish monk Fursa founded a monastery in the 630s ‘within the area of a fortification that the English call Cnobheresburg’, tentatively identified as Burgh Castle just across the water from Reedham (Bede 1990, 172–173 (III.19); Hoggett 2023, 139–141). Excavations have revealed a mid-Saxon cemetery within the walls, but no certain remains of a church or monastery (Johnson 1983, 119–121). However, given the complexity of the archaeology, recognition of timber-built structures would have been challenging. There will, of course, have been other churches, as is implied by Bede’s remarks on the work of Felix: ‘he reaped a rich harvest of believers ... and delivered the entire province from its age-old wickedness and infelicity’ (Bede 1990, 133 (II.15)). So, too, Bishop Cedd ‘built churches in several places’ among the East Saxons (Bede 1990, 179 (III.22)). Returning to Fursa, Bede records that, after Cnobheresburg ‘In course of time he had built himself a monastery in which he might devote himself more freely to sacred studies’ (Bede 1990, 173 (III.19)). Might Reedham be the location of this second monastery? More likely, however, is a potential connection with Bishop Felix who, in the late twelfth-century *Liber Eliensis*, is credited ‘et ecclesiam in Redham primitus condidit’ (Blake 1962, 17 (I.6)). If Redham is Reedham, the evidence we have from St John the Baptist would not be inconsistent with an initial build in the late 620s or early 630s. Since Bede informs us that Felix came to Archbishop Honorius from the Burgundian region and brought with him from Kent teachers and masters, Felix would have been familiar with the Roman buildings of his native Gaul and of what was being built at Canterbury (Bede 1990, 133 (II.15); 171 (III.18)). Certainly, painstaking lengths, probably taking a considerable amount of time, were taken to build at Reedham in Roman brick, some of which could have been brought in across the estuary from Burgh Castle, the brick then rendered over with white plaster. For the *porticus* to have been retained in the Norman re-building suggests it may have contained a burial or burials of particular significance for the community.

Finally, we might note that Reedham would not have been the only defended tower (if that is what it was) to have been demolished and replaced with a church in the Early Medieval period. At the signal station at Scarborough on the North Yorkshire coast a small church, the first of a succession of three, was built re-using the Roman stone, on top of and on the same alignment as the late Roman tower at some time certainly before the tenth or eleventh century (Bell 1998, 308–311; Thompson 1931, fig. 32).

Acknowledgments

We gratefully thank the Norwich Diocesan Archaeology Committee and the Reedham Parochial Church Council for permission to carry out survey and excavation at St John the Baptist. We thank David Breeze, who re-awakened our interest in Reedham and encouraged us to return in 2013 and Ivan Barnard and John Richardson for their help with excavation and survey. We are especially grateful to Kati Cowen for her enthusiastic and tireless support over the five years in which the fieldwork was carried out, including help with liaising with the relevant authorities, and delivering a constant supply of very welcome refreshment for the team's lunches and breaks.

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Adam, J.-P. 1989. *La Construction Romaine*. Paris: A. and J. Picard.
- Allen, J. R. L. 2013. *The Masonry Defences of Roman Silchester (Calleva Atrebatum)*, North Hampshire. Oxford: BAR British Series 580.
- Allen, J. R. L., and M. G. Fulford. 1999. "Fort Building and Military Supply Along Britain's Eastern Channel and North Sea Coasts: The Later Second and Third Centuries." *Britannia* 30:163–184. <https://doi.org/10.2307/526678>.
- Allen, J. R. L., E. J. Rose, and M. G. Fulford. 2003. "Re-Use of Roman Stone in the Reedham Area of East Norfolk: Intimations of a Possible 'Lost' Roman Fort." *Britannia* 34:129–141. <https://doi.org/10.2307/3558542>.
- Amos, E. G. J., and R. E. M. Wheeler. 1929. "The Roman Lighthouses at Dover and the Saxon-Shore Fortress at Dover." *Archaeological Journal* 36 (1): 47–58. <https://doi.org/10.1080/00665983.1929.10853530>.
- Andrews, D. 2023. "St Peter's Chapel: What the Building Has to Tell Us." In *St Peter-On-The-Wall. Landscape and Heritage on the Essex Coast*, edited by J. Dale, 27–52. London: UCL Press.
- Barker, P., R. White, K. Pretty, H. Bird, and M. Corbishley. 1997. *The Baths Basilica Wroxeter. Excavations 1966–90*. London: English Heritage Archaeological Report 8.
- Bede, The Venerable. 1990. [AD 731]. *Ecclesiastical History of the English People*. Edited by R. E. Latham. Translated by Leo Sherley-Price. London: Penguin, Random House UK.
- Bell, T. W. 1998. "A Roman Signal Station at Whitby." *Archaeological Journal* 155 (1): 303–322. <https://doi.org/10.1080/00665983.1998.11078853>.
- Blake, E. O., ed. 1962. *Liber Eliensis*. London: Royal Historical Society, Camden 3rd Series.
- Boëthius, A., and J. B. Ward Perkins. 1970. *Etruscan and Roman Architecture*. Harmondsworth: Penguin.
- Brodribb, G. 1987. *Roman Brick and Tile*. Gloucester: Alan Sutton.
- Cambridge, E. 1999. "The Architecture of the Augustinian Mission." In *St Augustine and the Conversion of England*, edited by R. Gameson, 202–236. Stroud: Sutton Publishing.
- Dark, K. 2022. "The Earliest English Church? A Reconsideration of the Chapel of St Pancras at St Augustine's Abbey, Canterbury." *Journal of the British Archaeological Association* 175 (1): 13–36. <https://doi.org/10.1080/00681288.2022.2033019>.
- Dhaeze, W. 2019. *The Roman North Sea and Channel Coastal Defence. Germanic Seaborne Raids and the Roman Response*. Wetteren: Universa Press.
- Fox, G. E. 1911. "Romano-British Suffolk." In Vol. 1 of *The Victoria History of the Counties of England: A History of Suffolk*, edited by W. Page, 279–320. London: Archibald Constable and Co. Ltd.
- Gem, R. 1997. "The Anglo-Saxon and Norman Churches." In *St Augustine's Abbey Canterbury*, edited by R. Gem, 90–122. London: Batsford and English Heritage.

- Hoggett, R. 2023. "Put to Good Use: The Religious Afterlife of the Saxon Shore Forts." In *St Peter-on-the-Wall. Landscape and Heritage on the Essex Coast*, edited by J. Dale, 130–158. London: UCL Press.
- Hope, W. H. St John. 1902. "Excavations at St Austin's Abbey, Canterbury I. The Chapel of St Pancras." *Archaeologia Cantiana* 25:222–237.
- Johnson, S. 1976. *The Roman Forts of the Saxon Shore*. London: Elek.
- Johnson, S. 1983. *Burgh Castle: Excavations by Charles Green, 1958–61*. Gressenhall: East Anglian Archaeology Report 20.
- Machin, S. 2024. "Report on the Roman Ceramic Building Material from St John the Baptist, Reedham, Norfolk, 2024" (data-set). York: Archaeology Data Service [distributor].
- Ottaway, P. 2000. "Excavations on the Site of the Roman Signal Station at Carr Naze, Filey, 1993–94." *Archaeological Journal* 157 (1): 79–199. <https://doi.org/10.1080/00665983.2000.11078957>.
- Pearson, A. 2002. *The Roman Shore Forts*. Stroud: Tempus.
- Peers, C. R. 1928. "X. Reculver: Its Saxon Church and Cross." *Archaeologia* 77:241–256. <https://doi.org/10.1017/S0261340900013436>.
- Pevsner, N., and B. Wilson. 1997. *The Buildings of England. Norfolk 1: Norwich and the North-East*. 2nd ed. London: Penguin.
- Rigold, S. 1977. "Litus Romanum – The Shore Forts as Mission Stations." In *The Saxon Shore*, edited by D. E. Johnston, 70–75. London: CBA Research Report 18.
- Rose, E. J. 1994. "The Church of Saint John the Baptist, Reedham, Norfolk: The Re-Use of Roman Materials in a Secondary Context." *Journal of the British Archaeological Association* 147 (1): 1–8. <https://doi.org/10.1179/jba.1994.147.1.1>.
- Symonds, M. F. A. 2017. *Protecting the Roman Empire: Fortlets, Frontiers and the Quest for Post-Conquest Security*. Cambridge: Cambridge University Press.
- Taylor, H. M., and J. Taylor. 1965. *Anglo-Saxon Architecture*. Vol. 3. Cambridge: Cambridge University Press.
- Thompson, A. H. 1931. "The Church and Parish." In *The History of Scarborough*, edited by A. Rowntree, 51–93. London: J. M. Dent & Sons.
- White, A. 2022. "'Turrem Et Castrum': Some Fresh Thoughts on the Roman Fortlets of the Yorkshire Coast." *The Antiquaries Journal* 102:45–68. <https://doi.org/10.1017/S0003581521000366>.
- Wilson, P. R. 1991. "Aspects of the Yorkshire Signal Stations." In *Roman Frontier Studies 1989: Proceedings of the XVth International Congress on Roman Frontier Studies*, edited by V. A. Maxfield and M. J. Dobson, 142–147. Exeter: University of Exeter Press.