EAA 96

TWO MEDIEVAL CHURCHES IN NORFOLK

East Anglian Archaeology

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East Anglian Archaeology

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EAST ANGLIAN ARCHAEOLOGY

Frontispiece: cleaning wall painting in north aisle, St Martin-at-Palace

Dedicated to the late Roger Greenwood

Two Medieval Churches in Norfolk

by Olwen Beazley and Brian Ayers

with contributions from
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Cover photograph
Watercolour (1852) by C.J.W. Winter of medieval glass from north aisle east window of the church of St Martin-at-Palace, Norwich. This aisle collapsed in 1851. The whereabouts of the glass is unknown. This watercolour, and another depicting a sower, are housed at Norwich Castle Museum.
Photo: Kirk Laws-Chapman

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St Martin-at-Palace
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St Michael, Bowthorpe
Initial thanks must go to the Historic Buildings and Monuments Commission (English Heritage) and the Manpower Services Commission who funded the excavation. English Heritage also funded post-excavation work and gave a grant towards the publication of this report. Access to the site was kindly permitted by the Diocese of Norwich and the Reverend Ray Simpson, the Diocese providing a faculty for the work.

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project architect, Peter Codling, and by the co-operation of Ray Collins and Christine Houchen of South Norfolk District Council who supervised an MSC repairs scheme at the end of the excavation project. The writer would like to record his gratitude to Philip Walker, Inspector of Ancient Monuments, for his always thoughtful advice and help.

The excavation was directed by the writer assisted by Jayne Bown who acted as supervisor and by Piers Millington-Wallace and Graham Joyce, supervisors of the MSC team. Most of the day-to-day recording was undertaken by Jayne Bown and the greatest burden of elevation drawing was carried out by Graham Joyce. The excavation team remained remarkably cheerful during three winter months of cold and windy weather. In such conditions the assistance given to the project by volunteers, notably Margaret Mathews, was little short of heroic.

The maps, plans, sections and elevations for this report have been prepared by Jayne Bown, the pottery and small finds drawings by Hoste Spalding and the illustration of the stone coffin lid by Steven Ashley. The finds report and archive were prepared by Val Fryer. The writer is grateful to Janet Scoles for detailed drawings of architectural mouldings which form the basis of Fig.54 and to Diana Smith for identification of stone used in the wall fabric of the ruined chancel. He has received very useful advice and information from Bill Goode of the Friends of the Round Tower Churches Society, and from Andrew Rogerson and Peter Wade-Martins to whom he extends his thanks.

Finally, Barbara Fox, guesthouse warden at Bowthorpe cottages, must be thanked most warmly for so generously allowing members of the excavation team to use her cloakroom.

Preface

This volume contains reports of two excavations undertaken by the Norfolk Archaeological Unit within the area of the greater city of modern Norwich. Both projects were conducted within church buildings, one redundant and the other in ruins. Both were also necessitated by proposals for re-use of the buildings, either by adaptation work or new building works with associated conservation consolidation.

Norfolk is a county rich in churches with Norwich being a city with the greatest concentration of medieval churches in north-western Europe. Church archaeology, however, remains in its infancy. Archaeological surveys of extant structures, as opposed to architectural assessments, remain very rare with excavations being only a little more common. Most of these have been undertaken on the sites of lost churches rather than within ruined or extant buildings. A welcome survey has been published recently of ruined and disused churches in Norfolk (Batcock 1991) but this is very much a statement of potential.

In this context, therefore, the projects detailed in this volume are early interventions in a nascent field. Both represent the almost total excavation of the interior of a church building although neither encroached upon the attendant graveyard. The work at Bowthorpe represents only the second substantial excavation of a rural medieval church in Norfolk, following that of All Saints', Barton Bendish (Rogerson and Ashley 1987). The excavation within St Martin-at-Palace, Norwich is the first major intramural church project in the county although it follows that of the bombed and demolished church at St Benedict in the same city which was excavated in 1972 (Roberts 1982).

While there have been other excavations of church *sites*, such as that of uncertain dedication at Thetford (Dallas 1993) or of a Late Saxon timber church discovered behind Anglia Television, Norwich (Ayers 1985), the importance of the two projects discussed here is that, by excavation, they bring a new dimension to existing, or partially existing, buildings. In addition, where possible, archaeological recording at both locations extended to the upstanding fabric as an integral part of the project.

This fabric recording was easiest at Bowthorpe where scaffolding allowed access to the walls on both the interior and exterior of the ruined chancel. The benefits of the detailed structural recording can be assessed from the resultant interpretation which relies heavily upon the fabric description for an understanding of the successive periods of use.

Access was more difficult at St Martin-at-Palace where there was less scaffolding and much of the wall fabric was also covered in plaster. However, in those areas where plaster was removed and recording was possible, the results were startling, with details of a blocked doorway, a 17th-century scriptural text and an heraldic device all being recovered.

It will be seen that a chronological sequence was established for each church, that details of the structural sequence were recorded and that inferences concerning liturgical practice could occasionally be drawn. Perhaps most importantly, however, the work demonstrates how analysis of the church fabric, above and below ground, together with a careful consideration of its topographic setting, can enhance understanding of the development of the entire local environment, be it rural or urban. It is encouraging to note that, at the time of writing (1996), a Society of Church Archaeology is in the process of being formed. It is to be hoped that the successful launch of such a society will be a prelude to a greater understanding of the contribution of churches and church sites to the historic landscape.

This volume is dedicated to the late Roger Greenwood, a local historian whose enthusiasm for the church of St Martin-at-Palace in particular was inspirational to the writers of each of the reports contained herein.

Summary

St Martin-at-Palace
The earliest identified activity consisted of a burial, dated by radiocarbon to the Middle Saxon period. This was succeeded by the first of two timber structures dated to the 10th/11th and the 11th centuries, both of which are interpreted as churches.

Subsequently, chalk and flint foundations for a bicellular structure were built, contemporary with the extant east wall of the church. The building erected on these footings has been dated, on stylistic grounds only, to the 11th century.

Intramural burial complicated the excavation, removing much evidence for medieval usage. Post-medieval coffin furniture provided the major part of the finds assemblage, adding to the growing national corpus of evidence for burial practice.

St Michael, Bowthorpe
Excavation revealed three main periods of use and disuse of the church of St Michael. A small building of chancel, nave and tower was erected above massive footings in the 11th or 12th century. The chancel was replaced in the 14th century and a north nave porch added about the same time. The church was ruinous by the 16th century. Repairs in the 1630s created a chapel in the chancel, the nave having collapsed or been demolished. The tower was used as a chimney for an oven or corn dryer prior to its demolition, probably before 1790. Intramural burial was slight with finds being largely confined to decorative stonework, plaster, glass and tile.

Résumé

St Martin
L'activité la plus ancienne qui a pu être identifiée et datée au carbone 14 consiste en un enterrement remontant à la période saxonne moyenne. Une structure en bois, datant du dixième/onzième siècle fut ensuite découverte; elle est associée à une seconde structure en bois qui date du onzième siècle. L'une et l'autre sont considérées comme appartenant à des églises.

Par la suite, on construisit des fondations en craie et en silex destinées à une structure bicellulaire, en même temps que le mur encore existant de l'église, situé à l'est. On estime que le bâtiment élevé sur ces fondations date du onzième siècle, en s'appuyant uniquement sur des critères stylistiques.

Des inhumations intra-muros ont compliqué les fouilles et ont fait disparaître en grande partie les traces des usages médiévaux. Des cercueils postérieurs au Moyen-Âge constituent l'essentiel des découvertes; ils viennent enrichir le corpus national des objets témoignant des pratiques funéraires.

St Michael, Bowthorpe
Les fouilles ont permis de distinguer trois grandes périodes pendant lesquelles l'église de St Michael était consacrée au culte ou laissée à l'abandon. Un petit édifice constitué d'un chœur, d'une nef et d'une tour a été élevé sur des fondations imposantes au onzième et douzième siècle. Le chœur fut remplacé au quatorzième siècle et un porche de nef fut ajouté au nord à peu près à la même époque. L'église était à l'état de ruines au seizième siècle, mais dans les années 1630, des réparations furent entreprises qui aboutirent à la construction d'une chapelle dans le chœur, la nef s'étant effondrée ou ayant été démolie. La tour servit de cheminée de four ou de séchoir à céréales avant d'être démolie, probablement avant 1790. Les sépultures intra-muros ne contenaient que peu d'objets qui pour l'essentiel se limitaient à des éléments décoratifs en pierre, et à des morceaux de verre, de plâtre ou de carrreaux.

(Traduction: Didier Don)

Zusammenfassung

St Martin
Die frühesten nachgewiesenen Aktivitäten gehen auf ein Begräbnis zurück, das mithilfe von Radiokarbonmessungen auf die mittlere Phase der angelsächsischen Zeit datiert werden konnte. Darauf folgte der erste von zwei Holzbauten, die auf das 10–11. sowie das 11. Jahrhundert datiert wurden und beide für Kirchen gehalten werden.

Als nächstes wurden Kreide- und Flintfundamente für ein zweizelliges Gebäude gelegt, die aus der gleichen Zeit stammen wie die erhaltene Ostwand der Kirche. Der auf diesen Fundamenten errichtete Bau wurde aus rein stilistischen Gründen aus das 11. Jahrhundert datiert.

Die Ausgrabungen wurden durch innerhalb der Mauern gefundene Gräber kompliziert, die einen Großteil der Hinweise auf die mittelalterliche Nutzung zerstörten. Die Fundsammlung besteht hauptsächlich aus nachmittelalterlichen Sargteilen, die sich zum wachsenden nationalen Belegkorpus zu Bestattungssitten hinzugesellen.

St Michael, Bowthorpe

Grabungen identifizierten die drei Hauptperioden der Nutzung bzw. Nichtnutzung der St-Michaels-Kirche. Im 11. oder 12. Jahrhundert wurde über massiven Fundamenten ein kleines, aus Altarraum, Kirchenschiff und Turm bestehendes Gebäude errichtet. Im 14. Jahrhundert wurde der Altarraum ersetzt und zur etwa gleichen Zeit an der Nordseite ein Portal angebaut. Die Kirche verfiel noch vor dem 16. Jahrhundert. Nachdem das Kirchenschiff eingestürzt oder abgerissen worden war, wurde beim Wiederaufbau in den 1630er Jahren im Altarraum eine Kapelle angelegt. Der Turm wurde vor seinem Abriss, der wahrscheinlich vor 1790 stattfand, als Rauchabzug für einen Ofen oder Getreidetrockner genutzt. Es gab nur wenige Hinweise auf Gräber innerhalb der Mauern; die diesbezüglichen Funde beschränkten sich hauptsächlich auf dekorative Steinmetz-, Gips-, Glas- und Kachelarbeiten.

(Übersetzung: Gerlinde Krug)

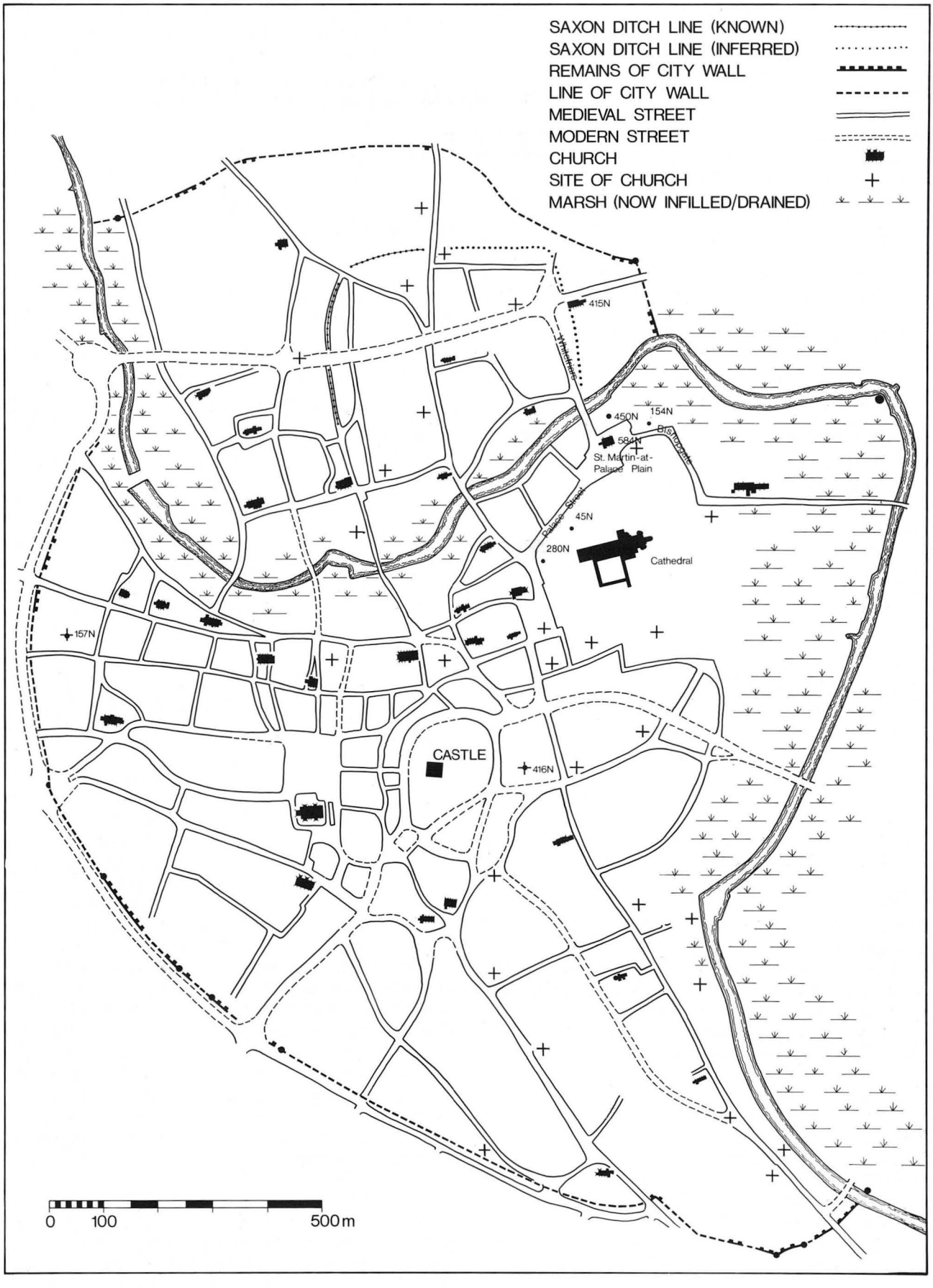


Figure 1 Map of medieval walled city to show location of the excavated site (584N) and other sites mentioned in the text: St Martin-at-Palace Plain 1981 (450N), Bishopgate 1971 (154N), Norwich School, Tombland 1975 (280N), The Cathedral Close 1956 (45N), St Benedict (157N), St James (415N) and Anglia TV (416N). Scale 1:10,953

Chapter 1. Excavations in St Martin-at-Palace Church, 1987

by Olwen Beazley

I. Summary

Excavations in the church of St Martin-at-Palace, Norwich were undertaken between December 1987 and April 1988 prior to redevelopment within the building for the Norfolk Probation Service. A small trial hole was dug in 1986 to identify the depth of archaeological deposits.

The earliest archaeological activity on the site comprised a series of cut features and a burial which, from the radiocarbon dating evidence, was thought to be of a Middle Saxon date. There were no features directly associated with the burial.

Evidence of two timber structures was recovered from the excavation. These structures employed differing foundation techniques. One was dated 10th- to 11th-century and the other was attributed an 11th-century date. Both were interpreted as churches.

Later chalk and flint foundations were also excavated, bicellular in plan. These foundations were interpreted as those of a stone church, the only remaining vestige of which is the extant east wall of the present church. This wall has been dated, on stylistic grounds only, to between AD 950–1100.

It was extremely difficult to date closely the later use of the church from the archaeological evidence. Burial took place within the building, presumably until the Burial Board Act of 1832 which prohibited the continuation of intra-mural burial. The construction of a soakaway for a font was recognised.

Other activity recorded by the excavation was probably related to extensive restoration work *c.* 1850–1 and other internal repairs.

The majority of the finds material recovered was coffin furniture. This will add to the growing corpus of national data for post-medieval burial practice.

There was remarkably little pottery or other datable artefacts from the site and precise dating, therefore, within the broad periods of activity is impossible.

Of the excavated human bone only articulated material was retained for close examination.

Chronological Summary

Period I	Probably Middle Saxon, late 8th century
Period II	Probably late 10th to early 11th century
Period III	Mid-11th century
Period IV	Very broad, 11th to mid-19th century
Period V	Mid-19th to 20th century

II. Introduction

The site

by Brian Ayers

The church of St Martin-at-Palace stands on the south bank of the River Wensum in the city of Norwich, at the east end of the open space now called St Martin-at-Palace Plain (TG 23465 09103) and once called Bichil (Fig.1)[1]. It is a flint structure with lime-stone dressings consisting of a chancel, nave, west tower, north and south aisles to both nave and chancel, and a south porch. The main space of Palace Plain lies to the west and roads, each part of Palace Plain, lie to the north, east and south.[2] A churchyard surrounds the building and is bounded by walls of brick capped either with capping stones or wrought iron.

The immediate area is one of considerable antiquity. Excavations by the Norfolk Research Committee in 1962 (Wilson and Hurst 1964, 267), the Norwich Survey in 1971 and 1972 (Carter 1972, 414; Carter and Roberts 1973, 449–53; Atkin and Evans forthcoming) and the Norfolk Archaeological Unit in 1979 and 1981 (Ayers and Murphy 1983; Ayers 1987) have all indicated Late Saxon activity in the 11th century with the possibility of proto-urban development in the 10th century. The church of St Martin itself is mentioned by name in *Domesday Book*[3] when it was held by Stigand, Archbishop of Canterbury, in 1066. It is, furthermore, a church where architectural evidence indicates fabric of Late Saxon build. In addition the early river crossing, with a bridge in place by 1106 (Johnson and Cronne 1956, 55), emphasises the importance of the location within the developing urban topography.

It is this combination of antiquity and integration within the urban environment which was crucial to the research design adopted for archaeological work at the church of St Martin. The Norfolk Archaeological Unit has been undertaking excavations in the city since 1979 and, in so doing, has conducted rescue work within a research framework initially adopted by the Norwich Survey in the 1970s. One result of this policy has been that a number of excavations have been undertaken in recent times with a view to exploring the origins and early development of Norwich in the context of urban growth in northern Europe during the early medieval period.[4]

Work within the parish of St Martin-at-Palace has been especially fruitful. The excavations detailed in the above publications, particularly those conducted in 1981 (Ayers 1987), have revealed great quantities of data concerning trade, industry, commerce and domestic life in the Saxo-Norman and later periods. It has been possible to discuss topographic developments and socio-economic growth or decline within the parish in the context of the city and the city's hinterland.

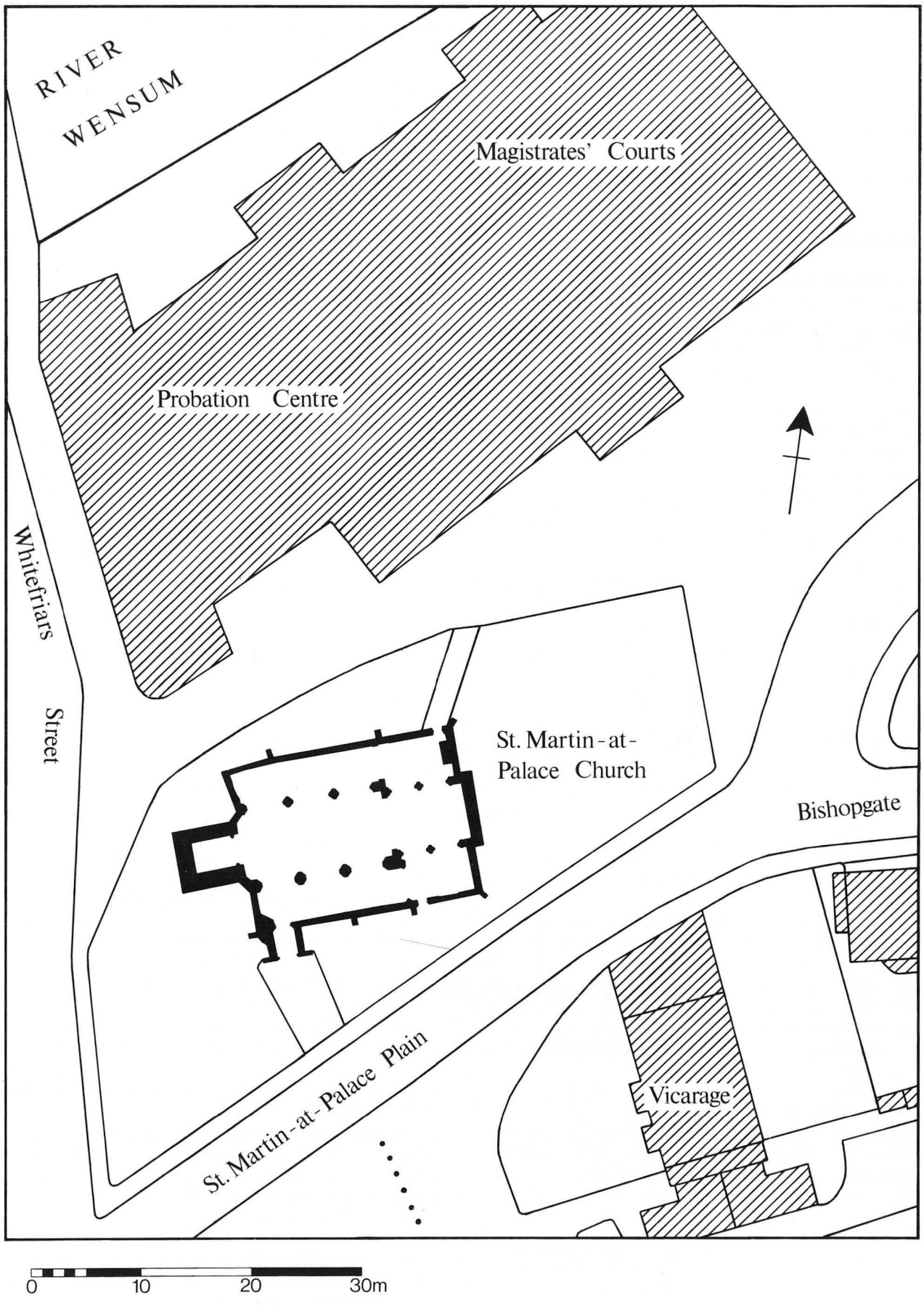


Figure 2 Location of St Martin-at-Palace church within modern topography. Scale 1:500

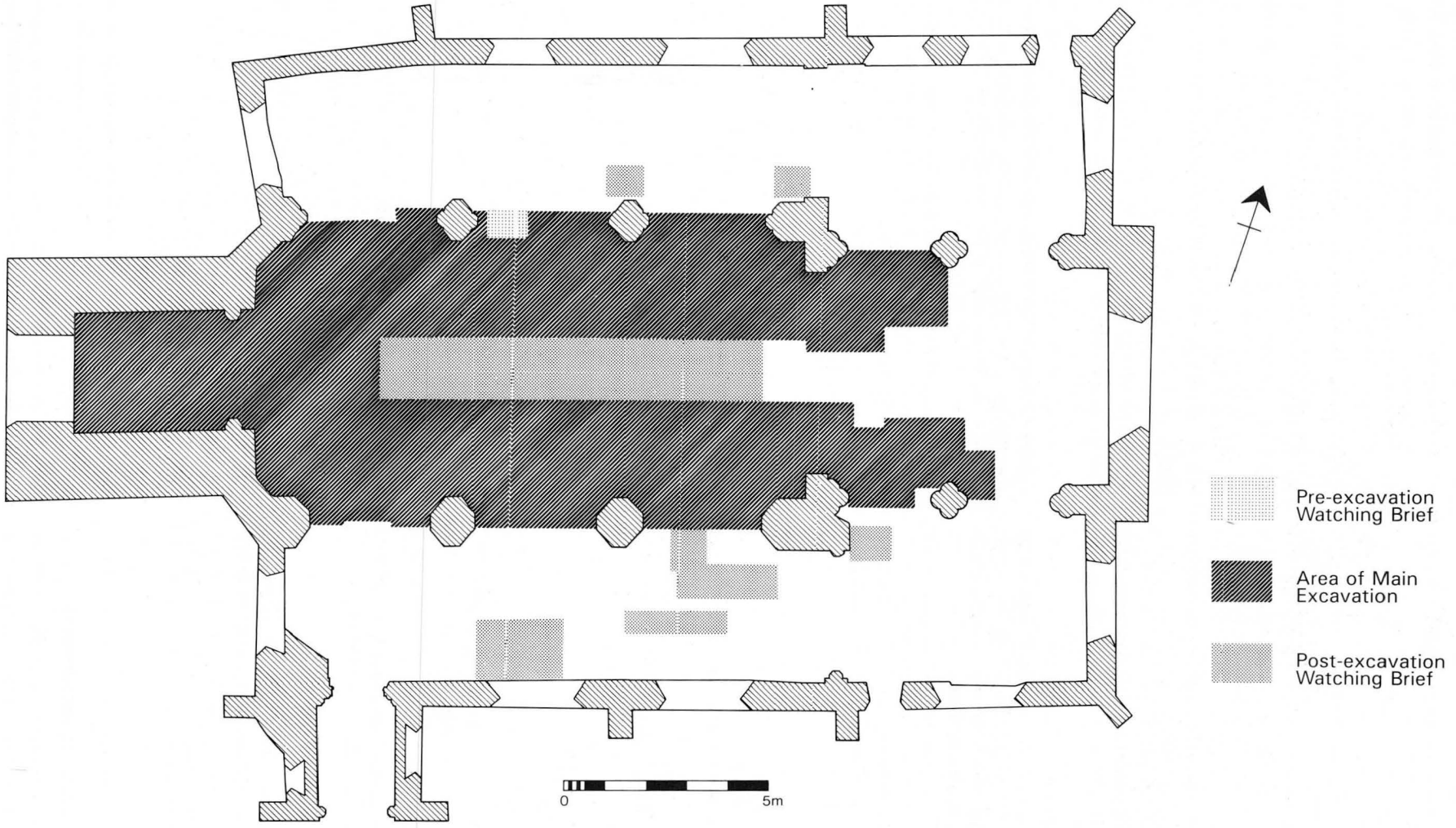


Figure 3 Area of excavation within the church structure. Scale 1:150

A lacuna, however, was evident with regard to the church. Historical study had been considerable concerning the secular part of the parish but little detailed work had been undertaken for the church itself apart from the extraordinary dedication shown by the late Roger Greenwood in cataloguing the surviving ledger slabs. The church, although not large by Norwich standards, is certainly not small[5] and its mention in *Domesday Book,* together with other information concerning Stigand's holding, carries with it the implication that it was of some importance in the 11th century. It is possible, of course, that the church mentioned in *Domesday Book* is not the building standing on the site today, but it was clearly a structure central to Stigand's estate.

The parish itself is significant in Norwich being one of only two riverside parishes where the boundary crosses the river (Ayers 1987, fig.101), probably emphasising the early date of a north-to-south river crossing. About 1377 the parish was also enlarged by the addition of the parish of St Mathew (Tillyard 1977, microfiche and fig.97; Blomefield 1806, 373). The absence of detailed work on the church, therefore, given the information already recovered from elsewhere in the parish, was unfortunate.

The church of St Martin was made redundant in the 1960s, its furnishings being removed.[6] It remained largely empty for much of the next twenty-five years. Proposals were brought forward in 1987 to convert the structure to a day centre for the Norfolk Probation Service, proposals which did little violence to the extant fabric (in line with the guidelines of the Norwich Historic Churches Trust) but which entailed major disturbance to the below-ground deposits in the tower, nave and part of the chancel. It was decided, therefore, that prior archaeological excavation was a necessity and that this should be undertaken in concert with a documentary survey and with an architectural study of those parts of the fabric to be disturbed by the proposed works.

The excavation programme, the report of which follows, was therefore conceived within overall research aims for the archaeological study of the city and within the constraints of modern redevelopment inside a church building. It was not envisaged as a comprehensive survey of the fabric but rather as an undertaking to record the archaeological deposits in order to complement the data potential held within the fabric. It was also designed to establish a chronological sequence for activity on the site so that the development of the church could be put in the context of the development of the rest of the parish.

Surface geology

The site is on the south bank of the River Wensum where the natural geology is orange sand and gravels to a depth of approximately 5m over cretaceous chalk. The gravels in this area of St Martin-at-Palace Plain form a spur which slopes northwards towards the river (Ayers 1987, 30, fig.26).

Excavation method

The excavations at St Martin-at-Palace church (County Site No.584N) took place between December 1987 and April 1988 in response to the development proposals of the Norfolk Probation Service.

The area available for excavation was dictated by the areas where archaeological destruction would occur; in the tower, nave and part of the chancel. It was imperative, therefore, that the excavation should encompass these areas (Figs 2 and 3). This strategy later had to be modified due to the practical problems of removing the stone ledger slabs in the centre of the nave, and on the chancel steps (Fig.34). The area available for excavation was thus reduced to the tower, nave (generally excluding the aisles) and lower part of the chancel sanctuary, leaving the steps and slabs thereon intact. Excavation was abandoned in the tower on February 12th 1988 because of the unstable nature of the tower footings. The remaining area of excavation was, therefore, reduced in size but it was hoped that the smaller sample would still provide the answers sought.

The fact that the excavation took place within a building which had been roofed for most of its 1,000 years caused considerable difficulties in the actual identification and removal of archaeological features. The problems were caused by the excessively arid soil in which colour definitions and features were almost undetectable. This soil also produced the problem of unstable sections and on occasion archaeological data was destroyed following collapse.

The excavation was undertaken using standard techniques for open areas. Each context was planned individually (except fills), before its removal in the case of a deposit, and after excavation in the case of negative features. Skeletons were photographed and sketched but due to the pressure of time they were not planned in detail.

A short watching brief was undertaken when building work commenced in 1988 and the ledger slabs in the central aisle were removed. Records of features were made although no scale plans were drawn as at this stage the site grid was no longer extant. Information gleaned in the watching brief has been incorporated within this report.

Regular visits were made to the building, by the writer, in a watching-brief capacity, whilst the constructional works were undertaken. All aspects of above and below ground destruction and alterations were monitored and, wherever possible, recorded as necessary.

III. The Excavation Sequence and Survey

(Figs 4–22)

All features were recorded by number according to the site's context number sequence (from *100–774*). Buildings or structures identified in post-excavation analysis, from combining individual features, have been attributed a letter to identify them as such, *e.g.* Structure A. Only deposits and negative features appear in plan. Fills were not generally recorded in plan.

Period I

(Fig.6)

The earliest stratigraphic activity on the site were several cut features of irregular shape and size, cutting natural gravels. Cut *756* at the west end of the excavation was an irregular feature with almost no discernible edge or depth to the east. It contained a loose fill with small pebbles. This feature, so irregular in form, may have been a natural feature filled with silts. Other negative features of the same period were excavated in the nave of the church but appeared to have no obvious function and did not contain fills of any note (Fig.6).

Stratigraphically above the fill of *756* was cut *745* which contained skeleton *746* (Fig.6, Pl.IV). The excavated skeleton was orientated west–east and lay in an extended spine position. It comprised, both pelves, 2–5 sacral segments, 5 lumber vertebrae, both tibia and a right humerus. The skeleton has been identified as a young adult male. It was physically truncated to the east by cut *739*, a feature attributed to Period IV. The bone has produced a calibrated radiocarbon date, with 95% confidence, of between AD 400–770 (OXA—2320; 1460± 90BP) or with 65% confidence a calibrated date of AD 450–665.

The grave fill of cut *745* contained a single tibia not associated with skeleton *746*. The inclusion of this stray tibia suggests that there was at least one other burial in the vicinity which was disturbed by grave cut *745*.

There are no other features in Period I directly associated with this early burial.

Period II

Structures and deposits
(Fig.7)
The earliest structural evidence of occupation on the site is thought to be of Late Saxon date. Although artefactual evidence from the excavation was sparse, the tight stratigraphic sequence for the early period of the site assisted the attribution of dates for it. As a result of extensive and heavy disturbance by later burials, horizontal deposits were notable by their absence.

Phase I Structure A
(Figs 6, 7 and 8)
The first structural activity on the site, cut into the natural sand and gravel, was a series of features interpreted as representing a post-and-slot construction, Structure A (Fig.7, Pl.I). The structure comprised three sub-circular post-pits (*558*, *510* and *536*) which were adjoined by a continuous slot. The post-pits were approximately 0.66m, 0.74m and 0.92m in diameter from west to east.

All the post-pits contained vestiges of posts which were represented by dark grey-black silty deposits and appeared in a square regular form (*526* Fig.8). A knife of 10th- to 11th-century date was recovered from the fill of *510*.

The length of the excavated structure was approximately 4.60m.[7] While the post-pits themselves were not spaced an equal distance from one another, the distance from the areas where evidence of posts remained (*i.e.* within the pits), was approximately 0.75m one to another. The structure was aligned roughly west-to-east at 118° 13' north-east and south-west respectively of the Ordnance Survey east–west alignment but not on the same alignment as the present church structure (see Fig.7).

The nature of the post-hole fills suggests that the timbers decayed *in situ*. It is possible that the timbers were cut off at ground level leaving the stumps to decay. Associated evidence, discussed later, argues that the structure may have remained standing while another was built to replace it (p.55).

The implications of Structure A and its alignment are discussed below (p.55).

Phase 1 deposits
(Fig.7)
Light brown sand/silt deposits (*595–630*) lay to the north of Structure A (*754*) and were above the natural sands and gravels. These deposits contained quantities of human skeletal remains and were later truncated by features interpreted as Structure B (Fig.7). Contexts *595–630* were sealed by clay lump deposit *570* — this may have been associated with the destruction of Structure A. The implication of these deposits in the stratigraphic sequence was fundamental to the interpretation of Phases I and II and is discussed at length below (and see Pl.II).

Phase II Structure B
(Figs 6, 9 and 10)
Structure B was located to the north of Structure A. Although there was not an immediate connecting stratigraphy a relationship between the two structures will be argued (p.55).

Structure B was of different structural technique to Structure A. It comprised seven, sub-circular, post-pits which contained rectangular or sub-rectangular post-holes located centrally within them. The pits (*751, 642, 654, 660, 640* and *636*) were 0.88, 0.76, 0.86, 0.80, 0.74 and 0.74m in diameter respectively, west to east. Post-pit *762* to the north of those described was probably 0.90m in diameter but had been truncated. The post-pits formed two alignments west-to-east and north-to-south. They were not on the same alignment as the present church structure. In the west-to-east alignment the post-pits were regularly spaced with approximately 0.80m between them from edge-to-edge. The distance from the centre of each post-hole to the next was approximately 1.50m with only minor variations. As with Structure A, the alignment was 118° 13' north-east south-west of the Ordnance Survey east-west alignment.

Post-pit *751* was the westernmost pit recorded. It was a sub-rectangular cut situated approximately 2.50m from the western edge of *642*, the next extant post-pit in the west-to-east alignment. The space between the two features may have accommodated another post-pit and post-hole, as suggested in Fig.9. The total length of the excavated west-to-east alignment was 10.50m.

Post-pit *751* contained a sub-rectangular post-hole (*742*) which, unlike the other post-holes interpreted as forming Structure B, contained packing material (Fig.10). One component of this material was a decorated stone fragment which has been allocated a early 11th-century date (p.39; Fig.28, Pl.III). The importance and implications of this artefact in such a location are discussed below (p.55). Post-pit *751* appeared to have been recut at least once in Phase II, *751* representing the earliest cut.

Post-pit *762*, to the north of *751*, was the first in what has been interpreted as the north-to-south alignment of post-pits. It was bounded to the north and west by the limit of excavation and appeared to be sub-circular in plan with a central post-hole (*704*) (Fig.9), possibly sub-rectangular in form. Pit *762* was approximately 0.64m north of pit *751*. The post-holes *704* and *742*, contained by the pits, were approximately 1.60m apart from the centre of each.

All the post-holes interpreted as forming Structure B contained grey-black silt except the fill of the post-hole in post-pit *642* (Fig.10), which was described as dark brown silt/sand. The fill of post-pit (*636*) (Fig.9) contained a sherd of Ipswich Ware. This will be discussed later in the text (p.42). The implications of the post-hole deposits are that, except for *643*, the posts decayed *in situ*, either cut off at ground level or left standing.

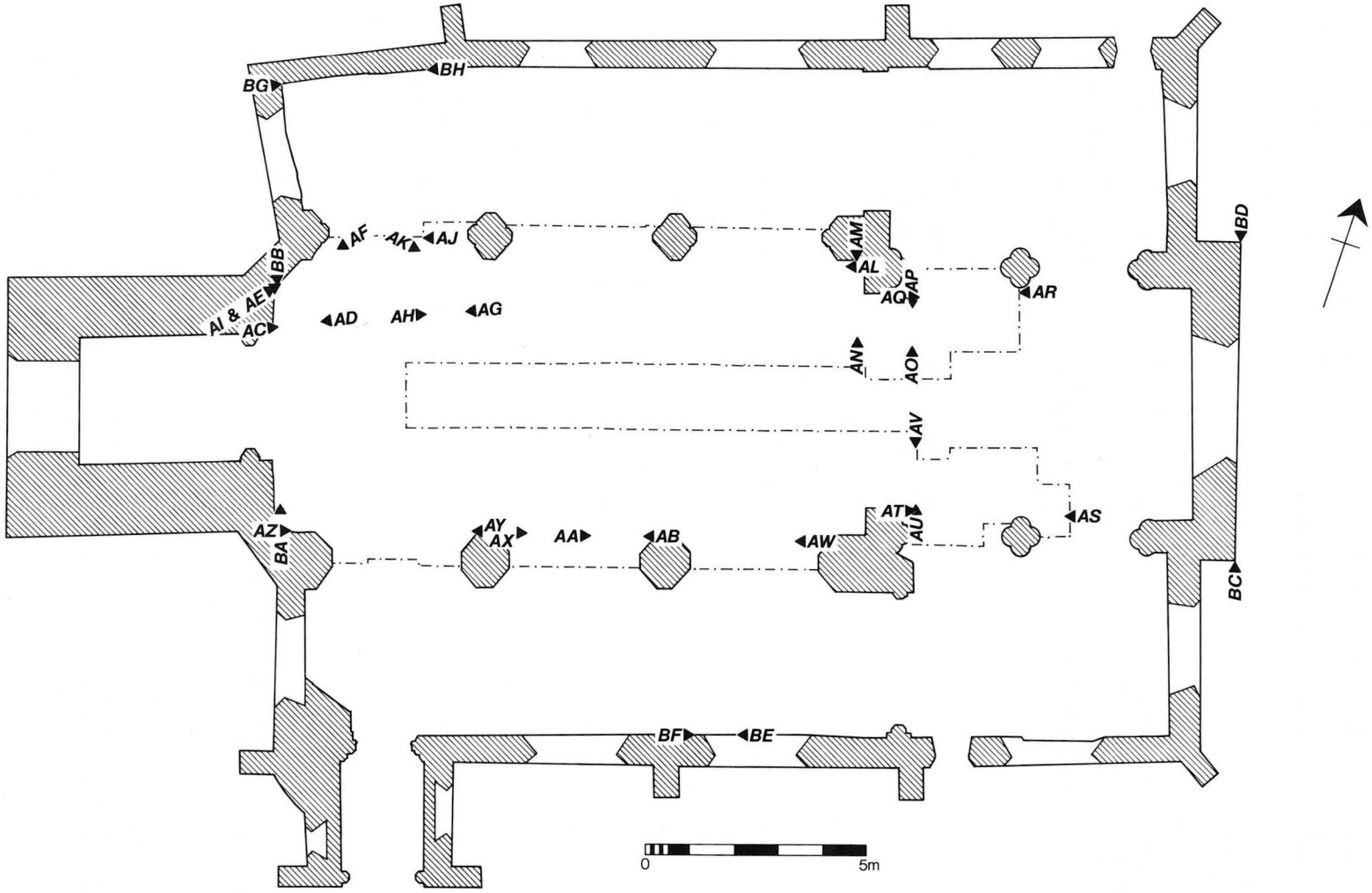
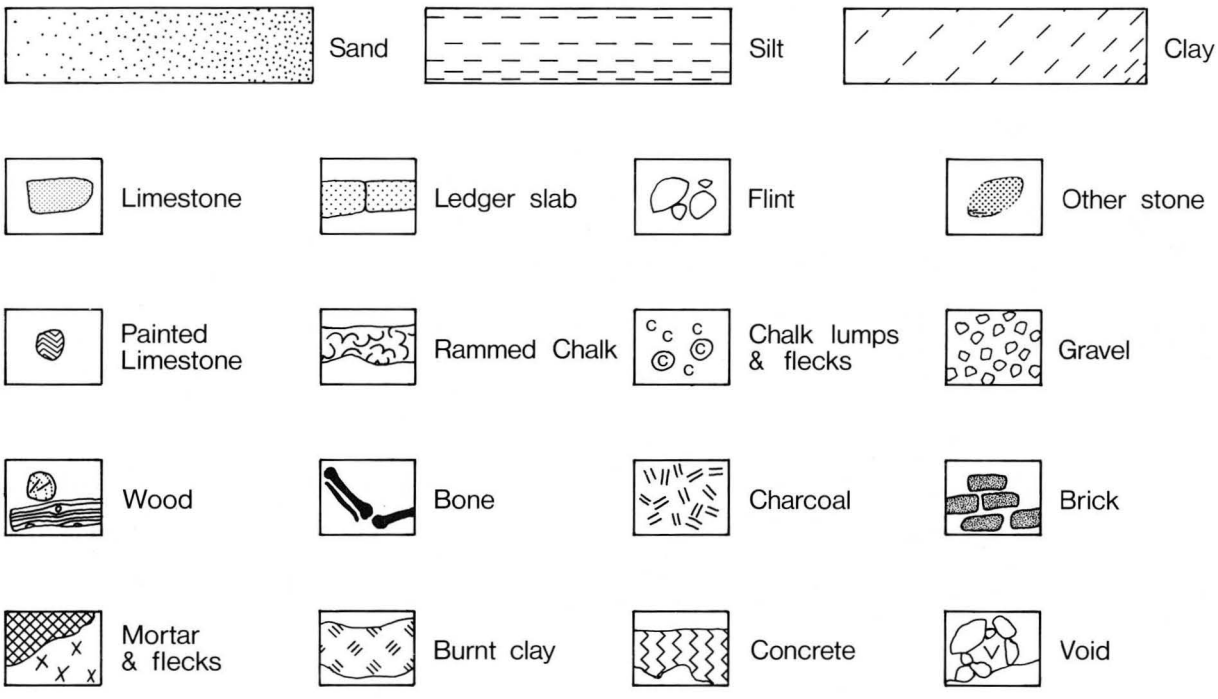


Figure 4 Plan of section locations. Scale 1:150

Sections & Elevations



Plans

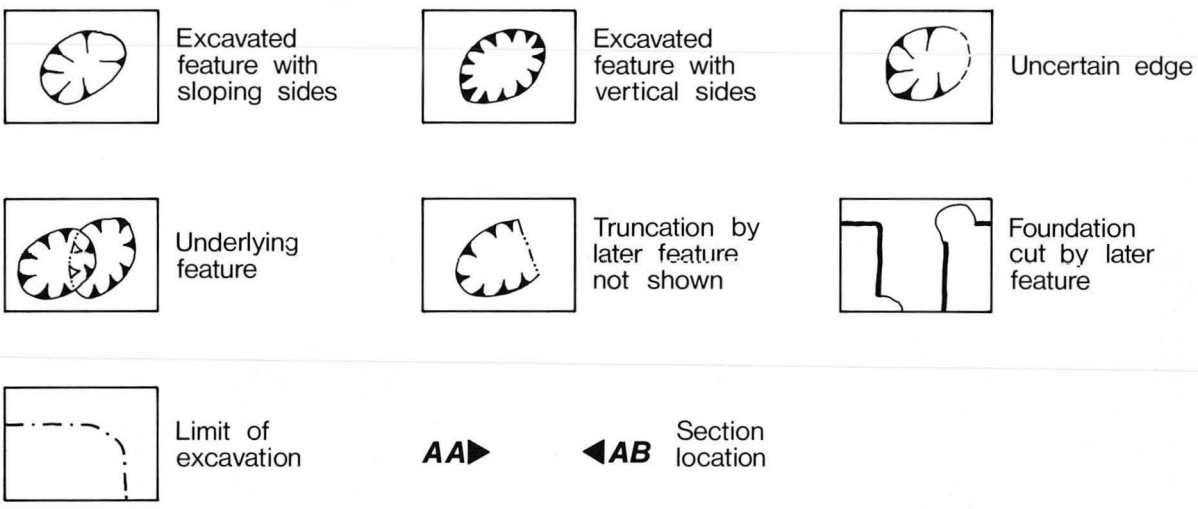


Figure 5 Key to conventions used in illustrations

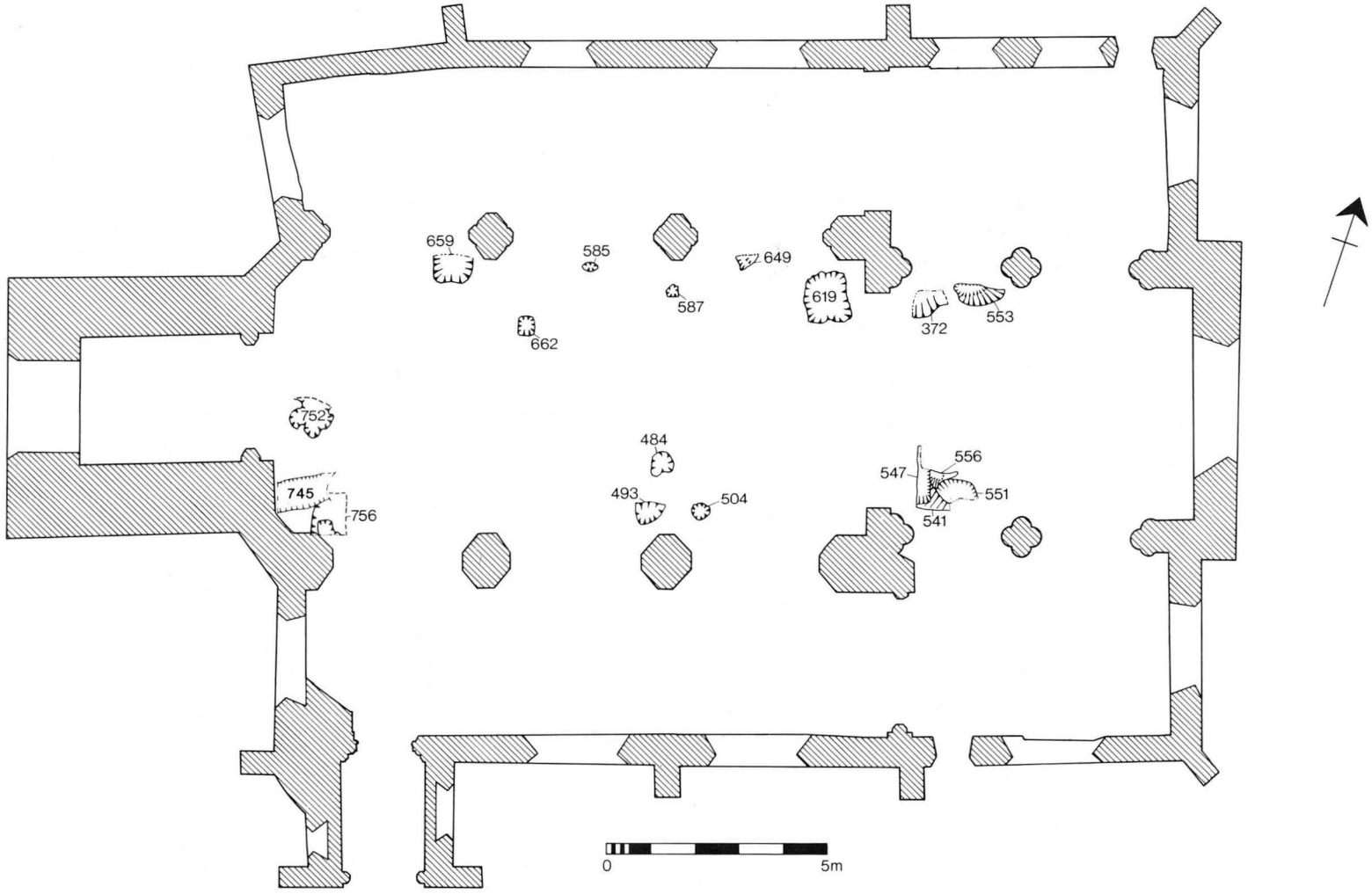


Figure 6 Period I and II plan, all excavated features (only *745* is Period I). Scale 1:150

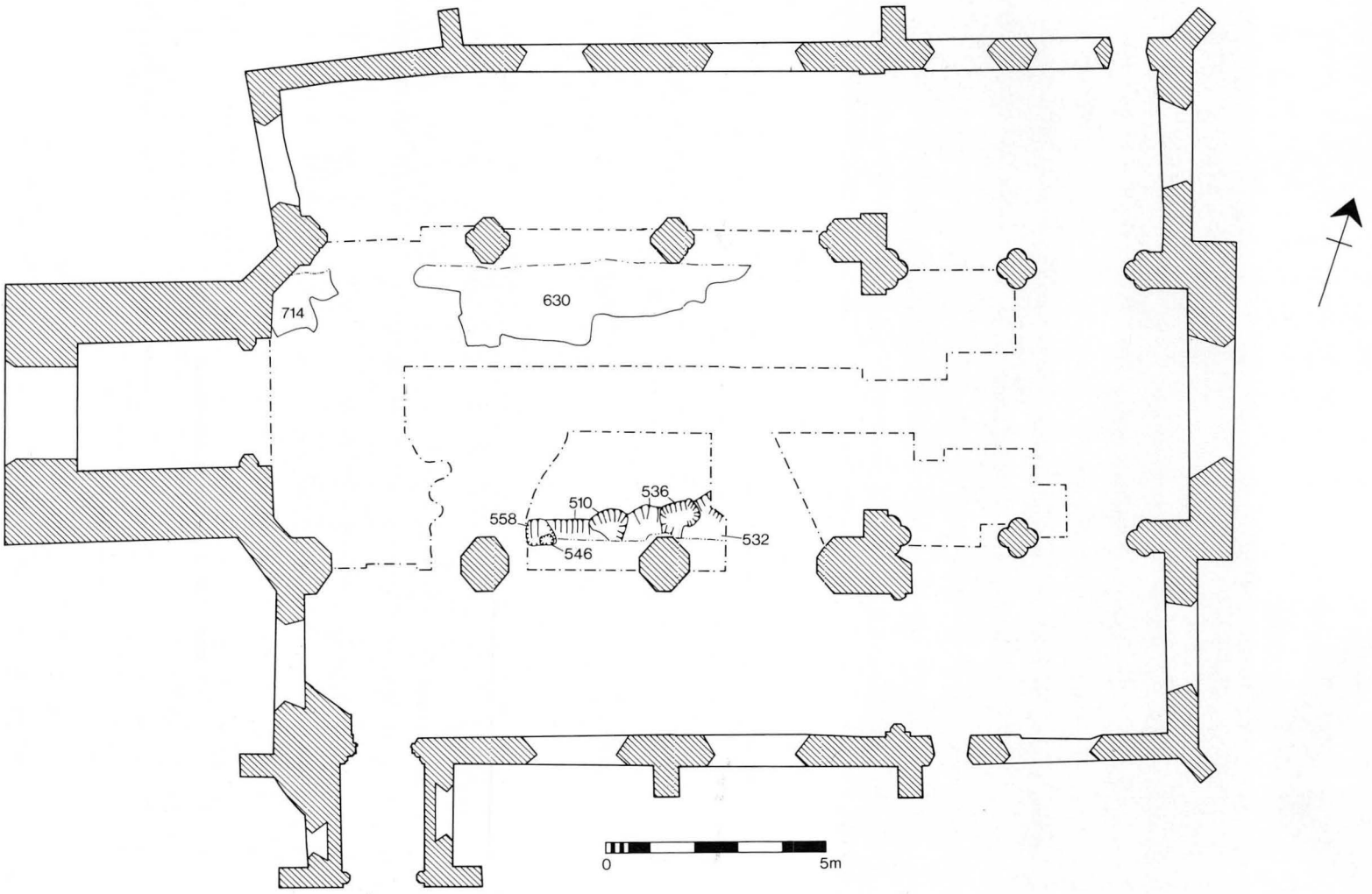


Figure 7 Period II, Phase 1. Plan of Structure A and associated deposits. Scale 1:150

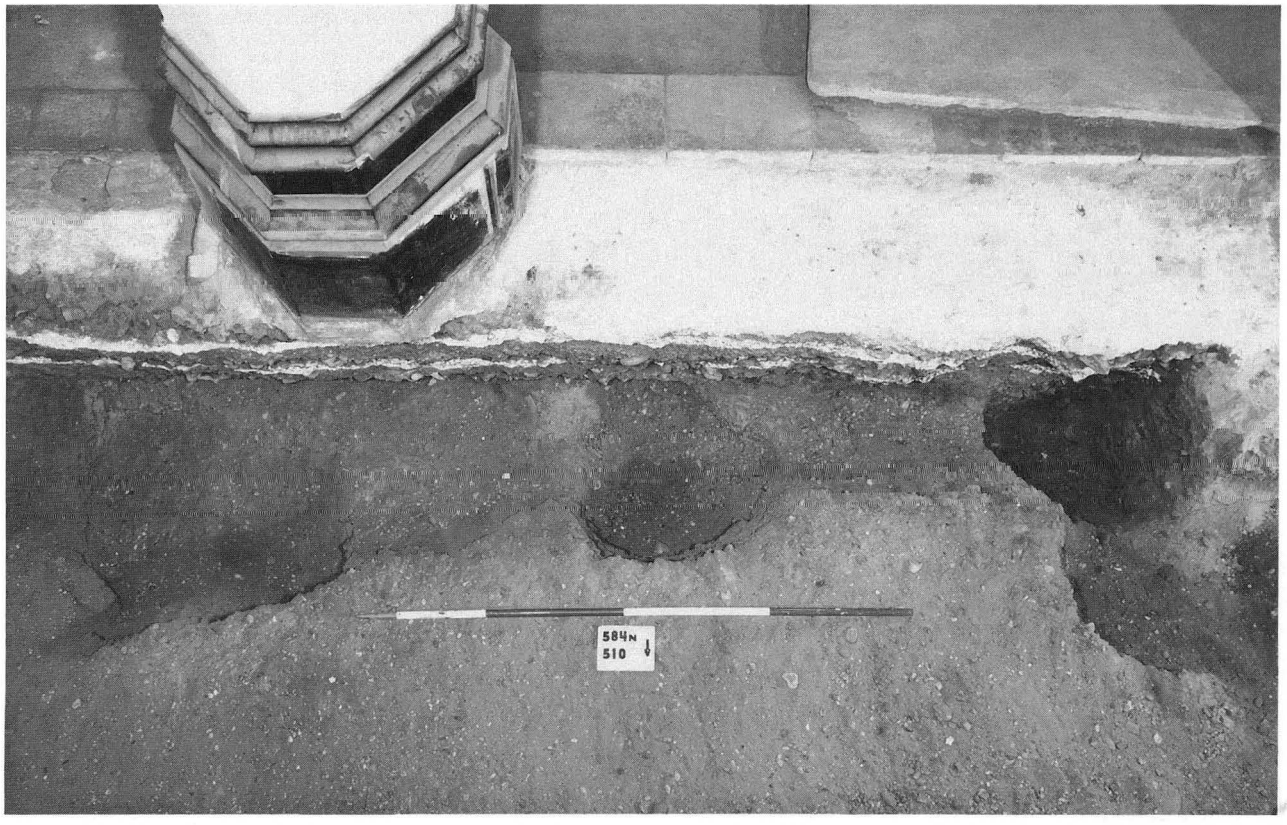


Plate I Post in trench foundations, Structure A. Scale 1 metre

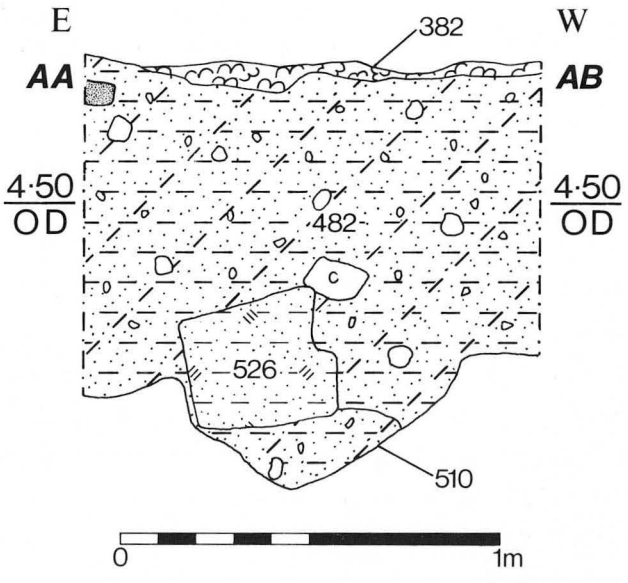


Figure 8 Section of post-pit, Structure A.
Section AA–AB. Scale 1:20

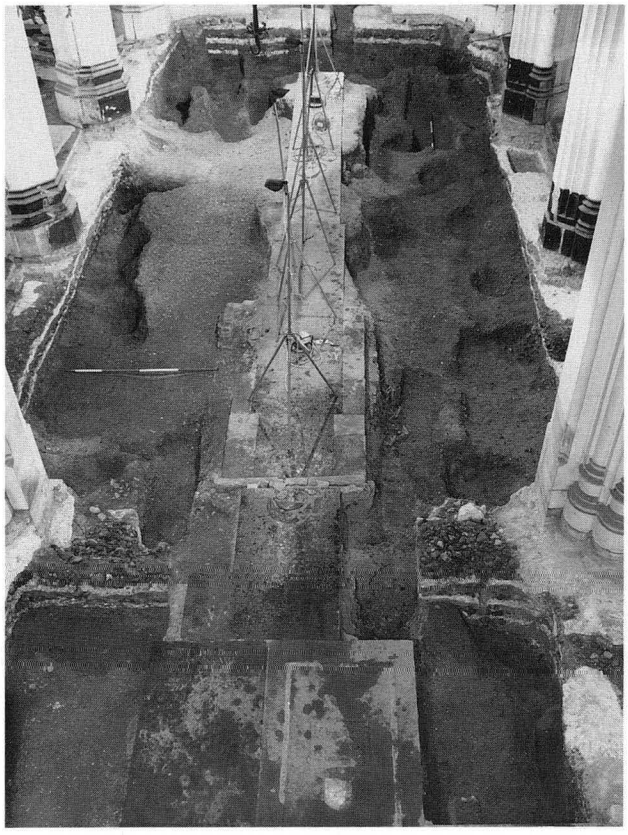


Plate II Post-pits comprising Structure B (right) and its relationship to Structure A (left). Scale 2 metres

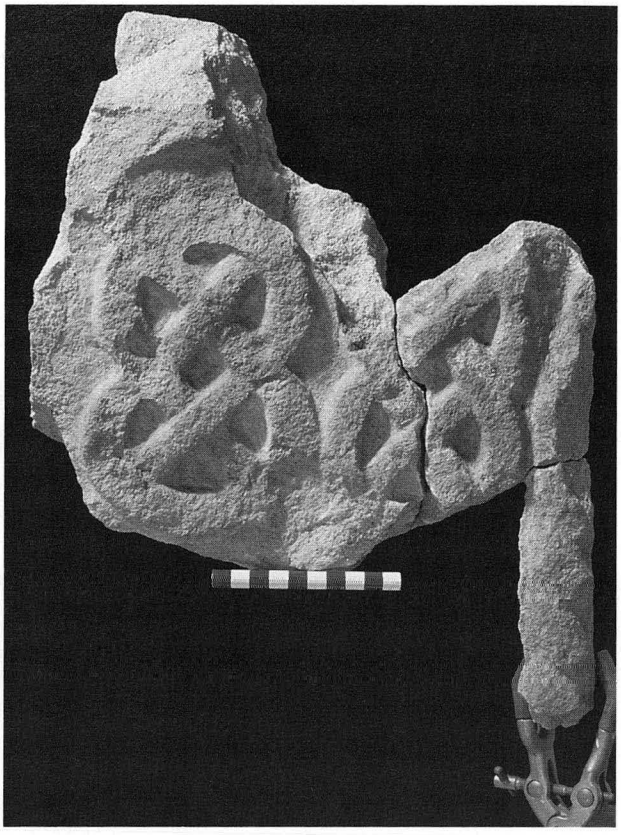


Plate III Fragment of decorated grave cover, SF 5247, 5248 and 5278. Scale 10 centimetres

Plate IV Skeleton *746*. Scale 10 centimetres

Plate V Trench foundations (*382*) filled with rammed chalk, flint and gravel. Scale 1 metre

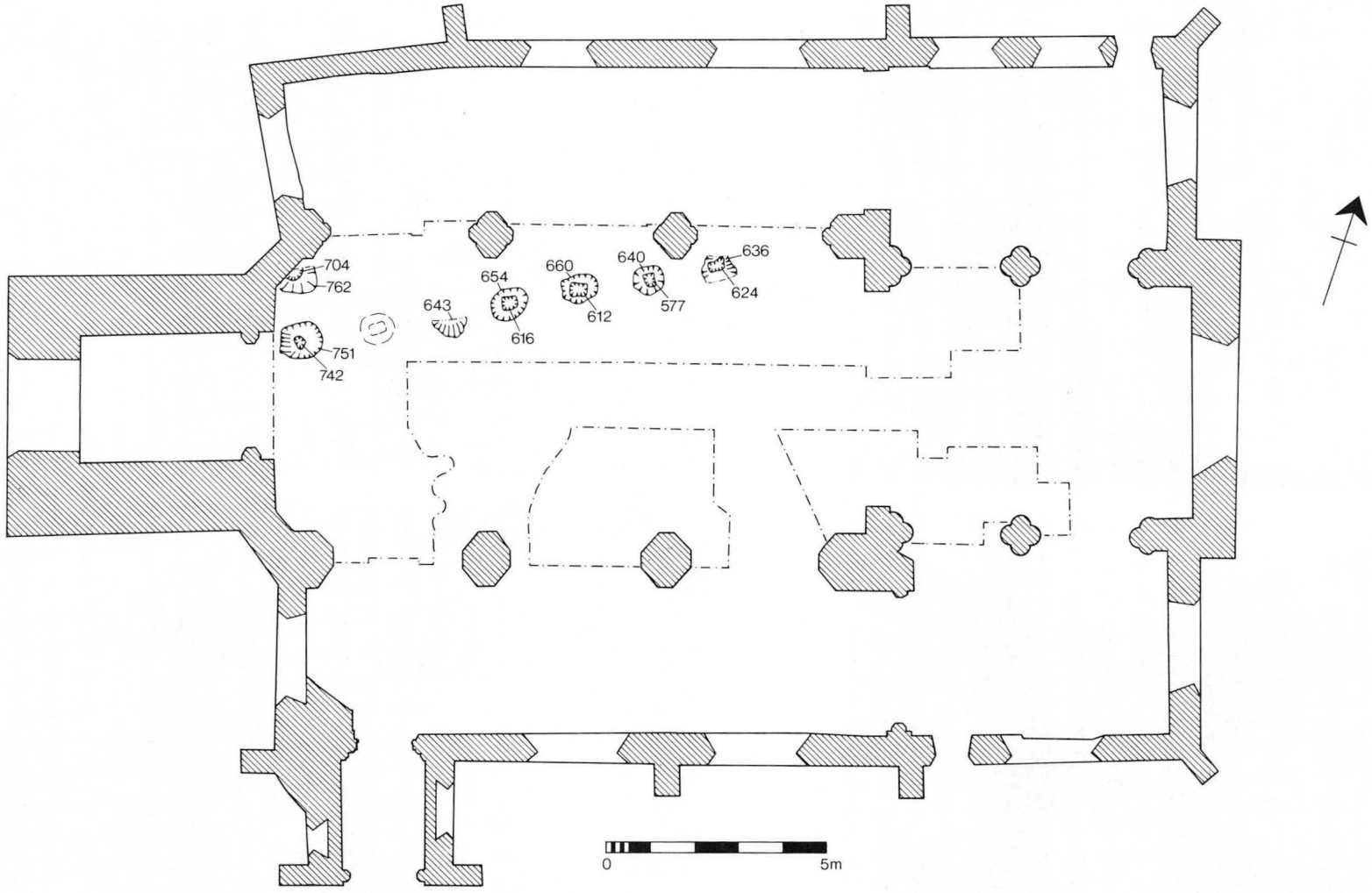


Figure 9 Period II, Phase 2. Plan of Structure B. Scale 1:150

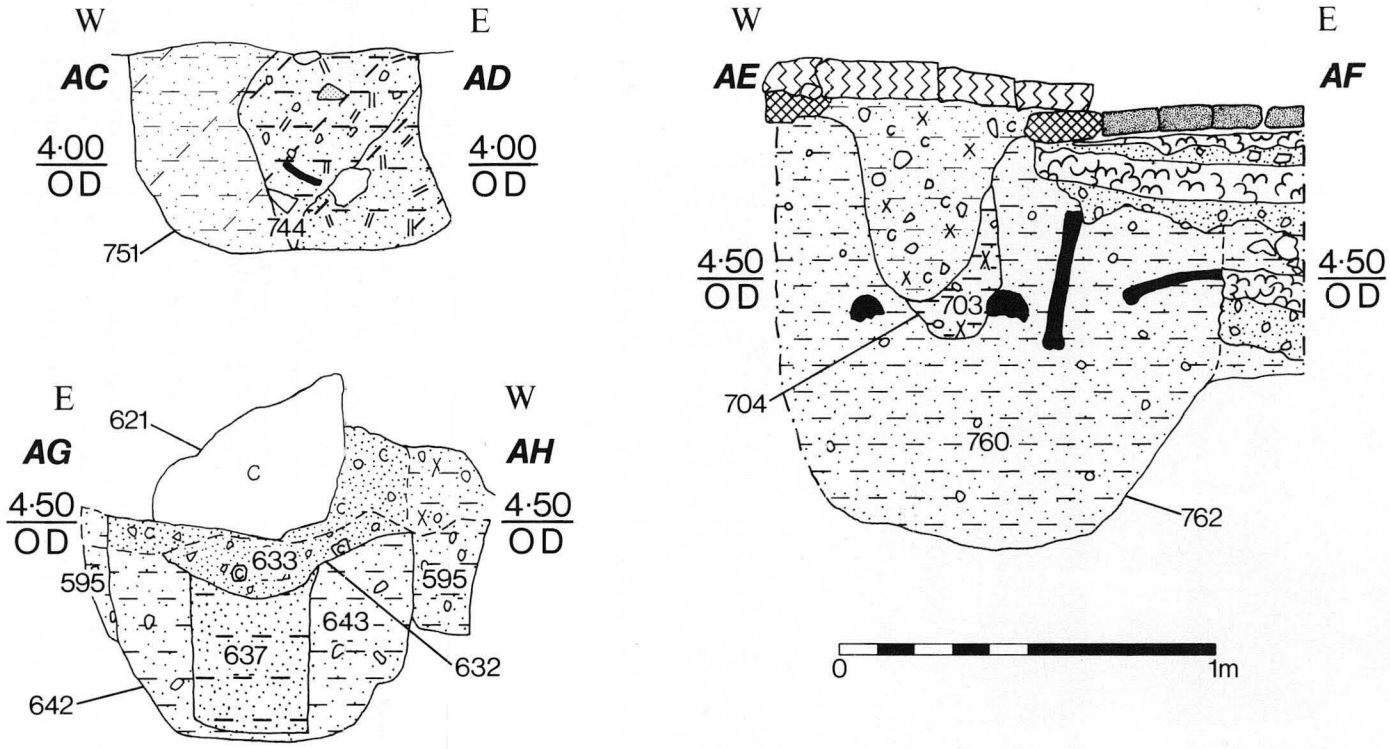


Figure 10 Sections of post-pits, Structure B. AC–AD; AE–AF; AG–AH. Scale 1:20

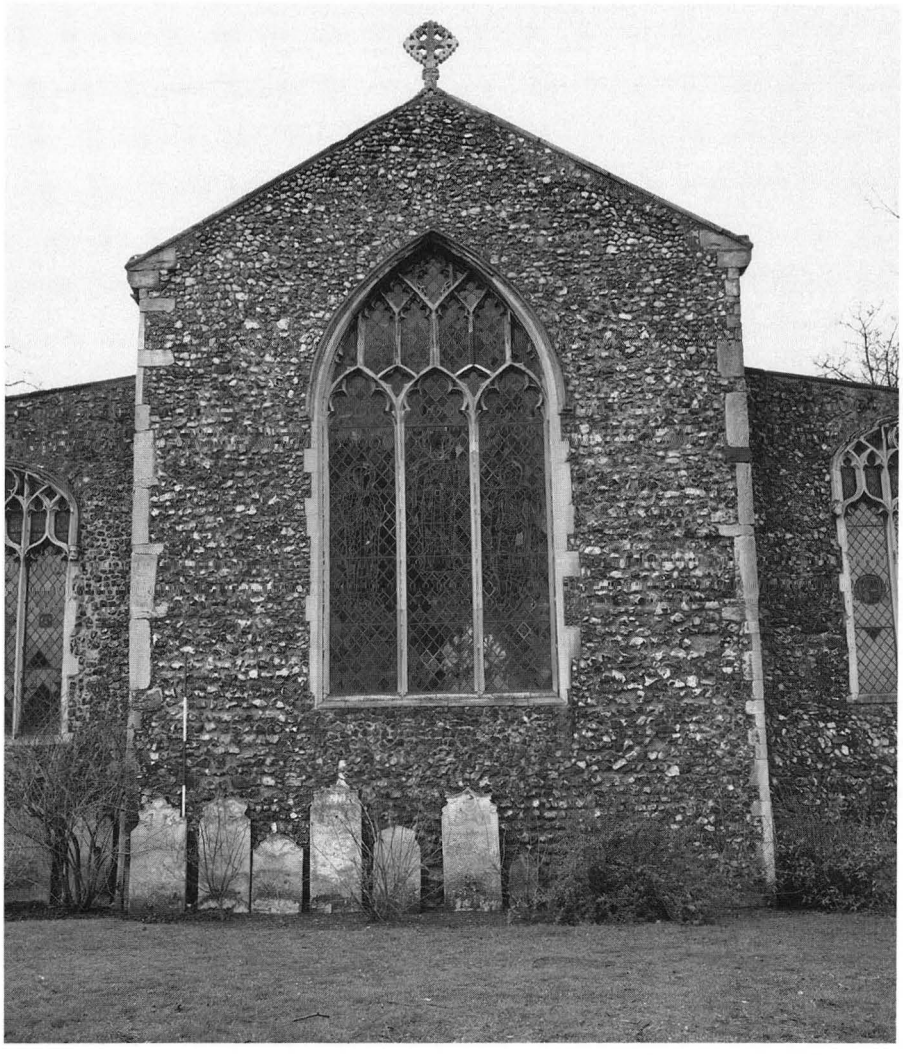


Plate VI East wall of church

Period III

Structure C
(Figs 11–18)

Structure C was detected only at foundation level during the excavation although further evidence of it was identified during survey work. The foundations delineated the extant area of nave and chancel in the present church (Fig.11).

The foundations of Structure C were constructed of trenches filled with alternate layers of rammed flint, chalk and gravel (Figs 13–18, Pl.V). They were detected in the area of the present nave and chancel, as far as the extant chancel steps (Fig.11). Only one edge of the foundations was uncovered during excavation (Fig.11). The other recorded areas were picked up in the watching brief and it is possible that the foundations could have been broader. The internal dimensions recorded from the inner edges were 13.30m west-to-east by 6.20m north-to-south in the nave and 2.90m west-to-east by 6.25m north-to-south in the chancel.

The recorded width of the foundations at the west end of the nave were 1.07m to 1.14m west-to-east. The recorded width of the north and south nave foundations was a minimum of 1.57m. The minimum width of the north and south wall foundations of the chancel was 1.85m (Fig.11).

At the junction of the present chancel and nave the foundations projected from both north and south towards the centre of the excavated and standing structure (Fig.11). These projections were 1.00m to 1.35m from the main line of the foundations. It is possible that these foundations were originally continuous but were truncated by later activity or that they carried a narrow chancel arch. The width of the foundations west-to-east was approximately 1.30m.

The east wall displays what is widely recognised as Anglo-Saxon long and short work on the north-east and south-east corners (Fig.18, Pl.VI); a date of between AD 950–1100 has been attributed to it (Taylor and Taylor 1965). Such a date would make it almost certain that the wall formed the superstructure associated with the foundations uncovered during the excavation. There was, however, no stratigraphic evidence recorded to support this assumption, as the junction of the foundations and the east wall was not within the area of excavation or watching brief.

The inclusion of the east wall of the church in Period III is based therefore purely on architectural form and not on stratigraphic evidence.

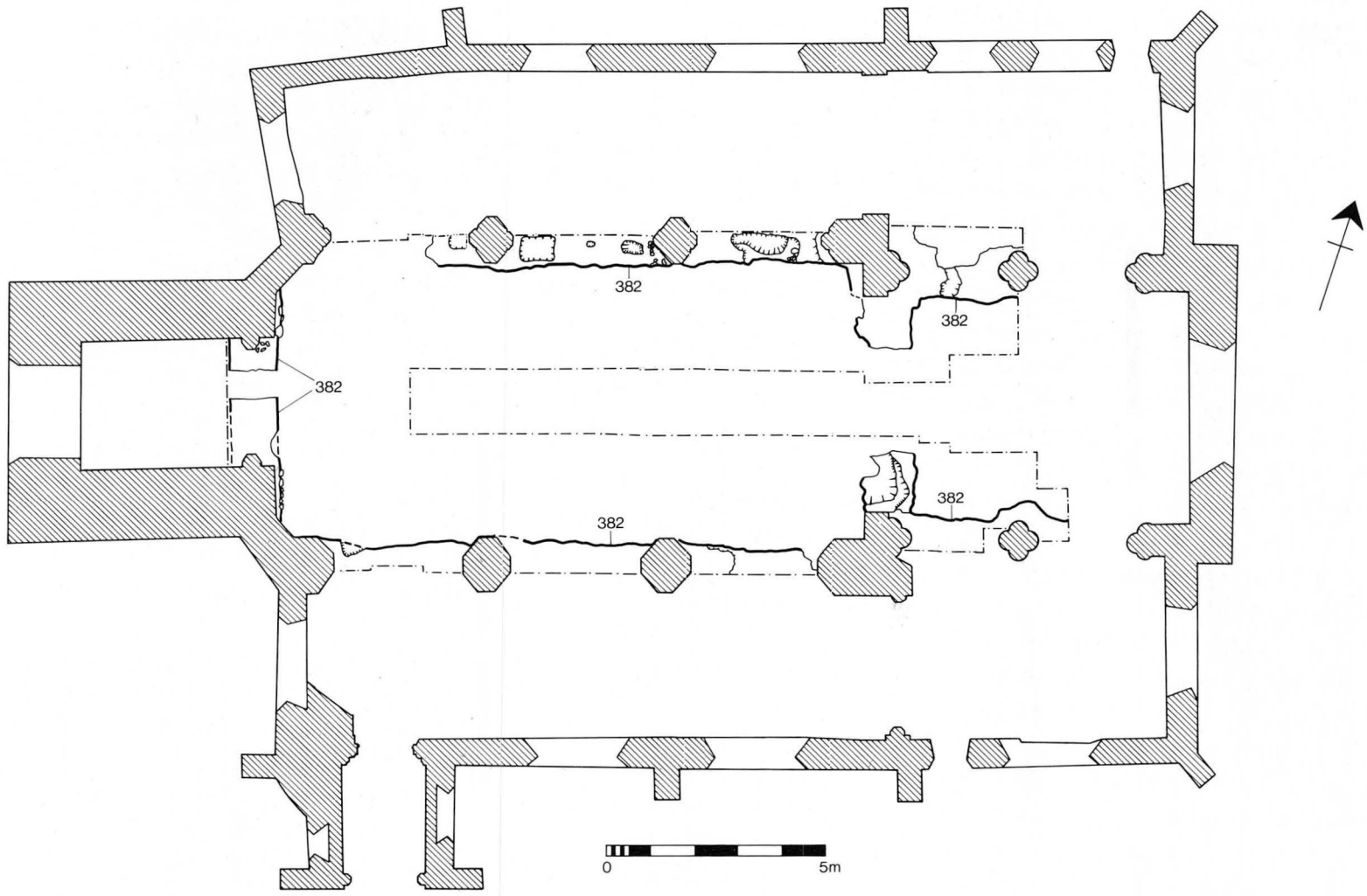


Figure 11 Period III, Structure C foundation plan. Scale 1:150

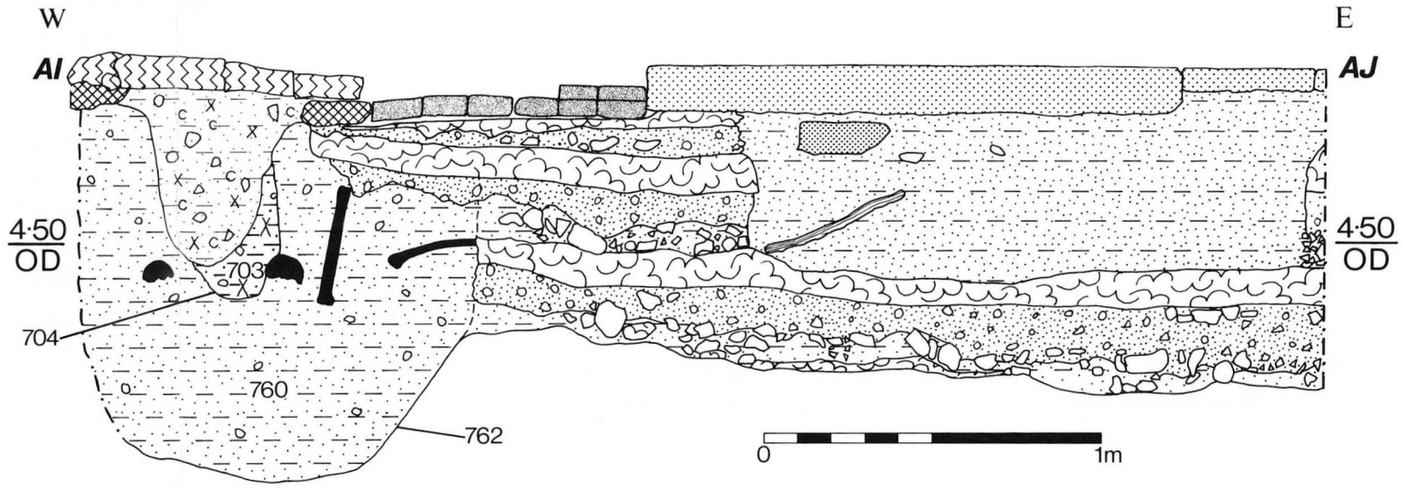


Figure 12 Structure C, foundation section AI–AJ. Scale 1:20

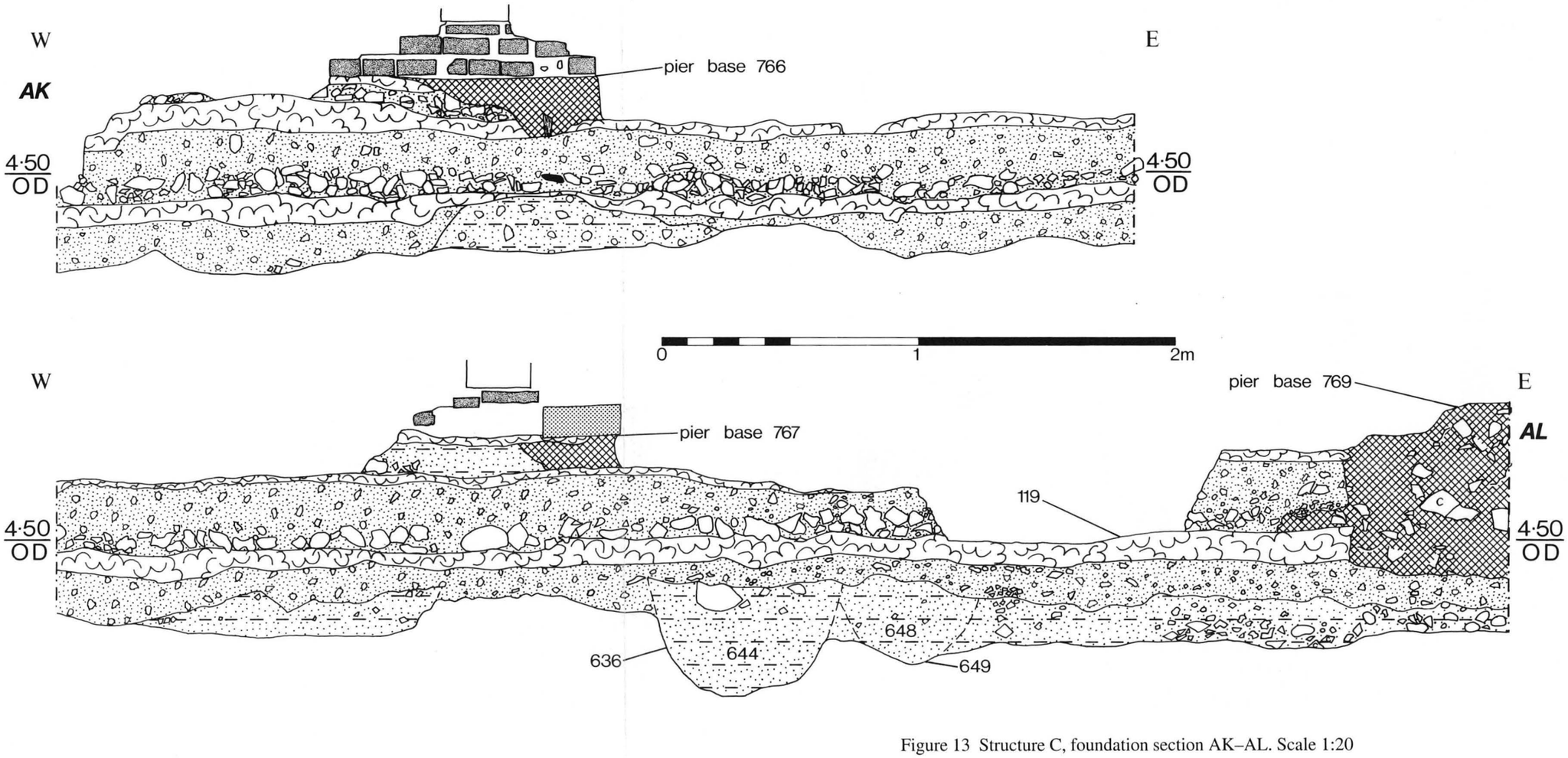


Figure 13 Structure C, foundation section AK–AL. Scale 1:20

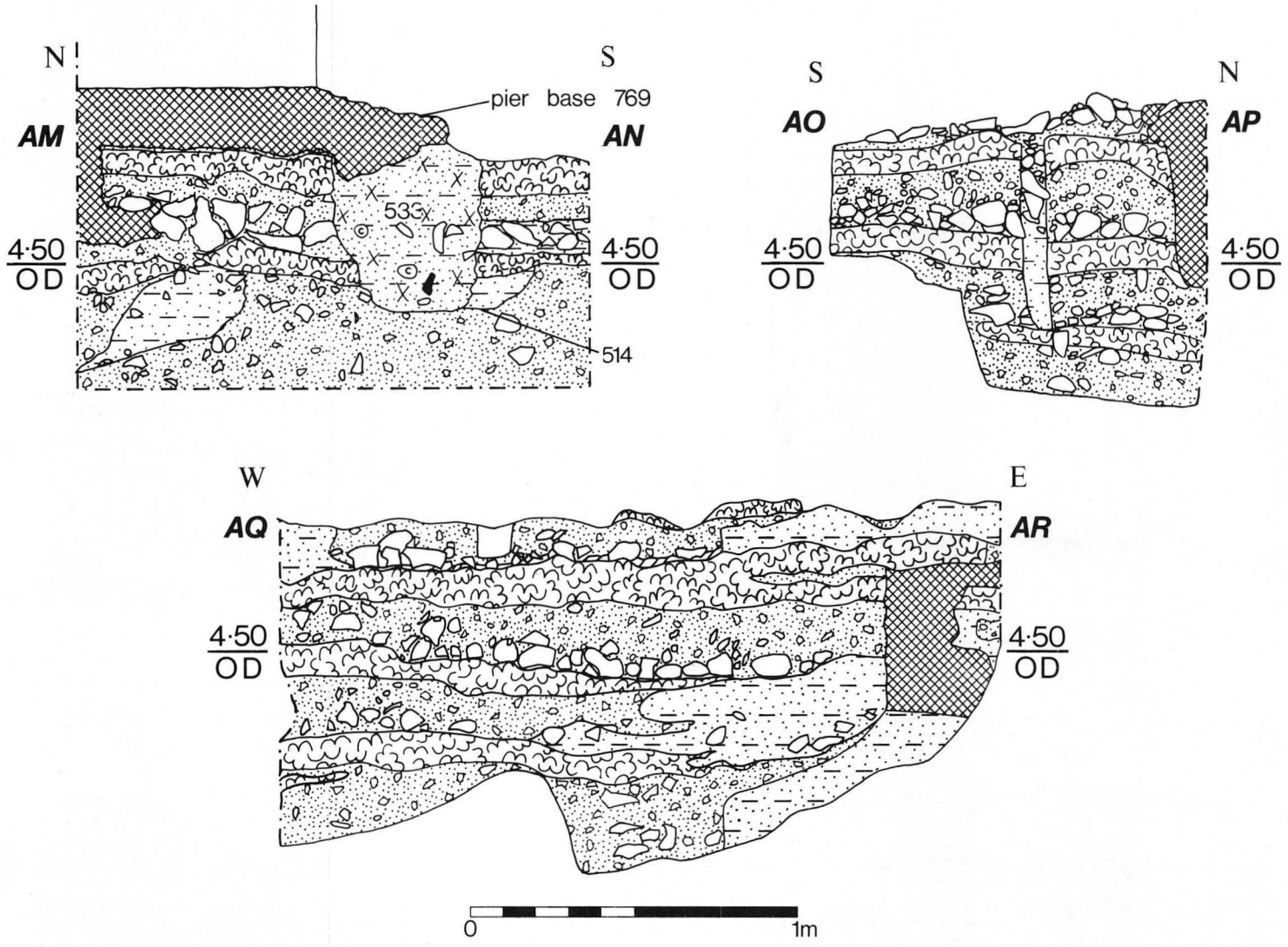


Figure 14 Structure C, foundation section AM–AN; AO–AP; AQ–AR. Scale 1:20

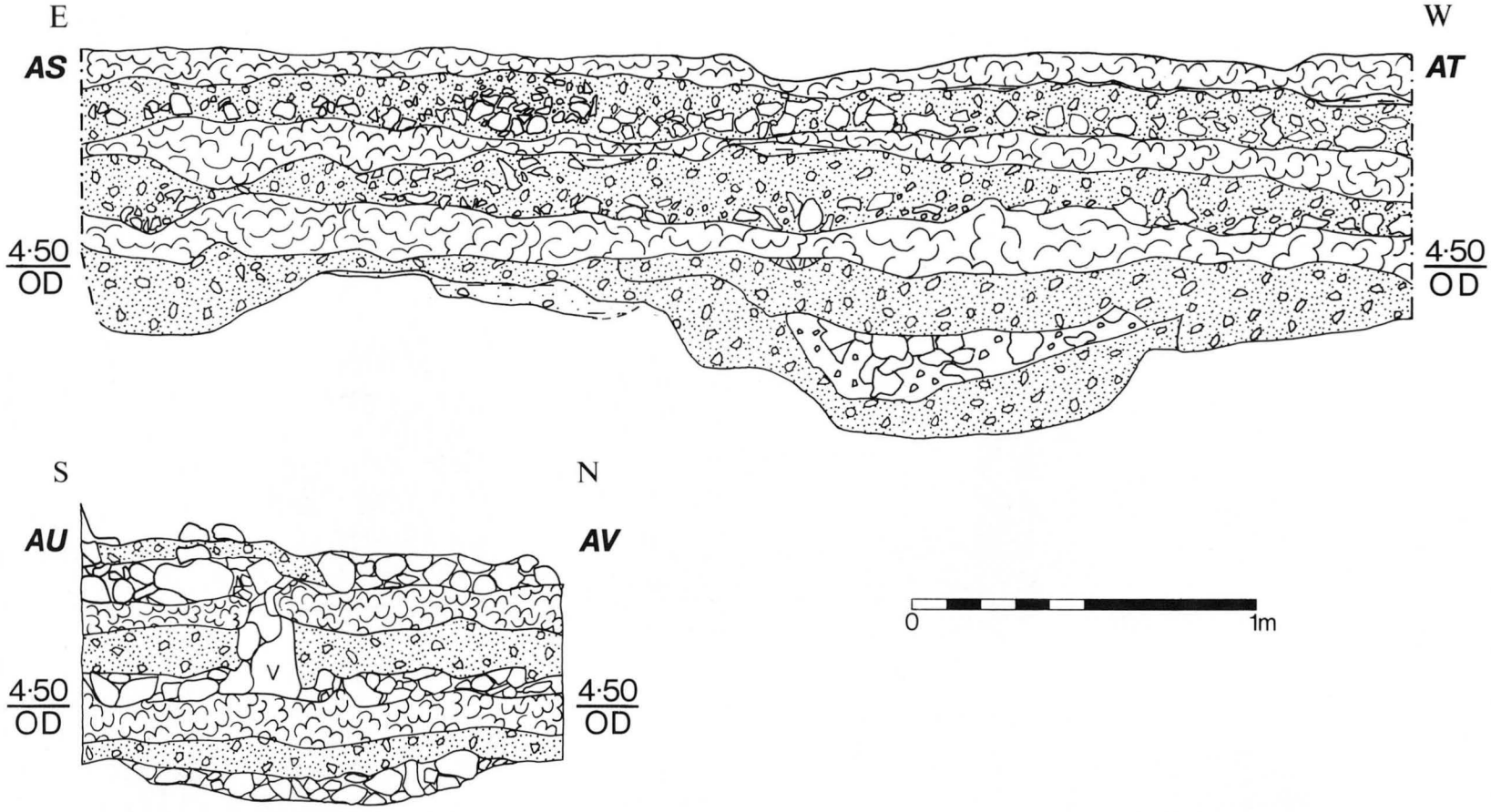


Figure 15 Structure C, foundation section AS–AT; AU–AV. Scale 1:20

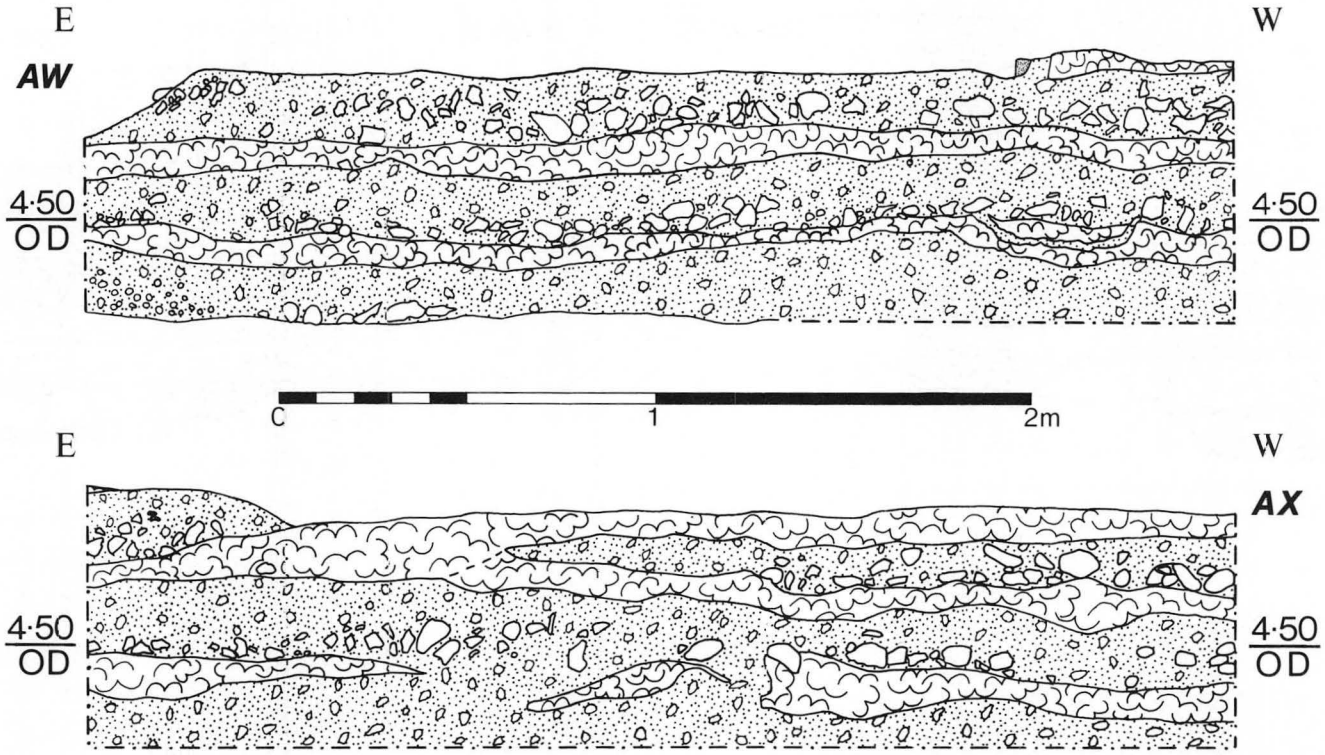


Figure 16 Structure C, foundation section AW–AX. Scale 1:20

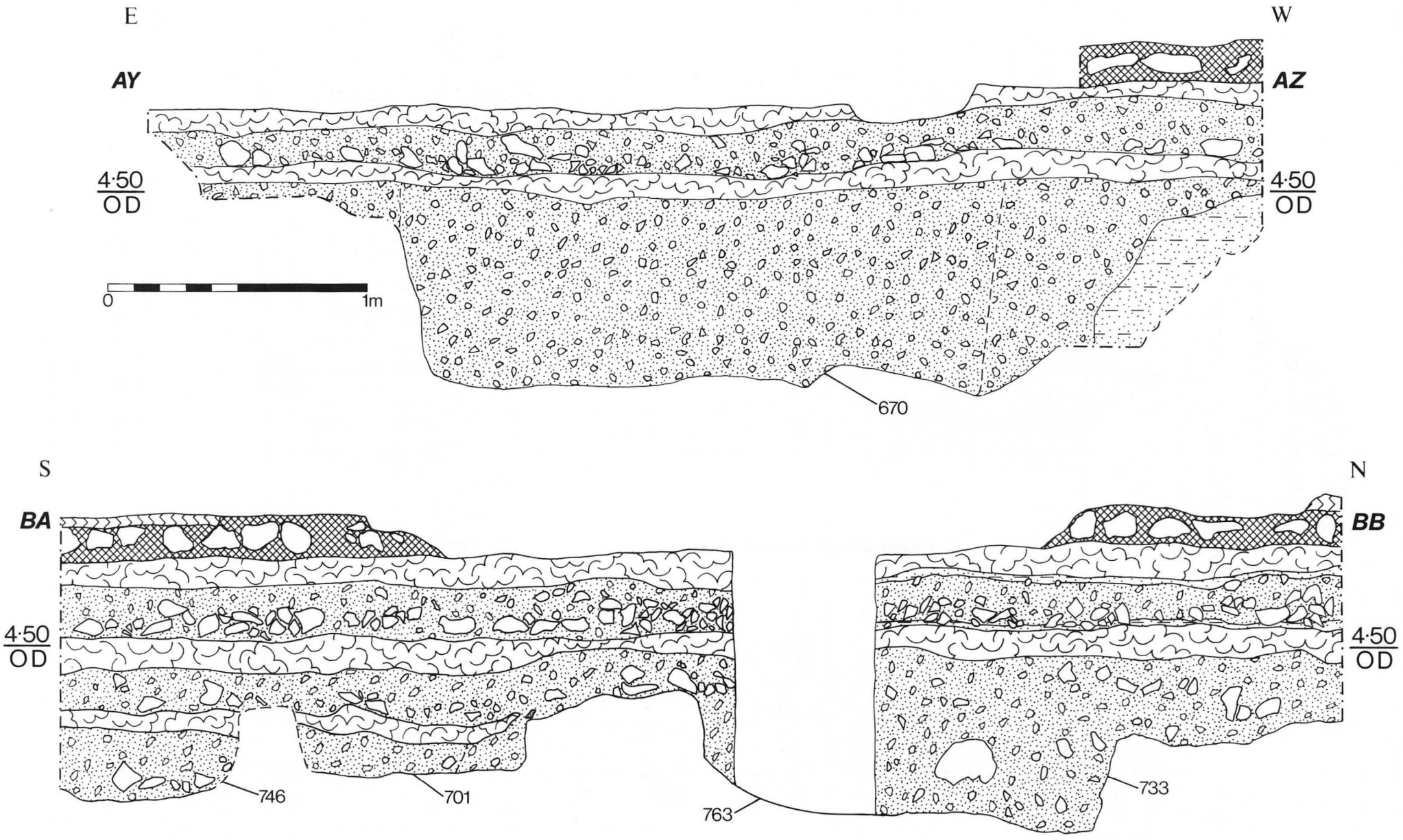


Figure 17 Structure C, foundation section AY–AZ; BA–BB. Scale 1:20

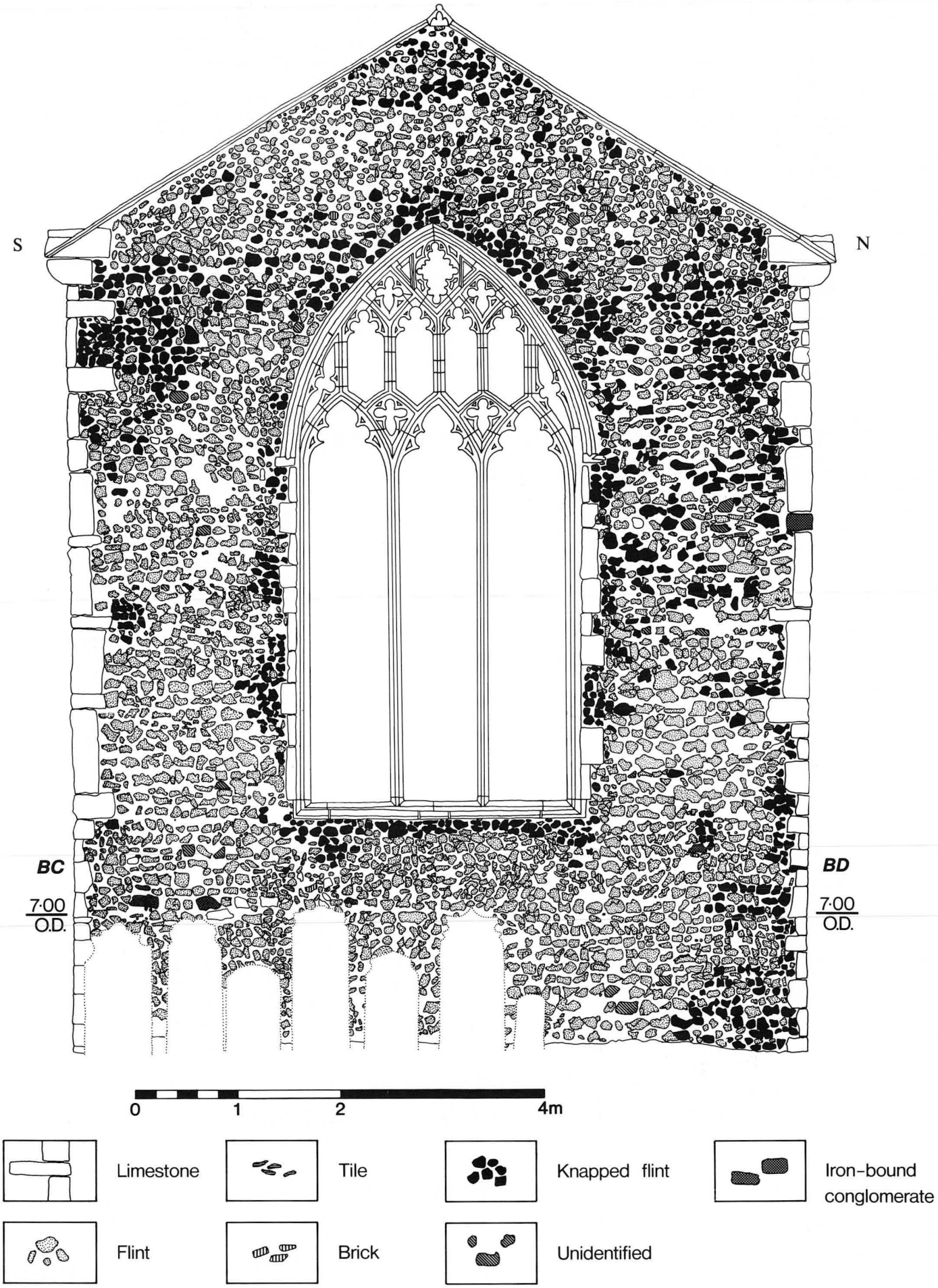


Figure 18 Elevation of exterior end wall of the chancel, BC–BD. Scale 1:50

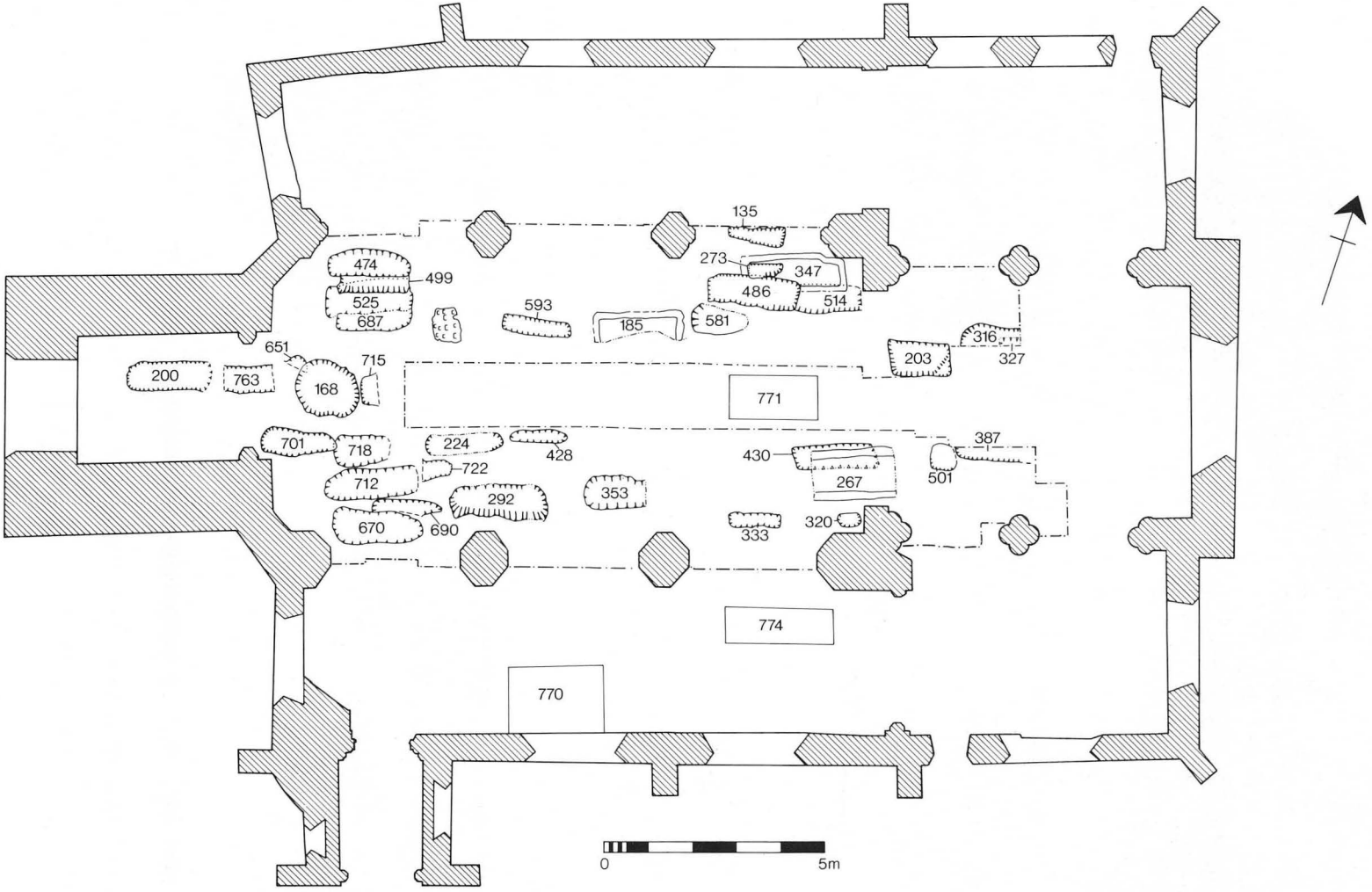


Figure 19 Plan of Period IV grave cuts. Scale 1:150

Period IV: Burials, cut features and survey
(Figs 19, 20)
This period encompassed a wide span of activity both above and below ground. The major excavated features throughout the period were burials. There was much architectural change during this period which has been well documented (pp.49–50, Fig.33) although little below-ground archaeology was clearly associated with it.

It was not possible in Period IV to subdivide the activity into phases, as no tight stratigraphic or dating sequences were apparent.

This very broad period therefore represented activity which took place subsequent to the building of chalk and gravel foundations for an early church and before 'modern' activity within the extant church of St Martin-at-Palace both above and below ground (Figs 19, 33).

Burials
Remains of forty-seven burials were located in deposits interpreted as belonging to Period IV. Twenty-seven articulated burials were excavated within the nave and tower. Twelve further graves were identified in the nave and three in the south aisle.[8]

No fully articulated material was recovered from these. No articulated material was excavated from the chancel area but five graves were identified from the skeletal material present (Fig.19).

Twenty-five percent of the graves excavated within the church were intercutting (Fig.19). Large quantities of disarticulated material and the very loose friable nature of the soil do, however, suggest that (as one might expect) extensive burial and reburial occurred within the building in Period IV. Only three burials (*135, 267* and *763*) truncated the Period III foundations (Fig.19). These burials must have been interred after architectural renovations in the church made those areas free from foundation based walls and therefore accessible, probably in the 15th century or later.

Most of the burials appeared to be orientated with the heads to the west. The only exceptions were some of the burials of infants interred with their heads to the east. Three of the five articulated child/infant burials recorded (*295, 374, 566*) were interred in this manner (Table 1). The remaining burials were those of adults except *322* which was an adult with a neonate (*339*) (Pl.VII).

There were only three burials (*322, 470* and 518) that deviated from the extended, supine, hands by side, position. Skeleton *322* had the left arm bent and cradled a neonate (*339*), *470* had the hands on the tops of the femurs, and *518* had the left arm bent with hand on the pelvis.

Coffins
A large number of the recorded graves produced evidence of coffins (Table 1). No grave furnishings were recorded in those graves without coffins.

One hundred-and-one fragments of wooden coffins were recovered from the excavation (pp.37–8). Twenty-seven coffins were recorded from the forty-seven burials in Period IV. It is unfortunate, however, that the fragments of wood recovered were too small to be able to describe coffin construction. Three lead coffins were also recorded during the excavation and watching brief (Table 1), with clear evidence of the use of wood as an outer shell.

There was evidence from excavated coffin fittings and coffin fragments that the coffins were often upholstered in cloth prior to the fixing of furniture. The cloth analysed from St Martin's was woollen (p.44).

A substantial quantity of coffin furniture was recovered from the excavation and it is likely that any of the residual material found was also from Period IV contexts (Figs 22–27). Four breast plates were recorded during a watching brief from coffins in a vault (*770*)dated AD 1813 (Pl.VIII), two burial shafts (*771* and *774*) and an earth-buried coffin (*772*) (Pl.XI). The date of the plate on the earth-buried coffin was AD 1754 (Pl.X).

Both the burial shafts (*771* and *774*) and the vault (*770*) were constructed of red brick. Vault *770* had a tiled floor (Pl.VIII) and a barrel roof; it was not painted internally or externally. The burial shafts, however, were painted white internally; their floors were not visible.

Three brick-lined graves (*185, 267* and *347*) were excavated and found to be constructed of brick and flint nodules. The brick in grave *185* was post-medieval, that in *267* was medieval and later medieval. A possible late 17th-century date has been suggested for *267* (p.59). All were internally rendered with cream/white mortar.

Memorials
Of the burials recorded only five could be associated, from evidence on coffin plates, with extant memorials in the church. Vault *770* (Fig.19, Pl.VIII) contained the remains of Samuel Pye. A memorial to him and his wife (a second coffin in the vault was recorded with no breast plate) is located internally on the wall of the south aisle. The remains of Phoebe Hardingham, interred in a grave shaft (*771*) (Fig.19) are commemorated by a stone ledger slab in the nave aisle (Fig.34, Pl.IX). On coffin *772* was the breast plate of Mary Manby, AD 1754 ; a second coffin (*773*) was located to the north of it in a similar style. It did not have a breast plate but may have been the coffin of Richard Manby. A memorial to Richard Manby, husband of Mary Manby, was located at the west end of the north aisle wall, south facing. It has since been relocated within the church (Pl.XII). Pieces of a ledger slab also dedicated to the memory of Richard and Mary Manby have been recorded within the church.

Other features
Another feature of note of Period IV was cut *211* filled by *168* (Fig. 19). This feature contained dry flint rubble (Pl.XIII) and was 1.40m diameter and 1.00m in depth (Pl.XVI). It was located at the west end of the nave of the church in a central position. The cut truncated several features in the same location, some of which were attributed to the same period. The cut was also stratigraphically above contexts which contained coffin furniture. None of the truncated features interpreted as Period IV had obvious functions but two of them produced interesting finds. Cut *497* contained a Mesolithic blade and a flake while two fragments of decorated stone were removed from cut *651* (Figs 19 and 20). These fragments have been attributed an 11th-century date (Fig.28, Pl.III). There were no other features interpreted as Period IV which had an obvious function. There was, however, a third piece of decorated stone, excavated from a cut (*320*) in the east of the nave to the south of the chancel nave crossing, and which has been interpreted as Period IV (Figs 19, 29, Pl.XV). This stone has been allocated an early 12th-century date (pp.39–40).

Plate VII Adult (*322*) and neonate (*339*) burial. Scale 1 metre

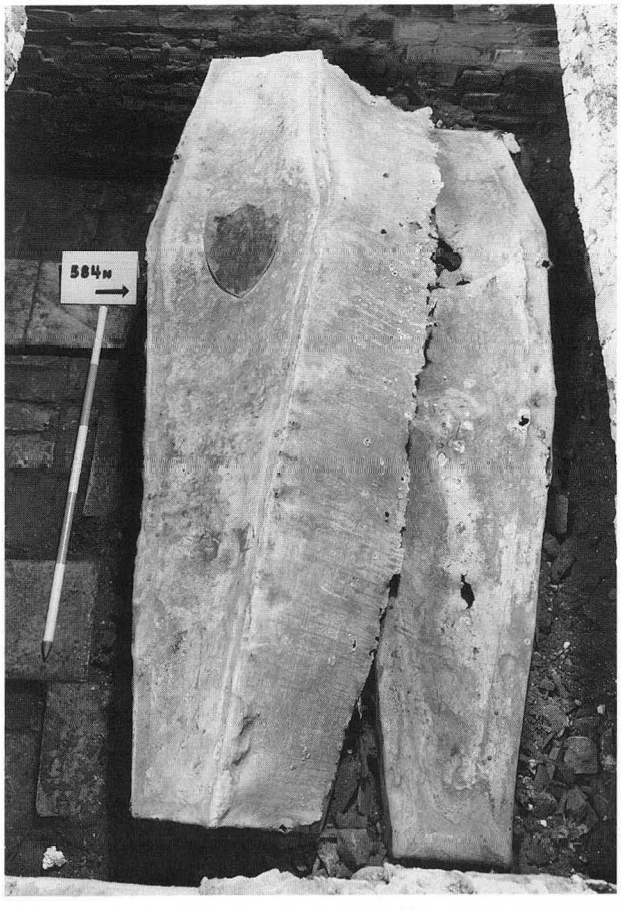


Plate VIII Brick burial vault (*770*) in south aisle.
Scale 1 metre

Plate IX View of the nave excavation from the east.
Brick burial shaft (*771*) is to right of scale.
Scale 2 metres

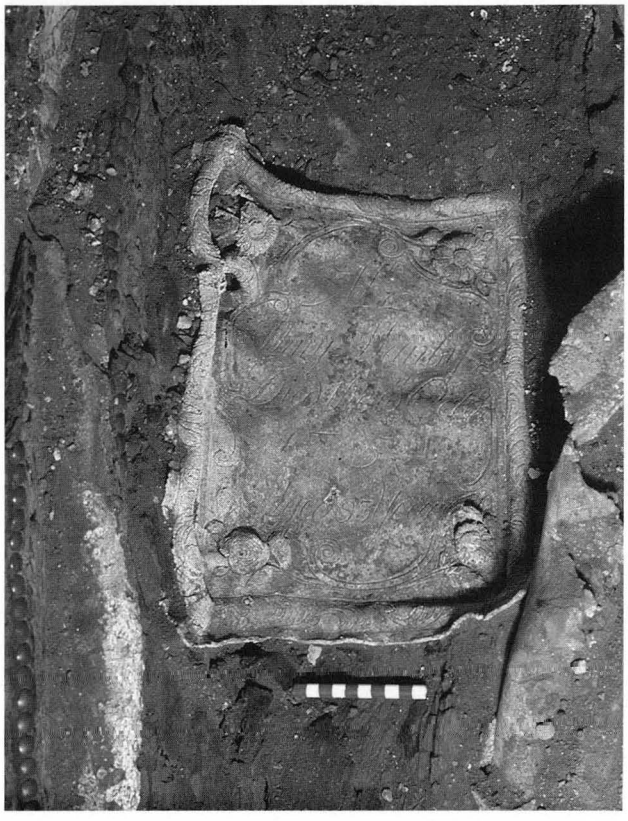


Plate X Lead breast plate of Mary Manby, AD 1754. Scale 10 centimetres

Plate XI Coffin (*772*) in nave. Scale 1metre

Plate XII Wall monument to Richard and Mary Manby. Scale 1 metre

Plate XIII Soakaway *168* pre-excavation. Scale 1 metre

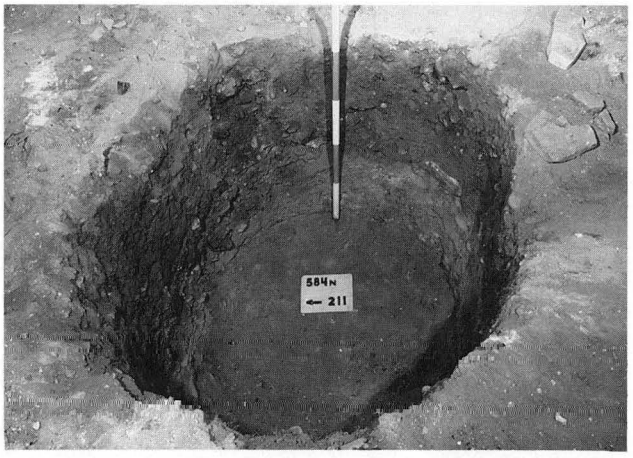


Plate XIV Soakaway *211* post-excavation. Scale 1 metre

Plate XV Fragment of decorated figure sculpture, SF 5063. Scale 10 centimetres

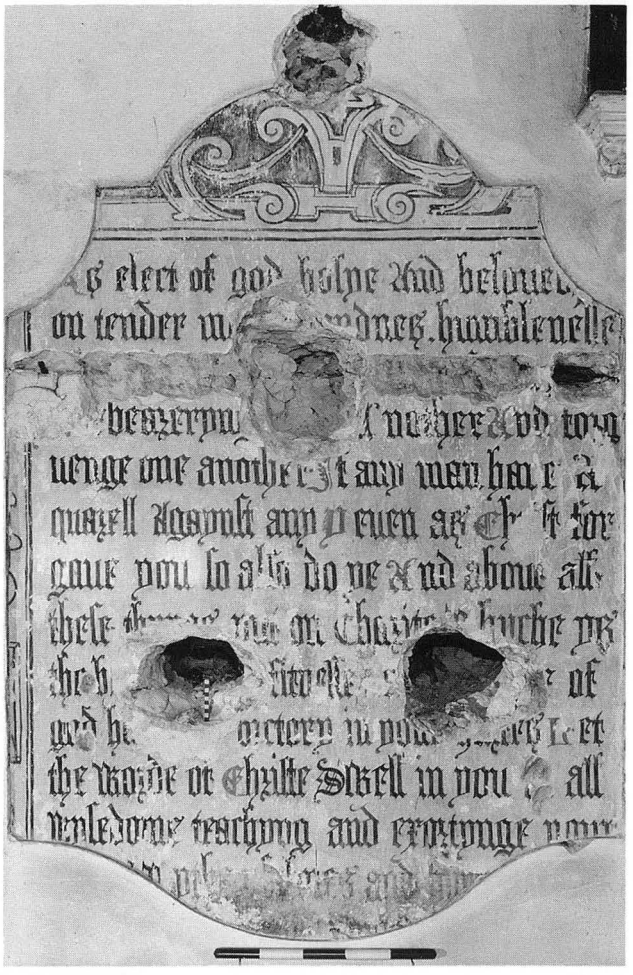


Plate XVI Wall painting in north aisle, *c.*17th century

Skeleton Context No.	*Fill No.*	*Cut No.*	*Adult Child*	*Prone Supine*	*Extended*	*Orientation*	*Coffin No.*	*Wood*	*Furniture*	*BL.G BL.S Vault*	*Rendered Painted*	*Nave Tower Chancel Location*	*M/F*	*Plate No.*	*Other comments*
125	119	135	C	S	*	W-E	-	-	-	-	-	N	-	-	Truncated foundations
169	152	196	A	S	*	W-E	*	-	-	[185] BLG	R	N	-	VII	Brick-lined grave
-	171	200	A	S	*	W-E	*	-	*	-	-	T	-	-	Body identified but not excavated
257	223	224	A	S	*	W-E	* [258]	Elm	*	-	-	N	-	-	
259	164	213	A	S	*	W-E	*	-	-	[267] BLG	-	N	-	IX	Brick-lined grave [267] in chancel crossing
295	272	273	C	S	*	E-W	* 294	Elm	*	-	-	N	-	-	
301	296	333	A	S	*	N-E	* 293	Oak	-	-	-	N	-	-	
322	321	353	A	S	*	W-E	-	-	-	-	-	N	-	VII	Left arm held baby
339	321	353	B	S	*	W-E	-	-	-	-	-	N	-	-	
374	346	552	C	S	*	E-W	-	-	-	[347] BLG	R	N	-	-	Brick-lined grave 347)
410	381	552	A	S	*	W-E	*	-	-	[347] BLG	R	N	-	-	Brick-lined grave 347)
465	447	430	A	S	*	W-E	-	-	-	-	R	N	-	-	
470	457	486	A	S	*	W-E	*	-	*	-	-	N	-	-	Hand on top of femurs
485	473	474	A	S	*	W-E	*	-	*	-	-	N	-	-	
513	533	514	A	S	*	W-E	-	-	-	-	-	N	-	-	
566	-	No. numb	C	S	*	E-W	* 567	-	-	-	-	N	-	-	No plan or cut no.
576	571	581	C	S	*	W-E	-	-	-	-	-	N	-	-	
590	572	593	A	S	*	W-E	*	Oak	-	-	-	N	-	-	No coffin number
684	682	687	?	?	?	W-E	* 683	-	-	-	-	N	-	-	Very poor condition
686	524	525	A	S	*	W-E	*	*	-	*	-	N	-	-	
691	669	701	A	S	*	W-E	*	-	-	-	-	N	-	-	
695	696	699	A	S	*	W-E	* 694	-	*	-	-	N	-	-	Painted lid. Cloth frag.
719	713	718	A	S	*	W-E	* 717	-	*	-	-	N	-	-	
-	721	722	-	S	-	W-E	-	-	-	-	-	N	-	-	Only feet and legs remained
746	743	745	A	S	*	W-E	-	-	-	-	-	N	-	-	Truncated by P.II foundations Sent for C14 date
-	748	763	A	S	*	W-E	-	-	-	-	-	N/T	-	-	Truncated foundations
518	511	512	A	S	*	W-E	-	-	-	-	-	N	-	-	Left arm bent, hand on pelvis No plan of cut
Graves from which no articulated material was recovered															
-	204	203	-	-	-	-	*	-	-	-	-	C	-	-	Fragment of coffin, skeleton not excavated
-	271	292	-	-	-	-	-	-	-	-	-	N	-	-	White skeleton residue recovered
323	-	316	-	-	-	-	-	-	-	-	-	C	-	-	Unarticulated bone material
-	328	327	-	-	-	-	-	-	-	-	-	C	-	-	Part of cut, unarticulated bone infill
-	388	387	-	-	-	-	-	-	-	-	-	C	-	-	Part of 501?
-	425	428	-	-	-	-	-	-	-	-	-	N	-	-	
-	498	499	-	-	-	-	-	-	-	-	-	N	-	-	Unarticulated bone in cut

Skeleton Context No.	*Fill No.*	*Cut No.*	*Adult Child*	*Prone Supine*	*Extended*	*Orientation*	*Coffin No.*	*Wood*	*Furniture*	*BL.G BL.S Vault*	*Rendered Painted*	*Nave Tower Chancel Location*	*M/F*	*Plate No.*	*Other comments*
-	500	501	-	-	-	-	* Pb	-	-	-	-	C	-	-	Lead coffin identified not excavated
-	673	670	-	-	-	-	*	-	*	-	-	N	-	-	Evidence of what seemed to be a charred coffin. Not excavated
-	689	690	-	-	-	-	-	-	-	-	-	N	-	-	Unarticulated bone in cut
-	711	712	-	-	-	-	* 705	-	-	-	-	N	-	-	Coffin only recorded, no skeleton
-	716	715	-	-	-	-	-	-	-	-	-	N	-	-	Unarticulated bone in cut
			A	-	-	W-E	* [770] 2xPb	-	*	Vault	-	S.aisle	M	XIX	Brick vault containing two lead coffins 1813 on the plate of one
			A	-	-	W-E	* [771] Pb	-	*	B.shaft	Painted	N	F	XVII	Brick shaft - painted white internally Breast plate not kept (reburied) 1831
			A	-	-	W-E	* [772]	-	*	-	-	N	F		Coffin lead with wood casing, breast plate, all reburied. (Mary Manby) 1754
			A	-	-	W-E	* [773]	-	*	-	-	N	?	-	As above but no breast plate reburied
			A	-	-	W-E	* [774]	-	*	B.shaft	-	S.aisle	F	-	Breast plate observed Anne Harris 1811
			C	-	-	W-E	* [680]	-	*	-	-	N	-	-	Coffin only recorded
			-	-	-	W-E	* [685]	-	*	-	-	N	-	-	Coffin only recorded

Table 1 Table of inhumations

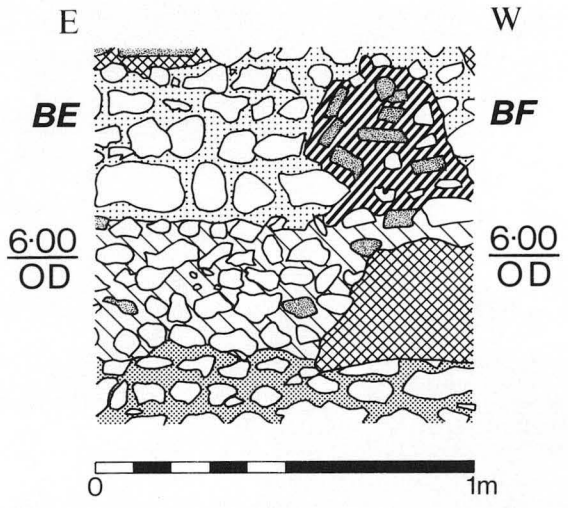


Figure 20 Period IV. Elevation of south aisle wall, *c.*AD 1400. BE–BF. Scale 1:20

Wall fabric

The documentary evidence (p.49–50) illustrates how the fabric of the church underwent change and extension in Period IV. One such extension was the addition of a south aisle (Fig.33). A portion of this wall was drawn during the limited survey of the church fabric and illustrates the four different mortars used and the construction techniques employed (Fig.20). There was also a doorway recorded in this period, situated at the west end of the north aisle in the north wall. It was subsequently blocked in Period V (Fig.21). In Kirkpatrick's Prospect of Norwich, *c.*1720, a north porch was also represented. No archaeological evidence for this has yet been observed, although documentary sources support its existence.

Many of the uninterpreted features in Period IV (Fig.19) may be attributable to the change and extension of the church fabric during the same period. There was, however, little archaeological evidence that could be closely linked to the massive rebuilding campaigns documented for Period IV.

A wall painting uncovered during the watching brief at the west end of the north aisle, south facing, by the removal of a monument for relocation (Pl.XVI) can be attributed to Period IV. The painting is of a section of the Epistle of Paul The Apostle to the Colossians, Chapter 3, probably verses 12–17. The date of the represented version is not known, but it does not copy word for word the Authorised Version of King James, AD 1622. The documentary evidence suggests that it may have been painted in AD 1624 (p.51).

Plate XVII Chalk block (*332*) in nave. Scale 1 metre

Plate XVIII Rebuilt pier base (*766*) in nave arcade. Scale 1 metre

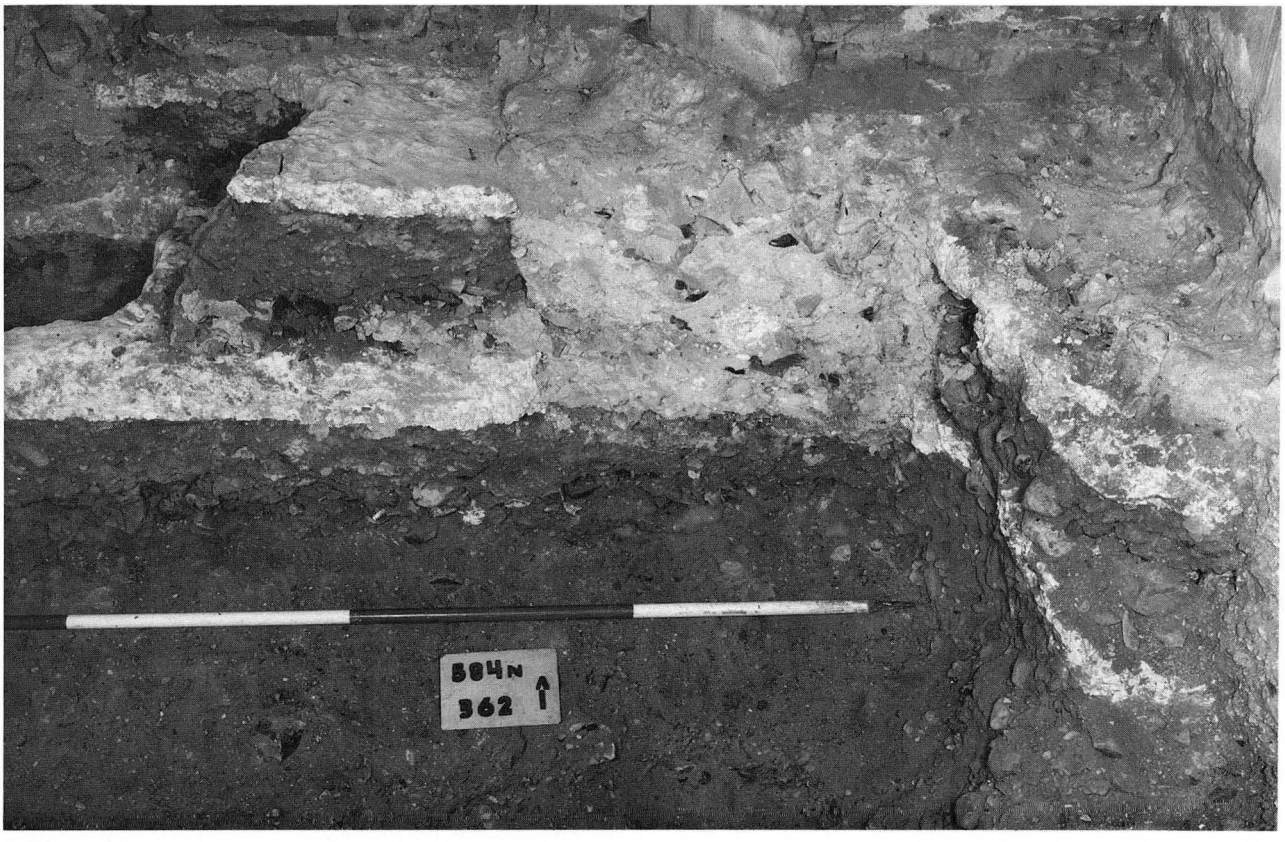


Plate XIX Foundation of rebuilt chancel arch (*769*). Scale 1 metre

Period V
(Fig.21)

Period V has been interpreted as the 'Modern' period of activity within the church, after the prohibition of intra-mural burial in 1832. The documentary evidence for this period indicates that the church was extensively rebuilt and refurbished with many new internal fixtures installed (p.52).

Deposits of Period V date contained numerous small cut features, post-holes and stake-holes. No obvious function could be attributed to these. It is probable that many of them were associated with the building works and repairs carried out in the church in this period. The only readily identifiable feature was a large brick-built drain or hot air duct (*104*), probably of Victorian date. Remnants of a floor survived in the north of the chancel in the form of plain floor tiles and bricks.

A further feature of note was a large chalk block (*621*) (Figs 10, 19, Pl.XVII). It was located in the north-west end of the nave. It measured 0.80m by 0.60m and appeared to be made up of at least two separate blocks and possibly more. These blocks seemed to have deteriorated and merged into one piece. Stratigraphically the block (or blocks) was above Period II Phase II and below modern clearance. It has been assigned to the latest period as no dating evidence was available. Physically the block sealed the fill of a post-hole (*642*) interpreted as comprising Structure B, Period II (p.5; Fig.11). The possible function and alternative date for the chalk block is discussed below (p.60).

Part of the fabric in the north wall of the north aisle was surveyed prior to the cutting of a doorway as part of the new development (Fig.21). This revealed a blocked doorway (*757*), probably blocked *c.* AD 1850 (p.52, Fig.33). The fill of the doorway was red brick, late post-medieval in form, and the occasional yellow brick used extensively by the Victorians (Brunskill and Clifton Taylor 1977). There were also occasional fragments of limestone ashlar in the fill; none of these were identifiable as architectural fragments (Fig.21).

Other evidence of reconstruction and refurbishment was recorded from the aisle pillars (Pl.XVIII). These appeared to have been enlarged with brick. The foundations of the north chancel pier (*769*) also displayed evidence of having been completely rebuilt (Fig.13, Pl.XIX). This is supported by the documentary evidence.

A small section of wall painting was uncovered during the watching brief over the south-west aisle door. This was not fully uncovered at the time of the watching brief but was thought to be Victorian in date (Andrea Kirkham pers. comm.).

Figure 21 Period V. Elevation of blocked doorway, north aisle. BG–BH. Scale 1:20

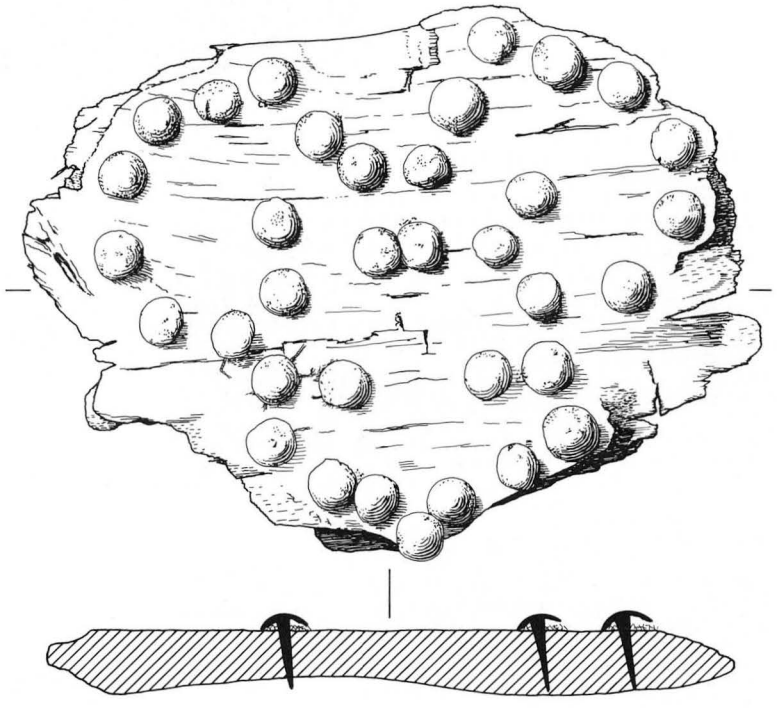


Figure 22 Non-ferrous decorative small stud work, coffin furniture. Scale 1:1

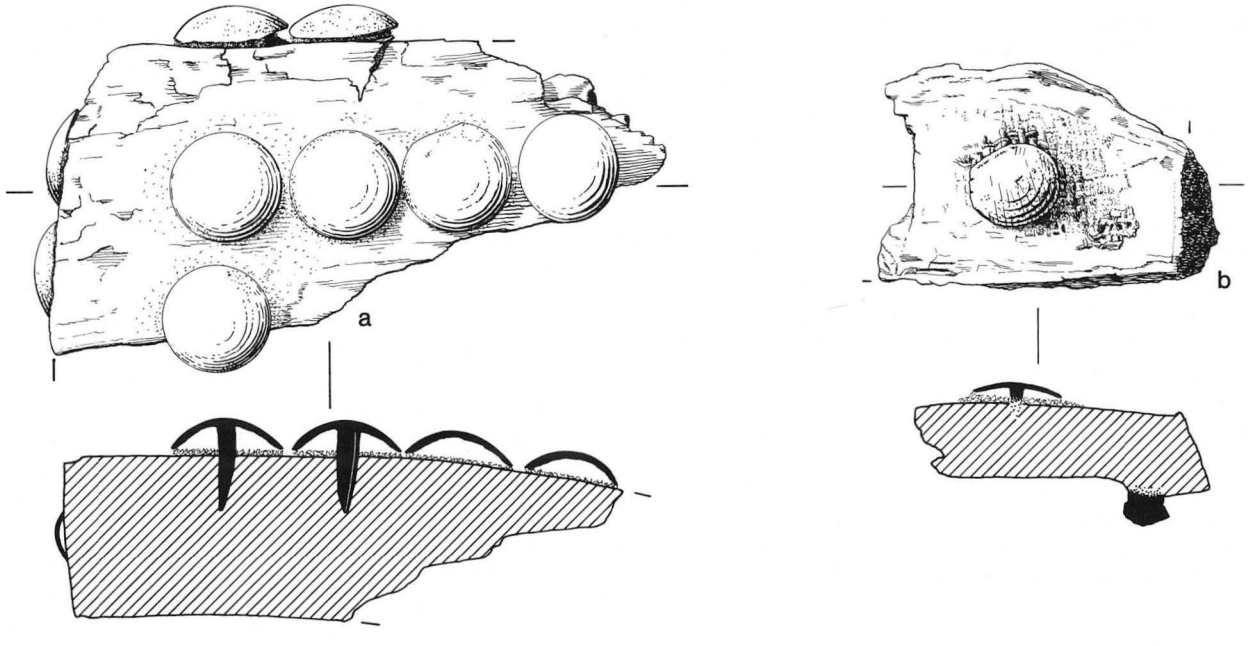


Figure 23 Non-ferrous decorative large stud work, coffin furniture. Scale 1:1

IV. The Artefacts

Introduction
by Val Fryer

Because of the nature of the excavation, the majority of the small finds comprise coffin fittings and fragments. Most of these were recovered from secondary contexts, probably due to the disturbance of existing burials by later insertions. Separate sections with introductions are included on the coffin fittings and coffin fragments. A general introduction about the construction of the coffins is also included. A compendium of the coffins recovered and their fittings appears in the microfiche (MIII).

Other artefact types are poorly represented. The main categories are of objects related to the structure of the building (wooden objects p.44, possible structural ironwork p.39, plaster p.44, and window glass p.42). Separate discussions are included for the pottery, decorated stone fragments, textile, brick and tile, and slag. Individual writers are credited at the head of each section.

In the following catalogue the artefacts are ordered by material (excluding the coffin fittings and coffin fragments). In each section the objects are classified by period, small find (SF) number and context number.

Coffins and coffin furniture
by Val Fryer and Olwen Beazley

Coffin construction

Of the coffin fragments identified, oak, elm and ash appear to be the most common woods used. Only one fragment (SF 5414), found in a vault during post-excavation work, was large enough to suggest that single widths of wood were being cut to form sides, ends, bases and lids of coffins. Otherwise, surviving fragments were very small, although the occasional presence of lateral iron nails may suggest the use of plank-built coffins. The fixing of all timbers was achieved with iron nails (not listed) of varying lengths. Timber thicknesses vary from 10–22mm.

After construction some of the coffins were covered, at least in part, with wool cloth. Remains of this textile are to be found on the backs of several of the grip plates, beneath the heads of all the decorative copper alloy studs, and on a few of the coffin fragments. Some evidence was found for the lining of coffins.

The next stage appears to have been the addition of grips and fittings. All of those found were made of iron with certain pieces having non-metallic plating (these are referred to in the catalogue). Frequently four pairs of grips were attached to a coffin, three on each side and one at each end, although three pairs were quite usual. It is of note that six Type 15 grips were recovered, a very specific variety with a cherub head ornamentation. Grip plates appear to have been attached by tacks or small nails, whereas the grips themselves were held in place by heavy double-pronged loops, driven through the coffin and splayed out on the interior. Corner fittings, possibly one or two per corner, were added with tacks or nails of various lengths.

Numerous pieces of coffin were found with decorative copper alloy stud work (Figs 22, 23) either in linear designs or trefoil, dot in circle or floral motifs. One fragment has a possible letter and full stop in small studs. Other forms of decoration were thin sheet metal breast plates. A near complete example of an 18th-century grip plate (SF 5415), decorated with cherubs in glory was recovered from a vault during watching brief work (see Pl.XX). Other grip plate fragments carry possible representations of clothing folds, or linear, scroll, floral or foliage motifs. One coffin (SF 5414) had a breast plate dated 1813.

Plate XX Cherub motif grip plate. Scale 10 centimetres

Coffin furniture

(Figs 24–27)

A total of 121 iron grips, grip plates and other fittings were recovered. Of these, only seventeen (14%) were found in association with their coffins, the remainder all coming from secondary deposits. Sixty-seven pieces (55.47%) were recovered from Period IV deposits, three pieces (2.48%) from Period V deposits, forty-nine (40.50%) from unstratified deposits, and two pieces (1.65%) from Period II deposits where they are certainly intrusive.

Twenty-one stylistically different types of fitting were noted. Types 1–5 (Fig.24) are of similar design with rounded plate ends, pierced for attachment to the coffin, pronounced triangular or lozenge shaped terminals and central chevron decoration varying from very marked (Type 1) to slight and indented (Type 5). Grips are simple with at most a single incised line around the girth. Types 6–10 (Fig.25) are again of a similar design. Like Types 1–5 they have rounded plate ends although, except for Type 8, they are not pierced. The terminals are either small points (Types 6 and 7), indented (Types 8 and possibly 10), or flat (Type 9). Central chevrons are present but slight and indented. All except Type 8 are also decorated with centrally placed horizontal 'V's or heart shapes. Handles are girthed and either plain or with single or double incised lines on the girth. Although there may be a stylistic sequence within Types 1–10 it is impossible to suggest a dated typological series as variations between types may only reflect individual adaptations by the manufacturers of a pattern piece.

Types 11–18 (Fig.26) are individual grips with no particular stylistic progression apparent. It is interesting to note that coffin *694* has handles of two different types (12 and 13) which, although similar, are sufficiently different to be stylistically separated. SF 5014 is possibly a further type of handle with high arched profile, rectangular section and looped terminals, but it is too fragmentary to be certain.

Description	*Period II*	*Period IV*	*Period V*	*U/S*	*Fig. No.*
Type 1	2				
2	3				
3				2	
3a		1	1		
4				2	
5		1			
6		2		8	
7		3		2	
8				2	
9		2			
10				4	
10a				4	
11		2		1	
12		2			
13	1	3		3	
14	1	2		9	
15		1		1	
16		1	1		
17				1	
18		3		3	
19		11		2	
20		1			
21		2			
Miscellaneous Grip Frags				2	
Miscellaneous Grip Plates		2		2	
Miscellaneous Furniture		14	1	1	
Breast Plate Frags		4			

Table 2 Occurrence of coffin grips, by type, in each Period

Types 19–21 (Fig.27) are corner bindings or fittings. Types 19 and 20 appear together on coffin *680*, showing clearly how individual pieces may vary on the same coffin.

Table 2 illustrates the occurrence of coffin grips by type and period. This table also includes miscellaneous handle fragments, plate fragments and fitting fragments. A full list of this furniture appears on microfiche (MI–III).

Discussion of coffin furniture
by Olwen Beazley

Only five of the coffins excavated from the church had associated furniture, of which three included fragments of breast plates. The best preserved were coffin *770* of the Reverend Samuel Pye, 1813, which displayed Type 15 grips (Fig.26) and grip plates of the same design, with cherubs and sun rays (Pl.XX); and the coffin (*772*) of Mary Manby, like that of Samuel Pye recorded during the watching brief, which was of lead encased in wood with decorative stud work (Pl.XI). The breast plate, dated 1754, was of lead and decorated with a floral motif (Pl.X), of a type popular in the 18th century (Gentle and Field 1975).

The development of coffin furniture is connected with changing fashions as much as to the functional purpose and stipulations of national legislation. The use of coffins became obligatory in the 17th century (Curl 1972) and it must have been at this point that the development of coffin furniture began to evolve. Litten (1983 or 8) remarks that in the early 17th century 'the average coffin was provided with black furniture: iron-headed pins, lead breast plate, and wrought iron grips all painted black and set against black velvet'. Coffin fittings were added to the repertory of cabinet makers fittings in Birmingham *c.*1760 (Gentle and Field 1975).

The early type of furniture employed on a coffin often reflected the metals available in the area or regional stylistic preferences. In London, the plainer style of furniture was favoured but in the provinces more elaborate, florid styles were prevalent. In the west of England gilt furniture was often used because of the custom of funeral wakes and the coffin had to be shown to its best advantage (Gentle and Field 1975). In London, brass was invariably used for furniture as there was a local industry but, if there was no metal industry in an area, lead was often used in its stead (Gentle and Field 1975). Financial considerations played a part in the selection of the type of material employed to cover a coffin prior to the application of the furniture, as well as the type of wood used to construct the coffin, and such considerations were certain also to have influenced the choice of coffin furniture. It is interesting to note that the two burials in St Martin's that had elaborate furniture were of people with some social standing in the Parish. Samuel Pye was a cleric and Mary Manby was the wife of Richard Manby, a churchwarden and, judging by a large monument to the Manbys which was situated on the north wall of the north aisle, presumably a man of substance.

The trade in coffin furniture that blossomed in the 18th century was almost certainly due to the development of a new die-stamping technique for brass objects. The technique was patented by John Pickering in 1769 in London; it spread to the metal-working industries in Birmingham and was adapted for use on other metals (Harding 1987). The use of this method on cheaper metal such as block tin and Albion metal (tin on lead) meant that coffin furniture could be mass produced at a fraction of the cost of lead or brass furniture. A good example of the stamping technique can be seen on the tin grip plate from the coffin of Samuel Pye (Pl.XX). Although the production of coffin furniture became a thriving industry in the 18th century and the furniture became very elaborate, only the two examples at St Martin, mentioned above, displayed the more lavish furniture. The majority of the grips and grip plates from the church were iron and very plain.

At the church of St Martin Wharram Percy (Bell *et al.* 1988), as at St Martin-at-Palace Plain, the coffin grips were predominantly of iron and were probably preferred as they were cheaper than brass and could be finished by plating or lacquering (Harding 1987). Wharram Percy was a small country parish church but it was not thought by the excavator that the type of furniture employed in any way reflected its date or the status of the deceased (Harding 1987). Although St Martin-at-Palace Plain was a city church there is no reason to suppose that the intra-mural burials with iron coffin grips were out of the ordinary.

It is very difficult to date the grips and other coffin furniture, except in the case of stamped tin plate which was introduced in 1769 and thus provides a definite *terminus post quem* for the use of such furniture. In some areas particular patterns may have been favoured for several decades or more. It is also likely that in less cosmopolitan regions old pattern books would have been used for prolonged periods. Although twenty-one types of coffin furniture have been identified from the excavation, no

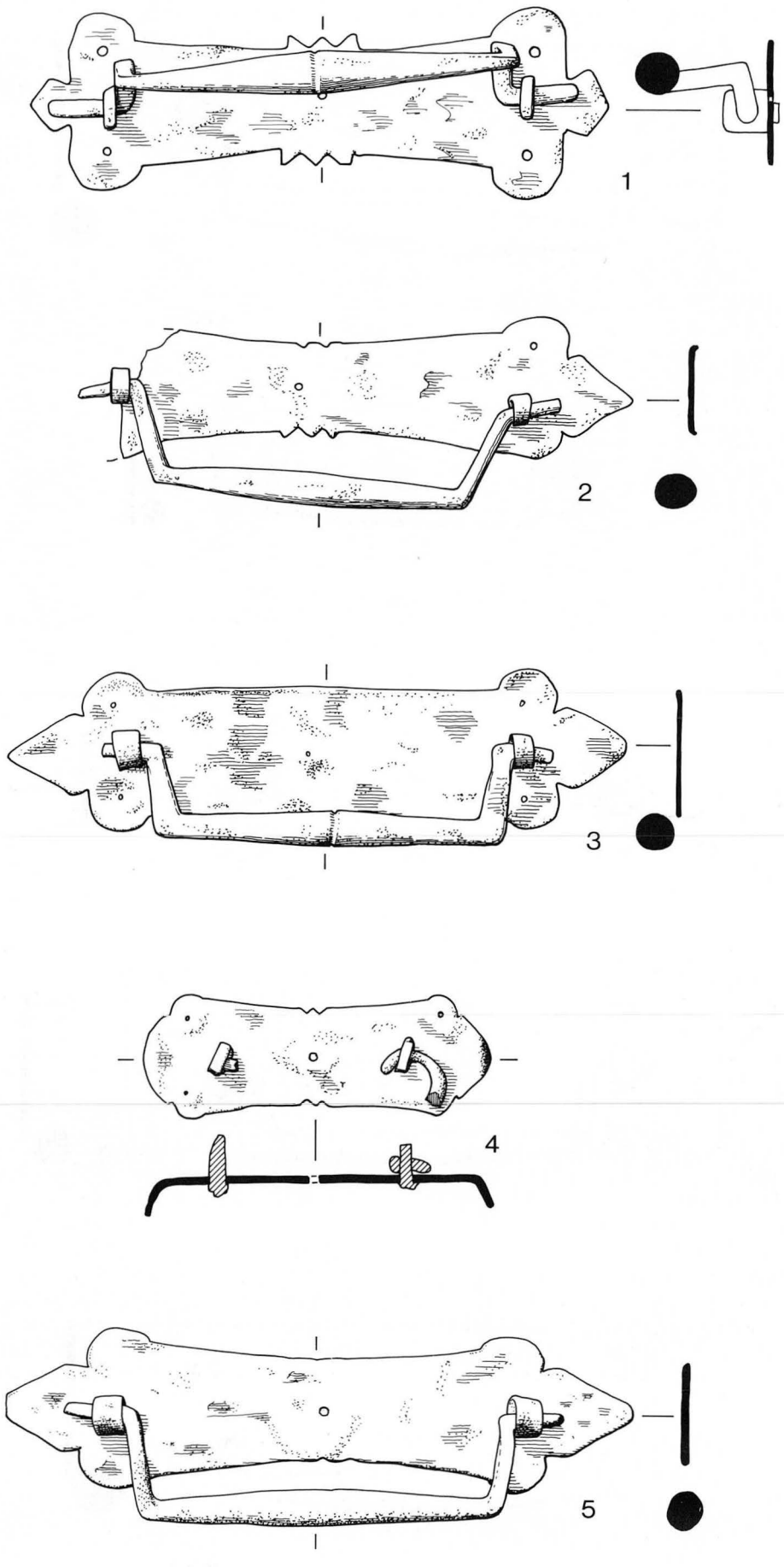


Figure 24 Iron objects, coffin grips and grip plates, Type Nos 1–5. Scale 1:2

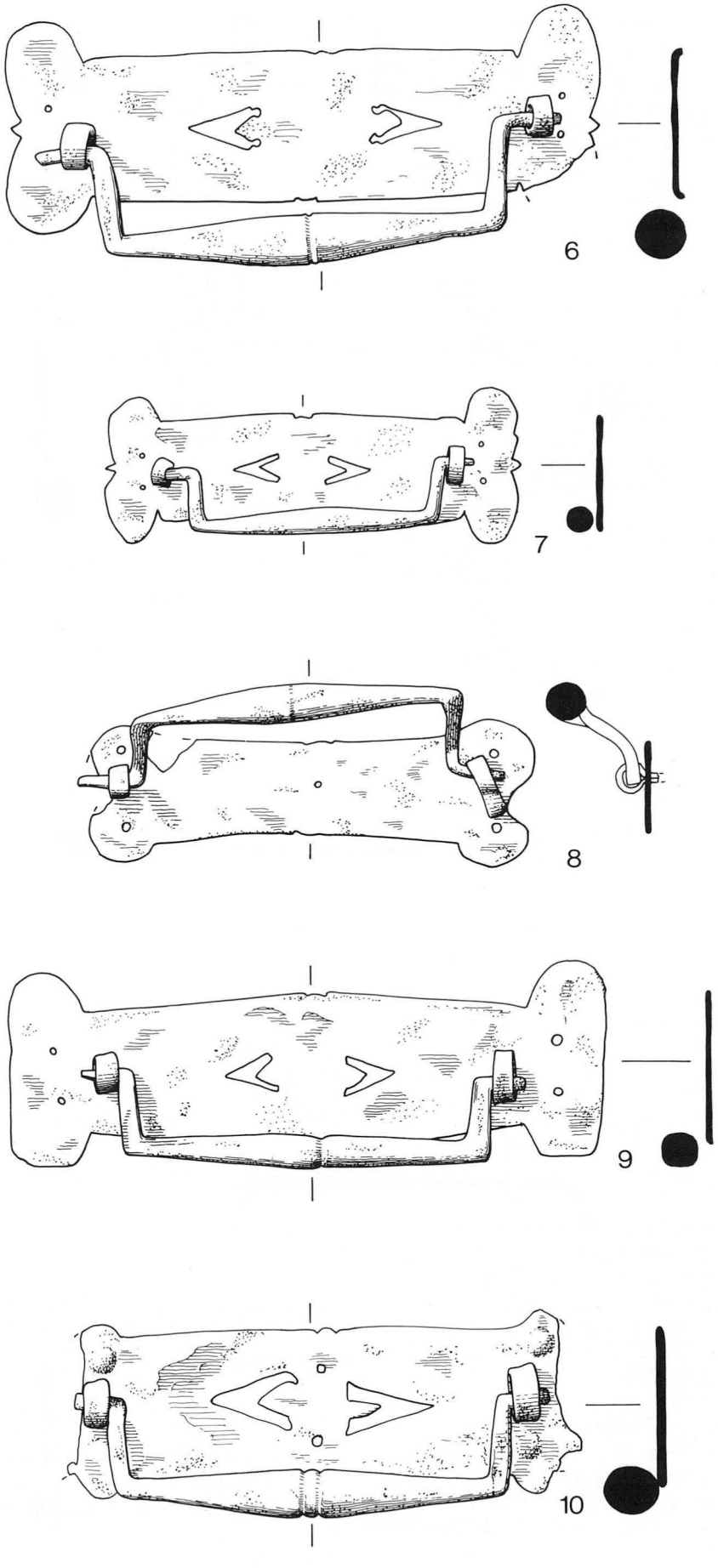


Figure 25 Iron objects, coffin grips and grip plates, Type Nos 6–10. Scale 1:2

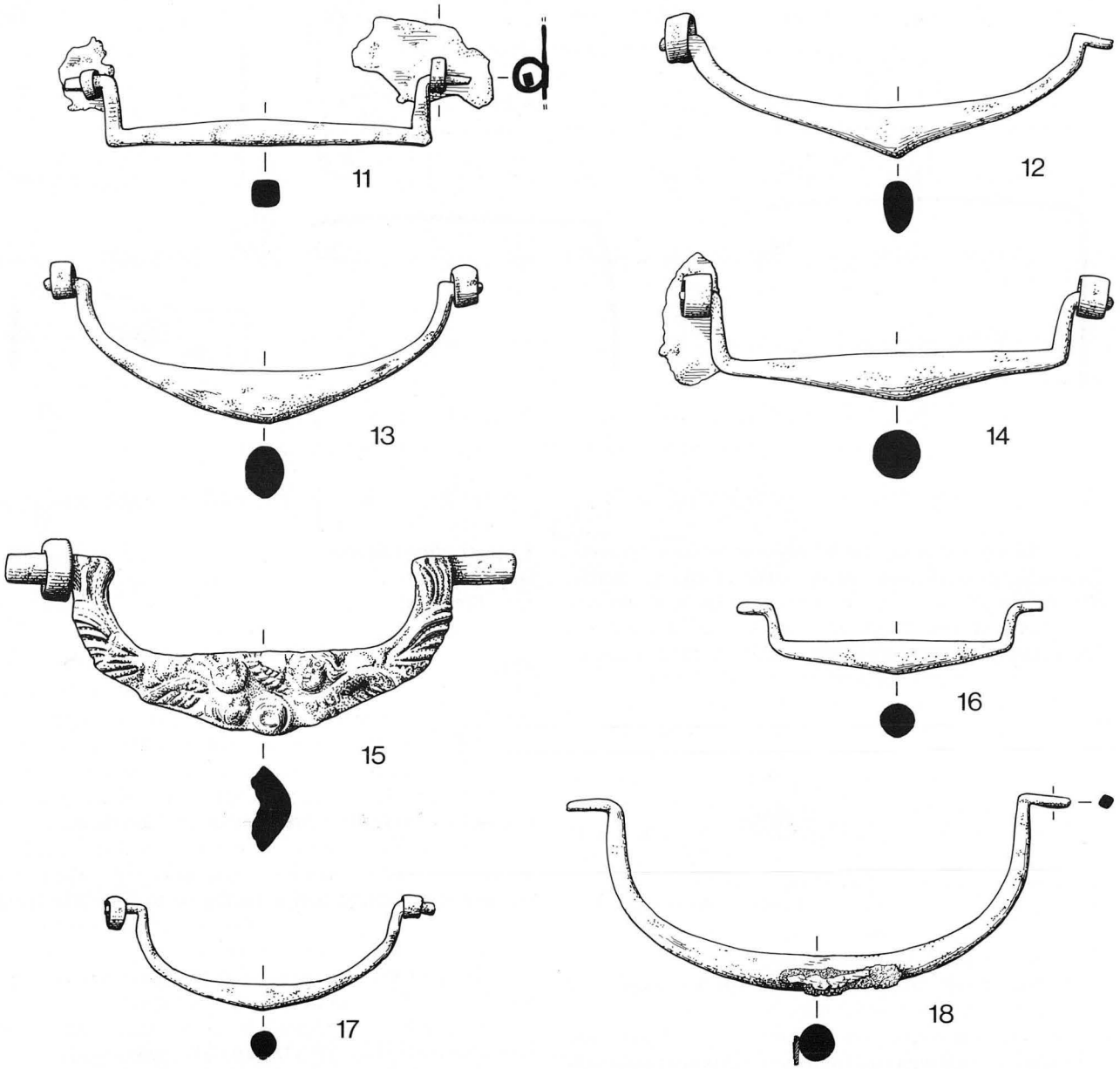


Figure 26 Iron objects, coffin grips, Type Nos 1–18. Scale 1:2

sequential typology could be constructed. The somewhat random use of grip types is illustrated by coffin *694*, which displayed grips of two types, 12 and 13 (Fig.28). These grips were similar in form but, nevertheless, were not matching. From this one can suppose that the type of fittings used on that particular coffin were not of concern to the relatives of the deceased.

The problem of attempting to date furniture from excavations is twofold. As detailed above, the style of furniture used in some areas may not have changed for many years; also, very few of the original pattern books survive and so reference material must be limited to evidence from other excavations with closely dateable contexts. Thus, the excavation at St Martin-at-Palace Plain produced useful material to add to the corpus of knowledge concerning coffin furniture.

Coffin fragments
by Val Fryer
(Figs 22–23)

One hundred-and-one fragments of coffin were recovered. Most were from secondary contexts of feature fills, layers and unstratified deposits and probably represent the disturbance of existing burials by the insertion of later coffins. Twenty-one fragments were found in a vault during watching brief work (SF 5400) and one small fragment of coffin *685* was recovered with the handles.

All, except the very small fragments, carry decorative copper alloy stud-work, which can be divided into four forms of decoration. Forty-three fragments have large studs making an interrupted linear design, the spaces between the studs varying. Twenty-two fragments have large studs in a close set linear design, the heads of the studs touching each other. Such a design appears both on the

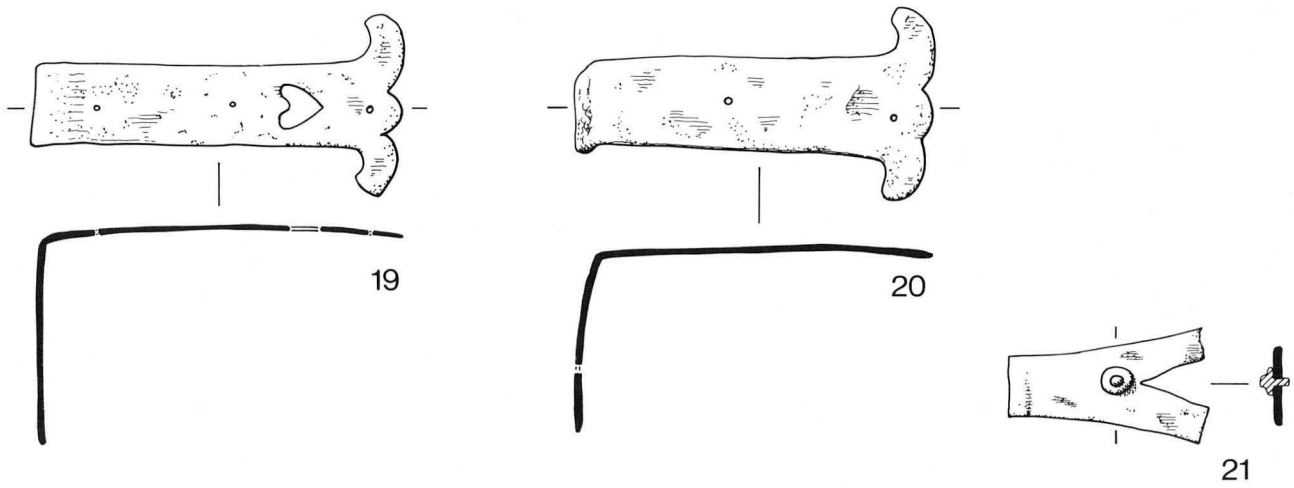


Figure 27 Iron objects, coffin furniture, Type Nos 19–21. Scale 1:1

coffin lid top and along the lid edges on some fragments. Fourteen pieces have small studs forming trefoil, dot-in-circle/floral, circular, semi-circular and abstract motifs and, within this group, is a possible fragment of a letter with a full stop (not illustrated). Two fragments have large studs forming a lozenge and possible dot-in-circle or floral motif. Several pieces have only one stud *in situ*.

Only two sizes of stud are present. The large studs are 9mm in length and the diameter varies from 10–13mm. The small studs are 10mm in length and the head diameter varies from 6–7mm.

The thickness of planking/wood used varies from 10mm (thin), 15mm (medium), to 22mm (thick). The thin wood only occurs in SFs 5400 and 5398. In the latter, six pieces appear to be fragments of strip *c*.55mm wide. It is unknown whether these are pieces of applied strip decoration or plank-built coffin fragments.

Fabric remains are preserved beneath the heads of all studs and on certain coffin fragments.

In the catalogue on microfiche (MI–III), the information is presented as follows and in period and small find number order:
No. of fragments; thickness of wood (thin, medium or thick); size of studs (small or large); decoration; fabric details; other.

Lead objects

by Val Fryer
(not illustrated)

Period II SF 5240.622 At least twenty-seven fragments of burnt or molten lead. The small amount of soil lifted and retained with the small find is largely composed of burnt daub fragments.

Period II SF 5320.550 Large fragment of burnt/molten lead.
Period IV SF 5350.572 Fragment of burnt or molten lead.

All the above appear to be casting residue or some similar form of industrial waste. A further very similar piece (SF 5319.561) was recovered from a Period IV deposit.

Copper alloy objects

by Val Fryer
(not illustrated)

Pins

Nineteen pins were recovered, nine from coffins. Most are small with spherical heads and varying in length from 19–27mm. Two are of medium size (25–26mm) and with coil formed heads and three are of the large flat head type, varying from 42–71mm in length. One of the latter is unusual as it is made from rolled and folded sheet.

Those recovered from coffins were probably used to secure shrouds or garments and one (SF 5053) has fragments of human hair adhering to it. The pins from contexts *293* and *294* were found associated with silk ribbons. SF 5053 had human hair adhering to it and it is probable that the pins were used to secure funeral caps which were often decorated with silk ribbons.

Three pins were found in association with coffin fragments (SF 5123, SF 5386 and SF 5398).

Period IV SF 5053.293 Fragmentary. Human hairs adhering.
Period IV SF 5064.293 Two fragments, one with spherical head.
Period IV SF 5067.293 Complete. Spherical head.
Period IV SF 5094.346 Complete. Spherical head. Tinned.
Period IV SF 5215.457 Large, flat head.
Period IV SF 5002.105 Two complete. One spherical head, tinned; one coil-formed head. Plus one fragment.
Period IV SF 5054.294 Three complete. Spherical heads. Tinned. At least four incomplete. All found in association with an organic matrix of wood, bone fragments *etc*.
Period IV SF 5062.294 Two fragments. One has spherical head.
Period V SF 5112.110 Complete. Coil formed head.
Period V SF 5183.251 Complete. Spherical head.
Period V SF 5207.424 Complete. Flat/coil formed head. ?tinned.
Period V SF 5307.251 Large. Head missing.
U/S SF 5363 Very large, made from rolled and folded sheet. Flattened head burred over at top. Group of five parallel lines towards point.

Other copper alloy objects

Period II SF 5245.635 Six small fragments of extremely fine gilded sheet.
Period V SF 5028.235 Rolled and pinched lace tag. Decorated/ secured by two sets of three parallel marks at top and bottom. Length 31mm.
Period V SF 5047.265 Rolled and pierced lace tag. Length 30mm.
U/S SF 5153 Victoria Penny. 1900.

Iron objects
by Val Fryer
(not illustrated)

Possible structural ironwork

Period V SF 5069.319 Lozenge shaped clench bolt rove. 54 × 33 × 14mm.
Period V SF 5081.352 Fragment of a ring with wedge shaped section tapering towards the centre. Pierced twice towards inner edge. Remains of iron impregnated wood on all surfaces. Approximate exterior diameter 370mm.
Period IV SF 5187.171 Tapering triangular object. Probably structural, possibly a wall hook. Traces of iron impregnated wood.
Period V SF 5206.418 Rectangular section bar fragment bent up at one end. Both ends broken. Pierced twice. Length 175mm.
Period IV SF 5323.171 Wedge. Rectangular section. Probably structural. Length 70mm.
U/S SF 5249. u/s. Object tapering to a rounded end at one end and with a projecting 'foot' at other. Possible wall nail. Length 75mm.

Other ironwork

Period II SF 5229.482 Possible blade fragment with very slight curved back dipping down to meet upswept tip of cutting edge. Of a possible 10th to 11th-century type. Length 69mm.

Period IV SF 5056.293 Hook with two looped terminals. Probably for securing clothing. Found within coffin *293*.

Examination of technological material
by Mike Heyworth
(Table 3, microfiche)

The excavations recovered a small quantity of technological material. The only such material from Period II, which is dated to the late 10th/early 11th century, is a small fragment of iron smithing slag. It is likely that iron smithing would have been taking place in the area of the church and the fragments of smithing slag recovered from the whole excavation (less than 3600g) represent a background spread from a local activity rather than indicating that iron smithing was undertaken on the site. Much of the material from the later levels is also smithing slag (see Table 3, microfiche) but the presence of coal in this slag indicates that it is likely to date from the post-medieval period.

The Period IV material covers a broad time span of the 11th to mid-19th centuries. The majority of this material is iron smithing slag. Two fragments of copper alloy were also found. These were analysed qualitatively using energy dispersive x-ray fluorescence and were found to be bronzes (copper-tin alloy) with minor levels of lead. Medieval bells are normally made of alloys of this type so the two fragments may be the waste from a bell founding operation in the church. Similar operations have been found from other medieval churches such as that at Castle Rising in Norfolk (Heyworth 1989).

The material from Period IV is viewed as broadly 'modern' or residual material. This includes some smithing slag which may relate to earlier phases and also some fragments of clinker which are probably modern. A small quantity of iron oxide concretion was also recovered, though it is unlikely to be associated with a technological process and may originally have been used as a pigment. A small fragment of possible litharge was identified and EDXRF analysis showed it contained lead and some copper. If the identification is correct, it would have been used as a by-product of the refining of precious metals; however as only one small fragment was recovered it is not possible to confirm this.

Stone objects
by Val Fryer
(not illustrated)

Lava fragments

Period V	SF 5139.251	50 × 38 × 53mm
Period V	SF 5176.408	34 × 37 × 26mm

A total of forty lava fragments were recovered from the nearby St Martin-at-Palace Plain excavations in 1981 (Williams 1987, 73). Lava was being exported from the Rhineland to England from the Saxon to the early post-medieval period.

Other stone objects

Period IV SF 5375.168 Marble. 17mm diameter
Period IV SF 5035.247 Marble. 12mm diameter

Carved stone
by Sue Margeson
(Figs 28–29; Pl.XV)

Description

Five fragments shelly limestone, surface reddened through fire. Three joining fragments decorated with double figure-of-eight interlace and a cable moulding border (1–3).

One fragment (4) with worn traces of interlace, not joining but probably from same slab.

1. SF 5248 context 650 Period IV
2. SF 5278 context 735 Period II ph 2 (post-packing)
3. SF 5247 context 650 Period IV
4. SF 5279 u/s Th, 5cm; ht. 12cm; w. 10cm
5. Fragment with only one edge intact; decorated on one face with tapering triangular motifs, representing drapery folds and cable border. The back is roughly pecked. SF 5063 context *313* Period IV (packed into hole). Th. 20cm; ht. 26cm; w. 21cm

The fragments of carved stone constitute part of a Late Saxon grave-cover and a Romanesque grave-cover or niche figure. All fragments have signs of burning on them. Some of them had been used as packing in post-holes, so it is not possible to be sure where they come from.

The three joining fragments (and another fragment) are decorated on one face only with interlace, consisting of two incomplete double figure-of-eight motifs with a border of cable moulding. Early 11th-century grave-covers with interlace are well known in East Anglia (Fox 1920–21, 15–45). There is an important group in Thetford, mostly fragments built into houses, but including one complete grave-cover. The interlace is often in two or four panels, sometimes with a wheel-head cross, or a simple cross, incised or in relief at each end. Cable moulding is not very common in the East Anglian corpus; one example is the Peterborough grave-cover (Fox 1920–21, pl .III). It is more commonly found in northern English sculpture.

The provenance of the fragments of grave-cover described above is not known but, in assessing it, the proximity to the Cathedral must be considered.

The other fragment (Pl.XV) comes from a different piece of sculpture. It also has cable moulding, though this is larger than on the other fragments. It is carved with longitudinal tapering motifs representing the stylised folds of drapery. The back is roughly finished with pecking. This fragment of figure sculpture, likely to be of early Romanesque date, *i.e* early 12th-century, is of considerable interest, given the rarity of figure sculpture in Norfolk.

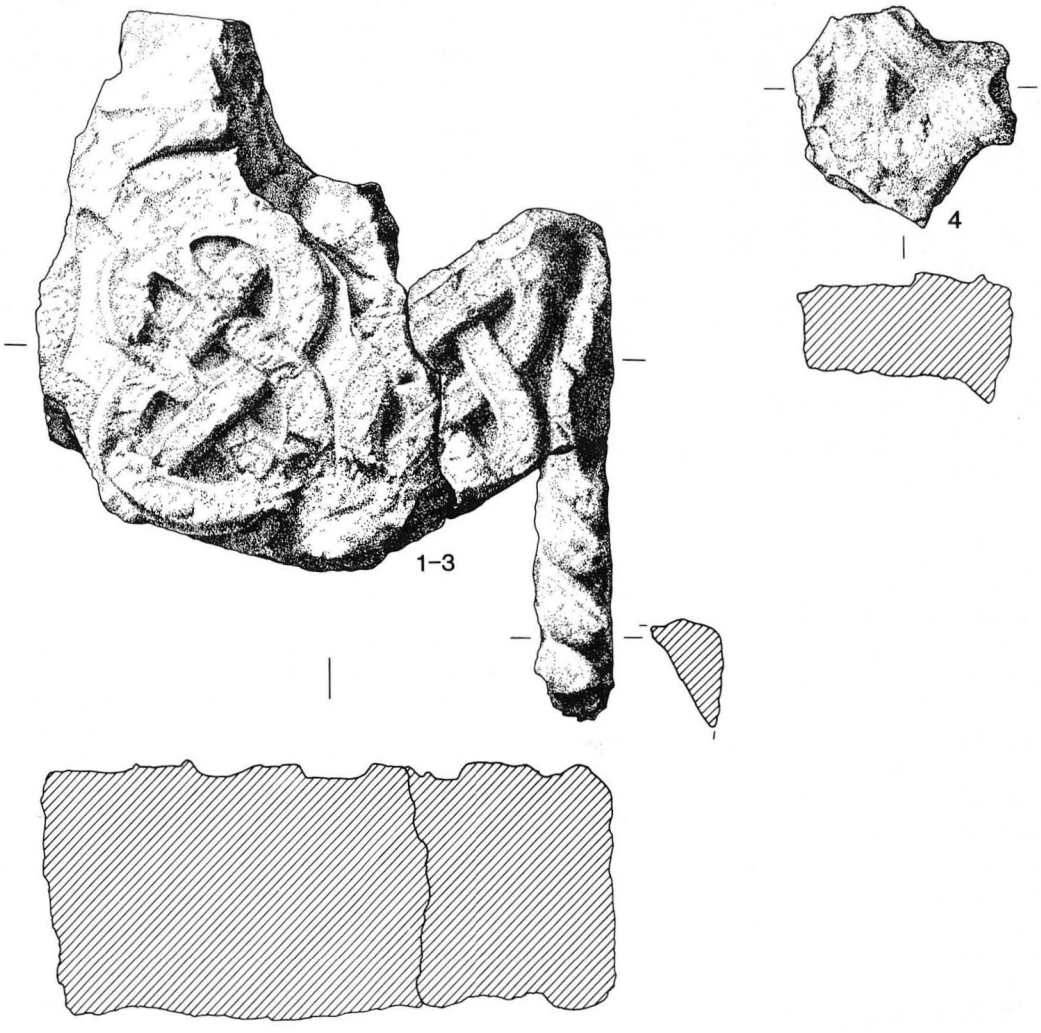


Figure 28 Stone objects Nos 1–4, fragments of decorated grave cover, 11th-century. Scale 1:4

There is some small-scale figurative carving with similar stylised drapery folds on the cloister capitals from the Cathedral, which are *c.*1140 (Borg *et al.* 1980, cat. nos 7, 8), and on the capitals of the entrance door to Norwich Castle Keep.

Other very stylised figures are represented on fonts such as Burnham Deepdale and Fincham (Astley 1907, 104–09 and pls; Zarnecki 1951, pl.22). The drapery here, however, is far simpler than on the St Martin-at-Palace fragment, with no folds shown on the figures on the Burnham Deepdale font and with only a rudimentary fold on the Fincham font figures.

The St Martin-at-Palace fragment must be part of a larger figure, given the size of the folds. Larger-scale figure sculpture is very rare in Norfolk, but some details on the St Martin-at-Palace fragment, such as the cable moulding around the figure, and the linear quality of the drapery, find parallels on two pieces of sculpture. These parallels can be seen on the elaborate seated figure of Christ in Majesty above the south door of Haddiscoe Church, carved with the folds of the drapery represented by linear 'V' shapes; also on the 'Losinga' figure in Norwich Cathedral, possibly a grave-cover and arguably the finest Romanesque figure sculpture in Norfolk, although its date is much disputed. The drapery of the 'Losinga' figure is also represented in a linear, stiff manner. The cable moulding on the columns of the arch around the figure may be compared with the use of cable moulding on the St Martin-at-Palace fragment, apparently around a figure. Cable moulding on columns occurs also on Romanesque fonts as at Shernborne, Norfolk (Astley 1907, 100–01 and pls).

These parallels suggest a possible context in which the St Martin-at-Palace fragment might be seen.

Stone with pitch decoration

by Jon Bayliss

A gravestone (Pl.XXI) inscribed to Sara Markon and dated 1606 was uncovered during the course of the excavation. The monument is paralleled elsewhere in Norfolk. The closest parallel is an inscription of about the same size in a stone frame on the wall behind the pulpit in Worstead church. This is some eleven years later than the Markon stone and has lost most of the pitch from the lettering. The script, however, is very similar. It is probable that the Markon stone was once mounted in a similar way on a wall in St Martin-at-Palace. It is also possible that it was the inscription from a larger monument, in the manner of the somewhat earlier Holdiche monument at Ranworth, but there would probably have been a market for small inscription panels as well as larger monuments. This is

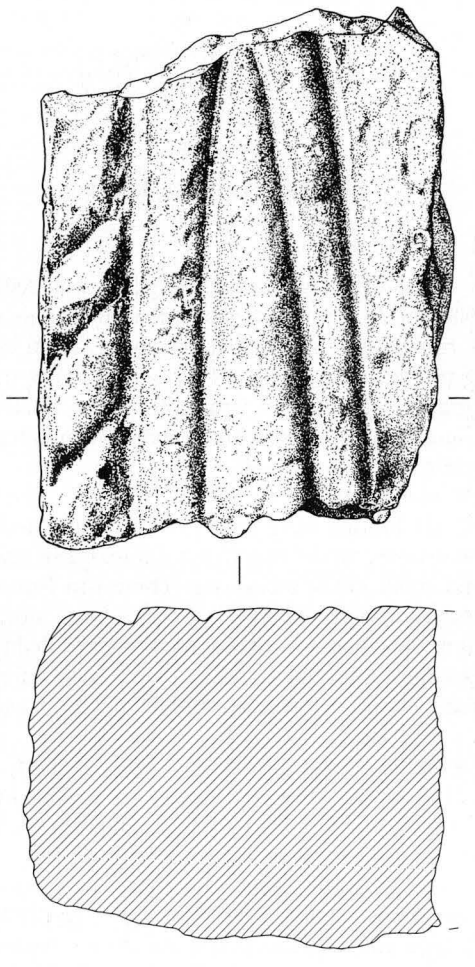


Figure 29 Stone object No. 5, fragment of figure sculpture showing drapery. Scale 1:4

Date	*Location*	*Subject*
1591	Ashmanhaugh	Honor Bacon
1620	Attleborough	John Rawlyns
1583	Bixley	Edward Ward
1582	Blickling	Elizabeth Gurdon
1587	Brandon Parva	Richard Warner
1594	Ellingham	John Hamond
1623	Elsing	Dame Anne Browne
	Great Ryburgh	
	Honingham	Sergeant Catelyn
	Morningthorpe	Richard Garneys
1609	Morton-on-the-Hill	Thomas Southwell
1582	Norwich Cathedral	Elizabeth Calthorpp
1585	Norwich Cathedral	Osbert Parsley
1575	Norwich Cathedral	Bishop Parkhurst
1607	Norwich, St Andrew	Francis Rugge
1611	Norwich, St Etheldreda	William Johnson
1578	Norwich, St Martin-at-Palace	Lady Elizabeth Calthorpe
1606	Norwich, St Martin-at-Palace	Sara Markon
1579	Norwich, St Mary Coslany	Martin van Kurnbeck
1619	Norwich, St Michael Coslany	Henry Fawcett
1603	Norwich, St Michael-at-Plea	Jacques de Hem
1614	Norwich, St Michael-at-Plea	John Playford
1592	Norwich, St Peter Mancroft	Francis Windham
1610	Norwich, St Saviour	Edward Nutting
1610	Sprowston	Christopher Knolles
1579	Ranworth	Thomas Holdiche
1584	Reedham	Henry Berney
1584	Suffield	John Symonds
1587	Tasburgh	Elizabeth Baxter
1583	Thornage	Sir William Butt
	Wickmere	William Dix
1617	Worstead	James King

Table 4 Norwich workshop church monuments in Norfolk

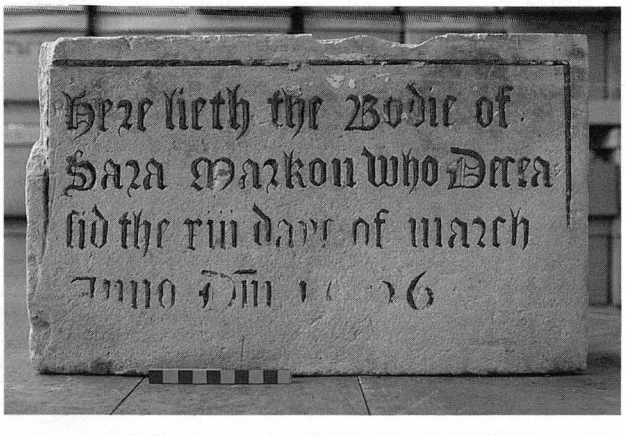


Plate XXI Gravestone with pitch decoration. Scale 10 centimetres

borne out not only by the panel at Worstead but by one at Suffield. A battered example in the north porch of St Peter Mancroft, Norwich, is *ex situ*.

With the possible exception of the last, these monuments are part of a series, with common stylistic features both in their architecture and lettering. From their distribution, they must have been made in Norwich. They are also linked to a series of fireplaces in Norwich, including those in Strangers Hall, and to some architectural fittings such as the main door of the Dolphin Inn, which also has a fireplace. The closest comparison to the fireplaces is provided by the monument at Morton-on-the-Hill. A less than exhaustive list of the monuments in Norfolk is given in Table 4. There are others in Suffolk (not listed).

Struck flint

by Frances Healy

There are two unequivocally prehistoric artefacts, both SF 5302: small, soft-hammer-struck blade, possibly Mesolithic flake with some edge retouch.

The rest of the struck flints are all struck flakes. It is impossible to be one hundred per cent sure, but they seem most likely to have resulted from the dressing of flint for the church, in that they are fresh, of chalk flint and hard hammer-struck, in some cases apparently with a metal hammer (*e.g.* 5043).

Glass

by Val Fryer
(not illustrated)

Twenty-five fragments of window glass and two fragments of vessel glass were recovered. Two fragments of window glass (SF 5169 and SF 5040) were found in coffins where they are almost certainly intrusive. The following catalogue is divided into medieval and post-medieval window glass and vessel glass. All pieces are clear or clear/green glass unless otherwise stated.

Medieval window glass

Period IV SF 5020.195 Painted lettering, possibly letter M.
Period IV SF 5099.381 Very fine with painted design of one very fine line and one thicker line.
Period IV SF 5271.700
Period IV SF 5076.324 Mid green.

Post-medieval window glass

Period IV SF 5040.258
Period IV SF 5169.258
Period IV SF 5221.441
Period IV SF 5233.528
Period IV SF 5238.579 One cut edge with lead shadow.
Period IV SF 5270.708
Period V SF 5018.167 Mid green — thicker to one side.
Period IV SF 5059.272
Period IV SF 5076.324
Period IV SF 5109.184
Period V SF 5110.103 2 × mid green.
Period V SF 5124.261 One grozed edge.
Period V SF 5130.103 One grozed edge.
Period V SF 5133.103 One cut edge.
Period V SF 5150.112
Period IV SF 5168.247
Period V SF 5203.418 One cut edge with lead shadow.
Period V SF 5312.505
U/S SF 5125.u/s
U/S SF 5208.u/s
U/S SF 5217.u/s

Vessel glass

Period IV SF 5075.325 Simple rim of a very clear/green vessel. High quantity of air bubbles in glass.
Period V SF 5149.187 Clear glass lettered bottle fragment.

The pottery

by Julia Huddle and Irena Lentowicz
(Fig.30)

Introduction

Fifty-four sherds of pottery were recovered from excavations at St Martin-at-Palace. The material is quantified in Table 5 and is discussed by period. Detailed descriptions of the sherds are held in the archive.

Discussion

The fabric types are presented in chronological order. Much of the material was mixed due to the nature of the deposits where frequent cutting of inter-mural graves had destroyed most stratigraphy and confused the archaeological horizons. The principal fabric types were as follows:

One sherd of samian was recovered, a Drag 37 bowl from Central Gaul, which can be dated to the Antonine period (David Gurney, pers comm.). Stray finds of Roman pottery are quite common in Norwich and only three sites have so far produced sufficient material to suggest Romano-British occupation (Jennings 1981, 9).

Figure 30 Pottery. Scale 1:4

One sherd of Ipswich ware (Fig.30) was recovered from context *644*, a post-hole from Period II. This was an everted rim with a slight external bead, from a squat cooking pot/jar, in a 'pimply' fabric with many rounded quartz grains. Though not stratigraphically related, this sherd could be associated with the burial which has been radiocarbon-dated to AD 440–770.

Thetford-type ware produced the largest quantity of material; all fabrics were sandy, some contained small stone inclusions, while two (from context *237* and *342*) contained small chalk inclusions. Three rim forms were represented: a lid-seated cooking pot, a large storage jar and a lamp. Two bases were also recovered probably from the cooking pot and storage jar; both displayed characteristic rilling at the base/body junction and wire marks on the base.

Early Medieval wares were represented by body sherds only and two distinct fabrics were recognised. The first was sandy, with mica and irregular, ill-sorted quartz inclusions (from contexts *324* and *561*); the other was harsher with larger, more frequent quartz inclusions and occasional mica. Continental imports were represented by products of Rhenish-type and Pingsdorf-type industries. Again, only body sherds were recovered. The Pingsdorf-type ware displayed characteristic red painted decoration on the body sherd and handle. One of the Rhenish-type sherds was decorated with rouletting.

Local and non-local medieval wares accounted for the second largest group of pottery recovered, represented mainly by Local Unglazed Medieval ware in cooking pot form. A small quantity of non-local Glazed ware was also recovered.

Later medieval and post-medieval fabrics were represented by a few small body sherds and included Late Medieval and Transitional ware, Glazed Red Earthenware and Black Iron-glazed ware. Stonewares were represented by sherds from Langerwehe, with rouletted decoration, and a mug rim from Westerwald.

Conclusion

The nature of the site and the paucity of material precluded any detailed analysis of the pottery assemblage, as any conclusions drawn based on proportions of fabrics recovered could be erroneous or tentative at best. The pottery was deposited as a product of construction rather than as a reflection of occupation of the site. However, some comments can be made.

The most significant vessel fragment recovered was the Ipswich ware rim; although from a residual context it may be associated with the burial and a mid-to-late 8th-century date is therefore appropriate. Rim sherds of Ipswich ware are rare in Norwich (Hurst 1976, 301, but see also Dallas 1994, 19–20 a publication which describes several from Fishergate, Norwich) and this alone makes this sherd significant.

Period	I	II	III	IV	V	U/S	Total
Fabric							
Samian	-	-	-	1	-	-	1
Ipswich-type ware	-	1	-	-	-	-	1
Rhenish-type ware	-	-	-	2	1	-	3
Pingsdorf-type ware	-	-	-	2	-	2	4
Thetford-type ware	-	1	-	10	4	4	19
Early Medieval ware	-	-	-	3	-	-	3
Local Medieval ware	-	-	-	2	5	5	12
Medieval Glazed ware	-	-	-	1	2	-	3
LMT	-	-	-	1	-	-	1
GRE	-	-	-	-	-	2	2
Iron-glazed Black ware	-	-	-	-	-	2	2
Stonewares	-	-	-	2	-	1	3
	-	2	-	24	12	16	54

Table 5 Total pottery by Period and fabric

Thetford-type ware was the most prolific find, represented by a minimum of three vessels: a lid-seated cooking pot, a storage jar and a lamp. The latter was also of particular interest, as lamps were also a feature of the assemblage recovered from contexts associated with the Late Saxon timber church excavated on the Anglia TV site (Ayers 1985).

The continental material was notable in that it complemented the range recovered from excavation of the large adjacent commercial site (Ayers 1987), where the imports also clustered into two groups of late Saxo-Norman and early post-medieval date. This possibly emphasised the location of the church as an important riverside commercial area.

Tile

by Julia Huddle

All tile was kept from the church, glazed tiles being small-found; where possible the tile has been categorised using Paul Drury's classifications (Drury forthcoming). Quantities are tabulated on Table 6 with further details on microfiche (Table 7).

Seventy-three percent of the floor tiles are glazed and all are Flemish plain coloured. The sizes range from 100mm square (FT6) to 235mm square (FT10). Although the dating of the smaller tiles is less certain, they appear by the late 14th century (Drury forthcoming). The glazes on the floor-tiles are in some cases completely eroded; however, glazes that do survive are mainly a plain (brown firing) glaze and a dark green glaze. Four fragments have a cream slip and glaze, while one has a dark green glaze over a cream slip. Of the glazed tiles, 4.3% are from Periods I or II, while the bulk (65.2%) are from Period IV, the rest being from Period V. There seems to be no documentary evidence for the purchasing of these glazed tiles in the later 14th to 15th century although it is most likely that the church floor would have been tiled with Flemish tiles. Post-medieval unglazed floor tiles are evenly distributed between Periods IV and V.

The glazed roof-tile forms 80% of the medieval roof-tiles. These all fall into the category of Norwich type RT2 as classified by Drury (forthcoming). The medieval unglazed fragments are probably of the same type (only the lower part of the tile being glazed), except one fragment which is type RT6. One glazed fragment was found in Period I, 50% in Period IV and 45% in Period V. The post-medieval roof-tiles (all unglazed) are from Periods IV and V, 63.6% and 36.4% respectively (type RT4).

	Period I	Period II	Period IV	Period V	Percentage of total
Med Glazed Floor-Tile	-	2	30	14	47.9
Med Glazed Roof-Tile	1	-	7	8	16.7
Med Unglazed Roof-Tile	-	-	5	1	6.2
Post-Med Unglazed Floor-Tile	-	-	7	10	17.7
Post-Med Unglazed Roof-Tile	-	-	4	7	11.5
	1	2	53	40	

Table 6 Tile

It is interesting to note that the Norwich type RT2 is also the main type found at the adjacent commercial site excavated in 1981 (Ayers 1987).

Brick

by Julia Huddle

Bricks were only found in Period IV and V; they occurred in twenty-seven contexts (microfiche Table 8). All the single brick finds were kept and where complete dimensions exist have been categorised using Paul Drury's classifications (forthcoming). If no complete dimensions exist, fabric type is the only criterion used for dating (see microfiche).

The bricks range from the medieval 'early brick' to post-medieval 'late brick'. One modern brick was found in Period V, context *104*. All the 'early bricks' except one, were made from an unsanded form on a surface covered with vegetable matter, probably hay or straw, which is visible on the surviving 'flat' surfaces. These bricks are East Anglian in production and seem to predominate by the end of the 14th century (Drury forthcoming).

One 'early brick' is of special interest in that it is larger than the rest and, unlike the others, is covered with a thin spread of sand, except for one long face (Harley 1974, 67) which carries a shallow recess along each long edge. The brick is similar to the type found at a moated site at Hempstead, near Holt (Rogerson and Adams 1978, 64).

The post-medieval brick is also typical of the types found in Norwich. Either an orange to red sandy fabric with occasional pebbles and stones, or a yellowish-buff fabric, with pinkish grog lumps and small voids, made in a finely sanded form. Two 18th century 'factory bricks' were found in Period V context *118*.

It is of interest that 68% of the 'early bricks' are from Period IV. In particular a large proportion were found within the brick-lined graves, contexts *195, 152, 213* and *267*. These may have been bricks from earlier disturbed brick-lined graves, or they may have been bricks that were re-used in the brickwork of 17th-century graves. Some of the medieval brick has post-medieval mortar adhering, implying such re-use.

Post-medieval brick forms 49% of the site total and can probably be attributed to the post-medieval brick-lined graves, vaults and internal rebuilding carried out during the latter half of the 19th century.

Plaster
by Val Fryer
(not illustrated)

Painted plaster
A total of eight fragments of painted plaster were found. A white backing material or ground is present on all examples, ranging in thickness from 0.5–4.00mm. The plaster varies from fine to coarse with varying quantities of small stones and grits. The fabric of SF 5354 also contains shell and charcoal. Colour varies from white/cream to buff/cream. Colours of paint present are white, pink, red, buff and blue/black. SF 5118 has a linear design while all other pieces are either of a single colour or are too small to determine the design.

Period IV SF 5354.571
Period V SF 5007.166 two small fragments
Period V SF 5116.109
Period V SF 5118.172 three fragments
U/S SF 5111.u/s

Other plaster
Period V SF 5345.332 Medium/coarse white fabric with sparse stone/grits, charcoal and bone. Back is extremely coarse with charcoal, large bone fragments, brick/tile fragments, organic remains and other plaster fragments. Upper surface possibly laid over ledger slab as very smooth and with reversed letters y, e and possibly a (perhaps Year/years?).

Bone objects
by Val Fryer
(Fig.31)

Period IV SF 5092.364 Point of pin or needle (not illustrated).
Period IV SF 5314.582 Circular bone or ivory bead/toggle. Pierced from front to back and from side to side. Where side piercings occur, the profile is slightly flattened. Little sign of wear around holes.

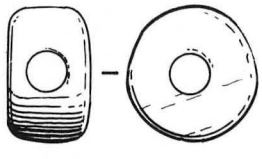


Figure 31 Bone/ivory toggle. Scale 1:1

Wooden objects
by Val Fryer with contributions by Karen Wardley
(not illustrated)
All four pieces recovered probably relate either to the structure of the building or the furniture within it.

Period V SF 5115.139 Octagonal section peg. Possibly oak. One end burred over. Length 63mm.
Period V SF 5194.420 Wood fragment with red paint on surface. The pigment is probably red lead. It appears that the paint has been accidentally applied as there is no surface preparation of the wood and no evidence of any ground material beneath the paint.
Period V SF 5324.479 Three painted wood fragments. The wood has been coated with a layer of white ground, over which has been applied grey paint. This varies in thickness giving the effect of lighter and darker coloured areas. Under magnification (×40), the black-and-white pigments which would have been used to make the grey, cannot be detected, so are very finely ground and are therefore late in date.
U/S SF 5122.u/s Octagonal section peg. Wood unknown. Length 68mm.

Textiles
by Elisabeth Crowfoot
Fibres: H.M. Appleyard
Dyes: Penelope Rogers
Textile fragments from the opened graves at St Martin-at-Palace are a varied collection, giving an interesting glimpse of funerary practices of the late 18th to early 19th centuries.

The only remains that had close contact with bodies, and clearly came from what could be called funerary garments, are two fragments of silk ribbon, undyed, *i.e* originally white or cream-colour (5057, 5413). In both cases these were still fastened with bronze pins directly to the hair or skull tissue, small bows used to decorate the brow of the funerary cap or bonnet, not part of any ready-made head-covering worn in life. A similar bow, but of blue silk ribbon, could be seen on the head through the broken end of a coffin which was not opened, since the burial did not have to be moved.

Staining on fragments of undyed wool tabby weave from the inside of another coffin (5265) suggests that these had also had contact with the body, and the pinning of tight folds, again with bronze pins, may indicate these come from the shroud. Finer ?woollen scraps from 18th-century burials at Little Ilford St Mary church, Essex, in one case adhering to fragments of ?skin, again suggest shrouds (Crowfoot forthcoming).

The other textiles from St Martin's are associated more directly with the coffins, two from the outer coverings (5411, 5414), the third possibly part of a lining (5313). The practice of covering the outer wooden shell of the coffin (the 'case') with fabric began in the late 16th century, a custom that Litten suggests has its origin in the rich palls which draped the plain wood coffins during the lying-in-state of monarchs and royal nobles, one of the earliest examples perhaps being the red-velvet-covered coffin of Elizabeth I (d. 1603) (Crowfoot and Litten 1987, 149, fiche 5, E3). From the last quarter of the 17th century until probably the middle of the 19th century the practice continued, a rich material not only giving status to the funeral, but a good base to show off elaborate fittings. The quality of the material differed greatly from region to region. Recent excavations in Essex found red velvet covering on an 18th- century coffin at West Ham Parish Church, but while the earliest burial at Little Ilford St Mary's (AD 1670) also showed remains of velvet, probably purple, the 18th-century coffins, like those of similar date

at Wharram Percy in Yorkshire, all have woollen coverings, the cloth originally fulled, napped or teasled, to give the nearest approach to the appearance of velvet that could be obtained in a cheaper material. The same applies to the two coffin coverings from St Martin's, where in spite of deterioration it is clear the surface of the weaves had been raised (5411, 5414). Most of these woollen coverings were strongly coloured, two at Little Ilford red (dyed with either kermes or cochineal), at Wharram Percy four dark blue and two dark red; for these, cheaper dyes are used, as in the two from St Martin's, one (5411) again originally blue, the other probably purple, the indigotin and madder perhaps reinforced by the use of another dye (5414; Appendix 2: Dye Identification, below).

One last fragment of textile (5313) does not come from an outer covering. The grave had collapsed, and the position of the fabric inside the coffin was uncertain. This is a solid piece of cotton machine-knitted fabric. The technique used, known as 'warp-knitting', was developed about 1775, though there is some doubt who should be credited with its invention. It was first probably used for stockings (Felkin 1867, 143); later developments, particularly in the Nottingham area, were concerned with lace-making, with a view to capturing the market formerly dominated by continental imports (Felkin 1867, 146–47), but before the end of the century the machines had been further developed and modified to produce a variety of solid 'knitted' fabrics, non-elastic, which would not tear or unravel, and could be cut and seamed, ideal for gentlemen's pantaloons as well as heavy items such as sailors' jackets and trousers supplied to the Navy (Felkin 1867, 144–45).

The fragment found at St Martin's is in the warp-knit construction known as 'Atlas' or 'Vandyke' cloth, with chevron-style ribs or wales, in this case 6-wales, emphasised by single blue lines separated by eleven white threads (Fig.32). From its nature it is more likely to have been part of the funeral furnishings than from a garment. The blue is very faded, and impossible to see on the reverse of the fabric. Two fragments, joined together with a roughly tacked seam, are probably both from the same cloth although in the larger area wear and pull expose the blue loops after the first white thread, giving the occasional appearance of two blue lines separated by one white.

The 'Atlas' pattern is probably one of the earliest invented — silk hose having blue and white zigzag stripes were made by Crane of Edmonton, one of the possible inventors, in 1775 (Felkin 1867, 143) — but this solid cotton fabric is unlikely to have come from stocking, or any garment worn in life. Julian Litten writes that this fabric does not conform to the manufactured 'soft furnishings' of the 18th century used by most city and town undertakers, but suggests it may, as often happened, have been provided by relatives of the deceased, or perhaps be an example of a soft furnishing peculiar to the undertaker entrusted with the arrangements for this particular corpse. The rough seam suggests perhaps a width fastened inside, round the sides of the coffin. Fragments of 'warp-knitted' fabric have recently been identified by Penelope Rogers; a carbonised example, undated, from Coffee Yard, York, and a 19th/20th-century piece from St Kilda.

Catalogue

5057.293 Fragments attached to ?skin tissue and light brown human hair. Main scrap, *c.*17 × 14mm, held in place by two long Cu alloy pins, and other scraps, the best 6 × 6mm, with selvedge. Ribbon, width 12mm, light golden-brown silk (undyed); spin very slight Z/S, probably from pull of weave, *i.e.* reeled; weave tabby, thread count *c.* 56/14 per cm (count taken 14 on 2.5mm/7 on 5mm; selvedge, simple return, 9–10 warps close packed over 3mm.

5265.694 Two fragments from inside coffin (a) 58 × 45 (b) 75 × 30mm. (a) six thicknesses, held together by 20mm long Cu alloy pin. (b) three thicknesses, two folded bias, similar pin. Now light golden brown, (undyed) wool, spin Z/Z, weave tabby, thread count 16/8 per cm; spinning slightly uneven. Dark brown stains. ?shroud fragment.

5313.572 Two fragments, joined by rough seam for 65mm, overall measurement *c.*105 × 95mm (Fig 32). Cotton, very solid threads, Z spun, singles; machine-made 'warp-knitting', two-needle single guide-bar Atlas fabric (R. T. S. Kempton), 6-wale, 14 ribs surviving at widest, 8 rows per cm; stained grey-pink (undyed), pattern pale blue single thread chevrons, 6-wale, 11 white before next blue. ?coffin lining.

5411.U/S Fragment from coffin covering, L. (cut edge) 100mm, depth preserved *c.*60mm; three Fe studs, two still in position 20mm apart, and holes for two others, near cut edge. Wool, now dark red-brown (rust) originally blue, stained black; spinning Z/S, no selvedge preserved; weave tabby, count 14/14 threads per cm, even spin and weave, fulled, nap raised and sheared.

5413.294 Held to piece of skull tissue by Cu alloy pins, as in 5057. Ribbon, silk, (a) fragment L. 46mm, 17mm wide, fastened to skull; (b) L. *c.* 40mm, in folds, complete width present 17mm, fastened with two pins, tied in finger-knot or twisted round at one end; ?wood preserved underneath; (c) deteriorated tiny fragments in folds, again held by pin, with wood. Ribbon, 17mm wide, silk, now gold (undyed), yarns both reeled; weave tabby, thread count 54–56/35 per cm, close; warp threads occasionally pulled S; selvedges simple, 8 threads packed to 1mm.

5414 One large wood fragment from coffin, ?probably 1831. Textile still *in situ* over area 240 × 250mm along the top, going over the edge for a depth of 20mm, edge not turned under, cut; fastened with Fe nails (Cu alloy tops decayed) in line, *i.e.* not decoratively arranged; small scraps scattered on the rest of the wood surface. Wool, now dark brown, originally purple (see Dyes, below), stained in places by rust from nails; spinning S/S, slightly uneven; weave, tabby, no selvedge preserved, counts 12/10, 14/12 threads per cm. Surface where best preserved teasled to raise nap.

Appendix 1 Fibre Identification
by H. M. Appleyard

5057.293 Fibre structure not clear.
5265.694 Wool fibres, much damage.
5313.572 Cotton.
5411.U/S Coarse wool, no pigment, only occasional medulla clear.
5413.294 Silk.
5414 Wool, medium diameter fibres, some with fragmental medullae clear.

Appendix 2 Dye Identification
by Penelope Rogers

Eight samples from seven different textiles were provided for analysis by E. Crowfoot. One of these had deteriorated during transport and there was too little present for analysis. The remainder were exposed to our usual tests for dye, that is, solvent extraction followed by UV/Visible spectrophotometry.

Pyridine-and-water extracts of the two coffin covers, 5411 and 5414, when re-extracted into diethyl ether, gave spectrometry graphs typical of indigotin, the chemical present in both woad and indigo dyeings (the two are chemically indistinguishable). 5411 showed very high concentration of indigotin, suggesting that the original

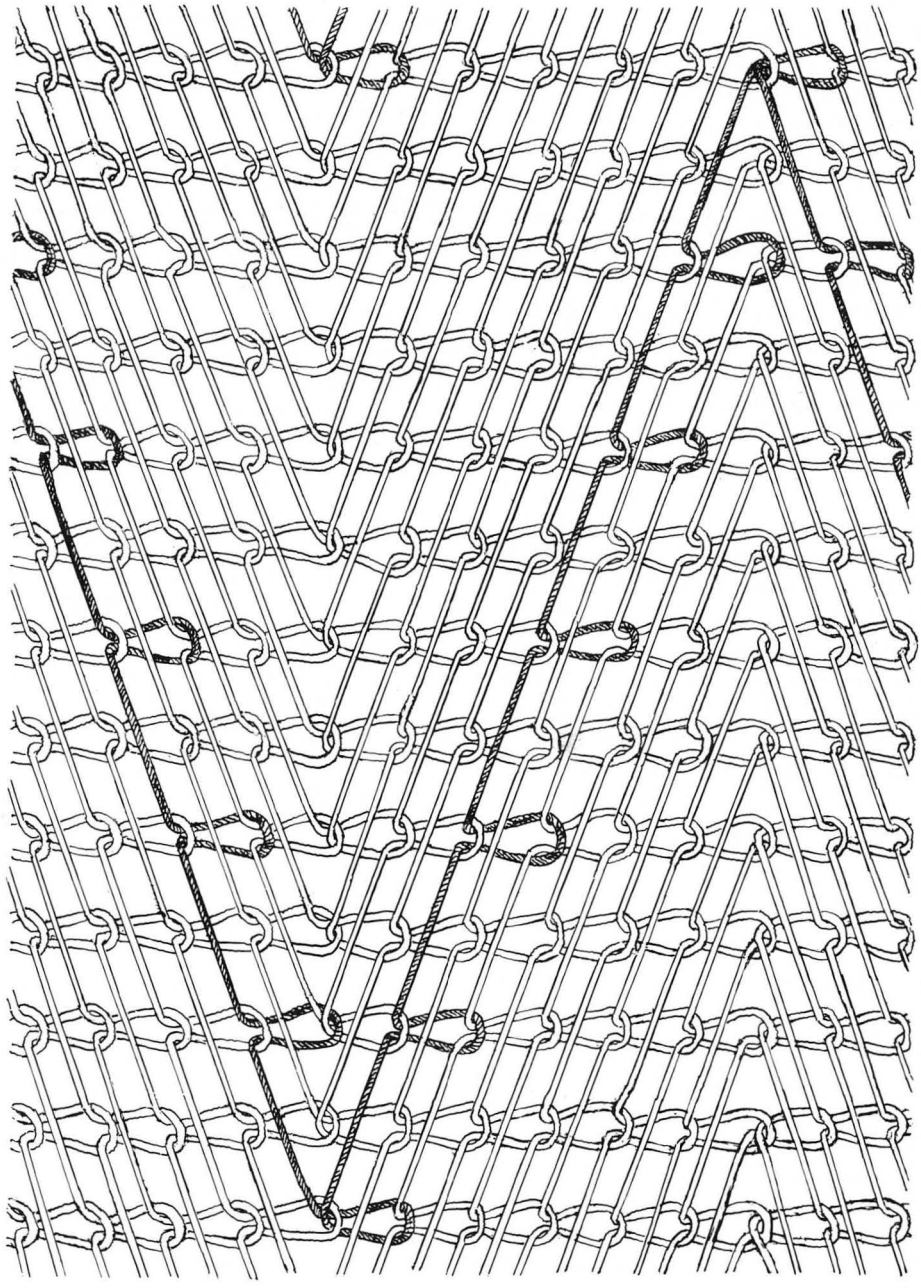


Figure 32 Fragment of textile covering coffin (SF5313). Two-needle single guide-bar Atlas fabric (after R.T.S. Kempton)

textile was a very dark blue. The sample 5414 held a smaller quantity of indigotin.

Tests for mordant dyes (alcohol/acid extracts, re-extracted into a methanolic solution of magnesium acetate) indicated the presence of a red mordant dye, almost certainly madder, in 5414. There may also have been a yellow or brown present. This combination of red, blue and perhaps yellow/brown, suggests that the textile was either purple or black originally.

A trace of indigotin was also detected in 5313(b); a green substance was also noted on both (a) and (b) of 5313, but this appeared to be inorganic, and may have been copper salts, perhaps from contamination by a corroding copper-alloy artefact.

No dye was detected in the remaining samples. It is not possible, however, to claim that these were undyed (although this may be the case); dyes may have decayed beyond the limits of detection during burial.

Summary of results

5057 silk ribbon not tested
5265 ?wool shroud no dye detected
5313 knitting (a) no dye detected
(b) faint trace of indigotin
5411 wool covering indigotin (indigo/woad) of coffin
5413 silk ribbon no dye detected
5414 wool covering indigotin, plus ?madder, of coffin possibly plus a yellow/brown

V. The Human Skeletal Remains

by Christine Osborne and Ann Stirland

The human bones in this group represent at least twenty-nine individuals, with a few remains which may indicate up to four more. All are inhumations, and the remains are generally in a reasonable state of preservation.

Sexing

The best indicators of sex are those characteristics of the skull and pelvis which differ between males and females. Also used, though not as accurate, are other features of the skeleton such as longbone measurements (principally those of femoral and humeral head diameter, and clavicle length) and general robusticity of the bones. As the characteristics of sexual dimorphism only develop during puberty, the sexing of immature individuals is not possible. Of the eighteen adults in this group, six were males, two were ?males, four were females, one was ?female and five could not be determined. The uncertainty in sex arises if only very few of the sexual characteristics survive, or if a skeleton exhibits both male and female characteristics.

Ageing

The ageing of adults is an imprecise science and recently some of the methods used have come under severe criticism. For example, age was often based on the attrition (wear patterns) of molar teeth, though this can vary greatly depending upon diet. Anomalous results can also arise if molars were lost ante-mortem, (resulting in less wear on the remaining opposing molars), or if the individual favours one side of the mouth for chewing, resulting in greater wear on that side. A more reliable method of ageing is that based upon the changes to the pubic symphysis of the pelvis. This method is, however, only reliable in the ageing of males. In the female pubis, changes which arise as a result of pregnancy and childbirth can obscure those related to ageing. Unfortunately the pubic symphysis is often missing or damaged and, if retrieved, can present an age range which can cover up to about fifty years. Other indicators, such as degenerative disease of the skeleton and visible epiphyseal fusion lines, can give a general idea of age. The ageing of immature individuals is much more accurate than that of adults if the dentition is present, as age can be estimated from the different stages of tooth eruption and development. The lengths of the immature longbones can also indicate age. In adolescents, the different stages of epiphyseal union are used (the epiphyses are the secondary ossification centres of the bone, attached by a cartilagenous layer to the primary ossification centre. For example, in an immature longbone the epiphyses are found at either end of the main shaft. This allows the main body of bone to grow until the epiphyses eventually fuse with the shaft). If all the epiphyses of a skeleton are fused, it can be classed as an adult. Within this group, eighteen individuals have been classed as such. Further age divisions of 'young adult', 'middle-aged adult' and 'old adult' are assigned where possible, principally for those skeletons which are in a good enough condition to exhibit a range of different ageing criteria. The term young adult applies to individuals in their 20s and early 30s, middle-aged adults to those in their late 30s to late 40s, and old adults are those over 50 years. Of the eighteen adults in this group, three have been estimated as young adults, five as old adults and one as middle-aged. There are eleven immature skeletons within the group, the oldest of which is aged 4½–5½ years, and no adolescents, so the group consists of adults and young children.

Stature

The stature of an individual is estimated from calculations based upon measurements of complete adult longbones. These calculations differ for males and females, and so an individual's sex has to be ascertained before stature can be calculated. Within this group only four adults had undamaged longbones, allowing stature to be calculated. Three of these were males, with statures ranging from 172.48cm ± 3.94cm (5'8" ± 1.5") to 180.83cm ± 3.94cm (5'11" ± 1.5"), and the only female where this was possible had a stature of 164.90cm ± 4.24cm (5'5" ± 1.5").

Dentition

When present, the dentition is recorded using the following formula for adult teeth.

right side of maxilla 8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8 left side of maxilla
right side of mandible 8 7 6 5 4 3 2 1 | 1 2 3 4 5 6 7 8 left side of mandible

where 1 = medial incisor
2 = lateral incisor
3 = canine
4 = 1st premolar
5 = 2nd premolar
6 = 1st molar
7 = 2nd molar
8 = 3rd molar

Deciduous teeth are recorded using the following formula.

right side of maxilla e d c b a | a b c d e left side of maxilla
right side of mandible e d c b a | a b c d e left side of mandible

where a = medial incisor
b = lateral incisor
c = canine
d = 1st molar
e = 2nd molar

Any tooth loss, either post-mortem or ante-mortem, is recorded along with any pathology or dental anomalies. The following notation is used.

X = ante-mortem loss
/ = post-mortem loss
A = abcess
C = caries
E = exposed pulp cavity
U = unerupted
O = erupting
– = not present

Ten adults had some surviving dentition, though in five cases all the teeth were loose. Of these ten, four had suffered from caries, two from abcesses, and one from ante-mortem tooth loss.

Pathology

The most common pathology within this group is that related to degenerative disease. Seven individuals displayed varying degrees of this, identified by bony lipping, pitting and eburnation (polishing) of the bone. It can be found throughout the skeleton, although it occurs most frequently in the spine.

Three skeletons exhibit Schmorl's nodes on their vertebral bodies. These are lesions on the surface of the body, caused by a herniation of the nucleus pulposus (soft centre), of the intervertebral disc into the adjacent body surface. This, together with a failure of the cartilagenous end-plate, causes the characteristic smooth lesion or node.

Four individuals have spurring of bone at various muscle and ligament insertions which may be degenerative in nature, or related to activity, and two have an exostosis (bony outgrowth), one on the left tibia and one on a hand phalanx.

Two skeletons demonstrate evidence of old fractures. SK *470* has a classic old, healed fracture of the clavicle and probably of the acromion process of the scapula and healed fractures of some ribs. SK *686* exhibits a possible posterior margin fracture of the right distal tibial articular surface.

SK *259* exhibits either an early dysplasia or some traumatic event of the right hip resulting in a poor walking pattern and marked stress at the left hip, right knee and both feet.

SK *691* demonstrates osteochondritis dissecans in the right humerus. This involves fragmentation and separation of a piece of articular surface, usually consisting of cartilage and underlying bone. The bone fragment can become re-attached, or remain as a loose body within the joint cavity. The cause is often traumatic and occurs predominantly in adolescents and young adults.

SK *465* displays diffuse idiopathic skeletal hyperostosis (DISH), a disease of older individuals which involves excessive production of bone. The spine has flowing osteophytes (a bony growth running down the anterior vertebral bodies, eventually resulting in fusion of the bodies), and excessive bone production, particularly on the muscle insertions of the surviving leg and foot bones.

SK *259* has periosteal reaction on the right tibia. This is a thickening of the bone as a result of damage to the periosteum, either from disease or trauma.

VI. Results of Radiocarbon Analysis

A sample of human bone was submitted through the Ancient Monuments Laboratory to the Radiocarbon Accelerator Unit, Oxford for radiocarbon analysis. The sample from skeleton *746* produced two results OxA no. 2320. The results were as follows:

OxA no. 2320 584N *746* Human Bone -23.0 1460±90

The results were calibrated using program of CIO Groningen and are as follows:

one sigma (68% confidence) cal AD 450–665
two sigma (95% confidence) cal AD 400–770

The 95% confidence rate gives a broader period but the results must necessarily be more reliable. Even taking the latest calibrated date of AD 770, the interpretation of the burial is most important in the history of occupation of St Martin-at-Palace Plain.

VII. The Documentary Evidence

by Margot Tillyard

Introduction

The history of a church can be seen architecturally, as a series of additions, repairs and restorations, or as a reflection of changing attitudes to religion, or as an indicator of economic expansion and decline. This enquiry has attempted to use the available documents to illustrate the processes of construction, adaptation and maintenance of the building and its furnishings. It omits consideration of the monuments and glass and such matters as a list of clergy, a study of the population or an account of the parish charities.

The report is presented as a chronological account of the history of the church. Further extracts from documents used to compile the report are available in the excavation archive.

Sources of documentary material

Thirty-eight of the annual account rolls of the Priory Infirmarer, to whom the church of St Martin-at-Palace was appropriated, survive from between 1313 and 1538. They provide some evidence of expenditure on the chancel, the Infirmarer's responsibility.

The study of testamentary bequests produces information on all parts of the church and its furnishings. Wills are found in the registers of the Norwich Consistory Court, of the Archdeacon of Norwich and of the Prior of the Convent. There are a few in the Prerogative Court of Canterbury records at the Public Record Office and among Archipiscopal Records at Lambeth Palace.

The most useful parish documents are the churchwardens' account books which date from 1787 and the related vouchers to account, or receipted tradesmen's bills, which begin in 1622 and include particularly complete coverage of the extensive repairs of 1787–1792. A series of terriers begins with a copy in the parish register of one made in 1791.

Also among the parish documents are some architects' plans and drawings, the earliest being of 1850. Prints and photographs of the exterior are kept in the Colman and Rye Library and prints and a drawing are to be found in the Norwich Castle collections.

Visitation records provide useful information and become increasingly concerned with the fabric from the beginning of the 17th century. The earliest is dated 1417 and all are to be found in the Norfolk Record Office.

Antiquarian and printed material

Kirkpatrick wrote a brief account of St Martin-at-Palace church, preceding his list of the monuments, in a notebook of 1712. A similar survey is to be found in Mackerell's MS History of Norwich of 1737. The first edition of Blomefield's Essay *Towards a Topographical History* appeared in 1745.

The Rev. Hart lectured in Norwich in 1846, regretting 'modern disfigurements of our ancient edifices' and making brief references to St Martin-at-Palace, still at that time unrestored. From the following year date Parker's remarks made on the occasion of the visit to the City of the Architectural Institute. Reports of calamities may be found in the local newspapers and brief references in Victorian printed histories of Norwich. The fullest modern account

is found in Whittingham's notes, used by Alan Carter in his 1974 paper.

The Church and its furnishings

Richard Berton in his will of 1333 calls the church now known as St Martin-at-Palace 'St Martin the Bishop on the Hill'.[9] St Martin, Bishop of Tours, was a popular saint in Eastern England and there are seventeen churches, mostly of early date, dedicated to him in Norfolk (Linnell 1962, 23). The 'Hill', or 'Bichil' reflects the church's situation on a rise above the River Wensum, where boats coming up-river could safely be beached at high-tide.[10]

The earliest document to mention St Martin's is *Domesday Book*, which records that before the Conquest it, with St Michael and fifty burgages, had belonged to Stigand, Bishop of East Anglia, in his own right. William I confiscated all his property, but after the See had moved to Norwich in 1094, Henry I gave a part of the city, probably Stigand's former holding, to Bishop Herbert de Losinga.

St Martin's became part of the endowment of the Priory and an income of 8/- from it is recorded in the first of the Infirmarer's account rolls to survive.[11] The church may have been allocated to the Infirmary at its inception which probably occurred in the late 12th century (Saunders 1939, 83).

The parish is unusual in two ways. First, it is divided physically by the River Wensum, small parts lying on both sides of the road on the north bank. Second, the area north and east of the church was part of the Precinct, under the jurisdiction of the Prior and not part of the city until after the Dissolution.

The parish was enlarged from the middle of the 14th century by the addition of the parish of St Mathew. This church lay scarcely 100 metres to the east of St Martin, at the turn of Holmestrete and opposite the Grammar School (Fig.2). Much of its parish had been absorbed by the School and its grounds to the north-east, by the Bishop's garden to the south and, after 1256, by the Hospital of St Giles to the east.[12] The church fell into disrepair and after 1349 the few remaining parishioners were transferred to St Martin.[13] Richard Berton was a parishioner of St Mathew and when he died in 1333, although he ordered the first mass on the day of his burial to be sung at St Mathew's, his body was to be buried in St Martin's and he left money for maintenance of the building and to the clergy.[14] After the death of the last priest in 1378 the two parishes were united. The church of St Mathew was pulled down and the churchyard let.[15]

Part of the original parish of St Martin was lost to the Carmelites whose friary had been founded on the land east of Cowgate which runs northwards from St Martin's Bridge. The Friary rapidly became a fashionable burial place, which was seen as detrimental to the income of the surrounding parish churches. The friars eventually agreed to hand over to the Prior a quarter of their takings at the burials of parishioners of churches belonging to Holy Trinity (Kirkpatrick 1845, 157).

St Martin's acquired its later appellation from its situation outside the gates of the Bishop's Palace. It is built of flint and freestone and is quite large. Mackerell gives the measurements as 25 yards long, without the tower, and 17 yards wide including the later aisles.[16] Kirkpatrick called the body of the church 'very ancient'[17]. Whittingham's notes mention its tall Saxon proportions and the long and short work on the chancel quoins and he believed that Stigand himself had built it between 1038 and 1047. What is more certain is that its size may be taken as an indication of the prosperity of the area in the 11th century.

Conjecture ceases only with the first Infirmarer's account rolls. There are thirty-eight of these covering 225 years; very far short of a complete series, but general trends of both income and expenditure may be deduced from them. By 1350 the income received by the Infirmarer was 13/4d, rising to £2.13.4d by the end of the century and £4 by 1428. In 1440 it was again £2.13.4d, dropping to 6/8d in 1475. After this there was an increase to £1 in 1480, and it remained at this figure with one exception in all surviving accounts until the Dissolution. It is reasonable to conclude that these round sums do not represent the amount of tithes collected but probably mean that the church was farmed out to a priest.[18] The figures on the Infirmarer's rolls thus reflect his estimate of the wealth of the parish and, although from the beginning of the 15th century it became one of his more valuable possessions, compared with many other churches in Norwich, it was never rich.

The Infirmarer as Rector remained responsible for the upkeep of the chancel. From the surviving accounts it is clear that he spent little on it, apart from routine repairs to the roof and windows and the cost of whitewash. He paid for service books[19] in 1347 (books, ornaments and vestments were bought for several other churches the same year) and an aumbrey or piscina (sacrarium)[20] costing 2/- in 1427. In 1401 he made an *ex gratia* payment of 3/4d which may indicate that the parishioners were starting major building work at that time.[21] In 1441 a stonemason and a plumber were employed to block up unwanted windows in the chancel walls and roof and in 1453 sixty 'estriche bords' (*i.e.* Baltic timber) were bought for the ceiling.[22] No repairs are recorded in the Infirmarer's rolls after 1475 except on one occasion in 1530.[23] Receipts were low during this period, and it may be that under the terms of their leases the chaplains had been made responsible for the chancel. Apart from repairs, very small sums were given to the parish poor. The total amount given to all fourteen of the Infirmarer's churches in 1422 was no more than 2/11d.[24]

The parishioners were responsible for the nave, the tower and bells and the churchyard. Will registers record a steady stream of bequests during the two hundred years before the Reformation. Forty-three donors gave altogether £33 (Tanner 1973, 315). They range from Sir William Calthorpe and Sir Thomas Erpyngham to humble parishioners with little to leave, and include numbers of the clergy. Apart from Richard Berton's bequest in 1333, there were donations to the bells in 1445 and 1468.[25] The chancel screen may have been erected in 1468 with money left for it by William Harbold the parish chaplain: 10/- for the 'parclos', 8d for the light of the Blessed Mary and 4d for the light of St John (the saints habitually found on a rood).[26] In 1490 Isabel Lyston left money for an eastern extension of the south aisle: 'xxs to be expendyd be ye good Advyse of Sir William Calthorp...'.[27] In 1501 Thomas Baldwyn, cooper, provided for a chapel to be formed in this by the insertion of a screen there like the one on the north side.[28] Thomas Daywell, another parish chaplain, left enough in 1505 for two new clerestory windows to light the Rood.[29] The south porch existed in 1433 when William Frank, the chaplain, requested burial there.[30] The appearance on it of the rebus of Bishop Lyhart, 1445–1472,

may indicate its rebuilding, or the completion of a general building scheme (Pevsner 1962, 247).

The earliest documentary evidence for the existence of a tower is Richard Berton's will of 1333, in which he left the clerk money for bell-ringing ('pulsacion'). The churchyard was mentioned as a burial place in very many wills but these provide no evidence for its appearance or condition. A tall narrow north porch is visible on the Kirkpatrick prospect of the 'City from the north east' of *c.*1720.

The responsibilities of parishioners did not end with the fabric of the church. They had to care for the font, which had to have a lockable cover, to keep the church clean, to maintain the image of the patron saint in the chancel and to ensure the anniversary of the dedication was kept. They had to provide the frontal and three cloths for the altar as well as nearly thirty other furnishings (Watkin 1947, xviii). St Martin-at-Palace was not subject to the Archdeacon so there is no 1368 inventory of its goods (Watkin 1947, 126). However, the Dean's Visitation of 1416 revealed a number of items missing. These were four service books, a book of saints, subsequently produced (perhaps donated) by one of the chaplains, and two vestments, a surplice and a rochet.[31] An order was made for the repair of two broken pattens, one of gilt and one of silver, with the threat of a 40/- fine for non-compliance.[32]

Apart from a large number of financial donations, several testators bequeathed money for specific items. In 1469 Thomas Lesyingham, chaplain, left a missal, in 1471 John Chittok, a London merchant, left 10 marks for ornaments and in 1494 Sir William Calthorpe left 40/- towards vestments.[33] Thomas Daywell, clerk, made provision for a new lectern with an embroidered cover in 1505, 'with one Image of Sainte Martyn of the one side and upon the other side Mary Maghdeleyn, my Selfe kneling to the one Image and Robert Shynbone to the other'.[34] The following year John Blomfield, notary, left money for a 'Crismatory of silver and gilt with Mary and John made thereupon to the value of 40/-'.[35] Under her will of 1550 Lady Joan Calthorpe gave a plain gilt goblet without a cover[36] and a velvet carpet adorned with roses, lilies and the Holy Name (Blomefield IV 1806, 371). The goblet disappeared, no doubt when church silver was sold in 1553, and was replaced and a patten added in 1567, perhaps by her family (Manning 1888, 93, illustrated opp. 94).

Throughout the medieval period parish life was aided and reinforced by the Gilds, popular lay confraternities (for women as well as men) either connected with a trade or based on a particular church. The name derives from the Saxon 'geld' or rateable fixed payment and they were indeed often ancient institutions.[37] The money raised was used for the support of sick or elderly members, for funerals, for a lamp, or candles for the altar of their patron saint, and for an annual feast (Smith 1869, passim).[38] In St Martin-at-Palace there was a Gild of St Anne.[39] Though not among those gilds which made a return of their 'Ordinances, Usages and Properties' to the king in 1389 (Tanner 1984) the gift of 'a book of the new feast', and, a 'book of St Anne' presented by the Infirmarer in 1347 points to its existence at that date. Many testators left money to the maintenance of the light before the altar of St Anne in the south aisle and perhaps the bequest for 'les torches' of 1417 was connected with the elaborate funerals a gild might provide.[40] Gilds were suppressed and their goods confiscated under Edward VI but the priest of St Martin's, 'Syr' Richard Pennyman probably died just in time to get the funeral he wanted. His will was proved in March 1547. He requested the presence of 'all the bretherne of the prystes guylde at my burying. And iche of them to have VId. for their labor...every householder in St Martin's parish to have 4d. to pray for my sowle'.[41]

Apart from the High Altar with its image of St Martin and the altar of St Anne, wills show that there were altars dedicated to the Holy Name, St Christopher, St Mary, St John, St Thomas, St William of Norwich, St Margaret and St Nicholas, as well as lights burning in front of the Rood and the Sepulchre.

The clergy of St Martin's consisted of the priest, appointed by the Infirmarer, and one or at times two chaplains appointed by the parishioners. They were expected to assist the priest and probably resided in the parish to facilitate duty visits to the poor and sick. They taught the schools commonly held in the west end of churches (Harvey 1975, 43) and there is a reference to one such school in St Martin's at the beginning of the 14th century.[42] Their main function was the singing of commemoratory masses for the dead, many of which were endowed in wills. For example, in 1539 William Harmer, freemason, left £6.13.4d for John Kemple, clerk, to sing for his soul in St Martin's church for five years.[43] St Martin's must have been badly served in 1417 for the clergy to warrant, at the Visitation at that year, an order to celebrate divine service when and where laid down by the Prior and Chapter. Five parishioners testified that the Rector was negligent in maintaining the light in the chancel and the parish chaplain, Steven Scheder, did not spend his nights in the parish.[44]

By the time of Queen Elizabeth side altars, statues, paintings and lamps had gone from all churches, stone altars had been broken up and tables substituted, the rood dismantled. The only decorations officially allowed were stained glass windows, carved or painted Royal Arms and tables of the Ten Commandments or other painted texts. The division between church and chancel was maintained by the retention of the chancel screen and doors. The priest joined the people in the nave for morning and evening prayer: the people entered the chancel for the Eucharist. The communion table was usually placed lengthways in the chancel, but in that position it became only too easy to regard and use it as an ordinary table. In 1634 Archbishop Laud ruled that the east end of the church should be raised and the table placed under the window and protected by rails. During the Commonwealth many rails were destroyed but they were replaced after the Restoration. The earlier ones had run straight across the chancel, but later a three-sided enclosure was preferred (Addleshaw and Etchells 1948, passim).

A number of records survive to illustrate how these commotions affected St Martin-at-Palace church. Despoliation of churches was reported in the Mayor's Court in 1547 and one of the 'curatts and other idle persons' who had 'without auctorytie and comandement enterprised to rifle churches, pulling down Images and bearing them away' was Thomas Conyers, later to become the curate of St Martin's.[45] He may have been living in the parish already: three years before he had acquired property in Palace Street, being then described as 'chaplain'[46]. In 1549 Dr Parker (afterwards Archbishop of Canterbury) when visiting Kett's rebels at their camp on Mousehold, discovered Conyers reading the Litany under their oak tree headquarters. Possibly he sympathised with their cause, or

as Blomefield maintains, was hopeful of influencing them for good. At any rate he calmed their resentment against Dr Parker's sermonising on that occasion by suddenly beginning the *Te Deum*.[47]

On August 1st the same year, rebels forded the river and marched up Bishopgate. They were met by artillery drawn up on St Martin's Plain and only withdrew after three hours, leaving 145 dead. Thirty-five of the king's forces, including Lord Sheffield, were buried in St Martin's churchyard. During the final skirmishes at the end of the month five more were buried in the churchyard and six others in a garden north of the church.[48]

Perhaps the most interesting of all the surviving documents is a long indenture, dated October 1552, submitted by the Churchwardens to the Bishop and other Commissioners.[49] It begins with an inventory of all the church goods as they remained in February 1548. Twenty-seven pounds worth of plate had already been sold. The number and richness of the vestments and other goods seems astonishing for a relatively poor church. There were four whole suits of vestments (which may have included matching copes), among them one of 'green bawdekyn' or silk woven with gold thread (Watkin 1947 II, lv) 'powderid With Swannys of goulde'. In addition twelve other copes are listed, including two powdered with scallops and one of blue silk powdered with dolphins. There were eleven other vestments. There were four painted cloth banners, a 'peyntid Cloth to hang on the South side of the Churche of Yelowe & Redd powderid with white horssis', and sixteen other painted cloths. Altar furnishings include six altar cloths, one embellished with garters and another with birds. After other items including a hundredweight of latten, sixty pounds of wax, a clock and two chests, one in the vestry, the other for the 'poremens money', details are given of the four bells. They weighed 15 cwt, 12 cwt, 10 cwt and the Gabriel bell 1 cwt.

The next section of the document lists the sales, at valuation, of the majority of the preceding items, apparently to parishioners. Lady Jane Calthorp bought the altar cloth 'of saten paned with white and redd' for 10/-. The high altar table and another table painted with a St Christopher went for 6/4d. to James Lynne who became churchwarden in 1553. The wife of John More, churchwarden in 1548, bought a 'white Cope of Satten of Bridgis' (?Bruges) for 6/8d, probably the one for which Thomas Broke had left 30/- twenty years before.[50]

Next follows the churchwardens' expenditure for the five years ending January 1553. The first year they bought four choir books and four psalters and paid 'Mutton the paynter For peynting the Rode lofte With scripture'. The next year they paid 'Robert Stanton For pullying downe of the Aulters & the steppells' (pinnacles) and bought a pewter communion dish, two white copes, one of diaper and one of fustian and two prayer-books. Most of the expenditure during the following two years concerned the paving of the streets next to the church and towards St Luke's House(?). Two paraphrases' and two 'grett Salters' (Books of Psalms were bought, 5/- paid for a communion table and 14d for a 'seate For the Mynyster to say service'. A little extra silver had to be provided when the chalice was melted down to make a communion cup. A 'token that is deliverid From house to house to geve them Warnyng to recyve the Communyon' cost 8d. 25/- was 'Lost by the Imvasyng of the money in the Chest'. The first item on the account for the year 1552-3 is 'A Key for the vestrie door' 8d. A book of homilies was purchased and 'xii lether Tankerdes & too ledders whiche shall contynually remayn in the Churche to be in A redines For Casualtis off Fier'. Finally £6.13.4d was given 'towards the newe makying of a brigge callid the White Friers Brigge' which 'by Commandementt of the nobil prynce John Duke of Northumberlond then beyinge the kynges maiestis leiff Tennant agenst the Rebelles in Norffolk in the Commocon tyme was pullid downe'.

The last section of the document is another inventory. It is headed by the cup of silver gilt, valued at 38s, and lists the two white copes, the original satin pall cloth, fringed with green, yellow and red and powdered with flowers, three bier cloths, the painted cloth for the south side of the church, also original, five albs, a sleeved surplice for the minister, four surplices for choristers, two tablecloths and three diaper towels. There were also two basins and a communion dish of pewter, a communion table, a latten basin and ewer, a clock, two chests and the bells.

A separate account for January to July 1553 states that £12 had been spent on general repairs and 10/- on a bible, leaving £25 which was 'put to honest men of ye parish by yere for to reliff the poore people in the parish'.[51]

Apart from the replacement of Lady Calthorp's cup in 1567,[52] the year most churches obtained 'decent communion cups' in place of their 'massing chalices' then considered too small, little definite is known about St Martin-at-Palace church until the beginning of the 17th century. There were Visitations in 1587 and 1588 which noted the bad condition of the prayer-book, the windows and the churchyard. Then between 1602 and 1622 there was a Visitation nearly every two years. A determined effort was made at that period to improve the conduct of services and the arrangement and decoration of the interior of the church.

In 1602 the affairs of the church must have been at a low ebb. The churchwardens had failed to levy the church rate, the parson had neither read the homilies on Sundays nor delivered his monthly sermons,[53] the register had not been kept properly, the communion table lacked a decent cloth and many windows were broken. Three changes of curate in seven years cannot have helped, but gradually improvements were made.

The first group of Churchwardens' vouchers and accounts survive from 1622.[54] The earliest is the clerk's account for wine showing that the Sacraments had been administered five times the previous year. In 1624 35/- was paid to George Trew[55] for 'writing' the Ten Commandments, colouring pillars and painting other texts. The Royal Arms had been missing in 1606, and was only of printed paper in 1617. At this period the frame was usually topped by a pediment, which may be the 'perement' repaired in 1624 (Wearing 1944, 9).

The Arms were placed on the rood beam, above the chancel-arch or above the Ten Commandments at the east end (Addleshaw and Etchells 1948, 35, 101). The surviving version, above the tower-arch in 1989, is probably the one painted in 1749. 'To John Stark Junr. Dr. To Painting and Guilding ye Kings Armes £3.13.6.' 'To a Tabernacle fream for the Kings Armes cont. 15 feet ... 11s. 3d.'[56] The bible bought in 1553 was outdated by the early 17th century, and about 1620 a new one was purchased, which later probably had clasps fitted to it. At about this time also the communion table was renewed and a cover made for the font.[57]

In the 17th century new service books were bought several times and whitewashing ordered, and there were

continual repairs to the windows, the roof and the church clock. Towards the end of the century, however, several major improvements were made. The first of these was in 1671 when the bells were recast,[58] the biggest of the surviving three being made into three small ones, so giving a ring of five. Kirkpatrick described them in 1712, 'The old Tenor a large Bell was taken down and thereof (with some little addition) were made ye present Treble second and third Bells of ye Peel. The Treble hath 22 ins of height & 2 f 2 diameter. The Tenor (a very neat old Bell) is 2 f 7 high and 3 f 3 wide and round it this circumscription in old capitals "Nos societ scis: semper Medicina ..."'.[59] In 1684 the east end appears to have been raised, so that the altar was reached by two stone steps,[60] and new painted rails installed to protect it. The Ten Commandments were probably 'new writt' at the same time.

Pews were installed:[61] they would have been box-pews, in place of the earlier stools or benches and they too were painted. Altar candlesticks were bought and in 1725 a large brass chandelier was presented, together with an endowment for its quarterly cleaning.[62] On the wall at the north side of the east window was a large funerary escutcheon, together with the crested helmet and above it the sword of a member of the Blenerhasset family.[63]

Antiquaries enthused about the very tuneable ring of five bells. Perhaps constant use of them was responsible for the serious weakening of the tower,[64] which occasioned the heaviest expenses of the 18th century. Kirkpatrick noted that shortly before 1712 almost £100 had been spent on it and one of the buttresses rebuilt from the ground up.[65] Nevertheless repairs were needed in 1748 and again in 1783. On May 7th that year, while workmen were partially dismantling it, a large part collapsed, luckily killing none of them. Four of the bells were eventually sold to raise money but repairs proceeded slowly. A temporary roof was put on and nothing done for a few years until in 1789, after yet another Visitation, a meeting of the parishioners decided that the tower should be finished off with four turrets and a vane.[66] Other major work undertaken between 1785 and 1789 included new coping to both the north-west and the south-west windows, a complete replacement and enlargement of the window next to the porch on the south front, and a rebuilding of the porch buttresses, first in brick and, two years later, in stone. In 1791 the north doorway and a pediment over it were renewed. Several years of high parish rates were needed to pay for all this. In 1788 two rates totalling 9/- in the £ had to be declared, but the average for the next five years was less than 3/- and for the following ten years only just over 2/-. Nevertheless, as a result of complaints, parish properties were revalued in 1828 and the value of, for example, the minister's house, the highest rated, fell by more than half. However, the number of people living in the parish was rising, so that within a few years the adjustments were making very little difference to the amount the church could expect. In 1814 a 3/- rate had raised £32.0.6d; in 1838 a 1/6d one brought in £18.0.6d. [67]

The outside of the church as it appeared in 1828 is shown in an engraving by Sillet. The plain tower is topped by the four turrets and a simple vane on a stocky post. The lower two-thirds of the tower west window are blocked up, the quoins are large and irregularly shaped, and there is a door to the ringing chamber at the eastern end of the south face.[68] The porch chamber window has two lights and there is a two-light clerestory window at the east end of the nave.[69]

References to the interior of the church at the time indicate how plain, even empty, it was and increasingly in need of care. The early 18th-century box-pews[70] were dilapidated and moreover obstructed the view from the few miscellaneous forms behind.[71] Apart from the texts painted on the walls and the chandelier, the only ornaments seem to have been the altar candlesticks. However, from at the latest 1842, the church had been heated, using coke.[72]

Scarcely anything was spent on the fabric for over half a century. The parishioners now consisted, with 'few exceptions, of weavers and workmen of the poorest description', and in 1850 when repairs could again no longer be avoided, the Curate and Churchwardens published an appeal for funds. They pointed out that many of the seats were soaked every time it rained and emphasised their fear that the whole building was threatened by the bad cracks in various parts of the walls. Nearly £200 was subscribed in response.[73]

There survives a plan of this date indicating some of the proposed new work.[74] This included buttresses on the south side, new stonework for most of the windows, buttresses for the west end of the tower, a rebuilding of the south porch and blocking of the north doorway. A pencil drawing made in early August 1851 shows work in progress.[75] The south porch is completely dismantled except for its west wall,[76] three openings have been cut through the clerestory wall and there are ladders up on the east front. Then, on August 9th, there was a dramatic collapse of the chancel arch which brought down most of the chancel and the eastern end of the north aisle (Pl.XXII). Sixteen men working on and in the building at the time escaped with their lives but, as the Norfolk Chronicle reported, the church was 'a mass of ruins'.[77]

The architect, hastening down from London, concluded that the accident had been caused by the failure of the north chancel pier due to pressure from the north arcade and the weight of the chancel gable, which was three feet (almost 1m) thick. The pier had been built 'wholly of rubble composed of small flint stones and loose mortar and had been injured by being cut into for parts of Church fittings'. Moreover, a large old crack had been concealed by successive plasterings, and he was surprised that the pier had lasted as long as it had. He estimated that an extra £400 would be needed to put the matter right.[78]

At a special parishioners' meeting held three weeks later an additional rate of 1/9d was agreed.[79] This raised £119.7.5¼ d. The Dean and Chapter had already decided exceptionally to contribute £25 to the restoration of St Martin-at-Palace.[80] They now added a further £50 in spite of their policy of making no outside contributions because of heavy spending on their own south transept. A subsequent parish rate produced £55.[81] Work proceeded apace and the church was reopened the following May (Mackie II, 13). The solitary bell had to be recast in 1857 and the nave roof needed releading in 1861. From this year there was no longer a compulsory church rate and a system based on voluntary contributions was inaugurated. The nave roof was not begun until sufficient money had been collected for the purpose.[82] In the same year a parsonage house was built near the Bishops' Palace Gate.[83] In 1874 the churchyard, which had gone out of use twenty years before, seems to have been levelled, the stones laid flat and lime trees planted.[84] The following year the last really

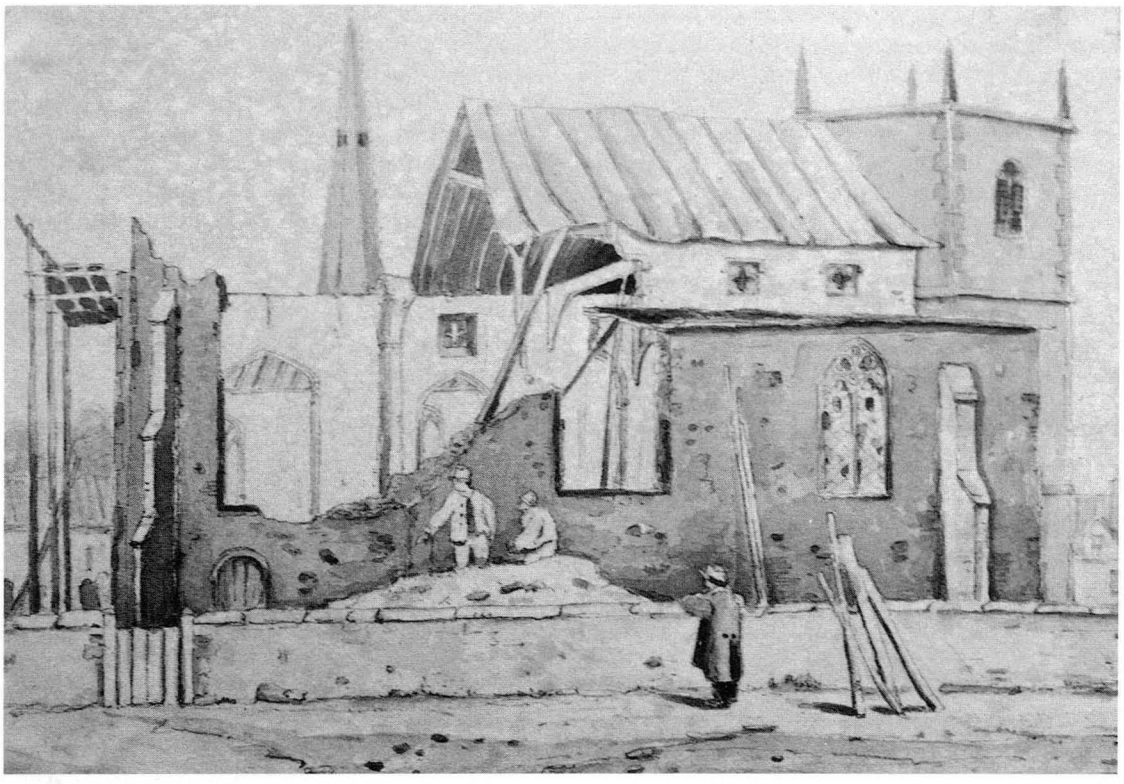


Plate XXII Drawing by J. Wodderspoon showing collapse of church in 1851

major building work took place, which involved the raising of the tower to its pre-1783 height. There were now no buttresses, the middle storey had small square windows and the bell-chamber large traceried windows all of stone. The top was finished off with battlements. At the same time a vestry was inserted at the east end of the north aisle and the organ of 1863 enlarged.[85]

Before the First World War a Parish Room was built south of the Vicarage (which took more than five years to pay for) and iron fencing was put along the path between the church gate and the porch.[86] In 1913 a desperate note can be detected in the churchwardens' report. There was a deficit of £11.12.1d due to the cost of the railings and repairs to fabric and furniture but much work remained to be done.[87]

The war brought new expenses. Blinds had to be bought for darkening the church at night and insurance taken out against damage by enemy aircraft. The blinds came from Trevor Page and cost £14.11.6d. After the war a thorough refurbishment of the church cost £46.2.6d, but routine expenses of heating, organist's salary, organ tuning, insurance and cleaning were low: total expenses for the year to April 1923 were only £63.3.6d. Even in the thirties they were only about £80. The letting of the parish hall was bringing in more than a quarter of this sum.[88]

The churchwardens complained in 1922 of the 'continuous financial strain in attempting to maintain the fabric of this ancient Church and the constant damage to the Churchyard walls ... so few Parishioners left...'[89] The parish shared the problems of many unfashionable inner city parishes which were becoming depopulated at this period; moreover the large gas works east of the church had taken the place of many houses. Money was nevertheless raised somehow (a Sale of Work in 1925 brought in £60) and major work undertaken. In 1923 a faculty was granted for the installation of electric light and in 1928 the organ was cleaned, rebuilt and revoiced by Norman and Beard.[90]

In 1950 the church was surveyed by J. P. Chaplin who suggested thirty-one items of 'repair, renewal and removal', illustrated by a large drawing of the interior.[91] About half of these were embarked on after the granting of a faculty in 1951.[92]

A survey carried out in 1959 called attention to the poor state of the tower which needed extensive repair at all stages. The surveyor struck a note of '*deja vu*' when he remarked, 'Several cracks were noted during a survey in 1956 in Nave, Chancel and Aisle, but owing to internal decoration these are no longer apparent'. He estimated the cost of the repairs to be £9,000.

By 1967 only £796 had been spent, mostly on the tower. In case of collapse the road adjacent to it had been closed by the City Council while work was in progress. Grants towards the cost were made by the Diocesan Board of Finance and the Friends of Friendless Churches.[93]

It is clear that active parishioners were very few, services infrequent and collections small and finally non-existent. The letting of the Parish Hall to the Ministry of Works for £100 a year provided virtually all the church's income. The last terrier was drawn up in 1967[94] and the decision made to close the church. The parish documents were deposited in the Norfolk Record Office by the Rev. M. J. Menin in 1969, when he suggested that 'The Defence of the Apologie: lewell (Printed with chain) 1609' should not be kept.[95] In fact it was and is now housed with the City Collection of the Norfolk and Norwich Library. The parish was absorbed within that of St Mary Magdalen, Silver Road. The building was repaired, adapted for use as a Probation Centre, and reopened in 1989.

Churchyard

Maintenance of the churchyard and its walls was another duty of the parishioners, and they were enjoined at the Visitation of 1587 to repair the 'banckes...in the stone work'. In 1615 the churchyard was said to be 'filthilye anoyed with excrement' but it seems that it was only after 1622 that 'turnepikes or gates' were provided to keep out the 'cattell'. Repairs to the gates and walls remain a recurring theme in Visitation records and Churchwardens' Accounts. In 1832 the poor state of a table-tomb was noticed; this had been built above a vault containing the body of Theophilus Colcock in 1725.[96]

Leaning tombstones can be seen in the foreground of the pencil drawing of 1851.[97] By 1854 use of the churchyard for burials had ceased and a meeting was proposed with other parishes to discuss the acquisition of land and the institution of a new joint burial-ground. The Rosary Cemetery was already available, having been opened in 1821 'for Persons Of All Denominations';[98] the Earlham Road Cemetery was laid out in 1856 (Bayne 1869, 101). In 1874 there was a proposal that the churchyard be levelled and the stones laid down. Probably it was in association with this work that the lime trees were planted. One later burial took place under a special licence from the Home Office.[99]

In the 18th and 19th centuries the threat to the seemliness of the churchyard came not from animals but from boys and the police were paid to keep them out (Churchwardens' Accounts 1802). The defences of the churchyard were reinforced in 1912 by the addition of iron railings including fences of them between the south porch and the gate.

The Terrier for 1967 states that the churchyard, closed by an Order in Council, was maintained by the Local Authority.[100]

VIII. Discussion

(Figs 33 and 34)

Introduction

The archaeological and architectural evidence described in Periods I, II, III, IV and V above, has been interpreted as three early structures and a later one. Within the later structure were features interpreted as compatible with an ecclesiastical site and a building requiring repair and alteration. The early structures have been dated from architectural, artefactual and documentary evidence to post-AD 900.

Structures A and B were of timber and were aligned on the same axis, 118° 13′ north-east/south-west of Ordnance Survey east–west, each being only partially within the excavated area of the nave of the present church. Structure C was a stone building on the same alignment as the extant church and enclosed the area which is presently the nave and chancel. The extant church of Periods IV and V almost certainly contains wall fabrics of Structure C, a building which has been extended and rebuilt at various times. Within this structure many features were excavated, the majority of which were graves and post-holes.

Period I

The burial (*746*), assigned to Period I of the excavation, was subjected to radiocarbon analysis. The date produced was AD 440–770 with a 95% accuracy. It is probable that the burial was interred at the end of this broad date range, that is within the Middle Saxon period. It was aligned east-to-west without grave goods and pre-dated those structures identified by the excavation. The probable Middle Saxon date of the skeleton is complemented by other occasional finds from the area. While there are no known burials of a Middle Saxon date from St Martin-at-Palace Plain or its proximity, there is slight evidence of Middle Saxon occupation from the Courts site (450N) adjacent to St Martin-at-Palace Church, which produced seven sherds of residual Ipswich ware (Ayers 1987); residual Middle Saxon material has been found at site 154N, Bishopgate North (Carter and Roberts 1973, 449); at the Norwich School Site, Tombland 280N, (Atkin and Evans forthcoming); and in the Cathedral Precinct, site 45N (Atkin and Evans forthcoming). The residuality of all this material, however, must be noted with the only non-residual find, therefore, being the postulated Middle Saxon skeleton *746* from the church of St Martin.

The presence of the skeleton suggests occupation within the area by the 8th century, perhaps of an ecclesiastical nature. It is possible that a church with burial rights was established on the south bank of the Wensum at a relatively early period. The evidence of the burial in conjunction with the, albeit residual, pottery from the area of the Cathedral Close could support such a supposition.

Although only one burial of a date range AD 440–770 was identified, it is possible that others of the same date were interred outside the area of excavation, perhaps to the west of the extant church. The evidence of a residual tibia included in the grave fill of burial *746*, indicates that there was at least one other burial in the vicinity. Deposits containing unarticulated skeletal material attributed to Period II, Phase I could also be associated with burial *746*.

This possible association is discussed below under Period II Phase I deposits. While it is possible that a graveyard existed without an associated church, it is also feasible that there was an associated building but that evidence for it lies elsewhere within the existing graveyard or has been truncated by later activity. A similar range of possibilities has been argued for the pre Phase 1 graveyard at All Saints, Barton Bendish (Rogerson and Ashley 1987).

Period II Phase I Structure A

(Figs 6, 7 and 8)

The excavated evidence of Structure A, the earliest identifiable structural activity on the site, consisted of three post-pits set in a trench (Fig.7, Pl.II). These cut through the natural sands and gravel. Although the evidence is sparse, it can be postulated that the excavated features were part of a wall-line for a building on an approximate west-to-east alignment, but not the same as that of the present church (Fig.8).

Post-in-trench construction was observed at the Anglia Television site in Norwich in 1979 where a bicellular building, interpreted as a church, was recorded (Ayers 1985) while the technique has also been recorded at other church sites such as St Mary's, Oslo (Ahrens 1982) and St Michael's, Thetford, Norfolk (Wilson and Moorhouse 1971; Dallas 1993). Rahtz (1976) has suggested that post-in-trench construction was frequently reserved for aristocratic or ecclesiastical building, perhaps emphasising the probability that the vestigial remains at St Martin-at-Palace did indeed represent an early church structure.

Remains of a 10th/11th-century knife blade were recovered from the primary ?fill of one of the post-holes of Structure A. This provides a *terminus post quem* of the 10th century for the construction of the feature.

Period II Phase 1 Deposits
(Fig.7)
Deposits to the north of Structure A, immediately above the natural sand and gravels, produced unarticulated skeletal material. Stratigraphically this deposit can be associated with Period II Phase 1 Structure A or Period I burial *746*. In either period, these deposits can be interpreted and explained.

If associated with the Period I burial, it could be seen as evidence of earlier disturbed burial on the site which is supported by the evidence of a single tibia in the grave fill of burial *746*. If associated with Period II Phase 1, Structure A, it could be interpreted as evidence of an area of burial associated with an early church.

There is no dating evidence for the deposit and its stratigraphic relationships are unclear. For these reasons it has been included in the later Period II Phase 1.

From the evidence of the knife and stratigraphic sequence, therefore, it can be postulated, that Structure A was in use by *c.* AD 1000 and may have been demolished or destroyed in the first half of the 11th century. In summary, the excavated evidence supports the interpretation that Structure A was an early timber church with rights of burial.

The only evidence associated with the possible destruction or abandonment of Structure A was deposit *570*, a piece of clay lump which sealed the deposits containing human bone to the north of the building, this small piece of material possibly representing a destruction phase. It is clear, however, that the posts remained *in situ* during destruction although they could have been cut off at ground level. It is possible that the structure was removed subsequent to the construction of Structure B which was built on a similar alignment (Figs 7, 9). It is perhaps interesting to note that Bishop Theodore's Penitential (688–90) stated that wood from a church should not be re-used unless for use in another church. If the timbers of Structure A were rotten they would clearly not be required for the construction of Structure B, also interpreted as a church. They are thus likely to have been cut off at ground level and probably burned.

Period II Phase 2
(Figs 9, 10)
Seven post-holes in pits have been interpreted as comprising Structure B (Fig.1a). Six of the post-pits formed the probable south side of the building and the seventh, the first of the west side of the building. The total excavated length of the structure was 10.50m west-to-east.

The layout of the post-pits was very regular (Fig.9) which indicates they were dug to support one structure. There was only one assumed corner of the building and a partial wall line excavated. It is not possible, therefore, to state a maximum width or length of the building and so no overall building ratios can be deduced. Post-in-pit construction was a common technique for timber buildings, including early ecclesiastical structures. It was necessary to ensure that timbers for large structures were sunk deep enough into the ground in order for them to stay vertical (Rahtz 1976, 49–98). To achieve this, large pits had to be dug. Ecclesiastical examples of this technique can be cited from the Anglia Television Site, Norwich (Ayers 1985, fig.8), Nazeingbury, Church 2 (Huggins 1978, fig.9) and St Martin's, Wharram Percy (Bell *et al.* 1988). Examples from continental Europe are more common (Ahrens 1982).

While there was no direct evidence for the function of Structure B (or for A) its location suggests an ecclesiastical use. The actual date for the construction of Structure B is not clearly defined. The *terminus post quem* for it is provided by a fragment of an early-mid 11th-century grave cover. Thus the date for the construction of Structure B must have been after the grave cover had been used for its original purpose and then re-used as packing material in the post-hole. If a date of *c.* AD 1010 is postulated for the grave cover, a date for its re-use could be postulated by the mid-11th century (*c.* AD 1040). The longevity of the timber structure is, obviously, open to conjecture. The building could have survived until 1066 and thus the church mentioned in *Domesday Book* as being held by Archbishop Stigand before the time of the Conquest (Brown 1984, 1, 61) could have been this building. Stigand was Archbishop of Canterbury and held large tracts of land in East Anglia as well as a considerable number of properties elsewhere in the city. The reference to St Martin by name and the connection with Stigand, suggests that the church and parish were of some significance.

There was, in fact, no evidence of abandonment or destruction of Structure B. The evidence of posts rotting *in situ* suggests that the building remained standing or the timbers were cut off at ground level. The latter interpretation seems most likely if the building had been dismantled to facilitate the construction of Structure C.

Period III
(Figs 11–18)
Large foundations were uncovered which were located around the perimeter of the nave and chancel of the present church (Fig.11). These were interpreted as the foundations of an early stone church and measured internally 13.30m by 6.20m in the nave and 2.90m by 6.25m in the chancel. The nave foundations were narrower than those of the chancel and chancel crossing. In the chancel itself the foundations were not completely excavated to the east. At the crossing two projections were excavated, either side of the nave aisle, which in that location was not available for excavation (Fig.3). It has been assumed that originally the projecting foundations were a continuous build.

The foundations were 'trench built', a trench being dug and the entire available space filled with construction material. The material employed was chalk, flint and gravel (Figs 12–17) which was placed in alternate layers in the trench and rammed down to form a compact and steady foundation. This technique is one which was also utilised at All Saints, Barton Bendish, Norfolk (Rogerson and Ashley 1987) with an attributed date of *c.* AD 1100, and at St Michael's, Bowthorpe, near Norwich, which was probably early 12th-century in date (Ayers, this volume p.71).

As has been stated above, the eastern end of the foundations was not excavated. Assuming that the foundations continue on the same course (Fig.33) it is likely that they return to form the foundations of the present east wall. This wall displays quoins of long and short work,

a recognised Anglo-Saxon and Saxo-Norman building technique. The technique has been attributed by Taylor to his Period C, that is AD 950–1100 (Taylor and Taylor 1965; Taylor 1978). It is thus suggested that the extant east wall is the vestigial visible remains of the Saxo-Norman structure (*i.e.* Structure C). This cannot be proven conclusively, however, as the stratigraphic evidence was not available for investigation.

If Structure C is the church mentioned in *Domesday Book*, Structure B would almost certainly have been demolished to make way for it. As has been discussed previously (p.55), by 1060 Structure B may have been extant for only twenty years or so. It is possible, however, that Structure B could have been demolished shortly after Stigand took up his see in East Anglia, in AD 1042, and that the stone church was built to celebrate his new position.

It is feasible, nevertheless, to attribute a post-Conquest date for the construction of Structure C. The see of East Anglia was taken from Stigand by William I in AD 1070 (Tillyard 1987). The land of Stigand's former holding, which had been confiscated by the Conqueror, was bestowed on Herbert de Losinga, first bishop of Norwich, by Henry I in AD 1101. He received a small portion of Stigand's holding, which included the land on which St Martin-at-Palace stands from Henry later in AD 1106 (Tillyard 1987).

The stone church could therefore have been built *c.*1042, before 1070 (both by Stigand) or after 1106. The long and short quoins on the outside of the east wall of St Martin-at-Palace church (Pl.VI) have been considered by many as being indicative of an Anglo-Saxon build. However, should the stone church have been built by Losinga in *c.* AD 1106, it would not have been very much outside the proposed dates for the use of such a constructional technique. From the architectural evidence, therefore, an early 12th-century date for the construction of Structure C need not appear unreasonable.

Nevertheless, it has to be conceded that, from a political point of view, a pre-Conquest date would also be feasible for the stone church; Stigand held a large estate in Norwich with St Martin's church being attributed to him directly in *Domesday Book*. Notwithstanding this, however, Losinga may also have had a political purpose in rebuilding the church. It was outside the gates of the new Bishop's palace and also on the route to his estate at the Lathes which was reached via Whitefriars bridge. The massive building campaign underway in The Close in the 12th century could easily have been extended outside the palace gates with St Martin's church being rebuilt in a grander style.

Building C of St Martin's church had a west-to-east alignment although this was different from Structures A and B (Figs 7 and 9). It was of a bicellular type, comprising chancel and nave. A number of similar ground plans have been excavated such as those at Raunds, Northamptonshire (Boddington 1980), St Martin, Wharram Percy, North Yorkshire (Bell *et al.* 1987) and All Saints, Barton Bendish, Norfolk (Rogerson and Ashley 1987). Structure C was, however, substantially larger than these churches, the nave being 5.80m longer than the nave of All Saints, Barton Bendish, Norfolk and 6.75m longer than the nave of St Martin, Wharram Percy, North Yorkshire. This may be explained by its urban nature or by its apparent institutional importance.

It is possible that elements of Saxo-Norman fabric are retained within the predominantly Late Medieval church. This fabric may be concealed in the areas over the north and south arcades or in the tower-nave wall. No Saxo-Norman fabric, other than the east wall, and possibly the south chancel wall, will remain in the chancel as it was completely rebuilt after the collapse in 1851. No other fabric of Saxo-Norman date was detected in the excavation or limited survey of the church.

One area of the church warrants further discussion, that of the chancel. As has been previously pointed out (p.55) the chancel foundations were wider than those of the nave (Figs 11, 33). This could simply be that the chancel was constructed as a separate building campaign, perhaps by the incumbent of the church (Brian Ayers, pers. comm.). The discrepancy could also be explained if the chancel was originally a central tower. In such a case wide foundations would be required to take the weight of the structure. The tower would act as a crossing tower presumably with a square chancel or apse to the east. It follows that the extant east wall would therefore be of later construction.

The projections into the nave-chancel crossing which were found at St Martin-at-Palace church had parallels with those found at All Saints, Barton Bendish (Rogerson and Ashley, 1987). The wide foundations at Barton Bendish also prompted the authors to interpret them as footings for an axial tower above the chancel. As at St Martin's church, no proof could be found at All Saints Barton Bendish to support the hypothesis conclusively. It is pointed out, however, that there are many 12th-century churches in Norfolk which do have towers rising above the chancel such as Bawsey, Great Dunham, Castle Rising, Guestwick, Melton Constable and South Lopham (Rogerson and Ashley 1987).

No intramural burials were identified as being associated with Period III, Structure C. Intramural burial was not common in the early church. The church excavated at Anglia Television (Ayers 1979) had an occasional intramural interment but it was obviously not a common practice. The Council of Nantes, in the 7th century, had indeed forbidden intramural burial (Curl 1972). By the late 7th century, however, intramural burial must have become a more common practice as Archbishop Theodore's Penitential (688–90) stated that *cadavera infedelium* were unwelcome in churches (Morris 1983).

No other features or deposits were identified as contemporaneous with the stone foundations. Heavy truncation by later features may explain the paucity of the evidence.

To summarise, Structure C was probably a traditional bicellular church, with a surviving east wall displaying Saxo-Norman long and short work.

Period IV

Period IV covers the activity within the medieval and late medieval church of St Martin-at-Palace. It also includes the structural alterations and additions to the fabric as well as the excavated features within the standing structure.

The evidence for the expansion of the church is provided by surviving documentation (pp.49–50). This indicates that the main alterations to the church were made in the late 14th and 15th centuries. The north and south aisles were built as were the choir aisles; in addition the tower and south porch were constructed (Fig.33).

Figure 33 Phases of church development, 10th/11th century–19th century. Scale 1:600

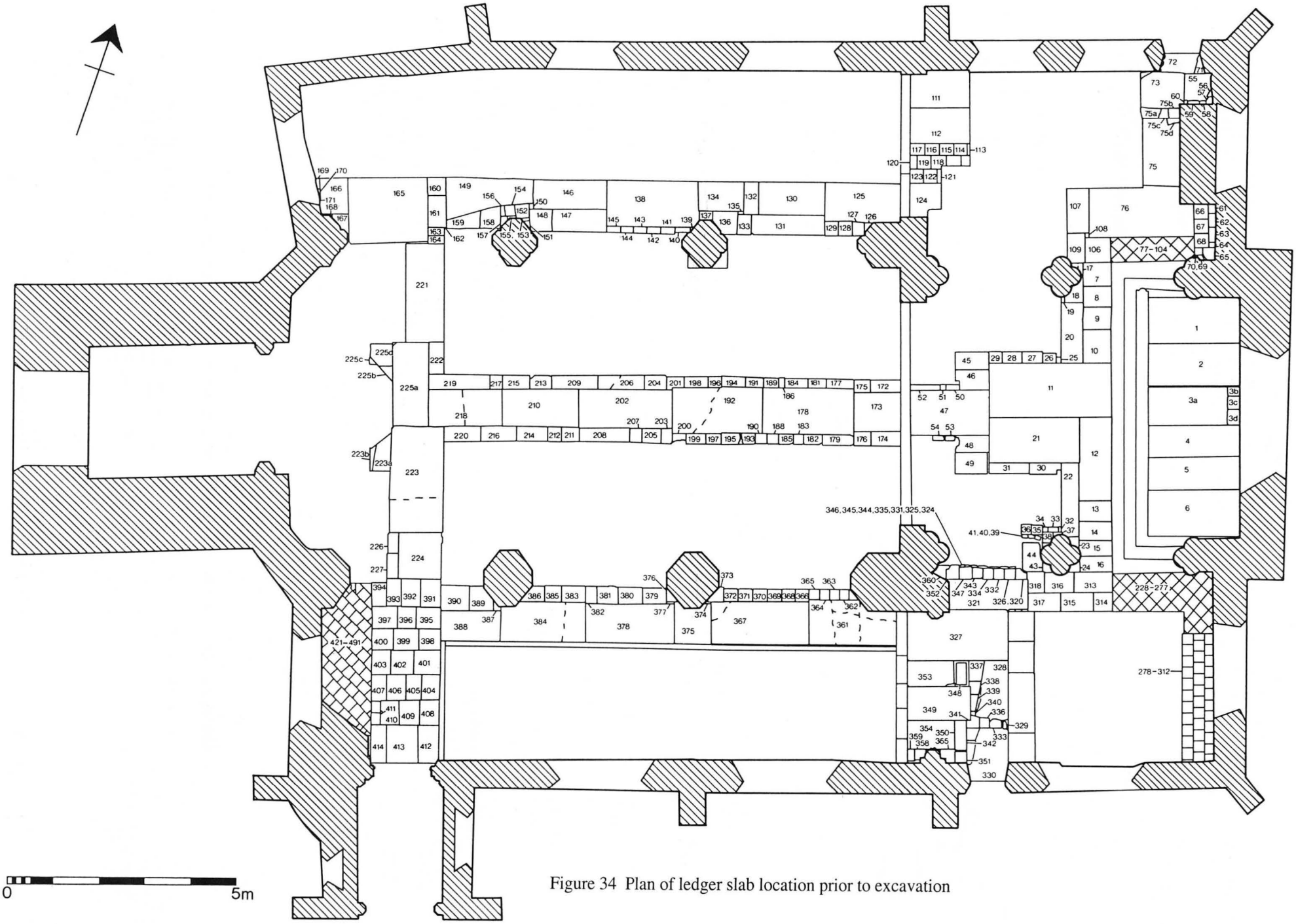


Figure 34 Plan of ledger slab location prior to excavation

Numerous post-holes which were recorded in the excavation may imply extensive scaffolding within the building while the large quantity of glazed floor tiles recovered from thirty contexts assigned to Period IV suggest an expansion or refurbishment of the church in the 14th to 15th centuries.

A small portion of the south aisle wall, built in 1400, was drawn to illustrate the construction techniques used in the early 15th century (Fig.20). A wall painting, probably dating to the early 17th century (Pl.XVI), was recorded in the west end of the north aisle, south facing. It is likely that this painting was undertaken in 1624 after complaints were made about the old fashioned texts displayed in the church.

The main excavated features in Period IV were burials. None of these have been assigned a date (except those recorded in the watching brief which had dated breast plates). Some of the burials can be broadly dated if they had coffins or associated coffin furniture (Table 1). The use of coffin furniture is not known until the 16th century (Litten 1991), and it was compulsory to be interred within a coffin in the 17th century (Curl 1972). The Intramural Burial Act of 1832 prohibited burial within churches and so it is unlikely that any of the burials in St Martin post-date the Act.

Most of the burials excavated were in a traditional pose, orientated west-to-east, heads to the west, supine and extended with the hands by the sides. The exceptions were three infant burials. They were orientated with their heads to the east. The obvious explanation for these deviations would be that the coffins were so small that it was not possible to detect which end was the head. This explanation could only be used for two of the burials as the remaining one was interred directly in a brick lined grave and no coffin was detected (Table 1).

The pathology of the skeletons from St Martin-at-Palace shows that there was no outstanding or remarkable pathology from the site and the majority of it was related to degenerative diseases. The group of material analysed demonstrated there to be more adult males than females interred in the church, although five of the adults were not sexed.

The majority of the coffin wood identified from the church was elm (Table 1) although two coffins were constructed from oak (Table 1). The size of the fragments recovered made the identification of types of coffin construction impossible. No lead coffins were excavated although six were identified (Table 1).

The fashion for upholstering coffins in material (Crowfoot and Litten 1987) was illustrated by several fragments of coffin wood excavated from the church. These fragments had the remains of cloth attached to them by surviving coffin furniture. The introduction of this practice appeared to have been in the mid to late 16th century and is thought to have developed from the custom of covering high quality travelling trunks with fabric (Litten 1983).

The coffin furniture excavated from St Martin's church was almost exclusively made of iron with some pieces having non-ferrous plating (Figs 24–27). One grip plate, made from thin sheet metal was recovered from a vault. This was one of the highest quality coffin fittings recovered.

Brick-lined graves, brick-lined shafts and a vault were recorded during the watching brief and excavation (Table 1). The brick-lined graves were constructed of flint and brick and were difficult to date. A late 17th-century date is possible for *267*, with the other two brick-lined graves being later. It is easier to date the brick-lined shafts on stylistic grounds as they became a favoured form of interment for intramural burial in the 18th century (Litten 1983). These shafts would facilitate two or three coffins to be interred in one shaft, a moveable ledger slab being placed over the opening (Fig.34). The shafts recorded in St Martin-at-Palace church contained coffins which had breast plates dated to the 19th century.

The vault recorded in the south aisle was of a recognised type. It had vertical east and west walls and lower north and south walls from which sprang a barrel vault. This type has been dated to the 18th century (Litten 1983), although the one in question contained a coffin with a breast plate dated 1831.

Aside from burials, a circular cut feature (*211*) filled with flint nodules was excavated at the west end of the nave in a central position (Fig.19, Pl.XIII, XIV). This feature has been interpreted as a soakaway for a font. A feature of a similar nature containing dry flints was excavated in the timber church of St Michael, Thetford, Norfolk (Wilson and Moorhouse 1971, 130; Dallas 1993) and at St Michael, Bowthorpe (Ayers, this volume, p.73, Fig.43). Early photographs show a font situated in the same location as the interpreted soakaway and the font was still at this spot in 1979 (Brian Ayers, pers. comm.). A soakaway would have been required beneath a font as the liturgical practice was that consecrated holy water had to be absorbed into the fabric of the church (Ayers 1979).

The font that until recently stood in St Martin's church has been attributed a 14th-century date (Pevsner 1962, 247). It is questionable, however, whether the date of the excavated soakaway was contemporary. The cut for the soakaway was stratigraphically above contexts which contained coffin fittings, probably later than the 16th century. It is known, of course, that fonts were often moved.

It is interesting to note the intense activity in the area of the soakaway at the west end of the nave (Fig.19). All the features, stratigraphically, appeared to be of a late date (not necessarily the same date) although many of them were earlier than the soakaway.

No alternative location for a font, or soakaway was evident during the excavation. It is possible that the feature interpreted as a soakaway in Period IV, may have been a recut of an earlier feature of a similar function, although there was no evidence to suggest it.

No other features interpreted as Period IV were of particular note but some interesting finds were recovered. One feature at the west end of the nave, truncated by the soakaway, contained two fragments of decorated masonry (Fig.28). fractured and abraded prior to disposal in the same feature. They have been identified as parts of a late Anglo-Saxon grave cover decorated with an interlace design.

Another fragment of decorated masonry was recovered from a feature interpreted as belonging to Period IV and was located to the south of the chancel/nave crossing (Fig.19). The fragment was shelly limestone and had an unusual design carved on one face, which is thought to represent a stylised form of drapery from a figure sculpture. It has been paralleled to the figure in the Cathedral traditionally referred to as Bishop Losinga although re-interpreted as a representation of St Felix (Fig.29).

There were numerous post-holes, stake-holes and small cut features interpreted as belonging to Period IV. As stated above, many of these features may have been constructed to support scaffolding for the numerous extensions of the church in this period. Other features could have supported internal fittings such as screens, pulpits and pews, all of which probably had earth-fast footings. Timber pews were not a feature of church furnishings until the late Middle Ages. Their construction was probably direct post-in-hole construction or posts supported by sleeper beams dug into the ground (Rodwell 1981). At St Martin-at-Palace the superfluity of post-holes favours a post-in-hole construction as an explanation.

To summarise, the main identifiable activity which occurred within the church in Period IV was burial. Many other small features were excavated and these are thought to be related to the extensive building programmes carried out on the church in the 14th and 15th centuries. The only other excavated feature to which a function could be attributed was a soakaway for the font.

Period V

Period V, like Period IV, can be divided into two main areas of activity. These are the collapse and rebuild of the east end of the church, the general internal refurbishment and the internal excavated features.

Documentary evidence in the form of a plan of the church dated 1850 (Norfolk Record Office) shows that the door into the tower and the door in the north aisle, west end, were to be blocked. This blocked doorway in the north aisle was surveyed during the excavation (Fig.21). No other church fabric, interpreted as belonging to this period, was surveyed.

The major period of rebuilding occurred after the collapse of the east end of the church in 1851. At this time new clerestory windows were inserted and the chancel was rebuilt with arcade pillars through to the choir aisles (Fig.33). The old porch was also replaced by a new one (Fig.33). Other internal alterations which occurred at the same time were the opening of the tower arch and the installation of a new pulpit, reading desk and pews. A fragment of wall painting was located over the south-west door (frontispiece) and it is possible that this was executed at the time of refurbishment and redecoration. It is probable that the large quantity of ledger slabs in St Martin's church were rearranged into their current locations (1988) at the same time as these other alterations.

An extensive study of the ledger slabs within the church, their location and transcriptions was executed by the late Roger Greenwood (Fig.34).

There was little archaeological evidence recorded that could be closely related to the fall of the east end of the church. The evidence from a section of the recorded foundations in Period III (Fig.14) illustrated that the north chancel pier had been completely rebuilt (Pl.XVIII). This correlates with the documentary evidence. The only other evidence of rebuilding recorded was the enlarging of the aisle pillars with brickwork. Evidence of the repair to the top of the east chancel wall, probably after the collapse, was recorded photographically.

There was a plethora of small cuts, post-holes and stake-holes in Period V. Some of these features were almost certainly dug to support scaffolds for the restoration and repair work to the church fabric and its windows. They may also, as postulated for features in Period IV, have supported internal furnishings such as the pews, pulpits and reading desks described in the documents as evidence. Other excavated features could have supported screens which were used to subdivide the church into smaller areas of use (Rodwell 1981; Randall 1980). Pulpits and lecterns may have been earthfast as might the main supports for an organ or gallery.

The most interesting and perplexing feature assigned to Period V, but possibly from Period III, was a large chalk block 0.80m × 0.60m (Fig.10; Pl.XVII). The function of this feature is unclear. As a block structure it could have been a substantial part of the church furnishings: a font base or a cross base. There was not a soakaway excavated beneath the chalk block, however, so the first possibility would seem unlikely unless it was relocated after use.

As chalk was the material employed for the construction of the early foundations, Period III, it is possible that the block described was raw material awaiting use. The chalk could have been brought onto the site as blocks preparatory to being broken up for use in the foundations. The chalk excavated might have been material surplus to requirement. Why, in that case, it was not removed from the site is not clear. The levels on the top of the chalk block and the top of the rammed foundations were approximately the same. It is possible that the chalk block was thus not removed as it could have been covered up by the floor level of Structure C.

The activity illustrated by the archaeology in Period V was mainly of a structural nature. This was probably explained by the extensive building repairs that were necessitated by the collapse of the east end of the church in 1851.

Concluding assessment

The aim of the work at the church of St Martin-at-Palace was to increase understanding of the chronological sequence and structural development of the building. To this end the excavation had a primary objective to record archaeological under threat of destruction. Secondary objectives included attempts to retrieve the ground plan of presumed Anglo-Saxon and later churches, to record intramural activity and to record extant structural fabric where possible.

The excavation produced not only the ground plan of a presumed late Anglo-Saxon or Anglo-Roman church, but also evidence of two earlier timber structures themselves assumed to be ecclesiastical. It also produced a burial dated to between AD 440–770.

The discovery of two probable timber churches on the site has thrown new light on the development of the foundation of St Martin-at-Palace. The earliest structure was probably 10th-century in date although the presence of an early, perhaps 8th-century, burial suggests the possibility that the site was regarded as a holy place at a date considerably earlier than that of the first identified structure.

The stone church, Structure C, and its date has already been discussed at some length. Whether pre- or post-Conquest, the additions and alterations to the structure in the medieval period made it almost unrecognisable as a Saxo-Norman building. It was only the presence of the long and short work that suggested the church's true antiquity. The additions to the church (Period IV), have been well documented and give a good insight

into the way in which the space for worship was expanded and utilised over the centuries.

The presence of burials within the church was, of course, anticipated. It is hoped that the information gained from the burial structures and coffin furniture will assist in the analysis of similar data from other post-medieval cemeteries.

It is necessary to consider the manner in which the church structures related to the surrounding urban environment. This is difficult as the exterior graveyard remains unexcavated, as indeed does much of the extant church itself and little can be added to the observations concerning the topographical location explored in an earlier report (Ayers 1987). What is important, however, is the clear implication that the church was a formative influence on urban development in this part of Norwich, perhaps as early as the Middle Saxon period.

Taken with the results of earlier excavation and research in the parish, the excavation at the church of St Martin-at-Palace has enabled a more comprehensive understanding of urban growth in this area to be obtained. While substantial urban and parochial growth is clearly an 11th-century and later phenomenon, there is now accumulating evidence to suggest sporadic, probably very localised, Middle Saxon occupation as a precursor to this later development.

Endnotes

Unless otherwise stated documents cited are in the Norfolk Record Office.

1. For discussion of the place-names, see Sandred and Lindstrom 1989, 137–8
2. Following construction of the Magistrates' Courts in the early 1980s, this traditional topography has been obscured.
3. '...in burgo queda eccla sci martini. qua ten Stigand. t.r.e...'
   ('...a certain church of st. Martin is also in the Borough, which Stigand held before 1066...') — see Brown 1984, 116a.
4. Examples include the adjacent Magistrates' Courts site in 1981 (Ayers 1987) and more recently, major excavations at Castle Mall (1989–91) and Calvert Street (1989–90).
5. Comparative plans show it to be of compatible size with most of the city churches.
6. A chandelier is now in the church of St Mary Magdalen, Silver Road, Norwich while a medieval cope from the church is held at the St Peter Hungate Church Museum.
7. Limits of excavation were imposed to the west and east of the excavated post pits and slots due to safety aspects of the site.
8. Of these, three were vaults/brick-lined graves, two were earth burials. None of these were removed as they were located in the watching brief.
9. DCN 40/5 130d.
10. The form 'Bichishil' was in use as late as 1465. DCN 1/4/90.
11. DCN 1/10 1.
12. Clement, rector of St Mathew, held a messuage opposite his church from *c.*1310–1328. The property immediately south of the church, occupied by a chaplain, was subject to an annual rent of 1d to maintain the chancel lamp. DCN PD. St Mathew 5, 22, 24, 27.
13. Dean and Chapter Library, The Norwich 'Domesday' 1406–13.
14. DCN 40/5 130d.
15. Always let to successive bishops for a garden.
16. B. Mackerell. Colman and Rye Library. Typescript of his MS 'History of Norwich' 1737 (hereafter referred to as Mackerell) I, 369.
17. Fitch MSS Kirkpatrick 5 (M54).
18. P. Cattermole, unpublished paper 'Norwich Churches as seen in the Obedientiary Rolls of Norwich Cathedral Prior 1276–1536' (hereafter referred to as Cattermole) 11.
19. 'For a book of the new feast and a book of St Anne XVId.' DCN 1/10 5.
20. DCN 1/10 15.
21. DCN 1/10 11. The Infirmarer gave 12s to the parishioners of St Martin-at-Oak when they had completed the chancel there in 1441. Cattermole, 28n3.
22. DCN 1/10 22, 23.
23. DCN 1/10 38. 7/9d was spent on St Martin-at-Palace, apparently as part of a systematic programme of repairs to the Infirmarer's Norwich churches.
24. DCN 1/10 14 and see Saunders 1930, 133, 171.
25. Lambeth Palace Library Reg. Stafford 63. NCC Wills Jekkes 127.
26. NCC Wills Jekkes 127.
27. NCC Wills Wolman 171.
28. DCN 67/11A. Mackerell mentions a 'wooden palisade' remaining at the east end of the north aisle in 1737. I, 375.
29. NCC Wills Ryxe 32.
30. NCC Wills Surflete 121.
31. The rochet was similar to a surplice but had no sleeves. Many churches lacked one in 1368 (Watkin 1947, I lxiii).
32. DCN 67/1.
33. NCC Wills Jekkys 132, 251; EANQ II, 210–212.
34. NCC Wills Ryxe 32.
35. A receptacle for Holy Oil, probably kept locked in the aumbrey (Watkin 1947 II, lxxxiii).
36. NCC Wills Corant 9, printed in Ayers 1987 microfiche 2:F 2–6.
37. There were 900 gilds in the diocese (Jessopp 1884, 169).
38. The parish feast continued into the 19th century, taking place in the local hostelries in turn. In 1809, for example, the churchwardens accounted for £2.2.0 for a feast at the White Lion (DCN PRG 13).
39. The Cult of the Mother of the Virgin grew up sporadically in England before it was generally introduced in 1383 (Watkin 1947, II xxxix). John de Berney, who lived in what became known as Erpingham House, was buried in St Anne's Chapel in the Cathedral in 1374 (Blomefield IV, 38).
40. Funerals were commonly held at night. They were forbidden at the Cathedral in 1705 (DCN 24/4, 134).
41. NCC Wills Wymer 6. The priests' gild appears to have been revived (Hudson and Tingey 1910, lvi).
42. Blomefield's notes for St Martin-at-Palace in Arch. Soc. MSS. c2/3/11.

43. PRO PCC Wills Prob.11.26 Crumwell 19.
44. DCN 67/1.
45. E.A. Tillett, Scrapbook 17, Colman and Rye Library.
46. City Court Roll 21 m119.
47. Mackerell II, 93.
48. 'Mr. Spencer's garden' (Parish Register for 26.8.1549 transcribed by the Society of Genealogists). Leonard Spencer, a notary, owned a property north-east of the church. Or the burial might have been in the former Carmelite Friary acquired in 1542 by Leonard's father, John (Kirkpatrick 1845, 182).
49. PRO E117 6/11.
50. NCC Wills Atmere 43.
51. PRO E315/506, printed in Boileau 1884, 366. For 'Mutton the paynter' see Tillyard 1980, 317.
52. It bears the mark of Peter Peterson, the goldsmith who made most of the Norwich examples (Manning 1888, 93).
53. ANW/3 10.
54. PD12 48.
55. George Trew, painter, apprenticed to Augustin Isborne, received the freedom in 1620, and see Tillyard 1980, 315–316. A carpenter was paid 8d 'for naylen on 2 longe krestes', possibly resembling those remaining at Terrington St Clement.
56. PD 12 48.
57. Probably the one noted in Cautley 1949, 227, although he dates it to the early 18th century.
58. A bell dated 1672, cast by Edward Tooke, was retained after 1783 (L'Estrange 1874, 180). Cracked in 1857, it was re-cast by Thomas Hurry. PD 12 44L.
59. Fitch MSS, Kirkpatrick 5 (M54).
60. Mackerell I, 369 and MF PR 70 A.
61. Fitch MSS, Kirkpatrick 5 (M54).
62. NCC Wills Gregson 384. The £1 a year for the cleaning derived from a property on Quayside sold by Spelmans in 1884. PD 12 63.
63. Fitch MSS, Kirkpatrick 5 (M54).
64. There were 105 petititions for permission to sell bells between 1700 and 1764 (Williams 1961, 356).
65. The battlements and sound-windows as they were in 1781 appear in a copy-drawing in Norwich Castle 9.36.940.
66. ANW 4 89.
67. DCN PRG 13.
68. A bricklayer had been paid in 1790 for 'Breaking out A Door Way to Steple' PD 12 48.
69. Cf. also an early photograph inTillett Scrapbook 17, Colman and Rye Library.
70. Fitch MSS Kirkpatrick 5 (M54).
71. Terrier 1801 PD 12 34.
72. ibid.
73. DCN 120/2W/3.
74. PD 12 38.
75. Norwich Castle Museum Album 41.98, 23. The great thickness of the clerestory wall is noticeable.
76. The cut flint-work of the porch was said to be remarkably good (Parker 1847, 168).
77. Norfolk Chronicle 16.8.1851.
78. ANW 16/4.
79. PD 12 44 L.
80. DCN 24/7, 167d, 185d, 188d. The two sums were paid together on 2nd July 1852.
81. PD 12 44 L.
82. ibid.
83. ibid. The parish house, of four rooms let to four weekly tenants had produced £10.8.0 p.a. (Report of the Charity Commissioners, 23, 969). It is shown on a mid-19th century drawing by Miss Stanley in the Dean and Chapter Library.
84. ibid. and photograph PD 12 92
85. ibid.
86. ibid. and drawing PD 12 42.
87. ibid.
88. ibid. and PD 12 46.
89. ibid.
90. ibid. and CON 192. There had previously been gas-lighting.
91. PD 12 39
92. CON 231.
93. PD 12 39.
94. PD 12 34.
95. PD 12 68.
96. Mackerell I, 369.
97. Norwich Castle Museum Album 41.98, 23 (another version:151).
98. Dedication stone on Memorial Chapel.
99. PD 12 63. Miss Rachel Bailey 1888.
100. PD 12 34.

Endnotes 101–134 refer to text on microfiche. Unless otherwise stated documents cited are in the Norfolk Record Office.

101. DCN Private Deeds Box 23.1733.
102. NCC Wills Surflete 121.
103. ibid. Jekkys 132.
104. VIS 29a/7.
105. DCN PRG 13
106. Terrier for 1867, PD 12 34.
107. Cattermole, 11.
108. DCN 1/10 21. The notary was John Gerard, who was Sheriff in 1422 and 5 times MP for the city between 1423 and 1446 (Rye, 1890).
109. DCN 67/1.
110. Cattermole, 50.
111. ibid., 26. 113.
112. DCN 29 Liber Misc. 2, 227.
113. DCN 24 Chapter Book 5, 182.
114. Tillett, Norwich Colman and Rye Library Vol.17. 12 acres of land were purchased at Newton Flotman. Terrier 1813 PD 12 34.
115. Directory.
116. DCN Church Commissioners Chapter Estates 135315–7.
117. Bishop Parkhurst enjoined the wearing of surplices in 1571, but found that almost all Norwich clergy were then wearing them without demur (Houlbrooke 1974, 216).
118. ANW 3/10, 17a.
119. Clerk's account, PD 12 48; Visitation 1784, VIS 29a/7; 1805, ANW 6/46.
120. VIS 29a/7.
121. ibid.
122. NCC Wills Ryxe 448.
123. He distributed small lead tokens along the way (Rigold 1977, 87).

124. City Court Roll 20 m 12, 20 m 76. John Stacy and John Abot (or Everard) also lived in the Peculiar. DCN 67/6.
125. City Court Roll 21 m 11.
126. DCN 1/10 23.
127. DCN 24/5 Chapter Book 5, 30.
128. PD 12 38.
129. NCC Wills Harsyk 7.
130. NCC Wills Corant 9, printed in Ayers 1987, microfiche 2: F.2–6.
131. See tenement history: Property No.3 in Ayers 1987, 143.
132. MC/16 3.
133. City Court Roll 103 m.10.
134. VIS 29a/7.

Plate XXIII Bowthorpe: the ruined church of St Michael, and the new Bowthorpe Christian Centre. (Photo: K. Laws-Chapman)

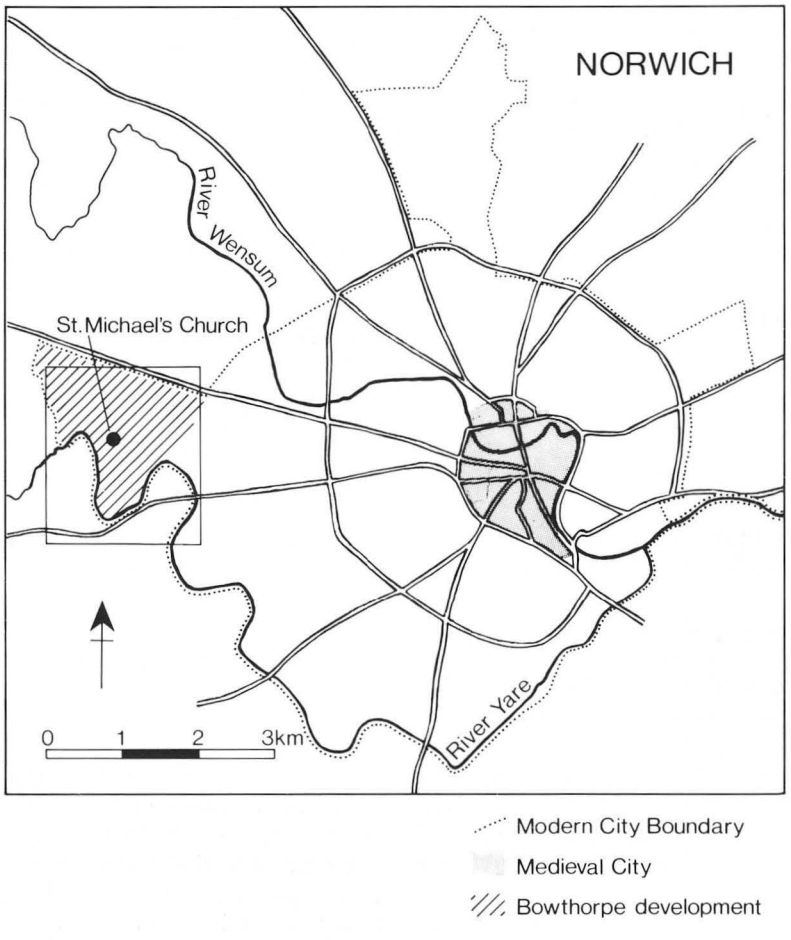


Figure 35 Location of Bowthorpe (inset area shown on Figure 36). Scale 1:100,000

Chapter 2. Excavations at St Michael's Church, Bowthorpe, 1984–5

by Brian Ayers

I. Summary

Excavation of the ruined church of St Michael, Bowthorpe, revealed a structure of three main periods of use and disuse. A small building consisting of square-ended chancel, nave and round tower was erected above massive infilling and similarly massive footings in the 11th or 12th centuries. The chancel was demolished and replaced by a much larger structure, probably early in the 14th century, and an added north porch to the nave may have been of similar date. By the 16th century the building was ruinous and open to the sky. Repairs were effected to the chancel and probably to the tower in the 1630s but the nave was either demolished or had already fallen down. The chancel, 'boxed-in' at its western end, functioned as a chapel into the 18th century but was derelict by 1790.

The tower served as a chimney for an oven or corn dryer before being deliberately demolished, probably before 1790. Intramural burial was slight although numerous post-medieval interments disturbed the deposits in the chancel. Other intrusions, however, had removed most deposits in the nave and tower. Excavation was confined to the area of the church building itself and finds were correspondingly low; the most interesting were structural elements such as decorated stonework, plaster, glass and tile. The work provided a useful insight to the development of a small, poor rural parish church and a rare opportunity to study the processes of change and adaptation consequent upon redundancy and ruin.

Chronological summary
Period I — 11th to 13th centuries
Period II — 14th to 15th centuries
Period III — 16th to 20th centuries

II. Introduction

The site

The ruined church of St Michael, Bowthorpe (TG 1773 0910) lies some 5km west of the medieval core of Norwich (Fig.35). It stands on a knoll from which the land falls on all sides, fairly steeply to the west and east, more gradually to the north and south (County Site Number 5352 CST). On average the pre-excavation graveyard was at 21.50m OD, some 2.5m higher than the lane immediately to the east. Although it is clear that the church occupies a geographically prominent site above the River Yare (Fig.36), particularly so when viewed from the west, the excavation showed that its advantages are the result of artificial agencies (p.71). The natural deposits encountered consisted of sand.

The church was the parish church of the now lost medieval village of Bowthorpe. The relationship of the church to this village and the manor of Bowthorpe is discussed below (p.93). At the time of the excavation the churchyard was bounded to the south by two renovated cottages and their gardens, which had probably been erected in the redundant graveyard in the 19th century, and also by a fragment of brick churchyard wall. To the west, north and east the graveyard was bounded by a brick wall; access was gained via a gate in the north-western corner (Fig.37). Immediately prior to the 1985 excavation season of work a long stretch of the west wall collapsed and was fenced during the course of the excavation. Subsequent to the excavation a length of the east wall to the south of the church was demolished to facilitate drainage works. Both sections have now been repaired.

The existing ruined church appeared to consist solely of the chancel of a late medieval structure. Until November 1984 it was completely covered in ivy although, thankfully, this was not too securely rooted save in one or two places. Rescue excavation and survey of this structure and its environs were considered necessary following proposals to construct a new Christian centre, adjacent to and west of the ruins with concomitant consolidation of the ruins themselves (Pl.XXIII). Norfolk is a county which once had over 600 parishes and currently has over 100 ruined church sites (Batcock 1991) yet, to date, there has been little detailed archaeological research into any of these, save for important recent work at All Saints, Barton Bendish (Rogerson and Ashley 1987) and small scale work elsewhere, such as Framingham Earl (Harris 1987). Bowthorpe was thus an opportunity to extend further knowledge of rural church development in Norfolk.

Trial excavation 1984

Trial excavation was undertaken west of the existing ruins in July 1984 by the writer, Jayne Bown and Andrew Rogerson. The work was designed to test the hypothesis that the church originally extended further to the west than the surviving structure. Accordingly a trench was sunk some 9m west of the present west wall of the ruin. Remains were found of two large walls of flint and carstone, interpreted as and subsequently proven to be walls of a circular tower. Traces of the west end of the nave were also uncovered. The results were sufficiently encouraging to seek excavation of the entire church prior to redevelopment.

Method of excavation

The duration of the excavation (January to April 1985) and the available resources dictated that only the area of the church structure should be investigated, rather than the graveyard as well. Even this approach was complicated by the dangerous state of the surviving ruin, which inhibited excavation at the eastern end of the nave. Area excavation was, however, eventually undertaken over the entire available area, contracting as perimeters of interest (*i.e.* the

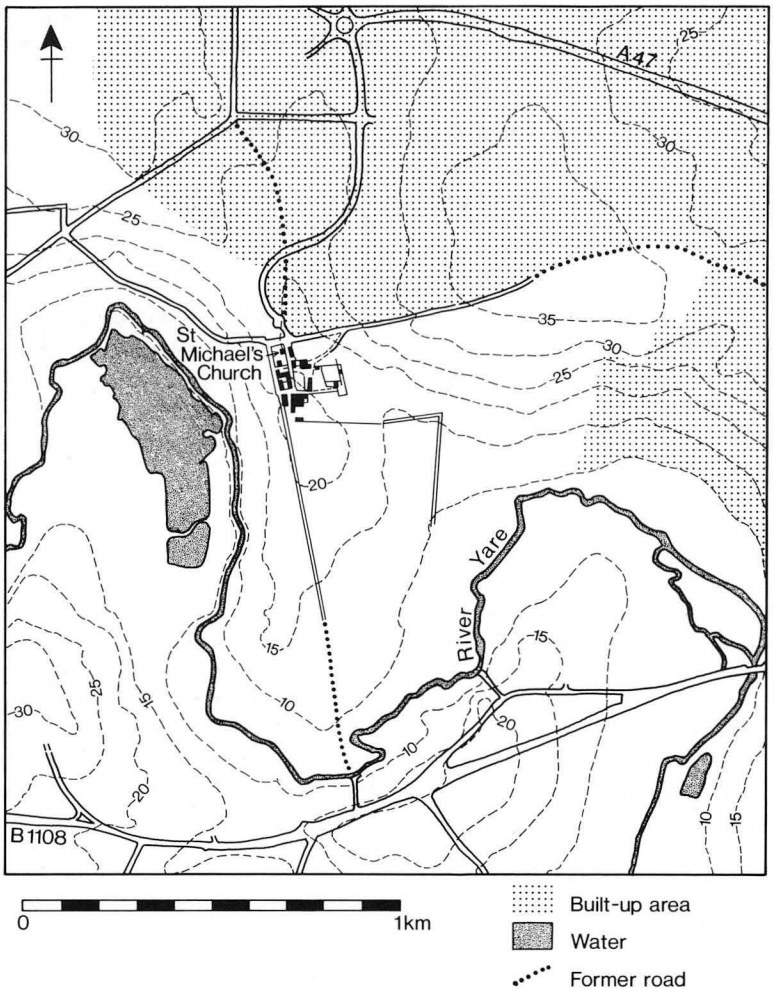


Figure 36 Pre-and post-development topography of the Bowthorpe area (major routes only; the modern housing estate has been omitted). Scale 1:20,000

building) were recognised. Standard excavation recording procedures were employed.

Recording the fabric

As the excavation took place in and around the ruined chancel of the building (Norfolk Scheduled Monument No.379), it was decided that such excavation would only be of value if it went hand-in-hand with a survey of the structure. Such a survey had not been possible prior to the excavation due to coverage of the ruin in ivy and other climbing plants.

The work was predominantly conducted as a drawn survey using tape and line supplemented by detailed notes. Such an approach was not always possible due to pressure of time and problems of access (*i.e.* exterior face of the east wall) and drawing was thus replaced by photography where necessary. However, elevations of the north wall (interior and exterior), south wall (interior), east wall (interior) and west wall (exterior) were drawn and annotated. Coloured originals of these elevations are held on archive (Elevations 1, 2, 3, 4 and 5). All elevations were drawn at a scale of 1:20. Both the excavation and survey archives have been deposited with the Norfolk Museums Services.

Historical summary

Occupation of the Bowthorpe area can be traced from the Mesolithic onwards although a nucleated village probably dates from the Middle Saxon period. Bowthorpe is recorded in *Domesday Book* in 1086 but the earliest mention of St Michael's Church seems to be one of 1304. The church was in ruins by the late 16th century with the village deserted. Refurbishment of the chancel as a chapel is recorded in the 1630s although the building was again unroofed in the 1790s. A detailed assessment of the historical background is given in Section VI.

III. The Excavation Sequence

Introduction

The excavation was conducted in two parts, inside and out of the surviving ruined chancel (Fig.37). The added west wall of the chancel was not bonded into the earlier fabric and was thus a dangerous structure at the time of the excavation. Accordingly digging within two metres of its western face could not be countenanced, thus divorcing the two parts of the excavation even further (see Fig.40).

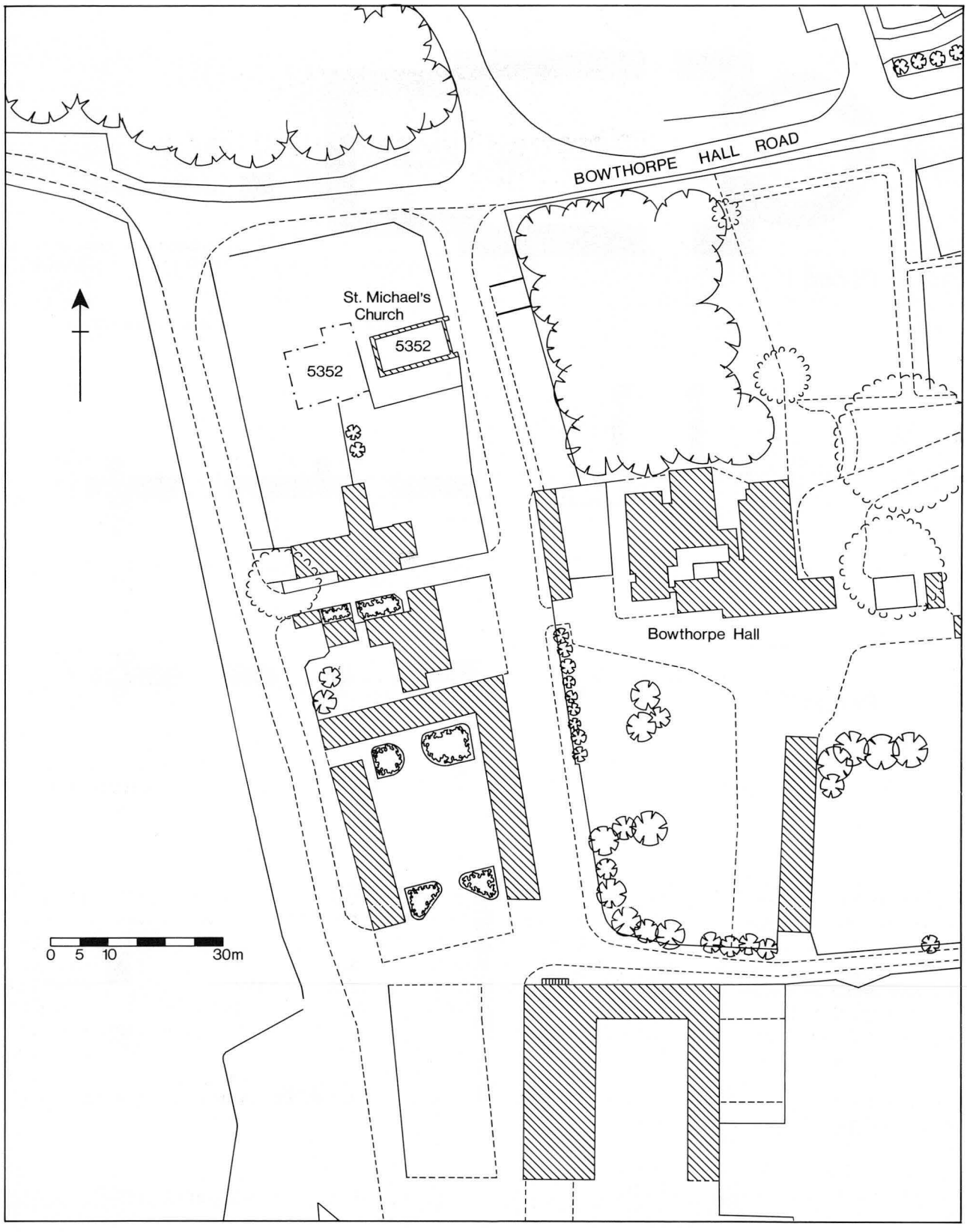


Figure 37 Location of the excavation and surrounding buildings. Scale 1:1000

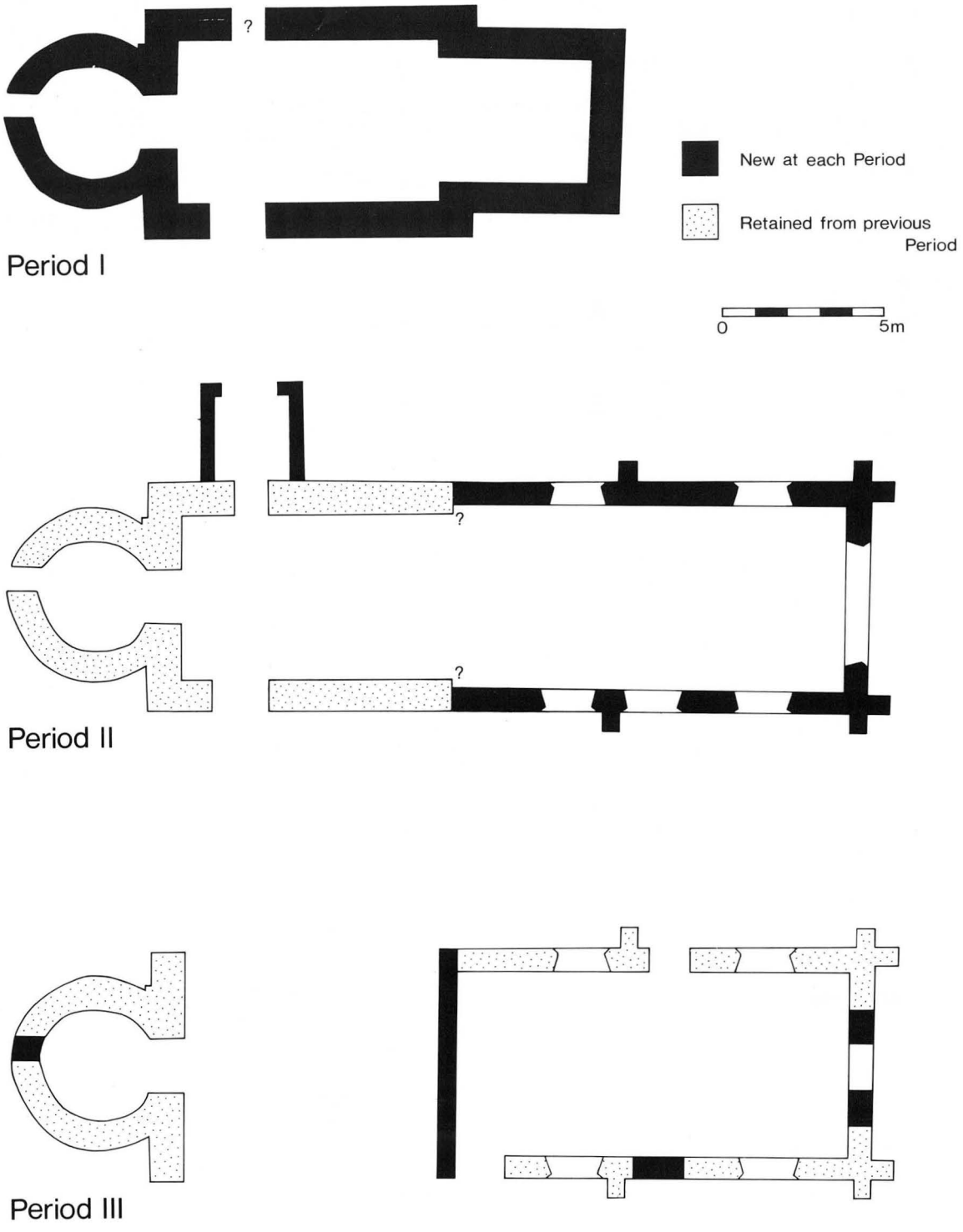


Figure 38 Block plans of church phases. Scale 1:200

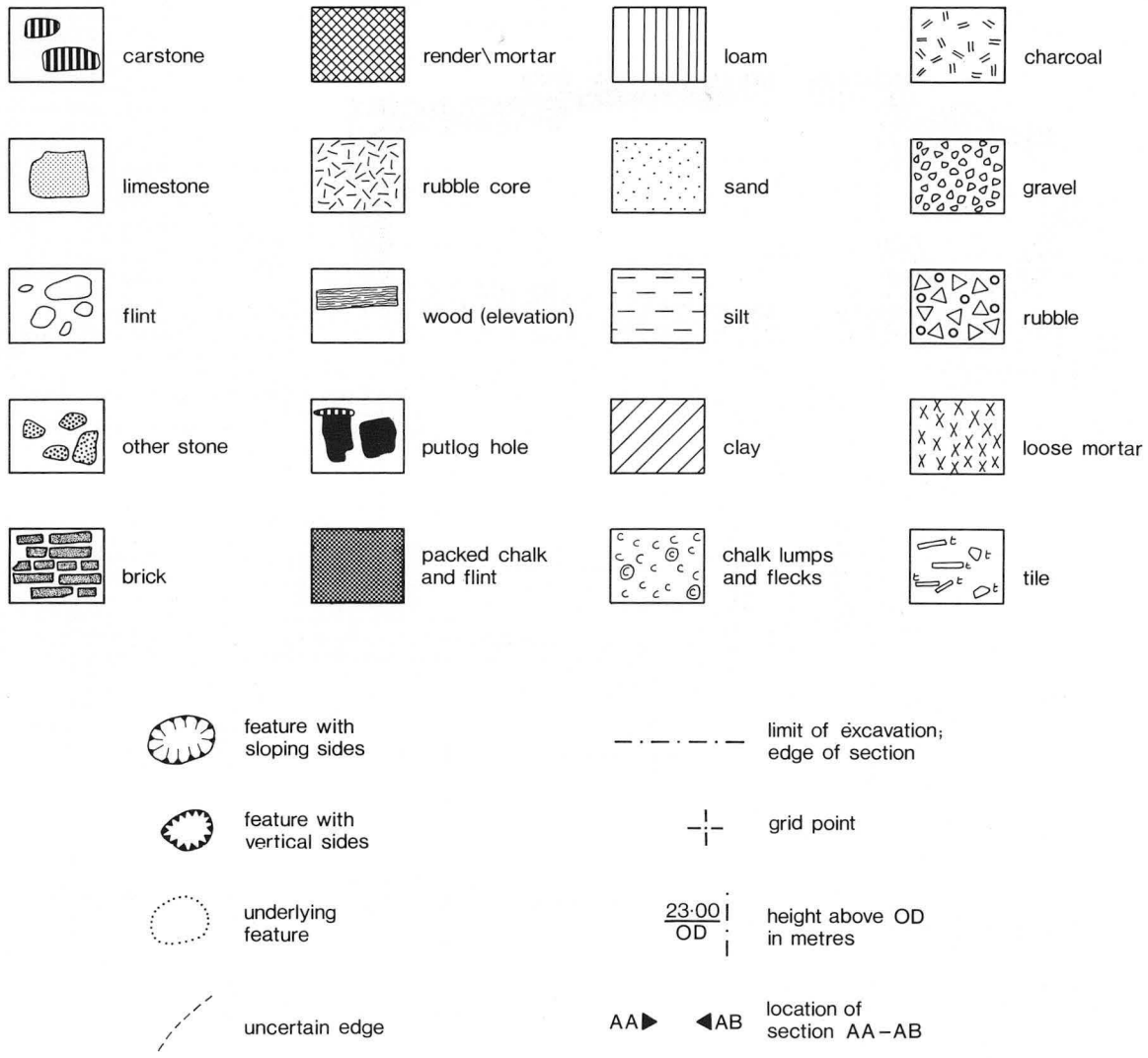


Figure 39 Key to conventions used in illustrations

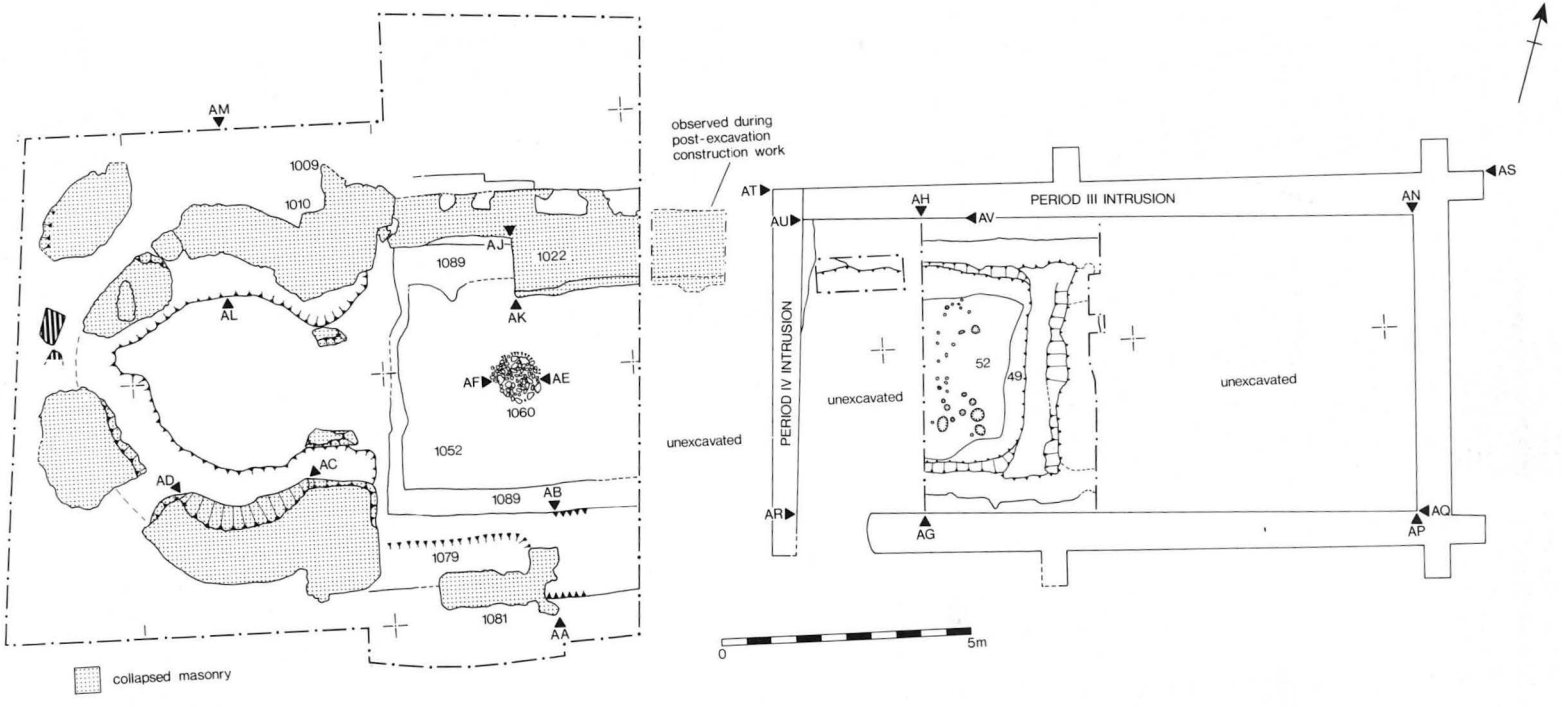


Figure 40 Plan of Period I church. Scale 1:150

Period I

(Figs 38; 40–44)

The natural sand horizon on the site was recorded at various depths below the contemporary surface of the (now grassed) graveyard and church, being located at *c.*21.09m OD at the western edge of the excavated tower, at *c.*19.76m OD approximately midway in the nave and at *c.*18.30m OD east of the ruined chancel (Fig.38 for church plan). This indicated a natural slope to the east of some 7% or 1:14, in contrast to the modern ground surface which slopes as little as 3% or 1 in 30 within the graveyard, although it then falls sharply by some two metres outside the east graveyard wall. In other words, it is apparent that the churchyard has been levelled up. The excavation demonstrated that this has not been a result of incidental levelling due to repetitive burial but a deliberate policy prior to the erection of the first stone church (the redeposited material being cut by footings of the church). No buried soil was recorded which might imply that such a deposit was removed prior to infilling. Substantial quantities of redeposited soil, almost exclusively consisting of a sand loam, were dumped across the area to level the site. The quantity varied according to the perceived slope but, where sampled, it measured some 1.60m in depth and must have been nearer 2.70m at the eastern edge of the site. The uppermost levels of this redeposited material were numbered *1088* and *1052*.

The earliest constructional activity recognised on the site consisted of the excavation of foundation trenches for a three-celled church of chancel, nave and round tower. These trenches varied in depth but, where sampled, were cut through the redeposited sand to the natural horizon, implying that the redeposition and subsequent construction were related enterprises. The result was that footings for the tower were some 0.90m in depth while those for the south wall of the nave (*1061*) were over 1.60m in depth (Fig.41 and Pl.XXIV). Those in the chancel, presumably of great depth, could not be sampled due to the proximity of surviving Period II walls although their extent could be planned (Fig.40). The foundation trenches were filled with alternating layers of sand and crushed chalk packed around flint (Fig.41). In each case the foundation was wider than the wall it supported, the south nave wall trench width of 1.60m contrasting with a probable wall width of 0.90m (the tower walls were slightly thicker at 1m).

The walls of the superstructure did not survive except for those of the tower and part of the nave. Description therefore starts with the tower (*1027*) and moves eastward.

The tower (Pl.XXV) was constructed of flint with quantities of iron-bound conglomerate. An exterior offset foundation course was observed at the western side of the tower (Pl.XXVI), effected in conglomerate. This stone was also used to create a 'banded' appearance to the interior face of the structure (Pl.XXVII; Fig.42 which is shown at 1:40 for clarity). A collapsed part of the superstructure (*1031*) was rendered on its exterior face but (where visible) appeared to be only constructed of flint, suggesting the possibility that conglomerate was only used for lower courses. The tower was circular, its original dimensions preserved approximately by the inner edge of its foundation cut (Fig.40) although the tower itself had collapsed outwards around its entire perimeter (Fig.40; p.97). Access was afforded from the nave and probably also via a western door, an unusual but not unique arrangement (p.95). Such a supposition is suggested by survival of a 'tongue' of crushed chalk within this part of the tower

Plate XXIV Period I church. Section across the foundation trench of the south wall of the nave looking west. Scales 2 metres. (Photo: B.S.Ayers)

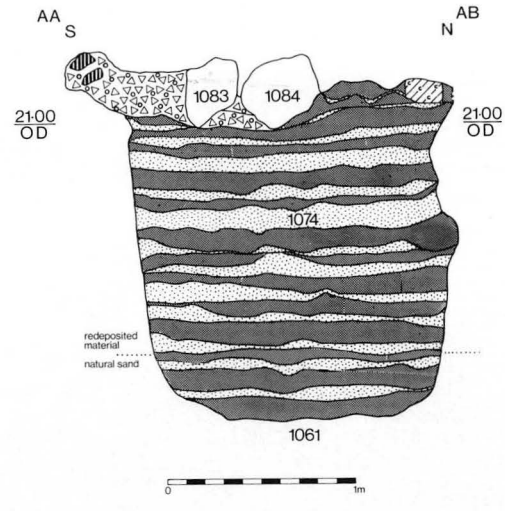


Figure 41 Section AA–AB of south wall foundation trench. Scale 1:20

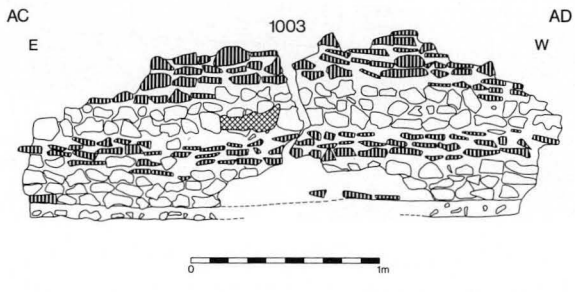


Figure 42 Elevation AC–AD of interior face, south side of tower. Scale 1:40

Plate XXV Period I church. Collapsed footings of western round tower with intrusive post-medieval oven feature. View looking east. Scales 2 metres. (Photo: B.S.Ayers)

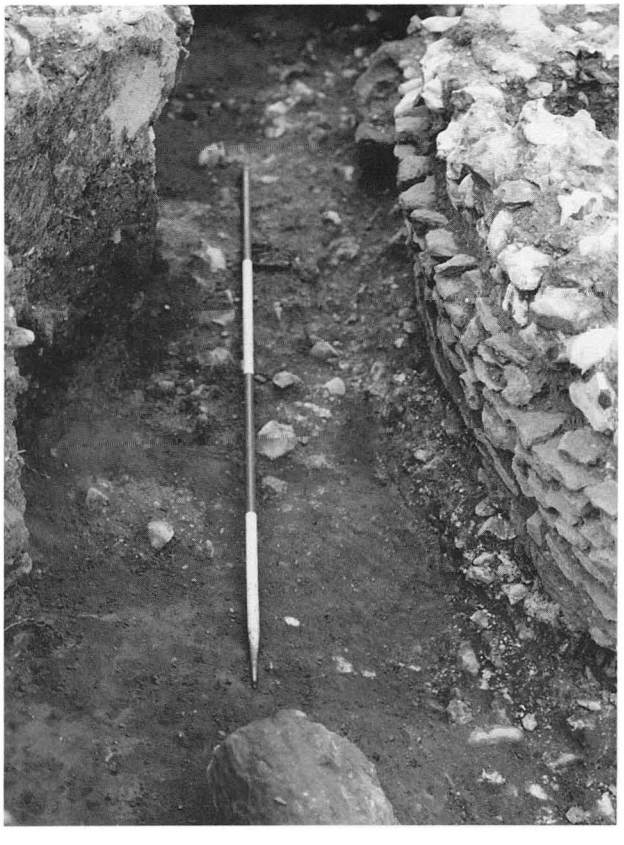


Plate XXVI Period I church. Detail of exterior offset foundation of tower (right) with collapsed rendered superstructure, possibly part of a doorway (left). View looking north. Scale 2 metres. (Photo: B.S.Ayers)

Plate XXVII Period I church. Detail of interior coursed banded effect in the tower. View looking south, the wall collapsing outwards (compare Fig. 42). Scale 1 metre. (Photo: B.S.Ayers

Plate XXVIII Period I church. Collapsed conglomerate quoins, exterior junction of north nave wall and tower. View looking east. Scale 1 metre. (Photo: B.S.Ayers)

Plate XXIX Period I church. Flint-packed soakaway for font in the nave. View looking south-east. (Photo: B.S.Ayers)

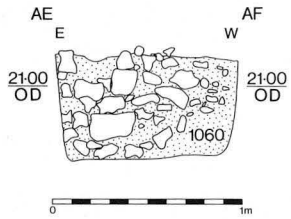


Figure 43 Section AE–AF of soakaway *1060*. Scale1:40

(Fig.40); by a large collapsed conglomerate fragment immediately outside the tower which could have formed part of an architrave or even lintel; by a fragment of superstructure rendered in such a way as to suggest part of an arch; and, just possibly, by a depression in the wall fragment north of the presumed doorway which might have represented the remains of a drawbar slot (Fig.40). Floor levels within the tower had been completely destroyed by the insertion of a Period III feature (p.85) although, at the edges of the enclosed space at least, a surface appears to have been provided by the top of the chalk and flint-filled foundation cut.

The external junction of the tower and nave was effected by conglomerate quoins which survived on the north side of the tower where they were singularly large (context *1009*, Pl.XXVIII). Here also a possible pilaster (*1010*) was located between tower and nave (Fig.40) although such a feature did not exist on the south side. The nave walls survived poorly compared to those of the tower. The better-preserved was the north wall (*1022*) of which the easternmost part excavated had collapsed to the south (Figs 40 and 46). It was constructed of flint rubble and was faced in flint although nearly all such facing had gone, even on the collapsed portion where the upturned face had been severely eroded. The eastern end of the wall could not be excavated although post-excavation observation of builders' work demonstrated that the collapsed element continued as far as the extant ruin.

The south wall (*1081*) had been almost entirely robbed away. Its massive foundation remained intact but only tiny fragments of the superstructure survived, notably in a shallow depression (*1079*) at the top of the foundation which appeared to form the wall seating. Two limestone blocks of Period II date indicated the existence of a south door (Fig.45) which probably also existed in Period I. All trace of the nave west of here to the tower had disappeared as had evidence for any tower arch.

Internally all floor deposits within the nave had been robbed away by later intrusion. Cut features alone remained. A feature with a fill of sand (*1089*) could be differentiated from sand *1052* and formed a narrow band around the interior of the nave, adjacent to the nave walls and tower (Fig.40). It seems likely that it represents final infilling of the deep foundation cuts once the hardpacked footings were in place although its regular shape probably also implies the use of shuttering during the foundation stages of construction. The other major feature was a circular pit *(1060)*, packed with loose flint rubble, and situated centrally within the western end of the nave (Fig.43, Pl.XXIX). This is interpreted as the soakaway for the font. It is likely that such a feature is of Period I date but the lack of connecting stratigraphy means that it could also have been a Period II insertion.

The first stone chancel (Figs 38 and 40) was demolished in Period II, effectively only leaving the footings *in situ*. These were partially sectioned and proved to be of similar construction to those below the nave and tower. The chancel appeared to be square-ended from the footings. Inside the chancel area a linear feature containing sand (*49*) seemed to reflect the top of the infilled foundation trench as *1089* had done in the nave. Within this a darker sand (*52*) (perhaps equivalent to sand *1052* in the nave) was cut by a series of small features resembling stake-holes and two, possibly three, probable post-holes (Figs 40 and 44). No evidence of a post was discerned in these holes. The features themselves may have represented internal fittings, possibly of liturgical or scaffolding function.

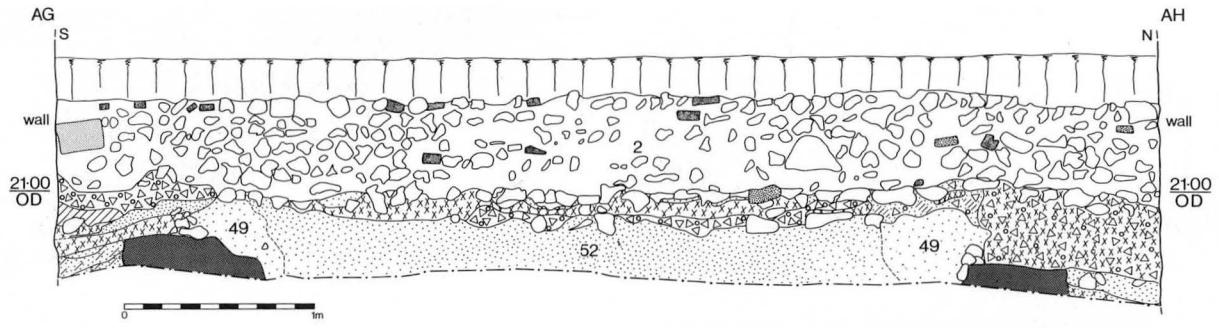


Figure 44 Section AG–AH below wall *2* in the chancel. Scale 1:40

The junction of chancel and nave was obscured by the later (Period III) inserted wall across the western end of the rebuilt (Period II) chancel, although there was some indication that the north chancel wall turned northwards about 0.50m east of the inserted wall. It is thus possible to reconstruct the probable form of the first stone church, a building some 19.50m in length (Fig.48).

Period II

(Figs 45–52)

Substantial alterations were made to elements of the fabric, probably in the early 14th century. The Period I chancel was demolished and replaced by a much larger structure, extending the church to the eastern limit of the site (Figs 38 and 45). This structure, although ruinated, largely survives. It seems to have been constructed above less massive footings than its predecessor. Few features of medieval date were located on the interior, although two graves (*31* and *44*) were uncovered (containing an adolescent and a child respectively). At the west end of the north wall it is likely that a doorway was inserted in the late medieval period (Fig.49).

The surviving Period II elements within the walls can be summarised as follows. The exterior of the east wall is built of random flint with the occasional use of conglomerate. A chamfered plinth or stringcourse survives 1.20m above present day ground surface. A further stringcourse with a sharper chamfer exists higher up, immediately below the east window opening. The medieval tracery has been completely destroyed as has much of the medieval sill. The wall fabric either side of the window opening has been rendered. The wall is supported by buttresses at the north and south ends; these are of flint and conglomerate with a piece of Millstone Grit in the northern one. They are of three stages: lowest element conglomerate and flint; central element faced in limestone; top element sloping-faced limestone. The buttresses are rectangular in section.

The interior of the east wall (Fig.47) is predominately constructed of flint with some use of conglomerate, particularly in the lower courses. There is a stringcourse of flat-faced limestone immediately below the window opening which is higher than those on the north and south walls. The inner sill of the window opening has been destroyed; a detail of the voussoirs is shown on Fig.51. Putlog holes survive north and south of the window opening. The possibility exists that a major medieval feature, such as a reredos, was removed from the wall, the resulting damage being repaired in Period III.

The exterior of the south wall (Pl.XXX) is constructed of random flint rubble with considerable quantities of conglomerate, more than in any other wall face. Much of the putlog scheme is visible, at least one putlog being capped by conglomerate. A chamfered stringcourse runs below the windows and around the buttresses. A plinth course presumably survives below ground (see north wall — exterior). The top of the wall does not survive. The medieval fabric stops at the east side of a doorway, inserted at the west end in Period III.

There are three window openings, the central one being blocked with flint and conglomerate. The east window has a surviving exterior sill of limestone (with tile visible above the stringcourse) and the arch survived until consolidation following the excavation in 1985 when the apex collapsed (the voussoirs had been repaired, and probably reset, in brick). Both unblocked windows have an exterior hood mould. The wall has two buttresses. The central one has been robbed of much of its dressed stone and partly refaced in brick. The eastern buttress is intact.

On the interior (Fig.48) the south wall is constructed of random flint with occasional conglomerate. Each of the putlogs (see elevation) is capped with conglomerate. The fabric is generally in good condition. Part of the wall is rendered, that between the central and western windows possibly being of Period II date. A feature of limestone, partly robbed and repaired with brick, below the east window may have been a sedilia or piscina or both (there is no other evidence for a piscina). This feature is bounded (see Fig.48) by the flat stringcourse which originally ran the length of the wall. It is possible that the string ran up at the east end to join the higher string on the east wall but, as with the corresponding string on the north wall, the crucial area is rendered. The top of the wall is missing. The base of the wall was exposed by the excavation and added to the elevation (Fig.48).

Of the three window openings, the blocked central one has been completely robbed of its dressed stone. The surviving windows have hood moulds and moulded voussoirs (detail on Fig.51). The western window is the best preserved although the inner sill has been completely removed. The dressed stonework retains grooves and holes for glazing bars. The foot of the window, where it meets the stringcourse is chamfered. The interior sides are of flint.

The exterior of the north wall is constructed of flint with occasional use of conglomerate and other materials

(Fig.49) with two window openings, two buttresses and a 'doorway'. The top of the wall is missing. There is a chamfered stringcourse of dressed limestone below the windows. A further stringcourse exists just below modern ground surface and was partially excavated. There is a good surviving scheme of putlogs.

The eastern buttress is in good condition, retaining much dressed stonework. It has a base formed by a large block of conglomerate. The off-centre buttress has been robbed of all its dressed stone except for a piece of the upper stringcourse on its western elevation. Much eroded and repaired in brick, its base was uncovered by the excavation (Fig.45).

The window openings have exterior hood moulds and simple flattened roll mouldings of two orders. The sills are chamfered plinths. Grooves and holes for glazing bars are visible, the grooves possibly representing later insertion of casements.

The 'doorway' is almost certainly an insertion of late date (see below, p.85). At the west end of the wall the fabric changes, the flint being more random and widely-spaced with much more evidence of mortar (mortaring elsewhere is barely visible). This change may mask a feature. Below it there is a blocked, but inserted, doorway dressed, on the west side, with brick. The doorway appears to have breached the stringcourse but, when blocked, the stringcourse was reinstated.

On the interior (Fig.50), the wall is constructed of flint, generally uncut. There is a flat-faced stringcourse as on the south wall. At the western end there is a major anomaly. A blocked recess rises almost to the top of the surviving wall. The east side is bounded by a vertical stringcourse running from a junction with the horizontal stringcourse. The lower part of the western side is formed by brickwork which has been partly cut away for a small, rectangular, vertical recess (between 0.45 and 0.56m deep). The major recess has no further surviving dressed stonework or brick up its western edge nor across the top. It is, however, blocked with flint, conglomerate and brick, flush with the inner face of the main wall. This is holed in two places and the back and top of the recess can be seen to be rendered and curved, giving the (?erroneous) impression of a stair well. At the base of the blocking is a lintel of limestone (possibly reused — it could even be a grave cover) which presumably formed part of an opening. This opening seems likely to have been an insertion; fragments of voussoirs have been inserted as packing above it as have courses of brickwork (the voussoirs, however, do not look reused).

Both the window openings are dressed in limestone with identical mouldings to each other and the window openings in the south wall. Each also has a hood mould which terminates at a stop at both ends. A similar, less eroded stop, was recovered by the excavation (Fig.57, No.3. The interior sides of the windows are generally of flint although the hoods, especially that of the eastern window, are of conglomerate.

The principal material used on all the walls was flint. Predominantly the flint was small, quarried stone although cobbles were occasionally employed. The exterior wall faces were dressed although no attempt was made to course the flint. The original work in the walls of the chancel is very closely set with occasional small fragments of flint although the walls are not galletted *per se*. Later patching used fewer flints which were widely spaced. Wall cores consist of random flint with large quantities of mortar, the mortar generally being cream-coloured, sandy and crumbly with many small flint inclusions. The mortar in the added west wall was also cream-coloured but hard with common chalk inclusions.

After flint, the most common material was conglomerate. Its use in Period II, however, was almost certainly secondary although the large blocks supporting the eastern buttresses may have been imported specially. The dressed limestone used in the Period II church is a fine-grained cream limestone.

Numerous other stones were recognised although in very small quantities. A piece of Millstone Grit exists on the north buttress of the east wall; quartzite exists in the north and south walls, sandstone in the east wall and a large block of dobrite in the west wall. Several types of limestone are present: the north wall has oolitic shelly limestone and crystaline limestone; the south wall has a piece of very hard limestone. Two pieces of vesicular basalt in the north wall capped putlog holes and one piece of chalk also exists in this wall. All the stone is colour-coded on the elevations held in the archive.

The foregoing fabric descriptions of the walls of the ruined chancel have outlined most of the architectural details that survive for the Period II church. These were slight as all tracery had been removed from the windows and no entrances existed save a blocked, brick-jambed doorway. The principal surviving details are the stringcourses, both flat-faced and chamfered, and the dressed buttresses. Otherwise the mouldings of the window voussoirs and hood moulds, a number of hood mould stops and detailing of the sills is all that survives in situ. Examples of these are illustrated on Fig.51. In addition, however, quantities of reused decorated material were located in the west (exterior) elevation of the Period III west wall. These include mullion fragments, pieces of voussoir and capital, all probably of similar date to the *in situ* material *i.e.* Late Decorated. The visible dimensions of these reused pieces are illustrated separately on the elevation of the west wall in the archive (Elevation 4).

The Period II chancel was added to the pre-existing Period I nave at a width the same as that of the nave. The probable pre-existing doorway in the south wall of the nave was redressed in limestone of which fragments of the opposed jambs survived (Fig.56, No.1; Fig.57, No.2). These, although not exactly *in situ* (robbing having perversely removed rubble but left freestone), indicated the approximate width of the doorway and the rebates suggest strongly that the door was hinged to the west. A porch (*1020*) was added to the north wall, either utilising an existing door or one newly fashioned (Fig.45, Pl.XXXI). This porch was constructed in flint, the internal faces of the east and west walls being rendered. The north ends of each wall turned inwards slightly, being finished in brick. Surfaces within the porch consisted of sand of which the uppermost (*1051*) was partially burnt. The doorway, fashioned through a flint rubble wall, was finished with sides dressed with brick and rendered. The east side survived in some part as here the nave wall had collapsed inward, thus presenting the doorway side elevation in a prone position (Fig.46). No evidence for a threshold survived other than the levelled part of the nave wall.

Prior to the end of Period II, the refurbished south doorway was blocked. This was effected by the insertion of blocking *1082* (which subsequently collapsed to the south), a heavily-mortared flint structure with some brick.

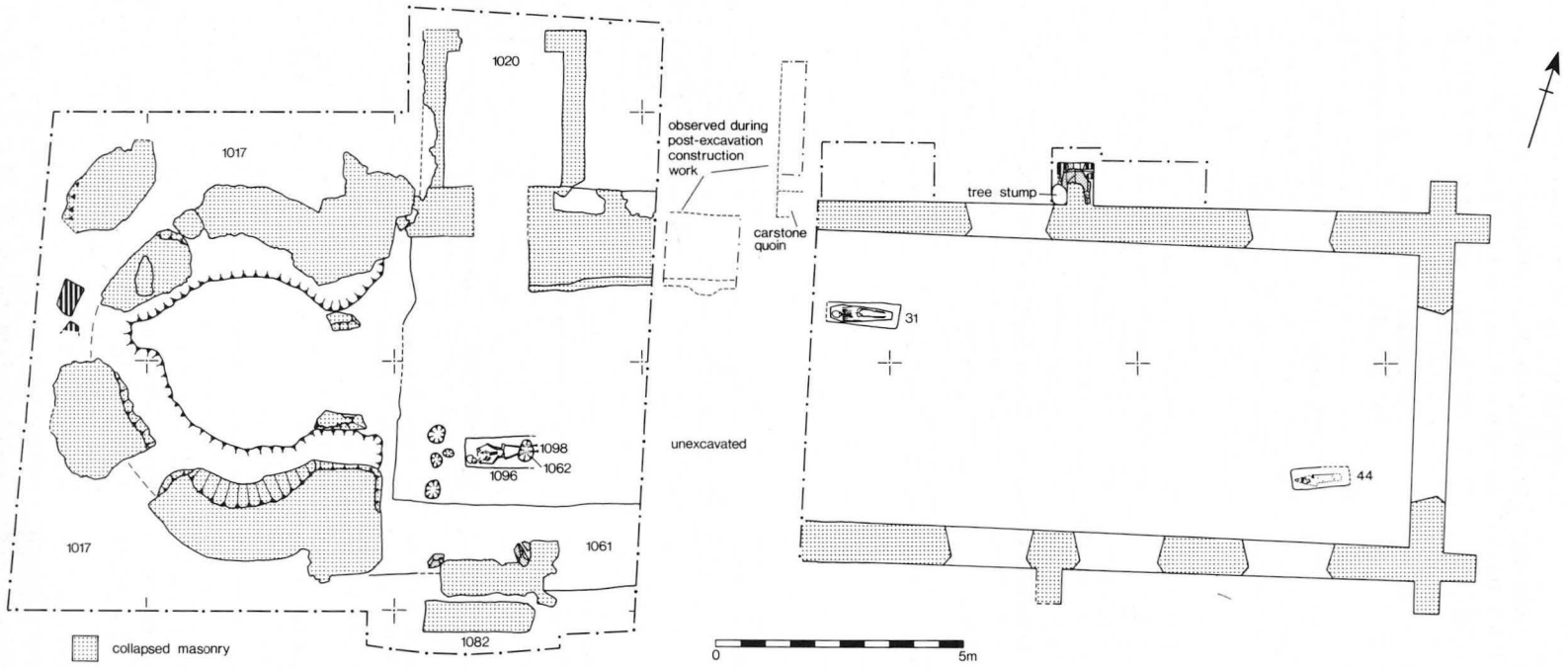


Figure 45 Plan of Period II church. Scale 1:150

Plate XXX Period II church. Detail of exterior of east end of chancel south wall showing corner buttress, eastern window and blocked central window. (Compare interior elevation, Figure 51). Scales 2 metres. (Photo: B.Lloyd)

Plate XXXI Period II church. Footings of porch added to north wall of nave. View looking south. Scales 2 metres. (Photo: B.S.Ayers)

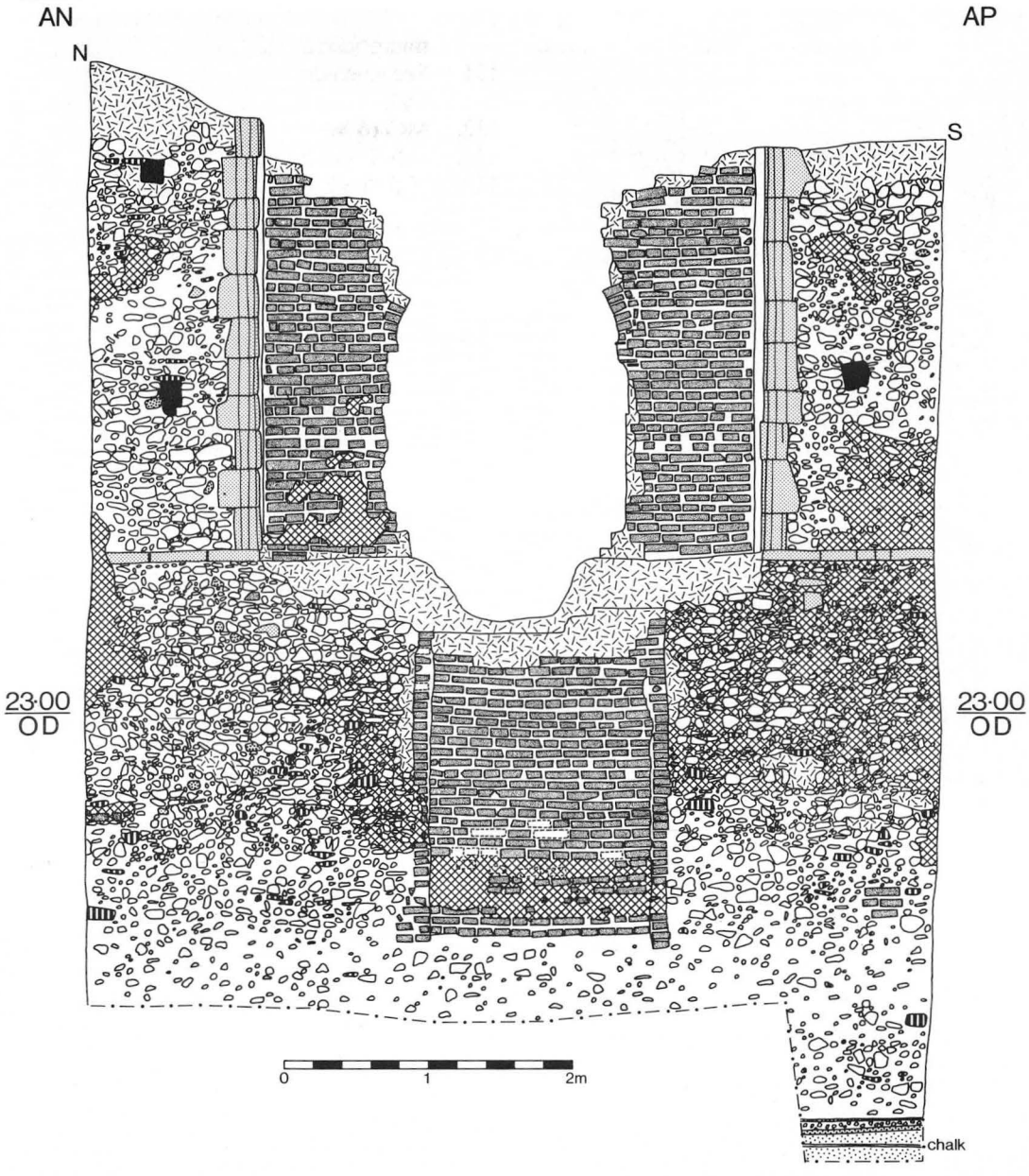


Figure 47 Elevation AN–AP of interior east wall of the chancel. Scale 1:50

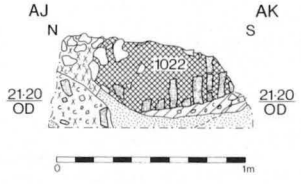


Figure 46 Section and elevation AJ–AK of collapsed wall *1022* of the nave. Scale 1:40

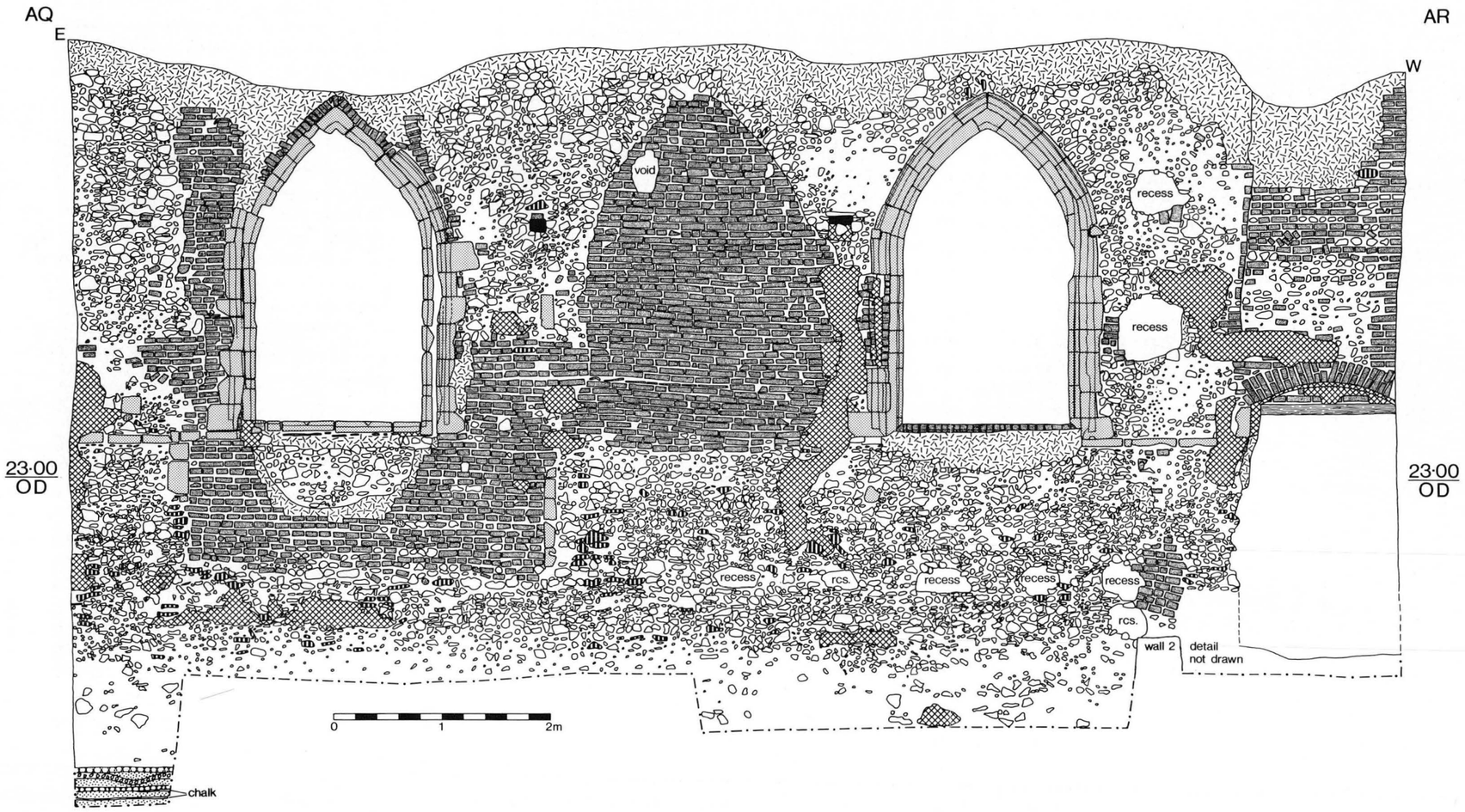


Figure 48 Elevation AQ–AR of interior south wall of the chancel. Scale 1:50

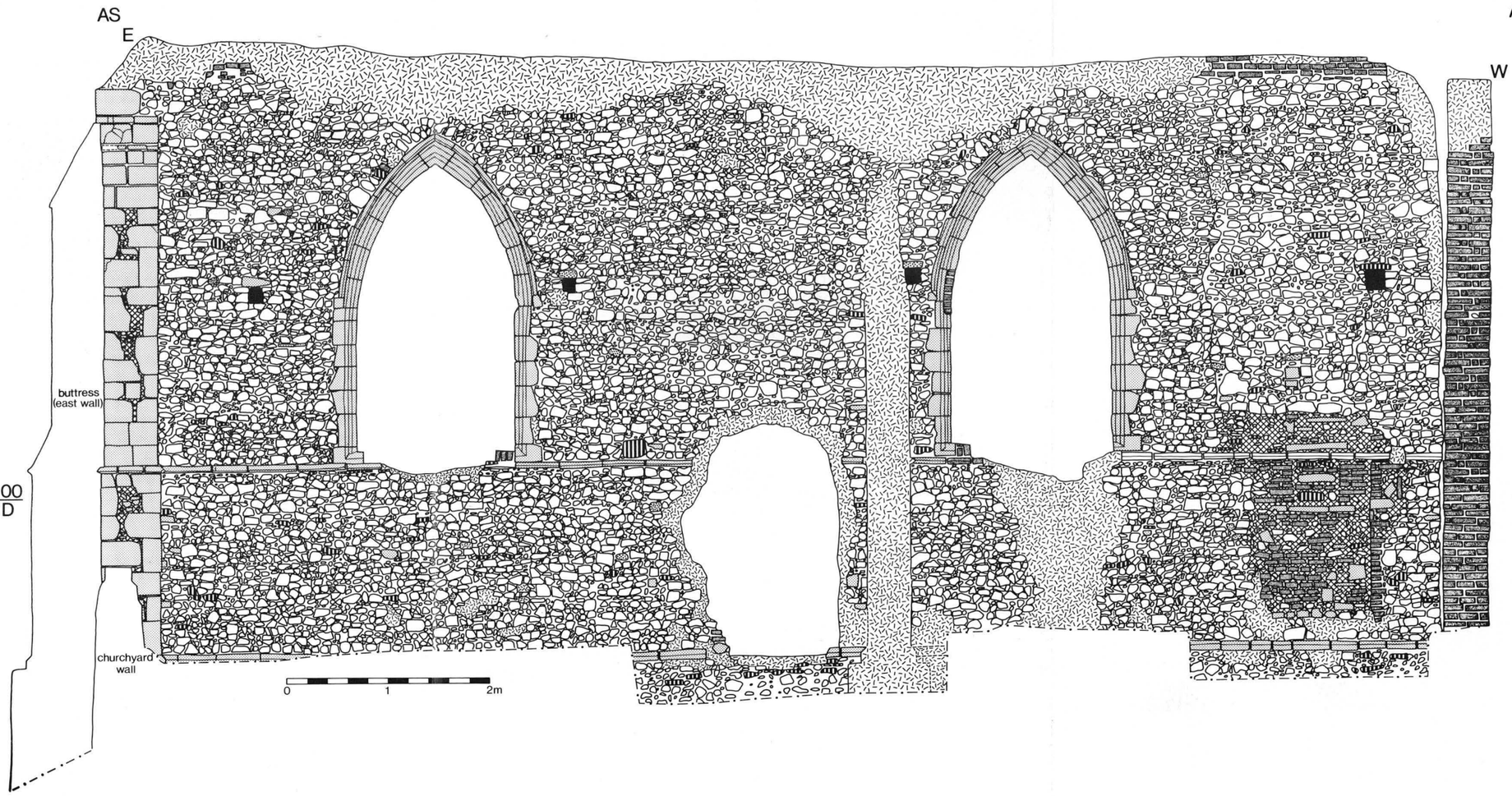


Figure 49 Elevation AS–AT of exterior north wall of the chancel. Scale 1:50

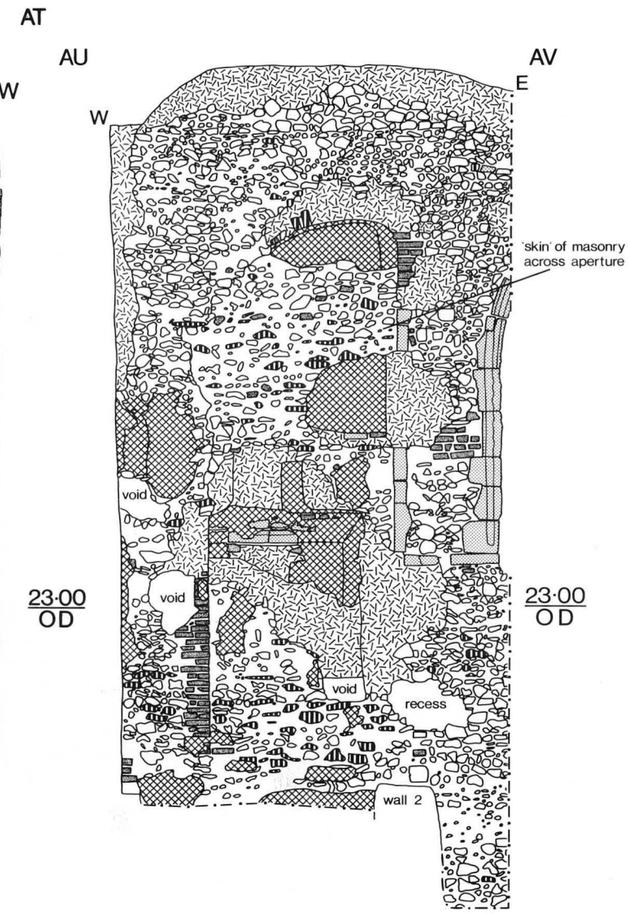


Figure 50 Detail of elevation AU–AV of interior north wall of the chancel. Scale 1:50

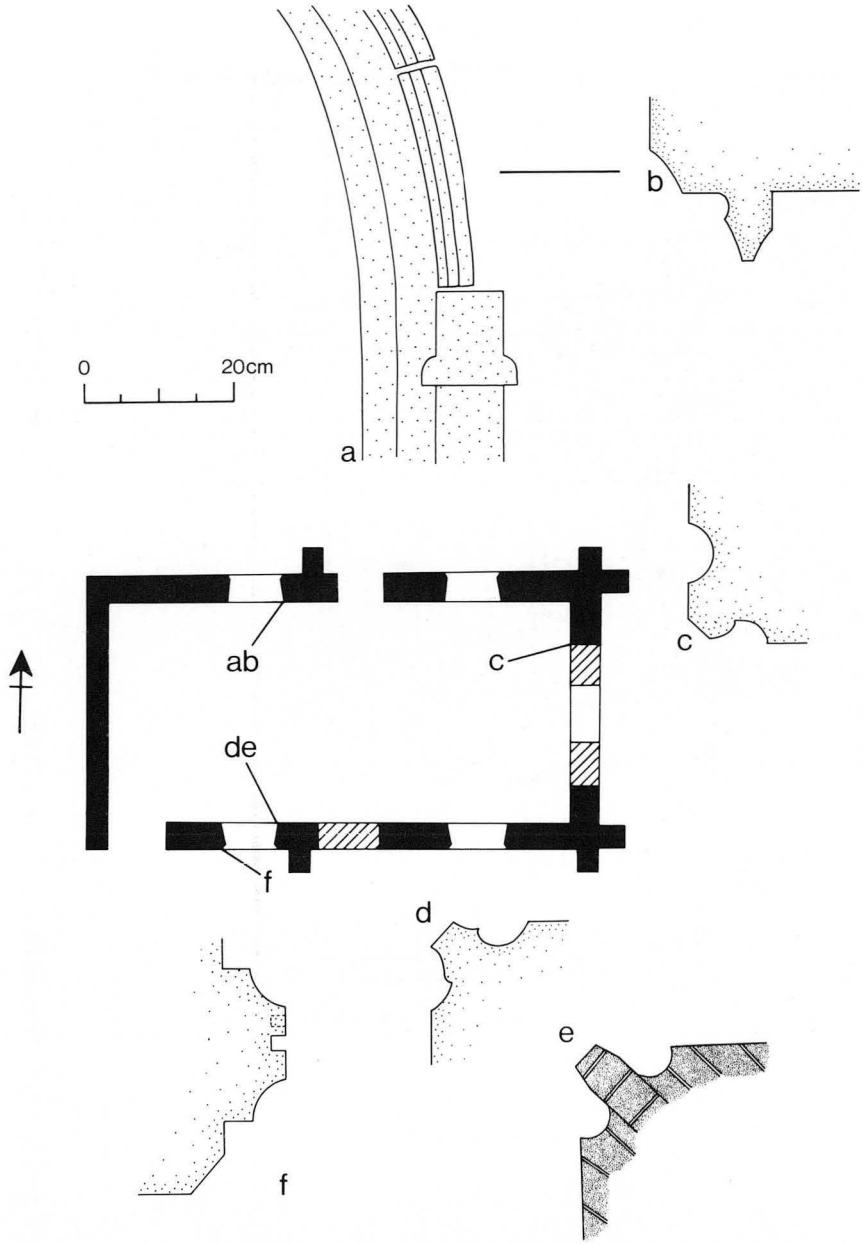


Figure 51 Architectural details of window mouldings in the chancel. Scale 1:10 (plan not to scale)

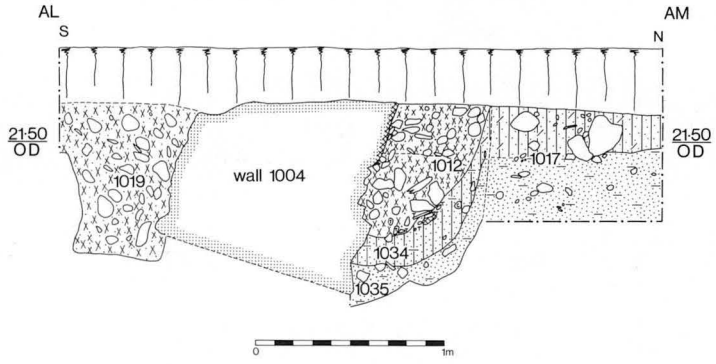


Figure 52 Section AL–AM to show relationship of exterior deposit *1017* to the tower. Scale 1:40

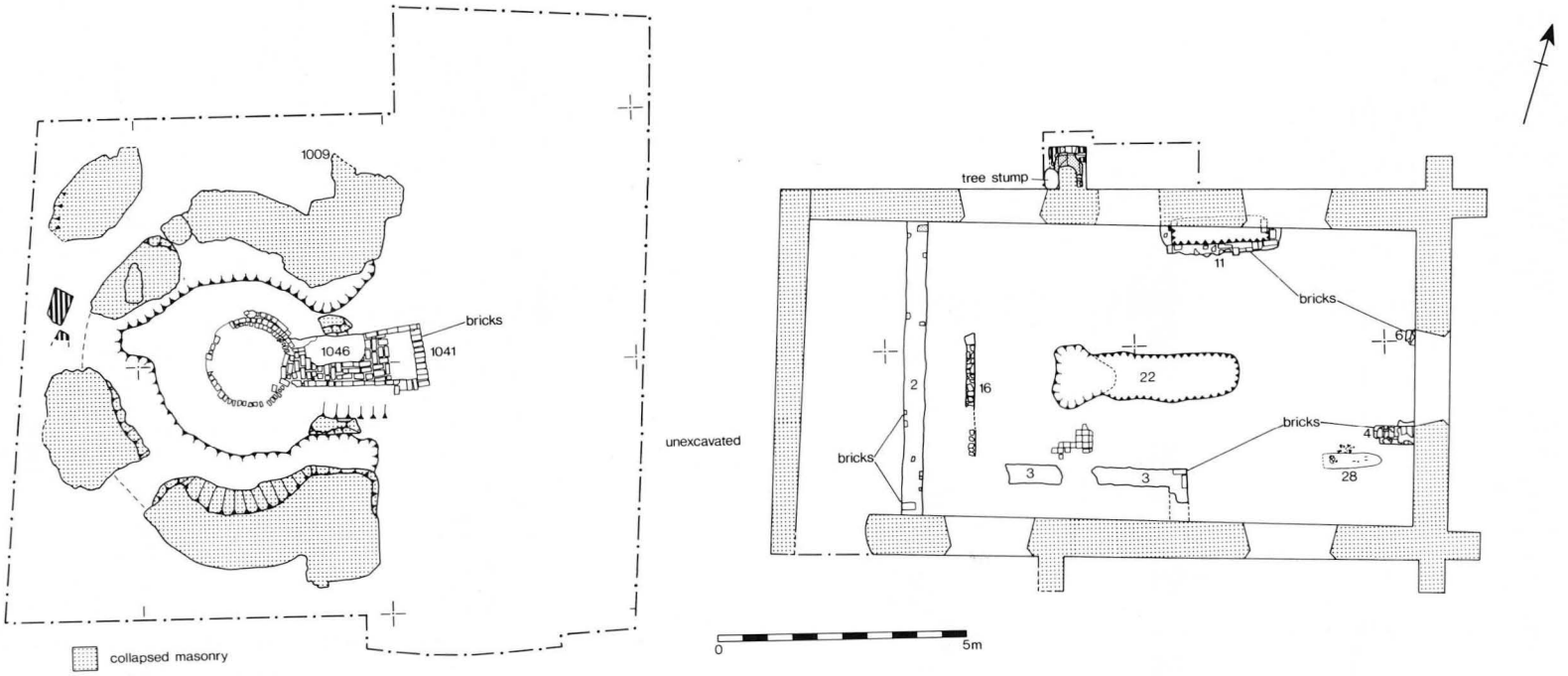


Figure 53 Plan of Period III church. Scale 1:150

This feature clearly resisted robbing and survived in some part while the rest of the nave wall was removed. Paradoxically, therefore, the nave wall was represented in the archaeological record by a void while the position of a probable doorway was represented by a large piece of masonry (Fig.45).

Within the nave, as in Period I, only cut features survived. The largest of these was a grave (*1096*) containing the skeleton (*1098*) of an adult (Fig.45) and with a fill (*1097*) which yielded a silver penny of Edward III (p.86). The grave was cut by a shallow feature (*1062*) and lay east of four further such features (*1066; 1068; 1070*; and *1072*). It seemed likely that all these features had been truncated and it was impossible to tell from which horizon they had originally been cut (this was also true of the grave).

The round tower was also retained in the Period II church and no deposits of this date were recovered within it. Some levels, however, were partially excavated outside the building. The most important of these was layer *1017* outside the tower (Fig.52), a sticky sandy clay loam much of which probably accumulated in Period II. It overlay human burials which were not excavated but backfilled immediately they were discovered.

A trial pit was excavated north of the chancel at the west end of the north wall (*1119*) to investigate the possibility that a feature, such as a rood turret, may have existed in this area (Fig.45). No such evidence was found but, following the excavation, groundwork by the development contractor uncovered a wall slightly further west, some 0.60m wide, constructed of flint which ran north for 2.60m from below a large conglomerate block at the north-west corner of the extant ruin. No trace of a return to the east (or west) was seen.

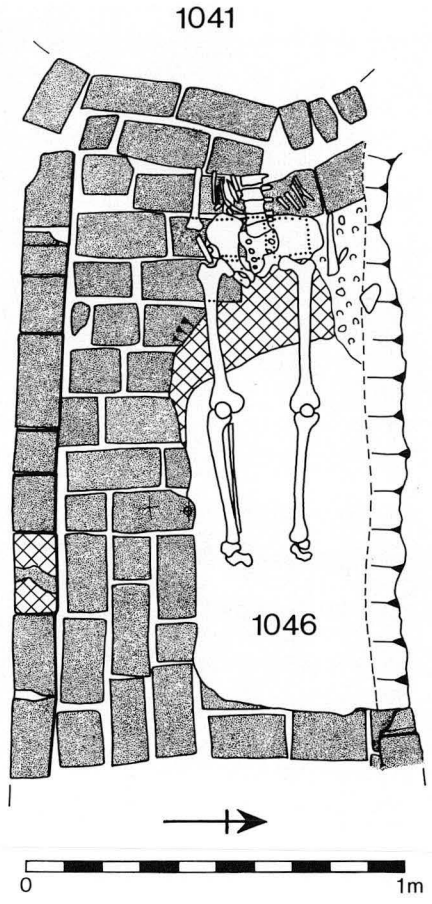


Figure 54 Detail of inhumation in oven *1041*. Scale 1:20

Period III

(Figs 47–54)

The church fell into ruins in Period III. Within the chancel layers of flint rubble and mortar (*24* and *25*), presumably representing destruction debris, overlay earlier deposits. Layer *24* contained fragments of painted plaster (Fig.55, No.5), an intact Flemish floor tile (p.91), fragments of dressed limestone, including a chamfered plinth with diagonal toolmarks, and a fragment of painted window glass of probable 14th-century date (Fig.55, No.4). A small bone spatula was recovered from layer *25* (Fig.55, No.2).

Although probably unroofed, the shell of the chancel continued to stand. It seems probable that the nave was not so fortunate. Systematic robbing of the south wall and the collapse and robbing of the north wall were associated with a levelling of deposits in the nave area that removed earlier surfaces and replaced them with a mixed dumped deposit of mortar, flint, brick and chalk (*1050*). The porch was demolished as well. The tower, however, continued to stand, presumably open to the east with stubs of the western end of the nave surviving (*e.g.* quoins *1009*, Pl.XXVIII).

Following destruction of the nave, the chancel was brought back into use. This entailed the construction of a western wall (Fig.53), to 'box-in' the shell of the Period II buildings. New entrances and windows were effected and repairs to the fabric undertaken (descriptions below). A roof, probably of peg tiles, was added (peg tile fragments were found). Internally a supporting wall (*2*), probably for a western gallery, was constructed of flint with very small quantities of brick (Figs 44 and 53). East of it a further pair of wall fragments (*3* and *16*) may have supported furniture or fittings (Fig.53), while within the central part of the chancel, fragmentary remains of a setting for a tiled floor were uncovered, only the tile impressions remaining (tiles 120 × 120mm). At the east end, brick plinths *4* and *6* extended westward from the east wall where they were associated with a brick repair to the fabric (Fig.47). It is postulated that they supported an altar or table. Adjacent to the north wall, and partly undercutting it, was a further feature of brick (*11*) which was partially excavated and found to extend to a depth in excess of 0.5m, almost certainly being a tomb with destroyed monument above .

The refurbishment of the chancel entailed considerable work to the standing fabric. On the east wall the east window was replaced by an oval opening, the sides of which were effected in brick (Fig.47), the base of the new opening eroding the earlier wall fabric. The fabric itself was repaired on the exterior (where the south buttress has brick additions) and on the interior (where a large brick feature possibly indicates the site of a former reredos, and was associated with brick plinths *4* and *6*).

On the south wall (Fig.48) the major repairs were internal and almost always associated with refurbishment of a feature. The blocking of the central window was effected in brickwork while stonework of the western window was repaired with care in brick, the brickwork replicating the stone. The sides of the eastern window were repaired entirely in brick save for very occasional flint and tile. The possible sedila or piscina of Period II was also repaired (or blocked) in brick.

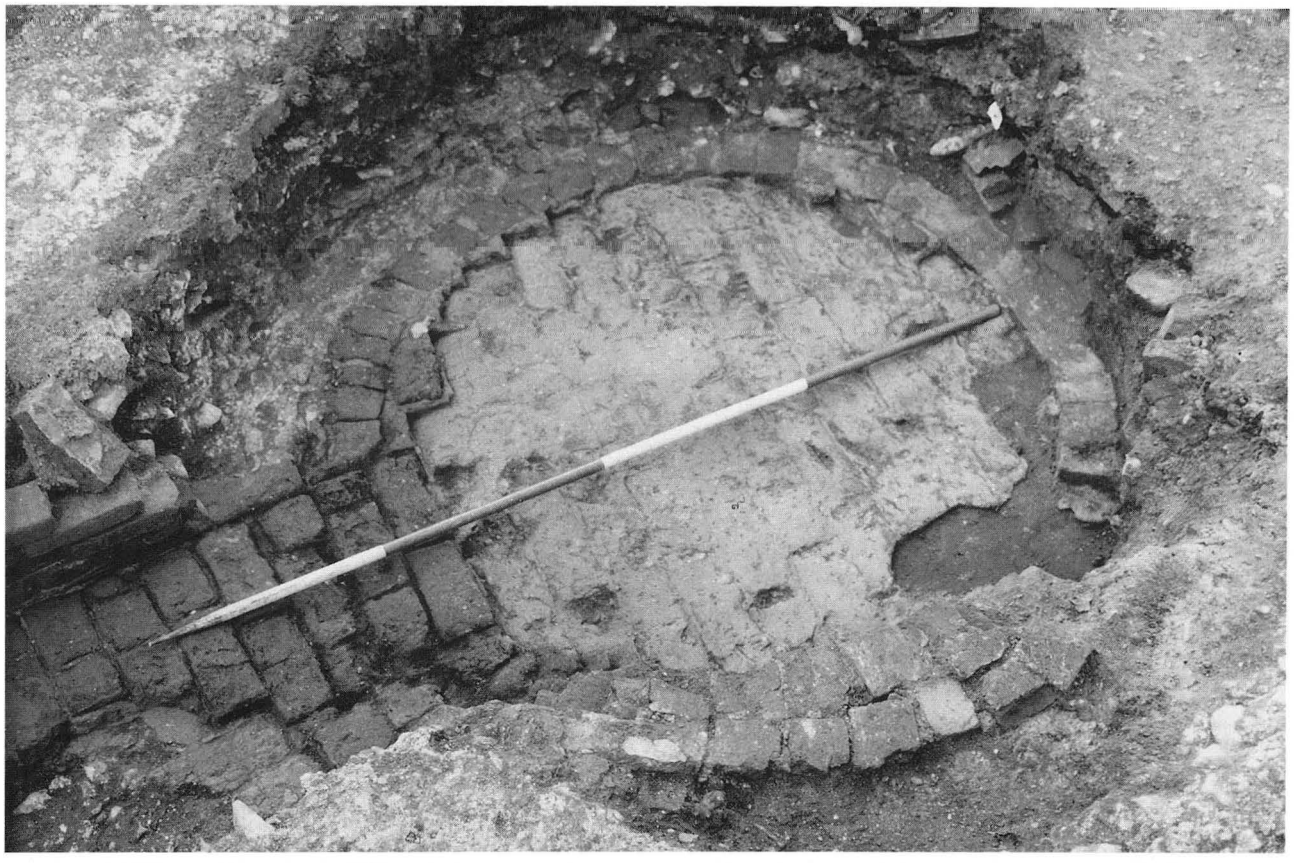


Plate XXXII Detail of oven within the tower. View looking south-west. Scale 2 metres. (Photo: B.S.Ayers)

Plate XXXIII Period III. Detail of collapsed wall, south side of tower. Note that subsequent robbing has 'chamfered' the interior face. View looking west. Scale 1 metre. (Photo: B.Lloyd)

The wall seems to have been extended at the west end with a doorway being inserted at groundfloor level and possibly another doorway at first floor level (although there is no external evidence for this latter).

Holes were pierced in the wall fabric on the interior (Fig.48). Five oval holes below the western and central windows may have helped to support a raised floor or similar (there are parallels within the north wall) while two large holes at first floor level west of the western window could have helped to support a western gallery.

The north wall has occasional brick repairs on the exterior (Fig.49), especially in the blocking of a western doorway. On the interior, however, brick repairs are more evident, particularly around a central 'doorway'.

This latter has an apparent relieving arch of flint above although this, in turn, is below brickwork and may be the same date as the brickwork. The wall itself runs through below the 'doorway' which is without dressings and devoid of suggestions that it has been robbed of limestone. It seems most likely to have been an insertion of late 19th or early 20th century date, as a drawing of David Hodgson (1798–1864) clearly shows the exterior stringcourse intact which it no longer is and could not be with a doorway *in situ* (Hodgson's drawing does not show the lower part of the wall which is obscured by the boundary wall). In addition a painting of the church in the possession of Miss Page of Brundall, executed by her aunt in 1880–90, contains no sign of a doorway in the north wall. Several small circular recesses in the wall probably correspond to similar recesses in the south wall.

The west wall was newly built in Period III as an addition to the earlier structure, abutting the north and south walls. It is constructed of brick and flint on the exterior with considerable quantities of reused dressed stone (including voussoirs and a possible capital). Large conglomerate blocks have been used at the base. Large bricks (240 × 110 × 65mm) form quoins at the corner, smaller bricks (230 × 110 × 50mm) are built into the wall proper.

On the interior, the wall is constructed of brick and flint with the lower half rendered. The use of material is random although there is more flint towards the top and the ends of the wall are built entirely of brick. Mid-way up is a series of recesses, probably joist stops for a gallery. They are square or rectangular. The wall abuts the west end of the north wall but appears to return east as part of the south wall before abutting the south wall itself. There are large reused blocks of limestone at the base.

Two graves were excavated within the chancel area. The larger of these (*22*) was centrally located and contained at least four individuals and the remains of at least three coffins. Once it became clear that further excavation would not reveal medieval deposits work was halted and the grave cut was backfilled. A further, very shallow, grave (*28*) was placed in the south-eastern quadrant of the building. It contained the skeleton of a small child. The entire area was sealed by destruction debris (*1*).

The nave area appeared to remain disused but the tower was adapted for use with a large oven or possibly corn-dryer. This feature (*1041*) was cut within the standing tower with a long stokehole to the east (Fig.53), both stokehole and oven being given sides and a base of brick (brick size 220 × 105 × 40mm). The walls were bonded in English bond with occasional vertical joints. The maximum surviving height of brickwork was five courses in the stokehole and six in the oven. Only the impressions of the base bricks were left in the oven but most survived in the stokehole. A rectangular area at the east end of the stokehole may have been used for raking-out.

Blackening of the brickwork was observed at the junction of the stokehole and oven with the brickwork impressions at the base of the eastern side of the oven being burnt pink (Pl.XXXII).

Upon disuse the oven was used to inhume an adult individual (Fig.54). The skeleton lay west-to-east and some care had been taken over the burial. The head lay upon the floor of the oven with the trunk and legs extending into the stokehole. As the stokehole sloped upwards to the east, bricks were removed from the area where the body lay to enable it to be placed flat. This skeleton (*1046*) has been analysed (p.91) but, unfortunately, was not completely planned or photographed *in situ*. Excavation of the filled oven was undertaken by quadrant, the north-west and south-east quadrants being removed first with care. These contained nothing but rubble, a late oven was identifiable and the remaining quadrants were removed rapidly, it not being anticipated that a burial would be located therein!

The burial was, in fact, sealed by loose brick, tile, flint and mortar rubble, presumably the destruction debris of the oven itself (contexts *1042, 1043, 1044, 1045* and *1047*). Shortly thereafter the tower was itself demolished. This took place as a single operation in which a trench (*1033*) was excavated around the outside of the tower, undermining the walls; it was packed with timber or, more probably, brushwood which was then fired (evidence of burning and charcoaled brushwood survived north of the tower); and the tower then fell outwards all the way around its circumference (Pl.XXXIII). The effect was to split the walls (which may have been part of the demolition process) and to make them incline away from the vertical, in some instances almost 'jumping' out of the foundation cut. The collapsed structure was then robbed, the result of such robbing of an inclined wall being the 'chamfering' of the surviving wall stubs. At the north-western side, part of the superstructure slid off during demolition taking rubble with it and wedging the lower courses which, accordingly, did not spring outward as far as other wall fragments (Fig.53). Partially-vacated foundation trenches of the truncated wall fragments were then sealed by flint rubble debris (*1002*).

Only two further developments affected the archaeological horizon. A wall of brick (*1015*) was cut into underlying levels parallel to and some 2m west of the 'boxed-in' chancel. This wall probably served as part of the boundary for the piggery that was installed in the ruinated chancel early this century. A rubbish pit (*1005*) cut the west wall of the demolished porch and was filled with large iron fragments. This pit was cut *c.*1925 and the writer who, on this occasion, was also the excavator had the privilege of a conversation with the man responsible.

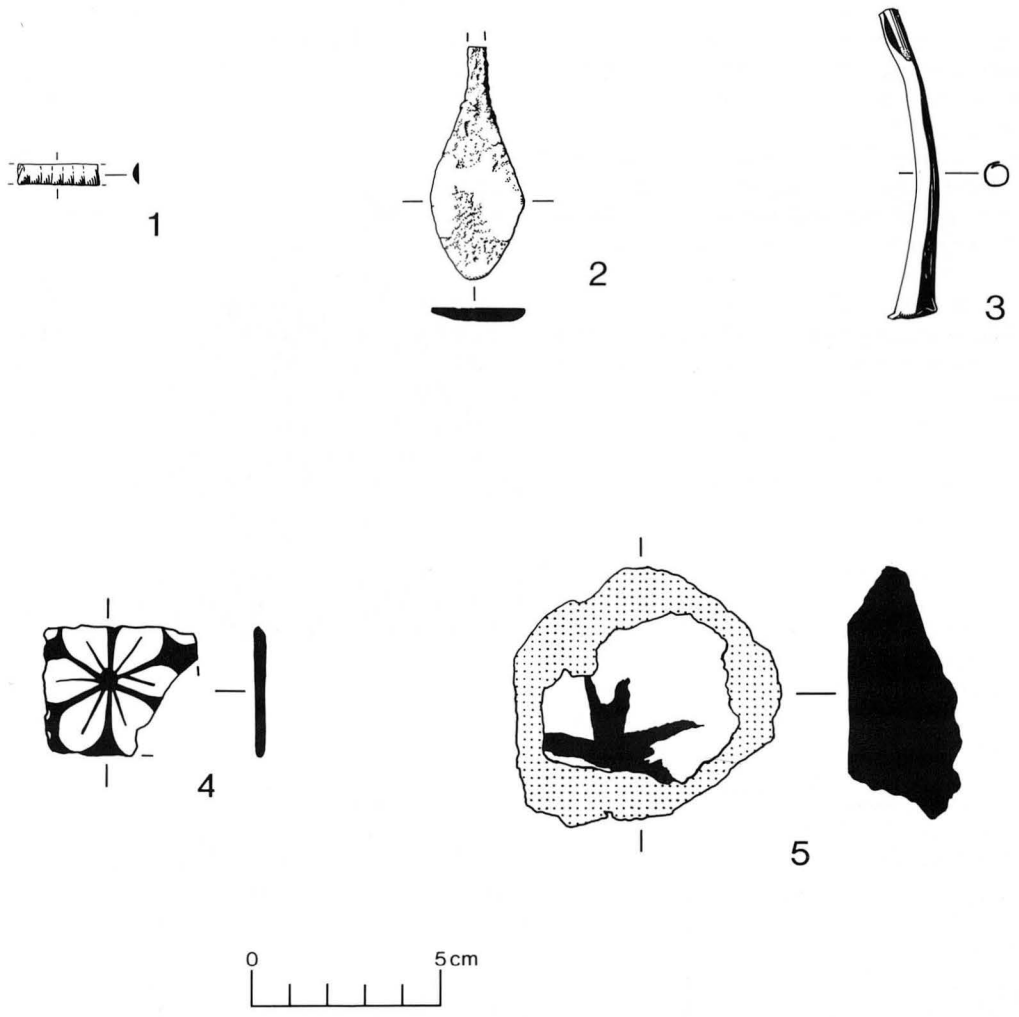


Figure 55 Bone objects 1–2, copper alloy 3, glass fragment 4, painted plaster 5. Scale 1:2

IV. The Artefacts

by Val Fryer

Introduction

A total of 158 small finds were recovered from the excavation. The majority of these comprise nails and fittings from coffins. These were originally listed as individual small find entries, but were subsequently amalgamated to one small find number per grave (small find numbers 65, 17, 48 and 81). A full list of these artefacts appears on microfiche. A similar amalgamation of small finds numbers was carried out for finds (all nails, see ME) from *1042* and *1045*, the fills of 'oven' *1041*. Of the remaining finds only one, the coin (SF116.1097) is of any significance as a closely datable artefact and therefore the catalogue is largely of artefacts of intrinsic interest.

The catalogue has been ordered by period, small finds (SF) number and context number. A small case letter after the catalogue number indicates that the object is not illustrated. With the exception of the stone, pottery and floor tile which are dealt with separately, the catalogue is supplemented by a complete finds list on microfiche, arranged according to material and period. An upper case letter after the small finds number in the fiche indicates that the number was allotted to more than one object.

Catalogue

(Fig.55)

Objects of non-ferrous metal, bone, glass and plaster
Number 1a identified by Sue Margeson

1. Fragment of possible decorative copper alloy **strip**. Period II SF115.1091
1a. Edward III (1327–77) Silver farthing. London mint. Obv: EDWARDVS [REX] Rev:CIVITAS LONDON Period II SF116 grave fill.
2. Bowl and part of the handle of a **bone spoon**. Period III SF 44.25
3. Long copper alloy **lace tag**. A similar large tag was recovered from 16th- to 17th-century deposits at Pottergate, Norwich (Margeson 1985, fig.38 no.7). Period III SF 136.1120
4. Fragment of a rectangular pane of **painted window glass** with floral design. Two complete grozed edges and remains of other two. Possibly 14th to 15th century. Period III SF95.24
   A total of fifty-nine pieces of window glass were recovered, most in a devitrified state. Seven fragments are painted, six with simple linear designs, and are probably medieval. One (SF 125.1117) is the apex of a quarry with two grozed edges. Fifty fragments are of clear, post-medieval glass.
5. **Painted plaster**. Period III SF105c.24 A total of seven pieces of painted wall plaster were recovered. All were from a demolition layer (*24*). Backing material is present on all examples, ranging in thickness from 17mm to 30mm and consisting of coarse mortar, pinky-buff, grey, buff-cream or off white in colour. Pigments used are purple/red and red. SF 77.24 (not illustrated) has a simple linear design, while SF 105c.24 has part of a cross or star motif.

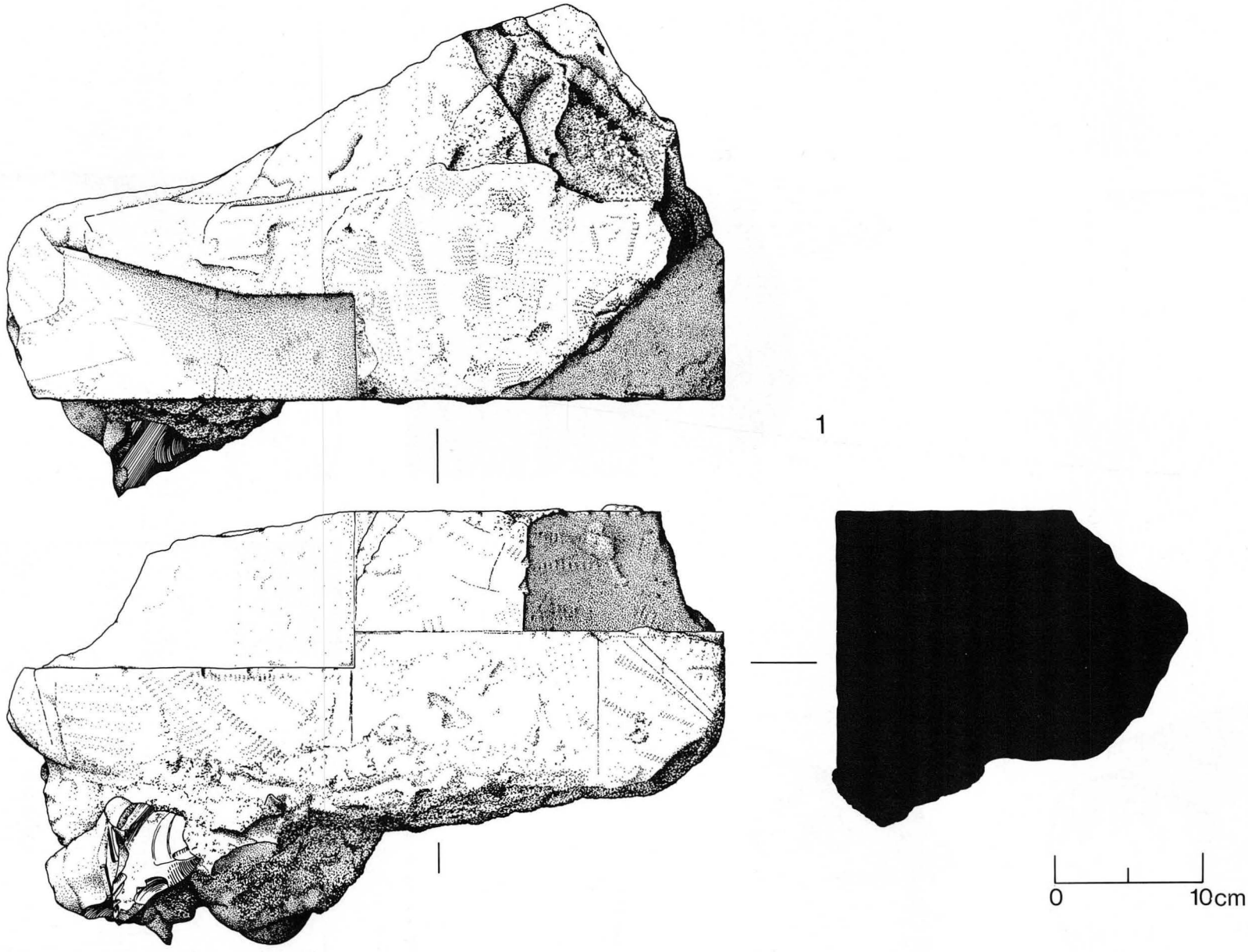


Figure 56 Stone fragment 1. Scale 1:4

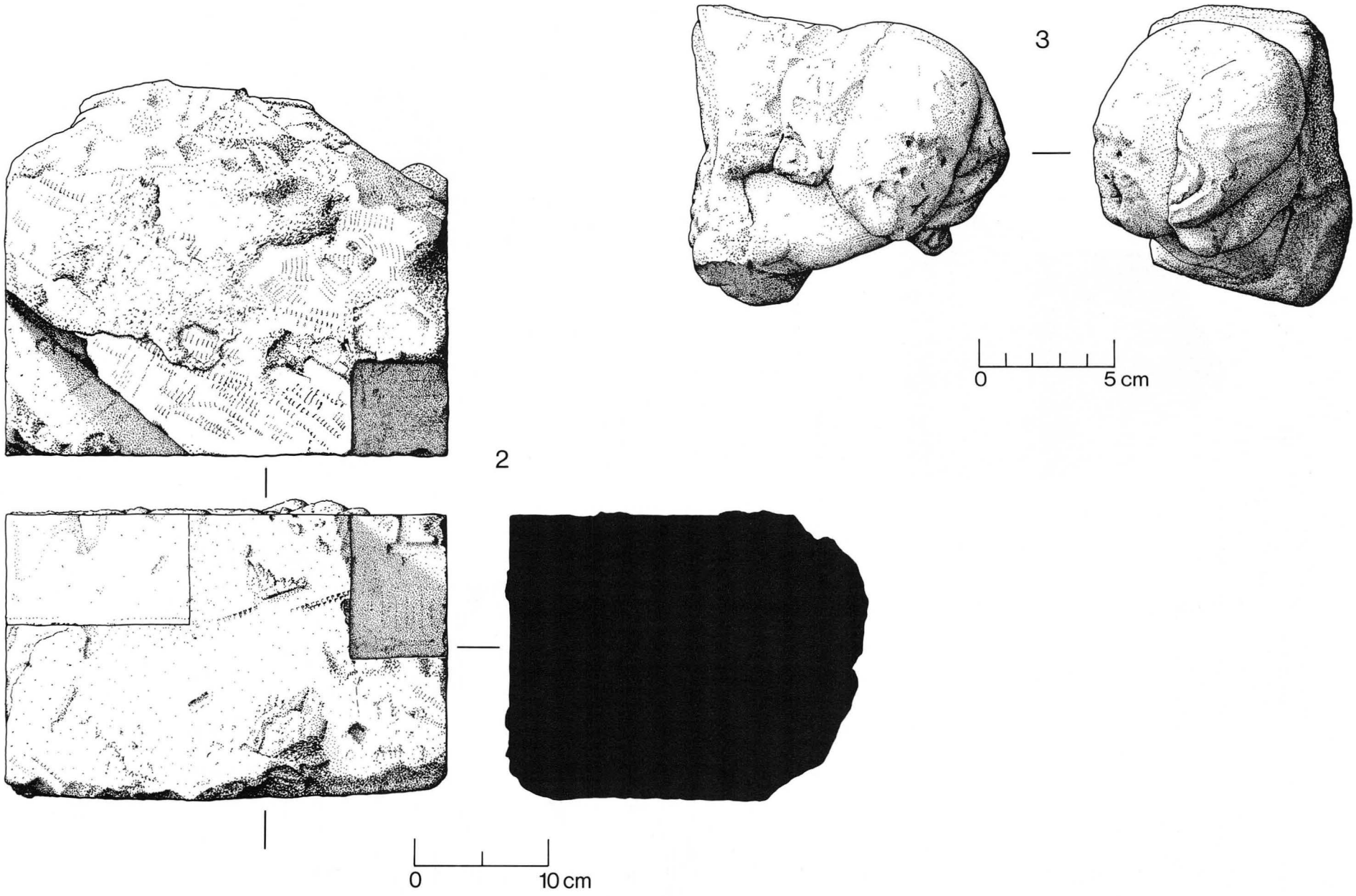


Figure 57 Stone fragments 2–3. Scale 1:2

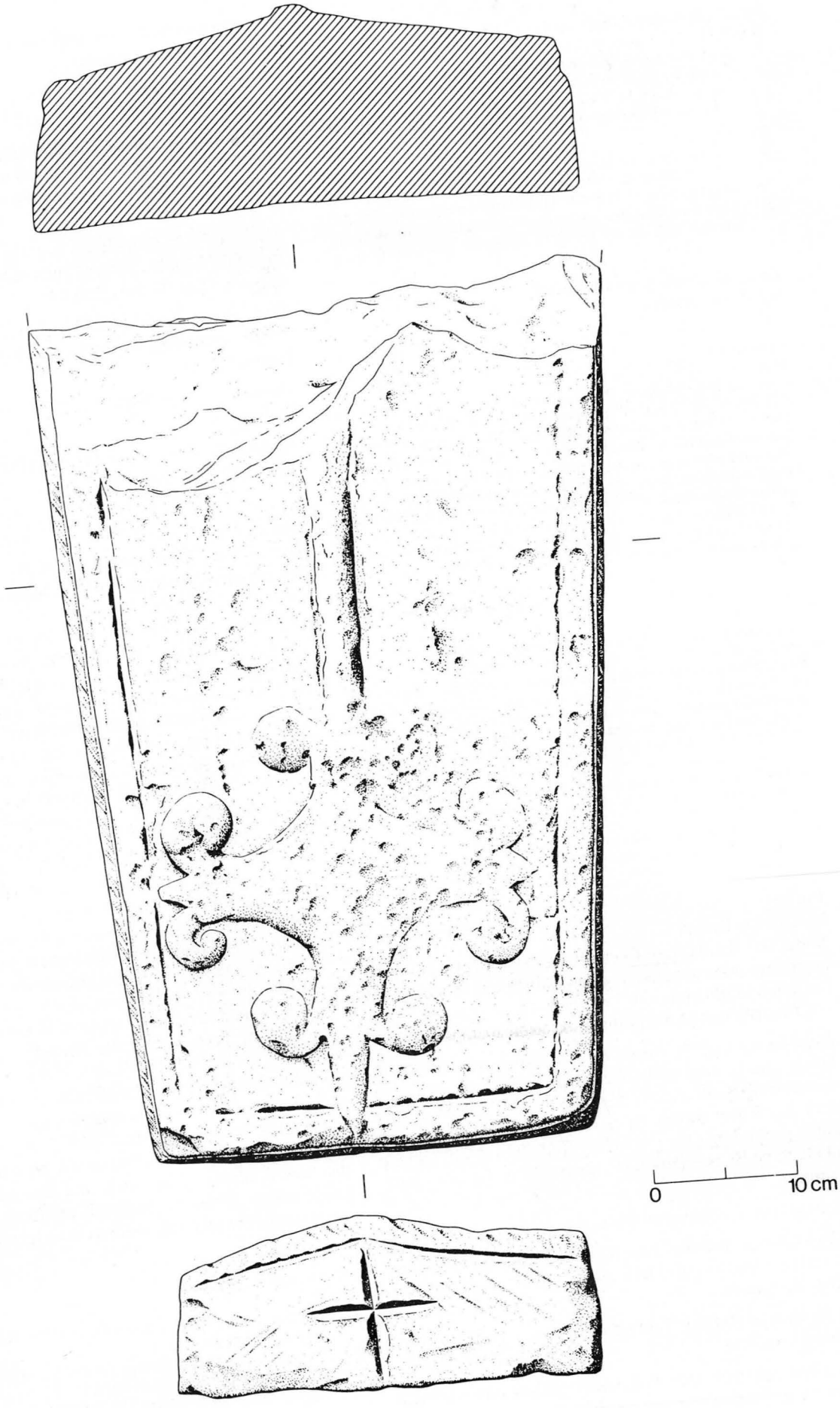


Figure 58 Coffin lid. Scale 1:4

Objects of stone: architectural fragments
by Stephen Heywood
(Fig.56)

1. Section of pier reused and recut as base of door jamb to form rebate. Rebate left hand section; chamfer to right possibly pertaining to a polygonal pier. Limestone with elements of flint and mortar footing adhering to base. Period II, SF 111.1060 (see also Fig. 45).

(Fig.57)

2. Section of pier reused and recut as base of door jamb to form rebate. Rebate right hand section; chamfer to left and left face pertaining to an octagonal pier. Period II, SF 110.1060 (see also Fig.45).
3. Right hand label stop in the form of a carved head to hood mould of window. 14th century. Period III, SF 1.1 (destruction debris).

Objects of stone: the coffin lid
by Steven Ashley

Description
(Fig.58)
A slab of shelly limestone, the head and upper *c.* two-thirds of which are missing, is min. 0.62m long, coped, varying in thickness from 145mm max. to 105mm min., and tapers from min. 400mm to 305mm at the foot. The relief decoration, although mostly very eroded, survives in part to a maximum of 6mm proud of the surface. At the foot, a 'round-leaf' cross motif is visible beneath a coped central ridge. An incised line runs parallel to the edge framing the relief decoration. Another incised line runs around the top of the surviving two sides and end; also on this end a crude cross has been cut into the stone to a depth of 4mm max. Diagonal tooling is evident on the two sides, end and base. Traces of mortar still adhere to the sides.

Discussion
This example lacks the upper part of the decoration which would have consisted of a larger 'round-leaf' cross at the head, and possibly some form of ribbon ornament springing from the central ridge (*cf.* Butler 1964, fig.2E), but the surviving 'round-leaf' cross motif shows it to be of a type of coffin lid produced by the Barnack School of carving from *c.*1120 and into the first half of the 13th century (*cf.* Butler 1957, fig.1 no.4 and Butler 1964, 122–3, fig.2E), and of widespread distribution along the Welland Valley to the Wash (Butler 1964, fig.3). Although little work has been done on the typology and distribution of medieval coffin lids in Norfolk, this lid can be paralleled with at least two examples from within the county, in the churches of All Saints, East Winch (Alvis 1907, pl.2), and of St Mary Magdalene, Sandringham (Boutell 1854, 19–20).

Period III (reused inside inserted doorway within north nave wall).

Pottery
by Carolyn Dallas

Some 364 sherds were found in the excavations, but most are in tiny, often abraded fragments, difficult to classify and too small to illustrate.

The following pottery divisions can be proposed:

Hand-made (5.5%). Some eleven bodysherds are thick: fabric quartz sand with fine silver mica, ?iron ore, and occasional small organic particles in two sherds; black; Iron Age/Early Saxon type. A further nine sherds have harsh protruding grits (including flint and calcite) and are likely to be Beaker Period (F. Healy and A. Gregory, pers. comm.).

Roman (0.8%). Two grey ware, one samian.

?Ipswich-type (0.6%). Two fine sandy sherds, small and abraded making identification uncertain (possibly Thetford type?).

St Neots-type (0.8%). Three sherds, one or two vessels in Period I.

Thetford-type ware (45.6%). Sandy; grey or black, a small percentage partly red or orange. Nineteen rims include one storage jar, one pointed rim coming to handle or spout (11th century), rest cooking pots and small jars (Fig.59, Nos 1 and 2). Eight flat bases.

Thetford-type or Early Medieval (16.2%). Not definable, but Saxo-Norman fabrics. Small bodysherds.

Early Medieval ware (21.4%). Sandy fabrics, some with more quartz content; black, often with red margins or surfaces. One jar rim fragment. Some same vessel in Period I.

Medieval (2.5%). Includes two glazed jug fragments (one from Grimston), and three rims of local unglazed cooking pots (two Fig.59, Nos 3 and 4).

Early post-medieval (3.8%). Local 16th-century glazed wares, including a pipkin and two bowl or pancheon fragments.

German stoneware (1.4%). Two Frechen, three Langerwehe.

Post-medieval (1.4%). One Staffordshire, four local Glazed Red Earthenware.

Conclusions
There is some hand-made material of prehistoric date, three Roman sherds and two possible Middle Saxon sherds, but they are all in residual contexts.

Period I accounts for some 77% of the site pottery: the latest material (on fabric grounds) would seem to be late 11th-century, and the late 12th-century Early Medieval or medieval wares are not in evidence, suggesting a *terminus post quem* of *c.*1080–1100 for the foundation trench of the chancel. The material from Period II is 16th-century and IV continues into the 17th and 18th centuries.

There are some Saxo-Norman sherds from the same vessels in Period I, and some early post-medieval sherds from the same vessels in Periods II and III, but otherwise the vessel count is basically high. The abraded nature of the material and the collection of so many sherds from adjoining deposits *49* and *52* suggests that the origin of the sherds was more likely to have been from redeposition than from discard on the spot. This is to be expected on a church site. The possibility of earlier occupation on the site itself seems unlikely as, in that case, a more even distribution of material would have been expected. Moreover, the ceramic character of finds within the Period I levelling soil is slightly different to that of those few but often larger, if also abraded, sherds from the Period I church. The site ceramics therefore suggest a Saxo-Norman site close by, presumably that which necessitated the building of the church. The Saxo-Norman pottery is often coarse by comparison with the 'town' fabrics of Norwich, and also seems varied in fabric range. Although Norwich products are included, other sources would also seem to have been used.

Pottery catalogue
(Fig.59)

1. Thetford-type jar. Rather coarse with quartz sand tempering. Black. Soot on rim. *49*, Period I.
2. Thetford-type jar. Sandy. Dark grey exterior, light brown interior and margins, light grey core. *49*, Period I.
3. Cooking pot, probably 12th or 13th century. Quartz sand tempering. Light grey with light brown margins. *1021*, Period III.
4. Medieval cooking pot. Fine rounded quartz grains. Light grey. *1017*, Period II.

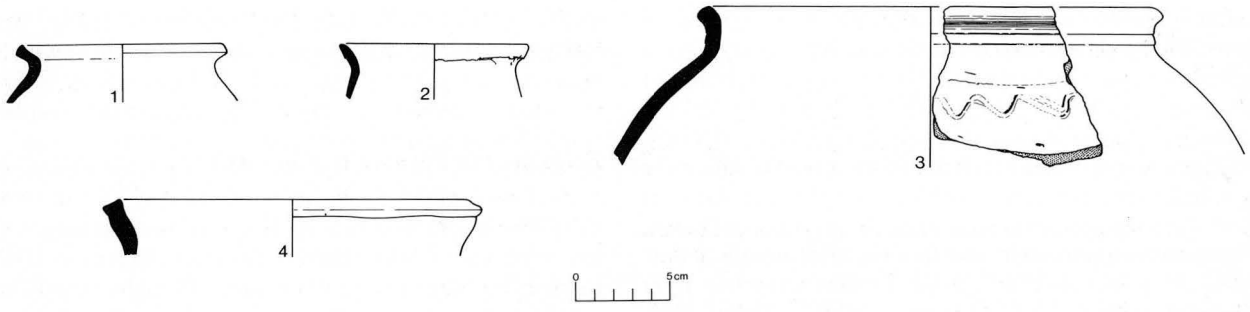


Figure 59 Pottery 1–4. Scale 1:4

Brick and tile

A total of eighty-nine fragments of brick and tile and three complete tiles were recovered from the excavation. These comprise five fragments of Roman tile, all from Period I deposits, two fragments of medieval English floor tiles from Periods II and III (three complete and five fragments of medieval or post medieval brick, all from Period III), twenty-nine fragments of Flemish floor tiles from Periods I, II and III, five fragments of unglazed floor tile from Periods I and III and thirty-eight fragments of roof tile from Periods I, II and III, thirty-six of which are peg tile.

The Flemish floor tiles

Both square and triangular tiles are represented in the assemblage and all are either green-glazed or have a clear glaze over a white slip. The green glaze varies from mottled to a dark bottle green. On all examples where the edges survive, there is evidence of knife trimming and most examples have sanded or sand impressed bases. Several fragments appear to have been reused as building material as they have a heavy overall cover of mortar. Five possible fragments of pavers waste are represented in the assemblage.

The other bricks and tiles

Of the other bricks and tiles, all the examples of medieval or post medieval brick have sand/straw impressions on the base, all the examples of unglazed floor tile where edges survive have evidence of knife trimming as with the Flemish tiles, and all the roof tiles are of a post-medieval type.

A complete list of the brick and tile assemblage appears on microfiche (ML and MM).

V. The Human Bones

by Ann Stirland

Introduction

The human bones from Bowthorpe consist of the remains of four individuals, two adult and two immature. The two latter, numbers *33* and *46*, are probably both medieval and were located within the chancel (Period II). Adult number *1098* would also appear to be medieval, a coin dated to the 14th century having been found in the grave which was situated within the nave (Period II). The other adult, number *1046*, had been buried with care in a post-medieval oven (Period III).

Discussion

Both the adults were male; *1098* was young, aged 17–25 years, and about 5ft 4½ in (1.64m) tall. He was gracile or lightly built and dolichocranic or long-headed, having a cranial index of 68.8. The teeth are appalling, twelve being caried and there is an abscess at the root apex of the maxillary right second premolar. Both femora are bowed anterio-posteriorally and both tibiae are bowed laterally. This suggests that this individual probably suffered from childhood rickets. The presence of hypoplastic banding on the enamel of the incisors and canines indicates a period of stopped growth at about the age of two ycars. Growth hiatus may be caused by a period of illness or famine in childhood and is expressed in the teeth by a disruption in the laying down of the enamel. This, in turn, causes a hypoplastic band to form. Both the bowing of the leg bones and the hypoplastic banding may be a result of the same event in this individual.

Adult *1046* was a much older man, aged 35–46 years and probably in his forties. He was about 5ft 4in (1.63m) tall. His teeth are also bad with caries and an abscess of the maxillary right third molar. Nine were lost ante-mortem. The three lower thoracic vertebrae, the sternum, the pelvis and twelve ribs all have degenerative changes. These are in the form of compression and osteophytic growth of the vertebrae, ossification of the sternum, pitting and lipping of the acetabulae (hip joints) and pubes, and ossification of costal cartilage in the ribs. There is some evidence for arthritis in the apophyseal joints of surviving cervical vertebrae. The head of the right femur is also lipped inferiorally and the right scapula has an os acromiale. In this rare anomaly, the end of the acromial process fails to fuse with the rest of the bone during adolescence. It has often been considered as a developmental anomaly, but new work (Stirland 1984), suggests it may be of occupational significance in some cases. The proximal portions of both tibiae are also bowed laterally and there is some healed pitting of the cranial surface (parietals and frontal) and of the orbits. This, again, may suggest childhood rickets.

Of the two immature individuals, number *33* was a child aged 10 years 30 months. This child has four caried teeth, three deciduous molars and the mandibular left canine. All the first premolars have hypoplastic banding suggesting a period of stopped growth at about 5 years. All the alveolar (jaw) margins are pitted. There are a lot of wormian (extra-sutural) bones in the lambdoid suture and a large extra bone situated at lambda. In the right external

auditory meatus (ear hole) is a large torus or overgrowth of bone. This is a cranial non-metric trait which may have a genetic component. In this case, it is so large that it almost blocks the meatus. Both mastoids and areas of the cranial surface are covered by a coral or plaque-like periostitis. This is a non-specific condition of the bone in which the periosteum or membrane which covers all living bone apart from the joint surfaces reacts to an insult, often unknown. The result is a pitting or sometimes an overgrowth of new bone. Also included with these remains were two right tibiae and four distal femoral epiphyses from other, younger children.

The remaining burial from Bowthorpe, number *46*, consists of the fragmented remains of an infant of 2 years 8 months. There is no pathology. Also present were a navicular from the right foot and two fragments of very eroded long bone shafts of an adult.

In these four burials, the caries is worthy of comment. It is unusual to find such a degree of caries in medieval material, before the adoption of refined sugars into the diet. Both the young adult male and the child appear to have a high frequency of caries and this is difficult to explain. It is worth noting, however, that there is an unusually high frequency of caries in the human material from the Mary Rose (84%) although this, of course, is a late medieval group (1545).

VI. The Historical Background

The settlement

Bowthorpe, currently the site of a large-scale housing and commercial development, has until recent times been an area of arable fields. This exclusively agricultural situation, however, seems only to have been the case since the early 16th century. Prior to that, occupation of the ridge of land above the Yare valley was probably long and varied.

Information held within the county Sites and Monuments Record indicates an intensive scatter of Mesolithic flints east of the area towards Earlham (site 9310) with associated Neolithic material and further Neolithic finds southwards towards the river (*e.g.* site 12192). Bronze Age activity seems to have concentrated higher up the ridge, notably characterised by the ring ditch remains of a barrow (site 11431, Lawson 1986, 20–49). Iron Age and Roman sites are also known on this higher land including a Roman road running west from the area of present-day Norwich towards Bawburgh.

There is little evidence of Pagan Saxon occupation but Middle Saxon finds are sufficiently widespread to suggest a possible nucleus of settlement activity some 400m north-west of the church. Objects recovered include a silver *sceatta*, probably Frisian in origin, from site 15622 and a bronze equal-arm brooch with incised decoration (site 18987). Late Saxon material is more common and indicates a growth in settlement area although, curiously, this is most marked further from the church site than closer to it. The available scatters, however, appear to suggest that most pre-Conquest occupation was centred on the large triangular area known as Chapel Break north and west of the church with some settlement west of the Bawburgh road.

Historical indicators for fleshing out this skeletal archaeological background are few. The neighbouring settlements of Bawburgh and Costessey are mentioned in relatively early documentation (perhaps using pre-Conquest sources), partly due to their connections with St Walstan (James 1917). Not so Bowthorpe which is first recorded in *Domesday Book*. The place-name implies Anglo-Scandinavian connections, deriving from a personal name 'Bo' or 'Boi' and thorp or 'torp' meaning a dependent settlement ('thorp' is discussed by Ekwall 1974, xvii). The manor was held by Hagni at the Conquest with ten curacates of land. There were ten villagers in 1066, fourteen by 1086; always three slaves. Ploughs, woodland, meadow and a mill are all noted as well as pigs and sheep. Two freemen belonged to the manor and the value had been forty shillings but was now six white pounds. Tax of sixpence-halfpenny was paid (Brown 1984, 121b).

The manorial centre may well have been located on or near the site of Bowthorpe Hall (Fig.37) although there is no trace of late medieval, never mind early medieval, material in the extant building which seems to date from the 17th century. The archaeological indicators outlined above suggest that the settlement of Bowthorpe was probably to the north, supposition emphasised both by the fieldwalking of Keith Wade in the 1960s which revealed traces of medieval occupation in what is now Chapel Break north of the church (Fig.36) and by the discovery of a flint-lined well of medieval date in 1979 (Rogerson and Ashley 1982, 215–17). For want of further evidence this area must be the site of the *Domesday Book* 'Boethorp', the 'Boytorp' mentioned in the records of St Benet at Holme in 1183 and the 'Bugetorp' in the Charter Rolls of 1230 (Ekwall 1974, 56). The settlement is also mentioned in the Nomina Villarum; it was assessed for 40/- tax in 1334 and received Black Death relief in 1352–4.

At least one denizen of Bowthorpe probably became reasonably successful in the neighbouring city of Norwich. Geoffrey de Buthorp le Ceyntrer (or girdler) and his wife Ida conveyed property on three occasions in St Stephen's parish between 1288 and 1295 (Rye 1903, 20, 38 and 56). The holders of the manor are detailed by Blomefield (1806, 385–87) who notes that the lord of Costessey Manor was superior lord and that 'in the year 1480, this town [*i.e.* Bowthorpe] was found to be ancient demean, and being part of *Cossey*, the tenants and inhabitants were to enjoy the like privileges...' (Blomefield, 1806, 385).

The manor, lands and advowson passed to the college of St Mary in the Fields, Norwich *c.*1415. At the Dissolution these were presented by the Crown to Miles Spencer, last Dean of the College and Chancellor or the Diocese although by then it seems that the village was deserted. A petition by the college with regard to the church in 1522 indicated that there were no parishioners (Blomefield 1806, 383). Occupation of the manor continued, passing to the Yaxleys after the death of Spencer. It is said that the hall was 'occupied by troops during Kett's Rebellion' in 1549 (Cozens-Hardy 1961, 171). The Yaxleys were a noted Catholic Recusant family, one John Yaxley being presented as a recusant at Dereham in 1584 (Jessopp 1879, 275). During the 1580s the Hall was occupied by another Catholic family, the Waldegraves. After 1592 it was held by Henry Yaxley who married, *c.*1600, Frances Waldegrave (Jessopp 1879, 277). They, their five daughters, three men servants and a tutor were presented as recusants in 1614. Henry Yaxley subsequently recanted his Catholicism in 1630. He seems to have left Bowthorpe in 1632 (Jessopp 1879, 278) although Blomefield (1806, 387) says that he was living there in

1635. By about 1660 the estate had passed to Sir Robert Yallop who probably rebuilt the hall. The Yallops still held it in 1739 although a Mr Nash was mortgagee in possession (Blomefield). In 1768 the estate was owned by Edward Bacon of Earlham and subsequently passed to the Bacon-Franks family (Cozens-Hardy 1961, 171). It is now occupied by the Bell School of Languages.

The medieval settlement was never reoccupied. Servants of the College of St Mary tilled the fields in 1522 (Blomefield 1806, 383) and estate workers probably made up the bulk of the population in succeeding centuries. The parish had only thirty-four inhabitants in 1845 (White 1845, 433) and the six hundred acres of land were all one farm held by R. Frank.

Since 1974 the parish has been incorporated within the City of Norwich and is now the centre of a major residential development.

The church

The *Domesday Book* entry for Bowthorpe does not mention a church although that for Earlham seems to imply a church in Bowthorpe attached to Earlham as well as fourteen acres of land and half an acre of meadow (Brown 1984, 135a, b). The earliest actual record of the church is as late as 1304 when Sir Richard de Brampton presented Gilbert de Wendene to the benefice (Blomefield 1806, 381 and 385). A church almost certainly pre-dated this presentment, not least because of the implied importance of the topographical location of the building (Fig.36 and p.65). It seems to have been bounded by three, or even four roads, stood immediately adjacent to a manorial site of probable early medieval origin and south of an area of pre- and post-Conquest occupation.

The benefice continued to be presented by the holders of the estate (on six occasions where presentment records survived for Blomefield to note, the estate was in the hands of a woman, Hawise de Wysham between 1335 and 1354 and Elizabeth Elmham in 1408) until the advowson passed to the College of St Mary in the Fields in about 1415. The College presented priests until the Dissolution including Nicholas Riley in 1464 who was 'buried in the middle of the church, in 1470, before *St Michael's* image, and founded a lamp to burn six years before that image...' (Blomefield 1806, 382).

Until 1522 the church had been a rectory but, in that year, the College successfully petitioned the Bishop to consolidate the rectory and its profits to the College. This was conditional upon the church being maintained and services being held there on Sundays and saints' days. The Bishop retained episcopal jurisdiction. The church fell into the hands of the King at the Dissolution but was granted to Miles Spencer, last Dean of the College, and then passed to the Yaxleys. It seems likely that the church fell into ruins during the tenure of this family (or that of the Waldegraves in the 1580s) who, as Catholics, would not wish to attend the established church. The Waldegraves are supposed to have been 'schismatics' in that they did not refuse to attend church but 'if the parish church was in ruins a man could not attend it' (Jessopp 1879, 275–76). The church at Bowthorpe may, therefore, have been ruinated deliberately to facilitate this state of affairs. It is interesting to note that Charles Waldegrave moved to Stanninghall in 1590 or 1592, the church there falling into ruin at this time (Batcock 1991).

This explanation of dereliction may not, however, be correct. In 1602 it was recorded for Bowthorpe that 'The Church ther was about thirty or forty years synce, by Myles Spencer, doctor of lawe, converted to a barne, and the steeple to a dovehouse, and now the Church ys also plancherd and a corne chamber made thereof by Mr Henry Yaxley'. The implication is that Spencer survived the Dissolution by more than thirty years, which is not impossible, although the estate was certainly in Yaxley hands by 1570 (Blomefield 1806, 387). They and the Waldegraves may have thus merely inherited a useful situation. Papists clearly flowered in Bowthorpe as one such possessed a wooden tryptych covered in vellum in 1658 bearing the legend of St Walstan in English verse. A transcript was made from this original 'then in the possession of a recusant named Clark, of "Beauthorp"...in Norfolk' (James 1917, 240).

In 1635 the new Bishop of Norwich, Matthew Wren, discovered that the living was held by a Dr Rawley whom he compelled to bring a suit in the Court of Chancery against Henry Yaxley to force repairs of the church (Jessopp 1879, 278). Although Yaxley seems initially to have taken little notice the work appears to have been undertaken in 1637, financed by sequestered tithes and glebe lands, and probably followed an estimate of late 1635. This, transcribed by Jessopp (1879, 279), was as follows:

The opinion of Workmen for ye repairing of ye Church and Steeple of Bowthorpe, and Fencing in of ye Church-yard, taken ye 28th day of May 1636, by ye appointment of Mr. Chancellor, who was there present with ye workmen ye same day.

For ye Fencing of ye Churchyard with Riven Pale, conteyning about 28 Rod in compass	£14
For Repairing ye Walls of ye Church, putting in 4 Windows in ye Church and one window in ye Steeple	£13
For a door into ye Church and a Porch full finished	£20
For paving, ceiling, and whiting ye Church	£15
For Finishing ye Steeple with Mason's work within	£2
For covering the Church with reed, with all charges belonging to it	£20
For ironwork about ye Church and Steeple	£10
For glazing the 4 windows in ye Church and one window in ye Steeple	£8
For a Font in ye Church	£4
For a desk and pulpit and seats in ye Church	£12
For a bell and a frame	£13 6 8
	£131 6 8

Richard Starling, Carpenter.
John Mixar, Mason.
Ambroze Jerenige, Smith.
Thomas B. Biggott, Mason.
Paffreamare Sheflild, Carpenter.
William W.Foster, Glasier.
Thomas Chaplyn, Reeder.
John Brend, Bellfounder.

In the light of the results of the excavation, it can be seen that 'ye Church' refers to the chancel of the ruined church and 'Steeple' to the west tower. Although there are

five windows in the chancel only four are open, the fifth presumably being costed for blocking as part of the wall repairs. The use of the word 'door' rather than 'doors' emphasises the conclusion elsewhere (p.96) that there was only one door, in the south wall. The use of 'Riven Pale' for the churchyard is of interest; presumably this was replaced by a brick wall in the 18th century.

The resulting chapel was used as a burial place for members of the Yallop family, Blomefield recording details of the monuments (1806, 384). He also reports an altar tomb in the churchyard (1806, 385) but all trace of this has gone. By 1789, however, the parish was consolidated with Earlham and, in 1792, the roof of the chapel was removed. The ruins seem to have changed little from the early nineteenth century to the present day. Ladbrooke's drawing of the 1820s, Hodgson's of probable mid 19th-century date and a sketch by 'B.W.H.' of 1876 accompanying Jessopp's article (1879, 272) all show a building remarkably stable in appearance. It is known that the ruins were used to house pigs early in the 20th century and the boundary wall some two metres south and west of the church, which survived until recently, may have been built with this purpose in mind. The breach in the north wall may also be a result of adaptation for pigkeeping.

The ruined structure has now been consolidated and is used as a garden attached to a new Worship Centre, dedicated for use on 27th September 1986.

20th-century expansion

In 1974 Norwich City Council determined to develop Bowthorpe as a major new residential and industrial estate on the western edge of the City. Bowthorpe became part of the greater city and work started on the first of three phases of development. The area covered to 1986 is indicated on Fig.36.

The spread of development has taken building work into the heart of the deserted medieval village. Inevitably this has resulted in finds of archaeological material, often as a result of amateur fieldwalking and metal-detecting. The immediate vicinity of the church and the adjacent Bowthorpe Hall has been designated a Conservation Area. It is intended that this area, together with the nearby shopping centre, will act as a focal point for the development. The newly completed Christian Centre building displays part of the excavation below a glass seat and contains a plaque outlining the results of the archaeological investigation.

VII. Discussion and Conclusions

The topography of the village site

'The church is normally the oldest surviving building in a settlement, so that *ipso facto* it usually provides for the topographical archaeologist the earliest fixed point in the local post-Roman settlement history' (Rodwell 1981, 436).

In the context of Bowthorpe, the above statement contains not only an observation palpably true, namely that the church is the oldest surviving building, but also glosses the importance of this survival. It is regrettably the case that the church of St Michael is practically the *only* fixed point in the local historic topography to survive. Much else has been swept away by recent development (Fig.36) so that very few historical pointers remain fossilised in the landscape. Bowthorpe is a designated development area of the growing city of Norwich and, as such, has been laid out afresh as a residential and industrial area. Indeed, the location of the Bowthorpe Conservation Area around the ruined church, emphasises the only part of the original parish that has been preserved; elsewhere boundaries have been almost entirely removed.

It is the immediate environment of the church that thus remains most historically striking. The excavation itself demonstrated that there is little evidence for the establishment of a church on the site prior to the later eleventh century although the great depth of redeposited material may mask an earlier foundation. Nevertheless, the evidence of fieldwork from the immediate vicinity suggests that occupation of the area pre-dates the 11th century very considerably and that Middle Saxon occupation in particular had a degree of importance. While a comprehensive survey of the entire area is clearly necessary, the available evidence implies an early nucleus of this date to the north and west, possibly with an early church being sited on the fringe. The distinctive feature of the extant church of St Michael, Bowthorpe, in this context is, of course, its apparent late foundation. It is interesting to note that the *excavated* pottery assemblage suggests little or no preceding occupation (p.90). Again deposits may be sealed but some residuality could perhaps be expected given the great foundation trenches dug in Period I.

The actual location of the church is a naturally favoured one, with ground falling away on all sides (particularly to the west), a situation emphasised by the pre-church levelling of the site which created an elevated platform for construction. It also lay at the southern end of what may have already developed, or was developing, as a Saxo-Norman settlement within a triangular area bounded by slightly curving north-to-south roads (Fig.36). The church and graveyard are strikingly situated, being surrounded on all four sides by roads, although a map of probable early 19th-century date (Norfolk and Norwich Record Office) indicates that the small lane to the south did not exist and thus the present emphasis of centrality is a very late and anomalous feature.

The impetus for foundation may have come from across the road immediately east of the church. Here the site is currently occupied by Bowthorpe Hall, a building considered to be of 17th-century date with later additions but which could easily occupy the site of an earlier manorial centre. Bowthorpe was held by Hagni or *Hakene* before 1066 (Brown 1984, 121a, b) and, although *Domesday Book* does not record a thane for 1086, it is reasonable to suggest that the lordship continued in being. The church could thus have been in close proximity to a manorial centre, a form of linkage which can be observed elsewhere but which may only account for a fraction of the total number of churches (Wade-Martins 1980, 87).

According to Blomefield (1806), Roger de Heygham was patron of 'Buthorp' at the time of the Domesday Survey, perhaps emphasising a manorial link. The church could have been an 'Eigenkirche' or proprietary church where the living was held by a lay lord rather than an ecclesiastical institution. It was reasonably well endowed, the rector having a house and forty acres of land. The village itself was affluent enough to have two plough teams and a mill although it could hardly be called above average in wealth (Brown 1984, 121a, b).

The church fabric itself, both ruinated and excavated, confirms this impression. While the community appears to

have been able to support a stone structure of flint and conglomerate in the 11th–12th century, it was not able to replace it. Later medieval alterations consisted of tinkering with doorways and the erection of a porch. In contrast the chancel, presumably financed by the rector, was rebuilt on a grand scale (Fig.38) so that the completed 14th-century church must have had a disproportionate air.

This known development of the church is not paralleled by any such knowledge of the community. All medieval buildings and most medieval road alignments have now gone. Finds scatters from fieldwalking alone can indicate probable areas of settlement.

The area to the north was known historically as 'Chapel Break' or 'Breck'. Breck is defined by Forby (1830) as 'a large division of an open corn field.' He goes on to add that 'Ray calls it land ploughed the first year after it has lain fallow' but Forby maintains that such a restriction was not applied 'by us' (presumably the people of East Anglia). Traditionally the East Anglian use of the term is that for a poor soil ploughed infrequently (Wade-Martins, pers. comm.).

As mentioned above (p.92), the village was assessed for forty shillings tax in 1334 and received Black Death Relief in 1352–4. An enclosure commission of 1517 may have led to depopulation *c.*1520 (information: OS card) although it is as likely that depopulation was a much more drawn out affair, perhaps culminating in enclosure. It is clear, however, that very few people lived in the parish by the early 17th century. Bowthorpe Hall continued to be occupied and farmed the surrounding area but all trace of a nucleated village had gone, only to return in recent years as a very different form of settlement, a planned suburb of the growing city of Norwich.

The church

A discussion of the church building of St Michael, Bowthorpe, is both simplified and complicated by the excavated and surviving structural evidence. Simplification is achieved as the church had very few perceptible alterations during its use, compared to other excavated churches, both rural and urban, *i.e.* Rivenhall in Essex (Rodwell and Rodwell 1973) or St Mary, Tanner Street, Winchester (Biddle 1969, fig.2). Complication, however, results from the indifferent survival of deposits within the building, the manner of post-medieval demolition of the nave and tower, and the inability of the excavators to link the eastern and western parts of the excavation because of safety considerations.

In consequence the period-by-period block plan (Fig.38) of the church contains inferred material in order to reconstruct basic outlines. Despite this, however, the relative straightforwardness of the medieval development is apparent (Periods I and II) only post-medieval development being rather individualistic (the chancel/chapel), if not idiosyncratic (the tower/chimney).

No trace of a timber church was located by the excavation. This is not to suggest that one did not exist (there are grounds for expecting one at All Saints', Barton Bendish, but no trace was found in excavation there — Rogerson and Ashley 1987). The excavated area was restricted, as far as possible, to the area of the stone building. It is now known that stone churches were sometimes built to one side of earlier timber ones as at Rivenhall (Rodwell and Rodwell 1973) and Asheldham (Drury and Rodwell 1978) and as inferred at St Benedict, Norwich (Roberts with Atkin 1982, 27). Such may have been the case at Bowthorpe where a timber church is also possible at a deeper horizon, below Period I levelling of the area, but the total lack of evidence must be reiterated.

The earliest structure to be encountered within the area of the excavation was the Period II church (Fig.40). This relatively small and simple structure was tri-cellular, chancel, nave and tower being contemporary as far as could be understood from the robbed and differential fabric survival. Certainly the foundation pattern was similar below all three elements, distinguished only by the relative depths attained, the hill having been levelled up at the east end. Footings therefore became progressively deeper towards the east end. This was demonstrated by the excavation of footings of one metre depth and less below the tower, yet in excess of two metres in depth below the south wall of the nave. The chancel presumably had footings extending to even greater depths but excavation of these within the confines of the later ruined structure was not practicable. The cutting of deep foundation trenches for such footings probably required shuttering and evidence for such shutters may perhaps have survived in the nave and chancel where regular bands of sand around the interior were recognised. The method of foundation, with alternating layers of rammed material, is paralleled at All Saints', Barton Bendish (Rogerson and Ashley 1987) and at St Martin-at-Palace, Norwich (Beazley, this volume, p.14).

The church was dedicated to St Michael, one of some 611 known pre-Reformation churches with this dedication (Arnold-Forster 1899, 21). Churches dedicated to St Michael are often associated with a situation on hills or rising ground and it has been observed in Lincolnshire that 'examples tend to show that even here it generally affected the highest ground attainable' (Precentor Venables quoted in Arnold-Forster 1899, 39). Within the neighbouring city of Norwich the now-lost church of St Michael Tombland certainly stood on rising ground although the still extant, and probably early, church of St Michael Coslany on Oak Street could not be so described. Most interestingly, however, the church of St Michael-at-Pleas, another probable foundation of ancient date, stands on a promontory site of very similar topographical outlook to St Michael, Bowthorpe, the ground falling away on three sides above a bend in the river.

The scanty dating evidence from the excavation would seem to indicate that the first stone church at Bowthorpe was built in the 11th or 12th centuries, perhaps *c.*1080–1100. This accords with the typological similarity of elements of the church plan to extant and excavated churches of Saxo-Norman or Early Norman date (*e.g.* Hales and Framlingham Earl, Norfolk [Harris 1987 for Framingham Earl]) and also with the materials used. Locally-won flint was exploited but also considerable quantities of conglomerate, the incidence of which has been observed elsewhere in Norfolk as an indicator of constructional work of 11th- and 12th-century date (Andrew Rogerson, pers. comm.).

The Period I building seems to have consisted of a small, square-ended chancel, a rectangular nave and a round tower. Enough survived to render possible a plan (Fig.38) and to suggest a tower opening, presumably an arch, some 1.60 m wide. The tower itself may have had a west door (p.71). West doorways in round towers are unusual but not unknown; Heywood (1977) cites twelve examples such as those at Howe, Norfolk, and Great

Leighs, Essex. The surviving superstructure of the tower showed that flint and conglomerate were used carefully for architectural effect (Fig.42, Pl.XXVII).

The nave probably had both a north and a south door at its western end although not necessarily in Period I. Evidence for each is only available from Period II when both doorways were either fashioned or reworked; the remains of 14th-century dressed stone were found on the line of the south wall and the east elevation of the north door was dressed in brick. The north door may well have been an insertion, associated with the construction of a north porch.

The discovery of the font drain (Fig.40) in the central western end of the nave was the only feature of liturgical importance to be located by the excavation. Such drains are probably common in most medieval churches and recent excavated examples have been cited with regard to the discovery of a similar feature within an excavated timber church in Norwich (Ayers 1985).

A major rebuilding (Period II) was probably undertaken at the beginning of the 14th century, the earlier chancel being replaced by a much larger building, extending the church to the eastern extremity of the graveyard. It is this building which largely survives as a ruin today. Few, however, of its fittings survive, much dressed stonework apparently being robbed in the 16th and early 17th centuries following initial disuse but prior to reuse. Major 17th-century repairs in the eastern and southern walls imply the existence of a significant altar or retable and also that of a sedilia. Such a sedilia might have been associated with a piscina; excavation, however, failed to locate a piscina drain.

The western end of the north wall retains, on both the interior and exterior, a confused jumble of blocked doorways and voids which are difficult to interpret convincingly. The exterior doorway is itself an addition, dressings being fashioned in brick, although probably an addition of medieval rather than post-medieval date (the brickwork appears to be considerably earlier than the blocking brickwork or indeed the brickwork used to repair the fabric in the 17th century). It seems most probable that this doorway and the other features on the interior (Fig.50) represent the remains of a rood stair. They are located in the correct position for one but it must be admitted that the fashioning of the stair in the thickness of the wall, without benefit of a turret, creates a very narrow access. Any corresponding evidence for a rood on the south wall is lost as the relevant part of the wall was completely rebuilt in the 17th century.

All tracery is lost from the window openings although occasional details remain, not least label stops, one of which was excavated and proved to be in a less-eroded condition than those *in situ* (Fig.56). There is no surviving evidence for a priest's door, the gap in the north wall being dismissed as one such after careful consideration. Nevertheless, it remains curious that the window scheme should allow for three windows on the south side but only two on the north unless it was originally intended to have a door.

The junction between the chancel and nave could not, of course, be excavated. It seems clear from excavation to the east, however, that the nave was not rebuilt but continued to stand in conjunction with the new chancel. The doorways were refashioned (or possibly, in the case of the north door, freshly-cut). The south doorway had completely disappeared but dressed stonework from the eastern and western elevations survived almost, but not quite, *in situ*. It is interesting that both surviving dressings are reused fragments of a pier. The northern doorway was faced with brick and rendered, part of the eastern elevation surviving in a prone position where the nave wall had collapsed. It was furnished with a porch, only the footings of which were extant (Fig.45, Pl.XXXI). The tower presumably remained unaltered.

No other alterations of medieval date were discovered and, indeed, both the fabric and the known history of the settlement imply that the church was a ruin by the 16th century. It seems most probable that its enforced refurbishment in the 1630s is reflected in the surviving fabric by the west wall added to the chancel and by general refurbishment within (Period III). It is clear that the nave had gone but that the tower (or 'steeple') remained as a detached element.

Refurbishment turned the 14th-century chancel into a post-medieval chapel. The west wall was added using materials to hand; brick, flint, conglomerate and dressed limestone are all present including fragments of mullion and a capital. Elsewhere brick was used almost exclusively for repairs either to the walls or for dressings. Particular care was taken to replicate window sills in brick and the great east window was rebuilt as a smaller, but still large, brick-edged window (Fig.47). A doorway was fashioned in the south-western corner, and a sillwall erected across the church close to the western end. This probably supported a gallery, joist holes surviving in the west wall, the bressumer for which had supporting holes cut into the north and south walls. East of the gallery it seems likely that there was a raised floor, possibly in a U-shape against the north and south walls and the gallery sillwall, supported by dwarf sillwalls (Fig.53) and joist holes cut into the north and south walls (Fig.48).

At least one brick-built monument was erected, adjacent to the north wall immediately east of a (?later) opening, although only the base of this survived. The Yallop family who occupied the nearby hall in the later 17th and 18th centuries used the building for some family burials, the most notable of which was that of Dame Dorothy Yallop. Her memorial, a ledger slab, survived in the centre of the chapel until the 1970s. Its desecration by vandals and the subsequent digging-in of the fragmentary remains upon the instructions of the Diocese clearly caused considerable disturbance to the deposits of this area.

Outside the chancel the use of the steeple was probably intended as that of a belfry. By the early 18th century, however, such a function no longer applied, the structure being turned over to secular use. The installation of a brick-lined oven, with a long stokehole, indicated that the building was now regarded as little more than a chimney for an industrial utility, probably a corn dryer. Burning within the oven appears to have been most intense at the junction of the oven itself and the stokehole, presumably heating the feature prior to raking out and use of the residual heat for drying.

The oven was abandoned prior to demolition of the tower in circumstances which can now only be described as mysterious. A middle-aged man was buried within the feature, some care being taken to ensure a west-to-east orientation and a flat, extended position. Bricks were removed from the stokehole (Fig.53) which rose slightly to the east. The skeleton was sealed by demolition rubble.

It is tempting but futile to speculate on the reasons for this odd burial, the only post-medieval burial to be encountered west of the chancel. Skeletal analysis (p.91) indicated that the individual was a man in his forties.

The tower was subsequently demolished, probably before *c.*1790 when it is known that the chapel was unroofed. This seems probable as the tower was quite deliberately destroyed, the walls being undermined, the resulting trenches packed with brushwood and fires started; collapse was then inevitable. The effect was to create an 'exploded' tower evident from the plans (Figs 40, 45 and 53) and presumably to provide large quantities of flint and conglomerate rubble for buildings elsewhere (ruined outbuildings on the east side of the line immediately east of the church until recently contained material suggesting just such a provenance). That it was the tower that was subjected to such destruction and not the chancel, a more easily-quarried source of stone, indicates that the chapel was probably still in use, or semi-use, at this time.

The tower had certainly gone by the early 19th century when topographical drawings of the site only indicate a ruinated chancel. The degree of ruination seems to have stabilised remarkably quickly, 19th-century drawings and 20th-century photographs showing similar states of decay. No further attention to the fabric other than the insertion of a break in the north wall was observed and it seems likely that little if anything was done to the building until consolidation of the ruins commenced immediately following the excavation.

The excavation yielded few finds although destruction debris indicated that the roof was once tiled and the floor of the chancel at least covered in floor tiles. Intramural burial was rare, most such interments being post-medieval within the chancel. The most interesting burial was that in the nave of the Period II church, dated by a coin of Edward III found in the grave fill. This interment, in a prominent, if off centre, position, perhaps suggests an individual of rank in the 14th century. Pathological study of his teeth, which were in an appallingly caried condition, could support this supposition, caries often being caused by an over-sweet diet.

In summary, therefore, three stages of stone church development were uncovered at St Michael's, Bowthorpe. A three-celled structure of round tower, nave and chancel was built, probably in the later 11th century, as a single building campaign. The chancel was replaced in the early 14th century by a much larger structure. It is probable that a north porch was added to the nave and the nave doorways were refurbished at the same time. By the 16th century the building was disused as a church and the nave was demolished by the 1630s. At this time, a west wall was added to the chancel and the tower probably repaired. The chancel became a chapel with fittings apparently consisting of a western gallery, a raised floor and some form of brick altar. The tower was used as a chimney for an oven or corn dryer in the 18th century. Undermining and demolition of the tower seems to have occurred before the 1790s when it is known that the chancel/chapel was unroofed. The walls of the chancel survive.

Concluding assessment

The excavation and survey of the ruined church of St Michael, Bowthorpe, demonstrated, should such demonstration any longer be necessary, that even a relatively small and 'short'-used church does not present a simple and straightforward case study for research. Rather, such a structure is a complicated but stable element within the historic landscape. At some levels the work was disappointing; the deposits within the building were indifferently preserved, contrary to expectation; finds were poor; the structure was not greatly varied. At other levels, however, the project was most illuminating, particularly with regard to the initial site selection for the church, its primary method of construction and its ultimate disuse and reuse. Indeed the post-medieval adaptation of the church and graveyard for both ecclesiastical and secular functions proved to be one of the most interesting and unusual aspects of the entire project.

The work established a sequence for the development and decline of the church fabric, a successful conclusion to the limited parameters laid down within the research design. An attempt has been made in the foregoing discussion to see the church as part of the wider community and it was refreshing to be able to observe that such a relationship could be discussed in the archaeological horizon, albeit tangentially via a corn dryer! It is freely admitted, however, that this report does not go far enough in this respect. The historical and topographical backgrounds of the Bowthorpe area are diverse enough to suggest that much more work could be done on examining the relationship of the church and the community, perhaps most profitably in this case by exploring the link between the manor and the living, especially in the post-medieval centuries. The determination of the physical development of the church has provided a useful addition to the still very small data base of church excavations. The challenge that must now be faced is one of putting that physical development into context.

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