

EXCAVATIONS ON THE SITE OF ST NICHOLAS SHAMBLES, NEWGATE STREET, CITY OF LONDON, 1975-9

John Schofield

With contributions by Ian M Betts, Tony Dyson, Julie Edwards, Richard Lea, Jacqui Pearce, Alan Thompson and Kieron Tyler

SUMMARY

The site of the small parish church of St Nicholas Shambles, north of Newgate Street in the City of London was excavated in 1975-9. The church, which was demolished in 1552, lay under modern buildings which had removed all horizontal levels and only truncated foundations survived. It is suggested that the church had five phases of development: (i) a nave and chancel in the early 11th century; (ii) an extension of the chancel, probably a sanctuary, in the period 1150-1250 or later; (iii) chapels to the north and south of the extended chancel, 1340-1400; (iv) a north and south aisle (1400-50, possibly in stages; (v) rebuilding of part of the north wall and a north vestry (1400-50, with further monuments of 1470+). The survival of moulded stones in walls of Bull Head Court, which was built on the site of the church in the 1550s, allows some reconstruction of internal architecture of the church. The development of the church is linked to that of the northern cemetery, 234 skeletons from which have already been published.

INTRODUCTION

John Schofield

The site of the parish church of St Nicholas Shambles (Figs 1, 2; TQ 3204 8135) lay at the south-west corner of the GPO Headquarters building in Newgate Street, in the City of London. It was badly damaged in the Second

World War; in 1974 Victorian buildings (the lower storeys of part of the original structure) and a large circular ventilation shaft occupied the south-west quarter of the site. The eastern half of the site, beyond Roman Bath Street (which lay on the line of the medieval Pentecost Lane), was already lost to archaeological investigation as the cumulative effect of building and clearance had removed all deposits. The north-west quarter of the site, west of Roman Bath Street and north of the church site, was also excavated in 1975-9 (sitecode POM79), and publication of this excavation is planned for some point in the future. The sitecode for the church investigation, which was supervised for the Museum of London's Department of Urban Archaeology by Alan Thompson, was GPO75. The excavations were funded by the Department of Environment and British Telecom; the post-excavation work by English Heritage and the City of London Archaeological Trust.

The Roman levels from the site have already been published (Perring & Roskams 1991, 3-36). Ten successive periods of Roman activity were recorded, from the first decades of Roman occupation in AD 50-60 to sometime in or after the late 2nd century. Thereafter the site was covered with a dark earth deposit containing late Roman pottery and coins. This late Roman-Saxon transition is not well understood, on this site as elsewhere (Vince 1991, 411-12), and the

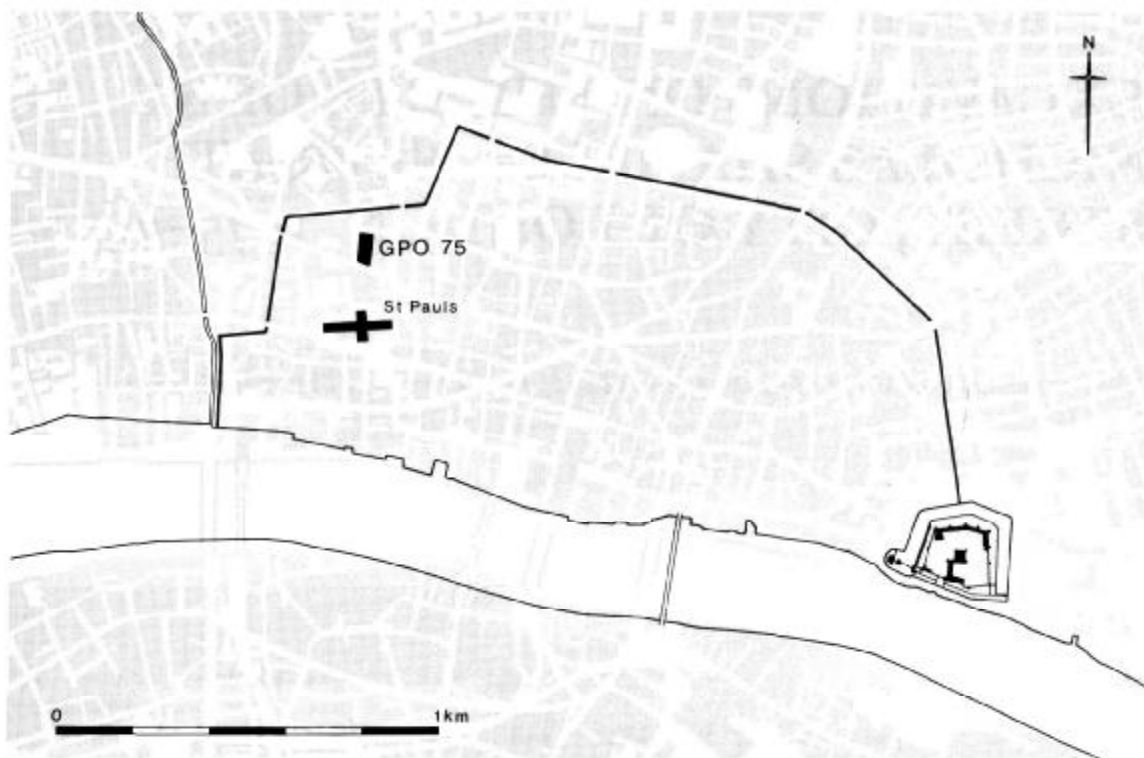


Fig 1. Location of the Newgate Street site (GPO75) within the medieval and modern City of London

present report begins with the features immediately preceding the foundation of the church of St Nicholas around AD 1100.

A total of 234 articulated human skeletons was excavated, mostly from the cemetery which lay to the north of the church, with a few burials within the outline of the church itself. These have also been published (White 1988), and the discussion section of the present report attempts to fit the findings concerning the growth of the church into context alongside its cemetery.

THE CHURCH AND CHURCHYARD OF ST NICHOLAS SHAMBLES

Tony Dyson

The church of St Nicholas Shambles is first recorded in c.1144,¹ and there is a reference to the 'street of St Nicholas next to the meat-market [*macellum*]' (most probably the modern King Edward Street) in 1187.² The by-name Aldred, appended to the dedication, occurs once only in 1240–59,³ and may possibly record the name of

the founder – whether or not the same Aldred who by the early 11th century had given his name to Aldersgate, some 120m to the north-east.⁴ Prior to the excavations, virtually all that was known about the structure and form of the church derived from the record of its final years. In the mid 1540s, in the wake of the Dissolution, the parish of St Nicholas was abolished before incorporation within the new parish of Christ Church Newgate Street, an entity to be served by part of the much larger conventual church recently surrendered by the Greyfriars, and also including the rest of the Greyfriars' former precinct to the west and north of St Nicholas as well as the parish of St Audoen to the south west. On 27 December 1546 the vacated parish churches of St Nicholas and St Audoen and their properties, together with the sites and properties of the Greyfriars and St Bartholomew's Hospital, were granted by the King to the Mayor and Corporation of the City, as trustees, for the relief of the poor.⁵ In May 1547 the City duly transferred the two parish churches and their lands to the new hospital for the poor in West Smithfield, for which the old name of St

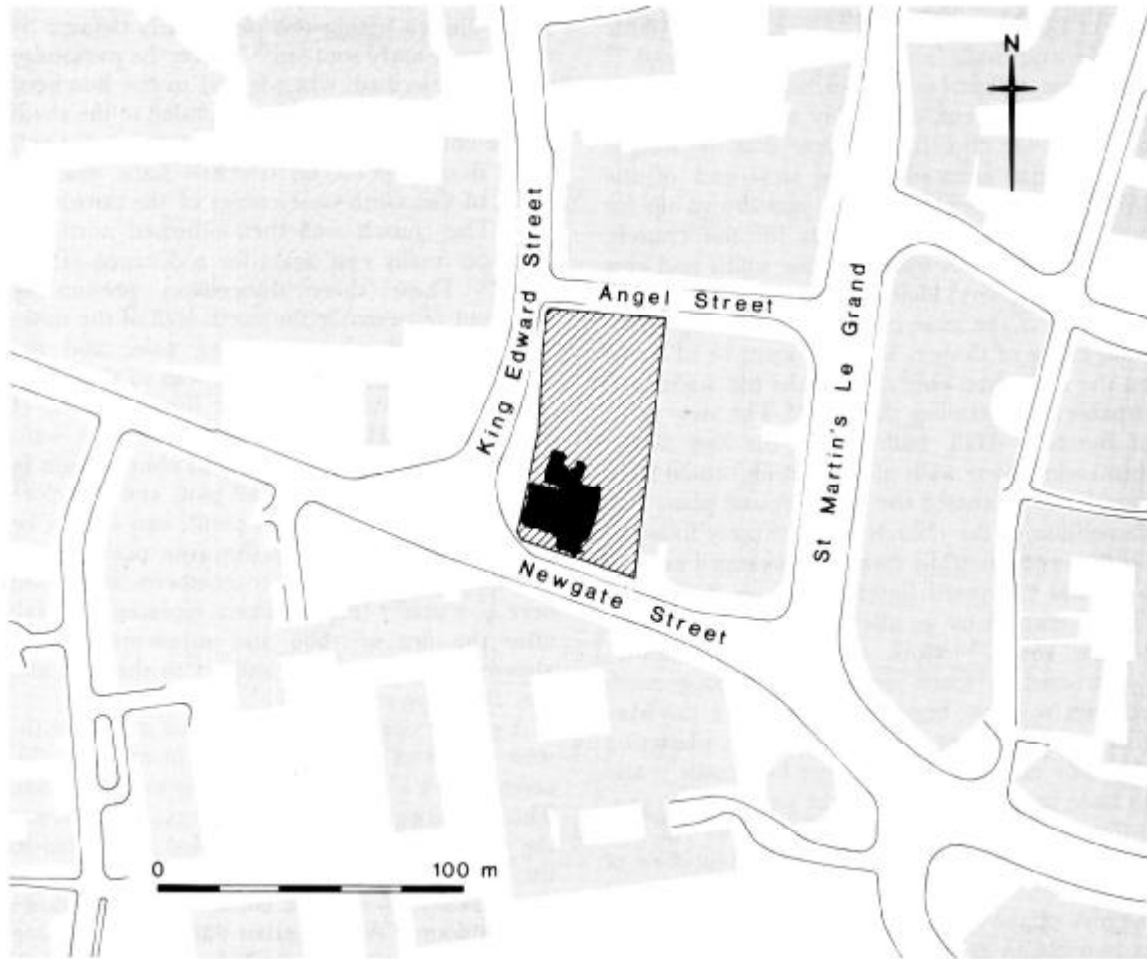


Fig 2. Location of site in Newgate Street in the modern City of London, showing the excavated area of GPO75 in black, and the wider area of archaeological investigation (which included the POM79 site to the north) as diagonal hatching

Bartholomew was revived, as a source of income.⁶ The latest churchwardens' accounts for St Nicholas, running from Michaelmas 1546 to Michaelmas 1548, were rendered by the churchwardens of Christchurch and, with previous accounts from 1526, were subsequently bound into the first minute book of the Hospital's Board of Governors.⁷

In February 1548 the City issued instructions for the 'defacing' of St Nicholas and for the removal of its altars, and also of its plate, which was to be brought to the Lord Mayor.⁸ In October, the Hospital leased the former parsonage house, which stood at the north-west corner of the church, to the Butchers' Craft for 80 years at a rent of £6 *pa* to serve as their hall.⁹ Work on the actual demolition of the abandoned

church does not seem to have begun until May 1551, when lead was removed from the steeple, and the church roof was dismantled.¹⁰ In all some 491 hundredweight of lead was salvaged, and some of the cut stone was sold off.¹¹ Rubbish clearance began on 12 July and, according to the record, continued until 12 September. The steeple, on the other hand, still stood largely intact in March 1552, when the Hospital contracted for its demolition, together with 'all the stonework adjoining to the said steeple between the shed and the tenement of Richard Boorne called by the name of the church porch and the stone wall on the north end of the said steeple and Boorne's tenement and also ... pull(ing) down the wall on the south side of the hall called Butchers' Hall and if it be thought

needful... pull(ing) down the wall on the east side of Butchers' Hall and ... dig(ging) the same steeple and walls a foot within the ground.¹² From the references to Butchers' Hall and to Boorne's tenement, which lay at the south-west corner of the church, it is clear that the steeple was likewise situated at the west end of the church.¹³ In April a contract was drawn up for pulling down the stone walls (of the church, though that is not stated) at the south and east sides of Butchers' Hall and, in accordance with the terms of the lease of 1548, for making a new wall, either of timber, lath and loam or of brick, on the south and east sides of the old walls, and capable of sustaining the hall.¹⁴ The new walls of Butchers' Hall, built within the line of the dismantled stone walls of the church, would have marginally increased the hall's ground plan. The demolition of the church was promptly followed by the erection of 14 dwellings arranged around a central courtyard (later known as Bull Head Court) entered by an alley from Newgate Street to the south.¹⁵ Work on these 'new rents', constructed in stages as demolition progressed, appears to have begun early in 1552 (in May that year payment was recorded for plastering the 'four new houses that were first made'), and to have been completed by the summer of 1553.

From the measurements of some of the tenements taken shortly after the Great Fire of 1666,¹⁶ and from more comprehensive Hospital surveys of the late 18th and 19th centuries,¹⁷ it is possible to reconstruct accurately the overall site occupied by the church, churchyard and parsonage. Together they constituted a plot which, before street widening to the south and west in 1862-69, was roughly 100ft square (Fig 3). To the west, along King Edward Street (formerly Stinking Lane, then Chicken Lane, and then Butchers' Hall Lane) the frontage measured 96ft 11in, while the south frontage along Newgate Street amounted to 95ft 6in. The northern boundary, 96ft 9in long, adjoined the former Greyfriars' garden, transferred after the Dissolution to Christ's Hospital. The eastern boundary measured 112ft 9in, and abutted on properties on the west side of Bath, or Roman Bath, Street (originally Pentecost and then Pincocke Lane). In the 1860s, shortly before they disappeared beneath the new General Post Office buildings, these properties extended back from Bath Street by some 30ft at the south end, and by some 25ft at the north.¹⁸

Only at its north-west corner is the disposition of the church within this plot clearly defined by the documentary sources.¹⁹ There, the parsonage site was described, when leased to the Butchers' Company in 1548, as being bounded to the south by the church wall, which ran eastwards for 20ft 1½in from a point on Chicken Lane 38ft 9in south of the north-west corner of the parsonage plot. The church wall then returned north for 19ft and finally east again for a distance of 16ft 11in.²⁰ These three dimensions presumably represent respectively the north wall of the nave, the west wall of a northern aisle, and the westernmost part of the north wall of that aisle. With due allowance made for the rebuilding of the Butchers' Hall southern and eastern walls within the line of the demolished church walls in 1552, the outline of the hall plot, and therefore of the church itself at this point, can clearly be seen to correspond with the area occupied by the three Bull Head Court tenements numbered here 4, 6 and 7 (Fig 3). These replaced the Hall after the fire of 1666 and supplemented the already existing Nos 12 and 13 to the east and No. 14 to the south.

A similar configuration occurred at the south-west corner of the overall plot, in an area also occupied by a property belonging to the church. This property was described in 1354 as adjoining the entrance to the church, called *la Porche*, to the east, and the church itself to the north;²¹ and appears in 1546-51 as a corner shop next to the church door.²² At the earlier date its width along Newgate Street to the south was given as 18ft (6 ells), and to the north, against the church, as 20ft 3in (18 ¾ ells). This last measurement is comparable with the 21ft 1½in given in the Butchers' lease for the southern boundary the former parsonage at the north-west of the church. The length of the corner property from north to south along Chicken Lane or the porch is not specified, though it was evidently greater than the width of 20 to 21ft. But its position can probably be identified from the arrangement of the later Hospital tenements, just as can the outline of the parsonage plot to the north west of the church. The corner tenement itself was rebuilt as one of the 14 new rents of 1551-3,²³ and is presumably represented by the Bull Head Court property numbered 2 on Fig. 3. The Bull Head Court plan shows a tenement in this position whose widths at its northern (17ft 10in) and southern (14ft 9in) ends roughly approximate with the dimensions given in 1354; and its length

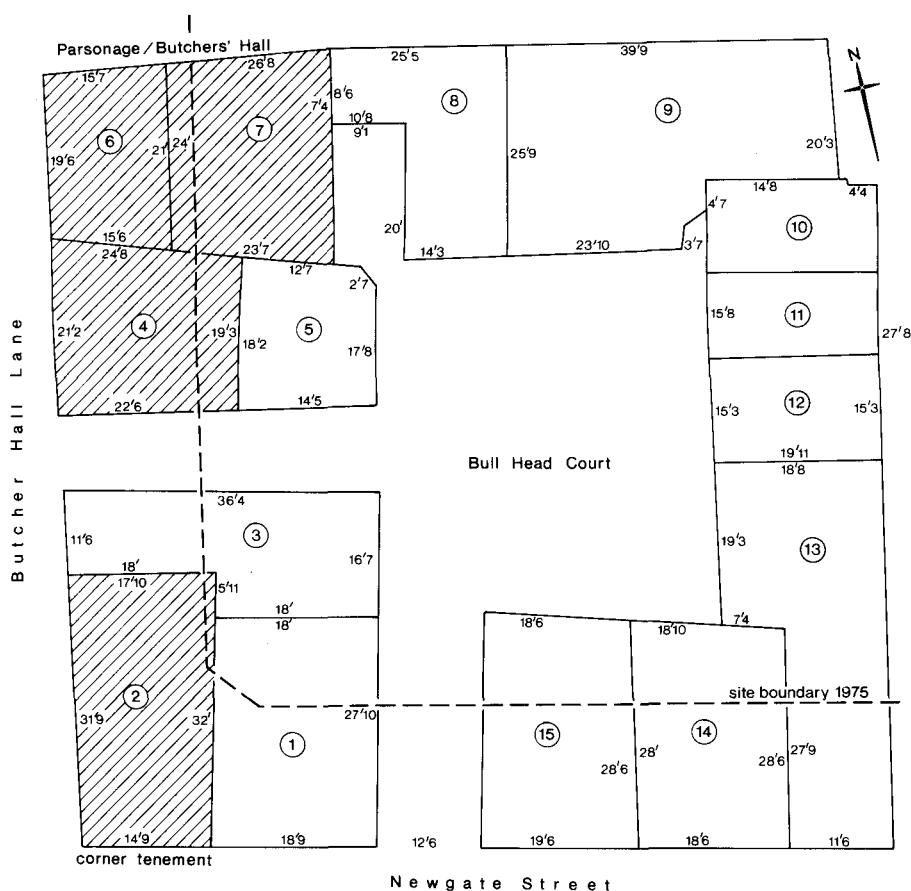


Fig 3. Reconstructed plan of Bull Head Court in the early 19th century, from several documentary surveys

from north to south (31ft 9in) would leave some 26ft between its northern limit and the southern limit of the parsonage to be occupied by the west end of the church; an interval matched by the width of the nave as excavated. Moreover, when the medieval widths of the corner tenement are imposed upon the 19th-century plan, the boundary with the neighbouring property to the east (formerly the site of the porch) can be seen to align exactly with the eastern limit of the parsonage against the church. It would therefore seem that, at the west end at least, the outline of the church was preserved in the arrangement of the tenements which replaced it.²⁴

It is also clear from this that, at least from the 14th century, there was no graveyard at the western end of the church, which fronted directly onto Chicken Lane. The Butchers' lease of 1548 however explains that at the eastern end of their new site, extending along the north wall of the church, the final 9ft 6in had been taken

out of the churchyard, and that at this point the width of the churchyard from the church to the south to the site boundary to the north was 27ft 1in.²⁵ The original churchyard would therefore seem to have occupied the remainder of the area north of the church and east of the parsonage. A subtraction of the given east-west width of the former parsonage site proper (31ft 10½in) from the overall length of the plot on its north side (96ft 9in) would leave 64ft 10½in to be occupied by the churchyard, whose north-south width of 27ft 1in would indicate an optimum area of some 1,755 sq ft, depending on the conformation of the north side of the church further to the east. The excavations revealed the foundation of a substantial projection, close to the east end of the north aisle, which would have accounted for some 180 sq ft. This was almost certainly the vestry, first mentioned in the churchwardens' accounts in 1456-7;²⁶ a later entry of 1476-8 also refers to a new key 'for the

door in the churchyard behind the vestry'.²⁷ The Butchers' lease also provided for access to Pincock, or Pentecost, Lane beyond the eastern limit of the plot, for waste disposal.²⁸ This amenity seems to have secured direct communication between the lane and the churchyard, which could otherwise only have been reached via the parsonage or the church. Such an access must have run between the tenements on the west side of Pentecost Lane. No reference to it occurs in the deeds relating to these properties, but the record is incomplete and lacking altogether after some, or all, of the relevant tenements were acquired by the Charterhouse early in the 15th century.²⁹

The same uncertainty also obscures the question of whether the churchyard on the north side of the plot turned south to continue along the east end of the church, or whether the church occupied the whole of that area up to the boundary with the tenements on Pentecost Lane. The abutments of the available deeds relating to these properties refer simply to the 'church', or else to the *cimiterium* of St Nicholas,³⁰ and either term might or might not connote a churchyard wall. But the position of the excavated east end of the church, on the line of the later boundary between the east range of Bull Head Court and the properties in Pincock Lane, makes it clear that no room was available for a cemetery on this side of the church, at any rate by the final stage in the development of its plan.

Except at the west end, beyond the porch, the southern frontage of the church presents a similar problem. The only available evidence concerns small plots of land which adjoined, if not actually part of, Newgate Street, and were used as poulterers' shops. In 1373 13 such plots 'under the wall of the church of St Nicholas' were leased by the mayor and chamberlain to named traders, and accounted altogether for a length of 74ft and an annual rent of 24s 8d.³¹ There is no further record of this arrangement, which in 1422 was replaced by another and somewhat different one that was to survive up to the demolition of the church and the construction of the Bull Head Court tenements. In that year the mayor and commonalty leased to the rector and churchwardens of St Nicholas a plot of land, near the churchyard wall and the tenement formerly belonging to John Boterwyk, measuring 24ft 4in by 4ft; to be held for a period of 90 years at an annual rent of 26s 8d.³² After 1465 the churchwardens' accounts record the payment to

the City Chamber of an annual rent of this amount in respect of the poulterers' shops or 'sheds', of which there were ten extending eastwards beneath the 'church wall' from the church door.³³

The references in these leases and accounts to the 'church wall' behind the shops or sheds clearly exclude the possibility of a southern churchyard. In other respects, however, they give a less than exact idea of the form of the church to the east of the porch. Neither the length of the sequence of shops of 1376 nor that of the plot of 1422 is easily reconciled even with what little is known of the plan of this part of the church, outside the area of excavation. The 74ft involved at the earlier date, which presumably did not include the 18ft wide corner tenement to the west of the porch, or the porch itself, seems excessively long for the maximum overall frontage of 95ft 6in. Conversely, the 24ft long plot of the later date seems too short to account for the whole of the frontage to the east of the porch. It is possible, though far from certain, that the porch was abnormally wide, or that by 1422 it continued to the east in the form of a southern aisle; the differences in the terminology of the leases and in the amount of space apparently available for the shops might be explained by a southward enlargement of the church between 1376 and 1422, leaving only a 4ft-wide strip against the street frontage in which to accommodate the shops.

In the wills enrolled in the City court of Husting from 1258, 21 persons can be seen to have made dispositions concerning the church of St Nicholas, all of them between 1276 and 1481.³⁴ Thirteen testators desired to be buried there, all later than 1341,³⁵ and in the same period only one of four others specifically wished to be interred at some other church.³⁶ Of the 13, only one (Nicholas de Thame, 1383) required to be buried in the churchyard;³⁷ all the others specified burial in the church. Nicholas Crane (1342), who bequeathed tenements in Pentecost Lane to support and accommodate three chaplains, wished to be interred in the chapel of St Mary in the church,³⁸ and Simon atte Gate (1361) stipulated burial in the chapel of St Thomas, where a tomb had already been prepared at his own expense.³⁹ Three other persons wished to be buried near the existing tombs of a deceased husband or master.⁴⁰ There seems to be no obvious connection between the location of burial and the munificence of the

bequest to the church; although Nicholas de Thame, the sole testator to prefer the churchyard, made no gift to the church, neither (except for the settlement of unpaid tithes and oblations) did Simon atte Gate, who opted for the chapel of St Thomas. There is in any case no means of knowing how many of these requests were actually fulfilled, and it may be that, as happened elsewhere, some of the chantries were gradually amalgamated as a result of falling incomes.⁴¹ Though 13 of the wills involved new chantries or the further endowment of existing ones, and all except two of the wills dated to the century between 1342 and 1439, only two chantries apparently survived to be listed in 1536. Both of these were in the foundation of Cecily Burstow and John 'Husband' (presumably Cecila Bristoll (1362),⁴² and her husband John (1349)⁴³), and each was worth £6 13s 4d,⁴⁴ the standard 10 marks annual endowment of a chantry. Nevertheless, whatever their subsequent fate, the bequests of the second half of the 14th century and the first half of the 15th were clearly such as would call for some enlargement of the church, and in particular of its aisles, to accommodate the testators' various requirements.

The chapels mentioned by these wills were those of St Mary (1342) and of St Thomas (1361), and these also feature in the late 15th-century church inventory (Combes, this vol), along with the altar of Holy Trinity, the chantry of St Katharine and the chapel of St Luke;⁴⁵ the last having been founded before 1484 by the craft of Butchers, who stored their company chests and hearse cloth there.⁴⁶ It is notable that each of the first three of these dedicatees was also commemorated by bells in the steeple which were consecrated in March 1468;⁴⁷ so too were St Margaret and the patronal St Nicholas, who may also have had unrecorded chapels or altars to their names. An altar to St Wulfstan is also mentioned in 1252,⁴⁸ though there is no subsequent reference to it.

NOTES

¹ Pers comm, G Keir.

² (*vicus*) *sancti Nicholai iuxta macellum* (*Cartulary of St Mary Clerkenwell*, no. 290). Another early reference of 1186–98 occurs in M Gibbs (ed), *Early Charters of the Cathedral Church of St Paul*, Camden Soc 3rd ser 58 (1939), no. 264.

³ Dean and Chapter of St Paul's, MS WD 9 (GL MS 25509), f. 48v.

⁴ Robertson 1925, 71 ff.

⁵ Letters patent printed in *Memoranda... relating to the Royal Hospitals of the City of London* (1863), no. 5 (20–45).

⁶ CLRO (City of London Record Office), Journal of the Court of Common Council, vol 15, f. 317v. 7. St Bartholomew's Hospital, Minutes of the Board of Governors, vol 1 (1549–61) (MS Ha1/1). The Hospital records are still kept at the Hospital.

⁸ CLRO, Letter Book Q, f. 232.

⁹ GL (Guildhall Library), Butchers' Company deeds (MS 6468); printed as Appendix II in Honeybourne 1932, 45–51. For further details of the Butchers' tenure see Jones 1976, 44–51: the lease was renewed for a further 21 years in 1629 on payment of a fine of £6 13s 4d. The Company surrendered the lease after the Hall's destruction in 1666.

¹⁰ Accounts of the expenses of demolition are included in the Hospital's Ledger Book I (1547–61), MS Hc1/1, f. 164 ff.

¹¹ Moore 1918, ii. 213.

¹² Hospital Minutes Book, 1549–61 (MS Ha1/1), ff. 38, 40v.

¹³ An inventory in the Hospital Ledger Book I (MS Hc1/1) refers to the consecration of five bells in the steeple on 15 March, 1468, dedicated to St Thomas of Canterbury, St Margaret, the Trinity, Our Lady, and St Nicholas. There was also a 'litell houslyng belle' dedicated to Jesus (*cf* Moore 1918, ii. 214–5).

¹⁴ MS Ha1/1, f. 43v; Honeybourne 1932, 49.

¹⁵ St Bartholomew's Hospital, Ledger Book (MS Hc1/1), f. 164. Fourteen tenants occur regularly in the Hospital rentals from 1552. Initially the scheme provided for 15 tenements, the number stipulated in a contract dated 8 April, 1551 (Minutes Book I (Ha1/1), f. 15v), and also in a contract of 24 April, which also contains details of upper storeys, elevations and fenestration (Hospital Deed 2010).

¹⁶ Mills and Oliver *Survey*, passim.

¹⁷ St Bartholomew's Hospital, Plan Book of 1772 (MS Hc19/2/2), 4–88 passim; Plan Book of c. 1800 (Hc 19/2/3), 1–135 passim; Plan Book of 1811 (Hc 19/2/4), 26–107; Plan Book of 1823 (Hc 19/2/5), 127; Plan Book of c. 1830 (Hc 19/2/6), 134–174 passim. A Hospital plan of c. 1870, printed by Honeybourne (1932) as Plate IV, opp p29, compares closely with the earlier and more detailed surveys, and shows the Bull Head Court area in relation to '(Roman) Bath Street' (Pentecost Lane) and to the widening of King Edward and Newgate Streets in the 1860s. This plan forms the basis of Fig 3.

¹⁸ Comparing with 29ft and 27ft 9in at the south end immediately after the Fire (Mills and Oliver, *Survey*, vol 3, 7v); and, at the north end, 29ft 3in in 1363 (Charterhouse Cartulary, PRO (Public Record Office), LR 2/61, f. 68v), and 26ft 6in in 1678 (CLRO, Husting Roll 348/35).

¹⁹ See Honeybourne 1932, 28–34 and plate V for a previous attempt to reconstruct the plan of the church. Her interpretation is marred by the conviction that the internal frontages of the new rents, facing into Bull

Head Court, were consistently founded upon the lines of the exterior walls of the church, whose plan was thus preserved by the central courtyard, and whose porch was marked by the position of the entry to the court from Newgate Street. The east end of the church, on the other hand, has been shown to coincide with the outer wall of the tenements, and the conjectured 'Lady Chapel' projecting from the east end of the church (as in plate IV) is pure fancy. These findings also have a bearing on the location and size of the churchyard. For the position of the porch, see Note 24 below.

²⁰ Honeybourne 1932, 46–7.

²¹ St Bartholomew's Hospital, Deed 659.

²² *Ibid.*, MS Ha1/1: accounts for 1546–8, and (f.17) a lease dated 2 May 1551; Plan Book 1 (Hc 19/1/1) f.5 (1546).

²³ *Ibid.*, MS Ha1/1, f.17.

²⁴ Miss Honeybourne's treatment of the south-west corner of the church combined a free reading of the evidence of a line of poulterers' stalls with the assumption that the medieval porch shared the same position as the later entrance into Bull Head Court from Newgate Street (1932, 32). In fact, though the eastern sides of the porch and alley may have been common, the western side of the entrance was placed well to the east of the western side of the porch, no doubt to allow more space for the tenements between the Court and Butchers' Hall Street.

²⁵ Honeybourne 1932, 47.

²⁶ Hospital MS SBL 9/2, f.38.

²⁷ *Ibid.*, f.111v.

²⁸ Honeybourne 1932, 47.

²⁹ PRO (Public Record Office), LR 2/61, ff.68v–69. Honeybourne 1932, 33–4, has references to a Charterhouse Lane or 'Church Alley' in this area from the 15th century; the exact location remains unclear.

³⁰ Eg CLRO (City of London Record Office), Husting Rolls 2/60, 39/41, 91/28, 237/16.

³¹ CLRO, Letter Book G, f.cccix (*Cal LB G*, 314–5).

³² CLRO, Letter Book I, f.cclxxxi v (*Cal LB I*, 269–70).

³³ St Bartholomew's Hospital, MS SBL9/2, ff.17, 38, 57, 82, 99, 119, 149, 224–7, 282, 286 (1452/3 to 1526); MS Ha1/I, passim unfoliated (1526–48); MS Hc1/1, f.103 (1551–2). Miss Honeybourne, who relied only on Moore's published selection from the churchwardens' accounts, was evidently unaware (1932, 30) of the payment to the City Chamber of the rent of 26s 8d (as recorded in MS SBL9/2, eg. ff.101, 151, 227). The 'large' rent of £3 6s 8d, which she did note, was paid in respect of the same plots only in and after 1524–26 (*ibid.*, f.286; MS Ha 1/1 under 1536–38 and 1546–8).

³⁴ *Cal Wills*, i, 27, 97, 267, 269, 456–7, 518, 527, 529, 628; ii, 16, 17, 63, 67, 69, 234, 348, 434–5, 486, 502, 581.

³⁵ *Cal Wills*, i, 456, 518, 527, 529; ii, 16, 63, 67, 69, 236, 348, 434–5, 486, 502.

³⁶ *Cal Wills*, ii, 234.

³⁷ *Cal Wills*, ii, 236.

³⁸ *Cal Wills*, i, 456.

³⁹ *Cal Wills*, ii, 16.

⁴⁰ *Cal Wills*, ii, 67 (Cecilia Bristoll, 1362); 69 (Lucy atte Stone, 1362); 502 (Thomas Depden, 1443).

⁴¹ These questions are discussed in Dyson 1974.

⁴² *Cal Wills*, ii, 67.

⁴³ *Cal Wills*, i, 529.

⁴⁴ *Valor Ecclesiasticus*, vol 1 (Record Commission, 1810), 378.

⁴⁵ Hospital Ledger Book I (MS Hc1/1); Moore 1918, ii, 214.

⁴⁶ Jones 1976, 47–50.

⁴⁷ See Note 13 above.

⁴⁸ Moore 1918, i, 459.

THE EXCAVATION

John Schofield and Kieron Tyler, with contributions by Ian Betts and Alan Thompson

The following summary is based on the archive report by K Tyler (1990). The Group numbers used to designate major stratigraphic groups in the archive report are retained to facilitate consultation with the archive. Within the site report which deals with all periods, the relevant Groups are numbered 15 to 30, dealing with the late Saxon and medieval church. Each Group (often abbreviated G15 *etc*) is divided into subgroups when appropriate; but these do not imply successive phases within a chronological period. The subgroups are blocks of related strata, such as those which make up individual foundations or pits.

The archaeological remains of walls of buildings in Bull Head Court (built on the site of the church in 1552–3) are not reported in detail here, except as locations for many of the moulded stones which give details of the lost above-ground architecture of the church. A plan of the Court has been presented from documentary evidence, to reconstruct the outline of the church (Fig 3), and the Court and its surroundings shown in a detail from the map of the City in 1676 by Ogilby and Morgan (Fig 4, marked on the map as g77).

Virtually all the carved or moulded stones originally from the church came from the foundations of Bull Head Court. We here make an assumption that the stones came from the church of St Nicholas, though another parish church nearby, St Audoen, was largely demolished at roughly the same time; reuse of

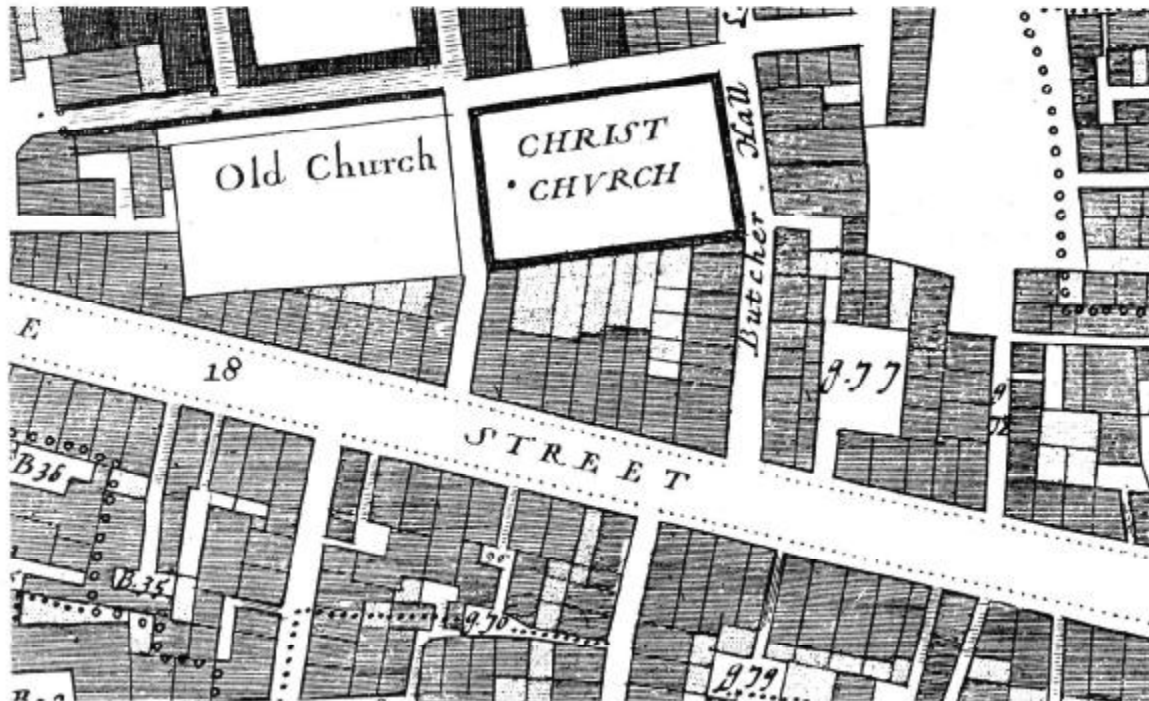


Fig. 4. The area of Bull Head Court (g77) on Ogilby and Morgan's map of 1676

stonework derived from buildings previously on the same site was a common practice in medieval and post-medieval London. At least one fragment recorded on the present site <3277>, a piece of a chevron-moulded jamb, was recut twice before being finally reused in a foundation.

Truncation of deposits by the 19th-century building on the site cut down to the top of the surviving strata, at about 14.3m OD. This was about 1m below early medieval ground level, as can be reconstructed by projection of the arches of some of the foundations; and as a result there was a complete absence of horizontal floor levels inside the church, or of comparable external surfaces. This means that the groups of foundations had no demonstrable stratigraphic relation to each other; thus they have to be reported as subgroups and then brought together on the basis of alignments and similarities in construction.

Pits probably preceding the church (Group 15; ?11th century)
(Fig 5)

A series of rubbish pits (Group 15) had been cut into the dark earth deposit which covered the Roman buildings on the site (Fig 5; for the latest

Roman strata and their dating, Perring & Roskams 1991, 21-6). The backfills of some of these were in turn apparently cut by the church foundations (Group 16), but the finds evidence suggests one of the pits might be later (*ie* dug within the standing fabric after it was built). The archive report distinguishes 13 subgroups (G15.1 to G15.13), but some were parts of the same pit. They resolve into six pits.

Three pits and their fills were cut by the north wall of the first nave. One (G15.8) was rectangular with rounded corners and measured 2.6m by 1.4m; the south side had been cut away by the church foundation. It was filled with brown-grey organic silts with clay and ash. Two metres to the east was a second pit (G15.10) of which similarly only the north side survived; its fills were brown and black silts mixed with brickearth and charcoal. 1.5m further east was the north side of a third pit (G15.12), filled with sandy silt and brickearth.

The foundation of the south side of the chancel (G16.2) also apparently overlay a pit which was recorded in three parts, the north-east corner (G15.6), the north-west corner and part of the west side (G15.11), and part of the south-east

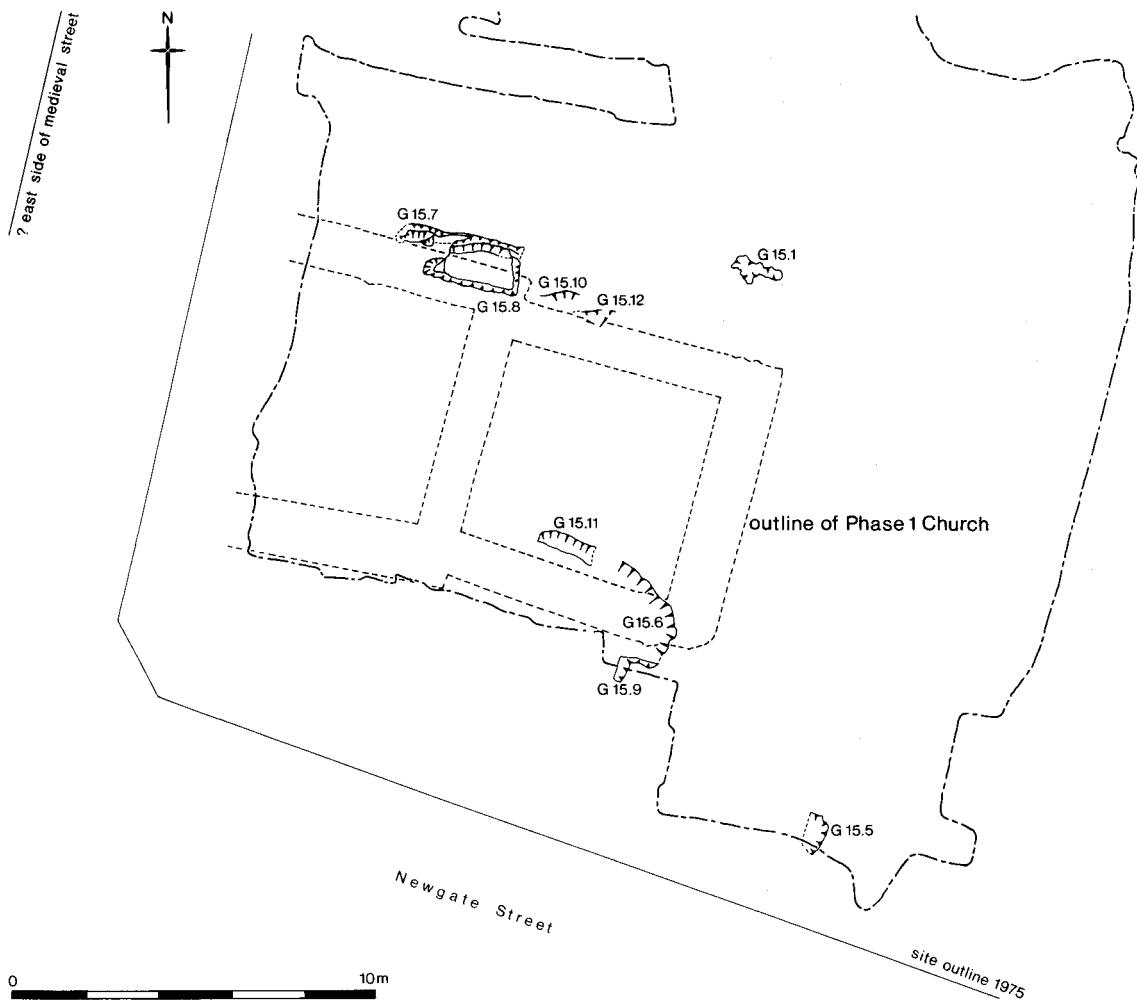


Fig 5. Group 15 pits preceding the church

corner (G15.9). The overall dimensions of this pit would be about 4.6m east-west by at least 3m (and perhaps more) north-south. The fills were grey humic silts mixed with brickearth and clay, with fragments of Roman tile and oyster shells; a high proportion included grey-green organic deposits. Pottery was of the period 1050–1150 from G15.6 but of 1270–1350 from G15.11; G15.9 also contained a quantity of medieval roofing tile, much of it no earlier than the late 12th century.

Two further pits lay north of the first church, and were cut by later foundations. One (G15.5) was roughly circular, of which only the east side survived after being cut by the foundation of the phase 3a chapel. Its fills were of dark grey silt

mixed with brickearth. The other pit (G15.1) underlay the north-east corner of the same structure. Also originally roughly circular, its east side survived. The fills included a mixture of charcoal and brown silts, with tile fragments. Neither of these pits could be dated.

Though these six pits appeared during excavation to precede the church, they were either undated artefactually or, like the dark earth deposit to the north of the church, were contaminated with later material (both pottery and fragments of medieval roof tile). The only early dating evidence was from part of the pit under the south side of the chancel (G15.6, 15.9, 15.11), and this also contained material of the period 1270–1350. It is therefore possible that

this pit, at least, was dug during the medieval period within the church, perhaps to test the foundations. It is also possible that this pit represents the removal of features, foundations or graves within the church.

As a group the pits cannot be taken as reliable indication of activity on top of the dark earth deposit, preceding or contemporary with the first church in the 11th or 12th century, since the contents of some are later and their precise relationship with the church foundations is unclear. They also give no clue as to whether the first stone church was preceded by any timber structure. Taking them as broadly, or mostly, of the 11th century, they do however have a further feature of interest: the nature of the Roman building material thrown in to fill them up. This must have derived from Roman buildings of quality in the vicinity, though not on the site itself, where the Roman buildings underlying the dark earth were 1st and 2nd-century structures of clay and timber. The backfilled pits contained fragments of Kentish Rag and Reigate rubble, laminated sandstone and possibly limestone roofing tiles, hard chalk *tesserae*, wall veneer fragments including Cipollino and Cararra marbles, and a wall moulding also in Cararra marble (see building materials report below). If the pits are to be associated with the building of the church of St Nicholas – such as abortive attempts to find decent building stone on the site itself – then their backfill might include those types of Roman building material which were considered unusable by the church builders, such as fragments of wall veneer.

**Church, phase 1: first nave and chancel
(Groups 16, 17.1, 17.8, 18; 1000–1150 on
archaeological grounds, before about 1144
on documentary grounds)**

(Figs 6–13)

The foundations of all periods of the church are shown in Fig 6, and their division into phases in Figs 9, 14 and 18–19.

The earliest phase of the church comprised foundations of a nave and chancel (shown under excavation in Figs 7 and 8). The west end of the nave, in this and all subsequent phases, was not recorded, as it lay beyond the western limit of excavation and under the pavement of King Edward Street (widened in the 19th and 20th centuries); the frontage of the street in the early 19th century, postulated from documentary and

plan study (given above in Fig 3) is shown in the phase plans. It is also possible that the medieval frontage lay even further to the west.

Two groups of foundations were recorded (Fig 9). Group 16 represented the nave and west part of the chancel, and Group 18 the east end of the chancel, differentiated by their construction technique. There seem to be two stages of construction (phases 1a and 1b) which are represented by the two Groups.

Phase 1a comprised three subgroups of foundations forming the north and south walls of both the nave and chancel (G16.1 and 16.3), and the foundation dividing nave from chancel (G16.2). The upper parts of the foundations were truncated at between 13.97 and 14.28m OD. All the foundations had structural similarities, with a portion of reused Roman building material such as *opus signinum* and Roman tile (up to 75% of the volume of the east end of the south wall foundation) (Fig 10). The north wall foundation also contained irregularly coursed blocks of Kentish Rag, Hassock, oolitic limestone, chalk and flint in an orange pebbly and sandy mortar; the west end of the south wall foundation contained layers of Kentish Rag, chalk and tile in a compact cream chalky mortar, its layers separated by horizontal bands of orange sand and gravel. The average width of these foundations was 1.2m, and they survived up to 2m deep, though they were originally probably up to 1m higher (to the level of general truncation by the 19th-century basement). A later grave (G17.1) had been dug into the north side of the north wall (Fig 13 below), and its base lay at 14.30m OD, indicating that external ground level was at least above about 14.6m OD.

Foundations of the east end of the chancel (G18.1) were of different construction: randomly coursed chalk, flint, ragstone and Roman tile mixed with dark brown/black soil and pebbles which separated the layers of stones. The uppermost surviving course, at 13.81m OD, included rammed chalk. These foundations formed not only the east end of the chancel but the beginnings of the north and south walls (Figs 7–8). Though they have been presented here separately, the foundations were not sufficiently different to indicate a completely separate period of construction; perhaps the east end of the chancel was built as a unit within the process of construction of the building.

The foundations together therefore formed the east end of a nave which was at least 5m long and 6.6m wide internally, and a chancel 6m long

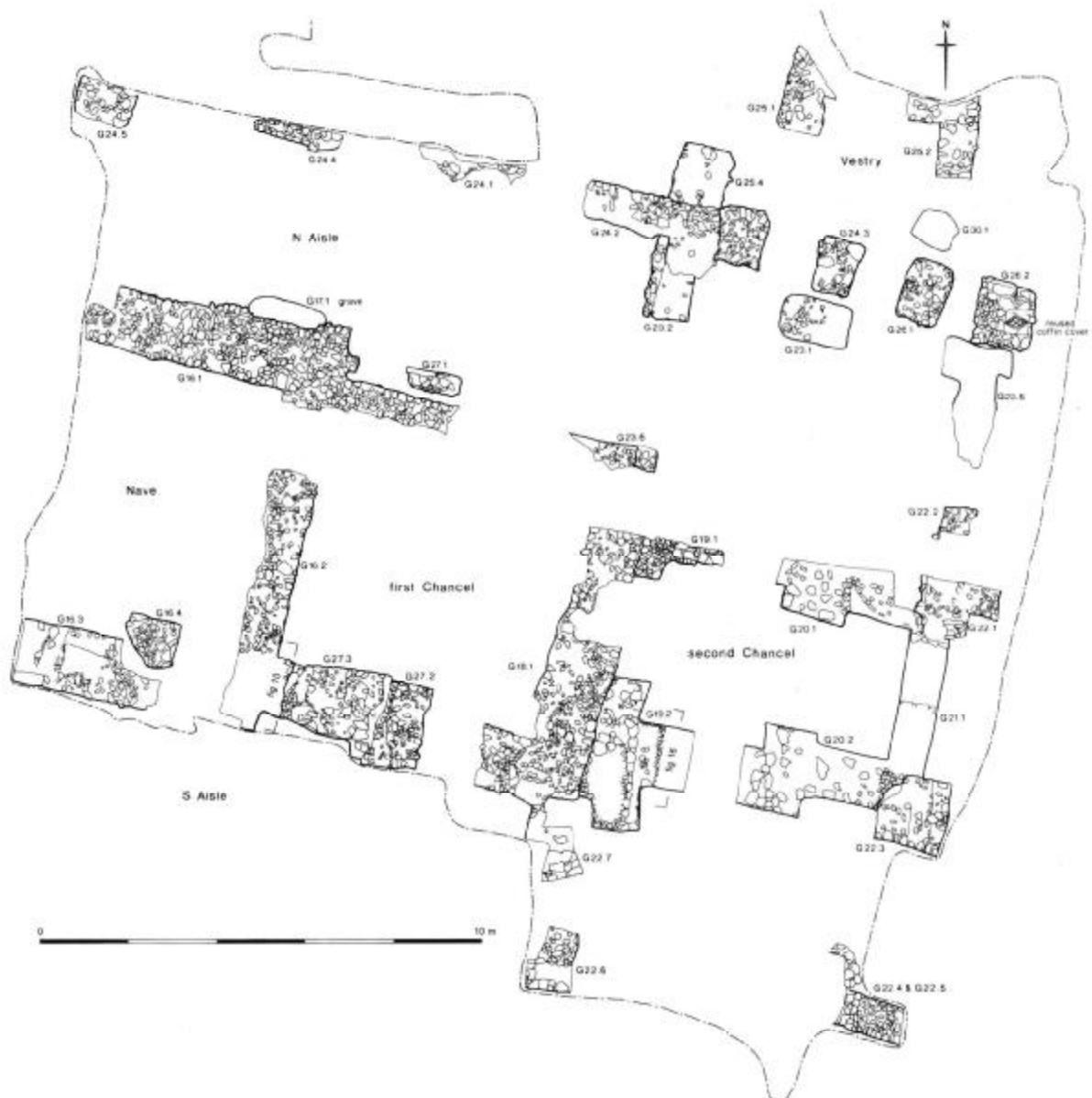


Fig 6. The foundations of the church, with Group numbers, showing the positions of the sections shown in Figures 10 and 16

and 5.6m wide internally (all dimensions of parts of the church are of spaces between the foundations, in the absence of walls, and it is likely that the walls were stepped in above the foundations by about 0.15m on each side). Though the foundation forming the division between nave and chancel was continuous at foundation-level, such a continuous sleeper-wall was normal for a chancel arch, and such an arch is assumed here.

Only one subgroup, G18.1, produced pottery dating evidence, and that was of the period ?1250–1400 and presumably intrusive. The character of the foundations, with little mortar and overall use of sand and gravel to divide layers of stones, incorporating a large proportion of Roman building material, is ubiquitous in other churches and secular stone buildings of 11th and 12th-century date. It is used in the 11th-century church at St Bride's Fleet Street, St



Fig 7. The excavations looking east, showing foundations of phases 1 and 2 of the church. The extension of phase 2 (sanctuary) is seen here as the chalk foundations at the east end of the church (compare the plan in Figure 14). In this and similar photographs the brick foundations crossing the site are those of the 19th-century General Post Office building



Fig 8. The foundations looking west, showing foundations of phases 1 and 2 (the latter as chalk foundations in the foreground; compare the plan in Figure 14). The line of King Edward Street in 1975 (since widened) is at the back. Scales are 10 × 100mm units

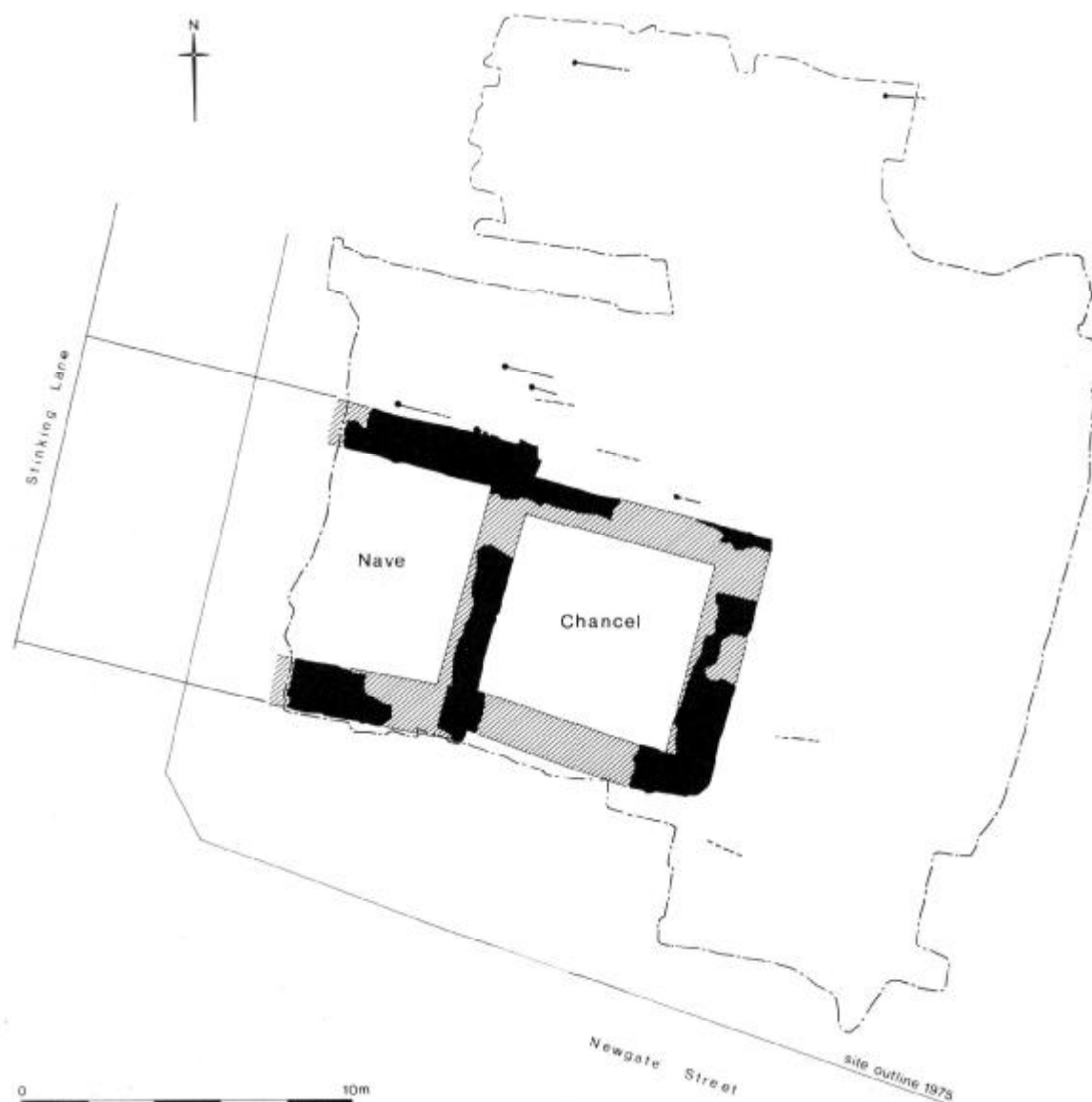


Fig 9. Phase 1 of the church

Nicholas Acon, and larger conventual churches such as Bermondsey Abbey (late 11th or early 12th century) and their associated buildings (as in the west cloister range at Holy Trinity Priory, Aldgate, early 12th century; discussed in Schofield *et al* 1990, 163-8). The form of the church is also typical of the 11th or 12th centuries in London. Excavations on the sites of at least 15 parish churches in the City have revealed 11th or 12th-century evidence, and where the plan can be reconstructed, in 12 cases, they all share

the two-cell plan of nave and chancel (Schofield 1994; and see Discussion section below for further treatment of this topic).

It is probably significant that no fragments of medieval roofing tile were recovered from the foundations of the first church building. Medieval ceramic roofing tile first appears in London sometime during the period 1100-50, and its introduction may well have been a reaction to a serious fire of 1135-6 (Betts 1990a, 221). The absence of roofing tile from the foundations of



Fig 10. Section through the foundation of phase 1 church on the south side, looking east (for position see Fig 6). Scale is 10 × 100mm units

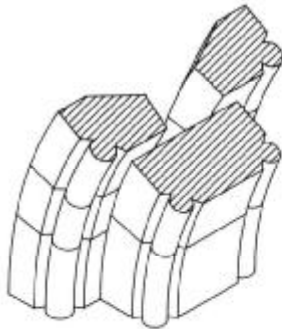


Fig 11. Reconstruction of a section through a 12th-century arch from stones <3337> and <3261> (Fig 29, Nos 1 and 2)



Fig 12. Reconstructed original form of pier capital of 1270–1330, stone <3336> (Fig 30, No. 13)

the phase 1 church therefore implies a date prior to the mid 12th century.

The moulded stones (all found in later contexts, see Moulded Stones report below) which are attributable to the 12th century indicate that the church had an arch or arcade of two orders; the

first order was painted red on the soffit and blue or black on the rolls at the edges of the moulding, and one fragment of the second order also had black paint (Fig 11; stones <1> and <2>, see report below). A fragment of a pier or respond base for a shaft 0.8m in diameter may have been associated with these mouldings (Fig 12; stone <13>). These stones were all Reigate stone, but there was also a piece of Caen stone which may have been from a string or abacus. There is no evidence of an arcade in the excavated remains of phases 1 or 2; the most likely source for this group of stones is therefore a chancel arch. The 12th-century stones cannot be assigned individually to either phase 1 or phase 2, and must therefore be available for reconstructing either phase.

The church of St Nicholas is first mentioned c.1144. A date of 1000–c.1140 for the first phase of the church will therefore be used here, while acknowledging that the evidence is slim. It is possible that the small group of pottery which supplies the date for subgroup G18.1 was deposited during localised repairs to the east end of the church at the later period.

In general, as noted in the discussion of the cemetery published in 1988 (Schofield in White 1988, 7–27), it has not been possible to connect phases of burial in the cemetery with phases of construction of the church; except to suggest that (i) all early burials almost certainly lay outside the outline of the phase 1 church and (ii) the burials excavated within the outline of the later (eg phase 5) church were all probably early burials overlain by the expansion of the church rather than later burials dug within the church. Since at least 1m, and possibly 2m, of church floors and strata had been removed by the early 19th century, it is likely that all late medieval and 16th-century burials within the church had been removed.

Despite these caveats, two group of burials distinguished by some embellishment of the grave will be discussed here and are assigned to the 12th or early 13th century, *ie* to phase 1 or the earlier part of phase 2.

The 1988 report noted and illustrated 22 graves with stone pillows, 15 of which were for old women and five for adult or old men (Schofield in White 1988, 18) Rodwell & Rodwell (1985, 83) show that this form of reverence for the deceased goes back to pagan Saxon cemeteries, but is common throughout England between the 9th and 11th centuries. At St Nicholas, the graves in this group were scattered

throughout the northern cemetery. Perhaps more significant are the graves with stone or tile linings, sometimes roughly mortared; here the original Types IV (chalk and mortar lining) and VI (dry-laid stone or tile lining) at St Nicholas are conflated to give 12 examples. Apart from two examples which were clearly apart along the northern boundary of the cemetery (documentary evidence having established that the northern limit of the excavated site lay very close to that boundary), these burials lay close to the north and east sides of the phase 1 church. In addition, the one charcoal burial found on this site (skeleton 5322) was within one metre of the north wall of the first chancel.

Two of the cist burials close to the north wall of the nave (and in one case, cut into it from the outside) may date from the second half of the 12th century, and thus technically be in phase 2 of the church's development. In the first case, G17.1, a cist burial intruded on the north wall of the church, and was overlain by one further burial. In the second case, G17.8, a burial with only a floor of chalk (5307) lay on top of and

possibly within an earlier cist which contained another skeleton (Fig 13). These two burials overlay four others, indicating a succession of interments before one of the uppermost two burials encroached on the foundation of the church. These two cists each contained pieces of reused roofing tile, although of slightly different dates within the 12th century (see Building Materials report, below). Burial G17.1 contained a curved tile probably of mid-late 12th-century date, and burial G17.8 contained pegtile of late 12th-century date. The implications of this possible grouping of graves over which more than usual care has been taken is considered in the Discussion section below.

Phase 2: nave, chancel and sanctuary
(Groups 19-21; 1150-1250+, possibly to
1330)
(Figs 7-8, 14-17)

The second phase comprised a narrower extension to the east of the chancel, of a kind which



Fig 13. Phase 1 or 2, burial 5307, looking south-east. Scale is 2 x 100mm units

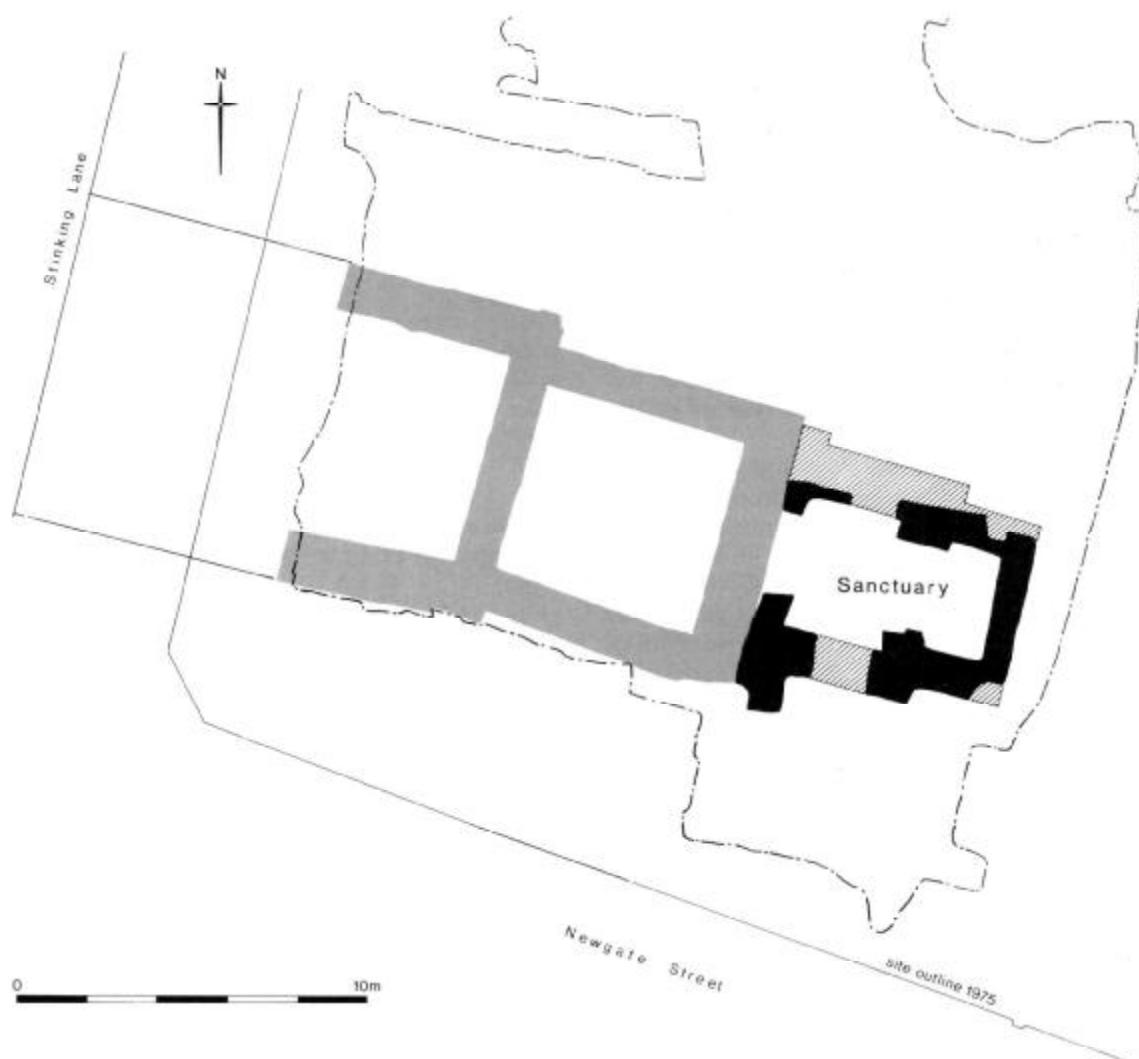


Fig 14. Plan of phase 2 of the church

when seen in contemporary churches is often called a sanctuary (the extension shown from two directions in Figs 7–8). The archive report divides the foundations into three sub-phases on constructional grounds, which may represent different episodes in the construction process. The foundations were all truncated by later activity to between 13.51m and 14.15m OD.

The first group comprised two east-west foundations (G19.1 and G19.2) which formed abutments to the existing east end and the starting-points of the north and south walls of the new structure (Figs 14–15). Both were constructed of courses of rammed chalk, so closely packed that the interface between

individual blocks was often not visible (Fig 16). These layers were separated by thinner layers, three of which were recorded on the north side (G19.1): crushed chalk with crushed grey/green laminated sandstone, orange sand and pebbles, and dark brown soil with pebbles. A similar layer in the south foundation (G19.2) was of pebbly grey soil. In addition, some 5% of the foundation consisted of ragstone. The trench for the northern foundation included, at its base, layers of reused Roman building material.

The foundations on both north and south sides resumed to the east after interruption by a 19th-century footing, and formed a continuous unit of north, south and east walls. Halfway along the

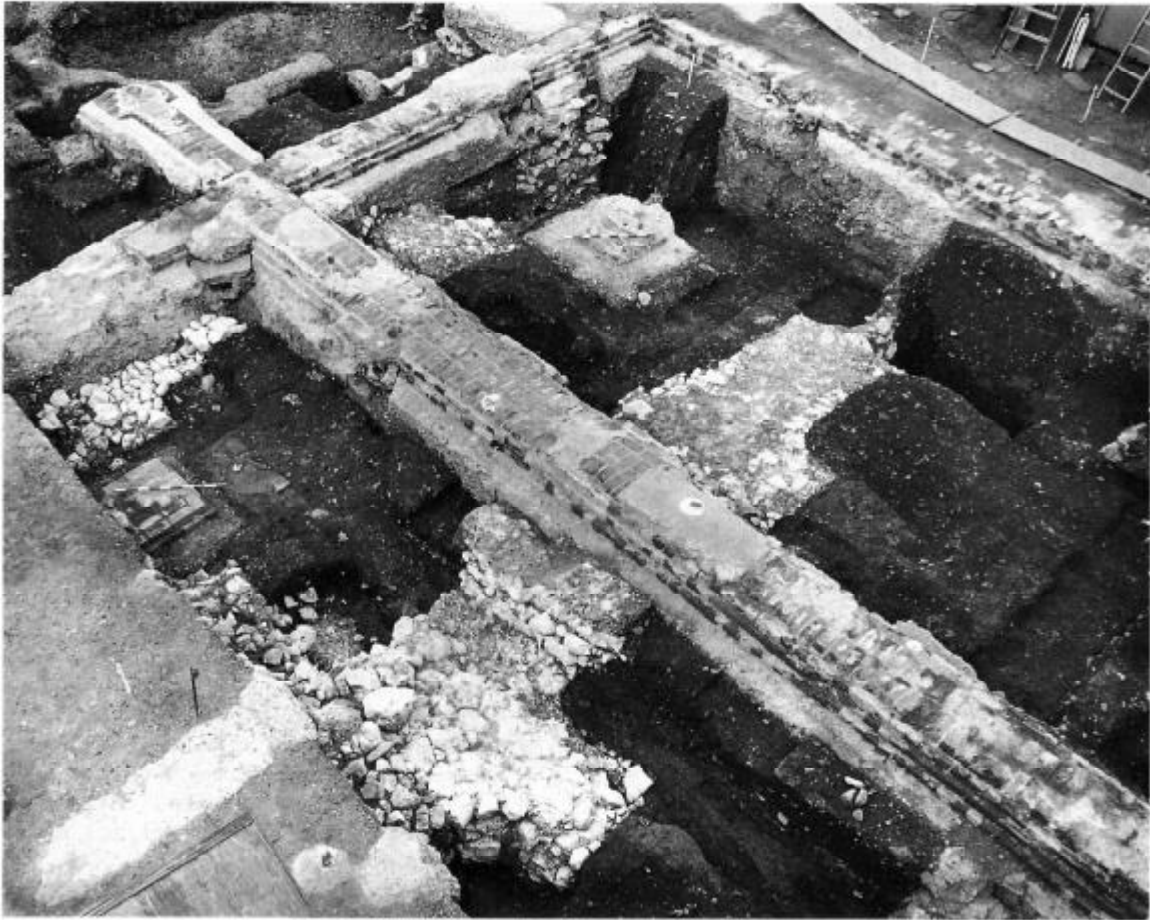


Fig 15. Phase 2 extension, looking north-east. Scale is 10 × 100mm units



Fig 16. Section through the foundation of phase 2 church on the south side, looking east (for position see Fig 6). Scale is 5 × 100mm units

north and south walls were foundations of internal buttresses or pilasters (G20.1 on the north, G20.2 on the south). In the bottom of the foundation trench at the east end (G21.1) were six stakeholes, in a shallow cut filled with building debris, which may represent a local preparation of the base of the trench with piles. This building debris comprised reused Roman tile and an unusual fine-grained sandstone of uncertain source.

Pottery of AD 850-1020 came from foundation G19.1 and of 850-1000 from foundation G20.2; these groups are presumably residual, from strata disturbed during the digging of foundations. Pottery of AD 1150-1200 came from foundation G20.1. Presumably as part of this phase the east end of the former chancel was broken open with some kind of arch. The foundations of G20.2

produced the earliest clay roofing tiles from the church structure. They were both flanged and what may have been shouldered peg tiles of mid 12th-century date.

The date of this construction phase is therefore placed later than about 1150. The end-date is provided by the next phase, around 1350. This long period of two centuries suggested by the *in-situ* archaeological remains can possibly be divided, however, after consideration of the moulded stones.

Firstly, as noted in the previous phase, a number of 12th-century stones were recovered from later walls. These included fragments of an arch of two orders, and of a respond base for a shaft (Figs 11–12). It may be suggested that these were from a chancel arch, of either phase 1 or phase 2.

Several further building works earlier than 1350 are suggested by other stones. One group came from a lancet window of 1200–70. Another comprises fragments from a pier and matching capital of late 13th or early 14th-century date which may derive from an arch or an arcade; some bore traces of red and black or blue paint. A third relevant group of stones suggests a window of 1270–1330 (Fig 17). Fourthly, a stone



Fig 17. Moulded stones reused in a wall of Bull Head Court. The stone with the flowers is one of the group from a window arch of 1270–1330 (<3405>, Fig 30 No. 16). Scale is 10 × 10mm units

later recut as the jamb of a window, <3336>, seems to have been originally part of a 13th-century pier capital.

An arcade is missing from the implications of foundations of this period. It is therefore possible that the pier and capital fragments derived from an arch opening into the sanctuary from the old choir. Since medieval ground-level was about 1m higher than the tops of the recorded foundations, it can however be argued that aisles were built on either or both sides of the nave with foundations of less than one metre, and that the arcade foundations did not survive to be recorded.

Fragments of 'Westminster' floor tiles of the 13th century were found in foundations of the next phase, suggesting that they were used in the phase 2 church.

The fragmentary archaeological evidence points to phase 2 stretching from about 1150 to sometime after 1250, and possibly as late as 1300, during which time the chancel was extended to form a sanctuary, and at the end of this period, one or more aisles may have been constructed. It should be noted, however, that there are parallels in the City of London for an aisle-less church sprouting chapels, which the foundations suggest may have been the form of St Nicholas in the next phase (Schofield 1994, 58–60). Thus it is not necessary to postulate aisles in phase 2 for St Nicholas and the question must remain open.

Phase 3: chapels to north and south of the chancel (Groups 22–3; 1340–1400) (Fig 18)

Phase 3 included foundations of two chapels, one to the north and one to the south of the (extended) chancel, and alterations to the east end of the church (Fig 18).

Several foundations comprised an extension north of the sanctuary (G22.2, G23.1–G23.6). They were of Kentish Rag and Hassock with a gold/brown or yellow mortar. The surviving tops were at about 13.04m OD. At the north-east corner of the extension, the foundation (G22.5) lay on two lower pads or piles (G23.3 and G23.4). The extension or chapel would have measured 6.4m east-west and 4m north-south internally.

A second group of foundations represents the outline of a similar extension on the south side of the chancel (G22.4–G22.7). These foundations were of coursed Kentish Rag with a small proportion of chalk, in either yellow chalky or pebbly sandy mortar. A small amount of peg

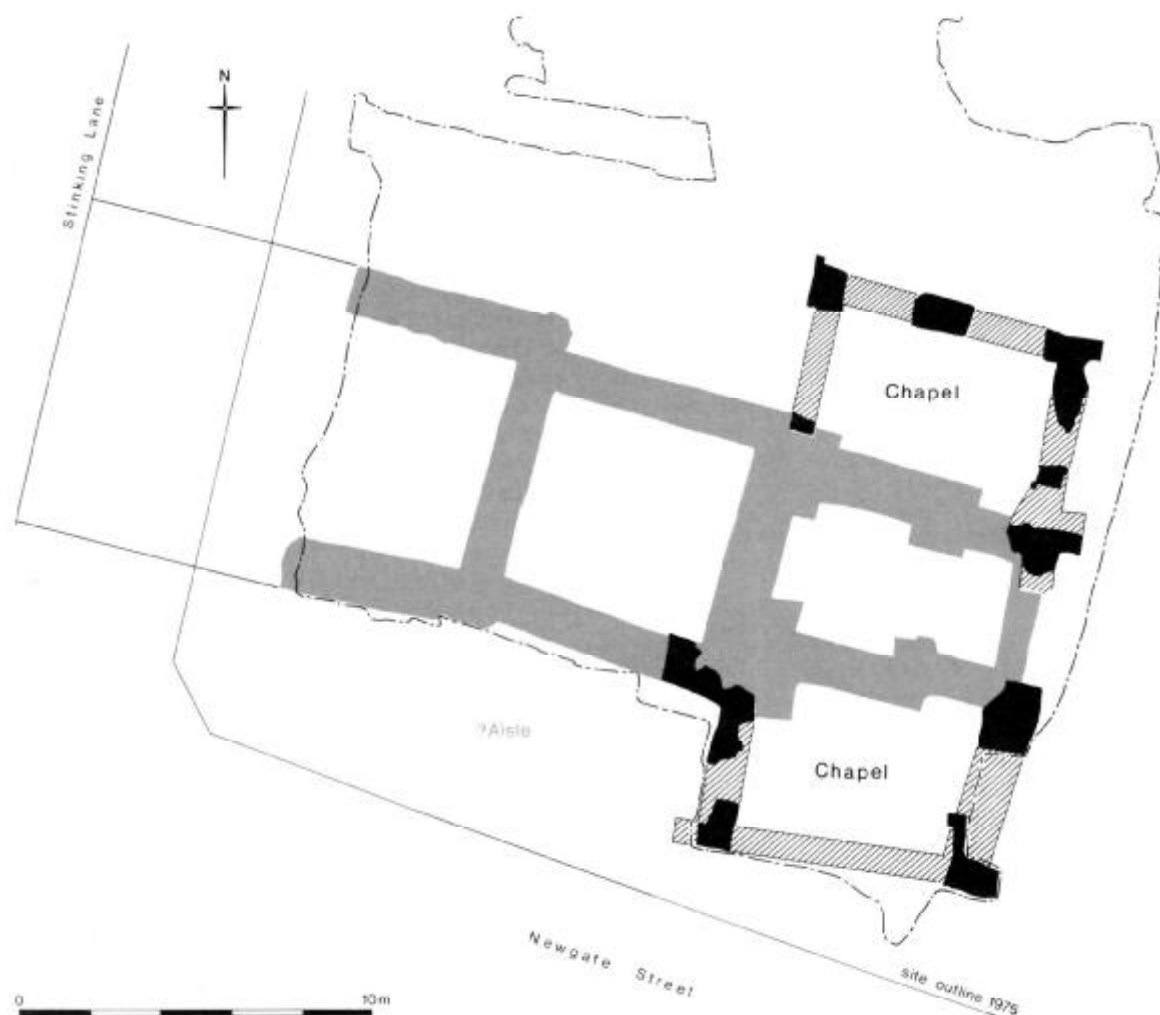


Fig 18. Plan of phase 3 of the church

roof-tile was recorded in each foundation, together with two fragments of glazed floor tile (both in G22.7). The foundation at the north-west corner of the extension (G22.7) also abutted the foundation of the existing church, in this case the south wall of the first chancel. The southern extension or chapel would have measured 6m east-west by 4m north-south; it was not quite rectangular in plan, as a constraint of some kind on the south side forced it out of true rectilinearity. It is proposed that both these extensions were chapels.

The east end of the church was strengthened with additional foundations, presumably for buttresses (G22.1, G22.3). The northern of these

(G22.1), in line with the north wall of the chancel, was constructed of layers of 'ragstone' (probably either Kentish Rag and/or Hassock) in a compact yellow sandy mortar, with its lower part predominantly of crushed chalk. The southern (G22.3) was arched, indicating a north-south alignment, with its south side intact as found (*ie* resisting any southwards movement in the east end). It is assumed that the east walls of both chapels abutted or connected with the east wall of the chancel, and that the buttresses marked the junctions. If the walls above reflected the positions of the foundations accurately, then the south chapel protruded slightly further east than both the sanctuary and the north chapel.

The foundations of the chapels were thinner than those of the previous phases of the church, and the structures they supported were presumably ancillary to the body of the church; they probably had lower roofs. The building of the chapels does not seem to be reason by itself for the strengthening of the east end with buttresses, though it may be significant that the foundation at the east end of the south chapel was arched in a north-south direction. The buttresses may reflect either the strengthening of the east end of the chancel on grounds of apparent weakness, or an increase in load occasioned by new building within the body of the church. It is possible that all three operations, the two chapels and the

buttresses, occurred at different times, and in any order.

Pottery from foundations of the north chapel was of the periods 1150–1350 (G23.5) and 1350–1400 (G22.7). It is possible that some of the moulded stones recovered from later walls on the site come from this phase, but since the stones themselves can only be dated to the long period 1330–1550, which encompasses the archaeological phases 3, 4 and 5, consideration of the original positions of the stones is deferred until the two later phases have been described.

The peg roofing tile in the foundations has a wide date span and cannot be used confidently as dating evidence. Such tiles first appeared in

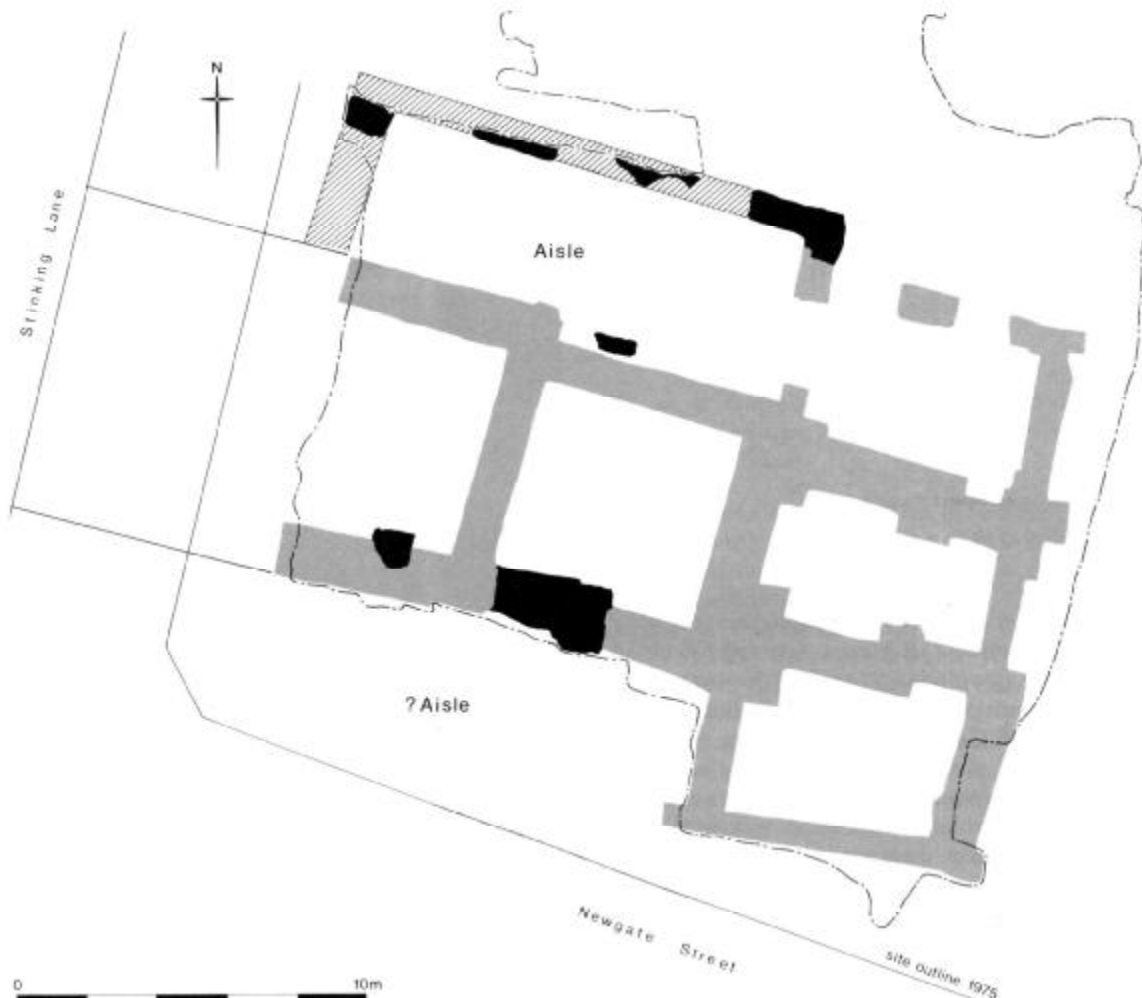


Fig 19. Plan of phase 4 of the church

London in the late 12th century and continued to be the standard type of ceramic roof covering throughout the medieval period. The two glazed floor tiles, one decorated, from the foundation G22.7 are of 'Westminster' type, which is dated c.1225-50 at Lambeth Palace Chapel, but others may be slightly later in date. Clearly both tiles were of some age before being reused in the foundations of the phase 3 church.

The appearance of the floor tiles in a reused context suggests that the former church of phase 2 was paved to some extent with 'Westminster' tiles in the 13th century. The inclusion of both Westminster (13th-century) and Penn (c.1350-1390) tiles in foundations of the next phase suggests that the church had floors with tiles from both sources in phase 3. The third phase is also the first which included a reused moulded stone, though the stone has been interpreted as part of a latrine seat, and is thus of no use in reconstructing the church (stone <3370>).

References in wills point to the existence of a chapel of St Mary in 1342 and a chapel of St Thomas in 1361 (see documentary survey, above). In the absence of hard evidence for aisles, in which chapels could have been formed by partitions, it is suggested that the two excavated chapels may well be these two, although we cannot say which should be allocated to which saint. Overall, then, the rebuilding in phase 3 is datable to the period 1340-1400. There are parallels for these chapel extensions to the chancel at St Bride's and at St Alban Wood Street, in both cases also in the 14th century (Grimes 1968, 191, 205). This phenomenon of the chancel chapel in London is outlined further in the Discussion section below, where other parallels are cited.

Phase 4: a north aisle and works on the south side interpreted as an arcade for a south aisle (Groups 16.4, 24.1-2, 24.4-5, 27.1-3;? 1400-50, possibly in stages) (Figs 19-20)

In phase 4 aisles were added on the north and probably on the south sides. The two sides are reported separately.

On the north side of the original nave and the original chancel, foundations suggest a north aisle (G24.1-2, G24.4-5). Three foundations were arched: that beneath the west end of the aisle (G24.5), and two along the north wall (G24.4, G24.1). The fourth foundation, forming

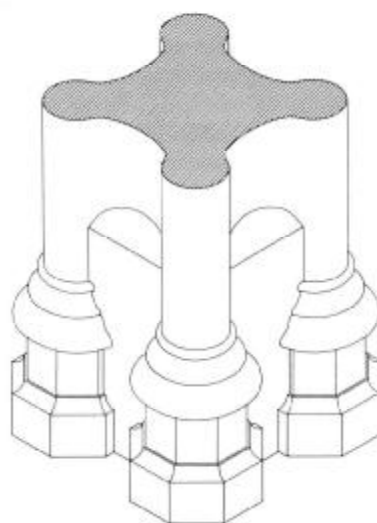


Fig 20. A possible reconstruction of a nave arcade pier based on stone <3373> (Fig 34, No. 78)

a join between the aisle and the north chancel chapel, was L-shaped (G24.2). The first three were constructed of 'ragstone' (probably Kentish Rag and/or Hassock) blocks up to 300mm across with smaller chalk blocks (up to 100mm) bonded in pale yellow mortar with some pebbles. The L-shaped foundation was said to be of chalk blocks in grey mortar, but this description was added after the excavation, and it is not taken here to be sufficient evidence to exclude the foundation from a logical place in the sequence based on its position and alignment. One fragment of peg roofing tile was also present. The foundations would have formed an aisle 12.2m long and 4.2m wide internally.

One fragment of foundation added on the north side of the first chancel, but not bonded to it, is interpreted as a pad for a pillar of the presumed arcade of the north aisle (G27.1); the original north wall of nave and first chancel was presumably taken down at the time of building of the aisle. The foundation was of chalk and mortar, together with medieval roofing and floor tile, and a small quantity of Roman tile. If, as seems likely, it was for an arcade pillar, it may have divided the opening into two unequal bays, with the shorter towards the east; but, equally, other pillars may have been founded on the thicker existing foundations of the first nave further west, so that new foundations were not required.

In one of the arched foundations, Group 24.4, was a reused late medieval moulding: a fragment

from the base of a circular shaft or column in Reigate stone, moulded with a chamfer and a roll; probably octagonal in plan. This fragment can be dated on stylistic grounds only to the long period '1400-1550'; this period must include both the original construction and date of reuse of the piece as rubble in the foundation. It is possible that this fragment (stone <5562>, below, Fig 34, no.79) was a rejected, perhaps broken, piece of the new arcade being inserted during phase 4.

A better indication of an aisle arcade of this period was given by a piece of an ogee and hollow-chamfered moulded base for a pier base (Fig 20; stone <3373>). The reconstruction of this suggests a pier base with four circular shafts above octagonal bases, like those at St Olave Hart Street and St Helen Bishopsgate in the later 15th century, though the type had a long currency and the cautious time bracket of '1400-1550' should still be applied. Since the piece was found in the post-Reformation context of Bull Head Court, however, it is not possible to say whether it came from the north or south arcade.

The dating evidence for the north aisle remains uncertain; but part of the succeeding phase 5, the vestry, was on documentary evidence in place by 1456-7, and the rebuilding of the vestry and the new north wall of the choir was stratigraphically later than the foundations for the north aisle. It seems likely therefore that phase 5 is datable, at least on the north side of the church, to 1400-50; and the north aisle of phase 4 must therefore also have been erected before about 1450.

The existence of a south aisle at this or any other period is not certain, as the excavation did not explore the area south of the first nave and chancel. Three foundations on the line of the south wall of the first nave and chancel can be interpreted as preparation for the insertion of a south arcade (G16.4, G27.2-3). The foundation to the west (G16.4) was roughly square, of ragstone in a hard pinkish mortar which included fragments of chalk, ragstone, plaster, and Roman tile and medieval floor tile. To the east a foundation in two parts (G27.2 overlain by G27.3), of ragstone, chalk and tile with different mortars, lay on the first chancel foundation, at a point equivalent to the possible arcade foundation on the north side. The upper part (G27.3) comprised Kentish Rag, Reigate stone, some of which was moulded, and possibly Caen stone; ceramic roofing tile and plain or decorated floor

tile. Like its companion to the west, it also contained some fragments of Roman tile. This suggests that both were derived from the same source of Roman material, most likely the old church wall which had been pierced for the arcade. Although the outer walls of a south aisle were not recorded, it is proposed here that these new foundations are the traces of building an aisle and arcade.

Pottery was recovered only from one foundation, G27.3 in the proposed south arcade,

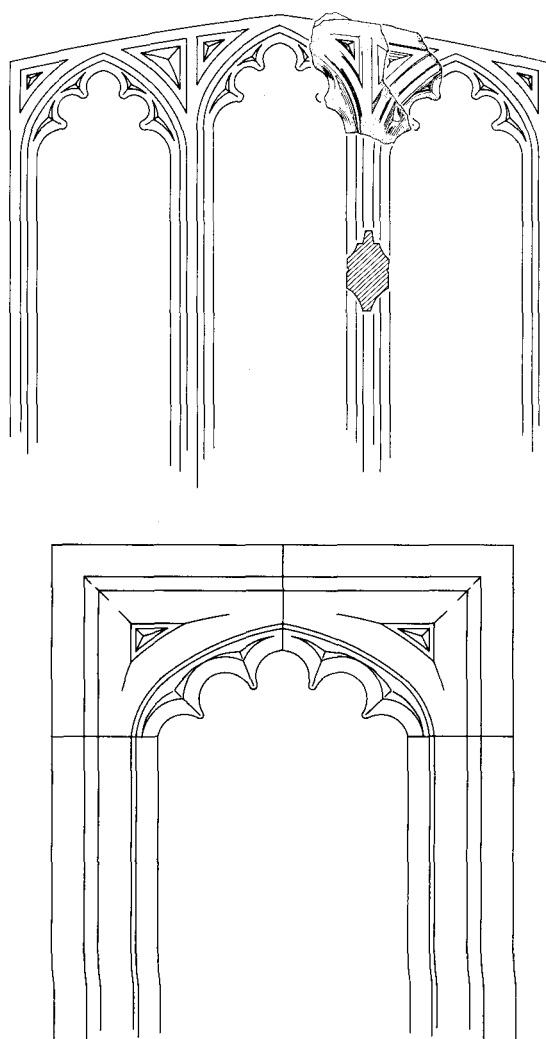


Fig 21. Reconstructions of windows from St Nicholas Shambles: (a) a three-light window of 1375-1450 reconstructed from stones <3249>, <5532> and <5565> (Fig 33, Nos 58-61) and others; (b) a single-light window of 1400-1550 reconstructed from stone <3375> (Fig 34, No. 80)

dating to 1250-1350. The same foundation also produced a reused Purbeck marble fragment, probably part of a grave slab, with the remains of Lombardic lettering (Fig 37), probably of early 14th-century date.

The foundations of phase 4 on the south side incorporated the earliest floor tiles of Penn type (G27.3) and a solitary floor tile of Flemish manufacture (G16.4). The former are decorated and belong to either Eames's second or third Penn series dating from c.1350 to c.1390. This provides a *terminus post quem* for the possible south arcade of the south aisle. It also indicates that the previous church probably had areas of decorated Penn floor tiles, and presumably some plain glazed floor tiles of Flemish type. Glazed and decorated 'Westminster' tiles, of the 13th

century, were also reused in foundation G27.3, and presumably all the tiles and the grave slab from which the fragment was recovered came from the floor of the phase 3 church where it was disturbed in the phase 4 building works. Documentary evidence suggests that there may have been a south aisle by 1422.

To summarise, an arcade for a north aisle was inserted after the building of the chapels, in a period which cannot be specified precisely but which seems to be 1400-50, on the evidence of the moulded stones. A south arcade may have been inserted during roughly the same period, possibly by 1422. Individual parts of phases 4 and 5, dealing respectively with works on the south and north sides of the church, may have been contemporary or may have overlapped.

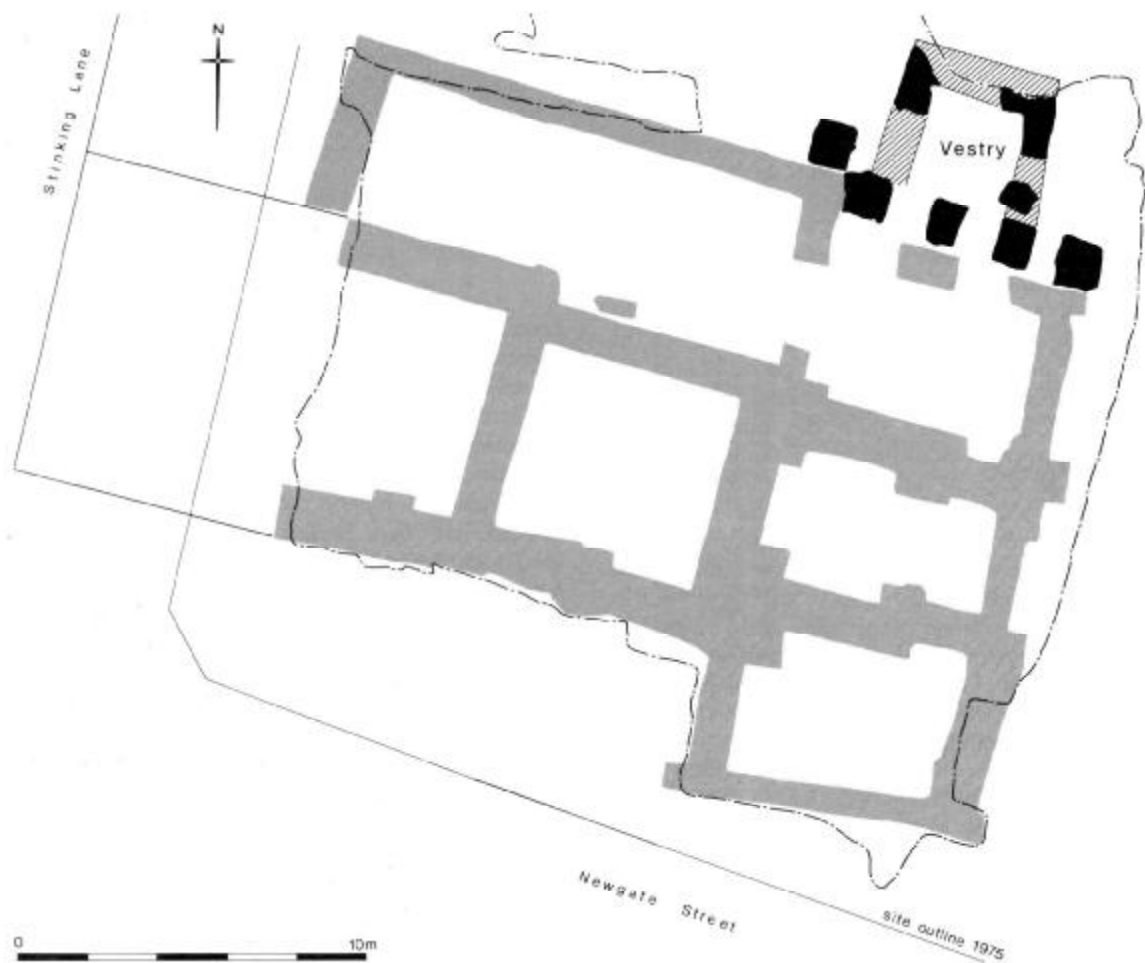


Fig 22. Plan of phase 5 of the church

At this point two groups of moulded stones which may be of either phase 4 or phase 5 should also be mentioned. Eighteen fragments have been grouped together as being originally parts of a window of three lights with cinquefoiled heads, dating on the mouldings to 1375–1450 (Fig 21a, stones <3249, 3335, 3384, 5532 and 5565> in the moulded stones report). This window was 2m (6ft 6in) wide. It could have been in the north or south walls of the church, or in the east end. Secondly, a fragment from a small single-light window with cinquefoils within a rectangular head was also recovered (stone <3375>; Fig 21b); this is dated to 1400–1550.

Phase 5: rebuilding of part of the north wall and a north vestry (Groups 25.1–4, 26.1–2, 30.1; 1400–50, monuments 1470s+)
(Figs 22–5)

The fifth and final archaeological phase of the church comprised firstly the addition of a small chamber protruding from the north side of the church near the east end; this was undoubtedly a vestry. At the same time the east end of the north wall of the church, where entrance was gained to the vestry, was rebuilt more in alignment with the portion to the west.

Three foundations (from west to east, G25.3, G26.1 and G26.2) formed a line immediately north of and parallel to the north wall of the north chapel (Fig 22), extending the line of the adjacent north aisle so that the north side of the main building was uniform (previously the north aisle had been wider than the north chapel). These three foundations were however constructed of slightly different materials: G25.3 of chalk and oolitic limestone in pale orange sandy mortar, G26.1 of chalk, 'ragstone', medieval roofing tile and Roman tile, in brown chalky and pebbly mortar, and G26.2 of flint, oolitic limestone, medieval roof tile and 'ragstone', generally drystone but with a small amount of brown mortar. G26 also included two parts of a 13th-century stone tomb cover with simple lozenge relief moulding (Fig 23).

North of this group, foundations formed three sides of the vestry (G25.1–2, G30.1). These were of chalk, Kentish Rag and medieval roof tile in sandy orange mortar, and arched (Fig 24). At the same time a foundation of similar character, but not arched, was laid against the north-east corner of the north aisle (G25.4). This may have been as the base for a rood stair, entered from the aisle; it aligned with the chancel arch to the



Fig 23. Phase 5, foundation G26 looking north-west, showing it comprising parts of a 13th-century stone coffin cover, <1262>. Scale is 5 × 100mm units

south. The vestry would have had internal dimensions of 3m east-west and the same north-south.

Dating evidence from the strata for this phase was minimal. The vestry is mentioned in the churchwardens' accounts in 1456–7 (above, documentary survey). This phase is therefore placed in the period 1400–50, since the documentary reference only indicates that the vestry was in place by then.

Inferences from the remainder of the moulded stones, many of which can only be dated broadly to the period 1330–1550, may now be brought together. Some are simple chamfer mouldings which cannot be related to anything specific, but others came from a variety of features: arches, possibly a compound pier, straight and arched hood moulds from windows, plain chamfers from windows, and one fragment of door jamb.

The groups comprising a three-light window (Fig 21a) and smaller window (Fig 21b) have already been described. Other groups of stones comprised fragments from two unglazed windows and a fireplace (possibly not from the church



Fig 24. Phase 5, foundation G25 of vestry, looking north-east. Scale is 5 × 100mm units

site) and four fragments of a monumental tomb (reconstructed, Fig 25). Tombs of this kind are found in other City churches from 1477 (Cherry 1990; Schofield 1994, 70-1). We may conclude that in 1375-1450 the church was refurbished, with at least two new windows and a vestry, and at this point probably had a nave and two aisles.

The steeple (*ie* tower) of St Nicholas lay outside the area of excavation to the west (and its foundations may survive beneath the present pavement on the east side of King Edward Street, if the demolition of 1552 was not thorough, as seems likely). The date of construction of the steeple is unknown, but bells for use in it were consecrated in 1468. A number of churches built belfries in the first half of the 15th century, and St Nicholas may have been one of them. The first church probably had its west end directly on the street frontage of what was then Stinking or Chicken Lane; by the end of the medieval period houses stood to each side of it on the street, inhibiting the extension of both north and south aisles westwards up to the frontage. Thus in the late medieval period,

presumably only the tower would have been seen in the lane. Perhaps, also, there was a west door into the tower from the lane, though this would not strictly be necessary as there was a south entrance from Newgate Street.

The south porch of the church is first mentioned in 1422. Its site lay south of the excavated area and its original date and form are also unknown. An entrance from the adjacent populous market in Newgate Street would be natural. The porch must have formed an entrance into the south aisle, which is however comparatively rare among the known medieval church plans in the City; the main entrance to a City church is more commonly through the south side of the tower, which usually lay at the south-west corner of the church (Schofield 1994, 55).

By the late 15th century the 14th-century chapels dedicated to St Mary and St Thomas were joined in the church by a chapel dedicated to St Luke, which was founded before 1484 by the Butchers, and an altar to the Holy Trinity (an altar to St Wulfstan is mentioned earlier, in 1252, but not thereafter). It is not clear where

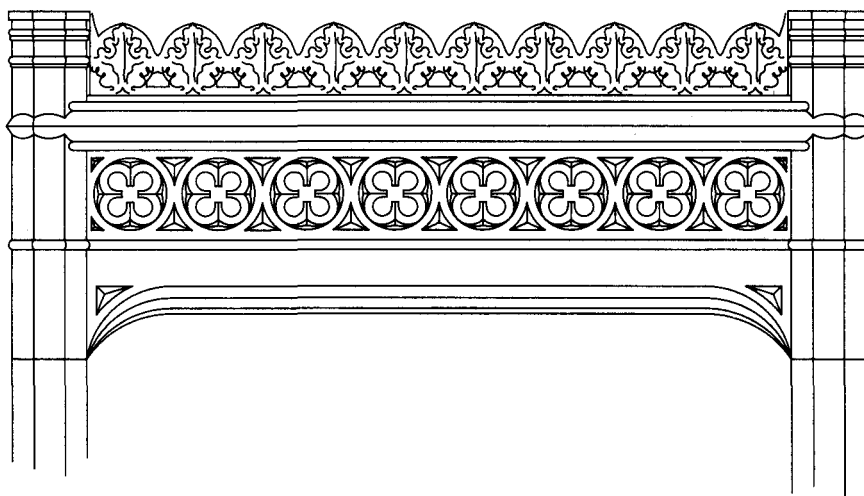


Fig 25. Reconstruction of the canopy of a monumental tomb of 1475–1500, from stone <3655> (Fig 35, No. 84)

the chapel of St Luke or either of the altars lay. Possibly the chapel was in one of the aisles, and was formed by partitions; though it is also possible, as shown by practice in other parishes, that the saint was added to one of the two existing chapels to form a joint dedication. The chapel would be referred to by either name as the testator wished.

DISCUSSION

John Schofield
(Figs 26–8)

Because of severe truncation of deposits by later buildings on the site, especially the basement of the 19th-century Post Office Headquarters, only scattered and probably incomplete foundations of the church of St Nicholas survived to be recorded. The top metre or so of medieval stratigraphy had been removed, and no floor levels or walls of the church were evident. This means that discussion of the results is both tentative and relatively short. It is divided into three sections dealing with the origins, form and surroundings of the first church; the medieval development of the building; and the relationship of the church to the burials in the northern churchyard, which have been published previously. A summary of the proposed development of the church is given in Fig 26; the present report proposes five main phases of growth for the church, replacing the interim six phases

proposed in White 1988. All the churches mentioned in this discussion lie or lay within the City of London, except where otherwise stated.

Origins, form and surroundings of the first church

A small group of pits apparently preceded the first church, but their dating is not secure and at least one may have been dug during the lifetime of the church. They do not conclusively indicate occupation along Stinking Lane (contra Vince 1990, 73). There was no sign of any secular buildings or complexes to which the church could have been attached.

The phase 1 church of St Nicholas comprised a rectangular nave and a chancel; the west end lay under the present King Edward Street which formed the west side of the site. The church is first recorded in documents in c.1144; archaeological dating evidence for the first phase is scarce, and parallels can be sought in other early churches for the plan, the foundation technique and the reuse of Roman building material.

A number of parish churches in the City of London, all excavated since World War II, started as simple buildings of two cells, a nave and a smaller chancel; the detailed comparisons are made elsewhere (Schofield 1994, 41–6 and gazetteer). There are cases where the first church was a single rectangular room, such as St Benet Sherehog, St Bride Fleet Street (Milne 1997, 26), and possibly St Nicholas Acon (Schofield 1994,



Fig 26. Development plan of St Nicholas Shambles, phases 1 to 5: 1, 1000-1150, probably before about 1144; 2, 1150-1250, possibly to 1330; 3, 1340-1400; 4, ?1400-50, possibly in stages; 5, 1400-50, monuments 1470s+ (to 1547)

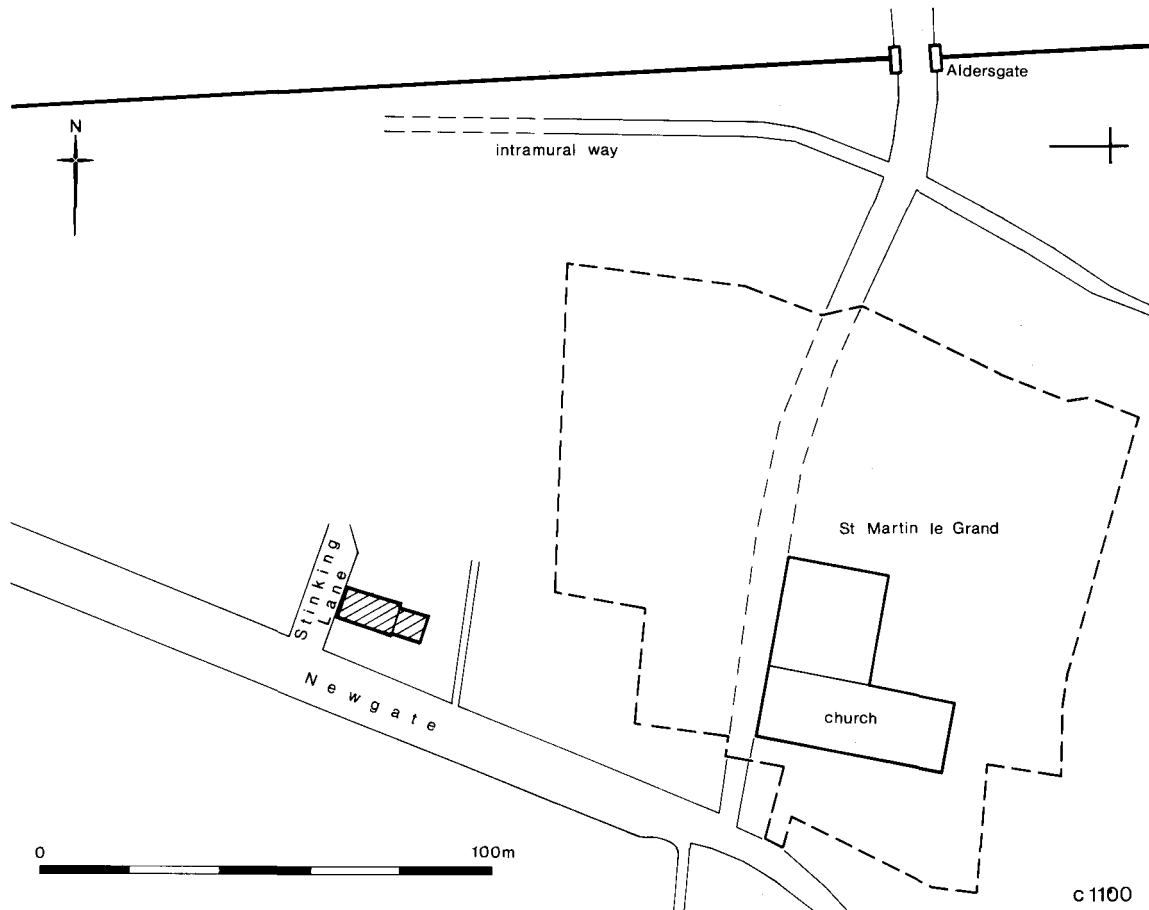


Fig 27a. Sketchmap of the setting of the church near Aldersgate and the precinct of St Martin's le Grand, c.1100

124), but the two-cell plan was clearly the norm, as shown by the national survey of Saxon churches undertaken by H M Taylor and Joan Taylor (1965). They note (1965, 13) that the plan alone can seldom be used to give a good indication of date; the two-cell form is found at the church of St Laurence, Bradford-on-Avon, possibly of the 8th century (*ibid* 86–8). It was the usual form in towns in the 11th century, and in the countryside around London (a number of comparative plans are given by Rodwell & Rodwell 1985, fig 95).

The construction of the foundations of the church provides some broad dating evidence. The foundations of the phase 1 church comprised a large proportion of reused Roman masonry in layers interleaved with gravel. This technique has been noted on secular and religious stone buildings in London from the opening of the 12th century to the opening of the 14th century

(Schofield 1990, 167 for discussion). Similar examples, in which the gravel is termed 'hoggin', are noted in Essex buildings including churches of the 11th century, such as the first stone church at Rivenhall (Rodwell & Rodwell 1985, 91). The technique is also used in the first single-cell church at St Bride's, which might be 11th-century, but its dating can only be given as 'post-Roman and earlier than the apse which cannot be earlier than mid 11th century' (Milne 1997, 26). It can be concluded that stone buildings of the 11th (and even 10th) centuries in London would have shared this construction technique, which was widespread in the region.

Further, the proportion of Roman building material used in the foundations is a broad indicator of date. The phase 1 foundations of St Nicholas used pieces of Roman masonry, with mortar still adhering, and scraps of marble veneers. By the 13th century, in general, the only

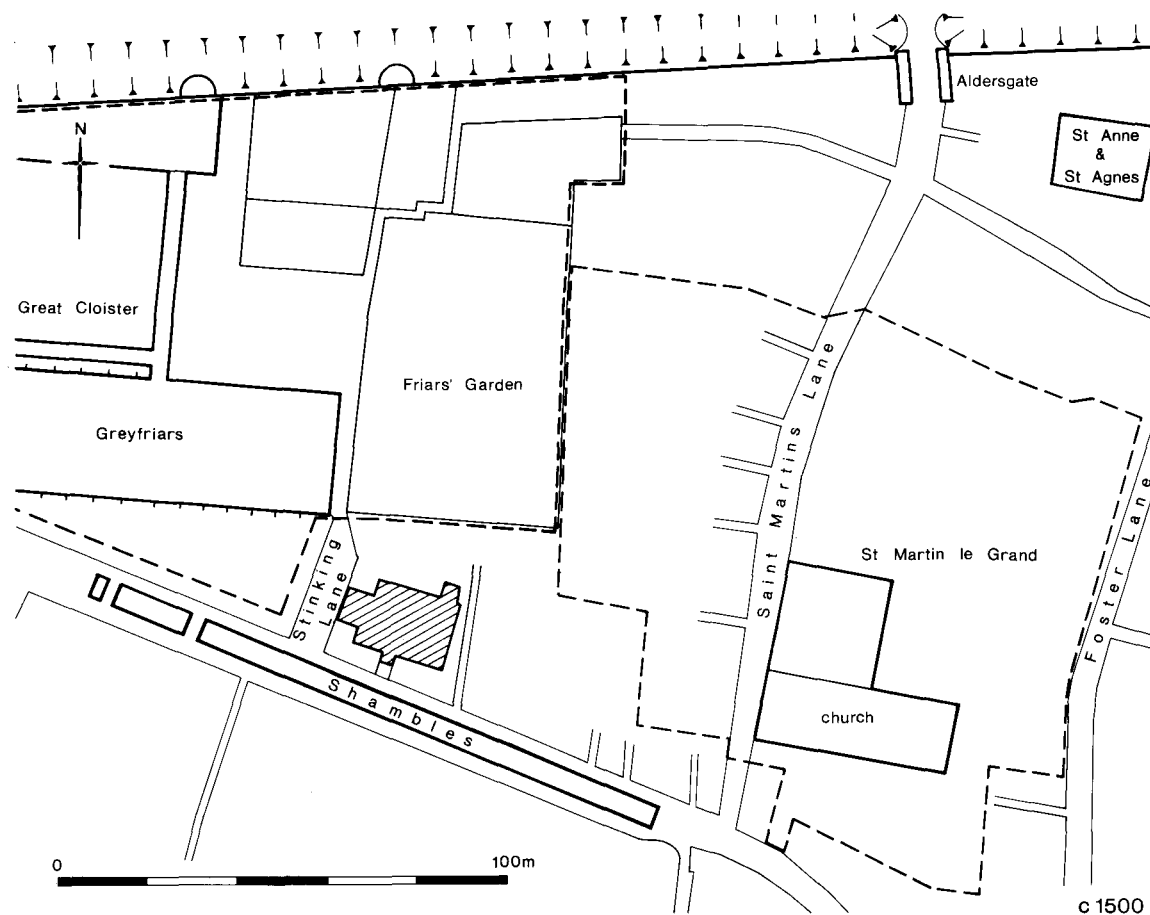


Fig 27b. Sketchmap of the setting of the church near Aldersgate and the precinct of *St Martin's le Grand*, c.1500

identifiable Roman masonry fragments being reused in stone walls in the City are Roman tiles, in whole or more commonly in fragments, as in the relieving arches above lancet windows in the south transept of *St Helen Bishopsgate* (Schofield 1994, 104-7). The fairly high proportion of reused Roman material in the phase 1 foundations of *St Nicholas* would suggest a date before 1200.

Thirdly, the foundations of the phase 1 church contained no medieval roofing tile, which is generally found in strata and foundations after about 1150. This contributes to the suggested overall date of '1000-1140' for phase 1 from both archaeological and documentary evidence together.

Although no part of *St Nicholas* above medieval ground level survived to be recorded, it can be suggested that the 11th-century church resembled others for which scraps of superstructure have been recorded, such as *St Olave Jewry*:

walls largely of reused Roman building material, including tiles which were also used to form quoins at corners and doorways, and possibly also for arches inside the building. In its foundation date and first appearance, at least, *St Nicholas Shambles* was therefore one of many small churches which appeared in the 11th century (or possibly in the late 10th century) in London.

The church is also called *St Nicholas Aldred* in the 13th century. The name *Aldred* is presumably the same as that in *Aldersgate*, the Roman gate 120m to the north-east; the name *Aldersgate* is recorded 'before the year 1000' (Brooke & Keir 1975, 161; and see Dyson above). It is possible therefore that the church had this byname in the early 11th century; but equally possible that the name, in some way attached to the locality, was transferred temporarily from the

gate (a larger stone structure) to the church in the 13th century. The byname does not alter the overall suggested date for the phase 1 church.

The church lay in an area which had other local centres of activity by the middle of the 11th century (Fig 27a). In the medieval period the precinct of St Martin's le Grand, immediately inside and south of Aldersgate and east of St Nicholas, was bisected by the public highway today called St Martin's le Grand (from Aldersgate to the junction of Newgate and Cheapside). St Martin's le Grand was founded by Ingelric, a canon of St Paul's who flourished in the mid and late 11th century (Brooke & Keir 1975, 310–12); the name *Sancte Martines mynster* survives in a copy of a document of 1068 (Ekwall 1954, 37). The establishment of the precinct may have preceded the foundation of St Nicholas Shambles, which lay immediately outside its south-west corner; but equally St Nicholas may have been there first. When parishes became distinct entities, around 1200, St Martin's did not have a parochial function; the next parish east of St Nicholas was St Leonard Foster Lane, a parish church which lay within St Martin's precinct.

The medieval development of the building

In phase 2 the chancel was extended in slimmer form, on new foundations of fresh chalk. The extension is called a sanctuary, by analogy with similar extensions to early medieval churches elsewhere; here it is dated to between about 1150 and sometime after 1250, perhaps up to about 1340. Moulded stones recovered from later contexts included several from a lancet window of 1200–70 and a pier and matching capital of late 13th or 14th-century date, enlivened with red and black or blue paint. Fragments of 'Westminster' tiles may have been laid in the church at this time, and fragments of two coffin covers or grave slabs, though of different dates in the 13th and early 14th century, are probably of this phase; documentary evidence tells of several parishioners requiring burial in the church from the earliest surviving wills of the middle of the 13th century. Although the window and arch may have been from an aisle, they might equally be the new east window of phase 2 and the arch which formed the entrance into the sanctuary.

An extension of an existing chancel to the east, on a rectangular plan of slightly smaller area, or with an apse, is not yet known elsewhere

in London. A church with its chancel in two parts is St Bride's, where the recent revision of the excavation suggests that the single-cell first church was extended with both a square chancel and an apsidal end in one operation (or at least, they cannot now be separated); the apse overlay a pit in which was a single sherd of pottery datable to 1000–40 (Milne 1997, 26–8), justifying a broad date of '11th to early 12th century'. Such an arrangement of a square chancel and a rounded apse is found at St Mary Magdalene, East Ham, which survives; the nave, chancel and apse are all 12th-century work (Pevsner 1965, 164–5; plan in leaflet guide at church). At St Michael Bassishaw, excavations in 1965 (Marsden 1968; Schofield 1994, 121–2) revealed an apse on what has been taken to be the east end of the 12th-century nave, but it could also perhaps have been another example of a square chancel with a contemporary or later apse, the nave lying in unexcavated territory to the west. Rodwell & Rodwell (1985, 138) suggest that several Essex churches, including that at Rivenhall, grew by having an apse added to a square or rectangular chancel. A church could also have an apsidal chancel from the beginning, instead of the more normal square form, as at St Pancras (Marsden 1967). Apsidal chancels were rebuilt square during the 13th century at St Martin Orgar and St Michael Bassishaw (Schofield 1994, 46).

The three-part phase 2 church at St Nicholas raises the question of terminology regarding its component spaces. The large western part was no doubt the nave; but what should we call the first, and the second, 'chancels'? It seems likely that the extension of the first chancel with a similar, but significantly smaller space, must have been occasioned by a need for liturgical change. Between the late Saxon period and about 1200, the altar position is thought to have shifted in many churches from just east of the chancel arch to the centre of the chancel or even further east (Parsons 1986; Peters 1996); though in the 10th-century church at Raunds (Northants), the altar has been reconstructed as standing *west* of the chancel, blocking the chancel arch with a canopy on posts (Blair 1996, 14). In this case the 'chancel' may have functioned as a 'presbytery', that is 'a part of the church reserved for the clergy; the eastern part of the chancel beyond the choir' of medieval churches (as defined in the *Shorter Oxford English Dictionary*). This part can also be called a sanctuary, and this is the term used in the present report for the extension of phase 2. It seems significant that when chapels

were added in phase 3, they were north and south of the sanctuary, not the first chancel. It is likely therefore that the whole religious focus of the altar had by 1300 been moved from the first chancel into the sanctuary extension. This is demonstrated at St Mary Magdalene, East Ham, where in the 13th century a narrow squint from outside the church was cut through the 12th-century south wall of the chancel, including through its internal arcade; the line of the squint shows that the altar was then just west of the step from chancel into the apsidal sanctuary. A similar position for the altar can be suggested for St Nicholas by 1250.

In phase 3 chapels were added to the north and south of the sanctuary, in the period 1340–1400. Since a chapel dedicated to St Thomas is mentioned in 1361, it is possible that phase 3 was of the first two decades of this period, *ie* 1340–60. By this period there may have been aisles to the nave, but no certain evidence survived. It is also possible that the chapels were added to the chancel before aisles were added to the nave.

The adding of chapels north and south of the chancel from the late 13th century has been discussed in the recent review of medieval churches in London (Schofield 1994, 58–62). The examples cited there, where datable, are mostly from the 14th century; large chapels flanking the chancel at St Bride's may be of the late 13th century, but this is not certain (Milne 1997, 36–42). Several examples, including one at St Bride's, have undercrofts of uncertain purpose (Schofield 1994, 50–1). These chapels contained subsidiary altars, and, later, prominent tombs of parishioners. They are also known in other medieval towns: there are eight examples at churches in Lincoln, for instance, probably dating to the late 13th century and later (Gilmour & Stocker 1986, 88).

In phase 4 at St Nicholas there is more certain evidence of aisles on the north and probably on the south sides of the nave. Strata of this phase contained only residual pottery of 1250–1350 and both Westminster and Penn floortiles (the latter conventionally dating from *c.* 1350 to 1390). Moulded stones from the site, though again in residual contexts, suggest new windows in the period 1375–1450, and it may be proposed that the windows were in the new aisles. A tentative date of 1375–1450 for this phase is therefore suggested; the Penn tiles (which were produced

after about 1350) were reused, and thus the phase may be near or after 1400.

In phase 5 a north vestry was added. The vestry is mentioned in the churchwardens' accounts in 1456–7, and pottery of 1400–1600 came from one of its foundations. The construction of the vestry is therefore dated to the first half of the 15th century; and here it may be noted that some of the residual moulded stones are from features of '1450–1550' – two unglazed windows and a fireplace, possibly from the vestry. There was also at least one late medieval tomb of note; the canopy of a late 15th-century table tomb (stone <3655>, Fig 25) presumably came from one of the side chapels, as this is the favoured setting for such tombs in other churches, for instance at All Hallows Barking, Great Tower Street (Cherry 1990; Schofield 1994, 74). The archaeological material of phase 5, therefore, is datable in the main to 1400–50, though the phase can be taken as lasting until the redundancy of the church was announced in 1548.

The church had other parts not seen in the excavation, but known from documents: a steeple, presumably at the west end of the church, mentioned in 1468, and a south porch to Newgate Street, which is mentioned in 1422. The reconstructed measurements of tenements to the north and south at the west end leave an intervening space equivalent to the width of the nave for the tower, which probably suggests that any original (11th-century) western tower was not thinner than the nave, a widespread pattern elsewhere.

St Nicholas Shambles was demolished in 1548–52, one of the few victims of ecclesiastical rationalisation of parishes in London in the medieval and Tudor periods. Its parsonage became Butchers' Hall (described briefly in the gazetteer in Schofield 1995, 210), standing opposite the east end of the Greyfriars' church which became the ecclesiastical centre of a large area comprising the former friary and the two subsumed parishes of St Audoen and St Nicholas.

Burials

The main cemetery of St Nicholas was on the north side of the church (Fig 28); it is first mentioned in documents as being on this side in the early 14th century. The excavation recorded 234 skeletons; methods of preparing the grave in 45 cases were of early medieval (pre-1300) character (White 1988), and the burials are



Fig 28. View of eastern part of excavated area, looking east, and showing part of the northern graveyard (left) and the east end of the church (centre and right). Scale is 10 × 100mm units

assigned to the 11th, 12th and 13th centuries. From their depth, the recorded graves appear to have been from the early history of the church. The top metre (or more, perhaps up to 2m) of graveyard soil, like that of the church floors, had been removed, probably in the construction of the 19th-century building on the site. In general individual grave-cuts could not be discerned, so that the burials have to be regarded as a single group. They were laid out in six grave types, with the majority in unadorned simple graves. All burials lay outside the outline of the phase 1 church, confirming the ban, known from documentary sources, on the burial of laity within the church until the 12th century (and as found in excavation on other church sites, such as the Saxo-Norman church at the castle in Trowbridge, Wilts (Graham & Davies 1993) and at St Mark's Lincoln (Gilmour & Stocker 1986, 18)). No significant distribution was observed when groups of skeletons were plotted according to sex and age-group: male, female, young or older (White 1988, 11–17).

Although several 19th-century foundations crossed the site and had removed many burials at the level of excavation, a major north-south row of burials could be seen aligned with the east end of the phase 1 church (that is, the heads of the burials in this row lay about 1.5m east of the chancel and a line from it running north and south: White 1988, fig 5). It seems likely that this row at least was contemporary with the first church. Five metres to the east was a shorter second north-south row in the north-east part of the cemetery, which could have been of burials either outside (in the 11th or 12th centuries) or possibly within the north chapel at a later date (though that is generally not thought likely here).

In the report above (phase 1), a possible concentration of graves lined with stone and tile, sometimes mortared, and the single charcoal burial from the site have been noted as lying on the north and east sides of the first church, close to its walls and in at least one case undermining the north wall. These were burials for men and women, old and young; they included a child of

2–3 years, and the charcoal burial was of another infant (White 1988, 18–19). It might be suggested that here we have an example of the widespread medieval belief in greater sanctity the nearer the burial was to the centre of holiness in the church, the altar within the chancel; this would account for two of the cists being immediately outside the first chancel to the east, a similar short distance from the altar (they were both cut by the extension of phase 2). A similar proximity of charcoal burials to the church may be noted at St Mark's, Lincoln, where eight charcoal burials of the mid 10th to mid 11th century lay within 8m of posts interpreted as a first wooden church, and two subsequent charcoal burials lay 2.5m south of the chancel of the first stone church, of the mid 11th century (Gilmour & Stocker 1986, 15, 18).

Few other features of the graveyard could be made out with confidence. The church foundations of both phase 4 and phase 5 included fragments of stone coffin covers or grave slabs, which presumably originally came from the cemetery and which may have been disturbed during the extension of the church. There was no evidence of pathways to places in the church walls where there might have been doors or gates. Documentary evidence suggests that the northern churchyard had a door, behind the vestry, eastwards to Pentecost Lane; but otherwise it was bordered by buildings and the garden of the Greyfriars to the north.

Conclusions

St Nicholas Shambles was always a small church, hemmed in by streets on two sides, the Greyfriars' garden on the north, and houses on the fourth side. But in its own small way it exhibited many of the main architectural developments seen in other City churches: extension eastwards, chapels, aisles, and at least one prominent tomb. The excavation was hampered by lack of horizontal strata, and reconstruction of the church has to rely on the scattered, but vitally useful, collection of moulded stones and floor tiles recovered from later contexts. In this the excavation of St Nicholas Shambles in 1975–9 was strikingly like that of St Bride's Fleet Street, excavated by W F Grimes in 1952–60 (Milne 1997). Other excavations of Saxon and medieval City churches, though valuable, have been in the main piecemeal (Schofield 1994). Excavations of significant portions of churches with walls and floors, carried

out with proper resources, have been possible at the sites of St Botolph Billingsgate in 1982 and at St Benet Sherehog in 1994–6. Even so, we look forward to the investigation of other Saxon and medieval parish church sites in the City which have not only residual pieces of evidence but the bonus of interlocking layers, floors and graves.

SPECIALIST REPORTS

Moulded stones

Richard Lea

A large group of medieval moulded stones was recovered during the excavation of St Nicholas Shambles. They were found mostly in the foundations of the post-medieval buildings which enclosed Bull Head Court, although some were reused in the foundations of the medieval church of St Nicholas itself. As foundation material the mouldings were used without respect for their original function.

The bulk of the stonework, especially the pier fragments and the tracery is most easily associated with an ecclesiastical structure. The group includes stonework ranging in date from the 12th to the 16th centuries, with the bulk dating from the 14th to 16th centuries. It seems likely that most, and probably nearly all, of this stonework derives from the medieval church.

The stones are identified by their small find numbers, *eg* <3337>; the individual illustrations of stones on Figs 29–35 are given in the catalogue entries. Numbers in square brackets, *eg* [3545], are the context numbers of the deposit in which the stone was found. The deposits are mainly walls and foundations, and are all of a period later than the original setting of the carved stone. With the exception of one piece (<5562>, from one of the arched foundations beneath the phase 4 north aisle, Group 24.4), all moulded stones were found in contexts post-dating the church, and their stratigraphic Group numbers are not given here. [u] = unstratified.

1100–1200 fragments

The first order, <3337>, and second order bowtell arch mouldings, <3261>, are closely

related by template form and tooling patterns. They probably derive from the same arch or arcade. The bowtell and hollow second order arch and jamb mouldings, <3328>, are also stylistically compatible and the quality of the tooling is sufficiently similar to suggest that they derived from the same structural element.

The chevron moulded jamb <3277> and the pier or respond base <5566> may also derive from the same construction. However the only basis for this association is stylistic.

<3337> [3545] (Fig 29, No.1), a first order arch moulding moulded symmetrically with two bowtells, in Reigate stone. The fragment, <3337> [3545], bore traces of paint, red on the soffit, black or blue on the rolls altogether painted over with white. Further example <5582> [1072].

<3261> [3523] (Fig 29, No.2), a second order arch moulding moulded with a bowtell, in Reigate stone. Further example <5585> [1072].

<3328> [3545] (Fig 29, No.3), a second order bowtell and hollow moulded arch moulding, in Reigate stone. The rolls consistently bore traces of longitudinal linear tooling marks. One fragment, <3358> [3550], was apparently not arched which suggests that the profile of the arch moulding may have been used for the jamb. One fragment, <3359> [3550], bore traces of black or blue paint and white paint. Further examples <3251> [3547B], <5564> [1060], <3400> [8].

<3277> [3547B] (Fig 29, No.4), a fragment of a chevron moulded jamb, in Reigate stone. This fragment was later recut, first as an engaged keeled shaft, <3313>, and then with part of the shaft radius removed.

<5566> [1072] (Fig 29, No.5), a fragment of a pier or respond base for a shaft c.0.80m in diameter, in Reigate stone. The fragment had been burnt.

<3253> [3547A] (Fig 29, No.6), a string or abacus, in Reigate stone.

<3286> [3588] (Fig 29, No.7), possibly a string or abacus in a brown creamy sandstone, medium to fine grain and well cemented, Caen stone.

1100-1550 a latrine seat

<3370> [3588] (Fig 29, No.8), a latrine seat, in a coarse grained yellow sandstone, possibly Hamstone. This stone is the least likely to derive from the church.

1200-70, a lancet window

<3354> [3548] (Fig 30, No.9), a rebated and plain chamfer arched window, probably a lancet. The internal chamfer and soffit bear traces of diagonal tooling, the external chamfer was dressed with radial tooling. The profile pattern is

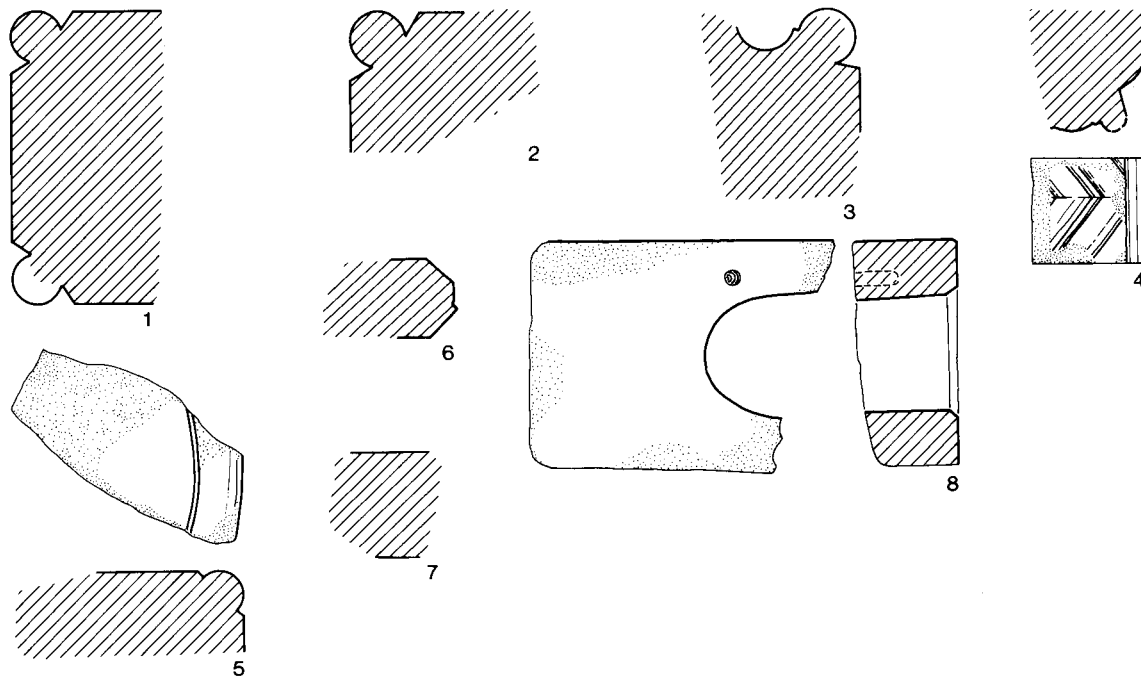


Fig 29. Moulded stone types 1-8. Scale 1/8

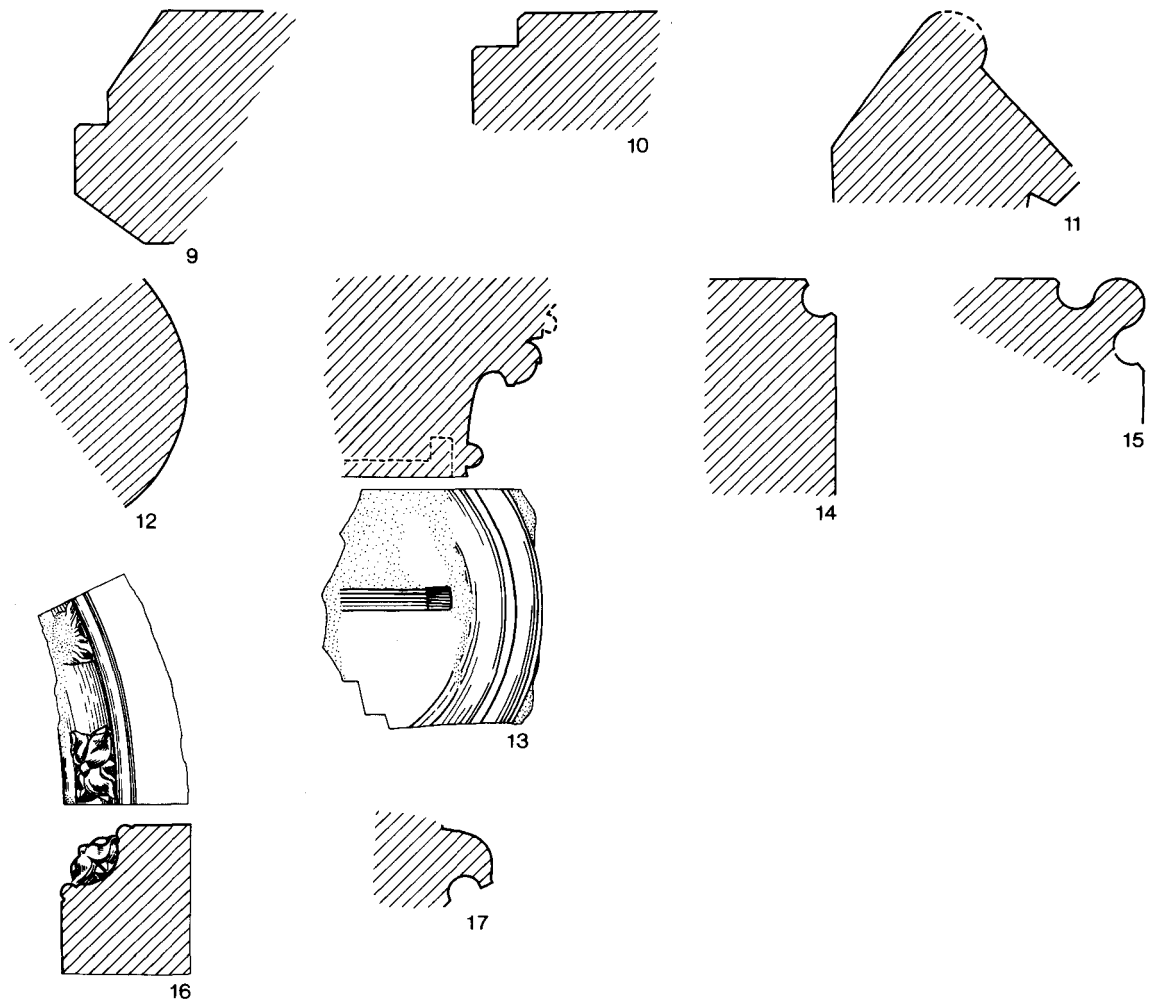


Fig 30. Moulded stone types 9-17. Scale 1/8

paralleled in the City by the lancet windows in the west and south walls of the south transept of St Helen Bishopsgate dated to *c.*1210 (Museum of London Archive, site HEL 86, <29>). Further examples <3350> [3551], <3248> [3553].

<3372> [3550] (Fig 30, No.10), a fragment with a similar size rebate and with arrises dressed with a narrow chamfer, in Reigate stone, probably related to the lancet window <3354> [3548].

1200-1550, a roll moulded coping stone

<5578> [context not certain] (Fig 30, No.11), a roll moulded coping stone with a drip moulding, in a hard cream coloured fine grained limestone.

1270-1330, pier fragments

This group includes fragments of a pier or respond and a matching capital of late 13th or early 14th-century date which may derive from an arch or arcade. The recutting of the capital fragment is likely to have occurred during the construction of the late 14th to 16th-century glazed cinquefoil window suggesting that at least part of the arcade was demolished at this time.

These fragments together with the 12th-century first and second order arch mouldings bear traces of red and black or blue paint overpainted with white. None of the succeeding

mouldings bear similar traces of paint so it is likely that the colour was applied during the 12th, 13th or early 14th centuries. The traces of coloured paint are very fragmentary but from what does remain it is evident that the colour was selectively used to emphasise the form of the moulding. It was not applied indiscriminately over the whole surface of the exposed face.

<3404> [u] (Fig 30, No.12), a round pier or respond shaft c.o.38m in diameter, in Reigate stone. Three other stratified fragments, <3393> [1], <3273> [3547A], <3271> [3547A], were finished with rough linear vertical tooling marks possibly the work of an adze. One more fragment, <3268> [3547A], bore traces of red and white paint. Further examples <3357> [3548], <3380> [E], <3296> [3602], <5551> [1072], <5554> [1055].

<3336> [3563] (Fig 30, No.13), a pier capital fitting a pier or respond shaft of c.o.38m in diameter, in Reigate stone. It was later recut as a glazed jamb for a perpendicular style window, see <3335>.

<3361> [3548] (Fig 30, No.14), a deep hollow chamfer arch moulding, in Reigate stone. Three fragments, <3361> [3548], <3323> [3545], <5568> [1072], bore traces of red, white, and black or blue paint. Two fragments, <5568> [1072] and <5543> [1072], were later recut as plain hollow chamfer mouldings, see <3654> and <5547>. Further examples <3279> [3600], <3304> [3546], <3402> [10], <5583> [1258].

<3272> [3547A] (Fig 30, No.15), a roll and hollow moulded wall rib, in Reigate stone. The soffits were dressed with horizontal linear tool marks. Further examples <3376> [3547A], <5534> [1061].

<3405> [3547A] (Fig 30, No.16), a tablet flower arch moulding probably from a window, in Reigate stone. Further examples <3278> [3547A], <3293> [3545].

<3243> [3553] (Fig 30, No.17), an arched hood mould, in Reigate stone. Possibly associated with the tablet flower moulded window, <3405>. Further example, <3305> [3549B].

1300–1550, miscellaneous fragments

<3308> [3549] (Fig 31, No.18), a fragment moulded with a rebate, two hollow chamfers and a small rebate, in Reigate stone. It was not possible to ascertain a precise function for this moulding but it probably formed part of a hollow chamfer moulded window.

<3399> [7] (Fig 31, No.19), an angled splay possibly moulded with a small roll, from a window or a door, in a cream coloured sandstone.

<3346> [3545] (Fig 31, No.20), a plain rebate with a stop, in Reigate stone. Possibly a sill or a lintel for a cupboard.

1330–1550, fragments of piers or responds

<3313> [3602] (Fig 31, No.21), an engaged keeled shaft from a composite pier or respond. Fragment <3366>

[3550], was recut as a hollow chamfer moulding type <3383>. Fragment <3277> [3547B], is the recut chevron moulding. Further examples <3362> [3548], <3264> [3547A], <3391> [u], <3285> [3545], <3344> [3545].

<5550> [1042] (Fig 31, No.22), a fragment of an attached round shaft, in Reigate stone.

<3310> [3553] (Fig 31, No.23), a respond moulded with ogees, casement hollows and a roll, in Reigate stone. This complex moulding is broadly paralleled at Beverley Minster, in the great west door of about 1390–1400 (Harvey 1978, 246, fig 13).

1330–1550, a small glazed traceried window

The three fragments in this group appear to derive from a window or group of windows, moulded externally with a hollow chamfer, internally with a plain chamfer, incorporated both glazed and unglazed areas, was relatively small, implied by the depth of the mullion and the jamb, and was of at least two-lights, implied by the tracery fragment. Glazed and unglazed windows, in which the exterior is more richly moulded than the interior, can be found in church towers.

<3242> [3549A] (Fig 31, No.24), a plain chamfer and hollow chamfer moulded unglazed jamb, in Reigate stone.

<5540> [1055] (Fig 31, No.25), a plain chamfer and hollow chamfer moulded glazed jamb and splay, in Reigate stone.

<3318> [3549] (Fig 31, No.26), a plain chamfer and hollow moulded glazed tracery fragment, in Reigate stone.

1330–1550, hollow chamfer mouldings

This group includes six types of hollow chamfer mouldings and arch mouldings, two of which, <3333> and <3291>, with large diameter hollows were clearly second order, and probably formed parts of casement hollow mouldings, the other four, <3246>, <5547>, <3654>, <3383>, are probably simply second-order mouldings.

Both plain hollow chamfer moulding types, <5547> and <3654>, incorporate recut deep hollow chamfer mouldings suggesting that they derive from the same phase of construction which involved the destruction of some 13th-century work.

<3333> [3602] (Fig 31, No.27), a second order, large diameter, hollow chamfer arch moulding, in Reigate stone. Probably originally forming part of a casement hollow. Example <3379> [u] had a skewback and is therefore possibly from the apex of the arch. Further examples <3395> [3], <3288> [3547A].

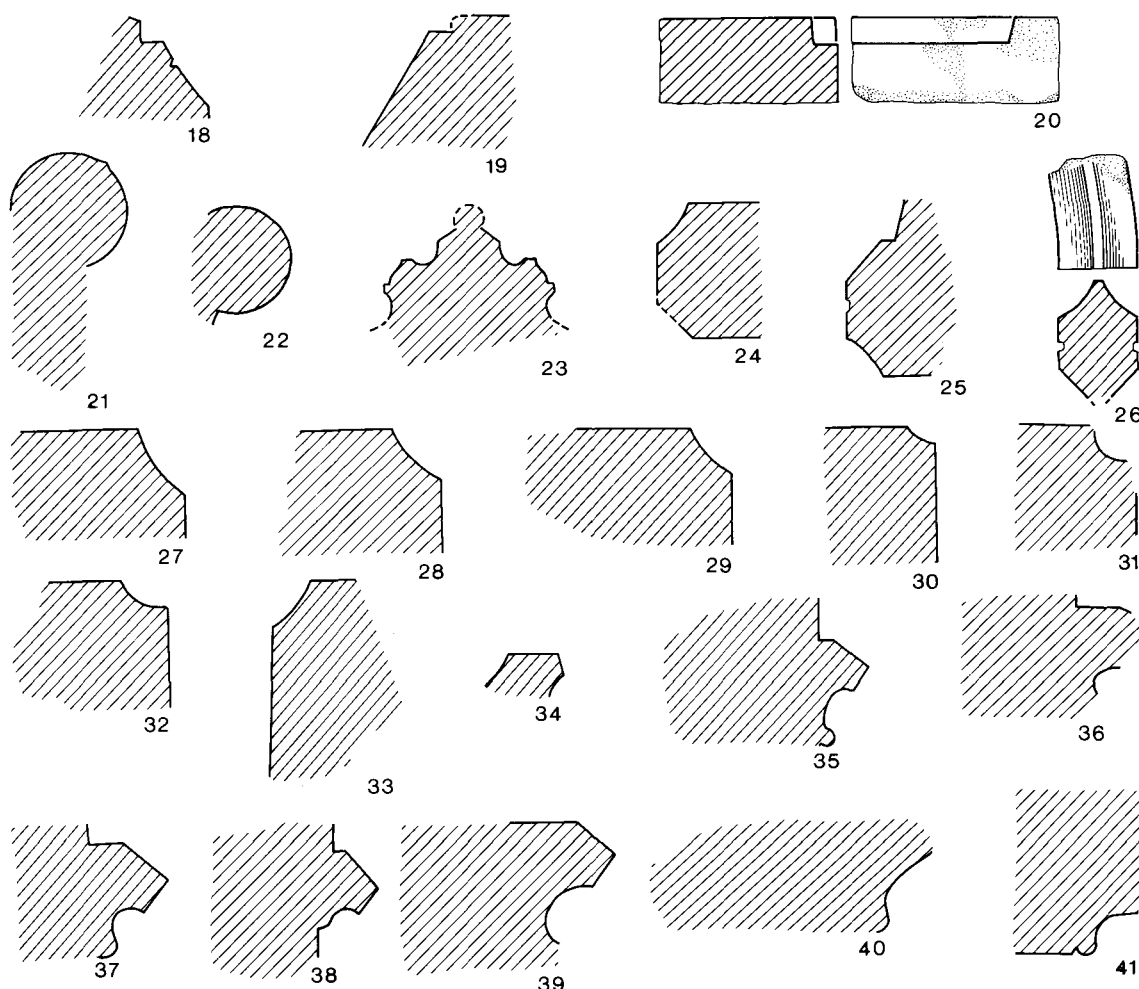


Fig 31. Moulded stone types 18-41. Scale 1/8

<3291> [3545] (Fig 31, No.28), a second order, large diameter hollow chamfer arch moulding, in Reigate stone. Probably part of a casement hollow. Further examples <3292> [3547B], <3249> [3552].

<3246> [3526] (Fig 31, No.29), a hollow chamfer moulding, in a cream coloured well cemented sandstone. A further example, <5548> [1228], was in Reigate stone.

<5547> [1055] (Fig 31, No.30), a plain hollow chamfer moulding, in Reigate stone. One fragment, <5568> [1072], was recut from the 13th-century deep hollow chamfer arch moulding, type <3361>.

<3654> [3545] (Fig 31, No.31), a plain hollow chamfer arch moulding, in Reigate stone. One fragment is recut from the 13th-century deep hollow chamfer arch moulding, type <3361>. One fragment, <5543>, was recut later as a scoinson. Further example <3289> [3548].

<3383> [u] (Fig 31, No.32), a plain hollow chamfer moulding, in Reigate stone. One fragment, <3366> [3550], in a cream coloured sandstone like <3286>, may

have been recut from an engaged keeled shaft from a compound pier, type <3313>. Further example, <3366> [1055].

[records deficient] (Fig 31, No.33), a hollow chamfer moulded splay.

<3309> [3552] (Fig 31, No.34), a fragment from the intersection of two hollow chamfer mouldings, either tracery or arch mouldings, in Reigate stone.

1330-1550, straight and arched hood moulds

These hood mouldings probably relate to the windows described above but it has not been possible to determine the exact correspondences.

<3329> [3545] (Fig 31, No.35), a skewback arched hood mould probably from the apex of the arch of a window, finely worked, in a cream coloured sandstone.

<3368> [3545] (Fig 31, No.36), an arched hood mould, in Reigate stone.

<5587> [u] (Fig 31, No.37), arched and straight hood moulds, in Reigate stone. One arched fragment, <5587> [u], was recut from a round pier fragment. The other fragments, <5560> [u], <5536> [1060], <5538> [1077] were straight.

<3298> [3553] (Fig 31, No.38) an arched hood mould from a window or an arcade, in Reigate stone. Further example, <3260> [3547A]. The use of an ogee moulding under the hood is paralleled at St Giles Cripplegate in the hood mould above the 16th century arcade.

<3356> [3548] (Fig 31, No.39), a hood mould, in Reigate stone. Further example <5575>.

<3353> [3551] (Fig 31, No.40), possibly a hood mould, in Reigate stone.

<3654> [3545] (Fig 31, No.41), probably a hood mould although the projection has been removed.

1330–1550, plain chamfer mouldings

This group comprises mouldings characterised only by the use of the plain chamfer. The plain chamfer is a very common moulding type and in this sense this group is a catch-all. Possible relationships within the group are however discussed under each type stone, characterised for example by the use of a particular size of the chamfer.

<3327> [3549A] (Fig 32, No.42), a plain chamfer moulded glazed window jamb. The jamb was cut to receive an external iron glazing bar. Possibly related to sill <3355>. Further example <3369> [3545].

<3355> [3523] (Fig 32, No.43), a plain chamfer moulded glazed window sill, in a light brown grey micaceous friable sandstone. Possibly related to the plain chamfer jamb <3327> but for a different depth of window.

<3363> [3550] (Fig 32, No.44), a plain chamfer moulded window sill, in Reigate stone. Possibly related to the jamb <3327> but not glazed.

<5533> [context not known] (Fig 32, No.45), a plain chamfer with a return, possibly from a lintel or a sill, in Reigate stone.

<3247> [3553] (Fig 32, No.46), a plain chamfer moulded glazed window jamb or sill, in Reigate stone. The internal face is moulded with two plain chamfers. The stone was also cut to receive an iron glazing bar, external to the glazing.

<3129> [3000] (Fig 32, No.47), a plain chamfer moulded jamb for an unglazed opening, in a fine grained dense dark grey stone.

<3265> [3547A] (Fig 32, No.48), two plain chamfers possibly, in Reigate stone, possibly related to the plain chamfer sill or jamb <3247>.

<3360> [3550] (Fig 32, No.49), a plain chamfer moulded window jamb, in Reigate stone.

<3367> [3550] (Fig 32, No.50), a plain chamfer, second order arch moulding or wall rib, in a coarse shelly sandstone, possibly Hamstone.

<3259> [3547A] (Fig 32, No.51), a plain chamfer moulding, possibly a jamb, in Reigate stone.

<3267> [3547A] (Fig 32, No.52), a plain chamfer jamb or splay, in Reigate stone. The faces bear traces of diagonal linear tooling marks.

<3382> [u] (Fig 32, No.53), a plain chamfer vault rib or arch moulding, in Reigate stone. The faces bear traces of fine linear tooling marks, longitudinal on the chamfers and radial on the wall face

<3386> [u] (Fig 32, No.54), a plain chamfer jamb, possibly for a window, with a deep slot cut in the reveal, possibly for timber, in a cream coloured, well cemented, fine grained sandstone. The exposed surfaces were heavily eroded.

<3249> [3547A] (Fig 32, No.55), a fragment of plain chamfer arch moulding, in Reigate stone.

<3315> [u] (Fig 32, No.56), a springer for a plain chamfer vault rib or arch, in Reigate stone. Possibly from a fireplace, or the rear arch of a window.

<3245> [3523] (Fig 32, No.57), a plain unmoulded door jamb with an angled splay, in Reigate stone.

1375–1450, a glazed cinquefoil window

A group of 18 window fragments. The external face was moulded with a plain hollow chamfer, the internal face with two orders, a hollow chamfer and a fillet. The heads of the window lights were moulded with cinquefoil cusping and the mullions were carried up into the tracery. The spandrels above the lights indicate that the window was four centred and probably comprised three or five lights. The stone is consistently upper greensand, probably from the Reigate area. One of the jambs, <3336>, was recut from a 13th-century pier capital suggesting that demolition of a 13th-century arcade occurred before the time of the construction of the window. The reuse of such a stone in a window of this kind suggests that the window was dressed on site rather than at the quarry, unless this stone represents a single replacement to a window damaged in transit from quarry to site or on site.

<3249> [3547A] (Fig 33, No.58), a hollow chamfer and fillet moulded window mullion, in Reigate stone. Further examples <3316> [3549I], <5571> [1060].

<3335> [3523] (Fig 33, No.59), ten fragments of a hollow chamfer and fillet moulded window jamb. This group includes the recut 13th century arcade pier capital, <3336> [3563], and a minor variation in the template pattern of <3334> [3553], which suggests that the internal wall face was not parallel with the external face. Further examples <3303> [3551], <3306> [3549B], <3384> [u], <3378> [u], <5584> [1228], <3311> [3552], <5555> [1142].

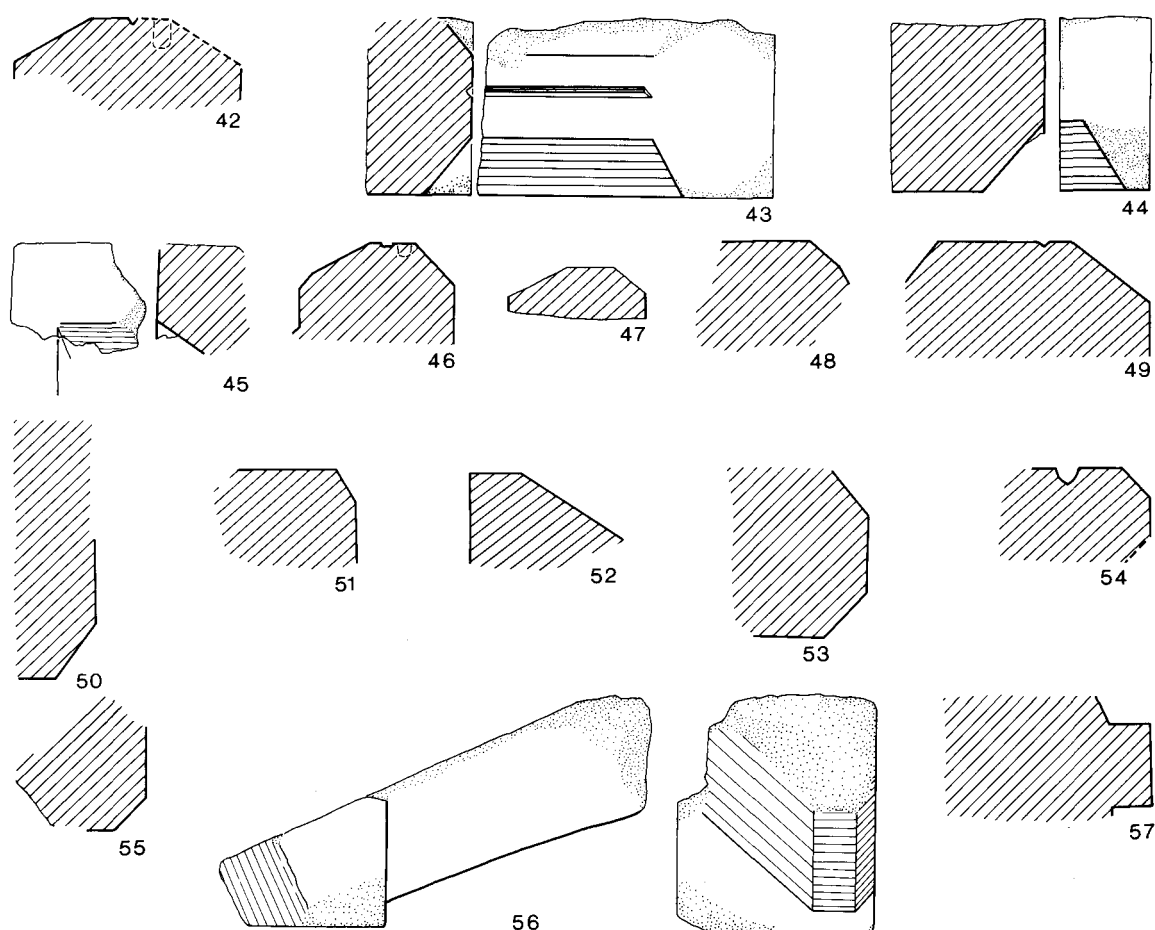


Fig 32. Moulded stone types 42-57. Scale 1/8

<5532> [1055] (Fig 33, No.60), a hollow chamfer and fillet moulded window sill, in Reigate stone.

<5565> [1228] (Fig 33, No.61), hollow chamfer and fillet moulded window tracery, in Reigate stone. Further examples <3349> [3547B] (Fig 33, no.62), <3352> [3547B] (Fig 33, no.63), <5577> [1228] (Fig 33, no.65), <5539> [?], <?> [1228].

1375-1450, a glazed and traceried window

<3351> [3545] (Fig 33, No.64), tracery similar in style to <5565> and <3349>, but moulded with a hollow chamfer and fillet on both internal and external faces, in Reigate stone. It derives from a cinquefoil window of at least three lights forming part of the springing of the tracery. The fragment indicates that the radii of the heads of the lights were at differing heights.

<5567> [1042] (Fig 33, No.66), a tracery fragment moulded with hollow chamfers and a cusp. This fragment possibly formed a minor bar of tracery in the window represented by <3551>, since the hollow chamfers are fairly closely

matched. However the position of the glazing slot is at variance with the larger fragment.

1375-1450, arched casement mouldings

A group of 20 fragments of plain hollow chamfer arched casement mouldings conforming to three minor variations within one pattern type. The variations between the types, <3340>, <3342> and <3326> are dimensional only; the overall similarity in form suggests that they all derive from the same phase of construction. The length of the outermost dressed face was consistent for all stones implying use with an outer order or a hood mould. All fragments of sufficient length were seen to be radiused suggesting that the form may have been used only as an arch moulding and was not continued in the jamb.

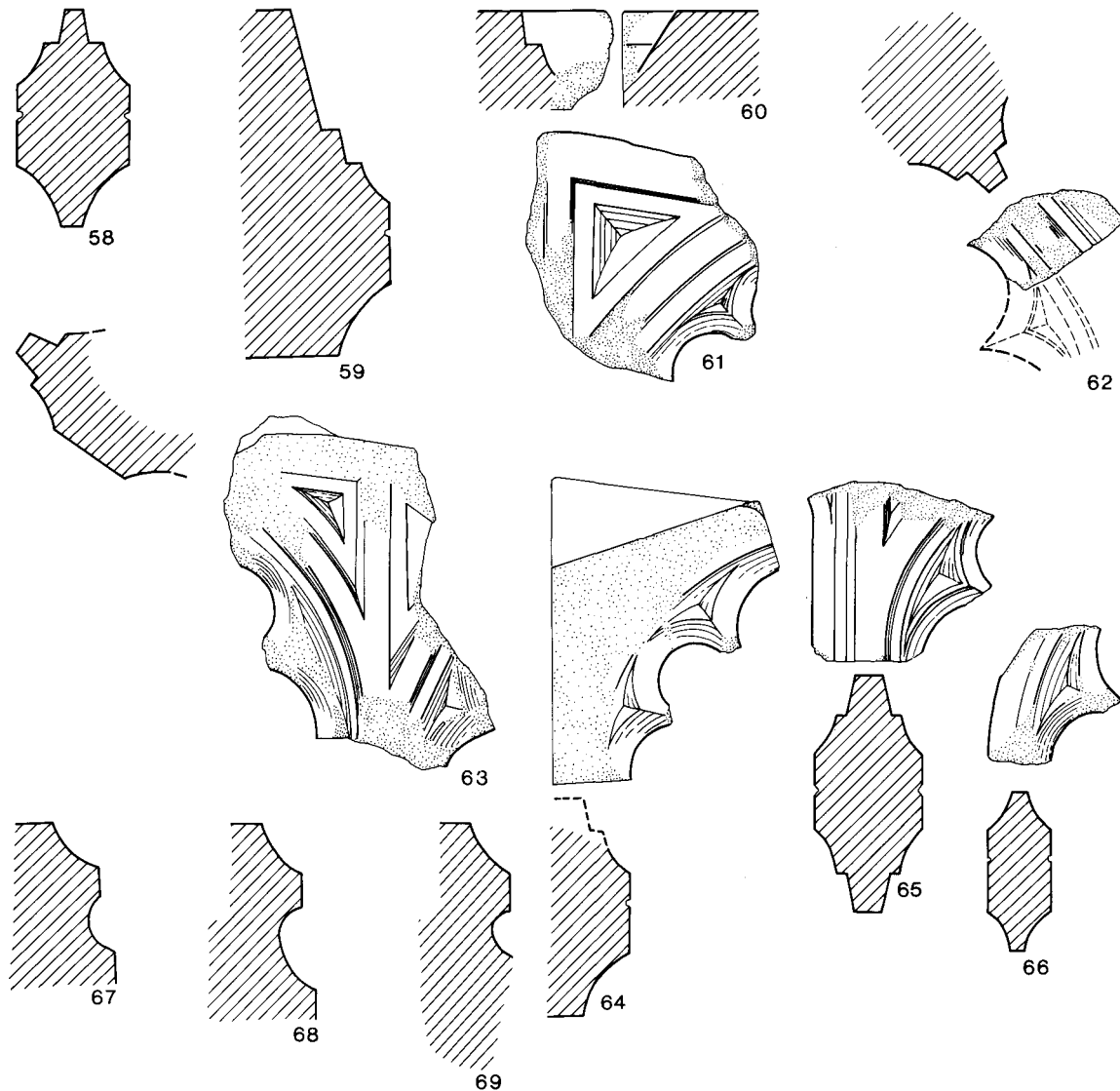


Fig 33. Moulded stone types 58-69. Scale 1/8

The jamb fragments may have been used elsewhere, being generally of larger size.

The arch mouldings were probably used in conjunction with the window mouldings described above. It is possible that they were also used as an arcade arch moulding. However no first order arch mouldings of similar style were recovered from the site.

The dating is based on dated parallels at Oxford New College cloister, c.1387 (Harvey 1978, 263, fig 30), Winchester College cloister, c.1393 (*ibid*), Chichester Cathedral cloister east

doorway, c.1400 (*ibid*, 248, fig 15), and York Minster Old Library, c.1414 (*ibid*, 260, fig 32).

<3340> [3552] (Fig 33, No.67), an arched hollow chamfer casement moulding, in Reigate stone. Further examples <3348> [3545], <3319> [3445], <3307> [3553], <5531> [1228], <3325> [3551].

<3342> [3551] (Fig 33, No.68), an arched hollow chamfer casement moulding, in Reigate stone. Further examples <3297> [3551], <3282> [3552], <5586> [1228], <5537> [1228], <5545> [1228], <3294> [3552].

<3326> [3549] (Fig 33, No.69), an arched hollow chamfer casement moulding, in Reigate stone.

1400-1550, a large glazed tracery window

A group of nine glazed window fragments sharing an ogee and hollow chamfer moulded profile pattern, <3269>. The cinquefoil cusped tracery fragments link the mullion template to another minor form, <5563>. The geometry of the tracery fragments, <5546>, indicates that the window had a minimum of three lights. The exposed faces of the stone were finely finished with only occasional traces of a fine toothed chisel. A group of double ogee moulded casement arch mouldings, type <3338>, finished in the same manner probably derives from the same window or windows. The presence of large and minor forms of the mullion suggests that the window was relatively large which, in the context of an urban parish church, may have been situated at the end of an aisle, the choir, or the nave.

<3269> [3547B] (Fig 34, No.70), a glazed and ogee and hollow chamfer moulded mullion, in Reigate stone. Further examples <5559> [1055], <5569> [1042].

<3295> [3548] (Fig 34, No.71), a glazed and hollow chamfer jamb, in Reigate stone. Examples <3280> [3547B], <3389> [u], <5555> [1142] were straight, example <3295> [3548] was arched.

<5546> [1042] (Fig 34, No.72), a section of glazed ogee and hollow chamfer cinquefoil cusped tracery from the convergence of the minor and major forms, types <3269> and <5563>, in Reigate stone. The major form was slightly radiussed, the radius being more apparent in the angle between top and bottom bed planes than throughout its length. The fragments <5557> [1042], <5556> [1042], <5558> [1042] joined with the fragment <5546> [1042] to form one section of tracery.

<5561> [?] (Fig 34, No.73), a tracery fragment from the intersection of two large ogee moulded rolls, in Reigate stone. The profile of the rolls matches the larger roll in the fragment, <5546> etc.

<5563> [1228] (Fig 34, No.74), glazed ogee and hollow chamfer cusped tracery, in Reigate stone, which may have fitted the larger tracery fragment, <5546> [1042].

<?> [u] (Fig 34, No.75), a fragment of glazed and hollow chamfer cusped tracery, in Reigate stone. The fragment is from the convergence of two branches of the minor form, probably at the bottom of an inverted 'Y'.

<3338> [3602] (Fig 34, No.76), a double ogee casement hollow arch moulding, in Reigate stone. Fragments, <3250> [3547B], <3312> [3602], <3302> [3553], <3299> [3550], <3339> [3549], <3322> [3547B], <3262> [3547B], <3317> [3523], <3280> [3547B] were radiussed. It was not possible to tell if the fragments <3338> [3602], <3321> [3549], <3385> [u], <3398> [u], <3307> [3553], <3397> [u], <3300> [3547B], <3389> [u], were radiussed or not.

1400-1500, a traceried window

<5553> [1228] (Fig 34, No.77), an arched and glazed tracery jamb fragment, in Reigate stone. This moulding is very similar in style to the large glazed tracery window represented by the mullion <3269> but the moulding profiles do not match.

1400-1550, arcade or respond bases

<3373> [3545] (Fig 34, No.78), an ogee and hollow chamfer moulded base for a round shaft above an octagonal shaft for a composite pier, in Reigate stone. Parallels for this type of pier can be found at St Olave Hart Street, in the 15th century, St Helen Bishopsgate, c 1475 (*Survey of London* ix pls. 16-8) and St Andrew Undershaft, 1520-32.

<5562> [1062] (Fig 34, No.79), a fragment from the base of a circular shaft or column, diameter c.140mm, moulded with a chamfer and a roll. In plan the roll conforms to an octagonal plan. Reigate stone. This fragment, from Group 24.2, is the earliest stratified reused moulded stone on the site.

1400-1550, a small glazed cinquefoil window within a rectangular head

<3375> [3545] (Fig 34, No.80) the head of a cinquefoil, roll and hollow chamfer moulded, window set within a rectangular head, in Reigate stone.

1450-1550, a fireplace fragment

<3276> [3547B] (Fig 35, No.81), a roll and casement hollow moulded fragment in Reigate stone, possibly from the lintel of a fireplace, like that at Bindon House, Axmouth, dated to the 15th century (Wood 1965, pl. XLII)

1450-1550, a fragment from an unglazed window

<5573> [u] (Fig 35, No.82), the sill and splay from an unglazed, ogee and hollow chamfer moulded window, in Reigate stone. The moulding is paralleled by another fragment recovered by excavation in London at Stothard Place, Bishopsgate, of late 15th-century or 16th-century date (Museum of London Archive, site STO86, <12>) and by a window in the first floor of Morton's Tower, Lambeth Palace, of 1490-5.

1475-1550, an unglazed window

<3252> [3547A] (Fig 35, No.83), a hollowed bowtell and plain chamfer moulded, arched jamb for an unglazed window or door. The hollowed bowtell moulding is found at St Marie Overy, Southwark, in a four-centred doorway, possibly 16th-century, in the priory buildings to the north of the church, which was recorded by Francis Dollman in 1879 in a drawing titled 'Drawing no. 34' among a set of twelve drawings in GL.

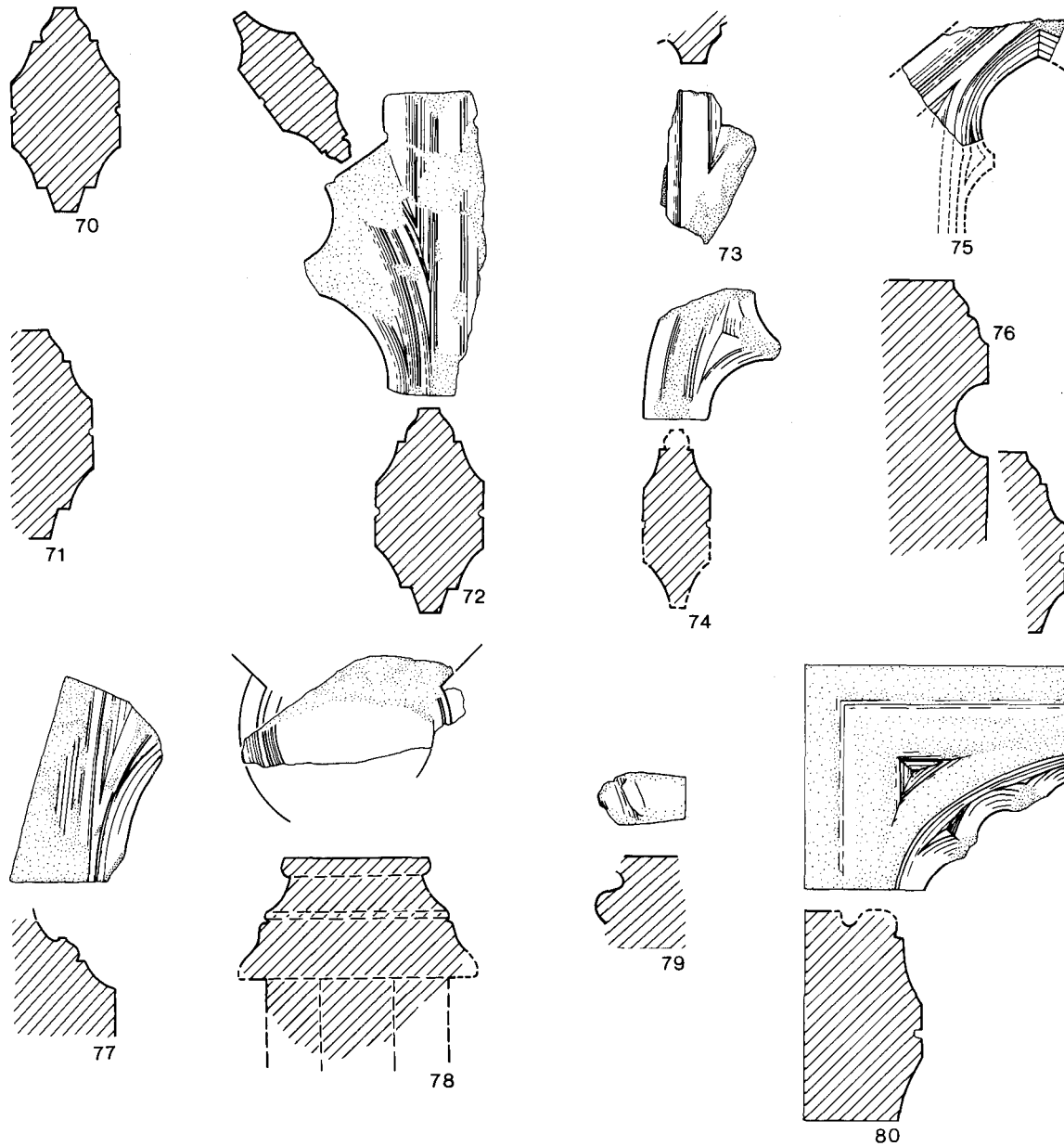


Fig 34. Moulded stone types 70-80. Scale 1/8

1475-1550, fragments from monumental tombs

A group of four fragments of monumental tombwork which may have formed part of a single tomb. The parallels listed below dating from c.1500 have been recognised as a group (Cherry 1990). The closest parallel is the tomb of Hugh Pemberton (d.1500), formerly in the

church of St Martin Outwich in the City and now at St Helen Bishopsgate. This is decorated with crocketed pinnacles, 'Tudor flower' cresting and variations on quatrefoils. A monument to John Kirton, c.1530, at Edmonton (Middx) has cresting, octagonal hollow shafts and a four centre arch (RCHM 1937, 18, pl. 53). An anonymous monument at Harefield (Middx), of

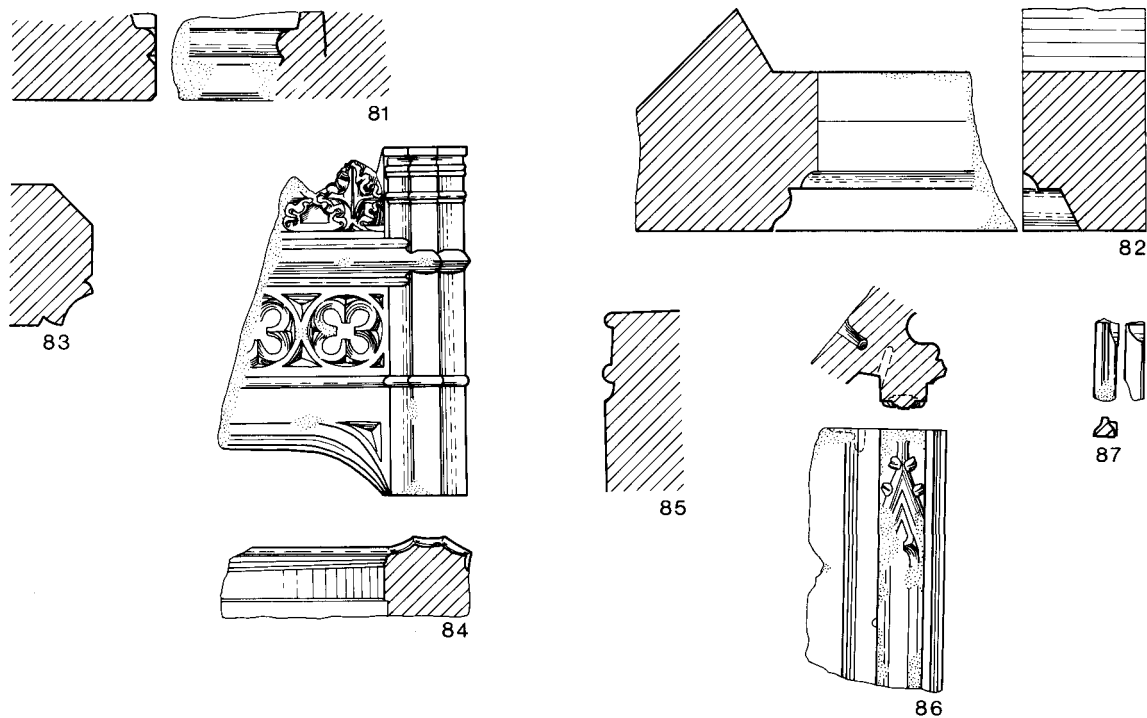


Fig 35. Moulded stone types 81-7. Scale 1/8

the early 16th century, has cresting round shafts, circles in place of quatrefoils, and a flat arch. Here the shafts rise from a base moulding which forms a plinth for the canopied recess (*ibid* 54, pl 53). An anonymous monument at Harlington (Middx), datable to 1530-40, has quatrefoils, hollow octagonal shafts and a four-centred arch (*ibid* 59, pl 141). Finally, a monument to Edward Cheeseman, of about 1540 at Norwood (Middx) has cresting, hollow octagonal shafts, a four centre arch and the shafts rise from base mouldings continued to form a plinth for the canopy (*ibid* 99, pl.141).

<3655> [u] (Fig 35, No.84), the canopy of a monumental tomb decorated with a cresting of Tudor flowers and quatrefoils carved in relief in Purbeck or Petworth marble.

<3332> [3551] (Fig 35, No.85), a moulded pediment in Purbeck or Petworth marble may have been associated with the canopy fragment, <3655>.

<3324> [3549] (Fig 35, No.86), a crocketed pinnacle also moulded with hollow chamfers an ogee and a hollow, possibly a casement hollow.

<3388> [u] (Fig 35, No.87), an ogee and round moulded Reigate stone from the point of intersection of two elements.

Coffin covers or grave slabs

<1262> [971] Fragments of a stone coffin cover were found reused in the foundation of Group 26.2 (phase 5). It was dated to the 13th century by experts visiting the site. The pieces cannot be located in Museum stores, and no good drawing or photograph of the cover exists (for the piece *in situ* see Fig 23). A sketch in the smallfinds record records four fragments making up two larger pieces, the head and foot, with an estimated total original length of 2.05m, 0.7m wide at the head, tapering to 0.5m wide at the foot. The stone was carved into a slight ridge along its centre, and was 0.34m thick. Two lozenges or diamonds were carved in relief on the upper surface, the larger at the head, and were joined by the spinal ridge.

<3118> [3962] The foundations of the proposed south arcade (G16.4) contained a reused fragment of Purbeck marble inscription (G27.30; Fig 37). This was examined by Stephen Freeth of the Monumental Brass Society who commented as follows: 'The fragment is probably part of a grave slab, although the carefully cut edge, where parts of two smoothed surfaces are present is unusual. It is, therefore, possible that it is an architectural fragment rather than a grave slab. The inscription is in Lombardic letters which suggests an early 14th-century date. The letters would have been filled with brass, being fixed to the stone by an initial layer of pitch.'

The main period of use of brass Lombardic lettering begins in London in the 1290s. Such letters were mass-produced in

three standard sizes, 36mm, 43mm and 51mm, the St Nicholas Shambles fragment has a letter 43mm high. The use of these standard alphabet brass letters seems to have continued until around 1350.

Building materials

Ian M. Betts

Two aspects are considered in this section: firstly, the types of medieval ceramic and stone building material present, and their possible origin; and secondly, a summary of the types of tile and stone used in the pits immediately preceding the construction of the church and in the foundations of each phase of the church. Discussion of the reused Roman material can be found in a detailed archive report (Betts 1990b) held in the Museum of London.

Although much of the building material discussed here was found reused in various church foundations, it does provide important collaborative evidence to date the phases of construction. It also provides the only evidence for the type of flooring used in certain church phases, none of which survived *in situ*.

Each different type of clay used in manufacture of ceramic tile is given its own individual fabric number. A description of each fabric type referred to in this report is given on p 129.

Medieval ceramic building material types

Early roofing tile

FABRIC TYPE 2273

These early roofing tiles comprise flanged tile, curved tile and shouldered peg tile. All are in the same fabric type and are almost certainly made from the clay source. Flanged and curved tiles were used together very much in the same way as Roman *tegulae* and *imbrices*. Curved tiles may also have been used to cover the ridge of the roof.

The evidence from the Cheapside area indicates that all these early roofing tile types first appeared in London sometime during the period 1100–50. It is believed that their introduction may well have been connected with a serious fire which swept the City in either 1135 or 1136 after which London's more wealthy citizens covered their houses with thick tile (Betts 1990a, 221). As there is no firm evidence for the

use of stone roofing at this date this is almost certainly a reference to clay roofing tiles.

These early roofing tiles appear to be of local manufacture as fragments of shouldered peg tile 'wasters' were found together with the very truncated remains of a kiln at Niblett Hall near Fleet Street (Crowley 1993).

Later roofing tile

FABRIC TYPES 2271, 2586, 2587, 2816

This comprises peg roofing tile and curved ridge tile which dates from the late 12th century. Vast quantities of both kinds are found in London, as these were the standard types of ceramic roof covering used throughout the rest of the medieval period.

There seems little doubt that the majority of these tiles were made in the London area. Digging for clay is recorded in Stepney in 1366 and Woolwich was selling tiles to Westminster and sites in Essex from at least 1375 (Schofield 1995, 96–8). There is also evidence for the manufacture of peg tiles (fabric 2587) in three 15th or early 16th-century kilns at St Mary Clerkenwell nunnery (Crowley 1993; Sloane in prep).

The majority of medieval peg tiles from London are of two round nail hole type, and the same is true of the tiles associated with the church. Most of these peg tiles are fragmentary although a number (all fabric 2271) have surviving breadth measurements of between 151–63mm with thicknesses of 11–14mm.

Floor tiles

'Westminster' type (mid-late? 13th century)

FABRIC TYPES 2195, 2199, 2324, 2892

The earliest dated floor tiles used at St Nicholas Shambles are of 'Westminster' type, so-called because they were first recognised in the Muniment Room at Westminster Abbey. At Lambeth Palace an *in-situ* pavement of 'Westminster' tiles is dated to 1225–50, but other tiles in the series may be slightly later in date. The origin of these tiles is uncertain, but the large numbers found in London strongly suggest manufacture in or near the City. It is possible they may have been made at the decorated floor tile kiln found at Farringdon last century.

Both plain glazed and decorated 'Westminster' tiles were found associated with the church (Table 1). The decorated examples found reused in the foundations and the designs present in post-church phases, all of which probably originally came from the church, are listed below. The designs published by Eames (1980) are denoted by the letter 'E'.

Four designs are previously unpublished (GPO75, designs 1-4: Fig 36, Nos 1-4; called here 'GPO designs' after the Museum of London sitecode of the church excavation). The tile classed as Lambeth design 18 is from Lambeth Palace and is one of a small number of 'Westminster' designs published by Degnan and Seeley (1988, 17).

The plain 'Westminster' tiles come in a variety of colours, notably brown, yellow and various shades of green ranging from light green through to blackish-green. Only one tile has a light green colour achieved by placing a green glaze over a white slip. This is a common technique on imported Flemish plain glazed floor tiles, but this is the first occurrence of green glaze on a white slip known on a tile of 'Westminster' type.

Both plain glazed and decorated 'Westminster' tiles were clearly made to the same size allowing them to be used together on the same floor. Their length/breadth varies between 105mm and 117mm (average 111mm square) and thickness between 22mm and 32mm (average

27mm). A number of plain tiles were cut diagonally to produce triangular shaped tiles.

One decorated Westminster tile was supposedly found in the foundations of phase 1 of the church, which would make the tile of 12th-century date. However, this tile shows no sign of mortar, unlike the other tiles found in the church foundations of later phases, so it is fairly certain that this represents either later contamination or a tile which has been mislabelled in the post-excavation analysis. There is certainly no reason to change the 13th-century date for the 'Westminster' tile series. The tile is however of importance as it is decorated with a previously unpublished 'Westminster' design (GPO design 2: Fig 36, No.2).

Chertsey type (c.1290-1300)

FABRIC 2317

Only a single small fragment of Chertsey tile (unstratified <3833>) was recovered from the site of the church. The tile is decorated with one of the designs found on tiles associated with a tile kiln at Chertsey Abbey in Surrey. The design can be closely dated to the period c.1290-1300.

As the tile is unstratified it is not certain whether Chertsey tiles were used in St Nicholas Shambles, it may have been dumped in from elsewhere. Chertsey tiles are, however, associated with two other parish churches in the City, St

Table 1. 'Westminster' tiles

Design no.	Total	Context/accession no.
E2034	4	1060 <4974> 3941 <5803> <5809> 3985 <5798>
E2050?	1	3919 <5790>
E2185	2	3941 <5800> 3952 <4618>
E2286	1	3896 <2442>
E2316?	2	3985 <5799> <5812>
E2471	3	1305 <4558> 3808 <4509> 3985 <5797>
E2478	1	3941 <5805>
E2775	1	3952 <4619>
GPO design 1	1	1055 <4518>
GPO design 2	1	3932 <5044>
GPO design 3	1	3939 <5794>
GPO design 4	4+	3920 <5789> <5791> 3932 <5044> 3952 <4620>
Lambeth design 18	1	3869 <5808>
Design?	4	3850 <5787> 3933 <5792> 3939 <5794> 3941 <5810>

+ = One example 3952 <4620> is ?GPO design 4

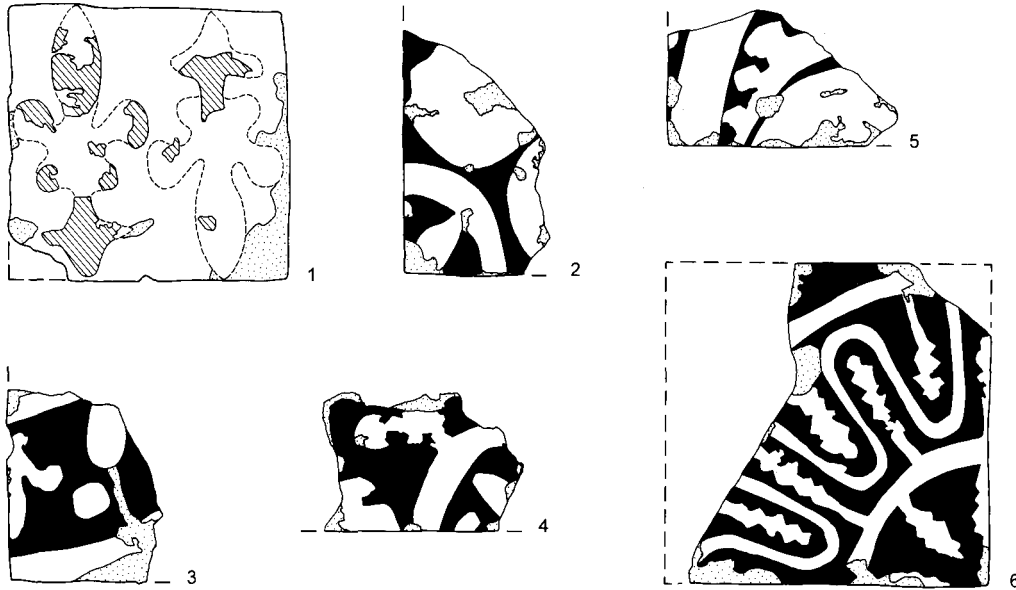


Fig 36. Decorated floor tiles: 'Westminster' type (1) [1055] <4518>, (2) [3932] <5044>, (3) [3939], (4) [3920] <5789+5791>; Penn type (5) [262] <2532>, (6) [1055] <4975> & [3962] <4527>. Tile 1 is so badly worn and indistinct that the remains of slip are shown hatched; on other tiles it is shown white. Scale 1/3

Mary Aldermanbury and St Peter the Less (Betts 1994).

Penn type (c.1350-90)

FABRIC TYPES 1810, 1811, 2892, 3076, 3081

Penn tiles were manufactured at a tilery at Penn in Buckinghamshire in the 14th century, probably sometime between the years 1350 and 1390. Many of the Penn tiles associated with the church are very worn and fragmentary, although all appear to be of decorated type. Hence, very few designs can be identified with any certainty. The designs listed by Eames (1980) are denoted by the letter 'E', whilst those present in Hohler's 1942 catalogue of Penn tile designs are given the letter 'P'.

All the decorated tiles found in the church foundations and post-church levels are listed in Table 2. These include two previously unpublished Penn designs (Fig 36, nos. 5-6). The tile decorated with design E2353/P58 can be more closely dated to the mid 14th century as Penn tiles with this pattern are still in a floor dated 1354 at the Aerary, Windsor Castle (Eames 1980, 222).

Only two of the Penn tiles have surviving breadth measurements. The smaller tile measures

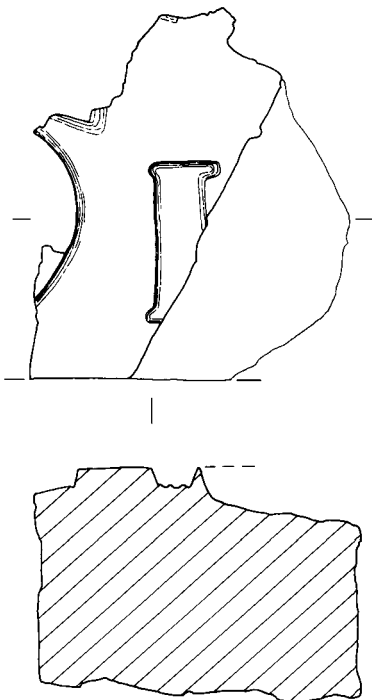


Fig 37. Purbeck marble grave slab fragment [3962] <3118>. Scale 1/2

Table 2. *Penn tiles*

Design no.	Total	Context/accession no.
E1804/P38	1	3901 <1129>
E1845?	1	3901 <3683>
E2220/E2221	1	1059 <5788>
E2353/P58	1	238 <3202>
E2355?/P60A?/?	1	3847 <2441>
E2819?/P139?/?	1	3869 <5786>
GPO design 5	1	262 <2532>
GPO design 6	2	1055 <4975> 3962 <4527>
Design? 4		3869 <638> <5786> 3935 <5793> 3985 <5802>

(? × 108mm × 24mm) and is similar in size to those of 'Westminster' type. This tile, with design E2220, or E2221, is the normal size of Penn tile. The second tile, with unpublished Design 6, was produced using a larger size of stamp (? × 127mm × 21mm). Only two other Penn designs in London are known to have been used on tiles of comparable size, E2343 and E2839 (Betts 1991).

Flemish tiles (14th-late 15th century?)

FABRIC TYPES 1678, 1977, 2191, 2316, 2318, 2323, 2497, 2504, 2850

The vast majority of medieval floor tiles of Flemish origin are plain glazed in London. They can normally be distinguished by the presence of nail holes in the top surface, near the corners of the tile, and the distinctive clays (fabric types) used for their manufacture. A solitary worn Flemish tile found in the foundations of phase 4 of the church does have a nail hole although the clay from which it is made is not particularly distinctive (fabric type 2316). This tile is not glazed, but the glaze covering could have been removed by wear.

A number of more complete plain glazed Flemish tiles were also recovered from post-church levels. The size of these tiles (length/breadth 115mm-121mm square, thickness 23mm-26mm) would suggest a mid 14th to late 15th-century date. It is unlikely they are much earlier as plain glazed 'Westminster' tiles seem to have been readily available during the 13th century, whilst from the late 15th century Flemish tiles of larger size began to be used in London churches (Betts 1994). If the dating proposed here is correct, then it seems highly likely that these tiles

originally formed part of the church floor of St Nicholas Shambles.

These partly complete Flemish tiles are made using slightly different clays (fabrics 1678, 2504) to the solitary example from the church foundations. The glaze colours used are green, dark green and yellow, which would have allowed the tiles to have been used in a chequer-board arrangement. Certain of these tiles seem to have had five nail holes, whilst others apparently only had two. The fragmentary nature of the tiles makes it difficult to determine precisely the number of holes which were originally present.

Even when nail holes are absent it is still possible to suggest a Flemish origin based on clay type. These tiles without nail holes (in fabric types 1977, 2191, 2318, 2323, 2850) have either a plain green or yellow glaze, or are extremely worn. One yellow glazed example (fabric 2323) has a length/breadth of 128mm and a thickness of 27mm, which is not too dissimilar to the tiles discussed above.

Other floor tile

FABRIC TYPES 1813, 2323, 3082

Under this heading are a small number of fragmentary glazed floor tiles and one very worn decorated tile (context 3901 <5707>). All are in undiagnostic fabric types so their origin is uncertain. The plain tiles, which have brown, dark green or yellow glaze, could be either English or Flemish. The decorated tile is, however, almost certainly English.

Medieval stone building material types

The types of stone used in each church phase are shown below (Table 3). This table excludes

Table 3. *Types of stone used in the five phases of St Nicholas Shambles (excluding moulded stones)*

Stone type	Church phase				
	1	2	3	4	5
Kentish Rag	X	X*	X	X	X
Hassock	X	X*	X		
Chalk	X	X	X	X	X
Flint	X				X
Reigate stone				X	
Oolitic limestone	X				X
Purbeck marble				X	
Fine-medium sandstone		X			
Fine red sandstone		X			
?Caen stone				X	

* = 'Ragstone' is recorded, which presumably refers to Kentish Rag, although Hassock may well also be present.

moulded stone which is discussed separately by Lea above.

Kentish Rag and Hassock (Cretaceous, Hythe Beds of Lower Greensand)

Kentish Rag is a sandy limestone with is interbedded with layers of sandstone known as Hassock. Large quantities were brought in to London from quarries around Maidstone, and from Aylesford to the north and Boughton to the south (Salzman 1952, 128). Both were normally either cut into rough facing blocks or used as rubble.

The earliest Kentish Rag and Hassock, that used in phases 1 and 2, is probably reused Roman material whilst stone of these types in later phases was probably quarried in the medieval period. At excavations in Milk Street, London, the earliest freshly quarried Kentish Rag and chalk was dated to 1100–50 (Betts 1990a, 220).

Chalk and flint (Cretaceous)

Chalk, a relatively soft stone, was normally used as rubble although cut blocks were used in phase 4 of the church. Flint, which occurs as bands within chalk, was used only as rubble infill. Both may have been quarried together, although the exact source is uncertain. The earliest chalk and flint, phases 1 and 2, is again probably reused Roman material.

Reigate stone (Upper Cretaceous)

This soft micaceous malmstone comes from quarries in the neighbourhood of Reigate and Merstham in Surrey (Salzman 1952, 129). There are a number of broken fragments used as rubble, but the majority of Reigate Stone comprise decorative mouldings (discussed by Lea above).

Oolitic limestone (Jurassic)

Oolitic limestone was used either as facing blocks or as rubble infill. In the Roman period stone of this type, known as Lincolnshire Limestone, is believed to have coming in from quarries at Barnack and Weldon. This could be the source of the probable reused Roman examples used in phase 1, although more detailed analysis would be required to pinpoint the exact quarry source.

Purbeck marble (Upper Jurassic)

This shelly limestone comes from the Upper Purbeck beds on the Isle of Purbeck, Dorset. This stone was often used for decorative work such as columns, tombs and graveslabs. The fragment from phase 4 of the church is probably the latter. Another piece found in church demolition debris is too battered to determine its original purpose.

Laminated sandstone (Late Cretaceous, or early Tertiary?)

The fine grained laminated sandstone from the foundations of phase 2 is probably reused late Roman (?4th century) stone roofing tile. The stone is probably from the Upper Greensand, which may have been quarried in the Reigate area (Betts 1990a, 221). A slightly coarser sandstone in the same foundations could come from the same source.

Other types

From the foundations of phase 2 came a worked block of an unusual fine-grained calcareous red sandstone of uncertain source. Facing blocks of what may be Caen stone, a limestone from Normandy, were used in the foundations of phase 4.

Summary of building material used in each phase

Pits preceding the church (?11th century)

A large quantity of predominantly ceramic building material was recovered from a number of pits, in particular G15.2. Most pits (G15.2-4, 6, 9-11) contained only Roman material, whilst two others (G15.4 and G15.9) also contained early medieval roofing tile. One of these pits (G15.9) is contaminated with pottery of probable late 13th-century date, and it would seem likely that the same is true of the other pit. Certainly, neither pit fill can be used to date the initial construction of the church.

Other building material present comprises daub, mudbrick, painted wall plaster and stone, most of which is almost certainly Roman. The stone types present are Kentish Rag and Reigate Stone rubble, the latter being almost certainly post-Roman, (G15.2-3, 6, 9); fine grained laminated sandstone and limestone roofing? (G15.2, 4, 8-9) and hard chalk *tessera* (G15.6, 9). In addition, two pits produced fragments of Roman wall veneer, one is Cipollino marble (G15.9) the other Cararra marble (G15.2). In another pit (G15.6) there was a fragment of moulding, also of Roman date, made from Cararra marble. Although of no relevance to the later church, these pits do indicate that certain building material derives from an important Roman building.

Church, phase 1: first nave and chancel (c.1050-1140)

The foundations of both phases 1a and 1b of the initial church comprise reused Roman ceramic building material, Roman *opus signinum* and stone. Presumably the latter is also reused Roman material. The absence of medieval tile, suggests a construction date not later than the mid 12th century, the date when medieval roofing was introduced (Betts 1990a, 221).

The Roman ceramic building material comprises a mixture of roofing tile (*tegula* and *imbrex*), brick, box-flue tile, voussoir and what may be a fragment of scored wall tile. A similar mixture of stone types also occur in the foundations, these being Kentish Rag and Hassock, oolitic limestone, chalk and flint. Kentish Rag, Hassock and oolitic limestone occur as worked blocks and rubble, while the chalk and flint only occurs as rubble.

From the foundations of the nave and western part of the chancel (G16.1) came a moulding of Hassock sandstone (context 3925 <4374>). This is a coarse sandstone not normally used for decorative work.

Phase 2: nave, chancel and sanctuary (1150-1250+)

The foundations of phase 2 of the church are similar to those of phase 1; stone and reused Roman tile again predominates. The Roman tile comprises fragments of both roofing tile and brick, and there is also a small quantity of Roman daub and keyed daub walling in the two east-west foundations (G19.1, G19.2). The stone types present are fine grained laminated sandstone, probably Roman stone roofing, medium grained sandstone, chalk and fine grained calcareous sandstone of uncertain source. 'Ragstone', presumably Kentish Rag or Hassock, was recorded from east-west foundation G19.1, although none was retained.

The foundations of one of the internal buttresses or pilasters (G20.2) are significant as they contain the first fragments of roof tile (fabric 2273) which can be identified as medieval in date. One is part of a flanged tile, whilst another may be part of a shouldered peg tile of contemporary date. Both types of roofing tile were introduced into London in the mid 12th century and had fallen out of use by the late 12th or early 13th century (Betts 1990a, 221-3).

This phase of the church almost certainly incorporated 13th-century floor tiles of 'Westminster' type. None survived *in situ*, but both plain and decorated examples were found reused in the foundations of the next phase of the church (phase 3). One (fabric 2195) has a plain brown glaze, whilst the other (fabric 2199) is decorated (context 3933 <5792>), although the fragment is too small to identify the design present.

The date of the cist burials (G17.1 and G17.2) is uncertain, but it is possible that they are not connected with the phase 1 church as medieval roofing tile is present. They might belong to phase 2. One burial (G17.1) contains a curved tile (fabric 2273), probably of the mid-late 12th century date, the other (G17.2) peg tile (fabric 2271) is dated late 12th century or later.

Phase 3: chapels to north and south of the chancel (1340–1400)

The stones used in the foundations of phase 3 of the church comprise worked blocks and rubble of Kentish Rag and Hassock. In marked contrast to the foundations of church phases 1 and 2, reused Roman tile is now much rarer. In phase 3 reused Roman tile constitutes only 3.5% of the total tile assemblage (this excludes the southern buttress, G22.3, where only a sample of Roman tile was collected), compared to 100% and 96.7% in the foundations of phases 1 and 2 respectively. This clearly marks the exhaustion of Roman building material readily available for reuse.

In place of reused Roman tile, the foundations of phase 3 incorporate large quantities of medieval peg tile (fabrics 2271, 2586, 2587, 2816). Peg tile was first introduced towards the end of the 12th century and continued to be the standard type of ceramic tile used for roofing throughout the medieval period.

Two 'Westminster' floor tiles were found reused in the foundations of the rectangular chapel constructed to the south of the sanctuary (G22.7). As discussed already, these are believed to have originally tiled part of the floor of the phase 2 church. The floor of phase 3 of the church presumably incorporated tiles of Penn tile, along with those of 'Westminster' origin. The foundations of phase 4 contained Penn tiles dated c.1350–1390 which presumably came from part of a floor in the phase 3 church.

As well as containing glazed floor tiles the foundations of the south chapel (G22.7) also produced a number of pieces of plain white plaster. It is possible that these are fragments of plaster from the church walls.

Phase 4: a north aisle and works on the south side interpreted as an arcade for a south aisle (1400–50, possibly in stages)

The ceramic building material in the foundations of phase 4 comprises predominantly ceramic roofing tile and floor tile of medieval date and stone. A small quantity of reused Roman tile is also present.

The stone used in the foundations consists of rubble and worked blocks of Kentish Rag, Reigate stone, chalk and possibly Caen stone. Fragments of flint rubble were also used along with a number of Reigate Stone mouldings.

Phase 4 marks the first occurrence of Reigate stone in the church foundations.

The ceramic building material in the foundations is characterised by the presence of both decorative and plain floor tiles. These are almost certainly from a tiled floor in phase 3 of the church. Floor tiles, of two different dates, were found forming part of the foundations of the north arcade (G27.1). These are a 14th-century decorated Penn tile (fabric 2894, context 3935 <5793>) of uncertain design and two 13th-century tiles of 'Westminster' type (fabrics 2199, 2892, context 3935). The latter comprise a plain glazed dark green tile and a glazed tile with no surviving upper surface. This could have been either plain or decorated.

A further six floor tiles were recovered from the possible foundations of the south arcade (G16.4, G27.3; there is doubt concerning the interpretation of the contexts, see excavation report above). The decorated tiles which are again of 'Westminster' (fabrics 2195, 2199, 2317) and Penn type (fabric 2894) are listed below (Table 4). At least two, possibly all three, 'Westminster' designs have been published by Eames (1980), whilst one of the Penn tiles has a previously unpublished design (GPO design 6: Fig 36, no. 6). The other Penn tile is too small to accurately determine the design type present.

The plain tiles from the foundations of the south arcade are of 'Westminster' type (G27.3), (fabric 2199) and Flemish origin (G16.4), (fabric 2316). The former has a blackish-green glaze, while the latter lacks any sort of glaze. It is not certain whether the Flemish tile was ever glazed, or whether the upper glazed surface has been removed by wear. The tile has a nail hole, a characteristic Flemish feature, 0.75mm in size near the surviving corner.

In addition to the floor tiles, medieval peg and ridge tile (fabrics 2271, 2273, 2586, 2816) was

Table 4. Tiles recovered from possible foundations of the south arcade

Type	Design	Context/accession no.
'Westminster'	E2034	3985 <5798 >
'Westminster'	E2316?	3985 <5799 >, <5812 >
'Westminster'	E2471	3985 <5797 >
Penn	GPO Design 6	3962 <4527 >
Penn	?	3985 <5802 >

incorporated into the foundations of the north aisle and north arcade (G24.1, G27.1) along with what appears to be early shouldered peg tile. A probable fragment of the latter also came from the south arcade (G27.3). These southern foundations (G16.4) contained a small quantity of plain white plaster, which may be facing from the church walls (see also phase 3, G22.7).

Phase 5: rebuilding of part of the north wall and a north vestry (1400-50)

The stone used in the foundations of the vestry comprised chalk blocks and rubble, and oolitic limestone and flint rubble. 'Ragstone' is also recorded, presumably either Kentish Rag or Hassock. The ceramic tile present consists of early medieval flanged and curved roofing tile (fabric 2273) and later peg roofing tile (fabrics 2271, 2586, 2587). Foundation G26.1 also incorporated a number of fragments of Roman roofing tile and brick.

Church demolition and Bull Head Court

The foundations of Bull Head Court (G31) comprise stone and ceramic demolition debris which is believed to have originally formed part of St Nicholas Shambles, the church having been demolished in 1551-2. This debris contained both Roman and medieval roofing tile, a fragment of Purbeck Marble and part of a brick which may be of medieval date.

Other later groups also have building debris which is believed to derive from the church. For example, medieval roofing tile, floor tile and a small quantity of Roman brick were incorporated into a chalk lined pit (G36) along with reused Reigate Stone mouldings which almost certainly originally formed part of the church. Many of the floor tiles thought to have paved part of the church, discussed above, come from these post-church demolition deposits.

Medieval ceramic fabric descriptions

Roof Tile Fabrics

Type 2271

Colour: various shades of red, brown, occasional grey core. *Fabric:* fine fabric, with scatter of muscovite mica (up to

0.05mm), red iron oxide and calcium carbonate (up to 0.5mm). A small quantity of quartz (up to 0.6mm) usually present.

Type 2273

Colour: orangy-red, light brown, frequent grey core. *Fabric:* sandy fabric with frequent quartz (up to 1mm) and common calcium carbonate (up to 0.8mm).

Type 2586

Colour: orange-red. *Fabric:* fairly common quartz (up to 0.5mm), with scatter of red and black iron oxide (up to 1mm).

Type 2587

Colour: orange, light brown. *Fabric:* lumpy clay texture, scatter of rounded light brown cream inclusions (up to 5mm). Numerous small black iron oxide grains (up to 0.05mm) and red iron oxide (up to 1mm).

Type 2816

Colour: red, orange. *Fabric:* fairly frequent small quartz (up to 0.3mm) with red iron oxide (up to 2mm).

Floor Tile Fabrics

Type 1678

Colour: orange. *Fabric:* common small quartz and calcium carbonate (up to 0.2mm), occasional iron oxide (up to 0.8mm).

Type 1810

Colour: light brown, orange, red. *Fabric:* frequent quartz (up to 0.4mm) and red iron oxide (up to 2mm). Certain examples have thin cream-coloured silty bands.

Type 1811

Colour: brown, red. *Fabric:* fine sandy fabric, common quartz (up to 0.3mm) with fairly common red iron oxide (up to 2mm).

Type 1813

Colour: light brown, grey, orange. *Fabric:* sandy fabric, frequent quartz (up to 1mm).

Type 1977

Colour: orange. *Fabric:* common quartz (up to 0.6mm), frequent red iron oxide/clay inclusions (up to 2mm) and cream silty bands and lenses.

Type 2191

Colour: brown, orange, red. *Fabric:* less frequent quartz and calcium carbonate, otherwise similar to 1678 (see above).

Type 2195

Colour: light brown, orange, some with grey core. *Fabric:* occasional quartz (up to 0.8mm) otherwise very similar to 2199 (see below).

Type 2199

Colour: orangy-brown, some with grey core. *Fabric:* little quartz, scatter of muscovite mica and black iron oxide (up to 0.01mm). Red iron oxide (up to 1mm).

Type 2316

Colour: orange, light brown. *Fabric:* fine sandy fabric, common quartz (up to 0.3mm) and occasional calcium carbonate (up to 2mm).

Type 2317

Colour: brown, orange, some with grey core. *Fabric:* moderate amounts of small quartz (up to 0.1mm), occasional black iron oxide (up to 0.05mm).

Type 2318

Colour: orange, brown. *Fabric:* sandy fabric with abundant quartz (up to 0.5mm) frequent red clay/iron oxide inclusions (up to 2mm) and silty cream bands and lenses.

Type 2323

Colour: orange. *Fabric:* moderately sandy fabric with quartz (up to 1.3mm) and calcium carbonate (up to 1.5mm). Occasional black iron oxide (up to 0.6mm) and red clay/iron oxide inclusions (up to 5mm).

Type 2324

Colour: orange, some with grey core. *Fabric:* fine sandy fabric, common quartz (up to 0.2mm) with frequent red iron oxide (up to 2mm) and occasional silty bands and inclusions (up to 1mm).

Type 2504

Colour: orange, red. *Fabric:* very similar to 1678 (see above) but with slightly more quartz.

Type 2850

Colour: orange. *Fabric:* common quartz (up to 0.5mm), frequent red iron oxide/clay inclusions (up to 2mm) and common silty bands and lenses.

Type 2892

Colour: orange, occasional grey core. *Fabric:* sandy version of 2195 and 2199 (see above) with common quartz (up to 0.6mm) and occasional flint or chert.

Type 2894

Colour: light brown, orange, red. *Fabric:* moderate quartz (up to 0.5mm) with occasional red iron oxide (up to 1mm). Some examples have occasional cream-coloured inclusions.

Type 3076

Colour: red, brown. *Fabric:* abundant red clay/iron oxide inclusions (up to 2mm) with frequent quartz (up to 0.6mm). Scatter of rounded silty inclusions (up to 1mm) plus silty lenses.

Type 3081

Colour: orange, light brown, occasional grey core. *Fabric:* fine smooth clay matrix with almost no quartz. Fairly common red and orange iron oxide (up to 3mm).

Type 3082

Colour: orange, brown. *Fabric:* fairly common orange and cream clay inclusions (up to 5mm) and red iron oxide (up to 2mm). Moderate amounts of small quartz (up to 0.3mm).

Type 3083

Colour: orange, light brown. *Fabric:* finely mottled clay matrix with fairly common quartz (up to 0.4mm) and iron oxide (up to 2mm). Matrix streaky in places.

Pottery*Julie Edwards and Jacqui Pearce*

The most notable feature of the pottery from this site is the general lack of medieval pottery from layers associated with both the construction and subsequent destruction of the church, as well as from the construction layers of the 16th-century Bull Head Court. What material there is seems to be largely residual and with few exceptions forms groups that lack any cohesion in terms of date. The layer of dark earth underlying the church was contaminated with finds from all periods. No material which could be linked to ecclesiastical usage has been identified. Although the material does not contradict dating of the church levels it is not of sufficient quality or quantity to provide precise dating evidence. These notes (originally written by Julie Edwards in 1990 and amended by Jacqui Pearce in 1995) concentrate on the late Saxon and medieval pottery; the residual Roman pottery is noted only where it forms part of an assemblage with late Saxon or medieval sherds. Only features that contained medieval pottery are mentioned; a small number of features of medieval date contained only residual Roman pottery or Roman building material.

Pits probably preceding the church (Group 15)

Groups 15.8, 15.10, 15.12, 15.6, 15.11 and 15.9 represent several pits which were cut into by the foundations of the phase 1 nave and chancel. The dates of the material from these pits should therefore predate the church. G15.5 and 15.1

underlay foundations for the construction of the phase 3 chapel.

G15.2 Pit

Large group of Roman residual pottery with a small group of medieval sherds, consisting of mixed early medieval and later material. The later pottery consists of undiagnostic sherds of London-type ware, as well as Shelly-Sandy wares and South Hertfordshire grey wares, which gives a broad spot date of 1150-1350. Sherds of notable interest in the group are fragments of Red-painted and Stamford ware spouted pitchers and an unidentified crucible fragment.

As well as substantial amounts of Roman pottery, there are a large number of Roman finds, including coins, from this pit. The small amount of medieval sherds does not allow a reliable date to be ascribed to the feature. The absence of any Surrey White wares may suggest an early 13th-century or late 12th-century date.

G15.3 Pit

Very small amount of early medieval pottery with small and medium groups of Roman. The absence of London-type ware or later material suggests an early date (*ie* pre-1100), though the small number of sherds or the lack of any other medieval finds (and the more substantial amounts of Roman pottery) means dating is imprecise.

G15.4 Pit

A large medieval group, but with a considerable amount of early medieval material which is likely to be residual. A number of London-type forms are present which are consistent with forms found in mid and late 13th-century assemblages (see Pearce *et al* 1985). South Hertfordshire grey ware cooking pots and Kingstonware jugs are also present. There is an absence of Mill Green ware, and no identifiable tulip-shaped baluster jugs, which would take the date to the end of the 13th century (*ie* the group predates 1270). A London-type drinking jug and bottle are forms which continue into the early 14th century. There is the base of a small rounded jug with a thumbled base in mottled glazed Saintonge ware, a ware which first appears in London in the late

13th century. This base form is unusual in this ware and a parallel is not known at present. A number of the vessels have deposits on their inner surface; these include Red-painted ware, South Herts greyware and Early Surrey ware. One of the Early Surrey sherds has a purple deposit and may have seen use as a dye-pot. A mid 13th-century date seems probable for the group. A number of sherd links have been noted with the overlying pit in G15.13 and these are discussed below.

G15.6 Pit

A large group of Roman sherds with a small group of early medieval sherds with a date range of 1050-1150 based on the presence of Early Surrey ware.

G15.11 Pit

Small group of pottery spot-dated to 1270-1350 by the presence of Mill Green ware. There is also a large group of Roman pottery. The pits which include G15.11 underlay the nave and chancel and the fills would have been deposited before construction which is no later than the 12th century. The pottery in this group also includes Coase Border ware which may date as early as the end of the 13th century.

Groups 15.6, 15.9 and 15.11 are interpreted as three parts of the same pit, though separated by later intrusions. The dating of '1270-1350' is at odds with the 11th-century date for the foundation of the church suggested by other evidence, and the pit was probably dug at a later date within the church (see main text).

G15.13 Pit

A large pit group with a spot date of 1250-1350. A large number of the sherds are residual, but there are substantial amounts of London-type ware and South Hertfordshire greyware with a small amount of Kingston ware and a sherd of Saintonge mottled green glazed ware. The presence of these later sherds plus a small rounded jug handle and a dripping dish both in London-type ware extend the date-range. All of these later forms are present in the early 14th-century assemblages. Unlike most of the other

assemblages viewed for this project the sherds from this group are quite large.

There are sherd links between at least four different vessels in this group and the pit in G15.4 which supports the interpretation that the upper pit cuts the lower. Some sherds are large and quite fresh-looking whilst others are abraded and this may indicate the separate pit fills. London-type ware with North French style decoration occurs both as worn and comparatively fresh-looking sherds in both groups. If later material was also present it could be postulated that these abraded London sherds belong to the upper pit fill. However there are no substantial amounts of later material which could be exclusively identified with the upper pit. Thus the two pit fills can neither be distinguished by sherd condition nor by later datable finds.

The spot-dates for the two groups are the same, 1250–1350, with the absence of substantial amounts of Surrey Whitewares favouring the earlier half of this date range. Large amounts of early medieval and Roman material are present in both groups.

Group 15 as a whole represents pits cutting into the dark earth deposit. Apart from G15.4 and G15.13 there is very little material in this phase. The material tends to be mixed with large amounts of residual material or is in such small groups as to be unreliable for close dating. A good range of London-type ware is present, dating from the late 12th century to the mid/late 13th century.

Phase 1 church (nave and chancel; Group 16)

G16.1 Foundation

Very small early medieval group; the presence of Early Surrey ware gives a spot-date of 1050–1150.

Group 17 graves

G17.1

Two sherds of medieval pottery, The presence of Early Surrey ware gives a spot-date of 1050–1150. A small amount of Roman pottery is present.

G17.2

A very small group of medieval pottery the latest of which is Early Surrey ware giving a date range of 1050–1150. A small group of Roman pottery is present.

G17.9

Small medieval group with Roman pottery. Date of 1050–1150 based on a sherd of Local Grey ware.

G18.1 Foundation

Small group of medieval pottery.

Phase 2: nave, chancel and sanctuary (Groups 19–21)

The pottery evidence provides a *terminus post quem* of about 1150 based on the presence of Coarse London-type ware.

G19.1 Foundation

Small amount of Late Saxon Shelly ware and Roman residual pottery. The date of 900–1050 is thus based on the Late Saxon Shelly ware.

G20.1 Foundation

There are two sherds of medieval pottery from this phase. The date of 1150–1200 is based on the presence of Coarse London-type ware.

G20.2 Foundation

Small group of Late Saxon Shelly ware, dated to 900–1050.

Phase 3: chapels to north and south of the chancel (Groups 22–3)

Building material and pottery dates suggest a date no earlier than the 1340s for this phase.

G22.3

Small group of early medieval pottery dated by the presence of Local Grey ware to 1050–1150.

G22.7 Foundation

Small group of medieval pottery. The presence of a Kingston-type ware bowl and a Coarse Border ware jug fragment suggests a date-range from the end of the 13th century until the second half of the 14th century. The probable occurrence of Penn floor tiles in this phase (since they were contained within foundations of the next phase) suggests a date in the second half of the 14th century.

G23.1 Foundation

Small medieval group dated to 1100–1350 by the presence of an undiagnostic London-type ware sherd.

G23.5 Foundation

Small group of medieval pottery dated to 1100–1350 by the presence of London-type ware.

Phase 4: a north aisle and works on the south side interpreted as an arcade for a south aisle (Groups 16.4, 24.1–2, 24.4–5, 27.1–3)

The pottery evidence of this phase is sparse and little reliance can be placed on it. There was no pottery to be associated with either the north or suggested south arcade foundations.

G27.3 Foundation

A small group with a date of 1240–1350 based on the presence of Kingston-type ware, along with other early medieval wares.

Phase 5: rebuilding of part of the north wall and a north vestry (Groups 25.1–4, 26.1–2, 30.1)

G24.3 Foundation

Two sherds of pottery are present in this subgroup: Tudor brown ware (PMRE) dated to

1480/1500–1600 and medieval Andenne-type ware. They are late for the considered date of this phase, and may be intrusive.

G25.2 Foundation

Small group of medieval sherds dated to 1050–1150 by the presence of Early Surrey ware.

G26.1

Two abraded sherds of medieval pottery; one is unidentified, the other is Local Greyware with a date range of 1050–1150.

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