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Volume 48 1997

London and Middlesex Archaeological Society

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Editors' note: the editors are happy to consider articles for publication in *Transactions*. New contributors are advised to ask the Production Editor for a copy of *LAMAS Notes for Contributors* before submitting papers.

Front cover: Hampton Court Bridge *c.*1754. Artist: Augustin Heckel; Engraver: Charles Grignion (Guildhall Library, Corporation of London). An illustration from *The First Hampton Court Bridge* in this volume.

LAMAS

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Contents

London & Middlesex Archaeological Society

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ESTABLISHED IN 1855

London and Middlesex Archaeological Society

141ST ANNUAL REPORT OF COUNCIL FOR THE SUBSCRIPTION YEAR ENDING 30TH SEPTEMBER 1996

The year has been a quiet one, partly perhaps because there have been so many changes among the people who help to run the Society: we have had a new Hon Secretary, Hon Treasurer, Newsletter Editor, Membership Secretary, Archaeological Editor of Transactions, and Leader of the Local History Sub Committee. In addition, at the AGM we welcomed our new President Mark Hassall. The Newsletter has been the chief medium of publicity throughout the year, and has been well produced. Council would like to express their thanks to Rosalind Woodhouse for her major contribution.

Meetings and visits

The John Stow Memorial Service and the Ceremony of the Quill was held at St Andrew Undershaft on the 17th April. John Clark of the Museum of London gave a short talk entitled *John Stow and the Legendary History of London.* Dr Peter Marsden gave The Hugh Chapman Memorial Lecture at the Museum of London on the 11th January, and took as his subject *Ships of the Port of London from Roman Times.* The evening lectures at the Museum of London attracted small audiences, but thanks are due to the speakers and Joanna Clark for organisation. There was one outing during the summer to look at the buildings of south Clerkenwell.

Publications

Gillian Clegg, Production Editor, has continued to make an impression upon the backlog in the publication of *Transactions.* This year saw the publication of volumes 43 (for 1992) and 44 (for 1993). The next volume, for 1994, will be published by the end of 1996. This is a remarkable achievement and the Society wishes to express its thanks to Ms Clegg and also to Mr Milne and Mrs Bowlt, the archaeology and history consultants. Gus Milne has had to relinquish his post as Honorary Archaeological Editor and John Shepherd, of the Museum of London, will take over this post from volume 45 onwards.

Membership and finance

At the end of the year there were 528 fully paid up members – 350 individual, 35 joint, 46 affiliated societies, 60 corporations or institutions, and 2 students, plus 2 honorary members and 33 life members. Individual membership declined considerably, although more societies and institutions joined.

Archaeological Research Committee

The Committee met four times in 1996, and received regular reports from MoLAS, GLASS (Greater London Archaeology Advisory Service) and SCOLA. Subjects discussed over the year included the continuing need for provision of training excavations in London, the situation at Parnell Road, Old Ford, and the future of the London Archaeology Archive. A decision was also taken to institute an annual award in memory of the late Dr Ralph Merrifield, a past-President of the Society, with a small prize to be awarded to the winner at future Conferences of London Archaeologists.

The 33rd Archaeology Conference was held in March, and proved to be one of the most successful yet. Following a morning devoted to current work and research in London, the afternoon was given over to a celebration of the 50th anniversary of the Roman and Medieval London Excavation Council.

Local History Committee

The principal work of the committee is arranging the Local History Conference, though more representatives from member societies would help to expand activities. The title of the 30th Local History Conference was 'Banishing the Slums'. There were four speakers and all the lectures were illustrated with either slides or film. The displays from local societies were good, with many taking up the theme of the conference. Attendance was almost at full capacity.

The population study of Greater London was brought to an end. Thirty seven parishes were recorded, but in excess of one hundred and forty remain to be done. It must be concluded that the project was too ambitious for our resources. The Centre for Metropolitan History will be pleased to accept the work that has been completed.

Historic Buildings and Conservation Committee

The committee has eleven members, together with a number of corresponding members. Mr John Edwin Clark has succeeded Mr David Whipp as Hon. Secretary.

During the year the Committee met on eight occasions. The principal work of the Committee is examining listed building applications on behalf of the Council for British Archaeology for thirty of the thirty-three London Boroughs. A total of 266 cases have been considered. This entails looking at plans and, where appropriate, making a site visit. About ten cases merited criticism.

BY DIRECTION OF COUNCIL

Patricia A. Clarke
Chairman of Council

Hazel Forsyth
Hon Secretary

LONDON & MIDDLESEX ARCHAEOLOGICAL SOCIETY
INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 30th SEPTEMBER 1996
AND BALANCE SHEET AS AT 30th SEPTEMBER 1996

1994/95 £	**Income**	£	*1995/96* £
4,749	Subscriptions		5,937
49	C.B.A. Grant to Historic Buildings Committee		0
1,469	Dividends and Interest		1,205
2,383	Sales of Publications		1,604
	Grants for Publications		
5,828	English Heritage	5,477	
0	Museum of London	1,052	6,529
23	Miscellaneous		134
£14,501	TOTAL INCOME		£15,409
	Expenditure		
	Publications:		
1,050	Publications Assistant	350	
10,563	Transactions: Volume 43		
0	Volume 44	10,756	
1,024	Newsletter	1,164	
12,637			12,270
70	Lectures and Visits		102
(832)	Local History Conference		(855)
(217)	Archaeological Committee		(658)
117	Historic Buildings Committee		0
110	Postage, Printing & Stationery		173
62	Subscriptions and Donations		93
254	Sundry Expenses		30
350	SCOLA		250
187	LAMAS Project		0
12,738	TOTAL EXPENSES		11,405
1,763	Surplus\(Deficit) for the Year		4,004
£14,501			£15,409

1995 £	**Assets**	£	*1996* £
1,127	INVESTMENTS AT COST		1,127
1,715	Sundry Debtors		0
8,715	Bank & Cash Balances		13,764
19,467	Building Society Deposits		20,137
£31,024			£35,028
	Liabilities		
	GRANTS UNEXPENDED		
850	Future Publications		850
910	Archaeological Projects		910
439	Wheatley Bequest		439
2,199			2,199
10,000	Provision for Transactions		10,000
4,607	Publication Fund		6,066
118	G.E. Eades Memorial Fund		118
	ACCUMULATED FUNDS		
	General Fund:		
12,544	Balance at 1.10.95	14,100	
(2,145)	Transfer to Publications Fund	(1,459)	
1,938	Transfer from Grants Unexpended	0	
1,763	Surplus\(Deficit) for the Year	4,004	16,645
£31,024			£35,028

Note: No value has been attributed to the Society's library, stock of publications or sundry equipment.

EXCAVATIONS AT NOBEL DRIVE, HARLINGTON, AND SIX SITES TO THE NORTH OF HEATHROW AIRPORT, HILLINGDON

Nicholas J. Elsden

With contributions from Jonathan Cotton and Randolph Donahue

SUMMARY

This report deals with an excavation at Nobel Drive, Harlington, and draws in the results of six other small scale excavations, evaluations, and watching briefs to the north of the eastern end of Heathrow Airport. The purpose of this article is to make the limited information from these sites readily available for future studies of this area.

*The earliest evidence for human activity was a pit whose fill contained a leaf-shaped arrowhead of Earlier (*Early or Middle*) Neolithic date, which might have been deliberately deposited, soon after manufacture. This forms part of a small body of Earlier Neolithic material which has come to light in excavations over the last two decades, but which was previously unknown in this area of the Third Terrace Gravels.*

*Later prehistoric activity is represented by a number of boundary ditches of probable Later (*Middle or Late*) Bronze Age date. The entrance way through one Later Bronze Age ditch had a complex series of modifications to its layout, possibly as part of a system for stock management. Its alignment has parallels from sites in the surrounding area, which extend over a distance of more than 1.5km, and appears to be derived from the local alignment of the slope of the gravel terrace in the valley of the River Crane. One ditch appears to be of Iron Age or later date. This, and a large boundary ditch which may also be of Iron Age date, show a change in orientation from the enclosures of the Later Bronze Age. This change may follow a shift in settlement location in the Early or Middle Iron Age, and appears to continue into the Roman period. A single coin of the late 3rd or early 4th century* AD *forms the sole indication of Roman activity, but is of similar date to a nearby Roman enclosure system at Cranford Lane.*

INTRODUCTION

Following an archaeological evaluation at land adjacent to the Ibis Hotel, Nobel Drive, Harlington (Elsden 1996b), an excavation was conducted by staff from the Museum of London Archaeology Service. The site is located to the north of the Bath Road and Heathrow Airport, between the M4 Spur Road and the River Crane, in an area which has been subject to a number of small scale archaeological evaluations, excavations, and watching briefs in the 1990s.

The results of six small sites, which were also situated to the north of the eastern end of Heathrow Airport, are included in this report. They are: Northrop Road 1992, Neptune Road 1995, Newall Road 1996 and 1997, and Bath Road 1997. The latter was situated on the northern side of the Bath Road; the other four between the Bath Road and the Northern Perimeter Road of Heathrow Airport. In addition, some of the results of a watching brief inside the airport boundaries (Heathrow Airport 1997) have been included. This project extended along the

Table 1. Fieldwork information

Location	Site Code	Date	Type of fieldwork	National Grid Reference	Supervisor
Nobel Drive	NDH96	December 1996 & July 1997	Evaluation & Excavation	TQ 0911 7701	N.J. Elsden
Northrop Road	HCR91	February 1992	Evaluation	TQ 0901 7680	S. Hoad
Neptune Road	NEP95	January–March 1995	Watching Brief	TQ 0859 7681	S. Hoad
Bath Road	BTD96	December 1996	Evaluation	TQ 0850 7695	S. Hoad
Newall Road 1996	NAL96	March 1996 & May–June 1996	Evaluation & Excavation	TQ 0828 7685	P. Durnford & J. Partridge
Newall Road 1997	NLL97	July 1997	Evaluation	TQQ 0834 7689	J. Partridge
Heathrow Airport	HCI97	May–September 1997	Watching Brief	TQ 0527 7666 to TQ 0894 7678	N.J. Elsden

entire length of the main northern runway, but only those results from the eastern end are presented here.

These sites, in common with other prehistoric sites in West London, are notable for the small size of their finds assemblages. The finds will therefore be discussed with their parent features, rather than in a separate section. More importantly, the paucity of datable pottery, or other artefacts, has resulted in varying degrees of certainty in dating features where 'assemblages' are frequently in the order of one or two sherds.

GEOLOGY AND TOPOGRAPHY

The area containing the sites under discussion lies on the Third Terrace Gravels (formerly the Taplow Terrace), close to the southern edge of the brickearths (or Langley Silt Complex) which caps the gravels. It has been found during excavations in the vicinity of Heathrow Airport that the brickearth extends considerably further to the south than the extent shown on the maps of the British Geological Survey. In this southern area the brickearth is often present only in patches, or as a weathered brickearth subsoil.

The gravel terrace in this area slopes down gradually to the south and east, to the Rivers Thames and Crane respectively. Further to the west the influence of the Crane recedes and the slope is directed solely southwards, towards the Thames. This slope is typified by the 25m OD contour, which in this area runs from north-east to south-west, displays a re-entrant to the north in the area around the Bath Road site (Fig 1), and turns to the west in the vicinity of Newall Road. Despite the levelling which has taken place within the airport perimeter, these modern contours closely reflect those immediately preceding the construction of the airport. It is suggested below that the northeast-southwest orientation has influenced the layout of the Later Bronze Age field systems in the area.

ARCHAEOLOGICAL LANDSCAPES OF THE HEATHROW AREA

The history of the area around Heathrow Airport can be characterised as a series of 'archaeological landscapes', commencing with the hunter-gatherer communities of the Palaeolithic and Mesolithic, which are represented by occasional finds of flint tools.

The Later Neolithic and Early Bronze Age is characterised by a landscape dominated by ceremonial monuments, in particular the Stanwell Cursus and a line of round barrows on the southern edge of the gravel terrace between Stanwell and West Bedfont, with limited evidence for contemporary settlement.

From the Middle Bronze Age onwards we see an intensification of agriculture, and gradual abandonment of the earlier monuments. This is marked by the emergence of settlements with extensive field systems, such as the Middle Bronze Age field system at Perry Oaks Sludge Works, that from the Later Bronze Age at Cranford Lane, and also the Middle Iron Age settlements at Stockley Park and Caesar's Camp, Heathrow (Grimes & Close-Brooks 1993).

With the establishment of Roman towns at *Pontes* (Staines) and *Londinium*, the rural character

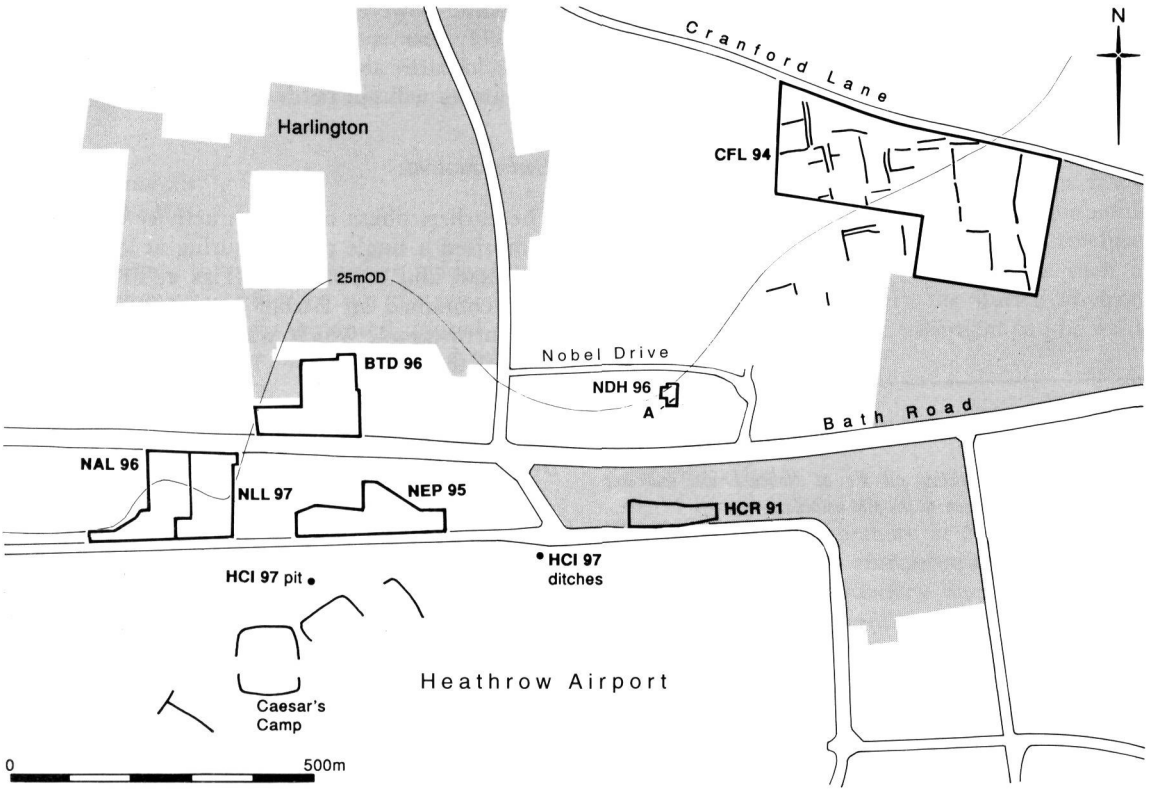


Fig 1. Site locations: Nobel Drive (NDH96), Northrop Road (HCR91), Neptune Road (NEP95), Bath Road (BTD96), Newall Road (NAL96 & NLL97), and Heathrow Airport (HCI 97)

of the area will have been influenced by its proximity to the urban centres. Apart from a hiatus during the Early Saxon period, this situation continued until radical changes took place in the 20th century, caused by the construction of Heathrow Airport in the 1940s and subsequent development.

EXCAVATION RESULTS

Nobel Drive

The site lies on the southern side of Nobel Drive (Fig 1), and covers an area of approximately 940m^2. It is situated on the western side of the shallow valley of the River Crane, at a point where the valley widens out, overlooking the lower land on either side of the river. This situation, which is clear on a contour map, but obscured by building and trees on the ground, may have been more obvious in earlier times. The slopes are, however, of a gradual nature, although more pronounced than the area to the south on which the airport is now situated.

The site lies immediately to the south of the 25m OD surface contour, at a point where the brickearth exists only as patches, and as a weathered brickearth subsoil.

The site is currently flat, lying between 24.29 and 24.33m OD. This must be the result of ground reduction and levelling during post-war development, as a 1943 level survey (Air Ministry 1943) shows the site to slope gently down to the north, from approximately 24.51 to 24.23m OD. This survey also shows the site to lie in an anomalous position, on the northern slopes of a very slight rise, an undulation in an area which otherwise slopes down gently to the south-east.

The natural gravels in the southern half of the site were roughly level, lying between 23.57 and 23.62m OD. At the northern end of the site the gravels rose noticeably, to a maximum of 23.78m OD. Immediately to the south of this rise lay a slight depression between 23.40 and 23.54m OD, along the line of a palaeochannel.

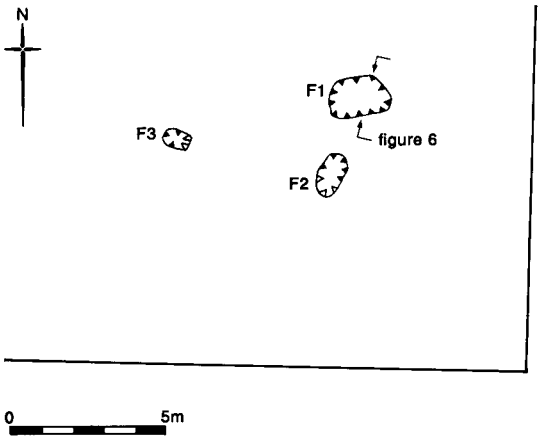


Fig 2. Possible Neolithic pit F1 at Nobel Drive, and two undated pits, in relation to the site boundary

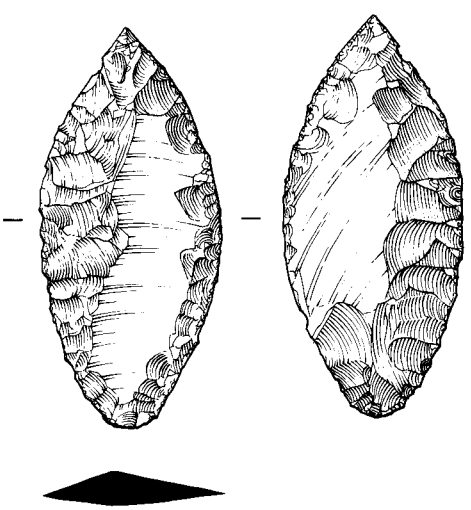


Fig 3. Earlier Neolithic arrowhead from Nobel Drive (1 : 1)

The contradiction between the slope of the 1943 ground surface and that of the underlying gravels is unexpected; the reason for it is, at present, unexplained.

The assemblages of both pottery and flintwork from the excavations were small, despite complete excavation of all the significant features on the site. This lack of large assemblages of datable material means that the proposed phasing is open to challenge; it is justified in the section 'dating structure', below. The decalcifying nature of the soil (Gibbard 1985, 57) was such that no bone survived, and virtually no other organic material, including that which would provide environmental information. Similarly, as most of the features were filled with a similar material, mid grey brown clay silt derived from erosion of the brickearth and silting during disuse, the fills of features will not be described.

Earlier Neolithic

The earliest phase of human activity on the site comprised a single pit, measuring at least 2.22m in length and 0.31m deep (Figs 2, F1 & Fig 6). This contained an Earlier Neolithic leaf-shaped flint arrowhead, which was found close to the base of the pit (Fig 3).

The Arrowhead
Jonathan Cotton

The arrowhead has been worked on a thin, broad, leaf-shaped flake of fine, translucent, mottled yellow-orange/brown flint. Invasive ripple-flaking has been carried out from one edge and covers some 35–50% of both faces. Shallow, marginal retouch on the opposite edge is seemingly restricted to the formation of a symmetrical shape. The proximal end of the original flake has been further modified by shallow invasive flaking to create a neatly rounded butt. The tip has been carefully worked to form a symmetrical point, though one edge appears to have suffered some minor, possibly post-depositional, damage 5mm from the tip. Length 53mm; width 23.5mm; thickness 3.5mm; weight 5.23g.

The arrowhead belongs to Green's Type 2Bm (Green 1980, 29 & 70), and is notable for its size and careful manufacture. Moreover, the choice of a highly coloured, fine quality, and aesthetically pleasing raw material – presumably derived from the Thames terrace gravels hereabouts – is likely to have been deliberate. It is a feature of the local scene that coloured flint seems to have been utilised for narrow blades or fine, bifacially worked pieces: an incomplete ripple-flaked leaf arrowhead of amber flint recovered from the fill of a Roman well at Imperial College Sports Ground, Harlington (Jonathan Nowell pers comm) and a broken laurel leaf of yellow-brown flint from Bedfont Road, Stanwell (Knight 1997) are cases in point.

Whether the finely-worked Nobel Drive arrowhead is to be interpreted as some sort of special event-marking 'placed deposit', is an open question, though it remains a possibility. Equally, the arrowhead could have been collected as a

curio or 'elf-bolt' (Merrifield 1987, 16) and deposited at an altogether later date like the piece from the Roman well above, though its nearly pristine state tends to militate against this.

Residue Analysis
Randolph Donahue

In an attempt to provide further evidence for consideration of whether or not the arrowhead had been a deliberately deposited unused piece, it was submitted for microwear and residue analysis. There is no evidence of surviving organic residues adhering to the arrowhead, and the fracture scars observed were either the product of retouch, or in one case a notch probably resulting from excavation damage, with patches of metallic residue from a steel trowel or mattock. Extensive mild surface wear on protruding surfaces was very likely to have been produced during shifting and settlement of the fill of the pit after deposition, but abrasion tracks near the proximal end of the dorsal face could have been either from grit between the arrowhead and a binding, or from other actions such as rubbing against a stone in the buried environment. Thus no conclusive statement can be made with regard to hafting.

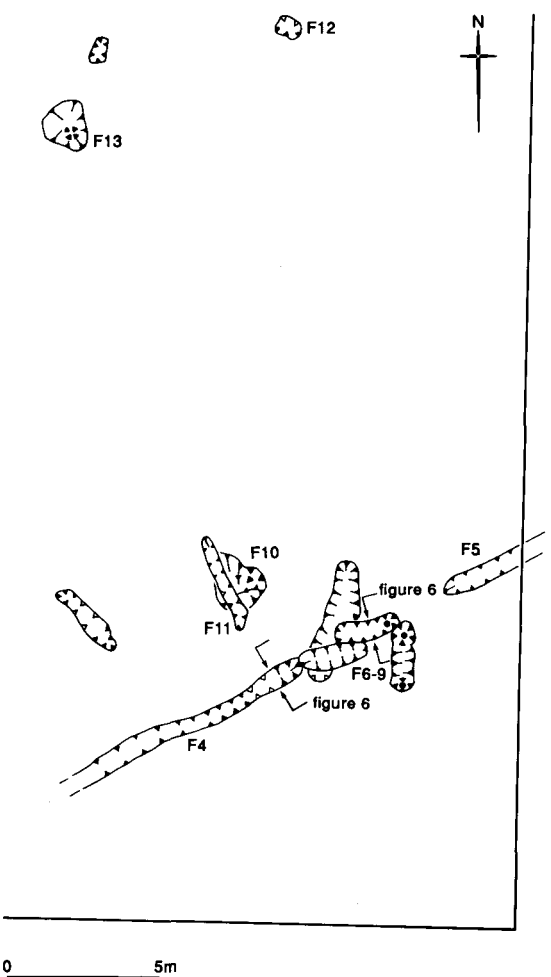


Fig 4. Later Bronze Age enclosure entrance, pits, and gullies at Nobel Drive

Later Bronze Age

The main phase of activity at Nobel Drive was based around the entranceway through an enclosure or field boundary ditch (Fig 4, F4 & F5), which had been modified by the insertion of four short lengths of ditch, and a ditch or slot with a post hole at each end. The enclosure ditches (Fig 4, F4 & F5) measured 0.50 to 0.70m in width and were 0.19 to 0.35m deep. The later modifications (F6 to F9) varied between 2 and 4.05m in length, and were 0.65 to 0.95m wide and 0.23 to 0.36m in depth (see also Fig 6).

The detailed sequence of these alterations is shown in Figure 5. The original entrance was approximately 5m wide (Fig 5, I), and was subsequently reduced in width to 3m by the addition of a short length of ditch in the western side of the entrance (Fig 5, II, F6). Either at this time, or later, during the life of ditch F6, a setting of at least two posts was inserted into the entranceway (F7). This measured 2.30m in length, 0.40m in width, and was 0.17m deep, the post holes being 0.21 and 0.33m deep. These posts, set approximately 1.5m apart, could have been linked by a wicker hurdle or other form of lightweight fencing, possibly set into the slot which linked the post holes. Alternatively, two slight depressions in the base of the slot suggested that it may have held further posts, forming a more robust structure. Whatever form it took, the insertion of this structure into the already narrowed entrance further divided it into two routes, each 1.4m wide. Ditch length F6 was later recut, the recut extending less far to the north than the original. The function of these modifications is unclear, but it is possible that they might have formed a 'funnel' for channelling

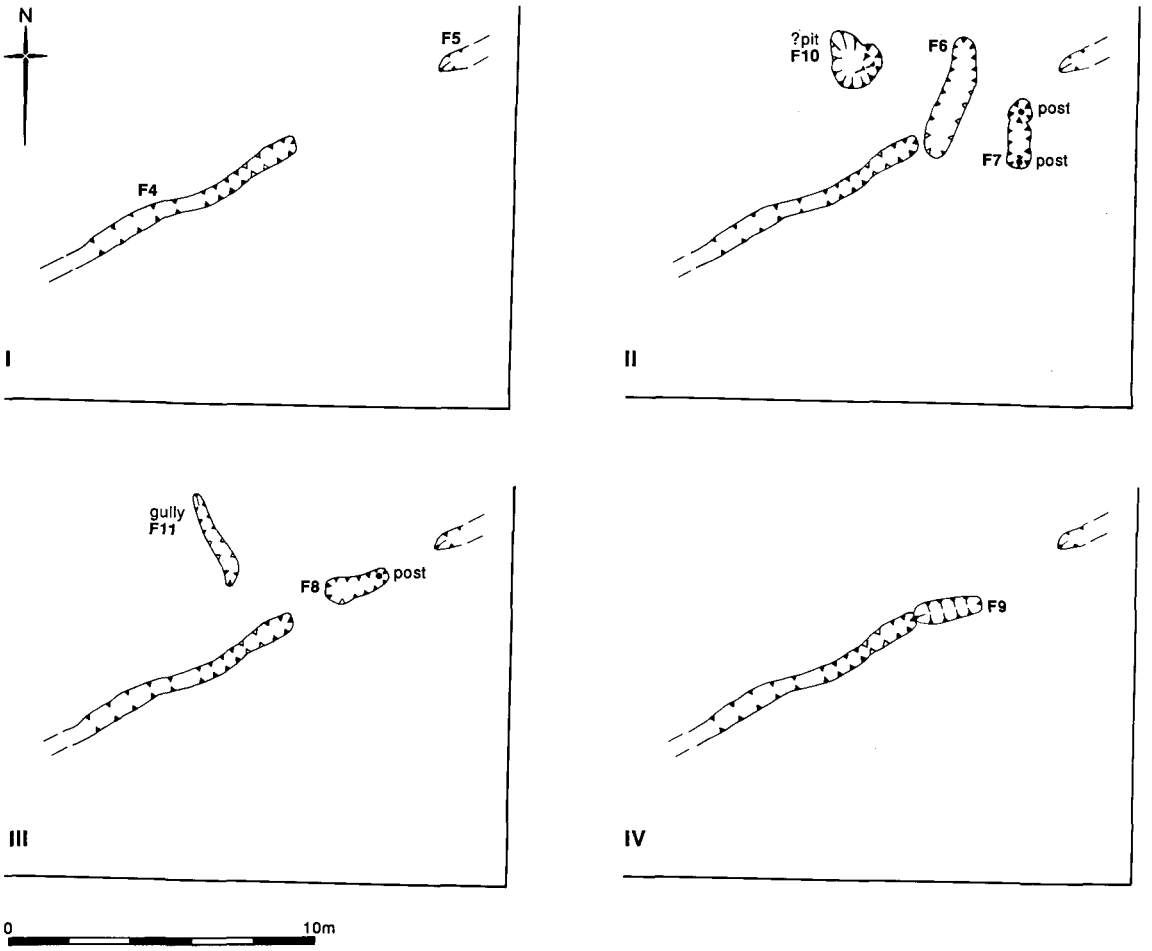


Fig 5. Sequence of alterations I–IV to the Later Bronze Age enclosure entrance at Nobel Drive

sheep, similar to those suggested for Bronze Age enclosures at Fengate (Pryor 1996).

A pit situated close to the entranceway was significantly deeper and larger than the others in the vicinity (F10), measuring 1.59 to 2.10m across and 0.50m deep. Its profile suggested that it might possibly have been a post hole for an isolated large post. It is notable that the original ditch and the first modification to the entranceway were equidistant from the pit or post hole, in effect curving around it at a distance of approximately 2.2m. As a consequence, the pit has been tentatively assigned to this phase.

A third phase of alterations redesigns the double entranceway (Fig 5, III, F8), without the 'funnel' of the previous phase. This produces entrances 1.4m and 1.7m wide, with a 0.37m deep post hole beside the eastern entrance.

The earlier pit or large post hole (F10) may have gone out of use by this time; its fills were cut by a shallow gully (F11), 0.55m wide and 0.14m deep. This lay at approximately 90° to the main enclosure ditch (F4), suggesting that it belongs with this or the next phase of the entranceway.

In the fourth and final phase (Fig 5, IV), the original western ditch (F4) is extended by the addition of another short length of ditch (F9), by means of which the entranceway reverts to a single opening, 3m wide.

The purpose behind this sequence of modifications remains obscure. We are looking at only a small part of what was undoubtedly a much more extensive system of enclosures, but it is possible that this configuration was related to stock control, and that the modifications are

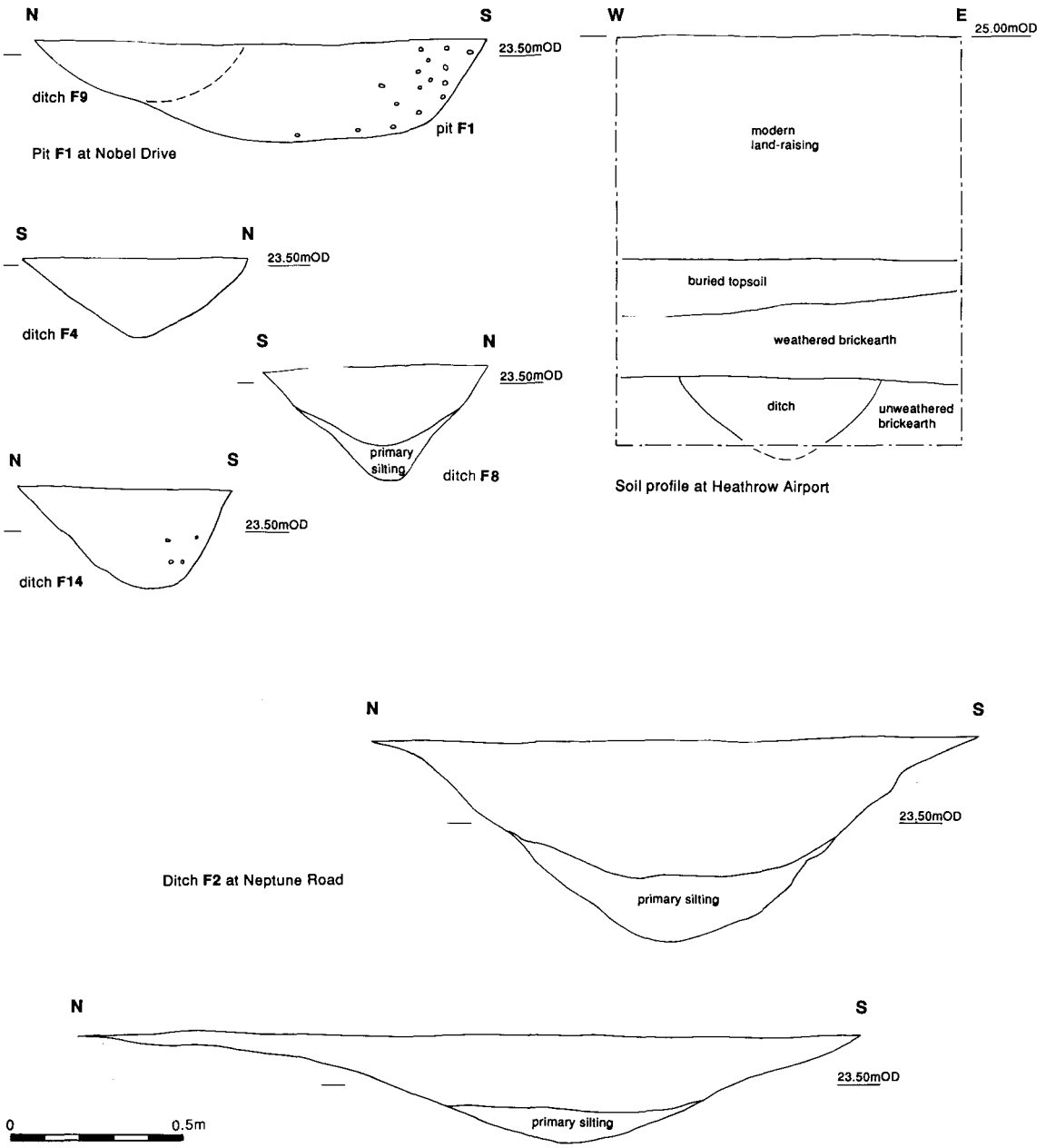


Fig 6. Feature sections from Nobel Drive and Neptune Road, and soil profile at Heathrow Airport

related to changes either in the use of individual enclosures, or possibly in farming practice. The reduced widths of the entrances here are somewhat more narrow than those described by Pryor (1996), but, like those, might indicate a change from cattle, or mixed flocks of sheep and cattle, to a system for sheep alone.

Such a system should have been situated at the end of a droveway, leading to the intersection of a number of enclosures. There is no evidence for a droveway, although if it had been separated from the entrance ditches by 3m or more, it would have lain outside the area of excavation. The shallow gully F11 might conceivably have

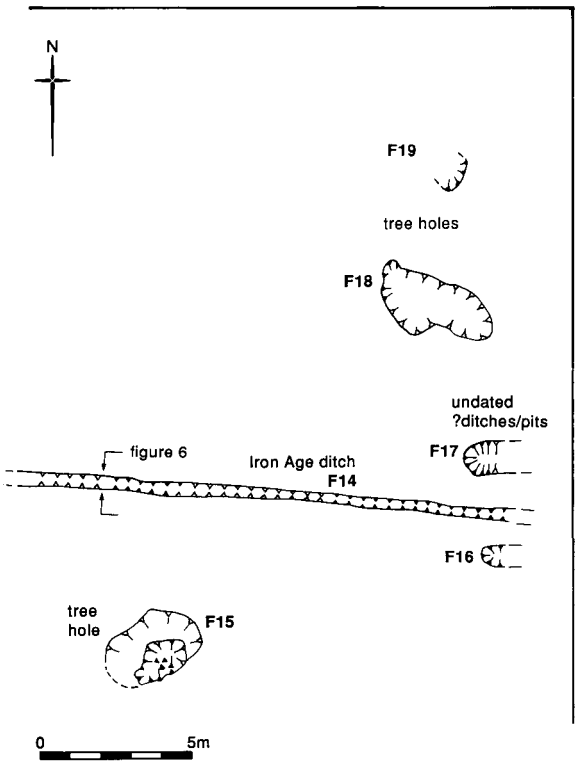


Fig 7. Possible Iron Age and later features at Nobel Drive

been part of a system of enclosures lying to the north of the entranceway, but lost to truncation.

These features contained little in the way of dating material: the one small fragment of prehistoric pottery does not appear to be of an Iron Age type, and might date from the Late Neolithic or the Bronze Age. One of the two pieces of struck flint is probably a tertiary flake of Neolithic or Bronze Age date. The other is a primary flake with a wide striking platform but otherwise undiagnostic. The environmental assemblage consisted of a single cereal grain.

A number of smaller pits have also been tentatively assigned to this phase on spatial grounds, but do not shed any light on the activities taking place at this time. One pit (Fig 4, F12) contained two small tertiary flakes, one flake with marginal damage adjacent to the striking platform.

Possible Iron Age and later

A single ditch extended across the northern part of the site (Figs 6 and 7, F14), and measured up to 0.57m in width and 0.25m in depth.

This ditch was notable for the relative size of its finds assemblage, on a site where artefacts were rare. These included a single abraded sherd of Middle or Late Iron Age pottery, two waste flakes, 17 crudely smashed flints, 33 fragments of burnt flint, and five small fragments of fired clay, probably burnt daub. This feature also contained a glume base of either emmer or spelt wheat. None of the burnt flint appear to have been burnt with the intensity usually associated with the 'cooking pits' seen on Middle and Late Bronze Age sites in the Heathrow area. In particular, it is not heavily calcined, and the vast majority lacks the characteristic polygonal surface cracking. This suggests that these flints were not derived from a 'cooking pit', but from smaller domestic fires or bonfires.

There appears to be little evidence for activity associated with this ditch. The remaining features at the northern end of the site appear to be incompatible with it on stratigraphic or spatial grounds, but it is possible that some of the undated pits to the south could be contemporary (Fig 2, F2 & F3).

Two possible ditch terminals, or large pits, extending beyond the limit of excavation were located either side of the ditch described above (Fig 7, F16 & F17). These share neither the orientation of the entranceway described above, nor that of ditch F14, and are, therefore, likely to have belonged to a different phase of activity.

A copper alloy coin was recovered from a feature that was probably a tree extraction hole, but might possibly have been a post hole or pit which had been heavily disturbed by a tree hole (Fig 7, F15). Despite heavy surface corrosion, X-ray photography revealed the coin to be a minim dating from the late 3rd or early 4th century AD. Although such a small corroded coin in a tree hole is likely to be residual, it provides evidence for Roman presence in the locality at, or after, this date.

Two tree extraction holes contained small waste flakes, small flecks or fragments of burnt flint, and a fleck of pottery (Fig 7, F18 & F19). Given the small sizes and condition of the artefacts, these were probably residual, suggesting that the tree holes post-dated the other activity on site.

Dating structure

The phasing of the features at Nobel Drive is based on an extremely small number of artefacts,

supported by stratigraphic and spatial relationships, and by the character of the cut features.

The sequence of ditch lengths forming the enclosure entranceway and its modifications (F4 to F9) are consistent in profile, but again contained few artefacts. A single sherd and one flint flake suggest that these may have belonged to the Neolithic or the Bronze Age. The one sherd of pottery falls far short of the size of assemblage which might provide reliable dating, and these artefacts could both be residual. The alignment of ditches F4 and F5, however, shares a distinctive orientation with those of the extensive Later Bronze Age field system excavated at Cranford Lane (CFL 94), the nearest part of which lay some 300m to the north-east of the present site (Fig 1, 'A' marks the orientation of the enclosure ditches). The enclosure and entranceway system at Nobel Drive are, therefore, very probably elements of the Cranford Lane field system, and thus should date from the Later Bronze Age. Consequently, they have been assigned to that period.

While it is possible that the Earlier Neolithic arrowhead was residual in pit F1 from which it was recovered, the pit was stratigraphically earlier than the ditches forming the enclosure entranceway (F4 to F9), and of different plan and profile, suggesting that it belonged to a different, earlier, phase of activity. This implies that the pit did not belong to the overlying sequence of ditches from the entranceway, with whose layout it also appears to be incompatible spatially. Combined with the relatively pristine condition of the arrowhead itself, this strongly suggests that this artefact was probably *in situ*, in a pit of Earlier Neolithic date. No other features contained Earlier Neolithic material, but there were a number of undated features on the site, and it is possible that one or more of these might also be derived from this period. In particular, two smaller shallow pits at the southern end of the site, which had similar profiles, might possibly have been contemporary with this feature (Fig 2, F2 & F3).

The ditch which ran across the northern part of the site (F14) contained only one datable artefact, an abraded sherd of Middle or Late Iron Age date. It is quite possible that this is residual, and that this feature may be of Iron Age or Roman date, or possibly even later. Some form of Romano-British presence, however fleeting, is indicated by the late 3rd or early 4th century AD coin from a tree hole.

Northrop Road

This evaluation revealed three ditches, oriented approximately north-south and east-west, one of which produced a fragment of medieval pottery (Fig 8, F20), and measured 1.20m wide and 0.33m deep. The remaining two contained no datable material.

Neptune Road

A watching brief over a large site revealed three ditches, oriented approximately east-west. The natural gravels sloped down from approximately 23.76m OD in the west to 23.20m OD in the east. These were overlain by a layer of heavily truncated brickearth between 0.1m and 0.45m deep. A thin patchy spread of mid grey, clayey silt, thought to be a waterlain deposit was noted overlying the brickearth in some areas.

A heavily truncated ditch contained several sherds of possible Late Bronze Age or Early Iron Age pottery (Fig 8, F21). It measured more than 3m in length by 0.4m wide, and survived to a depth of 70mm.

A much larger ditch was revealed over a distance of 33m, extending beyond the limits of excavation in both directions (Fig 8, F22). In its truncated form the ditch was up to 2m wide and 0.65m deep, significantly wider than the other ditches recorded from this area, with the exception of those from Caesar's Camp. A fragment of ceramic building material and one of burnt flint were recovered from the upper reaches of the latest fill. It is possible that both these artefacts were intrusive, and the date of the feature remains unknown. The substantial size of this ditch suggests that it formed part of a major boundary or enclosure, although it falls far short of the ditch at Caesar's Camp, which was 7m wide and 2.44m deep (Grimes & Close-Brooks 1993, 332).

A smaller ditch (Fig 8, F23) was recorded over a length of 7m; it measured 0.5m in width and was 0.3m deep. This was roughly parallel with the larger ditch (Fig 8, F22), and it is possible that they were contemporary.

Bath Road

The undulating natural gravels varied between 23.84 and 24.31m OD, and were overlain by

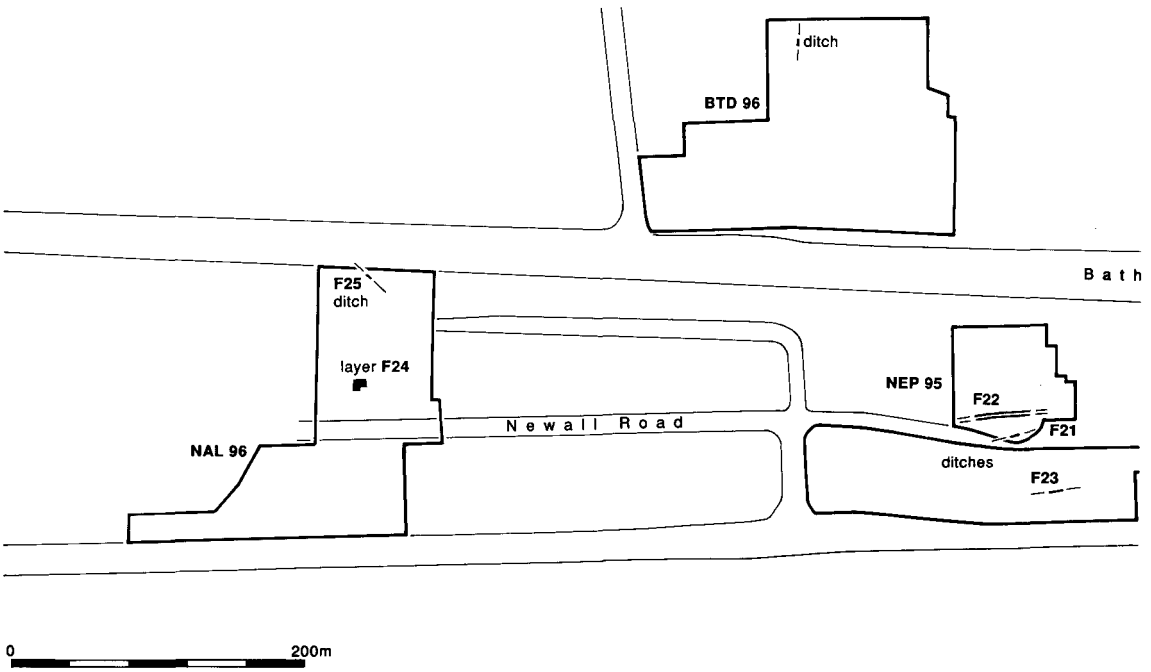


Fig 8. Flooding deposit F24 at Newall Road, and comparison of the alignments of the ditches at Bath Road (BTD96), Newall Road (NAL96), Neptune Road (NEP95), and Northrop Road (HCR91)

brickearth 0.14 to 0.35m deep. The only archaeological feature was an undated ditch, oriented north-south, which measured 0.70m wide and 0.20m deep.

A snapped flint blade-knife, possibly of Late Neolithic date, and a fragment of Late Bronze Age pottery were recovered from the surface of the natural brickearth. The blade-knife has marginal shallow invasive retouch along one edge, and traces of utilisation along the other, with accompanying ventral spalling. Careful cleaning of the brickearth, however, failed to reveal any archaeological features.

Newall Road

An evaluation and subsequent excavation in 1996 were followed by evaluation of an adjacent area in 1997.

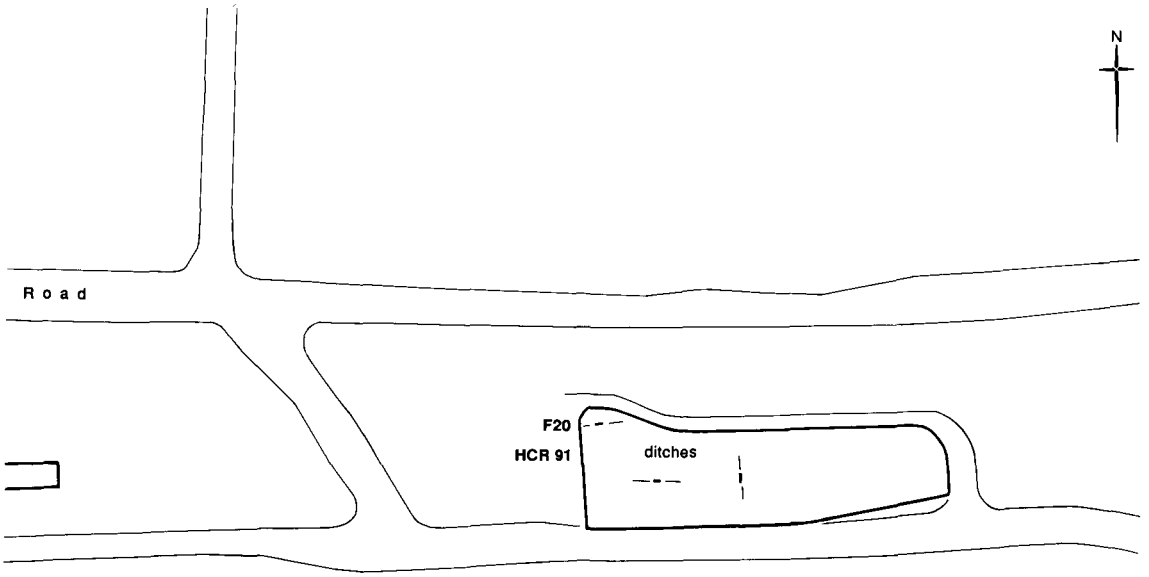
The underlying geology was comprised of natural gravels, which were recorded at a height of 24.55m OD, sloping gradually down to the south to 23.85m OD. In the southern half of the site the gravels were covered by a layer of alluvial deposits 0.20m thick. To the north the gravels were capped by a layer of brickearth up to 0.4m deep.

The gravels were cut by two features interpreted as either palaeochannels or periglacial features, one of which was sealed by a layer of fine clay silt and lay at 23.85 to 24.06m OD (Fig 8, F24). This produced a very small sherd of flint tempered prehistoric pottery. This layer was probably alluvium or some other flood deposit; it appears to have been similar to an extensive alluvial layer which covered the south-eastern corner of the site at Cranford Lane.

An undated gully measured 0.4m wide and 0.15m deep (Fig 8, F25), and was aligned roughly north-west to south-east.

Heathrow Airport

Three archaeological features were recorded towards the eastern end of this watching brief (Fig 1). Two ditches were located a short distance to the south of the airport perimeter fence, approximately 15m to the west of the line of North Hatton Road, and 6.5m apart. These were seen only in section, cut into natural unweathered brickearth. They were oriented roughly north-south, but as the trench was only 0.8m wide, the orientation could not be determined with confidence. The western ditch contained a small



friable fragment of orange-brown pottery or burnt daub, which disintegrated on lifting, and cannot, therefore, be identified. This ditch was 0.50m wide and greater than 0.25m deep; the eastern ditch was 0.62m wide and greater than 0.17m deep (Fig 6, 'soil profile at Heathrow Airport').

The ditches were clearly truncated from above, and overlain by weathered brickearth, 0.18 to 0.28m deep. This was in turn overlain by a buried former topsoil, sealed by modern levelling dumps. The weathered brickearth was the former subsoil, composed of the upper levels of the natural brickearth, modified by leaching, ploughing, or other cultivation, mixing the natural brickearth with topsoil. This phenomenon has been observed on numerous other sites in the Heathrow area, occurring immediately above the level at which archaeological features survive. The latter have been truncated, or possibly masked, by the processes which formed this subsoil. The relationship of this weathered or reworked brickearth to the truncated archaeological horizon is, however, particularly clearly defined in these observations.

The third feature was probably a pit, which extended beyond the limits of the trench, and measured 0.80m in diameter and more than 0.45m deep. Although the fill was similar to natural deposits in the vicinity, the very regular shape of the cut suggested that this was a pit, although there was no indication of its date. It was located approximately 80m to the north of a crop mark representing a large enclosure, which lies immediately to the north-east of Caesar's Camp (Fig 1). It is possible that the pit was associated with the activity implied by the crop mark enclosure.

DISCUSSION

Earlier Neolithic

Hitherto, Neolithic assemblages from the Third Terrace gravels in west London have been dominated by decorated Peterborough ceramics and by flint arrowheads of transverse type, artefacts traditionally ascribed to the Later Neolithic. However, recent work at Cranford Lane, just to the north-east of Nobel Drive (Elsden 1996a, 6 & i-ii), for example, has located features containing sherds of Earlier Neolithic round-based undecorated open pottery bowls, alongside several broken and burnt leaf arrowheads. The group of pits at Cranford Lane were situated 500m to the north-east of Nobel Drive. Both lay in similar topographic positions, just

above 24m OD, on the gentle slopes of the valley of the River Crane. The association between the activities represented by the two groups is obscure, but their proximity and topographical situation suggest a possible connection. It has been suggested that both might have been deliberately 'placed' deposits, but the evidence from Nobel Drive is equivocal: microwear analysis produced no evidence that the piece had been used as an arrowhead, but could not determine whether or not it had been hafted, and the material from Cranford Lane has yet to be analysed in detail. Thus while the deliberate burial of the arrowhead for a non-practical reason is a credible possibility, there is no irrefutable evidence to support it.

In addition, the odd leaf arrowhead and laurel leaf have turned up in surface collections from Holloway Lane and Wall Garden Farm to the north-west (Mason & Lewis 1993), and, as noted above, from Bedfont Road to the south. The activities that these artefacts attest, and the nature of their relationship with the notionally long-lived (though as yet undated) communal monuments sited on the Third Terrace, such as the Stanwell Cursus (*eg* O'Connell 1990) and the rectilinear enclosure at Imperial College Sports Ground, Harlington (Jonathan Nowell pers comm), are matters awaiting resolution.

Later Bronze Age

The distinctive orientation of the enclosure at Nobel Drive and the field system at Cranford Lane is also exhibited by crop marks representing large enclosures adjacent to Caesar's Camp, which lie at an angle to the Middle to Late Iron Age enclosure. Whilst these could be of Iron Age date, the differing alignments suggest that they might more plausibly be seen as part of the Late Bronze Age activity excavated in 1944 (Grimes & Close-Brooks 1993, 330–1). It is thus quite possible that all these features were parts of a series of Later Bronze Age field and enclosure systems, sharing a common alignment. This alignment appears to be derived from the overall slope of the valley of the River Crane in this area, which is illustrated by the modern 25m OD contour. This runs from north-east to south-west, turning to the west in the area covered by the Newall road sites (Fig 1).

Possible Iron Age and later

The post-Bronze Age evidence from these sites is dated uncertainly, being based around one enclosure or field boundary ditch from Nobel Drive, which contained a single pot sherd tentatively dated to the Middle or Late Iron Age. The sherd, even if of Iron Age date, could still be residual in a Roman or later ditch. The ditch does, however, differ significantly in orientation from the enclosure entrance, which has been interpreted as deriving from the Later Bronze Age. The orientation of this feature is also shared by certain elements of the late Roman enclosure system at Cranford Lane, the large boundary ditch at Neptune Road, and more tenuously, is similar to the north and south faces of Caesar's Camp, which is of Middle or Late Iron Age date. Thus the ditch at Nobel Drive may have been of Iron Age or Roman date, but could be later.

Dated Roman material is limited to a single coin from a tree hole at Nobel Drive. Although this is likely to be residual, it suggests some human presence in the locality, however ephemeral, at a similar date to, or perhaps slightly earlier than, the enclosures and probable settlement at Cranford Lane.

CONCLUSIONS

The information from these small sites, including Nobel Drive, needs to be compared with that from larger excavations in the Heathrow area, in order to understand the activities which generated the deposits and their place within the wider landscape. Consequently, the purpose of this article is to make this information available for such studies in the future. In particular, the sequence from Nobel Drive mirrors that at Cranford Lane, albeit on a much reduced scale. The main result of the other smaller sites will be to contribute data to future studies of the archaeology of the Heathrow Area.

The leaf-shaped arrowhead provides further evidence for Earlier Neolithic activity in this area, and while there is a plausible case for it having been deposited soon after manufacture, the evidence for it having been a deliberately 'placed deposit' remains ambiguous, as does this feature's relationship to contemporary activity nearby at Cranford Lane.

The conclusions derived from the orientations of the enclosures and field systems discussed here

must remain provisional until further data are available, from better dated features on sites over larger areas, in particular further east towards the River Crane.

The orientations of Later Bronze Age enclosure and field systems do, however, display some consistency, lying approximately orthogonally to the overall slope of the western side of this part of the Crane valley. The end of use of this alignment may coincide with the extensive flood deposits seen at Cranford Lane, which sealed the Late Bronze Age features, and probably dated from the Late Bronze Age or Early Iron Age. Similar flood deposits were also seen at Newall Road, where they lay at a similar elevation, between 23.5 and 24.0m OD. At Cranford Lane this alluvium appears to mark a break in the prehistoric occupation; although there are hints of human activity after the Early Iron Age, it was not apparently until the late 3rd or 4th century AD that the site was reoccupied.

It would appear that in the Iron Age or Roman period the orientations of enclosure or boundary ditches in this area altered by approximately 20–30° clockwise. The reasons for this change are difficult to comprehend, and might have been the result of conditions beyond the immediate area of the sites.

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ERMINE STREET AND ST ETHELBURGA: OBSERVATIONS AT BISHOPSGATE IN THE CITY OF LONDON

Dick Bluer

SUMMARY

Following the detonation, in April 1993, of an explosive device in Bishopsgate in the City of London, Roman stratigraphy was recorded in the resultant crater in the road. Subsequently, two nearby test-pits produced archaeological material. Natural brickearth at 12.5m OD was cut by a north-south orientated ditch, probably with a drainage or boundary function. On its west side were three clusters of large stake-holes which may represent a make-shift bridge crossing the ditch, which was backfilled in the Flavian period.

Some time after AD *70 a wall was constructed on the eastern side of a substantial gravel surface which is interpreted as the main road to Lincoln and the north, later known as Ermine Street. This wall was seen only in the bomb crater, but a sequence of* opus signinum *floors seen in a test-pit to the south may be associated with it. After* AD *120 a massive ragstone foundation was constructed on the same alignment, supporting the frontage of a substantial building set back from the road; this probably replaced the earlier building, although the road did not widen correspondingly, and the foundation of the post-Flavian wall may have been retained for a colonnade.*

A sequence of poor-quality mortar surfaces on both sides of the post-Hadrianic wall was sealed by a 'dark-earth' deposit, which was in turn sealed by a roughly metalled road. This was laid against the west face of the surviving Roman wall, probably in the post-Alfredian period; the wall was comprehensively robbed out some time after AD *1150. To the east of the wall the 'dark-earth' deposit was sealed by graveyard soils which had been deposited prior to the re-building of St Ethelburga's Church in the last decade of the 14th century. The west wall of the church, constructed from a ground level 1.3m below the present-day level, was observed in a header trench at the north end of the larger test pit. The upper horizon of graveyard soil, post-dating the church re-build, contained two heavily truncated inhumations located between the church and the Bishopsgate street; these must pre-date the early 16th-century when shops were built against the church wall.*

INTRODUCTION

The observations recorded in this article followed directly and indirectly from the detonation, on the morning of 24th April 1993, of a massive explosive device in a lorry parked outside St Ethelburga's church, on the east side of Bishopsgate in the City of London.

Archaeological recording subsequently took place on three separate occasions. Soon after the blast, archaeologists from the Museum of London Archaeology Service (MoLAS) were permitted access to the crater in the road which it had caused. In the circumstances there was no opportunity for excavation of the archaeological deposits, and it was merely a question of recording what had been so unexpectedly exposed.

The next opportunity for archaeological recording came with the digging of test pits (Fig 1) against the foundations of the buildings which had caught the main force of the explosion, principally Hasilwood House, directly south of

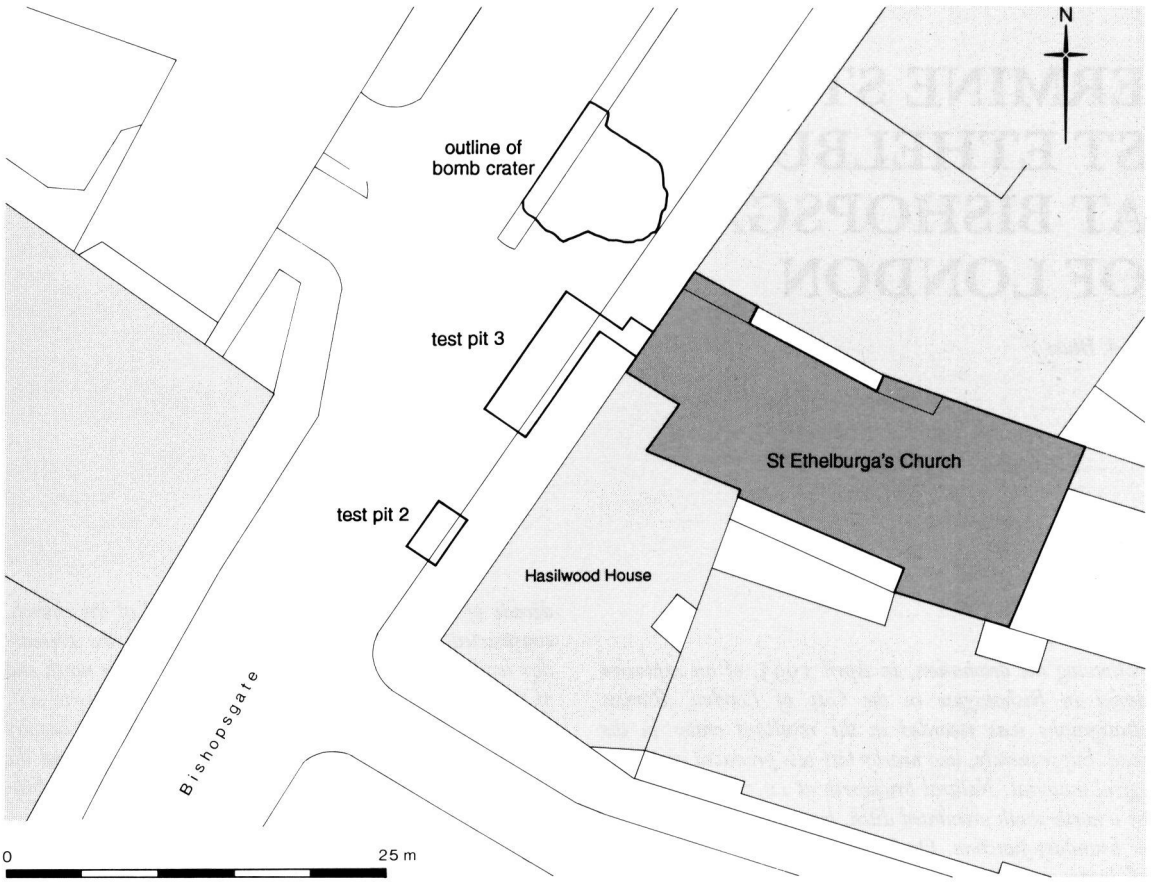

Fig 1. Location of bomb crater and Test Pits 2 and 3

St Ethelburga's Church. These test pits were dug at the behest of the insurance loss assessors in order to determine whether the foundations had been damaged by the blast, and whether the building could be refurbished or would have to be demolished.

Two of these test pits (TP2 and TP3) produced archaeological data. TP2 measured 3.5m × 2m, and was excavated by contractors in April 1994. Archaeological input was on a watching-brief basis, and recording was confined to drawing the north- and south-facing sections.

The southern end of TP3 was located 6.6m north of the northern end of TP2. It measured 9m north-south by 3m east-west and straddled the boundary between St Ethelburga's church and Hasilwood House, the deep basement walls of which formed the eastern limit of the trench. Modern overburden, including backfilled 19th-century cellars on the eastern side of the trench, was removed by contractors.

At the end of September 1994 MoLAS archaeologists were given access to the trench, and controlled excavation by hand proceeded until the beginning of November, when natural deposits were reached. Then, at the northern end of the test pit, a trench was excavated returning to the east, under the pavement, until the foundations of St Ethelburga's church were reached. This so-called 'header' trench, which reached a maximum width of 1.5m, was excavated by the contractors, so once more archaeological recording was on a watching-brief basis only. It was originally intended to go to the full depth of the Hasilwood House foundations, but in the event excavation of this header trench ceased at 13.45m OD, 2.3m below the present-day road surface.

The archaeological records derived from the above projects have been reported in two unpublished MoLAS reports (Lakin 1994 and Bluer 1995). The first of these dealt with

observations in the bomb crater (hereafter known as the Crater) and TP2, and the second with TP3. In the first report interpretation was presented in terms of context numbers only (given here in square brackets *eg* [36]), whereas in the second the context sequence from TP3 was analysed into Groups (*eg* G2) and sub-groups (*eg* 2.1). In order to maintain consistency with these earlier reports, this disparity of presentation will be followed here. It should also be noted that compass points in this article refer to the trenches – trench north is very slightly north of Ordnance Survey north-east.

OBSERVATIONS IN THE CRATER

The earliest deposit observed in the Crater, seen as low as 13.05m OD, was a make-up dump of re-deposited brickearth [1]. In the north-facing section (Fig 2) this was sealed at 13.4m OD by 0.65m depth of compacted orange-brown gravels [2], [3], [4]. In the south-facing section the same horizon was represented by similar gravel deposits (though with a higher proportion of clay and brickearth), observed as high as 14.65m OD, where they were truncated by modern service trenches.

There can be little doubt that these compacted gravel deposits represent the main road northwards from the eastern hill of the Roman settlement. This road was one of the main communication arteries of the Roman province, connecting *Londinium* to *Lindum* (Lincoln) and *Eboracum* (York). In the post-Roman period it became known as Ermine Street, after the Earningas, a small tribe of Anglo-Saxons who settled beside the road in what is now southern Cambridgeshire (Blair 1969, 50). Alternatively, the name may be derived from the Saxon hero Arminus.

Since opportunities to excavate below the road system of modern London are quite rare, the exact course of the Roman road is not well known, and this observation provides an invaluable contribution to fixing its course. Evidence from recent observations at 28–32 Bishopsgate and at the junction of Bishopsgate and Camomile Street suggest that the intra-mural road aligns to the centre of both the first and second basilica/forum complex, both of late 1st-century date. When the City wall was built in about AD 200, the position at which the Ermine Street road pierced the wall was fixed by the gate through which it passed. This gate became known as Bishopsgate, since its upkeep was the

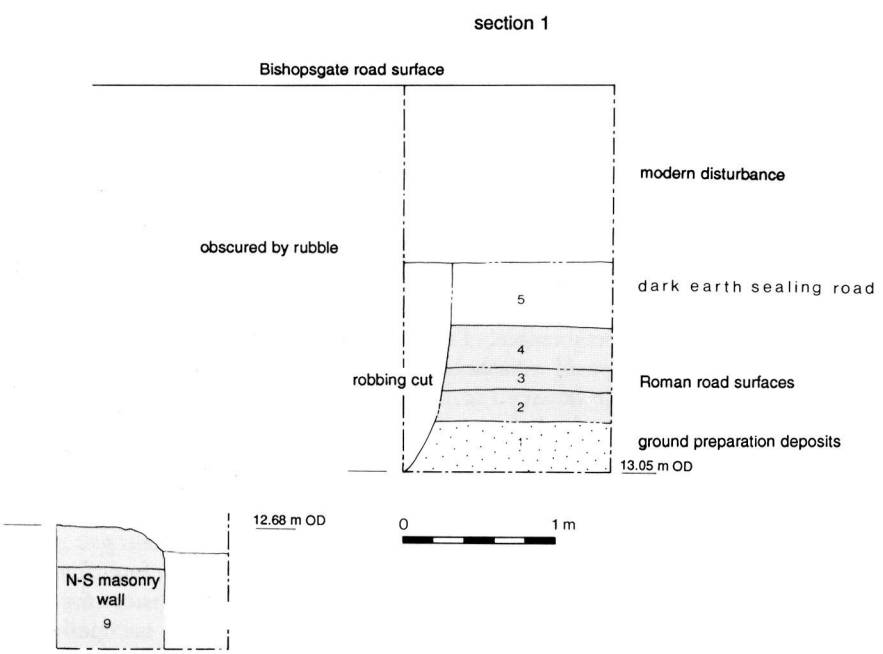

Fig 2. Composite north-facing cross-section across the crater

responsibility of the Bishops of London; this practice is believed to date back to the saintly bishop Erkenwald in the late 7th century. It may be assumed that as long as this gate provided a convenient passage through the standing City wall, it would have determined the course of the intra-mural thoroughfare.

Running along the eastern side of the Crater, on a north-south alignment, was a wall [9], *c.*0.7m wide and constructed of roughly coursed ragstone rubble and ceramic building material, bonded in a coarse light pink/orange mortar. It was truncated to the north but continued beyond the Crater to the south; only 1.95m length was observed. The wall was located on the eastern side of the road gravels noted above, and may be assumed to be the western wall of a building fronting onto the road, although no stratigraphic relationship between wall and road was observed.

The bottom of the road gravels was significantly higher than the top of the wall at 12.68m OD, implying that the latter was a foundation. Given the step-in at ground level which was the norm in Roman masonry architecture (Tony Thomas pers comm), the superstructure is unlikely to have exceeded 0.5m in width, which seems insufficient to support a very considerable load. It may be that the superstructure was timber-framed at ground or first-floor level. Ceramic building material recovered from the wall gave a date of AD 50–80, but this may of course have been residual. Indirect evidence (see below) suggests that this wall must post-date AD 70.

OBSERVATIONS IN THE TEST PITS

The orange-brown Pleistocene gravel was observed at the southern end of TP3, at 10.45m OD. It was capped by 2.05m depth of clean, light orange-brown brickearth (G1), with no inclusions, iron-panning or rootlets visible. This was sealed by two further layers of weathered brickearth with a single stake-hole between (2.1), sealed by deposits (2.2) with inclusions of occupational material such as charcoal and oyster shells.

There was also ceramic building material, mostly in the form of flanged *tegulae* made from fabric 2815, attributable to one of the numerous kilns which straddled Watling Street between London and *Verulamium* (Betts 1987, 26–8). The absence of *imbrex* (the other component of a tiled roof) from these deposits suggests that at this early stage the *tegula* was being used for purposes other than roofing, such as hearths or paving.

In TP2 these brickearth deposits were observed at a rather higher level, with the top of the natural material at 11.42m OD. It was sealed by weathered brickearths which had inclusions of charcoal flecks and evidence of root action. The top of this weathered horizon, at *c.*12.0m OD, was still substantially below the top of what was taken to be natural brickearth in TP3.

The obvious implication is a substantial upward slope of the terrain to the north, but this contradicts the flat surface of the G1 brickearth in TP3, as well as the present-day topography (which actually slopes slightly in the opposite direction). The possibility must be entertained that brickearths in TP2 were identified as cultural deposits when they were in fact natural, or vice-versa in TP3. Otherwise the levels of features in the two test-pits correspond well, so that it seems unlikely that a recording error was responsible for the difference in levels of the observations of the brickearth.

Early structural activity

Cutting the 2.2 deposits in TP3 were a pair of post-holes (2.3) on a north-south alignment, and a pair of slots (2.4) with an east-west long axis (Fig 3). These cut features established what was to become a remarkably persistent building line, and their alignment, as well as their symmetrical arrangement, suggests that they were part of a timber structure of some sort.

Post-dating the disuse of this ephemeral structure, and on the same alignment, was a row of 34 circular stakeholes at 200mm intervals (2.5). This clearly represented a fence, which ran the full length of the trench and was perhaps associated in some way with the gravel road seen in the Crater to the north-west. This fence rotted *in situ* and was replaced by a heavily compacted gravel surface (2.6) at *c.*12.9m OD. This might represent a localised widening of the road, although it was not very substantial (maximum depth 50mm).

A sherd of stamped samian ware from the 2.2 deposits gave a *terminus post quem* (*TPQ*) of AD 70. It may be said, therefore, that these investigations produced no evidence for pre-Boudiccan, or indeed pre-Flavian, occupation in this part of the City. The likelihood is that the area was not developed until the construction in AD 71

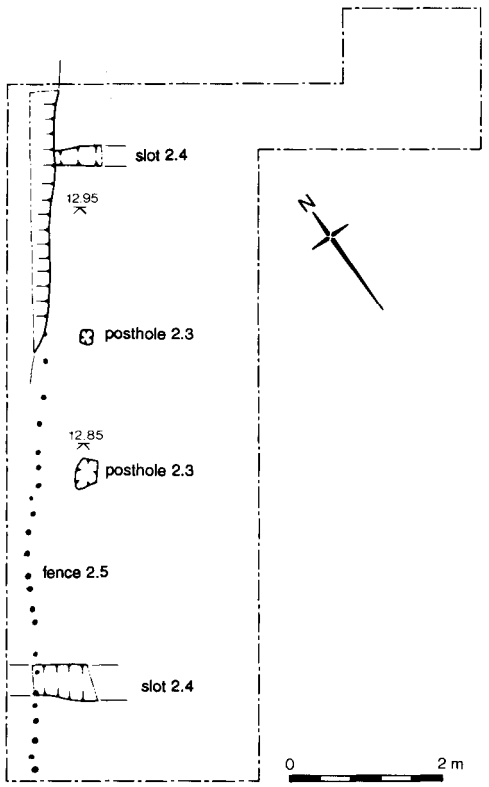

Fig 3. The G2 fence and cut features

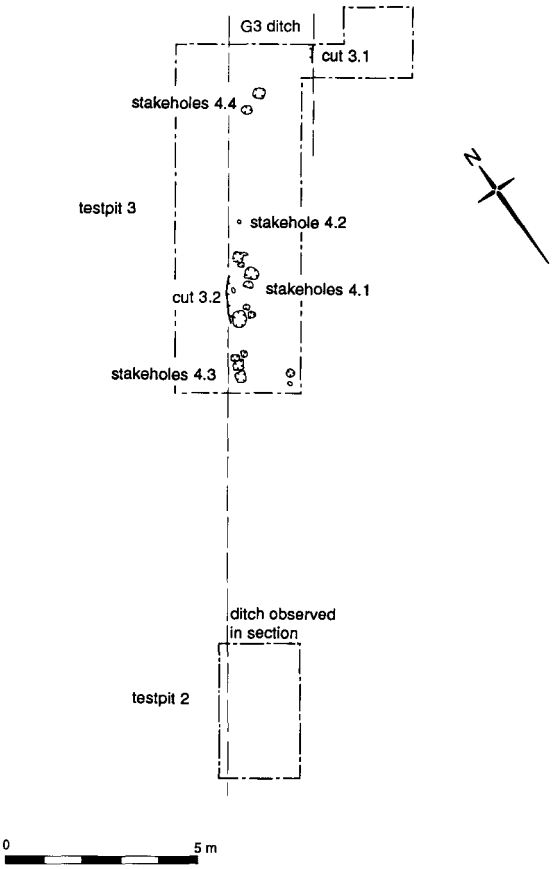

Fig 4. G3 ditch and G4 stake-holes

(Marsden, 1987, 4) of the first forum/basilica/temple complex. This is consistent with a 1932 observation of the road where it sealed occupation debris of the Flavian period (Merrifield, 1969, 44).

Ditch

Just to the east of, and parallel to, the G2 fence line, a heavily truncated linear cut feature (G3) was observed, again running the full length of TP3 (Fig 4). It was 2–2.5m wide and 1.4m deep, the gradient of the sides being vertical near the top and rounding out gradually to a flat base. This is not the profile of a typical Roman military ditch, and it is probable that the ditch was a more substantial replacement for the fence 2.5, with the function of delineating the eastern edge of the road.

The ditch was backfilled by a greenish-grey sandy silt with inclusions of occupational material and pottery, including an unusual sherd of Pompeian-redware plate, made in *Verulamium* between AD 70 and 100 and giving a post-Flavian date for the disuse of this feature. There was also a sherd of a bowl or plate, which had been made into a counter, in Fine Micaceous Grey ware (FMIC) with a complete stamp.

Thirty litres of the ditch fill were sampled and subjected to environmental analysis. The dominant component of the assemblage consisted of plants that grow in damp or marshy ground, including sedges (*Carex* spp.), spike-rush (*Eleocharis palustris/uniglumis*) and large numbers of seeds of rushes (*Juncus* spp.). Other taxa included arable weeds, for example, corn gromwell (*Lithospermum arvense*); weeds of arable, waste places and disturbed ground, *eg* wild mignonette (*Reseda lutea*); and plants of woods, scrub and hedgerows, which included elder (*Sambucus nigra*) and hemlock (*Conium maculatum*).

This small assemblage suggests that the ditch and perhaps the immediate environment may have been marshy (possibly due to the proximity of the easternmost feeder channel of the

Walbrook), while human activities are indicated by the plants of disturbed ground and the charred material, presumably blown, washed or deliberately deposited into the ditch.

Animal bones from the ditch fill were dominated by cattle (*Bos taurus*), sheep (*Ovis aries*), goat and pig (*Sus scrofa*), which contributed 26%, 40% and 23% respectively of the total weight. The sheep/goat bones showed butchery marks probably derived from splitting of the carcass and removal of the brain. All the bones were derived from adult animals; there were no indications of newborn, infant or juvenile individuals. The recovery of a wide spread of anatomical elements implies consumption of meat of a range of qualities plus, probably, disposal of primary butchery waste.

There was also a significant component of domestic poultry such as chicken (*Gallus gallus*) and wild game. The wild species: woodpigeon *(Columba palumbus)*, mallard (*Anas platyrhynchos*), teal (*Anas crecca*) and brown hare (*Lepus europaeus*) were all highly esteemed as food and could have been trapped or hunted for sale in London markets as indeed they all are today. It is likely that they would have been abundant on nearby agricultural land (woodpigeon, brown hare) and marshland (teal, mallard) close to the City. Woodpigeon and mallard are very capable of thriving in true urban conditions and could even be present as disposal of chance carcasses.

The sample also contained a vertebra of sole (*Solea solea*). This fish is widespread in north European waters and is very abundant in the outer Thames estuary (Wheeler 1979) where it represents an important and valuable food species usually taken by trawling. There is no reason to doubt that the bone represents post-consumption waste.

In TP2, both north- and south-facing sections showed a steep-sided cut feature [75] truncating the natural brickearths. The corresponding positions in the sequence, and the similarity of fill [74], permit a secure identification of this feature with the G3 ditch in TP3, giving it a length of at least 19 metres. Pottery was recovered with the same *tpq* as the TP3 observation, *ie* AD 70.

A possible bridge spanning the ditch

On the same north-south alignment as the G3 ditch was an assemblage of stakeholes (G4), 15 (4.1, 4.2, 4.3) in the southern half of the trench and a pair (4.4) near the northern end. They were very variable in character, some being square in plan, others circular or sub-circular; the side/diameter varied from 60 to 320mm, the depth from 90mm to 1.05m. The long axes were all vertical, and most of them had sides tapering to a sharp point. The loose compaction of the fills (which provided no useful dating evidence), and the absence of decayed wood, suggests that the stakes had been withdrawn rather than allowed to rot *in situ*.

These stakeholes were identified in natural brickearth at the bottom of a deep later intrusion, so the level from which the stakes were driven could not be directly inferred. It seems unlikely, however, that they were driven through up to 2 metres depth of heavily compacted brickearth, and they were almost certainly driven from the bottom of the G3 ditch.

These stakeholes were not in a linear arrangement, and are unlikely to have formed a fence or palisade; rather they were in three clusters, suggesting three stake positions which were replaced several times. Perhaps these stakeholes represent a make-shift bridge across the ditch, which required several phases of repair.

Demolition debris

Post-dating the early G2 activity was a small pit (5.1) whose fill included occupational material, and a (probable) beam-slot (5.2). These were sealed by dumps of brickearth and sandy silt (5.4), which provided a diverse and interesting range of finds, including iron nails and slag, stone and ceramic building material, painted wall-plaster (see Fig 5), and daub.

Most of the pottery from these dumps fell into the date-range AD 60–100, although the *TPQ* was AD 70. It included a burnt sherd of Local Mica-dusted ware (LOMI) with a worn but complete stamp on the underside of the base. The presence of two coarseware stamps in what is otherwise a small and generally unremarkable assemblage of Roman pottery from this site is unexpected.

There were also two colours of stone *tessera*, a white one made from clunch (a variety of chalk hard enough to be used as a building material) and a dark grey one of Wealden shale, as well as a cream/yellow-coloured ceramic *tessera* (fabric type 2454). *Tesserae* made from these two stone

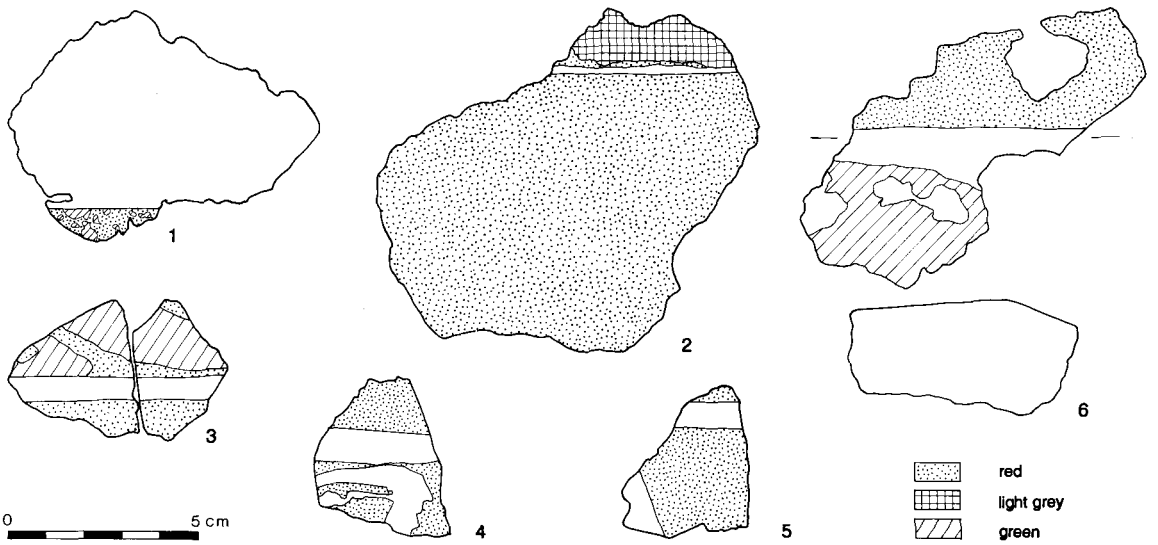

Fig 5. Fragments of painted wall-plaster from demolition dump 5.4 (Nos 1–5) and robbing backfill 9.1 (No.6)

types made up the majority of several fragments of mosaic pavement at Watling Court in the western part of the City (Perring & Roskams 1991, 88–94), which dated to AD 70–100.

The 5.4 dumps also contained a fragment of Purbeck marble with a smooth upper surface and a rough underside, its thickness of 24–26mm suggesting that it had been used as paving. This shelly limestone was imported to *Londinium* from the Upper Purbeck beds in Dorset before AD 70 (Pritchard 1986, 185), so this fragment in a late 1st-century dump must have derived from one of the earliest buildings in the City to employ this material.

A total of 21 fragments of wall plaster were also found in these dumps. The wall plaster appears to have come from different parts of the wall, perhaps even different rooms, but too little survived to reconstruct any decorative schemes. The plaster backing is white in colour and between 18–22mm in thickness. Much of the wall plaster surface is in poor condition but can be split into a number of groups.

i) plain red, probably part of a plain panel area.

ii) red dado (the lowest zone in a wall decoration) with green splashes (imitating marble wall veneer) bordering a white band (Fig 5, No.1).

iii) light grey bordering dark red (or what may have been originally black), possibly separated by the white band (Fig 5, No.2).

iv) greenish-blue bordering red separated by a white band (7mm). The dark red may have pink splashes which would indicate that it was part of a dado (Fig 5, No.3).

v) decorative fragment with white bands (7mm) on dark red. This too seems to have pink splashes and is presumably from the same wall as iv (Fig 5, No.4).

vi) decorative white lines on dark red (Fig 5, No.5).

vii) green bordering dark red (Fig 5, No.6).

The richness of this finds assemblage from these G5 dumps strongly indicates that they represent demolition debris from a high-status building in the vicinity. They collectively raised the ground level some 0.7m in preparation for the construction of the massive foundation of G6. In TP2 the equivalent deposits were a 220mm-deep dump of charcoal-flecked brickearth which sealed the G3 ditch, and acted as make-up for a beaten-earth surface [69].

A deep masonry foundation

A spread of heavily compacted off-white mortar (6.2) formed a construction spread on the western side of TP3. Its surface at 13.55m OD was the ground level at the time of the construction of a massive north-south orientated wall (6.3). This ran the full length of the trench on the same alignment as the fence 2.5 and the G3 ditch, heavily truncating the latter. The upper part of the cut was truncated on the eastern side by

modern cellars; on the western side it was vertical for a depth of 1.6m before stepping in 0.5m at a shallow gradient and then dropping vertically for another 0.75m. There was then a sharp break with a flat base, whose width ranged from 1m to 1.4m. The base rose slightly from south (10.9m OD) to north (11.2m OD), giving a maximum depth of 2.65m at the northern end of the trench.

It is quite feasible, incidentally, that the timber structure represented by the G4 stake-holes was in place right up to the excavation of this cut, and that some of the timbers may have been retained to act as shoring for this very deep cut.

The bottom of the cut was lined (Fig 6) with a thin layer of light yellowish-beige sandy mortar, over which was a loose layer of random uncoursed fragments of unworked Kentish rag, including some very large ones up to 600mm long. These had apparently been thrown unmortared into the trench to a depth of 0.6m. Kentish rag was the most common building stone used in Roman London, particularly for the construction of masonry buildings. It is a very hard grey coloured limestone quarried from Cretaceous Lower Greensand beds around Maidstone in Kent. These quarries were situated not far from the Eccles area of north-western Kent which supplied yellow and white tiles (fabric 2454) to London from AD 50–75/80; these tiles were also found on this site. Kentish rag is found interbedded with beds of a softer sandstone known as hassock, which was also brought into London. Both hassock and Kentish rag were used in the foundations of the G6 wall, as were chalk, brick and *tegula*.

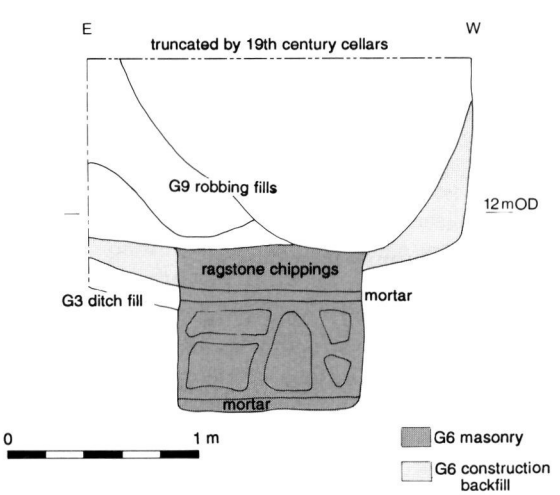

Fig 6. Cross-section of G6 foundations and construction backfill, showing different components

The lowest level of large undressed stones was sealed by a 50–70mm deep layer of light-beige sandy mortar, giving a flat surface at *c.*11.5m OD. Sealing this bedding layer in the central part of the trench was a layer of black silt, whose homogeneous and inclusion-free composition suggests that it was silting-up rather than trample, with the implication that the trench was open for a period at this stage.

Over this more unworked ragstone fragments had again been thrown into the trench to a maximum depth of 350mm. As well as three discrete areas of large stones, there were many smaller ones with sharp corners and resembling chippings from stone-dressing works. This might mean that the silting accumulated while the stone was being worked at ground level, with the waste material used as footings. To the north, where it had escaped truncation, this material stepped out to the east by at least 0.45m.

It was sealed with another 100mm depth of compacted mortar to bring the level up to a maximum of 11.8m OD; above this point there was a fill of silty yellowish mortar against the west side of the cut, which was interpreted as construction backfill. Its presence implies that the uppermost 1.8m of the foundation were of free-standing mortared masonry rather than dumped loose stones; certainly they were considered worthy of re-use as they had been comprehensively robbed (see G9 below).

In TP2, this substantial foundation was also observed to run the full length of the trench, although at the northern end all but 50mm depth had been robbed. To the south the construction of the foundation (Fig 8) was similar to that observed in TP3. The base was formed by 0.4m depth of unworked, unmortared stone rubble sealed by 0.13m depth of pale buff mortar [80]. This was sealed by 0.24m depth of what is described in the primary record as 'mixed cess and domestic refuse' [79], which is here interpreted as being equivalent to the silting observed at the same constructional stage in TP3. It is difficult to imagine the fastidious Roman civil engineer permitting the disposal of domestic rubbish in his wall foundations.

Whatever the source of the material, it was sealed by 0.12m of ragstone 'chippings' [78], in turn sealed by 0.13m depth of hard pale buff mortar with chalk flecks [76]. This may have been sealed by up to 0.55m of 'loose rubble' but

it was seen only under very poor conditions. With the exception of this latter, the construction sequence of the foundation was identical in both TP2 and TP3, although the depths of the components differed. It is suggested therefore that this massive masonry foundation ran the full 19 metres between the southern end of TP2 and the northern limit of TP3 (Fig 7).

Surfaces associated with the wall

Sealing the G5 dumps to the west of the foundation in TP3 was a sequence of surfaces – 6.4 was of soft off-white mortar cut by a post-hole 6.5 which was close to the foundation and was probably associated with work on the superstructure. This surface was superseded by a well-compacted gravel/sandy silt example 6.6, followed by a laminated layer of well-compacted yellow-brown mortar 6.7 (Fig 7); the presence of a small quantity of plain white and plain red wall plaster (not illustrated) in this suggests that some redecorating was in progress. One of the plain white fragments is 33–36mm thick, significantly thicker than the plaster from the 5.4 dump. The plaster seems to have been brought in from elsewhere and reused, as mortar is attached to the upper surface. Alternatively, it may be the backing layer for a second painted surface which had become detached.

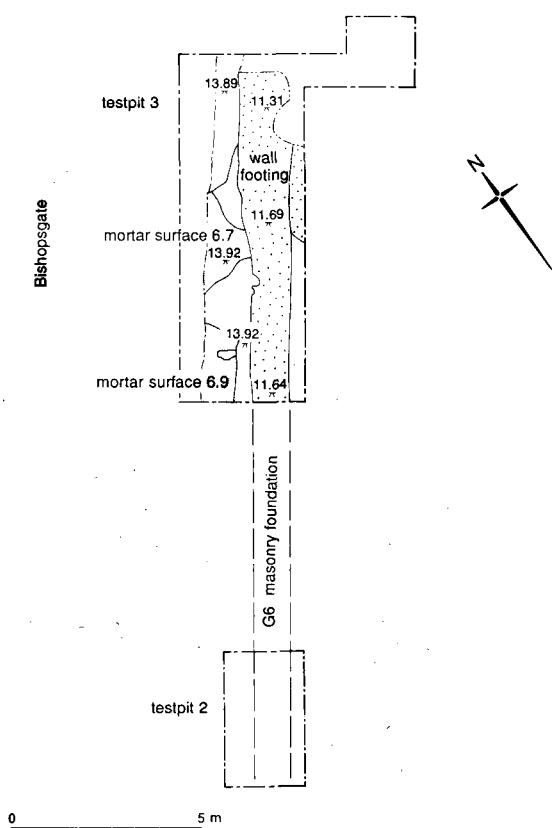

Fig 7. Plan of G6 wall foundation in TP2 and TP3

A localised mortar surface 6.9 at the southern end of the trench was sealed by a small area of maroon-red burnt brickearth 6.10 which probably represented a small-scale temporary hearth. These surfaces raised the level to 14m OD.

To the east of the foundation was an analogous sequence of surfaces (6.11, 6.12, 6.13, 6.14, 6.17, 6.18, 6.19). These were of more variegated character, with crushed sandstone and brickearth being used as well as mortar. The general level was rather lower on this side of the wall, with the possible construction spread of 6.12 at 13.15m OD, and the latest surfaces of 6.19 at 13.8m OD.

The comprehensive robbing of the G6 foundation left little direct evidence of the form and function of the building to which the wall belonged. Pottery from a construction backfill, and from the make-up for the primary surface 6.4, both had a *TPQ* of AD 120, implying a post-Hadrianic date for the construction of the wall. A small cut feature 6.15 cut into the sequence of surfaces to the east of the wall produced pottery with a *TPQ* of AD 170, showing that the building was still in use at this time.

The further question arises as to which of the G6 surfaces were internal, and which external. Few of them showed the kind of compaction which might be expected from heavily used surfaces, and it is possible that the mortar examples, at least, were originally bedding for planking, tiled or tessellated floors which were removed when the floor went out of use.

The surfaces to the east of the wall were replaced more often and occupied a greater physical depth than those to the west (0.65m compared to 0.45m), so they seem better qualified to be the internal sequence. Although they were slightly lower than the western surfaces, there is no evidence for their having belonged to a cellar or hypocausted room.

None of the surfaces to the west of the wall were very robust, and it is possible that they were also internal (see below). Certainly there is no question of their being part of the Ermine

Street road, from which this wall must have been set back.

Opus signinum floors

In TP2 the material to the west of the G6 wall at the level of these mortar surfaces was destroyed by modern service trenches. However, sealing the beaten-earth floor [69] was a brickearth dump acting as make-up for a 150mm-thick *opus signinum* floor [67], its surface at 12.82m OD (Fig 8). This floor surface also appeared on the eastern side of the (robbed) G6 wall and may be assumed to pre-date it.

This was sealed by a deposit of mixed brickearth and mortar which was probably demolition rubble. It was sealed in turn by a second *opus signinum* floor [65] at 13.22m OD. This 120mm-thick floor was sealed by a demolition dump of gritty silt.

The Roman buildings

It may be noted that both these *opus signinum* floors were significantly lower than the construction level of 13.55m OD for the G6 wall, suggesting that they both belonged to an earlier building. The obvious candidate here is the wall observed in the Crater, although no stratigraphic link could be observed between wall and surfaces, and the 21m separating observations of the two emphasises the need for caution. Nevertheless, given the large scale of the G3 ditch and G6 wall, which were both more than 19m long, it may be that the Crater wall did indeed continue as far south as the *opus signinum* floors in TP2.

One possible explanation, therefore, is that the Crater wall formed the façade of a building giving directly onto the road, perhaps when the latter was first laid out, although this could not be verified stratigraphically. The G2 fence, G3 ditch and G4 stake-holes were all external and must pre-date the Crater wall, presuming that this latter delineated a building. The pottery

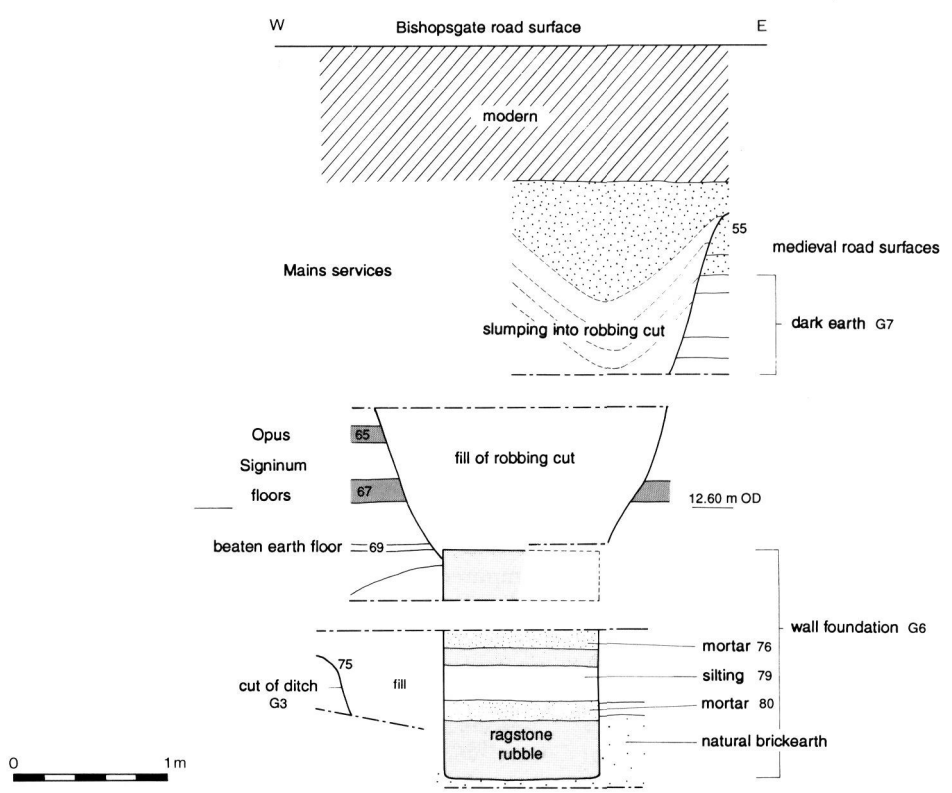

Fig 8. Composite section of complete sequence in TP2

spot-dates from the G2 dumps and G3 ditch backfill mean that the Crater wall (and possibly the first road) must post-date AD 70.

The *opus signinum* floors observed in TP2 must have derived from a high-status building, compatible with the presence of the painted plaster, *tesserae*, Purbeck slabs *etc* present in the G5 demolition dumps, which latter, in this reconstruction, would have derived from the destruction of this early building. Sometime after AD 120 the Crater wall was replaced with the G6 wall set some 2.2m further back from the road.

If, however, this hypothesis were correct, one might expect the road to have been widened to go up to the new wall, and it clearly did not do so. This raises the possibility that at least the foundations of the Crater wall remained in use, perhaps supporting a colonnade or portico. In this case the surfaces to the west of the G6 wall in TP3 may have been within an atrium or narthex. Certainly none of these surfaces were very robust, and they all looked internal.

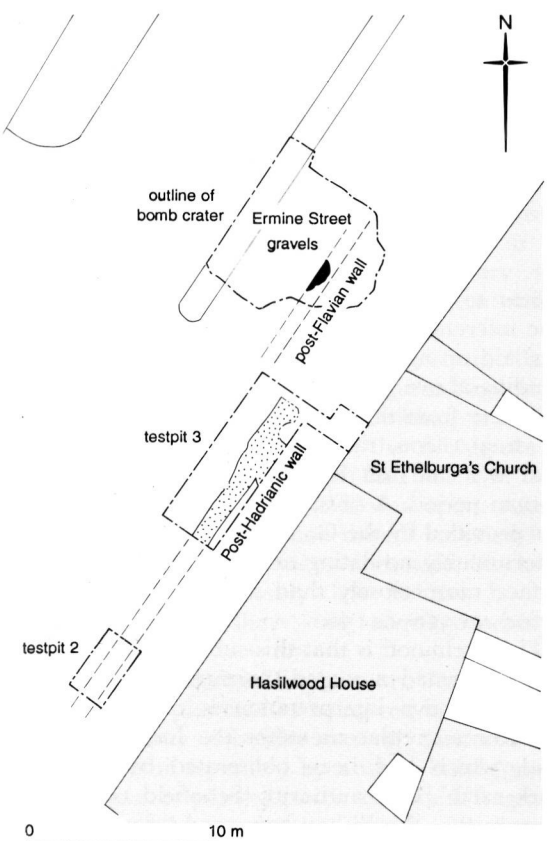

Fig 9. Roman walls and Ermine Street gravels

It is perfectly possible that a major route out of *Londinium* should be flanked by a stretch of colonnaded buildings. The plan of Pompeii (reproduced in Ward-Perkins & Claridge, 1976, 43) shows all the intra-mural arterial roads as colonnaded for most or all of their length. A mosaic in the 4th-century church of Santa Pudenziana in Rome, and repeated in the 6th-century church of Madaba in Jordan, shows a plan of the city of Jerusalem as re-planned by Hadrian. Although obviously stylised, these representations clearly show the main north-south street as colonnaded for its full length. Again, the Roman city of Serdica (the modern Sofia) had colonnaded pavements about 5 feet wide along its *via principalis*.

'Dark earth' deposit

Sealing the G6 surfaces was an accumulation, up to 250mm deep, of a dark grey (almost black) slightly gritty sandy silt (7.3), which filled the entire trench on the western side of the foundation, bringing the level up to a maximum of 13.95m OD. This material was very similar to the dark earth deposit found at post-Roman levels throughout the City and Southwark, and generally considered to represent the re-working by natural agencies of earlier stratigraphy during times of non-occupation of urban areas – typically the period between the abandonment of the City in the 5th century, and the Alfredian regeneration of the late 9th/early 10th.

Probably cut into the 7.3 material (though not recognised until the 6.7 surface was exposed) was an assemblage of 28 small stake-holes (7.1), occupying an area 3m × 0.4m. They are in a generally north-south alignment, but with a lot of variation, and certainly not in a neat straight line like the 2.5 fence. Their diameter was not large, averaging 40mm, the depth being in the range 40–200mm. There is little likelihood of these stake-holes having formed a fence. Their very close spacing suggests that stakes were frequently replaced, with perhaps less than half-a-dozen standing at any one time.

On the east side of the G6 wall, a deposit (7.4) of identical material, up to 500mm deep, was seen in both north- and south-facing sections of the header trench; in the main trench it had been removed by the construction of the 19th-century cellars.

In TP2, this 'dark earth' horizon was deeper still at *c.*700mm, occurring as high as 14.22m OD. It was also seen (as [5]) in the Crater, where it sealed the Roman road gravels to a depth of *c.*400mm, being truncated by modern service trenches at 14.50m OD.

Pottery from the 7.3 deposit gave a date-range of AD 350–400, although if this 'dark earth' accumulated over a period of time, it may have started to do so before the mid 4th century. On the other hand it also contained residual 1st-century pottery and a late 1st/mid 2nd-century combed box-flue tile fragment, so the *TPQ* of AD 350 may be unrealistically early if the late Roman pottery is also residual. Also included in this deposit was a tile in a yellow fabric with numerous black iron oxide inclusions. This is the first tile in this fabric (3239) to be found in London.

The presence of this material on both sides of the G6 wall indicates that the wall no longer served to differentiate an external from an internal area; most probably the building of which it was part had gone out of use by this time.

Metalled road

Cutting into the G7 'dark earth' in the south-west corner of the trench, and continuing beyond it to the south and west, was a substantial cut feature (8.1) up to 0.95m deep, with a pair of stake-holes (8.2) near the north-east corner. It may have been a very large pit, or it may represent the robbing of some structure to clear the way for the metalled surface (8.3) which was lain directly (Fig 10) over the backfill.

This surface occurred in two long strips, separated by disturbance associated with modern services; prior to this intrusion it would have filled the entirety of TP3 to the west of the G6 wall. It consisted of *c.*200mm depth of masonry rubble set closely together in a matrix of mid grey-brown slightly clayey silt. The rubble was composed of equal proportions of undressed fragments of ragstone, flint nodules, and fragments of re-used ceramic building material, mostly *tegula.* The top level undulated between 14.05m and 14.2m OD, with a very slight slope up to the north. A small raised (by up to 150mm) area of ragstone, tile and flint (8.4) may represent a localised re-metalling.

The western edge of this surface had been cut by the G9 robbing of the G6 wall, but did not appear to have been disturbed by that robbing. The inference must be drawn that the metalling was laid up against the G6 wall, which was still standing above ground at that time.

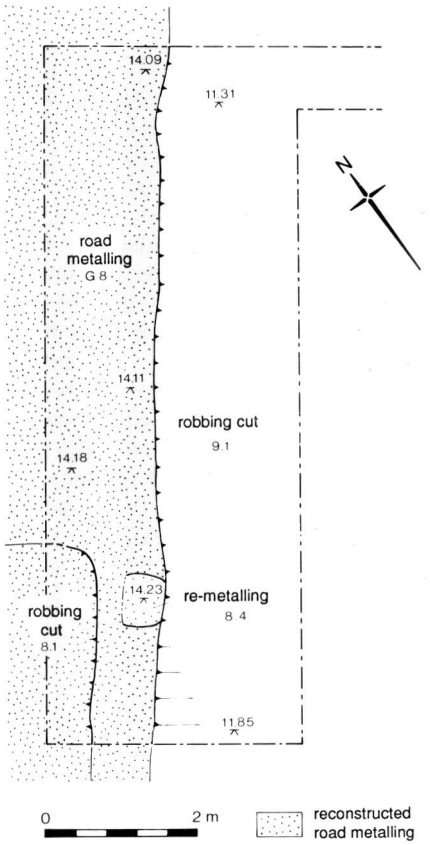

Fig 10. G8 metalled surface and G9 robbing cut

Pottery from this metalling had the date-range of AD 350–400, raising the possibility that the road was laid out in the late Roman or sub-Roman period. A *terminus ante quem* of *c.* AD 1150 was provided by the G9 robbing (see below), but unfortunately no dating evidence could date this surface more closely than sometime within the period AD 350–*c.*1150.

The likelihood is that this substantial metalled surface formed a major thoroughfare, and the most attractive interpretation is that it was a post-Roman replacement for the Ermine Street road, which had been obliterated by the G7 'dark earth'. One authority (Schofield 1984, 25) suggests that the Bishopsgate road was probably re-established soon after the Alfredian rehabitation of the City, in the late 9th century.

In TP2, the material to the west of the G6 wall at this level had been completely destroyed by modern service trenches, so the G8 metalling cannot be extrapolated beyond TP3. However, in the north-eastern corner of TP2 the dark earth deposits were sealed by a layer of pebbly silt acting as a make-up for a well-compacted grey silty gravel [55] which was interpreted as a surface. Inasmuch as this too was cut by the G9 robber trench (see below), it is at an analogous stratigraphic position to the G8 metalling in TP3, but it could not be the same surface as it was on the other side of the still standing G6 wall. Perhaps the surface [55] represents a re-use of the building to which that wall belonged.

Robbing of the G6 wall

Cutting through the G7 metalling was a very large-scale cut feature 9.1, running the whole length of TP3 (Fig 10). It was truncated by modern service trenches at 14.24m OD (but more deeply by cellars to the east). At the northern end of the trench the full width of 2.4m survived; the depth here was 2.95m, with a flat base 0.95m wide.

This base was formed by the top of the surviving foundations of the G6 wall, and there can be no doubt that this massive cut feature was a robber trench which comprehensively robbed out the foundations of that wall. At the north end of the trench the masonry was completely robbed, but at the southern end it survived to a depth of 0.85m.

The primary fill was a loose, moist mid/dark-grey clayey silt. As well as the usual inclusions (charcoal, mollusc, ceramic building material) there were, at the edge of the fill, lenses of mortar and brickearth which had fallen in from the edge of the cut while it was open. At the southern end of the trench the fill included four very large (up to 500mm) undressed blocks of ragstone – presumably left behind by the 'robbers' when they had acquired enough masonry.

The fill contained three more fragments of painted wall plaster, two being red in colour, the other showing a border area of dark red and greenish-blue separated by a white band (9mm). The latter is painted on a moulded fragment which probably came from round a window or doorway (Fig 5, No.6). The top surface of the moulded wall plaster is slightly irregular, which suggests it came from a painting scheme of fairly poor quality.

The fill was fairly homogeneous throughout the cut, except for an area at the northern end where there seemed to be a higher organic content. A sample taken from this part of the fill produced plant remains and animal bones.

The plant remains were characterised by a small assemblage of charred grain, with oat (*Avena* sp.) being the most common cereal while free-threshing bread wheat (*Triticum aestivum*) and barley were also represented by several grains. Several charred weed seeds were also recovered; goosefoot (*Chenopodium* sp.) and bedstraw (*Galium* sp.), an arable weed which is associated with the autumn sowing of cereals, and is often found in stored grain deposits as the similar size of the seed makes it difficult to sieve out. Large quantities of charcoal were also noted in this sample.

In southern England, oats were often used as animal fodder in the medieval period although it may have also been used (together with other cereals) in bread and biscuit making, and in pottages. Bread wheat on the other hand would have probably been exclusively used for bread, while barley may have been grown for both human (food and beer) and animal consumption. This range of cereals, usually in low quantities, are frequently found on medieval sites in the City *eg* 9th to 12th century-deposits at Milk Street, Watling Court, Well Court, Peninsular House and Ironmonger Lane (Jones *et al* 1991).

The waterlogged plant remains from this sample are dominated by 71 elder seeds. Elder produces robust seeds which may account for their survival in the sample, to the virtual exclusion of other waterlogged seeds, a pattern frequently repeated on other medieval sites in the City. Elder is indicative of scrub and waste ground, but also had a number of possible uses as food (*eg* syrup, jam), drink (wines) and dye. Rushes are well represented, probably because they are exceptionally high seed-producing plants; sedges and rushes may sometimes have been used as building materials (flooring/thatching) which were later deposited into pits to dampen or keep down the smell.

The sample also produced 178.7 grams of animal bone, including cattle, sheep/goat and cod-family, with a few unidentified fish and mammal fragments. No wild species were definitely identified. Cattle and sheep/goat were the major components and represented

80% of the sample weight. The cattle remains showed evidence of division of the carcass into sides and splitting of major limb-bones, presumably for marrow extraction. The identifiable remains from this G9 robbing backfill thus consisted virtually exclusively of the residues of foodstuffs, including the remnants of cereal processing and the butchered bones of the large domesticates.

The robber trench was also observed at both ends of TP2, where the fill had lenses of clay and cess within it, and was interpreted by the excavator as domestic refuse. Here it survived as high as 14.62m OD, and was seen to be cut from the top of the silty gravel surface [55].

As regards the date of this robbing; although there was no shortage of residual Roman pottery, there was also green-glazed pottery with a date-range of AD 1150–1200, giving a mid 12th century *tpq* for the G9 robbing. While most of the pottery groups on this site were small, the group of medieval pot from this robbing backfill was medium-sized, with the implication that the 1150–1200 date is likely to represent the actual period of deposition (rather than just a *tpq*).

Also cut through the 'dark earth' horizon in the Crater, and observed in both north- and south-facing sections was a linear cut feature filled with dark silty material. Although no relationship could be observed between this feature and the ragstone wall in the Crater, it seems probable that this was a robbing cut analogous and broadly contemporary with the G9 robbing of the G6 wall.

The thoroughness of the robbing implies a major construction project in the vicinity, presumably initiated by an ecclesiastical or high-status secular client; this is not surprising given the intensity of building throughout London in this period. Nevertheless it is tempting to speculate that a building or re-building of St Ethelburga's Church in stone was the stimulus for the 12th-century robbing of the Roman walls.

The west wall of St Ethelburga's church and associated burials

Sealing the dark earth deposit 7.4 in the header trench was a mid grey sandy loam 10.1. This was cut by a substantial foundation, 10.2, of which only the western face was seen (Fig 11), and which formed the end of the header trench. The top of this foundation consisted of an uneven

Fig 11. West face of west wall of St Ethelburga's Church, seen at the end of the header trench

band, averaging 50mm thick, of loose, dry, dark-grey sandy silt with small rounded pebbles. This was probably construction trample marking the passage from foundation to superstructure. Below the sandy silt layer was an 0.4m-deep layer of chalk blocks up to 250mm across, apparently thrown into a foundation trench uncoursed and unmortared, then (none too thoroughly) rammed.

Below this was a layer, 50–80mm deep, of mid brownish-grey sandy silt and small rounded pebbles. Below this were five more bands, narrower than the upper ones, of alternating chalk fragments and the sandy silt/pebbles. Apparently this latter was acting as a bedding/levelling layer for the chalk layers which provided the stability. The depth of footings observed was 1.1m, but they continued below the limit of the header trench at 13.4m OD.

Above these foundations was a superstructure, 1.25m high, composed of ragstone fragments, with a few pieces of sandstone (apparently the same as that used in the 6.11/6.12 surfaces and occasionally in the 6.3 wall footings), two pieces of greensand (one chamfered and re-used), a few pieces of Roman ceramic building material and medieval roof-tile, and a fragment of chalk.

They were bonded in a soft, sandy light beige mortar with frequent fragments of chalk. On the face the mortar spilled significantly over the stones and the general effect was roughly flat but could not really be called a fair face. The lowest

stones were roughly divided into three courses, but otherwise there was no coursing, and no ashlar blocks. Nevertheless this part of the elevation was above ground when built.

The superstructure was the west wall of St Ethelburga's church, constructed in 1390–1400 (Schofield 1984, 112). This represents a re-build, however, as a church is mentioned on this site as early as 1250. The dedication, unique in this country, points to a much earlier date for the original foundation, as St Ethelburga was the sister of the sainted Erkenwald, who was made Bishop of London in AD 675, and from whom the name of Bishopsgate is popularly held to derive (see above).

Above the ragstone facing of the 10.2 wall was a further 0.7m height of masonry, its top at 16.55m OD, being that minute proportion of the contemporary church wall which survived the bomb blast. It consisted of one course of three ashlar blocks, of which only one survived complete, measuring 400 × 510mm. They all had a chamfered top edge, above which a small area of rubble core survived.

These ashlar blocks did not fit in stylistically with the remainder of the superstructure, and were clearly a recent addition. They almost certainly date to 1932, when the Corporation of London spent £400 on the much-delayed demolition of a pair of minuscule shops (Fig 13) which had been built onto the front of the church in 1577 and 1615 (according to the parish books).

Sealing the loamy soil of 10.1 was a 200mm-thick layer of mixed light-beige mortar and grey silt (included in sub-group 10.2). This sloped downwards slightly (gradient *c.*1 : 20) to the south,

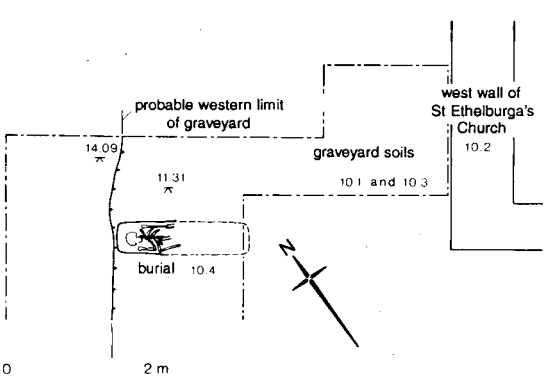

Fig 12. West wall of St Ethelburga's Church and associated graveyard soils

and since 10.1 may be assumed to be external, this slope probably represents the natural topography of the time. In that a) the mortar is the same as that used in the church wall, b) this deposit is confined to the area near the wall, and c) it occurs at the same level as the change from chalk foundation to ragstone superstructure in the wall, it may be asserted with a fair degree of confidence that this is a construction spread from the building of the wall. It defined the ground level at this time as 14.45m OD.

Sealing this proposed construction spread was a substantial horizon of moist, gritty mid-grey sandy loam, 10.3, identical in composition to the 10.1 deposit. During the excavation of this material, several human bones were collected, although recovery was not under controlled conditions as both the 10.1 and the 10.3 deposits only occurred in the header trench and were excavated by contractors.

At a distance of 0.9m from the wall, at a level just above its construction spread, were human bones *in situ*, from a burial which had been truncated at the knee by an unidentified agency.

The feet of the skeleton were to the east. The bone was in generally good condition with some damage to the long bone ends. The bones present were; the diaphyses of both tibiae; the right fibula diaphysis with the proximal end missing; a fragment of the left fibula midshaft. No epiphyses were present and all long bone ends present were unfused. The length of the right tibia diaphysis (the only undamaged bone) suggested that the individual was 6.5–7.5 years of age (Ubelaker 1978, 48–49). It is not possible to reliably sex a single individual of this age, nor to calculate the stature of such an immature individual or to comment on the physique. There was no indication of any pathology.

Recovered by the contractors and therefore not securely provenanced was a human skull and corresponding mandible, apparently disarticulated. The skull was complete but the surface was eroded in parts, and the mandible was missing the right ramus. It was probably that of a male. Tooth wear and fusion of the cranial sutures suggested that the individual was an older, mature adult but not elderly.

The skull was of average length and height; the frontal bone was narrow compared to the maximum breadth, that is the skull was pear shaped, and the maxilla broad. The subjective assessment of the MoLAS human osteologist was that the face was broad, the forehead low and

Fig 13. Engraving of 1907 showing 16th-century shops added to the west front of the Church

receding, the chin square and the nasal aperture narrow, with a low bridge and narrow root.

The individual had slight enamel hypoplasia on the tip of the cusp of the right maxillary first premolar and mid-cusp on the right mandibular canine. This suggests that a stress episode occurred when the individual was around three years +/−12 months of age, but the dentition was too incomplete to be precise. All teeth were affected by slight to moderate calculus and all but one by slight to moderate periodontal disease, unsurprising given the older age of this individual, as both these conditions tend to worsen with age due to their cumulative effect.

The only articulated skeleton (10.4) from the graveyard was actually cut into the G9 robbing backfill, and was excavated under controlled conditions.

The grave cut was rectangular, and contained vestigial remains of a flat-sided wooden coffin. Inside the coffin was an extended supine burial, truncated below the pelvis. It was east-west orientated, with head to the west.

The bone was moderately well preserved macroscopically, with some damage to long bone ends and post-mortem erosion of the cortical bone. The remains included the fragmented skull; the mandible; the complete sternum; fragments of both scapulae; both complete clavicles; ten right ribs and eleven left ribs; all seven cervical vertebrae, eleven thoracic and six lumbar; the first two segments of the sacrum, the rest was truncated; the ilium and ischium of the left innominate, the pubis was smashed off and was missing; a complete left humerus; a right humerus with the distal end missing; a left radius with the distal end missing; both ulnae, both with distal ends missing; part of the hyoid. There were no hand bones and both lower limbs were missing.

The individual was a mature adult, probably female. The sexing characteristics of the skull

and pelvis suggested a fairly robust individual. Tooth wear indicated that the individual was between 33–45 years (Brothwell 1972), but the cranial sutures, the healthy appearance of the vertebral column and the sternal ends of the ribs suggested a younger, mature adult. The medial clavicles, one of the last epiphyses in the body to fuse, were fully fused indicating an age over 25 years. However, the right clavicle fusion line was just visible in one area which also suggested that, although fully mature, the individual was not aged. The most likely explanation for the discrepancy of the tooth wear age is that the individual experienced heavier tooth wear in life than normal due to a very coarse diet or because she had weak tooth enamel.

The stature, calculated from the left humerus, was 1.65m (+/−4.45cm). This is similar to the modern average height for British females of 1.66m (Waldron forthcoming). A subjective assessment of the physique of the individual is that the long bones were quite slight for their length and bore no marks of hard physical labour. The skull was too fragmented to allow an assessment of the overall shape, but the chin was pointed, the upper palate was of moderate width and quite low in height and the forehead was high and quite convex in shape.

The individual had two congenital defects, but neither would have caused any problems in life. Firstly, eleven thoracic and six lumbar vertebrae were present, rather than the usual twelve and five respectively. Secondly, the left clavicle and left first rib had articulation surfaces at their sternal end where they had abnormally articulated with each other.

Seven teeth showed dental caries; three of these were very severe and the remaining tooth was no more than a stub. Caries, to the extent observed here, would indicate a sugar component to the diet. However, as previously noted from the anomalous severe wear, this individual may have had weak enamel. Two teeth had been lost *ante mortem*. Given their adjacent location to the caried teeth, they were probably lost due to caries.

Six teeth had slight hypoplasia at mid cusp. This is an interruption in the laying down of enamel when the tooth is forming in the alveolar and is generally associated with severe stress such as illness or emotional trauma (Hillson 1986, 130). The position of the lesions here suggest that whatever the type of episode, it occurred when the individual was about two years +/− eight months of age.

All teeth present were affected by slight to moderate calculus, which suggests a lack of dental hygiene. The individual suffered from slight to moderate periodontal disease around the majority of the teeth which was in keeping with the level of calculus as this is thought to be an irritant contributing to the onset of periodontal disease.

In summary, the burial 10.4 was the remains of a young but fully mature adult, probably female, of average height. In life, she was in generally good health except for moderately poor dental health.

The presence of these articulated and disarticulated human bones in the 10.1 and 10.3 deposits leaves little room for doubt that they were graveyard soils associated with St Ethelburga's church, the position of the articulated burial 10.4 showing that the graveyard projected out to the west by at least 4.8m beyond the church.

Other than some residual pottery in the 10.4 grave backfill, no artefactual dating evidence was recovered from the G10 deposits, so no date could be independently established for the foundation of the graveyard. However, the 10.1 deposit pre-dated the wall 10.2 and must date from a pre-1390 graveyard. The shops mentioned above appear to have spanned the full width of the church façade; their construction in the late 16th century would necessitate the disuse of this part of the graveyard.

Comparison of the 0.7m depth of the 10.3 soil accumulated in the years between AD 1400 and the presumed 16th-century disuse of the graveyard, with the 0.2m depth of the early 10.1 graveyard, suggests that the latter could not have been in existence for long before the late 14th-century rebuild.

In TP2, there was no sign of any graveyard soils; instead the G9 robbing backfill was sealed by a layer of well-compacted orange-brown sandy gravel. This was up to 0.8m deep where it had slumped into the settled G9 backfill, and was interpreted by the excavator as a metalled surface. Its presence shows that the projecting graveyard did not extend as far south as TP2 – either the main road widened out here or this metalling was a side road leading off it to the east. No dating evidence was recovered, but it must post-date the mid 12th century.

This completes the sequence of archaeological deposits recorded during the three observations resulting from the 1993 Bishopsgate bomb blast. No trace was observed of the 16th/17th century

shops added to the St Ethelburga's west front, but these would have had shallow foundations and, along with other post-medieval deposits, would have been destroyed by modern service trenches.

Perhaps the most striking aspect of the archaeological data is the way that the alignment of the structures and cut features remained constant, from the G2 fence in *c.* AD 70, through a massive, possibly colonnaded, masonry building of Hadrianic date, the late medieval church of St Ethelburga, right up to Hasilwood House in the 1920s.

The reason for this is, of course, the presence of the adjacent Ermine Street/Bishopsgate road, which determined the alignment of the buildings fronting onto it. As noted above, the gate in the City wall fixed the alignment of the road from its construction in *c.*AD 200 to its demolition in the 18th century, but the observations described above indicate that the early Roman road was on the same alignment. The eastern edge migrated some 2.2m to the east when the pre-1150 G8 metalled road was established, although this edge was determined by the still-upstanding G6 Roman wall. The presence of the graveyard in front of St Ethelburga suggests that the G8 road remained on the same line during use of the graveyard, and it was only on the demolition in 1932 of the post-Reformation shops in front of the church that the street frontage moved back to its present-day line.

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EXCAVATIONS AT ISLAND SITE, FINSBURY PAVEMENT, LONDON EC2

Gordon Malcolm

With contributions by Ian Betts, Geoff Egan, John Giorgi, Alison Locker, Kevin Rielly and Roy Stephenson

SUMMARY

This project comprised a number of phases of evaluation and excavation that took place both on and off site. The process started with a desktop survey of the potential archaeological survival allied to an initial testpit survey. This phase led to excavation of the deposits on Imperial House, Dominion Street, and the simultaneous evaluation of Dominion Buildings, South Place. The final phase of work on the site was the excavation of Dominion Buildings and Verum House, 60–72 Finsbury Pavement, during the enabling works phase of the main construction programme.

The site lies within the confines of an area that was known as Moorfields marsh during the medieval period: an area to the north of the City with poor drainage, subject to inundation and used for the disposal of waste from the City. These conditions have led to remarkable preservation of artefacts from industrial processes and domestic refuse but little in situ *evidence for the industries themselves. The Finsbury Island Project has confirmed previous excavation results in the marsh area with large quantities of well preserved finds, including exotic imported ceramics, and in addition it has provided extensive evidence for the quarrying of the brickearth and the production of bricks probably in part for the documented rebuilding of the City wall in 1477.*

INTRODUCTION

The Finsbury Island Site lies on the east side of Finsbury Pavement, the northern extension of Moorgate, and is bounded by Lackington Street, Dominion Street and South Place. The centre of the site is at National Grid Reference TQ 3281 8180. It is located outside the northern boundary of the City in the London Borough of Islington in an area that was formerly part of Moorfields, a large waterlogged area which in comparison to other areas of the City remained undeveloped until relatively recently (Fig 1).

Over a three year period (1992–94) the Museum of London Archaeology Service (MoLAS) carried out a series of evaluations and excavations on the site in advance of redevelopment. Now that this has been completed the 11m-deep basement has removed all remaining archaeological deposits.

In October 1992 the developer, London and Manchester Assurance Company Limited, commissioned an Archaeological Impact Assessment with the aim of defining any potential archaeological implications of the development and to make recommendations to ensure that any buried remains were encompassed within the scheme (Malcolm 1992). Three separate buildings occupied the site at the time of the assessment covering approximately 2850 sq m with basement slabs varying in height from 12.49m to 9.29m OD. This initial assessment suggested that up to 1900 cu m of archaeological deposits might survive and that invasive measures would be needed to define a programme of phased excavation and recording work.

The first phase of site work took place in November-December 1992, with seven 2m-square testpits dug by mechanical excavator on Imperial House, following demolition, and a single pit of smaller size dug in the underground

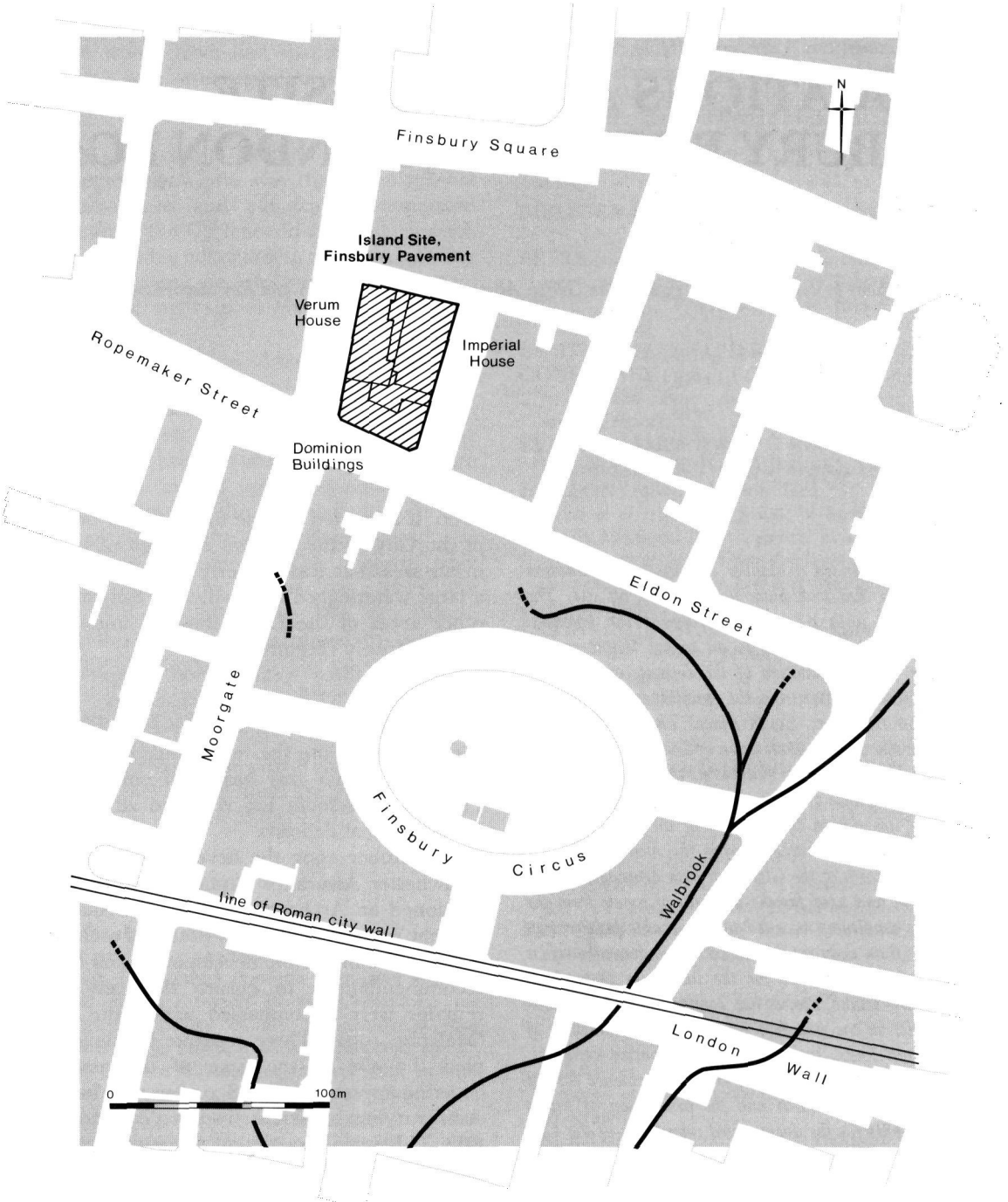

Fig 1. The location of the site

car park of Dominion Buildings. The Imperial House pits confirmed that the 1933 development had truncated most of the archaeological deposits but that a few features survived within the truncated brickearth; horizons with greater and lesser sand contents within this deposit indicated that the site had prehistoric potential. The testpit in Dominion Buildings produced evidence of

prehistoric, Roman, Saxo-Norman and later activity, but no indication of deep marsh deposits. From this work it was possible to refine the potential volume of archaeological material and to design the next phase of work which consisted of a further five testpits at Dominion Buildings and excavation of the surviving deposits on Imperial House. This work took place in May and June 1993, and ended with Imperial house being handed over for redevelopment, all archaeological deposits having been excavated and recorded. With this phase of work at an end archaeological work halted, thus allowing the two remaining buildings to be demolished and some of the temporary works to be emplaced which required only a minimum of archaeological monitoring. The final phase of site work began in March 1994, and lasted for a total of eight weeks during which excavation took place on Dominion Buildings and on as much of Verum House as was practicable. For the remainder of 1994 work proceeded on the research archives which are now complete and available for consultation at MoLAS. This paper is only a survey of artefacts and environmental material. It is hoped that further research on the material may be undertaken in future (Fig 2).

THE ARCHAEOLOGY OF THE SITE

The site sequence has been described in terms of succeeding episodes of land use, sub-divided into phases where appropriate. These episodes begin with Open Area 1, which describes the natural topography and post-glacial landscape, and finishes with Open Area 5 which includes all the later post-medieval activity up to the present day.

Open Area 1 (Natural Topography)

The site lies on the second terrace of the gravels in the floodplain of the River Thames and in the northern reaches of the valley of the River Walbrook. Surface topography of the site shows a drop of 2.21m from north to south, a fall of 32.5mm per metre. To the east of Dominion Street the ground slopes down to the Walbrook but across the site itself there is a slight slope to the west. Site work and boreholes indicate that below the archaeological deposits lay a stiff brown sandy-clay (brickearth) with stones, varying to a compact light orange-brown sandy-silt with some clay below, between 1.2m and 1.5m thick and located below 11.02m OD (Borehole Report 1970). The deposit included pale brown mineralisation streaks and occasional bands of fine quartzite pebbles that seemed to define horizons within the stratum. Five 2m-square holes were excavated through this material to determine whether any evidence for prehistoric activity survived within its matrix. No such evidence was found despite the recovery of a single proximal blade flake from the first testpit in Dominion Buildings. Beneath the brickearth was a series of sand and gravel strata, 1m to 1.7m thick, forming the post-glacial river terrace deposits at between 10.04m and 8.64m OD. These, in turn, sealed a thin band of firm brown sandy-clay with some stones over grey London clay. The brown clay is probably the weathered upper surface of the London Clay.

Open Area 2 (Roman to 15th century)

This period of land use, divided into four phases of activity, represents a period of time from the Roman occupation to the middle of the 15th century. During this period various activities were recorded on the site but it remained an area of waste, or marginal, land beyond the usual inhabited area of the City. For much of the medieval period the main topographic feature was the waterlogged terrain variously known as The Moor or Moorfields Marsh. However, this has not survived to any great extent in the archaeological record; its presence is indicated more by indirect influences on the deposits. The period of time for the duration of Open Area 2 has been sub-divided by using ceramic dating and the stratigraphic analysis of the types of feature recorded. In many cases this dating is absent, so phasing has relied purely on stratigraphic interpretation.

After the construction of the Roman city wall, in AD 190–225, the free flow of the Walbrook was impaired and it began to back-up to the north of the wall (Merrifield 1983, 160). Although the area had been little used during the 1st and 2nd centuries a few burials had been interred, and an east-west road constructed south of the site by the mid 3rd century (Askew 1988). Following this a further phase of Roman burials formed part of an extra-mural cemetery to the west of Bishopsgate (*ibid*). A single inhumation was recovered from the area of Verum house

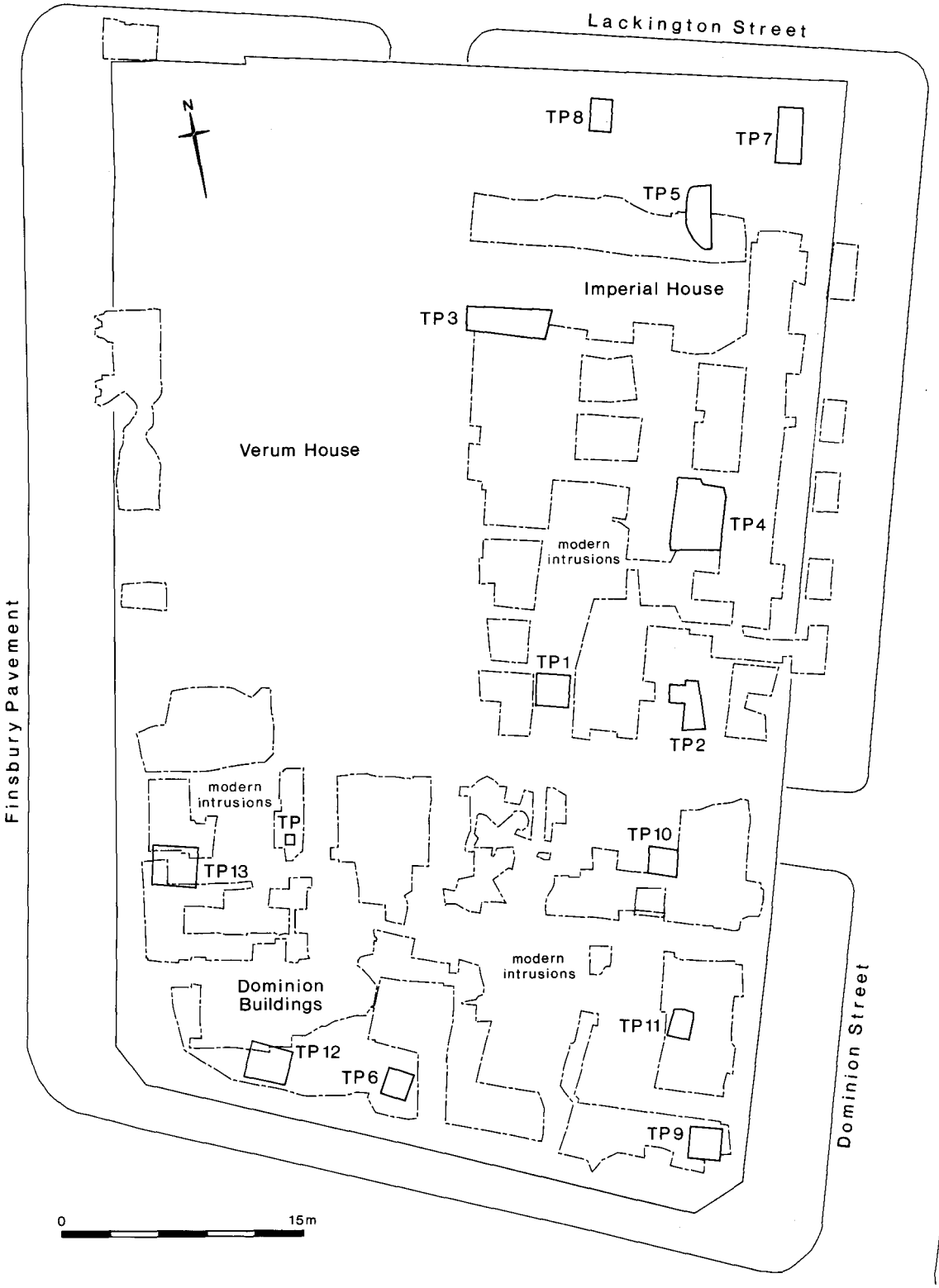

Fig 2. Limits of archaeological investigation

prior to its construction in 1972, but the site appears to have been beyond the main cemetery area. Only abraded Roman pottery was found redeposited in a residual context. By the 4th century the area seems to have been largely abandoned and was to remain so for the next 600 years, allowing a seasonal marsh to develop. This phase was not well represented on the site, which seems to have been on an area of slightly elevated ground, not permanently flooded but possibly subject to periodic inundation. Despite the fact that it was usually free of water, access to the site area must have been difficult, which might explain the paucity of archaeological evidence before the Norman Conquest. The first documented record is in a charter of 1068 which says 'a running water to water into the said city from the same More' (Lambert 1920, 143).

The first phase of activity identified on the site encompasses the period up to the end of the 12th century and consisted of a number of features which had been cut into the brickearth. Very little dating evidence was retrieved from this phase but all the recorded features had been sealed by the dumping associated with phase 2. They seem to represent small-scale usage of the site during the period with some drainage works taking place and occasional minor structural features, such as fences. The most notable feature was a north-south aligned ditch, that extended for at least 1.6m, with steep sloping sides and a rounded base. The fill was a dense, saturated orange-brown silty-clay with charcoal and oyster shell inclusions together with a single sherd of Early Medieval Sandy ware (AD 900–1150). This ditch may have been an early attempt at draining the marsh which built up in the post-Roman period.

At some time following the end of the 12th century there was a change with at least 0.3m of brickearth dumped over large parts of the site. In general this material raised the ground surface to about 11.20m OD with more material backfilled into hollows and less on areas of higher ground. In several places distinct horizons within the deposit were noted. These were probably a result of the upper surface suffering weathering with the upper 800mm showing evidence of root disturbance. In 1211 the City Ditch was excavated for the dual purpose of defending the City and draining the marsh (Thornbury 1887, 196). The ditch was 200 feet wide and must have produced huge quantities of brickearth. It is likely, therefore, that the redeposited brickearth on the site dates to this period. Little pottery was recovered from this phase; only a few sherds of London-type, Kingston and South Hertfordshire grey wares were found giving a date range of 1150–1350. In the period following the dumping of the brickearth a number of root fragments and root stock disturbance, from large bushes or trees, were recorded. The remains were too fragmentary to identify but suggest that the brickearth dumping may have reduced the flooding.

After the middle of the 13th century the site was dry enough and sufficiently accessible to be used for horticultural purposes (phase 3). This is evidenced by 13 east-west aligned parallel features or slots cut into the brickearth dumps (Fig 3). The majority had been truncated at both ends but survived for a length of 4m with indications of a length of over 9.50m. They varied slightly in width from 0.50m to 0.80m but this was mostly due to truncation from above which also affected their depth which was up to 0.30m with the bases at between 9.94m and 10.10m OD. The slots had distinct profiles with very steep, almost vertical, edges to the south and a much more gradual slope to the north. In two cases the features appeared to have rounded butt-ends to the east but this may have been due to the fact that there had been more truncation in this area. All the slots had similar fills composed of a compact grey-brown sandy clay-silt which became darker towards the base and contained occasional animal bone and pottery inclusions with charcoal and ceramic building material flecks. In addition the sides of the cuts were streaked with disturbance from roots or insects within the feature.

These features were almost certainly bedding trenches for the deliberate cultivation and exploitation of a crop. The exact crop cannot be established on the basis of the trench profiles alone but a number of possibilities exist. It may have been the hop plant (*Humulus lupulus*) used in the production of beer; however, this is not attested until the 16th century as the first plants for commercial exploitation were imported from Holland in 1520. However, the plant was native to Britain and may have been used on a small scale before this (De Rougemont 1989, 71). Hops were imported during the 15th century from Holland; more than 170 sacks arrived at London in 1480–1 according to Petty Customs Accounts (Cobb 1990, 21–208). The development of oast houses does not begin until the 16th century with

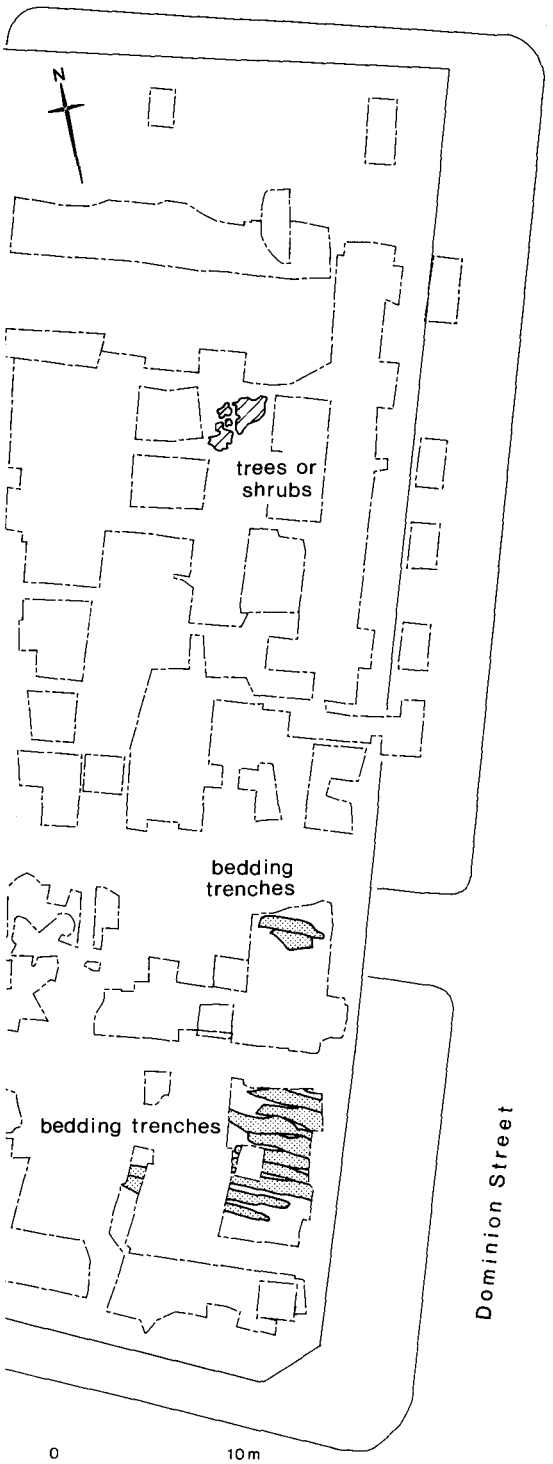

Fig 3. Open Area 2

small-scale use of maltings for beer production before this date. An alternative crop may have been vines (*Vitis vinifera*); but the bedding trenches may have been too close together to allow these plants to grow successfully and climatic conditions may have been too harsh. The third possibility is a root vegetable such as parsnip (*Pastinaca sativa*) or turnip (*Brassica rapa*) but the trenches appear to have been too large, particularly when the possible truncation is taken into account. Definite attribution of the bedding trenches therefore remains unclear but they appear to have been in a dry environment since the raising of the ground surface had largely removed the threat of frequent flooding. Sherds of South Hertfordshire grey ware, London-type and Late Rouen wares were retrieved giving a date range of 1250–1350. Interpretation of the stratigraphy suggests that they are from contexts dating from 1250–1450 with reuse of the trenches resulting in the disturbance of earlier deposits. All the pottery from the slots is likely to be residual as only the latest fill is represented. The absence of frequent flooding in this part of 'the Moor' runs contrary to most of the documentary references which continually imply the sodden nature of the area: an entry in the Mayor's Court Rolls of 1301 describes a dispute over a passenger boat carrying six persons which was operating on the marsh (Thomas 1924, 113–14).

Partially overlapping the period when the bedding trenches were in use was phase 4 (late 14th-mid 15th century). This consisted largely of further dumps of brickearth that eventually sealed the bedding trenches. The main constituent of these dumps was a mid grey-brown clay-silt with charcoal, bone, snail and ceramic inclusions. A number of these dumps contained ceramic building material as contamination from the next episode of activity, probably incorporated into the phase 4 dumps during very wet conditions. The pottery from the dumps was a mixture of Kingston-type ware, London-type ware, South Hertfordshire grey ware and Spanish Red Micaceous wares together with quantities of abraded Roman pottery suggesting that much of the material is residual and later than the 13th to 14th-century date indicated. The dumps were in general similar to those of phase 2 which may indicate that they were part of a necessary reclamation measure taken in response to a rise in the water table during the 14th or 15th centuries. This interpretation is confirmed by the presence of large numbers of wetland plants

represented by rush (*Juncus* spp.) and sedge (*Carex* spp.) seeds from the dumps together with seeds of disturbed ground/wasteland plants including docks (*Rumex* spp.) and elder (*Sambucus nigra*) indicating the marginal aspects of the land. The dumps were associated with a number of cut features, including one group of 11 stake-holes which contained Roman pottery and a single Neolithic proximal blade flake, all of which were redeposited. A small number of slightly larger post-holes were also identified but truncation by modern concrete intrusions prevents a clearer understanding of their form or function. They have been interpreted as the remains of fences or single posts possibly for tying up boats.

The increase in the activity taking place on the site at the end of the 14th and into the 15th century may be linked to a series of documented events taking place in the City. In 1365 an ordinance of the Pelterers' guild laid down that leather-workers should live and work in the Walbrook area to the north of the City (Riley 1868, 614–16). From this period onwards there was increased usage of the area so that by 1411 the mayor ordered rubbish to be cleared from it and drainage ditches to be dug. He also inspected the Moor and made an ordinance that the trees and hedges should be removed and that no one should establish gardens there in future (Sharpe 1909, 101). The Moor was divided into small parcels of land in 1415, by order of the Common Council, and the Moorgate built into the City wall to provide access (Riley 1868, 614–16). This increase in activity in Moorfields is linked, therefore, to the expansion of the City and the need for land for building, industrial space and possibly for market gardening.

Open Area 3 (late 15th-mid 16th centuries)

Land use during this period comprised a single phase of activity apparently across the whole of the site. A series of large brickearth quarries was dug and the material processed into bricks (Fig 4). This had a major effect on both the topography and the earlier archaeological features. The actual processing seems to have taken place off the site as no evidence for clamp kilns was found but both the preparation of the materials and the discarding of wasters took place on the site. The brickworkings had a detrimental effect on the reclamation of the area undermining the previous relatively stable conditions and causing resurgence of severe flooding with large pools of standing water. There is evidence that the workings extended over a considerable area, having been found on Ling House (Mackie 1988) 15m to the east. They probably made the whole area uninhabitable after the brickmakers moved on to exploit other brickearth deposits.

At the base of the brick-pits a large number of distorted brick fragments were found pressed into material below and these fragments constituted up to 40% of the volume of each context. The profiles of the features were relatively shallow, rarely being more than 0.5m deep. Their bases varied in character depending on their depth but were usually irregular in shape, having both concave and convex aspects. It appears that the deeper cuts penetrated the drier layers of brickearth to a depth where accumulated water would not drain away and that this resulted in the bases of the features becoming very soft and slurry-like. This seems to have had two effects. First it allowed any brick waste thrown into the pits to sink into the deposit below; secondly at the base of some pits there is evidence for trampling, possibly by cattle, judging by the size and shape of the imprints. This trampling has been preserved when the water in the pits later evaporated and the brickearth dried, fossilizing the imprints. It is not clear why cattle were present around the pits; it is probable that the area was used for grazing once the brick makers had moved on. Several cows are shown in Upper Moorfields on the copperplate map of the mid 16th century.

In overall size the features were between 13m and 15m across and sub-circular in plan, with a number of individual pits only 3m across. All of the larger pits, of which at least four have been identified, dated from between 1450 and 1550 with the smaller pits forming a later group that continued in use into the 17th century.

The features had all been dug to extract brickearth for brick manufacturing, a process which is attested in Moorfields dating back to at least 1477, when Stow says 'Ralph Joceline mayor, for repairing of the wall of the City, caused the said More to be searched for clay and brick to be burnt there, *etc*, by which means this Field was made worse for a long time' (Strype 1755, 54). The brickearth was probably fired in large clamps, (some of which may have been identified by Lambert around Finsbury Circus and beside Finsbury Pavement (Lambert 1920,

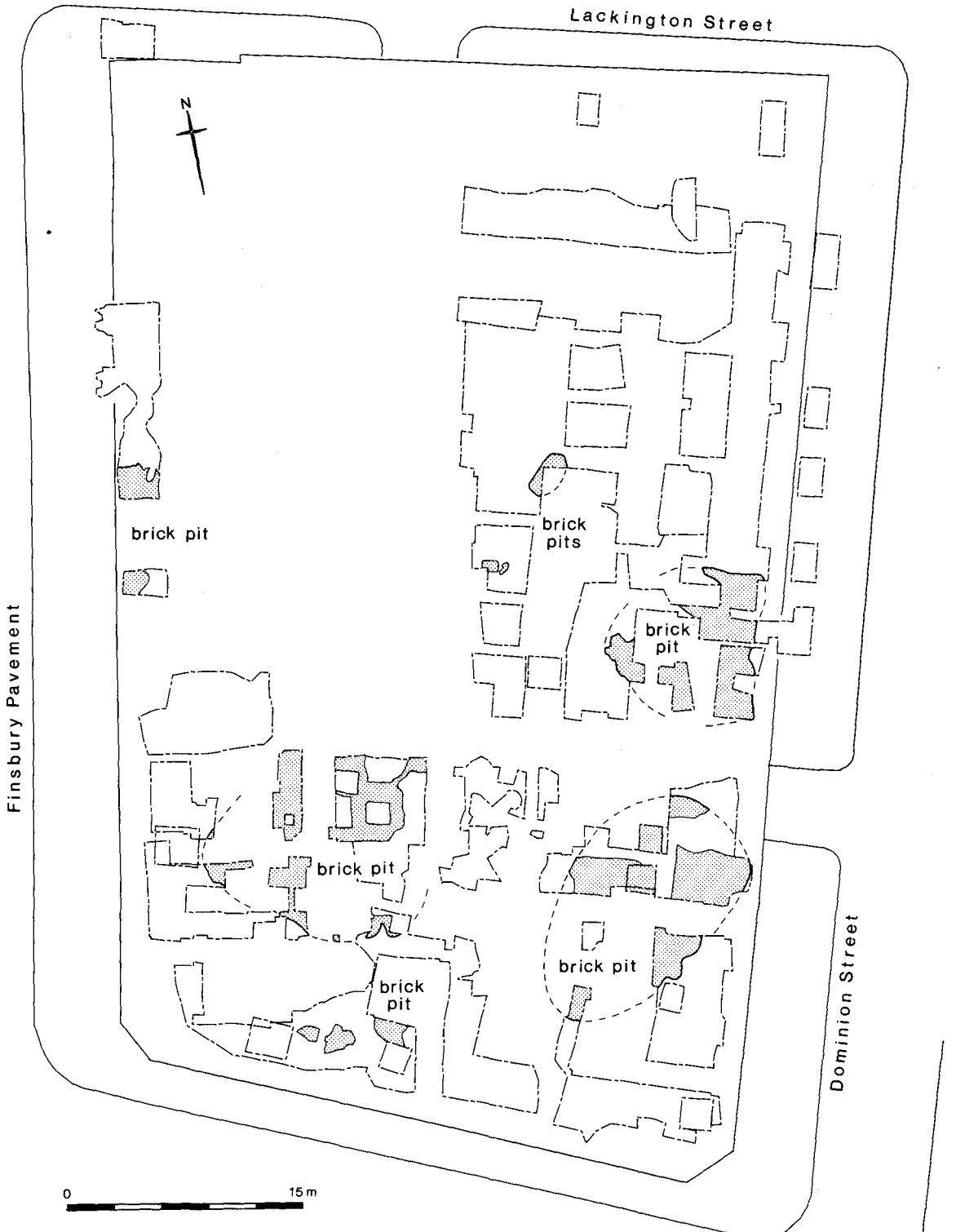

Fig 4. Open Area 3

102). Evidence for clamp kilns was not recorded during the current excavations but the fact that distorted, under- and over-fired, wasters from the process were thrown back into the extraction pits suggests that the activity was taking place very close to the site. The problem of access in a periodically flooded area suggests that the clamps may have been adjacent to the road from Moorgate (now also Finsbury Pavement), to the east. This would permit the finished bricks to be loaded onto wagons for transport to the construction site, the City wall.

The recorded sequence suggests that the brick manufacturing took place as a distinct activity which was completed before any of the succeeding reclamation dumps were deposited. This may indicate that the brick-makers followed a migratory pattern, moving into an area, digging the brickearth over a period of possibly a single year per pit then moving on when an area was worked-out. This had a disastrous effect on the local environment by creating large pools of standing water, some of which probably interconnected. The bricks manufactured on or near the site appear to have been of two main clay fabric types of which the less sandy version appears to have been more common. A third type, which is not well represented, consists entirely of well- or over-fired bricks with a high percentage of calcium carbonate inclusions. It is not clear whether these were made from a separate brickearth or are a result of changes taking place in the clay during firing.

In addition to the brick-pits a number of other features seem to have been dug in association. At least two of the pits have a number of small posts or stakes erected in the base, probably part of some structure used during the digging. Barrow-runs or shovelling platforms may have been in use or walkways may have been constructed across areas already worked out to allow more dumping to take place. One feature close to the western edge of the site consisted of a cut at least 2m by 1.5m in area and more than 0.6m deep. Its base contained a large quantity of charcoal and a small quantity of brick waste. There were also indications that the sides of the feature had been stained or scorched, suggesting that this may have been part of one of the clamps used in the firing process. These were temporary structures of green bricks stacked over channels of fuel on a level surface (Brunskill 1990, 27). Above this between 30,000 and 45,000 bricks were stacked up to 5m high interspersed with ash and covered with green bricks (*ibid*). The clamp would then be fired and dismantled over a two to three week period. Three types of bricks would usually be produced by this method: sammel bricks at the edges, which were under-fired; over-fired examples in the centre; and usable bricks in the remainder of the clamp (*ibid* 28). The majority of the bricks discarded on the site fall into the first two categories. A brick recovered from one of the testpits was of particular interest, being made of a local brickearth with an indented upper border. It was incomplete but had a breadth of 134mm and a thickness of 63mm. This makes it one of the broadest bricks ever found in London. Bricks of a similar fabric, though smaller, were found at 2–7 Dukes Place in 1977, in an arched foundation that was part of the 15th-century reinforcement of the City wall also attributed to 1477 (Tyler 1990).

In addition to the bricks a large number of tiles was recovered. These have been assessed against an established series of fabric types. The majority were peg roofing tiles with the largest number dating to the late medieval and post medieval period. Only eight fragments of ridge tile were recovered from the site, most of which are of the same fabric as the peg tiles, implying that both were made at the same tileries. Three ridge tiles were in an unusual brown to orange sandy fabric with frequent quartz inclusions up to 0.5mm in size, and small (0.05mm) black iron oxide and occasional silty inclusions. These tiles all have a decorative white slip pattern, a very rare feature in London.

The pottery from the brick pits dates mainly to the late 15th century, although some is from the 16th century. A few contexts produced pottery dating to the later part of 16th century which had slumped into the features from above. The ceramic groups are dominated by Rhenish stonewares, such as a Langerwehe jug with a collared rim (Fig 6 No. 4), and there is a consistent presence of Raeren drinking jug fragments. Other sherds worthy of mention include a Tudor Green ware, compartmented, condiment dish. Some of this material is likely to have been residual as it sank into the mire from the reclamation dumps deposited on Open Area 4.

Open Area 4 (16th century to *c.* 1610)

After the depredations of the brick-workers the area reverted to a worse condition than at any

time in the previous two hundred years. Successive attempts were made to clear the area, beginning in 1498 when the northern part was given over to archery practice (Strype 1755, 380). A number of archers are to be seen on the copperplate map practising at 'twelve score' (Holmes 1963, 27) the main competition held on St Bartholomew's Day in August (Strype 1755, 95). Clearance of rubbish must have been somewhat easier in Upper Moorfields but closer to the City it seems that the brickearth pits had removed much of the ground surface and early in the 16th century serious reclamation attempts began with orders by the mayor to prevent the dumping of rubbish in both 1512 (Strype 1755, 380) and 1526 (CLRO, Repertory of the Court of Aldermen 8, f.230v).

Judging by the evidence from the site both these orders were ignored, as rubbish continued to accumulate throughout the period. A large number of distinct spreads of material was dumped into the open brick pits, and over the unquarried areas, to cover the site to a depth of at least 0.3m. In some places, at the edge of the site, where the dumps had not been truncated there were up to 4m of deposits from the 16th to late 18th centuries (see Open Area 5). Across most of the site, however, only the material from the 16th century and residual artefacts from earlier centuries survived. The majority of the material was waterlogged, or moist, and all of it appears to have been waterlogged in the past. The layer covered virtually all the site to a varying degree and had been backfilled into the brickearth quarries to form a more level surface at between 11.08m and 10.50m OD. This level had been truncated by the construction of the modern buildings which had basements at 11.92m and 11.26m OD (in Dominion Buildings). Many of the dumps could be recognised as being of similar character across wide areas of the site, indicating that there was a systematic approach to the dumping. It also suggests that large quantities of material were being transported from specific locations to be dumped (for this reason the material may be considered as a valid group for analysis).

A number of trades and industries have been identified from the dumps. Whilst the presence of bell founding waste does not necessarily indicate that the process was taking place close to the site the dumps containing this material can probably be ascribed to a location nearby. An enormous quantity of finds, both ceramic and non-ceramic, together with animal bone and plant remains from bulk soil samples were recovered from the dumps, which it has not been possible to analyse fully. The dumps do, however, confirm previous interpretations that Moorfields was used as the City rubbish dump in the 15th to 17th centuries. In this role the area replaced the waterfront which had previously been extended by dumping rubbish behind revetments.

Accessioned finds

The range of finds and quality of the material recovered means that it is possible to build up a detailed picture of some aspects of life in 16th-century London and also acts as a check against which to assess previous groups. Particularly well represented are a number of industrial processes such as copper-, iron- and lead-working, together with pinmaking and the cloth trade. The metal, stone, leather and textile finds from the 16th and early 17th-century marsh and infill deposits are a particularly useful assemblage of a finds group recovered under modern conditions which can be set beside those retrieved from similar deposits in the Moorfields area investigated earlier this century which tended to emphasise selected, quality items (Norman & Reader 1912, 259–344; Lambert 1920, 76). Leather especially, and some metalwork were highlighted in these publications, though over the years more attention has been focused on the unique assemblages of textiles recovered at that time. The newly found items now make it possible to see just how highly selective were the textile fragments that have come to the Museum of London from earlier investigations, with a clear preference for complete or nearly complete garments (stockings, vests and sleeves) but virtually none of the ragged scraps which are prevalent from the fieldwork of the 1990s. The same is true for leatherwork, with near-complete shoes in previously published assemblages but mainly scraps among the recently recovered finds. Metalwork, too, has benefited from more comprehensive retrieval, with smaller items such as coins and seals being far better represented than among the relatively large, generally more complete and decorative objects (notably spurs) published in 1920 (Lambert 1920, 99).

Several finds from the site can be singled out for attention, as their significance is already evident, and others can help expand our

knowledge about some of the industrial processes and consumer goods present in Tudor London. There is a full catalogue of the finds in the research archive but only space in this report to mention a few. The numbers refer to accessions within the catalogue.

Lead seals were put on newly woven cloth to show that the quality was good enough for the market, and several of these control marks were found during the investigations. It is not clear at present whether or not the seals relate to textile fragments from the same group of deposits. An unused seal No.<212/3> must have come from a place where cloth was being processed or examined by officials, perhaps one of the extramural tenter grounds (Egan 1994, 119 & 171). Very large numbers of seeds belonging to Fuller's teasel (*Dipsacus sativus*) were recovered from several contexts in the same group which suggests that they represent residues from activities associated with the textile industry. The seed head of Fuller's teasel was used for raising the nap on woollen cloth. A teasel plantation for the cloth trade is recorded as being located in the area used for the Artillery ground in the 17th century, close to Moorfields (Schofield 1993), while the copperplate engraving of 1559 and the Agas Map of 1570 show tenter yards to the east and west of Moorfields. Thus, the Moor would have provided a convenient area for the disposal of refuse from these activities.

The other cloth seals from the site are all stamped, No.<215> and others with the arms of Tudor England and a portcullis. No.<215> is a London seal for the alnage (textile inspection by Crown officers) without which no cloth could legally be sold, and No.<216> has a trade mark including the initials WF, perhaps those of a weaver or clothier. The London seal, together with No.<217> are the first of this particular style of seal discovered, even though somewhat similar London seals from the reign of Elizabeth are known across the country (*cf* Egan 1994, 40–1, 61 & 170 fig 19). The deposits also produced part of a French cloth seal from the town of Arras, perhaps originally attached to one of the famous imported hangings. The stamp includes three rats, a pun on the place-name that used to be included in the town's civic heraldry. On the back of the seal there is also an imprint from the textile to which it was attached, so it is possible to see the kind of fabric traded across the Channel. These unusual finds bring out something of the complicated trade in textiles, the fastest-growing component of England's booming mid 16th-century mercantile economy, and a significant factor in the establishment of London's pre-eminent position in the nation's expanding trade.

Seeds of hemp (*Cannabis sativa*) were found in relatively large numbers. This plant was used for its fibres in the textile industry (Grant 1988, 122) and oil may have been extracted from the seeds. Small numbers of flax (*Linum usitatissimum*) seeds were also found. Nettle (*Urtica dioica*) was well represented in the samples; it was also exploited for its fibres although the nettle is an exceptionally high seed producing plant and a very common weed of wasteground. Seeds of dyers' rocket (*Reseda luteola*), a plant used in the dyeing industry, were also recovered in moderate quantities; although this is a relatively common waste ground weed. Amongst the finds associated with the textile industry is a spindle whorl of stoneware No.<929> imported from Raeren in Germany, a place that seems to have had a monopoly on the English market for these simple spinning tools during the 16th century (Moorhouse & Hurst 1981; Egan & Moir in prep).

A number of textile pieces appear to have been rough off-cuts, some rolled into wads and dumped in with domestic refuse. These have not been the subject of much analysis as yet but they may have been sanitary towels or pads. If this interpretation proves to be correct the material could form the basis of further studies on sanitation and hygiene in the early modern era.

The site has produced a great deal of evidence for metalworking in copper alloys, iron and lead with a variety of processes represented by the dumped material. There is much waste from casting copper alloy, with over 1.5kg of fragments of ceramic moulds (*eg* Nos <325–62 & 328>). These seem to have been used for founding bells (cooking vessels and candlesticks are less likely possibilities), some of which would have had a base (mouth) diameter of just over 0.30m. The moulds would have been used once only, and some of them bear the imprints of the coarse straw ropes used to keep them together prior to firing. A number of pieces of large, flaring, thick-walled crucibles in a purplish fabric and (like the moulds) with dribbles of metal on them, were recovered (for example Nos <388, 381, 382, 383, 384, 385, 327> – the last two being from deposits which also produced ceramic moulds, Nos <386, 387 and 390>). Some or all of these may be from the same workshop as the moulds.

Among several dress hooks, all of types well known in London from the 16th-17th century, one No.<232> has the attachment hole still partially blocked from the casting. There has been some suggestion that these decorative fastenings were made in the Low Countries but if this apparent waster from Finsbury Island can be connected with any of the crucibles it would be the first evidence for English production.

In addition to evidence for casting, some of the dumps produced manufactured items and finished goods. They included tools for pin-making in the form of pinners' bones (Nos <62 and 83>) which are cattle leg bones (metapodials) adapted by trimming one end to make four flat surfaces with shallow grooves to hold the wire shanks of pins while they were being sharpened (Macgregor 1985, 171). Copper-alloy wire is common in post-medieval strata across London, and some pieces from these particular deposits may originally have gone with the bone tools, but none is from the same contexts (Nos <229, 223> – several pieces twisted together, Nos <242 and 441>); this includes two pieces of suitable length for pin shafts (<228 and 223>). The only certain pin from the group, with the usual wound-wire head, is No.<191> at a surviving length of 26mm with the point broken off (No.<97> may also be a pin).

Iron processing of some kind appears to be attested by slag Nos <143> and <148>, and possibly <147>, but nothing more specific has been recognised among the finds. None of the large number of knives recovered, for example, is obviously unfinished (though none appears to have a maker's mark, which should have been added prior to sale).

Lead, which is widespread on sites in London, was constantly used in building maintenance and other repairs as well as for a range of manufactured goods. It is present on the Finsbury Island site, in the form of sheet offcut <445> and runnel <269>, though neither item is definitive of the intended use or end product(s).

There are also some more unusual finds associated with metalworking. An incomplete mould of limestone for producing at least three rectangular ingots *c.*85 × 12 × 10mm is one such find <271>. This may have been for copper alloy, lead, or precious metals (traces from melting the former two at least have been recognised on the site, though none of this evidence is from the same deposit). A number of crucible fragments were also recovered.

Other finds include glass and leather, particularly leather. Large quantities of leather were retrieved from the reclamation dumps but much of the material has not yet been analysed. The items include both complete and partially finished shoes, a possible leather coat and several scabbards. Plain window glass is a common and mundane find in 17th-century and later deposits, but <258> is probably among the earliest fragments recovered in London of the post-medieval tradition of manufacture. Unlike most medieval window glass, which had regularly been used in domestic buildings by the rich since at least the 13th century, this piece is relatively undecayed, retaining its translucency despite its (presumably original) greenish tinge. Relatively little work has been undertaken on excavated domestic window glass in London, the most important centre of consumption from the 16th century (the crucial period for the development of a popular market for glazing). Lead window came No.<273> is in the 'medieval' tradition, but its thinness suggests that it may be an early milled piece extruded between two wheels in a vice to maximise the length of a given weight of lead (Egan *et al* 1986, 303–9). Far less common is a small, plain lead trough for feeding caged birds No.<277>. It was squashed completely flat when found and may originally have been rectangular *c.*45 × 45mm, but its identification as an early piece of mass-produced equipment for pets is not in doubt. Decorated lead troughs for pet birds had been around in London from the second half of the previous century at least, but this find may be among the earliest stratified examples of the plain types which became common in the 17th and 18th centuries.

Pottery

The ceramics recovered from the reclamation dumps have proved to be an important group with more than 400kg of pottery (the majority) coming from Open Area 4. Although the pottery from this group is largely redeposited it can still cast some light on the nature of 16th-century ceramics in the capital.

The pottery from Open Area 4 is typified by the presence of locally produced redwares, such as Tudor Brown, Guys and Cheam Redwares. There is also an interesting range of exotic imported pottery. Why there should be a large amount of mundane pottery with a minority of

imports is unclear, but it could be a result of mixing during redeposition. Alternatively it could be an indication of the varying status of the groups represented, with low-status coarse domestic wares and high-status imports. The latter was used by a smaller percentage of the source population and therefore was less frequently deposited and recorded in the archaeological record. The presence of high-status imports within the group is indicative of a high-status source within the group which probably derived from a number of sources simultaneously.

Certain contexts, particularly those on the Imperial House site, seem to have produced a disproportionate quantity of Dutch wares, both Dutch red earthenware and Dutch slipware. Among this group there are examples of a variety of cooking vessels, bowls, jugs and jars; as well as a lid decorated with white slip arcs. This high proportion of Dutch pottery is not continued throughout the rest of the group. The large quantity of Dutch wares and a number of other Dutch-style finds, including a near complete fireguard from 31–35 Wilson Street (Cox 1989, 15) and possible immigrant metalworking moulds from Ling House, on the other side of Dominion Street (Mackie 1988, 31–2), may indicate that a Dutch community had been established within the City. At Holy Trinity Priory, near Aldgate, Jacob Jansen, a potter from Antwerp was working from 1572 (Schofield & Lea in prep). This may have been one source for some of the pottery identified.

The exotic imported, pottery includes a Dutch slipware dish with a pouring lip and pinched feet; a Spanish mercury jar; a South Netherlands Maiolica albarello and an unusual German white ware spout, possibly from a baby feeder.

The presence of large quantities of crucible fragments are indicative of metal working waste. Additionally this group produced exotic imports including a Mature Valencian Lustreware albarello (Fig 6 No.6) with traces of arabesque script, a South Netherlands Maiolica vase and a Saintonge chafing dish. Two stratigraphically related deposits produced sherds of a *Cuerda Seca* dish made in Seville in the 16th century (Fig 5 No.2). This polychrome tin-glazed vessel is decorated with zones of different coloured glaze separated by unglazed lines formed by wax, that burns away during firing. This example appears to be a geometric pattern in pale and medium blue, pale and dark brown and green. The base has a characteristic concave base and green rim. This type of vessel was not widely traded, so this dish is more likely to have been a souvenir than an imported trade item (Hurst *et al* 1986, 92).

The occurrence of unusual imports continues throughout the sequence, with a good example of a South Netherlands Maiolica vase (Fig 5 No.1), and further fragments of a Saintonge chafing dish. Further Iberian imports include a Spanish tin-glazed ware waisted albarello with a plain blue external glaze and plain white internal glaze (Fig 5 No.3), and an Isabella tin-glazed ware dish with a characteristic pattern of concentric blue and purple circles and crosses (Hurst *et al* 1986, 56).

Two groups from reclamation dumps were of sufficient size to be worthy of quantification, which were broken down by estimated vessel equivalents (EVEs) which show the breakdown

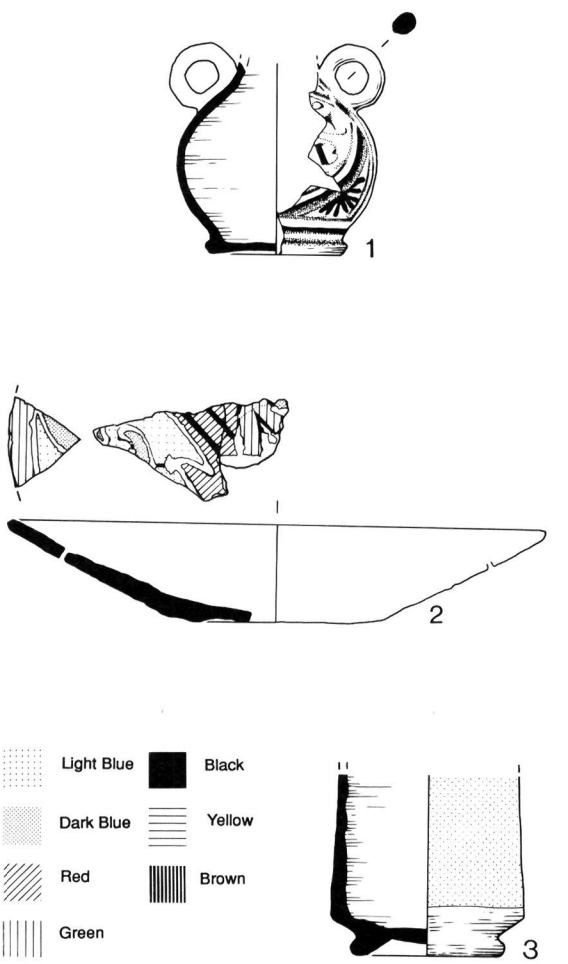

Fig 5. Nos 1–3 (Scale 1 : 4)

Table 1. The pottery from group 12.17 (breakdown of fabrics and forms from 1500–50 group, expressed as rim EVEs to two decimal places)

	Bowl	Pip	Dish	Jar	Jug	Col	Wp	Cup	EVEs	% of total
CHEAR		.33	.19		.39				0.91	15
COLP			0.9						0.09	2
DUTR	.09	.33						.08	0.50	9
DUTSL			.23			.02	.03		0.28	5
GUYS			.36		.22				0.58	10
RAER					.58				0.58	10
TUDB	.43	1.77	.45	.22					2.87	48
TUDG								.07	0.07	1
EVEs	0.52	2.43	1.32	0.22	1.19	0.02	0.03	0.15	5.88	
% of Total	9	41	22	4	20	0.5	0.5	3		
Storage and transport										4
Cooking and food preparation										71
Table/decorative ware										24.5
Miscellaneous										0.5
Local										74
Imported										26

Others present (O.OO EVEs) include CSTN cupt, DUTR drip and TUDB colander

of fabrics and forms (Orton 1975, 30–5). The first of these groups (12.17) dated to 1500–50 consisting of 1635 sherds weighing 31032g (Table 1). The group was located on the eastern side of the site and consisted of a reclamation dump sealing an earlier brick-working pit.

The form and function categories (Table 2) are the same as that used by Orton and Pearce (Thompson *et al* 1984, 63) and the modifications used for the Tower of London Postern pottery report (pottery in Whipp in prep).

Table 2. Museum of London fabric and form codes used in this report

Fabric and form code	Pottery type
BOT	Bottle
CHEAR	Cheam redware
COL	Colander
COLP	Columbia plain ware
CSTN	Cistercian ware
DUTR	Dutch red earthenware
DUTSL	Dutch slip ware
GUYS	Guys ware
ISAB	Isabella tin-glazed ware
PIP	Pipkin
RAER	Raeren stoneware
SKIL	Skillet
TUDB	Tudor Brown ware
TUDG	Tudor Green ware
WP	Watering pot

The second group (12.18) was made up of four contexts dated to 1500–1550 consisting of 253 sherds weighing 6744g (Table 3). The group was located to the west of group 12.17 and consisted of a number of spreads of silty sand with some clay and very frequent inclusions of domestic waste.

Clearly the breakdown of these groups is quite similar, with a distinct emphasis towards locally produced cooking and food preparation vessels. The paucity of quantified 16th-century ceramic groups makes comparison difficult. The main source of comparable groups comes from Tower of London Postern excavations 1979 (Whipp in prep). The fill of the postern tower produced a series of assemblages of pottery from the late 15th century to the 17th century, which have been quantified and broken down in the same way as the above groups (Table 4). Ultimately these assemblages should be compared with further excavated groups such as those from the waterfront at Abbots Lane in Southwark, which produced large groups of pottery dating to the first half of the 16th century, including a large number of imports from Italy, Spain and France (Bluer 1993).

Table 3. The pottery from group 12.18 showing breakdown of fabrics and forms from second 1500–1550 group expressed as rim EVEs to two decimal places

	Bowl	Pip	Dish	Jug	Bot	Lid	Cup	Skil	EVEs	% of total
CHEAR		.46	.07		.51	.43			1.47	35
DUTR		.25					.29		0.54	13
EVEs	0.44	1.15	0.33	0.42	0.51	0.43	0.29	0.66	4.23	
GUYS	.26		.21					.66	1.13	27
ISAB			.05						0.05	1
RAER				.31					0.31	7
TUDB	.18	.44		.11					0.73	17
% of total	10	27	8	10	12	10	7	16		
Storage and transport										12
Cooking and food preparation										70
Table/decorative wares										18
Local									79	
Imported										21

Table 4. Sources of pottery from Tower of London Postern in period 1480–1680

Function	%1480–1520	%1500–1550	%1530–1570	%1580–1680
Storage and transport	14	4	1	3
Cooking and food preparation	49	70	64	50
Table/decorative ware	37	26	35	40
Other/residual				7
Local	64	87	82	71
Non local		3		1
Imported	36	10	18	27

The two Finsbury groups are similar to one another and the high quantities of cooking and food preparation vessels mean these groups resemble the Tower of London groups of 1530–70. In contrast to the groups from the Postern, the Finsbury site produced greater quantities of imported pottery, possibly indicating that the groups have a closer affinity to material from the lower fills of the postern tower. The latter produced high quantities of imported pottery as well a preponderance of cooking and food preparation forms, although not as high as in the Finsbury groups.

The bulk of the local fabrics from Finsbury are redwares such as Tudor Brown, Guys and Cheam redwares. The material from the postern had a proportion of derivatives of Tudor Brown ware, tempered with coarse quartz and calcareous inclusions, which derivatives are entirely absent from the Finsbury material. This may be indicative of locally sourced pottery serving very small areas of the City, although the Guys type ware watering pot (Fig 6 No.8) is out of the ordinary.

White wares, such as Coarse Border ware, are almost totally absent. This may indicate lack of penetration by Surrey White wares to the northern side of the City. This was not the case on Abbots Lane (near London Bridge in Southwark) where the assemblages produced substantial amounts of Coarse Border wares (Bluer 1993). This is not surprising considering the location of that site on the south bank of the Thames.

This material adds to the scanty typology of 16th-century pottery groups from London. The preponderance of cooking and food preparation vessels accompanied by a tantalising range of ordinary and exotic imported pottery tells us something about the socio-economic nature of the area. It shows that there was a high-status source for part of the group associated with the

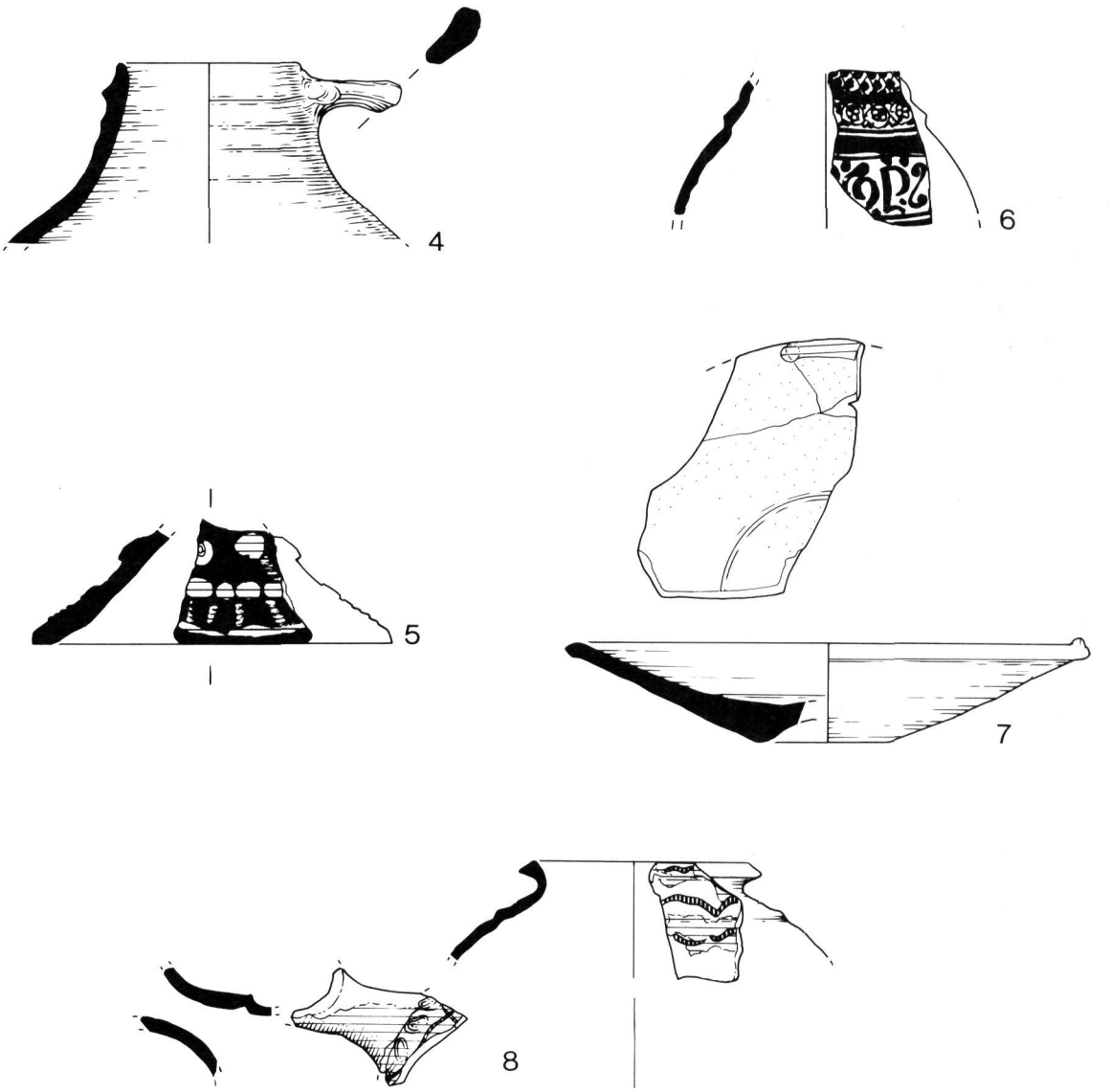

Fig 6. Nos 4–8 (Scale 1 : 4 except No.5 scale 1 : 2). For key see Fig 5

imported wares. This element declined over a period of time with the assemblage becoming more homogenous in character.

The exotic imports include Iberian lustre ware which has its origins in the Middle East, but was made by Moorish potters (under patronage of the leading aristocratic dynasties) in the region of Valencia from the mid 14th century. These individuals zealously guarded the manufacturing techniques of their spectacular products, often elegant pieces with elaborate Islamic decorations. Their lustre wares were sought after not only in Spain itself but by people of the highest rank in France and Italy (Caiger-Smith 1985, 101). The albarello (Fig 6 No.6) from Finsbury belongs to the late 15th century, when Islamic motifs were replaced by European patterns, such as the foliage borders found on this vessel. A transitional element is the presence of arabesque script.

In addition to the lustre ware albarello there is an elegant pale blue glazed albarello (Fig 5 No.3), probably manufactured in Catalonia. These Spanish albarelli possibly came from a pharmacist either in the area or the source of

the dumped material. The large range of differing Spanish ceramics may be indicative of cherished possessions or evidence of extensive trading with Spain. Although trade with Spain went back to the 13th century, it increased following the marriages of Henry VIII to Catherine of Aragon and Phillip II to Mary Tudor. The presence of the *Cuerda Seca* dish (Fig 5 No.2) is highly unusual, being previously confined to ports in the south of England. The products of Seville are well represented by the presence of Isabella Polychrome and Columbia Plain ware (both named after sites in North America). The Columbia Plain dish is decorated with a dipped green glaze rim, an Islamic motif (Fig 6 No.7).

The exotic products are not confined to Spanish wares. Others include a chafing dish from the Saintonge area of south-west France. The trade in ceramics from this area parallelled the trade of Gascony wine, with wool and textiles flowing the other way from England.

The desire to own exotic and out of the ordinary ceramics could not be fulfilled by the local industries and was satisfied by colourful pottery brought from the Low Countries, Spain, France and Staffordshire *eg* a Cistercian posset pot (Fig 6 No.5).

Botanical evidence

The analysis of plant remains concentrated on the 16th-century reclamation dumps of Open Area 4, particularly group 12.05 from which 770 litres were examined. This group consisted of a large number of dumps within a brick-making pit on the east side of the site. Cereals were represented virtually entirely by charred grain, albeit in low quantities. The most common identifiable cereals were free-threshing bread wheat (*Triticum aestivum*), and barley (*Hordeum sativum*) with 14 and 19 grains respectively. The barley belonged to the six-row hulled variety with the recovery of both twisted and straight grains. Several grains of either wild or cultivated oat (*Avena* spp.) and a single rye grain (*Secale cereale*) were identified. A rachis fragment of rye preserved by waterlogging was also found.

These cereals may have been used on their own or as a mix of several species for bread, biscuit-making and in pottages. Pottage, a stew made from a mix of root vegetables, cereals and sometimes meat, was the national dish of all classes until at least the 17th century (Hammond 1993, 31–2).

Bread wheat was the main bread-making grain. Barley, rye and oats were sometimes used for coarse bread in south England and both may have been used as animal fodder. Barley was also used in the production of ale and beer. Hops represented by seeds in several samples, were also used in brewing.

This range of cereals is very similar to other finds of grains in London from both medieval sites, Billingsgate (Pearson in prep), St Mary Spital (Thomas *et al* in prep), and post-medieval sites; the Fleet Valley (McCann 1993), and the Royal Mint, (Grainger *et al* in prep).

Grain assemblages from this period are usually very small which may be attributed to the fact that the cereals were often processed and milled into flour prior to their arrival in the City.

No pulses were found in the samples although this contrasts with the documentary records. John Gerrard (1545–1612) writes that they were sown in gardens and in fields everywhere about London.

Common vegetables represented by the seeds of the *Brassica/Sinapis* species group (cabbage, rape, turnip, charlock) were recovered, often in high numbers, from 26 samples. These seeds are frequently found on both medieval and post-medieval sites in London although the problem of separating out and identifying the individual taxa means that it is not usually possible to establish whether the seeds represent cultivated crops or their wild relatives. This pattern also extends to other common vegetables such as carrot (*Daucus carota*) several seeds of which were recovered from two assemblages. The limited evidence for common vegetables may be due to the fact that the edible parts of the plant are consumed before they set seed (Armitage *et al* 1987, 276). Common vegetables were used in pottage and as salads, well-seasoned with oil, while from the end of the 17th century they began to be used as an accompaniment to meat (Weinstein 1990, 97).

Sixteen different species of fruits were represented in the samples. The small-seeded fruits included fig (*Ficus carica*), grape (*Vitis vinifera*), elder, blackberry/raspberry (*Rubus fruticosus/idaeus*), strawberry (*Fragaria vesca*), pear/apple (*Pyrus/Malus* sp.), mulberry (*Morus* sp.), barberry (*Berberis vulgaris*) and possibly redcurrant (*Ribes cf. rubrum*). Fruit stones consisted entirely of *Prunus* species: plum/bullace (*Prunus domesticus*),

sloe/blackthorn (*Prunus spinosa*) and cherry (*Prunus avium/cerasus*). The variation in the size of the plum stones suggests that a number of different varieties were present. Some plum stones showed evidence of rodent attack with circular cavities on the stones suggesting that they had been gnawed. Hazel (*Corylus avellana*) and walnut (*Juglans regia*) were represented by whole nuts and shell fragments. Virtually every medieval and post-medieval site in London has produced evidence of these fruit species with fig, elder, grape and blackberry/raspberry seeds being the most common.

Documentary records suggest that virtually all the fruit species represented may have been used for a wide range of foods and drink (Wilson 1984). Unripe grapes were pressed and fermented to make verjuice (grape juice) while ripe ones were pickled and made into wine. According to MacLean grapes were not eaten fresh (Maclean 1981, 269). Elderberry wine was produced as an adulterant of more expensive foreign wines or to disguise English raisin wine, a common practice in the post-medieval period (Grieve 1992, 268). Sloe was used to make sloe wine/gin; wild and native cherries for liquors; apples for cider; and the red juice of mulberries used in a pottage known as murrey (Wilson 1984, 269). Many of the fruits may have been preserved for later consumption, for example figs, hazels and walnuts. Elderberry fruit and flowers were used for jams and jellies. Barberries were used for garnishing meat and fruit dishes or were candied with sugar and used as a sweetmeat. Strawberries, plums and damsons were soaked in white wine and sugar and oil extracted from walnuts.

Documentary evidence suggests that little fruit was consumed fresh in the medieval and early post-medieval period as it was considered unhealthy, popularly associated with common illnesses such as diarrhoea and dysentry. Instead, fruit was mixed with other foods and cooked (Wilson 1984, 299). Fruits were eaten roasted with sugar, confits and fennel seed at the end of the meal to close up the stomach, although this was sometimes an appetizer at the tables of the more wealthy. The cost of native fruit, with the exception of gooseberries, was relatively high in the early post-medieval period, because of the short season of availablity from July (strawberries) to October (apples). Many of the fruits identified in the samples were grown extensively in London in both private gardens and at religious houses. Sixteenth-century cartographic evidence shows the presence of orchards within the City walls. Some of the fruits may have been imported from local areas, for example, the county of Kent in the 16th century was a leading supplier of fruit, particularly apples, pears, cherries and plums, or from overseas (Weinstein 1990, 82). Grapes and figs were both grown in England and imported.

Three samples produced a small number of cucurbit seeds. These are extremely difficult to identify owing to cross fertilisation and the large number of hybrids. As yet there is no overall consensus as to their classification. The finds included seeds of cucumber (*Cucumis sativa*), melon (*Cucumis melo*) and possibly watermelon (*cf Citrullus lanatus*). These species are infrequent finds on medieval and post-medieval sites in London although 16th-century samples at the Royal Mint (Grainger *et al* in prep) produced seeds of watermelon, melon and cucumber/melon, while cucumber/melon seeds were recovered from 16th-century deposits at St Mary Spital (Thomas *et al* 1997).

Cucurbits were cultivated primarily for their edible flesh. Cucumbers were probably commonly used as a vegetable salad in summer although they were also pickled as gherkins for winter consumption. Both melon and watermelon were important for their fresh fruit while the seeds could also be made into a cake for livestock feed. Oil may have also been extracted from the cucurbits and used for lighting or cooking.

Cucumber was the only member of the cucurbits found in the samples to be commonly cultivated in Britain and north-west Europe prior to the 16th century. It needs a warm climate but not as hot as that required for melon, which only produces fruit in Britain if grown under glass. Cultivars of melon suitable for greenhouse production in a British summer were not developed until the 17th century, which suggests that the seeds in the samples may represent imported fruits. Watermelon, documented in 16th-century herbals, requires artificial heat to set fruit in north-west Europe (Letts 1991). Thus, the one seed in the assemblage probably represents an import and could possibly be linked to the contacts that have already been discussed with regards to the pottery.

The following herbs were represented by low numbers of seeds in a few samples: fennel (*Foeniculum vulgare*); possibly garden parsley (*cf Petroselinum crispum*); opium poppy (*Papaver somniferum*); and rosemary (*Rosmarius officinalis*). The seeds from a number of the *Brassica/Sinapis* spp.

may have included taxa used as spices, for example black mustard (*Brassica nigra*) and white mustard (*Sinapis alba*). These herbs may have been used for flavouring in both fresh and dried form, although found in low numbers, these seeds, with the exception of rosemary, may simply represent weeds.

The presence of rosemary is interesting as it is believed not to set seed even in Northern France let alone England (Grieg 1993, 325), which may account for the fact that this is the first seed record of this plant known from London deposits and may represent imports from southern Europe.

Some of the plants represented in the assemblages may have had a range of other uses, for medicine *eg* opium poppy (*Papaver somniferum),* for flooring/thatching *eg* sedges and rushes, and as animal fodder *eg* the grassland plants. Others may represent the residues of garden/ornamental plants *eg* box (*Buxus semperivens*) and holly (*Ilex aquifolium*).

From the 14th century the contents of stone/brick cesspits were emptied when full and the rubbish carted out of the City. This represents a change to the previous practice in the medieval period of excavating new pits for the burial of rubbish (Watson in prep). The stone/brick cesspits would have been regularly cleaned out by well-paid workmen and the material carried away in pipes (barrels) (Grieg 1982, 49). The stratigraphy of the fills from a number of post-medieval pits at Cutler Street (Schofield 1987, 79) and 16th/17th-century pits from 119–121 Cannon Street (*ibid* 120) illustrates this point, where the residues of older fills were found adhering to the sides of the pits (Giorgi in prep). When no longer in use the pits would have been filled in and covered over.

A useful dumping ground for all refuse in the City prior to this period would have been the dumps behind the waterfront revetments. However, by the 16th century, the expansion of the City into the Thames had virtually ceased on the north side of the river, with stone walls being built on many riverside properties. Thus, there would have been an increase in the use of areas outside the City walls, such as Moorfields for the dumping of rubbish.

Previously excavated areas outside the City walls that have been interpreted as rubbish dumps include 16th-century assemblages from Broad Sanctuary, Westminster (Armitage *et al* 1987, 268). Pollen analysis from this site showed the presence of weeds of disturbed waste ground, grasses and rushes plus economic plants (*eg* buckwheat, hemp). Nematode eggs indicative of human and animal faeces, and a range of animal bone (large and small mammal, bird, fish) including evidence of butchery waste was also found. Like Moorfields, this was interpreted as a wet area used for the disposal of rubbish.

Another area for dumping rubbish was the City Ditch. Assemblages from ditch fill samples, at 90–94 Old Broad Street, show that by the 17th century the Ditch was being backfilled with human faecal material, and general household and food refuse (Holden & Pipe 1991).

Botanical assemblages from 16th-century pit-fill deposits within the City walls may be compared to the Finsbury samples from outside the City walls, although such a study is limited by the small body of evidence available within the City for this period.

Sixteenth-century assemblages from Watling Court (Schofield 1987, 210) and 28–32 Bishopsgate (*ibid* 51) produced a small range of small-seeded fruits preserved by mineralisation and waterlogging and very occasional charred grains and weed seeds. However the size of these samples and their preservation was not particularly good (Giorgi in prep). In contrast, a well sampled 16th-century cesspit from 54 Lombard Street with good preservation produced both epidermal fragments of cereals, fruits, sedges and rushes plus fruit seeds, and a range of wasteground weed seeds (*eg* goosefoots/oraches (*Chenopodium/Atriplex* spp.), campion/catchfly (*Silene* sp.), stinking mayweed (*Anthemis cotula*), wild radish/charlock (*Raphonus raphonistrum*)) (Holden 1992). All these taxa were found in the Finsbury material showing that such pits from within the City could have provided both food refuse and wasteground/garden weeds for the dumps at Moorfields.

Outside the City walls, contemporary deposits at St Mary Spital (Thomas *et al* in prep) and the Royal Mint (Grainger *et al* in prep) show a much closer resemblance to the Finsbury samples. Pit-fills from St Mary Spital produced mixed assemblages including a range of fruit species, herbs, spices, flax, hemp and hop and a range of wild plants, interpreted as the residues from animal fodder, flooring, roofing and garden plants. Similarly, mixed assemblages of economic plants and weeds from a range of habitats were recovered from 16th-century assemblages from the Royal Mint. However, these similarities, particularly the wider range of weed taxa, may

be attributed more to extensive analysis of samples on these sites and preservation rather than a reflection on the location of these sites on the periphery of the City.

Animal bone

The 16th-century reclamation dumps also produced a large quantity of animal bone (over 300kg) of which 4052 fragments have been analysed (128kg). In addition, 10 bulk samples were taken and sorted (through a 1mm mesh) for their bone content. These produced 776 (1.74kg) bone fragments. The subgroups were selected on the basis of contributing to the overall study of the site. They were all well-dated to the 16th century and consisted of rubbish dumps which had been backfilled into the brick pits.

The lack of gnawed bones in the assemblage suggests that burial of the bones was both rapid and thorough. Cattle, sheep/goat and pig dominate the assemblage. Assuming that most of the cattle and sheep-size fragments also belong to these three species, they would then comprise approximately 90% of the assemblage. The assumption is based on the likelihood that the three major domesticates would comprise similar proportions of the cattle and sheep-sized identified and unidentified portions of each bone collection.

Three quantitative methods were used to assess the assemblage *ie* total fragment count (TF), epiphysis only (EO after Grant 1975 and 1984) and total weight to assess the assemblage. The use of a weighted quantitative method, in this case EO, is necessary in order to limit the effects of recovery and fragmentation biases, both of which favour the relatively greater representation of larger animals *ie* cattle. EO, as used here, can reduce the former bias by excluding the smaller skeletal parts as carpals/tarsals and phalanges, and can also affect the latter bias by concentrating on the articular ends only (the cattle limb bones tend to be heavily fragmented in comparison to those of sheep/goat and pig).

Taking either the TF or EO figures for each subgroup (an amalgamation of primary site data to facilitate analysis) it is clear that there is a wide variation in the proportion of these species and cattle and sheep/goat in particular (Table 6). Pig is consistently the least well represented. The combined results using the more reliable EO method suggest similar proportions of cattle and sheep/goat.

A final point concerns the abundance of sheep and goat. Of the two species only sheep was positively identified. While this evidence does not exclude the possible presence of goat, it would seem likely that the majority of the sheep/goat assemblage is composed of sheep.

The remaining animals can be classed as either domestic, 'managed' or wild. In the first category is horse, dog and cat. None of these species was well represented and, due to the large proportion of dog and cat articulated remains these are likely to be over-represented. 'Managed' is used here to describe the likely status of red deer, roe deer, fallow deer and rabbit. All these species are known to have been kept in enclosed parks, the latter within initially artificial warrens following their introduction to this country by the Normans (Astill & Grant 1988, 164). Such parks continued up to and beyond the 16th century and it is likely that they contributed the principal source of venison and rabbit. The meat of red and fallow deer was undoubtedly restricted principally to the wealthier classes. Rabbit was certainly a luxury item during the medieval period and may have continued to be so into the early post-medieval period (Maltby 1979, 61). Both deer species are poorly represented while rabbit is fairly abundant throughout.

The wild species include hare and, from the sample residues, small rodent. Both rabbit and hare have been found on a number of medieval/post-medieval sites where, during the 16th century, rabbit replaces hare in abundance (Maltby 1979 and Davis 1987, 194). This site appears to follow the general pattern. What the change-over signifies is possibly the increased availability of rabbit as the keeping of these creatures became more widespread (Cantor 1987, 37). The small rodents are vole and mouse sized animals and these probably represent local fauna.

A total of 13 species of bird were recovered (Table 5), of which four are likely to be domestic while the rest are wild. The domestic species include, in order of abundance, chicken followed by goose, duck and peacock. It is possible that a few of the goose and duck bones may belong to wild birds. All the wild birds, with the exception of the thrushes and small passerines, can be described as game. The peacock, heron and crane are clear indicators of high status.

A minimum number of 14 fish species was identified. Marine species dominate this list, most abundant being those in the cod family *ie* cod and haddock, and also herring, plaice and

Table 5. Animal bone species from Open Area 4

Mammals	Birds	Fish
cattle, Bos sp.	chicken, Gallus sp.	roker, Raja clavata
sheep, Ovis sp.	domestic/wild goose, Anser anser	eel, Anguilla anguilla
goat, Capra sp	domestic/wild duck, Anas platyrhynchos	conger eel, Conger conger
pig, Sus scrofa	teal, Anas crecca	herring, Clupea harengus
horse, Equus sp	heron, Ardea cinerea	pike, Esox lucius
dog, Canis familiaris	peacock, Pavo sp.	roach, Rutilus rutilus
cat, Felis sp.	crane, Grus grus	angler, Lophius piscatorius
red deer, Cervus elephas	curlew, Numenius arquata	cod, Gadus morhua
fallow deer, Dama dama	oystercatcher, Haematopus ostralegus	haddock, Melanogrammus aeglefinus
roe deer, Capreolus capreolus	woodcok, Scolopax rusticola	cod family indeterminate Gadidae
hare, Lepus europeaeus	green plover, Vanellus vanellus	gurnard, Triglidae
rabbit, Oryctolagus cuniculus	thrush, Turdus Sp	brill, Scophthalmus rhombus
vole, Microtus/Arvicola sp	small passerines	plaice, Pleutonectes platessa
mouse, Apodemus/Mus sp		flounder, Platichthys flesus;
		sole, Solea solea;
		flatfish indeterminate

Table 6. Cattle, sheep/goat and pig representation

Subgroup	Species	TF N	TF %	EO N	EO %	Weight kgs	Weight %
12.04	cattle	218	48.5	129	42.3	17.43	73
	S/G	209	46.5	159	52.2	5.83	24.4
	pig	22	5	16.5	5.5	0.61	2.6
12.05	cattle	467	49.5	215	39.8	36.95	79.3
	S/G	328	34.8	254	47	5.85	12.5
	pig	147	15.7	70.5	13.2	3.77	8.2
12.17	cattle	252	56.6	159	47.9	20.72	77.6
	S/G	135	30.3	126	38	3.36	12.6
	pig	58	13.1	46.5	14.1	2.6	9.8
All	cattle	937	51	503	42.7	75.1	77.3
	S/G	672	36.6	539	45.8	15.04	15.5
	pig	227	12.4	133.5	11.5	6.98	7.2

flounder. Freshwater fish as eels, pike and roach were clearly of secondary importance. It is possible that pike could be regarded as a high-status item (Dyer 1989, 61–2).

Fish were clearly supplied from near and far. Fishing fleets operating in the North Sea, in both deep and shallow waters, ensured a ready supply of fresh fish for the London markets (Wheeler & Jones 1976). In addition the Thames itself supported diverse freshwater fisheries along the river and out into the North Sea.

All species present could have contributed to the diet, with the likely exceptions of dog, cat and the small rodents. Apart from information from historical sources, proof is supplied by the presence of bones with cut marks. The exception is skinning marks. Proving the animal was skinned does not automatically suggest that the meat of the resulting carcass was intended for consumption. Such marks are apparently present on the single dog bone with cuts. Conversely the single horse bone with cut marks is typical of meat waste. Though rare, there is clear evidence for eating horse flesh from other urban sites in London *eg* from 175 Borough High Street (Schaaf 1976, 3–7).

The bulk of the demand for meat was met by the major domesticates with cattle dominant followed by sheep/goat and pig (Table 6). Meat may have been supplied to the City from a

variety of sources. Evidence for local stock raising is provided by the presence of foetal/neonatal bones. This age group is represented by each of the major domesticates. The incidence of young calves may point to a similar avenue of supply as does the presence of juvenile chickens. However it can be assumed that this source provided only a small part of the total meat demand of the City during the 16th century. Historical accounts suggest that London at this time was chiefly reliant upon its neighbouring shires for food. However, it seems cattle were also arriving from as far away as Wales (Skeel 1926, 135–58), though not in the numbers which were commonly driven along this route in the 17th and 18th centuries (Armitage 1978, 218). Deer and rabbit were probably imported from the nearest deer park/warren, or possibly from further afield.

Whatever the source of supply, it is clear that the majority of cattle, sheep/goat and domestic fowl represented in the overall assemblage were not raised primarily for their meat. This is demonstrated by the proportion of animals and birds represented in these contexts which are beyond the best age for eating which points to the greater importance of secondary (*ante mortem*) products. Certain areas of the site did produce evidence of enough immature sheep/goat individuals to suggest that meat production was of some importance. In addition the cattle assemblage shows a peak of infant individuals probably indicating veal production.

Unlike the other domestic species, pigs have little value except for their post-mortem products, principally their meat. A study of the age profile of this species will indicate the intensity of exploitation. The very high proportion of first year animals suggests their use was intensive. This could relate to the change-over underway in this period from the pannage system to the more efficient system of sty husbandry. One reason for this change was the availability of surplus whey due to the increase in dairy production during the early post-medieval period (Maltby 1979, 83–4). Rabbits are also valued chiefly for their meat but it is not clear whether those represented were wild or managed.

There is historical evidence for the organisation necessary between the supply stage and the consumer (Fisher 1954, 146). Such organisation can be confirmed archaeologically by the finding of bone deposits which display particular characteristics. At this site, one context contained an over-representation of sheep skull parts while another displayed an almost complete dearth of sheep primary waste (head and lower limb parts). This implies the presence of at least two organisational stages. The latter assemblage can be regarded as the waste from a butcher's shop (or possibly from a large household) while the concentration of sheep skulls could have been dumped from an abattoir.

There is also evidence for the use of other post-mortem products, namely skins and horn. Skinning cuts were observed on cattle and dog bones. However it can be assumed that the skins of other species were also used, possibly including all the mammals with the exception of the small rodents. The use of horn is indicated by a number of cattle and sheep skull fragments from which the horncores have been removed.

The importance of *ante-mortem* products has been confirmed for cattle, sheep/goat and domestic fowl. Cattle is represented principally by young calves and animals which have reached full adulthood. This age profile is quite typical of a herd exploited for its milk *ie* with male calves culled prior to their first winter, while the females would be kept for milk production as long as possible (Legge 1992, 25–6). This exploitation strategy conforms to the noted increase in milk production during this period (Maltby 1979, 83–4). Unfortunately the sexing evidence taken from a sample of metacarpals suggests a dominance of mature males/castrates rather than females. Taken at face value this evidence indicates the presence of work animals *ie* involved in pulling and carrying. However, the sexing data should be treated with some caution due to the small sample size. The mature and adult sheep/goat individuals were possibly kept either for their wool or milk. Wool is more likely due to the fact that the majority of sheep/goat bones clearly belong to sheep and that southern England saw a distinct rise in the importance of wool production from the late medieval period onwards (*ibid*). Evidence for this trade was also noted amongst the artefacts which included cloth seals and textile fragments. The large proportion of mature domestic chicken, goose and duck suggests the importance of egg production. More evidence for this was provided by the significant quantities of eggshell recovered from some of the dumps.

Horse, dog and cat were probably all used as work animals. The size of the horses represented, all approximately 12–14 hands, would suggest a pulling or carrying, rather than riding, use.

Similarly the small size of the dogs, standing approximately 40–50cm at the shoulder would possibly suggests a non-hunting use, unless for small game.

The size ranges of these three species are typical of the period, as indeed are those, in general, of the other domestic animal and bird species present. However there are a few larger cattle and sheep present *ie* shoulder height sizes ranging up to 240cm and 174cm respectively. These larger animals clearly coincide with the improvement in husbandry practices and the possible introduction of new breeds which took place in England from the early post-medieval period (Davis 1987, 188).

Open Area Five (17th–20th centuries)

Land use on the site during this period consisted of at least five phases of activity including four phases of buildings. These structures had been removed or truncated and were not recorded, except in terms of documentary evidence, and have, therefore, not been separately numbered. Open Area 5, defining the later features which were cut through the reclamation dumps or are attributed to modern activities, contains the only material recorded or excavated. This land use period has a wide date range (1610–1993) and little importance archaeologically other than to show that there was considerable development of the site following the reclamation of the marsh. The site continued to be used as a rubbish dump throughout the 16th century despite prevention orders by the Mayor in 1512 and 1527 (CLRO, *Repertory of the Court of Aldermen* 2, ff.128, 168b). By 1607 some improvements had been made in the state of the ground, partly as a result of the Honourable Artillery Company being granted a lease for Bunhill Fields (Brett-James 1935, 453–60). The ground was levelled and gravel paths laid out with a number of trees planted so that by 1610 it had become a place for walking and began to attract a number of booksellers. It was also, however, known for wrestling and 'cudgel-players' (Thornbury 1887, 196). After the Great Fire, in 1666, the refugees from the City gathered on Moorfields living in tents and 'miserable huts' (*ibid*). This led to a period of neglect which resulted in standing water becoming common again, by 1729 (Cox 1990, 9). By 1800 the first tenement buildings had been constructed on the site which were succeeded by subsequent structures up to the present day.

CONCLUSION

The Finsbury Island site has produced a relatively straightforward stratigraphic sequence of deposits rich with artefactual and environmental evidence. The material highlights the growth of the City at the end of the 15th century and the range of both industrial activities and domestic consumables. The only other comparable sites in London are those associated with the dumping behind the late medieval waterfront revetments on both sides of the river.

The development of the marsh in the late/post-Roman period is known mainly from later documentary sources as little archaeological evidence survives for a widespread marsh. A number of the sites in the area have produced waterlogged material but this has usually been from channels or drainage ditches and not from horizontal and stratified organic deposits. The large organic spreads which have been recorded, as at Ling House and Finsbury Island, are associated with late 15th-16th-century reclamation following quarrying of the brickearth in the immediately preceding period. In contrast to the paucity of archaeological evidence the documentary sources from the medieval period almost always refer to Moorfields as marshy or even as an area of standing water, used for skating in the winter (Pegge 1772, 50) and navigable by boat (Thomas 1924, 113–14). These references may have exaggerated the true state of affairs since there are relatively few references to Moorfields in comparison to other areas of the City. Moorfields held no interest to most commentators, being an area of waste land outside the City wall and was, therefore, described in terms of its most exotic features and not necessarily the most representative. Neither Pegge nor Thomas provide details as to the exact location of the activities, which may have been confined to a small area of land or restricted to some of the channels that have been identified archaeologically.

The true state of affairs before construction of Moorgate may have been more complex than the occasional generalisations made in medieval documents and seized upon by later commentators when the problem of flooding had already been exacerbated by the brickearth quarrying at

the end of the medieval period. The creation of the marsh may have originally been partially deliberate to provide a further defensive feature protecting the northern approaches to the Roman city. This was caused when the Walbrook began to back-up against the City wall through which inadequate culverts had been constructed. Whether or not this was done deliberately it must have occurred naturally in the post-Roman period when the culverts were not maintained. The marsh itself was, however, restricted to a narrow strip 25m to either side of the main Walbrook channel which flowed along a depression in the gravel 200m to the east of the Finsbury site (Malt & White 1987).

During the medieval period there is little evidence of the site flooding with any regularity, suggesting that the limited drainage works undertaken in the Saxo-Norman period were adequate. Environmental evidence from the botanical remains suggests a fairly dry area of waste ground with the presence of bedding trenches indicating that cultivation was possible. It is not until the 15th century when the brickearth quarrying began that flooding and standing water accumulated. This situation was mitigated but not solved by dumping rubbish in the open pits which had the effect of raising the ground sufficiently above the water level, except during wet periods. It did not solve the problem, however, as the water was retained within the dumps with no opportunity to drain away. This situation prevailed until recently when the advent of piled and deeply-founded buildings pierced the dumps and altered the level of the water table to the increasing detriment of the previously anaerobic condition of the archaeological deposits.

The concept of a medieval marsh stretching from Whitecross Street in the west to Bishopsgate in the east is, therefore, largely a recent phenomenon which has been imposed on the more distant past. The botanical remains from the medieval period confirm a drier environment than is usually ascribed to the area and provide a new impetus for further studies into this aspect of Moorfields.

The registered finds and ceramic assemblages from the 16th century echo the trades and manufacturing processes taking place within the City with many of the excavated dumps including distinct groups of artefacts which probably came from particular workshops or households. These groups included associated animal bone and botanical material indicative of the diet of Londoners. Particularly important are a group of high status imported ceramic vessels which shed light on trade contacts during this period and reflect the provenance of some of the rubbish dumps. Although this report has only summarised the findings of the excavation archive reports containing all the data recorded on the site and during subsequent analysis are available for consultation at the Museum of London (site code FIP92).

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THE WESTERN ENTRANCE TO THE TOWER OF LONDON, 1240–1241

Edward Impey

SUMMARY

The discovery in 1995 of a medieval structure within the fill of the Tower's western moat, close to the outer curtain wall and roughly half way along it, led to further fieldwork in 1996 and 1997. This revealed a masonry platform, roughly 7m square, orientated on an approximate north-south axis. The eastern side was built into a bank of clay, the other three were faced in Reigate and Purbeck marble ashlar, set within a massive timber frame, which was linked to further framing to the west. The masonry and timberwork were both distorted by subsidence, an area of piling against the platform's eastern side having been driven in to stabilise the platform after the collapse of its superstructure. The masonry was of late 12th or 13th-century type, but dendrochronological dating of the piles to 1240 may offer the precise date of its shoring up, probably its collapse, and possibly its construction. The coincidence of the building's position, its approximate date, the exact date of the piles and its structural failure almost certainly identify it with part of Henry III's new defences which, according to Matthew Paris, fell 'as if struck by an earthquake' in 1240 and 1241. The nature of the structure, its position, and the interpretation of the timber structure as a bridge identify it as a gate tower – probably an outer barbican. While the exact chronology of building, collapse and consolidation remain to be confirmed – together with the interpretation of Matthew Paris's text – the discovery vindicates Sir Howard Colvin's suggestion in 1963 that the principal entrance to the Tower in the mid 13th century was in this position. In addition, it has interesting implications for the form of the castle before the 1240s, in the period 1240-c.1280, and for the sequence and extent of Edward I's refortification.

INTRODUCTION

In June 1995 a surprising find was made deep within the Victorian fill of the Tower of London Moat: a trial pit opened as part of an archaeological evaluation exercise in support of the Tower Environs Scheme,[1] brought to light the corner of a masonry structure, elegantly faced in alternating courses of Reigate stone and Purbeck marble (Feature 2954). The form of the structure could only be guessed at, but it was tentatively attributed to the late 12th or the 13th century. It was also noticed that the structure was not horizontal, but sloped from west to east at an alarming angle. The find was entirely unexpected: there was no reason to think that any structure would be encountered in an area within the moat which was assumed to have been excavated from scratch by Edward I in the 1270s and 1280s. Its identity was a mystery, although one thing was immediately clear – the feature cannot have been contemporary with, or later than, the curtain wall behind it, as it could have had no imaginable function while this existed. The inference was that it belonged to an earlier building campaign – the most probable, given the received history of the castle, being one of Henry III's. A link was swiftly made between the feature – apparently of the right date and clearly subject to some sort of structural failure – and Matthew Paris's well-known account of the collapses of 1240 and 1241, respectively of a 'noble gateway...together with its forebuildings and outworks', and of the 'same walls...together with their outworks and fortifications' (*Chronica Majora* IV, 93 and 95). Further excavation and research has tended to confirm this attribution, although some fundamental questions and many points of detail remain unanswered.

This article has four aims: firstly to describe the remains, their context and internal dating

evidence; secondly, to make an attempt at identification in the light of Matthew Paris's account and other documentary material; thirdly to consider the original form of the building and the complex it belonged to, and finally to assess the implications that this, and some associated discoveries, may have for our understanding of the castle's layout and evolution in the 13th century.

CONTEXT AND DESCRIPTION

The Tower of London moat

Before describing Feature 2954 in detail, it may be useful to summarise its context within the development of the Tower and the history of the existing moat, beginning with a summary of what is known of its late 12th and early 13th-century precursors on this side of the castle. The first was the creation of Richard I's chancellor, Bishop Longchamp, who, according to Roger of Howden 'caused the Tower of London to be surrounded with a moat of great depth' in 1190.[2] A variety of evidence has shown that Longchamp's western rampart ran northwards from the Bell Tower – the only part of his work to survive – probably following an alignment which had existed since *c.*1100 (Colvin 1963, 708, fig 60); the western moat washed the Bell Tower and can be assumed to have continued northwards along, or close to, the foot of the wall.[3] Of more immediate relevance are the nature and progress of Henry III's improvements. These have been outlined by Colvin in the *History of the King's Works* (Colvin 1963, II, 710–715) and need no lengthy explanation here: in short, new walls were put up on a new alignment to the north and east, taking in St Peter's Church and land outside the Roman wall, defining an area now known as the Inner Ward; at least the alignment of the 12th-century western rampart was retained, and the western moat enlarged, but the remainder was backfilled and a new moat dug around the entire landward circuit of the new defences. The work was carried out between 1238 and the 1250s, although the new curtain walls seem not to have been completed. All but the southern arm of the existing Tower moat was created, along with the outer ward, St Thomas's tower and the existing western entrance, by Edward I, between 1275 and 1280. Once again the essentials of the story, known largely from the Pipe Rolls, have been amply covered by Colvin (1963, 715–23); work seems to have began in May 1275, when expenditure of over £90 was recorded 'for making the great ditch around the said Tower from the Thames towards the city to the Thames by St Katherine's hospital' (*ibid* II, 716).[4] The earliest measured plan of the Tower, Haiward and Gascoyne's celebrated *plan cavalier* of 1597 (Parnell 1993, 56, fig 36; Impey & Keevill 1997, 23, fig 20) probably gives a good impression of the landward moat and the entrance routes across it as Edward I left them.[5]

The moat owes its existing form largely to six later operations. The first, carried out piecemeal between the late 13th century and 1391 (Colvin 1963, II, 726–7; Priestley 1996; Impey & Keevill 1997, 18), was the creation of the river wharf (and therefore the south moat). The second, in 1670–83, was the realignment and revetting of its outer edge to the design of the Chief Ordnance Engineer, Sir Bernard de Gomme – the rump of a much larger scheme to completely re-fortify the castle;[6] the third, begun in 1670 but completed in 1753, was the infilling of the Lion Tower moat. The fourth and most important, the draining and infilling of the moat in 1843–5, deserves a bit more explanation. From the 1290s onwards the Tower moat had been difficult to maintain, as a result of silting from the river, pollution from the City ditch, and the dumping of sewage and rubbish both from the castle and the City. By the early 19th century the problem was both worse than ever and more obvious, as the general standard of metropolitan sanitation improved. Drastic attempts were made in 1830–2 to clean out the moat, but these were largely a failure, and in the early 1840s a series of medical reports blaming the moat for the garrison's ill-health persuaded the Constable, the Duke of Wellington, to 'convert the moat into a dry ditch and to build sewers therein to receive the soil and surface drainage' (WO 44/614). Work began in Spring 1843 with drainage works and the laying of a massive brick culvert round all four sides of the castle, swiftly followed by backfilling. The fill itself contained building rubble, including remnants of the 17th-century Grand Storehouse, but was largely made up of clay-rich soils from riverine sites – perhaps from dock excavations in the East End. By the end of 1845 the operation was complete (Impey & Keevill 1997, 18–33). The fifth intervention was the late 19th-century construction of Tower Bridge and its approach road,[7] planted in the fills of the eastern moat. The final major alteration took place in 1936–8 with the excavation of the area immediately to

the north of the Middle Tower, leaving part of the Lion Tower, its moat, and its associated causeways exposed to view.[8]

Feature 2954: situation and context

Trench 27, which completely revealed the principal feature under discussion, the 'masonry platform' (Feature 2954), was laid out across the middle section of the west moat (Fig 1). One of a total of 59 trenches or trial pits excavated during the 1996 and 1997 seasons, this was by far the largest and archaeologically most complicated. Its dimensions at ground level were 38m × 18m, but the depth of the excavation required stepped shoring to the edges, considerably reducing the area studied at the lowest and most interesting levels. It was also limited by intrusive features such as the 19th-century culvert, pipes and inspection pits, as well as by the need to preserve the structural finds themselves *in situ*. The masonry platform was encountered 2.5m below turf level, its highest point rising to 0.24m above Ordnance Datum. The main part of the structure consisted essentially of a rectangular masonry platform, aligned on an approximate east-west axis. Its position may be most usefully described in relation to upstanding medieval and other features: the western edge of the 'platform' lies at a maximum of *c.*10m from the outer curtain wall, *c.*28.5m from the inner wall; its northern edge lies 80m north of the south-western entrance causeway (Fig 1). It is nearly, but not quite, at right-angles to the Edwardian wall (its west face diverging by about 4 degrees), so that its position, although not its axis, is aligned squarely with Great Tower Street, while the Beauchamp Tower lies not immediately behind it but about 10m to the south.

The masonry structure itself consisted of a core of mortared Kentish ragstone rubble, faced with ashlar on the southern, western and eastern sides. Four courses survived around all three edges, the lowest being of Purbeck marble slabs as much as 1.50m long, projecting 100mm from the face immediately above and finished in a 45-degree chamfer. Seated on this were two further courses of Purbeck marble ashlar, above which lay the fourth and final course to survive complete, composed of finely-cut Reigate slabs finished with a second 45-degree chamfer. Most of the exposed joints had been cramped, although only the sockets and lead seating remained. In at least one place the blocks were bonded with lead. Except where subject to physical damage, the fine vertical tooling of the dressed surfaces was perfectly preserved. No masons' marks were observed. The high quality of the construction was in marked contrast to the foundations, which consisted of no more than a shallow raft of rubble and gravel laid directly on the London clay, without the benefit of piles.

The square ashlar-faced platform was not found in isolation. The rubble core not only extended as much as 3m beyond the western limit of the platform but projected beyond its northern and southern faces; the western stubs of these returns were faced in ashlar, coursed, bonded and quite clearly contemporary with the main structure, and of the same cramped construction. The chamfer to the top course carried round onto the returns, but the lower one did not. The returns retained roughly equal areas of facing, the lowest courses projecting as much as 0.60m from the face, above which further blocks, anchored in the main structure, remained in place. The diminishing length of the blocks revealed their upper surfaces complete with cramp sockets: it can be assumed that the cramps, like the missing masonry, had been salvaged.

Piling behind the platform

Behind the east side of the masonry platform, and apparently shoring it up, was an irregular area of close-set beechwood piles, driven in at an angle. Anaerobic conditions had preserved them and their bark almost perfectly, although much of the wood was very soft and there had been some physical erosion to the exposed tops. Twenty dendrochronological samples were taken by Ian Tyers, all of which returned felling dates to the winter of 1240 (Ian Tyers pers comm).

The timber structure

Surrounding the three main faces of the platform, and extending westwards from it, were elements of a massive timber structure (Figs 2 and 3). Hard against the northern and southern flanks of the stonework were squared timbers (quartered oaks), their eastern ends built into the returns at either side – leaving no doubt that the masonry

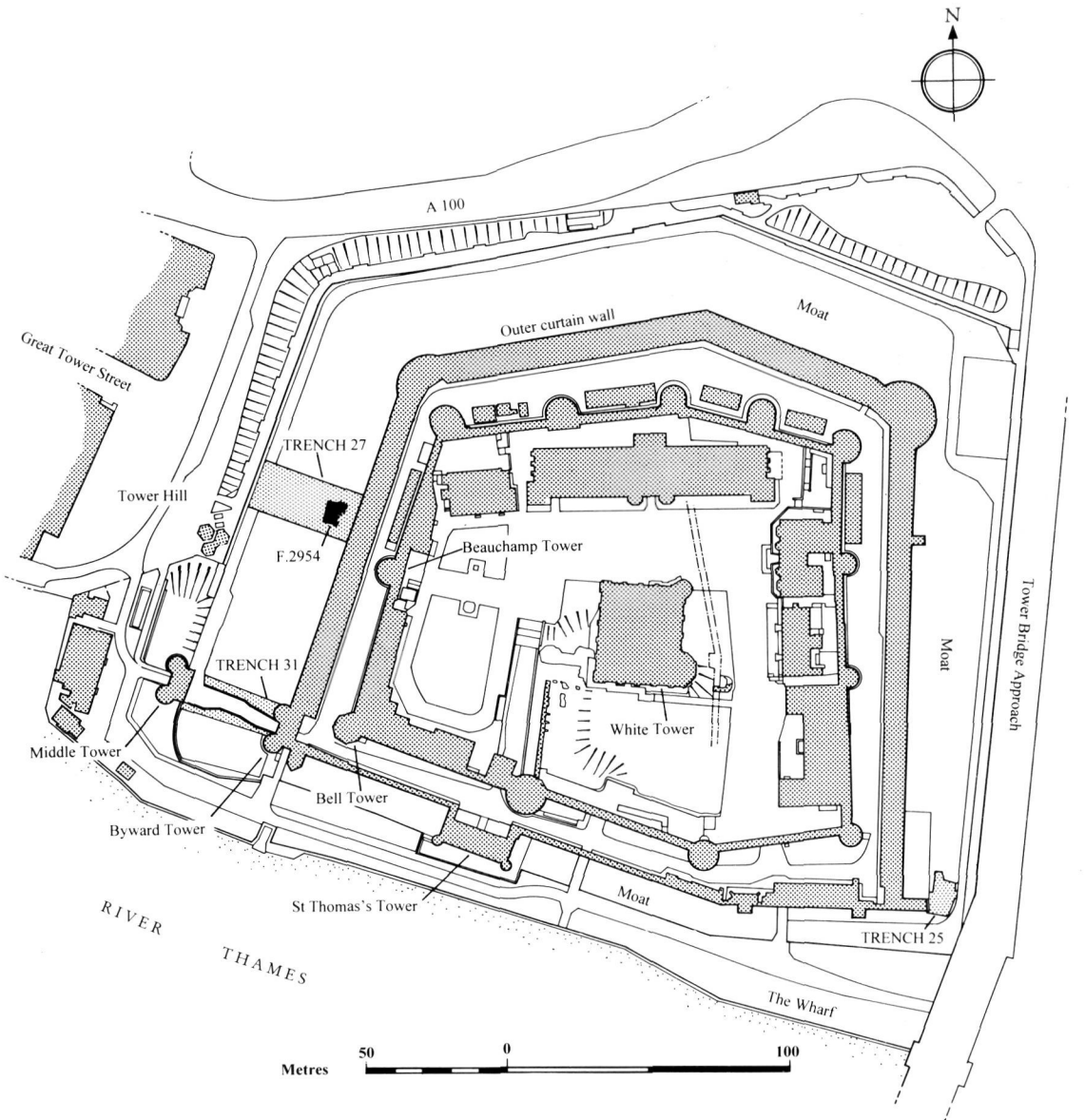

Fig 1. Plan of the Tower of London and immediate surroundings, showing the location of the trenches excavated 1995–7, the position of Feature 2954, and parts of the Tower and other features mentioned in the text (Edward Impey)

and timber structures were assembled at the same time. The upper surface of the timbers, if originally level, would have lain 150mm below the lower chamfer, level with the very lowest course of ashlars. Mortices in the outer flanks of both timbers at their extreme east ends show that they may have been adjoined at right-angles by further timbers (aligned with the masonry returns), but these were probably never fitted, as there are no traces of the damage which their extraction would have caused. The western ends of the flanking timbers were tenoned into a north-south beam 8.95 long and of the same scantling running along the west face of the platform (Fig 3C), completing a frame around three sides of the structure; the joint to the north, double pegged, remained intact, but at the south end the upper surface of the timber had been

Fig 2. Trench 27 viewed from the parapet of the outer curtain wall in October 1996, towards the end of the excavation. In the foreground (east) is Feature 2954 and associated piling; a contemporary timber structure can be seen surrounding it and extending intact to the west. Some of the scattered timbers beyond were part of the framed structure – but others, unconverted beech trunks – may have been used in building work or incorporated in a temporary bridge. The massive round-backed feature crossing the trench is the culvert built during the backfilling of 1843–45 (Oxford Archaeological Unit)

scraped away, probably during one of the many scouring operations before 1843, leaving the tenon exposed. Four further timbers, varying from 250mm to 300mm scantling, and set at 1.8m intervals, were jointed to the west side of the north-south timber (Fig 3C); a broken-open mortice at the extreme south end of timber C reveals the former presence of a fifth, possibly removed during the building of the mid 19th-century brick culvert. The western ends of the four shorter timbers are tenoned into a second north-south timber (D), of the same scantling as C, creating, as built, a box-frame of four compartments. Each compartment was found to be packed with rubble, bound in a mortar-like matrix.

The single west-facing joint in the second north-south timber (D) was found towards its north end, and took the form of a mortice, cut at an angle suggesting that it housed a raking timber pointing north-west. Adjacent to this point, but not attached to it, were found two smaller timbers (F and G), evidently used or intended as diagonal braces, as both of them, although both broken off, had butts cut at an approximately 45° angle bearing skewed tenons. One of these (G) had been housed in the skewed mortice in the main north-south timber (D), as is shown by the match between the broken-off tenon still attached to timber G and the fragment still pegged into the mortice.

Further to the west by about 2.5m was found a third major timber (E), of the same scantling as the others (*c.*300 × 300mm). This was found aligned approximately north-south, suggesting – although this could not be proven – that it had originally been parallel to the others and had some structural relationship to them. At this point the plot thickens, as the west face of the timber has five mortices of the same type and scale, and at the same intervals, as those housing the cross-members between timbers C and D.

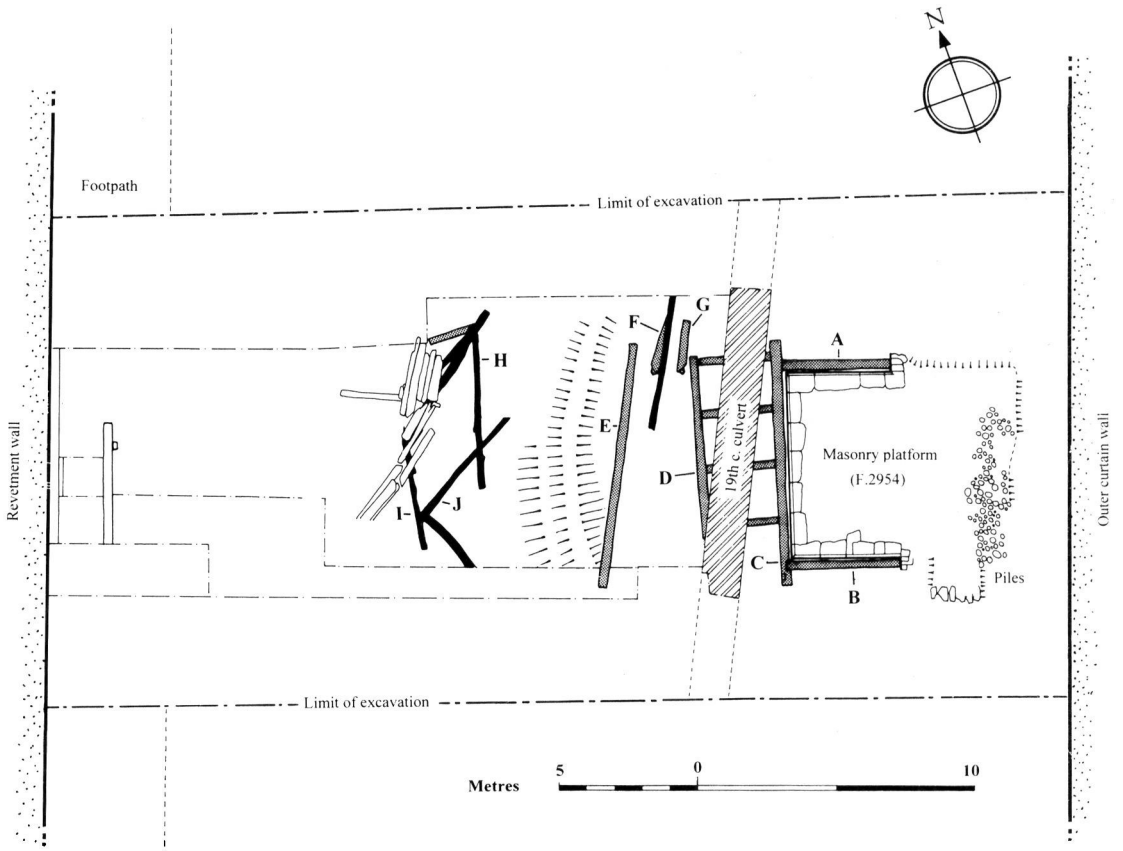

Fig 3. Plan of Trench 27 and features within it (Oxford Archaeological Unit)

The initial interpretation was that the timber had rolled, and that these mortices originally housed vertical struts, but this was disproved by the discovery of a diagonal-cut mortice at each end of the east face, evidently securing raking timbers in the same plane.

Only one other squared and jointed timber was discovered, partially exposed in the north section; this was an oak beam of the same scantling as the main north-south members, and containing a mortice comparable to those found in timbers C, D and E; very probably it served the same function. Eight unconverted beech trunks (including those marked H, I and J on Fig 3) were found to the west of timber D, all of which returned a felling date to the winter of 1240–41.

Subsidence

As noted above, the masonry platform had clearly subsided, and subsided unevenly, while the articulated timberwork attached to it was massively distorted: the most pronounced subsidence of the platform was on its east-west axis, the ashlar courses on the north side dropping approximately 300mm in little more than 4m; it had also sunk on a diagonal axis, the north-east corner being 50cm higher than the same course to the south-west, as if its superstructure had been leaning eastwards and southwards. The timbers attached to the platform's north and south elevations remained housed into the masonry returns, but their western ends, together with the north-south framing attached to them, remained at a higher level, no single timber being anything approaching the horizontal. Exactly which elements have sunk and which may have remained relatively stable was not entirely clear, but the position of the platform in relation to the timberwork suggests that the platform may not have just sunk at one side, but subsided overall. At the same time the southern

part of the timber box frame and its masonry fill appear to have been levered up, as waterlain silts were discovered underneath them.

Dating

We now come to the business of dating the structure and the events and interventions which can be identified from the remains. So as to avoid any premature conclusions, the documentary and literary evidence will be introduced later on, while considering the form and function of the structure and its implications. The central questions concern or include the date of the piling, the date of the subsidence, and the date of the structure itself.[9] In addressing these we are armed with one absolute date: we know for certain that the trees used for shoring up the platform were felled after the growing season of 1240 and before that of 1241.

The date of the piling

The dendrochronological date provides a clear *terminus post quem* for the piling, as this clearly cannot have taken place before the trees were cut in 1240. The felling date does not, of course, identify the year of use, as the piles could in theory have been in store for many years. Nevertheless, the fact that not only these timbers but groups of others at three related positions all returned the same date, suggests that they were all cut for a particular season or item of work in that year, reinforcing the case for dating the piling operation to 1240. In any case the shoring-up cannot have taken place after the completion of the Edwardian curtain wall, even in its initial 13th-century form, as in the absence of any opening through the wall, it could have had no conceivable function.

The date of the subsidence

The date of the subsidence is clearly *not* given by the date of the piles. The possibility that the function of the piles has been misunderstood, and that the stone structure subsided at a date very much later than 1240, within the Edwardian moat or its fills, can be ruled out: Professor John Hutchinson[10] has observed that this could only have been caused by a far greater concentration of weight than water or backfill could impose. However, it could in theory have occurred well before remedial action was taken, in other words, if the suggested date of the piling is accepted, at any time before 1240. Equally, if we argue that the piles were taken from store, then the subsidence could have occurred well *after* that date.

The date of the masonry

Dating the masonry might have been helped by dendrochronological analysis of the associated framing, and this was keenly awaited for several weeks, but, alas, the timbers were too fast grown to provide a date.[11] Similarly, stratigraphic evidence was almost non-existent or unobtainable; the natural and/or redeposited clay beneath the structure was not accessible enough even to look for dating evidence, while any early deposits on the top of the structure had been removed by scouring in the 18th and 19th centuries or earlier. The date of the piles fails to date the structure any more than it dates its subsidence or shoring-up for the same reasons, so that, leaving aside the literary record, remaining clues lie only in the design and execution of the masonry. Stylistically, the platform could date from as early as the late 12th century, and it of interest that the Bell Tower, known to date from the 1190s, stands on a similar stepped/chamfered plinth, and employs both Reigate stone and courses of Purbeck-like Sussex marble: on these grounds Dr Geoffrey Parnell (pers comm) has suggested that the platform may date from the same period: the use of Sussex rather than Purbeck marble and differences in chamfer detailing suggest that they are at least of different campaigns, but on practical grounds this is a sound proposition; the platform could very well have been associated with the late 12th-century defences, which at this point are generally assumed to have been on the alignment used both by Henry III and Edward I. The validity of this, however, will be seen to lessen when these questions are considered in the light of the documentary and chronicle evidence. Even without this, however, a combination of circumstantial, archaeological, stylistic and practical grounds all tend to date the structure to the period *c.*1190–1240 – with a preference for the last decade.

Identification and function

To identify the function of the platform, its situation in relation to the plan of the castle and its development, suggestions drawn from other sites, and indications in the documentary and literary record must all be considered. The range of possibilities can be narrowed down by the dating, but if it is accepted that the platform could significantly pre-date the piles, a large number of possibilities still remain. These arise out of uncertainties as to the form and extent of the castle as found by Henry III. Prompted by some ambiguous but tantalising archaeological evidence,[12] but more particularly by the reference in 1135 to the position of St Peter's church *in ballium*,[13] these focus on the possibility that a large outer bailey once accompanied the surprisingly small inner enclosure which is known to have existed in the late 12th century. The likelihood of this is not increased by the extent of the property which Henry III had to expropriate in order to expand the castle,[14] but if such an enclosure did exist, the structure could have been, for example, a mural tower or gate-tower on its western circuit. Another possibility, mentioned above, is that it was in some way associated with Longchamp's works of the 1190s. If so, it could have functioned either as an outwork to the main entrance – assumed since 1963 to have stood on or near the site of the Beauchamp Tower (Colvin 1963, 709, fig 60; Allen Brown 1977, fig 2) – or as a mural tower, in which case Longchamp's western rampart would have had to diverge westwards from the line of the existing wall and have enclosed a larger area than is usually supposed.

The *Chronica Majora* and its implications

Tantalising as these speculations are, the siting, dendrochronological dating, construction and, perhaps above all, the distortion of the feature all point firmly to an association both with Henry III and with the disasters of 1240 and 1241, and it is on these that attention will now be focused.

First of all, it is worth presenting the entries themselves, both of which occur in the *Chronica Majora*. Almost the whole content of both passages is in some way relevant, and deserves quoting in full. The earliest, firmly placed in 1240, states that:

> In that same year on the evening of the Feast of St George, the stonework of a certain noble gateway which the king had constructed in the most opulent fashion collapsed, as if struck by an earthquake, together with its forebuildings and outworks. When the king heard of this he gave orders that the ruined building should be rebuilt, more soundly this time and at still greater cost.[15]
>
> *Eodemque anno, structura lapidea cuiusdam nobilis portae, quam sumptuoso nimis labore rex construxerat, quasi quodam terrae motu concussa, cum suis antemuralibus et propugnaculis nocte sancti Georgii corruit. Quo audito rex, multiplicatis sumptibus, jussit illud ruinosum restaurari et in melius redintegrari.* (*Chronica Majora* IV, 80)

The second, equally firmly dated to 1241, relates that:

> At about this time, a night-time vision appeared to a certain wise and godly priest, in which an archbishop, wearing his full vestments and brandishing a cross in his hand, came up to the walls which the king had then raised next to the Tower of London, and looking at them with an angry expression, he boldly struck the walls hard with the cross in his right hand and said 'to what end are you being rebuilt?' Suddenly the walls collapsed as if they had been struck by an earthquake, although they were only recently built.
>
> At this a clerk appeared following the archbishop. The priest, terrified by what he had seen, asked him 'who is this Archbishop?' He replied 'This is the Blessed martyr Thomas, a Londoner by birth, who sees these buildings as an insult and a danger to the Londoners; that is why he has destroyed them irreparably'. The priest replied 'but what about the cost and effort of the workmen? He has ruined it all'. The clerk answered him 'if the poor needy workmen were able to buy food with the wages they earned, that is indeed a good thing, but these walls were built not for the defence of the realm but to harm innocent citizens and if the Blessed Thomas had not destroyed them, his successor Saint Edmund the confessor would have uprooted the foundations even more violently'.
>
> When the priest awoke from his sleep, he remembered what he had seen and though it was still the middle of the night, he openly told the story to everyone in the house. Early next morning, a rumour spread through the whole city of London, that the walls which had been built around the Tower, on which the king had spent more than twelve thousand marks, collapsed irreparably. Many people wondered at this and declared it was an evil omen, because at exactly the same time, that is to say, Saint George's night, but in the previous year, the same walls fell down together with their outworks. The citizens of London were completely amazed at this and not at all sorry. The walls were like a thorn in their eye. They had heard people taunting that the building of the walls was an insult to them, because if anyone dared to stand up for the rights of the city, they could be clapped in irons and imprisoned inside. Many cells could be seen in the buildings for the imprisonment of large numbers separately, so that none of them could speak with another.[16]
>
> *Circa dies illos, cuidam presbitero viro sancto et prudenti in nocturna visione revelatum est, quod quidam archipraesul pontificalibus ornatus, crucemque in manu sua bajulans, venit ad moenia, quae tunc rex iuxta Turrim Londoniarum construxerat, et torvo ea vultu respiciens, impulit ipsa fortiter et impetuose cruce quam portabat dextra, et ait; 'Ut quid reaedificamini?' Et subito corruerunt moenia de novo constructa, quasi quodam terrae motu labefacta. Et*

his visis sacerdos perterritus ait cuidam clerico, qui videbatur suum sequi archipraesulem, 'Quis est hic archiepiscopus?' Et ille; 'Beatus Thomas martir, natione Londoniensis, qui considerans haec fieri in contumeliam et praejudicium Londoniensium, diruit irrestaurabiliter'. Et sacerdos; 'O quot expensas et artificum labores irritavit'. Cui clericus; 'Si pauperes artifices stipendiis inhiantes et indigentes inde sibi victualia promeruerunt, tolerabile est; sed quia non ad regni defensionem, sed ad innocuorum civium gravamen constructa sunt, si non ea beatus Thomas diruisset, sanctus Aedmundus, confessor et successor eius, crudelius ea funditus evertisset'. Et his visis memoratus sacerdos expergefactus a sompno, surrexit, et in medio noctis conticinio palam, quae sibi videbantur, omnibus in domo existentibus enarravit. Mane autem facto, per totam civitatem Londoniarum rumor increbuit, quod moenia Turrim aedificata, pro quibus construendis rex plus quam duodecim milia marcarum effuderat, irrestaurabiliter corruerunt, multis admirantibus et quasi pro malo praenostico praeconantibus, quod eadem nocte, immo eadem hora noctis anno praeterito, scilicet nocte sancti Georgii, ipsa muralia cum suis propugnaculis corruerunt. Pro quo casu cives Londonienses minime dolentes, vehementer obstupuerunt. Erant autem eis quasi spina in oculo. Audierant itaque minas objurgantium, quod constructa erant memorata moenia in eorum contumeliam, ut si quis eorum pro libertate civitatis certare praesumeret, ipsis recluderetur, vinculis mancipandus. Et in plures pluribus includerentur carceribus, multa in eisdem distinguebantur diverticula, ne quis cum alio haberet confabulationem. (*Chronica Majora* IV, 93–4)

Before the archaeological evidence is examined and re-assessed in the light of these passages, it is worth underlining the certainty that a collapse really did occur in 1240, although whether Paris's text really indicates a second collapse in 1241 is open to question. Paris was not an over-inventive chronicler,[17] and had first-rate sources available: these could have included accounts by guests at St Albans–the King and his retinue stayed there nine times during his reign (Vaughan 1993, x) and conversation in London, even perhaps with the 'wise and godly priest'. Given that the abbey was so near London, that it possessed a lodging there,[18] and that Paris was a frequent traveller, he may even have seen the fortifications with his own eyes. In addition, the events not only took place during Paris's own lifetime, but were written up within a few years of their occurrence.[19] But should there be any doubt that a Tower did indeed collapse in or shortly before 1241, this can be dispelled by the plain and factual entry in the Liberate Rolls for the 23 September 1241, recording an order to the Constable: 'to pull out the lead and boards which lie under the Tower recently fallen, to bring together the timber and freestone and put them in a suitable place'.[20]

Identification with the works of 1240–1241

The reasons for proposing a link between the events descibed by Matthew Paris and Feature 2954 have been outlined above. But one of them – the site – requires a little more explanation, as no indication of the doomed buildings' position is given by Matthew Paris himself: the evidence is largely circumstantial, although backed up to some extent by Stow, whose claim that the new buildings had been made 'on the west side' of the castle (Stow 1908, I, 47) may have been based on oral sources or written ones now lost. Otherwise the arguments remain those set out by Colvin in 1963, who after dismissing the identification of St Thomas's Tower with the disaster site, continues:

> If, as seems certain, the Bloody Tower could only be approached by water, it is necessary to look elsewhere for the main landward entrance to the Tower from the City of London. Its site is not recorded in any contemporary document, but it may be suggested that in the twelfth and thirteenth centuries it is likely to have been on the site of the Edwardian Beauchamp Tower. Before the creation by Edward I of the existing entry through the Lion, Middle and Byward Towers, the main approach to the Tower from the City of London must have been along Great Tower Street, which is aligned directly on the Beauchamp Tower, and it is difficult to see where else the main gateway can have been at this time. (Colvin 1963, II, 712)

Allen Brown may have been over-confident in stating 'that it stood in fact on the site of the present Beauchamp Tower' (Allen Brown 1984, 21), but the evidence points overwhelmingly to the fact that Henry III's ill-fated 'noble gate' was at least on this side of the castle and at approximately this point.

Once this is established, or at least accepted, the precise function of the building represented by the buried structure, and how it and any associated structures may have looked when complete, can be considered.

Original function

In the first place, both the scale of the structure and its situation 28.5m west of the (now inner) curtain wall, almost rule out identification with the 'noble gate' itself, but strongly suggest that it may have been one of the outworks – the *propugnacula* or *antemurales*. Paris describes these features as belonging to or 'with' the 'noble gateway' (it fell *cum suis antemuralibus et propugnaculis*), but this does not mean they were actually part of the gate complex, or contained gateways themselves. Whether the known platform could have carried an outer gateway – rather than being some other kind of outwork – depends largely on the purpose of the timber structure

attached to it. If this were best interpreted, for example, as a quay fronting on the moat, or no more than a reinforcement to the stone structure, it cannot have been a gatehouse, but positive identification as a bridge would leave almost no other interpretation possible.

It seemed at first, during the process of excavation, that the massive north-south timbers were the sill-beams for bridge trestles of the kind discovered or inferred, for example, at Abingdon (Allen 1990, 27), Bodiam (Martin 1973, 4–8, figs 2 and 3), Caerphilly, Eynsford and Kirby Muxloe.[21] However, as explained above, the diagonal struts can only have lain in a horizontal plane, which makes interpretation as a bridge more complex. The most plausible solutions are possible if the structure is considered as incomplete – as is suggested by a number of what may be marked-out and partially drilled mortices in some of the timbers. In this case, the major north-south timbers and the diagonals at their ends could have been intended to form pointed 'starlings', similar to those which carried the 13th-century Wye bridge at Chepstow, as illustrated by Rigold, or shown on the medieval seal (Innsbruck) which he reproduces (Rigold 1975, 53–4); the intervening east-west timbers would have defined the interval and provided additional stability. A timber superstructure would have been the most likely intention, perhaps also similar to that at Chepstow, where vertical and raking uprights are tenoned into the side timbers of the starlings. Another possibility is that the horizontals were intended to form the lowest tier of a caisson-type of pointed timber cutwater, as has been suggested, with some reservations, by Jean Mesqui (pers comm); if completed, the successive tiers would have been bonded with nails, pegs, or halving joints at the angles.

Virtually the only interpretation which would allow for the bridge having been completed is that the horizontals formed a subframe either underneath or surrounding masonry cutwaters (carrying a stone or timber superstructure), but if so it is difficult to see the purpose of the timberwork, and this interpretation can probably be discounted.[22] On balance, the likeliest interpretation is that the remains represent a timber bridge, which, if completed, would have consisted of a roadway carried by timber trusses standing on framed starlings.

In any case, it can be accepted that it was at least intended that the stone structure should be abutted by a bridge, and that this was to have extended across the moat to Tower Hill. In this case the masonry platform must have carried a gatehouse, beyond which a roadway would have led to the main gate in the curtain wall. The alignment of the building with Great Tower Street, in addition to other structural features described below, indicate that this was part of the main entrance complex and not, as its size might otherwise suggest, a postern.

Reconstructing the building

The limitations of the evidence make any attempt to reconstruct the building a risky business. However, some elements of its plan and siting are clear enough; in particular, the north, western and southern flanks of the platform were meant to be exposed (although no doubt sometimes or even normally submerged), while the east side of the structure was built into a bank of clay, probably an artificial berm at the base of the curtain wall, backfilling the 1190 ditch. How far west the building may have extended is less clear. The irregular eastern edge to the platform may result from fracture during the collapse itself, but more probably shows that there was no exposed edge at this level on this side (although there must have been one at a higher level). The masonry returns to the north and south pose another problem, as it is not clear how far they may have once extended; the surrounding clays were particularly difficult to differentiate at this point, and there are no stratigraphic indications either way. An obvious contention must be that they are the stubs of walls, otherwise completely robbed away; if so, we have to conjecture a previously unknown curtain wall, or take it that the walls returned eastwards, flanking the route to the main gate, as in the 12th-century examples at Conisborough (Thompson 1991, 3–4) and Framlingham (Raby & Baillie-Reynolds 1984, 8–9, 23–4) and those which achieved their final form in the 14th century at Alnwick, Lincoln (Stocker 1984, 22–3) and Warwick. Another possibility is that they carried small rectangular staircase turrets, analogous to those serving Henry III's surviving mural towers and Edward I's gatehouses elsewhere at the Tower.[23] However, while these and other reconstructions remain possible, it is more likely that the returns have been robbed of little more than their northern

and southern facings, and that they formed the bases for buttresses.[24]

Beyond the gate, the roadway must have continued to the main gate; if this was on the site of the Beauchamp Tower, it must have followed a curved or angular course (Fig 4), which, in creating a 'bent entrance', would have made it easier to defend.

Attempting to reconstruct the building in elevation is riskier still, but again there are a number of clues. In the first place, 'ground level' must have been as much as 2–3m above the platform's upper surface – approximately the level of the roadway under the Byward gateway (4.080 OD), to have allowed for the height of the bridge and to have cleared the tides. The roadway itself can only have been about 4m wide, without a separate gateway for pedestrians, to allow for a sufficient wall thickness at either side – particularly if one wall was to accommodate a stair. How the gate itself might have functioned will never be established, but the distance of 3m between the platform's western edge and the nearest (postulated) bridge trestle would have allowed for a drawbridge in front of it.[25] The tower may have been capped with a platform immediately above the gate, but could also have risen through another storey, which would have made it both more effective and more imposing to look at – an important consideration, given that it would then have been visible down the entire length of Great Tower Street.

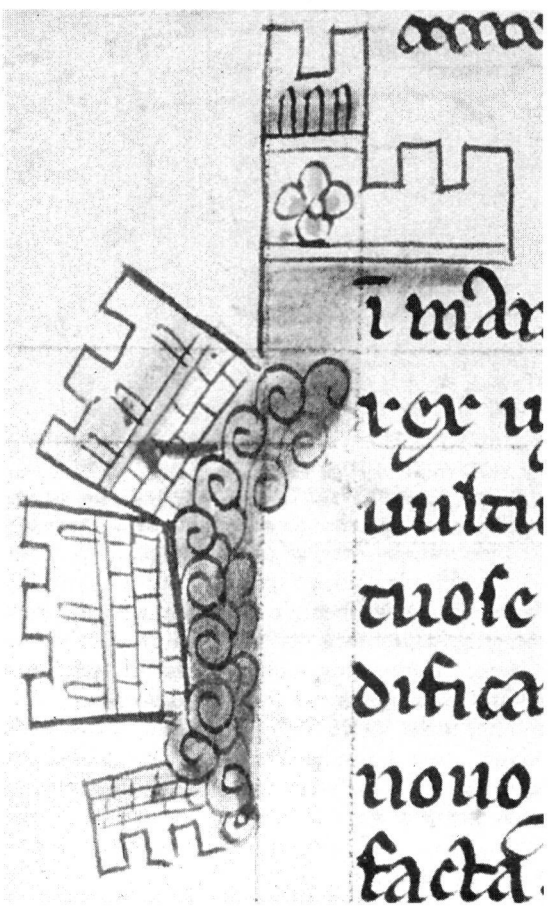

Fig 4. Marginal illustration to one of the two autograph copies of Matthew Paris's Chronica Majora *(MS 16, f143r Corpus Christi College, Cambridge), adjacent to the text describing the events of 1241. As with Paris's other depictions of the Tower, the details are not to be relied on, but the impression given of a major disaster in 1240–1241 is borne out by his text, other documentary material and new archaeological evidence. Reproduced by kind permission of the Master and Fellows of Corpus Christi College, Cambridge*

The suggested reconstruction of the function and general form of the building is supported by the existence of comparable buildings at other sites: the closest parallel is the entrance to the inner bailey at Portchester (Hants), a single-entrance gateway within a (formerly) freestanding single tower half projecting into the moat and half built into its bank, dating from the 13th century (Rigold 1975, 16, 22; Cunliffe & Mumby 1975–85, 87–93, pl xxvi and xxvii, figs 87, 88 and 89). Two features in particular, however, set it apart from these, and would have rendered it a fitting part of the main entrance to the country's greatest castle. Beric Morley pointed out at an early stage that a plain square tower of these proportions, standing in isolation, would have looked rather clumsy, suggesting that the square plan may have converted to octagonal (or faceted) by the use of broaches – as in the contemporary Water Tower at Kenilworth (Thompson 1991, 16–17) and the Colton Tower at Dover, also a gatehouse and dated to the reign of John;[26] in the event this was supported by the subsequent discovery, within an appropriate context in the moat fills, of a massive Purbeck marble slab cut to form a facet of this sort. The tower's visual impact was almost certainly increased by a continuation of the plinth's banded stonework over the superstructure, as is suggested by the recovery of scattered fragments of Purbeck and Reigate ashlar from the moat fills.[27]

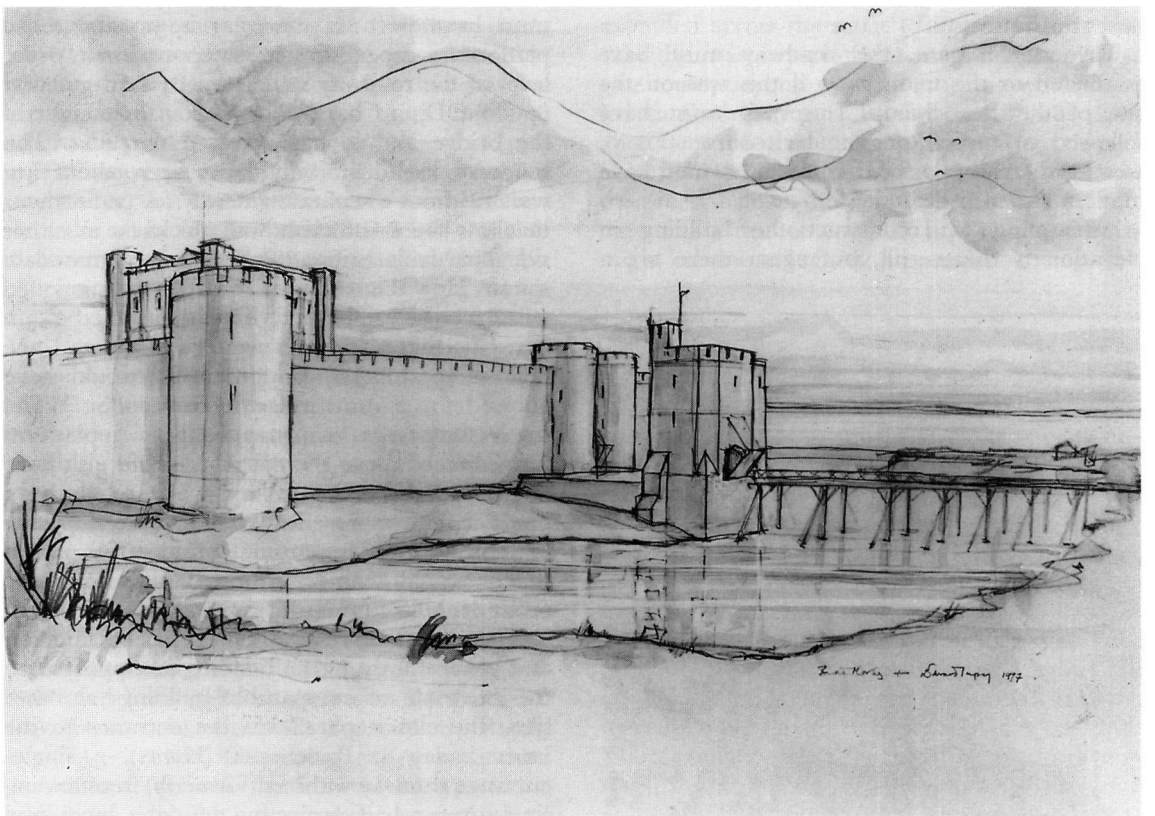

Fig 5. The western entrance to the Tower of London as it might have looked viewed from the north-west on the eve of April 23rd 1240 (or, depending on the interpretation of Matthew Paris's text, exactly a year later). The building represented by Feature 2954 is reconstructed as a free-standing barbican tower, approached from Tower Hill by a bridge across the moat and linked to a main gate (also reconstructed) in the curtain wall. It has since been shown that the bridge was never completed (Edward Impey)

The collapse and after: the western entrance and defences 1240–81

1240–1241

The discussion should perhaps begin with the question as to which of the chronicled collapses the demise of the building should be attributed. This in turn, as will be seen, raises important questions as to the interpretation of Paris's text. On the face of it, the collapse of 1241, certainly permitted by the available dating evidence, might seem the most likely: Paris states that after the 1240 event the king ordered the ruins to be rebuilt, but that 1241 saw them collapse 'beyond repair' (*irrestaurabiliter*). The fact that the outwork was clearly *not* rebuilt suggests that it was put up *de novo,* or possibly restored, after April 23 1240, and that its collapse and abandonment happened on April 23 1241; nevertheless, it could just as easily have have been a part of the 1238–1240 campaign which was omitted from the rebuilding ordered by the king after the first disaster, and other variations on the theme are possible.

The main permutations will be considered below, but considering these issues focuses attention on Paris's far from lucid account and what he may actually have meant. Clearly the interpretation of Feature 2954 would be clearer if there had been only *one* collapse, in 1240, as this would suggest a very simple sequence of events: building 1238–1240, collapse in April 1240 and consolidation of the ruin with piles cut for the purpose later in the same year. Paris's text has, however, always been assumed to imply two collapses, and this is the reading of Stow (1908, I, 47), Bayley (1825, I, 14–15), Colvin (1963, 713), Allen Brown (Charlton 1978, 30) and Parnell (1993, 34). But if, prompted by the new archaeological evidence, the second passage

is scrutinized in detail, it becomes clear that there is no deliberate, specific mention of a *collapse* in 1241: the priest has a dream in which this happens, and in the morning a rumour circulates in London that the dream has been dreamt, but not that the walls have actually fallen down. When Paris says that the citizens 'proclaimed it a bad omen' (*pro malo praenostico praeconantibus*) the reference is, in turn, to the rumour and not the fact: the populace took it as a 'bad omen' – in other words one that might be fulfilled – simply because precisely what the priest described had happened exactly a year before. The subject of the citizens' astonishment could similarly be identified as the dream and prophecy, not the collapse, which would explain why, although pleased, they 'kept quiet about it'. The use of the word *reaedificare* by the phantom archbishop by no means necessarily refers to a rebuilding after 1240, as it could also have referred to a rebuilding of much earlier work. Equally, the use of the word *irrestaurabiliter* of the postulated 1241 collapse may not distinguish it from the previous one, when the king ordered rebuilding, as it could simply mean that complete rebuilding rather than repair had been required in 1240. Nor are the accounts of what happened given by the two passages sufficiently different to confirm that they relate to different events.

Given the ambiguity of the passage, the proposed reinterpretation must remain hypothetical, but in discussing the condition and development of the Tower's western approach and defences in the period 1240-*c.*1281, it is still necessary to offer two alternatives for the early period. If we accept that there was only one collapse, in 1240, we can reconstruct a sequence of events over the next year or so: between 1239 and early in 1240, the king initiated and maintained a rapid building programme. Paris's description of the 'noble gate' as 'recently built' suggests that it was complete on the eve of its collapse, as does the additional information offered about the ill-fated sector to the effect that it was sufficiently advanced for the public to be able to identify 'the many cells for the imprisonment of a large number' at the time of its collapse. However, the indications are that the associated timber bridge had not been completed, and thus that access to the castle must have been via some other temporary route while building was in progress.

In any case, on 23 April, the 'Noble gate' and its outworks collapsed, upon which the king ordered immediate rebuilding, and the 'Noble gate' was perhaps indeed rebuilt (in one form or another) but the ruined outwork was deemed beyond repair; nevertheless, as a roadway to the gate was still required, the ruin was shored up to carry a partially rebuilt or improvised bridge and causeway across the moat. The process of re-opening the entrance, at least on its original route, may have taken some time, for it was only in September that the order was issued to recover as much as possible of the valuable building materials 'from under the tower recently fallen'.

If it is accepted that there were two collapses, the outwork could, as suggested before, have been a new creation after April 1240 which survived until April 1241. However, it could also have been created before April 1240, and have been abandoned, save for shoring up, after the collapse in that year.

Both these sequences imply that, following the collapse (or collapses), Henry III ended up with a western entrance to the castle, shored up, improvised or rebuilt but which at least followed the route across the moat, aligned on Great Tower Street, intended in 1238. Worth mentioning at this point, however, are an observation and a discovery made this year: firstly that part of the existing south-west causeway appears to be earlier than the main Edwardian build, and secondly that remnants of a dam-like structure of beech piles, all dated to 1240, survive deep in the moat fill to the north of the causeway. Graham Keevill has suggested that the disasters of the 1240s may have led Henry to abandon his bridge and outwork arrangement and divert the route into the castle across a causeway in the position of the existing one, reaching the 'Noble gate' or its replacement via a roadway between the base of the wall and the moat.

1241–1275

The impression given is that the impetus of the late 1230s, which had probably seen through the completion of the new walls to the north and east and the excavation of the ditch, never picked up after the 1240s. The general slowing down of works is borne out by the records. Although expenditure on materials and building work continued, and some of the unitemised work may have included attention to the defences,[28] only repairs to domestic buildings (*Calendar of Close*

Rolls 1247–1251, 300), the building of a bear house (*Calendar of Close Rolls* 1251–1253, 157), an elephant house (*Calendar of Liberate Rolls* 1251–1260, 198), the translation of its remains (*Calendar of Close Rolls* 1256–1259, 256) and other minor items or very general orders are given in at least the published summaries of the Close and Liberate Rolls or appear in the MS Pipe Rolls and Enrolled accounts.[29] An order in 1244 for stone and timber deemed 'superfluous' to be sent from the Tower to Westminster (*Calendar of Close Rolls* 1242–47, 167) suggests a shift in priorities, particularly when even nine years later the stone defences were still incomplete – the King ordering palings 'to fortify the whole breech of the bailey of the Tower of London' (*Calendar of Liberate Rolls* 1251–1260, 147). The crisis of 1261, when the King's repudiation of the provisions of Oxford became public knowledge, provoked a flurry of expenditure – over £1000 being spent in one year (Colvin 1963, II, 713 and footnote 7), but the ultimate failure of the castle in the face of De Montfort's followers in July 1263[30] suggests it had not been spent to great effect. That the west side of the castle remained inadequate throughout Henry's reign is indicated by the works of his son, which, in addition to everything else, included the building or complete rebuilding of the whole of the west (now inner) curtain wall. It also included the Beauchamp Tower, assumed to stand on or near the site of Henry III's 'Noble Gate', but which would surely have been an unnecessary effort had the gate been sufficiently complete or impressive to merit being kept or converted. The impression is certainly that Henry's great scheme never recovered from the setbacks of the 1240s, and that for forty years the castle's western defences and its western approach remained improvised and inadequate.

1240–41 to 1281

All this does, in addition, have implications for our understanding of the order and nature of the works undertaken by Edward I. In the first place, the west moat as he found it was much wider and deeper than has been supposed in the past – not just opposite Feature 2954, but, as also revealed by excavation in 1996–97, nearer its junction with the river; less of the moat as it exists today, at least on this side of the castle may be attributed to him than has been the case to date. Secondly, it confirms, once again as pointed out by Colvin, that the south-western entrance complex must have been completed, or at least have been in use, before the outer curtain wall was completed (Colvin 1963, II, 721).

CONCLUSIONS

The original appearance, the function and date of the building represented by Feature 2954, the sequence of events in 1240–41, and the form of the mid 13th-century western entrance complex as a whole may never be fully understood or established. However, the balance of probability suggests the following conclusions:

1. That Feature 2954 dates from 1240 or very shortly before;
2. That it collapsed in 1240;
3. That it could be identified, independent of any documentary or literary evidence, as the remnants of a gateway intended to have been approached by a timber and/or masonry bridge;
4. That its position, date range and likely function identify it as part of the ill-fated gate complex referred to in the *Chronica Majora*.

Numerous important questions of course remain, some of which might be answered through further scrutiny of the original documentary sources, or, more likely, through further excavation within the Edwardian moat[31] and between the two curtain walls. Nevertheless, the discoveries of 1995–97, elucidated by an astonishingly graphic coincidence of archaeological and chronicle evidence, can be said to have added very considerably to our understanding of the western entrance to the Tower as intended by Henry III and of the events in 1240–41.

NOTES

[1] The Tower Environs Scheme was initiated in 1995 by the Historic Royal Palaces Agency, in conjunction with three other partners, to improve the surroundings of the Tower of London.One of the proposals is to re-excavate and re-flood the Tower moat. The excavation described below formed part of a series of studies to find out if this would be possible within the constraints of conservation and technical feasibility. See E Impey & G Keevill *The Tower of London Moat*, 1997 p1 (privately circulated).

[2] *Cumque cancellarius ille in Angliam veniret, fecit Turrim Lundoniarum circumdari fossato profundissimo, sperans quod*

Tamensis fluvius perinde transiret (Chronica Magistri Rogeri de Hovedene, p33).

[3] In addition, the facing to the Tower's lower stages shows that the wall cannot have continued in any other direction.

[4] The sum was expended *ad faciendum inde diversa utensilia tam ferra quam lignea et picosiis tam aliis diversiis empcionibus necessariis emptis ad magnum fossatum faciendum circa castrum predicti Turris a tamesia versus civitatem usque ad Tamisiam versus hospitalem beate Katerine* (E 372/120, *rot comp 2*).

[5] A convincing reconstruction of the completed scheme (as in *c.*1325), in the form of a model, was installed in the Constable Tower, Tower of London in August 1997, as one of a series of improvements to the display and interpretation of the East Wallwalk. The model was built by Mick Dunk of AD Modelmaking (Frome), based on a brief prepared by Beric Morley, Jeremy Ashbee and Edward Impey. An article on the rationale behind the reconstruction and the results of new research which went into it is being prepared by Beric Morley.

[6] A drawing of the most ambitious scheme is illustrated in G Parnell *The Tower of London* (p78, fig 57). Parnell attributes it to De Gomme's own hand.

[7] I am grateful to Dr Steven Brindle for information on the construction of Tower Bridge and its approach road (*The Tower of London Moat, Wharf and Outworks*, Section IV 4.2).

[8] See J Harvey 'The western entrance of the Tower' *passim*. The existing configuration of the western entrance, including the bridge over, and on the alignment of, the north-south Lion Tower causeway, dates from the 1960s.

[9] The masonry and timber framing are clearly contemporary (see p 62 above)

[10] Emeritus Professor of Engineering and Geomorphology, Imperial College London, pers comm 1996.

[11] Pers comm, Ian Tyers and Graham Keevill.

[12] In particular the discovery of anomalies in the natural at the bottom of the west moat trench which could mark the intersection with an earlier ditch, well to the west of any known pre-13th century moat on this side of the castle. Graham Keevill pers comm.

[13] *Cartulary of Holy Trinity Aldgate*, no.964. The author is grateful to Stephen Priestley for pointing out this reference. Ambiguity about the precise meaning of the word *ballium*, used in a judicial as well as a topographic sense, leaves this issue in doubt.

[14] An entry in the Liberate Rolls in June 1239 lists the individual institutions indemnified for the 'damages they have sustained by the wall and ditch of the Tower of London. *Calendar of Liberate Rolls* 1226–40, p396; C62/13m 10. The number of claimants, and the total value of the claim – £166 – implies a substantial area. Although much of this may have lain to the east of the castle, the list includes enough claimants other than St Katherine's and Holy Trinity, who can be presumed to have owned most of the land in this area, to suggest that areas to the north and west may have been acquired as well, and thus that they were not already included in an outer bailey.

[15] Translation by Jeremy Ashbee.

[16] Translation by Jeremy Ashbee.

[17] On Paris as a historian, see R Vaughan *The Illustrated Chronicles of Matthew Paris*, vii-xiii.

[18] The house was in Bartholomew Lane, opening off Threadneedle Street. Stow wrote that 'In this street, built amongst other fayre buildings, the most ancient was of old time a house pertayning to the Abbots of St Albans'. (*A Survey of the City of London and Westminster*, I, p180.)

[19] The fact that Paris refers to Archbishop Edmund as *sanctus Aedmundus* may infer that the text was written after 1246, the year of Edmund's canonisation. Jeremy Ashbee pers comm.

[20] *Calendar of Liberate Rolls* 1240–5, p74. The original text (C 62/15 m4) reads: *Precepimus tibi quod per visum Ricardi clerici de Sarum et Roberti de Basing et Petri Bacun custodum operacionum turris nostre Londinie extrahi faciat plumbum et bordas que iacent subtus Turrim que nuper corruitm et maeremium et francam petram coadunari et in loco competenti locari.* The author is grateful to Stephen Priestley for transcribing this entry.

[21] For the last three see S Rigold 'Structural aspects of medieval timber bridges' pp 73, 79, 81 and figs 28, 31 and 32.

[22] Jean Mesqui writes concerning the interpretation of the timbers as having lain beneath a stone pier: 'This would seem most unrealistic. It is impossible to imagine why the builders would have thought it necessary to place wooden frames beneath the piers, even though no timber was placed under the masonry platform. In addition, it is hard to understand why they would have needed beams linking the frames, while in fact the beams would have been more suited as a base for the lowest courses of masonry'.

With regard to the idea that the horizontals might have surrounded the base of a stone pier, Mesqui writes that 'this has the advantage of being in keeping with the framing around the masonry platform. But what could have been its function? I can only see it having served as a template for building the foundations, but this seems most unlikely'. Pers comm 1997.

[23] As suggested by John Steane.

[24] As suggested by Beric Morley.

[25] As suggested by Julian Munby.

[26] See, for example, C Platt *Dover Castle* p17. The upper part of the tower was rebuilt in the 15th century, but the transition from square to polygonal is original.

[27] Lindy Grant has pointed out that the banded effect may have been intended to give the building a Roman appearance. Nicola Coldstream has suggested that the

resulting banded appearance of the building, and perhaps others associated with it, may have been the inspiration for Edward I's use of the motif at Caernarvon and elsewhere, rather than more exotic sources such as the Theodosian walls at Constantinople which are usually suggested.

[28] Such as the order on 14 December 1249 for the 'king's buildings in the Tower to be repaired and roofed' (*Calendar of Liberate Rolls* 1245–1251, p243).

[29] The author is grateful to Stephen Priestley for examining these sources in detail.

[30] For the political and military impact of these events on the Tower of London and Henry III's use of it, see D Carpenter *The Reign of Henry III*, pp 199–209.

[31] In reality, this will only happen if Historic Royal Palaces's proposal to re-excavate and re-flood the moat is carried out.

ACKNOWLEDGEMENTS

The archaeological discoveries described above were made during the excavations 1995 to 1997, directed by Graham Keevill of the Oxford Archaeological Unit on behalf of Historic Royal Palaces, and this article could not have been prepared without the information, interpretation, advice, comments and other help which he has constantly provided. Particular thanks are also due to the following for their assistance: Jeremy Ashbee, for help with many points of interpretation and for the translations printed above; Dr John Blair, Dr Lindy Grant, Anna Keay, Professor Gwyn Meirion-Jones, Dr Geoffrey Parnell and John Steane for reading and commenting on the text in draft; Dr David Stockton for verifying various points of translation; Stephen Priestley and Dr Lucy Vinten Mattich for thoroughly trawling the documentary record and commenting on its significance; Jean Mesqui for commenting at length on the interpretation of the medieval bridge structure; to Duncan Wood, assistant site Director 1995–97, and other Oxford Archaeological Unit staff for their heroic efforts under exceptionally difficult site conditions; to HRPA staff, particularly those at the Tower of London working on the Tower Environs Scheme, for their various contributions.

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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

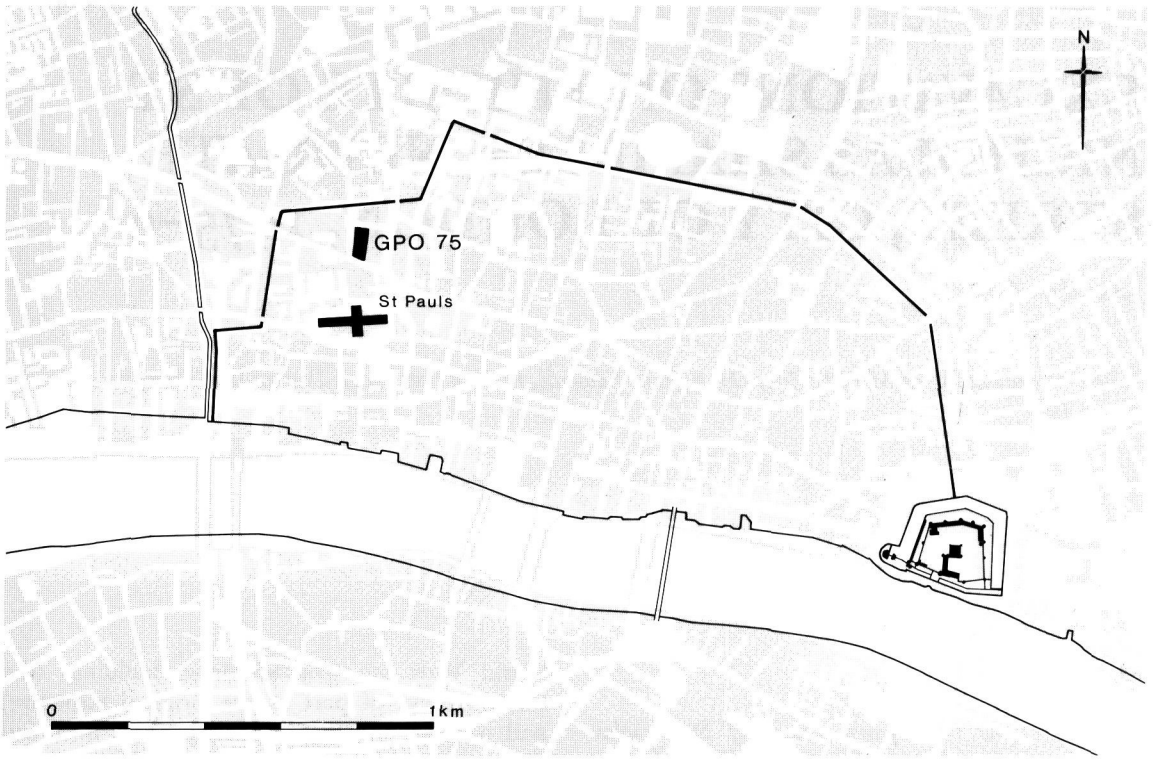

Fig 1. Location of the Newgate Street site (GPO75) within the medieval and modern City of London

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 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

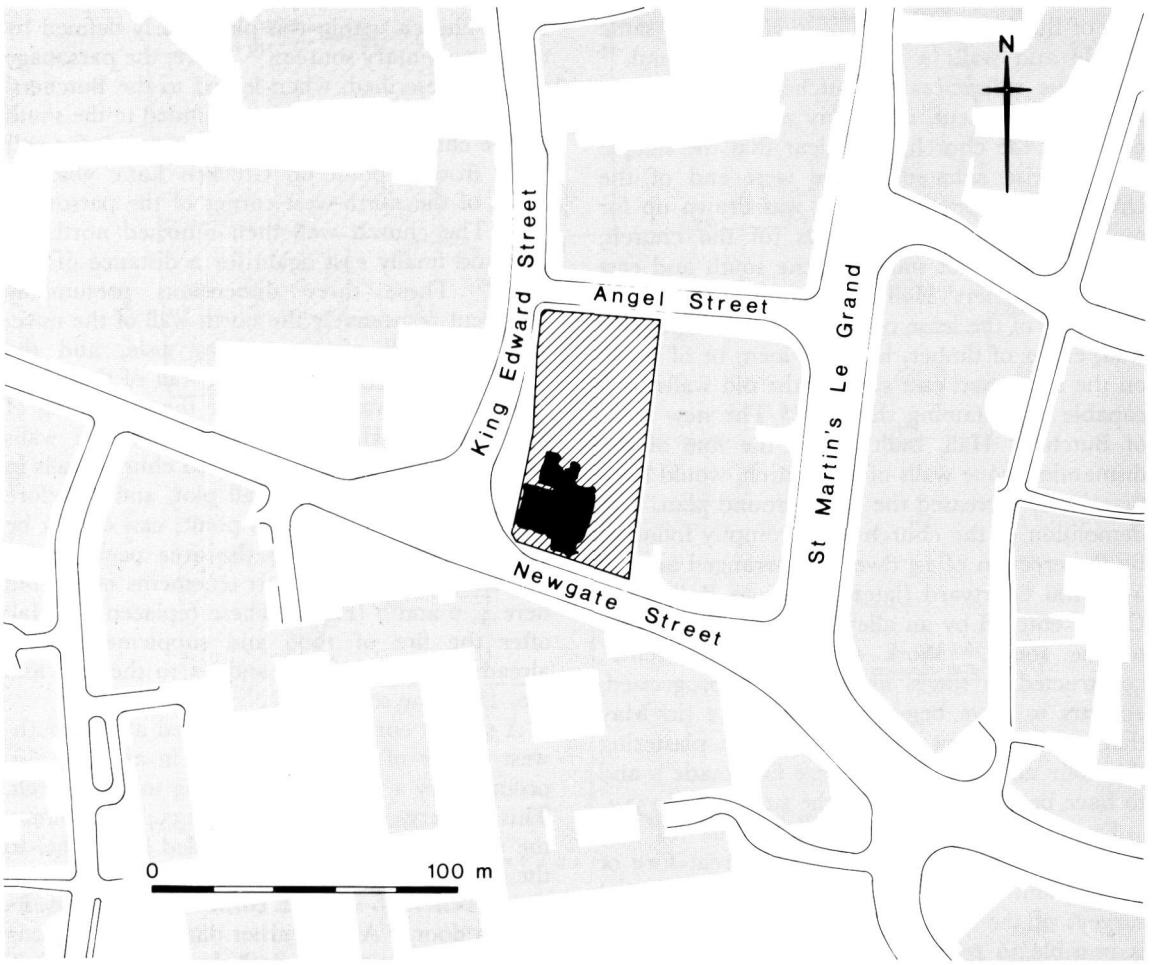

Fig 2. Location of site in Newgate Street in the modern City of London, showing the excavated area of GPO75 in black, and the wider area of archaeological investigation (which included the POM79 site to the north) as diagonal hatching

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 3/4 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

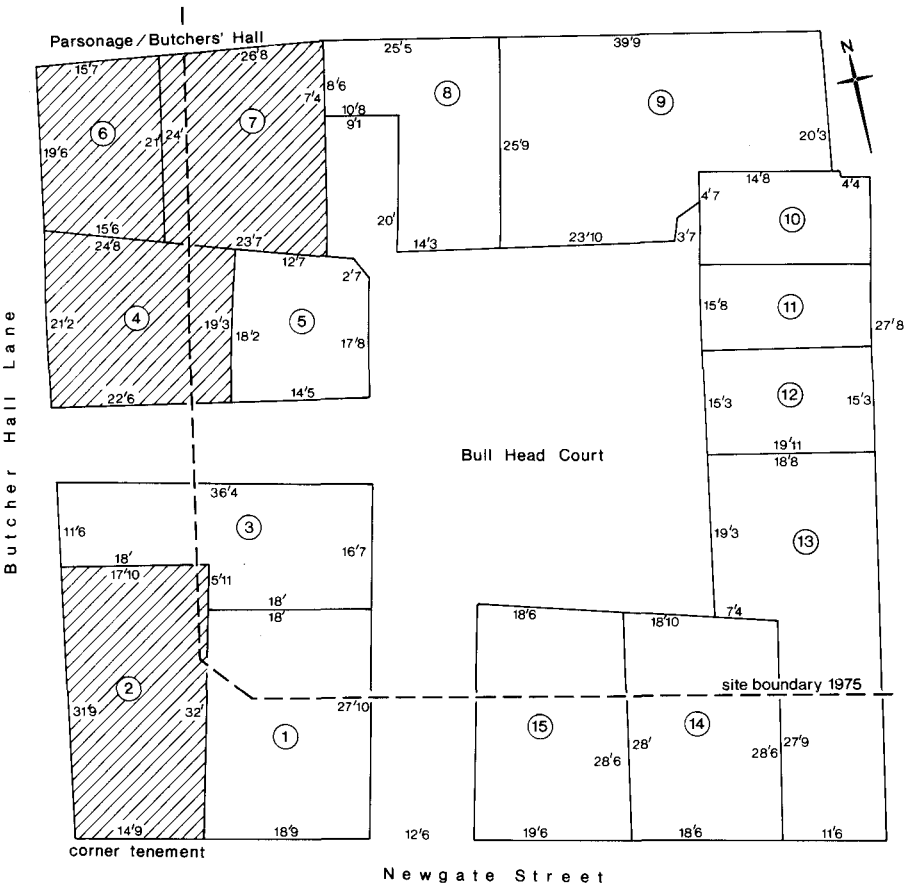

Fig 3. Reconstructed plan of Bull Head Court in the early 19th century, from several documentary surveys

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 24*s* 8*d*.[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 26*s* 8*d*.[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 13*s* 4*d*;[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 13*s* 4*d*. 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 HaI/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 26*s* 8*d* (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

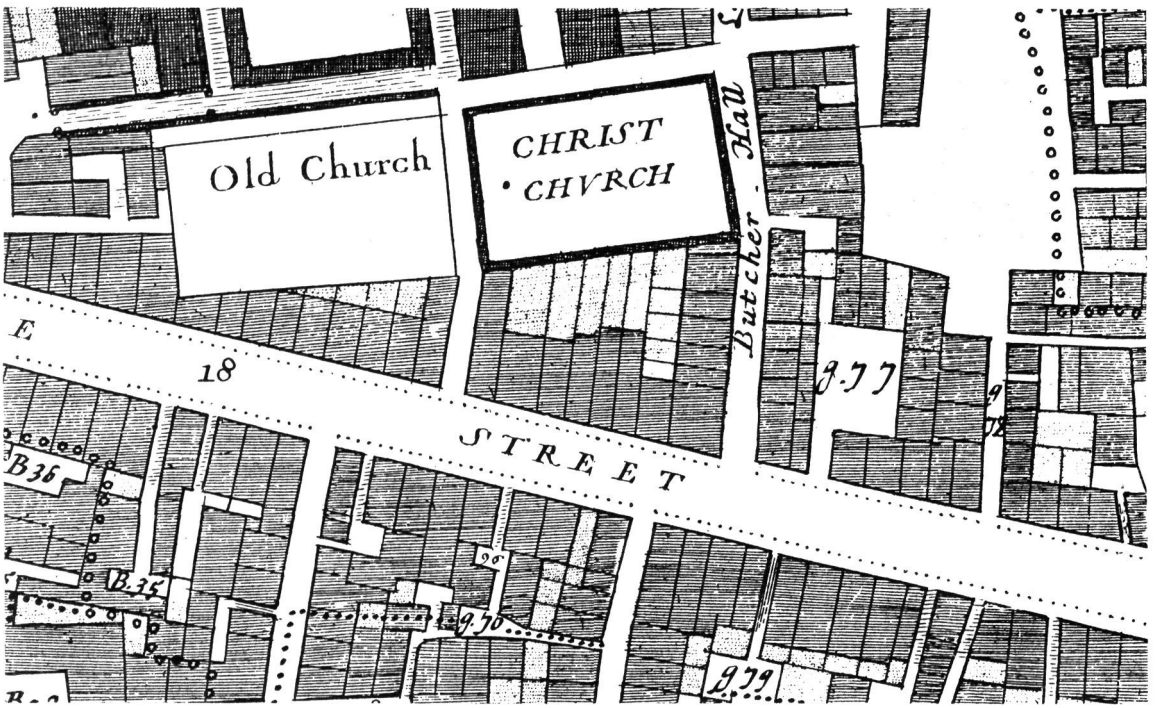

Fig 4. The area of Bull Head Court (g77) on Ogilby and Morgan's map of 1676

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

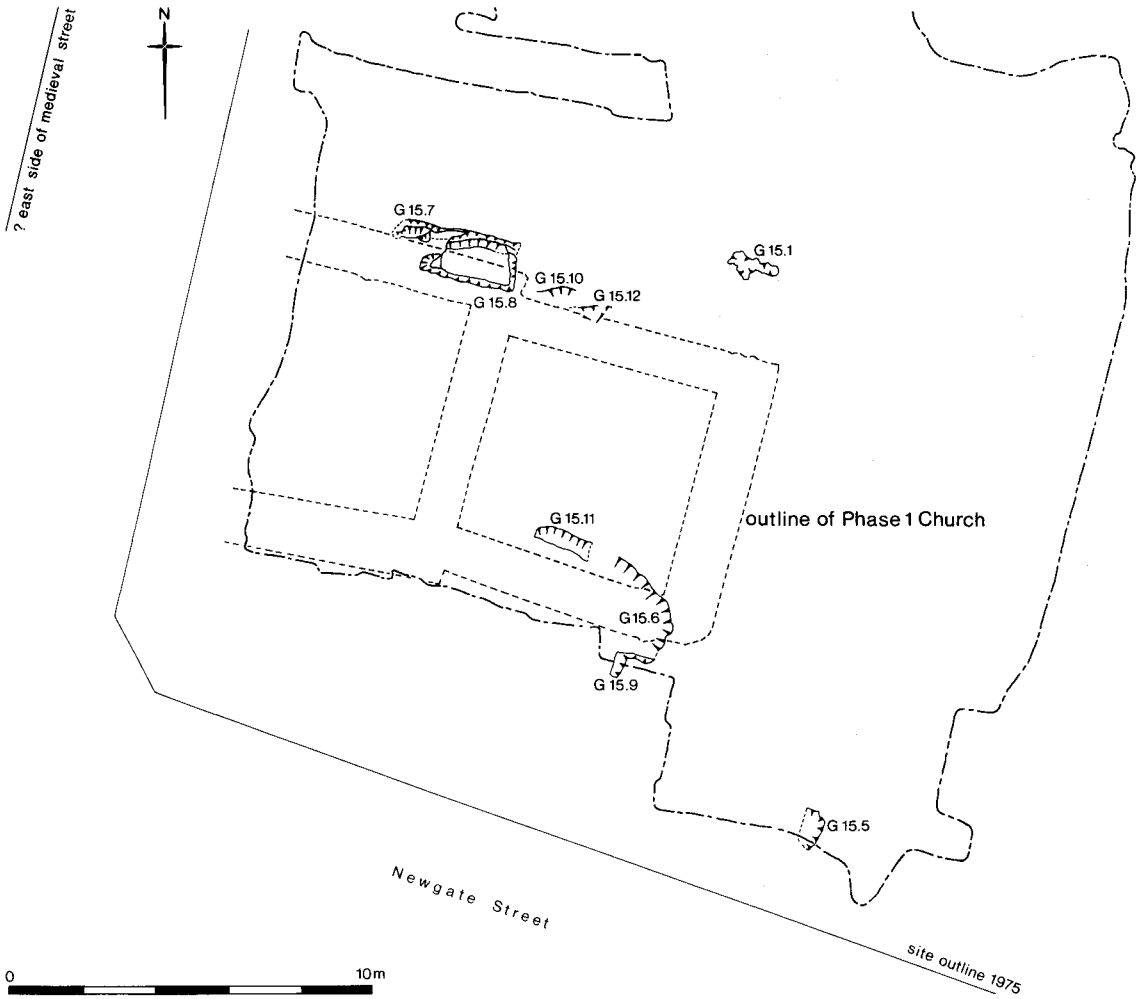

Fig 5. Group 15 pits preceding the church

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

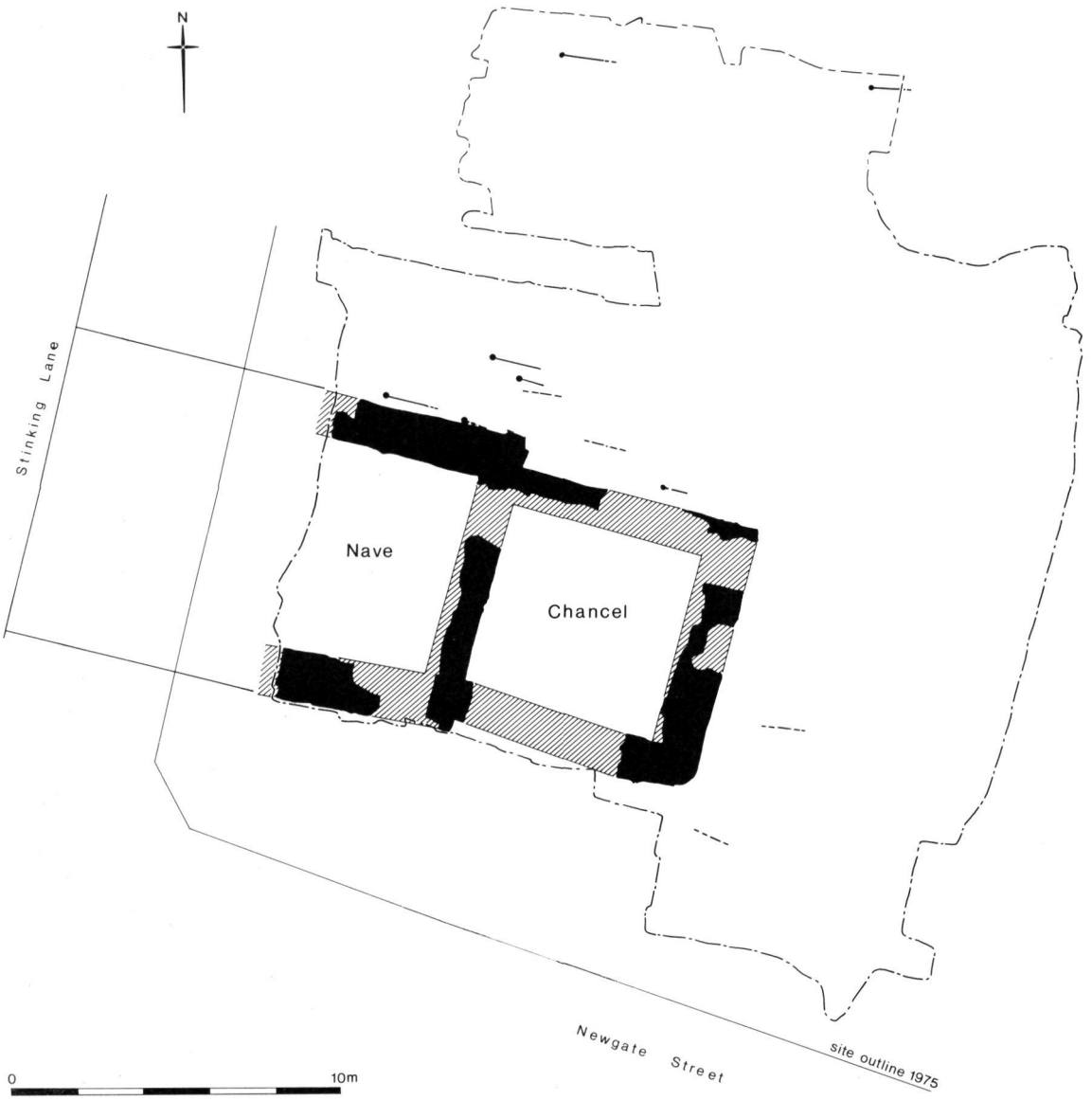

Fig 9. Phase 1 of the church

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

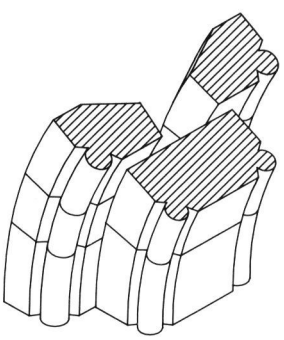

Fig 11. Reconstruction of a section through a 12th-century arch from stones <3337> and <3261> (Fig 29, Nos 1 and 2)

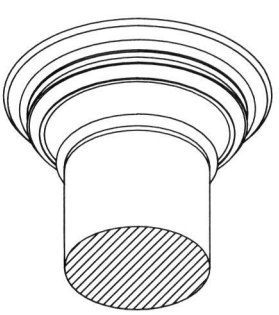

Fig 12. Reconstructed original form of pier capital of 1270–1330, stone <3336> (Fig 30, No. 13)

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 × 100mm units

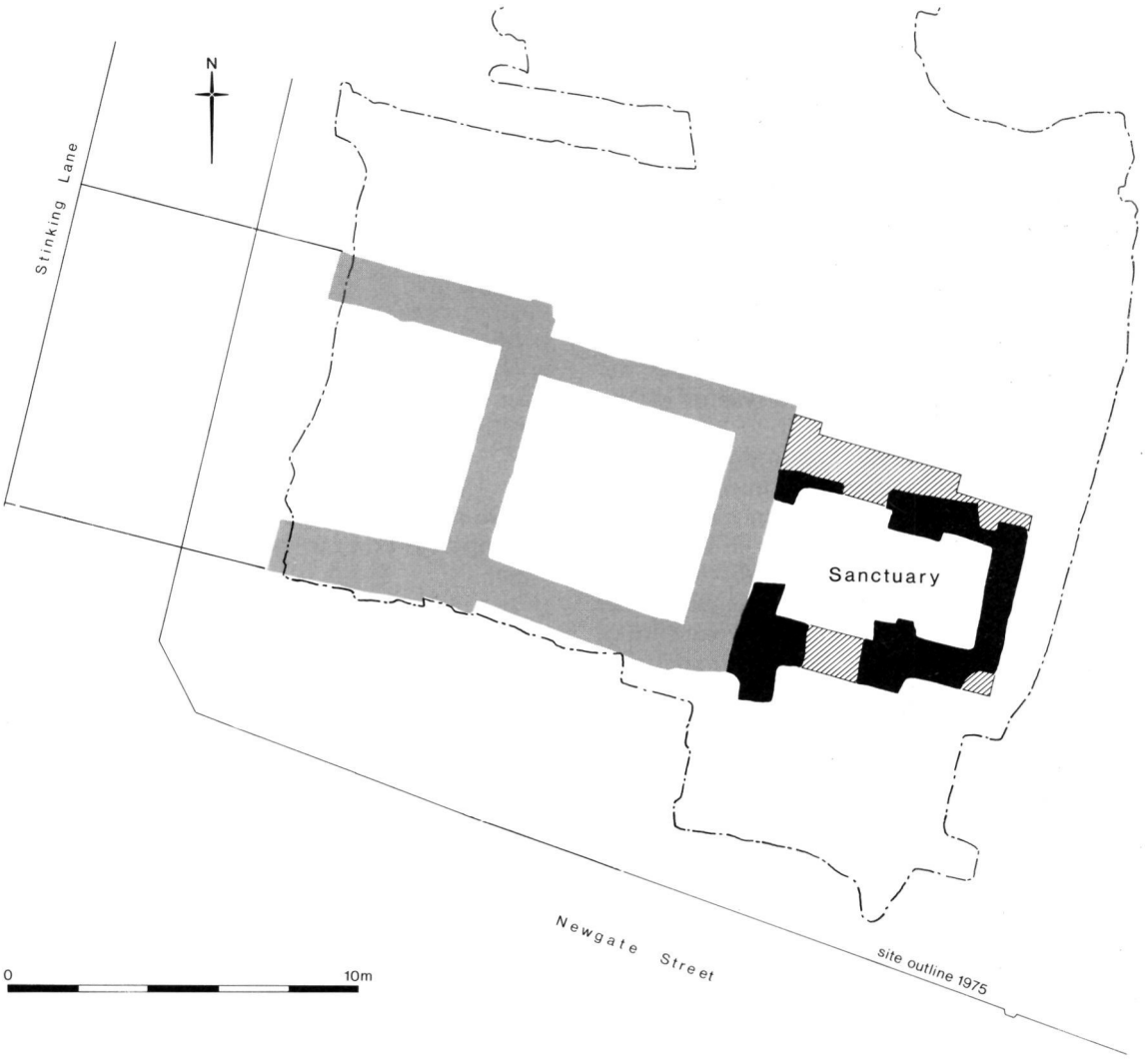

Fig 14. Plan of phase 2 of the church

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

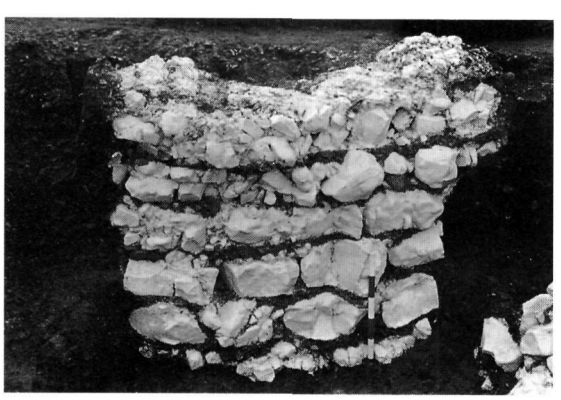

Fig 16. Section through the foundation of phase 2 church on the south side, looking east (for position see Fig 6). Scale is 5 × 100mm units

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

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

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

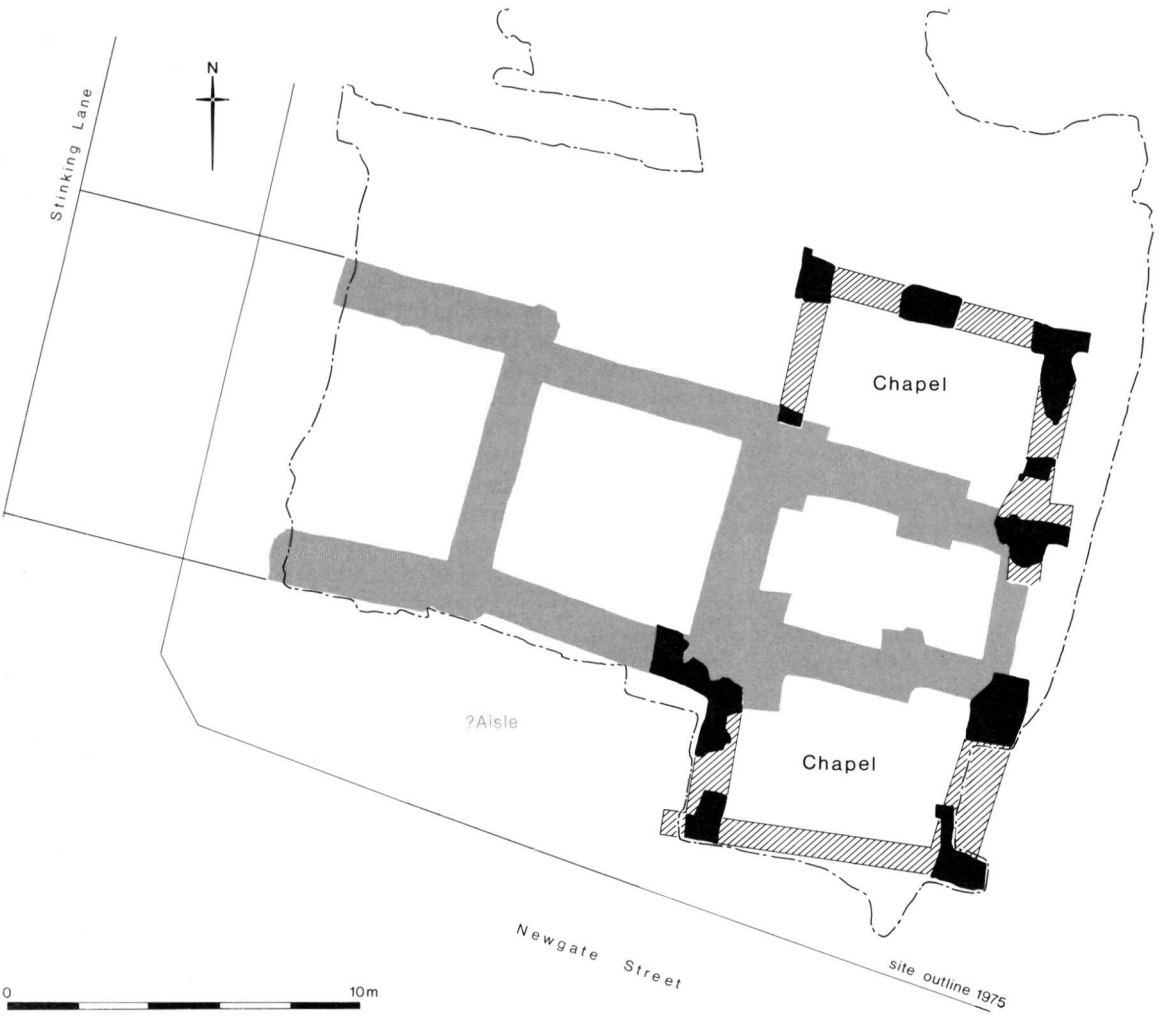

Fig 18. Plan of phase 3 of the church

rooftile 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

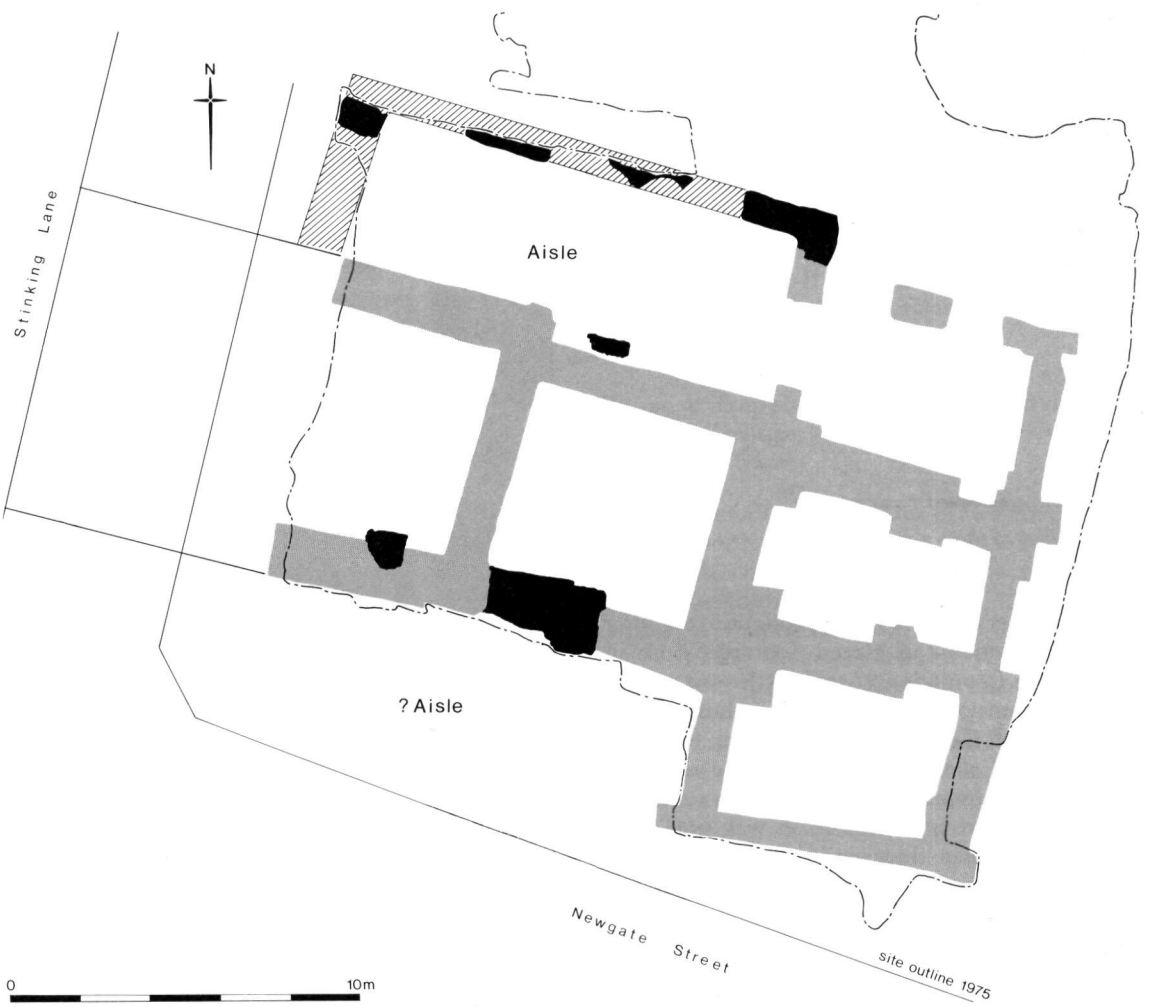

Fig 19. Plan of phase 4 of the church

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

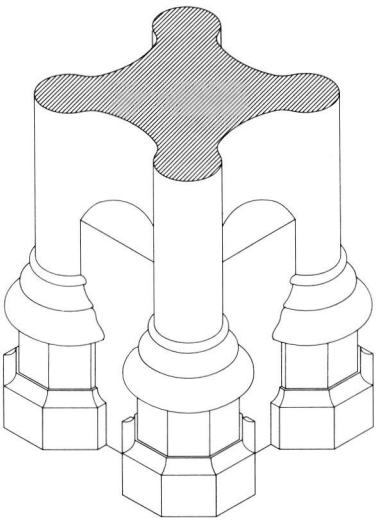

Fig 20. A possible reconstruction of a nave arcade pier based on stone <3373> (Fig 34, No. 78)

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,

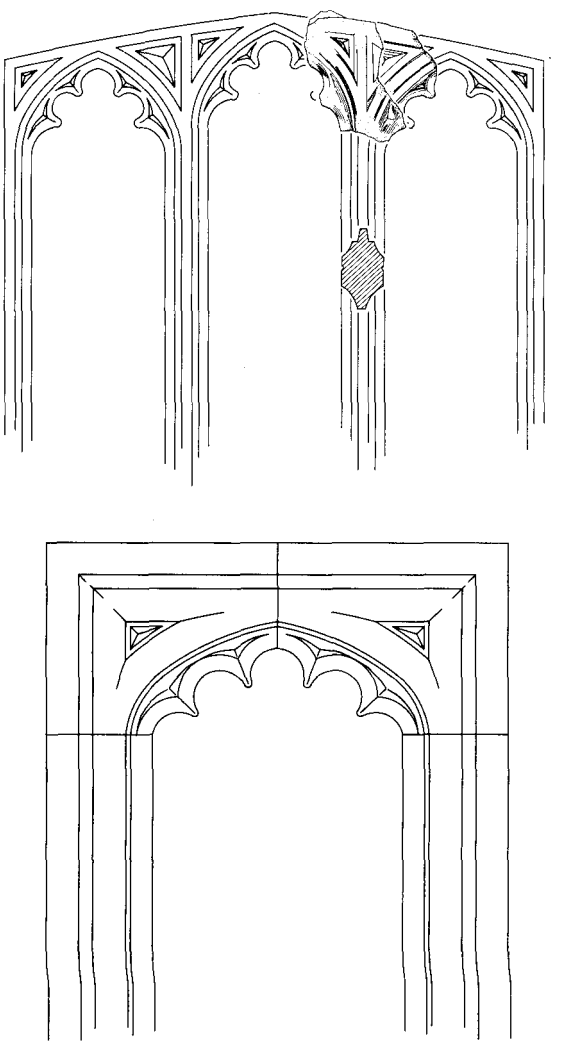

Fig 21. Reconstructions of windows from St Nicholas Shambles: (a) a three-light window of 1375–1450 reconstructed from stones <3249>, <5532> and <5565> (Fig 33, Nos 58–61) and others; (b) a single-light window of 1400–1550 reconstructed from stone <3375> (Fig 34, No. 80)

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.

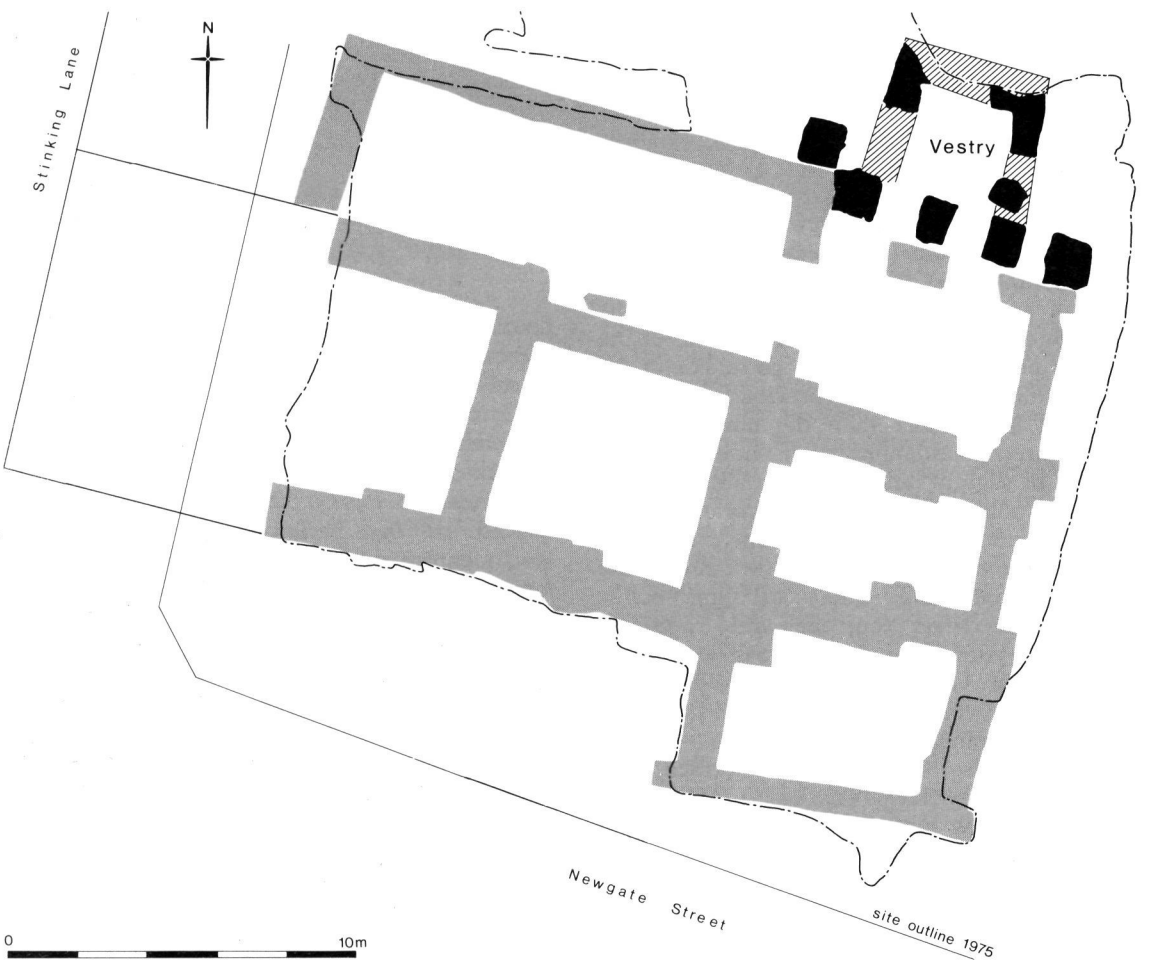

Fig 22. Plan of phase 5 of the church

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

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

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

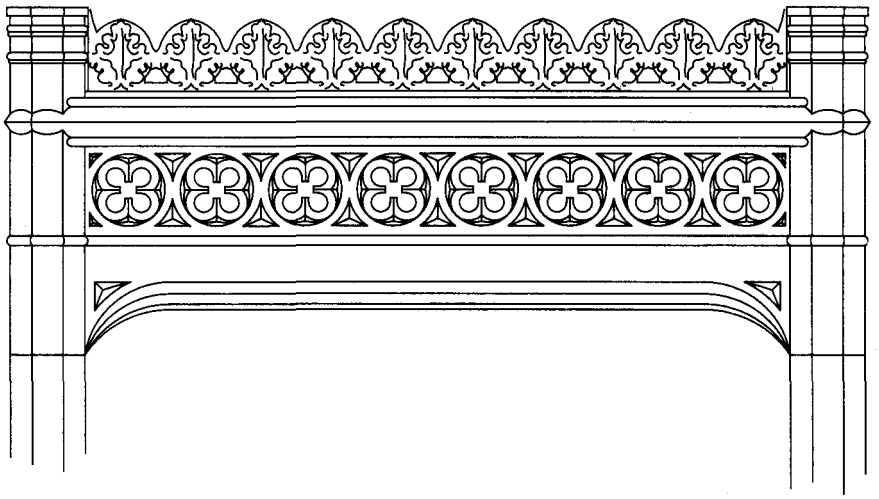

Fig 25. Reconstruction of the canopy of a monumental tomb of 1475–1500, from stone <3655> (Fig 35, No. 84)

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)

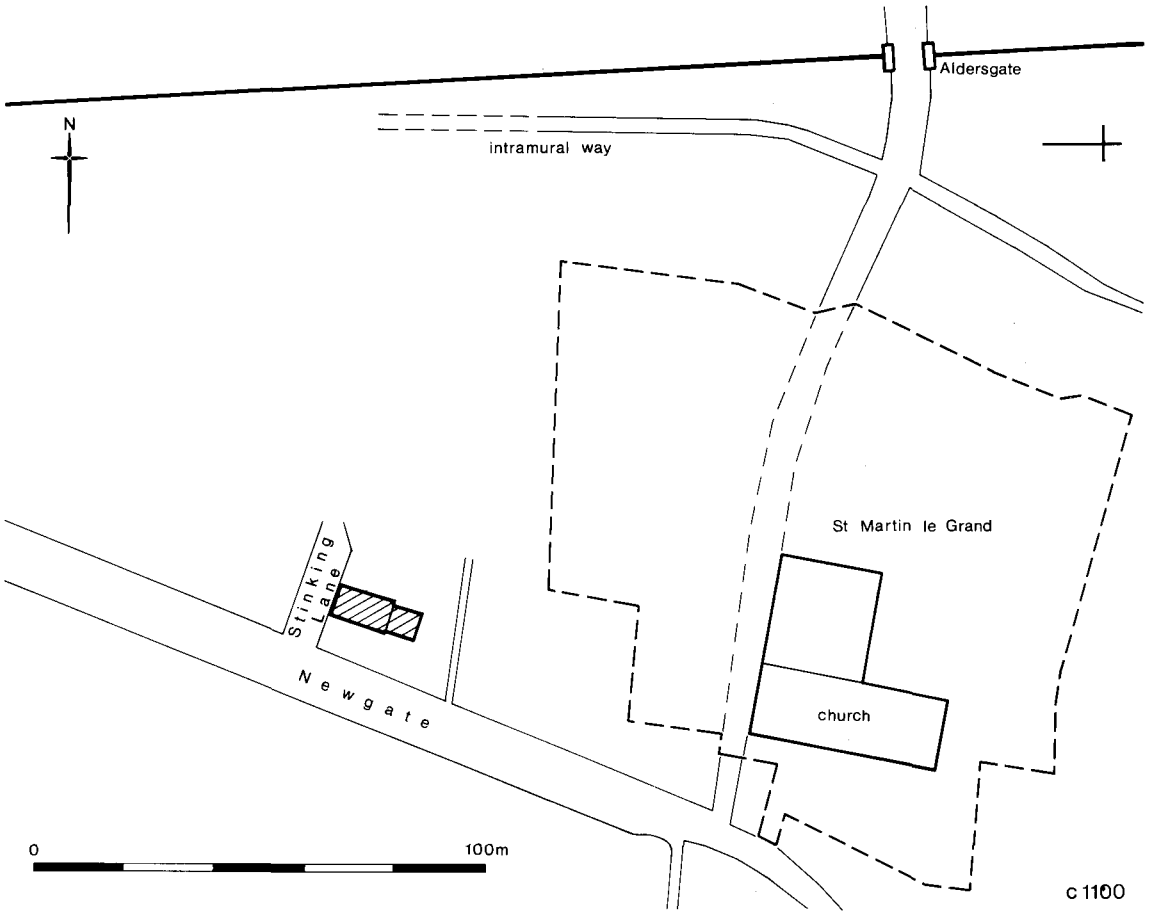

*Fig 27a. Sketchmap of the setting of the church near Aldersgate and the precinct of St Martin's le Grand, c.*1100

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

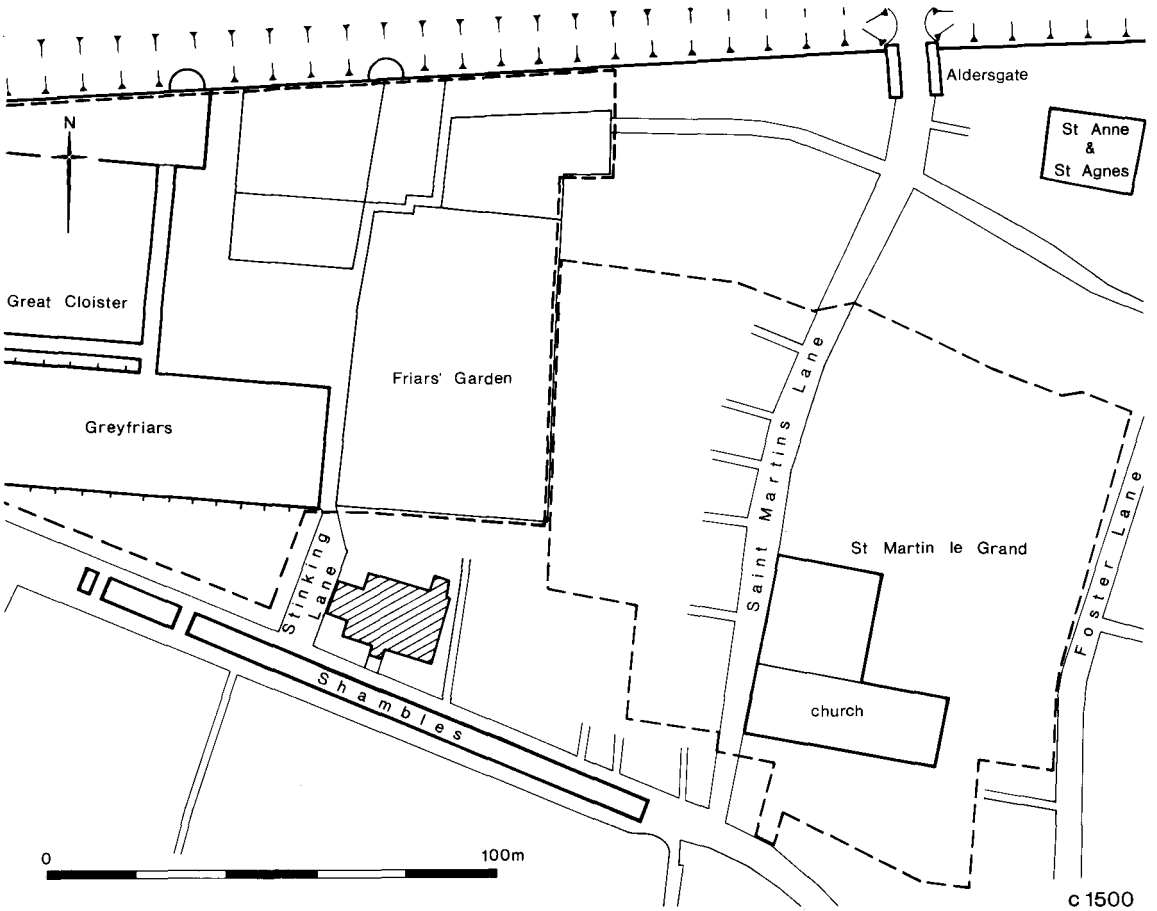

*Fig 27b. Sketchmap of the setting of the church near Aldersgate and the precinct of St Martin's le Grand, c.*1500

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 smallfind 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

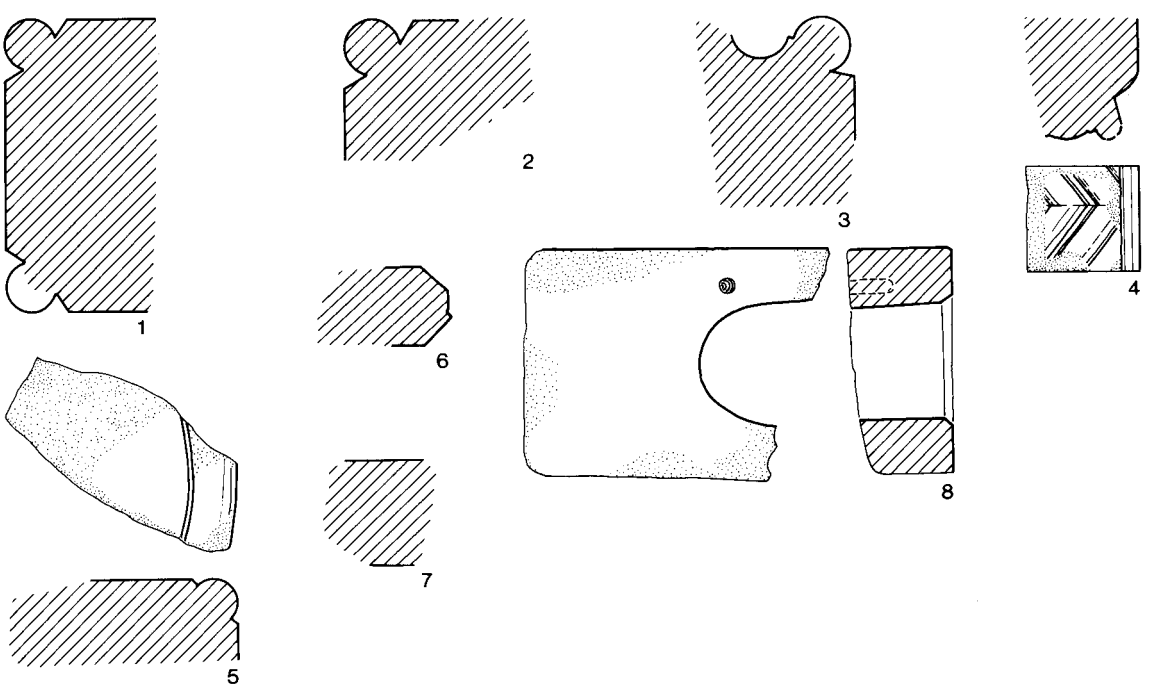

Fig 29. Moulded stone types 1–8. Scale 1/8

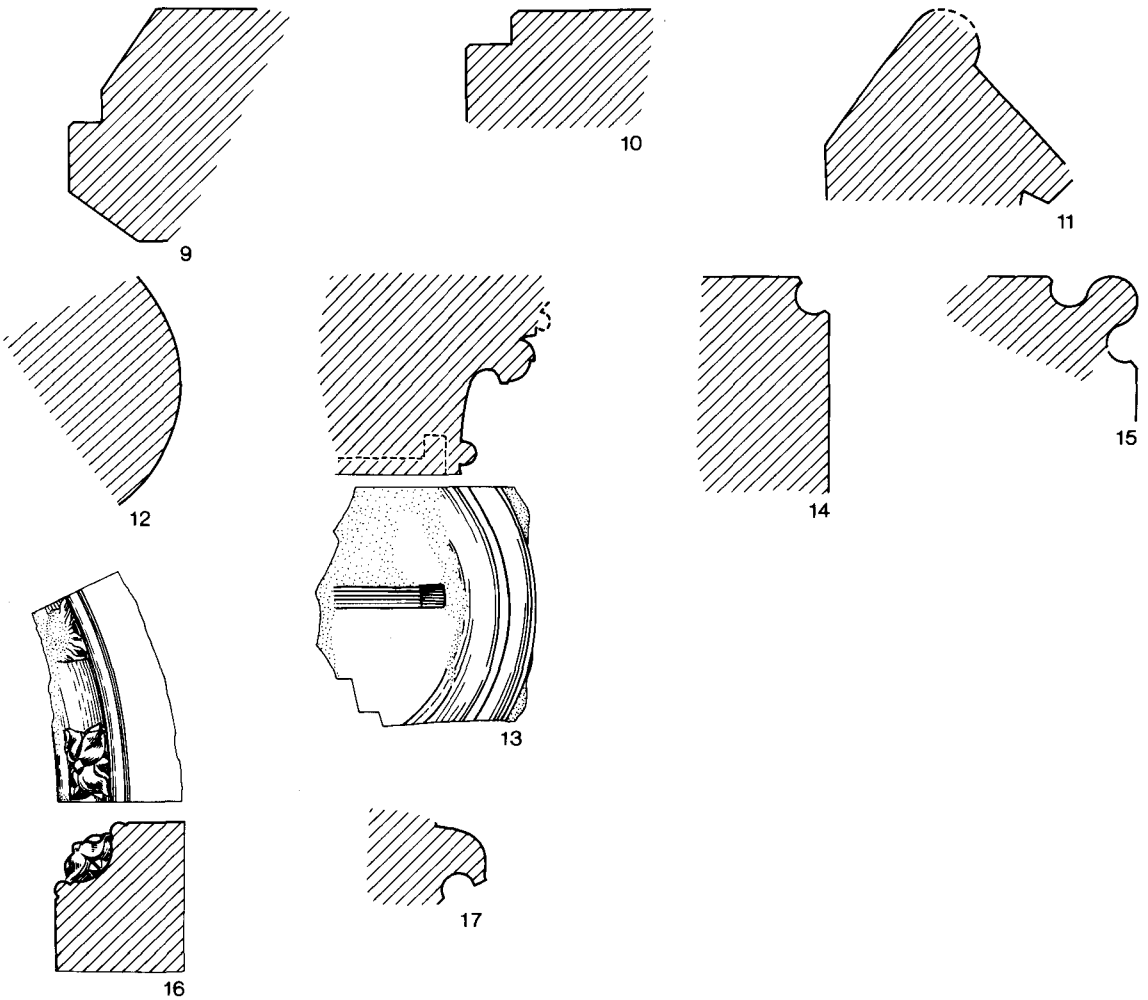

Fig 30. Moulded stone types 9–17. Scale 1/8

parallelled 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.*0.38m 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.*0.38m 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].

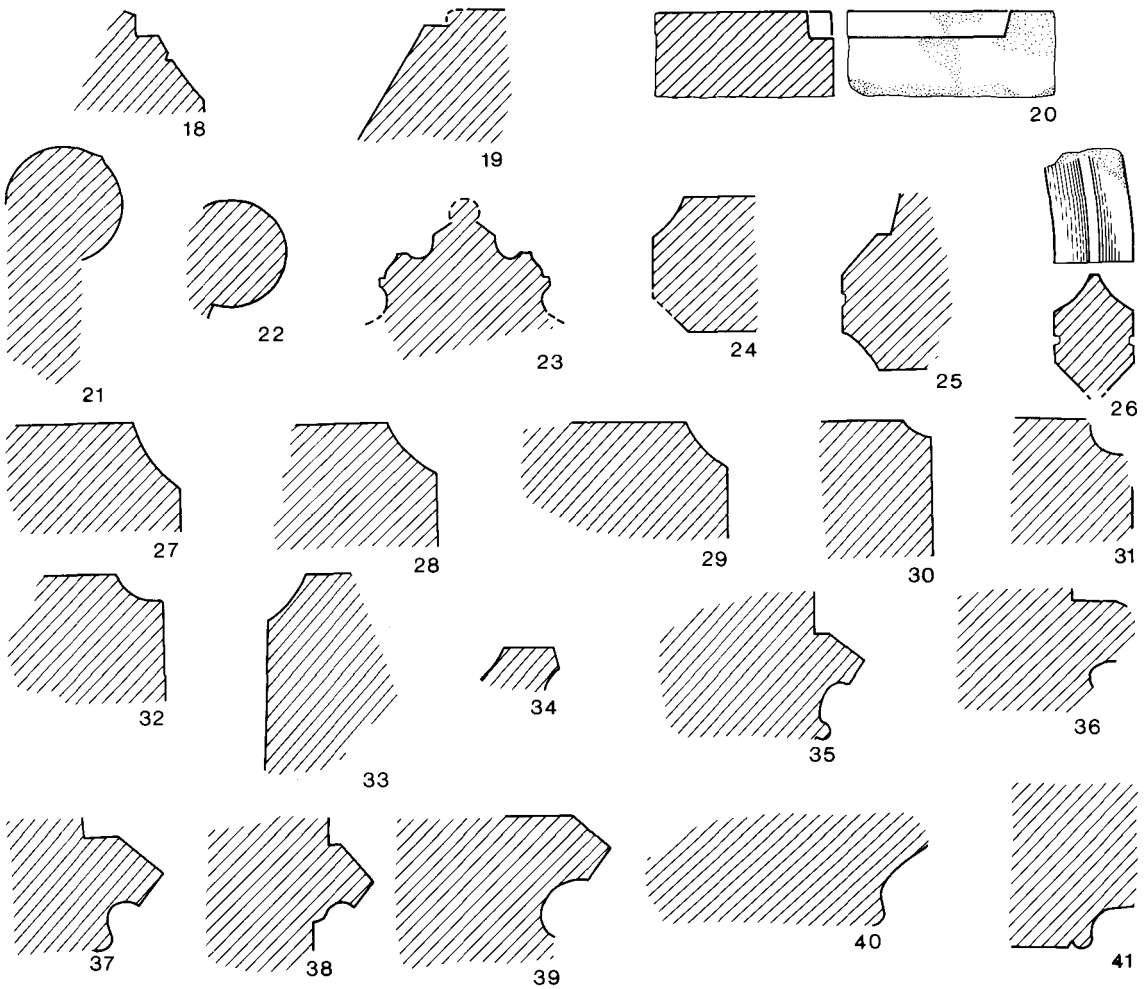

Fig 31. Moulded stone types 18–41. Scale 1/8

<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].

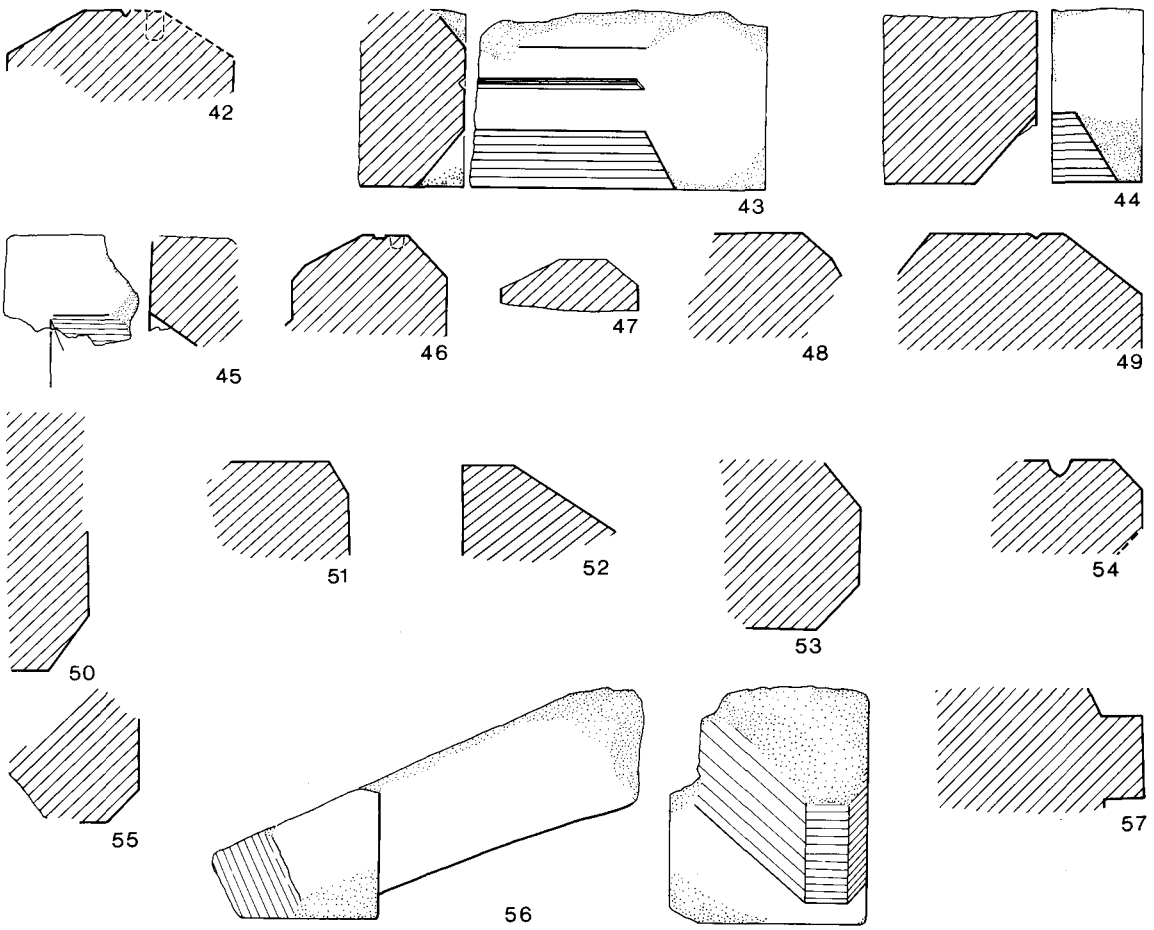

Fig 32. Moulded stone types 42–57. Scale 1/8

<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 at 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 radiussed suggesting that the form may have been used only as an arch moulding and was not continued in the jamb.

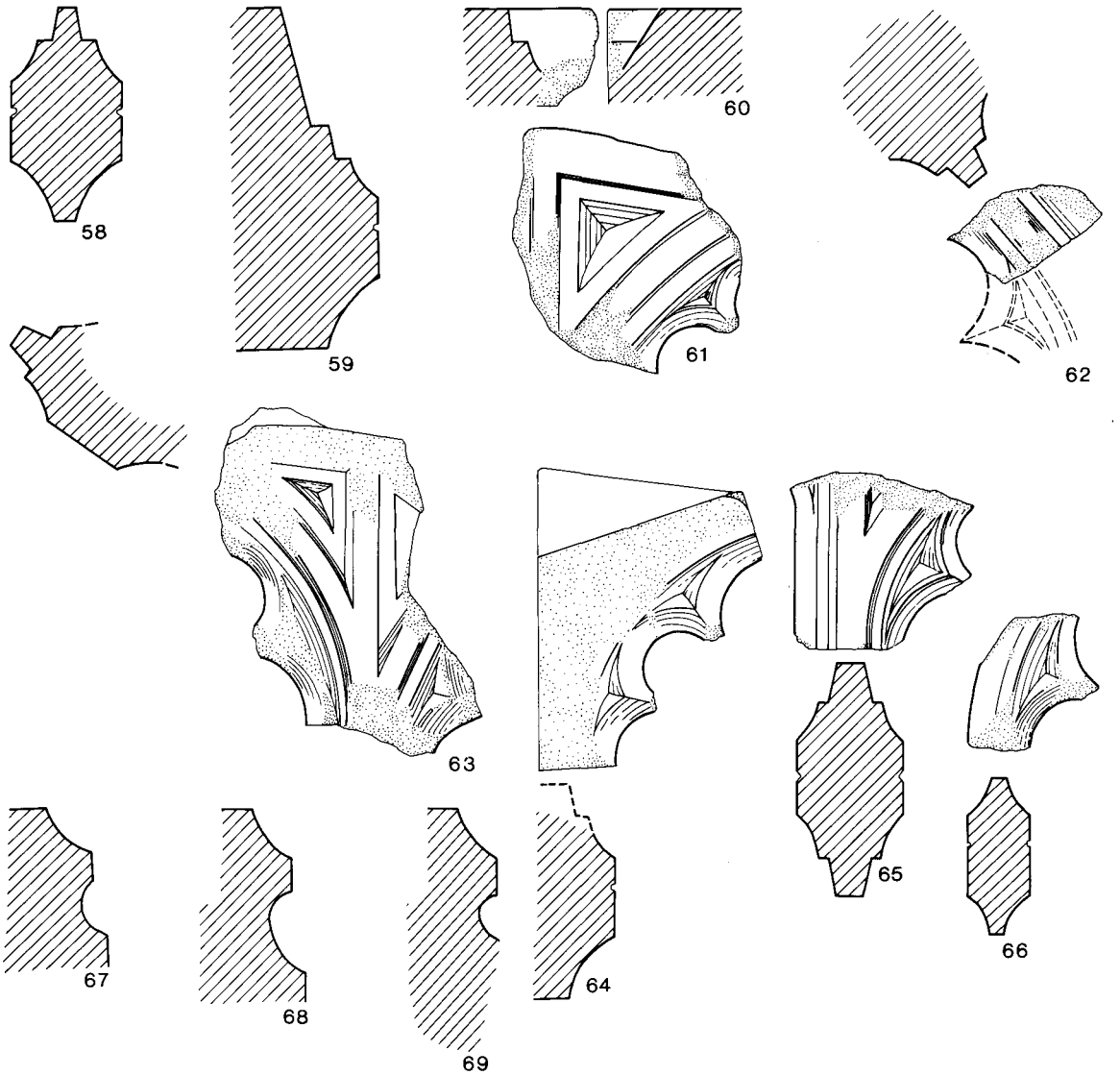

Fig 33. Moulded stone types 58–69. Scale 1/8

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.

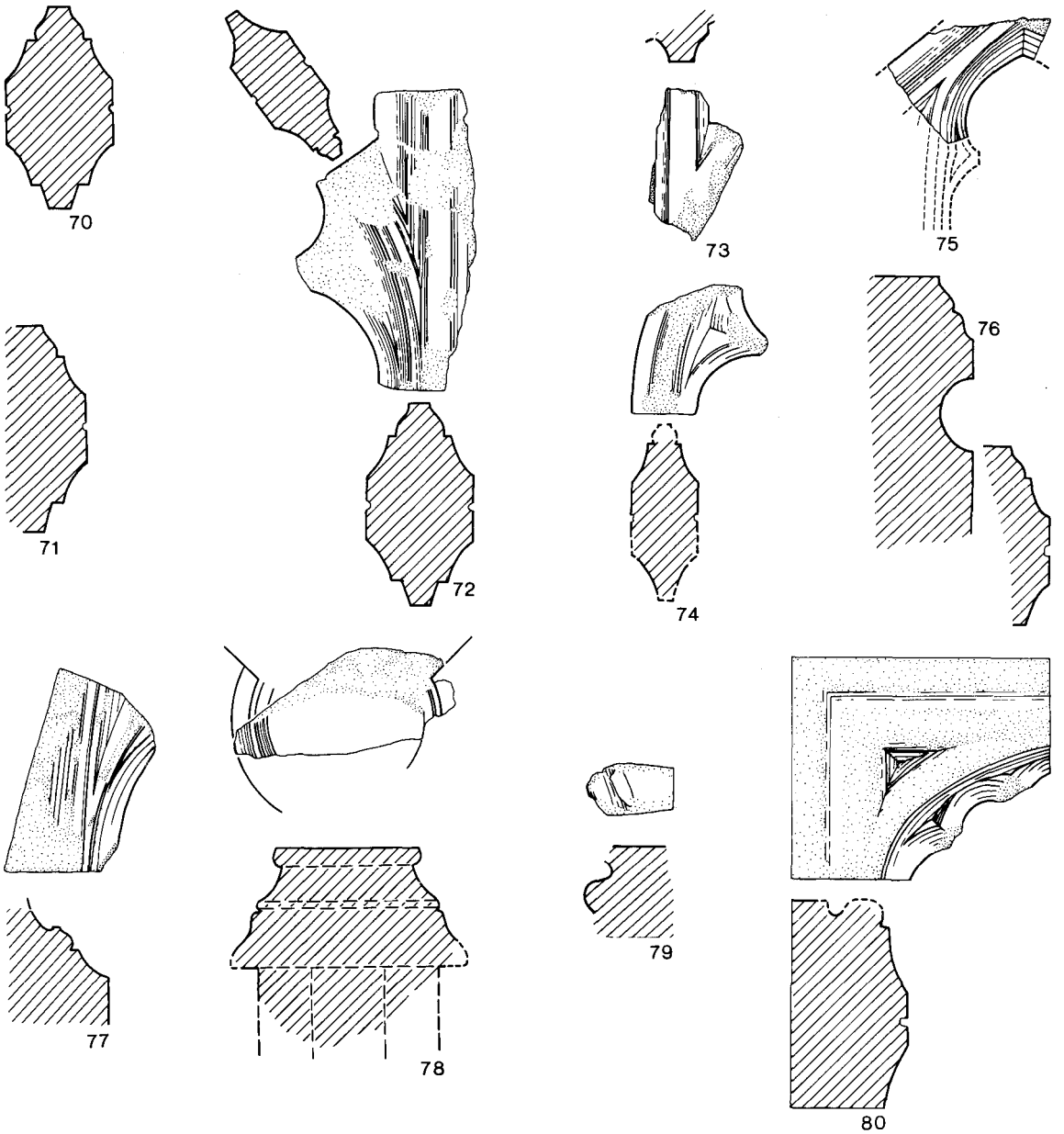

Fig 34. Moulded stone types 70–80. Scale 1/8

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 crocketted 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

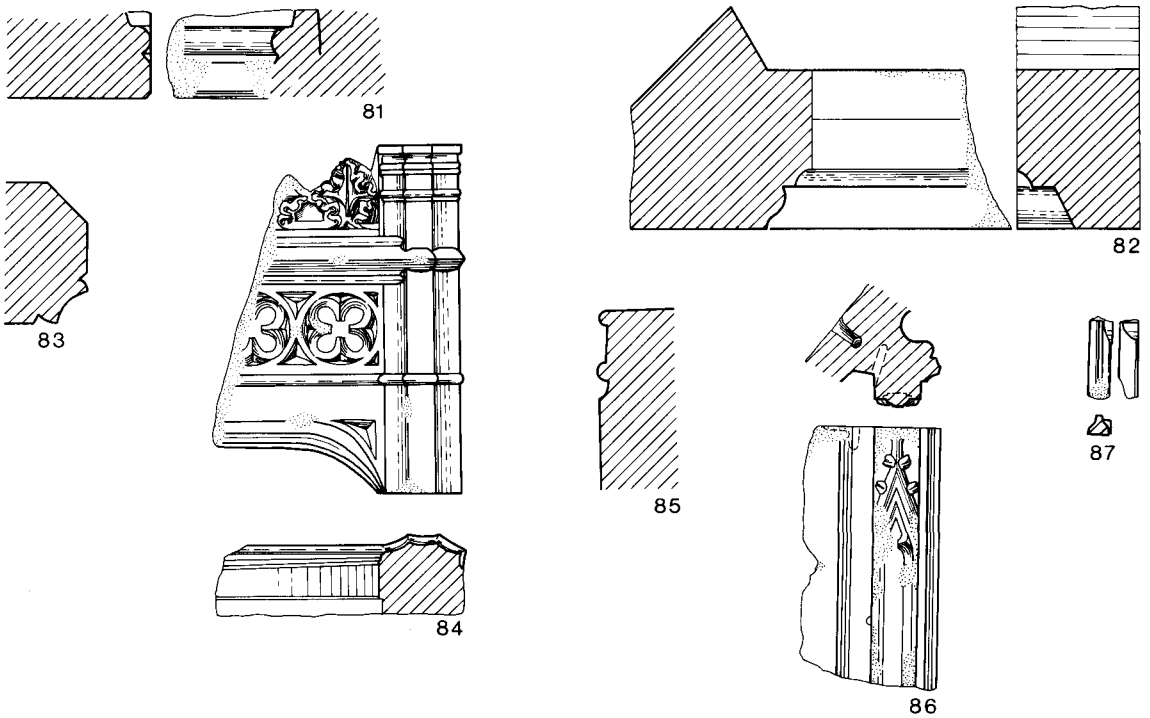

Fig 35. Moulded stone types 81–7. Scale 1/8

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 crocketted 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 preceeding 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 occurence 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 mislabled 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

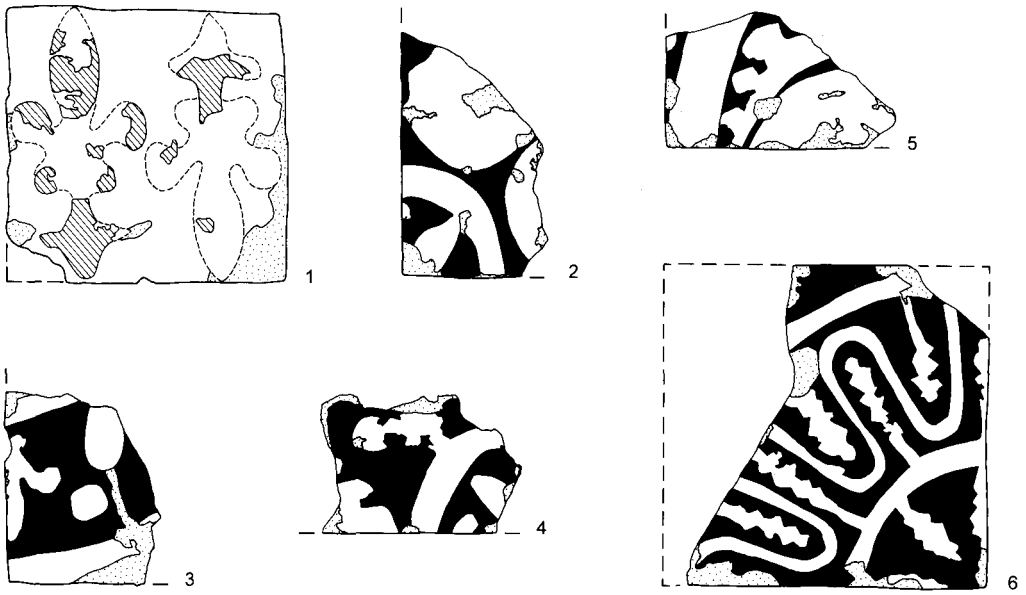

Fig 36. Decorated floor tiles: 'Westminster' type (1) [1055] <4518>, (2) [3932] <5044>, (3) [3939], (4) [3920] <5789+5791>; Penn type (5) [262] <2532>, (6) [1055] <4975> & [3962] <4527>. Tile 1 is so badly worn and indistinct that the remains of slip are shown hatched; on other tiles it is shown white.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

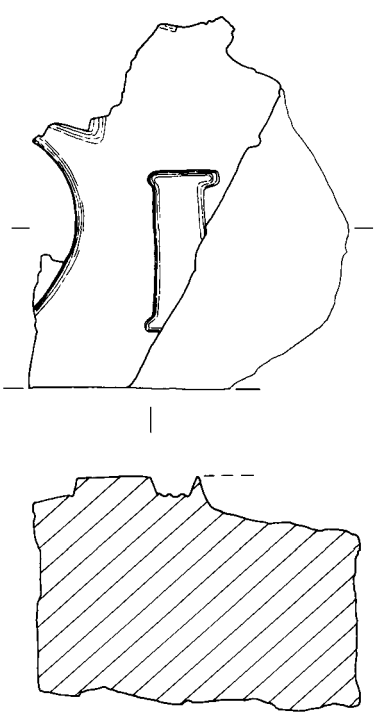

Fig 37. Purbeck marble grave slab fragment [3962] <3118>. Scale 1/2

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

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 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 neigbourhood 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 occurence 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 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 incorportated 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 thumbed 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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PIETY AND BELIEF IN 15TH-CENTURY LONDON: AN ANALYSIS OF THE 15th-CENTURY CHURCHWARDENS' INVENTORY OF ST NICHOLAS SHAMBLES

Helen Combes

SUMMARY

This paper is based upon a study of the surviving inventory (but not the Churchwardens' Accounts) of the church of St Nicholas Shambles. The inventory, along with the accounts, are currently held in the Archives department of St Bartholomew's Hospital in Smithfield. The inventory gives an interesting insight into the liturgical practices and beliefs of the church and parishioners in the mid 15th century.

THE CHURCH

> 'Then there was of old times a proper parish church of saint Nicholas, whereof the said flesh market tooke the name, and was called S. Nicholas Shambles. This Church with the tenements and ornaments, was by Henrie the eight given to the maior and communaltie of the Citie, towards the maintenance of the new parish Church, then to be erected in the late dissolued church of the Gray Friers: so was this church dissolved and pulled downe. In place wher of, and of the churchyard, many fayre houses are now builded in a court with a wel, in the middest whereof the churche stoode.' (Stow 1908, 316)

The parish church of St Nicholas Shambles, mentioned here in the 16th century by John Stow in his *Survey of London*, stood directly to the north of St Paul's Cathedral in an area known as the Flesh Shambles where many of the City's butchers lived. An entry for February 1370 in the Assize of Nuisance suggests that the parish may not always have been the most pleasant place in which to live.

> 'Brother Robert de Madyngton, guardian of the Friars Minor, complains by Robert de Watlyngton, his attorney, that Richard Bayser, 'bocher' and Emma his wife have built a 'skaldynghous' in their tenement in Pentecostlane in the parish of St Nicholas Shambles, in which they slaughter pigs and many other animals, and the water mixed with the blood and hair of the slaughtered animals, and with other filth from the washing (lotura) [of the carcasses], flows into the ditch or kennel in the street, through which it is carried into the friar's garden, causing a stench in many places there.' (Chew & Kellaway 1973, 142, no.569)

In addition to the butchers, the area around St Paul's also included a concentration of the City's illuminators (limners), stationers and bookbinders. Analysis of the records of the Wardens of London Bridge in the 15th and 16th centuries reveals 56 book craftsmen leasing shops in Paternoster Row alone. Out of 136 stationers in the area of St Paul's, 119 came from the seven parishes closest to St Paul's: St Faith the Virgin, St Augustine, St Michael le Querne, St Botolph without Aldersgate, St Nicholas Shambles, St Sepulchre without Newgate, and St Bride's, Fleet Street. Many legal scriveners also lived within these parishes (Christianson 1990, 33). By the 15th century the London book trade had grown considerably, its pool of talent often fed by men who had trained elsewhere and been subsequently attracted to the City. However, whereas the Butchers' Company, the other trade group to congregate particularly in the parish of St Nicholas Shambles, although not one of the 12

major Companies, could be counted amongst the larger guilds in civic life by the late medieval period, the Stationers' mistery by contrast, remained among the smaller of the guilds and the craft itself was ultimately unable to compete with the arrival of the printing press. As well as being close to St Paul's the parish was neighbour to both St Bartholomew's Hospital and the Franciscan Convent of the Greyfriars in Newgate Street, whose great church and precincts had been built in the 1220s with substantial lay support.

There are now no physical remains above ground of the parish church of St Nicholas Shambles. The history of the church and its congregation must, therefore, be re-created from documentary and archaeological sources. Amongst these are the surviving churchwardens' accounts and a detailed inventory, and it is upon this inventory that this dissertation is based. The churchwardens' accounts run from October 1452 to September 1526.[1] The volume is bound with the inventory first, followed by the account of the hallowing of the bells ceremony, and finally the financial accounts of the churchwardens. Subsequent churchwardens' accounts for St Nicholas Shambles which date from 1526 to 1546/8 (when the parish was combined with that of St Audoen's to make that of Christchurch) are bound at the front of the first Governors' minute book of the re-founded St Bartholomew's Hospital, Smithfield.[2] Unfortunately the inventory itself is undated. However, subsequent research has revealed in the main body of the Churchwardens' Accounts an entry recording payment for the writing of the inventory of the church goods dated February 15th 1457.

THE INVENTORY BOOKS

In total, 33 books are listed in the inventory of St Nicholas Shambles for general liturgical and spiritual use: this excludes those held for use in chantries of the church such as that dedicated to Our Lady.[3] Approached simplistically in terms of the total number of volumes held, this compares well with the details given in surviving inventories of the period already published (Simpson 1868; Freshfield 1887; Goss 1933). For instance, the total number of books held and listed in the inventory of St Peter Cheap dated 1431, in a parish described as wealthy and having within its boundaries a substantial number of goldsmiths, was 33; that of St Stephen Coleman Street in 1466 totalled 34. Generally, the types of books listed are similar, there are occasional variations in proportionate numbers, which probably reflects nothing more than the vagaries and whims of the original donors and purchasers of such books as they attempted to meet the church's requirements both under Canon Law and in terms of local preference.

First to be mentioned in the St Nicholas inventory are mass books, of which there were six, including one described as being 'for Seint Thomes auter' and one 'ynoted'; that is with the music needed for the singing of the mass. As seems to have been the case in other inventories, the St Nicholas Shambles books are all identified by the first few lines of text from the second or subsequent leaves. For example, 'In primis a massebook for the hiȝ auter begynneth in the secunde lef. *Et in eodem ympno*'.[4] It was common practice to identify books from later pages rather than the first which was inevitably more prone to damage which would thus render the book unidentifiable in an age when all books were still of great value. In particular the 'Olde massebook' listed as beginning 'in the thirde lef. *In illo Tempore*'[5] could well have been subjected to this kind of damage as a result of constant use.

The next listed are the four Antiphoners held by the church. These were the books which contained the music for the anthems, or antiphons, which were sung during Divine Office. The contents of these books could vary enormously and Watkin (1947–8, xxv-xcix) states that most churches had at least one. The inventory of St Peter Cheap lists three and that of St Stephen's seven. The compiler at St Stephen's is the most forthcoming, listing a series of four Antiphoners as 'not Salisbury wrytten' (Freshfield 1887, 36). Against some is the margin note 'nota solde' (it is not possible to tell from the printed source if this is in a different hand) (*ibid*). Presumably they therefore had three in regular use. It is entirely possible that St Nicholas Shambles had owned others which were sold off prior to the drawing up of the inventory, perhaps because they too were not of the standardised Sarum Usage.

St Nicholas Shambles had four books described as Portos; one 'olde' and one 'litel'. These were the books often described as a 'Portifory' or 'Breviary' and which would have included the standard services (excluding the mass), the antiphoners and lessons. These were relatively

common by the late Middle Ages: the laity often brought their own copies for personal use during services, a habit much commented upon by foreign visitors to the capital. An Italian visitor to England remarked that 'any who can read tak[e] the Office of Our Lady with them' (Duffy 1992, 212). In fact these Books of Hours were mass produced even before the advent of the printing press, being manufactured by teams of professional copyists and intended for a wider, less aristocratic audience than the highly illuminated costly versions. After the development of the printing press, they became even more widely available, although only in Latin. Possession of a Primer in English could have laid its owner open to a charge of heresy. Again a comparable number of Breviaries were held in the parishes of St Peter Cheap and St Stephen; St Peter's owning five and St Stephen's having six.

The parish seems to have been generously provided with books known as 'Legende', owning three in total.[6] A Legende was generally a collection of lessons read at matins, the sermons and homilies of the Church Fathers and the ever popular stories of the lives of the Saints. All three 'legendes' at St Nicholas are distinctive in their own way. First, and perhaps regarded as the most important, is a volume proudly proclaimed as 'a newe legende of the gifte of Will[ia]m Edwarde'.[7] This is the first instance of a donor's name appearing in the inventory. Predictably, given the church's dedication, the next is an 'olde legende of Seint Nicholas lif and othe [other] Seints Lifes'.[8] Of particular significance is the final entry in this section 'a legende in english y cheyned in the qwere of dyus seintis lifes begynnynge in the iijde lef. *for Sara*'.[9] Neither St Peter Cheap nor St Stephen lists any books in the vernacular; indeed this is the only book in English held at St Nicholas and would no doubt have had popular appeal amongst the increasingly educated population of this period, for whom, it is argued, literacy increasingly meant the ability to read and write in English.[10] Moreover, the book is identified by the third rather than the more customary second page, suggesting that this was a well-used volume which had as a consequence been subject to damage. The occurrence here of a book in English is both a significant reflection of this trend and a portent for the future. The need for readily available books in the vernacular, especially the Bible, was one of the major demands of the later Protestant reformers. The particular volume here would have catered for the late 15th-century laity's devotion to the Saints and consequent widespread interest in sometimes far-fetched accounts of their lives. It is, however, hard to determine just how readily available this volume was to the average parishioner. It should be noted that it was chained in the choir, that is, beyond the chancel steps and therefore not necessarily accessible to the laity. Does this perhaps suggest instead a need for books in the vernacular on the part of a less than perfectly educated clergy?[11]

The parish was in possession of three 'Graells', books containing all the music needed by the choir for the celebration of the mass prior to the elevation of the Host. 'Sauters' are referred to three times and this is probably a phonetic rendering on the part of the clerk of the word Psalter, those books which contained the 150 liturgical psalms which would be used during the course of a week's services. They are, in this instance, notable particularly for the recurrence of William Edwarde as the donor of 'another Sauter lynge in the chapell of Seint John ycheyned by the gifte of Will[ia]m Edwarde'.[12] William Edwarde was a grocer whose generosity towards the parish is demonstrated more than once in the inventory. His family came originally from Essex though he himself was born in London. He was first elected alderman in 1464 and served as mayor in 1471.[13] It may be that, in this instance, a book chained in a side chapel (that of St John) would have been more available to the general congregation, although not in English.

There follows a mixture of items including a 'letturnall'. This may well have been the Lectrinall, a book in which was written the melodies of the Psalms; alternatively, it may have been a lectionary, a book of readings which would have rested on the lectern. There is a 'collectary', which gave the Collects of the Divine Office. There is also a volume referred to as a 'manuell' which probably provided the order for administration of the sacraments and which could be carried by a priest to the sick and the dying, a major part of his pastoral duties. There is also a collection of 'processionals' which would have provided the music for the responses and anthems sung before Sunday mass and on other feast days. These are all books which would have been in common general use. The 'Hugucion' referred to as 'ycheyned in the qwere'[14] was a handbook of Canon Law.

There is a particularly interesting book referred

to as '*Pars oculi*'. The Pars Oculi is the first part of a much larger work of the early 14th century, the *Oculus Sacerdotis* written most probably by the priest William of Pagula who came originally from Yorkshire, and who was vicar of Winkfield in Berkshire and penitentiary for the deanery of Reading.[15] He was probably the author of several other works, and is described by Pantin as '... one of the few outstanding canonist writers that later medieval England produced' (Pantin 1955, 196). His interests lay in the combination of Canon Law with the practical pastoral care of souls. The first section of the *Pars Oculi* provides detailed instructions for the parish priest on the right conduct of confession, how the penitent is to be questioned concerning his grasp of the essentials of the Faith and the nature of the seven deadly sins. Various methods are suggested for dealing with specific categories of penitent, although not without apparent understanding of the frailty of the human condition. For example 'And the priest ought to inquire of the penitent, if he was drunk, how he got drunk, whether perchance he did not know the power of the wine, or because of guests, or because of exceeding thirst coming upon him' (Pantin 1955, 197). The *Pars Oculi* found in the St Nicholas inventory would have been the most useful and popular at the parish level and it is therefore not surprising to find it here.[16] St Stephen Coleman Street also owned a copy; St Peter Cheap may also have done so but it is impossible to tell from the printed version since the editor of the text, the Rev Simpson, by his own admission 'condensed this list for the sake of brevity' (Simpson 1868, 159).

There is no Bible listed and this places St Nicholas Shambles firmly in its pre-Reformation social and historical context. Not until Thomas Cromwell's Proclamations of 1538 was it obligatory for curates and parishioners to provide a complete Bible. All the readings necessary for the right conduct of services would have been available in the other books, especially the Breviaries or Portos. Central to the practice of late medieval Catholicism was the celebration of the mass and this is reflected in the list of St Nicholas Shambles's books, the majority of which are tailored to meet this liturgical need. Demands for greater lay access to the Bible, especially in the vernacular, are a feature of later Protestant reform movements. Fifteenth-century lay piety in the context of the parish is here revealed as collective in its approach and orientated towards the liturgy and the Eucharist in its provision of books. Certainly there were signs in certain sections of society of a desire for a more inward, mystical piety and this can be seen in the work of writers such as Margery Kempe and the mystic Richard Rolle. However at St Nicholas Shambles, as elsewhere, the books available were of an instructional or exemplary nature rather than of a kind which encouraged individualistic thought or inward piety. Finally there is a hint of the cumbersome nature of much of late medieval Church practice. Presumably the Hugucion book of Canon Law was permanently chained in the choir because it needed to be readily available to the parish priest who had to negotiate his way through the complexities of Church regulations. The *Pars Oculi* would have been indispensable for largely similar reasons.

In conclusion, it would seem that St Nicholas Shambles had a fair cross section of books of the kind that would be expected in a well endowed urban parish of the 15th century. In particular books that aided the performance of services and priestly duties, books that provided the musical accompaniment, and books of a more general spiritual instruction. There are some interesting items, in particular the Legende written in English and the *Pars Oculi*. Equally important is what this list reveals both about St Nicholas Shambles in particular and the late medieval Catholic Church in general. For example, in keeping with the general trend towards greater lay literacy at least one parishioner, William Edwarde, reveals himself as probably literate and, in any case sufficiently interested in books to go to the trouble of providing one on a popular subject for the Church. Another, as has already been noted, is very significant in that it was in English.

THE VESTMENTS

When looked at in comparison with other 15th-century church inventories, it could be said that St Nicholas Shambles was not especially well-endowed with vestments, in particular complete sets intended for '...preste, dekyn and subdekyn.'[17] For instance, St Stephen Coleman Street had 10 sets of vestments made of various rich silks, damasks and baudkins all embroidered with various motifs, flowers, lions or hearts in an array of bright colours. In addition, they had three white vestments for use 'in tyme of Lent' and a

'purpyll chesebyll for gode Fryday' (Freshfield 1887, 38) as well as a number of single items, in particular copes. St Martin Outwich inventory also had at least 12 sets that may, or may not, have been complete (Goss 1933, 68). Most striking of all must have been the officiating priests at St Peter Cheap. The church, already noted as being in a wealthy parish, owned six complete sets in sumptuous materials, two of red cloth of gold, and one each in blue cloth of gold, blue baudkin, black velvet and white silk variously embroidered with 'grenehounds & Kenetts and oder houndes' and images of the Resurrection (Simpson 1868, 38).

The inventories make occasional attempts to specify the purpose of particular items. Both St Stephen's and St Martin's refer to vestments for ferial days. For example 'Itm j vestement of yollowe sylke wt a grene crose for fferyall dayes ...'(Freshfield 1887, 38) and 'ix fferyall vestments good and badde of dyvse colors...' (Goss 1933, 68). A ferial day is any day which is not a domenical day (*dies dominica*), that is, a weekday to which no particular feast is assigned. Conversely, the compilers of the inventory of St Nicholas Shambles omit any reference to ferial days but do make one entry thus: 'Item a vestiment for Sonedays of rede and blewe...'.[18] This is virtually the only distinction that appears to be made between vestments for specific purposes. The only other St Nicholas Shambles examples refer to 'ij blacke olde copes for mortuaries the orfreis whit bustian embroudrid with garters', and a single vestment 'for lente' with crosses of red ribbon.[19] Surprisingly, none of the vestments belonging to any of the chantries of the church, which existed solely to pray for and commemorate the dead, show any particular restraint in the colours of their vestments. It has to be said however that the idea of black for requiems and mourning owes more to the Victorian medieval revival and Oxford Movement within the Anglican Church than it does to any medieval reality. Clearly here at St Nicholas, as elsewhere in this period, the emphasis was more on a lavish, flamboyant display. Richard Fauconer[20] gave to the Brotherhood of St Luke a 'sengil vestiment of russett sathan the offrey of grene',[21] which probably says more about Fauconer's perception of himself and the impression he wanted to make on others than it does about the nature of the Brotherhood of St Luke.

The church of St Nicholas however did possess eight, apparently complete, vestment sets either sufficient for the officiating priest, deacon and subdeacon or stated in the text as being a vestment with two sets of accessories, presumably intended for deacon and subdeacon.[22] What is described as the 'principall vestimente' was made of 'rede cloth of golde veluett uppon damaske' and was made up of a cope, a 'chesipiss' (chasuble), two 'tonycles' (tunicles) with 'stolis' (stoles) and 'pallas' (palls), three 'allbis' (albs) and three 'amytis' (amices) with a matching corporas case. The corporas or corporal was a large linen cloth spread over the altar at mass and upon which were placed the Sacred Elements: it was stored in a corporas case, which could be made of any material and was often heavily decorated.

Beyond the occasional adjective to indicate 'olde' or 'newe' it is not generally possible to tell how long the church had owned any particular garment although sometimes an approximate date can be arrived at if the date of death or probate of a particular donor's will is known. With careful storage there is no reason why a vestment should not survive for a considerable period of years and could, therefore, be a hidden representative of the Opus Anglicanum tradition of English church needlework, but sadly it is not possible to know. Certainly the materials and colours (red is the clear favourite) testify to an immense richness and textural variety. Cloth of gold and gold thread were popular, either for applied designs of flowers, branches, birds and crosses or for entire garments. In the inventory these are usually described as being 'rede cloth of golde'[23] or '...vestiment of rede clothe of golde the orfrey blewe cloth of golde...',[24] meaning gold thread interwoven with silk thread of the stated colour. The most frequently specified material here is baudkin,[25] a material very close in appearance to cloth of gold and coming from the East, originally from Baghdad. Velvet and damask[26] were also costly imports, as was bordalisaunde which occurs only once in the inventory and was a particularly expensive striped silk manufactured at Alexandria. All of these represent a considerable financial outlay by the parish. Only one humble fabric features, 'fustian' (also referred to as 'bustian') and this probably had a liturgical significance since it was a coarse flaxen material used for the ferial days of Lent. The black mortuary copes referred to earlier in this chapter had orphreys of this fabric embroid-

ered with garters. Similarly another garment is described as a 'vestiment of fustian for lente'.[27]

There is one final element of the vestments held at St Nicholas that needs to be examined and that is the tradition of the Boy Bishop. This custom represents one of those aspects of the medieval church which seem, sometimes, to border on the pagan and to have about them an element of anarchistic misrule and underlying chaos. The Boy Bishop celebrations began on the 6th December, St Nicholas's day and were therefore of particular importance to this church, whose Patronal Feast day it would have been. The festivities, which continued until the feast of the Holy Innocents on the 28th December, involved a kind of masquerade whereby a child and his attendants were dressed up and effectively took precedence over their elders for at least part of several services including vespers, matins and mass. At St Paul's, London, the Boy Bishop also traditionally preached a sermon and presided over a large feast on the eve of Holy Innocents. The Boy Bishop celebrations have been related to the earlier medieval traditions of misrule and the Feast of Fools.[28] No doubt there was an element of a '...ludic and parodying observance which was always problematic for the sternly orthodox' (Duffy 1992, 13). This was a situation which clearly had the potential, on an annual basis, to get out of hand, and the Boy Bishop celebrations were finally banned by Henry VIII in May 1541. Duffy quotes from Henry's proclamation which sums up both the atmosphere of these feasts and the attitude of the authorities to them, '...children be strangely decked and appareled to counterfeit priests, and so be led with songs and dances from house to house... and boys do sing mass and preach in the pulpit... rather to the derision than to the glory of God, or honor of his Saints' (*ibid* 430). No doubt there were instances of misbehaviour but the tradition itself may well have had, in the minds of many, a serious Christian element and it would be wrong to see the issue in terms of an excuse simply to have a party. In fact orthodox biblical justification could be found for this setting of children over adults in verses like St Luke's '... for the children of this world are in their generation wiser than the children of light' (Luke, 16.8.) and no doubt many saw a serious, pious purpose in the whole event.

There are two specific items in the St Nicholas Shambles inventory which reveal both the parishioners' active participation in these events and the importance placed upon them. The first is a straightforward reference to a vestment of red cloth of gold embroidered with 'salutations of Our Lady' for 'the childe bishop'.[29] The second reads 'item a mytre for Seint Nicholas Bisshop with a N and a T on eu[er]ly side thereof of the gifte of John Leche and sette with dyuers stones'.[30] We are not told what the mitre was made of nor what the 'dyuers stones' were, but clearly this was no cheap trinket but an item of sufficient importance to have been given specifically by a donor (whose only one other recorded gift is of a candlestick unrelated to the Boy Bishop ceremonies) because he clearly believed it to have a special significance both for himself personally and for his parish community generally. What did he hope to gain? All gifts to the church were seen in the light of helping to ease the pains of purgatory after death, but a mitre for a Boy Bishop might seem a little odd in this context. Perhaps he hoped to impress his fellow parishioners with his generosity and wealth? The most likely explanation of this particular gift is that, once a year, for the period of the Boy Bishop festivities he no doubt hoped that the sight of the mitre would remind the congregation of him, and they would then feel prompted to pray for the repose of his soul. Whatever John Leche's personal motivation, this was obviously an important and presumably expensive item, an essential element of an annual ritual.

THE CHURCH FURNISHINGS

As might be expected, the 'soft furnishings' listed in the inventory of St Nicholas Shambles were as richly textured, as colourful and as varied as the vestments. Indeed the main altarcloth seems to have been intended to match the best suit of vestments: 'Item an autercloth for the hiȝ auter [above a red border (*inserted in another hand*)] beten with golde like to the beste vestiment with ii curteynis of rede double tartron yfrenged with silke'.[31] Other materials specified include velvet, damask and cloth of gold. The inventory also provides further information about side altars in the church: two altarcloths are listed for the altar of St James and 'item for the iiij auters benethe w^toute the qere viii auterclothes and viii curteynes of whitte...'.[32] These may well have been used at the altars of the Blessed Virgin, St Katherine and the Trinity where commemorative chantries

were established.[33] Altarcloths were popular vehicles for decoration and pictorial representations of various aspects of the Faith. Those at St Nicholas featured crosses, images of Saints and some described simply as 'steyned'. One is described in detail as having a 'pite' in the middle and 'signs of the passion'.[34] The 'pite' would have been a Pieta or Image of Pity: a graphic representation of Christ crucified and one of the most popular of medieval pious images. In addition, meditation upon Christ's Passion had long been a tool of private devotion. This altarcloth which depicted both the Passion and the Pity would thus have held in picture form before the eyes of the congregation during mass, potent symbols that acted both as a reproach to sinners and call to repentance as well as a symbol of comfort extending to the truly penitent the hope of grace and salvation: a powerful, pictorial message specifically upon Lenten themes in an age when literacy was by no means universal. Inserted into the text of the inventory is the note that this altarcloth also depicted the flagellation, Christ's scourging before the Cross and was specifically for use in Lent.

A large number of the textile furnishings listed in the inventory are marked as being for use in the Lent and Easter periods and as such are deeply revealing of late medieval custom and practice. One such was 'a veyle for lente afere the hiȝ auter palid with whitt and blewe with an ymage in the middes holdynge a vernacle'.[35] During the period of Lent it was customary to hang a veil reaching almost to the ground across the sanctuary area which completely obscured the laity's view of the mass and thus '... heightened the value of the spectacle it temporarily concealed' (Duffy 1992, 111). The vernicle or veil here referred to is a typical manifestation of late medieval piety and relates to the legend of the veil used by St Veronica to wipe the face of Christ on His journey to Calvary. A supposed relic of this veil was preserved in St Peter's, Rome and became an object of much devotion in the 15th century in keeping with the period's almost obsessive interest in the incarnate humanity of Christ.

Other aspects of Lenten practice are also illuminated by the inventory; a cloth listed 'to covere up the rede in Lenten', that is, the Roodscreen which separated the high altar from the nave and which carried upon it the images of the crucified Christ, the Virgin Mary and St John and which, like the chancel, it was customary to veil during Lent. A little later, the inventory lists 'ij laddres in the churche yerde with locke and cheyne'.[36] At first sight this seems a little odd given that the function of the churchwardens was to maintain only those items necessary for the proper celebration of the mass but perhaps these ladders were needed at Lent to put up and take down the complicated veiling!

Much of the late medieval liturgy was highly dramatic both in content and form and this was especially so at Easter. One such drama was the annual re-enactment of Christ's entombment and resurrection. This really began on Maundy Thursday when, after a solemn mass, all the altars of the church were stripped bare. Good Friday was then passed without the celebration of mass, and in mourning for Christ. After the ceremony of creeping to the Cross, the priest brought in a previously consecrated Host contained in a Pyx, which was then installed in a temporary, usually wooden, sepulchre which would have been built in the north side of the chancel. This sepulchre would have been covered with a cloth or cloths. St Nicholas Shambles had four described as 'ysteyned' and a rich covering of cloth of gold is also listed. The sepulchre was watched over continually until the beginning of Easter Day when the sacrament was duly removed with much ceremony to symbolise the resurrection, and the celebration of Easter was begun.

What could be termed 'soft furnishings' seem to have been popular items among donors to the church, five of whom are mentioned by name in the St Nicholas Shambles inventory. William Abell, the limner and stationer, gave the special Lenten altarcloth which has already been mentioned. He also gave, in company with John Fauconer, a bannercloth. Thomas of London, a chaplain, gave a black altarcloth for All Souls Day, and John Kette, a former parson of St Nicholas Shambles (1438–1455) had given a stained cloth with an image of St Nicholas, and Richard Salle gave eight altarcloths with matching curtains. Richard Salle's will does not survive but that of his wife, Denise, does and is dated 1452. In it, she is described as the relict of Richard Salle of the parish of St Nicholas Shambles, citizen and haberdasher (Fitch 1969, 160). The church owned a substantial number of plain altarcloths and towels, all carefully itemised and measured. Agnes Goodhew gave one measuring in length eight ells and a half yard. Other parishioners of St Nicholas Shambles

made modest gifts, for example, John Snell gave 'iij rochettys [gowns] for the quere',[37] and Alice Hunte a 'clothe of grene worstede for Palme Sunday'.[38] The church owned a 'newe rede tapitt clothe of tapsters werke' and two tapestries described as old, one of which was also torn. Two cushions of carpet work in the choir were given by another member of the congregation, William Gace. The great attraction for the donors of these comparatively small gifts was that their size and magnificence could be easily tailored to the individual's means. Textiles seem to have been especially popular among female donors to the church. One, who is never named except as 'Robert Hornes wif the elder',[39] gave altarcloths for both the High and Lady altars and three rochettes and 'a towayll of werke for a houslynge towaill'.[40] This houseling towel is a more significant gift than might at first appear when set against the more visually flamboyant gifts; it is both practical and essential. A houseling towel was held under the hands of the laity when they took communion in order to ensure that no scraps of the consecrated Host fell to the ground. Such small gifts, so intimately connected with the celebration of the mass made certain that the donor was kept, even after death, close to the central act of communal worship around which the life of the church revolved. One member of the congregation, John Rogerson, described as a 'plomer' attempted to have himself identified with as many celebrations of the sacrament as possible. He gave altarcloths to each of the altars dedicated to the Saints James and Thomas,[41] the Holy Trinity and to St Katherine. He also gave a houseling towel to be used on Easter Day in memory of himself and his wife Elinor, thus ensuring that he was permanently associated with the major eucharistic celebration of the Church's year.

All of these items examined here are, when compared with the inventories of St Stephen Coleman Street, St Peter Cheap and St Martin Outwich, commonplace. These other churches also had substantial numbers of similar altarcloths, towels, cushions, and items specifically intended for use during Lent. As at St Nicholas these small items were especially popular among the laity as gifts to the church. However, more substantial and valuable gifts were also made, usually, but not invariably, by men. For example William Edwarde gave a 'newe crosse of silver and gilte'[42] and the butcher John Godbehere, 'on whos soule god have m[er]cy', as the compiler of the inventory somewhat cryptically remarks, gave a silver and gilt chalice specifically to the altar of St James. The will of John Godbehere, under the name of Goddebere, survives and was dated 1460. In it he asks to be buried before the altar dedicated to St James in his parish church of St Nicholas Shambles.[43] On only two occasions is a female donor associated with a valuable gift. However, on each occasion she is not specifically named and was, in all probability, acting simply as the executor of a male relative. The sister of another parishioner, John Hawk, for example gave a pressed silver chalice and the wife of John Locke is recorded as having given a three branched candlestick to the Lady altar. Sometimes a corporate gift was made as in the case of '...a peyre of laton candelsticks standardes of the gifte of the yongmen of the parish'.[44] These 'young men' are not mentioned elsewhere in the inventory and were probably not, therefore, a guild or fraternity owning goods in the strict sense but more likely to have been a loose social grouping of unmarried men within the parish. Duffy cites several other examples, primarily from the West Country, and observes that 'such groups often sought permanent and formal recognition by inscribed gifts of vestments, vessels or furnishings to the church' (Duffy 1992, 150). St Nicholas Shambles, in common with other churches was also in possession of some substantial pieces of silver and gilt as well as items of laton and brass, including cups, chalices, censers, a monstrance (used to display the Host to the assembled congregation) and a crismatory used to hold sacramental oils. The inventory of St Peter Cheap makes reference to 'j Relike stondynge on j foote and j lytell box of silver' (Simpson 1868, 160), however not every parish church would have owned a relic and none is mentioned at St Nicholas. The parish clearly observed the festival of Corpus Christi as the inventory records a '...a coupe of coper and gilte for Corp[us] xpi[Christi] day'.[45] This feast, which had its origins in the affective, eucharistic piety of the Beguines order at Liège in the 13th century, had been celebrated in England since the early 14th century. It had become closely associated, in towns such as Leicester and Coventry, with official civic processions and pageants. No such official occasion was observed in London but the Skinners guild had held a Corpus Christi procession from Dowgate Hill to St Antholin's, Watling Street since 1393 (Rubin 1991, 238). Parishes such as St Nicholas whilst

not necessarily taking part in this procession would have held their own Corpus Christi celebrations.

In many respects, St Nicholas Shambles, when compared with other parishes such as St Peter Cheap, St Martin Outwich and St Stephen Coleman Street, appears like them to be orthodox and commonplace in mid 15th-century London. Its books, plates, vestments and liturgical practices were similar to what would have been found in many other City churches. There is one respect, however, in which St Nicholas Shambles emerges from the shadows as distinctive and this is largely as a result of the presence among the parishioners (at least twice as churchwarden) of one notable personality; that of William Abell the limner and stationer. Described as 'a distinguished artist whose shop in Paternoster Row now received frequent commissions' (Christianson 1990, 40), he is known to have been responsible for the Eton College founders' confirmation charter of March 1446,[46] the ordinances of the almshouse founded by Richard Whittington (d.1424), the Beauchamp Hours of the Duke of Somerset (d.1444) and the Abingdon Missal of 1461.[47] A total of 21 surviving works can possibly be attributed to William Abell. Christianson in his study of the London Stationers (Christianson 1990, 32–3) found that the craftsmen illuminators or limners (of whose Mistery few records remain) were concentrated in the parishes around St Paul's Cathedral of which St Nicholas Shambles was one. Very little is known of William Abell himself, he features in a few scattered records from *c.*1447 (the payment for the Eton College manuscript) till his death in *c.*1474. He is known from the annual rent rolls of the London Bridge property holdings to have been the tenant of various shops in Paternoster Row on which, for two years after his death, his widow continued to pay rent. He was also named as a supervisor in the will of Thomas Fysshe the limner and stationer who is recorded as holding the tenancy of a shop in Paternoster Row in the early years of the 15th century and whose apprentice William Abell had probably been (Christianson 1990, 29). He was also witness to the will of Richard Fauconer.[48] On more than one occasion he was churchwarden of St Nicholas Shambles in the mid 15th century. In all probability the inventory of the goods at St Nicholas Shambles was drawn up in his lifetime. It is as both churchwarden and benefactor of the parish that William Abell features in the St Nicholas Shambles church inventory. He first occurs as the donor of a Lenten altarcloth and, most significantly as the creator of '...ii banerclothes the grounde whitt diaper werk and the signes of the passion in hem which said baners John Fauconere and Will[ia]m Abell dide do make hem for the passion tyme in lentyn'.[49] Since the only traceable John Fauconers of the 15th century are described variously as butchers and grocers it is seems unlikely that they actually made the banners themselves, but it is tempting to speculate that an item of Abell's handiwork did actually hang in the church of St Nicholas Shambles.

Generally speaking the large number of banners listed in the St Nicholas Shambles inventory present something of a puzzle. Banners in churches of themselves are not that unusual; they were commonly carried in processions and were used to drape the sepulchre at Easter. St Stephen Coleman Street had 23 with various pictures painted on them, in particular Saints' images and events in the life of Christ. St Peter Cheap also had several including one with the arms of St George and of the King. Personal coats of arms also featured at St Peter's as in 'It'm ij clothes steynede w^t^...the armes of Robt Walton and his ij wyves and his sonnes...' (Simpson 1868, 158). Likewise another cloth featured the arms of the goldsmith Robert Walter. The banners at St Nicholas bearing coats of arms are less straightforward. They include two bearing '...the Duke of Gloucestres armys and the Duchesse of Holande',[50] a further two bear the king's arms (which king is not specified), one for the sepulchre bears the arms of the Beauchamps and one for the rood loft those of the Staffords. In addition there are seven old banners described as being 'of dyvers lordes armys'.[51] There seems to be no immediately logical or obvious explanation for the presence of these particular aristocratic coats of arms in a relatively small, apparently insignificant parish church in the vicinity of St Paul's whose congregation was made up largely of stationers, whose craft guild was among the most minor, and of butchers whose trade was regarded as one of the more noisome of medieval callings. The editor of the St Martin Outwich church records notes that several medieval stained glass windows in that church commemorated the arms of past donors or patrons, for example those of Richard Naylor [Nailer] (d.1483) an Alderman and Master of the Merchant Taylors. Likewise those of John de Warenne, Earl of Surrey, Earl

Warenne (d.1347) were also featured (Goss 1933, 30) but there is no immediate reason to associate the Gloucesters, Staffords, or Beauchamps with St Nicholas Shambles. Could they have been surplus banners left over from some procession at nearby St Paul's, perhaps after Henry V's triumphal entry into London after Agincourt in 1415? This would not, however, explain the presence of the Duke of Gloucester's arms quartered with those of the Duchess of Holland; the Duke's strange short-lived marriage to Jacqueline of Bavaria, heiress of Hainault, Holland and Zealand did not occur till *c.*1421. William Abell may here be the missing link; if the attribution of the Beauchamp and Warwick Hours to him is correct then that could well provide a tenuous link between the church of St Nicholas Shambles, William Abell its churchwarden and noted artist, and the Beauchamp family for whom he produced work. Similarly Humphrey Duke of Gloucester and the Staffords may have employed Abell, especially since Gloucester is known to have spent lavishly on books. Details of the now lost heraldic glass from the church of St Bartholomew's hospital are recorded in the Lansdowne manuscript in the British Library and the description of the arms it portrayed seems to correspond, at least superficially, with the arms depicted in the banners in the church of St Nicholas Shambles[52] and could well turn out to commemorate William Abell and his wealthy patrons in some way. Certainly the presence of a number of limners and stationers living in and working within the parish increases the possibility that the church banners were distinctive in some way.

THE CHANTRIES AND THE BROTHERHOOD

'Throughout the late Middle Ages, the primary motive behind the founding of the Chantries and their related institutions had been manifestly clear; by means of prayers, to secure relief for the souls of the founder and others whom he might name, who were suffering in purgatory.' (Kreider 1979, 40). There can be no doubt that the Church's teaching on penance and purgatory was a central facet of late medieval piety. Dr Clive Burgess's extensive work on parish records in both London and Bristol has shown that the doctrine prompted the laity into generous acts of giving. These provided their parish churches with liturgical equipment, buildings, endowments of land and stipends for chantry chaplains whose presence, in most cases, would have enhanced both the liturgy and music of the parish church (Burgess 1985, 46–65; Burgess 1987). Despite the fact that the Catholic Church did not fully define its teaching on purgatory until the Council of Trent in 1545, most people in this period would have had a vivid picture of what awaited them after death and a strong desire to ameliorate the suffering as much as possible and to hasten the soul's progress to Heaven.

There were several methods whereby the pious layman could ensure that after his death his soul would be prayed for and his sojourn in purgatory thus shortened. These ranged from obits and requiem masses said in the days immediately following death to yearly anniversary masses and the founding of Chantries to ensure a continual round of prayers and masses for the testator's soul. Chantries fell into one of two categories; those established for a relatively short term, with a specified number of years and those intended to last in perpetuity and which were consequently more expensive and generally funded by landed endowment. Usually, part of the aisle of the church would be enclosed with screens of wood and the chantry altar installed inside. Only the wealthy could afford to construct a whole new chapel for a chantry and provide the necessary endowment for a priest.

The inventory of St Nicholas Shambles refers to three chantries; one dedicated to 'our lady', and two at altars associated with St Katherine and the Holy Trinity. Not surprisingly, given the widespread devotion to the Virgin Mary in England at this period, the most flourishing (in terms of goods listed) was that devoted to Mary whose '...cult came second only to that of Christ himself, and towered over that of all other Saints' (Duffy 1992, 142). She was believed to hold a particular sympathy for sinners and to act as a protectress against both danger and disease, and could therefore be called upon in a number of different situations. The chantry dedicated to 'Our Lady' at St Nicholas Shambles was in receipt of several donations, most probably over a period of years and from a wide cross section of donors, including one Richard Fauconer (d.1463) who described himself in his will as a gentleman.[53] In addition to the carefully written, professional scribe's hand there are 14 extra items added to the inventory in a more cramped and probably later hand. The original list

contains a mass book, two 'pressionaries', a Dirige book and two books described as 'a quayer' containing placebo, dirge and commemorations of the Blessed Virgin and St Nicholas. The dirge (dirige) is the term for the Office of the Dead and, together with the mass book, would have been essential for the proper functioning of the chantry. The Office of the Dead was divided into vespers, known as 'placebo' and said on the night before the funeral and a combined matins and lauds, the 'dirge', which was said the following morning before the requiem mass. 'Given the centrality of intercession for the dead in the piety of late medieval men and women, these were the most commonly used of all prayers...' (Duffy 1992, 257). Two of these books, a Pressionare and a Dirige were given by parishioners Matthew Glover and John Snell respectively. The will of Matthew Glover does not seem to have survived but that of John Snell, freeman of the City and paviour who died in 1459, does (Fitch 1969, 170). He was also a generous benefactor to the church: he gave not only the book of Dirige, but also three rochettes (sleeves) and an 'old surplice' noted in the inventory as having been given to the church by his executors. It is noteworthy that where a donor's name is recorded in the inventory it is usually that of someone, as in the case of John Snell, who had died quite recently. This suggests that, in fact, despite their best efforts, a personal name only really remained fresh in the collective mind for one generation. The population of London at this period was made up of a constantly shifting immigrant community with families arriving and moving away again within the space of two or three generations, and the inventory reinforces this impression.

The vestments available to the Lady Chantry priest must have been magnificent and he seems to have been well provided for; there are six vestments in the original list and a further two added in the supplementary hand.[54] In addition, there were six corporals with cases and a gilt chalice decorated with a scene of the crucifixion and with the Virgin and St John[55] described in the inventory as 'amellid' (*ie* enamelled) in the foot, for use in the celebration of mass in the chantry. The materials used for vestments and corporals were both colourful and expensive with vivid embroidery. Red, gold and white predominate with embroideries of unspecified coats of arms, birds, portcullis, flowers and crosses. One corporal is described as having 'ymages and a dragon'.[56] Altar cloths, curtains and towels are all listed. For example, Julian Dey had given a towel with 'horsis of gold' stitched on it.[57] A remarkable item was '...a peire of auterclothis steyned w^{t} ij curteynes of the v^{de} ioyes of our Lady of the gifte of Master John Kette, person'.[58] John Kette was a parson of the church from 1438 until his death in 1455 (Hennessy 1898, 352). Meditation on the 'Five Joys of Mary', often with their corresponding 'Five Sorrows' was an especially common form of late medieval piety. The celebration of the 'Five Sorrows' was the more popular but both are in keeping with the affective, emotionally charged piety of the late Middle Ages and were linked with the desire to identify with the sufferings of Christ through the grief of His mother. The liturgical celebration of the Compassion of the Virgin is seen by Pfaff as an 'incipient' feast coming into use in the years immediately prior to the Reformation (Pfaff 1970, 97–103). He first identifies it as occurring in written liturgical form in a printed Sarum missal of Rouen in 1497: *Missa Compassionis sive Lamentionis B.Mariae.* This is certainly later than the likely date of the St Nicholas inventory. The altar cloth here listed represents the more private, personal pietistic devotion to the 'Joys' and 'Sorrows' of the Virgin which clearly preceded its official inclusion in the liturgy. The altar cloth and curtains mentioned here would have had pictorial representations of the Virgin's 'Five Joys', the Annunciation, Nativity, Resurrection, Ascension, and Coronation in Heaven; a series of scenes very familiar to the congregation.

The goods of two further chantries are listed in the inventory, one described as 'a chantrye founded in the seid church at the Trinite auter'[59] and one '...the chaunt[r]e founded in the seid church at the Auter of Seint Katerine'.[60] The attribution of the Trinity Chantry is straightforward, dedicated as it was to God the Father, God the Son and God the Holy Ghost; a powerful trio to intercede on behalf of the penitent sinner. The Saint Katherine chantry may be dedicated to Saint Katherine of Alexandria, a highly popular 4th-century saint who was tortured on a wheel and later beheaded for her faith. She was seen as a protectress of the dying and was therefore a propitious choice for an intercessory chantry in an age when dying unshriven was greatly feared. Representations of her in murals, glass, manuscripts and embroideries were common throughout Europe in this period. The goods of these two chantries were

fewer in number than those of the chantry dedicated to the Blessed Virgin Mary. The Trinity altar had a chalice and several vestments although there was nothing outstanding and no books were listed.[61] Likewise the Saint Katherine altar had only a small collection of goods and vestments, including one mass book and a gift from Julian Dey of an 'Autercloth of werke and also a playn[e] cloth...'.[62]

Most people would not have been able to afford to establish a fully endowed chantry for the welfare of their individual soul and for them an alternative existed in the corporate chantry of a religious guild or fraternity. Such fraternities had steadily gained in popularity from the late 14th century and continued to do so right up to the eve of the Reformation in the 1530s. It has been estimated that there were, in the parishes of London, somewhere between 150 and 200 such fraternities in the period 1350 to 1550 (Barron & Harper-Bill 1985, 20). A fraternity consisted of a group of friends, relatives or neighbours, often sharing the same craft or trade, who banded together to fund some kind of communal post-mortem commemoration for the good of their own souls and those of their fellow members. Such commemorations could range from the simple maintenance of a light before an especially favoured saint's image or altar, to the full scale and expensive employment of a chaplain to pray for deceased members' souls on a continuous basis. Whatever their scale, all fraternities seemed to have had three main aspects; the maintenance of lights, the attendance of guild members at their fellows' funerals and social feasting on the favoured saint's day. It has been suggested that after the horrors of the Black Death, the popularity of religious fraternities greatly increased as the result of a desire on the part of members to ensure that they had a decent burial and that the proper funerary rites were observed. By the time of the St Nicholas inventory this sense of urgency may have abated somewhat and their function and emphasis had a more strongly social slant.

It has been observed that '...much of our information about the London parish guilds must be tangential' (Barron & Harper-Bill 1985, 20) and the fraternity which existed at St Nicholas Shambles falls into this category, since it is revealed largely through the list of its goods in the inventory. It does not figure in the Chantry Certificate returns of 1546/8, as a result of the church itself having been abandoned before this date. The dedication of the fraternity, to St Luke, is especially interesting. One of the Evangelists and a disciple of Paul, Luke was a physician and hence was the special saint of doctors and surgeons which may have had some significance for a church situated quite close to St Bartholomew's hospital. More significantly perhaps it was St Luke who by tradition painted an icon of the Virgin Mary and was thus regarded as the patron saint of artists and illuminators. As well as being the 'Fleisshamblis' or butchery, the area around St Nicholas, as has been noted, was also a focal point for illuminators and scriptwriters (Christianson 1990, 32–3). One of the churchwardens of this period was William Abell, a well-known limner, so it is not surprising that the church's only recorded fraternity was dedicated to St Luke. Furthermore this was a rather unusual dedication, since only one other guild of St Luke was recorded in London, in the parish of St Giles Cripplegate. This fraternity was dedicated to the Blessed Virgin Mary and St Luke, where in 1388/9, a guild for painters maintained a light before the images of St Mary and St Luke (Westlake 1919). There is, however, a third possible explanation for this dedication to St Luke. The historian of the Butchers' Company states that they had long had associations with the parish of St Nicholas Shambles and that they had there 'attended an anniversary service on St Luke's day, where they had founded a fraternity of St Luke prior to 1484, and where in St Luke's Chapel they had stored the Company's chests and hearse cloth' (Jones 1976, 48). The page of the inventory dealing with the Brotherhood is slightly confused with details added in a later hand running into a subsequent list of gifts to subsidiary altars. There are, however, two identifiable donors to the fraternity; Richard Fauconer who gave a 'sengil vestiment of russett sathan the orfrey of grene clothe of goolde... w[t] a corporas cace of the same orfrey' and William Knyght, described as a butcher, who also gave a single vestment embroidered with an owl.[63]

The Fauconer family (there appear to be several variant spellings) are an interesting and apparently wealthy family. Three probable members, all described as of the parish of St Nicholas Shambles, have wills registered in the Commissary Court. The first is John 'Fawkoner' (d.1407), a grocer.[64] The second is another John 'Fauconner' described as '*civis et carnifex*' (d.1462) who left to the Church of St Nicholas Shambles the customary forgotten tithes and 20/- to the

fabric of the nave of the church.[65] Most interesting is the Richard 'Fawkener' (d.1463) mentioned in the inventory. His will is long, and in English[66] which was still quite unusual at this period. In it he describes himself as 'Richard Fawkener of London, Gentilma[ne]'. In the space of at most two or three generations, a social progression has taken place from citizen and grocer in 1407 to gentleman with no specified trade or expressly declared civic status by 1463. The introductory rubric to Richard Fawkener's will is standardised and completely orthodox. He commended his soul to God 'my maker and my saviour', to the Virgin Mary and to all the Company of Heaven. More personally he requests '...my body to be beried in the Church of Seint Nicholas atte Bocherie of London in the chapell of oure Lady there in the same sepultre where is the body of Juliane late my wiff here yburied under the marble stone...'. However, he does not make any specific bequests either to the Lady Chapel or its chantry. There is a long list of legacies both to family (his sons John and Nicholas) and friends (John Peche, Margaret Barnam, John Woddesdon) of goods that reveal him to have been a wealthy man; items of silver (some decorated with falcons), brass, bed linen and tapestries. He concludes with a classic, late medieval exposition of purgatory and the motivation for charitable giving which underpinned the whole structure of post-mortem commemoration, chantries, and almsgiving: 'I geve and bequeth unto my executores therunto to do and dispose for my soule and the soule of the said Julian[ne] and all those soules that I am bounde and beholde unto and all cristen soules in werkes and dedes of charitee and pitee att their best distcricion and as they can be sene and think best to please god and most profit unto my soule'.[67] The executors and witnesses hint at the social ties which bound what was, in all probability, a closely knit community. Of the executors there were 'Elizabeth my wyff and Richard Chawvy citizen and salter of the citie of London' and one of the witnesses was 'Will[ia]m Abell, stationer' who had, of course, been churchwarden of St Nicholas Shambles.

There follows in the inventory a list of other gifts which had been made to specific altars rather than to the chantries which reveal, almost incidentally, the presence of other side altars within the main body of the church. It has already been noted that the inventory of books referred to items in the chapel of St John and at the altar of St Thomas. In addition, reference is also made here to an altar dedicated to St James the apostle and martyr, another favourite saint in this period. Pilgrimages to his shrine at Compostela in Spain were especially popular.

In conclusion therefore, the inventory of the parish church of St Nicholas Shambles provides good evidence for the active involvement by the laity in the local parish, especially in those areas over which the laity had substantial independent control; in the founding of chantries and the running of religious fraternities. St Nicholas had three chantries dedicated to Our Lady, to St Katherine and to the Holy Trinity. In addition, there was a Brotherhood dedicated to St Luke and there were side altars to St Thomas and St James, and also a chapel dedicated to St John. All these chantries, chapels and altars were in receipt of gifts from the pious, some simple, some costly. The existence of the chantries and fraternities reveals an active and lively parochial life, however fleeting or ill-run some of the parish fraternities might be '...with few exceptions, most fraternities drew their membership from the parishes themselves. They are an expression of an active corporate life' (Barron & Harper-Bill 1985, 30).

CONCLUSION

In many ways an analysis of the inventory from the churchwardens' accounts of St Nicholas Shambles represents a microcosm of the practices and beliefs of the late medieval Church in the century prior to the Protestant Reformation. A large range of books, plate and vestments is revealed as listed in the inventory, far in excess of the number legally required and comparing favourably with those held at other City churches such as St Peter Cheap, St Stephen Coleman Street and St Martin Outwich. Many of the vestments at St Nicholas Shambles were of exotic materials and much of the plate was of silver and gilt. The orthodox practices of the Catholic Church were adhered to in the Lenten and Easter observances, in the relatively new Corpus Christi mass for which the church owned a processional cross, and in the potentially anarchic Boy Bishop celebrations for which the church was equipped with red cope, mitre and staff. The affective piety of the age and its identification with the suffering and humanity of Christ and His family is reflected in the popularity of

pictorial representations of Christ's Passion and Flagellation and of the Joys and Sufferings of the Virgin Mary which were depicted on banners and altarcloths within the church. A good range of standard books providing the order of the mass, Psalms, readings, and music were kept in the church. A pricksong book was added to the list in a different hand, suggesting that this form of polyphonic music was in use at St Nicholas by the late 15th century. Most significantly, a book of saints' lives written in English was kept in the choir and catered not only for the widespread popular interest in the saints but also for the increasing vernacular literacy of the period.

The presence in the church of several chantries dedicated respectively to the Blessed Virgin Mary, St Katherine and the Holy Trinity testifies to the strength of the doctrinal system of penance, remission of sins and commemoration of the dead in the 15th century. Information about the physical appearance and layout of the church is sparse and inconclusive but throughout the inventory there are references to side altars within the church, most notably to St James, St Thomas and to a chapel dedicated to St John. The recorded ceremony of the hallowing of the bells presumes that there must have been a bell tower of some sort but the inventory provides no clue about its appearance or location. The laity were clearly interested in, and committed to, their church. A fraternity, referred to in the inventory as a brotherhood, dedicated to St Luke flourished amongst the congregation. Several individuals' names occur in the inventory as the donors of gifts by which they hoped presumably to gain remission from purgatory for their souls after their deaths and to invoke the prayers of their fellow parishioners on their behalf. The range of objects given is wide and ranges from expensive vestments and plate to humble towels and plain cloths. A gender bias is revealed since men tended to give the more valuable items, although women gave expensive gifts on behalf of their husbands, presumably when acting as executors to their wills. Very often within the inventory a woman is designated only as the wife or other relative of a named, male donor.

The wills (where they exist) of the parishioners named in the inventory are sometimes disappointingly short of references to St Nicholas beyond standard requests to be buried there and for the payment of forgotten tithes, yet clearly they were generous donors to the parish as their names are listed in the inventory beside their gifts. The limitations of using wills as an indicator of popular religious feeling is a problem that has been encountered by other historians and is best summed up thus: 'It must be remembered that wills reveal nothing of the pious provision that testators undoubtedly made during their lifetimes for their own benefit' (Burgess 1985, 55; Burgess 1987, 837–858). What these wills do reveal, however, is a possible network of social ties and family relationships amongst people named as witnesses and executors. For example, the talented limner and churchwarden, William Abell, was one of the witnesses to the will of Richard Fauconer and, in the custom of the time, therefore, was probably present at the deathbed. Lists of purely secular bequests in these wills give some insight into the social standing and living standards of some of the parishioners. Richard Fauconer (described as a gentleman) for example clearly lived comfortably, his will lists several items of silver as well as beds, bedding and tapestries. In many respects the inventory records much that was to be disdained and swept away by the Protestant Reformers of the next century; the cult of the Saints, the adoration of the Virgin, the doctrine of purgatory and the intercession for the dead, the feast of Corpus Christi and the Boy Bishop celebrations. With its chantries, side altars and fraternity, its veneration of the Saints and its books of Placebo and Dirige, and in the absence of a Bible, St Nicholas Shambles can be firmly placed in its time and context of the Late Medieval Church.

NOTES

[1] St Bartholomew's Hospital Archives SNC/1

[2] St Bartholomew's Hospital Archives HA 1/1

[3] See **The Chantries and the Brotherhood** below

[4] St Nicholas Shambles Inventory

[5] St Nicholas Shambles Inventory

[6] St Peter Cheap also lists in addition to a legende, a broadly similar book, presumably on the lives of the martyrs '*i. mart' loge*' see Simpson (1868, 159)

[7] St Nicholas Shambles Inventory

[8] St Nicholas Shambles Inventory

[9] St Nicholas Shambles Inventory

[10] It was in this period that charitable benefactors began to take an active interest in funding and promoting lay education. Around 1423, the will of Mayor Richard Whittington established a public library at the Guildhall. In 1458 the draper Simon Eyre left £2,000 (never honoured) to endow a grammar school in the chapel of the Leadenhall. Fifty years later, Dean Colet was to revolutionise grammar

school teaching when, as Dean of St Pauls, he re-founded and re-endowed its school. Significantly he entrusted its financial running not to an ecclesiastical institution but a lay one; the Mercers Company. Thrupp (1989, 156–8) estimates that as many as 50% of the male population was literate in English in the reign of Edward IV

[11] Thomas Eyre, the parson (1466–1469) mentioned in the Inventory does not appear in Emden's biographical lists as a graduate of either Oxford or Cambridge

[12] St Nicholas Shambles Inventory

[13] I am grateful to my fellow MA postgraduate student Eleanor Sims who allowed me access to her database on the London aldermen. William Edwarde's will (d.1480) is enrolled in the Prerogative Court at Canterbury

[14] St Nicholas Shambles Inventory

[15] A penitentiary was an ordained priest licensed by a bishop to hear confessions outside the parish, thus enabling members of the laity to fulfill the church's requirements that they should make a confession at least once a year at Easter. J.A.F. Thomson (1993, 343) points out that they were 'usually, though not exclusively, drawn from the parish clergy'.

[16] J.Hughes (1988, 172) found that in a collection of late 14th-century inventories from Norfolk, 11 churches out of 35 owned a copy.

[17] St Nicholas Shambles Inventory

[18] St Nicholas Shambles Inventory

[19] St Nicholas Shambles Inventory

[20] For Richard Fauconner see **The Chantries and the Brotherhood** below

[21] St Nicholas Shambles Inventory

[22] According to the introduction to Watkins (1947–8), the following vestments were the minimum needed for the celebration of high mass:

Officiating priest: amice, alb, gerelle, stole, maniple, chasuble

Deacon: dalmatic instead of chasuble

Subdeacon: tunic in place of chasuble and stole

This does not always seem to accord with the list at St Nicholas, for example no maniples (short strip of material looped over the left wrist) are mentioned

[23] St Nicholas Shambles Inventory

[24] St Nicholas Shambles Inventory

[25] Six occurrences

[26] *Velvet:* four occurrences; *Damask*: three occurrences

[27] St Nicholas Shambles Inventory

[28] Most notably by E.K.Chambers (1903)

[29] St Nicholas Shambles Inventory

[30] St Nicholas Shambles Inventory

[31] St Nicholas Shambles Inventory

[32] St Nicholas Shambles Inventory

[33] See **The Chantries and the Brotherhood** below

[34] This particular item is also described as being principally 'of the gift of Will[ia]m Abell'

[35] St Nicholas Shambles Inventory

[36] St Nicholas Shambles Inventory

[37] St Nicholas Shambles Inventory. No will survives for John Snell

[38] St Nicholas Shambles Inventory

[39] St Nicholas Shambles Inventory

[40] St Nicholas Shambles Inventory

[41] This is the only mention of an altar dedicated to St Thomas

[42] St Nicholas Shambles Inventory. For William Edwarde see **The Inventory Books** above

[43] Guildhall Library MS 9171, Register 5, f.295v, 298v

[44] St Nicholas Shambles Inventory

[45] St Nicholas Shambles Inventory

[46] ...for which he was paid £1.6s.8d. See Alexander (1972, 166–172)

[47] For the Abingdon Missal in particular, see Gameson & Coates 1988, 47

[48] See **The Chantries and the Brotherhood** below

[49] St Nicholas Shambles Inventory

[50] St Nicholas Shambles Inventory

[51] St Nicholas Shambles Inventory

[52] I am indebted to Dr Jenny Stratford for suggesting this line of enquiry

[53] Guildhall Library MS 9171, Register 5, f.349v

[54] St Nicholas Shambles Inventory

[55] St Nicholas Shambles Inventory. Most probably the names 'Mary' and 'John' are for the Virgin Mary and St John who were commonly represented on rood screens and not in commemoration of any particular donor of this chalice

[56] St Nicholas Shambles Inventory

[57] St Nicholas Shambles Inventory. No will survives for Julian Dey in the Commissary Court Records

[58] St Nicholas Shambles Inventory

[59] St Nicholas Shambles Inventory

[60] St Nicholas Shambles Inventory

[61] St Nicholas Shambles Inventory

[62] St Nicholas Shambles Inventory. Julian Dey also gave to the Lady Chantry

[63] St Nicholas Shambles Inventory

[64] Guildhall Library MS 9171, Register 2, f.95v

[65] Guildhall Library MS 9171, Register 5, f.320 and 354v; probate apparently incomplete

[66] Guildhall Library MS 9171, Register 5, f.349v

[67] Guildhall Library MS9171, Register 5, f.349v

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JOHN STOW AND THE LEGENDARY HISTORY OF LONDON

John Clark

AN ADDRESS GIVEN AT THE JOHN STOW MEMORIAL SERVICE, ST ANDREW UNDERSHAFT, 17 APRIL 1996

John Stow was born in 1525; at the age of 22 he was admitted to the freedom of the Merchant Taylors' Company. Yet we remember him today not as a tailor, but as an historian – for from the 1560s until his death in 1605 he devoted most of his energy to historical research and historical writing.

In 1565 he first published his *Summarie of Englyshse Chronicles* – which followed the traditional form of London chronicles in comprising separate entries for each year, headed by the names of the Mayor and the Sheriffs. By 1592 this had developed into what he called *Annales* – still a chronological account of the history of England, but with the narrative flowing freely from year to year.

Then in 1598 came something new and very different – his *Survey of London*, an exercise in what he termed 'chorography' and we today might call historical topography, or topographical history. The word *chorography* had been used a few years earlier by Stow's friend William Camden to describe his own great historical work published in Latin under the title *Britannia*. Stow's *Survey* was not narrative history, not a story of kings, lawcodes and battles, but a street by street description of the London of his time, serving as a framework for the history of individual buildings and institutions.

Like a modern historian Stow turned to original records and documents for his material; but he was not in any real sense a modern historian. Like his younger contemporary Camden, Stow was working within a well-established tradition of Tudor historical writing – a tradition that centred on the so-called 'British History'. The British History was a strange construct that began in the attempts of 9th-century Welsh writers to establish a believable origin for their own people, and to create an historical framework for the lives of legendary heroes like King Arthur. It was greatly developed in the 1130s by Geoffrey of Monmouth in his *History of the Kings of Britain*, and was accepted by most later medieval writers as the basis of their accounts of the early history of Britain before the coming of the Anglo-Saxons.

It described the arrival of a group of exiled Trojans on an island at the edge of the world which they called *Britain* after their leader Brutus – the founding of the city of New Troy on the site of what was to become London – the reigns of Brutus's descendants – the coming of the Romans and the Saxons – and the glorious but ill-fated reign of King Arthur. Tudor historians, writing under the rule of a dynasty that traced its ancestry back to King Arthur and through him to the Trojan Brutus, were naturally reluctant to dispute the reality of this account. So, in his *Annales* in 1592, Stow devoted the first 63 pages to what is little more than an uncritical summary of Geoffrey of Monmouth's *History of the Kings of Britain* from the arrival of Brutus and his Trojans in 1108 BC to the death of the Welsh king Cadwallader in AD 685, though not without some attempts to correlate it with accounts by Julius Caesar and other Roman authors.

William Camden had been less willing to include the traditional story in his *Britannia* in 1586. He pointed out the inconsistencies between it and what Greek and Roman authors had to say about Britain – though he admitted it was probably vain 'to struggle against an opinion commonly and long since received'; 'let every man judge as it pleaseth him' he concluded.

Thus it was perhaps with Camden's encouragement that John Stow, when he came to write the introduction to his *Survey of London*, took a stand against the traditional story. No longer would he accept that the Trojan Brutus had founded a capital city beside the Thames and called it *Troia Nova* ('New Troy') or *Trinovantum*, or that the later King Lud had rebuilt it with fine walls and gates

Fig 1. The monument to John Stow in St Andrew Undershaft, erected by his widow and designed by Nicholas Johnson

and renamed it *Lud's Town*, or London. Stow quoted the Roman author Livy to the effect that historians can be 'pardoned for interlacing divine matters with human to make the first foundation of cities more honourable' – clearly in Stow's opinion the story of New Troy was just such a fictional conflation of divine and human.

He drew on the writings of Julius Caesar to demolish the traditional history. Caesar had written that when he came to Britain the Britons had no walled cities – if he was right Lud's town with its magnificent walls and gates could not have existed at that time. And when Caesar wrote in Latin of *civitas Trinovantum* he did *not* mean 'the city of Trinovantum', as Geoffrey of Monmouth and others had explained it, but rather the 'nation' or 'tribe' of the Trinovantes, a Celtic people that he encountered north of the Thames. Stow seems to have been the first writer to point out the significance of this misinterpretation of the Latin word *civitas*.

When Stow turned to his account of the buildings and streets of London he was equally ready to question the more obvious fables – though willing where necessary to confess his uncertainty. About Billingsgate and its supposed foundation by a British king called Belinus he at first merely expressed some doubt before returning to the subject later and dismissing the story of Belinus outright as legend. For the name 'Ludgate' he suggested a number of plausible explanations, but refused to accept the traditional story that the gate was built by and named after King Lud – though he noted that a new statue representing Lud had been erected on the gate tower just a few years before he wrote.

And he turned an equally questioning eye on other local legends and pieces of folklore that had grown up in London during the Middle Ages and after.

For example, the brass plate in St Peter's church on Cornhill that claimed that the church had been founded as a cathedral for the first archbishop of London was, he said, based on no known authority; the archbishop in question could not be proved to have existed; the brass plate itself was, in Stow's time, relatively modern. The Tower of London was *not* built by Julius Caesar (a popular story known to William Shakespeare); Stow quoted contemporary records to prove that building works had begun in the reign of William I. The pole, 40ft long, that was preserved in Gerard's Hall near Bread Street as the staff of Gerard the Giant was probably, Stow suggested, a disused maypole like that which once stood outside St Andrew Undershaft. And the giant's bone displayed in the church of St Lawrence Jewry was, he considered, possibly that of an elephant!

In one case, that of a supposed Roman temple on the site of St Paul's Cathedral, Stow was quite willing to dispute the matter with his old friend William Camden, who had proved rather too ready to rely on some extremely shaky and circumstantial evidence to support his own view that the goddess Diana had once been worshipped there. Though tempted to accept that there might have been a temple, perhaps dedicated to Jupiter, Stow neatly demolished the weakest of Camden's arguments.

To our modern eyes, John Stow has faults as an historian. He certainly sometimes misunderstood or misused his sources. But he represents a new type of history – a history that took contemporary records as its source and was not ready to rely on argument from authority. The texts of earlier historians could, and should, be questioned and compared with other forms of evidence.

It is a lesson that modern historians should bear in mind. What even the most learned and distinguished historian has written about the past is not to be mistaken for the truth. It may seem to be vain, as Camden put it, 'to struggle against an opinion commonly and long since received'. But the life and works of John Stow demonstrate that it is upon such struggles that advances in our knowledge of the past must be founded.

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DISSENT IN A MIDDLESEX PARISH: THE STORY OF EARLY DISSENTERS IN PINNER

Patricia A. Clarke

SUMMARY

Dissent in the parish emerged from a period of disturbance and alternating fortunes but showed broad similarities in most places. The parishes of rural Middlesex could not avoid the influence of the metropolis, but it seems not to have overwhelmed them, as might have been expected. Each parish has its individual history, worth following for the tint it gives the county picture. This is just one of them, sharing common characteristics, yet having a distinction of its own.

THE GENERAL SITUATION

The Church of England was firmly embodied in the state. Once the monarch had become the supreme governor of the church, so opposition to its tenets and practice was automatically a matter of concern to the state. Its compromise between Catholicism and Calvinism, embodied in the codification of canon law at the Hampton Court conference of 1604, failed to satisfy the more extreme Protestants who continued to increase in numbers. In pressing their desire to purge church doctrine and practice of all that had no scriptural basis they were perceived as disobedient. Their goal was exemplified in Walter Travers's *Book of Discipline*, wherein the rule of bishops was denied in favour of organisation by ministers and congregational elders, within a system of provincial and national synods.

Nonconformity arose out of opposition from Protestants to the established church. The use of the Book of Common Prayer and vestments were an abomination to them. Their favoured channel of teaching was the sermon, feared by the authorities for its potential to propagate subversive views. In the established church only clerics of safe opinion were licensed to preach; most clergy could meet their obligations by reciting the service from the Prayer Book and reading one of the homilies approved by the authorities. Puritanical pressure was assuaged in some parishes by the appointment, usually at the instance of parishioners, of a 'lecturer' or preacher to preach in the church on Sunday afternoons in addition to the incumbent.

The rise of the High Church party under Charles I, whose chief instrument was Archbishop Laud, continued to polarise attitudes. Practice varied enormously from place to place as factions argued, even while the more traditional ordering of the church itself was regularly enjoined. In the earlier years of the Civil War and inter-regnum, Presbyterianism, with its ministers and synods, was in the ascendant, but by 1650 the more puritan element dominated. Parliament established the Grand Committee of Religion, with various sub committees to administer religious affairs and regulate the conduct, provision and maintenance of the clergy. In 1641 the communion table was ordered to the body of the church and incumbents were obliged to allow the use of the pulpit to lecturers; in 1644 vestments and fonts were ordered to be removed; in the following year the Directory of Public Worship superseded the Book of Common Prayer.

At the Restoration, as a consequence of the Act of Uniformity in 1662, non-conformists were not allowed to remain in the established church.

Two years later the Conventicle Act forbade meetings for unauthorised worship if they consisted of more than five people from more than one household, while the Five Mile Act of 1665 prevented nonconformist ministers from going within a five mile radius of corporate towns, or their former place of ministry, unless they took an oath of non-resistance to authority.

The first Declaration of Indulgence in 1672 at last allowed dissenters to hold meetings, provided that preacher and meeting place were granted a licence. After the Toleration Act of 1689 nonconformists were allowed their own places of worship, teachers and preachers, and some of the civic disabilities imposed upon them were removed.

MIDDLESEX

In rural Middlesex, as elsewhere, Protestant dissent had beginnings in many places. Its Elizabethan clergy made a poor showing at the episcopal visitation of 1586, the brightest comment being 'tolerable', applied to the vicar of Ruislip, and not all established ministers were licensed to preach. Rather exceptionally, the Jacobean vicar of Isleworth, Nicholas Byfield, preached twice on Sundays and twice in the week. In the reign of Charles I lecturers appeared at Isleworth and Ealing, but as the influence of the High Church party grew preaching was stifled there and in other places. Communion rails were brought back at Acton. A new church was consecrated by Laud himself at Great Stanmore, but the puritans called it a private chapel.

Once parliament had begun to prevail over the king the effects of the Grand Committee were apparent in the ejection of many ministers in Middlesex; some for disorderly behaviour, as at Edmonton; some for desertion to the royal army, as at Ickenham; some for using the Book of Common Prayer, as at Hounslow, or using superstitious practices at Staines; others for speaking against the new order, as at Shepperton. Two ministers were imprisoned.

In the period between such ejections and the Restoration, the ministerial role was filled in many parishes by more than one replacement. The rapid turnover might have been the result of confusion or dissatisfaction on the part of either parishioners or minister, but which it was cannot easily be discerned. Thomas Fuller, author of *The Church History of Britian* and *The Worthies of England*, rather like the Vicar of Bray whose comments he recorded, managed to negotiate a successful but perilous course throughout until the Restoration. Finance was a problem, despite Committee recommendations that some maintenance should be increased. Ejected ministers were, in theory, allowed to keep one fifth of tithes, or similar income, but several of the ejected in Middlesex complained that it was not forthcoming. Well over half of the parishes in the county showed signs of some disturbance between 1640 and 1660.

Little iconoclasm has been recorded. The custom of distributing two cakes on Easter Sunday, said to be the occasion of profane scrambling and fighting, was forbidden at Twickenham in 1645, and at nearby Staines in 1650 the font and royal arms were removed. The overturning of the font and breaking of windows at Acton a few years earlier in 1642, was more the action of riotous troops after the Battle of Brentford than of local people.

Some 27 ministers of the new order departed from the outer Middlesex parishes, either at the Restoration or as a result of the Act of Uniformity in 1662. Once the Five Mile Act was law, small groups of such ministers, chiefly from London or urban Middlesex, were to be found at Middlesex towns outside the limit, such as Brentford and Enfield, and also at one or two villages like Acton, Tottenham and Edmonton, where nonconformist feeling had been particularly strong. The most notable individual was Richard Baxter from Kidderminster, who settled at Acton and held illegal conventicles there.

After the Declaration of Indulgence 28 nonconformist ministers were licensed to hold meetings in rural Middlesex, some of whom had served in the locality during the Commonwealth. The number increased in the more settled period of William III following the Declaration of Indulgence in 1689.

Specific names for sects were very much a product of the period of inter-regnum. The Presbyterians wished to replace episcopacy by a system of delegates and synods, which, after 1660, they realised could only be achieved outside the Church of England. The Independents opposed all forms of superior church government in favour of independent self-governing local congregations – they gradually became known as Congregationalists after about 1662. The Baptists' primary characteristic was the adoption of adult

baptism, because of their belief that only committed Christians, of necessity adult, should be baptised. The Quakers rejected all organisation or regulation of creed.

Presbyterians and Independents were the predominant nonconformist sects in 17th century Middlesex, though Baptists – generally more prevalent in towns – Congregationalists, and Quakers were well represented too. As elsewhere in the country, nonconformist enthusiasm declined in the first part of the 18th century, but picked up towards the end, particularly under the influence of Methodism. This was originally a grouping within the Church of England characterised by evangelism and open-air meetings, and by concentration of attention upon those lower sections of society which the established church had come to neglect. It became an independent church in 1795. Congregationalists had the most nonconformist meeting places in the county in the early 19th century. By 1851 they were more closely rivalled by Methodists and Baptists.

PINNER

The earliest times

Pinner was part of Harrow parish until 1766. St John the Baptist's Church was the chapel-of-ease to St Mary's, Harrow, and was the responsibility of the Vicar of Harrow, who, at his discretion, might or might not appoint a curate for Pinner and pay him out of his own income. In the reign of James I Pinner had a minister named John Dey, though it is not known for sure whether he was appointed and paid by the vicar of Harrow. He did have funds of his own. He is not recorded anywhere as a curate, but the position of his memorial on the north side of the chancel, the traditional place for commemorating an incumbent, implies that he had been officially allocated to Pinner. He lodged with Margaret Edlin, widow of yeoman Richard Edlin, at a house called Antoneys (where Antoneys Close now stands).[1]

The desire for more sermons appears in Pinner during the 1620s. It looks as though Richard Street had a lecturer in mind when, in 1622, he directed his executors[2] to pay £2 a year '... forever...towards the maintenance of a preaching minister...at Pinner...when there is any that preacheth there usually twice upon a Sabath Day...'.

Soon after this bequest John Dey died and he too was worried about the future. He bequeathed[3] money for the provision of a 'preaching minister' for Pinner '...a man well qualified and a Master of Arts at least...chosen by the honestest... inhabitants of Pinner.' It was conditional upon a failure of his family's heirs to survive (Dey himself was unmarried and childless). Presumably they did survive for there is no evidence that the bequest ever took effect.

Dey was followed by John Willis. He described himself as curate in 1630[4] and on the Protestation Oath Return of 1641, so he may have been officially appointed by the vicar of Harrow. The £10 a year paid him by the vicar, reserved out of the Pinner tithes, seems to have bought a man's time for the conduct of services, but was not enough to maintain a man who would devote as much of his time to giving sermons as the inhabitants clearly desired. A bequest of ten shillings from William Edlin of Hatch End was made in 1630, a rather small, though no doubt welcome, sum.

By now some of the inhabitants were sufficiently concerned about the adequacy of financial support to make longer term arrangements to supplement whatever was officially provided.

Francis Tyndall, a yeoman living along the Uxbridge Road at what is now the site of Dove Park, bought a field in 1630 and gave it to the parish, that it might be let at a profit. The deed of gift sets out the situation; '...there is a chappell of ease...in the hamlet of Pynnor...used for the administration of the blessed sacrament and celebration of divine service and preaching of the word of God...which chappell, being served without a curate, who wanting sufficient provision and means of livelihood may thereby be much discouraged'. Therefore Tyndall 'for some help towards the maintenance of a *preaching minister* to exercise the said function in the said chappell and his better encouragement therein and especially of John Willis, Clarke, the present minister, who now with much care and conscience doth discharge the said place' gave a close of land in trust for the benefit of John Willis and his successors who 'serve the said cure, being a *preaching minister*' (my italics).[5]

As time went by, John Willis gave less satisfaction. He had been in post for 20 years – maybe he had grown neglectful of preaching –

maybe there was a stronger current of nonconformism in Pinner by then – when some members of his flock took more formal steps to secure what they wanted. In 1642 they complained to the Grand Committee of Religion that he 'seldom preaches or procures any other to perform that duty for him', and they petitioned for a lecturer, offering to maintain him if they might choose him themselves. Philip Goodwin, MA was appointed as a lecturer to provide sermons in addition to the normal services.[6] Who did choose or pay for him is not stated.

No-one had reckoned with John Willis. So galvanised was he by the prospect of competition in his pulpit that on the day of Goodwin's arrival he himself went into St John's Church and preached all Sunday afternoon until six o'clock in order to deny Goodwin the opportunity. This happened several times, and eventually the Parliamentary Committee had to order him to allow Goodwin to preach.[7] In 1645 Goodwin became Vicar of Watford, so presumably his activity in Pinner was at an end. There is the suspicion that the short period denotes a man seeking a more permanent appointment.

John Willis continued as curate, perhaps preaching more satisfactorily, until his death in about 1649. He lived at Mosslane Cottage, which he had bought in 1634,[8] with his wife Joan, two sons, both of whom became clergymen in the Church of England,[9] and three daughters. He must have had private funds to be able to do all this. There were certainly financial problems in the parish. From about 1642 the inhabitants kept back the tithes due from Pinner to Harrow[10] – it was from these, worth £19 6s 8d pa, that the vicar had spared £10 for the curate – but who can now tell whether the benefit went to Willis, Goodwin, or the parishioners' pockets.[11]

The Commonwealth

William Rowles was named as 'Mynyster of the said Chappell' (of Pinner) and called a preaching minister in an official report to Parliament in 1649.[12] Rowles (or Rolles), born about 1625–30, probably in Devon, was educated at Exeter College, Oxford. His local commitment was strengthened by marriage to Martha Edlin, daughter of William and Mary Edlin of Pinner Marsh, whose house used to stand on the site of Pinner Grove and Grove Avenue. The Edlin family was extensive and locally important, its several branches owning or tenanting many of the larger farms between them, but not all of them may have been of the same mind. William and Mary Edlin would have been able to ensure that Rowles did not want, but in 1649 Parliament had authorised an augmentation of £60 to his official £10 from the vicar of Harrow.[13] This seems good, but augmentations were not always soundly financed and Rowles's increase may or may not have been paid. Robert Stanbrough of East End Farm Cottage left him a lump sum of £5 in 1660.[14]

There was at least one other lecturer present in Pinner. In 1651 William Adderley left the village to become a minister to the Navy at Chatham. He was addressed as 'Minister at Pinner' but could not have been other than a lecturer. The letter of appointment says '...we shall expect only preaching, expounding of Scripture and catechizing of youth from you' which may indicate near enough the duties of a lecturer. He was also to be paid £100 a year![15]

Ejection

After the Restoration of the Monarchy and the requirements of the Oath of Uniformity it was no longer possible to use St John's church for the more radical practices of the inter-regnum. William Rowles refused to take the Oath and found himself ejected in 1662. Pinner's old ecclesiastical dependence on the vicar of Harrow was restored.

William Rowles was the first person in Pinner to be licensed after the Declaration of Indulgence ten years later – several early licensees had been ministers in their parish before the Restoration. He was licensed as an Independent minister and allowed to hold meetings at his house.[16] The Edlins had rallied round him, providing him with a house, by sale or gift, which was the same Antoneys where John Dey had lodged.[17] Four local householders, all yeomen, were also licensed to allow meetings to be held in their houses, John Winchester, William Edlin, Richard Stanborough and John Finch. John Winchester's residence is unknown – he was probably renting someone else's place. There is more than one William Edlin, but the likelihood is that this one was the brother of Mrs Rowles, living at her old family home, The Grove. Richard Stanbrough owned East End Farm Cottage (Fig 1) and John Finch was the owner of Waxwell Farm (Fig 2).

Fig 1. East End Farm Cottage, licensed for dissenters' meetings in the 17th century (Courtesy of Pinner Local History Society)

These last two houses still stand today, houses where the earliest nonconformist meetings in Pinner were held. Nowadays the second, the home of 'The Grail', is once again a place of religious activity and worship, though the denomination is now Roman Catholic.

Rowles had some property in Devon, but it is not known whether he had a steady income as a sectarian minister. In 1671, before he was licensed, William Street had left him £10 pa for life,[18] and in 1683 Richard Stanborough of East End Farm Cottage left him a lump sum of £3.[19] By this date Rowles himself was declining; his assistant, Joseph Heywood, described him as a 'very faithful, laborious ancient minister, whose strength is decayed, being in a languishing consumption, that he cannot preach'.[20] A month later, in August 1684, Rowles was dead. The two other descriptions of him likewise portray an earnest character; in 1649 it was said that he 'diligently serves the said cure';[21] and after his death he was called 'a very grave and pious man and very useful in his place'.[22] He probably spent all his working life in Pinner.

An academy

The next recorded nonconformist minister, Thomas Goodwin (no known relation to Philip) had much wider experience. He was educated partly in Holland, where his father had sought refuge after being driven from his post as President of Magdalen College, Oxford. Thomas the father (1600–80) was a notable leader among the Independents in London. He was an author, and like several other divines had collected a large library of his own. He was interred in Bunhill Fields burial ground, where his name is inscribed on the wall, facing Wesley's Chapel. Thomas junior, born about 1650, was the son of his father's second wife Mary Hammond; there had been two sisters who died in infancy, and a brother named Richard who died on a voyage to the East Indies. Thomas entered nonconformist ministry in 1678, joining with three others to lecture at the coffee house in Exchange Alley. During 1683 he toured Europe with friends, and then, in 1684, with a colleague named Stephen Lobb, he became minister of an Independent

Fig 2. Waxwell Farm, licensed for dissenters' meetings in the 17th century (Photo Patricia A. Clarke)

Congregation in Fetter Lane which is thought to have been founded by his father. Like his father, Thomas enjoyed fame as an author, for his history of Henry V, and for religious writings.[23] Calamy says that he was 'a person of good standing and an excellent temper'.[24]

By 1690 the younger Goodwin had settled in Pinner, where his own son Thomas was baptised in September 1690. He rented a house from William Edlin (brother of Martha Rowles) who left it to his daughter Martha Richmond, wife of an apothecary, on condition that she allow Goodwin to continue residence there on the same terms for as long as he 'shall bee minister or Teacher of ye Congregation of Pinner' or else to 'pay unto ye said Mr Goodwin the summe of £3 yearly...during such time as hee shall continue or bee Minister att Pynnore'.[25]

At Pinner Goodwin kept a school, not for children, as is usually assumed, but for students of divinity.[26] This was an activity only recently made legal by the Toleration Act of 1689. It was one of the early nonconformist academies maintained by the Congregational Church to train its ministers, and Goodwin was asked to conduct it in June 1696. These schools were generally based in the master's home, as was Goodwin's. His students boarded with him, and the Congregational authorities provided him with linen for their use.

Records for the first eight years of the academy show that a great deal of care was taken by the Congregational authorities. Students must have a satisfactory ability to read and speak Latin before beginning; they were given a quarterly discretionary allowance, with an upper limit of £16 pa; at the conclusion of their studies they were placed in positions by the authorities. There was no fixed period of study, and no information about the curriculum has survived.

The first two students were transferred to Goodwin from another academy at Gloucester. At the end of the first year a Congregational elder named Lobb (very likely his old friend Stephen) was sent to examine the students and make a report, which must have been satisfactory

because the academy continued. A new arrival, Mr Oddy, was sent to him to study and assist with teaching philology, and for this Oddy was to be paid £30 pa. In October 1699, having received a total of £37 10s to date, Oddy was 'discharged with £5 in satisfaction of all demands'. This suggests disappointment – or maybe more than that when taken with a comment three months later that 'Before any student be taken into our care his character to be reported on'. Twenty-eight further students at the Pinner academy are known by name: Mr Wilson, Mr Wills, Caleb Wroe, Mr King, Mr Delemer, John Guyse, Mr Keith, Mr Jolly, Stephen Lobb, Mr Holland, Henry Shepherd, John Green, Mr Mason, William Scott, Mr Hill, Nathan Hickford, Mr Shuttlewood, Jabez Hughes, Mr Millway, Mr Bentley, John Phillips, Samuel Saddington, Mr Tingey, James Watson, Theophilus Lobb, Mr Olliffe, T. Linnet, Mr Keen.

The two Lobb students were presumably relatives of Stephen. No records survive for the period after 1704 so it is not known when the school came to an end.

William Edlin's house, where Goodwin lived, and must have kept his school, was the one later known as Pinner Place. There is no evidence that Goodwin left it before his death in 1708. Apart from *An History of the Reign of Henry V* (1704), and the theological tracts (*A Vindication of the Protestant Doctrine Concerning Justification* in 1693, *A Discourse on the True Nature of the Gospel* in 1695) Goodwin published various funeral and thanksgiving sermons, a common practice. He bequeathed the manuscripts of his own father's works, published and unpublished, together with his library of 5,000 or 6,000 volumes, to his only son Thomas, and was buried in his father's vault at Bunhill Fields.[27]

Thomas Goodwin the third died in 1711, scarcely 21 years old and not famous, leaving all his estate to his widowed mother Abigail Goodwin.[28] The next known dissenting minister of Pinner lived elsewhere, which could mean that Goodwin occupied Pinner Place. Photographs of the Pinner Place demolished in 1953 show that the Goodwin house had been rebuilt soon after their time.

The early 18th century

Meanwhile a new licence for a meeting house was granted on 5th June 1700, this time for 'Protestant Dissenters called Quakers' but no location is shown beyond 'At Pinner parish in ye County of Mid'.[29] There is no other contemporary reference to Quakers in Pinner, but there may possibly have been a connection with the next known dissenting minister Stephen Crisp, who could have been the son of Stephen Crisp of Colchester (1628–92), a notable Quaker buried at Bunhill Fields.

John Evans's List of Dissenting Congregations and Ministers, made between 1715 and 1729, records the existence of an Independent Congregation in Pinner ministered to by Stephen Crisp.[30] Stephen Crisp had witnessed the wills of both Goodwins of Pinner Place. He lived at Antoneys, owned at this time by Thomas Child, nephew by marriage of the William Edlin to whom William Rowles had left it in 1684.[31] Crisp was buried in Pinner on 22/11/1729. The parish registers show several possible family members, though only one is identified as such, his daughter Mary, buried on 1/6/1711. No more nonconformist ministers of Pinner are recorded by name until 1806.

During Crisp's time the dwelling house of Henry Street at Woodlane End was licensed for 'the worship of Protestant dissenters from the Church of England',[32] upon the application of John Street, John Street, Daniel Street, Thomas Hunt and John Bell, made on 4th September 1711. This house was the one later called Dears Farm (Fig 3), which stood at the top of Bridge Street until demolished about 1935.

The Meeting House

In April 1714 John Street of West House took a 21 year-lease of Elizabeth Lawrence's barn,[33] and within a month he had, with others, obtained a licence to use it as a meeting house – the first in Pinner which was not at the same time a dwelling house. The document[34] read as follows:

> 'This is to certifie to whom it may concern that an adjacent outhouse of Elizabeth Lawrence, widdow standing in Pinner in the parish of Harrow in the County of Middx lying by the yard where John Tame now dwells north and the highway leading to Pinner Town south is the place Appointed for the meeting of protestants dissenting from the Church of England commonly called Independants we whose names are hereunto subscribed humbly pray it may be licensed according to law.
> Date 15th May 1714
> John Street John Robince Daniel Street
> John Street Stephen Crisp Robert Stanbrough junr
> Robert Stanbrough Phill. Aldwin Henry Street
> Endorsed – Mr Crisp Meeting House 28th May 1714'

Fig 3. Dears Farm, licensed for dissenters' meetings in 1711 (Courtesy of Harrow Reference Library)

Mrs Lawrence mortgaged the whole property to John Street's son for £157 10s in 1732[35] and he left the mortgage to his daughter Mary Rawlings of Cloth Fair in London. When she died in 1765 an actual meeting house on the plot was mentioned, the first proper meeting house for nonconformists in Pinner.[36] In view of the paucity of nonconformists in Pinner by this time, the odds are that the meeting house had been built very close to the year 1714, financed by the worshippers or John Street. Elizabeth Lawrence's house was in Love Lane near the site now occupied by St Luke's Roman Catholic Church; her outhouse was along the south-west side of the plot, and the meeting house is identifiable from later documents as standing just south of this on a piece of waste she rented.

The late 18th and early 19th centuries

The brevity of the references to nonconformity in Pinner as the 18th century progressed gives an appearance of decline, as was the case generally, but it may have been an illusory one. There were small bequests of financial support from members of the Street family. One of £3 pa from John Street of West House and another of £4 4s pa from his brother Henry of East End Farm Cottage, both of whom died within eight weeks of each other in 1750, are couched in almost identical terms – 'unto such protestant dissenting Minister Dissenting from the Church of England as shall from time to time Preach to the Congregation of Protestant dissenters that now do or hereafter shall meet for the worship of God in Pinner'. John's widow left a further £2 pa for the term of 20 years from 1757 to 'the Protestant Dissenters meeting Place in Pinner'.[37] The list of Middlesex congregations in 1772 notes a congregation with a minister at Pinner,[38] though the denomination was not specified nor the minister named. Lysons, writing his *Environs of London* in 1795, refers to a small Independent meeting house at Pinner,[39] implying that there was still a congregation.

The Pinner congregation of nonconformists survived into the 19th century and was joined in the early years by two dissenters from Harrow, Joseph Holder Freshwater and Henry Puddyfoot, who were wont to walk over to Pinner, or even into Watford, to find co-religionists in worship, there being no nearer place. In 1806, on the advice of Mr Schofield 'of the ministry of Pinner'

(minister? worshipper?), they began to meet in Harrow, presumably because numbers were increasing. Pulpit and seats were provided at no charge by Mr Woodbridge – probably one of the Woodbridges of Pinner, carpenters by trade, who had had no hesitation about charging for repairing the pews in Pinner church – an indication of their religious sentiments perhaps. The house of John Kidney in Hoggot Lane (Crown Street?), Harrow, was licensed in 1809, and in 1812 another licence was granted for '... a building lately erected on...land...fronting the Road leading from Harrow to Pinner situate...in the Hamlet of Rochsey' (Roxeth).[40]

The visits of Freshwater and Puddyfoot provide the last known reference to active nonconformists in Pinner called by the various and perhaps imprecise names of Independent, Baptist, Congregational, Presbyterian.

The Meeting House re-appears

But what was the fate of the meeting house? If it existed today it would be tucked tightly within the curve of the back yards of the shops curving around the northern corner of Love Lane and Bridge Street. How curious that, as at Waxwell, the site of the property to which it was attached should have become a place of Roman Catholic worship. The site was originally a small piece of waste ground adjoining Mrs Lawrence's plot, and rented with it. The whole property, including the meeting house, was sold with the mortgage in 1784 by the Street heir, William Finch, to William Mondet. Mrs Mondet died in 1791 and was buried in her own garden, the only recorded case of burial outside the churchyard in Pinner.[41] In 1808, at long, long last, the old mortgage of 1732 was redeemed by John Shaw, great-nephew of Elizabeth Lawrence, and he remortgaged it all to Edward Howard for the larger sum of £300. The following year he sold the piece of waste to Howard, and in 1810 converted the rest of the mortgage to a sale.[42] When, towards the middle of the century, Howard's daughter Charlotte had the old house demolished and replaced by Howard Place, a group of three almshouses, the meeting house had gone.

It had gone, but not very far. The records of the Harrow Baptist Church recount that two Baptists 'In 1811...purchased a building at Pinner, previously used as a Presbyterian Church, and had it erected at Byron Hill, Harrow. The cost of its removal and re-erection was £421...'. Byron Hill is in Roxeth and this same meeting house must be the one licensed for 'Rochsey' in 1812.

Moreover, there is included among the records a sketch by Mr A.B.Smith, senior deacon '...of the first Dissenting Place of Worship at Harrow-on-the-Hill'. This can have been no other than the meeting house built by the Independents at Pinner sometime after 1714, sold off by Howard once he was the owner. The dates fit and accord with the fading out of the Independents here. There may have been some change upon re-erection, but nevertheless it resembles the general style of earlier nonconformist chapels, having the entrance in one of the long sides, and windows high above the seats (Fig 4). The energetic Mr Puddyfoot and Mr Freshwater became stalwart members of the Harrow Baptist congregation.[43]

Attitudes in the parish

Pinner's experience of early nonconformity demonstrates an apparent lack of animosity in the parish towards dissenters, John Willis's stand in the pulpit being about the most vehement manifestation. Nor is there any indication of iconoclasm. It was not until the act of Uniformity caused the ejection of Rowles that there was any split from the parish church, the earlier activities being contained within it, even physically. The parish church continued to be used by dissenters for baptisms and burials, though there was, in fact, little alternative. In responding to Bishop Compton's official enquiry in 1676 about the number of residents 'who either obstinately refuse

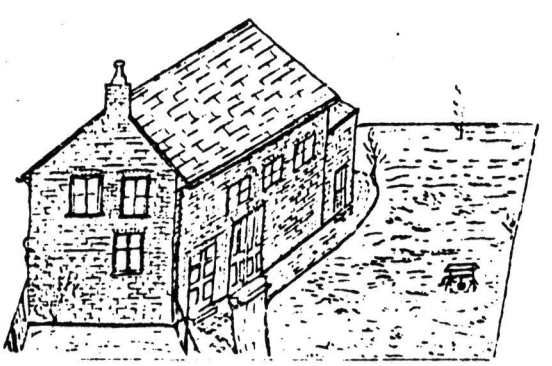

Fig 4. The first proper meeting house of dissenters in Roxeth, probably brought there from Pinner (Courtesy of Harrow Reference Library)

or wholly absent themselves from the communion of the Church of England', the vicar of Harrow said that there were none, neither Papist nor other nonconformist, in either Harrow or Pinner. Though this was patently untrue as far as Pinner was concerned, and the figures of population used by the vicar have all the appearance of the very roundest of estimates, Pinner dissenters were clearly not alienated from their parish church. They did want more than it offered, and of a different tenor, but those very people who financed Rowles, or made their houses available for meetings, took their turn as churchwardens in the 17th century;[44] the same ones succeeded each other well into the 18th century as trustees for Francis Tyndall's gift of 1630.[45] When some extra land was purchased for the parish in 1732 with profits from Tyndall's land, it was the two John Streets, plus Henry and Daniel who were the trustees for the transaction.[46]

Those early dissenters whose names we know came almost entirely from yeoman families, Edlin, Stanbrough and Street in particular. There was a good deal of intermarriage among them. In the 17th century they flourished and were able to accumulate properties so as to provide holdings for younger sons, and even daughters. The Edlin family was already sending some sons into the church or into commerce – Richard, one of the sons of Margaret and Richard, was Master of the Tallowchandlers' Society at the time of the Great Fire. By the early 18th century however the male line of this family was much diminished in Pinner. There is no trace of the name Edlin in the nonconformist records after 1700, and the husbands of the heiresses Martha Richmond and Elizabeth Child do not figure as nonconformists. The Stanboroughs had all but died out by the middle of the 18th century – their last local representative married into the Street family. The Streets flourished well into the 18th century – John Street of West End, as executor and chief trustee of the large estate of Sir Edward Waldo, was virtually a gentleman; many of them began to move into trade, leaving Pinner in the process, and by the end of the century they were all gone.

The Edlin family had had a special influence on the course of nonconformity in Pinner. During the reign of James I Margaret Edlin had welcomed John Dey, the preaching minister, as a lodger in her house called Antoneys; the property passed to her clergyman son Philip (established church), and then to his son Christopher, who conveyed it to the Independent minister William Rowles, husband of Martha Edlin, who was, like Christopher, a grandchild of Margaret. It was Martha's brother William, another grandchild of Margaret, who put his house Pinner Place at the disposal of Thomas Goodwin, the Independent/Congregational minister. Meanwhile Antoneys had reverted to the Edlin family after the death of Martha Rowles, and Margaret's great grand-daughter Elizabeth, wife of Thomas Child, made it available to the last named nonconformist minister Stephen Crisp. This probably occurred after the death of Martha Rowles in 1699. Perhaps Goodwin also would have occupied Antoneys had Rowles's widow not been there. This steady provision of good accommodation for dissenting ministers for over a century by the same branch of one family, may have been a significant reason why the movement both flourished and dwindled when it did in Pinner.

It was people like these, who tended to be the public figures in local organisations, whose names were recorded. Of those who signed the 1711 application Thomas Hunt and John Bell are otherwise unknown; of those in 1714, John Robince (Robins) was a Street grandson, and Philip Aldwin was a tallowchandler fairly new to Pinner. There are no records to show whether there were any other adherents, nor how many, nor what station in life they held. As the old leading families gradually left the scene during the course of the 18th century it may be that the congregation waned accordingly. Perhaps those left were too few to afford regular provision, having visiting preachers from time to time paid out of the three Street bequests. Maybe the existence of the meeting house encouraged a congregation from other parts, like those we know of from Harrow, who had none of their own, when perhaps the local support was already ebbing. Maybe the position was then reversed, with Pinner adherents (Woodbridge perhaps?) going elsewhere. The growth of other denominations in the 19th century perhaps offered an alternative.

With the Methodists the cycle was repeated. They are said to have held 'cottage meetings' in Pinner in 1795.[47] By November 1830 a barn and stable attached to an old wooden house in Chapel Lane had been fitted out as a Wesleyan Chapel,[48] and here the members worshipped until 1844,[49] when a proper chapel was opened on part of the orchard of the old house, taken

on long lease by the trustees. But that is another story.

CONCLUSION

Pinner appears to resemble other places in Middlesex in its use of lecturers, in suffering the ejection of its minister in 1662, in the licensing of nonconformist ministers and of local houses for meetings. It was similar also in its apparent preference for the Independent sect, insofar as nomenclature has a meaning in the later 17th century. It enjoyed a distinction in being host to a nonconformist academy, and a novelty in the fate of its meeting house. Research into other parishes would show whether its apparently continuous history of nonconformism between the Restoration and the arrival of the Methodists was common in Middlesex.

NOTES

[1] Greater London Record Office: Acc 76/1095c
[2] Lambeth Palace: VH96/2484
[3] GLRO: Acc 76/1095c
[4] GLRO: DRO8/A9/2
[5] *ibid.*
[6] Journals of the House of Commons, vol II, p723
[7] *ibid.*
[8] GLRO: Acc 974/IV m 17,3
[9] Calamy Revised, ed Mathews
[10] *Home Counties Magazine* vol 1, p321
[11] *ibid.*
[12] *ibid.*
[13] *ibid.*
[14] PCC 80 May
[15] Ware, EM *Pinner in the Vale* para 401
[16] Cal SP Dom 1672, p677, 680
[17] Acc 276/435; PCC 104 Hare
[18] PCC Shoreham & Croydon Reg I fo 181
[19] PCC Shoreham & Croydon Reg II fo 122
[20] Calamy Revised, ed Mathews, p416
[21] *Home Counties Magazine* vol 1 p321
[22] Calamy, ed Palmer vol II, p461
[23] *Dictionary of National Biography*
[24] Calamy Revised, ed Mathews p241
[25] Acc 76/2433, 4.5 1696, 20
[26] Dr William's Library: *Trans Congregational Hist Soc* vol 6 p137
[27] PCC 39 Barnet
[28] PCC 81 Young
[29] Guildhall MS 9579. This is the same as the Quaker certificate referred to in VCH Middx, vol IV, p261 n47. M.Watts in *The Chapel and the Nation* (Historical Assn 1996) warns that the denominational labels in certificates were often wrong.
[30] Dr William's Libary: J.Evans's list of Dissenting Congregations, ref 706.E.33, p79
[31] GLRO: Acc 76/29
[32] MSP 1711 Seq 1/89
[33] GLRO: ACC 76/2433, 23.4.1714
[34] Lambeth Palace VP 1C/46
[35] GLRO: Acc 76/2434, 24.4.1732
[36] GLRO: Acc 76/507, 19.6.1765
[37] PCC Shoreham & Croydon, Reg VII, fo 439; Reg VII fo 432; PCC 64 Heming
[38] Dr William's Library: J.Evans's list of Dissenting Congregations ref 706.E.33
[39] Lysons *The Environs of London* ii, 586
[40] Harrow Reference Library: R.A.Smith, Centenary Souvenir of Harrow Baptist Church, Byron Hill 1906
[41] Pinner Parish Registers. No later reference to this grave has been found even during redevelopment
[42] Acc 507/3; 7.6.1808; 17.12.1809; 6.4.1810
[43] R.A.Smith *op cit*
[44] DRO8/B1/1
[45] DRO8/A9/3,4,6,7
[46] DRO8/A9/5
[47] Pinner Methodist Church Golden Jubilee Brochure 1937–1987, p63
[48] Middx Deeds Reg 1830 Bk 9, no.34
[49] Harrow Reference Library: Pinner Methodist Church Centenary Brochure

THE FIRST HAMPTON COURT BRIDGE

Geoff Potter

INTRODUCTION

An archaeological watching brief was carried out by the Museum of London Archaeology Service during extension of the Mitre Hotel, Hampton Court, in 1992. Work took place just to the west (upstream) of the present bridge, which was opened in 1933 (TQ 1535 6856). This included the area of the preceding mid Victorian bridge abutment and toll house, both of which remained in situ (Fig 1, A & B).

BACKGROUND

There have been four bridges between Hampton Court and East Molesey, the first three were privately built and funded by tolls until 1876 (Baker 1961). The first bridge, basically of timber with seven arches supported on piles, was opened in 1753 and the second, also of timber with eleven arches,[1] by 1770; the latter was replaced by a five arch cast-iron structure in 1865. These bridges were built on more or less the same site, some 15m to 30m to the west of the present bridge, and all appear in contemporary illustrations (Gascoigne & Ditchburn 1981, cat. 620–641).

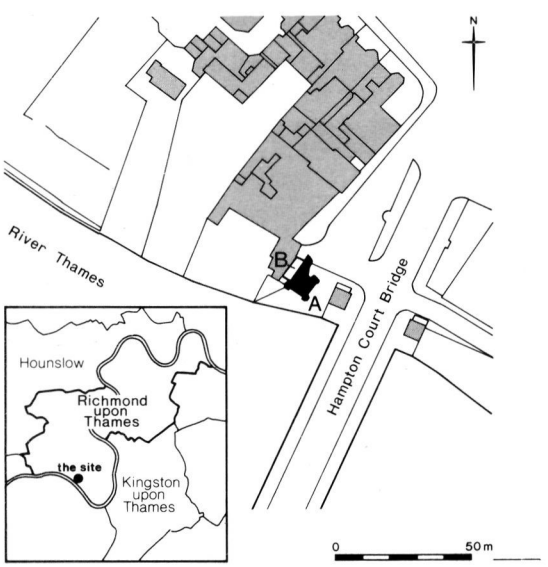

Fig 1. Site location

DISCUSSION

The watching brief revealed a substantial part of the masonry abutment of the first bridge (Fig 2). This was retained with modifications for the second bridge and finally encased, after removal of the upper level of masonry, within the Victorian reconstruction. Upstream of the abutment and behind the present waterfront there were two phases of brick-built river wall, constructed *c.*1670 and 1850. The earlier and more substantial of these may well be contemporary with the Mitre Hotel, which lay about 6m to the north and for which the earliest known reference is 1676 (Manor Court Rolls, PRO. LR3/40/5 Lib VI). The wall survived to a maximum height of 2.50m. It was up to 0.80m thick and was traced upstream for over 30m. To the east there was a landward return, presumably giving way to the sloping foreshore from which the ferry operated until 1753. It appears that in the early 17th century this point marked the approximate limit of the tidal reach (VCH 1967, 452), although by 1752 the Articles of Agreement for construction of the Bridge refer to High and Low Water (SRO 2200/1/2/2).

The first bridge abutment was solidly constructed of brick with quoins of oolitic limestone

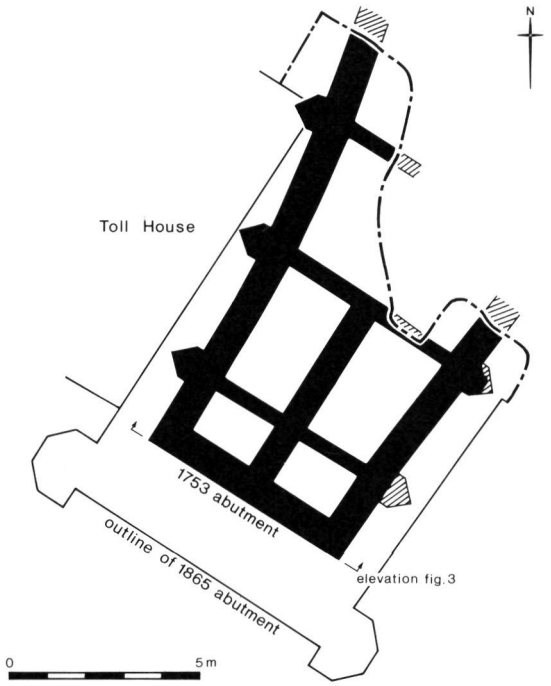

Fig 2. Plan of first bridge abutment

(?Portland stone) at the riverward corners, as prescribed within the Articles of Agreement. There were also two blocks of stone set within the upper part of the southern wall (Fig 3). The external walls were *c.*0.70m to 1m thick, increasing to the base and with a double batter on the riverward face. The exposed brickwork appeared generally to be of Flemish bond, but English on the upstream buttresses. The full abutment is shown in a contemporary illustration (Fig 4) and in preliminary form within the revised Articles of Agreement of February 1753 (SRO 2200/1/2/6), although the latter varies in detail from the actual structure. In conjunction with the archaeological record this source material enables a reliable estimate of the overall dimensions to be made: the completed abutment would have been some 14.5m in length and about 6m to 10m in width, and up to 6.25m high at its riverward end. Originally the structure was not infilled, but supported the roadway on a series of internal brick walls 0.35m to 0.74m thick; externally these were marked by brick buttresses on the up and downstream faces. The central and thicker north–south wall was only present within the southern and narrower part of the abutment, suggesting that its primary purpose was to reinforce the riverward face against stresses from the adjacent arch.

Much of the abutment survived to a fairly uniform height (*c.* +8m OD), which may well correspond to the level at which the first arch was sprung; this was also suggested by one extant block of Portland stone overlying brickwork immediately to the north of the landward buttress on the downstream face (presumably part of the horizontal coping shown in Fig 4). The base of the abutment was not exposed, although the west face elevation in the revised Articles of Agreement suggests a further 1.50m of masonry below the recorded level of the riverward face. Contemporary sources (including the 1753 elevation, Fig

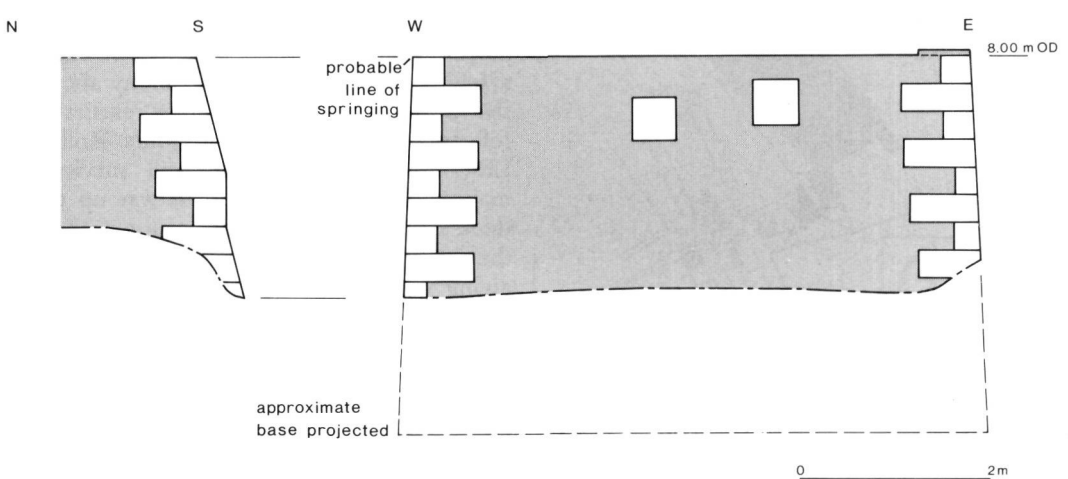

Fig 3. Elevation of riverward (south) face of the abutment

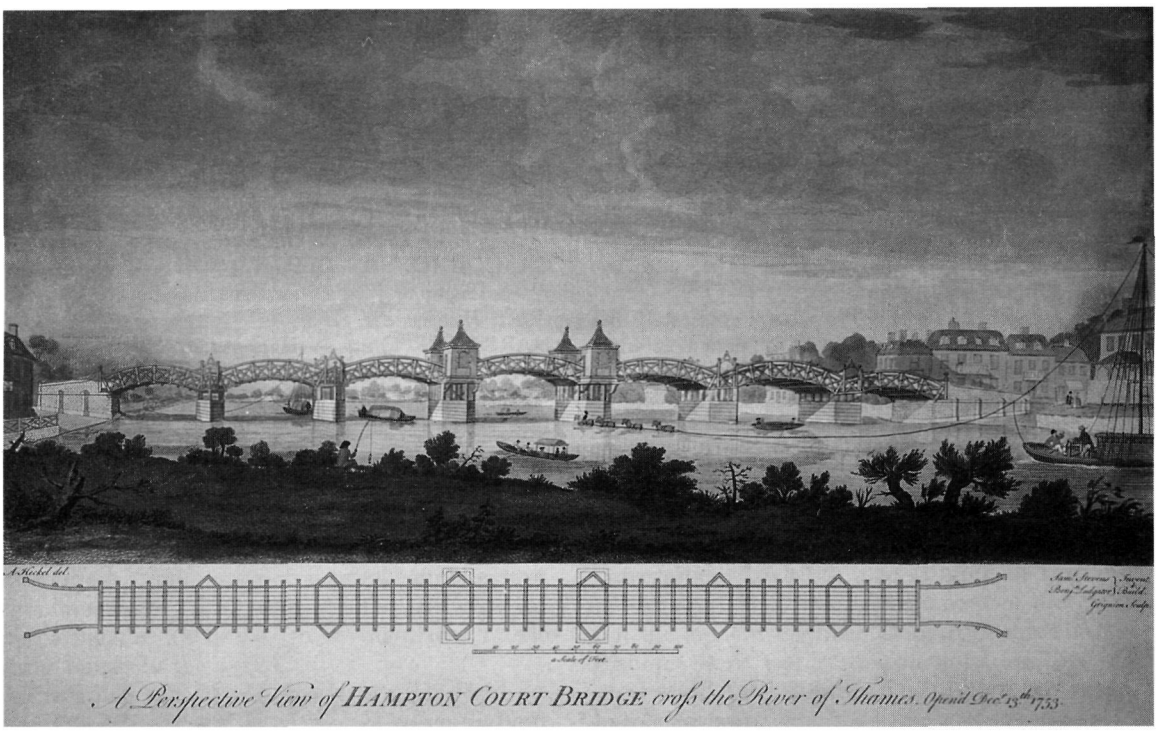

Fig 4. Downstream face of the first bridge, 1753 (A Perspective view of Hampton Court Bridge ... Open'd Dec.r 13.th 1753. Reproduced by permission of the Guildhall Library)

4 and a written report[2]) also suggest that the lowest level of construction was of stone.

The first bridge appears to have been poorly constructed (Ireland 1792, II, 81) and soon fell into decay,[3] being replaced about 1767.[4] The new bridge reused the previous abutment (probably also at the East Molesey end), although contemporary illustrations give no clear indication of this. The abutment was also infilled, mainly with clean sandy gravel, and the upper part of the internal walls removed. This probably took place during reconstruction, with the further addition of a toll house on the upstream side. The latter is illustrated as early as 1795 (Gascoigne & Ditchburn 1981, cat.629), and is shown with a timber canopy over the road between 1790[5] and 1834 (Fearnside 1834, opp.66). A surviving brick wallbase suggests that the toll house was built out over the infilled abutment, on a line with the bridge itself and by up to 2m in the area of the landward buttress.

There seems to have been little further change until the 1860s, although the toll house canopy had disappeared by 1850 (Baker 1961, plate Vb). This period may also have witnessed the loss of the outer buttress on the downstream face (at least at its upper level) and subsequent brick refacing; contemporary illustrations appear to show a small hut at this point (*ibid*; Gascoigne & Ditchburn 1981, cat.634).

NOTES

[1] Some accounts give ten arches, possibly as a result of blocking by *c.*1790 on the upstream side of the northernmost arch (compare cat.629 & 630, Gascoigne & Ditchburn 1981).

[2] *The London Magazine,* 9 October 1752, reports 'a great concourse of people at Moulsey ... to see the first pile drove for the new bridge, and the first stone laid for the abutment'

[3] *The Public Advertiser,* 16 January 1766, reports that the bridge 'being decayed, is going to be pulled down'.

[4] The date widely given is 1778 (possibly from Brayley 1841, II, 307). However, Ireland gives a date of *c.*1767 (Ireland 1792, II, 81); the second bridge is also illustrated in Harrison 1775, opp.593 (reproduced in Gascoigne & Ditchburn 1981, cat.629).

[5] T Rowlandson *Hampton Court Bridge and 'The Toy'* 1790.

ACKNOWLEDGEMENTS

Grateful thanks are expressed to Coldunell Limited, who provided facilities and funding for the watching brief. Particular thanks are due to John Richardson for his help in arranging the fieldwork, and for supplying material on the history of the bridge and Mitre Hotel.

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The author would like to thank the staff of Twickenham Local Studies Library for their help with research, and the Guildhall Library for permission to reproduce Figure 4.

Thanks also to the various MoLAS staff concerned with the project, both on and off site. Finds dating was undertaken by Kieron Heard and Roy Stephenson, and the illustrations produced by Jeanette van der Post.

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PRO Public Record Office

SRO Surrey Record Office

VCH (1967) *Victoria County History of Surrey* 3

SIN AND THE ANGLO CATHOLICS

Father Scott Anderson

TALK GIVEN AT LAMAS LOCAL HISTORY CONFERENCE 1997

It is traditional for people like me to begin with a disclaimer, along the lines of 'I'm not a historian and I'm not an architect.' But I am an Anglo-Catholic (and I'm actually a sinner as well) so presumably I have some authority to speak to the title I've been given. I'm an enthuasiast with a little knowledge of some of the hidden and forgotten byways, by which the life of the people of London has been shaped.

In my teens I discovered the Anglo-Catholic Movement and Gothic Revival architecture simultaneously. And one of the delights of preparing for today was to revisit places I first came across in the 1960s.

I'm going to take you first to Wapping in East London. It's still not an easy place to get to, and in the 1850s you didn't want to get to it, unless you had the misfortune to work or live there. The towering warehouses are now converted into flats. The narrow streets, tiny houses and tenements have gone. Anyone coming here in the early part of Victoria's reign had first to negotiate the notorious Ratcliff Highway, a place of public houses, brothels and seedy lodgings – and then cross the bridge over the docks into Wapping Lane.

Into this area in 1856, aged 36, came a priest of the Church of England, Charles Fuge Lowder. He had been ordained in 1844, the son of a wealthy banker from Bath. But to understand why a man of his background chose to spend his life in East London we need to look at the momentous changes which had taken place in the National Church as Charles Lowder was growing up.

By the beginning of the 19th century the Church of England was in terminal decline. One member of Parliament warned any young man considering ordination to think again: for he was proposing that the C of E should be abolished and its older clergy pensioned off. In the 1820s St Paul's Cathedral reported fewer than 50 communicants on Easter Day. And in 1832 Thomas Arnold remarked, 'The Church, as it now stands no human power can save'.

At the beginning of the 1830s Parliament began to debate a Bill to amalgamate the dioceses of the Church of Ireland. Since Ireland was overwhelmingly Roman Catholic, the C of I simply did not need its many Anglican Cathedrals and Bishops. How sensible, how uncontroversial. But not to John Keble, a country priest who in 1833 preached a sermon in the University Church in Oxford entitled 'National Apostasy'. In modern terms he demanded that the Government back off. The Church of England, he declared, was not a department of the State, but the ancient Catholic Church of this land; its Bishops were not state functionaries, but the successors of the Apostles.The Oxford Movement had been born.

The sermon hit the headlines, and provoked controversy up and down the land. It marked a great awakening in the English Church which we call variously, the 'Oxford Movement and 'the Catholic Revival'.

It may well seem incredible to us that this one sermon should transform the face of Victorian Christianity. The Barchester Chronicles are witty and provocative. Trollope is often unfair to the Evangelicals, represented by Mr Slope. Nonetheless, the overwhelming impression is of a National Church which had remained unchanged for a century and a half. The best of Trollope's clergy are personally devout and kind. At their worst they are concerned with position, privilege and maintaining their considerable incomes, in the face of government interference.

It is difficult for us to understand just what a radical challenge the Anglo-Catholics represented to this world. They brought a new professionalism to the clerical life, broke the identification of the clergy with patterns of upper class life and behaviour, and sought to challenge laissez-faire attitudes to economics and class, by direct intervention in their parishes.

They were as concerned with sin as had been the evangelicals in their revival. But they saw sin as more than wrong behaviour of the individual. They believed that society and government could

be sinful in their collective attitudes and actions; and above all they declared that the poor were sinners more often than not, because they were sinned against: you could not expect people to be good when you condemned them to long hours, appalling working conditions and slum housing.

The Catholic Revival of 1833 had begun in Oxford, as an appeal to history. It became a determined movement among the younger clergy to restore to the Church of England Catholic belief and worship. The establishment was horrified; surely all this superstition and mummery had been swept away at the Reformation. 'Not a bit of it' cried the young enthusiasts. And if the middle classes didn't like it, they would go to the poor.

So, back to St Peter's, Wapping. In 1866 the permanent church was consecrated. The church is part of a larger complex, approached between the Clergy House and the Institute – and across the road, the schools. Those who would dismiss the Anglo-Catholics as 'ritualists' – interested merely in vestments and incense should consider what was being provided here. It represents an alternative culture: a place where human beings might, from cradle to grave, find something other than what their station in life condemned them to. Here was a place to lift not just the soul, though that was central, but the mind and the body as well.

Hardly had the church been consecrated than cholera broke out in the area. While other professionals fled from Wapping, Lowder and his colleagues stayed. It is generally held that Charles Lowder was the first Anglican priest to be called 'Father' and that the use of the title dates from the time of the epidemic.

We move, still within London's East End, to Shoreditch, not far from Liverpool Street Station. Here in 1866, Fr Henry Nihill, the vicar of St Michael's Shoreditch, gave his support to Monica Skinner, who took vows as a Benedictine nun and built the Convent and Hospital for sick and incurable children (Fig 1).

Mother Monica was typical of those women who re-founded the Religious Life in the 19th century Church of England. Most of them came from upper class families. They adopted a form of mediaeval monasticism completely at odds with what most people thought the C of E stood for; they lived with an abandoned austerity which shocked and terrified their contemporaries. Fr Nihill's letters are full of accounts of the sisters

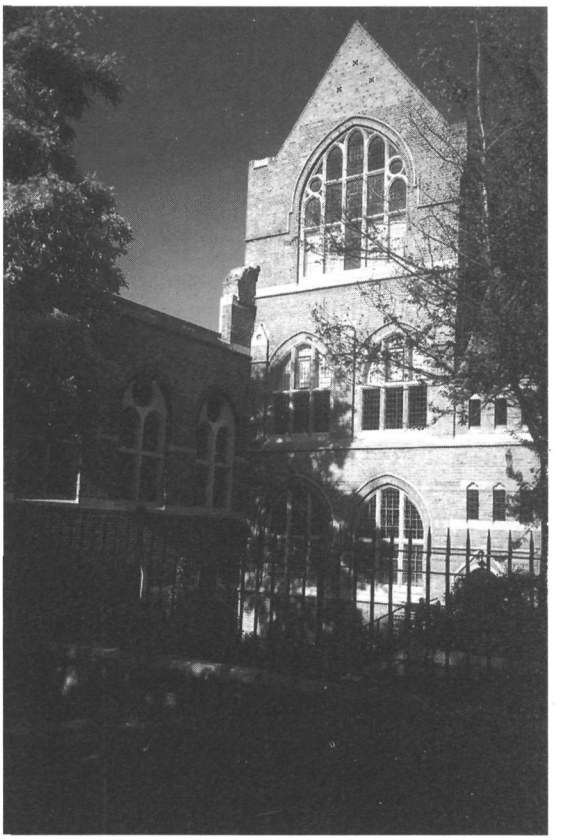

Fig 1. The old Convent at Shoreditch

being taken before the magistrates for unashamed begging in the streets. In 1874 the land at Edgware was bought as the site for a Smallpox hospital and in 1932 the Shoreditch convent was closed and the community moved to Edgware. The Church is now an architectural warehouse; the Convent, offices.

It is a reminder to us that the great men and women of the Anglo-Catholic revival built for a purpose: working buildings to serve the needs of their area. Such determined and radical people might have had hard things to say about our obsession with preserving church buildings. But it is hard to see them go. The Anglo-Catholics produced stunning buildings: full of 'vistas and vaulting' to quote John Betjeman, but designed to be worshipped in, not looked at. Large, and yet homely with corners for favourite saints and altars to remember loved ones who had died. Vulgar and cluttered sometimes, for our taste, but in their time daring and even fun. Bishops fulminated against them, but the poor recognised

priests who cared for them. And the rich turned their carriages in the direction of Euston and Paddington, Holborn and Pimlico, and brought their money and influence with them.

The life of the community at Edgware is now as fragile as it was in the early days. Many of the sisters are elderly and infirm themselves. This, however, did not stop them selling a chunk of their grounds for housing, and building a state-of-the-art House for the handicapped, frail and elderly, which was opened in 1992.

By the 1920s Anglo-Catholicism had fought and won many of its battles. It was enjoying intellectual respectability, and growing influence among the hierarchy of the Church. Public displays of Anglo-catholic worship were seen at the White City and the Albert Hall in 1933, the anniversary of Keble's Sermon. Some would say that the rot set in at this time, as Anglo Catholics rested on their laurels and became increasingly concerned with the details of worship and church furnishing. There is some truth in this, yet the concern for social justice was as strong as ever, as we see in our next project: the St Pancras Housing Association.

Fr Basil Jellicoe was born in 1899, and ordained deacon in 1922. Educated at Magdalen College, Oxford, it was natural enough for him to go to the Magdalen College Mission at St Mary's, Somers Town, close to Euston Station. Fr Jellicoe began his crusade for better housing immediately, and poured his talents for organisation, and money-raising into the newly formed Housing Association.

Fr Jellicoe was a great publicist. A contemporary film shows the dynamiting of old houses in Bridgewater Street, and the ceremonial burning of huge models of a bug, flea, rat and cockroach. The blocks of flats (Fig 2) were dedicated to the saints, and indeed the poles supporting the washing lines have carved statues of St Michael, St Francis and St George as well as Nursery Rhyme characters.

The flats were spacious and modern, the first totally electrically-equipped dwellings of their kind. But they were also a delight to look at with their glazed pottery bas reliefs, the central clock and the stunning detailing of the gateways. Fr Jellicoe cared passionately for the lives of the poor – his people – for their souls, their bodies and their minds. Nothing was too good for them. He challenged the moneyed upper classes from whom he came, and they responded. He died only 36.

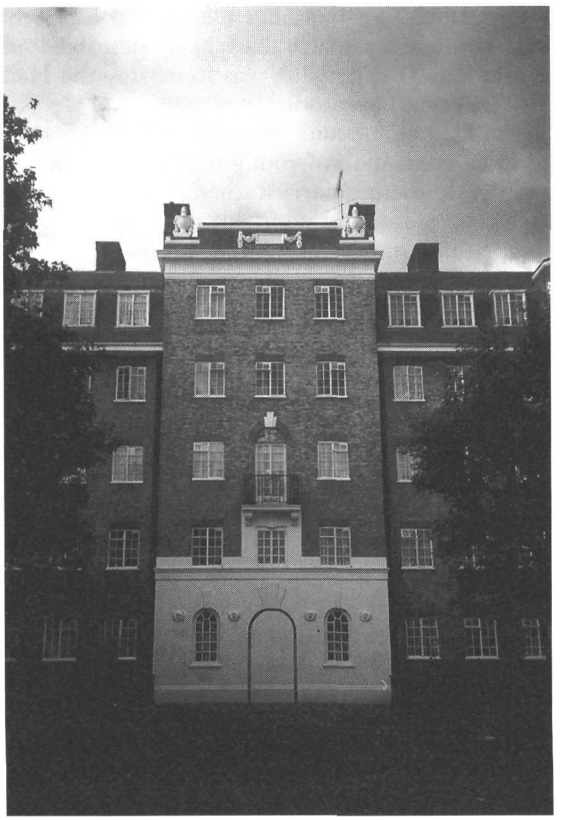

Fig 2. St Pancras Housing Association, Euston

In 1962 Fr Bill Shergold was Vicar of St Mary of Eton in Hackney Wick. The exquisite church by Bodley and the attendant Mission Buildings were home to a very successful youth club called the 59 Club. Fr Shergold had begun using a motorcycle as a curate. And the motorcycle was the transport and symbol of the youth culture of the period: the 'Rockers'.

The Church of England in the 1950s was enjoying a period of revival and growth. Its youth work was inovative and popular. Following a precedent in the north of England, Fr Shergold advertised a service for motorcyclists at St Mary of Eton. In fact he took his flyers up to the Ace Cafe on the North Circular Road, and spent several evenings talking to the young people there. About 200 of them came to the first service, joined the youth club and quickly took it over.

The Club moved to Paddington, and then with the building of the Westway transferred back to the East End to St Augustine's Haggerston. Like St Peter's London Docks, this

great complex of buildings had served a closely knit community which had been destroyed in World War II. The Club was to occupy the Hall and Clergy House until 1990.

Fr Bill, a gentle and self-effacing man, affected a whole generation of young people. He rode his bike with them, married them, baptised their children, ministered to them in hospital, took their funerals; by the force of his Christian personality, he gave them a sense that the Church cared about them and belonged among them. His work was not achieved from offices or by committees, but by the man himself. He was not a youth leader, but a priest doing what came naturally to him. The person most surprised by the success of the 59 Club was Father Bill himself.

Anglo Catholicism was never popular among the middle classes. It had its strongholds among the upper classes, from whence it got its money, patronage and priests. It was hot on sin, and revived the practice of going to confession. But sin was a much bigger thing than just individual transgressions. Long before the rise of socialism it was tackling the problems of the inner city. It was serious and committed, but never straight-laced. Fr Jellicoe himself held the licence for a public house in Somers Town. It rejoiced in the raw, rowdy life of working class London. It believed that just as Jesus had been at home with 'publicans and sinners' so too, its priests should make their home there also.

The war, subsequent slum clearance, and the uprooting of East London communities out into the new suburbs, destroyed many of the communities. The faith and the life which went with them did not survive the move. New movements within society and the Church in the 1960s were quick to parody Anglo Catholicism as inward looking, paternalistic, and over concerned with ceremonial. Yet I trust that our visit today to some of the places where Anglo-Catholics made their contribution has shown something of the vitality of the Movement over more than a century. It pioneered work among some of the most destitute and downtrodden people of London. I think that should not be forgotten.

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J.D. Lee

Page numbers in italics denote illustrations and tables

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