Contents

Transactions
Volume 69 2018

LAMAS

London and Middlesex Archaeological Society

Front cover: London Stone, unveiled in October 2018 in its new setting at 111 Cannon Street, City of London. (*Reproduced by kind permission of John Clark*)

NOTES FOR CONTRIBUTORS

Contributions should be sent to the Archaeology/Local History Editors (see inside front cover). Reports or research papers from commercial archaeology units or similar are normally required to come with funding at the rate of £50.00 a page. All papers will be read by a referee. All authors will be required to sign a Licence to Publish form and are advised that it is their responsibility to obtain written permission from copyright holders of any text, line art or photographs they wish to use in their article. Contributors will receive a pdf offprint of their article by email.

Complete Notes for Contributors which include the guidelines for the style and format of contributions can be found on the website www.lamas.org.uk.

LAMAS

Transactions of the

London and Middlesex Archaeological Society

Volume 69
2018

Museum of London, London Wall, London EC2Y 5HN

Contents

Reviews

London & Middlesex Archaeological Society

Charity Registration No. 267552

ESTABLISHED IN 1855

London and Middlesex Archaeological Society

163rd ANNUAL REPORT OF COUNCIL FOR THE SUBSCRIPTION YEAR ENDING
30th SEPTEMBER 2018

Council met five times during the year.

Members of Council and others continued to represent the Society at meetings of the Southwark and Lambeth Archaeological Excavation Committee and the Council for British Archaeology London.

Lecture meetings

The lecture series season ran from October 2017 to May 2018, in the Clore Learning Centre, Museum of London, organised by Kathryn Stubbs, and included the third joint lecture with the Prehistoric Society. The lectures are announced in the newsletter, on the website, social media and the London Archaeologist Diary page. All of the lectures were very well attended and Council would like to express its appreciation to Kathryn for her hard work in organising such an entertaining and varied lecture programme.

The first lecture was given by Sally Jeffrey, an independent architectural and garden historian, on 'Sir Stephen Fox's House and Garden at Chiswick' and was a very good start to the season despite being relocated at the last minute to a slightly smaller room due to technical problems in the usual venue. In November Alexis Haslam, the Community Archaeologist at Fulham Palace, filled us in on the current HLF project there with 'Fulham Palace Revealed – Residence of the Elite' and in December, John Schofield brought us the highlights and advances in knowledge of four decades of excavation along the medieval waterfront of the City with 'London's waterfront 1100–1666'. In January we were entertained by Murray Craig, the Clerk of the Chamberlain's Court at the City of London Corporation, with 'Sheep over London Bridge' which threw light on the long history of the Freedom of the City of London and some of its notable recipients. March's lecture was given by Neil Hawkins of Pre-Construct Archaeology on 'Roman occupation east of the forum to the Worshipful Company of Ironmongers. Excavations at 116–120 Fenchurch Street and 10–12/14 Fenchurch Avenue, City of London'. In April, we were 'Exploring the material culture of Roman London' with Michael Marshall of Museum of London Archaeology, looking at recent and possible future work on Londinium's finds, and the Joint Lecture with the Prehistoric Society was the series finale with Neil Wilkin of the British Museum's fascinating talk on 'Hidden depths: Re-evaluating Bronze Age Thames finds from the British Museum's collections.

At the AGM in February the Society's new President, Taryn Nixon, gave her inaugural Presidential Address, giving us much food for thought with 'Polycentric London: a foray into perspectives from archaeology over 30 years, on what shaped and continues to shape London'.

LAMAS Lates (report by Jane Sidell)

We continue to run a popular series of LAMAS Late events, mainly in the summer between lectures, but also some over winter. The events are either advertised in the newsletter, or by email or on the website. The Lates tend to focus on walks led by members or friends, or visits to interesting and quirky sites. This year we were able to get a private view of the Billingsgate Roman Bathhouse, another trip onto the scaffold to see the conservation of the Painted Hall in Greenwich, and a tour of the Museum of London's 'Roman Dead' exhibition led by the curator Jackie Keilly. We also had four walking tours, of the Roman Fort area, the Inner and Middle Temple, bollards in north Southwark and the City foreshore.

More events are planned for this year, but do let Jane Sidell know if you have any suggestions.

Publications, Newsletter, Website and Publicity

Once again Council would like to express its thanks to Richard Gilpin for continuing to produce our well balanced and interesting *Newsletter* packed with reviews and illustrated short articles as well as news of the activities of our own and other societies.

Following Pat Clarke's 'retirement' at the last AGM, we successfully advertised within the *Newsletter* for a new Membership Secretary and the Society are pleased to welcome Fiona Haughey to that role.

We also continue to have a large and growing social media presence on Facebook and Twitter' with several members live tweeting during the lectures to a new extended audience. In March we uploaded three podcasts of the previous season's lectures onto our website and these have proved very popular, being downloaded over 900 times in total.

Membership (report by Fiona Haughey)

I took over from Pat Clarke in the summer of 2018 and I would like to thank her very much for all her (continuing) help in settling me into the membership secretary saddle. I apologise for those who have felt the occasional glitch that has arisen during this time. Membership numbers at 1 October 2018 were 608, a small increase on 2017 (601) and 2016 (580). However, there are a significant number of those who have failed to pay their subscription over the four months since the start of our financial year and I shall be (gently) chasing those defaulters in the coming months. Any for whom this might strike a chord, please do send in your subscription, as soon as you can. Also, please do make sure that you let LAMAS know if you move.

Research Fund

The Research Fund for the year 2017/18 was awarded in the spring to two projects: Ian Betts (£2,671) for his project on 'Queen Anne's bagnio and other Georgian bathing establishments' and Nick Holder (£776) to produce illustrations for the article to appear in the *Antiquaries Journal* 'The thirteenth-century chapterhouse of Black Friars, London'.

Publications Committee (report by John Schofield, Chair)

The Committee met three times during the year. Volume 67 of the *Transactions* was published in November 2017. The initiative by Bruce Watson to place all the articles in the second series of *Transactions* on the ADS website in an indexed form continues, as it is a very detailed process. We have been discussing the best way of publishing the work on the Roman pottery from Highgate Wood, and in 2018 a very happy solution was achieved, in that the report was published by Archaeopress. The charge per page for publication in *Transactions* has been raised. Trevor Brigham has taken up his post as production editor for the journal.

In July 2018 Graham Javes resigned as History Editor, and we wish to acknowledge his work for the Society in recent years.

Archaeology Committee (report by Jon Cotton, Secretary)

The Committee met three times during the year, in April, September and January. Regular reports were received from CBA London, MOLA and GLAAS.

The Committee has continued to monitor the deteriorating position of London's local authority museums and archives, several of which have been adversely affected in the wake of austerity cuts. The future of the Cuming Museum in Southwark is of special concern. The Committee is also planning a weekend conference on the archaeology of London provisionally to be held in the autumn of 2020.

The Committee organised the 55th Annual Conference of London Archaeologists, which was held in the Weston Gallery of the Museum of London on Saturday March 10th. Over 200 delegates were present to witness the presentation of the 2017 Ralph Merrifield Award for London Archaeology to Bloomberg for their generous sponsorship of the Bucklersbury House Project and re-display of the Walbrook Mithraeum in the city.

The morning session featured talks on archaeology in Walthamstow, Bow Street in Lundenwic, Putney Bridge, Chambers Wharf in Bermondsey and Harper Road, Southwark.

The afternoon session was given over to the Bloomberg site and was addressed by Sadie Watson (site introduction); Michael Marshall (the early Roman artefacts); Roger Tomlin (the wooden writing tablets); Mike Tetreau (reconstructing the Mithraeum); and Louise Fowler (the making of the London Mithraeum/Bloomberg SPACE).

Local History Committee (report by Pat Gough, Secretary)

The Committee held three meetings, in October 2017 and January and May 2018. The members of the Committee were John Price (Acting Chair, later Chair), Roger Chapman, Richard Gilpin, Pat Gough,

Oliver Harris, Graham Javes, Sam Sharpe, Alex Werner and Lorraine Woodleigh. Graham Javes resigned in July 2018.

The Annual Local History Conference took place in November 2017 at the Museum of London on the theme of 'Pastimes in Times Past: Entertainment in London'.

Papers were presented as follows: 'London Roadhouses in Fact and Fiction' by Michael John Law, University of Westminster; '"Cultural Capital": London and the Making of Modern Public Entertainment' by Michael Peplar, Boston University; 'Elizabethan Entertainments' by Julian Bowsher, Museum of London Archaeology; 'Victorian Leisure: the organisation of recreation in Victorian London' by Ian Bevan, City of London Guide and Lecturer; 'Stealing children in 1600: Stocking the London Stage with Actors' by Julie Ackroyd, Open University; 'Sapient Pigs and Rascal Tigers: Animal Curiosities on the Streets and Stages of London, *c.*1750–*c.*1850' by Alexander Clayton, Victoria & Albert Museum.

The keynote address, 'Casinos and Commercial Dancing', was given by Lee Jackson, writer and Victorian London obsessive.

The winners of the Local History Publications awards, presented during the annual conference, were Borough of Twickenham Local History Society, for its book *Down The Drain. The Long And Difficult Transition from Night Soil Men to Public Sewage Treatment Schemes: Local Democracy stretched to its limits in Hampton Wick, Teddington, Twickenham (with Whitton) and Hampton 1863–99*, and Camden History Society, for its journal *Camden History Review 40.*

The winner of the inaugural award for best newsletter was Hornsey Historical Society, for *Newsletter 149, December 2016.* Barnes and Mortlake History Society was highly commended for *Newsletters 213, 214, 216* and *219.*

Historic Buildings and Conservation Committee (report by Robert Briggs)

The past year has been one of consolidation for the LAMAS Historic Buildings and Conservation Committee (HBCC). The Committee has been operating according to its new prioritised casework approach adopted in mid-2017, enabling members to discuss the most concerning applications in greater detail in monthly meetings and thence to outline the form of response letters, which are written with reference to the National Planning Policy Framework (NPPF) and other relevant planning policies and guidance.

In July 2018, the incumbent Chair, Michael Nelles, stepped down from the role and from the Committee to focus on his work and PhD studies. Since then, in the absence of anyone coming forward to take up the role on a permanent basis, a number of Committee members have taken turns to act as Chair in meetings. Meanwhile, Rob Briggs has taken on the duty of being the Committee's representative on LAMAS Council.

In the middle of 2018, the Committee undertook a recruitment drive through the LAMAS Newsletter, which prompted several expressions of interest, and resulted in one new permanent member of the Committee, Steve Gill. The Committee is keen to expand its membership in the coming year, through a more targeted approach, focused in particular on boroughs where there are large numbers of listed buildings and conservation areas, and thus planning applications and appeals that fit its scrutiny criteria.

The Committee now has a clear view of what it does and how it undertakes its activities. At the suggestion of our newest member, terms of reference have been created, along with a process flow to show step-by-step what is involved in collating, assessing, and responding to planning applications and appeals. This should help future new recruits to understand how the Committee operates more easily and rapidly, although both the terms of reference and process flow are very much working documents and so can be expected to be the subject of continued review and improvement.

Now that members have adapted to the 'new normal' of NPPF-focused analysis and response to applications of concern, and to working without a permanent Chair, the Committee will seek to consider other areas in which it can develop its activities in 2019. Analysis of the extent to which the responses submitted by the Committee in objection to applications are acknowledged and followed is one aim for the coming year. Ambitions expressed last year, to promote its activities and outputs to Borough planning authorities and to encourage planning officers to notify the HBCC of applications for listed building consent or of other planning applications affecting historic buildings, are still harboured.

BY DIRECTION OF COUNCIL

Harvey Sheldon   Karen Thomas
Chairman of Council   *Honorary Secretary*

LONDON AND MIDDLESEX ARCHAEOLOGICAL SOCIETY
STATEMENT OF FINANCIAL ACTIVITIES FOR THE YEAR ENDED 30 SEPTEMBER 2018

2017	Incoming Resources	2018	2017	Resources Expended	2018
£		£	£		£
10,605	Subscriptions	12,645		Publications	
1,200	Gift Aid	400	16,160	- LAMAS Transactions	20,569
757	Sale of Publications	35	1,820	- Newsletter	2,076
220	Royalties and Licensing	53	780	Scanning of Specialist Papers	-
13,275	Grants for LAMAS Transactions	13,239	1,742	Archaeology Conference	1,185
1,460	Archaeology Conference	2,993	1,713	Local History Conference	1,657
2,804	Local History Conference	2,293	3,000	Research Grants	3,000
79	Lecture Series Income	231	502	Lecture Series Expense	359
455	LAMAS Late Events	295	437	Postage, Printing and Stationery	120
43	Interest	38	403	LAMAS Late Events	170
76	Donations Received	90	357	Bank Charges	382
150	Miscellaneous Income	-	100	Ralph Merrifield Award	-
			159	Computing	200
			40	Advertising	40
			-	Miscellaneous Costs	118
31,124	**Total Incoming Resources**	32,312			
(3,911)	**Net (Incoming) Resources**	(2,436)			
£27,213		£29,876	£27,213	**Total Resources Expended**	£29,876

BALANCE SHEET AS AT 30 SEPTEMBER 2018

2017	ASSETS	2018		2017	FUNDS OF THE SOCIETY	2018
£		£		£		£
12,347	Bank and Cash Balances	13,197			**Restricted Funds**	
77,141	Savings Accounts	76,429		*7,105*	Publications Fund	7,105
2,027	Debtors	6,492				
91,515	**Total Assets**	**96,118**			**Unrestricted Funds**	
				51,620	Funds brought forward	55,531
	Less: LIABILITIES			*3,911*	Net Incoming Resources for the Year	2,436
4,962	Creditors	4,131		*55,531*	**Total Unrestricted Funds**	**57,967**
3,965	Future Publications	3,964				
19,952	Research Grants	22,951				
28,879	**Total Liabilities**	**31,046**				
£62,636	**Total Net Assets**	**£65,072**		**£62,636**	**Total Funds**	**£65,072**

Notes to the Accounts

1   These accounts have been prepared on an accruals basis.

2   The *Statement of Financial Activities* and *Balance Sheet* have been prepared using the 'natural classification' as permitted in the Charities Act 2011.

3   Use of the Restricted Funds requires the sanction of the donor, Historic England.

These accounts were approved at the Annual General Meeting of the Society held on Tuesday 12th February 2019.

Independent Examiner's Report to the Trustees of the London and Middlesex Archaeological Society

Having examined the finances of the London and Middlesex Archaeological Society for the year ended 30th September 2018 and having received satisfactory explanations to my enquiries I find the attached Statement of Financial Activities and Balance Sheet to be in accordance with the Society's accounts and records and to comply with the requirements of the Charities Act 2011.

Stuart S. Forbes
Independent Examiner
4 Gable Court, Lawrie Park Avenue
London SE26 6HR

(Signed) S. Forbes 5th May 2019

Francis Celoria: A Tribute to his Contribution to London Archaeology

INTRODUCTION

Francis Sergius Cajetan Celoria died in late April 2017, aged 91. He possessed an extraordinary range of interests besides practical archaeology including folklore, local history, ceramic technology, post-medieval ceramics, the scientific analysis of archaeological finds and classical studies, which prompted one colleague to describe him as 'a polymath'. Francis grew up in the London Borough of Hampstead as a member of an Italian family. He served with the British army in Italy during the closing stages of World War Two as an interpreter. After gaining a degree in classical studies, he joined *Encyclopaedia Britannica* as a staff writer and researcher, where he honed his skills as an author. His passion for local history led to him becoming the secretary of the Hampstead Local History Society (1955–8), an experience which inspired him to write *Teach Yourself Local History*. Its very practical text demonstrated the author's wide range of interests, as it included chapters on: how to establish and run a local history society; archaeology; communications; documentary sources; economic history; folklore; historic buildings; historical maps and place-names. His text is peppered with good advice for the local historian including: 'do not study a past local event by itself; try to see it as a factor in the final development of your home place. Your locality as it is now is both the point of departure and the destination of your studies' (Celoria 1958, 10). In 1961 Celoria completed a PhD at what was then called the University of London, University College, on *Ancient Greek Scientific Knowledge of Landscape and Certain Natural Phenomena.*

FROM AMATEUR TO PROFESSIONAL ARCHAEOLOGIST

In the mid-1950s Celoria was one of a group of amateur archaeologists in north-west London, nurtured by evening classes, who set up the Thames Basin Archaeological Observers' Group (TBAOG) in March 1957. Members of the group included Dr W I Carter, F S Grant and A D Lacaille, the Middlesex prehistorian, with Celoria as secretary. The group had the support of the Council for British Archaeology and clear objectives: to observe, rescue and report the discovery of antiquities, and facilitate the participation of competent people in archaeological activities, offering opportunities for people to take part in fieldwork or assist at local museums. The TBAOG did not undertake excavations, but maintained a register of people willing to assist in 'emergency' fieldwork. Data and experiences were shared via a regular TBAOG Newsletter and the *TBAOG Observer.* The early editions of the Newsletter were largely written and edited by Celoria. By 1962 some 200 persons were registered as observers, not all were active, but all self-financed. The majority of observers were already professionals in another field and many subsequently studied for the four-year extramural diploma in archaeology which London University had introduced in 1955. Achievements of the TBAOG included the compilation of the first survey of the industrial monuments of Greater London (Ashdown *et al* 1969). The TBAOG was disbanded in 1969, but its Industrial Archaeology Section (established in 1966 under the direction of Paul Carter), subsequently evolved into the Greater London Industrial Archaeology Society. Celoria was very interested in the history of

technology and industrial archaeology; he republished one of the seminal works on the manufacture of bricks and tiles (Celoria 1971) and studied London's early Victorian telegraph network (Celoria 1978).

Celoria once remarked that he could only operate in London and Scotland, by which he meant undertaking summer fieldwork in the Hebrides. In 1958, along with some other members of the TBAOG, he started the Islay Archaeological Survey Group and by 1959 he was the group's research officer (IASG 1959).

It was the archaeological experience that Celoria gained with the TBAOG, which led to him being appointed as the London Museum's first field officer in 1960. This post gave him a wonderful opportunity to promote the development of archaeology within Greater London, a task which he undertook with vigour and success, setting up field surveys, measured architectural drawings of historic buildings as well as dealing with reports of discoveries from TBAOG observers. One report led to the investigation of a Roman road at Marble Arch (see below).

Celoria guided and taught a generation of field archaeologists, including John Ashdown, Brian Bloice, Tony Brown, Alan Carter, John Casey, Ian Robertson, Maurice Seeley, Harvey Sheldon, and James Thorn. He inspired many of his students with a life-long passion for the past, which resulted in some of them subsequently working in either archaeology or the historic environment. For instance, the late John Casey became a numismatist specialising in Roman coinage. Celoria is fondly remembered by his students as a charismatic and innovative figure in London archaeology. The seemingly endless threats to the capital's archaeological heritage led to Celoria working seven days a week and becoming closely involved in fieldwork in Southwark at weekends (see below), which resulted in him withdrawing from running the TBAOG between 1962–3. In 1963 Celoria set up the trial excavation of an Iron Age cropmark enclosure at Staines Moor. This fieldwork was undertaken by some TBAOG 'regulars' supervised by Tony Brown (Brown 1972). Celoria also set up an (adult education) archaeology course at Morley College, Westminster Bridge Road, SE1.

Celoria was closely involved in the establishment of the Southwark Archaeological Excavation Committee (SAEC) in 1962, a group which is still actively promoting the borough's heritage. In 1963 Celoria directed the first SAEC training school; lectures were conducted at the Cuming Museum and fieldwork was carried out nearby at 78–80 Borough High Street. Unfortunately, the strata on this site proved to be extensively disturbed, but a 17th-century brick-lined sump was investigated (Turner 1967, 132–3).

On behalf of the SAEC Celoria directed a number of rescue excavations in Southwark, firstly at Pontifex Warehouse, Stoney Street, part of Winchester Palace during 1962–3. Beneath the medieval masonry wall foundations of the Squires' Chambers (part of the bishop's palace) was a sequence of reclamation dumps and the early Roman Thames foreshore (Celoria 1965). Secondly, at Mermaid Court, excavations were directed

Fig 1. Francis Celoria on Winchester Palace in early 1963, with a motorised pneumatic drill (photo supplied by Harvey Sheldon)

by Celoria from June 1963 until January 1964, with a team of about a dozen volunteers working on Sundays. The aim of this fieldwork was to supplement the data from Kenyon's small-scale excavation undertaken nearby at Mermaid Court in 1945–7 (Kenyon 1959, 35). Celoria's excavation revealed the existence of an area of 'swamp' or wetland that was used for the disposal of rubbish from 'Roman times until the late 18th century' (Celoria 1964a). Thirdly, at Hopton Street (close to the site of the Swan Theatre on Bankside) during August 1964, Celoria directed the second SAEC training school. Fieldwork was supplemented as it had been the previous year by lectures held at the Cuming Museum. 'The volunteers were a splendid mixture ranging from schoolgirls and dental surgeons to housewives and potters'. The earliest deposits discovered consisted of 'soggy meadow land', sealed by 17th-century dumping, overlain by 18th-century brick flooring and the cobbling of a Victorian railway warehouse yard. Training was provided on 'safety in excavations' by members of the Southwark Civil Defence team. Three of the training school students subsequently supervised excavations in Southwark. A by-product of the training school was an architectural survey of the 1863–4 railway warehouses where the excavation took place (Celoria 1964b). Fourthly, excavations at Lant Street in 1964 were supervised by James Thorn. Fieldwork was carried out on the site of a little alley called Peggotty Place and within the basement of some former shops which had fronted onto Borough High Street. The bulk of the deposits and structures dated from the 16th to the 19th centuries; Roman finds included 'a pair of folding beam scales' (Turner 1967, 133). Discoveries along the Borough High Street frontage included an early 14th-century ditch (Celoria & Thorn 1974), and from Lant Street a group of ceramics dated to *c.*1640–1720, mainly English tin-glazed wares, and clay tobacco pipes dated to *c.*1640–1700, recovered from a rubbish pit (Celoria 1974d, 104–7).

Fifthly, at Potters Fields (adjoining Tooley Street) during 1964, Celoria's attention was drawn to this nationally important site for the production of English tin-glazed wares during the 17th century. Subsequently, between January and October 1965 excavations were carried out at weekends under Celoria's direction and the supervision of Brian Bloice and Maurice Seeley. An area of over 3000 square feet (914m) was investigated with trenches dug to an average depth of 6 feet (1.8m). The most significant discovery present across the whole excavation was a 6- to 8-inch (15–20cm) thick layer of 'kiln dump waste.' An estimated two tons of ceramics was recovered from the excavation of which some 75% consisted of locally produced 17th-century tin-glazed wares including bowls, chargers, dishes, drug jars, figurines, mugs, porringers, sack bottles and tiles. Other material included unglazed vessels (biscuit ware) and wasters. Little structural evidence was recorded apart from a 16th-century brick building with a rammed chalk floor, plus an 18th-century cobbled roadway and associated warehouse foundations (Seeley & Bloice 1968). Sadly, the data from this underfunded and entirely voluntary project has yet to be analysed or published. The area investigated in 1965 was apparently located between Vine Lane and Potters Fields, very close to the site of the 1973 excavations, which revealed that during the late 17th century as part of an attempt at reclamation there was extensive dumping of waste materials, including large amounts of tin-glazed ceramics (Hinton *et al* 1988, 133–41).

In 1965 under the guidance of Graham Dawson of the Cuming Museum and Brian Bloice a number of volunteers, who as a result of Celoria's initiatives had been processing the finds from the ongoing excavations, decided to establish the Southwark and Lambeth Archaeological Society (SLAS) (Turner 1967, 135). In 1970 Celoria directed another excavation close to the site of the 1965 fieldwork at Mark Brown's Wharf on behalf of SLAS, which revealed the remains of a number of 17th-century riverside buildings (Bloice 1970).

During 1964–6 Celoria organised a temporary exhibition of the post-medieval pottery from the reserve collection of the London Museum, which he had studied and dated. His illustrated guide to this exhibition included an essay on how to date post-medieval ceramics (Celoria 1966). His research on ceramics of this period resulted

in a monograph on chamber pots published under the pseudonym of 'P. Amis' (1968). The illustrated examples of vessels (figs 13–52) were mostly from the collections of the City of London Guildhall Museum and the London Museum. There is an apocryphal story that during a tea break at the London Museum (located between 1950–76 at Kensington Palace), when someone dropped a cup which broke on the floor, the Director Dr Donald Harden quipped 'clear it quickly up or Francis will be accessioning it'.

While Celoria was working at the London Museum he and Jean Macdonald researched and wrote for Volume One of the *Victoria County History of Middlesex*, the period roundups and site gazetteers for 'the Neolithic Age' (Celoria & Macdonald 1969a), 'the Beaker period' (Celoria & Macdonald 1969b), 'the Bronze Age' (Celoria & Macdonald 1969c), 'the Iron Age' (Celoria & Macdonald 1969d), 'the Romano-British period' (Celoria & Macdonald 1969e) and 'the Pagan Saxon period' (Celoria & Macdonald 1969f).

In 1974 Celoria edited and wrote most of the contents of the first and only issue of a new periodical, *London Studies: Topography, Archaeology, Folklife* (Celoria 1974a). His contributions included three articles on TBAOG 1960s fieldwork: post-medieval kiln waste from Lavington Street, Southwark recorded in 1964 (Celoria 1964b; 1974b); a possible Roman road at Marble Arch (Celoria 1974c); and post-medieval ceramics from Lant Street, Southwark (Celoria 1974d, see above).

KEELE UNIVERSITY

On 11 December 1964, in his role as the London Museum's field officer Celoria was called to Leman Street Police Station, where he identified a small anthropomorphic lead coffin discovered on a nearby building site earlier the same day as the remains of the eight-year old Anne Mowbray, Duchess of York (d 1481). He immediately realised that this was a very rare opportunity to study a named medieval juvenile and quickly set up a comprehensive programme of scientific study to maximise the opportunity. Unfortunately, through no fault of Celoria's the discovery of Anne Mowbray's remains

quickly turned from a great discovery to a public relations disaster for the London Museum (Watson & White 2016, 235–9). It appears that Celoria's failure to publish or archive his research on Anne Mowbray's burial caused him considerable distress and led to his refusal to discuss the subject in later life.

It seems likely that the criticism Celoria unfairly received for his part in the study of Anne Mowbray and the associated negative publicity prompted him to leave the London Museum during the second half of 1965 and to join Keele University Extramural Department as a lecturer in archaeology: through his extramural classes there Celoria went on to inspire a new generation to take up archaeology. At Keele, he was closely involved in the development of the university library and he also researched the archaeology and history of Staffordshire's ceramic heritage. In 1973 Celoria published a handbook of archaeological techniques and principles appropriately entitled: *Archaeology*, which was subsequently translated and published in four overseas editions. In 1979 he became Director of the Gladstone Pottery Museum at Longton, Stoke-on-Trent, a position he held until his early retirement in 1986, when due to restructuring his post was abolished. He enjoyed a long and active retirement, spending a lot of time at Keele University library and returning to his first passion, classical studies, for his final publication: the translation of a series of folk tales by a 2nd-century AD Greek author (Celoria 2015).

John Ashdown and Bruce Watson

With contributions by Tony Brown, Michael Bussell, Graham Dawson, Laura Schaaf and Harvey Sheldon

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A MIDDLE BRONZE AGE SETTLEMENT IN THE LEA VALLEY AT NAVIGATION PARK, PONDERS END, ENFIELD

Andrew Simmonds and Steve Lawrence

With contributions by Sheila Boardman, Lisa Brown, Michael Donnelly, Cynthia Poole, Ruth Shaffrey, Elizabeth Stafford and Lena Strid

SUMMARY

A programme of trial trenching and excavation undertaken by Oxford Archaeology at Navigation Park, Ponders End, Enfield, uncovered a Middle Bronze Age settlement of unusual form, situated between two parallel boundary ditches and enclosed on at least three sides by a fence. Evidence was found for a single probable roundhouse as well as a smaller post-built structure and numerous pits, some of which contained small quantities of domestic refuse. Ceramic evidence and radiocarbon dating indicate that the settlement was occupied between c.1440 and c.840 cal BC. Sondages dug during the evaluation identified one or more palaeochannels at the western edge of the floodplain, infilled by a sequence of peat and alluvium, and a radiocarbon date of 2200 –1950 cal BC was obtained for a piece of alder root from a channel-edge deposit.

INTRODUCTION

A programme of archaeological evaluation and excavation was undertaken by Oxford Archaeology in 2010 and 2015, ahead of redevelopment of part of an existing industrial estate at Navigation Park, Ponders End, in the London Borough of Enfield. The work was commissioned by SEGRO Properties Ltd in accordance with a condition of planning permission for demolition of the existing structures and construction of industrial units. The fieldwork comprised two phases of evaluation, undertaken between 25 October–3 November 2010 and 25 May–12 June 2015, the second of which proceeded directly into the mitigation stage in order to accommodate the demolition timetable, the excavation continuing until 14 August 2015.

SITE LOCATION, GEOLOGY AND TOPOGRAPHY

The site was situated on the western side of the Lea Valley at NGR TQ 362 952 (Fig 1). It was bordered by Morson Road to the west and south, the River Lea Navigation to the east and industrial areas to the north. It lay within the historic parish of Enfield and the administrative authority of Enfield Borough Council and encompassed a total area of 4.7ha.

The underlying solid geology was mapped as Eocene London Clay, overlain by a drift deposit of Pleistocene Kempton Park Gravels (9.9–11.4m OD), capped by Holocene alluvium on the lower, eastern part of the site (*British Geological Survey*, Sheet 256, Solid and Drift 1:50,000). However, extensive geotechnical investigation that preceded
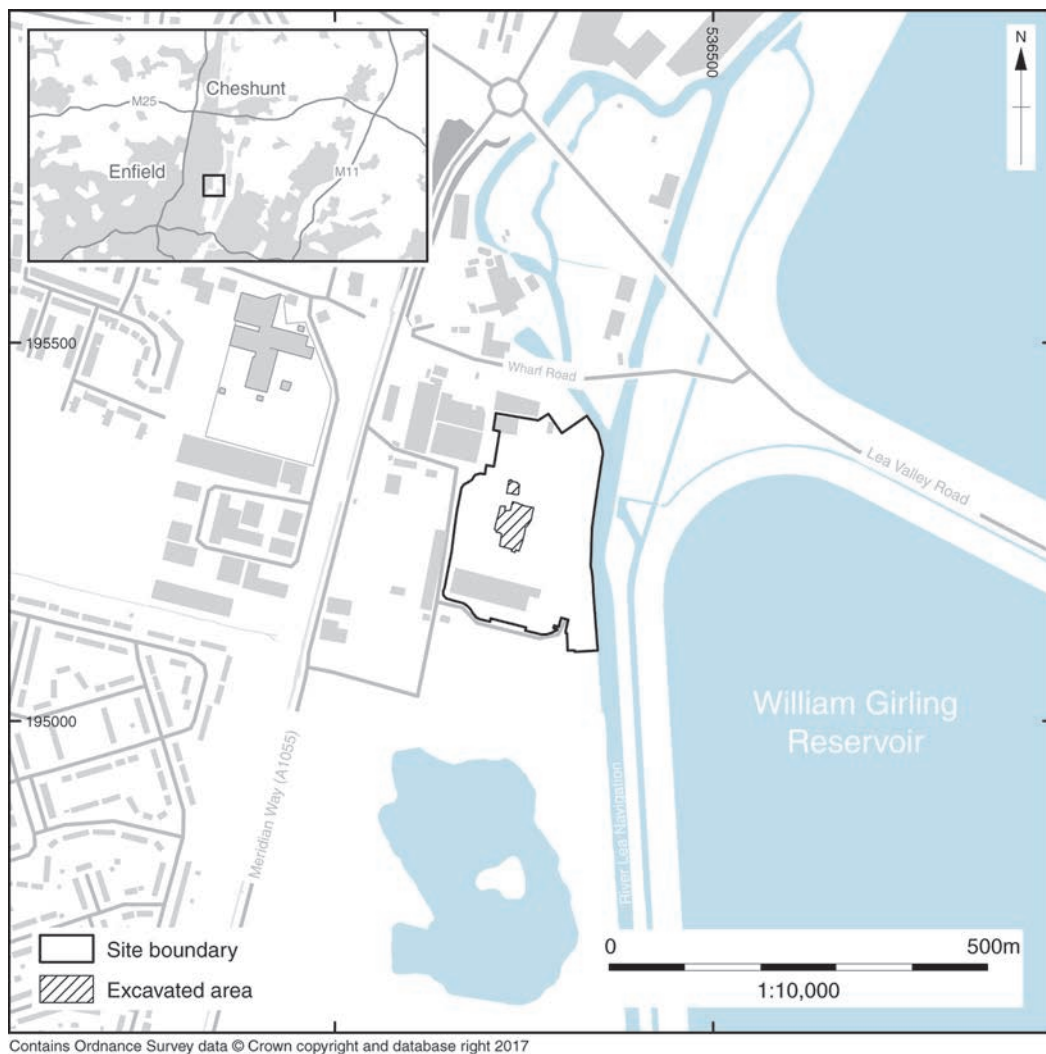
Fig 1. Site location

the archaeological fieldwork indicated that Holocene alluvium was present throughout. A deposit model constructed from the geotechnical survey results demonstrated that the site had formerly sloped more steeply eastwards towards the River Lea than is apparent from the modern topography, which is the result of infilling of lower-lying areas by the accumulation of alluvium and modern made ground (Fig 2). The alluvial sequence varied in depth from 0.3m in the west (10.96–11.26m OD) to 3.1m in the east (9.72–12.82m OD). The Phase 2 evaluation established that the material hitherto

described as alluvium in fact represented two distinct strata, comprising a lower layer of 'brickearth' that was cut by the archaeological features and more recent overlying clayey alluvium, the latter being absent from the area of the gravel rise on which the features were situated. This created a truncated prehistoric land surface at *c.*12.3m OD, overlain by dumped material intended to raise the site above flood level and create a level platform on which the industrial estate was constructed, varying in thickness from 0.4–2.8m and overlain throughout the site by surfaces of concrete and tarmac. As

a consequence of the artificial levelling of the area, the modern ground surface was generally flat and lay at *c.*13m OD.

ARCHAEOLOGICAL BACKGROUND

The location of the site close to the edge of the interface between alluvial deposits and the river terrace gravels may have made it an attractive location for prehistoric populations. During the Holocene period the Lea Valley has experienced gradual sedimentation combined with channel migration across the width of the valley floor. An example of the resultant alluvial sequences is provided by a site at the former Delta Cables Works, Millmarsh Lane, *c.*1.8km north of Navigation Park, where peat and alluvial deposits were excavated within former river channels (Bowsher 1995). Peat towards the base of the sequence produced an early Mesolithic radiocarbon date of 7460–7080 cal BC and the excavation recovered an assemblage of 120 struck flints, dominated by flakes and blades. The peat deposits were overlain by alluvial clays and other organic-rich sediments that produced excellent palaeoenvironmental evidence and a late Mesolithic radiocarbon date of 6220–5880 cal BC. Archaeological work within the Lea floodplain in advance of the development of the Olympic Park, *c.*13km south of the site, has suggested that the upper alluvial deposits in the valley are likely to be of Late Bronze Age to historic date (Corcoran *et al* 2011).

Finds of Bronze Age date are particularly prevalent in the valley (Brown & Cotton 2000, 84) and several settlements have been excavated. These include a site at the Olympic Park (Powell 2012) and a settlement at Lower Edmonton that was closely associated with a field system (Bishop 2005). Field boundaries were also uncovered at Innova Park, 4.5km north of Navigation Park, and although the settlement form here was less certain, midden deposits and riverside revetments were recorded (Ritchie *et al* 2008).

There is little evidence from the surrounding area for occupation dating to the late prehistoric periods, although the River Lea is believed to have marked the boundary between the territories of the Iron Age 'tribes' of the Catuvellauni to the west and

the Trinovantes to the east (Robbins 2003, 12).

In *c.*1750 the western part of the site lay within the common arable fields of Enfield parish, while the eastern extent was marshland bordering the River Lea, which may preserve the division of landuse during the medieval period (Baggs *et al* 1976, 208–12).

The landscape of the Lea Valley changed significantly over the course of the post-medieval period as measures were taken to improve management of the river, the most significant of which was the granting in 1767 of an Act for the construction of a new channel, the River Lea Navigation, which extends on a parallel course to the original river and forms the eastern boundary of the site (Baggs *et al* 1976, 207–8). The valley floor has also been substantially quarried for gravel, resulting in the creation of a string of lakes and reservoirs along its length. Piecemeal industrial development of the site began toward the end of the 19th century with the construction of a white lead works beside the Lea Navigation in the northern part of the site and a linoleum works to the south. By the 1930s the entire site had been developed as a cabinet works and subsequently a car parts factory, which closed in 2009.

Evaluation

Two phases of evaluation trenching were undertaken (Fig 2): an initial investigation in 2010 that comprised seven trenches in the southern part of the development (Oxford Archaeology 2010), followed in 2015 by a further 19 trenches encompassing the rest of the site (Oxford Archaeology 2017). Middle Bronze Age features, comprising postholes, pits and a substantial north–south aligned ditch, were identified in the central part of the site, where the underlying gravel rises in elevation away from the deeper parts of the floodplain. Phase 1 evaluation trenches 5 and 7 and Phase 2 evaluation trench 6 revealed deeper sequences of sediments that represent the infilling of one or more palaeochannels at the western edge of the floodplain. In these trenches, the Pleistocene gravel, representing high-energy fluvial deposition within a braided
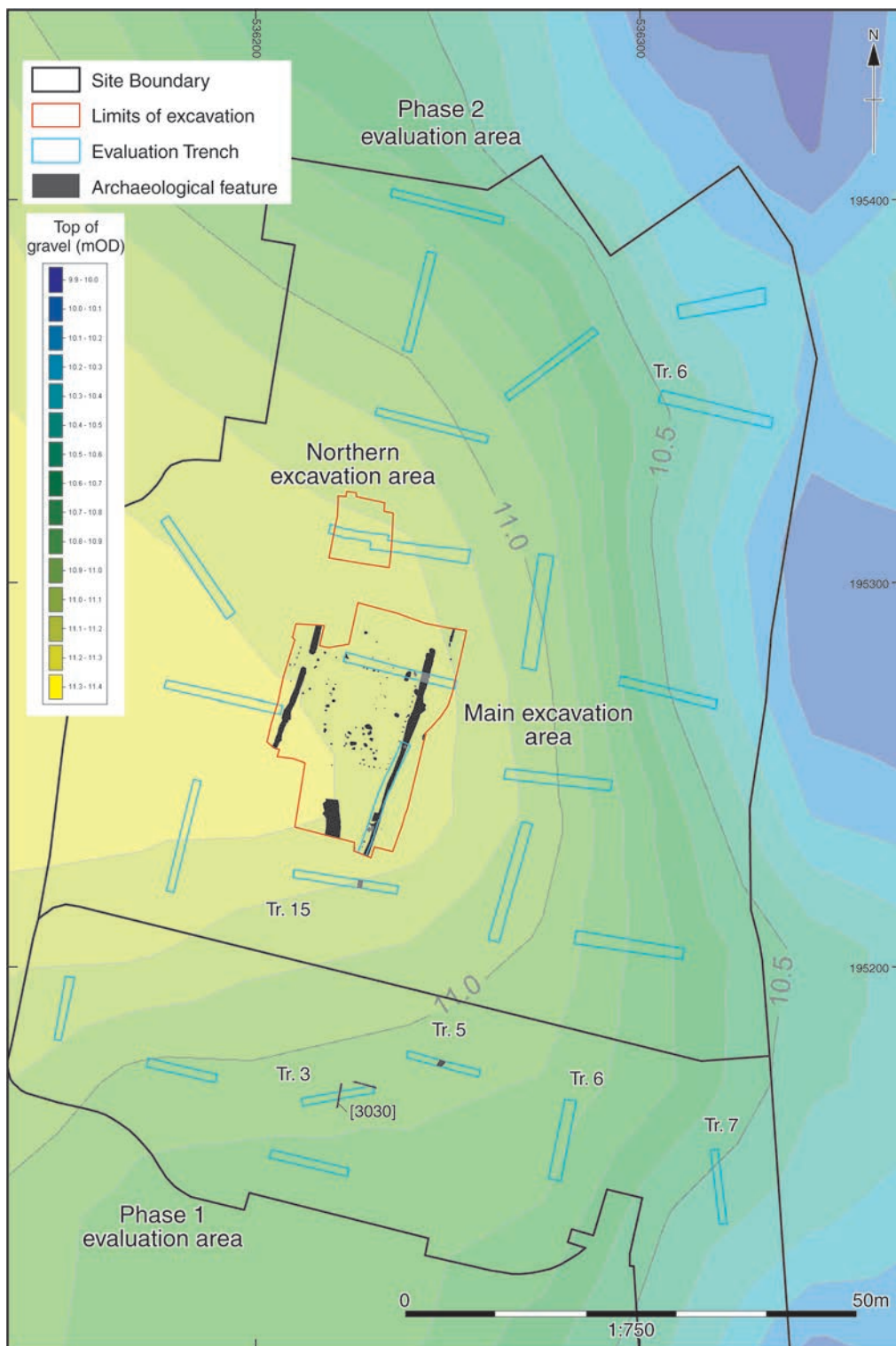
Fig 2. Plan of the investigations and the modelled surface of the Pleistocene gravel

river system resulting from the melting ice of the last glaciation, was overlain by peat sealed by alluvium, above which was modern made ground. The peat was more than 1.5m thick in Trench 6 (10.30–11.80m OD), and yielded a single unworked fragment of burnt flint and occasional charcoal flecks in Trench 7. The peat was absent from Trench 5, where the bottom of the alluvial sequence was represented by a deposit of gravelly silt containing small fragments of organic inclusions, from which a fragment of alder wood was radiocarbon dated to 2200–1950 cal BC ([5018]; Table 5). Sondages excavated into the Pleistocene gravels in order to investigate the organic 'Arctic Bed' deposits, which are known to be preserved within the Lea Valley, failed to identify any evidence for them; this may indicate either that the deposits are absent from this area or that they are buried at too great a depth to have been exposed in these sondages.

Features dated to the Middle Bronze Age were identified in two trenches of the Phase 2 evaluation. Trench 3 of the Phase 1 evaluation encountered two ditches and a pit containing fragments of fired clay and burnt flints; alluvium sealing these features contained a flint-tempered pottery sherd of possible Late Bronze Age date.

METHODOLOGY

Two excavation areas were opened up, centred on the central trenches of the Phase 2 evaluation in which archaeological features had been identified. The smaller northern excavation area, which amounted to 0.02ha, failed to expose any archaeological remains and it is likely that the features that had been identified in Trench 11 were in fact tree-throw holes. The main excavation area, which encompassed an area of 0.21ha, uncovered a Middle Bronze Age settlement and was progressively extended until the limits of the settlement had been exposed (Figs 2 & 3). The archaeological features were cut into a substratum of brickearth (*c.*12.3m OD), and were overlain by an undated buried plough soil 0.2m thick that survived intermittently where it had not been truncated by modern development. Above this were a layer of made ground and the concrete slab floor of the former car parts factory. The site was

punctuated by areas of truncation associated with the factory, mostly comprising concrete ground beams and post pads. Many of these intrusions were quite small, but larger areas affected the southern part of the Middle Bronze Age settlement and the area beyond the southern limit of the settlement had been almost completely truncated. The archaeological features were investigated and recorded in accordance with established Oxford Archaeology practice (Wilkinson 1992). The archive will be deposited with the Museum of London under the accession code NVK15. In the following text contexts are denoted by square brackets, *eg* [10], while accessioned finds numbers appear in angled brackets, *eg* <12>. In addition selective context numbers are used to identify structural entities.

THE EXCAVATED SEQUENCE

Tree-throw holes

A small number of undated tree-throw holes were recorded, a few of which were cut by features of the Middle Bronze Age settlement (*eg* Fig 5, section 227) and therefore represent woodland clearance at some earlier date.

Possible Late Neolithic/Early Bronze Age Pit [2212] (c.2800–1500 cal BC)

A single small pit [2212] (Figs 3 & 5, section 272) yielded two sherds that may derive from either a Neolithic Impressed Ware vessel or an Early Bronze Age Food Vessel. Owing to the small size of the sherds, however, this identification is not certain and it is possible that the feature in fact forms part of the Middle Bronze Age settlement. The feature also yielded one shattered blade-like flake in three pieces (likely to be modern breaks occurring during excavation), an inner flake and a multi-platform flake core with a thermal platform.

Middle Bronze Age Settlement (c.1500–900 cal BC)

The settlement lay within a rectilinear fenced enclosure and was situated between two ditches, [2266] and [2340], that extended on parallel alignments. Two post-built buildings,

Fig 3. Plan of the main excavation area
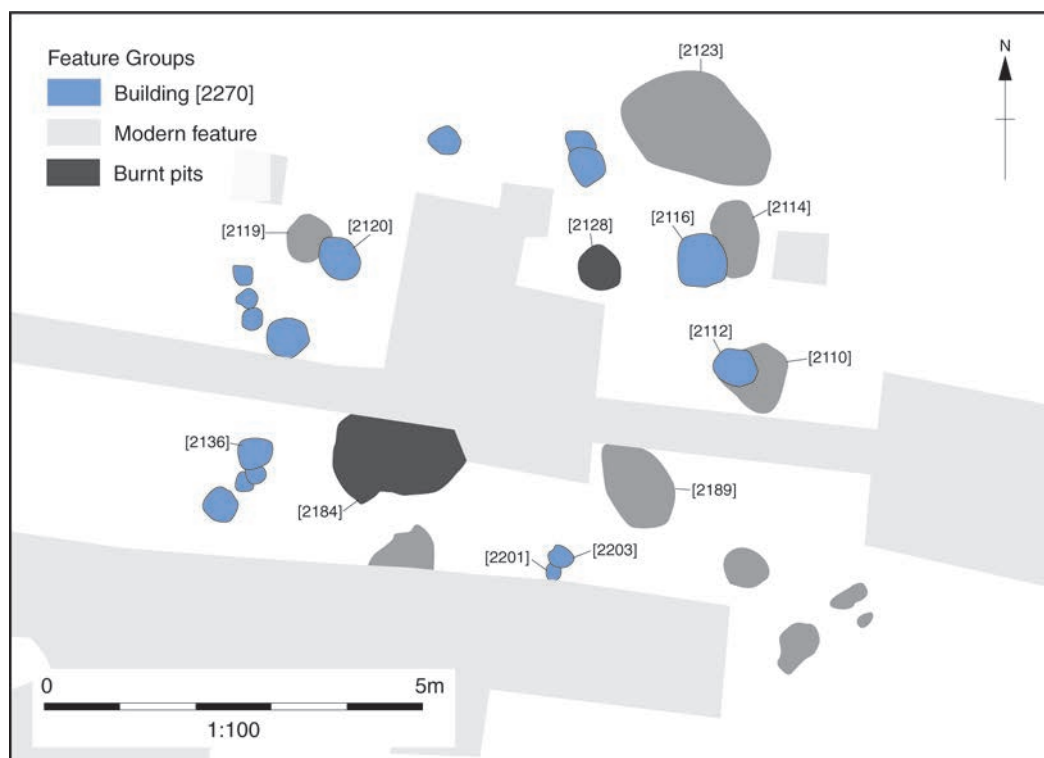
Fig 4. Plan of building [2270]

[2211] and [2270], were identified, as well as numerous pits (Figs 3 & 4).

Ditches [2266] and [2340]

Ditches [2266] and [2340] extended on parallel north-east to south-west alignments and lay 28–30m apart (Figs 3 & 5, sections 227 and 312). Both ditches were V-shaped in profile, ditch [2266] measuring 2.4m wide and 0.85m deep, and ditch [2340] measuring 1.2–1.5m wide and 0.55–0.7m deep. Each had a lower fill of bluish-grey clay ([2072] and [2295]) that may indicate standing water sedimentation, overlain by upper fills that were more gravelly in character. The only finds from these features were a single sherd of Middle Bronze Age pottery from the terminus on the north side of the entrance through ditch [2340] and a retouched flint flake from ditch [2266] (see Donnelly below), but their shared alignment with the fenced enclosure is strongly suggestive of a contemporary date. A continuation of ditch [2266] was exposed in Phase 2 evaluation

Trench 15, to the south of the excavation area [1504], and it is possible that an undated ditch [3030] in Phase 1 evaluation Trench 3 (Fig 2), which lay on a similar alignment 50m further south, may also be part of this feature.

Enclosure Fence [2267]

The settlement between the ditches was enclosed by an internal fence line represented by an alignment of postholes along its northern and eastern sides and part of the southern side (Fig 3). These postholes were generally steep-sided, bowl-shaped features 0.3–0.7m in diameter and 0.1–0.4m deep and their fills were mostly devoid of artefactual material, apart from three that each contained a single small sherd of pottery. No evidence was identified for the western side of the fence, either because the postholes here had been removed by modern truncation of the site or because ditch [2340] served as the boundary on this side. The area thus enclosed measured 23m

Section 272

S

[2215]   N   12.37mOD

[2214]

[2212]   [2213]

Section 227

W

E   12.28mOD

Tree hole

[2074]

[2073]

[2266]

[2072]

Section 312

E

W   12.26mOD

[2297]

[2296]

[2340]   [2295]

Section 243

E

W   12.27mOD

[2121]   [2118]

[2120]   **[2119]**   [2122]

Section 1000

E

W   12.29mOD

[1004]

[1005]

[1006]

0   1m

1:25
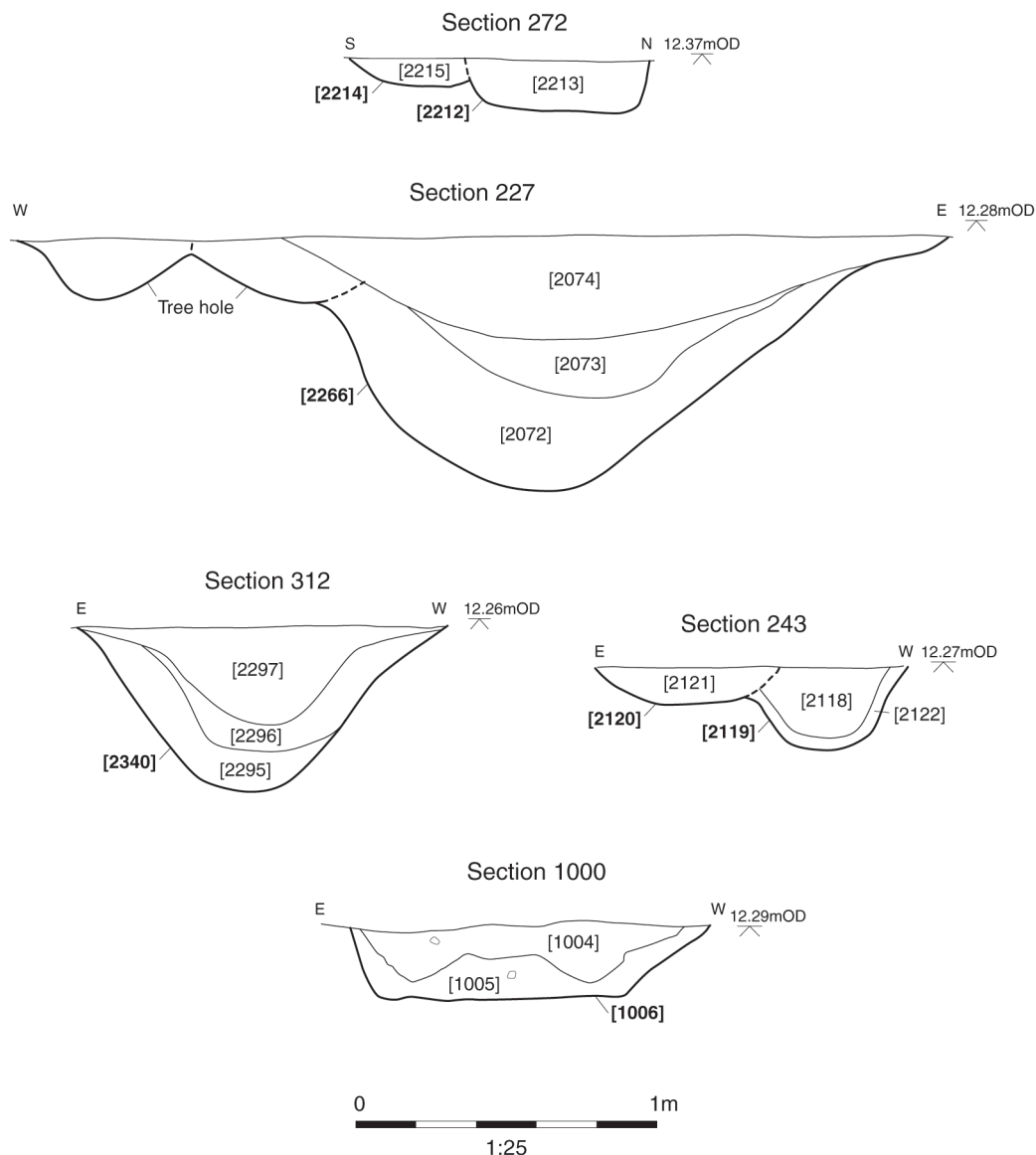
Fig 5. Cross-sections of selected features

north–south and a similar or slightly greater distance east–west. The posts were placed at intervals of 0.7–1.2m, with some larger gaps of up to 7.6m that probably represent areas where postholes have not survived truncation by later activities. The settlement was probably accessed via an entrance at the north-western corner, where a break in ditch [2340] coincided with an arrangement of postholes that may represent a gateway or

similar structure. This gap in the ditch was 3.8m wide; the ditch ended on either side in a rounded terminal. Parallel to the western, outer side of the causeway lay an alignment of four shallow postholes [2342] that may have supported a barrier screening the entrance (Fig 3). A pair of larger postholes [2309] and [2313] lay on the inside. The southern posthole of this pair, [2313], had subsequently been replaced by posthole

[2311]. It was uncertain whether the two parts of the arrangement represented separate elements of the entrance or whether they supported a structure that stood over the causeway, but it is clear that they were designed to control access into the settlement.

Building [2211]

This building was situated in the north-eastern quadrant of the enclosure and comprised a group of nine postholes in an oval arrangement, interpreted as either a small ancillary structure or animal pen (Fig 3). The postholes were extremely slight, none measuring more than 0.17m deep and several less than 0.1m deep, and defined a structure with dimensions of 3.6 x 3.0m. No artefactual material was associated with this structure.

Building [2270]

Building [2270] was rather more substantial than Building [2211] and may represent the principal domestic structure within the settlement (Figs 3 & 4). It was situated within the south-eastern part of the enclosure and comprised a group of 14 postholes that formed a horseshoe-shaped arrangement open to the south/south-east, apart from a further pair of postholes, [2201] and [2203]. It is uncertain whether the absence of further postholes on this side of the structure represented its original form or was a consequence of more recent truncation of what had been a roundhouse. The structure had overall dimensions of 6.5 x 6.0m. There were several instances of postholes arranged in closely-spaced or intercutting pairs, including [2201] and [2203], but it was uncertain whether this represented a deliberate construction technique or the replacement of posts as they decayed.

There were three instances of postholes intersecting non-structural features. Posthole [2120] slightly intersected pit [2119] into which Bucket Urn <100> had been inserted (Fig 5, section 243, & Fig 6) (see Brown below). The vessel stood upright on the base of the pit, which had presumably been dug specifically for this purpose, and appeared to have been complete when buried, although the upper part had subsequently suffered some truncation that resulted in the loss of part of the rim. Charred plant remains recovered from this posthole (see Boardman below) were radiocarbon dated to 1240–1040 cal BC (Table 5).

In addition to this, posthole [2112] was

Fig 6. Bucket Urn <100> in pit [2119], with posthole [2120] to the left, view looking south (0.3m scale)

dug into the fill of an undated pit [2110] and posthole [2116] intersected pit [2114]. In the latter instance the stratigraphic relationship was not clear, but pit [2114] contained pottery of probable Late Bronze Age date and is therefore likely to be the later feature.

Pits

A total of 43 pits were excavated, situated mostly within the fenced enclosure but including a few beyond it. The greatest concentrations of pits were situated within the vicinity of Building [2270] and within the north-western part of the settlement, south of the entrance. These pits were generally shallow, only three measuring more than 0.4m deep. Most contained a single fill of sterile clay, but six were filled by deposits that were interpreted as domestic refuse, characterised by inclusions of charcoal, fragments of fired clay, burnt flints and pottery, albeit not in large quantities. Three of the pits, [2128], [2184] and [2189], were situated within Building [2270] and a further one, [2157], lay close to it, suggesting that the refuse in the fills may have been generated by the occupants of this building (Figs 3 & 4). Pit [2189] contained a possible fragment of a perforated clay block (see Poole below) and charred plant remains including cereal grains (see Boardman below). Two of the pits, [2224] and [2316], lay within the cluster of features in the north-western part of the enclosure, while pit [1006] was located immediately outside its northern side. This pit (Fig 3) was particularly notable; initially uncovered and sectioned during the evaluation, [1006] was completely excavated during the excavation stage. In contrast to the generally circular shapes of the other pits on the site, it was sub-rectangular in plan, measuring 2.75 x 1.35m and 0.25m deep, and it also differed in having two distinct fills (Fig 5; section 1000). Its lower fill [1005] probably comprised domestic refuse and included a deposit of pottery sherds weighing more than 3.5kg, all derived from a single Bucket Urn (see Brown below). Subsequently, the pit was backfilled with a deposit of redeposited clay [1004] containing four flint flakes and nine chips, plus charred plant remains including wheat

and barley grains (see Boardman below), which were radiocarbon dated to 1440–1280 cal BC (Table 5).

Late Bronze Age Activity (c.900–650 cal BC)

Three pits within the southern part of the settlement were attributed to the Late Bronze Age (Fig 3). The largest of this group was pit [2154], a vertical-sided feature 0.43m deep with a single fill [2155] that contained more than 400g of pottery from at least four vessels, including part of a decorated bowl with a flaring rim (see Brown below), as well as flint flakes, a hammerstone (see Shaffrey below) and a possible emmer wheat grain (see Boardman below). Pits [2077] and [2114] were smaller features and each produced a single sherd of pottery that was probably of Late Bronze Age date.

Undated Features

A shallow linear hollow, [2293], at the southern end of the excavation area was interpreted as a possible hollow-way (Fig 3). It was 4m wide with a maximum depth of 0.3m, but no artefactual material was recovered from its backfill and its association with the settlement is uncertain

ARTEFACTUAL EVIDENCE

Prehistoric Pottery

Lisa Brown

A total of 673 sherds of prehistoric pottery weighing 9710g were recovered from the site. The evaluation stages produced 243 sherds (4385g) and the mitigation stage 430 sherds (5325g). The evaluation assemblage is entirely of Middle Bronze Age (*c.*1500–1000 BC) date, but the mitigation group includes a Late Bronze Age (*c.*1000–650 BC) component.

Condition

Generally, the condition of the assemblage is moderately good. An average sherd weight of 14g was registered for the combined assemblage. This is relatively high for a prehistoric assemblage, but reflects the large size and thick walls of some vessels.

Two individual vessels are in unabraded condition, while the majority are moderately abraded and only 75 sherds heavily worn. One of the unabraded vessels, from pit [2119] associated with circular structure [2270], belongs to a Bucket Urn and is complete except for a partly truncated rim, presumably removed by ploughing. Two joining sherds in coarse flint-tempered ware from ditch [2345] are also unabraded.

Fabrics

The fabric range is restricted to three grades of flint (coarse, medium and fine), all within a very finely sanded and slightly micaceous clay (Table 1). By far the predominant group is the coarse flint-tempered variety. A sub-variety of the coarse group, represented by only five sherds, additionally incorporates rare lumps of powdery red haematite. Two sherds with a distinctly soapy texture contain, in addition to medium grade flint and haematite, small inclusions of argillaceous matter, probably grog. These may be of either Neolithic or Early Bronze Age date. The flint used in all of the clay recipes could have been obtained from the Upper Chalk deposits to the north of the site.

The coarse variety is by far the largest, amounting to 67% by sherd count and 86% by weight of the total assemblage. The group containing slightly smaller (medium size) flint temper is much smaller (68 sherds), and the fine flint-tempered variety (22% by count, 7% by weight) correlates almost entirely with thin-walled sherds, reasonably well-sorted flint, and a superior surface treatment to the rest of the collection.

Forms

Only a limited range of forms was ident-ifiable because of the fragmentary state of the pottery, but both Bucket and Globular Urns were identified, as classified by Ellison (1975). Fragments of a large Middle Bronze Age 'urn' were recovered from the lower fill of pit [1006] (Fig 7.1) and sherds belonging to three other large vessels were present in pits [2119] (Fig 7.2) and [2123] (Fig 8.5), and stakehole [2079] (Fig 8.7). The example from pit [2119] was a near-complete Bucket Urn, with 211 fragments weighing 3598g. The other two are represented only by two and three sherds and are less confidently classifiable to form, but their thick wall size suggests that they are either Bucket or Barrel Urns.

Five vessel parts with thinner walls are probably Globular Urns, also of Middle Bronze Age date. Globular Urns are relatively fine vessels with bulbous bodies and constricted rims, often plain and slightly out-turned. These vessels appear to have no clear ancestry from earlier and contemporary Deverel-Rimbury vessels, but they share some characteristics with Late Neolithic/Early Bronze Age Beakers, especially in the bell-shaped profile and geometric decorative motifs, and may be survivors of that tradition. All except one of the Globular Urns incorporate medium or fine flint inclusions. The exception is unusually coarse for this vessel type, but overlap of form and fabric correlations are common with earlier prehistoric pottery. Fragments of Globular Urns were recovered from pit [2128], pit [2154] (Fig 8.8), pit [2184] (Figs 8.3 & 8.6), posthole [2136] of Building [2270] (Fig 8.4), and the northern entrance terminal of ditch [2340] (Fig 8.9). In some cases, the surfaces have been carefully smoothed and three examples are decorated. One vessel from pit [2184] (Fig 8.3) has fingernail impressions on the rim top, and the sherds from ditch

Table 1 Quantification of fabrics

Fabric	No. sherds	Weight (g)	% sherds	% weight
Coarse flint	451	8333	67	86
Coarse flint and haematite	5	56	1	1
Medium flint	68	543	9	5
Fine flint	147	772	22	7
Soapy with grog, rare flint and haematite	2	6	1	1

Fig 7. Bucket Urns from pits [1006] and [2119]. KEY: 1. Pit [1006] fill [1005] coarse flint-tempered fabric; Pit 2 [2119] fill [2118] coarse flint-tempered fabric

[2340] are decorated with incised lines and impressed dots.

Body sherds in coarse and medium flint-tempered fabrics were recovered in small quantities from several other deposits, including ditches [2266] and [2340], several pits, a number of postholes of Building [2270], and a posthole of the enclosure fence. These are all probably fragments of standard Deverel-Rimbury forms, some possibly residual, but their small size precludes classification.

Pit [2154] produced fragments of a bowl with a flaring rim, decorated just below the rim with impressed dots (Fig 8.8). The fabric, although flint-tempered, additionally incorporates lumps of powdery red haematite, unlike most of the Middle Bronze Age group. This and a thin-walled carinated sherd in medium-grade flint-tempered ware from pit [2114] are probably Late Bronze Age early bowl forms of a type currently thought to have emerged at around 1000–900 BC (Gibson 2011, 113; Barrett 1980). Undiagnostic sherds in fine flint-tempered fabrics with smoothed surfaces recovered from pits [2157] and [2278], posthole [2112] of Building [2270], and tree-throw hole [2077] could also be in this Late Bronze Age tradition, but the material is too fragmentary to be certain, and some may belong to Middle Bronze Age Globular Urns, which can be relatively small and well-made.

Two small sherds are in a distinctive soapy fabric that includes argillaceous matter (possibly grog). There are faint traces of tooled decoration visible. These sherds, the only pottery from pit [2212], may belong to a Neolithic Impressed Ware vessel or an Early Bronze Age Food Vessel, but it is impossible to say on the basis of only 6g of material. They were found associated with struck flints and burnt stones.
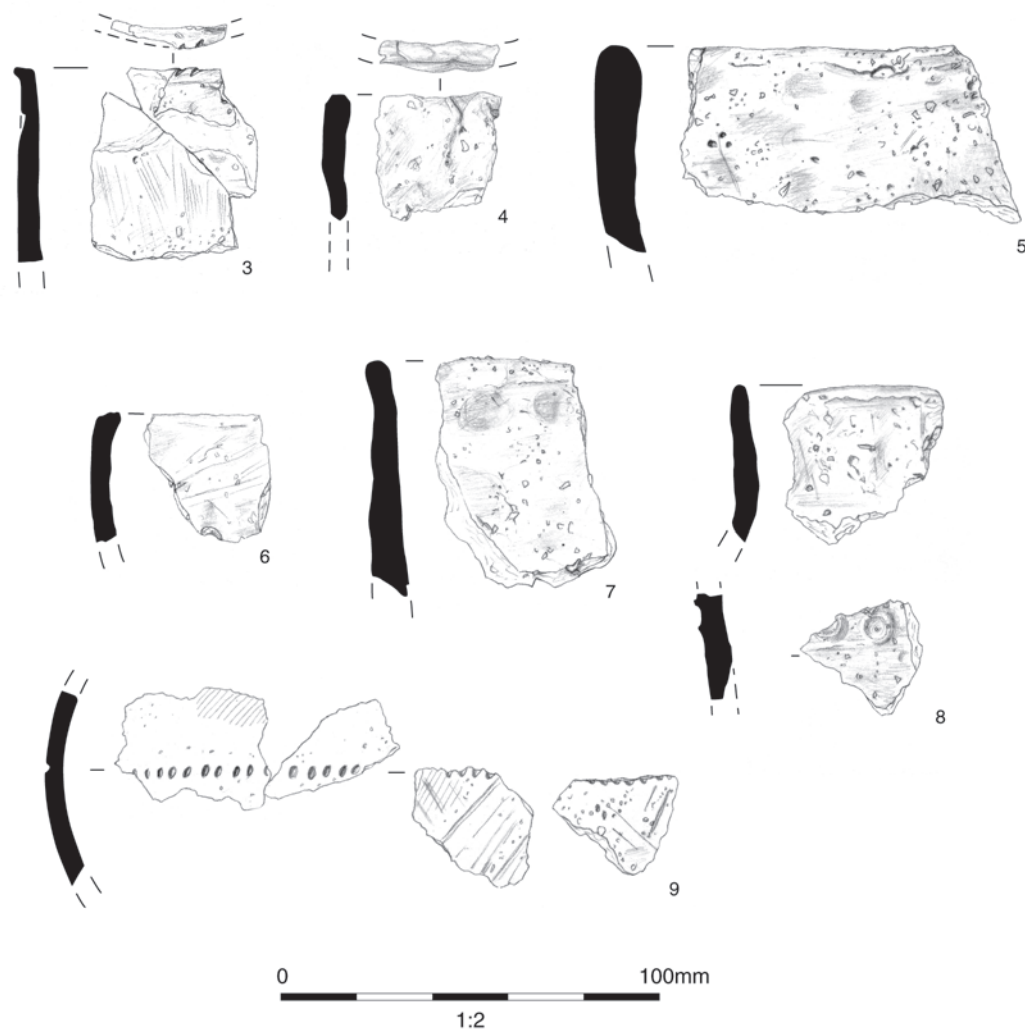
Fig 8. Pottery from other features. KEY: 3. Pit [2184] fill [2185] Globular Urn with finger nail impressions around the top of the rim, fine flint-tempered fabric; 4. Posthole [2136] fill [2135] (part of Structure [2270]) Globular Urn, medium flint-tempered fabric; 5. Pit [2133] fill [2135] Globular Urn, fine flint-tempered fabric; 6. Pit [2184] fill [2185] Globular Urn, medium flint-tempered fabric; 7. Stakehole [2079] fill [2180] Globular Urn, medium flint-tempered fabric; 8. Pit [2154] fill [2155] Bowl with flaring rim and impressed dot decoration on the neck, coarse flint and haematite fabric; 9. Ditch terminal [2340] fill [2350] Globular Urn decorated with incised lines and impressed dots, fine flint-tempered fabric

Worked Flints

Michael Donnelly

The investigations yielded just 47 pieces of flint (Table 2). The struck flints originated from a range of contexts and were usually found as single finds, but a few pits contained small concentrations of flints. Period-specific

tools were absent, but the flint does include a range of typically early and later prehistoric debitage.

The assemblage includes a significant amount of blade forms. These include very well made blades with parallel sides, although none display signs of platform abrasion and soft-hammer bulbs are rare. These pieces most likely date to the Mesolithic–

earlier Neolithic period. The assemblage also contains moderate amounts of squat, hard-hammer flakes with little platform preparation and broad, spurred platforms. These flakes typify later prehistoric assemblages of Middle Bronze Age–Iron Age date. Two cores were recovered, both flake-orientated, multi-platformed examples, neither of which is diagnostic.

Only three tools were recovered, none of which is chronologically diagnostic. One hard-hammer struck blade recovered from the subsoil [2002] displays backing along its left lateral margin and has irregular denticulations along its right side. This piece is most likely to be early prehistoric in date. One scraper fragment was also recovered from the same context, but very little can be said about its original form. Finally, a retouched flake was recovered from ditch [2266]. This piece was formed on a hard-hammer struck preparation flake and represents a highly expedient informal tool, quite typical of later prehistoric assemblages.

The assemblage is difficult to date with any degree of certainty. Some pieces are clearly early, mostly stray finds and flints from the subsoil. These pieces probably represent a background scatter related to sporadic early prehistoric activity along the Lea Valley. Very little evidence of early prehistoric activity was recovered during the preparatory works for the Olympic Park (Corcoran *et al* 2011; Powell 2012). Closer to the site, excavations at Innova Park (Ritchie *et al* 2008) and Lower Edmonton (Bishop 2005) brought to light assemblages of mixed date that included limited amounts of early prehistoric flint-work.

The bulk of the material recovered from Navigation Park represented contemporary Middle–Late Bronze Age flint-work, typified by a general lack of concern over the regularity of the blank, unprepared platforms with obvious spurs, usually on thick hard-hammer struck flakes and quite irregular blade-like flakes. The freshness of the assemblage strongly suggests that these pieces are contemporary with the pit fills they were recovered from and these represent very low-level flint use as part of a Middle–Late Bronze Age domestic setting. Similar expedient assemblages are known from many Bronze Age sites in and around the London area, including from

Table 2 The flint assemblage

Category type	Quantity
Blank-type	
Flake	15
Blade	5
Blade-like	4
Blade index	37.5% (9/24)
Waste type	
Irregular waste	6
Sieved chips 10–2mm	12
Cores	
Core multi-platform flake	2
Tool type	
Scraper other	1
Retouch blade	1
Retouched flake	1
Total	47
Burnt unworked flint No./g	256/1506g
No. burnt (%)	11/47(23.40%)
No. broken (exc. chips) %	12/35 (34.29%)
No. retouched (exc. chips) (%)	3/35 (8.57%)

the nearby excavations discussed above. As at Innova Park and Lower Edmonton, flakes and cores dominated these assemblages and formal tools were rare.

Fired Clay Objects and Structures

Cynthia Poole

A small assemblage of fired clay amounting to 421 fragments (2217g) was recovered. The fired clay can be divided into oven/hearth structures and portable objects, which are probably oven/hearth furniture. The material classed as fragments of oven or hearth structures retained only a single moulded flat surface, varying from fairly smooth and even to a quite rough finish. The pieces were up to 27mm thick and a few possibly had a bonding surface on the back, suggesting they formed an inner lining to the structure or had been daubed over the sides of a subsurface cut hollow. One piece appears to form the squared end of a flat slab with a straight flat edge 26mm wide and it may be part of a perforated clay plate of a

type commonly found on Late Bronze Age sites in the Lower Thames Valley (Champion 2014, 284–5), though the edge did not take the typical form of these objects. The function of these perforated clay plates is uncertain, but it has recently been suggested that they formed part of bread ovens (*ibid*, 287–90).

All the material classified as oven or hearth furniture took the form of cylindrical drum- or barrel-shaped perforated blocks with flat or slightly convex ends. Those with convex ends are generally indicative of a Middle Bronze Age date, whilst those with flat ends are normally considered to be Late Bronze Age. All examples were fragmentary and no complete dimensions survived. One of the pieces from pit [2189] may have been of a more tapered pyramidal form. This could have been part of a standard Late Bronze Age pyramidal block with horizontal perforation close to the top, but without a perforation surviving this must remain uncertain and the character of the piece did not appear typical of this form. A better parallel might be the unperforated slightly tapered block from Innova Park (Ritchie *et al* 2008, fig 8.9).

The fired clay assemblage probably derives from domestic activity from ovens or hearths related to cooking or processing of crops. The structural material is most likely to come from simple ovens or hearths, possibly semi-enclosed structures utilising a shallow hollow as a base with a kerb or low walls, and open at the top, although a fully enclosed dome would also be possible. The perforated cylindrical blocks may be envisaged as pedestals used in conjunction with an open structure to support pots over the fire for cooking or baking.

The perforated blocks have traditionally been regarded as loom weights based on their occurrence and groupings in domestic structures. One of the best examples was a group of ten in house platform 4 (Hut 3) at Black Patch, Sussex (Drewett 1982, fig 10), where their linear arrangement was interpreted as evidence of a loom, though storage of the group against the back wall of the structure is an equally valid interpretation. More recently, evidence to associate such artefacts with pottery production in Middle and Late Bronze Age contexts has been found at Bestwall Quarry (Woodward 2009,

291–9) and Tinney's Lane, Sherborne, Dorset (Best & Woodward 2012, 231–4), suggesting that these objects may have served more generally elsewhere as oven or hearth furniture. The consistent association of the blocks at the Navigation Park with other fired clay and burnt material, including charcoal, carbonised seeds and burnt flints, makes the identification of the perforated blocks as loom weights increasingly unlikely and here they are regarded as an accessory used in conjunction with domestic hearths or ovens. Unfortunately, none of the distinctive Late Bronze Age forms of small perforated plates, perforated pyramidal and rectangular blocks can be positively identified amongst the fired clay items from Navigation Park.

Worked Stone

Ruth Shaffrey

Two fragments of a quartzite hammerstone weighing 67g from pit [2154] are the only pieces of worked stone recovered from the site. These were produced from a flat, rounded pebble that has shattered through exposure to heat but which also has percussion damage at the one surviving end. It has been used as a hammerstone, though it is not possible to determine if this is a result of flint working or from the pounding of other substances.

ENVIRONMENTAL EVIDENCE

Charred Plant Remains and Wood Charcoal

Sheila Boardman

Introduction

Sixteen bulk soil samples collected during the excavations were assessed for plant material, of which six samples contained sufficient material for analysis for wood charcoal and five for charred plant remains. Three samples were investigated for both material types.

Wood Charcoal

Most numerous in all samples were fragments of oak (*Quercus*), which included a mixture of sapwood and heartwood, with

occasional roundwood fragments (Table 3). The dominance of oak sapwood may indicate preferential selection of immature trees and branches, with mature timbers and trees perhaps reserved for buildings or for other uses. The single Late Bronze Age sample, from pit [2157], comprised entirely oak charcoal, suggesting that it was probably a discrete dump of fuel debris. Five samples, all from Middle Bronze Age contexts, had a wider range of taxa and may represent mixed dumps of fuel debris. The taxa included hawthorn group (Pomoideae), field maple (*Acer campestre*), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), willow/poplar (*Salix/ Populus*), alder (*Alnus glutinosa*), alder/hazel (*Alnus glutinosa/Corylus avellana*), holly (*Ilex aquifolium*) and blackthorn/cherry (*Prunus*). In addition to hawthorn (*Crataegus*), Pomoideae charcoal may include apple (*Malus*), pear (*Pyrus*) and rowan/whitebeam/service (*Sorbus*) species. The very mixed samples include the contents of pot <100> in pit [2119], which may have contained general refuse that was dumped into the pit.

Overall, the charcoal remains point to the availability and exploitation of a range of mixed deciduous woodland taxa, including oak, ash, field maple, hawthorn-group species, hazel and holly. Some damper areas are indicated by willow/poplar and alder. There was little *Prunus* charcoal, and the limited remains present may be from wild cherries (*Prunus avium* and/or *P padus*) rather than blackthorn (*P spinosa*). There were very few narrow roundwood fragments of blackthorn or hawthorn group in these samples, which may indicate that scrubby vegetation (or hedgerows) was not a major component of the local landscape, or that such areas were not routinely exploited for fuel.

Charred Plant Remains

The samples had limited charred remains but these include grains and chaff of emmer (*Triticum* (cf *dicoccum*), and spelt (*T spelta*) glume bases, plus a range of probable weeds of cultivation (Table 4). The transition from emmer to spelt as the main staple crop is believed to have taken place during the Bronze Age, so all suitable samples (with cereal grains and/or chaff, plus a range of wild species) were analysed, in line with

recommendations in the draft regional review (Campbell & Straker 2005).

Pit [1006] produced the most quantifiable remains, largely comprising cereal grains and seeds/fruits of wild species. The grains were mostly wheat, and while grain characteristics in wheat are often very variable, many had high dorsal ridges and other characteristics typical of emmer. The other cereals were hulled barley, a single small oat (*Avena* sp) grain (presumably from a wild oat species) and indeterminate grains. The only chaff fragment present was a basal wheat (*Triticum* sp) rachis fragment. Most of the other wild taxa are found today in a wide range of open and disturbed habitats, but damper conditions are suggested by spike-rush (*Eleocharis palustris*) and sedge (*Carex* sp). Sheep's sorrel (*Rumex acetosella*) is more typical of acid sandy soils and is found on open heathy ground, in short grassland, and on cultivated land (Stace 2010).

Pit [1017] produced a mixture of poorly preserved cereal grains/fragments, cereal chaff remains, a hazel (*Corylus avellana*) nut shell fragment and some largely fragmentary seeds and fruits of wild species. There was slightly more hulled barley (*Hordeum vulgare*) than wheat (*Triticum* sp) grains, and oat (*Avena* sp), plus oat/brome (*Avena/Bromus* spp) and indeterminate grains. The cereal chaff remains indicate that both emmer (*T dicoccum*) and spelt wheat (*T spelta*) are present. There were more emmer glume bases than those of spelt, but indeterminate emmer/spelt glume bases were more numerous than either of these species. The wild species in this sample are again found in a wide range of conditions today.

The samples from posthole [2116], which formed part of Building [2270], and pit [2189] both contained very few (<5) cereal grains/ fragments but included probable oat (cf *Avena* sp), some wheat chaff (including spelt chaff in posthole [2116]), and seeds/fruits (and fragments) of wild species. A few seeds of persicaria (*Persicaria* sp) from posthole [2116] may again point to damp conditions.

Late Bronze Age pit [2154] was almost identical to the last two samples, but included one possible emmer wheat (*T* cf *dicoccum*) grain, which provides a very tentative hint that emmer wheat continued in cultivation in this area into the Late Bronze Age,

Table 3 Summary of wood charcoal

Sample no.		101	104	105	107	108	113
Context no.		1004	1018	2113	2117	2118	2156
Feature no.		1006	1017	2112	2116	2119	2157
Description		pit fill	posthole fill	posthole fill	posthole fill	fill of pot (SF100) in pit (2119)	pit fill
Phase/period		MBA	MBA	MBA	MBA	MBA	LBA
Litres of soil processed		40	20	13	12	25	32

Taxonomic identification	Common name			No. of fragments			
Indet softwood			1				
Rosaceae							
Prunus	blackthorn/cherry		1	1		1r	
Pomoideae	hawthorn group		6	18	12	3r	
cf Pomoideae	cf hawthorn group			1			
Fagaceae							
Quercus	oak	63shr	59shr	59shr	31sh	58shr	70sh
Betulaceae							
Alnus glutinosa	alder	2			1		
Corylus avellana	hazel	5r		4r	2	5	
Alnus/ Corylus	alder/hazel	1	1			1	
Salicaceae							
Salix/ Populus	willow/poplar			5	2		
Sapindaceae							
Acer campestre	field maple		1	9	12	2	
Oleaceae							
Fraxinus excelsior	ash			4	14	1	
Aquifoliaceae							
Ilex aquifolium	holly			3			
cf *Ilex aquifolium*	cf holly	1					
Indet charcoal		1	3	10b	3	2	
Total charcoal fragments		**73**	**72**	**114**	**77**	**73**	**70**

Key: h — heartwood; s — sapwood; r — roundwood; b — bark
Pomoideae includes: *Pyrus* (pear), *Malus* (apple), *Crataegus* (hawthorn) and *Sorbus* (rowan, service, whitebeam)

Table 4 Summary of charred plant remains

Sample no.		101	104	107	114	109
Context no.		1004	1018	2117	2190	2155
Feature no.		1006	1017	2116	2189	2154
Description		pit fill	pit fill	posthole fill	pit fill	pit fill
Period		MBA	MBA	MBA	MBA	LBA
Litres of soil processed		40	20	12	12	25

Taxonomic identification	**Common name**	**No. of seeds+fragments (F)**				
Cereal grain						
Triticum cf *dicoccum*	cf emmer wheat	10				1
Triticum spp	wheat	10.5	2			3
Hordeum vulgare L	barley, hulled cf twisted grain	3	2			
Hordeum vulgare L	barley, hulled cf straight grain	1				
Hordeum vulgare L	hulled barley	7	5+Fs			
Hordeum vulgare L	barley	2				
Avena sp	oat	1	2+F			
cf *Avena* sp	cf oat			2	1	
Avena/ Bromus spp	oat/brome		1	0.5		
Cereal indeterminate	indeterminate cereal	10	3+Fs	1+2F	2.5	1+Fs
Cereal indeterminate	coleoptile (detached sprouted embryo)		2F			
Cereal indeterminate/large grass	cereal/large grass, grain					4F
Cereal chaff and straw						
Triticum dicoccum Schubl	emmer wheat, glume base		2			
Triticum cf *dicoccum*	cf emmer wheat, glume base		4		1	1
Triticum spelta L	spelt wheat, glume base		2	1		
Triticum spelta L	spelt wheat, spikelet fork			1F		
Triticum dicoccum/spelta	emmer/spelt, glume base		7		1+2F	6
Triticum dicoccum/spelta	emmer/spelt, spikelet fork		1F			
Triticum sp	wheat, basal rachis inter-node		1			
Triticum spp	glume wheat, rachis internode		1F			
Avena sp	awn		1F			
Wild, edible plants						
Corylus avellana L	hazel nutshell		1F			

Wild plants

Vicia/Lathyrus	vetch/tare (> 2mm)	11		0.5		
Vicia/Lathyrus	vetch/tare (< 2mm)	4+Fs	1F		1+1F	
Fabaceae	small seeded legume	2F				
Persicaria sp	persicaria			2.5		2
Fallopia convolvulus (L) A Love	black bindweed		1F			
cf *Fallopia convolvulus*	cf black bindweed	1F			1	
Rumex cf *acetosella* L	cf sheep's sorrel	5				
Rumex spp	dock	9	3+F	3	1F	
cf *Rumex* sp	cf dock	1				
Polygonaceae	knotweed family		1			
Stellaria sp	stitchwort					1
Chenopodium album L	fat hen	3	4	5+Fs		1
Chenopodium sp	goosefoot		1	1		2
Galium aparine L	cleavers	2+F				
Tripleurospemum inodorum (L) Sch Bip	scentless mayweed		1			
Eleocharis paustris (L) Roem and Schult	spike-rush	1				
Carex sp	sedge, three-sided nutlet	1				
Poaceae	grass family – medium caryopsis		1+Fs			3
Poaceae	grass family – small caryopsis		3+Fs		1+1F	1
Indeterminate	seed/fruit/nut	4+F	4	2+F	2+F	2+2F
Quantifiable remains		**86.5**	**48**	**18.5**	**10.5**	**24**

Whole cereal grains, diagnostic chaff fragments (glume bases and rachis internodes), plus individual seeds/fruits are counted as one. Counts of fragmentary remains (eg of awns and nut shell) are suffixed by 'F' and are not included in the sample totals. Spikelet forks are normally counted as two (one fork normally holds two grains), but here they were too incomplete to count other than as fragments

assuming the highly ridged appearance is indicative of the species and does not result from distortion on charring.

Summary and Conclusions

All the samples investigated for wood charcoal were dominated by oak, but many other deciduous woodland species were also present in the assemblage (Table 3). The presence of this range of taxa, in both the Middle and Late Bronze Age samples, suggests that fuel wood was not in short supply. Most of the samples were very mixed, with 6–8 charcoal taxa, so they most likely represent dumps of mixed fuel debris. As

such, the wood charcoal sheds only limited light on the use of the various features as locations for refuse disposal.

The small size of the charred plant assemblages and the mixing of cereal grains, chaff and probable weeds of cultivation indicate that the deposits represent debris from several crop-cleaning operations, which would typically have been carried out on a small-scale day-to-day basis, as required (Stevens 2003) (Table 4). Two useful new radiocarbon dates were obtained from spelt chaff and probable emmer wheat grains (Table 5). It seems likely that both wheats were cultivated locally in the Middle and Late Bronze Age, together with hulled barley.

Animal Bones

Lena Strid

Only a few small, very poorly preserved fragments of animal bone survived, with largely only tooth enamel surviving the acidic local soil conditions. None could be identified to species.

RADIOCARBON DATING

Four samples were submitted to the Scottish Universities Environmental Research Centre (SUERC) AMS Facility, Glasgow, for radiocarbon dating. These comprised a piece of alder wood from organic silt layer [5018] in evaluation Trench 5 that was submitted in order to establish whether it was of a suitable date to represent the Arctic Beds, and samples of charred plant material from pits [1006], [1017] and [2119] (Table 5). The radiocarbon ages are quoted in conventional years BP (before AD 1950) and as calibrated calendrical dates at both 68.2% confidence and 95.4% confidence. The calibrated age ranges were determined using the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.2.4 (Bronk Ramsey *et al* 2013) and the IntCal 13 curve (Reimer *et al* 2013) and have been rounded out to the nearest 10 years following Mook (1986).

DISCUSSION

The settlement at Navigation Park is typical of the Middle Bronze Age, when such domestic sites and their associated field systems were coming to dominate the landscape in place of the ceremonial and funerary monuments that had characterised the Neolithic and Early Bronze Age across Greater London (MoLAS 2002, 23). Moreover, the choice of settlement location within the Lea Valley is consistent with increasing exploitation of the floodplain during this period (Brown & Cotton 2000, 91). Numerous finds of Middle Bronze Age material have been made in the Lea Valley (Brown & Cotton 2000, 84), and several settlements have been excavated, including sites at the Olympic Park, Innova Park, Lower Edmonton and Leyton (Powell 2012; Ritchie *et al* 2008; Bishop 2005; Bishop & Boyer 2014).

Navigation Park preserves the clearest settlement plan of the excavated sites in the Lea Valley and therefore contributes significantly to our understanding of settlement form. It is particularly significant that the limits of the settlement were clearly identified, comprising a roughly square enclosure set between a pair of boundary ditches and demarcated on at least three sides by a fence line. The use of fences to define the boundary is unusual, since settlements of this period are more commonly either open or enclosed by a ditch circuit. A situation

Table 5 Summary of radiocarbon dates

Lab ID	Context	Feature	Sample	$\delta^{13}C$ ($^0/_{00}$)	Radiocarbon age (BP)	Calibrated date (95.4% confidence)	Calibrated date (68.2% confidence)
SUERC-32559	5018	peat layer	waterlogged wood: *Alnus* sp	−27.9	3690±40	2200–1950 cal BC	2140–2020 cal BC
SUERC-70773	1004	pit 1006	*Triticum* cf *dicoccum* grain	−24.3	3110±30	1440–1280 cal BC	1430–1380 cal BC (39.0%) 1350–1300 cal BC (29.2%)
SUERC-70774	1018	pit 1017	*Triticum spelta* glume base	−25.0	2943±30	1260–1240 cal BC (1.5%) 1240–1040 cal BC (93.9%)	1220–1110 cal BC
SUERC-70778	2118	pit 2119	*Prunus* sp charcoal	−25.1	2797±30	1030–880 cal BC (90.1%) 890–840 cal BC (5.3%)	1000–980 cal BC (6.0%) 990–910 cal BC (62.2%)

that may be analogous to the arrangement at Navigation Park has however been recorded at Heathrow Terminal 5, where Settlement 1 at Perry Oaks was similarly situated between a pair of ditches (in this instance defining parallel trackways) and was bounded to the south by a fence line (Lewis & Batt 2006, 116–22). The character of any northern boundary at Perry Oaks is unknown, since it lay beyond the limit of the excavation area. Also at Heathrow Terminal 5, the L-shaped 'post-built structure' at Farmstead 9 may represent two sides of a rectilinear enclosure that has otherwise been truncated (Leivers 2010, 185). No evidence for internal structures survived, but the structure lay close to a waterhole containing domestic debris that may have derived from occupation within the putative enclosure. Other examples of the use of fences to define Middle Bronze Age settlement boundaries can be seen elsewhere. At Stansted Airport, Essex, a group of roundhouses lay within a sub-rectangular enclosure that was defined by fence lines and ditches and was later enlarged and realigned (Cooke *et al* 2008). Further afield, at Cotswold Community, Gloucestershire, two roundhouses lay in an area demarcated by an L-shaped fence line (Powell *et al* 2010).

Two particularly striking and unusual examples of fenced enclosures have been excavated in Norfolk, at Hunstanton and at Norwich Northern Distributor Road (Healy *et al* 1993; Moan 2017). The date of the trapezoidal enclosure at Hunstanton is problematic, since the ceramic evidence from the postholes comprised only a small number of sherds, most of them Neolithic, but whose small size may indicate that they are residual: three radiocarbon dates produced inconsistent ranges that varied from 2480–2030 to 1110–770 cal BC (Healy *et al* 1993, table 46, recalibrated using the OxCal 4.3 calibration programme and the IntCal 13 curve). An adjacent roundhouse, Structure I, which may have been associated with the enclosure, produced five fairly large Collared Urn sherds and one from a possible Beaker, but the form, comprising a circular post-ring, is more characteristic of the Late Bronze Age or Iron Age, as noted by the excavators (*ibid*, 77), and so it is possible that the pottery from this building is also

residual and the settlement of later date, more in line with the date of Navigation Park. The excavators noted that the small size of the Beaker sherd may indicate that it was residual, although the other sherds were in fresher condition (*ibid*, 71).

More certainly of Middle–Late Bronze Age date is the site at Norwich Northern Distributor Road, where Site 3 at Bell Farm uncovered an entire landscape of fields, enclosures and trackways defined by post-holes (Moan 2017, 32–51). At the time of writing, analysis of this site is still ongoing.

It is highly probable that fence lines were used more commonly in prehistory than is apparent from the surviving evidence, since shallow features such as postholes would be vulnerable to truncation by ploughing in the intervening centuries. Construction techniques may have varied according to the function of the barrier – in the case of the enclosure at Navigation Park, the spacing of the postholes is more appropriate to the use of inter-woven rods or wattle hurdles than post-and-rail construction, while not being close enough to indicate a palisade of contiguous timbers. Examples of the construction techniques that may have been used are provided by the series of Bronze Age timber structures preserved by waterlogging that have been recovered from locations along the Thames in east London. These include hurdles at Erith and Movers Lane (Bennell 1998; Stafford *et al* 2012) that were laid as trackways to provide access across wet ground. Hurdles of broadly Bronze Age/Iron Age date were also preserved in a palaeochannel at Eton Rowing Lake, the only precisely dated piece being a panel that formed part of a bridge, radiocarbon dated to the early Iron Age (Allen *et al* forthcoming). No timber elements were preserved at Navigation Park, but the charcoal assemblage from pits within the settlement indicates that oak and other deciduous species that could be used as timber for building were not in short supply.

The range of features within the enclosure, comprising post-built structures and discrete pits and postholes, is typical of settlements of the Late Bronze Age and bears comparison with the closely similar settlement in the lower part of the Lea Valley at Olympic Park Trench 9 (Powell 2012, 36–46). Occupation

at this site was similarly situated between a pair of parallel ditches and although no certain building plans could be defined, the density of postholes clearly indicated that structures had been present. As at Navigation Park, the pits were invariably shallow. The ditches at the Olympic Park were interpreted as forming part of a co-axial field system and a similar interpretation may be appropriate at Navigation Park. The ditches recorded in evaluation Trenches 3 and 5, south of the enclosure, may be part of such a wider arrangement of boundaries, although no ditches were identified in any of the other trenches. A similar pair of parallel ditches, but lacking any associated settlement evidence, was found at Lower Edmonton (Bishop 2005, 16, fig 9), and field boundaries were also uncovered at Innova Park, where midden deposits clearly indicate the proximity of domestic occupation (Ritchie *et al* 2008). Settlement 1 at Perry Oaks was considerably larger than the settlements at Navigation Park and Olympic Park Trench 9, measuring 70m east–west, but was nonetheless very similar in form. It presumably had a correspondingly larger resident population, as indicated by at least five posthole groups that are likely to represent buildings, although, as at Olympic Park, none could be resolved into a definite plan. The enclosure at Hunstanton was interpreted as a stockade for livestock with domestic settlement situated beside rather than within it.

The roundhouse, Building [2270], appears to have been the main domestic building at Navigation Park, although the surviving evidence suggests that it was an unimpressive structure represented by a circuit of post-holes with rather irregular size and spacing. Its dimensions place it toward the lower end of the size range for prehistoric roundhouses: a survey of roundhouses in the Middle and Upper Thames Valley suggested a typical diameter of 7.5–10m, with some larger examples and smaller structures down to 5m (Lambrick 2009, 141) while Pope's dataset for England and Wales gives a range of 4–14m with an average of 8m (Pope 2008, 17). The building is similar, both in size and form, to a structure recorded at Olympic Park Trench 43 (Powell 2012, 57).

The distribution of the features provides some evidence for the arrangement of space within the settlement. The south-eastern part of the enclosure, diametrically opposite the entrance, was the main domestic focus where the roundhouse was located, with the greatest concentration of the surviving pits situated within and around it. The small quantities of charcoal, fired clay, burnt flint and pottery recovered from these features presumably derived from domestic activities within the building. The most intriguing of these deposits was the Bucket Urn that had been placed upright on the base of pit [2119], although the stratigraphic relationship between this feature and posthole [2120] could not be established and so it is uncertain whether the vessel was contemporary with the building. The vessel may have been placed as an offering, perhaps as a foundation deposit associated with the construction of the house or as a rite of closure associated with its abandonment, but it may alternatively have had a more prosaic function as a storage vessel, sunk into the ground either for convenience or to assist in keeping the contents at a low temperature. Two similarly-placed vessels were associated with one of the possible post-built buildings at Settlement 1 at Perry Oaks (Lewis & Batt 2006, 119–21). A second activity area was represented by a group of pits situated north-west of Building [2270], toward the enclosure's entrance, while the north-eastern quadrant was occupied by Building [2211], which probably represented a small ancillary structure or animal pen.

The chronology of the settlement at Navigation Park was provided by a combination of ceramic and radiocarbon dates. Much of the pottery could not be closely dated due to the fragmentary state of the sherds, but Middle Bronze Age Bucket and Globular Urns were identified, as well as Late Bronze Age sherds from a smaller number of features, including pieces that are probably an early bowl form of a type thought to have emerged around 1000–900 BC (see Brown, above). These dates were confirmed by radiocarbon determinations that ranged from 1440–1280 cal BC to 1030–840 cal BC. If the features represent a continuous period of occupation, the settlement may therefore have been in use for more than two centuries and encompassed the boundary between

the Middle and Late Bronze Age. This is considerably longer than the lifespan of a single roundhouse, and would require that the building was rebuilt during the occupation of the settlement – the closely-spaced and intercutting pairs of postholes might be evidence for this, but the irregular spacing of the posthole circuit makes certainty difficult.

The dating evidence from ditches [2266] and [2340] was insufficient to ascertain whether they were constructed at the same time as the settlement or whether the boundaries pre-dated the insertion of the settlement, as was certainly the case at the Olympic Park Trench 9, where a radiocarbon date of 1430–1270 cal BC from one of the ditches contrasted with three identical dates of 1010–840 cal BC from settlement features (Powell 2012, 38, 41). These dates suggest that the ditches at the Olympic Park were established at about the same time as the settlement at Navigation Park, but that the subsequent domestic occupation was of short duration and coincided with the latter part of the occupation at Navigation Park. The main period of activity at Perry Oaks Settlement 1 was similar to Navigation Park, being dated to 1700–1150 BC by the presence of Deverel-Rimbury pottery with a final stage of occupation comprising a small number of features that produced Late Bronze Age pottery (Lewis & Batt 2006, 121–2).

The charred plant remains, although sparse, have produced evidence for the cultivation of both spelt and emmer wheat in proximity to the settlement, as well as hulled barley. It is generally accepted that spelt replaced emmer as the staple crop in southern Britain during the Middle Bronze Age and the settlement at Navigation Park appears to date from this transitional period. The radiocarbon dating of spelt chaff from pit [1017] indicates that this species was being cultivated at the settlement by 1260–1040 cal BC (Table 5), in contrast to the situation at Innova Park, where there was no evidence for spelt cultivation (Ritchie *et al* 2008, 20). Emmer clearly continued to be grown alongside spelt, since emmer chaff was also present in this deposit. Indeed, the single grain of emmer and small quantity of chaff recovered from Late Bronze Age pit [2154] may indicate that cultivation of

emmer did not cease until at least the end of the 2nd millennium BC. Emmer was also identified in Late Bronze Age pits at Olympic Park Trench 9 (Wyles *et al* 2012, 315).

The poor preservation of skeletal material precludes any investigation of animal husbandry at the site or of the balance between pastoral and arable production. The topographic setting of the settlement is likely to be key to the subsistence strategy of the community; although the ground has been built up and levelled to accommodate modern development and the original topography buried, modelling of the surface of the Pleistocene gravels from borehole data clearly shows that the settlement was situated at the limit of the slightly higher ground at the western edge of the floodplain (Fig 2). Immediately east of the settlement boundary the terrain sloped down toward the river, and this location was presumably selected in order to allow ready access to the pasture and other resources of the river and floodplain without exposing the settlement to a risk of flooding.

A number of Bronze Age settlements are now known within the Lea Valley, representing a period of colonisation of a landscape that does not appear to have been previously settled. Although earlier activity has been identified, including the Mesolithic flints at Millmarsh Lane (Bowsher 1995) and Neolithic material including an axe at the Olympic Park (Leivers & Gittins 2012), this evidence appears to be associated with visits to the valley rather than longer-term occupation. The single unworked fragment of burnt flint and occasional charcoal flecks noted within the peat layer in Phase 1 evaluation Trench 7 may be associated with such an event. It is not until the Bronze Age that settlements and field systems become evident. This colonisation was made possible by the drying out of the valley bottom, as the alder carr and fen that had dominated during the early part of the Holocene was replaced by grassland environments. At Navigation Park this change in environment was represented by the end of peat formation within the infilled channel(s) encountered by Phase 1 evaluation Trench 7 and Phase 2 evaluation Trench 6, and by the organic gravel layer [5018] in Phase 1 evaluation Trench 5. The radiocarbon date of 2200–1950 cal BC

obtained for the latter layer places it several centuries before the settlement here, prior to the main episode of colonisation. Further evidence for the changing environment is provided by the reduction in tree pollen recorded at the Olympic Park and other sites, and a corresponding increase in grasses, among other species, which has been interpreted as evidence for the development of a patchwork of localised environments including grassland, marshland and standing water (Stevens *et al* 2012, 404). This process of environmental change produced a landscape that facilitated the Bronze Age colonisation of the valley of which the site at Navigation Park formed a part.

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FINCHES, FLOWERS AND FRUIT: PAINTED WALL PLASTER FROM 2nd-CENTURY BUILDINGS AT 8–13 LIME STREET, LONDON, EC3

Ian Betts and Alison Telfer

SUMMARY

An excavation at 8–13 Lime Street, London, EC3, revealed remains from two successive Roman buildings, both dating to the middle of the 2nd century AD. *A spread of mortar associated with the earlier building contained fragments of wall plaster and small white tesserae. A large section of painted wall plaster, from an internal wall in the later building, was found where it had fallen onto the remains of a tessellated floor. The central, decorative panel of this mosaic floor had been removed prior to the demolition or collapse of the wall. The superior quality of the painted wall plaster indicates that this was a property with impressive décor, as would befit a residential house beside the forum and basilica complex. Several panels of the wall plaster have been pieced together and a hypothetical reconstruction suggested for a room decorated with vertical panels of painted flowers, birds, grapes and candelabra, and a horizontal frieze showing a procession of animals.*

INTRODUCTION

This paper presents the most significant findings of fieldwork carried out by MOLA (Museum of London Archaeology) in the spring of 2007 at 8–13 Lime Street, in the City of London, EC3 (NGR 533130 181020) (Fig 1). A fragmentary Roman sequence is briefly described, principally to provide the context for an account of the important assemblage of high-quality painted wall plaster from one of the mid-2nd-century AD domestic

buildings on the site. The main excavation was undertaken in the western basement of 12–13 Lime Street (Fig 1). The formation level of the new basement lay at 12.70m OD, over a metre above the predicted level of natural brickearth (*c.*11.50m OD; Telfer 2008), so earlier Roman stratigraphy was left unexcavated and preserved *in situ*.[1] The site lies on the east flank of the eastern of the two low hills on which the Roman city developed (modern Cornhill). In the mid-2nd century the site would have occupied an area some 30m behind (*ie* east of) the eastern frontage of the road which ran beside the east wing of the second forum (Fig 2). Evidence for Roman activity was largely confined to trench 1, located in the northern basement room and trench 2, approximately two metres to the south; in trench 3 Roman deposits had been truncated by medieval and post-medieval buildings which fronted onto Lime Street (Fig 1).

The site archive will be deposited under the site code LMZ06 in the Museum of London Archaeological Archive (formerly LAARC), Mortimer Wheeler House, 46 Eagle Wharf Road, London, N1 7ED, where it may be consulted by prior appointment. This will contain a report on the full arch-aeological sequence (including the post-Roman periods) and specialist reports on all classes of artefacts. In this report occasional reference is made to other nearby excavations, identified by alpha-numeric

Museum of London site codes (*eg* FEH95). Sites excavated by the Guildhall Museum are also identified by site codes (*eg* GM97) as presented in a Museum of London gazetteer (Schofield 1998). Detailed descriptions of the ceramic building material fabrics and complete lists of the pottery codes used in the report, their expansions and date ranges, are available on the MOLA website.[2] Wall plaster selected for illustration has been numbered as <WP1>–<WP12>; a concordance to the site archive is provided in Table 1 at the end of this report. Accessioned finds numbers are denoted by angled brackets (<1> *etc*).

LIFE ON THE EAST SIDE OF THE FORUM (MID-2nd–?EARLY 3rd CENTURY AD)

Ground Preparation

The earliest phase of recorded Roman activity consisted mainly of dumps of redeposited brickearth, probably laid down to prepare the area for construction (not illustrated; trench 1). These incorporated oyster shell fragments, occasional roof tiles and a very small piece of wall plaster showing an area of cream on a pinkish-red background. Dating evidence for these dumps comes from a pottery assemblage typical of London's Early Antonine Roman ceramic phase 5 (RCP5; Davies *et al* 1994, 213–17), dated to *c*.AD 140–60. The ceramic roof tiles (fabric group 2815) were probably made in London or along Watling Street, between London and St Albans, around AD 50–160.

Rim sherds are from a black-burnished ware 1 jar with a short upright rim and distinct bead at lip (BB1 2F1), a flat-rimmed bowl (4G) in the same fabric and two black-burnished ware 2 round-rimmed bowls (BB2 4H), one decorated with acute lattice decoration (AL). Of particular interest was the presence of eight sherds from a burnt

Fig 1. 8–13 Lime Street: site location in relation to the City of London (scale 1:50,000) and the modern street plan (scale 1:3000); also showing trench location (scale 1:750)

Fig 2. The site in relation to the local mid-2nd-century townscape (scale 1:4000; inset 1:50 000)

Verulamium/London region white ware tazza (VRW 9C); this may have been part of a household shrine, possibly within an earlier building, either on the site or in the immediate vicinity.

Also of interest, in a later context, was a relief-patterned box-flue in sandy fabric 3054 keyed with die 21. Tiles with this die are believed to have been brought into London from a tilery situated somewhere near the south coast, perhaps in the Chichester–Arundel area, during the late 1st century AD (Betts *et al* 1994, 19–20).

Demolition of a Property with Painted Rooms (Building 1)

Overlying the redeposited brickearth (trench 1) was a large mortar spread that contained 181 small fragments of painted wall plaster, as well as small white tesserae. These elements are likely to be derived from a building (Building 1, not illustrated), situated either on the site or in its immediate vicinity (the mortar did not appear to be *in situ*). The wall plaster is small and too fragmentary for reconstruction. It has a white intonaco (the final, thin layer of plaster onto which the paint is applied), 0.5mm thick, above creamy-white mortar backing, mostly 16–19mm in thickness, although in some cases 24–7mm. One piece has what appears to be daub attached to the rear.

There are various decorative elements, probably foliage, in green, light bluish-green, grey, white and red on a black background, surrounded by black, pink and cream borders. Several fragments, decorated with cream on a reddish-pink or pink background, appear to have curved black lines, representing imitation marble veining. These pieces probably come from the same room. Two sharply angled fragments and a piece of curved plaster, from a window or door surround, have the same cream-on-pink decoration.

Other fragments with cream decoration have a lighter pink background; these have occasional straw impressions in the mortar backing. This cream-on-pink scheme is bordered by a white band and a dark red dado, with white splash decoration. One piece has a curved edge, which suggests it may also have originated from either

a window or doorway surround. These fragments have been painted using a fresco technique, which would have involved the application of paint when the plaster was still wet: brush marks can be seen clearly in the top plaster surface.

Both the cream-on-pink and cream-on-reddish-pink designs appear to be imitation breccias (rocks containing large inclusions, set within a much finer matrix), such as those found in Insula XXVIII in Verulamium (St Albans), which also had occasional black streaks (Davey & Ling 1982, 183–4, fig 46). The Verulamium plaster is also believed to be mid-2nd century (before *c.*AD 155–60), making it broadly contemporary with that from 8–13 Lime Street.

The use of painted imitation imperial porphyry is shown by the use of dark red on an area thought to be the dado, which also has small white splashes. An area of cream is separated from the dado by a horizontal white band. The dado also has larger roughly circular areas in black and white and is separated by a vertical white band from a grey dado with small white splashes and larger decorative elements of uncertain design, in cream. The dark red dado appears to copy the colours found on Egyptian red or imperial porphyry. This stone type was very occasionally used as a wall inlay in London from the 2nd century onwards (Pritchard 1986, 174–5), but had to be cut into very thin sheets due to its rarity and expense. Painted imitation imperial porphyry provided a much cheaper alternative and has been found in Building 1 at Redcross Way, Southwark, along with plaster with a breccia design (Drummond-Murray & Thompson 2002, 131, fig 96 nos 3, 7–8).

Another dado fragment was painted in a similar shade of grey, but has small white and red splashes. A few fragments of plain white and pinkish-red may come from plain panels.

A Domestic Yard and Further Ground Preparation

After Building 1 had been demolished, a number of large domestic rubbish pits were dug on the site, suggesting an open aspect for this area, however brief (not illustrated). The pits are also dated *c.*AD 140–60/70 by three examples of the later form of ring-necked flagon with cupped-mouth (1B7-9) in Verulamium/London region white ware (VRW) and coarse white-slipped ware (VCWS). This form was most common in the second phase of kiln activity at the Northgate House kilns (*c.*AD 140–60/70) (Seeley & Drummond-Murray 2005, 109–11). The other diagnostic form is represented by sherds from a central Gaulish (Lezoux) samian Dragendorff form 38 bowl (SAMCG 4DR38), dated after *c.*AD 140/50. Overall the pottery is typical of RCP5 (above) (Richardson 2010). A fragment from a colourless glass vessel (<23>) was also recovered (Richardson 2009).

These finds were interspersed with cow-sized rib shaft fragments, as well as pig and chicken faunal remains (Morris 2009). Cattle bones are usually predominant in refuse from Romano-British towns (Grant 2004; King 1999), contrasting with the pre-Roman diet when there was an obvious preference for lamb and mutton (Grant 1984). This change in diet was evident in Londinium within the first few decades of the founding of the city (Rielly 2004, 57), with evidence for an increase in pig consumption matching the growth of the urban population. A dominance of pig bones was noted in the early Romano-British phases at Winchester Palace and has been suggested to be an indicator of high-status sites (Rielly 2005, 166–7). Compared to other Romano-British sites of this time period, the amount of pig recovered from the site at 8–13 Lime Street is relatively high, probably linked to its proximity to the forum and basilica. This may also account for the relatively high number of domestic fowls within the faunal assemblage. Although pigs and domestic fowls appear to have been consumed quite regularly, the majority of the meat eaten would still have been provided by cattle.

Large dumps of reworked brickearth mixed with refuse sealed these rubbish pits and were probably deposited to level the ground prior to further construction (below). The dumps contained sherds of SAMCG, black-burnished ware 2 jars and bowls with acute lattice decoration (BB2 2 AL/4H AL). These ceramics, along with the later variant of Highgate Wood ware C with added coarse sand (HWC+) and a

VRW plain-rimmed dish, are characteristic of mid-2nd-century London assemblages. A fragment of glass bottle (<24>; Isings form 50/51) was also recovered.

Evidence for building demolition, most likely local, was found in the form of fragments of ceramic roofing tiles, bricks and two small hard chalk tesserae derived from a decorative mosaic floor. Also recovered were eight pieces of painted wall plaster, with areas of decoration showing a green and black design on a white background and another with green, white and pink decoration on a grey (faded black?) background. There is also what appears to be a breccia design in cream and black with a black line, one part of which is adjacent to a maroon and white border. The plaster has a white intonaco (0.5–1mm thick) above a creamy-white mortar backing layer 21mm thick, which differs slightly from that of Building 1, suggesting that it originated from another nearby property.

Cutting into the dumps was a structural slot (aligned north-east to south-west) for a timber beam and a posthole, along with a number of apparently related stakeholes (not illustrated). These features could represent the southern edge of a short-lived and insubstantial building or a fence line dividing two properties. The backfills of these features produced sherds from a VCWS ring-necked flagon with slightly flaring short neck (1B8), a BB2 black-burnished-type round-rimmed bowl with acute lattice decoration (4H AL), and a small sherd of HWC. In general, the pottery recovered from this phase of construction would also appear to be typical of a mid- to late 2nd-century London domestic assemblage.

The structure was covered by dumps of gravel and further refuse pits were dug. The dumps produced a number of ceramic and stone tesserae and fragments of painted wall plaster, but these are thought to have been brought to the site along with material to level the ground, an operation necessitated by the slumping of the fills of the earlier pits. Retrieved from one dump was the base of a ceramic 'lamp chimney' which would have been set into a roof as a type of ventilator (O'Shea 2003, 36).

A Townhouse with a Mosaic Floor and Finely-Painted Rooms (Building 2)

A residential building (Building 2) was constructed over the prepared ground (trench 1), the quality of its internal decoration indicative of wealthy occupants. Within the excavated area a fragmentary shallow beam slot and the straight edges of areas of flooring define two adjacent rooms (Fig 3). The clay and timber walls would have been carried on timber sill beams. Although no traces of wattle or mudbrick were recovered, flecks of burnt daub were noted in later demolition deposits. The building lay on the same alignment as the earlier fence (above), but more significantly, both were aligned on the road which ran beside the east wing of the second forum. The few pottery sherds from construction deposits produce the same mid-2nd-century dates as the previous phase of pitting and ground preparation; a single sherd of Alice Holt/Farnham ware (AHFA) is clearly intrusive.

In the northern room, the red border of a tessellated floor survived *in situ* at what would have been the south-western corner and southern edge of the room. The top surface of the floor ranged from 12.58 to 12.93m OD due to slumping caused by the underlying pitting (Figs 3 & 4). All tesserae were set into a bed of mortar. The border was made from average-sized ceramic tesserae, in various shades of red, light brown and reddish-orange, with randomly scattered pottery tesserae in cream, light brown and light grey. A few yellow-grey tesserae may be ceramic tile, or possibly pottery. The red ceramic tesserae include broken box-flue tiles with both combed and relief-patterned (also known as roller-stamped) keying. One relief-pattern tessera is keyed with die 16A, dated to *c.*AD 120–40. A single row of smaller white tesserae, cut from hard chalk, was present, indicating that there had originally been a central mosaic design, which appears to have been lifted prior to the demolition of the building, presumably for reuse elsewhere. Tesserae recovered from the deposits associated with the demolition of Building 2 (below) suggests that the missing mosaic would have been predominantly white, with decorative elements in red and dark grey. Recovered from the floor make-up

was a sherd of Verulamium/London Region white ware (VRW). The floor of the southern room was represented by a compact spread of mortar, apparently the actual surface, rather than the bedding for another tessellated floor (Fig 3).

Overlying both floors was a mass of painted wall plaster fragments from the demolition or collapse of the walls of the building. Most appeared to be derived from the northern face of the partition wall between the two rooms, which had fallen northwards. The painted side of the plaster lay face down on top of the tessellated floor and had broken, presumably on impact (Fig 5). The demise of Building 2 probably occurred during either the very late 2nd or early 3rd century. A sherd of Cologne colour-coated ware beaker with barbotine figured decoration (KOLN 3 BFD), dated to *c.*AD 180/200–30, was recovered from within the collapsed painted wall plaster.

Large numbers of ceramic and stone tesserae were recovered from the demolition deposits. The stone tesserae are of particular significance, as many may be derived from a central mosaic, either in the northern room of Building 2 or a nearby property. A possible
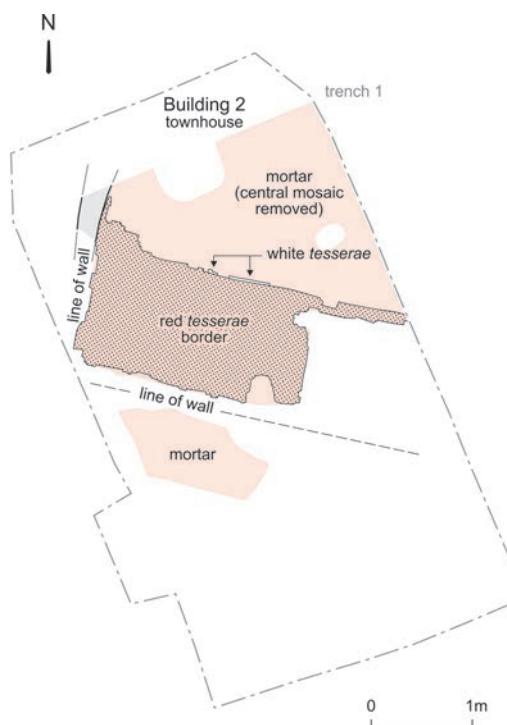
Fig 3. The arrangement of rooms in Building 2 (scale 1:75)

Fig 4. The remains of the tessellated floor in the northern room of Building 2, looking south

robbing cut produced 172 small-sized white hard chalk tesserae, a grey Kimmeridge cementstone tessera and a further 13 smaller examples cut from ceramic tile. The last are yellowish-cream, pink and light grey in colour (fabric 2454), but none have traces of mortar or show evidence of wear, so it is uncertain that they were actually set into a floor. Possibly from the plain tessellated border of the northern room are 22 larger pieces of red ceramic tesserae, with one cut from pottery. The total absence of 2nd-century roof tiles on the site suggests that these were salvaged for reuse elsewhere.

An incomplete bone needle or pin shaft (<12>) and a bone cylindrical hinge (<10>) of a type used on cupboard doors and chest lids (Frere 1972, 149–50; MacGregor 1985, 203–5) can be associated with high-status buildings. The hooked terminal from an iron 'Type 1' hipposandal (<15>) was also recovered. There are relatively few complete or fragmentary hipposandals found within the Roman city (Harward *et al* 2015, 83–4, fig 57), so this is a significant, although not closely-dated find.

Internal Decoration (Painted Wall Plaster)

A total of 1,531 fragments of wall plaster were recovered from the dumps associated with the demolition of Building 2. Much of the plaster has a cream mortar backing, comprising frequent quartz (up to 2mm), with a scatter of larger rounded flint, chert and quartzite pebbles (up to 8mm). There are occasional organic impressions in the mortar backing, probably straw, which was most likely added as a binder to aid attachment. Amounts of tiny pebble inclusions differ slightly as well. Most of the mortar backing appears to have been applied in two layers, although this is sometimes difficult to see, as both are similar in colour and texture. Above the mortar is white and greyish-white intonaco which varies in thickness from 0.2–1.0mm.

The thickness of the mortar backing varies considerably, ranging from 81mm close to the wall base, to 37mm towards the top. There are also horizontal variations between different areas of the wall. Most of the mortar backing is unusually thick, often more than double that found on wall plaster recovered

Fig 5. The mass of wall plaster fragments as found overlying the tessellated floor in the northern room of Building 2, looking north-east

from elsewhere in London, and this has stopped much of the plaster fragmenting into small pieces.

Roman decorative schemes were normally divided into three zones: the lower zone, or dado, the main zone, normally comprising plain panels bordered by various colours, and a smaller upper zone, but this rarely survives intact in London. A repeating floral design, with green stalks and yellow, pink and black flowers on a red background, from the east antechamber of the basilica, may be from this upper zone (Brigham & Crowley 1992, 102–3, fig 37a).

The Lime Street material is of particular significance, as plaster from all three zones has survived, allowing a reconstruction of the wall decoration from floor to ceiling. The description below follows the terminology suggested by Davey and Ling (1982, 81). Linear areas less than 5mm in width are referred to as a 'line'; areas between 5–19mm are described as a 'stripe'; and areas measuring 20–200mm as a 'band'. Large areas, known as 'panels', are most likely to have been plain squares or rectangles.

Scheme 1

Most of the wall plaster recovered represents *in-situ* collapse from the walls of the northern room of Building 2 (scheme 1). This has allowed a significant proportion of the decorative scheme to be reconstructed, showing red panels interspersed with green decorative borders (Fig 6). Details of particular interest are shown on other figures; those that can be located on this reconstruction are shown in Fig 7. A larger scale reproduction of scheme 1 is provided in the digital specialist supplement (see Appendix).

To the far left, the decorative scheme ends at the corner of a room; here the vertical green border contains a decorative area
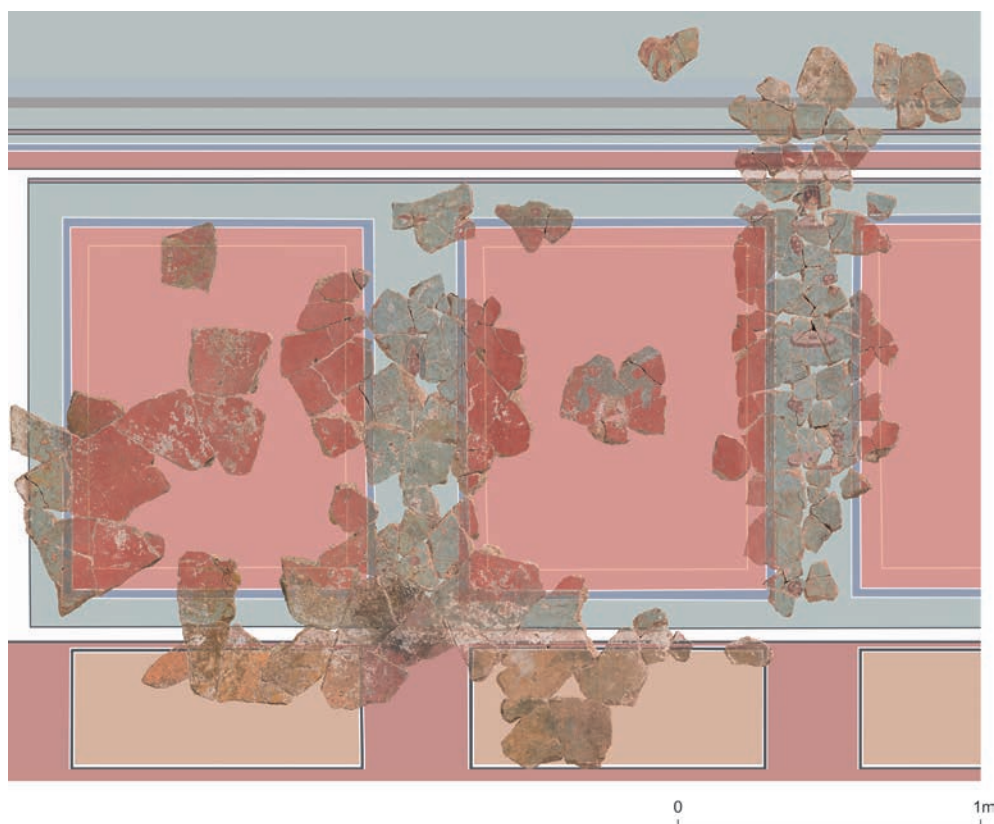
Fig 6. Reconstruction of the wall plaster scheme from the north room of Building 2 (scheme 1) (scale 1:25)

with orange fruit (Fig 6). This is positioned to the left of a red panel, with a vertical green border design incorporating birds and flowers (Fig 6 and below, <WP4>; Figs 11 & 12). These two sections of wall plaster do not join, but the similarity in colour and thickness of the mortar backing suggest they were originally very close. A further red panel would have been present to the right of the bird/flower border. This in turn could have been bordered on its right by a vertical design incorporating bunches of grapes hanging on a vine and tasselled tambourines on a green background, as seen in the hypothetical reconstruction (Fig 6 and below, <WP3>; Fig 10). Part of a second vertical bird/flower border also survives (below, <WP5>; Fig 13), suggesting an alternative to this reconstruction – a scheme in which all the red panels on one wall were separated by either bird/flower or grape/tambourine vertical borders. A winged

Cupid is believed to have been present in the centre of one of the red panels, positioned in the reconstruction on the basis of similarity in colour and mortar backing (Fig 6 and below, <WP6>; Fig 14).

The principal feature of the room was the large, almost square, red panels. Rooms usually had a symmetrical scheme with either three or five such panels – with the decorative emphasis falling on the central one (Ling 1985, 16). It has been possible to reconstruct the full height of one of the red panels, which measures *c.*1.22m. The width of the red panel can be estimated at *c.*1.08m. Similar square red panels are believed to have been present in a mid-2nd-century courtyard house at Verulamium (St Albans) (Davey & Ling 1982, 171, pl 82).

The dado comprises yellow panels with white, red and black borders, of which approximately 390mm in height survives (Fig 6). In Roman Britain, in general, the
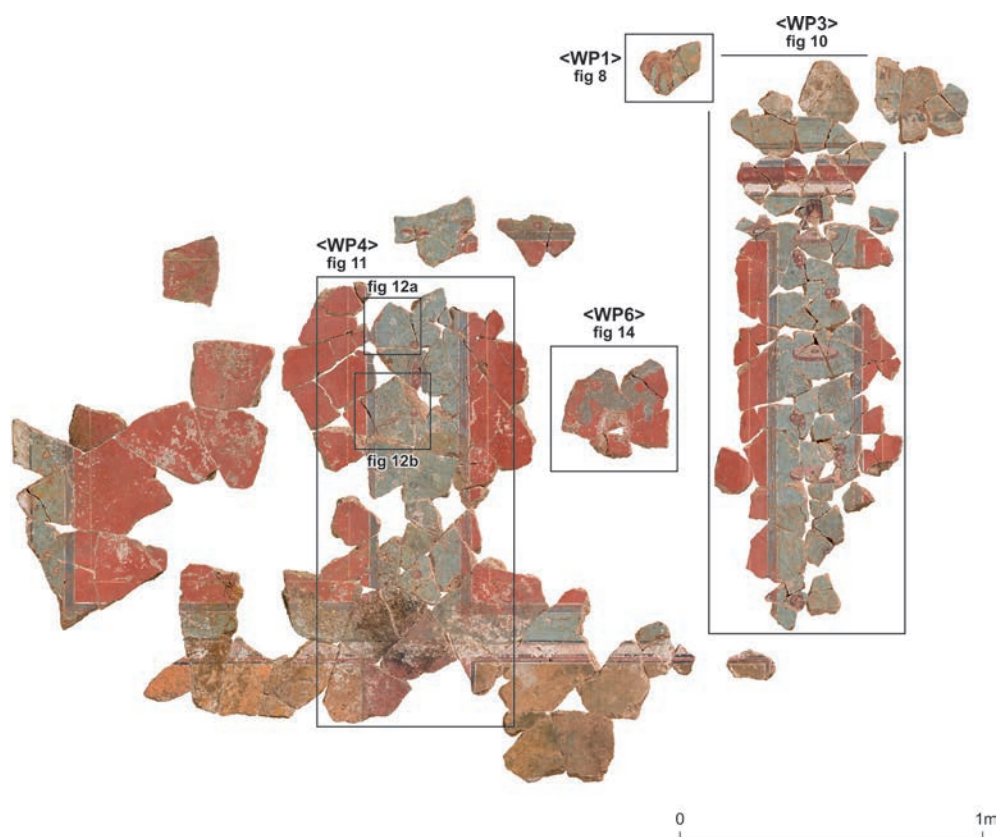
Fig 7. The location of selected details from scheme 1 that are shown in other figures (scale 1:25)

0   100mm
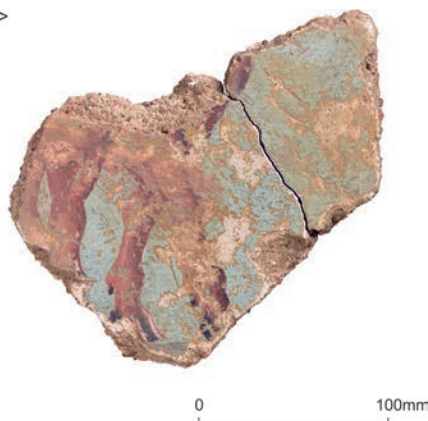
Fig 8. Detail of the forelegs of oxen or similar beasts <WP1> from the frieze in the upper zone of scheme 1 (scale 1:4)

<WP2>

0   100mm

Fig 9. Parts of a plaque <WP2>, probably from the upper zone of scheme 1 (scale 1:4)

height of dado panels varies between 300mm and 900mm (Ling 1985, 22).

The upper zone, above the horizontal green panel border, is more fragmentary. This would have measured at least *c.*550mm in height, of which *c.*380mm survives. The upper zone comprises horizontal bands in white, purple, black, red, blue and green. The red is a shade darker than that used in the panels of the middle zone. These upper zone bands lie below a horizontal green band incorporating a smaller purple stripe, edged in black. This in turn lies below a horizontal grey band (70mm) (discoloured light grey in places) and a larger light blue area, bordered by an undulating darker coloured line. The latter constitutes a frieze along which a (badly faded) ceremonial procession of animals is walking (Fig 6). A detached fragment from the same area shows the forelegs of two reddish-brown oxen or similar beasts. These would have been quite large, about 220mm high (<WP1>, Fig 8).

Probably from the upper zone (although not illustrated in Fig 6) are fragments of what appears to be the top of a square cream and dark red plaque, with various decorative elements in dark red and pink above (<WP2>, Fig 9). A thinner fragment of plaster may come from a similar decorative feature.

A wide (over 73mm) horizontal dark red band from what may be an upper wall area, with semi-circular decoration in blue, is possibly also from scheme 1. If this is from

the upper zone, it would have mirrored the dark red and cream semi-circular elements present in the horizontal green band above the central red panels (Fig 6).

The middle zone comprises rectangular red panels with an inner framing of yellow. Groups of dots and two small lines ornament each corner. Similar dots can be found on plaster from other areas of Britain, such as at Dyer Court, Cirencester (Liversidge 1977, 78, pl 5.I a) and Verulamium (St Albans) (Davey & Ling 1982, 180, fig 41, 182, fig 45). The red panels are bordered by a blue band edged in white, which in turn is surrounded by a larger green band. Resting on the top corner of each panel are red semi-circular shaped elements containing yellow volutes (scrolls). These lie adjacent to circular decoration in red, again with yellow volutes (Fig 6).

The vertical green borders contain two different decorative schemes. The first contains six skilfully painted bunches of grapes attached to twisting vine stems; the

<WP3>

Fig 10. Reconstructed vertical border from the middle zone of scheme 1, decorated with Bacchic motifs: bunches of grapes on a vine, tambourines and a theatrical mask <WP3> (scale 1:10)

central stem is threaded through the centre of three tasselled tambourines (<WP3>, Fig 10). Grapes are believed to be a reference to the Greek god of wine Dionysus, known as Bacchus by the Romans. Dionysus was also the patron of the theatre, hence the theatre mask resting on the uppermost tambourine. Similar plaster from Cologne, Germany, has a gorgon's head resting on a candelabrum in the same position (Thomas 1989, 10), whilst other plaster shows similar bunches of grapes, but on a black background, set between plain red panels (*ibid*, 2–5).

The second vertical border contains a candelabrum with birds perched on flower stems (<WP4>, Fig 11). The flowers have six or seven delicately painted petals in white, light blue and yellow, and there are also oval and circular decorative elements in red, blue and yellow. The flowers appear to be stylised drawings of primroses, despite an inaccuracy in the number of petals present (Fig 12a; A Davis, pers comm). Perched on the flower stalks in the middle of the panel is a pair of goldfinches (Fig 12b), one of which is incomplete. Also present are one grey and two red calyx ornaments and a central almond-shaped motif in dark red and black edged in cream, with cream tendrils (Fig 11). The calyx show certain similarities to those found on wall plaster from Winchester, possibly of 2nd-century date (Davey & Ling 1982, 194–5, pl 123), whilst almond-shaped motifs are also present on mid-2nd-century plaster from Insula XXVIII at Verulamium (Davey & Ling 1982, 189–91, pl 117).

There are a number of fragments from a second vertical flower and bird border (not illustrated in Fig 6). One block shows details of the upper border not present elsewhere. This shows faded calyx ornamentation, a dark red dish-shaped feature and a further pair of birds, although only one survives intact (<WP5>, Fig 13). This is poorly preserved, but the size of the legs, beak and general body proportions suggests that it may be a wading bird or a rail (Rallidae: A Pipe, pers comm). From lower down the

<WP4>

Fig 11. Reconstructed vertical green border from the middle zone of scheme 1, decorated with flowering plants and goldfinches <WP4> (scale 1:10)

<WP4>

Fig 12. Details from the bird and flower border <WP4>: a - primroses; b - goldfinch (scale 1:4)

wall are parts of a second dark red and black almond-shaped motif and another black calyx with tendrils and flowers.

A number of pieces of plaster are thought to have come from a corner of the room; one fragment shows the edge of a plain white band starting to curve around the wall corner. This is adjacent to a vertical green

border with faded foliate decoration in green and grey and what appears to be fruit painted in orange, cream and red (Fig 6).

From the centre of one red panel is part of a winged Cupid, his right leg extended and his left leg raised, with a drape across the middle of his body painted in bluish-green and pink (<WP6>, Fig 14). A red panel from 21 Lime Street (LMS13) has a possible cherub in a similar position (Betts 2016, 203). Painted on a similar background shade of red, and probably from the centre of another red panel, perhaps on another wall of the northern room (not illustrated in Fig 6), is what may be another theatre mask (<WP7>, Fig 15).

The green border decoration is repeated on a number of large semi-circular convex-shaped pieces of plaster. Two fragments show part of a red panel edged in blue and white, bordered by green. The green border

<WP5>

Fig 13. Detail from the upper part of a second vertical border decorated with birds and flowers <WP5> (scale 1:4)

0   100mm

has a similar twisting vine stem and grape design to that found in the central zone of the wall, although without the tambourines (<WP8>, Fig 16). Another difference is that vine leaves are also present. A further semi-circular convex-shaped piece of plaster has

an area of red, bordered by black and white stripes (<WP9>, Fig 16).

The hanging grapes on the green border (<WP8>, Fig 16) show that these semi-circular elements were again set vertically, suggesting they may have framed a door or window

<WP6>

0   100mm

Fig 14. Detail of a winged Cupid <WP6>, from the centre of a red panel in the middle zone of scheme 1 (scale 1:4)
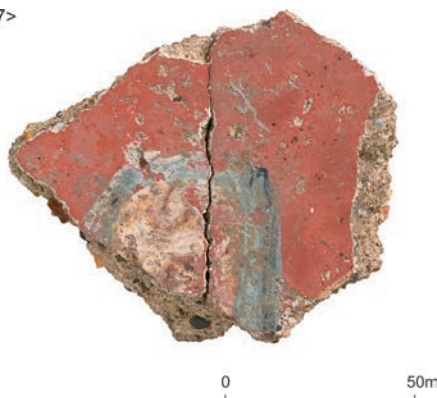
Fig 15. Detail of a possible theatre mask <WP7>, probably from the centre of a red panel in the middle zone of scheme 1 (scale 1:2)

Fig 16. Semi-circular wall plaster from the north room, Building 2: green border with vine and grapes <WP8> and red bordered by black and white stripes <WP9> (scale 1:4)

opening. Alternatively, they may have come from a niche in the wall. The other curved piece must also have been set vertically, as a line of green paint has accidentally run down the red plaster surface (<WP9>, Fig 16).

Some of the green border areas are discoloured grey, probably due to heat damage. There are also small quantities of plain red plaster from Building 2 which appear to have been burnt to a yellow colour. This suggests localised fire damage, possibly where charred roof or ceiling timbers fell against the wall, something which occurred frequently at Pompeii, Italy (R Ling, pers comm). Alternatively, the damage may be due to the heat from a brazier, or some similar heating method employed in the northern room.

A few much smaller curved fragments, thought to have been used around door or window openings or in room corners, were present in the debris from Building 2, although these are plain red, or have simple stripe decoration.

The lower zone (dado) comprised plain yellow panels, one discoloured cream, measuring 375mm in height. These panels were bordered by black and white bands. Separating each panel was a wider dark red division which linked with the red bands around each dado panel (see Fig 6).

Scheme 2

Plaster from another decorative scheme is present in Building 2. *In-situ* mortar was thought to represent remains from the floor of the room to the immediate south (Fig 3); the plaster may have come from the same room, or perhaps from a first floor room. Another possibility is that one end of the northern room had different decoration to differentiate its function from the rest of the room, a feature noted in buildings in Pompeii (R Ling, pers comm). If the northern room of

<WP10>

<WP11>

0   100mm

Fig 17. Details from scheme 2: green panel with edge of probable floral pattern <WP10> and part of a faded decorative design on dark red background <WP11> (scale 1:4)

Building 2 was a dining or reception room, a separate area may have been demarcated for food preparation or display.

The middle zone of scheme 2 comprises a series of green panels, framed by purple borders, edged in black. Bordering the green panels is a blue stripe edged in white, followed by red. This red is the same slightly darker shade used at the top of scheme 1. The interior of the green panels appears to have been mainly plain green, but one fragment shows the edge of what looks like a floral pattern in yellow, pink and grey (<WP10>, Fig 17). The latter appears to have been located near a niche, window or door opening, as part of the dark red painted band has a slightly convex top surface.

Other plaster shows a highly fragmented and badly damaged decorative scheme in yellow, green, grey, blue and white on a red background (<WP11>, Fig 17). The decoration includes a blue on white disc resting on a central candelabrum stem, with yellow vertical prongs or pendants hanging from the rim. Also present is what appears to be a faded grey calyx ornament and an almond-shaped motif in blue and yellow.

The candelabrum would appear to have formed part of a decorative vertical red border, approximately 200mm in width, set between green panels bordered by a blue stripe, edged by white bands. These green panels can be linked to those discussed above as both are framed by the same purple and black edged stripe. Mid-2nd-century plaster from Verulamium (St Albans) has a candelabrum set in the same position (Davey & Ling 1982, 189–90, fig 50, pl 94). There is also the possibility that candelabra may have been positioned along the edge of red panel areas, as at Winchester, which has similar decoration of 2nd-century date (Davey & Ling 1982, 194–5, pl 123), although this would seem less likely.

This general design has some similarities to the plaster from Building 47, at the rear of 38–40 Southwark Street (Goffin 2003, 146–7, fig 106) and Building 1 at Redcross Way (Drummond-Murray & Thompson 2002, 131, fig 96 no 17) in Southwark. The combination of painted candelabra and a red or black background appears to have been popular in Britain during the 2nd century (Liversidge 1977, 83). Here, the use of the

<WP12>

Fig 18. Imitation breccia design <WP12>, possibly from the dado in scheme 2 (scale 1:2)

rarer and more expensive pale blue pigment indicates a higher-grade commission (R Ling, pers comm).

The central blue-edged green panels of the central frieze were probably bordered at both top and bottom by horizontal white bands edged in black, followed by a broader green band, which would have given the room a similar appearance to the panels in scheme 1. There is uncertainty as to the form of the dado in scheme 2. It may link with a brown and cream imitation breccia pattern, bordered by a white stripe, followed by a purple band (Fig 18, <WP12>). This is painted on a 2.5–3mm thick white intonaco, above a 15–16mm-thick cream mortar backing layer.

Scheme 3

From the demolition debris overlying Building 2, there is evidence for a further colour scheme with an uncertain design in cream, dark red and pink on a green background. Other fragments show a floral decoration in white and pink on a light grey (or bluish-green) background. This background colour is difficult to determine, as the wall plaster has been discoloured, probably due to burning. This plaster may have come from Building 2, but equally it may have originated from another nearby building.

THE MID-3rd CENTURY AD ONWARDS

Following the destruction of Building 2, evidence for activity dating after AD 250 consisted of a number of irregular cuts, backfilled with fire debris, including burnt daub (not illustrated). It is unclear what these cuts related to, but their irregular shapes could have been formed through the dismantling of a structure, perhaps from timbers being pulled out of the ground after demolition.

At least 1200 small hard chalk tesserae were recovered from a dump containing fire debris. Some are light grey in colour, suggesting heat damage. There are also 13 small-sized red ceramic tesserae, as well as four of average size. This suggests that the latest Roman deposits contained fragments from a decorative mosaic with a plain tessellated border. These are more likely to have come from another building in the vicinity, as there appeared to have been a considerable effort to salvage the mosaic from Building 2. Again, there are what appear to be cream tesserae, along with a few pink examples (fabric 2454), all 62 of which show no evidence of wear.

Late Roman activity evidently disturbed the remains of earlier buildings. Much of the painted wall plaster from this phase closely resembles the red panelled walls of the northern room of Building 2, and many fragments show evidence of heat damage. There are also a few fragments of a floral design in white, red and pink. These are on a light grey background, but as these fragments also show signs of burning, the background may originally have been green, which would suggest that it also came from the northern room in Building 2. Further wall plaster fragments, thought to be from scheme 2, were also recovered.

Amongst spreads of general demolition debris was a sherd from a Moselkeramik beaker (MOSL 3) dated to the 3rd century and a sherd from a Harrold Shelly ware jar, a fabric which occurs in late 4th-century contexts in London. Another dump produced a sherd from a Nene Valley colour-coated ware castor box (NVCC 9G) dated to *c.*AD 240–400.

A large quantity of residual, later Roman ceramic building material was recovered from various medieval dumps and pit back-

fills, again suggesting building activity in the later Roman period. There is no evidence for activity on the site again until the late 12th century, however, which is also when Lime Street was first documented (Ekwall 1954, 75).

DISCUSSION

The high-status painted wall plaster from Lime Street fills an important gap in our knowledge of the decorative wall schemes that were favoured in Roman London during the 2nd century AD. The plaster in scheme 1 constitutes one of the most significant finds of painted wall plaster from London since the excavation in 1983 of a bath building at Winchester Palace in Southwark. On that occasion, it proved possible to reconstruct virtually the entire decorative scheme from a lunette of one of the barrel-vaulted rooms (Goffin 2005, 126, figs 84–5). The Winchester Palace plaster, which dates to *c.*AD 120–200, is an architectural scheme incorporating delicate columnar structures, hung with garlands and containing a figure of a Cupid holding a plate (MacKenna & Ling 1991, 163).

The plaster from Lime Street is quite different. Present are elements of the lower, middle and upper frieze from the walls of a domestic building. The central frieze comprises red panels with green decorative borders. These borders are either decorated with candelabra, birds and flowers or with grapes and tambourines. The badly-preserved upper frieze has part of a ceremonial procession of animals. Other elements survive, such as a winged Cupid and fragments of two theatre masks. The plaster is of a high artistic standard, comparable with, if not better than, similar candelabra on 2nd-century wall paintings from Leicester and Verulamium (St Albans). At these other sites, however, the candelabra are on a red or black background. Various sites in London have produced this colour combination, but the use of green as a background colour is far more unusual.

The general area around the site in the early Roman period is relatively well known. Lime Street lies within the area of earliest settlement, just to the east of the junction between the main east–west thoroughfare (the forerunner of Fenchurch Street and Lombard Street) and the road leading north from the Thames river crossing. The earliest Roman occupation was centred on this junction, laid out *c.*AD 48 and fringed by clay and timber or mud brick buildings seen during fieldwork at 168 Fenchurch Street (FEH95). These structures were destroyed during the Boudican revolt of AD 60/1 (Wallace 2014, 41–52, fig 22).

Several nearby sites have produced evidence for an early phase of brickearth quarrying prior to the construction of the earliest Roman buildings, for example at 15–18 Lime Street, at 25–26 Lime Street (LIM83; Williams 1984, 426) and again at 168 Fenchurch Street (FEH95; Dunwoodie 2004, 8–9). Some sites show indications of initial agricultural or funerary uses.[3] The first forum and basilica were built towards the end of the 1st century AD, immediately north of the junction and almost immediately to the west of the Lime Street site (Marsden 1987, 22–35).

Although the engineering constraints imposed on the excavation meant that the possibility of early Roman activity on the site could not be explored, buildings dating to the 1st century AD have emerged previously through fieldwork at 25–26, 27–30 and 31–33 Lime Street, directly to the south (LIM83, IME83 and LIE14; Schofield 1989, 195–6; Williams 1984, 426–7; Hartle 2017, 37–40), and to the south-west at 22–23 Lime Street (FSE76; Schofield 1998, 146–7). It seems likely therefore, that construction in this period would have reached the area of 8–13 Lime Street, and the recovery of the tazza sherds strongly suggests the former presence of a domestic building, if not on the site itself, then possibly next door.

Despite the total destruction of the Roman city in the Boudican rebellion, the rebuilt Londinium was flourishing before the end of the 1st century AD. A second fire also caused considerable damage during *c.*AD 125–30.[4] In AD 122 the Emperor Hadrian visited the city and it is thought that several high-status buildings were constructed in honour of the occasion. These included the second forum and basilica, occupying an area five times the size of their predecessors (Marsden 1983, 97–8). The buildings at 8–13 Lime Street, located only *c.*30m to the east of the complex (Fig 19), date to the middle of the 2nd century, and their close proximity

Fig 19. The approximate location of 8–13 Lime Street shown on a reconstruction of Roman London in the early 2nd century (Peter Froste/ Museum of London)

to the Roman forum and basilica is reflected in the impressive décor of both properties. Although erected after the emperor's visit, they were clearly built in keeping with the affluence and status of the area. They may even have housed a Roman official connected with the forum-basilica complex.

The construction of the new complex led to extensive developments elsewhere, with the building of new roads (at 21 Lime Street to the south-west; LME01; Dunwoodie 2005), a piped water and drainage system (at 1–7 Whittington Avenue to the north; WIV88; Brown & Pye 1992, 136) and new masonry buildings (at 154–156 Fenchurch Street to the south; CUL83; Schofield 1998, 192). Remains of the east–west thoroughfare (flanking the southern end of Lime Street) were recorded during fieldwork at 168 Fenchurch Street in 2001 (Dunwoodie 2004, 8). As part of the major development of the area, the road was widened to about 9m and another road flanked the east of the complex, crossing at

right angles *(ibid,* fig 40). This was revealed initially in 1932 (GM97; Schofield 1998, 64), along with eastern foundations of the second forum, and recorded further during fieldwork at 15–18 Lime Street (LSC07; Pennington & Wroe-Brown 2009). Timber-lined drains were constructed and wooden water pipes, joined together with iron collars, were laid within the road gravels, supplying water to both public and private buildings.

The high quality of the painted wall plaster from Building 2, in particular, could not have been uncommon in this high-status area. What is remarkable is its survival. To a lesser degree, painted wall plaster has been recovered during archaeological investig-ations at 1–7 Whittington Avenue to the north-east, and more recently to the north-west at Crosby Square (BOP82/CYQ05; Betts in prep) and to the east at 60–63 Fenchurch Street (FNE01; Birbeck & Schuster 2009), which also uncovered roller-stamped daub. Most keyed daub seems to have been covered

by plaster, which implies a building of at least modest social status.

Of particular significance is a high quality scheme from 21 Lime Street (LMS13) to the south-west. Dating to the 1st century, this has red panels edged in green with a vertical black border containing deer and two possible parakeets (Betts & Dunwoodie 2016, 49).

The Fenchurch Street site (FNE01; Birbeck & Schuster 2009, 28) also revealed two large masonry buildings, thought to be contemporary with the clay and timber structures at 8–13 Lime Street. This shows that a range of construction techniques were being used simultaneously and that masonry domestic buildings are not exclusively a feature of the 3rd-/4th-century city. It is thought that the Fenchurch Street buildings went out of use in the mid-3rd century. Late Roman occupation on or near to 8–13 Lime Street, however, is indicated by some of the finds from the excavation. A number of late Roman roofing tiles, including Harrold tile (from Bedfordshire) dating to the late 3rd–mid-4th century AD (Unger 2009, 109), were recovered, as well as probable sandstone roofing and paving material, which probably dates to the mid–late 4th century AD.

Other sites in this area have produced evidence for fine town houses and commercial properties. Decorated wall plaster was associated with a property at 154–156 Fenchurch Street (CUL83; Schofield 1998, 192). Three phases of flooring, the last one comprising a black and white tessellated floor, were recorded at Sackville House, 143–149 Fenchurch Street (SAK90; Schofield 1998, 308), to the south of the site. Two Roman tessellated pavements were found underneath Fenchurch Street in 1836, and in 1857 a fragment of a mosaic with a peacock design was found on the south side of Fenchurch Street (Dunwoodie *et al* 2015, 1–2, fig 2).

Fragments of mosaic floor had also survived below 34–35 Leadenhall Street to the north-east (GM92; Schofield 1998, 63), while fieldwork at Whittington Avenue uncovered tessellated floors from two large neighbouring buildings, which had probably shared a party wall. The northern building, part of which was probably a shop, had stone foundations, and both buildings also had hot air flues and walls decorated with painted wall plaster. These buildings also appear to have fallen into disuse by the 3rd century (WIV88; Brown & Pye 1992, 136–7).

Late Roman London was characterised by two contrasting trends. First, there was the gradual abandonment of many sites, interpreted as evidence of economic decline, such as at 1–7 Whittington Avenue (see above) and by the late 3rd or early 4th century the adjoining basilica had been abandoned (Brigham 1990, 77). Secondly, there was the development of some high-status masonry town houses, including one at Plantation Place (Dunwoodie *et al* 2015, 119–31). However, occupation of some sites simply carried on as before. For instance, fieldwork at 51 Lime Street, directly to the north-east of the site, revealed evidence for a building with late 1st- or early 2nd-century origins and coarse red tesserae floors. It had been enlarged in the late 3rd century into a substantial ragstone building with a hypocaust, but was destroyed by fire towards the end of the 4th century (Merrifield 1965, 290).

From the evidence at 8–13 Lime Street, activity on the site after the mid-3rd century appears to be destructive in nature, although later truncation may have obscured the picture. In general terms, however, development continued within the vicinity until the 4th century, but by the end of this century the locality was abandoned. The site apparently remained as open land until redevelopment in the 12th century.

ONLINE APPENDIX

An appendix containing further details is available from the LAMAS website as a PDF file.

Table 1. Concordance of the illustrated painted wall plaster to the site archive

No.	Scheme	Context	Type	Illustration
<WP1>	1	[32] – box 69	legs of an ox/beast	Figs 6–8
<WP2>	1	[31] – box 71	'plaque' like elements	Fig 9
<WP3>	1	[31] – boxes 26–9	grapes and tambourines panel	Figs 6, 7, 10
<WP4>	1	[31] – boxes 13–20, 159	flowers and goldfinches panel	Figs 6, 7, 11, 12
<WP5>	1	[31] – boxes 12, 22	second bird and flower panel	Fig 13
<WP6>	1	[31] – boxes 23–4	Cupid	Figs 6, 7, 14
<WP7>	1	[31] – box 23	theatre mask	Fig 15
<WP8>	1	[32] – box 155	curved plaster – red	Fig 16
<WP9>	1	[32] – box 153	curved plaster – green	Fig 16
<WP10>	2	[30], [31], [32] – box 72	panel from scheme 2	Fig 17
<WP11>	2	[31], [32] – boxes 107, 109	decorative panel from scheme 2	Fig 17
<WP12>	2	[31] – box 119	imitation breccia design	Fig 18

ACKNOWLEDGEMENTS

Dedication

This article is dedicated to the memory of Joe Sullivan, ground works foreman of the GEH Groundwork Specialists Ltd team. His professionalism, hard work and good nature went a long way to ensuring the success of the project.

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NOTES

[1] Natural brickearth was recorded at 11.15m OD at the northern extent of the site and at 10.20m OD to the south, but these values suggest that the natural ground surface had been truncated by Roman and later activity (Telfer 2008, 45).
[2] http://www.mola.org.uk/resource-library.
[3] *Eg* at 91–100 Gracechurch Street to the *north-west* (Milne 1992).
[4] Dating evidence from unpublished excavations at Regis House, King William Street EC4 (KWS94).

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MEDIEVAL BUILDINGS BEFORE THE GREAT BARN: ARCHAEOLOGICAL INVESTIGATIONS AT MANOR FARM, HARMONDSWORTH, 1987–9

Robert Cowie

With contributions by Lyn Blackmore (pottery and other finds) and Ian Betts (building materials)

SUMMARY

Archaeological investigations revealed evidence of the manorial complex and Benedictine alien priory cell (dissolved in 1391) at Harmondsworth, chiefly comprising structural features delineating two large timber buildings dated to the late 11th to mid-12th century. These were probably an aisled barn and a domestic building (either part of or ancillary to the manor house). The latter was represented by wall trenches for posts and possibly baseplates, and was constructed in two or more phases. It began as an oblong building containing at least two rooms, which was later extended to the north and west. Other features broadly dating to this period were four pits and a ditch. Two 13th-/14th-century ditches may have defined an enclosure associated with the manor house, situated further south.

INTRODUCTION

This report presents archaeological evidence for medieval buildings and other features recorded during excavations in 1987–9 in advance of redevelopment at Manor Farm, Harmondsworth, in the London Borough of Hillingdon (Fig 1; NGR 50563 17783). The medieval remains are of particular significance as they provide evidence for the development of the manorial complex at Harmondsworth and for an early precursor of the extant 15th-century Great Barn (below). In the course of preparing this

report the original site records and finds were reassessed and reinterpreted.

The site lies within the 'Harmondsworth Village Conservation Area' (LBOH 2007) and the 'Harmondsworth Archaeological Priority Area' (www.hillingdon.gov.uk/media/Harmondsworth_APA_1_.pdf), as defined by the local authority, the London Borough of Hillingdon (Fig 1). It is located in the north-west corner of Harmondsworth, on the western edge of the oldest surviving part of the village, bounded to the west by rough pasture and to the east by the parish church of St Mary's and its churchyard.

At the time of the archaeological excavations the site comprised a roughly rectangular plot, about 150m north–south by 75m east–west. This area would have encompassed most of the medieval manorial complex. The site continued to be used as a working farm until 1978. In the late 1980s the disused farm comprised a grade II listed early 19th-century farmhouse (now 1 Manor Court) and several ancillary buildings including the grade 1 listed Great Barn, stables, a granary, a barn/cattle shed and an open cart shed (Crumb 1986; Bowlt 1989; 2013/2014). Undated earthworks to the south and west of the site were probably associated with the medieval manor. They are shown on maps from 1819 onwards and labelled as 'moats' by the Ordnance Survey.
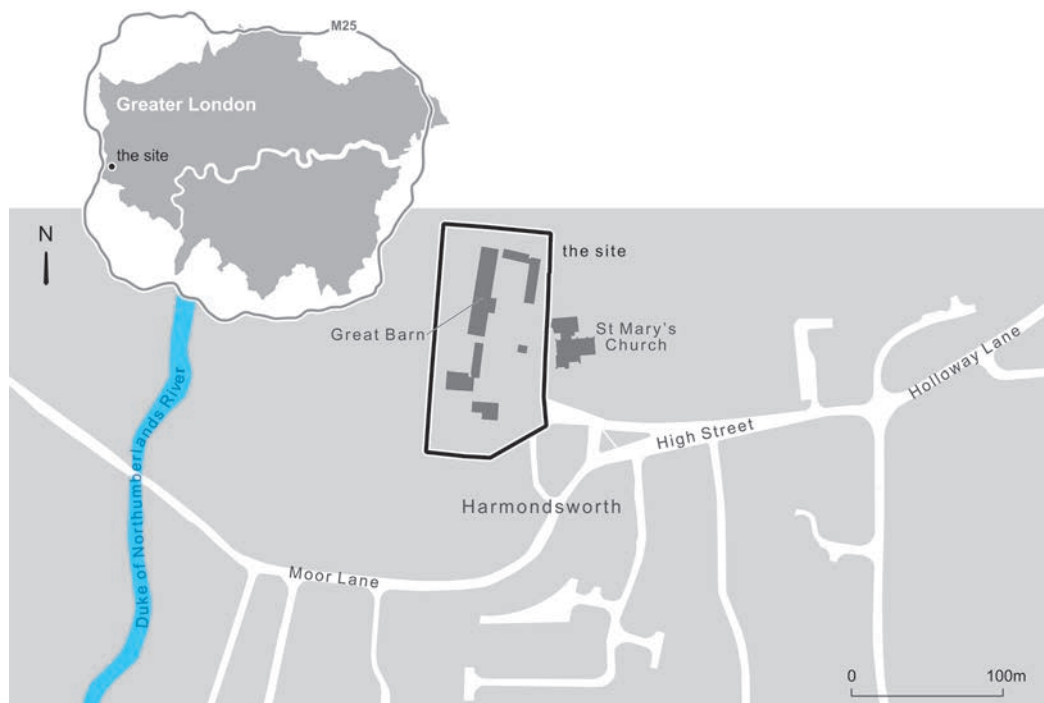
Fig 1. Site location within the Greater London area (scale 1:5000; inset 1:125,000)

Like many large medieval barns the Great Barn is often wrongly referred to as a tithe barn, which it is not (*cf* Aston 1993, 111–12). Built in 1426–7 by Winchester College, it is the largest and finest surviving timber-framed barn in England – and was given the much quoted epithet 'Cathedral of Middlesex' by Sir John Betjeman. The barn was a Scheduled Ancient Monument until 2009, when its scheduling was removed by English Heritage as a matter of policy and to expedite emergency repairs (Copeman with Drury 2014, 71; Stummer 2009a; 2009b).

In 2006 the site was sold as three separate lots (Stummer 2009b). The Great Barn and the adjacent open areas to the east and west of the building were acquired by English Heritage in 2011, opened to the public in 2012. Today the barn is managed by the Friends of the Great Barn at Harmondsworth (see http://www.english-heritage.org.uk/visit/places/harmondsworth-barn/; Kennedy 2012; Stummer 2012).

The archaeological and historical importance of the site owes much to the survival of the Great Barn, which is exceptionally well documented. The site also forms an integral part of an extensively investigated area rich in archaeological remains in and around Heathrow Airport (Lewis *et al* 2010, fig 1.6). In its local setting it was an important focus of activity as an estate centre and manorial complex arguably dating back to the 8th century or even earlier, which in the medieval period became an alien priory cell belonging to the Benedictine abbey of St Catherine at Rouen from the reign of William I (1066–87) until 1391, before being acquired by Winchester College (1391–1543).

Archaeological remains recorded during the excavations ranged from the Mesolithic to post-medieval periods. Evidence for prehistoric and Roman activity on the site will be reported in a forthcoming monograph (Cotton & Elsden in prep), while remains relating to Early/Middle Saxon settlement have already been published (Cowie & Blackmore 2008, 70–7). The focus of this report is chiefly on the evidence for medieval activity, and how it contributes to our knowledge of the development of the manorial complex. The evidence is presented in the context of the site as a whole and its environs and, when appropriate, it is compared with data from

nearby medieval sites briefly described in a gazetteer (Table 1, Gaz 1–34; Fig 3).

Circumstances of the Archaeological Fieldwork

Archaeological fieldwork was undertaken by the Museum of London's Department of Greater London Archaeology (DGLA) before and during the redevelopment of the site by the John E Wiltshiers Group, who had acquired it in 1986/7 for their new headquarters (Anon 1988; Copeman with Drury 2014, 69–71). Investigations were carried out in three phases, mainly under the supervision of John Mills (DGLA) (Fig 2). Fieldwork began in March and April 1987 with a watching brief on the excavation of a series of small geotechnical test pits near the stables and in and around the Great Barn (site code MFH87). Four test pits to the south-west of the stables revealed medieval features and deposits (Mills 1987). Those inside the barn (not illustrated) indicated that the floor of the building comprised 'undisturbed natural brickearth, and that the dwarf walls supporting the sill beams of the barn [were] very shallowly founded' (Girardon & Heathcote 1988, 412).

The results of the watching brief led to an excavation in 1988 next to the south-west corner of the stables (site code MFH88; hereafter Area 1). This uncovered structural features thought to represent rectangular earthfast buildings of probably 11th-/12th-century date (Girardon & Heathcote 1989, 74), but interpreted here as the remains of a single building of at least two phases (Building 2).

In March and April 1989 three archaeological evaluation trenches were excavated in the area of the proposed new office building to the north and east of the Great Barn (MFH89; hereafter Area 2). Fieldwork revealed prehistoric, Roman and medieval pits, plus possibly others of Early/Middle Saxon date (Mills 1989). These discoveries prompted a further two months of more extensive excavation in the area of the proposed office building under the supervision of Caroline Pathy-Barker. More pits and other features were found during this final phase of fieldwork, which concluded at the end of June (Fig 2). Most
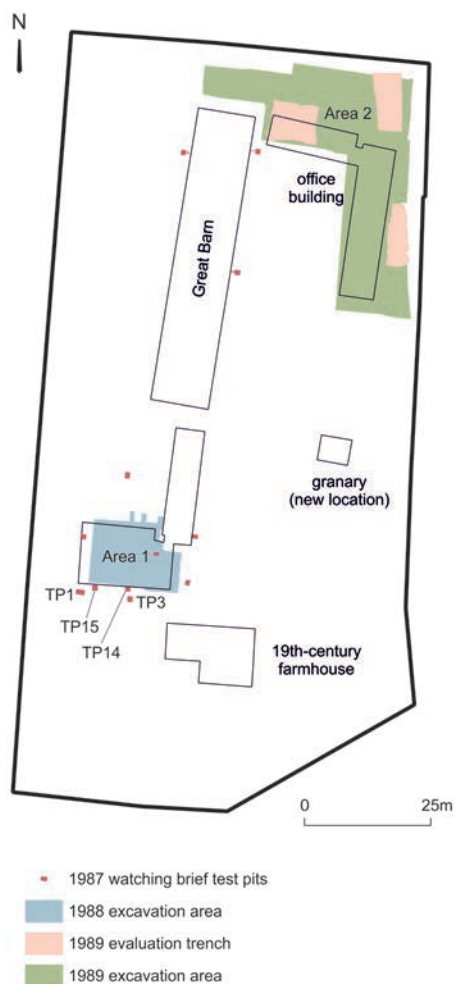
Fig 2. Location of areas investigated during archaeological fieldwork, comprising test pits and open area excavations (scale 1:1500)

features were initially thought to be pits of prehistoric or Saxon date, although several were dated to the 11th/12th century (Pathy-Barker 1989). However, the medieval pits and others first dated to earlier periods (due to the presence of residual artefacts) are now thought to be post pits delineating an 11th-/12th-century timber building (Building 1).

The geotechnical test pits were dug by hand, while all archaeological trenches were opened by mechanical excavators equipped with grading buckets, which removed the topsoil and subsoil to expose archaeological features cut into the surface of the underlying brickearth *c.*0.5–0.7m below modern ground

level. The archaeological remains mainly comprised structural features associated with timber buildings, pits and ditches, and were generally filled with sandy and silty clays. All features had been truncated by later activity and/or soil formation processes, and no contemporary floors or land surface deposits survived. The relative acidic nature of the soils resulted in the poor preservation of metalwork and the absence of faunal material (see Discussion).

During the redevelopment of the site the 19th-century farmhouse was converted to offices as were the stables, which were also extended to the south. The barn/cattle shed and cart shed were demolished to make way for an award-winning two-storey L-shaped office building. The Great Barn was recorded and expertly restored as a showpiece (Pearce 1990) and the granary moved by crane to the yard (photograph in Bayley 2014), where it could be more easily seen by visitors. The granary was placed on new staddle stones as the original ones had deteriorated.

Textual Conventions

The basic unit of reference in this report is the context number, a unique number given to each archaeological feature or deposit, shown here in square brackets, *eg* [10]. The numbering sequences for MFH87, MFH88 and MFH89 respectively begin at [1], [101] and [1000]. During the excavation in 1988 some separately excavated stretches of the same ditch or wall trench were given their own context numbers, resulting in individual features having multiple context numbers, which in this report are separated by forward slashes, for example ditch [343/349/680/786].

Only features and finds of medieval date are described and illustrated here. Accession numbers for illustrated pottery sherds are shown in angled brackets, *eg* <P1>, full details concerning fabrics, forms and contexts of these vessels are listed in Table 3. Standard Museum of London reference codes are used for ceramic building material and pottery, details of which can be found at http://www.museumoflondonarchaeology. org.uk/resources. Expansions to the pottery fabric codes can also be found in the pottery archive report.

The frequently mentioned sites of Heath-row Terminal 5 (including the Perry Oaks sludge works) and Imperial College Sports Ground are shortened here to Terminal 5 and ICSG respectively.

Sources and Research Archive

Aspects of the Saxon and medieval history of the manor of Harmondsworth are briefly outlined below to place the results of the archaeological investigation at Manor Farm in context, but further information is provided by various sources. An authoritative overview of Harmondsworth and its environs is given in the *Victoria County History* for Middlesex (Bolton *et al* 1971, 1–19), which also provides an account of the Priory of Harmondsworth (Cockburn *et al* 1969, 200–2; updated in Barron & Davies 2007, 304–6), while Sherwood (2002) and Phillpotts (2010) consider the local historic landscapes. There are also short surveys of the village of Harmondworth and its historic buildings, notably the Great Barn (RCHME 1937; Cherry & Pevsner 2002, 324–6; LBOH 2007). The latter has been the subject of several short reports and articles (Hartshorne 1871; Pearce 1990; McVeigh 1993; Bayley 2012; 2013; Catling 2017). Other buildings on the Manor Farm site are described by Bowlt (2013/2014). More detailed surveys of the manorial complex at Harmondsworth and the Great Barn are provided by Impey *et al* (2017), Copeman with Drury (2014), and Mowl (1988) – the latter is an unpublished typescript, a copy of which is in the site archive. The medieval manor is particularly well-documented due to its troubled history from the 13th to the mid-15th century and its ownership by Winchester College. Primary sources for this period are extensively cited by Cockburn *et al* (1969; 200–2), Bolton *et al* (1971, 7–8), Phillpotts (2010), Copeman with Drury (2014) and Impey *et al* (2017).

Summaries of the archaeological investigations have been published (Girardon & Heathcote 1988, 412; 1989, 74; Youngs *et al* 1988, 250; Gaimster *et al* 1989, 184; 1990, 181; Heathcote 1990, 189; Thompson *et al* 1998, 82–3). The paper and digital archives and finds from the site are publicly accessible in the archive of the Museum of London, where they are held under the site codes MFH87, MFH88 and MFH89. They can be consulted by

prior arrangement with the Archive Manager at the Museum of London Archaeological Archive, Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED (https://www.museumoflondon.org. uk/ collections/access-and-enquiries/archaeological-archive-access).

TOPOGRAPHY AND DRIFT GEOLOGY

The site lies on the Pleistocene, Taplow Gravel (third terrace) on the eastern edge of the alluvial floodplain of the River Colne, a tributary of the Thames (British Geological Survey 1999). Locally the terrace gravel is capped by brickearth, also known as the Langley Silt Complex, which typically consists of light brown silty and sandy clays. The excavations revealed the surface of natural brickearth at *c.*26.5m OD in Area 1 and between *c.*25.9m and 26.6m OD in Area 2. The modern ground surface sloped down from *c.*27.2m OD at the north end of the site (adjacent to Area 2) to *c.*24.4m OD at the south end (Crumb 1986). Ground level next to Area 1 was at *c.*26.1m OD.

Channels of the River Colne pass to the
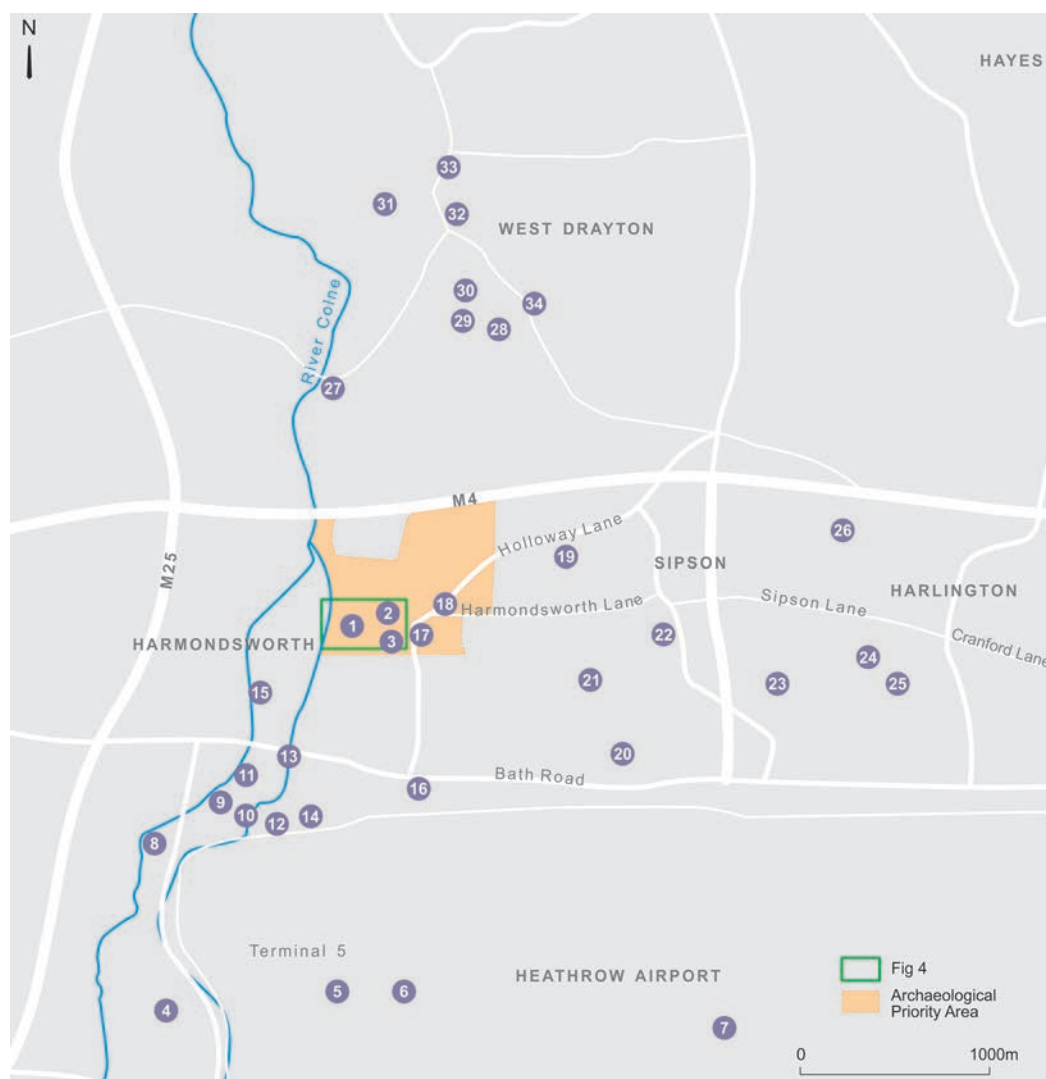
Fig 3. Location of medieval sites in Harmondsworth and its environs, listed in the gazetteer (Table 1) (scale 1:40,000)
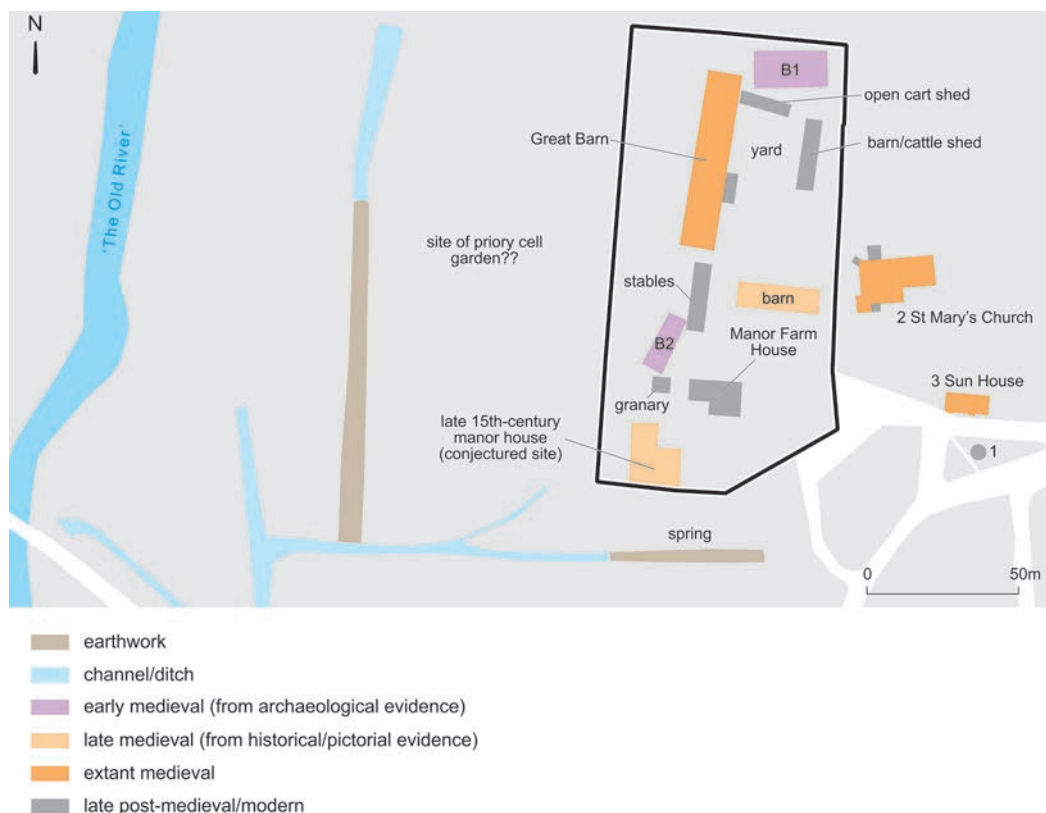
Fig 4. Location of notable buildings on the site and in the historic core of Harmondsworth, listed in the gazetteer (Table 1) (scale 1:2500)

west of the site. The nearest, about 160m away, is named 'The Old River' on the Inclosure Map of 1819, although modern Ordnance Survey maps show it as part of the Duke of Northumberland's River (an artificial channel which it joins at Longford).

A spring lay immediately south of the site, and is shown on the 25-inch Ordnance Survey map of 1866 feeding into the southern 'moat' (Fig 4). During the Saxon and medieval period this source of freshwater may well have influenced the siting of the manorial complex, and in the late post-medieval period it may have fed two ponds shown on the Inclosure Map of 1819 in the yard areas to the east of the farm buildings.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The excavations at Manor Farm revealed evidence of Early Saxon settlement dated to about AD 450–650, including the remains of one or two sunken-featured buildings, an enclosure ditch and several pits and smaller features. This accounts for the considerable quantity of residual Early Saxon pottery recovered from the medieval features discussed in this report. Investigations at nearby sites revealed further traces of settlement dating to this period scattered along the river terrace overlooking the Colne floodplain (Cowie & Blackmore 2008, 61–89). Evidence for later Saxon activity in the locality is scarce, although estates at Harmondsworth and Botwell are mentioned in charters of AD 781 and AD 831 (Sawyer 1968, nos 119 & 188; Gelling 1979, no. 203). The estate at Harmondsworth comprised 20 hides and probably formed the basis of the later manor and parish. Physical evidence for later Saxon activity in the locality includes possible retting pits at Colham Mill Road (Table 1, Gaz 31; Knight 1998) and field

Table 1 Gazetteer of medieval sites within Harmondsworth and its environs

Gaz no.	Address	Site code	NGR	Description	HER ref (SMR ref)	References
The site	Manor Court (Manor Farm), High Street, Harmondsworth	MFH87 MFH88	50562 17778	evaluation (1987), excavation (1988) and 1989) by DGLA and WLAFG	MLO8068 MLO22690 MLO22690 (050963, 051123, 051124)	this report
		MFH89	50566 17787	excavation (1989)	MLO23944 (051140)	
			50560 17780	Benedictine priory cell	MLO6614	
			50552 17772	'moats', channels or drainage ditches. Probably associated with the priory cell (above)	MLO4548 (050486)	
			50563 17777	site of the manor house,	MLO4547 (050485)	
			505630 177850	the Great Barn built 1426–7; grade I listed	MLO85145 (210194)	
1	High Street (and Moor Lane), Harmondsworth		50550 17780	site of the medieval settlement of Harmondsworth	MLO68625 (052949)	Bolton *et al* 1971, 3, 17; Morris 1975, 128d
2	St Mary's, Harmondsworth		50570 17780	grade II* listed parish church, with 12th-century S aisle, 13th- and 14th-century nave and N aisle. Chancel rebuilt in 1396–8 and the tower built in *c.*1500	MLO85024	Cherry & Pevsner 2002, 324–5; RCHM(E) 1937, 61; Robbins 1955 no. 237
3	Sun House (former Sun Inn), High Street (N side), Harmondsworth		505716 177767	grade II listed 2-storey timber-framed house, often described as 16th century, but probably late 15th century	MLO81981 (202845)	Cherry & Pevsner 2002, 326
4	Bedfont Court, Heathrow Airport stock-piling and processing area	BCU02	504496 175717	undated ditches, some of which probably represent a continuation of the medieval field system recorded at Terminal 5	MLO77090	Maloney & Holroyd 2004, 73

Table 1 (cont.) Gazetteer of medieval sites within Harmondsworth and its environs

Gaz no.	Address	Site code	NGR	Description	HER ref (SMR ref)	References
5	Terminal 5, Heathrow Airport (including former Perry Oaks Sludge Works)	POK96 WPR98 PSH02	50540 17580*	excavations by Framework Archaeology (FA) (1999, 2002–7), revealed furrows (associated with ridge and furrow of Longford Field), field and enclosure ditches, waterholes and three earthfast buildings. The buildings and parts of the field system dated to the 11th/12th century, but most features were mid -12th-/13th-century in date	MLO64478	Cramp *et al* 2010, 334–64
6	Concourse C, Terminal 5, Heathrow Airport	TEC05	50612 17580	excavations by FA revealed several medieval features including ditches		Cramp *et al* 2010, 315, fig 5.1
7	Heathrow Airport		50750 17560	hamlet of Heathrow first recorded in the early 15th century	MLO68627 (052951)	Bolton *et al* 1971, 3
8	Bath Road, Longford		50444 17662	Moor Bridge (aka High Bridge) existed by the 15th century, and rebuilt or repaired in 1652	MLO68641 (052964)	Bolton *et al* 1971, 2
9	Bath Road, Longford		50492 17681	settlement of Longford first mentioned in 1337	MLO68631 (052954)	Bolton *et al* 1971, 3, 14, 20
10	567 Bath Road, Longford	BFG06	504940 176807	five ditches and a posthole contained 11th- to 12th-century pottery. A sixth undated ditch was probably coeval	MLO98497	AOC 2007
11	Bath Road, Longford		50494 17695	three mills recorded in the parish in 1086, and two watermills in 1293–4 (both in the same building). They were repaired in 1398 and still standing in 1433–4, although only one is mentioned in 1451	MLO68643 (052966)	Blythman 1996, 32–3
12	Heathrow Airport (S of Longford)	PSH02	50510 17675	excavations by FA (2002–4) revealed field ditches and about 50 pits (probably associated with medieval Longford) containing early medieval and 13th-/14th-century pottery	MLO108336	Cramp *et al* 2010, 364–6

* The NGR for site 5 is an approximate centre point of a cluster of contiguous excavation sites

13	Bath Road, Longford		50521 17690	probable site of the 14th-century Longford Bridge	MLO68643 (052965)	Bolton *et al* 1971, 2–3
14	Western Perimeter Road, Longford	LGB95	50525 17675	evaluation by MoLAS (1995) revealed two possible stakeholes, one containing 12th-century pottery	MLO71193	
15	Iver South Sewage Treatment Works, Tarmac Way, Harmondsworth	HTL01	50500 17740	evaluation by FA (2001) revealed two ditches and a pit containing 12th- to 13th-century pottery	MLO76926	Maloney & Holroyd 2002, 14
16	Heathrow Airport Staff car park, N of Northolt Road, Longford	NRH94	50585 17690	a field ditch containing medieval pottery was recorded during an evaluation and watching brief by MoLAS (1994)	MLO66122 (052660)	Greenwood & Maloney 1995, 341–2
17	Former Radley's Garage, High Street, Harmondsworth	HHH99	50587 17779	excavation by MoLAS in 1999 revealed a large number of intercutting pits (possibly brickearth quarries) containing 13th-century pottery, an iron knife and animal bone	MLO74998 (054857)	Maloney & Holroyd 2000, 48
18	15 Holloway Lane, Harmondsworth	HLL89	50596 17783	excavation by DGLA in 1989 revealed pits, postholes and a cesspit indicating 12th- to 13th-century occupation. One pit contained a complete skeleton of a calf	MLO66495 (052607)	Thompson *et al* 1998, 81
19	Holloway Lane (S of)		50664 17816	ridge and furrow? possibly still extant	MLO22884 (050779)	Aerial photograph: ref 540/494 12 May 51 (3330)
20	Airport Gate – Norman Hay Site, Bath Road, Harmondsworth	NHS97	50697 17709	a gully containing a medieval potsherd and two apparently associated postholes	MLO71680	
21	Home Farm, Harmondsworth Lane, Harmondsworth	HOM91	50700 17747	a scatter of medieval artefacts was found during an evaluation by MOLAS in 1991	MLO58492 (052293)	Hoad 1999
22	Sipson Road, Sipson		50730 17780	settlement of Sipson (aka Shepiston) first mentioned in 1214. By 1337 it comprised 14 houses	MLO68635	Bolton *et al* 1971, 3

Table 1 (cont.) Gazetteer of medieval sites within Harmondsworth and its environs

Gaz no.	Address	Site code	NGR	Description	HER ref (SMR ref)	References
23	Sipson Farm, Sipson Road, Sipson	SFB05 SIF10	507800 177460	evaluation by Wessex Archaeology (WA) (2005) revealed evidence for medieval activity. Excavation by MOLA (2010–14) revealed 11th- and 12th-century field ditches, pits, waterholes and two timber buildings. 13th- and 14th-century features included enclosure ditches, possible furlong boundaries, waterholes (one with wooden remains including part of a wheel) and a structure	MLO76465 (evaluation) Event nos ELO13914, ELO5609 (excavation)	Cowie *et al* in prep
24	Imperial College Sports Ground (ICSG), Sipson Lane	IMC96	50833 17757	excavation by WA revealed a field ditches, some of late 10th- to late 11th-century date, but most dated from the later 12th century	MLO72001	Mepham with Stevens 2015, 118–9
25	78–80 The Crescent, Harlington	HNN99	50846 17749	several medieval potsherds found during excavations by MoLAS (1999–2000)	MLO74428 (054781)	Maloney & Holroyd 2000, 48
26	RMC (formerly Ready Mixed Concrete Ltd) Land, Sipson Lane / Victoria Lane	SIE00 WGA07	50817 17831	excavation by WA (2002, 2006, 2009) revealed a field system delineated by ditches dated from about the late 9th or 10th century to the late 11th century and 43 contemporary pits. Two timber buildings, one with a radiocarbon date of 890–1000 cal AD	MLO100473	Mepham with Stevens 2015, 112–33
27	Mill Road, West Drayton		50540 17908	possible site of a mill recorded in *Domesday Book* and in 1222. Site of mill mentioned in the late 15th century, which was enlarged in 1559, repaired in 1697–8, largely rebuilt in the late 18th century and demolished in the late 20th century	MLO68640 (052963)	Blythman 1996, 22–3
28	Church Road, West Drayton		50630 17940	historic core of the village of West Drayton	MLO68637 (052960)	Reynolds 1962, 187–8
29	Formerly Gate House Nurseries Beaudesert Mews / Church Road, West Drayton	GNWD 79/80	50614 17948	11th-/12th-century pits and ditches sealed by medieval gravel courtyard surface associated with manorial complex	MLO25354 (050182)	Cotton 1981

30	St Martin's churchyard, Church Road, West Drayton		50615 17954	medieval churchyard surrounded by Tudor walls. The mid-15th-century parish church, with some 13th-century fragments, restored in 1850–2 includes the base of an earlier tower, piscina and N chancel wall	MLO104649	Cherry & Pevsner 2002, 367; Robbins 1955, no. 235
31	Colham Mill Road, West Drayton	CMR96	50569 18006	evaluation by MoLAS revealed a gravel surface cut by two wattle-lined pits with radiocarbon dates of 680–970 and 880–1160 cal AD, overlaid by an 'organic' layer containing a Late Saxon potsherd	MLO67367 (052725)	Knight 1998
32	Station Road, Swan Road, Yiewsley		50606 17983	manor house known as Burroughs (later Drayton House) probably built by 1245. Rebuilt by 1521	MLO10620 (050712)	Reynolds1962, 195
33	High Street, Yiewsley		50610 18020	settlement at Colham mentioned in 1086 and 1316	MLO68614 (052940)	Bolton *et al* 1971, 56–8
34	Kingston Lane, West Drayton	SHK94	50648 17954	an evaluation by RPS Coulston revealed a pit containing 12th-century pottery, three other pits with 12th- to 14th-century pottery were recorded during a watching brief	MLO67695 (052741)	Greenwood *et al* 1997, 45

systems at RMC Land (Gaz 26) and ICSG (Gaz 24) respectively dating from about the late 9th and late 10th centuries (Mepham with Stevens 2015, 112–33).

Domesday Book records that at the time of the Norman Conquest the Manor of Harmondsworth was held by Earl [King] Harold (Morris 1975, 128d). In 1069 the manor and church of Harmondsworth were given by William the Conqueror to the Benedictine Abbey of Sainte-Trinité du Mont, by Rouen – later called St Catherine's (Barron & Davies 2007, 304). It was a particularly generous gift, as the manor possessed rich arable land in a county that was second only to Norfolk in terms of agricultural land (Mowl 1988, 2). The abbey soon established a small cell at Harmondsworth, comprising a prior and a monk, to manage the distant but profitable property.

In 1086 the manor comprised 30 hides, and included extensive arable land, meadow, a vineyard, and enough woodland for the pannage of 500 pigs (Morris 1975, 128d). There were also fishponds and three mills, which respectively rendered 1000 and 500 eels a year, the latter caught in fisheries probably established in mill leats. About four years later the abbey was given the manor of Tingewick in Buckinghamshire, and subsequently acquired the church of St Leonard's in Sussex (Barron & Davies 2007, 304). Both were attached to Harmondsworth, adding to the administrative burden of the prior and his companion – Tingewick and St Leonard's are 68km (42 miles) to the north-west and 97km (60 miles) to the south-east respectively.

Apart from brief episodes of royal control the manor of Harmondsworth was held by St Catherine's Abbey until 1391 (Barron & Davies 2007, 304–6). The tenure of the abbey was particularly troubled, and was punctuated by legal and sometimes violent disputes between the priory and their tenants, who bitterly resented the customary dues of labour they owed the manor. These duties were set down in a late 14th-century copy of a 13th-century custumal, which possibly reiterates one of 1110/11 (Copeman with Drury 2014, 29–30). In 1227, 1233 and 1275 there were court cases in which the tenants were unsuccessful in their appeals, in 1276 Richard le Taylor, probably a tenant,

was killed in a riot at Harmondsworth, and in 1281 his widow was one of twelve tenants in gaol for burning priory buildings at Harmondsworth. Further waves of protest from the tenantry followed in 1289, 1358 (when the houses of the priory were again burnt) and from 1377–85 (Cockburn *et al* 1969, 201; Bolton *et al* 1971, 12; Mowl 1988, 8–13; Phillpotts 2010, 22–3).

The buildings of the manorial complex are mentioned in the custumal (see above), which refers to a Great Barn where threshing was undertaken, and a hall where tenants were rewarded with a meal for binding and carting (McVeigh 1993, 12–13; Phillpotts 2010, 22). They are also mentioned incidentally in inventories of goods and property at Harmondsworth priory made in 1293–4, when Edward I seized alien priory lands, and 1324–5, when the manor was restored to the prior by Edward II (Bolton *et al* 1971, 8; Mowl 1988, 10–11; McVeigh 1993, 12–13). The former mentions a granary, while the 1324–5 survey mentions a granary and a barn as well as a 'capital messuage' (important dwelling), a garden, and two pigeon houses. The barn was apparently for storing sheaves, suggesting that it was a substantial structure. In 1388–9, shortly before the priory was dissolved, there are references to a granary, pighouse, stable, presshouse and a bakery at Harmondsworth (Copeman with Drury 2014, 31).

In 1391 the manor was acquired by William of Wykeham, Bishop of Winchester, who gave it to his new college at Winchester (Kirby 1902, 342–5; Bolton *et al* 1971, 202). Winchester College held the manor until 1543. Accounts for 1406–7 mention a lord's barn, a tithe barn (possibly synonymous with a 'corn barn' mentioned in accounts for 1397–8), a hay barn, a cart-shed, a dairy, a cowhouse and a brew-house (Copeman with Drury 2014, 30–1). However, it appears that the lord's barn and the tithe barn were soon to be replaced. The former was probably superseded by the timber-framed Great Barn built by William Kypping in 1426–7 (Fig 5; RCHME 1937, 61–2; Bolton *et al* 1971, 8; McVeigh 1993; Bayley 2012; Copeman with Drury 2014, 32–46). The barn is 58m (192ft) long, 11.4m (37ft) wide, and about 11.5m (38ft) high. It comprises twelve bays, three of which had threshing floors with entrances to the east. Its external walls are clad with elm

Fig 5. Interior of the Great Barn, Harmondsworth, looking north (copyright)

and oak boards and supported by walls or plinths up to 1m high that are mostly made of large blocks of local naturally-occurring ferricrete (see Discussion). Dendrochronological analysis indicates that sampled structural timbers were made from trees felled in 1423–6, and that sampled weather boards were contemporaneous (Tyers & Hibberd 1993; Tyers 2015, 5–6). Within the barn there are two rows of arcade posts on stone bases (Fig 5).

The tithe barn was apparently replaced by another in 1434–5 (Bolton *et al* 1971, 8). The location of the barn is not recorded, but it may have been located south-east of the Great Barn and roughly west of the parish church (Fig 4), for the north-east corner of a large building with a hipped roof is just visible on the left-hand margin of an engraving of the church in *c.*1795 published by Lysons (1800, facing page 142) (Copeman with Drury 2014, 21, 46–9, figs 5 & 19). By the early 19th century the tithe barn had been superseded by another in Braggs Way (later Tithe Barn Lane), which survived until at least 1934 and possibly 1940, on a site now covered by the airport (Bolton *et al* 1971, 8).

Winchester College accounts of 1450–1 indicate that the manor house comprised a hall, chambers, pantry and kitchen. College accounts also suggest that it was probably rebuilt in *c.*1484–5. It was a timber-framed jettied building with 'ornamented gables'. This was said to have been demolished in 1774 (Thorne 1876, 320), although a drawing of the building in 1794 was published by Lysons (1800) (Fig 6), and it probably survived until it was replaced by the present farmhouse in the early 19th century (Copeman with Drury 2014, 49–50). Two moulded beams observed in the 19th-century stable block during redevelopment in 1988 were evidently re-used from a much earlier building, and may have been recovered from the manor house at the time of its demolition (Bowlt 2013/2014, 295–6, fig 4).

HARMONDSWORTH MANOR IN THE MID-11th TO 12th CENTURY

Building 1

Evidence for a substantial rectangular timber building was found just over 3m east of the

Fig 6. A pen and wash drawing of the manor house in 1794 (London Metropolitan Archives, catalogue no. k1247547; Collage record no. 33738)

north-eastern corner of the Great Barn. This building, probably a barn, was represented by large rectangular or subcircular post pits (five with post pipes), between 0.14m and 0.66m deep (ten survived to a depth of at least 0.39m). Most were aligned in two parallel rows on an east–west alignment roughly 7m apart (from their centre points) (Fig 7). One post pit in the northern row was probably completely removed by an 18th-century sawpit, but is conjectured here as the opposing counterpart to pit [1088] in the southern row.

The post pits in the central and eastern parts of the building were regularly spaced, and would have held vertical timber posts at roughly 4m intervals. Here the building appears to have been divided into three bays defined by four pairs of pits for paired posts or trusses. A porch on the south side of the building was indicated by two post pits roughly 4m apart, which were aligned with two post pits to the north.

The spacing of the features in the western part of the building was less regular, possibly indicating a different phase of construction. In particular, posthole [1157] and pits [1032] and [1036] were oddly placed in relation to the others. However, the two pits were evidently structural as both contained post pipes and were similar in shape and size to the rest.

Medieval pottery was recovered from four post pits. Two, [1127] and [1162], respectively contained three sherds (49g) from the base of a cooking pot in a micaceous variant of early Surrey ware (ESUR MIC) and three sherds (12g) from the base of a cooking pot in early Surrey ware (ESUR), dated to *c.*1050–1150 or later. A third post pit, [1143], produced two sherds (22g) of early medieval flint-tempered ware (EMFL) and ESUR dating to 1050–1150. The remaining pit, [1032], yielded a single sherd (16g) of early medieval gritty ware/early South Herts greyware (EMGY/ESHER) dated to 1050–1200. The dating evidence for this
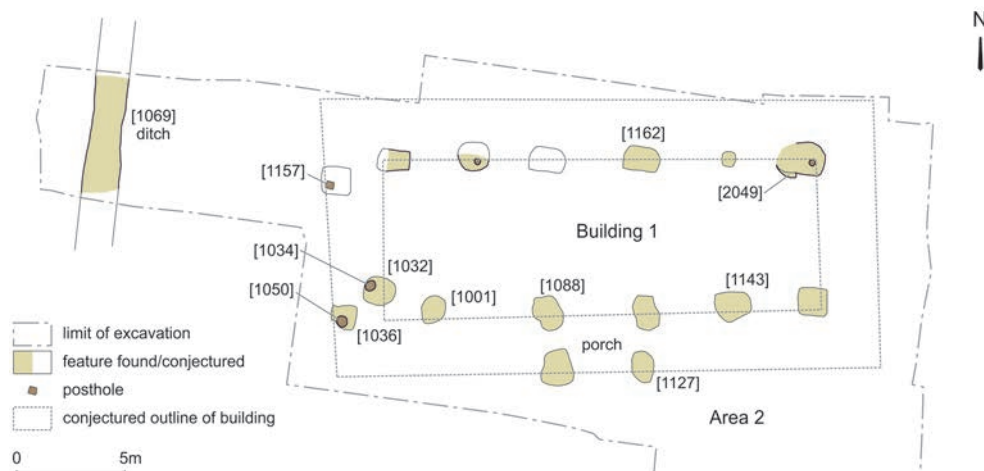
Fig 7. Building 1 and other features dated to the mid-11th to 12th century in Area 2 (MFH89) (scale 1:350)

building is considered in more detail in the Discussion.

In addition, a roothole, [2049], following the edge of the post pit in the north-east corner of the building produced one sherd of fine ESUR dated to 1050–1150. Given the context in which the pottery was found it is likely that the sherd was intrusive and derived from the post pit.

During the preparation of this report the two parallel rows of pits were initially thought to represent the external walls of a building about 22.6m long and up to 7.5m wide, with a porch projecting out just over 2.5–3.0m from its the south side. This interpretation was substantially revised at the suggestion of Paul Drury, and it now seems more likely that the archaeological features represented an aisled building with a hipped roof. In this case the rows of pits represented arcade posts with surrounding aisles, with a centrally positioned doorway and porch on the south side of the building marked by two post pits. The regularly spaced arcade pits in the central and eastern bays almost certainly represent pairs of opposing posts that would have supported tie-beams crossing from one to the other. The aisles were probably a little over 2.5m wide, corresponding to the depth of the porch, making the overall building about 25m long and 12.5m wide. This interpretation presupposes that the

shallow foundations of the external walls of the building had been largely destroyed by truncation of the contemporary land surface (see above). The exceptions being posts represented by features [1050] and [1157], which were located roughly on the line of the conjectured west end of the building. These, Drury (pers comm) argues, probably represented a rebuilding of the wall on a slightly skewed alignment.

Both interpretations are slightly problematic because of the irregular configuration of structural features at the western end of the building. Post pits [1187] and [1193] accord with the overall layout, but apparently lacked corresponding counterparts in the southern arcade. Instead, there were two curiously positioned post pits, [1001] and [1032], which possibly represented repairs or props (Paul Drury pers comm). Given the considerable variation in the depth of the recorded post pits (see above) it is possible that the 'missing' post pits in the southern arcade may have been too shallow to survive.

Northern Open Area

A north–south aligned ditch, [1069], near the north-western corner of Area 2, contained three successive fills. Its primary and secondary fills contained four and three sherds of Early Saxon pottery respectively.

Fig 8. Excavation in progress in Area 1, showing wall trenches of Building 2 and underlying Saxon enclosure ditch, looking north-west

The uppermost fill produced four sherds (14g) derived from three cooking pots in ESHER and ESUR, which suggest a date of 1050–1150 for this feature.

Building 2 (Phase 1)

The remains of another timber building were exposed about 22m south of the Great Barn in Area 1 (Fig 8). The building was at least partly of post-in-trench construction – its external load-bearing walls were delineated by continuous trenches containing in places small roughly circular or rectangular postholes and stakeholes (see Discussion below). The wall trenches defined a rectangular building on a roughly north-east to south-west alignment, and apparently represented at least two major phases of construction, but quite possibly more (Fig 9). There was also evidence for occasional localised repairs and rebuilding.

External Walls

The original building was 6m wide and probably over 11m long – its full length can

only be conjectured as its remains extended beyond the southern edge of Area 1. The roof was supported by the external walls, although some additional support may have been provided by an internal wall (see below).

The western wall trench, [241], was 0.20–0.32m deep. It produced a dozen potsherds (11 ENV, 77g) dated to *c.*1080–1150 and 29 residual sherds of Early Saxon pottery. The medieval wares comprise early medieval chalk-tempered ware (EMCH, one sherd), early medieval coarse sandy ware (EMCS, two sherds), EMGY (six sherds), ESUR MIC (two sherds) and possibly early south Herts greyware (ESHER, one sherd). Also present were a small iron nail, possibly from a horseshoe, <12>, and a nail shank, <27>.

The northern wall trench, [416/418/422], and associated postholes [776], [778], [780], [782], [786] and [790], yielded fifteen sherds (14 ENV, 75g) of medieval pottery, comprising ESUR, ESUR MIC, EMCH, EMCS, EMGY and possibly ESHER, which together date to 1080–1150. Residual pottery from the feature comprises one Roman potsherd and 27 sherds of Saxon pottery,

Fig 9. Building 2, phase 1 and possibly contemporary pits dated to the mid-11th to 12th century in Area 1 (MFH87 and MFH88) (scale 1:150)

some of the latter almost certainly derived from an Early Saxon ditch, through which the wall trench had been dug. Iron objects from the wall trench comprise an nail shank, <14>, and part of a strip or bar, possibly from a hinge, <42>, now badly laminating (L(ength) 60mm, W(idth) 32mm); both could be of either medieval or earlier date.

The eastern wall was represented by trench [279], which was generally between 0.17m and 0.22m deep. A small slot, [7], on the same alignment found in test pit 3, suggests that the wall continued southwards. The slot is referred to in assessment notes as dating to the '12th/13th century', but contained only a single sherd of Early Saxon pottery. In contrast trench [279] produced a medium sized group of medieval pottery probably

dating to *c*.1080–1150. Its primary fill, [600], yielded only four sherds (3 ENV, 7g) comprising EMCS, EMGY and ESUR MIC. The main fill, [280], however, contained 26 sherds (19 ENV, 175g) of medieval pottery, comprising EMCH (four sherds), EMCS (six sherds), EMGY (six sherds), ESUR (five sherds), ESUR MIC (three sherds), with a single sherd of early medieval flint-tempered ware (EMFL) and another in a sand-free fabric with abundant plate-like voids from burnt-out inclusions, probably shell or tufa (EMCALC). Other finds from this fill comprise 20 sherds of residual Saxon pottery, a small iron nail, <32>, and parts of two others <18> and <40>. A small structural feature, [804], associated with the wall trench, produced two sherds (9g) of pot in EMCH and ESUR MIC dating to *c*.1050–1150.

Internal Wall Between Rooms A and B

An internal wall extending across the width of the building was represented by a row of six subcircular and oval postholes and post pits (Fig 9). This would have been a substantial partition dividing the excavated part of the building into two rooms (A and B). The northern room would have been roughly square, measuring just over 5m long and just under 5m wide. The southern room was at least of similar size, but it may have been considerably longer (see Discussion).

The two westernmost post pits produced a total of eight sherds of ESUR dating to 1000–1150. Post pit [257] contained seven sherds (3 ENV, 18g) and post pit [259] a single sherd (7g). Both respectively contained single residual sherds of prehistoric and Early Saxon pottery. The other post pits in this row did not yield any datable finds.

No evidence was found for any other internal partitions or roof supports. Nor were there any other internal features (such as a central hearth or drains) that might have indicated the function of the building and its rooms, although such features may have been lost as a result of later truncation.

Building 2 (Phase 2)

Northern Extension (Room C)

Another room (C) was later built onto the north end of Building 2, adding *c*.5m to its original length (Fig 10). This room extended about 1.8m further west than the phase 1 building. Its eastern, western and northern external walls were all delineated by foundation trenches. The southern side of this room was mainly formed by the northern end of the phase 1 building, which required only a modest westward extension.

The eastern wall trench, [588], was roughly in line with the east side of the phase 1 building, and was 0.10–0.16m deep. The wall trench produced a mixed group of pottery, with six small medieval sherds (6 ENV, 25g), one sherd of Early Saxon pottery and one of prehistoric date. The medieval wares comprise EMCH, EMCS, ESUR and ESUR MIC, and date to *c*.1080–1150. Three postholes in the base of the trench, [671], [924] and [926], were respectively 0.18m, 0.10m and 70mm deep. These were not seen by the excavators until the fill of the trench had been fully excavated.

The western side of Room C was represented by wall trench, [113], which contained 13 sherds of pottery (12 ENV, 111g) dating from the 10th to 12th centuries (Fig 10). These comprise part of a dish in EMCH, <P1> (Fig 14), cooking pots in ESHER, ESUR and London-type ware and the rim of a large ?bowl, <P2> (Fig 14), in St Neots ware (NEOT) which joins with another from intercutting pit [159] (see Blackmore below). The trench also produced a residual sherd of prehistoric pottery and 13 Early Saxon sherds. The latter were probably derived from an Early Saxon enclosure ditch through which the medieval foundation had been dug. The excavator noted that on excavation foundation trench [113] 'resolved into several component cuts'. The latter included feature [717] with a primary fill that contained five sherds of medieval pottery comprising the rim of a cooking pot in ESUR MIC, <P3> (Fig 14), and sherds from other cooking pots in ESUR, EMCH and a calcareous flint-tempered ware (EMFL CALC). Evidence that the wall trench had been recut more than once may indicate successive repairs or reconstruction (Fig 10).

The southern end of the western wall of Room C was represented by a short trench [723], which bent inwards slightly to line up with the outer wall of a possible pentice

Fig 10. Building 2, phase 2 and later pit dated to the mid-11th to 12th century in test pit 3 and Area 1 (MFH87 and MFH88) (scale 1:150)

(Room D, below) (Fig 10). This trench may have been dug during the demolition of the west wall to salvage timbers. It produced four sherds (4 ENV, 19g) of medieval pottery, including a rim in EMCS <P4> (Fig 14); the others comprise sherds of EMCH and EMGY, which date the fill to *c.*1080–1150. A group of postholes next to this feature may have marked one side of a doorway between the passage and the northern extension. To the east, a cluster of small structural features abutting the north-western corner of the

phase 1 building could have represented the other side of the putative doorway. The presence of multiple postholes on either side of the doorway suggests that it was rebuilt and slightly repositioned on at least two occasions. Artefacts were recovered from three of these features. One, [701], contained two sherds (2 ENV, 4g) of ESUR MIC dating to *c.*1000–1200, a very small ?knife blade, <34> (L 53mm) and a ferruginous lump <62> (?iron oxide). The others, [703] and [709], respectively produced single sherds of ESUR MIC (2g) and EMCH (9g).

The northern wall of Room C was represented by two abutting foundation trenches, which might indicate either its repair or rebuilding in two stages (Paul Drury pers comm) (Fig 10). One trench, [143/663], contained three sherds (3 ENV, 15g) of medieval pottery, comprising fabrics EMCH, EMCS and ESUR MIC, dating to *c.*1080–1150, together with 14 sherds of Early Saxon pottery. The other trench, [665], produced five potsherds (5 ENV, 42g) dating to 1080–1150, including the rim of a bowl or dish in EMGY (<P5>, Fig 14). The other sherds were of EMCH, EMGY and ESUR MIC. Also present were 13 sherds of residual Early Saxon pottery. In addition, one sherd of ESUR dating to 1050–1150 and three Early Saxon sherds could have come from either trench.

Posthole Possibly Associated with Room C

A large posthole, [115], within Room C, was possibly associated with the northern extension, although it could easily have been a slightly earlier or later external feature (Fig 10). It was 0.21m deep and contained two tiny potsherds, one (1g) of ESUR, the other of Early Saxon date.

Possible Pentice (Room D)

A wall trench, [215], between 0.20m and 0.29m deep, ran parallel to the west side of the phase 1 building (Fig 10) (see Discussion below). It contained one of the larger groups of medieval pottery from the site (36 sherds, 30 ENV, 281g). The pottery mainly comprises cooking pots in EMCH (12 sherds, 11 ENV), ESUR (nine sherds, 6 ENV) and EMCS (six sherds, 6 ENV), including an everted

cooking pot rim <P4> (Fig 14) from the same pot as found in wall trench [723] (above). Other fabrics comprise EMGY (five sherds, 5 ENV), and ESUR MIC (four sherds, 2 ENV). A considerable number of residual sherds were also recovered (two prehistoric, eight Roman and 40 Early Saxon). Also present were a few tiny crumbs of copper-alloy, <4>, and three iron nails, of which <5> and <30> are complete (L *c.*35mm, 45–50mm), but <29> is represented by the shank only. The metal objects could be medieval, but given the quantity of residual pottery they could easily be of much earlier date.

A slot, [557] in the base of trench [215] was possibly the 'ghost' of a sill beam. Eight stakeholes and postholes were also found within the trench, two of which, [547] and [739] (Fig 11), respectively contained single sherds of EMCH (4g) and ESUR (3g).

The wall trench possibly represented a new western wall replacing the original one and extending the building *c.*2m westwards. This, however, would have required a third major phase of construction, for it would also have entailed the replacement of the existing roof and probably also the reconstruction of the east wall of the phase 1 building. The latter
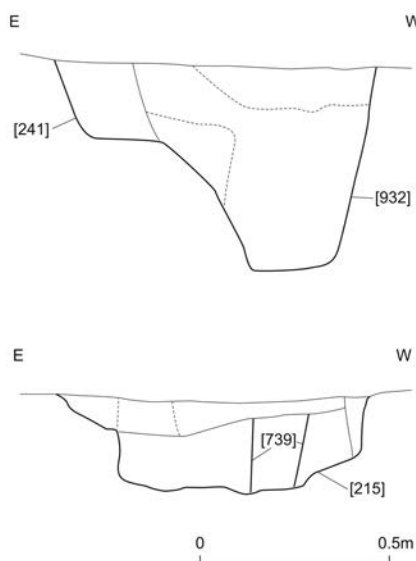

Fig 11. North-facing sections across posthole [739] (bottom drawing) and post pit [932] (top), respectively in wall trenches [215] and [241] of Building 2 in Area 1 (scale 1:20)

could account for the substantial width of wall trench [279], although no recuts were recorded.

An alternative interpretation, favoured here, is that feature [215] probably represented the outer wall of a passage or covered walk (Room D) built at the same time as the northern extension (Room C). The structural features within the trench were generally positioned close to either one side of the trench or the other, rather than following a central line. This suggests that the pentice wall (or external supports) may have been rebuilt and slightly repositioned at some stage. The position of the structural features in the trench suggest that at one time the passage would have been only 0.75–0.90m wide, while at another it was up to 1.25m wide. The ground plan indicates that it would have been at least 10m long, although it may have continued for some distance to the south. A gap between the north end of the trench and the northern extension probably represented an external doorway. Although no recuts of trench [215] were recorded, the posited reconstruction of the pentice would account for the considerable width of the trench.

New Doorway?

During this phase a doorway may also have been inserted in the western wall of the phase 1 building, to allow access between Room A and the passage. It was represented by two post pits, [928] and [932], which cut through the western wall trench, penetrating the underlying ground to depths of 0.28m and 0.26m respectively. The post pits were sufficiently far apart for a doorway up to 1m wide. It is significant that both pits were dug though the earthen fill (construction packing) of the wall trench, as this suggests they post-date phase 1 (Fig 11).

Southern Open Area

Four pits in Area 1 may be generally dated to the late 11th to 12th century with varying confidence. All were probably used for rubbish disposal, although at least one may also have been a latrine. Of these, pit [426], was possibly the earliest for it may have been cut by wall trench [279] of Building 2

(phase 1) (Fig 9). The pit, which was up to 0.54m deep, contained three distinct fills. Its primary fill yielded no datable finds, while the secondary fill [888] produced six Early Saxon sherds. Two sherds (2 ENV, 7g) of medieval pottery (fabrics EMCS, ESUR) dating to *c*.1050–1150, were found at the interface of this fill and the tertiary fill, [427]. Also present was a small unidentifiable piece of iron, <70>.

Two pits, [287] and [327], may have been contemporaneous with phase 1 of Building 2 (Fig 9). They were respectively located in areas later encompassed by Rooms C and D, when Building 2 was extended in phase 2. Neither was plausible as an internal feature. Furthermore, pit [287] appeared to have been truncated by wall trench [215] suggesting that it pre-dated the construction of Room D. Both, however, contained pottery of the same date range as that associated with the phase 1 building, and therefore could have been contemporaneous with it.

Pit [287] was up to 0.15m deep. Its primary fill, [609], yielded two sherds (2 ENV, 26g), one was of EMGY, while the other was from the rim of an ESUR cooking pot. The secondary fill, [608], produced a sherd (2g) of EMCH. The two fills seem to have been partly excavated as a single deposit, [288], which contained a nail shank, <8>, and six sherds (6 ENV, 19g) of medieval pottery and four of Early Saxon date. The medieval wares comprise EMCH, EMCS, EMGY, ESUR and ESUR MIC, dated to *c*.1080–1150.

Pit [327] survived to a depth of 0.17m and contained two successive fills. Its upper fill contained seven sherds (7 ENV, 30g) of pottery comprising EMCS, including <P6> (Fig 14), EMGY, ESUR and ESUR MIC, plus two residual Early Saxon sherds. The remaining pit, [159], probably post-dated the phase 2 building, as it appeared to clip the western wall trench of Room C (Fig 10). If so, this pit is unlikely to have been earlier in date than the mid-12th century. An arc of undated stakeholes curved around the southern half of this pit. Their configuration suggested that they possibly represented a wattle fence or 'windbreak' partially screening the pit and that the latter may have served as a latrine. This oval pit was 1.10m across and survived to a depth of 1.07m. It produced the largest group of

medieval pottery from the site, comprising 74 sherds (54 ENV, 530g) dating to *c*.1050–1150. Estimating the ENV is problematic as the finds are from four areas, meaning some sherds from the same pots are probably present in different groups, but as no joins were found this is difficult to verify. A range of other wares was also found, with 32 Early Saxon sherds and three of prehistoric date. Early Surrey wares are the most common, with 25 sherds (17 ENV, 208g) and a further seven sherds (5 ENV, 47g) in ESUR MIC; these are followed by EMCH with 23 sherds (18 ENV, 179g). In third place is fabric EMCS with 13 sherds (8 ENV, 59g). Minor types are EMGY (four sherds), possibly early medieval shell-tempered ware (EMSH, one sherd), ESHER (one sherd), and a rim sherd in St Neots ware. The latter is from the same bowl or dish as found in phase 2 of the west wall of Building 2 (<P2>, Fig 14). A few other rims were also found, including three thumbed examples in ESUR, but all are too small to illustrate. Most sherds are from cooking pots, but one ESUR rim could be from a small bowl.

Other finds from the pit include a cast copper-alloy object (<20>, Fig 15), probably part of a casket key with a circular bow of lozenge-shaped section and hollow stem (Ottaway & Rogers 2002, 2867–8, 2879; Ward Perkins 1940, 144, fig 43 nos 3–5, pl XXX nos 36–8; Egan 1998, 111–2, fig 86 nos 294–8) or a swivel fitting with a pierced head. Similar, but smaller, objects are known from York, and it has been suggested that they may be associated with chains, purse frames or dog collars (Ottaway & Rogers 2002, 2850, fig 1428 no. 13060). Also present were five iron nails, <9>, <10>, <19>, <21>, <22>, and a small bent strip of iron, <3>. Nails <10>, <21> and <22> are either complete or nearly complete, with lengths of 30–40mm.

HARMONDSWORTH MANOR IN THE 13th TO 15th CENTURY

Southern Open Area

Enclosure Ditches

Two substantial ditches on roughly the same east–west alignment were partially exposed on the southern edge of Area 1 and in test

pits to the south (Fig 12). They had been dug through the infilled wall trenches of Building 2, and possibly defined the northern limit of a later enclosure. The eastern ditch apparently extended no further west than test pit 14, while its western counterpart was traced as far east as test pit 15. The gap between the two probably marked an entrance to the enclosure.

The eastern ditch, [343] (also recorded as [349/428/678/680/788]), was at least 7.6m long (Fig 12). The ditch was truncated to the east by another ditch or pit, [616], at a point where its north side had begun to curve south. This curving edge either represented the southward turn of the ditch or formed part of an eastern terminal.

A western terminal of the ditch was probably exposed in test pit 14, where it was initially recorded as a pit, [8]. This produced four sherds (98g) of medieval pottery, of which the latest is an unglazed sherd of KING; this would normally be dated to after 1240, but could be earlier in west London/Middlesex. The other sherds should be residual, comprising one rim in EMCH, another in ESUR MIC and a large base sherd from a cooking pot in ESUR. Seven residual sherds of Saxon pottery were also present, possibly derived from the Early Saxon enclosure ditch (see above)

The northern half of the ditch was exposed in Area 1, where it survived to a depth of between 0.9m and 1.0m (Fig 13). Its partial cross-section suggests that the ditch would have been at least 1.5m wide, but quite possibly wider, with a flat base and steeply sloping sides. Here its primary fill, [681] and [803], consisted of redeposited brickearth, which was overlaid by successive secondary fills [800] and [802], representing subsequent silting. All of the pottery recovered from these fills is dated to before *c*.1150 and appears to be residual. This includes one sherd (1g) of EMCH from [800] and two sherds (7g) of ESUR and ESUR MIC from [802], possibly derived from Building 2.

This sequence was in turn overlaid successively by fills [789], [678] and [679]. Fill [789] yielded seven sherds of pottery (6 ENV, 65g), comprising cooking pots in EMCS, EMGY, and ESUR and part of a jar with applied thumbed strips in ESUR MIC. Six further sherds (39g) were recovered from fill [679]; most are from

Fig 12. Enclosure ditches and other features dated to the 13th to 15th century in Area 1 and adjacent test pits (scale 1:200)
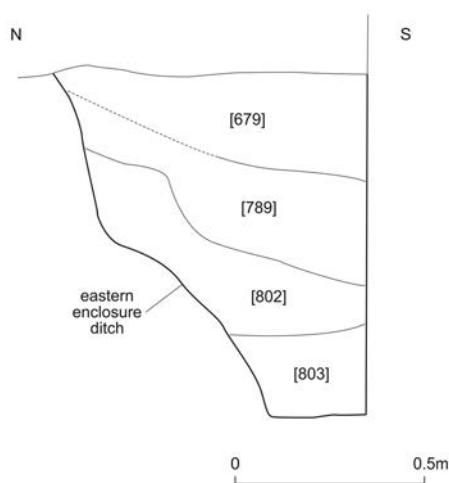

Fig 13. West-facing section across eastern enclosure ditch (scale 1:20)

cooking pots in EMCS, EMGY and ESUR but one from the top of this layer appears to be of Kingston-type ware and should date to the 13th century, probably after *c.*1240.

Elsewhere in the ditch some or all of the fills mentioned above may have been recorded and excavated as a single unit, possibly with later fills, as contexts [344] and [629]. The latter were recorded as being the same, but for the purposes of this report their finds assemblages are described separately. Fill [344] contained four sherds (4 ENV, 26g), of ESUR (a rim) and ESUR MIC, and two amorphous pieces of iron, <17>, possibly corrosion. Five sherds (40g) of pottery were found in fill [629], from cooking pots in EMGY, ESUR and ESUR MIC. Another part of the ditch, [428] (fill [429]), also yielded two small sherds (6g) of EMCH and ESUR MIC.

Stretches of ditch, exposed separately in two test pits and possibly on the edge of area 1, appear from their alignments to represent a western counterpart to the eastern ditch (Fig 12).

Test pit 1 apparently revealed a single ditch, although initially it was recorded as two separate features with very similar fills, one aligned east–west, [6], cut by another on a north–south alignment, [9] (Fig 12). In plan, however, there can be little doubt that contexts [6] and [9] are the same feature

and simply represent a bend in the ditch. Two sherds (28g) of pottery were recovered from the east–west arm of the ditch, [6], comprising one of EMGY and one from a Kingston-type ware (KING) jug dating to after *c.*1240. The latter was found at the top of the fill. The fill of the north–south arm, [1A], contained two Saxon sherds and five medieval sherds (5 ENV, 49g); four sherds are from three cooking pots in EMGY, the other is in ESUR. A layer of 'clay loam' [1] overlying and possibly filling the upper part of both arms of the ditch contained a residual Saxon sherd.

To the east the putative enclosure ditch may have been glimpsed along the southern limit of excavation in Area 1 as feature [235], and was almost certainly recorded in test pit 15 as ditch [10] (Fig 12). The latter produced seven sherds of medieval pottery, of which two (32g) are from the base of a cooking pot in shelly sandy ware (SSW) and date to *c.*1140–1220, while the others, all of EMGY (48g), are from fill [10a]; together these date the group to 1140–1200. Two sherds of Saxon pottery were also found.

Dating and Interpreting the Enclosure

As the ditches post-date Building 2, they are unlikely to date before about the mid-12th century. Although pottery from the ditches clearly includes residual material, it might suggest that the ditches were first dug during either the later 12th or early 13th century, while the presence of Kingston-type ware (KING), mostly in the upper fills, suggest they may have still been at least partially open in the later 13th or 14th century. However, the depth at which the sherd of KING was found in the western terminal, [8], was not recorded.

The ditches apparently represent the northern side of the enclosure; their curvature suggests this particular stretch of ditch was up to 20m long, so the area it contained was quite large. It is likely that this enclosure contained the medieval manor house, which was demolished during the early 19th century (see above Archaeological and Historical Background).

Pits and Other External Features

Two successive features apparently post-dated the eastern enclosure ditch. One, [616], was only partially exposed and could have been either a ditch terminal or a large pit (Fig 12). It truncated the enclosure ditch, and was cut in turn by pit [614]. The latter only contained residual pottery, comprising one sherd of EMGY (date range 1080–1200) and four Early Saxon sherds.

Among the latest medieval features to be excavated were an irregular feature [251] and a post pit [831], both located near the southern edge of Area 1 (Fig 12). Feature [251] may have been either a pit or possibly a hollow eroded by people passing through the putative enclosure entrance immediately to the south. It produced two tiny sherds (2 ENV, 2g) of 19th-century pottery, which were probably intrusive, as all other finds recovered from the pit were not later than medieval in date. These included six sherds (6 ENV, 18g) of medieval pottery, with four sherds of EMGY, one from a highly decorated Kingston-type ware jug (KING HD) and one of Mill Green ware (MG) from Essex. Also present was part of a type 4 horseshoe, <28>, with a rounded outer edge and square nail holes, but no obvious calkin or heel. If correctly identified this find should date to the 14th or 15th centuries (Clark 1995, 88–91, 96–100). The pit also contained four residual sherds of Early Saxon pottery.

Post pit [831] had been dug into pit [614]. It contained two sherds (8g) of EMCH and EMGY dated to 1080–1150 and part of another type 4 horseshoe, <25>, with rounded outer edge and square nail holes. The latter is now in very poor condition but there is no obvious calkin or heel and, like the find from feature [251], should date to the 14th or 15th centuries (see above). It also produced part of a nail, <26>, a few flakes of iron, <39> (probably also from a nail), and a number of pieces of peg roofing tile and an unusually thin brick with vitrified edges. The brick measures 44mm in thickness suggesting a mid- to late 15th-/early 16th-century date.

One pit, [2072] (not illustrated), on the eastern edge of Area 2, may have been of either late medieval or post-medieval date, and must have post-dated Building 1 as it overlapped the site of the barn's east end. It was about 0.65m deep and contained two successive fills. Its upper fill (context [2073]) produced a fairly large assemblage

of fragmentary peg roofing tile that cannot be closely dated (see Betts below). The tiles are of both sandy (fabrics 2586, 2816) and black speckled (fabrics 3090, 3094) types, suggesting they may derive from different buildings. Two tiles have a part burnt surface indicating possible use as a hearth or oven. The fill also contained a nail shank, <53>, now in poor condition.

MEDIEVAL BUILDING MATERIAL

Ian M Betts

Introduction

Much of the retained building material is very small and fragmentary. A selection of the better preserved roofing tiles have been recorded, along with other building material types such as Roman ceramic tiles and daub, post-medieval floor tiles and bricks, and various small fragments of stone, many of which are probably of Roman date. There seem to be a mixture of medieval and post-medieval roofing tiles on the site, although it is very difficult to distinguish between the two where there is no dating evidence.

Building Material from Mid-11th-/ 12th-Century Features

The building material from the mid-11th-/12th-century features comprises fragmentary Roman roofing tile and brick, daub and a small scatter of oolitic limestone which again is almost certainly Roman. There is no ceramic building material of early medieval date. This is unsurprising as roofing tile does not appear in central London until the 1120s, and may have appeared in more rural areas even later.

Later Medieval Building Material

Most medieval roofing tiles from the site are of peg type with two round nail holes for the insertion of either iron nails or wooden pegs to attach the tiles to the roof. A small number of ridge tiles are also present. There is no indication as to the date of the roofing tiles found at Manor Farm, although in central London peg tiles are found no earlier than the late 12th century. An additional difficulty

with the Manor Farm material is that none of the tiles are glazed, which is a normal feature of medieval roofing tiles in London. This makes it difficult to distinguish medieval from post-medieval ceramic roofing material.

Most of the roofing tiles are in common London-area fabrics, although the absence of glaze suggests they are not products of the London tile makers. Presumably most derive from tile kilns located closer to Harmondsworth. At least two sources of medieval roofing tile can be distinguished: one group of tiles is characterised by numerous very small black iron oxide inclusions with varying amount of quartz sand (fabrics 3090, 3094). The other group has varying amounts of quartz (fabrics 2586, 2816). Possibly from another kiln source are a series of sandy tiles containing varying amounts of red, orange and cream iron oxide and clay inclusions (fabric 3064) and a solitary undated peg tile made with a fine silty clay (fabric 3216, [939]). The latter may have been brought in for minor repair or re-building work.

There are no roofing tiles made with fine clay (fabric 2271) which are recovered in vast quantities on medieval and post-medieval central London sites. This would again reinforce the suggestion of a non-London origin for the Manor Farm examples, particularly those of medieval date. The use of unglazed London-made post-medieval roofing tile at Manor Farm cannot, however, be entirely discounted. Peg tiles also had other uses, such as in tile hearths. This may account for patches of burning on two tiles from medieval pit [2072] and another fragment with a burnt broken edge.

There is only one definite medieval peg tile (fabric 3062) with a surviving breadth measurement (174mm, 14–15mm in thickness), although this was found in the 18th-century sawpit, [1104]. A faint possible diagonal batch mark is only present in the top left corner. In London batch marks are normally restricted to roofing tiles of medieval date. All the other peg tiles in the same assemblage (fabrics 2586, 2816, 3090, 3094), which could be either medieval or post-medieval, measure 151–4mm in breadth (thickness 13–16mm). Other peg tiles are up to 160mm in breath. The only complete peg tile from the site (undated context [1168],

fabric 2586) measures 283mm by 157–60mm (thickness 14–15mm). This has two round nail holes 14mm in diameter. All peg tiles from the site have nail holes measuring between 11–16mm in diameter; those in tiles with black iron oxide inclusions (fabrics 3090, 3094) being fractionally smaller (11–14mm diameter) than those of sandy type (fabric 2586) most of which measure 12–16mm in diameter.

Building Material from Post-Medieval Features

There are undoubtedly medieval roofing tiles from various post-medieval contexts, but there is no reliable way of distinguishing them from roofing tile of post-medieval manufacture. The post-medieval features also contained plain unglazed floor tile and various varieties of brick.

MEDIEVAL POTTERY

Lyn Blackmore

Introduction and Methodology

The medieval pottery assemblage amounts to 319 sherds (179 ENV, 2.213kg) from 169 contexts (Table 2). Most, however, are very small groups of tiny body sherds, with few rims and no diagnostic profiles; 109 contexts contain only five or less sherds, while 25 have between five and 10 sherds. The pottery was initially recorded on paper and on the MOLA Oracle database in the late 1990s, using standard codes for fabrics, forms and decoration. At this time only sherd count and estimated number of vessels (ENV) were recorded by MOLA. Since then it has become standard practice to record weight, and more material from sites in the locality has been studied (Fig 3). For this project, therefore, the sherds were weighed and the fabric identifications checked where possible. As noted in the study of the 10th- to 12th-century pottery from Sipson Farm (Fig 3, Gaz 23; Blackmore in prep), however, distinguishing between the medieval fabrics is not easy, even now, due to the presence of varying amounts of flint and/or calcareous inclusions which make it difficult to draw firm distinctions between ware types. For

this reason, and for reasons of economy, the medieval pottery was recorded using a narrower range of broader fabric codes than was used for Sipson Farm. Most sherds are from cooking pots, which are generally, but not always, defined by the presence of sooting/food deposits (sooting was not consistently recorded). The bulk of the material dates to the 11th/12th centuries, which equates with period 1c at Northolt (Hurst 1961, 214, 234). General descriptions of the earlier ware types can be found in Vince & Jenner (1991), while the Surrey type series has been outlined by Jones (1998; 2010a; 2015).

Fabrics and Forms

The distribution of the ware types is shown in Table 2 and details of the illustrated pottery are given in Table 3. Given the location of the site, in west London, near the river Colne and not far from the Surrey bank of the Thames, it is only to be expected that Surrey fabrics dominate the assemblage. Most common is early Surrey ware (ESUR), with 81 sherds, but the micaceous variant (ESUR MIC) is also well represented (46 sherds).

Table 2 Comparative totals of all medieval pottery by sherd count (SC), estimated number of vessels (ENV) and weight

Fabric	SC	%	ENV	%	Weight (g)	%
EMCALC	1	0.3	1	0.4	1	0.0
EMCH	70	21.9	62	23.1	470	21.2
EMCS	42	13.2	33	12.3	198	8.9
EMFL	4	1.3	4	1.5	45	2.0
EMGY	54	16.9	48	17.9	326	14.7
EMSH	2	0.6	2	0.7	3	0.1
ESHER	6	1.9	6	2.2	58	2.6
ESUR	81	25.4	62	23.1	657	29.7
ESUR MIC	46	14.4	38	14.2	330	14.9
KING	6	1.9	5	1.9	51	2.3
LOND	3	0.9	2	1.1	17	0.7
MG	1	0.3	1	0.4	1	0.0
NEOT	2	0.6	2	0.7	24	1.1
SSW	2	0.6	1	0.4	32	1.4
Total	**319**	**100**	**268**	**100**	**2213**	**100**

Table 3 Concordance of medieval pottery from Area 1 (MFH88) illustrated in Fig 14

<P> no.	Land use	Feature (parent context)	Context (fill)	Fabric	Form	Comment
<P1>	Building 2 (phase 2)	wall trench [113]	[114]	EMCH	dish	
<P2>	Building 2 (phase 2)	wall trench [113]	[114]	NEOT	large bowl or dish	joining rim sherds
	Open area	pit [159]	[160]			
<P3>	Building 2 (phase 2)	wall trench [717]	[626]	ESUR MIC	cooking pot	rim
<P4>	Building 2 (phase 2)	wall trench [723]	[724]	EMCS	cooking pot	joining rim sherds
		wall trench [215]	[216]			
<P5>	Building 2 (phase 2)	wall trench [665]	[666]	EMGY	bowl or dish	rim
<P6>	Open area	pit [327]	[328]	EMCS	cooking pot	rim

The latter, made of micaceous fine sandy clay with finer quartz sand inclusions, does not occur in London, but has been noted among finds from Tolworth and Sipson Farm (Blackmore 2010; Blackmore & Thorp 2011, 33; Blackmore in prep). Together these comprise *c.*40% of the total sherd count (*c.*37% by ENV, *c.*45% by weight). The flint-tempered variants (ESUR FL) and more iron-rich fabrics (EMIS, ESIR, ESIR FL) which were noted at Sipson are also present but are subsumed in the code ESUR. These wares equate with the IQ fabric group in the Surrey series (Jones 1998, 219–20, 232–3; 2010, 147, 151, 269–70); they probably continued in use longer in their area of production than in central London (Jones 1998, 220), and could span the period 1000/50–1200. With the exception of a possible bowl rim from pit [159], all sherds are from cooking pots or jars (101 ENV), including <P3> in ESUR MIC (Fig 14). Five examples have thumbed rims: three from pit [159], the others from pit [287] and wall trench [588], while at least one jar in ESUR MIC from the eastern enclosure ditch (fill [789]) was strengthened with applied thumbed strips. Similar forms are represented at Terminal 5 (Mepham 2010, ill 9).

The second most common category comprises a range of calcareous wares with frequent voids left by inclusions of shell, chalk, limestone or tufa that have leached or burnt out, which together make up *c.*23% of the total sherds (*c.*24% by ENV, *c.*21% by weight). One small everted rim sherd from pit [159] has a very fine sand-free matrix

with scattered ?fossil shell/tufa inclusions up to 2mm and was recorded as possible early-medieval shell-tempered ware (EMSH); this equates with Surrey fabric group SC, thought to date to the later 11th century (Jones 1998,
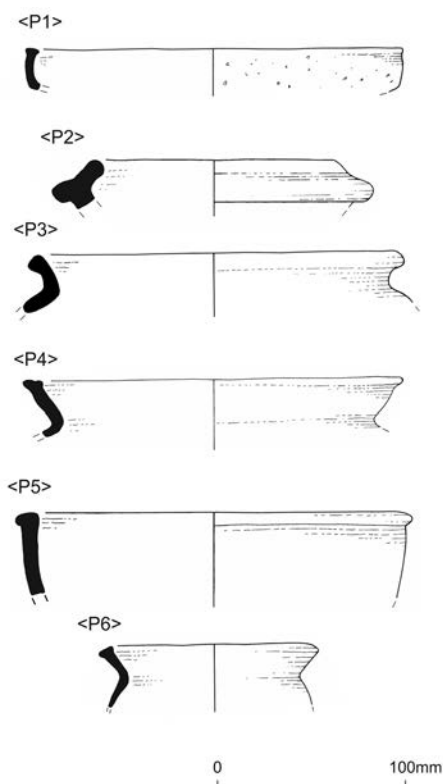

Fig 14. Selected medieval pottery from Area 1, for details see Table 3 (scale 1:4)

213–4; 2010, 143, 149, 267). A small sherd in a sand-free fabric from [280] has abundant fine rounded and plate-like voids, possibly from fossil shell or tufa, and was recorded as EMCALC; this could belong to the Surrey fabric group SC or SNC (*ibid*). All other sherds were recorded as EMCH, but include wares that were identified as EMCALC or EMCALCQ at Sipson Farm. These wares are of uncertain origin; they could come from the Chilterns or from Surrey (Jones 1998, 228–9; Mepham 2010). They fall into two broad groups (not quantified), of which the first has a very fine sandy fabric with few other inclusions, which equates with Staines fabric group SNC3, dated to the Saxon-Norman period (Jones 1998, 213–4; 2010, 143, 149, 267). The second group is coarser, with sand and/or sparse flint (broadly as EMGY but with more abundant calcareous matter); these wares correspond with Staines fabrics SNC4 and QCS (Jones 1998, 213–4, 228–9; 2010, 143–4, 149, 267–9). One rim is from a dish in EMCH (<P1>, Fig 14), similar to an example from Terminal 5 (Mepham 2010, ill 13), but most sherds (up to 50 ENV) are from cooking pots and jars, the deep everted rims of which have a flat bevel and internal or external bead.

Broadly contemporary with the above are a range of coarse sandy fabrics that could be from Surrey or more locally made; similar fabrics have been noted at Sipson Farm. The first group comprises a range of fabrics with more varied and less evenly sorted inclusions, mainly quartz sand but also flint and in some cases chalk or other calcareous inclusions (EMGY). This amounts to *c.*17% of the total sherds (*c.*18% by ENV, *c.*15% by weight). Most sherds are from cooking pots and jars (up to 46 ENV), but sherds from two probable bowls are present, including <P5> (Fig 14). Only four sherds were recorded as more obviously flint-tempered, but the EMGY group probably includes sherds which at Sipson Farm were recorded as EMFL CALC or EMFLS. These wares appear to equate with Staines 'poly-tempered' fabrics GQ1, Q1 and QCS, although they may also include fabrics FLQ, QFL and GQ; all are thought to be part of a Chilterns tradition reaching Staines via the Colne valley (Jones 1998, 215–8; 2010, 145–7), and the EMGY wares might equate with fabric Q404 at Terminal 5, the third most common ware on that site, thought to be relatively locally made (Mepham 2010, ill 12, 14, 15).

The second group of coarse sandy wares, recorded as early medieval coarse sandy ware (EMCS), is the fourth most common type on the site, comprising *c.*13% of the total sherd count (*c.*12% by ENV, *c.*9% by weight; Table 1). The fabric typically has abundant evenly sorted and mainly evenly sized quartz sand, and in texture it is closer to Kingston-type ware than early Surrey ware; it appears to be a local development of early medieval sand-tempered ware (EMS), although it may include some sherds of that fabric type. All sherds are from cooking pots (up to 32 ENV), including <P4> (Fig 14).

Other fabrics, of any date, are extremely rare. The earliest is a bowl or a dish with bifid rim in St Neots ware <P2> (Fig 14) (NEOT; Staines fabric SNW), from near Huntingdon and of 10th- to 11th-century date (*cf* Addyman 1969, 77–84, figs 13, 14; 1973, 77–88, fig 15; McCarthy & Brooks 1988, 177, fig 93 no. 318; Vince & Jenner 1991, 54–6, fig 2.30 no. 45; Jones 2010a, 144). Six sherds were recorded as handmade, early south Hertfordshire coarsewares (ESHER) and dated to 1050–1200; Blackmore & Pearce 2010, 90–1, 201–3). None have the combed surfaces seen on wares from Rush Green, Denham, Buckinghamshire and Uxbridge (Farley & Leach 1988; Knight & Jeffries 2004, 46–7) and at Sipson Farm (Blackmore in prep), and no South Herts-type greywares (SHER, dated to 1170–1350) were found, although this was the second most common ware type at Sipson.

There are, however, two sherds from the base of a cooking pot in shelly sandy ware (SSW; Staines fabric S5), which dates to *c.*1140–1220 (Blackmore & Pearce 2010, 73–4; Jones 2010a, 145), and three sherds (3 ENV, 17g), of London-type ware (Pearce *et al* 1985); the latter are from a jug decorated in the Rouen style, which dates to after 1180, and from a cooking pot. Kingston-type ware, which dates from *c.*1240–1400 (Pearce & Vince 1988; Surrey fabric groups FQ and WW) is surprisingly sparse, with only six sherds (51g) from a cooking pot, a jar and three jugs, one in the highly decorated style and dating to after 1240 from a post-medieval pit [251]. The latest find is a small sherd of

Mill Green ware (MG) also from [251] which dates to *c*.1270–1350 (Pearce *et al* 1982).

Discussion

The fragmented and scattered nature of the medieval pottery assemblage make it hard to comment on it other than in broad terms, but it is clear that the assemblage is quite homogenous, mainly comprising handmade wares, most probably used and discarded in the late 11th to first half of the 12th century, possibly before the first phase of building, some in due course finding their way into later features; later, more diagnostic fabrics or forms are extremely rare. It is, therefore, difficult to date the construction phases of the barn (B1) using pottery alone, and the same problem was noted at Terminal 5, where only one sherd of medieval pottery (early Surrey ware) was associated with Building 1 and none with Building 2 (Cramp *et al* 2010, 342, 344).

That said, the main period of activity evidenced on the site appears to be contemporary with the increasing development of the area in the years following the Norman conquest, and similar assemblages have been found on at least four other sites in the area: in ceramic phase 1 (11th- to 12th-century) at Terminal 5 (Cramp *et al* 2010, 337; Mepham 2010), ceramic phases 5 and 6 at RMC Land (Gaz 26) and ICSG (Mepham with Stevens 2015, 111–2) and period 8, phase 2, at Sipson Farm (Blackmore in prep), although all have subtly different earlier and/or later chronologies. Other sites in the Colne valley are summarised elsewhere (Knight & Jeffries 2004, 47–9). The same problems of defining and sourcing the different 11th- to 12th-century ware types have been noted on these other sites. At Terminal 5 the medieval assemblage of 1792 sherds (19.697kg) comprises 30 fabric types, most of which are typical of ceramic phase 1, a number of which are largely undiagnostic (Cramp *et al* 2010, 337; Mepham 2010). At Sipson Farm, 918 sherds (307 ENV, 11.355kg) of pottery were found, while 839 medieval sherds (17 fabrics) were recovered from RMC Land and 271 (10 fabrics) from ICSG (Mepham 2015, table 6.8). The former differs in having a high proportion of 10th- to earlier 11th-century pottery, with 334 sherds of late

Saxon shelly ware (LSS), 223 sherds of early medieval sandy ware (EMS) and 91 sherds of St Neots ware (NEOT). At Harmondsworth no definite EMS was identified, only one vessel in NEOT is represented and the only true shell-tempered fabric type is sandy shelly ware (SSW), a rare find outside central London (Blackmore & Pearce 2010, 73–4).

At Harmondsworth, Terminal 5, Sipson Farm and ICSG, the bulk of the 11th- to 12th-century pottery appears to be from Surrey (mainly fabrics ESUR, ESUR FL and ESUR MIC), with the remainder mainly relatively local ware types not marketed in London, some possibly from the contemporary industries at Rush Green and Uxbridge. The near absence of ESHER and SHER at Harmondsworth may be due to the fact that these probably came into use after the barn had been constructed. The amounts of non-local wares vary but are consistently more common on the other sites than at Harmondsworth: coarse London-type ware (LCOAR) is the fifth most common ware type at Terminal 5 (103 sherds), and the second most common at ICSG (51 sherds), but only 13 sherds were found at Sipson Farm. London-type ware, by contrast, is comparatively rare on, or absent from, all sites.

Later ware types are rare or absent at Harmondsworth, but more common in ceramic phase 2 at Terminal 5, and in ceramic phase 7 at RMC Land and ICSG, and in period 8 phase 3 at Sipson Farm. Kingston type ware is the second most common category at Terminal 5, and the dominant ware type at ICSG. South Herts greyware is the second most common ware at Sipson, and the fourth most common at Terminal 5, but rare on the RMS Land and ICSG sites.

To conclude, the medieval assemblage from Harmondsworth, like those from the other sites noted above, and that from West Drayton, to the north (Cotton 1981, 123–5) reflect the development of the manorial structure following the Conquest period (Mepham with Stevens 2015, 111) and the ensuing growth of settlement in the Colne Valley in the 12th century. Most of the assemblage is probably derived from markets, if not kilns, within a fairly narrow radius (perhaps *c*.20 miles), notably Uxbridge (Knight & Jeffries 2004, 4–5, 7–10) and Staines (Jones 2010a). As suggested for

Sipson Farm (Blackmore in prep), the mixed range of wares present at Harmondsworth probably reflects the location of the site approximately half way between these two markets and fits with the pattern noted on other sites to the north and south (Knight & Jeffries 2004, 47–9). The sherds of St Neots ware (NEOT), shelly sandy ware (SSW), London-type ware (LOND), however, reflect trade connections along the Thames and possibly also overland, and hint at wider contacts. Occasional sherds of London-type ware and Kingston-type ware occur at Harmondsworth, but 13th- to 15th-century pottery is much better represented at Sipson Farm (period 8, phases 2 and 3; Blackmore in prep) and at Terminal 5, where 337 sherds of Kingston-type ware and at least 150 sherds of South Herts greyware were found along with other later medieval wares (ceramic phases 2 and 3; Cramp *et al* 2010, 337, 347, 359; Mepham 2010, table 1). From the pottery alone it would seem that although later medieval wares are relatively common on other sites in the area, there was minimal activity at Harmondsworth between the 13th to 18th centuries. The paucity of pottery, however, must reflect the function of the site, as does the nature of the other finds, which include nails, horseshoe fragments, tools and other ironwork: as the barn was used for storage functional, the near absence of domestic pottery wares dating to the 13th and 14th centuries is not surprising; rather it is the presence of Mill Green ware which is unexpected, as this Essex ware is not common in west London. The focus of 13th-century and later domestic activity in this date must be on an unexcavated part of the site.

MEDIEVAL ACCESSIONED FINDS

Lyn Blackmore

Copper-Alloy Finds

Four items of copper-alloy could be of medieval date, of which two are from contexts dated to the 11th/12th century. These comprise part of a possible key, <20>, pit [159] (Fig 15), and a few tiny fragments, <4>, from wall trench [215]. In addition, there are two finds from a possible pit ([603], not illustrated), which may have cut pit [427] and therefore could be a medieval feature. The lower fill [807] of the pit contained a mount or large strapend, <31>, in poor condition; made of a single rectangular strip folded over, it has three rivets *in situ*, one in the inner left corner, another at the midpoint on the left side, and one towards the outer end on the right side; there is no evidence for an equivalent on the left side. As the gap of 7mm between the two surfaces is rather large for a strap, this may be a box or book mount. The upper fill [604] contained a smaller mount, possibly from a box, comprising a rectangular plate (L 26mm, W 10mm) with a centrally placed dome-headed copper-alloy nail (L 9mm) at each end.

Two other finds are from features of uncertain date, comprising a small fragment of sheet metal, <50>, from fill [1129] of feature [1130], and a small ?strapend, <33>, from fill [284] of cut [283].
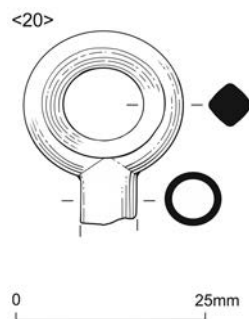

Fig 15. Copper-alloy object, <20>, probably part of a casket key, from pit [159] in Area 1 (scale 1:1)

Iron Finds

A total of 25 accessioned finds were found in 12 features identified here as dating to the medieval period, with 13 finds from Building 2 ([215], [241], [279], [418], [422], [701], [932]) and 12 from other features ([159], [287], [343], [426], [831]). Of these, 13 accessions are structural nails, while one is a staple, <36>, from post pit [932] for a door post in Building 2, now badly delaminating (extant L 58mm, internal span 15mm). Other identifiable finds comprise part of a horseshoe, <25>, of Clark type 4 and probably

of 14th-/15th-century date (Clark 1995, 88–91, 96–7), from late medieval posthole [831], a possible horseshoe nail, <12>, from wall trench [241] of Building 2, and a small knife blade, <34> (L 53mm, W 10mm) and a piece of ?ore, <62>, both from feature [701], part of wall trench [187] of Building 2. There are also six unidentifiable objects, including two associated with Building 2 (<29>, <42>) and one from pit [159].

Seven further objects are from features of uncertain date: pit/posthole [601], 'scoop' or shallow hollow [938], and pits [1164] and [3023] (not illustrated), some of which could be of medieval date. They comprise six nails and a part of a heavily corroded socketed tool (<37>; extant L 165mm, socket D(iameter) 35mm) with a broad, thin spatulate blade (projected W at point of breakage *c*.80mm), possibly a hoe-type implement, from hollow [938].

In addition there are 13 accessions from seven post-medieval/modern features [199], [201], [205], [251], [341], [430] and [3020] (not illustrated). These include fragments of two horseshoes of which <41>, from pit [341], is of Clark type 2 and dates to the late 11th or 12th centuries (Clark 1995, 86, 95–6); the other, <28>, from pit [252], is of Clark type 4 and probably of 14th-/15th-century date (ibid, 88–91, 96–7). The other finds could be of medieval or later date. Four are from fill [3019] of pit [3020]: a nail, <69>, a large U-shaped staple <60> (L 80mm, internal span 25mm), a large oval link from a heavy chain with a gauge of 5mm, <54> (L 78mm, W 23mm), and a small rectangular mount with central perforation, <71> (L 37mm, W 10–13mm). The other finds are all nails.

DISCUSSION AND CONCLUSIONS

The Regional Setting of Medieval Harmondsworth

The medieval manorial complex and village at Harmondsworth was close to major settlements and communication routes. By road London was about 29km (18 miles) away, a day's journey, while Windsor was only 11km (7 miles) to the west. Land routes leading to London included the old Roman road from London to Silchester, *c*.5km (3 miles) to the south, and the Uxbridge Road,

a similar distance to the north-east. The confluence of the Colne and Thames lay little more than 6.5km (4 miles) downstream at Staines, where a *de novo* post-Roman settlement was established by the late 11th century and a crossing of the Thames possibly in the 12th century (Jones 2010b, 34–6). By the 13th century Staines was a thriving town. From here heavy or bulky goods could have been easily transported along the meandering 55km (34 miles) by river to and from London. With such good transport links, there can be little doubt that at least some of the surplus agricultural produce from the manor would have been destined for the London market (see Galloway & Murphy 1991), and the resulting revenue despatched to St Catherine's.

Nevertheless, the proximity of the manor to London is not reflected by the artefacts recovered from the site. The modest 11th-/12th-century pottery assemblage is utilitarian, mainly comprising cooking pots and jars in locally manufactured handmade wares – possibly from sources within a radius of about 20 miles (see above). The later medieval pottery assemblage is even smaller. While it does not include any imports, the presence of London-type ware, Kingston-type ware, and surprisingly Mill Green ware from Essex, suggests at least some contact with Kingston and London. Some commodities essential for daily use, such as salt, would almost certainly have been imported, but are archaeologically invisible.

The paucity of finds at Harmondsworth may be misleading, as various factors may explain their scarcity, including the truncation of surface deposits by later activity and the acidity of the soil which is not conducive to the survival of bone. It is also possible that domestic buildings were kept thoroughly clean, as at the deserted medieval village of Wharram Percy, Yorkshire (Beresford & Hurst 1990, 41), and that household and other waste was scattered over fields rather than discarded in rubbish pits or middens on site.

The Local Setting of Medieval Harmondsworth

The village of Harmondsworth and the manor house lay near the north-west corner of the

manor and parish. Despite their apparently peripheral location they were well-placed to exploit a wide range of resources, for they were located in an area of rich farmland, to the south and east. This was good arable land (Sherwood 2002, 60–1), and it is not surprising that documentary evidence suggests that from the late 13th to the mid-15th century cereal growing was apparently of great importance in the manor, more so than livestock (Bolton *et al* 1971, 11; Phillpotts 2010, tables 1–3). The greatest proportion of the demesne land was used for growing wheat, barley and oats. Rye was also grown in the late 13th century and as a mixed crop (maslin) with wheat in the early 14th century. A smaller proportion of land was used for growing peas and pulses. Plant remains recovered from Sipson Farm suggest that wheat, rye and oats, as well as flax, peas and other legumes were being grown in the manor during the 11th and 12th centuries (Davis in prep).

The village and manor house were also near the River Colne and its adjacent wetlands and meadows. The river would have powered the local mills (Gaz 11), possibly via a system of leats, and its fisheries would have provided a plentiful supply of both eels and fish. The heath in the south-east third of the parish, farthest from Harmondsworth, was common land.

The manorial complex was situated to the west of a narrow triangular green (now the High Street), which would have formed the main focus of the village. By 1337 the village also extended along Moor Lane, to the south of the manor house. It seems likely that there was at least a track connecting Harmondsworth to the villages of Sipson (Gaz 22), Harlington and Cranford to the east (the precursor of the modern Harmondsworth Lane, Sipson Lane and Cranford Lane), although such a route may have been deemed too minor to be shown on John Rocque's *Topographical map of the County of Middlesex* of 1754. The settlement of Longford, less than 1km to the south-west (Fig 3, Gaz 9), possibly dates back to the 8th century although first mentioned in 1294 (Gelling 1979, 101; Mills 2001, 141). Archaeological evidence from Sipson Farm suggests that Sipson, first mentioned in 1214, may date back to the late 11th or 12th century (Cowie in prep).

The Nature of the Manorial Complex

Medieval manorial complexes across Greater London have received scant archaeological attention to date (Sloane *et al* 2000, 220–1). There are, nevertheless, a few notable exceptions, of which Harmondsworth is one. Other extensively investigated manors include the moated sites of Northolt Manor (Hurst 1961), Carew Manor, Beddington (Weston *et al* 1982; Phillips 1989), and Low Hall in Walthamstow (Blair 1999; 2002). At Northolt, *c*.10km (6.2 miles) north-east of Harmondsworth, a third of the moated area was fully excavated in the 1950s, revealing a complex sequence of buildings. The earliest structures were three earthfast timber buildings dated to 1050–1150 (Table 4). These were followed successively by a large three-roomed timber building (1150–1225), and a kitchen area comprising a flimsy lean-to structure (1300–50) to which were added a bakehouse and other outbuildings (1350–70) (Hurst 1961, 232–54). At Low Hall the entire moated area was excavated to reveal the remains of buildings and other structures. At Ruislip Manor, *c*.10.5km (6.5 miles) north of Harmondsworth, test pits revealed medieval mortared flint foundations re-used for the early 16th-century Manor Farm (Steele 1998, 9), and a geophysical survey recorded anomalies probably representing ditches and buildings associated with the manor and the motte and bailey castle that briefly preceded it (Watson 2014).

The site at Harmondsworth was one of two alien houses founded in Middlesex. The other was established at Ruislip Manor, which was given to the Benedictine abbey of Bec in Normandy in 1086/7 (Barron & Davies 2007, 307–9; Franklin 2009). The title 'priory' applied to both establishments is perhaps misleading, for although they had priors they were not monastic houses with communities large enough for a communal life of regular observance and liturgical service (see Knowles & Hadcock 1971, 45). Nor did they possess conventual buildings, although an inventory of 1294 mentions that the manor house at Ruislip had a chapel (Barron & Davies 2007, 307–9), while at Harmondsworth the prior and his companion had the use of St Mary's church (Mowl 1988, 8).

The establishments at Harmondsworth and Ruislip were priory cells and functioned primarily as administrative centres for manorial estates. As such they would have been very similar to other manorial complexes in the region – each with a manor house and ancillary domestic and farm buildings. Documentary, pictorial and archaeological evidence provides some information about the evolving layout of the complex at Harmondsworth. Generally, the manor house and associated domestic buildings were located towards the south end of the complex, close to the spring (see Topography, above), while barns and other farm buildings occupied the central and northern parts of the site. The excavated evidence suggests that this pattern was probably established by the late 11th century. Building 1, on the northern edge of the complex, almost certainly defined the north side of a yard, probably bounded to the west by a precursor of the Great Barn and to the south by another farm building opposite the church (Fig 4).

Harmondsworth is sometimes classed as a moated site because of the presence of earthworks to the south and west, and the suggestion that these might represent part of a large rectangular moat yet to be traced (Page 1911, 6; Braun 1935). There is, however, no evidence for such a moat, and the features that have been mapped are quite unlike the moats surrounding other manorial complexes, *eg* those at Pinner (Clarke 2000), Beddington, Northolt, Ruislip and Walthamstow (see above). Indeed, the earthworks at Harmondsworth are more likely to have been for water management and drainage, as most appear to have been ditches and channels connected to the River Colne, including one to the south that apparently led from a spring. There is also evidence for terracing, perhaps to reduce the risk of flooding from the Colne. Although undated, the earthworks are probably medieval and were almost certainly associated with the manor. Indeed, the area bounded by the earthworks and manor buildings was probably the lord's garden (Mowl 1988, 18). This would be consistent with the results of a geophysical survey of the area by the Berkshire Archaeological Research Group, which produced no evidence for buildings or other structures, suggesting that it had always been open ground (Copeman with Drury 2014, 118–19).

The parish church of St Mary (Gaz 2), immediately to the east of the site, dates from the late 12th century and was periodically extended in the following centuries (RCHME 1937, 60–1). It almost certainly had a pre-Conquest precursor, for a church was in existence by 1069. There is no mention of either a church or a priest at Harmondsworth in the Domesday survey of 1086, but such omissions occur quite frequently and need not be problematic (Blair 2005, 418). A manorial church of 10th- or 11th-century date, accessible to the manorial household and the wider community, would not be unusual (*ibid*, 387–95). The putative church may originally have been of timber, although it is suggested that the immediate precursor of the 12th-century church was of masonry (Copeman with Drury 2014, 24).

Medieval Rural Buildings

The results of the excavations at Manor Farm usefully add to our knowledge of medieval rural buildings within the region, for few other examples have been recorded in Greater London (Sloane *et al* 2000, 219–20). Roughly contemporary examples include at least three buildings found within enclosures at Terminal 5, 2.3km (1.4 miles) to the south (Cramp *et al* 2010, 340–5, 352, fig 5.17), two at Sipson Farm (Cowie in prep) and two at Earls Terrace, Kensington (Douglas 2001). A building of two phases excavated at Wallington, was apparently slightly later, probably dating to the 13th century (Howe 2004). All were earthfast rectangular structures and with the possible exception of the building at Wallington (Howe 2004, 229), none of them formed part of manorial complexes.

Building Materials

The main building material at Harmondsworth during the medieval period and well into the post-medieval period was timber. Woodland within the manor would probably have been a prime source for this, although some may have come from the parish of Ruislip (McVeigh 1993, 9). It is also possible that some of the timber used
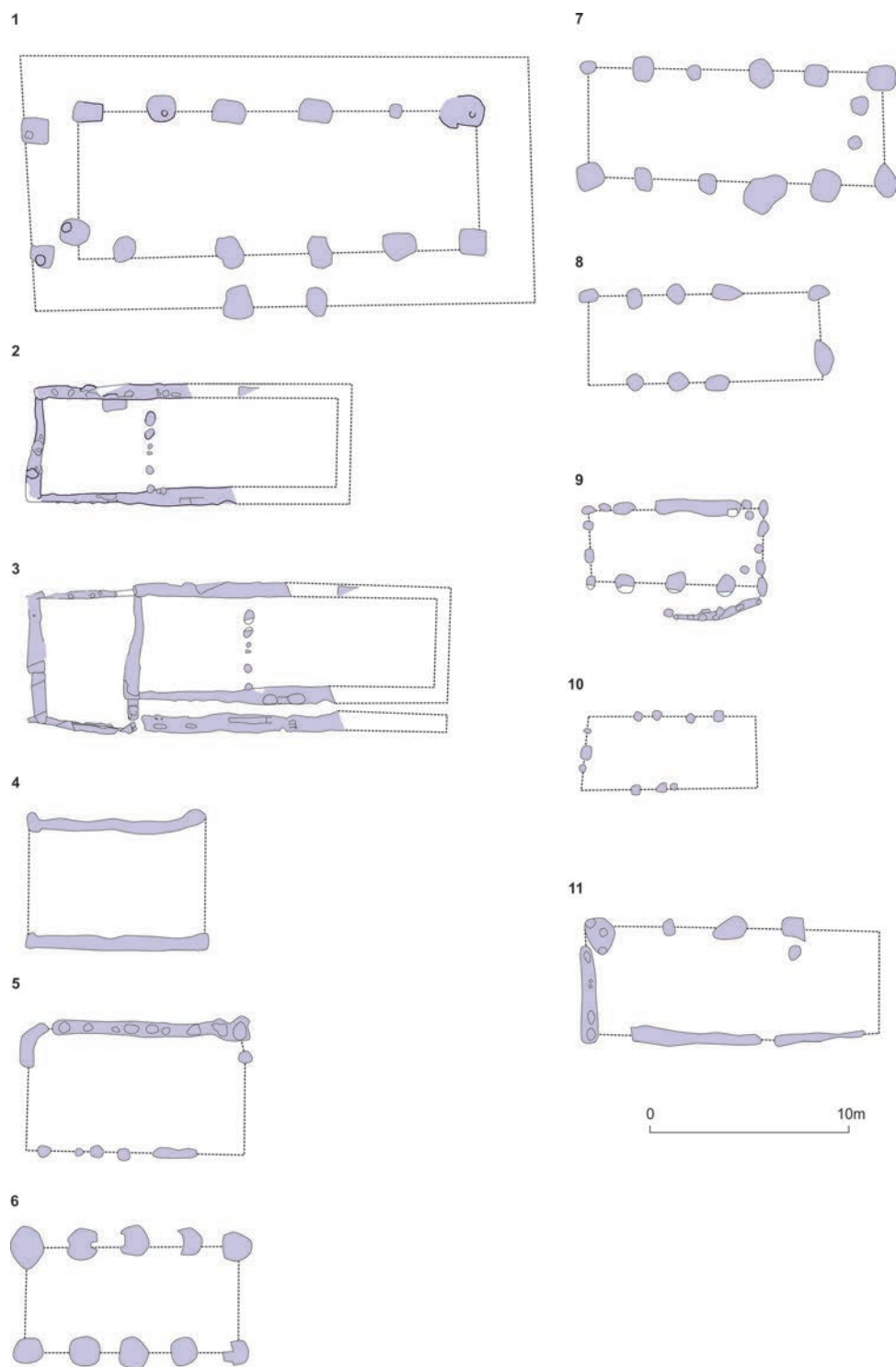
Fig 16. Comparative ground plans of 11th- to 13th-century rural buildings excavated in Greater London, for details see Table 4 (after Cramp et al 2010, figs 5.17, 5.22; Douglas 2001, fig 2; Howe 2004, fig 3)

Table 4 Comparative data from examples of 11th- to 13th-century rural buildings excavated in Greater London at Terminal 5 (Gaz 5; Cramp et al 2010); Sipson Farm (Gaz 23; Cowie in prep); Northolt Manor (Hurst 1961); Kensington (Douglas 2001) and Wallington (Howe 2004). Dimensions and internal areas of buildings recorded at Terminal 5 are based on the published interpretation as structures with aisles

Fig 16 no.	Site	Original building identifier	Date (century)	Ground plan	Construction method	External dimensions (m)	Internal area (sq m)
1	Manor Farm Harmondsworth	Building 1	late 11/12C	oblong, aisled, with S porch	post	25 x 12.5	290
2	Manor Farm Harmondsworth	Building 2, phase 1	late 11/12C	oblong with 2 rooms	post in trench (& sill beam?)	>11 x 6	>46
3	Manor Farm Harmondsworth	Building 2, phase 2	late 11/12C	oblong with 4 rooms	post in trench	>16 x 7.5	>72
4	Sipson Farm	Building 7	12C	oblong	sills with terminal posts	9.35 x 5.4	42
5	Sipson Farm	Building 8	late 11/12C	oblong	post in trench and post	10.5 x 6.8	61
6	Terminal 5	Building 1	late 11/12C	oblong	post	10.5 x 4.8	42
7	Terminal 5	Building 2	late 11/12C	oblong	post	15.3 x 5	65
8	Terminal 5	Building 3	late 11/12C	oblong	post	11.5 x 4.5	42
9	Earls Terrace, Kensington	Building A	11/12C	oblong with pentice?	post in trench, sill and post	9 x 4.5	30
10	Earls Terrace, Kensington	Building B	11/12C	oblong	post	>7 x 4	>22
11	London Road, Wallington	Building 1, phase 1	13C	oblong (W aisle?)	post in trench, sill and post	14 x 6	65
N/A	London Road, Wallington	Building 1, phase 2	13C	oblong (E and W aisles?)	sill and post	>15.5 x 10	125
N/A	Northolt Manor	AB	mid 11/ mid 12C	oblong (fragmentary)	post in trench and sill	4.3 wide	?
N/A	Northolt Manor	AC	mid 11/ mid 12C	oblong (fragmentary)	post in trench	just over 5m wide	?
N/A	Northolt Manor	AH	mid 11/ mid 12C	oblong (fragmentary)	sill and post	?	?

in the construction of the Great Barn in the early 15th century came from near Kingston, although the documentary evidence for this is slightly ambiguous (Copeman with Drury 2014; Impey *et al* 2017, 18).

Stone seems to have been used sparingly, if at all, in the medieval buildings at Harmondsworth, and there is no evidence for its use in Buildings 1 and 2. There are no sources of good building stone nearby, other

and also possibly during repairs to the buildings or after demolition. The pottery alone suggests that the buildings date roughly from the late 11th to the mid-12th century, although there is some evidence to suggest that Building 1 may have survived until the early 15th century (see 'Duration', below). Some of the pottery may have been discarded before construction and incorporated in earthen fill packed around posts. The presence of construction fill in at least some wall trenches of Building 2 is indicated by the 'ghosts' of posts [739], [866] and [870] and post pits [928] and [932] (Fig 11). Elsewhere, the evidence is less clear. For example, it was often recorded that postholes were only observed as holes in the base of the wall trenches. This could indicate that the trenches had been largely cleared out during demolition and then infilled. Alternatively, material filling voids left by timbers may have been indistinguishable from surrounding construction fill, possibly due to biological reworking. The post pits of Building 1 were probably mainly filled during construction, but would undoubtedly also include material deposited during or after demolition. From this it seems likely that the structural features of both buildings contained a combination of material deposited during construction and demolition, and possibly after demolition, but unfortunately it is not possible to attribute finds to such specific phases of activity.

Phasing

The remains of Building 1 probably represent a single phase of construction. However, the difference between the spacing of its post pits (regular in the eastern and central sections of the building but less so at the west end) is odd, and might indicate both localised repairs and the replacement or the obliteration of some original features.

The evidence for Building 2 represents at least two major phases of construction, as well as the occasional repair and replacement of walls. The earliest part of the building was a simple oblong structure, divided by an internal wall into at least two rooms (A and B) – a layout fairly typical of the period (see Hurst 1971, 104–15). The post-built wall or partition between the two rooms may have

been put up either immediately after the construction of the external walls or inserted at a later stage. During a second phase of construction this building was extended northwards by the addition of Room C. A narrow passage (Room D), perhaps little more than a covered walk or pentice, was also probably added to the western side of the building at the same time. This would accord with the presence of joining rim sherds from a cooking pot <P4> in adjacent wall trenches [215] and [723], although it is possible that they were deposited during the demolition of the building. Nevertheless, the construction a passage connecting Rooms A and C, and quite possibly others further south beyond the limit of excavation would make sense as an integral element of the enlargement of the building.

Duration

Bearing in mind the problems outlined above, the pottery dating suggests that both buildings could have been erected as early as the late 11th century, possibly at about the time the manor became a priory cell. Considered in isolation the ceramics also suggest that the buildings may have survived up to about the mid-12th century. From this it would seem that they may have been in use for several decades, perhaps 50–70 years as an upper limit. This would be a respectable age for an earthfast building, for timbers set in the ground are prone to rot, particularly in the zone immediately above and below ground level (see Barker 1982, 89).

Excavated evidence suggests that earthfast buildings in Middle and Late Saxon London generally lasted for 15–25 years, but in one case at least 40 years (Horsman *et al* 1988, 109–10; Malcolm & Bowsher 2003, 158), while at Hamwic (Middle Saxon Southampton) such buildings apparently often had a life of 30–40 years and occasionally up to 50 years (Andrews 1997, 55). The buildings at Harmondsworth, however, were larger and the timbers used in their construction probably more substantial, so they could have lasted at least 70 years and possibly considerably longer if well maintained (see Barker 1982, 89). Indeed, at Northolt Manor the time spans of two major phases of construction, IC (1050–1150) and ID

(1150–1225) (Hurst 1961, 211), suggest that earthfast buildings there could have lasted 70–90 years or more.

In the case of the Great Barn at Harmondsworth the problems of earthfast building methods were avoided by supporting the external walls and aisle posts on stone plinths and bases. Even without stone supports the presence of aisles in a building would protect earthfast arcade posts from damp, provided the building was well-maintained and its roof kept watertight. Thus, potentially, aisles could have greatly lengthened the life of Building 1. Although it would seem to run contrary to the pottery dating, it is possible that the building might be the 'corn barn' mentioned in accounts relating to repairs in 1397–8 (Paul Drury pers comm). This barn was by then apparently old and dilapidated, and the accounts indicate that it had at least one porch and that its roof was probably hipped (Copeman with Drury 2014, 31). The corn barn may correspond to the tithe barn swept away in 1434–5 (Bolton *et al* 1971, 8), which would provide a much later end date for Building 1. If this were the case it is a little surprising, though not necessarily problematic, that later medieval artefacts were not found in any of the post pits of Building 1. It would also have had to have survived attacks on the priory, when at least some of the complex was burnt.

Function

Building 1 would have been very large compared to other excavated examples of medieval rural buildings within Greater London (Table 4). Its conjectured dimensions suggest an internal floor area of about 290 sq m (3122 sq ft), with a porch broad enough to have accommodated an entrance up to 4m wide. The potential size of the doorway suggests that it was probably intended for the access of farm wagons and carts laden with hay and/or harvested crops. The access and the considerable floor area suggest that this building was probably a barn similar to the extant 13th-century Barley Barn and Wheat Barn at Cressing Temple, Essex (Hewett 1969, 22–32, 40–7, 55–61; Brunskill 1994, 66, 192–4), although the latter are considerably larger, respectively measuring 38m by 14m and 40m by 13m. This interpretation would

accord with the apparent absence of internal structural features; there was no evidence for stalls or drains or other features that might be found in a byre. Similarly, the absence of evidence for internal walls, partitions, and features such as pitched tile hearths and ovens, suggest that the building was not a dwelling, although not all such features are likely to have survived later activity.

The absence of postholes for a porch on the north side of Building 1 suggests that it did not have opposing doors, unlike some medieval barns, such as the Wheat Barn at Cressing Temple and examples in the Cotswolds where larger buildings even have two pairs of opposing doors (Jordon 2006, 40). Such doors allowed vehicles to drive through after loading or unloading, but also facilitated threshing and winnowing by creating a through draught between the doors that helped to separate grain from the lighter chaff.

Building 2 was also quite large, for although only part of its ground plan was exposed this alone suggests an internal floor area of more than 46 sq m in phase 1, and over 72 sq m in phase 2. The division of the building into at least three rooms and a possible pentice suggests a domestic function. It seems likely that the building was either part of the manor house or an ancillary building close to it.

Future Work

The results of the excavations at Manor Farm are at least of regional significance for they provide rare and valuable information about the nature of rural buildings in the 11th and 12th centuries and the early development of the manorial complex at Harmondsworth. However, much remains to be done to test and refine current thinking about the nature and evolving layout of this important historic site. Further investigation in the southern part of the site might reveal evidence for domestic buildings, including the southern part of Building 2, the presshouse and bakery documented in the late 14th century, the brew-house mentioned in accounts for 1406–7 and the late 15th-century manor house. In the central and northern parts of the site, evidence for farm buildings, including successive tithe barns, might survive. Undoubtedly the need for

groundworks on the site will occasionally arise, and should provide the opportunity to further elucidate the historical setting of the magnificent Great Barn.

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SAXON AND LATER SECULAR SETTLEMENT AT BARKING: EXCAVATIONS AT LONDON ROAD

Shane Maher and Frank Meddens

With contributions by Märit Gaimster, Kevin Hayward, Chris Jarrett and Kevin Rielly

SUMMARY

Excavations at London Road, Barking, in 2013 immediately east of the precinct of Barking Abbey and to the south of the medieval market place revealed a significant portion of the historic town. This site was a prime location for the development of secular settlement associated with the abbey. Fieldwork revealed limited evidence for Late Saxon activity followed by a significant suburban expansion from the 11th century through to the 13th century. There was a decrease in the level of activity on site during the 15th century, possibly connected with a period of economic stagnation, but from the 16th century onward there was a sustained revival. The North Street frontage was apparently occupied by a series of prosperous suburban properties, probably including at least one medieval and Tudor inn, the existence of which is inferred from the discovery of numerous ceramic vessels connected with the serving and consumption of drinks. To the rear of these properties were back yards containing quarries, rubbish pits and wells. The prosperity of these households appears to have increased after the dissolution of the abbey in 1539; this is demonstrated by the quality of the artefact assemblages including finds of imported ceramics and high status building materials, while associated faunal remains included a sparrowhawk. In 1721, four of the existing properties along North Street were converted into a parish workhouse and in 1788 a large, purpose-built workhouse was constructed on part of the site. After the workhouse closed in 1841, its premises were subdivided into numerous smaller units. Elsewhere on site before 1864 two new streets were constructed, surrounded by new residential properties and two schools.

INTRODUCTION

Between 8 January and 12 April 2013 Pre-Construct Archaeology undertook an archaeological investigation, commissioned by Bouygues (UK) LTD, at 192–240 London Road, Barking, centred on Ordnance Survey national grid reference TQ 4417 8412, (site code LRN13), covering 6,746 square metres (Fig 1). The property lies within a designated Archaeological Priority Area and is located *c.*100m to the east of Barking Abbey, a Scheduled Ancient Monument (Historic England, list entry 1003581).

HISTORICAL BACKGROUND

The Medieval Abbey and Town of Barking

Barking Abbey was founded in *c.*AD 666 by St Erkenwald (d 693) before he became bishop of London; initially it was ruled by his sister St Ethelberga (d 675) (Fig 2). This monastic house, which was dedicated to St Mary the Virgin, was apparently a double foundation for monks and nuns, each occupying separate quarters. In *c.*AD 870 the abbey was abandoned when the Vikings occupied the area (Page & Round 1907, 115–22). Evidence from excavations by the former Passmore Edwards Museum and Newham Museum Service indicates that the earlier phase of the abbey church was situated to the north-west of its successor (MacGowan
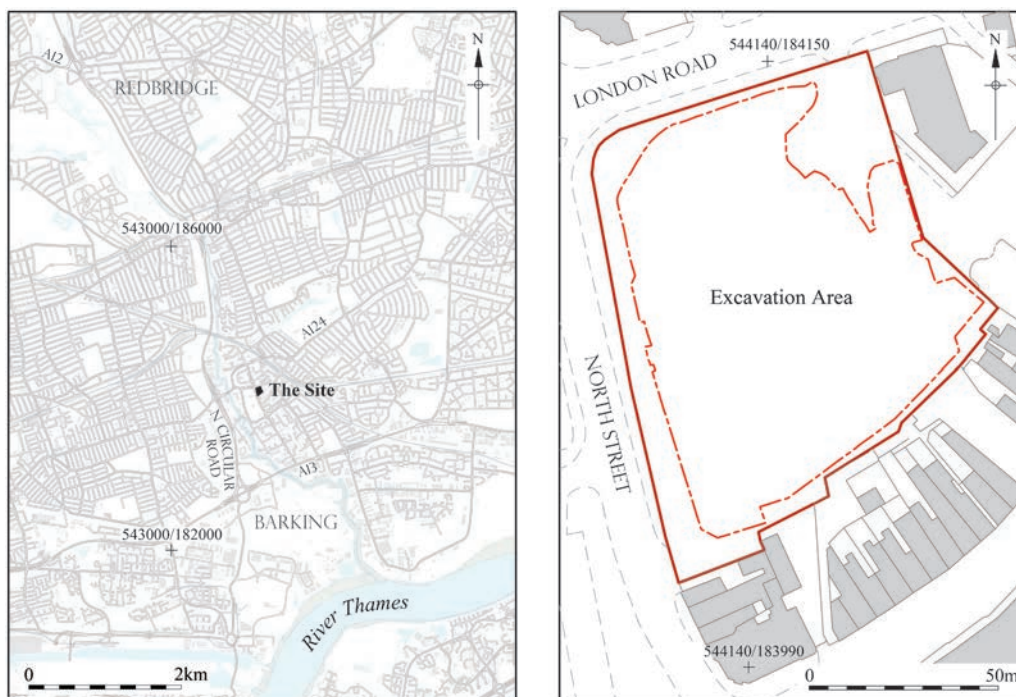
Fig 1. Site and trench location plans (scales 1:100,000; 1:2000)

1987; 1996). Early and Middle (*c.*AD 410–850) Saxon finds and structures have been discovered during various excavations to the west of the 12th-century abbey and along the River Roding (Hull 2002, 160–1). Saxon industrial or craft activity has been identified locally in the form of glass, copper-alloy and lead production (Hull 2002, 168; MacGowan 1996). These types of craft activity were presumably connected with the production of high-status goods for the abbey. In 1985, to the north of the possible site of the earlier Saxon abbey church, excavations carried out by the Passmore Edwards Museum revealed a Saxon leat, indicating the presence of a tidal mill (MacGowan 1987). Ceramics from these excavations indicate a discontinuity between the Middle and later Saxon activity (Vince in Hull 2002, 165). Williams (1996, 93) has argued that the evidence supports a gradual abandonment of the abbey in the 9th century rather than one triggered by a Viking raid. The abbey was re-established sometime in the early 10th century when Edward the Elder reasserted Saxon control over this area. At this time, it became a Benedictine

nunnery with its abbesses drawn from royal and aristocratic families, making it one of the most senior of the female religious houses in the country. The site was included in the Manor of Barking, which formed part of the abbess's substantial demesne (Powell 1966a).

Remnants of the later Saxon and medieval abbey have largely been found along Abbey Road on the site of the Scheduled Ancient Monument, while evidence for later Saxon and medieval secular settlement has been located significantly on sites to the east of Broadway and North Street, such as at Axe Street, at the former Magistrates Court along North/George Street, and at Ripple Road (Carew *et al* 2009; Hawkins *et al* 2003; Humphrey in prep; MacGowan 1987; 1996; McCaig 2018).

A significant flooding event, which damaged the extensive holdings of the abbey along the Thames, is known to have occurred in 1377 (Powell 1966b, 214–19). A series of devastating storms in 1374, 1375, and 1376 had also severely impacted the Barking marshes and produced serious flooding, such
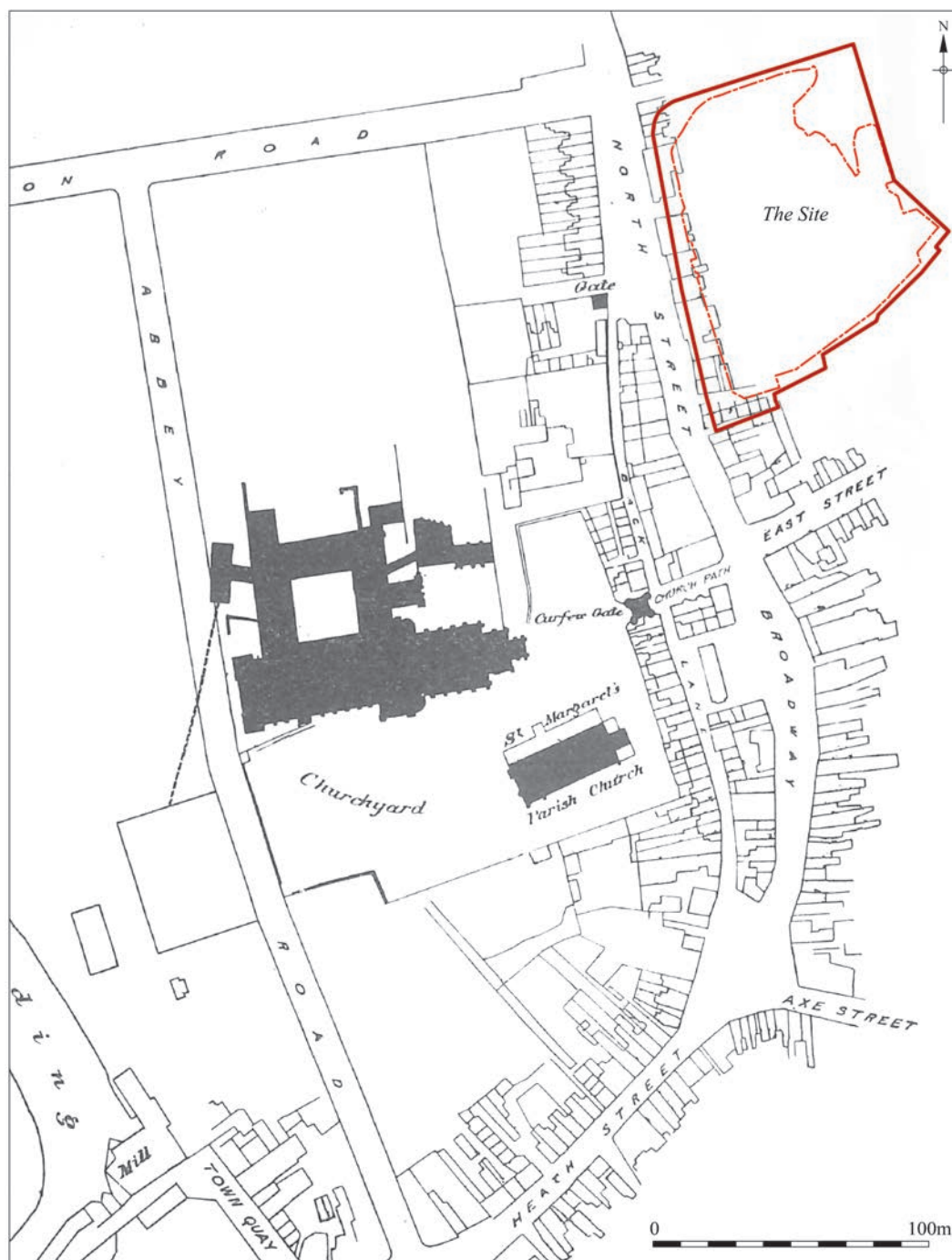
Fig 2. Location of Barking Abbey, showing the outline of the excavated 12th- and 13th-century abbey (after RCHME 1921) (scale 1:2500)

that by 1380 a critical breach still existed. In early 1382 the abbey was authorised to seize the living of Hockley church 'because their lands are inundated and their sustenance is diminished to the value of 400 marks yearly'. Similar issues continued to plague the abbey until its closure in 1539 (Galloway 2017, 73–7).

Barking is an example of a medieval town that developed next door to a wealthy monastic house, which would have provided regular employment for a range of secular craftsmen and created a market for certain luxury products like glass (Schofield & Vince 1994, 52–4). Pilgrims visiting the abbey would have wanted accommodation and they would have purchased food and drink during their stay. The site was situated opposite one of the abbey's precinct gates and a little to the south of the medieval marketplace, so this was a prime location for development of the secular settlement associated with the abbey. A market, run by the abbey, is first recorded in a royal charter issued between 1175 and 1179. The first recorded existence of a shop in Barking was in 1254 (Powell 1966b). The town gradually expanded immediately to the east and north-east of the abbey precinct. By 1653 there were about 170 houses within the town (Powell 1966d, 235). From the 14th century until the mid-19th century the most important industry at Barking was salt water fishing, for which the quay on the Barking Creek was crucial (Powell 1966d).

The Post-Medieval Town and Workhouse

After the dissolution of the abbey in 1539, the Crown took control of the town's market and in 1567–8 a timber-framed Market House was built in the middle of the Market Place (some 100m to the south-west of site), it contained an upper storey court room (RCHME 1921, 4–11). Queen Elizabeth I paid for the erection of the hall, but the local inhabitants prepared the site and built 16 shops and some sheds (Powell 1966b). This prestigious civic development shows the growing wealth and importance of Barking.

In 1642 Barking Church of England primary school was established in Back Lane. The free school and the Bull public house are shown on the 1653 map of Barking on the eastern side of North Street (Fig 3), along the western margin of the 2013 excavation site. In 1786 the school was taken over by the directors of the poor, who used part of its site for their new workhouse (Powell 1966d; see below).

In December 1721 a workhouse which consisted of four existing leasehold properties in North Street (within the western portion of the site) was opened by Barking parish. These properties were probably situated south of the free school, but their exact location is uncertain. The workhouse initially was meant to house 48 people (two in a bed), but it started by accommodating 14 old men and women, plus six boys and girls. They were served meat four days per week (comprising sheep's head, ox cheek and beef broth), with bread and beer being supplied 'without limitation', all purchased by the Steward and prepared by his wife. The residents were mainly employed in 'picking oakam'.[1] An enlarged workhouse was built on the south-western portion of site in 1788 (Fig 12). This area had previously been occupied by Mr Rayment's Brewhouse and Malthouse and the free school (Clifford *et al* 2002, 29–32). The new workhouse was an imposing two storey brick building with a basement. It also housed committee rooms, storerooms and apartments for the master and matron, plus a replacement premises for the free school which catered for local boys and girls aged between seven and eleven years old (Powell 1966d). The inscription on the workhouse façade read: 'This house of Industry at the sole Expense of the Inhabitants of Barking is to provide and protect the Industrious and to Punish the Idle and the wicked'.[2] In 1841 the workhouse closed and was subsequently subdivided into shops and residential units; these are the properties seen on the 1864 Ordnance Survey Map (Fig 4). By this date two new streets (Nelson Street and Trafalgar Street) had been built across the northern part of the site. These streets were surrounded by residential properties and two new primary schools.

During the first half of the 19th century, the population of Barking rose rapidly. Census returns show the population of Town Ward grew from 1,585 in 1801 to 4,930 in 1851 (Powell 1966d). This rise in numbers of inhabitants was due to the growth of the town's fishing industry, which during the

Fig 3. The Free School and the Bull public house on the 1653 map of Barking made for Thomas Fenshaw Esq (scale 1:2000)

mid-19th century reached its zenith. By 1900 the fishing fleet had relocated to Yarmouth and Gorleston. The former workhouse was demolished after 1933.

EXCAVATION RESULTS

Introduction

There was no evidence of prehistoric or Roman activity on site. Context numbers (*eg* [1]) are used to identify significant features on the phase plans and their finds in the text. Features are identified by their 'cut' number. Accessioned or small finds are identified thus <SF1>. Detailed descriptions of the relevant ceramic building material fabrics and pottery codes (including vessel types) with their date ranges are posted on the Museum of London Archaeology website.[3] In addition to these alphabetical ceramic codes the numerical classification system used in Essex and by the former Passmore Edwards Museum are also cited

Fig 4. London Road and its environs with workhouse highlighted on the 1864 Ordnance Survey Map (1:800)

(see Jarrett below). The clay tobacco pipes have been classified according to Atkinson and Oswald's (1969) classification (AO prefix) and the classification of the 18th-century types has been refined by reference to Oswald (1975) (OS prefix).

Geology and Topography

The site is situated *c.*400m to the east of the River Roding, close to its confluence with the Thames estuary. The local geological sequence consists of superficial deposits of sand and gravels of the Pleistocene Taplow Gravel formation overlying the Eocene clays, silts and sands of the London Clay formation (BGS 1993). To the west of the site towards the River Roding, Holocene alluvium overlies the terrace gravel. On the site itself truncated natural sandy gravels were recorded between 7.42m OD and 6.67m OD, with the topography showing a decrease in height towards the east. Due to the degree of truncation across site caused by 19th- and 20th-century activity there was a bias towards the survival of deeper features like pits and wells.

Middle Saxon (c.AD 650–850)

The presence of three residual sherds of Middle Saxon pottery indicates that there was contemporary settlement, or at least activity nearby (see Jarrett below). The lack of structural evidence from this period suggests that this settlement was located further west nearer to the abbey and the Roding. The few other excavations to the east and north-east of the abbey have also produced very little evidence of Early Saxon activity (Hawkins *et al* 2003; McCaig 2018). The impression is that this particular area was only occupied after the refoundation of the abbey during the early 10th century (see above).

Phase 1: Late Saxon to Earlier Medieval (c.AD 850–1200)

Phase 1.1: Late Saxon (c.AD 850–1050)

During the investigations limited evidence for Late Saxon activity was encountered, comprising four rubbish pits and one well (Fig 5). These features were probably associated with a single farmstead, which would have been linked to Barking Abbey. No evidence of Saxon buildings was encountered during the excavations, due to post-medieval truncation (see above).

Two of the features, a well and a pit, were positioned close together within the south-eastern portion of the excavation area, suggesting that they may have been associated with a single property. The other features were dispersed. Three of the pits were sub-rectangular in shape, with nearly vertical sides. The largest of the pits was 1.94m by 1.45m and 1.18m deep, while the smallest measured 0.64m by 0.9m and 0.4m deep. A deposit of decayed timber was noted in the backfill of the well, probably the remains of a collapsed timber lining. Its dimensions were 1.2m by 1.32m and over 1.7m deep. A quantity of Late Saxon pottery, predominately dating to the 10th and 11th centuries, was recovered from these features, while the pottery from the well and its adjoining pit indicates a deposition date somewhere between 1000 and 1050. An incomplete iron nail was recovered from the well and two fragments of lava quern stone came from the smaller of the two adjoining pits. An inlaid, tang-hafted knife of either Middle or Late Saxon date was recovered from a residual context (Fig 16.1; see Gaimster below). Faunal remains included a cat humerus (see Rielly below, Table 3). The remains of cats are often found on Saxon sites: it is assumed that they were kept for pest control (Hagen 2006, 281).

Phase 1.2: Earlier Medieval (1050–1200)

The period following the Norman Conquest saw a gradual increase in activity on site. This coincided with rebuilding and expansion of the abbey (Page & Round 1907, 222–31), which would have had a knock-on effect on the adjoining secular settlement. Ten pits/postholes and two unlined wells were scattered across the northern and western portion of the site, while its easternmost section remained vacant and possibly was used as pasture (Fig 5).

The rubbish pits found varied in shape from sub-rectangular to almost circular, with almost vertical sides and flat bases. The largest measured 1.5m by 1.46m and depths of between 1.7m and 0.18m were recorded.

Fig 5. Phases 1.1 (AD 850–1050) and 1.2 (1050–1200), late Saxon and earlier medieval features and possible burgage plots (taken from 1653 map) (scale 1:800)

One well was situated in the northern part of the site and the other in the south-west; the northern well was 2.27m deep, while the other was 2.15m deep. Pottery from the wells dated to the 11th and 12th centuries. One pit [421] contained a complete auger spoon bit (Fig 16.2; see Gaimster below).

The increasing density of features began to give the site a slightly more formal or planned appearance, probably resulting from the land being divided into separate units, perhaps individual burgage plots. A map of the Manor of Barking dated 1653 (Fig 3) shows these plots, which almost certainly had changed very little since their original creation. Map regression of the pits and wells with the plots demonstrates that they were relatively evenly distributed across the area with a higher concentration of early medieval features along the northern margin of the site (Fig 5). No evidence for structures was encountered, which was not surprising given the likely limited impact of any contemporary clay and timber buildings and the level of truncation resulting from later activity.

The concentration of features in the northern area forms two parallel north-east to south-west alignments. This suggests that either the northernmost plot (shown on the 1653 map) was subsequently extended southwards or a second contemporary burgage plot existed here. It is assumed that during this period the site was situated on the periphery of the urban settlement (Schofield & Vince 1994, 52–4).

Phase 2: Later Medieval (1200–1400)

A general intensification of activities was noted during this period, particularly in the southern portion of the site where groups of pits and postholes were encountered (Fig 6). The burgage plots noted in the northern area of the excavations from the previous phase were still apparent. The features were predominantly situated within plot boundaries similar to those seen on the 1653 map (Fig 3). The growth in activity mirrors the contemporary prosperity of the abbey (Page & Round 1907, 115–20).

There are areas of the site, especially those nearest to North Street, where there are no features. These blank areas may have been occupied by the rear portion of timber buildings fronting North Street, all traces of which have been subsequently destroyed by truncation. The vacant eastern portion of the site may have served as pasture or gardens during this period.

Some of the earliest features of this phase are quarry pits dating to the 13th century. These were seen across the excavations and were probably for gravel and sand extraction. By far the biggest concentration of features was the clusters of postholes, rubbish pits and a well located within a plot to the south (Fig 6). To the west and east of these were areas devoid of activity. The pits varied considerably in shape, while their sides also varied from vertical to gradually sloping and their bases from flat to concave. The largest was a quarry pit which was 6.4m long by 4.84m wide and 0.28m deep, and the smallest measured 1.1m by 1.1m and 0.25m deep. The deepest pit was 1.67m. The oval unlined well had almost vertical sides; it measured 3.55m by 2.44m and was 2.6m deep. Posthole shapes and sizes ranged from sub-square to sub-circular.

Fragments of drinking vessels were found in the fills of pit [622] comprising jugs in Colchester-type ware and coarse London-type ware (see Jarrett below). The presence of Essex unsourced sandy orange slipware costrel fragments in the fill of the nearby well could be associated with pilgrims or travellers carrying drinks for their journeys, perhaps indicating the existence of a tavern close by. To the west of the features, towards North Street, the empty space here may have been the site of this establishment (Fig 6). Postholes [566], [1373] and [1393] may be the surviving physical traces of the building. The date range of the drinking vessels suggests that this establishment was founded in the 13th century and continued to at least the middle of the 14th.

One sherd of French Saintonge green glazed ware (part of a jug base) was recovered from rubbish pit [1607] (Fig 6). The import of this ware has been linked to the wine trade with south-western France (Hodges 1977). This sub-rounded pit had nearly vertical sides and an uneven base. It measured 2.8m long by 2.4m wide and was 1.11m deep.

To the north activity was limited, but the presence of two wells indicates that several
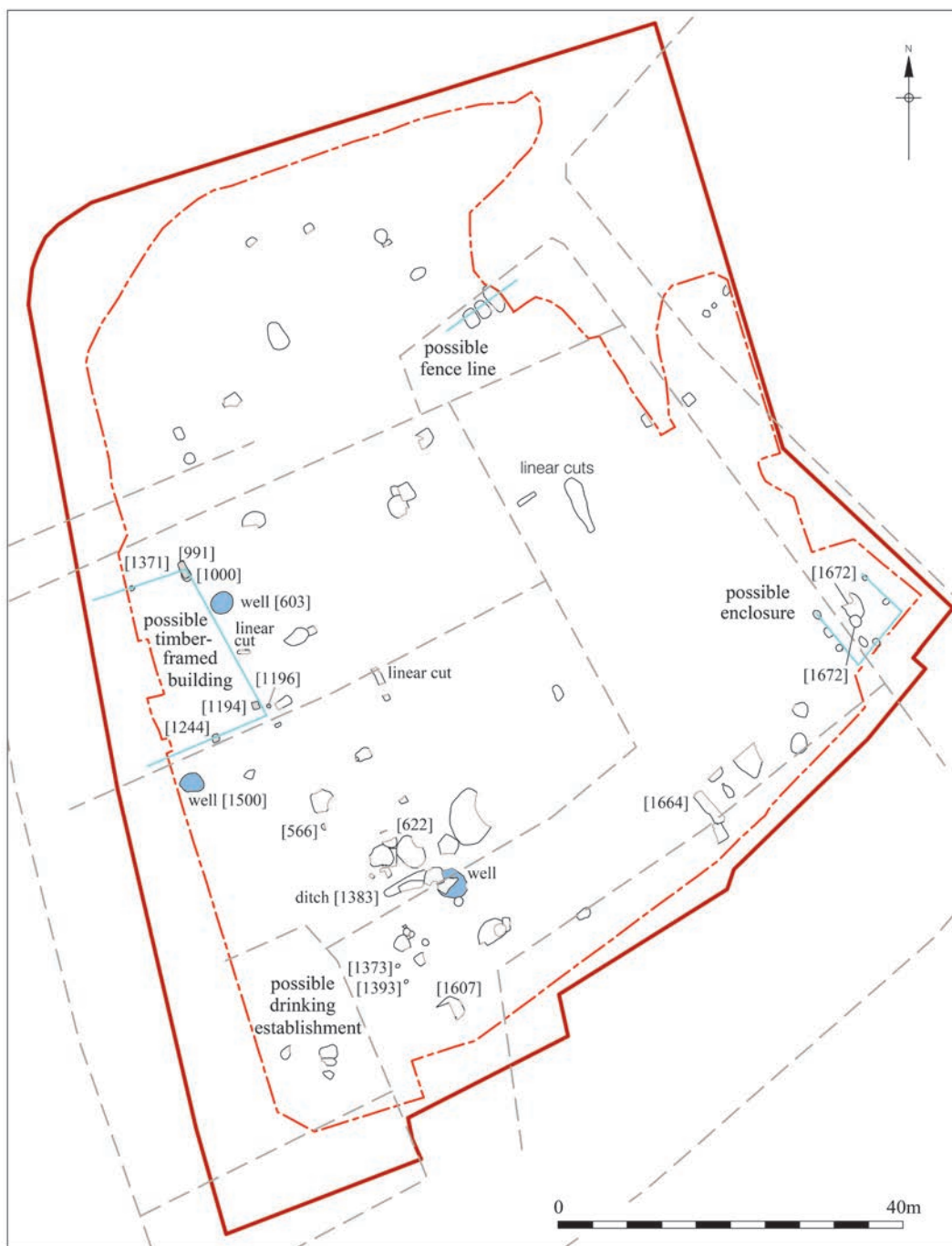
Fig 6. Phase 2 (1200–1400), later medieval features and possible burgage plots (taken from 1653 map) (scale 1:800)

properties were located nearby. The two oval shaped wells both had vertical sides. One measured 2.12m by 2.73m and was over 4.0m deep, the other 2.4m by 2.68m and over 4.5m deep. It was not possible to fully excavate either feature because of the instability of the surrounding deposits. Inside well [1500] a square timber frame was exposed at a depth of 4m; presumably the upper portion of the timber linings of both wells was salvaged when they went out of use.

Just north of well [1500] and west of [603] a group of rubbish pits and postholes ([991], [1000], [1194], [1196], [1244], [1371]) formed a rectangular shape, representing the possible outline of the rear portion of a timber-framed building (Fig 6). This structure had a width of *c.*12m and a length of over *c.*18m, extending beyond the western site limits. It was orientated perpendicular to North Street and well [603] was just outside it.

As mentioned above, the pre-existing burgage plots remained in use. Some of the rubbish pits, presumably dug within back yards, appear to respect these plot boundaries. The pits varied in both size and shape, some had sub-rounded or sub-rectangular shapes and silty clay fills, while their sides varied from nearly vertical to gently sloping and their bases from flat to concave.

A group of four shallow sub-oval to sub-rectangular shaped pits was recorded in the south-western corner of the site. These features had been truncated by 20th-century activity. Pottery from the fills of these pits suggests that they date to after the mid-14th century.

Further to the east along the southern limit of excavation a group of large sub-rounded to sub-rectangular quarry pits marks the rear of another possible property boundary, related to East Street (Fig 6). The largest of these was pit [1664] measuring 4.0m long by 1.3m wide and 0.8m deep. Sherds of 13th- and 14th-century pottery (Kingston type and Essex unsourced sandy orange wares) and a fragment of residual Roman tile were recovered from these pits (see Hayward below).

Seven shallow sub-oval postholes were in the south-eastern corner of the excavation forming a pattern reminiscent of a small open-ended enclosure (Fig 6). The enclosure was on a north-west to south-east alignment and measured 7m by 7m, with the open end facing the north-west. Inside were two intercutting sub-oval pits, the larger of which was 3.05m long by 2.3m wide and 0.33m deep. Pottery recovered from the postholes and pits confirms they were contemporary (fabrics included Mill Green coarseware, plus Essex unsourced sandy orange and Essex late medieval transitional wares).

The remains of a possible fence-line or an enclosure were seen in the north-east of the excavation. This comprised a group of three postholes forming a 4.2m long south-west to north-east alignment, which extended beyond the limit of excavation.

Significant ceramics from Phase 2 included sherds of Late Saxon shelly ware, cooking pots, bowls and jars from pit [9] and well [11] (see Jarrett below). An Essex early medieval ware with fossil shell cooking pot was recovered from fill [637] of pit [638] (Fig 14.4). A Phase 2 copper-alloy buckle <SF47> was also recovered from a Phase 6 context (Fig 16.3; see Gaimster below).

The faunal remains from this phase include all the major domesticates, plus cats, chickens, dogs, geese and rabbit. The assemblage was dominated by cattle bones with evidence of processing as well as consumer waste (see Rielly below, Table 3).

Phase 3: 15th Century

A marked decline in activity was noted across the site during the 15th century. This trend was most notable in the south-west where an inn or tavern may have been located (see above Phase 2): this could reflect a period of economic stagnation. The focus of activity now moved further north and east, where there was evidence of quarrying (Fig 7). The fragmentary and truncated remains of one or possibly two undercrofts were encountered on the east side of the central part of the excavations. These represent the remains of properties fronting North Street. The earlier property boundary alignments appear to be respected.

This phase includes the Black Death (1348–9), which when combined with subsequent plague outbreaks caused the population of England to plummet. However, some urban communities were quickly repopulated by
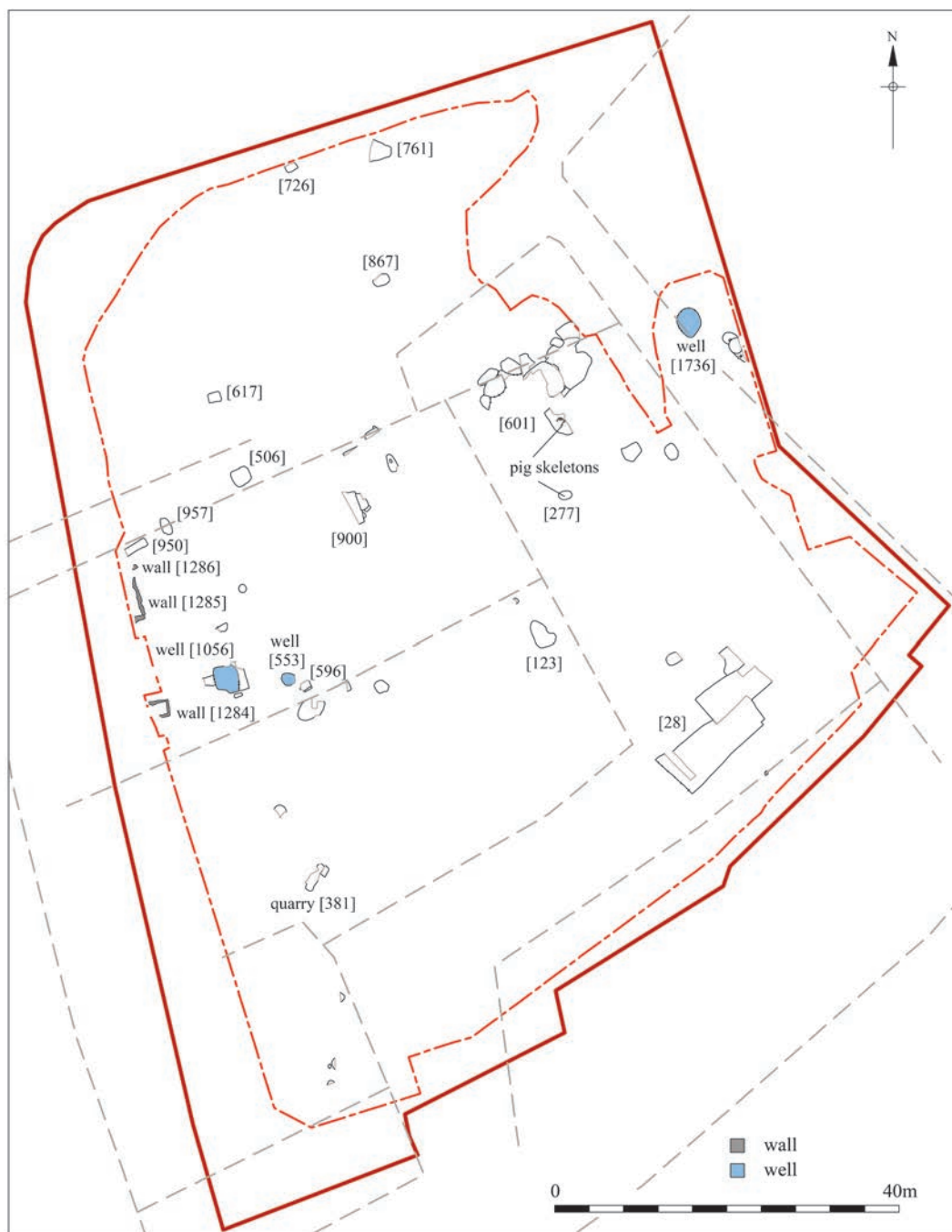
Fig 7. Phase 3, 15th-century features and possible burgage plots (taken from 1653 map) (scale 1:800)

migrants (Platt 1996, 1–25). A decline in population or economic activity could have closed the hypothetical inn on site. Only seven features, including rubbish pits, and a posthole in the south-eastern sector were dated to this phase. Pottery (largely comprising jug and jar fragments in Coarse Border ware, Dutch red earthenware, Essex iron-rich ware Essex late medieval transitional ware, Harlow sandy slip ware and Late London ware) and ceramic building materials (chaff tempered peg tiles and Tudor bricks) recovered from these features date to the 15th century (see Jarrett below). Cut [381], possibly a quarry pit, was the largest of these features; it was sub-rectangular in shape, measuring 3.44m long by 1.06m wide and 2.82m deep.

Structure [1284] consisted of a rectangular subterranean storage room which is believed to have been constructed within a completely truncated building or undercroft, as it is very unlikely that such a structure would have been constructed within an external area so close to the North Street frontage. Its masonry lining walls were constructed of dressed flint and Kentish Ragstone blocks (Fig 7), it measured 2.24m by 2.0m and 0.97m deep. All this masonry was bonded by a very gravelly brown flint rich sandy lime mortar. Modern truncation had removed the upper and western portions of structure [1284], which would once have extended west beyond the limit of excavation. Reused in the walls of [1284] was a piece of late 12th- to early 13th-century style Purbeck marble column shaft (see Hayward below). Assuming that this piece of worked stone was derived from Barking Abbey, which seems likely, then it may have been obtained before its dissolution, as the storage room was demolished around this date (see below, Phase 5). Pottery from the basal fill of [1284] (comprising fragments of a jug and a cauldron in Essex late medieval transitional ware, and a rounded mug in imported Cologne or Frechen stoneware, dated *c.*1550–80) indicates that it remained in use during the later 16th century.

Approximately 9.5m to the north of storage room [1284] were the truncated remains of an L-shaped chalk wall foundation [1285], interpreted as the eastern end of a separate undercroft. This was aligned north-north-

west to south-south-east; it was 5m long by 0.48m wide and 0.83m high. The return extended 0.95m to the west from the southern end and had a width of 0.75m. Ashlar blocks of chalk were noted in its inner faces, along with blocks of Reigate Stone and reused medieval peg tile. The masonry was bonded by a brown very gravelly, flint-rich, and sandy lime mortar. Another heavily truncated segment of chalk wall [1286] was 1m further north. Similar construction materials were used in its fabric and again its inner face was lined with ashlar chalk blocks. Some fragments of sandy peg tile fabric 2276 with a narrow kiln stacking ridge were present, indicative of 16th- or 17th-century tile. This wall segment, which was aligned north-east to south-west, was almost perpendicular to [1285] (Fig 7). A series of internal floor surfaces and make-up deposits ([1360]–[1363], [1366]) were present between these walls, ranging between 0.14m to 0.03m thick. The earliest surface was a clay floor [1363]. The upper deposits represented later repairs to the original. The uppermost deposit in the sequence [1360] probably acted as the bedding for a robbed-out tiled floor.

Some pits, two wells and two linear features were excavated to the east of storage room [1284]. The wells differed in size and shape, with the larger and more westerly [1056], being sub-square measuring 3.58m long and 3.21m wide with a depth of over 3.75m. Unfortunately, it was not possible to fully excavate it. No pottery dating later than 1500 was recovered from its fills. The linear features which cut across the eastern and western edges of the well may have served as drains. Well [553] was a sub-circular shape with a diameter of 1.54m and a depth of 2.16m. What was notable amongst its pottery assemblage was the presence of a sherd from an imported Raeren Stoneware drinking vessel, a sign of affluence. Five of these pits were used for rubbish disposal, the largest being [596]; it had a sub-rectangular shape with steeply sloping sides and a level base, measuring 1.36m long by 0.88m wide and 0.86m deep (Fig 7). A partial skeleton of a cat came from its basal fill and a bone of a large bird, probably a peacock, was recovered from its upper fill (see Rielly below). The presence of the probable peacock bone is an indication of a high-status lifestyle. Two

of these features were quarry pits. One was located to the immediate south of pit [598], the other was approximately 18m to the east of the main group, at the eastern edge of the surmised burgage plot. The more easterly pit [123] contained some early medieval pottery (sherds of South Essex shell-tempered ware, a pedestal lamp in Essex early medieval coarse sand-and-shell-tempered ware, and jugs in coarse London ware) and fragments of later medieval peg tiles. To the north a truncated posthole may have been a boundary marker as it respected the eastern plot boundary.

Three pit clusters and a well were located to the rear of [1285], presumably within the back yard of this property. An unlined well [900] was the largest of these features. Its truncated remains measured 4.8m long by 1.34m wide by 4.5m deep and its fills included fragments of glazed medieval peg roof tile and pottery dated to 1350–1600. Two of the pits predated the well. The area between these features and wall [1285] was essentially devoid of activity, but it could have been the location of a timber-framed structure, either part of the property itself or an outhouse associated with it.

The features closest to wall [1285] included a linear ditch [950] with steeply sloping sides and a gentle concave base, aligned north-east to south-west and two rubbish pits. All three respected the northern property boundaries noted in the previous phases (Fig 7). The ditch may have served as a boundary defining one side of a burgage plot. Sub-square pit [506], contained a fragment of an imported late Andalusian lustreware bowl, an indication of prosperity (see Jarrett below). A fragmented cattle skull and a Norwegian hone stone <SF85> were recovered from the fill of pit [957] (Fig 16.4; see Gaimster below). Equestrian finds included a horseshoe <SF115> and a harness buckle <SF18> (Fig 16.5), recovered from other pits within this plot.

Within the plot to the north, activity was more limited, but a cluster of pits dug along its southern boundary confirms it was still in existence. Only four pits were present, two of which [617] and [867] respected the earlier Phase 2 north-east to south-west pit alignment. Pottery from their fills dates to the 15th century (the fabrics include Coarse Border wares). Quarry pits [761]

and [726] were situated on the northern boundary. Pit [726] contained a substantial amount of pottery derived from different vessels (including residual medieval Harlow sandy ware and Essex early medieval grog-tempered ware).

Two large clusters of intercutting quarry pits were located in the south-east corner of the site and towards the north-east. The more northerly cluster comprised twelve mainly oval pits up to 2.24m deep. To the south of the quarries was a group of four smaller rubbish pits. Two of these ([277] and [601]) contained the partial skeletons of two pigs (Fig 7). The older pig was aged about 3–3.5 years and was probably kept for breeding purposes, while the younger animal was about two years old. It seems probable that both creatures either died of disease or were deemed unfit for human consumption (see Rielly below, Table 5). Interestingly, the presence of these two carcasses implies that the occupants of this property were keeping and breeding pigs. In 1322, 1336 and 1344 the London Assize of Nuisance received complaints concerning pig-sties, confirming that people were keeping livestock within urban properties (Chew & Kellaway 1974, items 263, 332, 382–3).

The south-eastern area of quarry pitting contained four such features, one of which, [28], was the largest encountered during the investigations. It measured 12.66m long by 5.8m wide and was 0.52m deep. It assumed that these quarry pits were dug to provide sand and gravel for construction purposes or road metalling. However, there is another reason why sand and gravel would have been extracted, that is for building flood defences. Around 1377 Barking Abbey lost a great deal of its land along the Thames due to flooding which resulted in extensive repairs to its riverside dykes (see above, Historic Background). These required substantial quantities of construction materials which would have been sourced throughout the abbey's holdings. The quarry pits may orig-inally have been excavated during the later 14th century, then left open and subsequently backfilled with domestic rubbish and soil during the 15th century.

On the eastern edge of the site a large, oval shaped well [1736] and a small group of intercutting features were encountered.

When the well went out of use it became another rubbish pit and its upper fill contained a substantial quantity of pottery dated to the late 15th century (including a coarse Surrey/Hampshire border ware large rounded jug, Tudor Green ware and Essex late medieval transitional ware with white slip painted decoration, along with residual earlier material). It was excavated to a depth of 1.45m and contained no sign of a lining. This cluster of features appears to respect a later property boundary, *ie* that shown on the 1653 map.

Significant ceramics from Phase 3 included an Essex medieval coarse sand-and-shell-tempered ware pedestal lamp from pit [123] and an Essex early medieval sandy ware jar from pit [611]. Two medieval Harlow sandy ware jars (Figs 13.11 & 14.2) were recovered from fill [724] of sub-rectangular pit [726]. An Essex calcareous red earthenware cooking pot (Fig 14.3) was recovered from fill [870] of pit [871] and a rim of a Spanish late Andalusian lustreware patterned bowl from fill [505] of pit [503].

Phase 4: Earlier 16th Century (1500–1540)

The paucity of features along the western site boundary suggests that the earlier properties within this sector remained in existence. The impression is that the occupants of these properties were quite affluent, perhaps merchants or shopkeepers living and trading near to the market place. Personal marks on some of the recovered pottery provided evidence of ownership by individuals, or more likely by local businesses such as inns (see below).

In the south-western corner of the site were six features, possibly representing former quarry pits (Fig 8). A large quantity of pottery was recovered from an oval shaped rubbish pit [1493]. The most frequent ceramic vessels present within this pit consisted of jugs for serving drinks, mostly in Essex late medieval transitional ware fabrics, but other fabrics present included two Raeren and three Siegburg German stoneware drinking jugs, one complete example possessed ownership marks (see Jarrett below). A single cauldron and three multi-functional jars were also identified. Three of the pitchers had ownership marks scratched on their strap handles. Two were 'T' shaped, the third consisted of four small nicks, indicating two separate owners. The vessels may have been associated with 'The Bull' public house or another nearby inn or hostelry. There was evidence of consumption of poultry, including a possible capon (see Rielly below). These finds suggest that the hypothetical inn that appears to have closed during the previous phase was now back in business. Possibly this establishment was 'The Bull', or its predecessor. This inn is shown on the 1653 parish map as being *c.*30m to the south of the site (Fig 3). Similarly a copper-alloy food skimmer <SF50> (Fig 16.6) and part of a probable spade iron <SF126> (Fig 16.7) from pit [1657] may be associated with the inn.

To the north there was further evidence of contemporary activity, consisting of four clusters of features. The most northerly cluster comprised two linear features and one sub-square pit. The larger and deeper of the two linear features [467] measured 4.0m long by 1.4m wide and 0.43m deep (Fig 8). It contained the neck of a Siegburg stoneware drinking jug.

More imported pottery was recovered from the pits to the east of storage room [1284] (Fig 8), which remained in use. Pit [314] was one of a group of intercutting quarry pits that defined the eastern extent of the property. One of its fills [313] contained three complete vessels <SF7>–<SF9>; two were Raeren stoneware drinking jugs (Fig 15.4), the other was a local late medieval Essex transitional ware mug (<SF7>; Figs 13.3 & 15.3; see Jarrett below). Closer to storage room [1284], the primary fill of rubbish pit [629] produced an assemblage of pottery including the base of a late Andalusian lustreware dish. This assemblage also included jug fragments, again indicating the serving of drinks.

Fragments of French Saintonge pottery belonging to one or two vessels were recovered from three features associated with this property. The largest of the features was a sub-circular well [1068] measuring 2.4m by 2.1m and over 4.0m deep (Fig 8), which produced a large assemblage of pottery including sherds of a Saintonge jug, as well as an unidentified vessel form of Saintonge whiteware with mottled green glazed fabric and a piece of Raeren stoneware. Personal markings were present on one jug sherd,
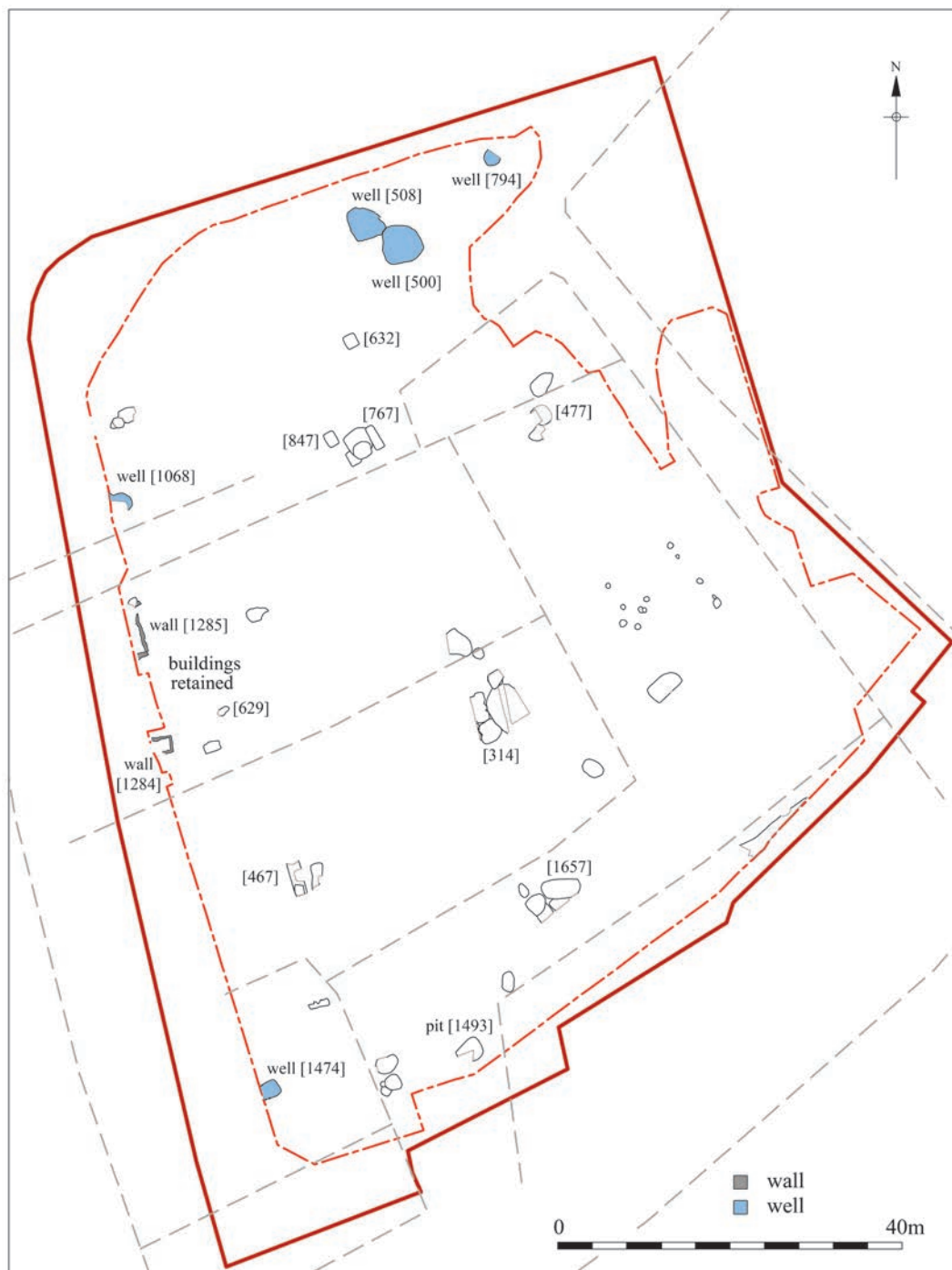
Fig 8. Phase 4 (1500–40), earlier 16th-century features and possible burgage plots (taken from 1653 map) (scale 1:800)

comprising a vertical incised line. To the east more imported pottery came from cesspit [847] and rubbish pit [767]. The former was sub-rectangular with near-vertical to vertical sides and a slightly concave base and was 1.7m long by 1.3m wide and 0.94m deep. The majority of the pottery derived from the top fill and mainly comprised local wares, with one exception, a sherd of a Saintonge jug. Rubbish pit [767] was one of four intercutting features ranging from 3.0m by 2.9m and 1.4m deep to 0.96m by 0.3m and 0.3m deep (Fig 8). Two examples of imported pottery came from the upper fill [764], Saintonge ware was present as was a fragment of Dutch red earthenware cooking pot. The presence of bird bones representing scavenger species, including raven and crow, are indicative of this area being used as a midden (see Rielly below).

Imported wares suggest this particular household had a certain amount of affluence. It is likely the Saintonge pottery was part of a standard French Gascon package for wine consumption (Courtney 1997), and that the household or households were drinking French wines as well as ale.

Demolition dumps and a robber trench [1355] were excavated to the immediate west of walls [1285] and [1286] (observed in section). However, it is probable that this activity related to structural repairs or alterations rather than the abandonment of the property. The area to the east or rear of wall [1285] remained devoid of activity, possibly denoting the presence of a truncated timber-framed structure.

Three wells dominated the northern sector of the site, suggesting the presence of at least one property in this locality. No structural remains were encountered here within a large, almost rectangular area, bordered by pits to the south and the unlined wells to the east, which was devoid of activity and could represent the site of another timber-framed building. The larger of the two wells [500] was 4.7m by 4.6m and over 2.2m deep. It had an uncertain stratigraphic relationship with its slightly smaller neighbour to the west [508], which was 4.34m by 3.9m and over 2.67m deep (Fig 8). The majority of the pottery recovered from [508] consisted of local Essex wares, but there were single sherds of a Beauvais Whiteware jug and a

Raeren stoneware jug. A concentration of cattle ribs in the backfill of [508] and four fragmented cattle skulls from well [794] to the east indicate that butchery was carried out nearby (Platt 1976, 47–8; see Rielly below). Other finds from this well included a copper-alloy jetton or reckoning board token <SF28> (see Gaimster below; Fig 17.2).

Approximately 9m to the south-west of the largest well, pit [632] produced a fragment of a Colchester-type ware bunghole jar and sherds of local wares (Fig 8). Two groups of postholes were excavated within the eastern portion of the site. One group formed a regular square-shaped pattern possibly a small hut or an animal pen. The other appeared to be an L-shaped fence-line associated with the possible hut.

An Essex late medieval transitional ware (fine ware) mug <SF7> (Fig 15.3) was recovered from fill [313] of quarry pit [314] in the centre of the excavation area.

Significant finds from this phase included a copper-alloy lace-chape (<SF93>; Fig 16.8) from pit [477] along the eastern limit of excavation

An Essex late medieval transitional ware thumb-decorated strap basket-handled jar was recovered from fill [546] of pit [547]. A nearly intact unglazed imported Siegburg stoneware drinking jug (Fig 15.2) came from [1083] fill of pit [1084]. An Early Surrey-Hampshire border whiteware two handled flared bowl with yellow-glaze (Fig 13.2) was found within fill [414] of well [415]. A Phase 4 iron padlock bolt, with three springs and an oval end plate <SF113>, was found redeposited in a 19th-century context (fill [472] of cut [473]; Fig 17.1).

The diverse faunal remains from this phase included all the major domesticates, as well as cat, dog, rabbit, geese, chicken, mallard, herring, cod, ling, plaice, and sole, plus fallow, roe and red deer. The consumption of venison is an indication of a high status diet. The assemblage was again dominated by cattle bones and there was evidence of butchery (see Rielly below, Tables 3, 10 & 11).

Phase 5: Later 16th Century (1540–1600)

Barking Abbey and its estates were surrendered to the Crown on 14 November 1539 (Page & Round 1907, 115–22). These
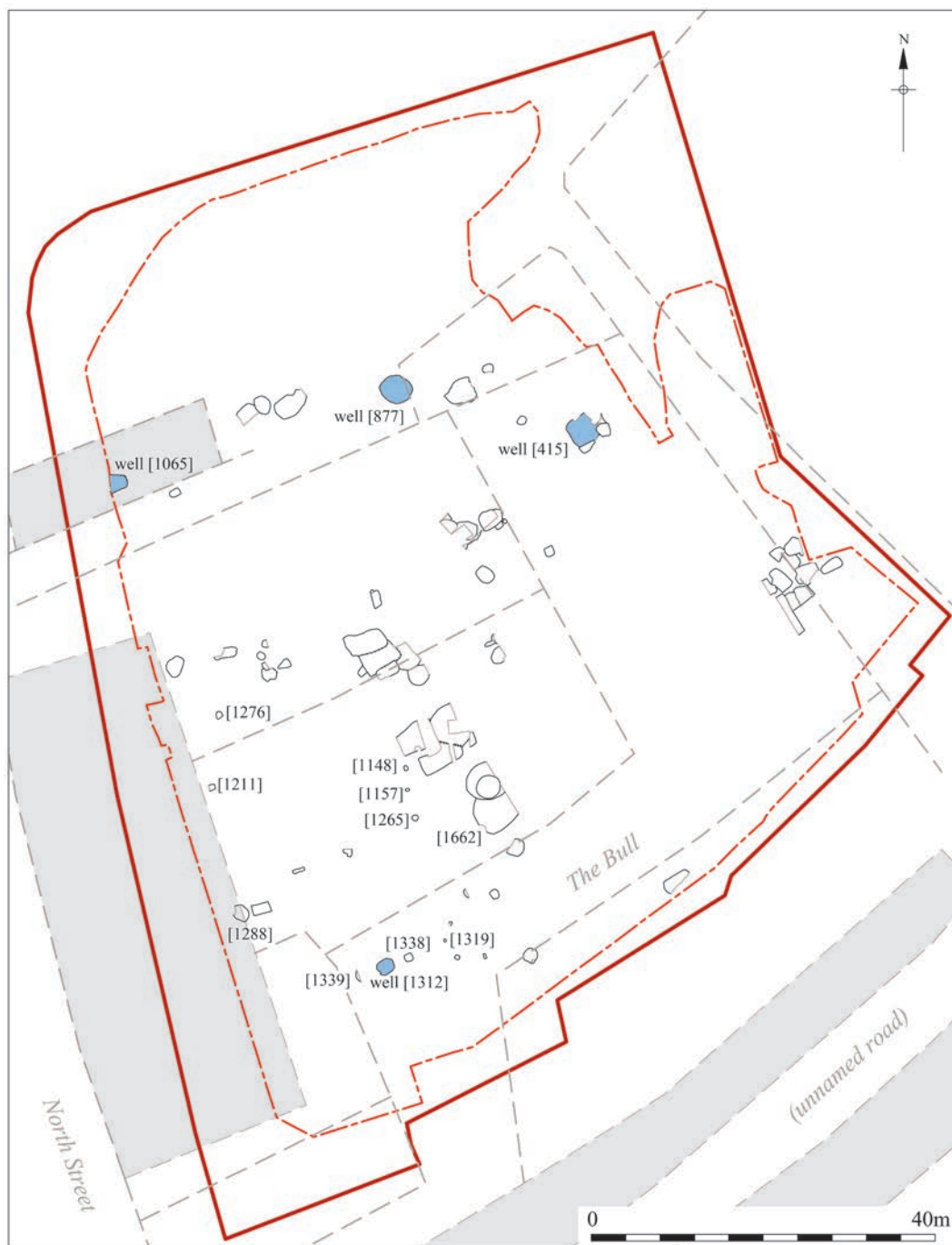
Fig 9. Phase 5 (1540–1600), later 16th-century features with possible burgage plots and approximate extent of buildings fronting onto North Street (taken from 1653 map) (scale 1:800)

estates would have included the site, which was part of the Manor of Barking, the abbey's most valuable property. The Crown quickly sold off the abbey's demesne tenements, but any 'free' tenements would have been unaffected by the change of ownership. Until 1628 the Crown retained its manorial rights in Barking, when they were conveyed to Sir Thomas Fanshawe, the former steward of the manor (Powell 1966a, 190–214).

This phase was marked by an increase in the digging of quarry pits, an activity that clearly respected existing property boundaries. Subsequent alterations to property boundaries may have been a result either of the abbey's dissolution or of an increasing density of suburban settlement. Some properties became larger, while others may have been sub-divided into smaller units. These changes were most visible in the northern part of the site, where a cluster of sizeable features, including wells and pits, respected an east–west boundary. No activity was recorded north of this area (Fig 9).

In the central portion of the site three groups of large intercutting quarry pits respected a property boundary aligned north-east to south-west (Fig 9). Another group of quarry pits was dug within the south-eastern portion of the site. The area around these various quarry pits was largely devoid of activity: possibly this land was used as gardens or pasture.

It is quite likely that during this phase the western edge of the site was occupied by a series of timber-framed houses and shops fronting onto North Street. The existence of these structures is inferred from the extent of the buildings shown here on the 1653 map (Fig 3), and the concentration of pits, postholes and other features that would have been dug within the back yards of these properties, extending eastwards across the site. There was space along the North Street frontage for at least five burgage plots.

It was during this phase that the upper portion of the masonry lining of storage room [1284] was demolished and its interior backfilled with a variety of materials, probably including fragments of the associated building and some of its contents, plus domestic rubbish [1429], including a Sussex Marble paving slab, eleven complete Flemish glazed floor tiles and two fragments of late medieval/early post-medieval bricks (see Hayward below). The associated faunal assemblage included the remains of red and fallow deer, species indicative of fine dining (see Rielly below). Associated ceramics included a Cologne stoneware mug [1429] and a Dutch redware goblet pedestal (see Jarrett below). The building materials and other finds imply the existence of a high-status household.

The area to the east and south-east of the infilled storage room was almost devoid of features. Only two small pits, [1211] and [1276], were recorded here. This area seems to have consisted of one large burgage plot, possibly including the rear of a truncated timber-framed building (Fig 9). The storage room was presumably demolished to facilitate the construction of a new and larger building. Imported pottery, mainly connected with either serving or consuming drinks, was present in several of the adjoining rubbish and quarry pits to the north and the east, another indication of affluence. The southern boundary of this property was indicated by an area devoid of activity extending eastwards from quarry pit [1288] to quarry pit [1662]. A line of three postholes [1148], [1157] and [1265] was discovered to the east of quarry pit [1288]. These could be a fence-line or the partial remnants of a timber-framed structure.

The continuing existence of a tavern is suggested by the presence of more ceramic vessels connected with serving and consumption of drinks in a variety of locally produced and imported wares. For instance, in the south-western portion of the site, pit [1339] contained the neck and body sherd of a French Martincamp-type ware costrel, while well [1312] contained a sherd of a Raeren stoneware drinking jug.

The feature alignments in the south-west sector of the site suggest the existence of two properties fronting onto North Street and to the rear of them a smaller third plot. The larger of these two properties fronting onto the street was possibly occupied by a tavern. The boundary between this property and the plot to the north was defined by a line of three features including pits [1338], [1339] and well [1312]. This line ran almost perpendicular from North Street, through pit [1339] to posthole [1319] to the east.

Posthole [1319] was also part of a cluster of three pits and five postholes, which formed part of the rear plot.

As mentioned above, a large area devoid of activity was noted in the northern part of the site. Its southern limit was defined by a cluster of large features including wells and quarry pits, plus some smaller cut features. It stretched from well [1065] in the west to well [415] in the east (Fig 9). Pottery linked with either serving or consuming drink came from a number of these features, with some imported wares including Central Italian tin-glazed ware (CITG), Raeren, Dutch sgraffito, Saintonge ware and French Beauvais. A Raeren stoneware puzzle jug was found in fill [414] of pit [415]. The challenge of these vessels was to consume their contents without spillage, which was deliberately made difficult by means of hidden tubes and various extra holes or spouts. The building occupying this plot was therefore likely to have been some kind of tavern. Such an establishment would have required a fresh water source, particularly if they brewed their own beer. This would fit in with the presence of the three unlined wells [1065], [877] and [415], which varied in plan from sub-square to sub-circular. Structural ironwork comprised a door or shutter hinge from fill [219] of pit [220] (<SF109>; Fig 17.4). A complete iron horseshoe was recovered from pit [160] (<SF105>; Fig 17.5).

The smallest of the wells, [1065], extended beyond the western limit of excavation, measuring 2.0m by 1.94m, but at over 3.9m was the deepest of the three. Well [415], the most easterly of this group, formed part of the property boundary to the east. This was sub-square with near-vertical to vertical sides and a level base. It measured 3.9m by 3.43m and 3.15m deep. It produced one of five sherds of French Saintonge pottery, dated *c*.1250–1650s. The other four sherds came from pits [767], [847] and well [1068], associated with this plot in the preceding phase. Interestingly all five sherds were recovered from the plot's northern boundary and came from only one or two vessels, suggesting an association with one property. Their distribution across this plot and their deposition dates show this property and plot boundary continued through the 16th century. Finds from well [415] included a fragment of roe deer skull

and a sparrowhawk tibia: this bird of prey is not a food species, but was used in falconry and wildfowling (see Rielly below). These faunal remains and the presence of more imported pottery are all indicative of a high-status life style.

Phase 6: Urban Development (1600–1800)

This phase was marked by a dramatic increase in activity across the site, reflecting the contemporary expansion of the town (see above). Activity was concentrated within the central and south-west portions of site (Fig 10). The majority of the evidence consisted of concentrations of pits and postholes. A small number of masonry structures and two wells along the western side of the site were associated with properties fronting North Street.

Some of the contemporary plot or property boundaries could be discerned from the alignments of features. These boundaries are the ones illustrated on the 1653 map of Barking (Fig 3) and they appear to have remained in existence until the construction of the enlarged workhouse in 1788 (see above) (Fig 11). Several areas of the site were still devoid of activity. Interestingly, these areas were more numerous and better defined than before and their location when compared with the cartographic evidence (Figs 3 & 4) strongly suggests that they were occupied by uncellared buildings, all trace of which had been removed by subsequent truncation. The paucity of archaeological evidence across the northern sector of the excavations can be explained by this area having been used as gardens at the rear of the properties. In 1642, Barking Church of England primary school was established in Back Lane. The free school in North Street is shown on the 1653 map (Fig 3). In 1786 the school was taken over by the directors of the poor, who used part of its site for their new workhouse (Powell 1966d; see above Historic Background).

The largest concentration of features was in the south-western part of the site (Fig 10). Their backfills contained ceramic evidence, including imported wares (largely German stonewares, Frechen and Raeren jug fragments) for the serving and consumption of drinks, presumably related to the presence
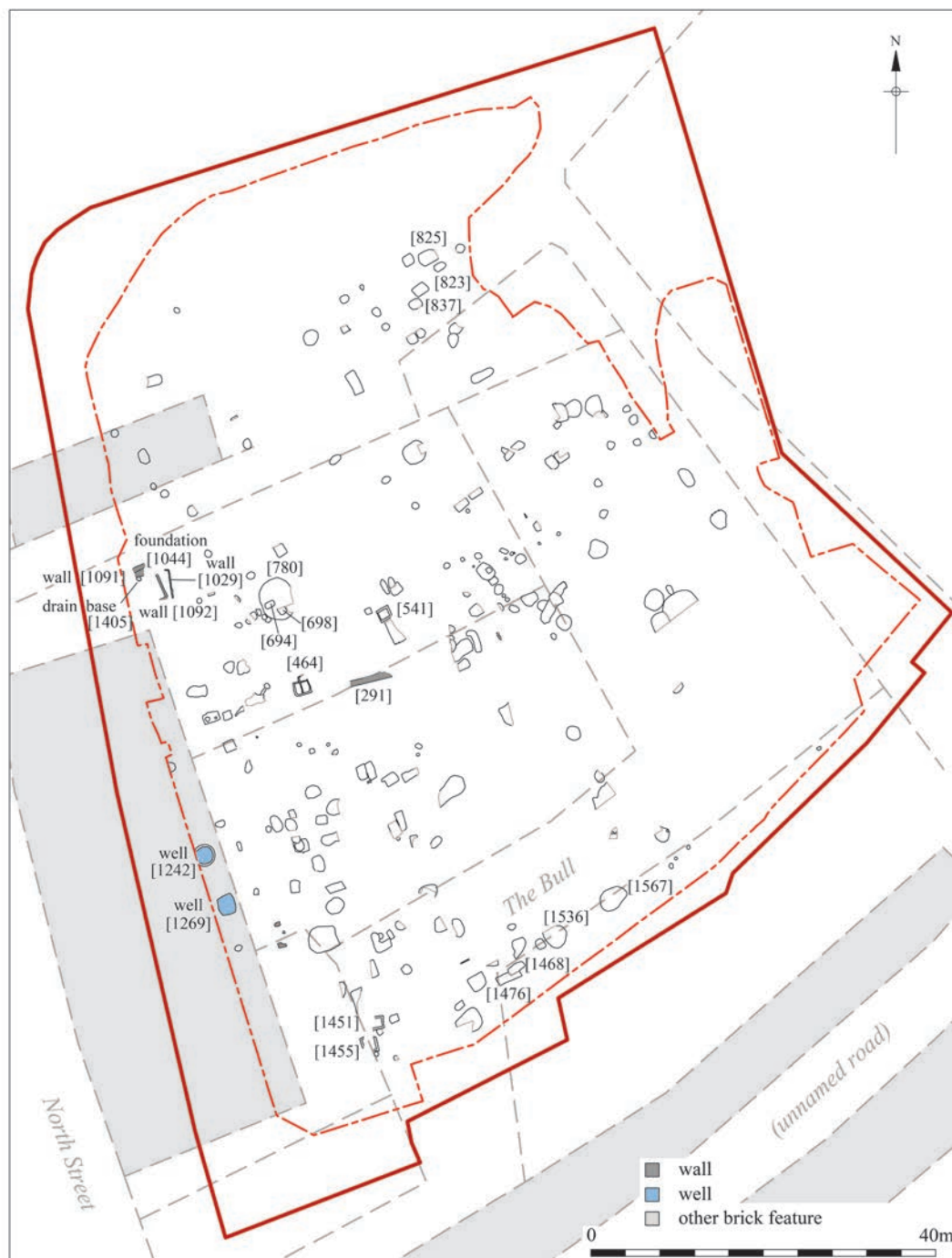
Fig 10. Phase 6, 17th- and 18th-century features with possible burgage plots and approximate extent of buildings fronting onto North Street (taken from 1653 map) (scale 1:800)

of an inn or public house, known as 'The Bull'. Two brick-lined cesspits [1451] and [1455] were contemporary with one of the nearby properties. Cesspit [1455] produced a large ceramic assemblage, including a fragment of a Raeren stoneware drinking jug, plus local Essex and London wares. An alignment of four rubbish pits, [1468], [1476], [1536] and [1567], demarcated a property boundary at the southern limit of excavation. The ceramics from three of these pits encompassed drinking vessels, mostly in local Essex and London wares, although there were some examples of German stonewares. An incomplete copper-alloy sheet vessel <SF36> from fill [1162] of pit [1164] may have served as a kitchen basin (Fig 18.1). The remains of two incomplete articulated male pig carcasses were recovered from pits [1476] and [1567] (see Rielly below, Table 5). These remains probably represent the disposal of diseased animals, implying that some householders were still keeping livestock (see above Phase 3).

A number of incised marks denoting ownership were present on the Essex late medieval transitional ware pitchers recovered from a group of rubbish pits ([694], [698] and [780], where the first two cut the final fill of the latter) in the western portion of the site. These pits probably represent back yard activity linked with a property to the south. An iron staple was recovered from fill [693] of quarry pit [694] (<SF110>; Fig 17.2). On the southern edge of this area was a rectangular brick-lined and paved storage pit [464]. Internally it measured 1.96m long by 1.65m wide and 0.54m deep and was subdivided by a central brick partition. It was constructed of bricks of fabric 3033, bonded by a T1 lime mortar (Hayward 2014). Its backfill produced 22 sherds of pottery, four fragments of clay tobacco pipe stems and fifteen fragments of glass, all deposited during the mid-17th century. The glassware included four case bottles and two wine bottles, plus the base of a natural clear glass pedestal beaker dated to *c*.1500–1650. Ceramics included Essex-type post-medieval black-glazed redware cylindrical mugs and jugs. Kitchen or table wares were represented by two bowls and a dish. A single white delftware ointment pot was the only pharmaceutical item (see Jarrett below).

The faunal remains included duck bones. The finds indicate a prosperous household and confirm the consumption of alcoholic beverages. To the east of [464] was the basal portion of a truncated east–west aligned brick-built wall foundation [291], 4.75m long and 0.3m wide, which was probably part of the associated dwelling. It was constructed of poorly manufactured, local 'Tudor' bricks (fabric 3033) (Hayward 2014). An iron chisel came from fill [1279] of pit [1278] (<SF131>: Fig 17.7).

Investigations in the north-eastern sector of the site revealed a cluster of rubbish pits. Two of these [825] and [837] contained horse bones (see Rielly below) (Fig 10). Rubbish pit [823] produced pottery including late medieval Essex transitional ware, Essex fine redware and a sherd of tin-glazed ware in the form of a polychrome albarello dating to the late 16th/early 17th century. The glassware consisted of fragments of four case bottles, probably used to store spirits, a 16th-century goblet represented by a hollow footring base, and a very similar base for either a large beaker or a fluted or pedestal type goblet dated *c*.1500–1650. There was also a shoulder of another glass vessel. The presence of the glass drinking vessels and spirit bottles indicates a prosperous household.

Along the western limit of excavation were two fragments of brick-built wall foundations ([1091] and [1092]), plus associated floor and make-up deposits ([1035], [1037], [1038], [1040], [1041] and [1104]) (Fig 10). A bulbous glass distilling apparatus fragment <SF32> came from one of these deposits. These walls were part of a property fronting onto North Street. Both were on a similar alignment to earlier walls [1285] and [1286] (Phase 3), suggesting that they represent a later phase of the same property. Subsequently, these two foundations were replaced by brick-built wall foundations ([1029] and [1044]) and a hexagonal drain base [1405]. The different alignment of these later foundations is indicative of the erection of a new property, possibly the 1788 workhouse. To the east of these foundations was a large oval-shaped pit [780]; the fill [779] contained an iron harness buckle (<SF118>; Fig 18.2). Pit [1597] along the eastern side of the site, contained a delicately carved bone toilet implement (<SF48>; Fig 18.3).

Two large wells, [1242] and [1269], pre-dating the 1788 workhouse were discovered along the south-western edge of the site (Fig 10). Both wells were situated within the footprint of the contemporary buildings and were associated with an earlier property, possibly a brewhouse (see Historic Background above). The brick lining of well 1242 was of either late 17th- or early 18th-century date on stylistic grounds. Well [1242] was circular, with an internal diameter of 2.5m and a depth of over 3.5m. Well [1269] was sub-square measuring internally 2.28m long by 2.0m wide with a depth greater than 1.2m. When this well was half sectioned an obvious discolouration in the centre of the backfill was observed, indicating the presence of a wooden water extraction pipe. Its upper backfill contained a curious assemblage of ceramic building material, including a large group of Roman roof tiles, medieval peg and bat roof tiles, post-medieval bricks and peg tiles as well as intrusive Victorian and modern roofing tiles. It also yielded a quantity of residual late medieval pottery which was presumably derived from pit [1288], which the well had truncated. In the same part of the site the terminal of an iron toasting fork came from fill [1431] of pit [1432] (<SF41>; Fig 17.6). A quantity of poultry bone came from fill [342] of pit [343] as did an ivory cutlery handle <SF10>, which may have been kept as an antique (Fig 18.4; see Gaimster below).

In 1721 four properties along North Street within the western portion of site were converted into a workhouse (see Historic Background above). While the exact location of these properties is uncertain, it is likely that the materials used in brick-lined pit [541] (bricks dated 1664–1725; see Hayward below) were contemporary with the workhouse's existence (1721–86) and therefore they might have been part of it. In 1788, a new purpose-built workhouse was constructed on the south-western portion of the site (Fig 12; see Historic Background above).

Phase 7: 19th-Century Development

The 19th century saw a further transformation of the site. Walls remnants [288] and [294] belonged to the 1788 workhouse (Fig 11) which closed in 1841 (see Historic Background above), and by 1864 one new road (Trafalgar Street) had been built across the northern part of the site while a second (Nelson Street) now ran along its northern boundary (Fig 4).

Remains of a masonry lined storage pit [1344] or small cellar were encountered within the footprint of the southern wing of the 1788 workhouse (Fig 12). It measured internally 2.5m by 2.1m with a depth of 0.8m. Its masonry lining walls [1343] had been mostly robbed out, leaving a small area (0.9m long by 0.5m wide) of fragmentary bricks and chalk rubble. The floor consisted of a 3cm thick earthen deposit. In the area between the two rear wings of the workhouse numerous pits and cesspit type features were encountered. These varied from large sub-oval to small sub-square features. Some of the shallower ones may represent the planting of trees or shrubs within the courtyard. A deep pit [374] within the courtyard measuring 2.2m by 2.1m and 2.5m deep may have served as a well for the workhouse. From the fill [361] of a soakaway [360] along the south side of the north wing of the workhouse came a poorly fired but intact Chinese porcelain squat bottle.

Various brick-lined structures associated with the Victorian properties constructed along the two new streets and within the former workhouse were identified. Along the northern side of the site two lines of circular soakaways respected the property boundaries of the terraced houses along Nelson and Trafalgar Street (Fig 11). All these soakaways were located within the back yards of these properties, while a few other unlined pits found within the footprint of these buildings apparently represent earlier activity. One of the Trafalgar Street soakaways [656], contained a bone handle from a razor, marked in minute copper-alloy rivets with the initials 'V R' below a crown (Victoria Regina) (<SF19>; Fig 18.6), while one of the Nelson Street soakaways [430], contained an important group of household objects including a highly decorated ivory handle probably intended for a piece of cutlery (<SF12>; Fig 18.5), as well as a delicate copper-alloy finger ring with a small oval bezel for an inset (<SF30>; Fig 18.7). This feature also contained three stoneware bottles,

Fig 11. Phase 7, 19th-century features, with property boundaries and Trafalgar Street superimposed on the footprint of the 1788 workhouse (scale 1:800)

Fig 12. Alfred Bennett Bamford watercolour of the workhouse in 1905 (source Barking and District Historical Society)

probably intended to hold commodities like blacking or ink (see Jarrett below).

On the 1864 Ordnance Survey map at the western end of Trafalgar Street, boys' and girls' schools are shown on opposite sides of the road at its junction with North Street (Figs 4 & 11). A truncated section of brickwork [1042] and the remains of a semi-circular brick-lined soakaway were part of the girls' school.

Sections of brick-built walls and drains pertaining to the northern wing of the workhouse and the later properties along the southern side of Trafalgar Street were also encountered. A soakaway [1175] situated just to the north of the southern wing of the workhouse contained a quantity of ceramic forms presumably derived from the institution, including various kitchen wares and large fragments of five chamber pots in refined white earthenware and yellow ware with slip decoration.

To the east of the properties on the 1864 map was an area of open space devoted to orchards. A north-east to south-west align-

ment of pits here respected a property boundary.

The clay tobacco pipes associated with this phase included several examples probably manufactured locally by Hugh Bellis (1845–7) of London Road, Barking, plus some examples probably manufactured at Mile End Wharf (see Jarrett below). There was no evidence for the manufacture of clay pipes on site.

SPECIALIST REPORTS

The Post-Roman Pottery

Chris Jarrett

Introduction

North-east London has a different medieval and early post-medieval ceramic profile to that of the rest of the capital, as the Rivers Lea and the Thames acted as western and southern boundaries to the distribution networks of the local wares. Barking is

a key site to study and understand these differences, but unfortunately the large assemblage of pottery recovered from the 1980s fieldwork at Barking Abbey has yet to be published. A summary of the Middle Saxon pottery from the abbey has however been published (Redknap 1991; 1992) as has the important work undertaken by the late Alan Vince (2002) at the Retail Park, adjacent to the abbey. A small number of publications concerning pottery assemblages recovered from fieldwork in the medieval town have also appeared (Hawkins *et al* 2003), while research on the Mill Green ware and other medieval wares recovered from Axe Street is important for demonstrating what 13th- and 14th-century medieval pottery was marketed to Barking (Carew *et al* 2009).

The relatively large assemblage of pottery recovered from the site (4480 sherds/2306 minimum number of vessels (MNV)/88.03 estimated number of vessels (EVEs)/121.356kg) spans the 8th through to the 20th century. The site provides a good sequence for understanding what pottery was supplied to medieval, secular Barking, although not all dating issues of the pottery types have been resolved. The pottery was catalogued using the alphabetical fabric series employed by Museum of London Archaeology (2014). Where possible, the pottery types have been cross referenced to the numerical fabric coding used in Essex (*eg* Cotter 2000, 12–13).

Apart from Noak Hill, located on the border of the London Borough of Havering and Essex, which produced peg tiles and Mill Green ware (Meddens *et al* 2003), there is no archaeological evidence for the post-Roman pottery production industry within north-eastern London until the 1740s. When the Canton Factory was established at Bow, it manufactured porcelain. There is documentary evidence for pottery making at Chingford as 'John the potter' and 'the potter's widow' were recorded in 1222. It is believed that John was involved with ceramics, rather than metal working, the term 'potter' being applicable to both professions in the medieval period (Pearce *et al* 1985, 5). Brick and tile making, exploiting the local brickearth and London Clay, was widespread across north-east London during the medieval and post-medieval periods.

The pottery types

Middle Saxon

A small quantity of residual Middle Saxon pottery was identified, three sherds (3 MNV/0 EVEs/139g) in two types. This material may have derived from secular settlement contemporary with Barking Abbey (Hawkins *et al* 2003; Jarrett 2008; Redknap 1991). These sherds have been classified following Blackmore (2003).

IPSF, ESSEX FABRIC 8

Ipswich fine ware, two body sherds from a probable jar date to *c*.AD 720–850 (Blinkhorn 2012; Blackmore 2003, 237–40), Phase 2 [1102] fill of cut [1103].

SSANA

Sand coarse pink-brown core, black surfaces, a body sherd (3g) dated *c*.AD 600–850 (Blackmore 1988, 87), in Phase 1.1, [8] fill of cut [9]

Late Saxon and Early Medieval

Essex produced Late Saxon and early medieval pottery to parallel the types found in London (Vince 1998, 2002; Vince & Jenner 1998).

LSS

Late Saxon shelly ware is handmade and wheel-thrown and believed to be from an Oxfordshire source dating *c*.AD 900–1050 (Vince & Jenner 1992, fig 2.23). Thirty sherds (10 MNV/0.63 EVEs/670g) comprise cooking pots/jars with distinctive everted simple rims with the most complete example having a globular body profile. A possible spouted bowl also occurs. This ware derives mostly from Phase 1.1, fill [8] of cut [9] and residually in fill [6] of cut [11].

LSSX

Essex-type late Saxon shelly ware dated *c*.AD 900–1100 is represented by jars with similar rim finishes and a distribution like that of LSS, with 30 sherds (14 MNV/0.83 EVEs/766g). Based on the association with contemporaneous pottery types, the LSS/X fabrics were deposited during the 11th century.

THET, ESSEX FABRIC 9

Ipswich/Thetford-type ware: this distinctive

reduced sandy ware (Vince & Jenner 1991, 89), dated *c.*AD 900–1100 is present in a small quantity, three sherds (3 ENV/0.05 EVEs/63g) and includes a wheel-thrown, expanded, flat-topped jar rim (Phase 1.2, [10]) while two residual sherds were present in Phase 3 [611], fill of cut [613], which comprises one example with a typical vertical applied and thumbed strip.

Handmade Early Medieval Wares, Mostly Dated to the 11th and 12th Centuries

EMFL/S

Early medieval flint-tempered/ and sand-tempered ware represented by a single sherd dated *c.*AD 970–1100 (Vince & Jenner 1991, 69) comprising a jar rim of a simple everted type with a curving neck from pit [9]. The sandy variant (EMFLS), dated *c.*1050–1200 comprises a sooted body sherd from well [11].

EMSX, ESSEX FABRIC 13

Essex early medieval sandy ware probably represents a more localised variant to that known elsewhere in Essex, *eg* the Middleborough kilns, Colchester (Cotter 2000, 39–71) and includes the fabric distributed to London and its environs (Vince & Jenner 1991, 56–9). Dated *c.*1000–1200, EMSX is present in the form of cooking pots or jars and was contemporaneous in Phases 1.1 (1 sherd) and 1.2 (23 sherds), the latter producing vessels with rims forms dated to the 12th century. One of these jars has an externally rounded thickened rim in fill [611] from well [613], and another has an internally and externally thickened rim with an internal bevel from fill [502] of pit [503]. There are 44 sherds (19 ENV/0.28 EVEs/672g) of EMSX.

EMCALCX

Essex early medieval sandy ware with calcareous inclusions was found in a small quantity, three sherds (1 MNV/0 EVEs/278g), which is dated *c.*1000–1200, including a base with external sooting and an internal ?food residue, a residual find from fill [6] of cut [11].

EMGRX

Essex early medieval grog-tempered ware including two sherds (18g) derived from

vessels found in Phase 2 deposits. One is an externally sooted shouldered vessel from [1193] fill of pit [1194] while the second is a variant with leached shell or calcareous and multi-coloured quartz filler from Phase 3 fill [724] of pit [726].

The Early Medieval Shell-Tempered Wares, Three Types

EMSSX

Essex early medieval coarse sand-and-shell-tempered ware dated *c.*1000–1200 is represented by 34 sherds (26 ENV/0.26 EVEs/568g) mostly in the form of rounded jars or cooking pots (Vince 2002). A Phase 1.1 example from fill [11] of cut [9] has a Late Saxon type simple everted rim on a curving neck, while the Phase 1.2 jars have only simple everted rims from fill [611] of pit [613] and fill [665] of pit [666]. Also in EMSSX a thickened and bevelled rim of a large bowl has been identified (Phase 1.2 fill [1540] pit [1543]). An unusual vessel is a pedestal lamp with a beaded simple rim, flared wall and part of the base (Phase 1.2 [124] fill of pit [123]).

EMSHX, ESSEX FABRIC 12A

Essex early medieval ware with fossil shell is the local early medieval shelly ware distinguished by being sandier and containing fossil shell (EMSHX: Vince 2002) dated *c.*1000–1225 and discernible from (EMSH) the fabric found elsewhere in London, dated *c.*1050–1150 (Vince & Jenner 1999, 63). EMSHX is present with 16 sherds (15 ENV/0.42 EVEs /403g) in the form of cooking pots or jars. A single example in Phase 1.2 [637] has a Late Saxon profile, except for internal lid-seating (Fig 14.4). Examples from Phase 1.2 show further development in the rim profiles. Early 12th-century examples have everted, slightly thickened rims, short necks and a slack vessel profile from Phase 2 fill [1442] of well [1447]. A more developed example dating to the late 11th to 12th century has a rounded exterior and a flat top [1000]. Another form is present in reduced fabric EMSHX and as the complete profile of a concave sided dish with a down-turned, squared rim, beaded on the top internal edge (230mm in diameter) (residual: Phase 4.1 [1066]). A residual

horizontal lug in EMSHX (Phase 3 [1440]) is D-shaped in plan with beaded edges, more noticeably so around exterior margin.

Wheel-Thrown Shell-Tempered Wares Spanning the Early and High Medieval Periods

SSWX, ESSEX FABRIC 12C

Essex type shelly-sandy wares were assigned to an Essex source and dated *c.*1200–1250 (Vince 2000) whereas the London variant (SSW), dated *c.*1140–1200 (Blackmore & Pearce 2010). SSWX is present with 16 sherds (15 ENV/0.42 EVEs/403g) comprising rounded jars or cooking pots, first in Phase 1.2 and to a lesser extent in Phase 2. The majority of the rims are expanded and flat-topped, with an everted example dated to the 13th century from Phase 3 fill [885] of pit [881], while an everted squared rim, dated to the end of the 12th century, was also present in fill [990] of pit [991].

SEMS

South Essex shell-tempered ware with 125 sherds (72 MNV/1.60 EVEs/1.903kg), is more frequent than SSWX and is distinguished by a very fine sandy matrix (Vince 2002). This ware is dated *c.*1100–1300 and is restricted to Phase 2 and 3 dated features. The main form comprises cooking pots or jars with rounded profiles. The rims have a diameter range of 180–350mm indicating medium and large vessels with profiles indicative of chronological change. The 12th-century rims are both everted and simple or have rounded thickenings and composite manufactured items are indicated. From the mid- to late 12th century everted and horizontal, expanded, narrow, flat-topped rims occur (Fig 13.4) (Phase 3, fill [452], pit [454]). Three 12th-century bowl rims were identified, two of which have horizontal, narrow, flat rims (230–300mm in diameter), from Phase 1.2 fill [502] of pit [503] and fill [1436] of pit [1435]. A cooking pot with a flared shape and a clubbed rim (300mm in diameter) was recovered from fill [502] of pit [503].
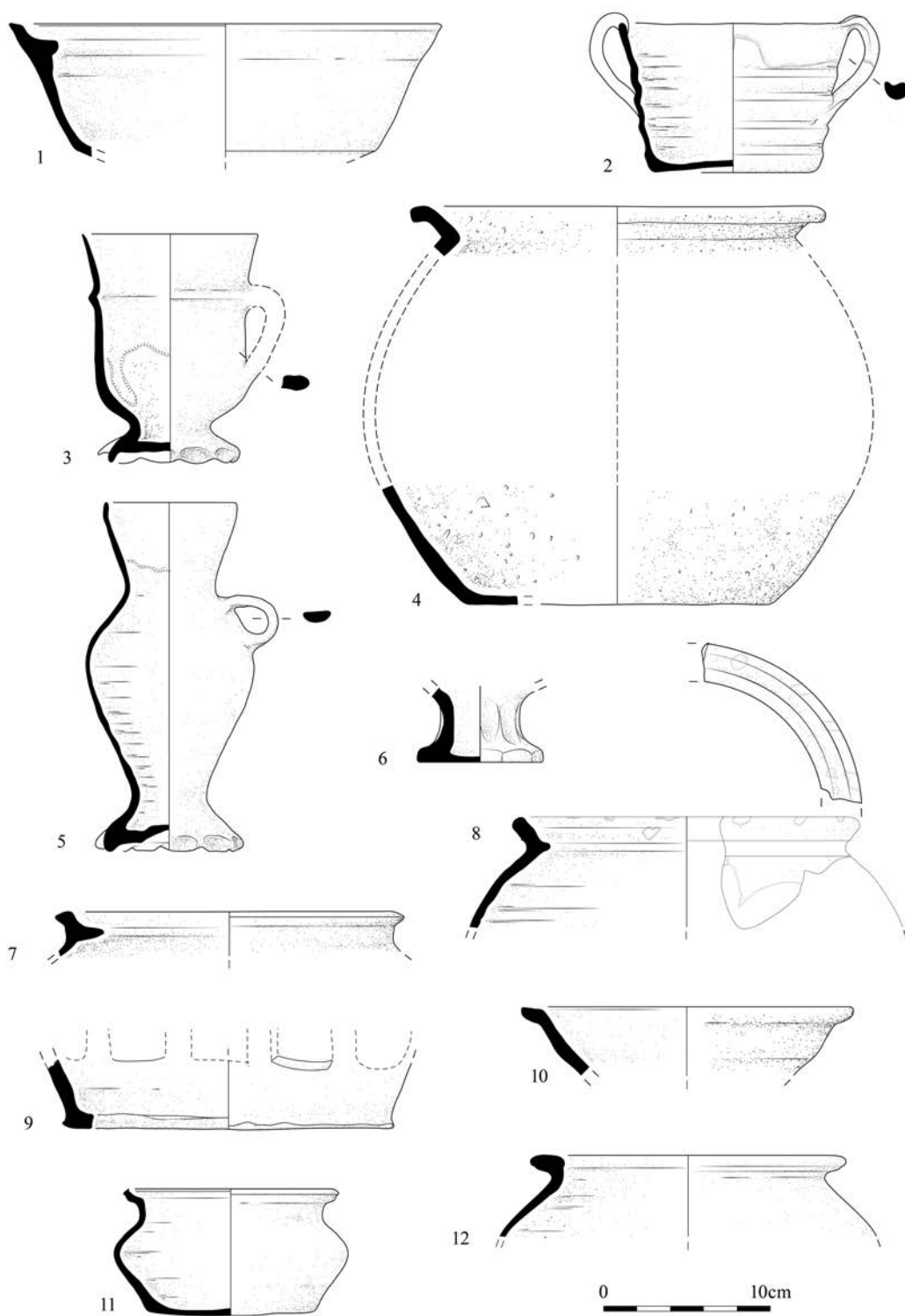
LCOAR, ESSEX FABRIC 36

Coarse London-type ware is glazed wheel-thrown and dates to the early medieval period *c.*1080–1200 (Pearce *et al* 1985).

There are 11 residual sherds (3 MNV/0.15 EVEs/775g) for Phase 1.2 deposits in the form of jugs. Two vessels were found in fill [124] of pit [123] and include a strap handle with point stabbing, besides larger fragments of an early rounded jug with a collared rim, convex base and a mortised strap handle with thumbed edges. The vessel is decorated with two-point combed lines on the neck and shoulder, where splash glazing occurs. A body sherd of another LCOAR jug with an external white slip and green-glazed was found in fill [621] of pit [622].

EXSFLSH

Essex sandy flint and shell-tempered ware is present with seven sherds (3 MNV/110g). No form could be assigned and it comes from a context dated *c.*1170–1200 (Phase 1.2 fill [990] of pit [991]).

Fig 13 (opposite). Medieval and post-medieval pottery: 1. Miscellaneous unsourced post-medieval slipware flared bowl with an internally lid-seated rim and an external white slip, residual from fill [207] of pit [206] (Phase 7); 2. Early Surrey-Hampshire border whiteware two handled flared bowl with yellow-glaze, from fill [414] of well [415] (Phase 4); 3. Essex late medieval transitional ware mug <SF7> from fill [313] of quarry [314] (Phase 4); 4. South Essex shell-tempered ware cooking pot with rounded profile with everted and horizontal, expanded, narrow, flat-topped rims, from fill [452] of pit [454] (Phase 3); 5. Siegburg stoneware drinking jug, from fill [1492] of pit [1493] (Phase 4); 6. Essex late medieval transitional ware goblet cut to create facets, the pedestal has vertical fluting, from fill [366] of quarry [365] (Phase 4); 7. Essex late medieval transitional ware rounded jar of late 16th-century date with internal lid-seated rim, from layer [310] (Phase 5); 8. Essex late medieval transitional ware medium rounded jar, from fill [414] of cut [415] (Phase 5); 9. Cheam whiteware, splayed base of a possible lantern bichrome glazed, green on the exterior and clear on the interior, from fill [582] of pit [585] (Phase 6); 10. Essex unsourced sandy orange slipware carinated bowl with a narrow everted rim and weak wall carination with internal white slip coating, from fill [640] of cut [641] (Phase 2); 11. A medieval Harlow sandy ware squat shouldered jar with glazed internal base, from fill [724] of pit [726] (Phase 3); 12. Medieval Harlow sandy slipware cooking pot with a flat-topped rim, from fill [1059] of cut [1056] (Phase 3) (scale 1:4)

Early Medieval to Mid-14th Century

LOND, ESSEX FABRIC 36

London-type ware dates to 1080–1350 and is known to have been made in Woolwich, with at least three kilns excavated spanning the period from the mid-13th to 14th century (Cotter 2008; Perkins 2015). Woolwich is thought to have been the principal centre for supplying pottery to the London region from the early medieval period until the 19th century. However, it cannot be discounted that other supply sources in London and its suburbs were producing pottery. A total of 70 sherds (58 MNV/1.19 EVEs/1.886kg) are present. Some have datable decorative schemes and forms. Jugs were identified which were contemporaneous in Phase 2 and comprise rounded types, and baluster shapes (LOND BAL), dated *c.*1140–1350. The tulip-necked variant, dated *c.*1270–1350 was present in Phase 2 fill [502] of well [503]. The decorative styles include a jug sherd with pellet decoration (LOND PELL), dated 1140–1220 (Phase 2 [1442]). Single examples of a *c.*1180–1270 dated North French style (LOND NFR) jug with a bridge spout and a Rouen style vessel were also noted (Phase 2 fill [1372] of cut 1373] and fill [1541] of pit [1543]). A small quantity of sherds were assigned to the highly-decorated category (LOND HD), dated to *c.*1240–1350. The most elaborate fragment (Phase 2 [386], cut [283]) has red slip lines, diamond lattice rouletting and applied white slip pellets with ring and dot stamps. These are found on a white-slipped background with green-glaze. Several sherds have either applied strips, rouletted notch or white slip decoration and are too small to assign to either the North French or highly decorated categories.

EXFS

Essex fine sandy ware dating to *c.*1100–1300 is wheel-thrown and present with 40 sherds (25 MNV/0.30 EVEs/666g). The fabric has light reddish brown (2.5YR 6/4) surfaces, which can have darker brown or grey, and light red (Munsell 2.5YR 7.6) to red (2.5YR 6/6) cores. It is a hard to very hard, soapy fabric, usually with a smooth feel and a fine texture. Inclusions are sparse and include occasional up to 2.5mm black sub-rounded and elongated red and black iron ores.

The matrix is micaceous and consists of abundant very fine, well–sorted clear quartz. Some sandier variants may occur. The Phase 2 examples are fragmentary, unglazed and include sherds of cooking pots, jugs and jars, plus the splayed base of a jug from [1437] of pit [1438] and the base of a flared bowl from fill [672] of pit [717]. Jug sherds are more frequent and include an example with reduced surfaces and glaze splashes [672]. It has an everted, expanded rim and a strap handle (D-shaped in section) with diagonal knife slashes, secured to the neck by an internal horizontal knife stab through the vessel wall and into the handle. Its scar was not subsequently disguised, which is a common practice with local industries. This vessel dates to *c.*1200–70. Another jug rim has a rounded profile with a bevelled top in a high-fired, vitrified fabric with a purple core and internal surface, dated to *c.*1270–1300 [67]. Residual items include the base of a bowl or dish with an internal glaze (Phase 6 fill [1395] of pit [1394]) and a bevelled, triangular section cooking pot rim (Phase 7 fill [1085] of pit [1086]).

HEDI, ESSEX FABRIC 22

Hedingham-type ware dating to *c.*1140/50–1350 (Cotter 2002, 75–91; Walker 2012), occurs in a small quantity of jug fragments, seven sherds (7 MNV/50g), all from Phase 2 deposits. Two jugs may be of early 12th-century date from fill [1442] of well [1447]. One has a white slip coating with vertical red slip lines below a clear glaze, dated *c.*1240–1350 fill [932], pit [933]. Another jug dating to *c.*1270–1350 has an applied strip with rouletted diamond pattern and an under-fired glaze (1437], pit [1438].

COLW, ESSEX FABRIC 21A

Colchester-type ware is a distinctive coarse quartz-tempered ware here with 41 sherds (27 MNV/0.86 EVEs/2.001kg). It has a date range of *c.*1200–1550. Cunningham (1982) divided this ware into Colchester (COLW) and Colchester slip-painted ware. Cotter (2000, 108) points out there are limitations to assigning sherds to a category based on the presence or absence of white slip decoration. The ware covers the late medieval and early post-medieval periods. In contrast to the evidence from Colchester (Cotter 2008, 108),
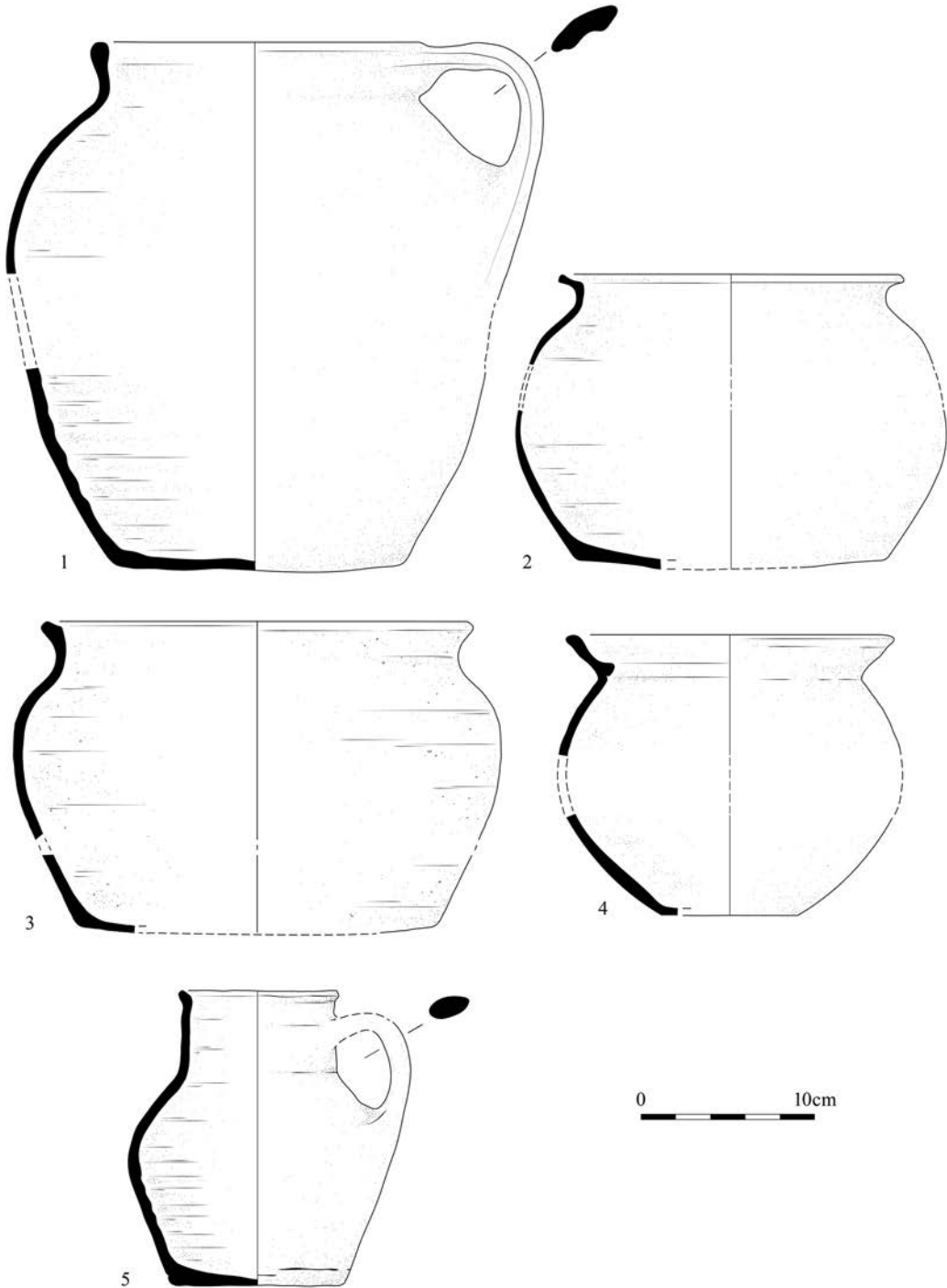
Fig 14. Medieval pottery: 1. Essex late medieval transitional ware large pitcher, from layer [310] (Phase 5); 2. A medieval Harlow sandy ware shouldered jar with glazed internal base, with a narrow flat rim with an internal lid-seating, from fill [724] of pit [726] (Phase 3); 3. An Essex calcareous red earthenware cooking pot, from fill [870] of pit [871] (Phase 3); 4. Essex early medieval ware with fossil shell cooking pot or jar with late Saxon profile, except for internal lid-seating, from fill [637] of cut [638] (Phase 2); 5. Essex late medieval transitional ware squat shouldered pitcher, from fill [630] of cut [632] (Phase 3) (scale 1:4)

the fabric is most common at London Road in the 13th and mid-14th centuries. Jugs are the principal form and Phase 2 examples are largely fragmentary. One example from fill [619] of pit [622] has an expanded rim and a white slip coating with green-glaze splashes and dates to the early to mid-14th century. A variant with a cordon below its squared rim has the external white slip coating continuing on to its interior or neck. The strap handle is oval in section and simply luted on to the neck. This item dates *c*.1250–1400 and came from fill [1316] of pit [1317]. The jug has a post-firing mark found at the top of the rim executed as an incised horizontal line with short perpendicular lines at each end. A residual jug with a collared rim came from Phase 7 fill [1586] of pit [1587]. White slip decoration is found on jugs as vertical lines with hooked ends pointing to the left and on a 13th-century example is a patchy green glaze (Phase 2 fill [350] of pit [354]). There is a variant with vertical lines (Phase 2 fill [602] of well [603]) and with a green glaze (Phase 3 fill [631] of pit [632]). A small number of closed forms were identified including an example with an expanded, flat topped rim on a shouldered jar. This is dated *c*.1250–1400 and is decorated on the body with a weakly thumbed diagonal applied strip (Phase 2 fill [872] of pit [873]), which may be a bung-hole jar. The presence of the latter form is confirmed by a sherd with a slightly faceted bung-hole (Phase 3 fill [630] of pit [632]).

HARM, ESSEX FABRIC 21D

Medieval Harlow sandy ware is a pimply surfaced ware, containing rounded red and/ or amber iron-stained quartzes (Davey & Walker 2009, 12). This industry was a major supplier to the site in *c*.1200–1500. During the 15th century the industry evolved into late medieval transitional wares (LMTX, see below) (Davey & Walker 2009, 12). This pottery is represented by 213 sherds (147 MNV/2.13 EVEs/3.677kg). The late medieval variant with white slip-coated surfaces (HARM SL) is discussed below. The ware is found in a small quantity in 13th-century dated contexts, although noticeably increases in frequency from *c*.1270.

Medieval Harlow sandy ware occurs in a wide range of forms of which jugs are the more frequent (55.3% by MNV), albeit here in a fragmentary state and difficult to assign to specific shapes. A coarser fabric over-fired variant, is dated to *c*.1270–1350 and has an externally rounded rim (120mm in diameter) with a D-shaped profile strap handle with grooves down its length (forming three ridges) and with discrete pairs of point stabbing. The handle has been luted to the neck, while internal and external surfaces are white-slipped and the exterior has a misfired black glaze (Phase 2 fill [1409] of pit [1410]). Another jug rim (120mm in diameter) has a narrow flanged appearance with an uneven, high bead on the inside edge of the rim and a mortised strap handle, while white slip decoration survives as a horizontal line on the neck (Phase 2 fill [1054] of pit [1055]). Another jug has an expanded rim with a mortised sub-rectangular/oval strap handle with a central line of point stabbing down the length of the handle. The latter handle, dated *c*.1270–1350, was secured to the neck with thumb impressions on each side of the join (Phase 2 fill [795] of pit [796]). An example from Phase 6 has a wide expanded rim (130mm in diameter) with white slip decoration consisting of dots on the top of the rim and a horizontal band above a wheel-thrown cordon on the neck [674]. Generally, the decoration on HARM jugs has affinities with London-type ware (Pearce *et al* 1985) and Mill Green ware (Pearce *et al* 1982), with 13th-century sherds having a white-slip coating and clear or green glaze imitating imported French whitewares. This decoration is more conspicuous when HARM occurs with contemporary Mill-Green ware. Other sherds have white slip decoration in horizontal bands, particularly on the neck, besides vertical lines. One example dated *c*.1270–1350 carries chevrons. Occasionally white-slip decoration is present with glaze. Another sherd may have Rouen-type decoration, in the form of a white slip line and dots with a clear glaze. It derives from a context dated *c*.1400–1500 (Phase 3 fill [956] of pit [957]). One sherd dated 1270–1350 has an applied vertical strip with rouletted notch decoration (Phase 2 fill [673] of pit [677]).

Besides point stabbing, other decoration on handles comprises a broad strap type with a central white slip line with knife point

stabbing down its length forming a herring bone pattern (residual in Phase 6 fill [1401] of cut [1402]). Bases of jugs can be plain and convex or continuously thumbed.

Only rounded shaped jugs dated to *c.*1270–1350 were identified, mainly as bases, one of which is convex and has a white slip chevron design (Phase 2 fill [672] of pit [717]). Two other examples are large rounded types with thumbed bases. A Phase 3 convex type dates to the 15th-century fill [773] of pit [774] while a Phase 4 necked vessel from fill [1521] of pit [1523] is plain with a squared rim.

Cooking pots and jars are another major variant in HARM (39.4% by MNV) with rim diameters ranging from 150–260mm, indicating a range of sizes. The majority of the cooking pots dated to *c.*1270–1350 and are mostly rounded in profile. Everted simple and narrow flat rimmed examples appear to be contemporary. Shouldered jars dated *c.*1270–1350 were represented by two examples, both with glazed internal bases. One jar has a narrow flat rim with an internal lid-seating (210mm rim diameter) (Fig 14.2). A squatter example with an everted simple rim (190mm in diameter) is bevelled and internally beaded and may represent a pipkin, it has a convex base (Fig 13.11). Both shouldered jars came from the Phase 3 fill [724] of cut [726].

A small number of bowls were made in HARM including 14th-century dated internally glazed basal sherds from Phase 6 fill [764] of cut [767]. An everted narrow flat-topped rim which had been expanded both internally and externally was present in Phase 2 fill [505] of pit [506]. This piece could be a lid. A residual bowl from Phase 7 fill [207] of pit [206] has a rim which is externally expanded with a rounded underside and a groove on the top surface.

HARM SL

Medieval Harlow sandy slipware comprises two Essex orange wares with a white slip-coating on one or both surfaces. These are Harlow sandy ware and Essex unsourced sandy orange ware. These sub-types are found in small numbers, they appear to be part of a late medieval regional tradition and have been assigned coding: HARM SL and SOWX SL. Fifteenth-century late London ware (LLON) also produced vessels with a white slip coating (LLSL) on both surfaces, imitating coarse Surrey-Hampshire border ware, the dominant late medieval pottery type in London (Pearce & Vince 1988, fig 9). HARM SL and SOWX SL may very well have the same chronology as LLSL, however, the evidence from the London Rd site cannot confirm this and both wares can only be provisionally dated to *c.*1340–1500. Twelve sherds of HARM SL were present (11 MNV/0.73 EVEs/401g).

Cooking pots or jars are present including an example with a flat-topped rim (Fig 13.12) from Phase 3 fill [1059] of well [1056]. This copies coarse Surrey-Hampshire border ware dated *c.*1340–1500 (Pearce & Vince 1988, 61–2, figs 114–15). Additionally, there are sherds from jugs. A fragmentary rounded type of jug, which may be sub-biconical, has a narrow flat-topped rim, thickened on the exterior, a strap handle with two ridges and a central groove, as well as a convex base. It has an external slip which continues on to the inside of the rim and a green-mottled brown glaze is found in the basal area (Phase 3 fill [956] of pit [957]).

SOWX, ESSEX FABRIC 21

Essex unsourced sandy orange ware encompasses fabrics dated *c.*1200–1500. These are in the East Anglian tradition which cannot be assigned to known production centres (Cotter 2000, 109). Reduced variants of SOWX are included and it is found here with 212 sherds (136 MNV/1.99 EVEs/4.863kg). There is a relatively wide range of table and kitchen forms of which jug sherds appear to be most frequent. These vessels could be rarely assigned to a precise sub-shape although the base (190mm in diameter) of a baluster jug dated *c.*1270–1350 was noted with a splayed profile and footring formed by joining a separate base to the vessel wall (Phase 3 fill [529] of pit [530]). The footring was decorated with continuous 'thumbing' formed by diagonal finger strokes. The base of a rounded jug was also noted with groups of four finger impressions (residual in Phase 6 fill [625] of pit [626]). There are fragments of two conical jugs from Phase 3 both in contexts dated *c.*1270–1350. The more complete example, from fill [795] of pit [796], has a rim with a beaded exterior and bevelled interior, a pinched spout above

a wheel-thrown biconical neck and a base with continuous thumbing. It is decorated with an external white slip coating to just above the base with vertical wet sgraffito scratches (similar to that found on Mill Green ware) with an external patchy green mottled glaze. The second vessel, from fill [529] of pit [530], comprises a base and is otherwise comparable.

Jug decoration largely follows that of Harlow and the other South East England medieval industries. The white slipped surfaces either have clear or green-glazes and white slip line decoration, either with horizontal or vertical schemes, although a trellis pattern was also noted. Rilled surfaces, incised horizontal lines and knife point stabbing or slashing of rod-type handles also occurs. Other slip decoration includes an example with a red slip possible zigzag motif, was found in a deposit dated *c.*1270–1350, while another sherd has a polychrome slip decoration (in a *c.*1300–50 dated context). A D-shaped rod handle, white-slipped with a good quality green-glaze is noted for its complex incised decoration. This comprises a diamond shaped motif with curving lines and point stabbing dated *c.*1380–1500, residual in Phase 3 fill [1057] of quarry [1056].

Cooking pots or jars are well represented with rim diameters of 140–230mm. Early 13th-century examples have expanded rims, which include a flat topped, triangular profile. By *c.*1270, narrow flat-topped rimmed cooking pots or jars were in production contemporary with a squared example with a groove on its side (Phase 2 fill [1437], pit [1438]). Two Phase 2 bowls were identified with evidence for cooking and a battered narrow flat rim. From the early 13th century onward the internal bases of bowls and jars were usually glazed.

Minor forms include a poorly dated lid fragment with a flat top and a clubbed rim and executed in a coarse sandy fabric, from Phase 2 fill [1165] of pit [1167]. A pipkin, represented by a straight, horizontal strap handle has the end turned down, while the underside of the handle and the joint to the body has four fingertip drags, creating ridges. This was found residually in Phase 6 fill [795] of pit [796] with pottery dated to *c.*1270–1350. The handle is in a high-fired sandy ware, akin to that of the late medieval fabric LMFSX (see below).

SOWX SL

Essex unsourced sandy orange slipware is represented by two forms. There is a cooking pot with a bifid rim from Phase 4 fill [1066] of pit [1068], copying CBW BIF and LLSL, dated respectively 1380/1400–1500. Secondly, from Phase 2 deposit [641] there is a carinated bowl with a narrow everted rim and weak wall carination which has an internal white slip coating (Fig 13.10). This ware is represented by three sherds (3 MNV/0.12 EVEs/74g).

MG, ESSEX FABRIC 35

Mill Green ware is a distinctive, high quality, fine sandy ware in production over the period *c.*1270–1350. Several production centres are known from wasters such as from around Mill Green, Ingatestone as well as Noak Hill, near Brentwood. This the closest site to Barking (Pearce *et al* 1982; Meddens *et al* 2002/2003). Indeed, scientific analysis of Mill Green ware at Axe Street, Barking indicates that Noak Hill was the main supply of this type of pottery to this site, where Mill Green formed the single most frequent ware here at 58% (MNV) (Carew *et al* 2009). It has been suggested that Noak Hill was the principal source of supply for Barking (Carew *et al* 2009). At London Road it constitutes a total of 118 sherds (93 ENV/0.41 EVEs/1.325kg). The forms are almost exclusively jugs and only rounded examples could be confidently identified. Rim sherds can be inturned, which is either a feature of conical jugs (MG CON), dated *c.*1270–1330 or squat rounded (MG SQU), dated *c.*1290–1350 (Pearce *et al* 1982, 279, 281, figs 3–4; 11–14). Other jug rims may be simply expanded, which can be found on other sub-shapes. The handles are often of the strap type and occasionally have point stabbing, while at the top of the handle two thumb impressions imitating 'ears' may occur. The jug bases are thumbed either continuous or grouped. Decoration of the jug bodies includes plain glazed sherds, although the majority have a white slip and either a clear or green glaze. Many sherds show evidence for combed wet sgraffito vertical lines. A single green-glazed sherd from Phase 2 fill [602] of pit [603] appears

to have white slip Rouen-type decoration in the form of a diagonal line bordered by dots, Mill Green ware with white slip-painted decoration (MG WSD) (Pearce *et al* 1985, 285) has a time frame of *c*.1290–1350 and comprises 12 sherds (8 MNV/101g). Jug sherds with this type of decoration occur with vertical slip lines, although occasional schemes with diagonal lines occur. Also decorated in this style is a possible squat rounded jug (MG SQU), which has an inturned rim and a base with discrete thumbing, from Phase 2 fill [1437] of pit [1438].

MG COAR, ESSEX FABRIC 20C

Mill Green coarseware has been defined by Pearce *et al* (1982, 289–92) and is found here with 67 sherds (25 MNV/1.56 EVEs/1.595kg). The ware predominantly derived from Phase 2 deposits. The forms almost entirely comprise rounded or shouldered cooking pots or jars that typically have expanded, narrow flat or horizontal rims, 130–240mm in diameter (*eg* Pearce *et al* 1982, figs 16–17). The internal bases of these vessels are frequently glazed. One other vessel in MG COAR from Phase 3 fill [1057] of pit [1056] is a base of a jug or more likely a bunghole jar. This has a single thumb impression and the interior has a limescale deposit.

RCWX, ESSEX FABRIC 20

Essex-type reduced coarse ware dates to *c*.1175–1300. This wheel-thrown sandy grey-ware was produced in eastern Essex (Cotter 2000, 91–107). It represents a local product in a wheel-thrown greyware tradition from the Thames basin, encompassing the south Hertfordshire, Limpsfield, Surrey and north-west Kent industries (Blackmore & Pearce 2010). These other greywares were absent from the assemblage. Essex greyware (RCWX) is relatively rare on the site comprising 26 sherds (25 MNV/0.34 EVES/501g). It was in a fragmentary state and mainly derived from Phase 1.2 and 2 deposits. Cooking pots or jars constitute the principal forms and the four examples found have rims representing expanded types associated with Phase 2 (*c*.1200–70) from fill [619] of pit [622]; an everted and rounded type, 800mm in diameter, dated to *c*.1270–1350 from fill [529] of pit [530], and a flat-topped

variant with a rounded edge and internal bead, 130mm in diameter from fill [602], pit [603]. A damaged Phase 4 example from fill [764] of cesspit [767]) dates to the late 14th century and has an expanded rim with an external bevel. There is a jug rim (110mm in diameter) with a narrow, flat topped, triangular sectioned profile, from a 15th-century context, Phase 2 fill [505] of pit [506], while a bunghole jar is represented by a rounded bung with a slanted front and point stabbing around the hole from Phase 2 fill [932], pit [933], which dates to *c*.1240–1350 based on associated pottery types. These sherds tend to be plain, although one has an external under-fired glaze, while another has a combed horizontal line.

ESCA

Essex calcareous red earthenware dates to *c*.1200–1500 and comprised 40 sherds (24 MNV/0.51 EVEs/819g). It is wheel-thrown, has oxidised surfaces (light-reddish brown, 2.5YR 6/4), a grey core (2.5Y5/1) and reddish-brown margins (2.5YR 5/4), although light grey surfaced examples also occur. It is soft to hard, has a slightly harsh feel and a smooth texture. The matrix is silty with fine sand and can have sparse to moderate, ill-sorted grey quartzes, up to 0.25mm and sparse, fine iron ores. Calcareous inclusions can be as either rounded chalk, up to 0.25mm or fine linear white particles, possibly shell, up to 0.5mm. This ware was treated as an umbrella category for mainly 13th- to 14th-century wares and first appears in the early to mid-13th century, with finds concentrated in Phases 2–3 deposits. The forms mostly consist of cooking pots or jars and the complete profile of a shouldered example with an expanded, flat rim (Fig 14.3) was recovered from the 13th-century Phase 3 fill [870] of cut [871]). A late medieval sooted base from Phase 3 fill [1433] of pit [1434] has an internal glaze. A jar rim from Phase 3 fill [414] of cut [415] and dated to the end of the 15th century has an everted, rounded rim. There is a bowl rim, which is expanded with a flat-topped triangular profile. It is residual in the 16th-century Phase 4 fill [158] of pit [170]. Another residual medieval body sherd is decorated with an applied thumbed strip and incised wavy lines.

KING, ESSEX FABRIC 23D

Kingston-type ware is a Surrey-whiteware (see below) which is fairly well represented in the assemblage. Kingston-type ware (KING) was traded to the London area during the period *c*.1240–1400 (Pearce & Vince 1988). This ware constitutes a small proportion of the assemblage totalling nine sherds (9 MNV/0.09 EVEs/129g) and was mostly associated with Phase 2 deposits. The material is fragmentary and consists typically of drinking forms, particularly jugs, of which a base copying a metal baluster type dated *c*. 1270–1350 may be present in Phase 2 fill [713] of cut [714]. Tentatively identified forms include the pedestal base of a drinking jug or measure from Phase 2 fill [1446] of well [1447]), besides a simple rim of a cup from Phase 2 fill [766] of cesspit [767].

Late Medieval to 16th Century

Many of the late medieval pottery types present have their origins in the late 13th century and become major wares in the later medieval period.

EXIR

Essex iron-rich ware dated to *c*.1270–1500 is in a generally light red (2.5YR 6/6) hard fabric with a smooth, slightly soapy feel and a fine texture. The matrix consists of a very fine sandy ware which is micaceous, with inclusions of sparse, ill-sorted, sub-rounded, clear grey and dark red polished quartzes of up to 0.5mm, often present on the surfaces. Moderate-abundant red iron ores are rounded and mostly very fine, although larger examples occur. The fabric is part of the unsourced Essex orange ware (SOWX) category. It is represented by 9 sherds (6 MNV/0.09 EVEs/140g), mostly in Phase 2–3 deposits comprising non-diagnostic sherds. Two sherds were from either a bowl or dish with an internal glaze and a white, thin, opaque deposit came from Phase 2 fills [590] and [591] of pit [592], dated *c*.1270–1350. Additionally, two sherds from jugs were identified, from Phase 4 fill [318] of pit [639], one with an unglazed narrow rolled rim (100mm in diameter) with a straight side and undercut lip, as well as an externally glazed body sherd from Phase 4 fill [779] of pit [780], both dated *c*.1480–1550.

CBW, ESSEX FABRIC 23F

Surrey-Hampshire border ware is a coarse late medieval Surrey whiteware dated *c*.1270–1500. It was marketed to the London area from the mid-14th century (Pearce & Vince 1988, fig 9). CBW here is made up of 49 sherds (43 MNV/0.69 EVES/1.158kg) mostly from Phase 2 contexts. Nine sherds, derived from jugs, from deposits dated *c*.1270–1350. Jugs represent the principal vessel form which generally could not be assigned to a specific sub-shape, except in the case of the base of a small barrel-shaped type which dates to the 15th century, from fill [533] of pit [535]. A dish with a simple everted rim and internal green glaze was residual in Phase 3 fill [1199] of quarry [1200]. Late medieval CBW includes items dated to *c*.1340–1500. Phase 3 vessels included three examples of flat-topped rim cooking pots (CBW FT; *ibid*, 61–2), one in fill [505] of pit [506], with a rim diameter of 270mm, plus two more examples from pit [1598]. At least two large rounded jugs (CBW LGR; *ibid*, 55–6) are present with wide strap handles decorated with either knife slashes or point stabbing, from Phase 3 fill [1066] of pit [1068], with a rim diameter of 100mm, and residually in Phase 5 fill [670] of pit [671], with a rim diameter of 130mm. Cooking pots are present with bifid rims (CBW BIF), dated to *c*.1380–1600 (*ibid*, 62). Three examples were identified, two from (Phase 2) fill [551] of well [553], with a rim diameter of 200mm, and one from fill [1057] of well [1056]. A fourth example with a diameter of 190mm was residual, from Phase 4 fill [844] of cesspit [847]).

CHEA, ESSEX FABRIC 23E

Cheam whiteware was marketed in smaller quantities than CBW. This finer fabric dates to *c*.1350–1500 (Vince & Pearce 1988, 68–77) and was represented by 28 sherds (14 MNV/1.598kg, with an EVE of 1.00 from a single vessel). This comes from Phases 2–6 and is represented by fragmentary jug sherds. An example with a flat rim with an external lid-seating was located in Phase 4 fill [627] of pit [629], dated to the late 15th to early 16th century. An intact barrel-shaped jug (CHEA BARR), dated to *c*.1430–1500, was recovered from Phase 3 fill [595] of pit [596]. It has a bevelled triangular profile rim

with a grooved top and rilling on the middle of the vessel. The oval section rod handle was mortised to the vessel and further secured by point stabbing in an inverted V-shaped pattern. This is a known trait for this industry (Pearce 1984, 23, fig 11). Other Cheam ware forms include the internally glazed base of a bowl or dish from Phase 3 fill [689] of quarry [688], the handle and shoulder of a drinking jug from Phase 6 fill [338] of pit [339], and residually from Phase 6 fill [582] of pit [585], the splayed base of a possible lantern with cut outs in both the base and wall. This item is bichrome glazed, green on the exterior and clear on the interior (Fig 13.9).

TUDG, ESSEX FABRIC 41

'**Tudor Green' ware** is the finest fabric in the Surrey whiteware group dated to *c.*1350–1500 (Pearce & Vince 1988, 79–81). It comprises four sherds (4 MNV/0.11 EVEs/8g) from Phase 3–5 deposits. The forms present consist mostly of those used for serving drinks, such as jugs, with the exception of a wall sherd of a small dish from Phase 2 fill [922] of pit [924]).

LMHG

Late medieval Hertfordshire glazed ware is a fine sandy 'pink' pottery type dated *c.*1340–1450 (Jenner & Vince 1983). It constitutes a minor component with two residual jug sherds (24g) in Phase 3. One has a combed horizontal band decoration. This distinctive pottery does not appear to occur outside of present day Metropolitan Essex.

LLON, LLSL

Late London ware, Late London slipware usually has a fine brickearth-type fabric dated *c.*1500–1600 and has a variant (LLSL) where both in and exterior surfaces are covered in a white slip (Pearce *et al* 1985). These wares constitute a minor part of 15th-century London assemblages, and here is present with 10 sherds, seven of which are non-diagnostic. LLON is represented by the base of a jug with a footring from Phase 5 fill [667] of pit [862] as well as the expanded, everted, flat rim of a jar from Phase 3 fill [773] of pit [774]). A sooted sherd of LLSL may be from a cooking pot. Both fabrics can have green glaze drips.

LMTX, LMFX, LM FSX, LMSX, LMCSX

Essex late medieval transitional ware, comprising fine, fine sandy, sandy and coarse sandy wares constitute the principal type of pottery marketed to the site during the later 15th and 16th centuries. These are a transitional high-fired redware produced at Harlow, where three kilns have been excavated (Davey & Walker 2009, 25, 27–44; Vince 2009, 190–1) and the fabrics and their variants have been described in detail. Its potters have also been documented at Loughton from the 15th to 17th centuries which represents another possible production centre (Clark *et al* 1972) while others in Central Essex may have made similar wares (Cotter 2000, 189, fig 129). Its coding is a simplified form of that used by the no longer extant Passmore Edwards Museum (*eg* Jennings undated). They have been coded differently by Cunningham, who included late Mill Green ware in his categorisation (1985; Davey & Walker 2009, 25). The tradition has here been designated as four main types corresponding to the coarseness of the fabrics. The late medieval fine ware (LMFX), usually has a very smooth feel and extremely fine quartzes; fine sandy ware (LMFSX) has abundant quartzes up to *c.*0.25mm; sandy ware (LMSX) has quartzes up to 0.5mm and coarse sandy ware (LMCSX), has a very fine matrix (similar to LMFX) except for a scattering of coarse sized quartzes. Additionally, less frequent variants contain calcareous inclusions LMFCAX, LMFSCAX, LMSCAX and LMCSCAX. The majority of these could only be distinguished microscopically and an umbrella code of LMTX is used for macroscopically recording. The petrological and ICP-AES chemical analysis of examples from Harlow indicates that several clay sources were being exploited, and sand was added for potting, with further distinct clays used for the medieval ware HARM (Hughes 2009; Vince 2009). Single sherds from unidentified forms in the fineware and the coarse sandy ware fabrics have grog inclusions classified as LMFX GROG and LMCSX GROG. The surfaces of this type can be oxidised or reduced indicating that a deliberate red/orange and brown/grey/black coloured product was intended. Some vessels

show a mixture of surface colours indicative of poor firing and occasional buff or brown surfaces occur. The external surface colour is different to the interior. There is nothing to suggest that different vessel shapes were intended to be fired to different colours, except possibly with bowls, dishes and a mug which are oxidised, as are two of the three lids.

Large closed forms are frequently decorated in a white slip with freely-drawn horizontal lines on the neck, curving lines, often as large strap-like leaves and vertical or diagonal lines on the body. Such an example is a *c.*1480–1550 dated medium rounded jar found in Phase 5 fill [414], quarry or well [415] (Fig 13.8). Some 75.4% of the vessels by MNV have white slip decoration, which is a higher frequency than in the contemporary London redware industry (see PMRE below). The white slip decoration on Colchester ware may have disappeared by the second quarter of the 16th century (Cotter 2000, 173) and a similar case can be made for LMTX. Clear and green glaze is rarely used, although in the few examples it is sparingly employed, mostly applied to the inside of the rims and the bases.

Pitchers are the principal form in LMTX, the identifiable forms included rounded and squat shoulder-shaped vessels. One large example was recovered from Phase 5 layer [310] (Fig 14.1) Most vessels were found in deposits dating to *c.*1480–1550, except for a 15th-century shouldered example and a large rounded vessel, which were both residual finds in 17th-century contexts.. Jugs, defined as liquid serving forms with pronounced necks are rare in LMTX. A squat shouldered example was noted in fill [630], well pit [632] (Fig 14.5). Jars are the second most frequent form, mostly found as rounded shapes, dated *c.*1480–1550. A late 16th-century example has an internal lid-seated rim (Fig 13.7) (Phase 5 layer [310]). A shouldered example was residual. A thumb-decorated strap basket-handled jar was also noted, from Phase 4 fill [546] of pit [547]. The fragmentary nature of bunghole jars meant that these were chiefly recognised by their bungs. There are 14 examples of these vessels in all of the fabric variants. At Harlow, wide diameter, distinctive rims were assigned to bung-hole jars with rounded thickenings (and compared to the pitchers) with a much deeper upright neck (Davey & Walker 2009, fig 21.75–79). The bungs are either squared or rounded and usually plain, although thumbed examples occur. No chronologically distinctive features are linked to the types. Most bung-hole jars are dated *c.*1480–1550, although one or two may date to the 15th century. At least eleven instances of bowls or dishes are noted. These are more frequent in the finer fabrics (LMFX and LMSX). The rims are of a flat type and often everted, while vessel profiles include flared examples, dated *c.*1450–1550/1600, including one with an internal lid-seated rim. The base and wall of a rounded bowl have a broad date range.

Three dripping dishes are present, two are oval and have simple upright rims, with a pouring spout and internally glazed bases. These vessels are dated *c.*1480–1550. Three lids were present: one (residual in Phase 5) has a wide flat-topped knob, which is slightly clubbed (LMSX) and a rim of another lid has a possible domed profile (LMFX), from Phase 4 fill [1566] of pit [1567], while the rim of a collared example could equally be a carinated dish (LMFX) (Phase 5 fill [159], quarry [160]). Three cauldrons occur in the finer fabrics (LMFX and LMFSX) including an example with a collared rim, while the most complete piece, from Phase 5 layer [310], dates to the late 16th century and has an everted rim, rounded body profile and vertical loop rod handles, pinched at the rim join. Other vessels could be a pipkin or cooking pots: the latter with an everted, narrow flat rim attached to a short neck (LMCSX) comes from Phase 4 fill [380] of pit [381]) and may be a late 14th-century case of this pottery type. There are two dishes, both residual. One from Phase 6 fill

Fig 15 (opposite). Medieval and post-medieval pottery: 1. Raeren stoneware (RAER) intact drinking jug, from fill [1492] of cut [1493] (Phase 6); 2. Siegburg stoneware (SIEG) nearly intact unglazed Jakobakanne or drinking jug, from fill [1083] of cut [1084] (Phase 4); 3. Essex late medieval transitional ware, fine redware mug, from fill [313] of cut [314] <SF7> (Phase 4); 4. Raeren stoneware drinking jug, from fill [313] of cut [314] (Phase 4) (scale 1:2)

1

2

3

0   5cm

4

[572] of pit [574] is carinated, the other, from Phase 6 fill [970] of pit [971], has an everted rim and cordon at the base of a short 'neck', its base with discrete thumbing.

Two mugs were identified, the earliest from Phase 4 fill [1453] of cesspit [1455] is of a necked type with a simple inturned rim, dated *c*.1480–1550 (LMFX). A rounded example from Phase 5 layer [310] dates to the late 16th century (LMSX). Both have vertical loop rod handles, are glazed internally and externally, the later having a better quality glaze.

There are four drinking forms dated *c*.1480–1550 in fine redware with a good quality clear-glaze covering both surfaces. These could be confused with later Essex-type post-medieval fine redware (PMFR see below), except for the vessel shapes and the colour of the fired glaze. The first item <SF7> from Phase 4 fill [313] of quarry [314] is a waisted beaker with handle terminals, making it a mug. The rim is everted and a cordon is present a third of the distance from the neck (Figs 13.3 & 15.3). The second is a baluster drinking jug <SF43> with an inturned deep neck, and a vertical loop strap handle. It is paralleled in earlier Siegburg stoneware ovoid forms, dated *c*.1440–1500 (Gaimster 1997, 380, 5r), and was a residual find in Phase 6 fill [1492] of pit [1493]. The third vessel survives as a splayed base, frilled in the German stoneware fashion, from Phase 5 fill [699] of pit [780]. The fourth comprises the base of a goblet cut to create facets and the pedestal has vertical finger marks creating fluting, from Phase 4 fill [366] of quarry pit [365] (Fig 13.6).

Part of a fuming pot (a chafing dish shape without slashes in the base) consists of the dish base part; this vessel is made in LMFX with a brown metallic glaze (LMFXM). It was deposited *c*.1480–1550 in Phase 4 fill [1453] of cesspit [1453].

Imported Wares

SAIN/SAIM/SAIU

Saintonge whiteware pottery, green-glazed, mottled glazed and unglazed ware is represented by six sherds (5 MNV/181g), largely in the form of jugs. A single sherd of a green-glazed ware (SAIG) jug base dates *c*.1280–1360 (Phase 2 fill [1629], pit [1607]). Unglazed ware and mottle green glazed ware SAIU/M both date *c*.1250–1650 and are present in Phase 3 late medieval deposits. An unidentified form with a rim with a triangular crenulated finish decorated with incised vertical lines was present in Phase 4 fill [1067] of pit [1068], deposited *c*.1480–1650.

SPOA, ESSEX FABRIC 29A

Spanish unsourced amphora sherds in London are found in deposits dating between *c*.1200–1650 (Vince 1995). Two post-medieval body sherds (64g) from a single vessel were identified residually in Phase 6 fill [1154] of posthole [1155].

SIEG, ESSEX FABRIC 45B

Siegburg stoneware from the Rhineland has a fine pale grey body often with pale yellow brown surfaces, becoming a whiteware during the 16th century (Hurst *et al* 1985, 176–84). It is present with 15 sherds (14 MNV/2.27 EVEs/1.630kg) in Phase 4 and 5 deposits. There are jugs and drinking jugs often with rilled or corrugated surfaces. Unglazed Siegburg stoneware (SIEG) comprises a single sherd and a near intact *c*.1370–1500 dated example of a *Jakobakanne* or drinking jug (SIEG JAKO) (Fig 13.5). Both were residual in fills of the same Phase 5 pit [1084]. The other Siegburg stonewares are salt-glazed (SIEGS), dated *c*.1500–1630 which can have an iron-wash. At least one sherd may have an ash glaze rather than a salt-glaze (resulting from the kiln firing atmosphere). Of note is the neck of another *Jakobakanne* which appears to have been ground down to form a new rim after the vessel was damaged (Phase 2 fill [554], pit [467]). Two largely complete SIEGS rounded drinking jugs come from Phase 3 fill [1158] of pit [1159]. The rim of another vessel from Phase 6 fill [1492] of pit [1493] is comparable to Raeren stoneware examples dated *c*.1475–1550 (Hurst *et al* 1986, fig 94.300).

RAER, ESSEX FABRIC 45C

Raeren stoneware is a dark grey, salt-glazed stoneware (Hurst *et al* 1986, 194–208), which in London dates to *c*.1480–1610. It includes 37 sherds (34 MNV/3.95 EVEs/2.656kg), mostly in the form of drinking jugs, including a squatter type dated *c*.1475–1550 (Hurst *et al* 1986, 196, fig 91.301–2). Two

intact specimens were found in Phase 4 fill [313] of pit [314] (Fig 15.4), including a squat example. Another example with a globular body from a small vessel that may have served as a measure was present in Phase 6 fill [1492] of pit [1493]. A puzzle jug was represented by a simple rim with a denticulated top and circular piercings in a row below, above a cordon. The latter is actually a hollow tube to convey the drink to a tubular spout with faceted sides. This type of vessel was used for practical jokes for several centuries; it was found residually in Phase 6 fill [1401] of pit [1402],

DUTR, ESSEX FABRIC 31

Dutch red earthenware is a good quality high-fired, fine sandy red earthenware, represented by 13 sherds (12 MNV/0.45 EVEs/505g) from Phase 2–4 deposits. This fabric was present in the London area *c.*1300–1650 (Hurst *et al* 1986, 130–3). Of the three fragments from Phase 3, one from fill [384] of cut [381] had a rilled surface and an external clear glaze. The rounded thickened rim of a bowl with a coarse glaze on its surfaces was found in 15th-century dated fill [505] from pit [506]. Fragments of two cauldrons were present in Phase 5 deposits: one with other pottery dated to the late 14th century came from fill [764] of cesspit [767], while a 15th-century type 3 cooking pot (DUTR CP3) has an internal lid-seated rim paralleled by an example illustrated by Hurst *et al* (1986, 130–1, fig 59). It had been reduced and has a black coloured glaze and was from the fill [917] of quarry [918], dated *c.*1480–1600

Also present in this class of pottery is a sherd of Dutch slipped red earthenware with sgraffito decoration (DUTSG), dated *c.*1450–1550 from Phase 4 fill [318] of quarry pit [639]. It is a chafing dish with a narrow flat rim and short rim support; the sgraffito decoration comprises a vertical 'branch' motif on the exterior.

CITG/SNTG, ESSEX FABRICS 46E/C

Central Italian /South Netherlands maiolica represents a high-status ware largely made for export. These tin-glazed ceramics dated *c.*1450–1550/75 are difficult to distinguish by fabric or decoration and can only be done so by chemical analysis (Blake 1999). A single sherd (11g) from a jug or vase is decorated externally with a blue ladder medallion and a ?spandrel, recovered from Phase 5 fill [182] of quarry [183]. The shoulder of another vessel, from Phase 5 fill [414] of quarry or well [415] dated *c.*1480–1550, may be this ware, but is burnt and therefore difficult to identify with certainty.

ANDAL, ESSEX FABRIC 46B/1

Late Andalusian lustreware from Spain has reddish-brown metamorphic rock inclusions (Hurst *et al* 1986, 54). There are two sherds (2 MNV/64g) dated *c.*1480–1550. The dating of the contexts that both these vessels were from indicates that these pertain to the end of the 15th century. A bowl rim is patterned with an internal blue line and lustre geometrical scrolls, dots and circles in a panel and the exterior has a blue line and an arcaded border from Phase 3 fill [505] of pit [506]. The second example, from Phase 4 fill [628] of pit [629], consists of the base and footring from a dish with faded central lustre decoration while the wall has a blue line.

A MART1, ESSEX FABRIC 43

Martincamp-type ware type I flask is represented by the neck and body of one residual sherd (13g) from Phase 4 fill [1340] of pit [1339], with an accidental external green-glaze in a fine sandy, high-fired grey fabric which best fits Hurst *et al* (1986, 103) type 1 fabric, dated *c.*1480–1550.

KOLFREC, ESSEX FABRIC 45D/E

Cologne stoneware, produced by potters from Cologne who moved 10 miles to Frechen around 1500. Late 16th-century examples of the wares from these two production centres are difficult to distinguish macroscopically and are therefore placed under an umbrella code (KOLFREC), dated *c.*1550–80. A single example was found in Phase 5 backfill [1429] of storage room [1284], comprising a rounded mug with a strap handle scar and globular body and a flat base (Gaimster 1997, 214, nos 53–4 for similar items dated to the 1580s).

FREC, ESSEX FABRIC 45D

Frechen stoneware (Hurst *et al* 1986, 214–21) dated *c.*1550–1700 comprises seven sherds (7 ENV/0.76 EVEs/477g) and is present in Phase 5 deposits in the form of rounded jugs.

Of note is the rim of a *c.*1575–1600 dated example (Hurst *et al* 1986, fig 106.333) from fill [1467] of pit [1468] and the splayed base of a large rounded type from fill [1537] of pit [1536].

WEST, ESSEX FABRIC 45F

Westerwald stoneware is a distinctive grey, salt-glazed stoneware, often with applied cobalt decoration, exported to London *c.*1590–1900 and is represented here by four sherds (4 ENV/0 EVEs/645g), restricted to Phase 7 deposits. Only two forms were recorded. There is the shoulder of a chamber pot, probably of 18th-century date [679]. There are three sherds from different 19th-century seltzer bottles recovered from pits [68], [692] and [1391]. None have identifying stamps that would have denoted the sources of the different German spa waters the bottles contained.

BEAY, INCLUDED IN ESSEX FABRIC 30

Beauvais whiteware with clear (yellow) glaze, a fine 16th-century French whiteware, is represented by a single sherd (11g) (Hurst *et al* 1986, 106–8). It comprises the shoulder of a jug decorated with an incised line, dated *c.*1500–50 from Phase 4 fill [507] of possible well [508].

CHPO BW/CHPO ROSE

Chinese porcelain, with either blue and white or the *famille rose* decoration, was imported into London during the period *c.*1580–1900 particularly during the 18th century. This porcelain is represented by four sherds (4 MNV/1.02 EVEs/252g). The material largely comprises blue and whitewares (CHPO BW) and is restricted to Phase 7 deposits. Two late 18th-century examples were found, one a rounded dish from pit [679]. This had an internal trellis border, fish roe borders framing panels containing flowers and a central design featuring flowers and a Chinese male, surrounded by a sword border. The exterior has a line shaded floral spray. There is a bowl rim with internal trellis border from cesspit [660]. A 19th-century item, probably from a provincial Chinese or other South East Asia source comprises a poorly fired intact squat bottle (height: 43mm) decorated on the wall with a discrete floral spray from brick soakaway

[360]. A small sherd of *famille rose* decorated porcelain with a black grid and simple red flower design was recovered from the backfill of foundation cut [367].

CONP

Continental porcelain, consisting of just three sherds (3 ENV/0.48 EVEs/88g) representing 'cheap and cheerful' mid- to late 19th-century items found in two Phase 7 deposits. A toy cup of a porringer shape has a polychrome enamelled floral design, from pit [68], while the scalloped rim of a saucer and a vase with applied decoration as flowers forming a border around a central rose, augmented with gilded lines derived from a fill of brick soakaway [518].

Post-Medieval Wares

MPUR

Midlands purple ware has a distinctive, often marbled stoneware fabric. It was made at many locations (*eg* Hurst & Wright 2012) and is found in London from *c.*1400–1750. The fabric is represented by just three sherds (3 MNV/0 EVEs/77g), all fragments of jugs, uncommon finds locally, comprising a corrugated neck, which may be intrusive in Phase 3 pit [1410], a body sherd with incised horizontal lines from fill [212] of quarry [214], and the base of a small jug from Phase 7 pit [68]. The usually ubiquitous sherds of butter pots, dated from *c.*1580 onward, are absent, as is Midlands orange ware, the oxidised earthenware version.

CSTN, ESSEX FABRIC 40C

Cistercian ware is a good quality high-fired red earthenware manufactured at various locations in the Midlands and further north, such as Yorkshire (*eg* Hurst & Wright 2012). In the south-east it is seen as a counterpart to the local fine green-glazed whitewares, such as 'Tudor Green' and early border ware. In the London area it has a circulation period of *c.*1480–1600. Its forms are mostly drinking vessels, such as the example found in Phase 5 fill [159] of quarry [160], represented by a slightly splayed base sherd (7g).

PMRE

London-area early post-medieval redware developed from Late London ware. It is

a coarse sandy red earthenware made at various locations *c.*1480–1600, including Moorgate and Lambeth, although primarily in south east London at Greenwich and Woolwich (Nenk & Hughes 1999; Sudds 2006). It is represented by 45 sherds (41 MNV/1.12 EVEs/1.912kg) and is contemporary with Phase 3–5 deposits. It mostly has coarse glazing in the medieval tradition predominantly on the insides of the rims and the interior of bases. Occasionally vessels have a more extensive exterior glaze. Forms consist of 16th-century two-handled carinated and flared bowls, cauldrons, a dish, a dripping dish, a jug shoulder as well as frequent jars. The latter have collared, squared and everted rounded rims and a 16th-century Deptford/Woolwich variant is present with a thumbed neck in Phase 4 fill [318] of quarry [639].

PMBR

London-area post-medieval bichrome redware is a 'decorative' variant of PMRE with the same date range differing in on the rim having an external green and an internal clear glaze. This fabric is represented by 11 sherds (5 MNV/0.11 EVEs/177g) in the form of a cauldron with an upright, simple rim from Phase 4 fill [917] of quarry [918] and a jar rim with a bevelled exterior and rounded interior from Phase 4 fill [278] of pit [279].

PMSL

London-area post-medieval slip-decorated redware has the same dating as PMRE and like the Essex late medieval transitional wares has white slip decoration including horizontal bands on the neck and curving bands, often imitating strap leaved plants, on the body. The Essex counterpart slip decorated wares are more frequent, while PMSL is always rare in London. For instance the Thameslink excavations around London Bridge Station (Booth *et al* in prep), produced only 1.3% by MNV of the PMRE industry there and at London Road it is represented by just three sherds (3 MNV/0.50 EVEs/142g or 4% MNV of the 16th-century London redwares). PMSL consist of a jar with a rounded rim from fill [608] of pit [610] and a pitcher rim, rounded with an internal lid seating, from fill [667] of pit [867], both from Phase 4, while a Phase 5 dated jug rim from fill [700]

of pit [780] has a bevelled profile and a strap handle.

PMSRG/PMSRY, ESSEX FABRIC 55

London-area post-medieval slipped redware with either green or clear (yellow) glaze is the slipware version of PMRE produced *c.*1480-1650. Usually it has an internal white slip coating on open forms below a glaze (Nenk & Hughes 1999). This fabric comprises 34 sherds (26 MNV/0.35 EVEs/2.303kg), and both clear and green-glazed wares occur in similar proportions. In London PMSRY is usually noticeably more common on excavations. The forms mostly comprise bowls or dishes in the same types as PMRE, except for the addition of flared types. There are bases of a cauldron or tripod pipkin base and a colander. The latter has a pulled and pinched foot. These slipwares occur mostly in Phases 4 and 5 while the green-glazed ware are more frequent in Phase 5 deposits.

PMR, ESSEX FABRIC 55

London-area post-medieval redware is a technologically improved development of PMRE dating from *c.*1580, defined as better fired with glazes covering the whole, one or both surfaces. It was manufactured in the same places as PMRE, with numerous pothouses being located in Deptford by the mid-17th century, if not earlier. It continued to be produced there until the 1960s (Nenk & Hughes 1999). This pottery is common in the assemblage with 95 sherds (53 MNV/7.42 EVEs/9.559kg) mostly occurring in Phase 5–7 deposits. The forms are limited to the known repertoire for this industry consisting of bowls, mostly with either rounded or flared profiles, chamber pots, flared dishes, flower pots and medium-sized rounded jars, a paint pot (a chamber pot shaped vessel) with layers of white, blue and red paint and the complete profile of a pipkin.

MISC SLIP

Miscellaneous unsourced post-medieval slipware includes a medium-sized flared bowl with an internally lid-seated rim and an external white slip, which internally has good glaze coverage, residual in Phase 7 fill [207] of pit [206] (Fig 13.1). The second is a 16th- to 17th-century dated vessel from Phase 6 fill [574], pit [574], represented by

an open pedestal base made in a fine pink fabric. The top of the pedestal has been plugged with white slip and point-stabbed. The exterior is green-glazed which appears brown on the pink fabric.

EBORD/EBORDY

Early Surrey-Hampshire border whiteware (green-glazed)/clear (yellow) glaze is a fine white earthenware developed from the medieval CBW industry dated *c.*1480–1550 (Pearce 1999). In London it is usually found in small quantities. The green-glazed ware comprised 17 sherds (14 MNV/0.25 EVEs/52g), and the yellow glazed form seven sherds (2 MNV/0.31 EVEs/172g). Drinking forms are common in EBORDG with drinking jugs, cups, including a flared example, and a jug. A bowl or dish (EBORD) fragment was identified, while a two handled flared bowl with a lower corrugated body (EBORDY) was also present within Phase 4 fill [414], of quarry/well [415] (Fig 13.2). The ware is present in both Phase 4 and 5 deposits.

BORDG/BORDY, ESSEX FABRIC 42

Surrey-Hampshire border whiteware with either green or clear glaze is a later sandier version of EBORD produced at several production centres between *c.*1550–1700. Sanitary forms continued to be manufactured until the mid-18th century (Pearce 1992; 1999). With just nine sherds (7 MNV/0.27 EVEs/38g) present this ware is quite rare compared to most other assemblages in London, and only one sherd (6g) is clear glazed. The fabric is contemporaneous with Phases 5 and 6. The only identifiable forms are in BORDG, consisting of a late 16th-century necked cup from Phase 4 layer [310] with an in-turned rim and glazed on both surfaces, and the rounded rim of a flared bowl, residual in Phase 7.

RBOR/RBORB/RBORG

Surrey-Hampshire border redware with either clear, brown and green-glaze is a fine sandy red ware made alongside the whiteware variant, except that it has a much longer period of production, *c.*1550–1900 (Pearce 1992; 1999). With 61 sherds (28 MNV/3.99 EVEs/8.723kg) this redware is uncharacteristically more common at London Road than the whiteware variant.

This may be because 19th-century deposits were more frequent on the site than 17th-century ones. RBOR occurs with single sherds in Phases 3 (intrusive) and 5 and was otherwise concentrated in Phase 6, particularly in fill [68] of pit [69], where many of the vessels have complete profiles There were nine chamber pots and five dishes, four of which have flared profiles and the other is rounded. A possible pipkin base and two rounded bowls were found as were single chamber pots in brown- and green-glazed variants, the former consisting of a type 2 example (with a flat rim).

TGW, ESSEX FABRIC 46A

English tin-glazed ware was first manufactured in London *c.*1570 at Aldgate by Dutch potters, continuing in production at a number of pot houses until *c.*1846 (Britton 1987). English delftware is poorly represented in the assemblage, with just eight sherds (8 MNV/0.14 EVEs/142g), exclusively in Phase 5 and 6 deposits. The earliest item from Phase 6 fill [822] of pit [823] is an albarello fragment with external decoration consisting of a pair of four blue lines, and banded geometrical decoration consisting of alternating ochre and purple triangles formed of stacked lines. The item dates to *c.*1580–1630 and is an Anglo-Netherlands product, as macroscopically the products of these two countries are difficult to distinguish. A late 17th- to early 18th-century plate from Phase 7 rubbish pit [679] is an example of Britton's type J (1987, 194), with a thickened internal wall profile decorated in blue on white and a rim border of overlapping semi-circles and three dots. Plain white tin-glazed ware (TGW C), dated *c.*1630–1846 (Orton 1988, 321) is represented by two ointment pots, one of which can be dated to the mid- to late 17th century, from Phase 6 backfill [460] of chamber [459/461/521]. Plain blue wares (TGW C) have the same date range as the whiteware, although it is extremely rare before *c.*1680; this style occurs as a mid-18th-century ointment pot from Phase 6 fill [543] of brick-lined feature [543], and part of a plate from rubbish pit [679].

PMBL, ESSEX FABRIC 40B

Essex-type post-medieval black-glazed redware is represented by 13 sherds (7 MNV/0

EVEs/425g). It was mostly manufactured alongside the fine redwares and Metropolitan slipware in a number of Essex potteries, at Harlow and further east at Stock (Davey & Walker 2009; Cunningham 1985). It dates to *c*.1580–1700 and is present as drinking forms in Phase 6 deposits. At least three cylindrical mugs came from fill [481] of pit [480], which could have been tygs (multiple-handled vessels) although the defining evidence for this identification is missing. Also of note are sherds of a rounded jug with bands of combed and incised line decoration from fill [1467] of pit [1468].

PMFR/PMB/PMG

Essex-type post-medieval fine redware with either clear, brown or green glaze developed from the late medieval transitional industries (*eg* LMTX etc). The fabric is a fine sandy type and some of the mid-16th-century drinking forms have characteristics of PMFR. The latter, like PMR (a poorer quality product), is better fired (usually absent of grey cores) and the glaze entirely covers one surface or both in the post-medieval tradition. It is dated to *c*.1580–1700 in London and after this date it has been assumed that its market shifted elsewhere (Orton & Pearce 1984, 65). The evidence from London Road parallels the dating from the rest of London and the fabric was found mostly in Phase 5 contexts with a date range of *c*.1580–1700. A few vessels have been assigned to a later period of production (see LPMFR). Production centres for these wares are Stock, near Chelmsford, in east Essex and Harlow, Loughton and Waltham Abbey in western Essex. Between these locations other documented post-medieval potteries are known at Buttsbury, East Horndon and South Minster which could have been manufacturing this ware during the 17th and 18th centuries (Clark *et al* 1972; Cotter 2008, 190, fig 129; Davey & Walker 2009). PMFR pottery comprised 31 sherds (29 MNV/1.04 EVEs/1.274kg), of which one jar is green-glazed and three other vessels in non-diagnostic forms are brown glazed. The material is largely fragmentary with only a small number of PMFR forms represented, including two bowls, a chafing dish rim from fill [460] of brick-lined chamber [464], medium rounded jars and the splayed base from a rounded jug.

METS, ESSEX FABRIC 40A

Metropolitan slipware is the slipware product of the PMFR industry so far found as wasters at Harlow, Loughton and Stock (Davey & Walker 2009; Clark *et al* 1972; Cunningham 1985). Its name derives from its frequent occurrence in London, where it is dated *c*.1630–1700. It is represented here by nine sherds (7 MNV/0.52 ENVs/755g), mainly in the form of rounded dishes, except for a single flared example. These forms have narrow everted rims with a rounded underside (Davey & Walker 2009, fig 29, type E13). A closed form is indicated by an unstratified handle. This slipware was found exclusively in Phase 6 deposits. The main slip decorated rim border present carries a wavy line and vessel wall designs include feathers, ferns and spirals alternating with each other. A single wall sherd has writing surviving denoting: '... BE...' from pit [971]. A flared dish from rubbish pit [1384] has an alternative 'diamond and oval' slip-trailed rim border, while the wall has a 'feathered' inverted V with an internal wavy line (Davey & Walker 2009, fig 35.29.8).

LPMFR/PMFRB

Late Essex-type post-medieval fine redware, either clear or brown-glazed consisted of eight sherds (7 MNV/0.65 EVEs/724g). This fabric is essentially the same as PMFR, except that it appears to be later, dated *c*.1700–1900, and contemporary with Phase 7 deposits. It is possible that these wares were manufactured at the same production centres as PMFR, although a late 19th-century pottery existed at Folly Lane, Highams Park, which mainly produced horticultural wares (Cryer 2011). Forms include the base of a bowl or dish from cut [1391] and fragments of at least three flower pots from cut [698]. There is a complete profile of a brown-glazed (LPMFRB) chamber pot with a flat-topped rim, with a large group of chamber pots in Phase 7 pit [68], which was backfilled in the mid-19th century.

BLACK

Blackware is a high-fired redware with a black glaze made in several British centres over the period *c*.1600–1900. It is common in north-east England. A single medium rounded bowl base with a footring came from a late

18th- to early 19th-century Phase 7 fill [878] of pit [879].

VERW

Verwood ware was manufactured from the medieval period through to the mid-20th century at several locations in the Verwood area on the Dorset-Hampshire border (Draper & Copeland-Griffiths 2002). It is represented by one sherd (1 ENV/0.3 EVEs/ 306g) recovered from the late 19th-century backfill of Phase 7 soakaway [1177], consisting of the complete profile of a medium rounded bowl with a narrow-rounded rim, green-glazed on both surfaces and made in a pink sandy fabric.

STSL, FABRIC 50

Staffordshire-type combed slipware was represented by two sherds (2 MNV/0.08 EVEs/32g) from Phase 6 deposits, comprising the piecrust rim of a rounded dish from pit [349] and a body sherd from a chamber pot or porringer (Barker & Crompton 2007). The ware was used in London *c.*1660–1870 and was manufactured at numerous places across Britain, with Isleworth and Hounslow, active *c.*1754–1850, being the nearest production site.

SPEC

Speckle glazed ware, a red earthenware with distinctive brown speckles and a usually clear glaze, appears to be from an East Anglian source (Jennings 1981, 155). It dates to *c.*1680–1740 according to Passmore Edwards Museum data. Only three non-diagnostic sherds (3 MNV/0 EVEs/45g) were present, derived from two contexts (Phases 6 and 7).

LONS

London stoneware was first produced *c.*1670 when John Dwight established his works at Fulham and manufactured only ended *c.*1926 with the closing of the last of Doulton's Lambeth factories. Numerous potteries existed elsewhere during the intervening period, mostly at Thameside locations (Oswald *et al* 1982). The fabric varies from grey, to cream or white in colour and has characteristic black specks. Twelve sherds were identified (11 MNV/1.09 EVEs/750g) within Phase 6 and 7 deposits. The vessels present are typical 19th-century forms, particularly

containers comprising bottles, which include a bellied type from [692], cylindrical bottles from [167] and [192], an intact dwarf ink bottle from [360] and a rounded jug base from [679]. Of particular interest are a flask from [650], probably for storing an alcoholic spirit, moulded in the form of a woman and surviving as the neck, torso and arms, and a small rounded jar from [367] with moulded bead borders, possibly a spittoon.

ENGS, ENGS BRST, ESSEX FABRIC 54

English brown salt-glazed stoneware, or with a Bristol glaze comprise English stonewares. This fabric was represented by 26 sherds (16 MNV/2.85 EVEs/1.702kg), of which four sherds (4 ENV/0.5 EVEs/795g) consists of ENGS. The majority unless otherwise stated came from Phase 7 deposits. The London stoneware forms largely consist of 19th-century bottles, including three cylindrical bottles from soakaway [430] with the stamped name of J Bourne and Sons, Codnor Park, Derbyshire, dated to *c.*1833–61 when this company operated from this site (Askey 1998, 149). Amongst the ENGS BRST bottles is an intact annatto bottle from cut [329], while pit [299] contained a shouldered jar with a late 19th-century dated 'air-tight' rim and four late 19th-century cylindrical jars, which served as containers for manufactured products including jams. An intact ENGS dwarf ink bottle came from soakaway [398]. The spout of a jug with moulded acanthus leaf decoration in ENGS BRST came from cut [1177]. An unusual intact, internally Bristol-glazed small ointment pot was recovered from soakaway [108], the thick base containing a hemispherical depression, The green-glazed out pipe of a water closet from pit [1086] may date to the early 20th century.

DERBS, ESSEX FABRIC 45G

Derbyshire stoneware is represented by seven sherds (0.08 EVEs/135g) of a single medium rounded bowl from Phase 6 mortar surface [1035]. It has a narrow flat rim and dates to *c.*1700–1900 (Oswald *et al* 1982).

SWSG, ESSEX FABRIC 47

White salt-glazed stoneware is a distinctive usually common 18th-century stoneware, dated *c.*1720–80 (Jennings 1981, 222). It is represented by four sherds (3 MNV/0.05

EVEs/15g), the only diagnostic form being the rolled rim of a chamber pot which was residual in a Phase 7 pit [679].

BBAS/BBAS G, ESSEX FABRIC 49

Black basalt ware, either unglazed or glazed is a stoneware developed by Josiah Wedgewood in 1768 to imitate classical vases. The fabric endured throughout the 19th century (Hildyard 2005, 132–5) in the form of tea wares. Here it is represented by two sherds (2 MNV/0.1 EVEs/42g) from pit [68] in the form of teapots. These comprise a BBAS internal lid seated rim sherd with moulded leaf borders, swags or drapes and a leafy escutcheon and a splayed base of a glazed type, with similar moulded leaf decoration.

SUND/SUND MOT, ESSEX FABRIC 51

Sunderland-type coarseware, with or without a mottled glaze is a high-fired red earthenware, usually with an internal white slip and clear glaze on open forms. It primarily comes from North East England, although it was also made in the Midlands and Scotland. The mottled glazed ware dates from *c.*1775–1850, while the clear glazed ware dates from *c.*1800. The London Road assemblage consists of four sherds (4 MNV/0.06 EVEs/56g) each type being represented by two open vessel sherds (2 MNV) from Phases 5 and 6. A bowl with a flat rim comprises SUND MOT which was found with a sherd of SUND in Phase 7 pit [299].

Whiteware Clays

CREA/CREA GRN/CREA SLIP/CREA TORT, FABRIC 46

Creamware, with either green, tortoiseshell glazes or slip decoration, comprising white bodied creamwares, of which there are 26 sherds (23 MNV/0.63 EVEs/342g), most of which are the plain ware (CREA), predominantly from Phase 6. Early versions may have been in existence by *c.*1720, although it is only recognisable from the 1740s while the improved glazed wares were developed by Josiah Wedgwood from *c.*1760 (Hildyard 2005, 80, 86). The latter makes up the majority of this assemblage. Production of this pottery had largely finished by 1830, although some later production took place (Lewis 1992, 119). The forms in CREA are

small and medium rounded bowls, a jug rim, tea and dinner sized plates. These were well represented in the backfill of cesspit [660], deposited *c.*1760–1800 with the plates having moulded rim borders, including bead and feather types, the former also found on bowls. The base of a drainer came from pit [68]. Single examples of 'colour' decorated creamwares include a sherd with a possible cabbage moulding (CREA GRN), dated *c.*1760–1830 from cut [168], a fragment with an external orange-brown slip band and dark brown mocha (CREA SLIP), dated *c.*1775–1830 from pit [68], and a plain rimmed octagonal plate with a brown tortoiseshell-glaze (CREA TORT), dated *c.*1740–80, from Phase 6 pit [541].

PEAR/PEAR BW/PEAR ERTH/PEAR POLY/PEAR SLIP/PEAR TR, ESSEX FABRIC 48D

Pearlware, with either blue and white, earth colour, polychrome, slip decorated or transfer-printed decoration were produced by Josiah Wedgwood in the 1770s as an alternative to his creamware. It was soon imitated nationally until about the 1840s (Hildyard 2005, 77, 125–30). It is characterised by a blue-tinged glaze, well adapted to many different types of decoration. This pottery comprises 46 sherds (33 MNV/3.64 EVEs/1.022kg) mostly from Phase 6 deposits. The forms represented are table and tea wares, as well as medium round bowls, and a small flared example. Additionally, a figurine base (PEAR POLY), possibly depicting a king, a cylindrical mug (PEAR ERTH) and a squat cylindrical jar (PEAR) were identified. Transfer-printed designs consist mostly of the willow pattern, dated from *c.*1789, and the Albion, Asiatic pheasant and Nuneham Courtney landscape, all from *c.*1830. A few Chinoiserie and European landscape designs occur. No makers' marks are present, rare before *c.*1830 on this pottery type. The main concentration was in pit [68] where at least 13 MNV were present.

REFW/REFW CHROM/REFW FLOW/REFW SLIP/REFW SPON/& TPW, ESSEX FABRIC 48D

Refined whiteware with chrome colour, flow blue, slip-, sponged or transfer-printed decoration commonly called 'china' or sold under the trade names including 'Ironstone', 'Semi-porcelaine', 'Stone China'

and 'Graniteware' in Scotland. John and William Turner *c.*1800 first mixed Cornish clay with Tabberner's Mine Rock creating a more durable whiteware than the cream and pearl wares. Their patented product was made from *c.*1805 onward with other manufactories across Britain enduring to the present. Early REFW is difficult to distinguish from Pearlware as both used the blue tinted glaze. Attributing a mid-19th-century pottery type to CREA, PEAR and REFW is fraught with problems. Clear glazed white wares are assigned to this pottery class. These wares occur mostly in Phase 6 and are less common in Phase 7. The forms recorded in REFW and its variants are much the same as those of PEAR, except for the addition of chamber pots, octagonal and pear-shaped jugs, soup, dessert and rectangular plates, and the lids for some of these vessels. Painted, slip and sponge decorated wares are common. These cheap and cheerful ceramics were marketed to lower-socio economic groups, particularly in south eastern England. Three 'nursery ware' vessels were identified including a cylindrical mug and tea cup from soakaway [108] and a tea plate from soakaway [518]. The same transfer-printed designs found on pearlwares occur on the refined whitewares, although with a wider range of geometrical (including late 19th-century examples), floral and landscape designs. During the mid-19th century Chinoiserie designs lost their popularity to European designs, except for the ever popular Willow pattern and a handful of other oriental designs. At least six vessels are recorded with either design names, makers' marks or both. These include two medium rounded bowls one with the design name 'Panama' and made by 'E CHALINOR & Co' (*c.*1862–7, Tunstall) TPW from soakaway [656] and the other with the pattern name 'Whampoa' (TPW FLOW from soakaway [650]). An octagonal jug with a purple 'GERANIUM' named design was made by 'P. W. & CO' (G Podmore, Walker & Co, Tunstall, *c.*1834–59) (TPW4) and a dessert plate marked 'STONE/WARE' in a ribbon has the pattern name 'ALBION' (both in soakaway [518]), while a dessert plate from pit [68] is stamped 'B&CO/L...', for which there are numerous possible makers (Godden 1999, 151). A saucer with a black-transfer-printed design

features a bird as part of the design and the maker's mark is largely illegible (TPW3 soakaway [108]). The identifiable makers are from the Potteries (particularly Tunstall) (Jarrett forthcoming). This confirms that the Staffordshire industry supplied London, rather than other ceramic centres, *eg* Bristol, Glasgow, Swansea and Yorkshire.

BONE

Bone china consists of a mixture of china clay and calcined animal bone fired at an earthenware temperature and has a porcellaneous appearance. It dates from *c.*1794 becoming common from the mid-19th century onwards. The ware is represented by 44 sherds (26 ENV/1.5 EVEs/2.79g) in Phase 7 pits [68] and [299]. The forms consist of tea and table wares. Several have lithographic prints, dated from *c.*1835 although these are more apparent from later 19th- and particularly 20th-century examples. Of note is a coffee cup with a depiction of royalty (probably Prince Albert) from pit [299]. Three figurines are present consisting of the lower part of a pillar with heads of cherubs, a fragment with a moulded flower from pit [68] and the base of an animal figurine (the backend of a goat from pit [299]).

ENPO HP, ESSEX FABRIC 48B

English hard paste porcelain dates to *c.*1780–1900 and is represented by a small 19th-century figurine (42g) from Phase 7 soakaway [650] of a man minus his head in 18th-century attire with a pink waistcoat and turquoise coat.

YELL/SLIP, ESSEX FABRIC 48E

Yellow ware, plain or with slip decoration is a high-fired, pale buff earthenware with a clear glaze developed at Bristol *c.*1800 (Thomas & Wilson 1980) and manufactured across Britain in the Midlands, Yorkshire and Scotland. It was common in London from *c.*1820 and continued to be made into the early 20th century, often being described as a utilitarian ware. It is represented by 63 sherds (32 MNV/4.17 EVEs/3.464kg) of which 68.8% by MNV is slip-decorated with blue or white slip lines or white slip bands with mocha decoration. Small assemblages were recovered from a number of Phase 7 deposits with a larger concentration from pit

[68]. Nine examples come from construction cut [1177] representing kitchen wares and at least five chamber pots with mainly complete profiles and a mocha cable design in blue, green and pink possibly representing a specific purchase. There is a flared dish stamped 'WARRANTED', pit [68].

Conclusions

The London Road ceramics are similar to other contemporary assemblages from the east London area. The proportion of the Mill Green material is comparable to that encountered on other London sites in contrast to the nearby Axe Street assemblage, where it was dominant, possibly because this site may represent a local redistribution centre. The proportion of coarse versus fine wares, which tends to be roughly equal among the Ingatestone groups and constitutes a minor contribution to the Noak Hill production, is of note here in representing roughly a third of the overall group at this end user site.

The presence of medieval continental imports confirm that the local community had access to a wide range of locally and internationally produced ceramics, both as a result of being close to the medieval abbey as well as a port facility.

Of particular interest are a number of 15th- to 16th-century ceramics indicative of higher status households. These ceramics include German stonewares, imported tin-glazed wares and occasional sherds of high quality white and redwares, reflecting the influence of the Renaissance on North-West European society (Gaimster 1999).

The Small Finds

Märit Gaimster

Phase 1.1: Late Saxon

Fill [8] of pit [9] produced two pieces of German lava quern stone <SF84>, with more residual fragments recovered from later phases (<SFs 82–3> & <SFs 86–8>; *cf* Freshwater 1996; Hayward 2014, 210). Lava quern stone fragments were also recovered from a nearby site (BNA04; Hayward 2008). A tang-hafted iron knife with fine inlays along the back (<SF111>; Fig 16.1) was

a residual find in Phase 2 fill [350] of pit [354], associated with pottery dating from 1200–1300. Knives with inlays are particularly known from the Late Saxon period, with some spectacular seaxes providing examples (*cf* Backhouse *et al* 1984, 101–3). Inlaid knives are however also known from the Middle Saxon period (*cf* Ottaway 2009, 204–5) and the delicate decoration on the knife from London Road, with its fine looped interlace design may suggest an early date. The design has parallels with examples of 8th-century high status and ecclesiastical metalwork and a small Middle Saxon ceramic mould for casting glass studs from Bermondsey Abbey (Youngs forthcoming; *cf* Ryan 1989). Another residual find was the fragment of a ceramic loom weight, <SF42>, associated with the use of the vertical warp-weighted Early and Middle Saxon looms. This type of loom went out of use during the late 9th and 10th centuries, when a different type of vertical loom was adopted, which did not require weights to keep the warp tight (Leahy 2003, 72–4).

Phase 1.2: Earlier Medieval

A woodworking tool, comprising a complete iron auger spoon bit <SF13> came from fill [432] of pit [421] (Fig 16.2). This form of drill was set in a transverse handle. The size of the bit indicates that it would have been used for work such as drilling peg holes for joints in timber-framed buildings (Goodall 2011, 23–5).

Phase 2: 13th and 14th Centuries

Residual finds from the features within the southern part of the site included fragments of a delicate copper-alloy buckle <SF47> from the fill [1612] of Phase 6 pit [1613] (Fig 16.3). It has an oval lipped frame with offset bar and a complete copper-alloy buckle pin. The form is characteristic of the 13th and 14th centuries (*cf* Egan & Pritchard 1991, 70, Fig 42).

Phase 3: 15th Century

Fill [534] of pit [535] produced the fragment of a slender hone of Norwegian ragstone with sharpening grooves along the centre of its body (<SF85>: Fig 16.4).

Another fragment of Norwegian ragstone hone <SF31> came from fill [956] of pit [957]. Fill [505] of pit [506] contained parts of an iron harness buckle <SF114> and a characteristic late medieval iron horseshoe with a broad web and square nail-holes without countersunk slots (<SF115>; *cf* Clark 1995, 88–91). Another iron harness buckle was retrieved from fill [581] of pit [601] (<SF18>; Fig 16.5).

Phase 4: Pre-Dissolution (Earlier 16th Century)

Fill [1656] of pit [1657] contained a fragment of a copper-alloy skimmer, an important kitchen instrument used for extracting meat and other items from a stewing pot (<SF50>; Fig 16.6). It consists of part of a disc, perforated with regular holes, with a thickened edge. It would have been attached to a long wooden handle riveted to a sheet socket (*cf* Egan 1998, fig 126 no. 438; Williams 1997, fig 62). There was also part of a probable spade iron from cut [1657] (<SF126>; Fig 16.7). The top of the iron reinforcement section would have been grooved to hold the wooden blade; it was held in place by an arm on either side, which would have had a lug or hole for fixing (*cf* Goodall 2011, 77–9 & fig 7.3: F12). A fragment of a double-sided bone comb <SF22> came from fill [672] of pit [717], while pit [477] produced a substantial copper-alloy lace-chape made from rolled sheet (<SF93>; Fig 16.8). Small lace-chapes are ubiquitous finds from 15th- and 16th-century London deposits, reflecting the fashion for fitted clothing that required lacing (Egan & Pritchard 1991, 281–90; Margeson 1993, 22). The function of larger chapes is not known, but they may have been used on belts and girdles (*cf* Egan & Pritchard 1991, fig 188; Williams 1997, fig 58 no. 2). An iron padlock bolt, with three springs and an oval end plate, came from a 19th-century context (<SF113>; Fig 17.1).

A copper-alloy jetton was retrieved from fill [791] of well [794] (<SF28>; Fig 17.2). These coin-like tokens were used for making calculations on reckoning boards. By the mid-16th century, production of jettons was dominated by Nuremberg, where this example was manufactured. It features a

jewelled mitre on the obverse, and a peacock on the reverse, it belongs to a more unusual series, known as general Bishopric types (Mitchiner 1988, 340 no. 1015) dating from the mid- to late 15th century (*ibid*, 334).

Phase 5: Post-Dissolution (Later 16th Century)

An iron hinge for doors or shutters was retrieved from fill [219] of pit [220] (<SF109>; Fig 17.4). A complete iron horseshoe came from fill [159] of pit [160] (<SF105>; Fig 17.5). With one branch of solid square section and the other widely flattened the horseshoe is of an unusual form, paralleled by a find from Southchurch Hall in Essex, a medieval moated manor, this has been compared with another 15th-century example, which possibly was a surgical horseshoe (Brown 2006, fig 44 no. 105; *cf* Sparkes 1976, 13).

Phase 6: 17th and 18th Centuries

A structural fitting, in the form of an iron staple with short inturned arms, came from fill [693] of quarry [694] (<SF110>; Fig 17.3). The terminal of an iron fire fork came from fill [1431] of pit [1432] (<SF41>; Fig 17.6; *cf* Lindsay 1970, fig 79), and a blacksmith's tool, comprising a complete iron chisel, from fill [1279] of pit [1278] (<SF131>; Fig 17.7). An incomplete copper-alloy sheet vessel came from fill [1162] of pit [1164]. It is shallow and has a broad rim with holes for fixing

Fig 16 (opposite). Medieval and post-medieval small finds: 1. Middle or Late Saxon tang-hafted iron knife with fine inlays along the back <SF111> X-ray, residual find, from fill [350] of cut [354] (Phase 3); 2. Complete iron auger spoon bit <SF13> find, from fill [432] of cut [421] (Phase 1.2); 3. Copper-alloy buckle; it has an oval lipped frame with offset bar and a complete pin <SF47>, from fill [1612] of cut [1613] (Phase 6); 4. Fragment of hone of Norwegian ragstone with sharpening grooves <SF85>, from fill [956] of cut [957] (Phase 3); 5. An iron harness buckle <SF18>, from fill [581] of cut [601] (Phase 3); 6. Fragment of a copper-alloy food skimmer <SF50>, from fill [1656] of pit [1657] (Phase 4); 7. Part of a probable spade iron <SF126>, originally attached to a wooden blade, from fill [1656] of cut [1657] (Phase 4); 8. Rolled sheet copper-alloy lace-chape <SF93>, from fill [476] of cut [477] (Phase 4) (scales 1:2 (1–2, 4–8), 1:1 (3))

Fig 17. Post-medieval small finds: 1. Iron padlock bolt <SF113>, residual Phase 4 find, from fill [472] of cut [473] (Phase 7); 2. Copper-alloy jetton <SF28>, from fill [791] of well [794] (Phase 4); 3. Iron staple, a structural fitting <SF110>, find, from fill [693] of quarry pit [694] (Phase 6); 4. An iron hinge for either a door or shutter <SF109>, from fill [219] of pit [220] (Phase 5); 5. An unusual type of iron horseshoe <SF105>, from fill [259] of pit [160] (Phase 5); 6. Terminal of an iron toasting fork <SF41>, from fill [1431] of pit [1432] (Phase 6); 7. Iron chisel <SF131>, from fill [1279] of pit [1278] (Phase 6) (scales 1:2 (1, 3–7), 1:1 (2))

into wood, suggesting it may have served as a kitchen basin (<SF36>; Fig 18.1).

An iron harness buckle was recovered from pit [780] (<SF118>; Fig 18.2), while a fragment of a bone fan blade <SF98> came from the primary fill [543] of brick-lined cesspit [541]. Pit [1597] contained a fragment of a delicately carved bone toilet implement (<SF48>; Fig 18.3). It is a small spoon for cleaning the ears and was probably part of a toilet set also incorporating a toothpick and nail cleaner; such sets were popular from the 16th century onwards (MacGregor 1985, 99 & fig 57; *cf* Fox & Barton 1986, fig 150 no. 11). A short and delicate ivory cutlery handle came from fill [342] of pit [343] (<SF10>; Fig 18.4). Plain and tapering, it is characteristic of late 16th- or early 17th-century knives with long bolsters and short hafts (*cf* Moore 2006, 13, lower image), it may be residual or represent a curated object.

Phase 7: 19th Century

A small group of household objects were recovered from the fill [431] of soakaway [430]. These include <SF12> a highly decorated slender ivory handle for a tang-hafted implement, carved in the round with baluster shapes and an acanthus-leaf finial (Fig 18.5). There were also fragments of a plain ivory cutlery handle with straight end <SF101>, a bone cutlery handle with slightly pistol-shaped end <SF102> and a dished bone button <SF100>. A hone of Ardingley sandstone <SF20> came from soakaway [650], while soakaway [656] produced a slender bone handle from a razor, marked in minute copper-alloy rivets with the initials 'V R' (Victoria Regina) below a crown, with a floral design above and below (<SF19>; Fig 18.6). Further south still, a delicate copper-alloy finger ring with a small oval bezel for an inset (<SF30>; Fig 18.7) was recovered from soakaway [430], and the head of a bone toothbrush <SF24> was uncovered from cut [692].

Finds associated with the 1788 workhouse included a complete, but corroded fiddle-and-thread copper-alloy teaspoon <SF11> from brick soakaway [360], while a dished bone button <SF4> and a fragment of slate pencil <SF5> were recovered from the fill [107] of brick soakaway [108].

Clay Tobacco Pipes

Chris Jarrett

Introduction

Some 157 fragments of clay tobacco pipes were recovered from the excavations, consisting of 10 mouth parts, 100 stems and 47 bowls with a date range of *c.*1660–1910, all appeared to have been used. The pipe bowls were classified following Atkinson and Oswald's (1969) typology (AO prefix), except for the 18th-century examples which follow Oswald's (1975) system and which have been prefixed OS. Closer dating of the bowl types follows Higgins (2004). The assemblage is summarised by period: the bowls range in date between *c.*1660 and 1910 and all show evidence of use. Table 1 shows the quantification of the different bowl types by period.

Table 1. Distribution of the clay tobacco pipes by phase

Type	Date range	Phase 3	5	6	7	+	Total
AO13	1660–1680			4			4
AO19	1680–1710	1					1
AO22	1680–1710			10			10
OS12	1700–1740			3			3
AO26	*c.*1730–1800			1			1
AO27	1770–1845			1	5		6
AO28	1820–1850				8		8
AO29	1840–1880				6		6
AO30	1840–1910				3		3
Unidentified bowl type					5	3	8
Mouthpart				1	8	1	10
Stem		3	3	28	62	4	97
Total		4	3	48	97	8	157

Discussion of the assemblage

1660–80

Four heeled AO13 bowls with a rounded profile; three are in a fragmentary state and one bowl from [572] fill of cut [528] was complete, with no milling and a fine quality of finish.

1680–1710

Fill [665] of cut [656] produced one spurred AO19 bowl with a rounded profile with a quarter milling of the rim and a fair finish.

Six heeled, straight-sided AO22 bowls of which one has no milling and the rest have a quarter milling on the back of the rim with a fair quality finish, of which three come from context [186], fill of pit [187] one from fill [543] of cut [541], one from fill [860] of cut [861], and one from fill [1431] of cut [1432].

1730–80

Three upright heeled OS12 bowls with a rounded front, straight back and thin stem, all of which are initialled, were recovered. One, SF80 from context [1479] with the initial M surviving on the heel, where the first initial is absent (it appears not to have been part of the mould). Two bowls, <SF78> and <SF79>, both damaged, have the initials R K and were recovered from pit [1479]. A local pipe maker with these marks is unknown. Robert Knight (2), St Olave's parish, Southwark, 1714–49 is a possibility (Walker 1981, 178; Hammond 2004, 19).

1730–1800

There is a single damaged spurred 18th-century AO26 bowl, <SF74> from cut [541], decorated with the Hanoverian Coat of Arms and initialled on the spur with the letters H T.

1770–1845

There are six upright, square heeled bowls

Fig 18. (opposite) Post-medieval small finds: 1. Incomplete copper-alloy sheet vessel <SF36>, possibly used as a kitchen basin, from fill [1162] of pit [1164] (Phase 7); 2. Iron harness buckle <SF118>, from fill [799] of pit [780] (Phase 6); 3. Carved bone toilet implement <SF48>, from fill [1596] of pit [1597] (Phase 6); 4. Ivory cutlery handle [343] <SF10>, from fill [342] of pit [343] (Phase 6); 5. Highly decorated slender ivory handle with an acanthus-leaf finial, intended for a tang-hafted implement <SF12>, from fill [431] of soakaway [430] (Phase 7); 6. Bone razor handle <SF22> bearing the initials 'V R' below a crown, with a floral design above and below, from fill [655] of soakaway [656] (Phase 7); 7. Copper-alloy finger ring with a small oval bezel <SF30>, from fill [431] of soakaway [430] (Phase 7) (scales 1:4 (1), 1:2 (2), 1:1 (3–6), 2:1 (7))

with a rounded front and straight back of the AO27 type, all initialled on the heels. One bowl, <SF55> from fill [79] of cut [80], is moulded with a 'Fox and Grape' type public house design and the initials H B. This was probably made by Hugh Bellis, 1845–7, of London Road, Barking (Oswald 1975, 170; Dagnall & Hammond 2005, 16). A bowl, <SF53> from fill [67] of cut [68], is also moulded with a 'Fox and Grape' type public house design, with the mark P B. This was probably made by Paul Balme, 1832–66, of Mile End Wharf or Mrs P Bellis, 1845–51, of London Road, Barking (Oswald 1975, 132, 170; Dagnall & Hammond 2005, 28). Another bowl from fill [67] <SF52> has the mark T B, surviving mostly as the heel with evidence of fluting of equal size. It may have been by Thomas Balme, 1805–45, from Mile End Road (Oswald 1975, 132).

Two bowls carry the initials S B: one from fill [67] <SF54> is plain; the second <SF51> is decorated with oak leaf borders and fluting of alternating different sizes. No local pipe makers have been identified with these marks, although makers from central London are known (Oswald 1975, 132). One bowl, mostly comprising a heel, <SF77> from fill [691] of cut [692], has the initials T R. There were two known possible pipe makers working in the Tower Hamlets area who could have made this bowl: Thomas Ruscoe (1), 1799–1807, of Limehouse, or Thomas Russel, 1808, of Greenbank, Wapping (Oswald 1975, 144).

1820–60

Eight upright spurred AO28 bowls with a rounded front and straight back, of which two examples lack spurs, were recovered. They consist of a plain variant from [67] fill of cut [68] and a second with leaf borders similar to the H B marked bowls (see below), <SF63> from fill [107] of cut [108]. Four examples, <SF59>, <SF61>, <SF62> and <SF66>, are from [107], the fills of cut [108], initialled on the heels with an H B mark: these bowls have leaf borders. They were probably made by Hugh Bellis, 1845–7, of London Road, Barking (Oswald 1975, 170; Dagnall & Hammond 2005, 26). One bowl, <SF68> from [167] fill of cut [168], is initialled I F on a nicely wiped bowl with an incuse stamp 'FORD/STEPNEY' in sans serif lettering on

Table 2. Chronological distribution of the tobacco pipes by fill context and phase. Key: ED = earliest date and LD = latest date

Context	Phase	No. of fragments	Context ED	Context LD	Bowl types (and makers)	Context considered date
67	7	1	1580	1910	stem	1580–1910
68	7	10	1820	1860	x4 AO27 P B: <SF53>; S B: <SF51> and <SF54>, T B: <SF52), x1 AO28	1820–45
79	6	3	1780	1820	x1 AO27 H B: <SF55>	1770–1845
107	7	20	1840	1910	x6 AO28 HB: <SF59>, <SF61>, <SF62> and <SF66>; ? O: <SF56> x3 AO29 <SF57> and <SF60>, W H: <SF58>, x2 AO30 <SF64> and <SF65>	1840–60
133	7	2	1580	1910	stems	1580–1910
140	7	4	1730	1780	x1 unidentified S S: <SF67>	1730–80
152	5	1	1580	1910	stem	1580–1910
158	6	1	1580	1910	stems	1730–1910
167	7	2	1820	1860	x1 AO28 I F: <SF68>	1820–60
186	6	8	1680	1710	x6 AO22, stems	1680–1710
190	6	2	1580	1910	stems	1580–1910
228	7	2	1580	1910	stems	1580–1910
234	7	9	1580	1910	stems	1580–1910
241	7	1	1580	1910	stem	1580–1910
272	7	1	1580	1910	stem	1580—1910
298	7	4	1580	1910	late 19th-century nib, stem	late 19th century
348	6	2	1580	1910	stems	1580–1910
397	7	1	1580	1910	x1 unidentified bowl fragment <SF75>	Mid–late 19th century
426	7	1	1580	1910	stems	1580–1910
431	7	3	1850	1910	x1 AO30 <SF70>, x1 unidentified <SF69>, stems	1850–1910
458	6	3	1580	1910	stems	1580–1910
460	6	4	1580	1910	Stems	1580–1910
538	7	7	1840	1880	x3 AO29 P B: <SF1> and <SF72>, <SF71>, stems	1840–80
543	6	5	1760	1800	x1 AO22, x1 AO26 TH: <SF74>	1760–1800
568	6	2	1580	1910	stems	1580–1910
572	6	8	1660	1680	x1 AO13, stems	1660–80
573	6	1	1580	1910	stems	1580–1910
658	7	1	1580	1910	stems	1580–1910
665	3	1	1680	1710	x1 AO19	1680–1710
678	7	4	1580	1910	stems	1730–1910
691	7	4	1770	1845	x1 AO27 T R: <SF77>, unidentified: SF76, stems	19th century

Context	Phase	No. of fragments	Context ED	Context LD	Bowl types (and makers)	Context considered date
860	6	3	1730	1780	x1 AO22, x2 OS12 R K: <SF78> and <SF79>	1730–80
888	7	1	1580	1910	stem	1580–1910
1154	6	1	1580	1910	stem	1580–1910
1175	7	3	1580	1910	stems	1580–1910
1259	5	2	1580	1910	stems	1580–1910
1271	7	1	1580	1910	stem	1580–1910
1390	7	7	1580	1910	stem	1580–1910
1431	6	4	1680	1710	x1 AO22, stems	1680–1710
1479	6	1	1730	1780	x1 OS12 M: <SF80>	1730–80
1623	7	1	1580	1910	stem	1580–1910
1673	7	15	1580	1910	stems	1580–1910

Key: ED = earliest date; LD = latest date

the back identifying the maker as John Ford (2), 1805–65, of Stepney (Oswald 1975, 136). There is a damaged plain bowl <SF56> from fill [107] of soakaway [108] with an illegible first initial followed by the letter O.

1840–80

The AO29 type is represented by six upright square heeled bowls with a rounded front, straight back and sloping rim. All are initialled or marked on the heels except for one small example from [538] fill of cut [518] where the initials appear to have been deliberately scraped away. Two more bowls <SF72> and <SF73> from fill [538] have an oak leaf on the front and are marked P B with the first initial inverted. These may be by Paul Balme, 1832–66, of Mile End Wharf, or more likely by Mrs P Bellis, 1845–51, of London Road, Barking (Oswald 1975, 132, 170; Dagnall & Hammond 2005, 28). Two bowls from fill [107], <SF57> and <SF60>, are poorly moulded with leaf borders and the heels have either lyre or shield marks. Also from [107] is a single bowl <SF58> marked W H, decorated with an oak leaf and acorn border on the front of the bowl and a leaf border on the back. This may be by William Harrison (2), 1860, of Mile End Road (Oswald 1975, 139).

1840–1910

Three AO30 bowls lacking heels or spurs are all highly decorative. The first <SF65> is decorated with ribs with an oval surround on the front and back of the bowl, recovered from fill [107] of soakaway [108]. The second <SF64> has leaf borders, also from [107]. The third <SF70>, from [431] fill of Victorian soakaway [430], is decorated with alternating sized vertical fluting consisting of broad ribs with rounded ends and a pin-head.

Non-Diagnostic Decorated Bowl Fragments

One bowl survives as a spur with the initials S S <SF67> and is a residual find from [140], the fill of bomb-shelter [137]; it was recovered with other bowl types dated 1730–80. The pipe maker remains unknown. Other non-diagnostic bowl fragments date to the late 19th century. The first, <SF75> from fill [397] of soakaway [398], has the heel or spur missing and is decorated with leaf borders, scales and a vertical sinuous motif, possibly a snake tail, near the rim. The second fragment <SF69> (possibly from an AO28 type) has Masonic symbols, surviving from fill [431] of brick lined soakaway [430]. The third fragment <SF76> from fill [607] fill of linear cut [610] has dots between large vertical ribs.

The Building Materials and Related Finds

Kevin Hayward

Phases 1.1 and 1.2: Later Saxon and Earlier Medieval, plus Residual Roman Finds

Small quantities of Roman ceramic bricks and tiles [5kg], and fragments of probable Roman masonry in the form of Bargate stone (1.7kg) turned up throughout the site, especially from the Saxon and medieval pits. This material is in a highly abraded and fragmentary condition; very few pieces have definable edges and forms, although most bricks and tiles have flat surfaces which suggests selective stockpiling of Roman building material, perhaps for use at Barking Abbey. Indeed, Roman tile has been found reused in the remains of the abbey church (Ryan 1996, 10). Stone types (*eg* Barnack stone) identified in Saxon monumental architecture and funerary monuments from the abbey (Tweddle *et al* 1995) were not present in the assemblage from London Road. Fragments of Saxon daub derived from wattle and daub structures was found in fill [8] of pit [9], plus Saxon pit [1134] and as residual finds in cut [11].

A Wealden Sandstone whetstone deposited in a later post-medieval soakaway [649] may well be Roman given its wide provincial distribution (Shaffrey & Allen 2014). Finally, a millstone grit quern edge from fill [278] of Phase 4 pit [279] and a hone from fill [1316] of Phase 2 pit [1317] are likely to be Roman in date. These quartz grained sandstones from Yorkshire or South Wales have a wide provincial distribution, although their use in London is somewhat limited (Hayward forthcoming a)

Phases 2–3: Later Medieval

Most of the later medieval building material assemblage, including 147kg of ceramic building material and nearly all (50kg) of the stone, was recovered from the numerous medieval and post-medieval pits. Most of the ceramic building material (95%–136kg) consists of locally produced and London-type glazed peg, bat and curved tile fabrics which may have formed part of the burgeoning medieval settlement of Barking. The chalk masonry lining walls [1284]–[1286] and

the demolished remnants of a storage room [1429], are the best indications for the primary usage of this material.

The influence on the assemblage of nearby Barking Abbey (150m to the south-west) should be considered. Examples of very early coarse glazed floor tile in a coarse sandy fabric 2273 (dated to 1135–1220) are of particular interest: these have been identified at only a handful of other earlier priories around London, including the nearby St Mary Stratford Langthorne (Smith 2004, 24; fig 16) and Bermondsey Abbey (Hayward forthcoming a). The documented historical links with St Mary Stratford Langthorne suggest a common 12th-century monastic demand for these early tiles downstream from the production centres in London.

Other examples of floor tiles were represented by a few 13th-century Westminster and 14th-century Penn tiles and some examples of later medieval plain-glazed Flemish tiles. All these floor tiles may have originally been used in abbey buildings. A few examples of the 14th-century white 'Flemish' type brick and estuarine bricks might be connected with later medieval improvements to the abbey's drainage. In addition to the quantities of residual chalk, Hassock and Kentish ragstone rubble, there were some blocks of Reigate ashlar, plus a few pieces of the rarer Tottenhoe stone. Two intricately carved mouldings, an unstratified engaged scalloped capital in Caen stone (WSN 7) and a spiralled Purbeck marble column from chalk wall [1284], are Romanesque to Early English in form dating to 1150–1250.

The diverse range of stone types (19), peg tile, brick and floor tile fabrics, reflects commercial links with production centres across southern England and further afield. Materials could have easily shipped to Barking via the Thames and Barking Creek. Two examples of whetstones made from Norwegian ragstone were recovered from medieval pits [534] (<SF85>: Fig 16.4) and [934] (see Gaimster above). This metamorphic rock from Telemark in Norway, was widely used in major centres across southern England including London (Moore 1978).

Phases 4–5: 16th Century

The post-medieval development of Barking involved the increased usage of bricks, including the construction of walls, cesspits, drains, soakaways and wells. Barking and its environs unlike the City of London (which replaced consignments of 'Tudor' style red bricks with clinker rich post Great Fire bricks after 1700) continued to manufacture earlier fabric types (3033, 3046, 3046nr3032) into the 18th and 19th centuries. Consequently there are a greater number (11) of later post-medieval brick fabrics here (both *ex-situ* and within structures) than there would be expected in the capital. Complicating the matter yet further is the impact of brick reuse from earlier post-medieval or even medieval structures in and around Barking.

The presence of large dumps of thin, wide, crinkly red bricks (107kg), peg tile (198kg) and some plain glazed Flemish silty floor tile (15kg) reflects the development and prosperity of early post-medieval Barking. However, only a handful of brick structures can be assigned to this period. These include soakaway [108], walls [291] and [1091], well [1242], and cess pits [1451] and [1455]. A number of early red bricks are associated with the demolition of the storage building [1429] suggesting it was still in use during this period. The backfill of this structure contained 6kg of late medieval to early post-medieval plain glazed silty Flemish tiles dated 1450–1600.

Building materials recovered from the Phase 5 backfill of storage room [1248] included a smooth Sussex Marble paving slab, frequent complete Flemish glazed silty fabric floor tiles and fragments of late medieval early post-medieval bricks, which indicate that the structure they originated from was quite grand

Phase 6: 17th and 18th Centuries

Very little structural evidence for the documented construction of the 1722 workhouse remains (see Historical Background). It is possible that brick lined pit [541] pointed with a shelly mortar, and the sizeable number of transitional early post-Great Fire bricks 3032nr3033 (dated 1664–1725) come from this structure.

Phase 7: 19th Century

Wall elements [288] and [294] belong to the 1788 built later workhouse. It appears that the foundations of this building in part reused earlier bricks. A large proportion of the structures on the site can be dated to the late 18th and 19th centuries on the basis of brick size, form (frogging), fabric and mortar. Most of the structures consist of the linings of wells and soakaways. Government legislation introduced in 1770 to limit the size of bricks is reflected on site by the enormous quantities of post-Great Fire bricks, local reds and Medway 'yellows' of small size, and especially narrow width (95–103mm). Many of these structures have deep frogged bricks, a development in brick manufacture from 1750 onwards introduced to reduce production and transport costs (by reducing the amount of clay used and the weight of the product). Medway bricks (manufactured after 1780) begin to be used – whilst harder concretionary types of mortar, especially a clinker rich variety, also began to be introduced. A fragment of Portland stone in pit fill [687] and an unstratified machined stone base in York stone are examples of stone brought in from further afield during this period. Large lumps of coal are evidence of fuel being brought in from northern England or perhaps even Scotland.

20th Century

Small quantities of Fletton bricks, including MARSTON bricks from Phase 5 dump [972] were manufactured between 1922 and the 1940s in the Bedfordshire Brickfields.

Discussion and Conclusions

The identification of Bargate stone, a rock associated with late Roman masonry buildings, *eg* in Southwark (Hayward forthcoming b), is of particular interest and would suggest the presence of a Roman masonry structure from the general area. The small but varied Roman–Saxon assemblage includes not only 5kg of dumped tile, but also some stone objects (hones; quern) made from a range of continental (German Lavastone; Norwegian ragstone) and native (Millstone Grit; Wealden Sandstone) stone types, brought in from some distance.

The presence of 12th-century plain glazed floor tiles is significant as these tiles have only been recorded at a handful of other monastic sites or their environs within Greater London including Bermondsey (Hayward forthcoming b) and the nearby St Mary's Stratford Langthorne (Smith 2004). A small group of late medieval Essex Estuarine and Flemish bricks may relate to 14th-century improvements to the abbey's drainage. The fabric of one group of rather unusual organic rich and silty textured peg tiles is quite unlike those from central London; possibly it relates to the nearby tileries at Weald View, Noak Hill, Essex (Meddens *et al* 2003).

Two highly decorative 12th- to 13th-century Romanesque–Early English mouldings are of interest: an engaged scalloped capital in Caen stone from Normandy, and the ribbed Purbeck marble column from the Isle of Purbeck, Dorset. These two highly decorative architectural stones may be derived from the 12th-century embellishment or rebuilding of Barking Abbey church.

Medieval Cushion Capital and Column Shaft

The unstratified example of a cushion capital with scallop decoration stylistically dates to the late 12th century, suggesting it was originally part of Barking Abbey. It might have formed part of a row of arches within the church, for example between the nave and an aisle, or possibly part of external blind arcading. This cushioned capital with a sub-circular top measured 140 x 140mm and has distinct circular markings, which appear to be some form of geometric template for the masons. It is made of imported yellow Caen stone (Middle Jurassic) from the Departement of Calvados on the Normandy Coast; this hard condensed yellow limestone packed with fossil snail pellets was robust enough to be used in the major structural components of large ecclesiastical buildings. The fine even grained surface of this freestone was ideally suited for fine intricate decoration, whilst its bright yellow hue was used along with the orange Taynton stone from Oxfordshire to emphasise the golden yellow external decoration so typical of other late 12th-century ecclesiastical buildings close to London, such as Bermondsey Abbey (Hayward forthcoming a) and the magnificent Reading Abbey.

A 100mm diameter fragment of a fluted and ribbed Purbeck marble column was reused in the masonry lining of Phase 3 structure [1284]. Purbeck 'marble' is actually a hard condensed fossiliferous limestone packed full of tiny freshwater snails, and sourced to the Lower Cretaceous (Purbeckian) of the east Dorset Coast; it only became a popular material choice from the late 12th to early 13th century onwards. This dense stone was ideally suited to the manufacture of column shafts for the interior of a church, its dark blue colour contrasting with the warm colours of Caen stone and Taynton stone. This fragment of fluted shaft was decorated with a distinct, repeating, V-shaped ridged chevron pattern typical of the Early English style (late 12th to early 13th century). The piece retains a sheen typical of a polished stone (Hayward 2014). The polish was achieved with acetic acid; a contemporary account from the 1220s, the *Metrical Life of St Hugh*, indicates that vinegar would have been used as polish (Alexander 1995, 118).

The Animal Bones

Kevin Rielly

Introduction

Animal bones were recovered from deposits dating to all of the major phases of activity identified, although most of the site assemblage dates to the post-medieval period. The assemblage was predominantly recovered by hand, supplemented by a collection of sieved bones from 10 samples (all washed through a modified Siraf tank using a 1mm mesh and then hand sorted). The fish bones were all identified by Philip Armitage.

The site produced a grand total of 2,846 hand collected animal bones, of which 1,922 were identified to species (Table 3). A further 116 bones came from 10 bulk samples. There was a general mix of preservation states throughout these collections, the majority showed some level of surface damage, with a notable proportion demonstrating high levels of surface abrasion/erosion (Table 4). In contrast there does not appear to

Table 3. Hand collected species abundance (sieved bones in brackets) by phase

Species	Phase							
	1.1	1.2	2	3	4	5	6	7
Cattle		2	56	37	157(4)	155	344	41
Equid	1	1	2	2	1	1	41	8
Cattle-size	4(1)	1	61(8)	36	118(8)	137(2)	216	42
Sheep/Goat		1	28	31	82(3)	115	160	37
Pig			15	146	40(3)	35	83	10
Sheep-size	1(2)	1	14	24	54(8)	70(9)	80	36
Red deer						1	2	
Fallow deer					1	4		
Roe deer					2	2	4	
Dog			2	1	2	1	11	1
Cat	1		2	9	15	13	28	3
Rabbit			1		1	3		2
Small mammal				2		4	1	1
Chicken			3	6	9(9)	16	39	
Chicken-size			1		(2)		1	
Goose		1	1	3	1	12	4	2
Goose-size						2		1
Mallard					1	1	31	
Shag						1		
Sparrowhawk						1		
Woodcock						1		
Thrush					(2)			
Crow						1	1	
Raven						1		
Herring					(1)			
Conger eel				1				
Tub gurnard							1	
Cod			1		3			
Ling					1			
Gadid (cod family)					1			
cf tench							1	
Plaice					1(1)			
Plaice/flounder					(1)			1
cf sole					(1)			
Uniden fish					(19)			
Total	**7(3)**	**7**	**187(8)**	**298**	**490(58)**	**577(11)**	**1058**	**185**

Table 4. Bone preservation: noting the percentage of bones with moderate to heavy abrasion (erosion) in each phase/ sub-phase, with erosion in the moderate and poor categories equal to 50% and higher surface damage

Condition	Phase							
	1.1	1.2	2	3	4	5	6	7
Moderate to heavy erosion	3	3	50	38	56	69	73	11
Total no. of bones	7	7	187	298	490	571	1052	184
% abraded	42.9	42.9	26.7	12.8	11.4	12.1	6.9	6.0

be high levels of fragmentation within the assemblage, although it should be mentioned that where cattle skulls are present, they tend to be well fragmented. This may relate to the butchery methods (see below). Further damage to the bones can be linked to the attention of scavengers. Minor proportions of dog gnawed bones came from each phase varying between about 2% and 5%, the higher percentages attributable to the post-medieval phases. While this proportional difference is not large (medieval 1.7–2.1% and post-medieval 3.2–5.3%), it could nonetheless suggest some disparity related to the manner of deposition of the various groups.

Phase 1.1: Late Saxon

This phase produced seven bones, three of which were in poor condition (Table 4) and only two were identifiable to species; oddly

these comprise a loose equid mandibular cheek tooth and a fragment of a cat humerus.

Phases 1.2–3: Norman to 15th Century

The majority of the faunal material was derived from the Phase 2 and 3 deposits. Phase 1.2 provided a minor collection comparable to that from Phase 1.1 with regards to its level of preservation. Phases 2 and 3 produced notable quantities of the major domesticates, the first dominated by cattle bones and the second by pig (Table 5). A large proportion of the pig bones from Phase 3 represent the remains of two nearly complete articulated carcasses (Table 5 and below). Following removal of the latter, the abundance pattern favours cattle (Phase 3 in Table 6), but with a noticeably good proportion of sheep/goat and a minimal representation of pig (Fig 19.1). The quantities are not large, but the increase in

Table 5. The pig skeletons from Phases 3 and 6

Phase	Feature	Bones	Age description	Age (yrs)	N
3	pit [277]	all	Late epiphyses (>3–3.5yrs); UF vertebrae (<4–7yrs)	3–3.5	44
3	quarry pit [601]	all except H	tibia DJF (a2yrs); calcaneus PN (<2-2.5yrs); metapodial DN (<2yrs; humerus DF (>1.5yrs); 1st phalange PF (>1-2yrs)	a2yrs	97
6	pit [1476]	H, L/R FL,V/R	mandibular M3jw (a2yrs); hum DF; mtp DN	1.5–2yrs	29
6	pit [1567]	H, L/R FL (no feet), V/R	mand adult incisors erupted (>1.5yrs); hum DF; mtp DN	1.5–2yrs	20

'Bones' includes: H – head; FL – foreleg; V/R – vertebrae and ribs; 'feet' – metapodials and phalanges; L/R – left and right. 'Age description' includes: F – fused; UF – unfused; JF – just fused; P – proximal; D – distal; M3 – third adult molar; for 'Late epiphyses' see Table 6 (all ages following Schmid 1972, 75, 77). Age in years is estimated from the previous evidence. 'N' refers to the number of bones in each skeleton

Table 6. *Percentage abundance of cattle, sheep/goats and pigs in the better represented phase collections (based on data taken from Table 1 with the exception of 3* and 6* which exclude the pig carcasses), where total is the combined number of bones from each species*

	Phase							
Species	2	3	3*	4	5	6	6*	7
Cattle	56.6	17.3	50.7	56.3	50.8	57.6	62.8	46.6
Sheep/Goat	28.3	14.5	42.5	29.4	37.7	28.5	31.0	42.0
Pig	15.1	68.2	6.8	14.3	11.5	13.9	6.2	11.4
Total	**99**	**214**	**73**	**279**	**305**	**597**	**548**	**88**

sheep may be indicative of an abundance pattern also seen in various contemporary assemblages from other London sites (see Conclusions).

The domesticates represent bones from a variety of sources; they include a general spread of skeletal parts, indicative of processing as well as consumer waste. The former source accounts for the relatively complete cattle skull from a Phase 3 pit [957]. This is highly fragmented and includes the maxillary rows and part of the occipital condyles. The eruption and wear of the teeth suggest this animal is an older adult, conforming to the general pattern demonstrated for cattle from Phases 2 and 3 (Table 7: note the proportion of mandibles in Age Group 6 and of fused epiphyses in the Late group in Table 8). Sheep follow a comparable pattern, while the pig age evidence is essentially taken from the aforementioned skeletons.

The Phase 3 pig skeletons were found in two adjacent pits (Table 5, Fig 7). Their relative completeness suggests the deposition of carcasses unfit for human consumption, possibly indicative of murrain (disease). The proximity of these two pits suggests that they represent the disposal of animals kept on the same property, which had died or were slaughtered at approximately the same time. There is no obvious evidence of post-mortem usage, as indicated by butchery marks or missing skeletal parts (foot bones), however, it is always possible that they were flayed. Skinning marks may not necessarily show or survive a long period of burial, this being particularly relevant with respect to the skeleton from pit [277] which was both

Table 7. *Cattle, sheep/goat and pig mandibular age data divided into age groups (AG) based on tooth wear and eruption*

Species	AG	Phase					
		2	3	4	5	6	7
Cattle	2		1		1	4	
	4			1			
	5	1		2		1	
	6	1	2	1	2	8	3
Sheep/Goat	2		1		1		
	3					1	
	4		1		1	1	
	5		2	2	6	9	2
	6	1	4	7	1	3	1
Pig	3			2	1	1	
	4			3	1	2	
	5					4	
	6			4	2		

Tooth wear and eruption are divided into the following age groups (AG) using tooth wear states after Grant (1982), where dpm = deciduous premolar, M = adult molar, unw = unworn and w = worn: 2 – dpm4unw; 3 – dpm4w and M1 unw; 4 – M1w and M2unw; 4 – M2w and M3unw; 5 – M3w ranging from 'a' to 'f' ('a' to 'b' with pigs); 6 – M3w greater or equal to 'g' (pigs – greater or equal to 'c')
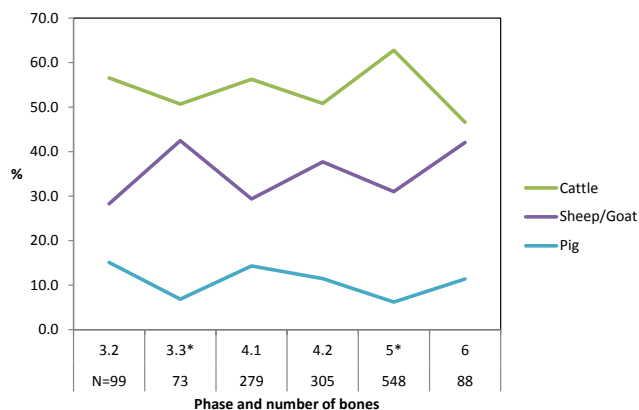
Fig 19.1. Percentage abundance of cattle, sheep/goats and pigs using hand collected total fragment counts, where 3* and 6* show data following the exclusion of the pig associated groups
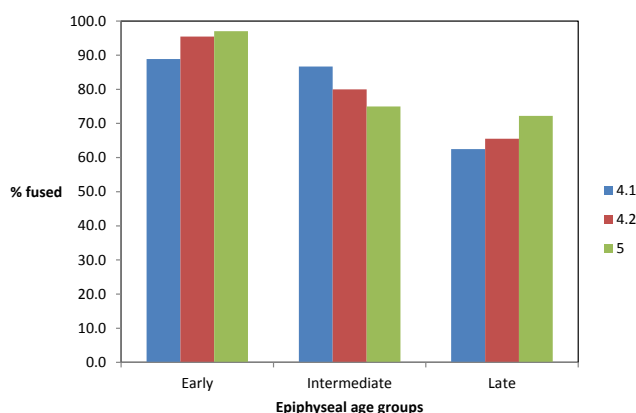
Fig 19.2. Cattle epiphysis fusion data for Phases 4, 5 and 6, based on 49, 66 and 106 articular ends respectively. See Table 5 for a description of the epiphyses used in each age group and using the following epiphyses: Age groups – Early, scapula P, humerus D, radius P, pelvis acetabulum and first phalange P: Intermediate, tibia D, metacarpus D and metatarsus D: Late, humerus P, ulna P, radius D, femur P and D, tibia P and calcaneus P, where P is proximal and D is distal
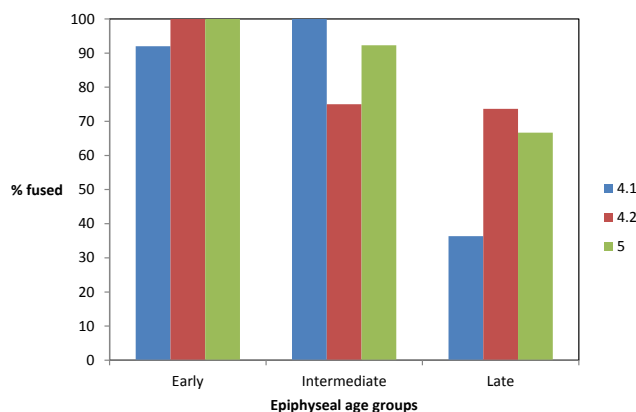
Fig 19.3. Sheep/goat epiphysis fusion data for Phases 4, 5 and 6, based on 48, 64 and 73 articular ends respectively and see Fig 19.2 for description of age groups

Table 8. Cattle, sheep/goat and pig epiphyses fusion data divided into three age groups (AG)

Species	AG	Phase					
		2	**3**	**4**	**5**	**6**	**7**
		F/UF	F/UF	F/UF	F/UF	F/UF	F/UF
Cattle	E	10/0	2/1	16/2	21/1	33/1	6/0
	I	5/1	7/2	13/2	12/3	27/9	5/1
	L	6/4	3/1	10/6	19/10	26/10	4/4
Sheep	E	7/0	5/0	23/2	33/0	42/0	7/0
	I	1/0	1/0	12/0	9/3	12/1	1/2
	L	0/1	4/0	4/7	14/5	12/6	3/3
Pig	E	1/1	10/0	4/0	4/4	9/0	1/1
	I	0/2	6/8	1/5	0/3	1/3	1/2
	L	1/1	6/9	0/9	1/7	1/7	0/1

Epiphyses are divided into age groups (AG) using the following articular ends where P = proximal, D = distal, F = fused and UF = unfused: Early (E) – scapula P, humerus D, radius P, pelvis acetabulum and first phalange P; Intermediate (I) – tibia D, metacarpus D and metatarsus D; Late (L) – humerus P, ulna P, radius D, femur P and D, tibia P and calcaneus P

heavily fragmented and abraded. The older of the two individuals, aged about 3–3.5 years, probably represents an animal kept for breeding purposes, while the other at about 2 years old may have been due for slaughter as an adult baconer. Neither could be sexed due to the absence of the requisite mandibular or maxillary canines; however both are relatively large specimens suggesting they may be males. Shoulder heights were

Table 9. Distribution and frequency of major domesticate age groups (AG) amalgamating data from the various ageing methods (mandibular tooth eruption and wear and epiphysis fusion) as well as the recognition of age by the size and porosity of the bones

Species	AG	Phase					
		2	**3**	**4**	**5**	**6**	**7**
Cattle	infant	1	1	3	3	3	
	juvenile	5	7	11	6	22	5
	adult	21	16	56	64	178	17
	% adult	77.778	66.667	80	87.67	87.68	77.27
Sheep/Goat	juvenile		1	4	3	2	
	adult	7	15	32	41	64	11
	% adult	100	93.75	88.89	93.18	96.97	100
Pig	infant			1	2		
	juvenile	1		5	8	2	
	adult	2	78	8	6	8	
	% adult	66.667	100	57.14	37.5	80	

calculated from the limb bones, the pigs measuring 75–7cm and 77–9cm respectively (heights calculated using von den Driesch & Boessneck 1974). The measured limb bones from [601] are not totally fused; suggesting that this animal had not yet reached its full height.

The major domesticates were accompanied by a variety of other food species, which provided a minor component of the meat diet. These include poultry (chicken and goose), rabbit (Phase 2 only) and fish. While there is no large game, the incidence of rabbit, could be indicative of a high status diet. This species became more prevalent throughout Britain as the establishment of warrens increased but it would have still been considered an expensive food item in the 13th and 14th centuries (Sykes & Curl 2010, 125). Another indication of high status is provided by a bone taken from a large galliform (chicken family), most probably a peacock, from Phase 3 pit [596]. Finally, two fish bones include a cod skull fragment (parasphenoid) clearly derived from a large fish. Its size distinguishes this fish from the smaller cod or whiting which migrate into the Thames estuary during the winter months (Wheeler 1979, 83). Thus it either represents a fish captured beyond the estuary or offshore. A few non-food species were also present in these collections included the ubiquitous equid, dog and cat. The latter, represented by a partial skeleton, accompanied the probable peacock bone in pit [596].

Phases 4–5: 16th Century

The Phase 4 and 5 faunal remains were mainly derived from rubbish and quarry pits situated in the central part of the excavation area. There was a continuing dominance of the major domesticates, with notably similar abundance patterns to those of previous phases (excluding the pig skeletons) (Table 6 & Fig 19.1). The dominance of cattle in the Phase 5 deposits is unusual for London and Southwark sites, which tend to have a majority of sheep bones by this period (Rielly in prep a). Further similarities between these two phases include a general mixture of parts, with some indication of butchers' waste as demonstrated by the fragmented remains

Table 10. Frequency of bones with butchery marks

Species	Phase						
	1.2	2	3	4	5	6	7
Cattle		6		39	46	72	12
Equid						1	
Cattle-size	1	2	12	41	39	33	14
Sheep/Goat		4	5	8	14	25	6
Pig		1		3	4	7	
Sheep-size			1	4	6	2	5
Roe deer					1		
Goose					1		
Total	**1**	**13**	**18**	**95**	**111**	**140**	**37**

of four relatively complete cattle skulls from pit [794] (Phase 4) as well as a single cattle skull from pit [224] (Phase 5). There was a notable quantity of butchered bone from the Phases 4 and 5 cattle assemblages (Table 10). This includes examples of most stages of the butchery process, with notable concentrations of jointing cuts (Table 11), including limb bones cut through or adjacent to the articular end and through the shaft. It should be stated that the latter cuts may demonstrate a later phase of this process, perhaps a division related to the production of bones for stewing. A particular concentration was seen amongst the cattle-size ribs, with numerous chopped bones signifying division into usable sections. Several such rib fragments comprised a large part of the assemblage from well [508] (Phase 4). These represent joints with the meat left on the bone. In the absence of defleshing cuts, this suggests this was a common practice with other parts of the carcass; however, such cuts, often made with a knife, may not necessarily survive.

The defleshing cuts on the skull are of a particularly recognisable type involving heavy grazing cuts starting at the maxilla and extending to remove the dorsal (postorbital process) and ventral (zygomatic) parts of the orbit, thence through the temporal condyle and exiting adjacent to or partly through the occipital condyle. This type of butchery has been seen across various contemporary London collections and appears to date to the early post-medieval era (Rielly in prep

Table 11. The distribution of butchery cuts within the cattle, cattle-size, sheep/goat and sheep-size collections

Species and butchery	Phase					
	2	3	4	5	6	7
Cattle						
Slaughter					1	
Dressing	1		6	6	4	
Defleshing (skull)			2	1	13	
Sectioning (head)			1		2	2
Jointing (art)	2		18	19	20	5
Jointing (shaft)	2		9	8	16	5
Defleshing			1	3	12	1
Defleshing (V and R)			1	2		
Split	1		4	7	9	2
Sheep/Goat						
Dressing				2	4	
Horncore removal		2	1	2	14	
Sectioning (head)	1			1		
Jointing (art)		1	4	1	1	
Jointing (shaft)	2		2	5	5	3
Defleshing			1	2		2
Split		2		1		
Cattle-size (V and R)						
Halving (A)	1	2	8	8	17	7
Halving (P)	1		1	5	2	1
Sectioning (V)			8	5	6	2
Jointing (Prox rib)		1		2	2	
Sectioning (rib)		9	32	20	15	6
Sheep-size (V and R)						
Halving (A)	1			3	1	2
Halving (P)		1	3		2	1
Sectioning (V)			1			2
Jointing (Prox rib)						1
Sectioning (rib)			1	3		1

Key: V – vertebrae; R – ribs; art – articulation; A – axial; P – peripheral; Prox – proximal. Note that the cattle- and sheep-size categories here include those vertebrae identified as cattle and sheep/goat respectively

a). It generally occurs on both the left and right sides of the skull and was observed on a cattle skull from pit [224] (Phase 5). It can be assumed that the Phase 4 skulls could have been similarly butchered, with the absence of analogous evidence being related to its level of fragmentation. An interesting aspect of these cattle head parts and indeed the entire Phase 4 collections is the total absence of horncores. These must have been removed from the skulls and sent, probably with the skins, to the tanner and thence the horn worker (Serjeantson 1989, 199; Yeomans 2004, 71).

Another point of interest concerning the butchery, which may also be period specific, is the method(s) employed to halve the carcass. In Table 11 this butchery is categorised into axial and peripheral, essentially chopping through the longitudinal centre of the vertebrae or else, in the same plane, to one side removing the transverse process and/or part of the immediate centrum/ neural arch. Both types of halving were employed amongst the cattle and sheep-sized carcasses, although with a somewhat better representation of the axial method. From previous studies (Rielly in prep a), the peripheral method is far more prevalent during medieval times, the axial technique gaining ground from the 16th century onward and becoming dominant during the later post-medieval era. While the medieval evidence here is insufficient to provide an adequate comparison, the evidence regarding the cattle-size data, approximates the expected post-medieval pattern.

The age data is too limited to adequately compare the individual phases. However, there is certainly a wealth of adult cattle and sheep/goat remains and, combining the phase collections, the majority of these clearly survive to become older adults (Tables 8 & 9; Figs 19.2 & 19.3). Both species provided a reasonable proportion of juvenile individuals – the juvenile cattle probably represent veal calves. Though again slight, the pig evidence suggests a predominance of 1st and 2nd year individuals. The sexing data, in cattle and sheep/goat pelvises and pig canines from the combined phase collections, in terms of male to female, ratios amount to 1:4, 1:5 and 7:1 respectively.

While most of the domesticates are within

Fig 20. Key: 1. Phase 6, Pig mandible, from fill [1566] of cut 1567], with a large abscess on the lateral (outer) side of the bone adjacent to the adult fourth premolar and first molar; there are three large cloacas (drainage holes), one on the medial and two on the lateral side; 2. Phase 6, horse first and second phalange, from fill [824] of cut [825], fused together, which may represent an example of a rare congenital anomaly, symphalangism (1:2)

the range of sizes typically found in medieval London collections (comparing evidence in Rielly in prep a), there are some indications for larger animals. This is notable with the sheep/goat radius with a calculated shoulder height of 682.6mm from Phase 5, sheep of this size generally dating to the 16th and 17th centuries, possibly related to improved stock or possible better husbandry practices (see Conclusions). In addition, there was a pair of pig mandibles from layer [2] (Phase 4) with a molar row length of 67.8mm, possibly representing a large male.

The supplementary food species in these phases include all three deer species present in Britain at this time, as well as smaller game (rabbit) and a reasonable quantity of poultry (especially in Phase 5). Notably there are no antler fragments amongst the deer bones suggesting that they all represent food waste. Venison was a high status food and there is one deposit in particular which may well derive from a wealthy household, fill [1429] of storage room [1284] (Phase 5) which produced three deer bones (one red and two fallow), as well as two rabbits and a woodcock. Phase 4 deposits also furnished some fish, including a single fragment of

ling. This species is native to the northern waters of the North Sea and may represent the remains of an imported dried or salted fish. The three cod bones are from fish measuring about 76, 86.4 and 109cm in total length (estimates based on comparison with modern specimens plus Wheeler & Jones 1976; Rojo 1986), all of which were probably caught in local waters towards the mouth of the estuary; as noted above Barking housed a major fishing fleet, although during this early period it was probably similar in size to the fleets of other Thameside towns and villages (see Conclusions). The presence of minor quantities of flatfish (generally quite small), twaite shad, freshwater eel and herring, probably represent local resources.

There are a number of non-food species including cat, largely represented by the remains of two partial articulations taken from deposit [1429] of storage room [1284] (six bones belonging to a sub-adult) and cesspit [767] (11 forelimb bones from a juvenile animal), as well as raven and crow, presumably local scavengers. There are also two rather unusual items, a sparrowhawk tibia from well [415] and a shag humerus from pit [1590]. The latter seabird is not known for its palatability. The sparrowhawk may have been a falconer's bird, which would be indicative of high status, or conversely represent a wildfowler's decoy from a household of somewhat lowlier status.

Phase 6: 17th and 18th Centuries

Phase 6 produced the largest collection of animal bones, derived from a wide variety of features, including brick-lined cesspits. The domesticate distribution included two pig skeletons (Table 5), although in this case (unlike Phase 3) the corrected proportions do not greatly differ from the original totals (see Table 6). In this phase there was a notable increase in cattle with a corresponding decrease in both sheep/goat and pig (Fig 19.1). This is again somewhat at variance with the evidence from other contemporary London sites. There is a notably greater proportion of cattle butchers' waste compared to the previous phase; however, the presence of this waste cannot wholly account for the observed increase. A wide array of skeletal parts

confirms the multiple origins of this cattle group. Butchers' waste collections are again represented by concentrations of cattle skulls, with two near complete specimens from pit [1151] and a further 11 from cut [1332]. A large proportion of these provided further examples of the heavy 'defleshing' cuts described above (Phase 5) (Table 11). Butchery followed a similar pattern as that seen in the Phase 5 collection. The same mix of parts was observed for the sheep/goat collection, while the butchery appears to be heavily concentrated amongst the skull fragments, in contrast to that observed for cattle. This is essentially related to the manner of removal of the horns, with similar numbers chopped through or close to the base of the horncore (eight examples) and with oblique lateral cuts removing part of the orbit as well as the horn (seven cases). Notably, 17 horncores dated to this phase could be identified as sheep, with 15 from the fill of [1332], *ie* alongside the aforementioned 11 cattle skulls. These could conceivably represent butchers waste, although it is possible that they derive from a local horn worker. Three of these 15 cores were taken from rams, presenting a male to female/wether ratio which may be indicative of a selection procedure favouring larger horns. The general absence of cattle horncores continues into this phase with the single exception of a pair from pit [879] and a basal fragment from cesspit [1207].

The previous cattle and sheep/goat age patterns continued, it largely consisted of older adults, as demonstrated by the epiphysis evidence. The mandibular data indicates a somewhat greater proportion of younger adults; this represents the expected result of 17th- and 18th-century sheep farmers becoming 'commercial agriculturists' catering for the growing demand for mutton, resulting in the culling of sheep at three to four years of age and supplying no more than three or four clips of wool (Trow-Smith 1957, 247–8). The sexing data is rather minimal with this phase providing two females and eight males, indicating that most of the mutton derived from wether flocks. Most of the pig ageing evidence, as with Phase 3, is taken from the associated groups, *ie* the pig skeletons.

Unlike Phase 3 examples, these two pig

carcasses were incomplete, consisting mainly of the anterior half portion, although it should be stated that the [1476] specimen ended within the thoracic part of the vertebral column, while the [1567] individual culminated with the lumbar vertebrae adjacent to the sacrum (Table 5). The level of articulation and the absence of butchery marks suggest that these are the remains of diseased carcasses. A later cut through each of these deposits could explain the absence of the hindquarters. They were located within a short distance of each other, as in Phase 3, although now towards the south-west corner of the site and these carcasses comprised the bulk of the bones recovered from these features, thus they are indicative of deliberate burials rather than the disposal of general waste which suggests that they were culled prematurely due to ill health. They are both males, aged about two years and thus possibly represent adult baconers fattened for their meat. The individual from [1476] had suffered, or at time of death was still suffering, from a chronic infection. One of the mandibles [1566] has a large abscess on the lateral (outer) side of the bone adjacent to the adult fourth premolar and first molar featuring three large cloacas (drainage holes), one on the medial and two on the lateral side (Fig 20.1). The medial example appeared to be older than those on the lateral and it can be supposed that the latter is indicative of a secondary infection. Further bone destruction and deformation can be seen at the proximal end of one of the ribs, also adjacent to the proximal right ulna and associated proximal radius, alongside extensive exostosis (bony growth) on the left side of the last thoracic or first lumbar vertebra. The damage seen on these various bones is highly suggestive of osteomyelitis, the infection perhaps initially caused by a traumatic event, the sequence of drainage holes seen in the mandible perhaps indicative of some interruption in its inevitable progression. It is thought that the health of this pig was visibly poor most probably resulting in its slaughter. However, it can be conjectured that the extensive deformation of this selection of body parts would have occurred over a considerable time. While neither skeleton provided any complete limb bones, their approximate

Table 12. The distribution of shoulder heights in mm based on Harcourt (1974) for dogs and von den Driesch and Boessneck (1974) for cattle, sheep/goat and equid

Species	Phase	Range	Mean	No.
Cattle	2–3	1116.2–1167.3	1141.7	2
	4	1108.8	1108.8	1
	5	1118.1–1377.6	1213.6	7
Sheep/Goat	3	597.9–616.2	607	2
	4–5	551.9–682.6	638.8	4
	6	542.7–676.6	610.3	4
Equid	2–3	1302.5–1358.5	1330.5	2
	6	1395.3–1523.3	1439.3	4
	7	1396.5	1396.5	1
Dog	5	486	486	1
	6	304.1–750	407	6

sizes can be gauged from the available measurements. The [1476] animal provided an adult molar row length of 72.3mm and the pig from [1567] had a distal humerus breadth of 38.3mm. In comparison to the dimensions of the previously described pig bones from this site, these two animals were quite large although somewhat smaller than the Phase 3 articulations.

The increase in the size of the livestock noted from the previous phase continued into the 18th century, now including both sheep/goat and cattle. Though the datasets are small (Table 12), the larger shoulder heights and the average values conform to the size increase observed in these species from a variety of contemporary London sites (Rielly in prep a). Improvements in stock management continued throughout this century, culminating in the 'breeds' established by experimental farmers as Robert Bakewell (Hall & Clutton-Brock 1995, 151; Rixson 2000, 215–6).

The incidence of poultry increased relative to Phase 5, with a notably better representation of chicken and duck. While generally scattered across the site, particular concentrations of bird bones derived from brick-lined chamber [464], brick-lined pit [541] and pit [1493]. These features produced a range of adult birds as well as

juveniles, including a notably large individual from [1493] which could be a capon. These 'other' food species are accompanied by a small quantity of fish as well as the continuing presence of venison. However, both red deer pieces dated to this phase are represented by antlers, suggestive of craft waste or maybe decorative features rather than food waste. While both are broken, they had been dropped (*ie* shed) and both include at least two tines. These obviously represent adult males, in excess of maybe four to five years (aged after Lawrence & Brown 1967, 131). There are no discernible traces of cuts or saw marks favouring the decorative rather than the working waste interpretation.

In this phase there was a notable abundance of bones from non-food species, including equid, dog and cat. Bones of the former are relatively widespread while those of the smaller mammals are more confined, essentially comprising partial skeletons from a large posthole [1155] (six fragments comprising a complete skull and several limb bones) and from pit [707] (24 bones confined to the anterior half of the skeleton) respectively. Neither the dog nor cat bones display butchery marks; however, there appears to be evidence for post-mortem usage of the equids. This species is represented by the scattered remains of several carcasses, from 15 cut features, generally providing no more than one or two fragments. One of the larger equid groups, from pit [971] included three humerii, a radius and a scapula. Notably all three humerii were of different sizes suggesting the presence of at least three adult individuals. The scapula had been heavily butchered with chop marks through the midshaft, perhaps a dismemberment or jointing cut. Based on the obvious spread of bones, it could be supposed that the other equids represent food waste. However, their dismemberment may alternatively relate to poor burial followed by scavenger activity.

The equid bones were derived from adults, including some individuals which were obviously quite old. The mandibles/maxillae from three animals, from pits [825], [837] and [879] were aged to more than 20 years, about 15–20 years and 10 years respectively (following Goody 1983; Levine 1982). The oldest individual was represented by several vertebrae, ribs and two toe bones. The latter

specimens, of which a first and second phalange from fill [824] of cut [825], are fused together, may represent an example of a rather rare congenital anomaly, at least in humans, called symphalangism (Gentry Steele & Bramblett 1988, 187, 272; Fig 20.2).

Phase 7: 19th Century

The faunal material from this phase showed a continuation of the previous distribution pattern with the majority of finds being derived from pit fills. This collection provided a somewhat better representation of sheep/goats relative to cattle (Table 6) with some evidence of small game (rabbit) and poultry, although without larger game. The domesticates featured two late post-medieval traits – the bones from relatively large cattle and sheep (improved 'types': Rixson 2000, 215) and a small number of sawn bones. The latter demonstrates the use of the saw as a butchery tool which did not enter the butchers' repertoire until relatively late (Albarella 2003, 74). Equid bones derived from pit [679] (six bones) consisted of a set of incisors and canines presumably from the same adult individual. The wear on the teeth suggest an age of more than 20 years (after Goody 1983).

Conclusions

Medieval

The predominance of cattle in the medieval collections, followed by sheep/goat and pig is comparable to the abundance pattern observed at various other contemporary urban sites. Examples are shown in Albarella *et al* (2009, 28–33); sites particularly relevant to Barking include Colchester (*ibid*, 29) and London, such as 10 Gresham Street (Pipe 2014, 201) and 1 Poultry (Burch & Treveil 2011, 205). It was noted that there was an increase in sheep/goat in Phase 5. This is similar to other London evidence, generally dating to the 14th and 15th centuries as seen at Thameslink and Tabard Square (Rielly in prep a and b), perhaps indicative of a growing fondness for mutton which eventually led to the numerical dominance of sheep/goat bones at such sites during the early post-medieval era (see below).

The pig bones from this period were

almost entirely derived from the two Phase 3 skeletons which probably represent the burial of diseased animals. Historical documents from the Saxon and medieval periods describe the murrains or plagues which affected cattle and other animals periodically (Grant 1988, 154; Hagen 2006, 68, 438–41; Sykes 2006, 60). Trow-Smith (1957, 252) states that medieval and early post-medieval pigs were less susceptible to diseases than other stock, due in part to their hardy and unimproved character and perhaps also to their generally not being kept in large herds and flocks as cattle and sheep were. Until the mid-18th century, pigs were essentially of two types, a rather small animal and one much larger (Kenward & Hall 1995, 203), the latter obviously a better fit for these two individuals, both standing approximately 75cm at the shoulder.

Post-Medieval

The continuing dominance of cattle over sheep/goats is unusual for an urban assemblage; on other contemporary London sites, sheep/goats tend to be more abundant than cattle by the 16th and 17th centuries (Rielly in prep a, b and d). The proportion of cattle bones rises still further by Phase 6, then drops to approximate parity with sheep/goat by the 19th century, although here the results are less trustworthy due to the small quantity of bones involved. There are notable deposits of cattle butchery waste in Phases 4–6, although they are clearly insufficient to fully explain the numerical dominance of this species. Indeed, while the proportion of such waste is greater in Phase 6, their effect on the proportion of cattle is somewhat negated by the recovery of a moderate quantity of probable sheep/goat butchers or horn working waste dated to the same period. There are similarities with other London collections as shown by the continuing use of older cattle and the shift towards younger adult sheep (Phase 6). This is probably related to a notably greater consumption of mutton as time progressed, in conjunction with the breeding of sheep both for the quality of their meat as well as their wool (Trow-Smith 1957, 247–8). There is evidence for the use of veal though as a lesser proportion of the local meat intake compared to other London evidence, where

for example the cattle bones from the 16th-through to 18th-century deposits at the Thameslink sites comprise approximately 20–25% juveniles (Rielly in prep a).

It is a matter of conjecture whether these differences – more cattle and less veal – have a bearing on the relative status of this local community. There is unequivocal evidence for some affluent households in the area as shown by the presence of deer bones in Phase 4 and Phase 5 levels. Further evidence is provided by a small range of other game species in Phase 4.2 as well as the concentrations of poultry, including juvenile birds, in Phase 5 deposits. There is also the sparrowhawk in Phase 5, which could represent a falconer's bird. This high status pastime continued into the Stuart period, whence it went into decline as the upper classes took up shooting, pursuing foxes with hounds and coursing for hares (Grassby 1997, 52). Alternatively, this bird could have been used by lower class practitioners of another continuing medieval pursuit, wildfowling, dating back to at least the Late Saxon period (Huff 1997, 7–8; Oggins 1981, 188). Here, smaller birds of prey were used either as decoys or to chase smaller birds so they could be captured using nets or limed twigs. These indicators of affluence must be tempered against the variety of other waste materials in post-medieval deposits, suggestive of a somewhat lesser status. These include the aforementioned butchery and possible horn working detritus as well as the 18th-century deposition of equid remains, possibly from a local knacker's yard.

The butchery shows a particular pattern of cuts also seen on cattle skulls from other contemporary London sites, here referring to heavy grazing chops on both the left and right sides extending from the maxilla to the occipital. Apart from apparently being an early post-medieval innovation, the presence of a similar and a contemporary pattern of butchery across Greater London and Barking suggests a connection. It could be that these similarities in skull butchery extended to the removal of the horns, accounting for the lack of cattle horncores. The concentration of sheep horncores in Phase 6, (assuming that the horns would have accompanied skins to the tannery) could represent waste from such an establishment or from a horn worker.

The two 18th-century pig carcasses probably represent the disposal of diseased livestock. One of these was suffering from a chronic infection, which, while not likely to have caused its death, would have weakened it and therefore made it more susceptible to pathogens. These two animals, while smaller than the Phase 3 examples, were nonetheless relatively large, probably standing about 70cm at the shoulder. There were two main unimproved 'types' of pig, one large and one small. There was some regional variation and just prior to the improvements which occurred from the mid-18th century, there were notable large varieties such as the Berkshire and the Yorkshire. The former was perhaps the most numerous of the old breeds, particularly known for its ability to put on weight, so it was widely used for its pork and bacon (Rixson 2000, 222). The Barking pigs may well represent examples of this particular 'breed'. Size changes were undoubtedly demonstrated amongst the other post-medieval stock at this site. This clearly follows the size pattern for cattle and sheep at contemporary sites prior to the production of improved stock from the latter part of the 18th century (Rielly in prep a; Rixson 2000, 215).

The supplementary food species, listed under the general headings of poultry, fish and game, are poorly represented. This follows a general trend for medieval and post-medieval London, with the notable exception of various 'high status' sites (such as the monastic assemblage from Bermondsey Abbey; Rielly in prep c), there was the potential for sites in Barking to produce a greater than average proportion of fish bones, as Barking Creek was an important fishing port from the medieval period which, by the 19th century was one of the major suppliers of fresh fish in England (Wheeler 1979, 33). The fish bone assemblage from Phase 4 was undoubtedly provided by local fishermen, the small quantities suggesting that the majority of the catches were not intended for local consumption. Daniel Defoe in 1722 recorded that Barking was 'a large market-town, but chiefly inhabited by fishermen, whose smacks ride in the Thames, at the mouth of their river [Roding], from whence their fish is sent up to London to the market at Billingsgate, by small boats' (Defoe 1989, 14).

CONCLUSIONS

The excavations along London Road, Barking, uncovered one of the largest areas of the historic town to the east of the abbey precinct to have been investigated to date. The limited Middle Saxon evidence uncovered fits the pattern revealed in excavations further north at North Street and George Street (Hawkins *et al* 2003), east along Ripple Road (Humphrey in prep) and south-east at the former Barking Magistrates Court. While the absence of evidence of Early Saxon activity is not unexpected in this locality, several early Saxon pits were found at the Barking Magistrates Court site (McCaig 2018) and a few residual Early Saxon sherds are known from Ripple Road (Humphrey in prep). This evidence suggests that the core of Early and Middle Saxon settlement at Barking was situated within the area now occupied by the Scheduled Ancient Monument of the later medieval abbey precinct and on the land to its west up along the bank of the Early Saxon antecedent to the River Roding, to the west of Broadway and east of the present course of the River Roding. This suggestion is corroborated by unpublished excavations carried out by the former Passmore Edwards Museum, which apparently uncovered the church of the earlier Saxon abbey along the western bank of the Roding (Hull 2002; MacGowan 1987). It is a tragedy that these nationally important excavations have never been analysed and published as they are vital to our understanding of the development of Barking and its abbey.

The later secular Saxon settlement of Barking was located to the east of North Street and Broadway. Discoveries include sites along Axe Street, Clockhouse Avenue, North Street/George Street and Ripple Road. The features discovered consist of wells, pits and postholes (Carew *et al* 2009; Hawkins *et al* 2003; Humphrey in prep; McCaig 2018). To date none of the Saxon rectangular timber houses or sunken-floored buildings known from *Lundenwic* and elsewhere across Greater London have been identified at Barking (Cowie & Blackmore 2008, 138–43; Cowie & Blackmore 2012, 31–2; 119–20). The absence of Saxon structural evidence on the above Barking sites may be the result of later truncation.

From the 12th century onward at the London Road and Ripple Road sites there is evidence of burgage plots, or a similar arrangement of rectangular properties, fronting on the adjoining streets. These properties appear to have consisted of truncated timber buildings lining the street frontage, behind which were back yards containing rubbish and quarry pits, plus wells to provide water. Some of the archaeologically vacant rear areas on site may have served as gardens or paddocks. The presence of four pig carcasses implies the keeping of livestock during the medieval and post-medieval periods (Phases 3 and 6).

The medieval ceramic assemblage recovered from London Road is similar to those found elsewhere in north-east London and Essex. Much of the 12th- and 13th-century material is derived from Essex production centres. The Mill Green ceramics which originated from Noak Hill form a much more constrained element of the overall assemblage than that identified at Axe Street, to the east of London Road (Carew *et al* 2009). Imported Saintonge ware suggests a link with the wine trade, which fits in well with the other contemporary ceramics which can be linked to the serving and consumption of drinks, implying the presence of one or more taverns on site. Considering the town's relationship with its fishing port it is not surprising that imports are well represented among the medieval and post-medieval ceramics, but Essex wares continued to be dominant throughout the post-medieval period.

In view of the proximity of the site to the later Saxon and medieval Barking Abbey, the lack of evidence for contemporary craft or industrial activities to supply this establishment is surprising. The medieval phase of the excavations produced one small piece of copper slag and three strips of lead waste.

It might have been expected that after the demolition of the abbey in the 1540s some of its fabric would have been reused on site. Besides a few fragments of patterned medieval floor tiles there was an unstratified piece of a Romanesque cushion capital (see Hayward above). The limited amount of reused monastic building materials identified on site during the post-medieval period might relate to reuse of some of it during the late 16th century to construct the outer north chapel of St Margaret's parish church, Barking (RCHME 1921, 4–11). Aspects of the Tudor period ceramic assemblage, some *ex-situ* building materials and certain faunal remains (including venison) from site are all indicative of a relatively high status life style (Phases 4 and 5), which can be connected with the contemporary expansion and prosperity of Barking.

During the 18th century increasing levels of poverty became a national problem throughout England and from 1722 parishes were permitted to build workhouses to help the poor. In theory workhouses were supposed to provide work and accommodation for the able-bodied, but unemployed poor. However, they generally were filled by the elderly, the sick, orphaned children and single-parent families. In 1788 as a response to rising levels of poverty and homelessness the parish built a large workhouse on site to replace a much smaller facility. The increasing amount of poverty was partly caused by the ongoing enclosure of the open fields, which resulted in some cottagers and smallholders being dispossessed and migrating to urban communities to seek work. Some of these migrants were unemployed and consequently homeless (Fairlie 2009; Inglis 1971).

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NOTES

[1] This was the tedious process of unravelling old ropes into fibres, which were then used for caulking or sealing the decking or keel timbers of wooden ships.
[2] www.workhouses.org.uk/Romford (accessed 30 October 2018).
[3] MOLA   https://www.mola.org.uk/medieval-and-post-medieval-pottery-codes, 2014 version and   https://www.mola.org.uk/medieval-and-post-medieval-ceramic-building-materials-fabric-dating-codes 2014 version (accessed 16 November 2018).

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'BRUT SETT LONDEN STON': LONDON AND LONDON STONE IN A 14th-CENTURY ENGLISH *METRICAL CHRONICLE*

John Clark

SUMMARY

In October 2018 the last, sadly unimpressive, remnant of the legendary London Stone was unveiled, now enclosed in a splendid new stone surround, in its familiar location in Cannon Street in the City of London. This event prompts a reconsideration of the supposed traditional belief that the stone embodies the well-being of the city, in the context of a narrative poem known as the Anonymous Short English Metrical Chronicle, *composed in the early 14th century. One version of this text was written in London and clearly intended for a London readership, and among much unconventional and unlikely history it contains episodes and references of particular London interest, and probably reflecting local knowledge. One of these is the attribution to Brutus, legendary Trojan founder of London, of the setting up of London Stone and a prophecy of London's future greatness. This paper considers this episode alongside other apparently novel references, which may reflect ways in which medieval Londoners interpreted the past of their city.*

THE STONE OF BRUTUS?

Modern accounts of London Stone, the enigmatic landmark that has stood since at least the end of the 11th century (and probably much earlier) in Cannon Street (formerly Candlewick Street) in the City of London, usually refer to a 'traditional belief' that the stone was associated in some way with the well-being of the city, and quote an 'ancient proverb' that 'So

long as the Stone of Brutus is safe, so long shall London flourish' (as for example Ackroyd 2000, 18). In a paper published in this journal some years ago (Clark 2007, 178), and later in a fuller paper in *Folklore* on the growth of traditions and myths about London Stone (Clark 2010, 45–52), this supposed saying was traced back to a first appearance in a note in the periodical *Notes and Queries* in 1862.[1] The note was signed with the pseudonym 'Mor Merrion' (so spelt in the original publication) (Mor Merrion 1862). This, more correctly 'Môr Meirion', was the Welsh Bardic name adopted by the Revd Richard Williams Morgan (*c.*1815–89), Anglican clergyman, Welsh patriot, co-organiser of the 1858 Llangollen Eisteddfod, and later the founder and first bishop of a revived 'Ancient British Church'.[2]

In *Notes and Queries* 'Môr Meirion' claimed that there were ancient traditions that London Stone had been brought from Troy by Brutus, legendary founder of London as 'New Troy', and erected as the altar stone in the Temple of Diana, and that the ancient British kings had by custom sworn their oaths of office upon it. It was 'the foundation stone of London and its palladium'.[3] Moreover there was, Morgan asserted, a saying 'So long as the Stone of Brutus is safe, so long shall London flourish' – supposedly the English translation of an alleged archaic Welsh verse that he also printed. Morgan had earlier provided a more elaborate account of these

'traditions', although without a prophetic verse in either language, in his book *The British Kymry* (Morgan 1857, 26–32). The (largely fictitious) early chapters of this unorthodox history of the Welsh people from their legendary origins in Troy to the days of Queen Victoria (discussed more fully by Clark (2010, 45–52)) were inspired by, and elaborated upon, the *History of the Kings of Britain*, the fraudulent history of early Britain composed by arch-confabulator Geoffrey of Monmouth in the 12th century.

In the absence of evidence that this was a legitimate set of truly 'ancient traditions' about London Stone, it is easy (and still probably largely correct) to assume that all were the inventions of Richard Williams Morgan, that imaginative and eccentric author whose 'somewhat too unqualified Cymricism' was regretted even by his Welsh contemporaries. However, there is one medieval source that does indeed connect London Stone with Brutus and with a prophecy of London's greatness – but it remains uncertain whether Morgan was aware of it.

THE *SHORT METRICAL CHRONICLE*

Most early references to London Stone treat it as a landmark, lending its name to adjacent properties or their residents, like Henry fitz Ailwin of London Stone, London's first mayor (Clark 2007, 171). Not until the 16th century and the works of antiquarians like John Stow and William Camden do we find discussion of its origin and its original purpose (Clark 2010, 41–3). However, one early document seems to confirm that Londoners were already speculating about London Stone's significance in the early 14th century.

In the 1330s an anonymous London author, in a versified history of England from its beginnings to the reign of Edward II, made the startling claim that Brutus, the legendary Trojan founder of London, had set up London Stone, and had thereupon prophesied that London would be a finer city than Troy had ever been:

> Brut sett Londen ston
> & þis wordes he seyd anon,
> ʒif ich king þat after me come
> Make þis cite wide & rome
> As ichaue bi mi day,

> ʒete herafter men sigge may
> Þat Troye nas neuer so fair cite
> So þis cite schal be.

> Brutus set up London Stone
> And these words he said anon:
> 'If each king that comes after me
> Makes this city wide and roomy
> As I have in my day,
> Still hereafter men may say
> That Troy was never so fair a city
> As this city shall be.'

> (Burnley & Wiggins 2003b, lines 457–64 (my modern English version))

Although Brutus's prophecy of London's future greatness was thus contingent not upon the preservation of London Stone, but rather upon the commitment of his successors to making the city 'wide & rome', the contiguity of the lines may suggest a link between the stone itself and the prophecy.

Variations on this text occur in several versions of what is generally known as the *Anonymous Short English Metrical Chronicle* (or by a variant of that title – see O'Farrell-Tate 2002, 14–17).[4] This survives in whole or part in a handful of manuscripts, from which it has been variously edited and printed.[5] The manuscript versions differ, however. The passage about Brutus and London Stone does *not* appear in one early text – also the first to be printed, by antiquary Joseph Ritson in a collection of 'ancient English metrical romances' in 1802. This, from an early 14th-century manuscript in the British Library (MS Royal 12 C. xii – usually cited as version R) tells us only that Brutus built London and called it New Troy (O'Farrell-Tate 2002, 69, lines 95–100), a claim that had been traditional ever since it was first expounded by Geoffrey of Monmouth in his *History of the Kings of Britain* in the 1130s (Geoffrey of Monmouth 2007, 30–1; see Clark 1981, 135–51).

Geoffrey's 'British history' was, of course, immensely influential. Adapted from his Latin prose into French verse by Wace in 1155 and thence into English verse by Layamon in about 1200, it was summarised and popularised in histories in Anglo-Norman French or in English, generally known as *Brut* chronicles or *Brut*s, which extended the history up to the writers'

own time. These embodied what came to represent the generally accepted narrative of the early history of Britain. Yet the extent of the variations to the narrative that writers of the *Short Metrical Chronicle* seem to have felt able to introduce suggests that this 'history' was not well known or understood by their audience.

At first sight the *Short Metrical Chronicle* is a rather pedestrian versification of memorable points from the reign of each 'British' (usually legendary) and English king – often no more than the length of their reign, a formulaic assessment of their 'works', and the place they were buried. Not all is consistent with more conventional historical accounts. For example, King Arthur survived the fatal battle with Mordred, recaptured the kingdom and reigned for a further ten years (O'Farrell-Tate 2002, lines 290–304); Edward the Confessor was the bastard son of King Cnut (lines 890–1); King Harold II (Godwinson) is identified with Harold I (Harefoot) (lines 898–900). Una O'Farrell-Tate (2002, 29) comments 'some material may have been imperfectly remembered or heard', and the whole composition has the appearance of something intended to be memorised and recited. Occasionally the text provides extended coverage of an episode – like the petition by Hugh of France for the hand in marriage of one of King Athelstan's sisters and the list of the fabulous gifts he sent (lines 596–647). The sources the poet draws on for such elaborations are often obscure. For example, his extended account of the fight between Brutus's companion Corineus and the giant Goemagog includes details not found in Geoffrey of Monmouth or elsewhere – such as Brutus's encouragement of Corineus in the name of Corineus's lover 'Erneburh', a maiden 'whiter than the foam' who is otherwise unknown to history or legend (lines 65–80). In this instance O'Farrell-Tate (2002, 37) suggests the possibility that 'there was once a romance of Corineus which has been lost'.

THE 'AUCHINLECK' VERSION

A considerably longer version (usually referred to as version A) of this metrical chronicle is included in the National Library of Scotland's 'Auchinleck' manuscript

(Edinburgh, NLS Adv MS 19.2.1; Burnley & Wiggins 2003a), one of that library's treasures. This manuscript volume, produced in London probably between 1331 and 1340, is a compilation of over 40 poems in Middle English, including romances, saints' legends and religious verses, many of them otherwise unknown. Several later manuscripts also contain similar 'long' versions of the chronicle, but Auchinleck can stand as the earliest exemplar of the text of – dare we call it? – the *Expanded Short English Metrical Chronicle.*

It begins not with the arrival of Brutus but with the story of Albina, a Greek princess who plotted with her sisters to murder their husbands. Sent into exile they came to the uninhabited island now known as Britain, and named it 'Albion' after their leader. Later they gave birth to a race of giants, who ruled the land until the coming of Brutus and his Trojan followers. Thus loose ends in Geoffrey of Monmouth's account are tied up – for Geoffrey simply tells us 'The island was at that time called Albion, it had no inhabitants save for a few giants' (Geoffrey of Monmouth 2007, 26–7). The story of Albina and the origin of the giants was first popularised in a 13th-century Anglo-Norman poem *Des grantz geanz* (Brereton 1937 – see also Johnson 1995). The Auchinleck version of the story has been identified as a translation into English from an abbreviated text of *Des grantz geanz* composed in about 1333 (Johnson 1995, 46–7). Later manuscripts containing the *Short Metrical Chronicle* omit the story of Albina and her sisters, but otherwise are very similar to the Auchinleck version.[6]

Some of the expansions in Auchinleck are novel. Thus, for example, Brutus's comrade Corineus, after hurling the giant Goemagog into the sea, waded in after him, cut off the giant's head, and hung it from a chain in Cornwall (Burnley & Wiggins 2003b, lines 435–40). Some episodes have the appearance of being free-standing stories or romances, or possibly *de novo* fictions, slotted in at convenient points in the historical narrative, sometimes replacing the more orthodox chronology of kings and events. Whereas the 'short' version R provides a conventional sequence of kings – Bladud, Leyr (Leir), Denewold (Dunvallo), Belins and Brenne (Belinus and Brennius), and Cassabalon (Cassivelaunus) – in the order (although

with many omissions) that they had appeared in Geoffrey of Monmouth's *History of the Kings of Britain* and works based upon it, the 'expanded' text of the Auchinleck version replaces Leir with 'Fortiger' (to whom we shall return), and interpolates, after the death of 'Belin', a long account (lines 655–876) of the life and achievements of a certain 'Hingist' or 'Hengist' – whose only connection with the Saxon invader of that name seems to be that he was likewise a foreign conqueror. Hingist founded Lincoln and 16 other towns, he built Stonehenge, he divided the land into hundreds and shires and invented furlongs and miles, and he ordered that London be renamed 'Hingisthom' (lines 731–8). He then (lines 739–42) 'conjured up three hundred fiends of Hell' to build a bridge across the sea to France. He was eventually succeeded by his 'son' Leir (usually identified as the son of Bladud) (lines 877–8), and a more orthodox account of this legendary history is resumed. Editing the *Short Metrical Chronicle*, Ewald Zettl (1935, lviii–lx) could find no source for this Hingist or his achievements.

Meanwhile the expected narrative of the 'historical' Saxon invader Hengist and his dealings with the British King Vortigern, familiar to readers of the traditional British history, is replaced by the tale of the 'maiden Inge', who, we are told, came to Britain after the death of King Seberd (presumably King Sæberht of the East Saxons, who died *c*.AD 616) (lines 1263–344). Arriving with many followers fleeing famine in Spain,[7] she undertook deeds normally attributed to Saxon Hengist and his daughter Rowenna – tricking the British king into granting enough land on which to build a castle, greeting the king with 'wassail', and arranging the slaughter of his followers at a banquet. Finally, Inge, having won power in Britain, decreed that the land should henceforth be called 'Inglond' (lines 1333–4). This seems to be the only extensive account of Inge to survive, although that such a story was in circulation was confirmed by the contemporary author Robert Mannyng of Brunne, writing in 1338, who dismissed it as a popular oral tale – 'Þis lewid men seie & singe' ('This unlearned/ illiterate men say and sing') – and preferred to follow the *written* accounts that told of Hengist and Rowenna; for 'no clerk may

ken' any writings about Inge (Zettl 1935, lxix; Mannyng 1996, 269, lines 7427–30). Later he reiterates that the story of Inge is not to be found in any book:

> But of Inge saw I never naught
> In book written nor wrought;
> But unlearned men thereof cry
> And maintain that same lie.
>
> (Mannyng 1996, 441 lines 14215–8
> (my modern English version))

The earliest known version of the *Short Metrical Chronicle*, version R, has a West Midland provenance (O'Farrell-Tate 2002, 9). By contrast, the context of the Auchinleck manuscript is a London one. It was produced in a London workshop, and probably for a wealthy London client (Burnley & Wiggins 2003a), and a number of additions and amendments to the shorter West Midland version of the *Chronicle* are of particular London interest and seem to reflect local knowledge. Ralph Hanna (2005, 105) says of this version of the *Chronicle*: 'Originally a Western text, here it has been deliberately tailored for London use' and Alison Wiggins (2010, 548–50) has discussed it in the context of 'London literature'.[8]

One of the more extensive additions is an account of the (legendary) foundation of Westminster Abbey (lines 1139–262); one of the shortest, a couplet reminding us that although Brutus was buried 'near the Thames, on the land | Where Westminster stands', as the shorter version tells us,[9] yet 'Westminster was not begun then, | Not for many and more years after' (lines 485–6). And into the narrative of the miraculous consecration of the abbey church by St Peter, apparently drawn from Matthew Paris's *Estoire de Seint Aedward le Rei* (Fisher 2012, 152–3), our author interpolates an (unconvincing) explanation of the origin of the name of the obscure riverside settlement of Charing (lines 1243–4). He then goes on to tell us that King Seberd (Sæberht), credited with founding Westminster Abbey, was buried there 800 (*sic* for 700?) years ago, but that his body was found 'as whole as when he was laid in the ground' – with a final piece of local advice 'And if you will not believe me | Go to Westminster and you may see' (lines 1255–62). When the supposed remains of

the alleged founder of the abbey, East Saxon King Sæberht, were moved to a new location in Henry III's rebuilt church in 1307, it was reported that the right hand and part of the arm were found undecayed, with flesh, skin and fingernails surviving (Binski & Guerry 2015, 195–201, 204 note 49; Walsingham 1863–4, i, 114).[10] Presumably this inspired our poet's claim that the king's body was found 'whole'.

The writer displays a particular interest in the *names* by which London has been known. Brutus founded it and called it 'New Troy' (lines 453–6); in honour of King Lud it was renamed 'Luddesburth' ('Luddesburgh' or 'Lud's-borough') (line 736); Hingist ordered that it be called 'Hingisthom' (lines 737–8); and finally Julius Caesar (!) named it 'Londen' (lines 959–62): 'And so it shall always be called | Until it be Doomsday'. The names 'Luddesburth' (an Anglicisation perhaps of Geoffrey of Monmouth's 'Kaerlud') and 'Hingisthom' and the role of Julius Caesar seem to be innovations. According to the Auchinleck text Julius Caesar went on to build a tower in London (line 964). This appears to be the earliest reference in English to what was, or was to become, a persistent London tradition that the Tower of London (or at least the White Tower) had been built by Julius Caesar (Nearing 1948, 228–33; Wheatley 2008, 281–4). Homer Nearing (apparently unaware of its appearance here) identified the first occurrence of the story as that in a slightly earlier chronicle in Anglo-Norman French by Nicholas Trevet (a London Dominican friar who died *c.*1334) (Nearing 1949, 224, note 37).[11]

And the burial places of kings, already a concern of the originator of the *Short Metrical Chronicle*, acquire more of a London resonance. King Bladud was buried alongside his 'father' Lud at Ludgate (lines 531–4); King Alfred was buried in St Paul's Cathedral (lines 1333–5); 'Arod' (Harold I 'Harefoot', son of Cnut) was buried at St Clement's church 'without Temple Bar' (lines 1931–2). Local interest and knowledge is evident in the location of St Clement Danes church correctly outside Temple Bar and in the identification of this as the traditional site of Harold's grave. That the place where the body of Harold Harefoot found its

final resting place was St Clement Danes church was cited by John Stow many years later as the (or a possible) reason for the church's name (Stow 1908, ii, 96). Medieval chroniclers record only that Harold's body, recovered by a fisherman from the Thames, where it had been thrown on the orders of his half-brother and successor Harthacnut, was buried by the Danes 'in the cemetery [or *a* cemetery] they had in London' (John of Worcester 1995, 530–1).[12] Thus, whether or not the Danish cemetery was indeed that of St Clement's church, our poem confirms that the belief that this was where Harold was buried was already in circulation at the beginning of the 14th century, and might have a foundation in fact.

THE WALL THAT STANDS UPON HOUNDSDITCH

The local interest is also evident in a much more extraordinary claim about King 'Fortiger'. Fortiger's name reminds us of the later King Vortigern who in Geoffrey of Monmouth's chronology was so disastrously to welcome Hengist and the Saxons into Britain – indeed it is the form of the name that was adopted for Vortigern in the shorter version of the text, version R (O'Farrell-Tate 2002, 76, line 329). However, the later king does not appear in the Auchinleck *Short Metrical Chronicle*. Instead Fortiger usurps the place of King Leir as Bladud's son. After a brief account of his virtues ('For he was boþe war & wise | & a man of miche priis': 'For he was both wary and wise | And a man of much prize') we are told that he died 'in the tower of *Eldwerk*' and was buried 'in lead' (presumably in a lead coffin) in the wall 'That stands upon Houndsditch | Between Aldgate and the Tower' (lines 605–8).[13]

'Houndsditch' today refers, of course, to the street running outside and parallel to the line of the City Wall from Aldgate north-west to Bishopsgate (rather than southwards, towards the Tower of London) – and has done so since the early 16th century (Harben 1918, 311; Ekwall 1954, 190). Originally, as might be expected, the name was applied to the City Ditch itself, in this area or perhaps more widely (Stow 1908, i, 128). The earliest references are ambiguous. In 1275 Stephen of Hundesdich was one

of 12 jurors appointed for the ward of Portsoken – which extended both north and south of Aldgate outside the City Wall (*Rotuli Hundredorum* 1812–18, i, 414); and in his will dated 1325 William Wastel bequeathed two properties, one 'in the parish of St Botolph, situate upon *le Tourdich*' – the moat around the Tower of London – and the other 'a tenement upon Houndisdich demised to Gervase de Houndisch' (Sharpe 1889–90, i, 348). Although it is possible, nothing confirms that this second property was close to the first, near the Tower of London and south rather than north of Aldgate. Other references suggest that the name could have been applied more widely, even as far west as Ludgate (Harben 1918, 311; Stow 1908, i, 70). It would not be unreasonable for our poet to apply it to that part of the ditch extending south of Aldgate towards the Tower of London – indeed, one might suggest that, as a Londoner writing for Londoners, he is a good witness to contemporary practice.

There is an ambiguity here: was Fortiger buried in the wall of a tower called *Eldwerk* that stood upon Houndsditch, as Alison Wiggins (2010, 549) concluded, or was it the 'wall' itself that stood upon Houndsditch – that is, the City Wall? There were indeed towers in this vicinity, facing Houndsditch – the defensive 'bastions' added to the Roman city wall in the 4th century (Merrifield 1965, 68–72).[14] Bastions 2 to 5 in Merrifield's numbering (derived from the earlier work of Mortimer Wheeler) lie 'between Aldgate and the Tower' (*ibid* 320–1). To these, archaeological work in 1979–80 added the lost Bastion 4A north of Bastion 4 (Maloney 1980), while the intermediate spacing suggests the former existence of others (*ibid* 70–4). There were also at least two smaller Roman internal turrets on the same stretch of wall (Merrifield 1965, 299–301). Had one of these bastions or turrets attracted the name 'the old-work', in recognition of its perceived antiquity?[15]

The burial 'in lead' cannot easily be explained – although there is room for suspicion that the words 'in lead' are there to supply the rhyme with 'dead'.[16] However, the Roman bastions were built in haste, reusing monumental stones from cemeteries outside the wall – the most notable examples being those found in the structure of Bastion 2

(Trinity Place) between 1852 and 1935 (*ibid* 320). Could similar finds from one of these bastions, perhaps revealed during building works or demolition, have been recognised as funerary monuments and so have inspired tales of a royal burial in the wall or in the tower?

Indeed, a candidate for identification as 'the tower of Eldwerk' is Bastion 4A. Excavations by the Museum of London's Department of Urban Archaeology in 1979/1980 at 8–10 Crosswall (site XWL79) revealed a 10m (33ft) length of the external face of the Roman city wall standing 3m (10ft) above the plinth level (Maloney 1980, 68–70; Schofield & Maloney 1998, 162–3). At the north end of this stretch were the surviving foundations of a previously unrecorded bastion.[17] Layers sealing the remains contained 13th-century pottery – presumably reflecting the date at which the upper part of the bastion had been demolished. 'The solid, D-shaped superstructure of Bastion 4A was partly at least composed of reused monumental masonry including fragments of an inscribed Roman tombstone, probably of early 3rd-century date' (Schofield & Maloney 1998, 162–3).[18] Maloney (1980, 68) notes that there were imprints of other large stones above, indicating that more such masonry had been removed during the medieval demolition process. Thus, not long before our author wrote of the burial of Fortiger, a tower between Aldgate and the Tower of London had been demolished and masonry, probably from a nearby Roman cemetery, had been uncovered – no doubt inviting speculation. Indeed, could letters on a Latin funerary inscription have been misread as the name 'Fortiger'?

Perhaps we can add this to the list of identifiable sources of inspiration for our author's unique construction of history. We have noted that contemporary writer Robert Mannyng also knew the story of 'the maiden Inge'. The attribution of the Tower of London to Julius Caesar was already current. We have suggested that the assertion that the remains of King Seberd could still be seen 'whole' at Westminster may reflect the discoveries of 1307, when it was reported that part of the body identified as that of King Sæberht was still undecayed. And it is tempting to identify 'the tower of

Eldwerk' with Bastion 4A. Yet what are we to make of the saga of King Hingist, and the extraordinary perversions of the name of London? Was our author recording, or elaborating upon, stories or anecdotes well known in London at the time, or did he, in a context of writing that is surely closer to 'romance' than it is to 'history', feel free to interpolate his own imaginative fancies to entertain a London audience?

HISTORY OR ROMANCE?

It is well to remember that the *Short English Metrical Chronicle* was written as entertainment, not as history. To some extent, the use of English and the verse form identifies it as such, in contrast to the Latin prose of more conventional histories. The context of the Auchinleck manuscript, which includes it alongside romances about largely legendary or non-historic figures such as Bevis of Hampton, Guy of Warwick, Sir Tristram and Sir Orfeo, is indicative of its perceived status. Like these other tales, the opening words (at least in the shorter version R) are addressed conventionally to *listeners*:

> Herkneþ hideward lordynges,
> ʒe þat wolleþ here of kynges,
> Ant ʒe mowen heren anon
> Hou Engelond furst bigon.

> Harken hitherward, gentlemen,
> You that would hear of kings,
> And you may hear anon
> How England first began.

> (O'Farrell-Tate 2002, 67, lines 1–4
> (my modern English version))

Although the poet of the Auchinleck text of the *Short Metrical Chronicle* instead invites people to *read* his work ('whosoever can') (lines 1–4), he then (lines 5–8) repeats the conventional appeal to listeners in similar words to version R. Whether this was more than convention, and the text was indeed intended to be read aloud to an audience, is perhaps irrelevant. It sufficiently identifies what follows as, in modern terms, 'poetry'. Not surprisingly the *Short Metrical Chronicle* has, as Una O'Farrell-Tate pointed out (2002, 14), been ignored by historians studying the many more orthodox chronicles composed in the 14th century.[19] And, as we have seen,

the Auchinleck version of the *Chronicle* contains even more extreme departures from historical 'fact' than the shorter version R.

It is in this context of legendary, misidentified and perhaps simply fictitious characters and events that we find Brutus credited with setting up London Stone and prophesying the future greatness of New Troy. But to which category – legend, misinterpretation, or inspired invention – should we assign this account? Of Brutus and London Stone, Zettl (1935, li) simply noted 'This incident is not mentioned in any of the known chronicles'. That Brutus, legendary founder of London, should have set up the stone known as 'London Stone', and, indeed, should have prophesied that the city would be greater than Troy itself, would be ideas that could have occurred to any partisan Londoner. The stone was first recorded as 'Lundene stane' in about 1100 (Clark 2007, 171), and its name alone might have suggested that it represented the city in some way or at least was coeval with it. We must remain uncertain whether the idea occurred first to that anonymous body known as 'tradition' or to the equally anonymous 'author' of the expanded version of the *Short Metrical Chronicle* – and may we identify the latter with the person known conventionally as 'Scribe 1', who was responsible for the writing of most of the Auchinleck volume? Was 'Scribe 1' merely a copyist or an amanuensis, or a creative (and perhaps mischievous) poet/author in his own right?[20]

Sadly, the *Short Metrical Chronicle*'s reference to London Stone tells us nothing about the stone's actual origins or its original purpose. However, in the context of a volume written in London, for a London audience, by an author with concern for and local knowledge of London, it suggests that Londoners were already puzzled by London Stone and that stories were circulating about its significance.

Yet the idea that 'Brut sett Londen ston' seems not to have had wide or long-lived circulation – at least not among those who might have perpetuated it in writing. Thus the French visitor Grenade was told in the 1570s, or perhaps concluded on the basis of his reading, that it was another legendary British king, Lud, who set up the stone (Grenade 2014, 103, 224). When the antiquaries of the

16th century were debating the origins and significance of London Stone they appear to have been unaware of any claim that it was associated with Brutus (Clark 2010, 41–2).

CONCLUSION

But what of Môr Meirion and his contribution to *Notes and Queries*? Was it the result of the transmission, or rediscovery, of a medieval belief, or an independent and coincidental invention?

Could Morgan have known the medieval verse? One version of the chronicle poem had appeared in print, and was available in Morgan's time. This was the version included by Joseph Ritson in his collection of *Ancient Engleish Metrical Romanceës* [spelling *sic*], published in three volumes in 1802 (Ritson 1802, ii, 270–313). It was taken directly from the manuscript now in the British Library (MS Royal 12 C. xii) – and this, version R (also edited by O'Farrell-Tate (2002)), is, as we have noted, the only surviving version of the poem that does *not* credit Brutus with setting up London Stone and prophesying London's future greatness; it tells us only that Brutus built London and called it New Troy, and omits the verses about London Stone and Brutus's prophecy. The attribution of London Stone to Brutus was, as we have seen, one of the novelties of the Auchinleck and later manuscript texts of the poem. Did Morgan know of one of the other, fuller versions, or had he come across a printed extract or reference? There is certainly nothing to suggest that he was himself an habitual student of unpublished medieval English manuscripts. His failure, as in his other writings, to credit his sources, and his habit of careless, indeed extravagant, misuse of them must leave the reader suspicious. In his (admittedly) wide reading Morgan may have found a reference to this medieval verse that links London Stone, Brutus and a prophecy of London's greatness. If so, as was his custom, he elaborated wildly upon his source.

It is not surprising that the *Short English Metrical Chronicle* has not been drawn on as a source by modern historians. As evidence of history, in the common sense of that word, it is no more significant than other 'romances' in the Auchinleck manuscript, like *Horn Childe & Maiden Rimnild*, *Sir Beues of Hamtoun*, or *Of Arthour & of Merlin*, which have instead attracted the attention of students of Middle English literature. Yet, written by a Londoner and incorporated in a volume with undoubted London patronage and provenance, perhaps it can be used as an illustration of how early 14th-century Londoners thought about the history of their city and its origins – how they interpreted London Stone, the Tower of London, the remains of King Seberd at Westminster, and even perhaps Bastion 4A, the tower of Eldwerk upon Houndsditch.

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NOTES

[1] For more on the mythology of London Stone, see also Clark (2015).

[2] On Richard Williams Morgan's life see Clark (2010, 46–7).

[3] 'Palladium': originally, in Greek legend, a statue of the goddess Pallas Athene upon which the safety of the city of Troy was believed to depend, and whose eventual theft allowed the Greeks to capture and burn the city; the term was later extended figuratively to any object thought similarly to guarantee the safety of an institution or place (Room 1999, 872–3).

[4] Thus, for example, the 15th-century text edited by Zettl (1935, 55, lines 115–20) (from MS F = Cambridge University Library MS Ff V 48) reads:

> Brut set London ston
> And þis worde he seid riȝt anon
> What kynge þat comes after my day
> Forsoþe he segge may
> Þat Troy was neuer so faire to se
> So London shall wax after me.

> Brutus set up London Stone
> And these words he said right anon:
> 'Whatever king comes after my day
> Forsooth he may say
> That Troy was never so fair to see
> As London shall grow after me.'

(author's modern English version)

[5] As well as the on-line edition by Burnley & Wiggins (2003b) see Ritson (1802, ii, 270–313); Carroll & Tuve (1931); Zettl (1935); and O'Farrell-Tate (2002). Most of these editors list the manuscripts and discuss their relationships.

6   They are listed by O'Farrell-Tate (2002, 19–20) as follows: B: British Library Additional MS 18677, 1390–1400; D: Cambridge University Library MS Dd 14 2, *c.*1432; F: Cambridge University Library MS Ff 5 48, 15th century. Versions H and C are fragmentary. Version G (Cambridge University Library MS Gg 1 1, first half of 14th century) is in Anglo-Norman French, either a translation from the English text, or derived independently from a lost French original (O'Farrell-Tate 2002, 43–4).

7   Yet apparently her native language was French, for 'sche answerd in her language, | *Trauaile somes par mere sauage…*' (lines 1309–16). And given her similarities to Rowenna, daughter of Saxon Hengist, it is not surprising that other manuscripts of the *Metrical Chronicle* assign her origins to 'Saxons' or 'Saxony'.

8   Alison Wiggins (2010, 550–1) also notes the interpolation of London episodes, with frequent references to London streets and localities, in the Auchinleck text of the romance *Bevis of Hamtoun*. These include a battle in the city streets 'Betwene Bowe and Londen ston' (line 4319) – perhaps 'Bowe' is the church of St Mary-le-Bow in Cheapside, rather than suburban Stratford-atte-Bow.

9   Itself an expansion on Geoffrey of Monmouth, who simply tells us that Brutus was buried in New Troy (Geoffrey of Monmouth 2007, 30–1).

10   '… invenerunt manum eius dexteram integram in carne, cute, unguibus, et ossibus compactis, usque ad medium brachii' (Walsingham 1863–4, i, 114).

11   For Trevet's work see Gransden (1974, 501–7) and Dean & Boulton (1999, 47–8).

12   For the possible existence of a Danish settlement or suburb in this area see Tatton-Brown (1986, 27) and Whytehead (2004, 29–31).

13   In þe tour of Eldwerk he was ded,
         In þe wal ybirid in lede,
         Þat stont opon Houndesdiche
         Bitvene Algat & þe Tour sikerlich.

14   This discussion is based upon the generally accepted dating of these eastern bastions to the late 4th century. However, Harvey Sheldon (2010, 231) has drawn attention to the uncertainty of the archaeological dating of these structures, and concluded 'some caution is needed in accepting them as Roman'. He notes that one sculpture from the Camomile Street bastion (Bastion 10) in particular, a limestone head perhaps dating from the mid-3rd century, is heavily weathered, suggesting it had been exposed to the elements for much longer than 100 years before being incorporated in the bastion's structure.

15   In this London context, it is clearly inappropriate to identify 'Eldwerk' with Aldwark near York.

16   Similarly, the poet, in describing other royal burials, makes use of formulae involving rhymes of 'bone' with 'stone': thus, of King Lud, 'At Ludgate liþe his bon | Yloken in a marbel ston' (lines 533–4).

17   The surviving length of wall and the foundations of the bastion, a scheduled ancient monument, are preserved in the basement of the present building, Emperor House (Historic England 2016). At the time of writing (October 2018) plans are in hand for the redevelopment of the site, including provision of public access to the preserved wall and bastion remains in an enhanced exhibition space. I am grateful to Kathryn Stubbs, Department of the Built Environment, City of London, for information. See http://www.planning2.cityoflondon.gov.uk/online-applications/applicationDetails.do?active Tab=summary&keyVal=ON8818FHL7Y00 (accessed 19 October 2018).

18   The tombstone was that of a ten-year-old girl, Aurelia Marciana (Tomlin *et al* 2004, 21–2).

19   It is not, for example, considered in Antonia Gransden's exhaustive study of *Historical Writing in England II* (Gransden 1982).

20   Medieval scribal practices and the potential role of 'Auchinleck Scribe 1' as author have been discussed by Matthew Fisher (2012, 157–78).

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RICHARD OSBARN, GUILDHALL CHAMBER CLERK, 1400–37

Robert A Wood

SUMMARY

Richard Osbarn held the office of Chamber Clerk (or chief officer) to the Chamberlain of the City of London from 1400 until his resignation in 1437. The Chamberlain was one of three important civic officers, the others being the Recorder and the Common (or Town) Clerk. Osbarn's name appears in the records of the proceedings of the Court of Aldermen and the Common Council acting as an arbiter on a number of occasions. He frequently appears as an executor in the wills of Londoners and their wives and the City's Letter Books record his conscientious attempts to safeguard the patrimonies of the orphan children of citizens. Recent research has suggested that Osbarn was one of a number of civic administrators who copied vernacular texts alongside their work on the City's own records. Most recently Osbarn has been identified as the scribe of an English petition presented to the Parliament of 1425 which sought to limit the amount of time that prisoners were held in the Tower awaiting trial on charges of treason, felony and Lollardy. This paper will look more closely at Osbarn's civic career and his relationship with London merchants, to examine the suggestion that he may himself have had Lollard sympathies.

INTRODUCTION

Until now the 15th-century Guildhall Chamber Clerk Richard Osbarn has been a comparatively obscure figure, but recently he has attracted considerable attention among literary scholars. The recent research by Mooney and Stubbs on the London Guildhall Clerks between 1375–1425, suggested that some of the senior officials in the City's bureaucracy were also copying

vernacular texts by authors such as Chaucer and Langland, in addition to their full-time work, either for their own use or for payment on commission (Mooney & Stubbs 2013). It was a time when opportunities for education were expanding in the City and the use of English in written documents was beginning to increase, so it is quite possible that the Guildhall clerks could also be found amongst the copiers of vernacular texts (Barron 1996, 129–54). Amongst the names of these administrators is Richard Osbarn, Chamber Clerk 1400–37. Mooney and Stubbs suggest that by using palaeographical and orthographical evidence they have been able to identify Osbarn as a copyist of medieval literary manuscripts, although there is no evidence that he personally signed or initialled any of the texts attributed to him (Mooney & Stubbs 2013, 17–37). In 2016 Helen Killick, using the work of Mooney and Stubbs, suggested that Osbarn may have drafted a common petition presented to the English parliament in 1425 requesting that those imprisoned for long periods 'for the crimes of treason, felony, lollardy and other such points' might be brought to trial. She argues that since Osbarn had been identified as the copyist and editor of Ceffons' *Epistola Luciferi ad Cleros*, which possibly had Lollard undertones, the inclusion of those imprisoned for Lollardy in the petition may indicate that he shared their heretical beliefs (Killick 2016, 227–45). There is however no evidence in the civic records or in his own will and testament to suggest that Osbarn harboured heretical beliefs. Let us explore what else is known about Richard Osbarn

to see whether the suggestion that he had Lollard sympathies is borne out by the documentary sources.

On 11 March 1400, the Mayor Thomas Knolles, together with the Aldermen and the Commonality of the City of London, granted two shops and adjacent land in the parish of St. Michael Bassishaw to Richard Osbarn, the Clerk of the Chamber or deputy to the City Chamberlain. This is the first reference to Richard Osbarn as Chamber Clerk, who was to hold the post until he retired in 1437 (*Cal Lbk I*, 6-7).[1] But who was he and how did he come to be qualified for this important administrative post? This paper sets out to answer some of these questions.

The key to any career in the service of the Church, the Crown or the Law, lay in having a good education. Education, then as now, was also seen as a way of moving up the social scale. London especially, was well placed for the development of all kinds of education for both boys and girls. It was near to the royal court at Westminster, which offered employment to clerks. Often they were drawn from the ranks of the clergy and careers could be made in the service of the Crown: gifted administrators were often rewarded with ecclesiastical benefices. As a trading centre London also needed educated laymen to keep business records for the merchants and their trade companies. The administration of the City at the Guildhall required clerks to record the deliberations of the Mayor and Aldermen and to keep written records. The Sheriffs' Court and the Husting Court in the City and the law courts of King's Bench and Common Pleas at Westminster provided further opportunities for employment.

In the City of London it was possible to acquire these skills and to pursue them at different levels. Our perception of the changes that were taking place at the end of the 14th and the beginning of the 15th centuries in how boys and girls were educated is impressionistic and dependent upon the survival of particular records, casual references to books and schoolmasters and to money for schooling found in wills or in legal cases, or property deeds, company accounts or inscriptions in surviving manuscripts. 'These references testify to an unselfconscious and largely unregulated provision of "learning skills" for boys and girls in the metropolis' (Barron 1996, 221). It was this world of evolving literacy and opportunities that Richard Osbarn entered.

ORIGINS

The origins of Richard Osbarn's family are unknown, but Osbarns were certainly living in London by the mid-14th century. We do not know how Richard Osbarn was educated, but as his subsequent career as the Chamber Clerk, or Controller of the City Chamberlain's office would have involved fluency in both Latin and French as well as English, he was most probably apprenticed to one of the City's professional writing laymen, variously described as scriveners, clerks or, on occasion, *notaries public*, who were members of the mystery of Writers of Court Letter, which received City recognition in 1373 as a separate craft from the Writers of Text Letter. Writers of Court Letter were authorised scribes and writers active in the City who both wrote and witnessed deeds, wills and other legal instruments, as opposed to the text writers and limners who worked in the book trade producing and illustrating manuscripts (Riley 1896, 295).[2]

Although we do not know the names of Richard's parents, we do know that he was one of three sons: his two brothers were John and Thomas. Richard may have been born about 1365. We know nothing about his brother John or his occupation, except that he had been married to Alice, and that they had at least one child, Johanna, who survived into adulthood.[3] Johanna was married twice: her first husband was the wealthy mercer William Haxey, and on his death in 1460 she married the Alderman and fishmonger, John Bromer.[4] Haxey's will survives and like the Osbarns he too was a parishioner of St Michael Bassishaw.[5] Possibly Johanna's father was also a mercer, like her first husband, her uncle Thomas and her cousin Robert, but this cannot now be verified.[6]

Richard's other brother, Thomas, was probably born in 1382, as he was apprenticed in 1395–6 at the age of 15 to William Hawe, mercer. Thomas completed his nine-year apprenticeship in 1404–5, and was then free of the City at 24 years of age; two years later he was admitted to the livery of the Mercers' Company. He later served as one

of the Wardens of the Company for 1434–5 (Jefferson 2009, 117, 197, 467). Thomas' first wife Alice was possibly the sister of the mercer William Townland. In his will of 1446 Townland left the sum of 100 marks to his sister's two children 'if they are alive': not absolute proof but compelling nevertheless. Townland also instructed his executors that the annual rent of £5 he received from the tenement called the 'Anchor in the Hoop', Fleet Street, was to fund prayers for the souls of Richard Osbarn (his brother-in-law) and his first wife Johanna.[7]

Whatever his training, Richard Osbarn first appears in the City records in 1388–9, where he is recorded as an attorney in a case enrolled in the Husting Pleas of Land.[8] As Penny Tucker has observed concerning legal representation in the City courts: 'While there is no doubt that attorneys were employed in the City courts throughout our period (1300–1550), what is not certain is that those who appeared as attorneys were, or were necessarily anything more than 'friends'' (Tucker 2007, 273). Thus the fact that Richard was described as an attorney does not necessarily mean that he was a lawyer, given his subsequent career as a City administrator. Nevertheless, any training he had received as a scrivener would have given him more than adequate expertise to attend court, representing his client.

CITY ADMINISTRATOR

So we cannot be certain of Richard's early career before he was appointed in 1400 to the important post of Chamber Clerk, that is chief clerk or controller of the Chamberlain's office. Evidence garnered from the Husting Rolls however, suggests that he was already well known to Stephen Speleman, mercer, the Chamberlain, and to John Marchaunt, the then Chamber Clerk. In 1395 Osbarn had acted as a feoffee in four property transactions with Speleman.[9] The following year Osbarn again acted as a trustee with Speleman in two further property transactions.[10] Speleman had succeeded Richard Odyham in 1391 as Chamberlain and was himself succeeded by John Proffyt, fishmonger, on 21 September 1404.[11] When John Marchaunt was appointed Common Clerk in 1399, both Speleman and Marchaunt

would have had every reason to recommend to the Mayor and Aldermen that Richard Osbarn should be appointed Marchaunt's successor as Chamber Clerk. In 1419 Osbarn was chosen as one of Stephen Speleman's executors and one of Marchaunt's in 1421, surely testament to the trust between these three men over a period of 24 years or more.[12] In turn when he came to make his own will on 2 September 1437, Richard Osbarn requested prayers for the soul of Speleman.[13] From 1392 onwards, Richard Osbarn's name appears in the Husting Rolls of Wills and Deeds regularly until shortly before his death in 1438. In all, he appears in at least 244 Hustings documents, acting either as a feoffee with others in various property transactions within the City, or as a surety for goods belonging to underage children, and on one occasion acting with his brother Thomas.[14] As we shall see presently, Richard Osbarn frequently acted for members of the Odyham family, either as an executor or supervisor.

The parish of St Michael Bassishaw was conveniently located near to the Guildhall. It was one of the central parishes lying to the north of Cheapside including St Lawrence Jewry, St Stephen Coleman Street, St Mary Aldermanbury and St Mary Magdalene Milk Street, which were particularly popular with mercers. Their area of business was the main shopping street of the City, Cheapside, and the Mercery stretched along the south side of Cheapside between St Mary-le-Bow opposite to what is now Mercers' Hall and down to St Pancras Lane.[15] Osbarn's first wife Johanna may have been a silkwoman, as on 12 September 1409, she is recorded, with Richard, as taking Margaret, one of the daughters of the late Roger Billingley, mercer, as her apprentice 'to be taught the art of the said Johanna for a term of eight years'.[16] Throughout his career Richard was involved with a number of mercers, in various transactions concerning land and property, acting as a feoffee, an executor, or supervisor of their wills.

THE CHAMBERLAIN'S OFFICE

Apart from the three annually elected, and essentially amateur, offices of Mayor and the two Sheriffs, the City also had a permanent

bureaucracy. From the 13th century there were two prominent offices: the Chamberlain and the Common Clerk.[17] The Chamberlain's office first appears in 1237, but more clearly in the reign of Edward I when much of the civic government was being defined. The Chamberlains mostly came, not surprisingly, from the mercantile companies such as mercers, grocers, fishmongers, goldsmiths and drapers. Because the Chamberlain was an amateur, in the sense that he was not a full time official but continued to practise his craft during his term of office, his professional household developed comparatively early. He was elected annually, initially by the Mayor and Aldermen during the 13th century, but from *c.*1310 by the Mayor, Aldermen and Commonality.[18]

The Chamberlain, like all medieval finance officers, was held personally responsible for the City's money which passed, or should have passed, through his hands. Unfortunately almost all of the Chamberlains' accounts for the medieval period were destroyed either in the Great Fire of 1666 or in the fire in the Chamberlain's office in the late 18th century. A few of these accounts were summarised from the detailed originals and copied into the City's Letter Books between 1330 and 1346, which provides us with a partial view of the activities of the Chamberlain at that period (Barron 2004, 179 & fn 72).[19]

The Chamberlain's duties, performed largely by the Chamber Clerk, were considerable. According to his oath, which he swore on taking office, he was required to protect the rights of orphans, that is underage children of Freemen whose fathers had died, to safeguard the City's records, to accept no one into the freedom except in accordance with the City's ordinances, and to maintain, and as far as possible increase, the profits of the City's lands and rents. The oath did not cover all of the Chamberlain's duties but included important aspects of his work (Riley 1861, 309–10; Barron 2004, 179). Although not covered by the oath, the Chamberlain's primary duty was to collect the City's revenues and to spend them properly and in accordance with instructions from the Mayor and Aldermen. There were many sources of revenue, but perhaps the main source of income derived from the fees paid by masters when they enrolled the

indentures of their apprentices, and from those by apprentices themselves when they had completed their term and wished to be entered as Freemen of the City (*Cal Lbk*, 179 & fn 45).

THE CHAMBER CLERK OR CONTROLLER

Since the Chamberlain's office was only a part-time position, it was essential that his household was staffed with competent men. According to Richard Osbarn's contemporary in the City administration, John Carpenter the Common Clerk, the Chamberlain was served by three Sergeants, who were elected and removed by the Common Council, rather than being appointed by the Chamberlain himself. They received a fee of 40s per annum plus two liveries a year, as did members of the Mayor's household: these costs were to be met by the Chamberlain himself. It is likely that the chamber sergeants had some clerical or financial skills; for example John Strecche, who was a Sergeant in about 1375, was elsewhere described as a scrivener (Barron 2004, 183 & ftn 2 qn 72). John Carpenter noted that the roll-call at meetings of the Common Council was taken by a Sergeant of the Chamber, although those who were absent were to be noted by 'a clerk of the chamber in a roll which he holds in his hands' (Riley 1861, 36). In 1311–12 the importance of the office of Chamber Clerk/Controller was recognised when David de Cotesbroke was appointed Controller at a salary of 100s, which was more than twice that of the other two Sergeants of the Chamber. This suggests that the Chamber Clerk/Controller was one of the three Chamber Clerks. While John Carpenter does not mention a salary, he noted that the Chamber Clerks were also entitled to half the fee for the enrolment of entries to the freedom, and also to whatever sum for his work with the auditors of the Chamberlain's annual account was considered appropriate (Riley 1861, 43). As Caroline Barron observed 'These men must have been extremely experienced, and they held the job for life' (Barron 2004, 183).

Richard Osbarn served as Chamber Clerk/Controller for 37 years. His duties in this post were many and various. As a respected person

in the City he also acted as an executor and as an arbiter.[20] The Clerk might also help to levy subsidies and to receive money. For example Osbarn received £100 from the revenues of London Bridge on 10 February 1417, and was one of the commissioners appointed to raise a royal subsidy on 28 August 1430.[21] The Chamber Clerk might also be present on occasion at meetings of the Court of Aldermen and Common Council as Osbarn was on 27 March 1424.[22]

RICHARD OSBARN AS EXECUTOR AND SUPERVISOR

Osbarn's position as Chamber Clerk made him a man who would be sought out by a number of London citizens, particularly those from the mercantile trades, to act as an executor for their estates, and the number of surviving references to Osbarn in the City Letter Books reveals that Richard was particularly conscientious in carrying out his duties as an executor as the following examples illustrate.

John Coulyng or Cowlyngge, had appointed his widow Katherine together with Richard Osbarn as his executors in his will made in 1400. On 1 March 1403, the guardianship of his under-age children, Gilbert and Johanna, together with their property was granted to Robert Downe, a grocer, who had married Coulyng's widow. Downe was supported by four sureties, one of whom was Thomas Tomekyn. Subsequently, on 13 October 1407, Tomekyn came to the Chamberlain's chamber and handed over the sum of £40 and various goods and chattels belonging to Gilbert and Johanna, who had both died. The money and goods were then handed to Richard Osbarn, John Coulyng's executor, to dispose of according to the terms of Coulyng's will, as his widow Katherine, the other executor, had also died (*Cal Lbk I*, 24, 57).[23]

In 1405, Osbarn was appointed one of the executors of the mercer William Parker to administer his will. William's son John was entrusted to the guardianship of Edmund Man, mercer and three other mercers stood sureties for Man. A marginal note records that on 21 November 1422, Richard Osbarn appeared before the Mayor and Aldermen, and informed those present that William

Parker had satisfied his son John of his property during his lifetime, and so Osbarn asked that the recognisance entered into by Man's sureties should be cancelled; and this was agreed (*Cal Lbk I*, 43–4 and note 1).[24] Osbarn is again recorded as one of the executors of William Evote, draper, when on 6 February 1410 the executors delivered to John Profytt, then Chamberlain, the sum of £170 6s 8d belonging to Thomas and William the sons of William Evote; both boys subsequently died and on 6 June 1414. Profytt handed back the money to Osbarn and his fellow executors to be disposed of according to Evote's wishes (*Cal Lbk I*, 84).

A detailed analysis of the 1,395 surviving copy wills in the only medieval probate register of the archdeacon of London to have survived covering the years 1393–1413 provides the names of seven testators who appointed Richard as an executor, and another testator who appointed him as the supervisor of the executors, between 1407 and 1413. Three of these testators were married men, one was an unmarried man and four were widows. Three of these testators, John Parker, Isobel Middleton and William Sent, were fellow parishioners of Osbarn in St Michael Bassishaw. Another parish represented was St Antonin: Agnes Odyham, widow of the former Chamberlain Richard Odyham, appointed Osbarn as her supervisor. Although only one testator recorded his craft; John Homerton, tailor, yet further evidence from bequests in the wills of these individual testators indicates that they were all from the middling sort in the City, and had reasonable disposable wealth. Where rewards for these executors are mentioned by testators, 20s seems to have been customary for executors in the Archdeacon's court.[25]

My reading of the wills in the Commissary Court probate registers, and in the Husting Rolls for the period 1400–38, when Richard Osbarn was Chamber Clerk, has been only a sampling, but the following examples are illustrative of his role as an executor. On 11 February 1412 Alice Turville, widow of St Martin Outwich, appointed Richard Osbarn and John Marchaunt, Osbarn's predecessor as Chamber Clerk and now Common Clerk, to be her executors.[26] Richard Hemmynbirghe, carpenter of St Margaret

Lothbury, appointed Osbarn as supervisor in 1418.[27] Agnes Ferriby, in her will dated 11 March 1419 appointed Richard Osbarn as one of two executors, but no reward for their work is indicated.[28] The wealthy widow Johanna Cheyham, of St Laurence Jewry, drew up her extensive will on 6 June 1424. Richard was to have 40s for his labour if he agreed to be her executor. Given that her will was both long and detailed in the number of bequests that she made, Richard's fee was commensurate with the work that he would have to undertake on Johanna's behalf.[29] The vintner's widow Avis Tonge, of All Hallows Barking, stated in her will of 28 June 1424 that if Richard Osbarn agreed to be one of her executors then he was to have 60s for his labours, a considerable sum. Again Avis' will was complex with many personal bequests; no doubt Osbarn and his fellow executors, who were also to have 60s, would have had to work hard for their reward.[30] Finally, the wealthy mercer Robert Guphey, who was active in the City from 1387 until his death in 1412, appointed Osbarn as one of his executors in his will dated 12 July 1412 enrolled in the Husting court.[31] No doubt a more systematic analysis of both the Commissary Court registers and the Hustings Rolls of Wills and Deeds between 1400–38 would reveal yet more examples of testators using Richard Osbarn's services. These examples show that these testators gave substantially more by way of rewards for their executors than those from the Archdeacon's court, between two and three times as much, reflecting their considerable personal wealth and status within the City, and the complexity of their bequests. Richard Osbarn was well rewarded for his services, which he carried out assiduously but it is notable that Osbarn was also willing to act for the less well off people in the Archdeacon's register.

RICHARD OSBARN AND THE ODYHAM FAMILY

Although Richard Osbarn acted in many capacities for the mercantile community as well as his fellow parishioners of St Michael Bassishaw, he had particularly close connections with the Odyham family, who were prominent members of the Grocers' Company. Although Osbarn was not ment-

ioned in the will of Richard Odyham, grocer, and City Chamberlain from 1380 until 1391, he is however found acting for Odyham's eldest son, Richard Odyham II, who had followed in his father's profession.[32] On 23 October 1409 Richard Odyham II enfeoffed James Gyford, grocer, Richard Osbarn, Clerk of the Chamber of the City, and John Snell, chaplain, with all his lands and tenements, with gardens, that he held in the parish of St. Botolph without Aldersgate.[33]

Agnes, the widow of Richard Odyham senior, was the second member of the Odyham family to use Richard Osbarn's services. Agnes drew up her will on 14 October 1409 and appointed Osbarn as the supervisor of her two executors.[34] Robert, her son, also followed his father and older brother Richard Odyham II as grocers. He made his will on 16 February 1415. Robert appointed Richard Osbarn as one of his four executors. Osbarn and two other executors were to be rewarded with the substantial sum of 100s each, whilst the fourth executor received 40s.[35] Robert and his wife Johanna had seven under-aged children at the time of his death, six boys and one girl: John, Robert, Thomas, William, James, Richard and Elizabeth.[36] Johanna was to have custody of the children 'at the discretion of his executors', and was also left a life interest in Robert's properties in the parishes of St Mary Aldermary and St Nicholas Shambles. On her death these properties were to pass to Robert's children, but if all the children died without issue then the properties were to be sold by his executors. Robert had also acquired a number of properties in Tenham, Kent, which were also to go to Johanna for her life, after which they were to be sold by his executors.[37]

The fortunes of the orphaned children of Robert Odyham provide a good example of the duties and actions of executors and guardians in such cases. We are able to trace their fortunes through various entries in the City Letter Books, which demonstrate how Richard Osbarn and his fellow executor, John Sudbury, grocer, attempted to act in the best interests of the children. On the 23 March 1417, Osbarn and Sudbury delivered the sum of £30 from the sale of Robert's Kent properties to John Hille, the then Chamberlain, for the use of Elizabeth,

Robert's daughter, who had married John Poley, grocer. Later that same day, Richard and John delivered a further sum of £60 to the Chamberlain for the use of John, Robert's eldest son.[38] Six days later Richard Osbarn and John Sudbury were with the Chamberlain again; this time a further sum of £60 was handed to the Chamberlain for the use of Robert and Thomas, two of Robert's other children (*Cal Lbk I*, 182). The following year on 12 August 1418, the guardianship of Robert and Thomas, with the consent of Robert Odyham's executors, was granted to John Poley, grocer, their sister's husband, for a term of eight years to whom they were apprenticed (*Cal Lbk I*, 201).

On 23 June 1419, Richard Osbarn again appeared before the Chamberlain and handed over £60, from the sale of Robert's Kentish properties to William and James, two other sons of Robert and Johanna. Subsequently (1419/20) this sum and a further £12 accruing to William and James from the death of their brothers John and Richard, was delivered by the Mayor and the Chamberlain, with the consent of Robert's widow Johanna, to John Maldone, grocer (*Cal Lbk I*, 201). A subsequent note in Letter Book I records that on 11 December 1420 the sum of £180 was dispersed amongst Robert's children. Although their names were not recorded in the Letter Book, the recipients were Thomas, Robert and Elizabeth: William and James had also died sometime in 1420 (*Cal Lbk I*, 225).[39] Thus over a period of 15 years we can trace the fortunes of Robert Odyham's children and observe the care that Richard Osbarn and his co-executor John Sudbury, took in carrying out Odyham's wishes for safeguarding his children and their patrimony.

In addition to his professional duties as Chamber Clerk, Richard Osbarn was also asked to act as an executor by members of the mercantile community. The mercer John Lane, a parishioner of St Botolph, Bishopsgate, appointed Osbarn as one of the executors of his will drawn up in 1427.[40] Lane had been warden of the Mercers' Company in 1401/2, 1412/13 and again in 1419/20. He had served as one of the Sheriffs in 1409/10 and was the Alderman for Cheap Ward from 1410–14.[41] Another

member of the mercantile community who used Osbarn's services was the vintner, John Shawe. His testament and separate will are both dated 17 November 1417.[42] Shawe left a widow Sara, five sons, Thomas, William, John, Edmund and Philip, and two daughters, Alice and Matilda; all were minors with the exception of Thomas who was described as being of 'full age'. Shawe's will provides another example of the care that Richard Osbarn took in safeguarding the children's patrimony. On 4 December 1419 he delivered to the Chamberlain John Hille the sum of £20 held in trust for John's son William; William was said to be 17½ years old. Two days later William appeared before the Mayor and Aldermen and requested that he might have the £20 as he wished to enter the Benedictine order at St Alban's Abbey. Shawe's will was examined and it was found that the £20 was to be divided amongst the surviving children in the event of William dying under-age. They agreed to William's request, providing that he found sureties to refund the money in case he died under age or left the order before becoming professed (*Cal Lbk I*, 231).[43] Shawe also made provision for his daughters, Alice and Matilda. Each was left £20, together with a bed and various properties in the City; Alice was to have all of his tenements near to the Minoresses without Aldgate, whilst Matilda had all her father's tenements situated in Aldgate Street. The City Letter Books record that on 3 February 1419/20, Richard Osbarn and Thomas Hasele, Shawe's executors, delivered the £40 to the Chamberlain, which had been left to Alice and Matilda; this sum was to be held in trust for the daughters. Three days later with the consent of the two executors, the money was delivered by the Mayor, Aldermen and the Chamberlain, to master Peter Churche, with whom Alice and Matilda had been placed as apprentices. Just over one year later, Churche brought the £40 back to the Chamberlain as Alice had died and John Kyngestone, craft unknown, had married her sister Matilda (*Cal Lbk I*, 238).[44] On 27 October 1434 John, the abbot of the Benedictine Abbey of Chertsey acknowledged to the Chamberlain that he had received the £60 from John Shawe's executors Richard Osbarn and Thomas Hasele, that was owed to Philip, Shawe's son,

who was now a professed monk in the abbey. This further £60 came to Philip because of the death of his siblings John, Edmund and Alice.[45] Thus over a period of 14 years Osbarn and his fellow executor had looked after the welfare of Shaw's children, but they had been well rewarded for their work: Shaw had left £10 to each of his executors to carry out the instructions, as set out in his will.

THE FINAL YEARS

Richard retired from public life after 38 years as Chamber Clerk/Controller in 1437. An entry in the Journal of the Court of Aldermen and Common Council recorded on 28 September 1437 that he was to be provided with a house, an annual robe and a pension of £6 13s 4d 'from the chamber'.[46] Shortly before this date he had drawn up his will and testament on 2 September 1437, which was proved in the Commissary Court on 18 February 1438.[47] Here we get an insight into Osbarn's concerns and intentions for his salvation. In his will he emerges as a conventionally pious man and perhaps not surprisingly, highly skilled in the Latin language. He recommended his soul to God Almighty, his Creator and Saviour, the Blessed Virgin Mary His Mother, St Michael the Archangel and All the Saints in Heaven. He wished to be interred in his parish church of St Michael Bassishaw, where his late wife Johanna was buried. He left 20s to the high altar for tithes and oblations forgotten, on condition that the rector would pray for his soul. Each chaplain serving in the church, present at his funeral, was to have 2s in return for prayers for his soul. The parish clerks were each to have 3s 4d. A further sum of 20s was left for works to the church fabric. His son William, by his first wife Johanna, was to receive £10, a silver covered cup valued at 40s and twelve silver spoons valued at 26s 8d. William's wife Elizabeth was left 5 marks and a silver standing cup. Osbarn does not mention any books in his will, although he must surely have possessed some.

Richard also provided for his second wife Agnes. She was to have £20 and a life interest in his shops and tenements in St Sythes Lane in the parish of St Benet Sherhog, and in St John Walbrook by way of dower. The tenement and shops in St Michael

Bassishaw, which had been granted to him by the City in 1400 on his appointment as Chamber Clerk, were to go jointly to Agnes and William. The residue of his goods and chattels were to be distributed by his executors as they thought best in pious and charitable works in return for prayers for the benefit of his soul, the souls of his parents, his late wife Johanna, the souls of Stephen Speleman, mercer and John Shawe, vintner and all the faithful departed. Speleman was Chamberlain when Osbarn was appointed in 1400, and both men had been involved in various property transactions over a number of years. John Shawe had made Osbarn one of his executors and by implication was a friend of his, and as we have seen Richard played a considerable role in safeguarding the patrimony of Shawe's children.

Richard chose his executors carefully, safe in the knowledge that his instructions would be faithfully carried out by them. First was his brother Thomas, mercer, to whom he was particularly close, followed by the scrivener Richard Lyndsay, with whom Osbarn had worked on a number of occasions,[48] and William Townland, mercer, whose sister Alice may have been married to Thomas.[49] They were each to receive 40s for their labours. Mooney & Stubbs are incorrect in stating that John Carpenter acted as one of Osbarn's executors (Mooney & Stubbs 2013, 28). Further evidence of the esteem in which both Lyndsay and Townland were held by the Osbarn family is provided by the will of Richard's brother Thomas who also appointed them in 1441 as his executors in his will.[50]

Richard's *ultima voluntas* will then follows his testament. This document provides additional details regarding the disposition of his property portfolio. On the death of his wife Agnes her dower properties were to revert to his son William, by his first wife Johanna, together with another tenement in St Andrew Cornhill. Richard stipulated that if William had no legitimate heirs then the properties were to go to John Stot the rector, William Townland and John Brygge churchwardens of St Michael Bassishaw to maintain a light on the Rood beam, and also a light to burn before the image of the Blessed Virgin Mary when the *Salve Regina* was sung. As William died childless shortly

after his father's death, Richard's executors used the St John Walbrook property, which yielded an annual rent of £2, to maintain the perpetual lights as stipulated in his will. This light was maintained for over 100 years by this annual rent until the endowment was confiscated by the Crown in 1548 (Kitching 1980, 39 no. 74). The other tenements in Walbrook Ward were to be sold by Richard's executors for pious uses.[51] The prior and convent of the Charterhouse and their successors were to receive 20s annually in rents from Osbarn's properties in St Mary Abchurch on condition that they observed the obit of Johanna Blounde on the day of the Exaltation of the Cross (14 September) with sung *Placebo* and *Dirige* followed by a Requiem Mass on the next day and also for the souls of Thomas her late husband and all faithful departed.[52]

Thomas, Richard's brother, his wife Alice and their son Richard were to have Richard's shops in the parish of St Lawrence, Jewry, which, if they died without surviving heirs, were to be sold and the money spent on works of piety and charity.[53] Thus over the course of his professional life Richard had been able to purchase a large property portfolio, partly funded from his salary as the Chamber Clerk, and supplemented from the fees earned through his many appointments as an executor or supervisor.

Shortly after Richard had been buried, his son William Osbarn drew up his own will and a codicil, both dated 5 May 1438.[54] He described himself thus: 'I William Osbarn, citizen of London the son and heir of Richard Osbarn, citizen of London and clerk of the chamber at the Guildhall'. He commended his soul to God Almighty, the Blessed Virgin Mary His mother and All Saints, and asked to be buried in his parish church of St Michael Bassishaw in the tomb of his late parents. In marked contrast to his father's will he only left 20d to the high altar for forgotten tithes and oblations, in return for the rector saying prayers for his soul, and 6s 8d for the church fabric. The parish clerks were to receive 6d each. He left 6s 8d to be distributed amongst the parish poor where there was greatest need, in return for their prayers for his soul. The tenement and shops left to him by his father in St Michael Bassishaw were to go to his widow Elizabeth.[55]

CONCLUSION

This paper has explored the life of Richard Osbarn, one of the gifted administrators of the City of London, which he served faithfully and diligently for 37 years. His service was rewarded by the City both on his taking up the office and on his retirement. He was a trusted confidant of a number of prominent mercantile men, often acting with them in their property dealings, both before his appointment as Chamber Clerk/ Controller and during his long career in office. Additionally he is found acting as an executor of their wills on a number of occasions, especially those of their widows, many of whom regarded him as a personal friend. For this work, undertaken in addition to his full time job running the Chamberlain's office, he was handsomely rewarded.

The civic bureaucracy of the City comprised the Recorder, the Chamberlain and the Common Clerk.[56] Richard Osbarn's post as Chamber Clerk/Controller was in many ways more important than the Chamberlain himself, as the Chamberlain's office was responsible for managing the City's finances and corporate estate. Given that the Chamberlains were 'amateur' in the sense that they were not full-time officials, they relied upon the Chamber Clerk for the day to day running of the office. Osbarn would have been fully occupied, overseeing a number of clerks in the office, checking accounts and ensuring the City's finances were sound, registering the fees for apprenticeships and at the completion of apprenticeships; a very important source of revenue for the City, and often deputising for the Chamberlain. It would seem that he would have had very little free time in which to have copied literary texts, but he may well have done so.

There is little evidence that Osbarn had Lollard sympathies: his will is the nearest that we shall ever get to knowing something about Richard Osbarn the man. Like the majority of surviving medieval wills, Richard's reflects his concern for his own salvation. He was conventionally pious, recommending his soul to God Almighty, his Creator and Saviour, the Virgin, and, additionally, St Michael the Archangel (the patron of his parish church) and All the Saints in Heaven. He chose to

be buried in his parish church of St Michael Bassishaw where his late wife Johanna was buried. There are no Lollard sentiments in any of this. Similarly, he set aside various sums to the clergy, but on condition that they prayed for his soul. Further, he also allocated the annual rental income from his property in St John Walbrook to maintain lights in St Michael Bassishaw on the rood beam before the crucifix which was to burn 'at the elevation of the host', and a light before the statue of the Blessed Virgin Mary. It is unlikely that a person of 'Lollard' sympathies would have made such a bequest.

In his role as an executor for a number of men and women from the mercantile community, a study of their wills also reflects conventional religious beliefs. Osbarn was well known to them all, many being personal friends, who knew that Richard would carry out their instructions faithfully. He was well rewarded for this work, which is a reflection of his standing. The mercantile community was relatively small and tightly knit, where everyone knew everyone else; any person suspected of heretical beliefs would have been unlikely to have been chosen as an executor. Richard Osbarn was a successful insider, not a critical outsider.

ACKNOWLEDGEMENTS

NOTES

[1] Osbarn was to be provided with a tenement in the parish of St Michael Bassishaw at the City's expense and as quickly as possible by Stephen Speleman, the Chamberlain. Richard was to hold the property on a 50-year lease, and was to contribute 20 marks towards its construction, and paid an annual rent of 40s (*Cal Lbk I*, 6–7). Stephen Speleman, mercer, had been Chamberlain since 1391. The grant was confirmed by an indenture between the Mayor and Aldermen to Osbarn dated 29 September 1400 (*Cal Lbk I*, 10–11).

[2] Prior to this separation into these two distinct groupings, writers of court and text letter were mentioned together with limners and barbers as being exempt from serving on inquisitions in the Sheriffs' court, dated 20 May 1357. For the development of the separate mysteries of writers of court and text letter see Christianson 1990, 22–3; Steer 1968, viii–ix; *Cal Lbk G*, 174, 312; Riley 1896, 372–3.

[3] See Appendix One for the Osbarn family tree.

[4] This reference comes from the will of Johanna Bromer, dated 22 February 1476. She left 40s to the high altar of St. Michael Bassishaw for oblations forgotten and withheld and for prayers for the souls of her former husbands and her parents John and Alice Osbarn; T[he] N[ational] A[rchives] PROB 11 6/244. I am grateful to Dr Anne Sutton for this reference. William Haxey was apprenticed to Richard Coventre in 1421–2, and had completed his apprenticeship a little early in 1429–30, for which he paid a fee of 13s 4d. He was in the livery by 1441–2; (Jefferson 2009, 325, 415, 419). John Bromer's will also survives (TNA, PROB 11/6/492: dated 14 March 1473/4; proved 10 December 1474).

[5] L[ondon] M[etropolitan] A[rchives] DL/C/B/004/MS 09071/005, fols 305r–305v. He left money to secure the prayers of his parish priest, and for prayers at the Hospital of St Thomas, Rome and the Holy Sepulchre, Jerusalem as well as paying for a pilgrimage to Santiago de Compostella. He left his copy of the *Gesta Romanorum* to the library in St Paul's Cathedral. Earlier in his life he supervised and paid a stationer for the binding of twenty quires that made up the Mercers' new Book of Ordinances in 1436–7 (Sutton 2005, 180).

[6] Thomas Osbarn's will dated 19 December 1440 (LMA DL/C/B/004/ MS 09071/004, fols 77v–78r). Her other cousin Richard, Thomas' younger son, was left in the care of William Townland, mercer, until he reached 26 years of age.

[7] LMA DL/C/B/004/ MS 09071/005, fols 63r–63v, dated 23 April 1460. Townland was also a churchwarden of St Michael Bassishaw in the year of Richard Osbarn's death; yet another link with Richard and Thomas Osbarn.

[8] LMA CLA/023/PL/O1/111, Husting Rolls of Pleas of Land, 112.

[9] LMA CLA/023/DW/01/124(57), (114), (115) and (117). Osbarn and Speleman's names often appear with the wealthy grocer Walter Newenton, and Robert Shirewynd, mercer. Shirewynd had been warden of the Mercers' Company in 1397–8 (Jefferson 2009, 127)

[10] LMA CLA/023/01/125(61) and (64).

[11] See LBH, 149 for his appointment from Odyham and LBI, 34 for Proffyt's appointment.

[12] Speleman made three wills, all drafted on 14 August 1419: GL MS 9171/3, fol 35; LMA CLA/023/DW/01/147(45) and TNA, PROB 11/2B/272. On his relinquishing the Chamberlain's office in 1404, Speleman was elected one of the two Sheriffs for the year 1404/5. Two years later he was elected Alderman of Tower Ward until 24 March 1414, when he transferred to Aldersgate Ward until 1416 (Beaven 1908–13, I, 1–8). Marchant's will is enrolled in the Husting Court: LMA CLA/023/DW/01/150(41), dated 18 July 1421, enrolled 25 July 1421.

[13] LMA DL/C/B/004/ MS 09071/003, fols 449r–499v.

[14] LMA CLA/023/DW/01/138(64), 1411.

[15] On mercers living in St Michael Bassishaw see Sutton 2009, 42–58 at 42.

[16] The guardianship of Margaret, her two sisters Alice and Johanna had been committed to John Coventre, mercer, by the Mayor Dru Barentyn, the Aldermen and John Proffyt the Chamberlain, on 26 June 1409. Coventre was Roger Billingley's executor (*Cal Lbk I*, 76). The evidence of Johanna Osbarn practising as a silkwoman is circumstantial, but given that both Coventre and Billingley were mercers it seems sensible to conclude that Billingley's three daughters would be apprenticed to a silkwoman, as silkwomen worked for mercers. Indeed many mercers' wives were silkwomen: on this topic see Sutton 2001, 12–50.

[17] Williams 1963, 93–6.

[18] What follows is based on Barron 2004, 176–85.

[19] On the auditing of the Chamberlains' accounts see McEwan 2012, 253–68.

[20] For Osbarn as an arbiter see LMA COL/CC/01/01/002 Journal 2 [1422–8], fols 33v, 92v, 104r, 116v and 135r.

[21] LMA COL/CC/01/01/001 Journal 1 [1416–21], fol 42v and *Cal Lbk K*, 111.

[22] LMA COL/CC/01/01/002 Journal 2 [1422–28], fol 16v.

[23] Coulyng's will was registered in the Commissary Court; LMA DL/C/B/004/ MS 09071/001, fol 446r.

[24] Parker's will is dated 12 June 1403 and proved 23 August 1404: TNA, PROB 11/2A/121. William Parker was master of the Mercers' Company in 1394–5 and in 1402–3 (Jefferson 2009, 91, 162). Parker was also active in civic life, he was City auditor for 1393, 1395 and 1398, one of the two Sheriffs for 1396–7 and Alderman of Bishopsgate Ward from 1393–1403. He was an MP for London in 1402 (Beaven 1908–12 i, 402). See also Parker's biography by Rawcliffe (2006, iv, 14–16).

[25] LMA DL/AL/C/002/ MS 09051/001/002, 1407, fol 26r: John Parker; 1409, fol 2v: Nicholas Symcok, snr; 1409, fols 14r–14v: Agnes Odyham; 1410, fols 11r–11v: Alice Turville: 1411, fol 14v: Isobell Middleton: 1413, fol 7v: William Sent: 1413, fol 12v: John Homerton: 1413, fol 15v: Alice Wynchecombe.

[26] LMA DL/C/B/004/ MS 09071/002, 1412, fols 215r–215v. I am grateful to Dr. Christian Steer for this reference. Unusually, Alice had also registered her will in the Archdeacon's court. This is the only case that I have come across where a testator registered their will in both of London's ecclesiastical courts.

[27] LMA DL/C/B/004/ MS 09071/002, fol 394r. I am grateful to Dr. Doreen Leach for this reference.

[28] LMA DL/C/B/004 MS 09071/003, 1419, fol 25r.

[29] LMA DL/C/B/004/ MS 09071/003, 1424, fols 117r–118v. John Cheyham, goldsmith, was her second husband; she had previously been married to the mercer, Simon Worsted. Johanna was the daughter and heir of Richard Turk, described in her will as 'lately citizen and fishmonger of London'. She also made bequests to a number of City churches, including St Michael Bassishaw, where she no doubt knew the Osbarns well. Osbarn's wife Johanna was to have a gold ring.

[30] LMA DL/C/B/004 MS 09071/003, 1424, fol 124r. Avice's late husband was William Tonge. Osbarn's fellow executor Thomas Elsyng, mercer, was the grandson of William Elsyng, mercer, who founded the hospital of St Mary within Cripplegate, or Elsyngspital as it was commonly known. Thomas requested burial in the church of the hospital (LMA CLA/023/DW/01/160(17), dated 15 March 1430). For the history of Elsyngspital, see A. Bowtell, 'A Medieval London Hospital: Elsyngspital 1330–1536' (unpub PhD thesis, University of London 2010).

[31] LMA CLA/023/DW/01/140 (29). He left his substantial tenement in Sevehode Lane, off Ironmonger Lane, to the Mercers' Company to fund a chaplain in the Mercers' chapel in St Thomas Acon, where he was to buried, to pray

for his soul, his parents' souls and the souls of his two wives.

32 LMA DL/C/B/004/ MS 09071/002, fol 100v; probate granted on 24 May 1407. Odyham's executors were his sons Richard and Robert and his son-in-law John Oxeneye grocer, with Robert Bowland the rector of St. Antonin as their supervisor. Richard Odyham was elected Chamberlain on 28 May 1380 (*Cal Lbk H*, 149). See also Masters 1988, 108; and Nightingale 1995, 281, 296, 322.

33 LMA CLA/023/DW/137 (17). The document was witnessed by William Alyngton, Thomas Osbarn (Richard Osbarn's mercer brother), Nicholas Hende, John Salter, John Michel and others.

34 LMA DL/AL/C/002/ MS 09051/001/002 1409, fols 14r–14v. Her executors were her son James, from her marriage to Thomas Gysors, vintner and John Snell, parish chaplain of St Antonin. Another copy is enrolled in the Court of Husting (LMA CLA/023/DW/01/137(36)).

35 TNA, PROB 11/2B/8.

36 See Appendix Two for the Odyham family tree.

37 I have been unable to find any reference in the indexes of either the London Commissary Court or Archdeacon's Court Registers of a will made by Johanna, or in the PCC wills to date.

38 John was apprenticed to the grocer Henry Purchase (*Cal Lbk I,* 182, dated 22 July 1417).

39 The entry is not entirely clear why this sum of £72 was delivered to John Maldone; possibly he had the guardianship of William and James and they were his apprentices.

40 LMA CLA/023/DW/01/170 (45).

41 Jefferson 2009, 159, 251, 311; Beavan 1908–12, ii,4.

42 LMA DL/C/B/004/MS 09071/002, 1417, fols 378r-8r. I am grateful for this reference from Graham Javes.

43 On 10 December 1419, John Tingeldene, William Whetnale, Thomas Hamptone, grocers and Thomas Stanes, draper entered into a bond with the Chamberlain on behalf of William.

44 Sureties were Robert Large, mercer, Martin Aleyn, leatherseller and William Rendre, barber. An entry in *Cal Lbk I,* 141 (dated 31 July 1415) records that legal proceedings were being taken against one John Hurlebatte for having married Johanna Aghton, an orphan without licence of the Mayor and Aldermen. Hurlebatte confirmed that he had entered into a marriage contract with Johanna, yet to be solemnised, in the presence of Nichols Jamys, merchant and master Peter Chirche, notary public.

45 Chertsey Abbey was also a Benedictine monastery founded in AD 666 by Erkenwald, bishop of London. John the abbot was John de Hermondesworth who served as abbot from 1419–58. See Malden 1905, ii, 55–64.

46 LMA COL/CC/01/01/003 [1436–42], fol 191v, dated 21 September 1437.

47 LMA DL/C/B/004/MS 09071/003, fols 499r–499v. A further copy of Osbarn's will relating to his property is enrolled in the Court of Husting (LMA/CLA/023/DW/01/166 (66)).

48 Richard Lyndsay was a very important scrivener and a close associate of John Neel the master of the Hospital of St Thomas of Acre. Both Lindsay and Richard Osbarn were among the feoffees for the fraternity of St Katherine in St Mary Colechurch (Sutton 2008, 199–229, at 215).

49 William Townland was a churchwarden of St Michael Bassishaw in 1437, the year of Richard's death (LMA CLA/023/DW/01/166 (66)).

50 LMA DL/C/B/004/ MS 09071/004, fols 77v–78r.

51 William and his wife Elizabeth were also bequeathed various rents in Ironmonger Lane in the parish of St Martin Pomeroy and in the parish of All Hallows the Less.

52 I have been unable to find any trace of Johanna in any of the City records or in the testamentary registers surviving in the Commissary Court, the Archdeacon's Court, P.C.C. or Husting Court rolls.

53 LMA DL/C/B/004/ MS 09071/003, fols 449r–449v.

54 LMA DL/C/B/004/ MS 09071/003, fol 510v. No surviving will of his widow Elizabeth has so far come to light.

55 By his codicil, Elizabeth was also to receive an annual quitrent of 10s 0¼d from a property in the parish of St Olave Silver Street rented by John Caley from William.

56 On the development of these three office holders see Barron 2004, 173–88.

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APPENDIX ONE: THE OSBARN FAMILY

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                            ?John/Richard
                            ??–??

      John                    Richard                 Thomas, mercer
      ??–??                   fl 1361–1438             fl 1381–1441
      = Alice[1]              = (1) Johanna, silkwoman = (1) Alice[2]
                              = (2) Agnes              = (2) Johanna


      Johanna[3]              William, citizen    Robert, mercer[4]    Richard, gentleman[5]
      ??–1476                 ??–1438             fl 1416–76+          fl +/–1418–76+
      = (1) William Haxey, mercer    = Elizabeth
      = (2) John Bromer, fishmonger
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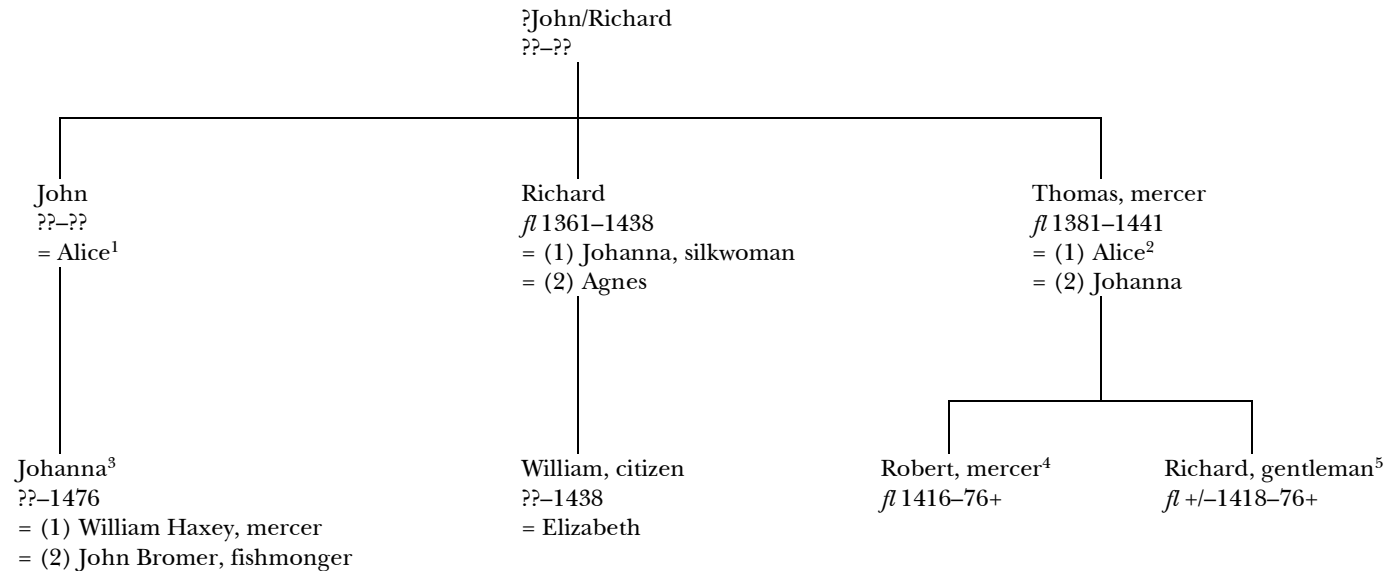
[1] From the will of their daughter Johanna: see n.5 below.

[2] Probably the sister of William Townland; see Townland's will for bequests to his sister's children (Robert and Richard): LMA DL/C/B/004/MS 09071/005, fols. 63r–63v, dated 7 December 1457. Information from Dr. Anne Sutton.

[3] TNA PROB 11/6/244.

[4] Apprenticed to his father 1430–1 (Jefferson, L (ed), 2009, 'f. 105v', *The medieval account books of the mercers of London: an edition and translation*, Farnham, 43). Robert was apparently in the Bedfordshire household of Beatrice Melreth, widow of the mercer and alderman William Melreth. Beatrice's will dated 13 September 1448 gives Robert the custody of her son Thomas plus 100 marks left to Thomas. She also appointed Robert as the supervisor of her will where she describes him as 'my dearly beloved' (Jenkinson, H, & Herbert-Fowler, G, 1931 'Some Bedfordshire wills at Lambeth and Lincoln', *The Publications of the Bedfordshire Historical Society* 14, 123–5). I am grateful to Caroline Barron for this reference. Robert was also witness to the will of Thomas Depden, plomer, on 24 August 1440, but not proved until 6 November 1443: LMA CLA/023/DW/01/172 (7). I am grateful to Dr. Christian Steer for this reference.

[5] From the will of Johanna Bromer; n.1 above. Richard was to be put in the custody of William Townland until he reached the age of 26 by his father Thomas' will: LMA DL/C/B/004/MS 09071/004 fols. 77v–78r dated 19 December 1440.

APPENDIX TWO: THE ODYHAM FAMILY

Richard I, grocer
fl 1350+/–1408[1]
= (1) Avelina
= (2) Agnes *fl* 13??–1409

Richard II, grocer
??–14??

Robert, grocer
??–1415
= Johanna

John
??–??

Elizabeth
??–??
= (1) Thomas atte Well, grocer[2]
= (2) John Oxeneye, grocer
= (3) John Proffyt, fishmonger[3]
= (4) Robert Wydyngton, grocer[4]

John
d.1420
1417 apprenticed
to Henry
Purchase, grocer

Robert
1418 apprenticed
to John Poley,
grocer, for term
of eight years

Thomas
1418 apprenticed
to John Poley,
grocer, for term of
eight years

William
d.1420

James
d.1420

Richard
d.14??

Elizabeth
= John Poley,
grocer

[1] Chamberlain 1380–91
[2] LMA CLA/023/DW//01/124(11) dated 22 December 1394
[3] Chamberlain 1404–16
[4] First Warden Grocers' Company 1398–9; Sheriff 1416–7; Auditor 1418–9; Alderman Bread Street Ward 1418–26; Beaven, A P, 1908, *The Aldermen of the City of London Temp. Henry III–1912* ii, London, 5. Will dated 1 August 1437, proved 21 October 1438: TNA PROB 11/3/429

THE BARBICAN BEFORE BARBICAN: THE HOUSE, ITS HISTORY AND THE 'IMAGINARY' WATCHTOWER

Caroline A Sandes

Close to the walls which fair Augusta[1] bind
(The fair Augusta much to fears inclined)
An ancient fabric, raised to inform the sight,
There stood of yore, and Barbican it hight:
A watchtower once; but now, so fate ordains,
Of all the pile an empty name remains

(From John Dryden's *Mac Flecknoe* (1682, 371))

SUMMARY

This paper is about the Barbican – the house and possible preceding tower that gave the present housing and arts complex and this part of the City of London its name. The paper examines its origins and uncovers the history of a house that was held by several generations of a family close to the monarchy, beginning with a grant by Edward III to his close and trusted aide, Robert de Ufford, of the property in 1331. In the absence of any archaeological data this paper relies on archival sources. It comprises sections on the Barbican prior to 1331 and the etymology of the name, the people involved with the house, and what can be ascertained about the house itself in terms of its architecture. It also briefly examines Garter House, the Barbican's neighbour, and clarifies the relationship between the Barbican, Bridgwater House and Garter House – as the three have come to be conflated or confused in some sources. In conclusion it demonstrates that this was a house of some standing, home to some interesting and important people, and that it almost certainly got its name from an earlier defensive structure.

INTRODUCTION

Most people know of the Barbican as a modernist housing and arts complex situated on the north-western edge of the City of London. Today the only signs of the area's previous history are St Giles's Church, some surviving fragments of Roman and medieval city wall, the nomenclature of the modernist development and some historic street-names. This paper is an attempt to restore some historic life to that 'empty name' Dryden refers to in his poem *Mac Flecknoe* by tracing the history of the Barbican from its potential origins as a watch tower to its final demise.

The appearance of the Barbican is recorded on the earliest cartographic depictions of London. For instance, Wyngaerde's London Panorama (*c.*1544) (Fig 1) depicts a tower that he marks as '76' and identifies as the Barbican. It looks like a gatehouse and protrudes out of some trees to the north of Cripplegate; beyond it is a sketching of a house. The Agas map (1633) (Fig 2) of *c.*1561–71, shows to the west of Golden Lane a street known as 'Barbican', along the north side of which is the property of the same name. It comprises an approximately 'H'-shaped building and beyond it is a structure with a tower topped with a spire and a cross representing the Garter House with its chapel (Prockter & Taylor 1979, plate 7). A similar property appears on the various derivatives of Braun and Hogenberg's 1572 map, while a much larger property and gardens is evident on Ogilby and Morgan's map of 1676, when the Barbican has become Bridgwater House, with Garter House (unmarked) just to the east (Fig 3).
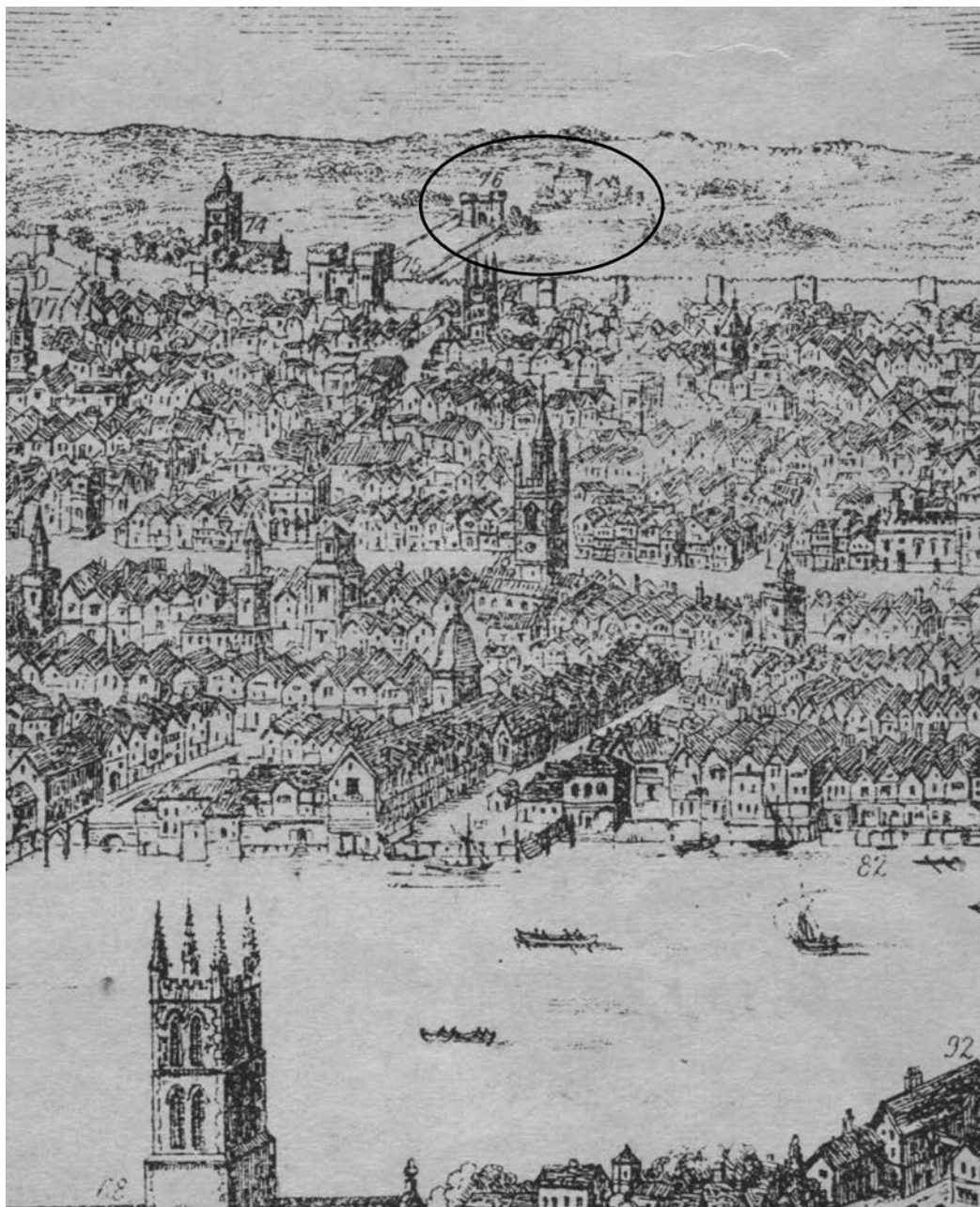
Fig 1. The Barbican on Wyngaerde's Panorama of London (c.1544), view looking north (Mitton 1908)

The *c.*1520 map of London in the Historic Towns Atlas depicts the 'Manor of Bas Court' and 'Barbican or Bas Court' along with Garter House (British Historic Towns Atlas 2018;[2] Fig 4), but otherwise there has been little historical research specifically concerned with the area since Baddeley's (1922) account of Cripplegate. The Cripplegate area was heavily bombed during World War II. Although the modernist estate's architects Chamberlain, Powell and Bon were aware of the history of the area,

Fig 2. The Barbican on the Agas map of c.1561–71, view looking north (Agas 1633; © London Metropolitan Archives, City of London, Collage record no. 34374)
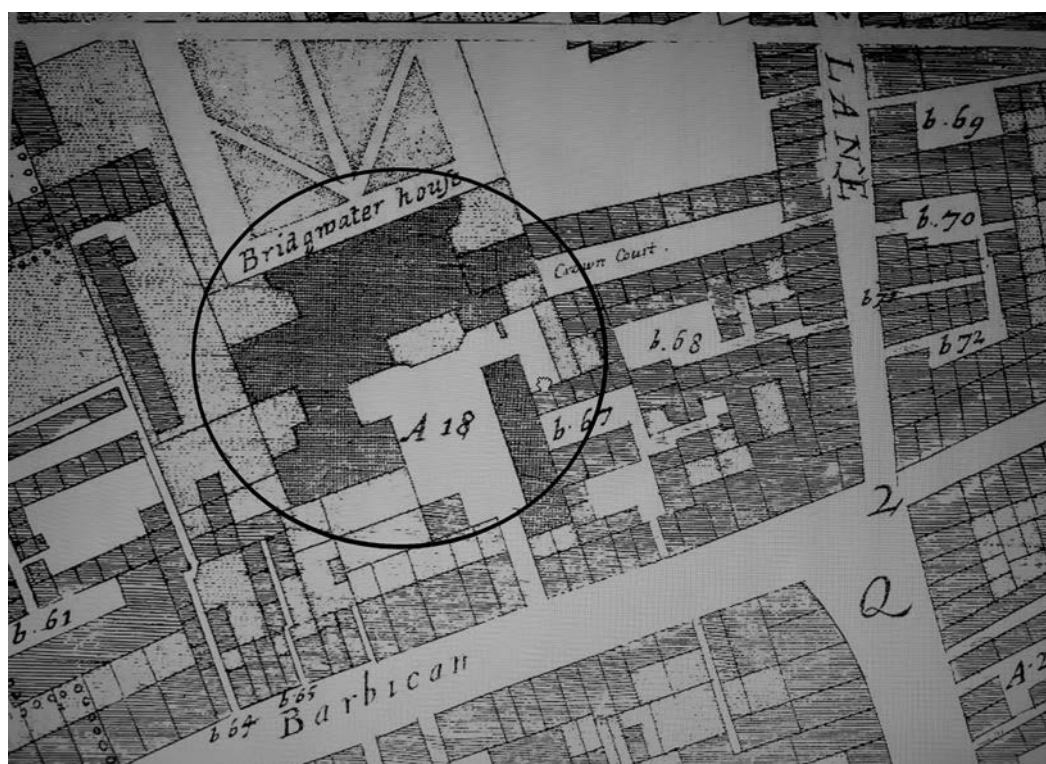
Fig 3. The Barbican on Ogilby and Morgan's map of 1676, view looking north (Ogilby and Morgan 1676; © British History Online)

Fig 4. The Barbican area in c.1520 (source and © British Historic Towns Atlas 2018)

as there are notes within their archives taken from Stow and other historical sources,[3] it seems likely that previous deeply basemented buildings had extensively truncated any earlier archaeological deposits and structures. During the area's subsequent redevelopment in the 1950s and 1960s archaeological investigations focused only on the Roman and medieval city wall and the Roman fort (Grimes 1968; Milne 2001; Sandes 2010). In 1961 there was also a small-scale archaeological investigation nearby on the site of the medieval Jewish cemetery (Grimes 1968, 180–1; Shepherd 1998, 85). This research relies, therefore, on archival sources, mostly the Ancaster Archives held in Lincoln. These include records of the Willoughby de Eresby family – in whose possession the Barbican remained through the later medieval period to the early 17th century – other primary documents, and comparative archaeology and history. There are also the Bridgewater archives, but they are scattered across at least three different depositories, including in the USA, and their level of cataloguing varies considerably, so time and resources have precluded any serious study of these sources.[4]

As with anything that has a long history, spelling and naming lack consistency or have changed. 'Barbican' in the records is spelt in many different ways, and the Barbican house is also known variously as Le/La Bas Court (also variously spelt) and Willoughby House, before becoming Bridgwater House in the 17th century. For the most part, because it is the most commonly used name and to avoid confusion, 'the Barbican' is used throughout to refer to the site/house. Any other use of the name/term is qualified – for example 'barbican' in lower case to refer to a tower and 'Barbican Street' to refer to the roadway (now Beech Street). In the case of Bridgwater House, although named after the earls of Bridgewater, the contemporary alternative spelling (no 'e ') is also adhered to.

PART I: 'IMAGINARY' OR REAL BARBICAN: EARLY HISTORY TO 1331

Kingsford (1916, 51) began his entry on the Barbican: 'The name is derived by Stow from an *imaginary* "burgh-kenning" or watchtower' of the City (emphasis added). In his *Survey of London* Stow recounts:

On the north-west side of the city, near unto Redcross street, there was a tower, commonly called Barbican, or Burhkenning; for the same time placed on high ground, and also built of some good height, was in old time as a watch-tower for the city, from whence a man might behold and view the whole city towards the south, and also into Kent, Sussex, and Surrey, and likewise every other way, east, north, or west. … The plot or seat of this burhkenning, or watch-tower, King Edward III, in the year 1336, and the 10th of his reign, gave unto Robert Ufford, Earl of Suffolk, by the name of his manor of Base court, in the parish of St Giles without Cripplegate, of London, commonly called the Barbican. (1956, 64–5)

The first recorded mention of the Barbican as a place-name may be *c.*1275, possibly *c.*1263 (see below). There was, however, some antiquarian insistence that the Barbican was of Roman origin. Stukeley (1722) on his map of Roman London includes a small hill with a flag that he labels 'castrum exploratorum Barbican'. Noorthouck gives a graphic description:

Another old building of the Romans, was a watch-tower, then and now called Barbican, but nothing remains of this antique building except the name. Here they kept cohorts of soldiers in continual service to watch in the night, that if any sudden fire should happen, they might be in readiness to extinguish it, as also to give notice if an enemy were gathering toward the city to surprise them. In short, it was a watch-tower by day, and at night they lighted some combustible matter on the top of it, to give directions to the weary traveller repairing to the city. … This watch-tower stood, much about the same place where the Earl of Bridgewater's house stood before it was pulled down. (1773, 1ff)

During the Roman period the site of the Barbican was situated to the north of the Cripplegate fort, the western and northern walls of which were incorporated into Londinium's city wall in *c.*AD 180–225 (Grimes 1968, 15–51). The area appears to

have been sparsely occupied by fields and farmsteads throughout the Roman period (Shepherd 2012, 14, 148, 154). The road running north from Aldersgate is known to have been in existence by the 2nd century AD (Lakin & Howe 2004, 48). Stow's description suggests that the Barbican was located on a slight rise or watershed between the river valleys of the Walbrook to the east and the Fleet to the west. Therefore, it is possible that the Romans constructed a watch tower in this area; however, there is no evidence that Londinium possessed such features. The Roman masonry structure originally identified as a watch tower at Shadwell is now interpreted as a mausoleum (Johnson 1975, 278; Lakin *et al* 2002, 10, 25).

Londinium was abandoned by the early 5th century AD and although St Paul's Cathedral was established in 604, the rest of the walled city does not seem to have been reoccupied until the mid-9th century at the earliest (Haslam 2010, 211). There is little evidence of reoccupation of the north-western corner of the walled city or the area around the Barbican until the 11th century (Lakin & Howe 2004, 60; Jennings & Featherby 2016, 7).

Development of the Barbican Area to 1331

In the early 7th century AD, King Ethelbert (Æthelberht) of Kent (died 616) granted to the bishopric of London a huge swathe of land north of the City walls as part of its foundation endowment, including 'twenty-four hides' 'near the wall of London' which probably equated to the later prebendal lands of Moorfields, St Pancras and Camden (Taylor 2004, 7). By the 11th century, this area was known as the manor of Stepney, lying between the Fleet and Lea Rivers and divided into sub-manors, one of which was Finsbury Manor (Phillpotts 2013, 235).

In 1068, William I granted to the college of St Martin le Grand:

> all the land and moor without the postern, which is called Cripelsgate on either side of the postern, to wit, from the Northern angle of the City wall, where a rivulet of springs, near thereto flowing, marks it out (*i.e.* the moor) from the wall, as far as the running-water which enters the City. (Kempe 1825, 12)

This area has been identified as being between the Walbrook to the east and the Fleet to the west, and the northern boundary that of the parish of St Giles Without Cripplegate, north of Old Street. The canons of St Martin le Grand developed this area outside the wall and attempted to enclose some of it, causing a riot during 1141–3 (Haslam & Butler 2006, 45, 48).

The church of St Giles Cripplegate was built just outside this gate *c*.1102–15, presumably to serve a small but growing extra-mural community, and acquired a churchyard *c*.1181 (Carlin & Belcher 1989, 87). It was dedicated to the popular French hermit-abbot (d *c*.AD 710). St Giles was connected by legend with hunting and the outdoor life so churches dedicated to him are usually found close to city gates; it is the only medieval church in the City dedicated to St Giles (Oxley 1978, 117, 123). A lane, 'vicus de Crepelgate' that was probably later Fore Street, running east–west outside of but parallel to the City wall, was in place by 1210 (Carlin & Belcher 1989, 71). White Cross Street was in place under various names by 1226, followed by Red Cross Street by 1275; Chiswell Street is also mentioned in the 13th century (Haslam & Butler 2006, 48; Carlin & Belcher 1989, 84). The Jewish cemetery, just to the west of Red Cross Street and St Giles, is first recorded in 1218 (Honeybourne 1961, 146; Hillaby 1994, 2). In 1290 after the Jews were expelled the land was granted by Edward I to William de Montford, Dean of St Paul's (Honeybourne 1961, 150).

There appears to be no mention of the Barbican or the manor of Bas Court in the records of St Paul's or St Martin le Grand, or in any manorial records. Hale (1858, iii) suggested that the Domesday entry for St Paul's Cathedral does not include all the land belonging to the prebendaries of the church, only those whose revenue and produce were appropriated for the sustenance of the members of the Cathedral, which may explain the lack of mention of the Barbican. Alternatively, the Barbican may have been part of the *c*.12.5 acres identified as *Nanemaneslonde* retained by the king (Phillpotts 2013, 235).

Origins and Etymology of the Barbican and Bas Court

The primary evidence for the existence

of the Barbican is its name. This was first officially documented in 1294–5, with an earlier possible appearance *c.*1275 cited by Strype (1720, I (iii), 89), alluding to an alleged purpresture dated *c.*1263 (see below), while 'Le/La Bas Court' was first referenced in 1331. The two names seem to have been conflated from an early stage and the use of both persists, as evidenced in a mortgage of 1609 for 'that Capitall messuage or tenement comonly called or knowne by the name of Willoughbye House alias the Barbycan alias Basecourte' (2-ANC 1/43/6),[5] so the etymology of both is worth some study.

Exactly where the name Barbican came from is unclear. In terms of place names, it is not listed in *A Dictionary of British Place Names*, nor does anything similar come up in its glossary (Mills 2012). Stow (1956, 64, 271) associated the name with the Saxon term 'burgh-kenning or watch tower. Kingsford (in Stow 1908, 339–56) argued that the name had nothing to do with the term 'burgh-kenning' but, as suggested in the OED (2007), came to English through the old French term 'barbacane' and Low Latin 'barbacana' which mean an outwork, but that its origin is uncertain.

The etymology for the French 'barbacane' records a use of the term in 1160 referring to '*ouvrage de fortification percé de meurtrières*' but with its origins obscure; it examines but discounts both Persian and Arabic origins (CNRTL 2018). The French definition of the term 'barbacane' relates to its use in medieval times and is '*Ouvrage extérieur de fortification en maçonnerie ou en bois, percé de meurtrières, protégeant un point important, tel qu'un pont, une route, un passage, une porte*' (CNRTL 2018).

The Barbican was also known as La Bas Court/Basecourt. Although Stow refers to the manor of Bas Court, there is no specific reference either to it or to the Barbican in the Domesday Book. In a study of medieval field names around the City, the area of the Barbican is not specifically identified, unlike, for example, Finsbury Manor (Phillpotts 2013, 235). Kingsford suggests that the name Bas Court may have derived from Gilbert le Bas, whose sons Richard and then Martin had lands in and around Red Cross Street in *c.*1260, but this land is recorded as being near St Giles's Church, on the west side of

Red Cross Street and therefore south of the Barbican (Kingsford 1916, 52; Honeybourne 1961, 149).

'Base-court' usually refers to the lower or outer court of a property such as a castle, mansion *etc* and is also French but of late 15th-century usage according to the OED. There is a 'Base Court' at Hampton Court Palace and here it is the outer courtyard built by Cardinal Wolsey in the early 16th century, containing lodgings for guests and his large household (Thurley 2002, 45). The French term 'bas' has since the 12th century referred to something lower or of less social standing, and in terms of fortification there were '*Places basses, les casemates et les flancs de bastions qui servaient à défendre le fossé et la courtine*' (CNRTL 2018), in other words, low places, casements or flanks of bastions that defend the ditch and curtain wall. 'Court' comes from the Anglo-Norman *curt* or old French *cort*, modern form *cour* (OED). The French term 'cour' has been in use since the second half of the 10th century as meaning a space surrounded by walls or housing (CRNTL 2018).

Therefore, the combination of the names Barbican and Bas Court is suggestive of some sort of defensive complex comprising a tower and walled enclosure and if we take the French origins and etymology of the names, they date to after 1160.

Mills (2012) argues that by 1066 most English settlements and landscape features had established names; where French influence is mostly seen is in the names the Normans gave to the castles, estates and monasteries that they established. By the late 12th century in England there are references to a new element of fortification: the barbican or outer defence to a gate (Goodall 2012, 10), but the Barbican was some distance from Cripplegate, approximately a quarter of a mile, and located between two roads leading out of the City – the main route north from Aldersgate and from Cripplegate, and on the route linking the two leading to Finsbury Manor. Town defences were not always confined to a defensive circuit of wall and ditch, and civic jurisdiction often extended beyond the walled area, though in London's case not formally until 1268 (Creighton 2007, 48; Page 1923, 178). London had a division between the suburbs

outside the walls and countryside from an early stage, marked by toll bars or barriers on the main roads, which were in place as early as the end of the 12th century (Page 1923, 179). There is reference to a bar at Aldersgate in 1197, for example, and lands within the bars were not manorialised (Page 1923, 179 fn 10). The Barbican was within the bar, the boundary extending east from the Aldersgate Bar on Goswell Street to the north of the Barbican (Lobel 1989, 1270 map). This suggests that its location would fit the wider French definition of a barbican – as an outer fortification protecting an important access point or routeway.

Stow (1956, 11) mentions that although repairs to the City wall had been carried out in 1215, by 1257 the wall was 'sore decayed and destitute of towers', but that 'some other Burhkennings, or watch towers, … of old time in and about the city' were repaired and some more built by Gilbert de Clare, Earl of Gloucester, during the Second Barons' War.[6] In 1267 when the war came to an end, the victorious Henry III had all 'their burhkennings, watch-towers, and bulwarks … plucked down, and the ditches filled up, so that nought of them might be seen to remain'. Stow (*ibid*, 65) mentions that the Barbican 'watch-tower' was amongst the defences that were destroyed. Assuming that the tower was then demolished in *c.*1267, any other structures on the site might have remained intact, and perhaps one of these was referred to as 'Bas Court' granted to John Mautravers and then Robert de Ufford in February 1331:

> Grant to Robert de Ufford, during pleasure, of the houses with the gardens and other appurtenances, called 'la Bas Court' by Crypelgate, London, escheats by reason of the rebellion of John Mautravers. (*Cal Pat R* 1330–4, 73)

Officially, the first recorded use of the name Barbican is in the Court of Husting calendar of 1294–5:

> Somersete (Thomas de). – To Alice his wife for life houses in the parish of S. Botolph without Aldredesgate. … His tenement without Barbekan in the said parish to be sold to carry out his testament.[7]

There is, however, a reference by Strype in his 1720 Survey of London to an earlier official use of the name in *c.*1275, and possibly as early as *c.*1263:

> I find, that this Barbican, and some Land about it, belonged to the Crown, in Edward I. his time. For in an Inquisition, made 3 Edward I. concerning Purprestures in the City, one Thomas Juvenal, about 12 Years before, appropriated to himself of the Kings Soil, without Le Barbekan, a certain Place, containing Forty Foot in length, and four Foot in breadth, and inclosed the same place with an Earth Wall. (Strype 1720, I (iii), 89)

The boundary between St Botolph Without Aldersgate and St Giles Without Cripplegate parishes runs north–south through the roadway that became known as Barbican Street, to the west of the Barbican (Fig 4). From the Court of Hustings calendar, Barbican and 'Barbican Without' (or variants) are distinguished with the latter referring to the location of properties in St Botolph Without Aldersgate parish. In 1303–4, for example, there is an entry of Hugh le Plomer leaving to his son his tenement without Aldersgate 'near le Barbecan'.[8] A similar entry in 1307–8 records William de Beverley leaving to his wife 'houses situate outside le Barbecan' in the parish of St Botolph Aldersgate.[9] In 1315–16 there is an entry that records property of Simon de Burgh, goldsmith, 'at la Barbican' in St Botolph Without Aldersgate parish.[10] In March 1328 William Huberd, minter, leaves twenty pounds 'for making a gate at "la barbecane" without Aldresgate and for repairing the highway there'.[11] References to properties in the Barbican in the parish of St Giles do not appear until later. The first apparent reference to Barbican Street and to a property in the Barbican in St Giles is in January 1348, when Henry de Rouchestre, surgeon, requests 'To be buried in the church of S. Giles without Crepelgate. To Johanna his wife his brewery in Barbecanstret for life'.[12] The Husting calendar suggests the development of property from Aldersgate eastwards along what became Barbican Street towards the Barbican, and that the property of the Barbican itself is a distinct

and established entity within the landscape, as is also indicated by the 1331 grant.

Two things are certain: the first is the name 'Barbican'. It is rare and it persists, defining a part of the parish of Cripplegate Without, from at least the late 13th century. It has French origins, and occurs in an area that was developing from the late 11th century onwards. The precondition for a place-name to be established is that it carries a sufficient number of descriptive attributes agreed upon by the people who use it (Helleland 2012, 100). In other words, it is extremely likely that the name came about because there was a barbican there and it was a specifically identifiable feature of the area. The second thing is that, as discussed next, it was granted to one of Edward III's most trusted supporters in Robert de Ufford, which means it is unlikely to have been a place without significance.

PART II: 'WILLOUGHBYE HOUSE ALIAS THE BARBYCAN ALIAS BASECOURTE', LATER BRIDGWATER HOUSE AND GARTER HOUSE

Barbican and Garter House

There is some confusion or conflation of the Barbican, Bridgwater and Garter Houses. As mentioned above, and as confirmed by a first-hand account of a visit to the property in 1686 (3-ANC 8/1/14f),[13] the Barbican became known as Bridgwater House after the Egertons purchased it in 1623, so they are one and the same. Next door to the Barbican was Garter House. Denton's account of the parish of St Giles Cripplegate claims the earls of Bridgwater resided in what had been Garter House (Denton 1883, 155, 156 fn 1). The confusion concerning these three properties is also seen in Baddeley's (1922, 123) account of Cripplegate, and in the *London Encyclopedia*, Bridgwater House is also conflated with Garter House (Weinreb *et al* 2008, 40, 92).

Garter House was built by Sir Thomas Wriothesley after he was appointed Garter king of arms in January 1505 (Yorke 2004). In the top of the house Sir Thomas built a chapel, dedicated to 'S. Trinitatis in Alto' (Stow 1956, 271). This dedication to St Trignan or Trinian is probably a variation of the spelling of St Ninian, the 5th-century

bishop and missionary in Whithorn and Galloway (Mornin & Mornin 2006, 152–3). Numerous medieval aristocratic and noble residences possessed private chapels for the use of the owner's family and their servants (see below). Garter House was an important base for Sir Thomas and, as he was also an artist, he maintained a workshop/studio there too. Amongst his many roles, he gave evidence in 1529 at the divorce proceedings of Henry VIII and Katherine of Aragon (Yorke 2004). How this affected relationships with his neighbour in the Barbican, Maria de Salinas, Katherine's lady in waiting and great friend, is not recorded. His son, the chronicler Christopher Wriothesley (1508–62), is recorded as living at Garter House from *c.*1511 (Kipling 2004). There is a reference to Katherine Willoughby 'stepping in to Garter House' to avoid detection as she began her escape to the Continent in 1555 (see below). By 1638 there is a reference to fourteen inhabitants 'at £4' each in Garter Place (Dale 1931, 236–9), but in the 1666 Hearth Tax return for Garter Court a Francis Wilson is listed as having 13 hearths: everyone else in the vicinity (bar the Earl of Bridgewater) is listed with less than ten, and often with only one hearth.[14] While Garter House is still identifiable on the 1676 Ogilby and Morgan map it is not named as such. Strype describes Garter Court as 'pretty large, containing two Courts, and both so called; which are indifferent good' (Strype 1720, I (iii), 93), which suggests that Garter House, for all intents and purposes, has gone or at least has been subdivided, by this stage. Harben (1918) in his entry for 'Carter Court' identified it as formerly Garter Court and the site of Garter House which 'adjoined the Barbican or Base Court' and that the houses of the court were pulled down in 1881–2.

People Associated with the Barbican

There are a significant number of important people associated with the Barbican over its lifetime and it is worth having a brief look at the main characters.

John Mautravers (or Maltravers) (*c.*1290–1364), considered to have become Lord Maltravers by 1330, was indicted in his absence for plotting the death of the Earl of Kent. His lands, including the Barbican, were

confiscated and he fled abroad in December 1330 (Shenton 2004).

Robert de Ufford (1298–1369) had a long and distinguished military career and was personally close to Edward III. He married Margaret Norwich in 1324, and in May 1330 was honoured with a grant for life of the royal castle and town of Orford, Suffolk. As he had sided with the king against Roger Mortimer, he was richly rewarded with lands from 1331, including the Barbican property, and in 1337 Edward III bestowed on him the title of Earl of Suffolk (Ormrod 2008). In 1348, he was granted an additional plot of land near the Barbican 'with a part in the village' of Red Cross Street (2-Anc 1/43/1).[15] His main seat was at Eye, Suffolk, about nine miles from his father's still extant house, Ufford Hall, in Fressingfield (*ibid*). In time he held vast lands and properties in Suffolk and Norfolk, and also in Essex and Lincoln (Dawes & Chapman 1938, 393–411).

There seems to be little trace of Bas Court in the records prior to it being granted to Robert de Ufford, but given his high standing with the king, it would seem likely that it was a reasonably important property, either for strategic or prestigious reasons or perhaps was considered suitable for development as such. Like many leading nobles, de Ufford needed to attend or officiate at the royal court at Westminster, so he required a suitable London house (Schofield 2003, 34). His will records: 'Parish of St. Giles without Crepulgate in the suburb. A tenement with a garden and 14 shops with solars built over, held of the king in free burgage, as is the whole city of London. He held no other lands &c. in the city or suburb', but he did also hold some land off Goswell Street in the parish of St Botolph Without Aldersgate, listed under Middlesex (Dawes & Chapman 1938, 393–411). Both of these properties he left to his son William (*c*.1339–82).

William de Ufford, described as being universally popular, died suddenly without surviving issue in 1382 (Tout 1885). Therefore, Bas Court was inherited by his sister, Cicely (d *c*.1372) who married John, 3rd Lord Willoughby de Eresby (*c*.1328–72). In William's will Bas Court is described as 'A tenement with a garden and 13 shops with solars built thereon' and in addition there were in the 'suburbs of London. 10 shops

with gardens annexed on the west side of a street called 'Goldynglane', together with 'a garden containing 2 a. land adjacent to the said gardens on the west side thereof' (Dawes *et al* 1970, 239–56). Bas Court and the surrounding properties continued in the Willoughby de Eresby family and in 1516 William (1482–1526), 10th Lord Willoughby de Eresby, married as his second wife Maria de Salinas (d 1539), Spanish noblewoman and courtier, and lady in waiting to Katherine of Aragon (consort of Henry VIII 1509–33). They had a daughter, Katherine Willoughby de Eresby (1519–80), and it is from Katherine's time that we have the most information about the Barbican (see below).

In an unsigned will in the Lincoln archives, William Willoughby indicates that 'His wife is to live at Cresby and Parham as she pleases without impeachment of waste. She is also to have in jointure for life the manor of Barbican' (2-ANC/3/A/41).[16] Maria does live here after her husband's death and there is an account of her departing from the Barbican on 1 January 1536 on horseback to ride the 65 or so miles to visit the dying Katherine of Aragon (Read 1963, 40; Warnicke 2004).

Katherine Willoughby de Eresby was a remarkable person (Goff 1930; Read 1963; Baldwin 2015). When William Willoughby died in 1526, as his only child, Katherine inherited his barony, becoming a baroness in her own right. Her inheritance of her father's vast estates and wealth was contested by his brother, Sir Christopher Willoughby; the dispute was partly settled when Katherine was married off as the fourth wife of Charles Brandon (1484–1545), 1st Duke of Suffolk, in October 1533 when she was only fourteen. Although Katherine's inheritance was not fully settled until the reign of Queen Elizabeth, Brandon did gain control of the Lincoln estates and much more of Lincolnshire when he quelled a rebellion there in 1536. Katherine had two sons with Brandon, Henry (b 1535) and Charles (b 1537/8). Henry was born in the Barbican, where Katherine's mother was still living, when Katherine was still only fifteen (Goff 1930, 37). Both Henry and Charles were to die of sweating sickness in 1551, ending Brandon's direct line (Gunn 2015). As Brandon himself had died in 1545, Katherine

married again in 1552, this time of her own choosing to her gentleman usher, Richard Bertie (1517–82), with whom she also had two children, Susan (b 1554) and Peregrine (1555–1601).

As staunch Protestants, Katherine and Richard Bertie were obliged to flee to the Continent in 1555 during the Marian Roman Catholic revival (1553–8). There is an account by Richard Bertie, who had carefully prepared for their flight abroad, of Katherine's escape from their house at the Barbican on 1 January 1555, where Queen Mary had installed the royal official Edmond Atkinson (Somerset Herald 1550–70) to watch over her:

> She tooke with her daughter an infant of one yeare, and the meanest of her seruauntes, for she doubted the best would not aduē[n]ture that fortune with her. They were in nū[m]ber iiij. one a Greeke borne, which was a rider of horses, an other a Ioyner, the thyrd a Brewer, the fourth a foole one of the Kitchen, one Gentlewoman, and a Laundresse. As she departed her house called þe Barbican, betwixt iiij. and fiue of the clocke in the morning, with her company and baggage, one Atkinson a Herault, keeper of her house, hearyng noyse about the house, rose and came out with a torch in his hand as she was

yet issuing out of the gate: wherewith beyng amased, she was forced to leaue a male with necessaries for her young daughter, and a milke pot with milke in the same gatehouse, commaunding all her seruauntes to spede them away before to Lion Key, and takyng with her onely the two women, and her child, so soone as she was forth of her owne house, perceiuyng the Harrault to follow, she stept in at Garter[17] house hard by. The Harrault commyng out of the Duchesse house, & seyng no body sturring, not assured (though by the male suspecting) that she was departed, returned in: and while he stayd ransacking parcels left in the male, the Duchesse issued into þe streete, and proceded in her iourney. (Foxe 1570, Book 12, 2324 [2284]) (Fig 5)

There is a lease dated to 21 October 1554 leasing 'their Manor place called the Barbicane', all its gardens, buildings and appurtenances, all the tenements and houses belonging to it at Golding Lane and, in the parish of St Botolph without Aldersgate, at Darnoldes on Charterhouse Lane, to Edmond Atkinson, Somerset Herald, for a period of 21 years at £30, £8 for the Barbican itself (2-ANC 1/43/5).[18] Katherine, Richard Bertie and their daughter Susan were not

Fig 5. 'Catherine Willoughby exiled' (Foxe 1570)

to return to England until 1559, and then also with their son, Peregrine, when they recovered all their properties, including the Barbican.

Peregrine Bertie inherited his mother's title, and his parents' 'vast possessions' including the Barbican on the deaths of Katherine in 1580 and Richard Bertie in 1582 (Bertie 1845, 57). He was a renowned soldier, 'one of the Queen's first swordsmen' (Trim 2008). Peregrine seems to use the name 'Willoughby House' rather than the Barbican in his correspondence addressed from the house (for example a letter about his claim to the barony in 1580 (Bertie 1845, 64), and in his will of 1599, proved 1601, 'my great mansion house called Willoughby House in the Barbican' (Green 2010). Bertie's will leaves the Barbican along with most of his other properties to his son, but Lady Susan has use of the Barbican for her lifetime:

> all my messuages, lands, tenements and hereditaments with their appurtenances called or known by the name of Willoughby Rents situate and being in the Barbican and Golding Lane near London or in either of them, to have & enjoy the same after the death of my sister, the Lady Susan, Countess of Kent, to him. (Green 2010)

Lady Susan had the misfortune to be widowed twice. Her title, Countess of Kent, came from her first husband Reynold Grey (d 1573). She then married Sir John Wingfield (d 1596), but he died fighting in Cadiz, leaving considerable debts and Susan in penury. They had two sons but only one, Peregrine Wingfield (b *c.*1589), survived. Susan was granted an annuity by the Queen of £100 for herself and her son and she lived in the Barbican; she was still alive in 1611 but may have died *c.*1617 (Robertson 2008; Everett Green 1858a, 501–10). Whether she lived in the main house or not is unclear, but in 1609 Robert Bertie (1582–1642), Lord Willoughby and later first earl of Lindsey, mortgaged all of the Barbican properties including the capital messuage, except a building 'commonly called the Still house' (presumably for distilling essential oils, alcohol *etc*) with appurtenances and situated in the west part of the garden adjoining the Barbican (2-ANC 1/43/6; see below). There is a mortgage counterpart dated to 4 November 1611 for the Barbican, between Lord Willoughby and his brother-in-law Sir Charles Montague, for £1200. Again it is for everything except 'one tenement or house called the Stillhouse and the new stable their lately erected' in the west part of the garden (2-ANC 1/43/7).[19]

According to an account of a visit to the Barbican in 1686 by a descendent of the Willoughby family, Charles Bertie (3-ANC 8/1/14f), 'Willoughby House' was sold to the Lord Chancellor Ellesmere, who was Thomas Egerton (1540–1617), 1st Viscount Brackley. He subsequently became Baron Ellesmere and was appointed Chancellor in 1603. He died in 1617 at York House, his London home in St Martin in the Fields (Baker 2015). His son, John Egerton (1579–1649), who became the first Earl of Bridgewater in 1617, seems to have renamed the Barbican 'Bridgwater House'. He married Lady Frances Stanley in *c.*1601 and when in London they lived at St Martin in the Fields and at St Giles Cripplegate (Knafla 2009). There is a reference in the *House of Lords Journal* to the second Earl of Bridgewater, also John Egerton (1623–86), being removed to his house in the Barbican on 15 June 1663 due to his 'great Grief and Sorrow' on the sudden death the previous day of his wife, Elizabeth (née Cavendish, 1626–63), while giving birth to their tenth child (HoL 1663; Travitsky 2004). He died 'at his house in Barbican' in October 1686 (Espinasse & Knafla 2007). His son, another John Egerton (1646–1701) and the third Earl of Bridgewater, was married in Bridgwater House on 17 November 1664 to Lady Elizabeth Cranfield (1647/8–70), and after she died he married Jane Paulet/Powlett (1655–1716) in 1673. They had seven sons and two daughters; two of the sons, Charles (b 1675) and Thomas (b 1679), were killed, along with their tutor in the fire that destroyed the Barbican/Bridgwater House on 12 April 1687 (Knafla 2008).

Willoughbye House al[ia]s the Barbycan al[ia]s Basecourte

The fullest description of the Barbican is to be found in a 1609 deed:

> all that Capitall messuage or tenem[en]t comonly called or knowne by the name of Willoughbye house al[ia]s the Barbycan

al[ia]s Basecourte with appurten[a]-nc[es] situate and being in the (parish) of St Giles without Creplegate London and all and singular Halles p[ar]lors Cellers sollers Chambers rowmes stables outhouses Court[es] yardes & orch-ards gardens voydgrounds light[es] casement[es] watercourses presitt[es] com[m]odities emoluent[es] and yard-ment[es] whatsoever with the appurte-nanc[es] to the saide Capitall messuage or tenem[en]t … And all and singular glasse waynescott shewes dressers doors doorelockes keyes boult[es] and other utensills ymplement[es] and furniture of householde nowe be fixed to the premiss-es or any p[ar]te thereof Except and allwaies reserved out of this p[rese]nt[es] gaifte graunte bargaine and sale, all that tenem[en]t or house comonly called the Still house with thappurtenanc[es] situate and being at or in the (west?) p[ar]te of the garden adioyning to the foresaide Capitall messuage or ten-em[en]t called Willoughbye house. (2-ANC 1/43/6)

It had evidently seen some developments since the initial grant of 'houses with the gardens and other appurtenances' to Robert de Ufford in 1331, some of which are recorded in a 1560–2 household accounts book (see below). Thomas Allen (1828, 506–7), the topographer and engraver, suggests that Robert de Ufford rebuilt Bas Court after he was granted it. As depicted on the Agas map (Fig 2), the Barbican appears to be a typical late medieval hall house with a courtyard containing two service wings, with a large garden to the north and properties along the street on either side of the gatehouse. In London by the mid-13th century the houses of prominent citizens were of courtyard plan, and by the beginning of the 14th century they comprised buildings grouped around a courtyard entered through a range of buildings fronting the street (Emery 2006, 217; Pearson 2009, 18; Schofield 2003, 34, 61). The properties fronting on to the street attached to such houses were important as both a valuable source of income, and a way of ensuring some privacy (Schofield 2003, 43, 93). The wills of both Robert de Ufford (d 1369) and his son William (d 1382) respectively mention 14 and 13 'shops

with solars' as part of the Barbican property (Dawes & Chapman 1938, 393–411; Dawes *et al* 1970, 239–56).

Gatehouse/Tower

The most obvious aspect of the Barbican on the historic maps is appropriately, a gatehouse. On the Wyngaerde panorama it appears to comprise a central tower with an arched opening (Fig 1), two windows above and flanking towers, a smaller version of Cripplegate, from where a road seems to lead to it. On the Agas map it is depicted as a single three-storied tower with a central archway, two windows above, then two more windows with double lights on the top floor, and with a pitched roof (Fig 2).

The vast majority of Norman gatehouses from the 11th century onwards consisted of a tower on a rectangular plan with a single, centrally-placed gate passage (Goodall 2012, 3). References to stone gatehouses attached to house complexes are rare before the 14th century, but it is likely London had some earlier examples (Schofield 2003, 61). Gatehouses of brick with stone dressings became fashionable throughout south-eastern England in the 15th century and in London were built at larger residences such as Lambeth Palace (*c*.1480; Fig 6) and

Fig 6. Lambeth Palace Gatehouse

Lincoln's Inn (1519), though they were comparatively few and tended to be part of grander residences (*ibid*). Gatehouses were a visual means both of introducing the house and of conveying the visitor from front to back, where they came face to face with the inner part of the court and entrance to the great hall (Howard 2013).

Acknowledging artistic licence, the gatehouse in the Agas depiction appears to be late medieval, while the Wyngaerde depiction suggests something slightly later, more akin to the style of the Lambeth gatehouse. On Ogilby and Morgan's map (Fig 3), there is no structure that can be definitely identified as the Barbican gatehouse, but a lease of 10 July 1655 refers to a property of 40ft by 50ft west between the gatehouse of Bridgwater House and John Rymell's House (AH1122).[20] The gatehouse was probably demolished when Sir Christopher Wren transformed the site of Bridgwater House into Bridgwater Square after 1688 (Weinreb *et al* 2008, 93).

The House and 'Appurtenances'

According to the 1609 deed, the Barbican comprised 'Halles p[ar]lors Cellers sollers Chambers rowmes stables outhouses Court[es] yardes', the Still house and gardens (2-ANC 1/43/6).

In July 1686, less than a year before it burnt down, Charles Bertie (*c*.1640–1711) records a visit he made to 'My Lord Bridgewater's House (formerly called Willughby House) in Barbican as sold by my Grandfather Lindsey to the Lord Chancellor Elsmere to see if I could trace any footsteps of our family there' (3-ANC 8/1/14f). The visitor records at the entrance an 'inner gate as you go into the house', and then passing 'an old hall' to go up a staircase that 'lands into an old great dining room'.

As already mentioned, the Agas map shows that the Barbican seems to have had a courtyard plan that was a feature of many high status houses from the beginning of the 14th century; these almost invariably had stone-built halls (Emery 2006, 218; Schofield 2003, 62). By the early 14th century the pivotal position of the cross passage was established and by the end of that century cross wings were often present at either end of the hall (Grenville 1987, 89, 96). The

Agas map also depicts a two-light window in what was presumably the hall with twin crosswings. Bertie's progress via an inner gate along a passage past the old hall suggests that the house was originally of this form and that the old core of the hall, complete with cross/screens passage, was still intact. It is not inconceivable that this old hall dated to the 14th century. Excavations at Low Hall Manor, Walthamstow, revealed evidence of a mid-14th-century hall (*c*.12.5 x 8m) with two-storied end wings and a porch. The house at Low Hall appears to have been developed over the following 150 years with additional rooms almost doubling its size but it seems to have retained and respected its early core, with occupation continuing until it was demolished in the 17th century (Emery 2006, 238–9; Maloney 1998, 104).

Bertie's mention of an 'inner gate' would suggest that the Barbican also had a porch. Eastbury Manor, Barking, was built in *c*.1556–73 of brick. It has a three-storied porch with a grand entrance that led to the screens passage (Cherry *et al* 2007, 130) (Figs 7, 8). Above this 'inner gate' of the Barbican as one entered the house, Bertie also recorded a Latin verse: '*Aedificant volucres nunquam nisi mox parituri / Aedificant homines capulares mox perituri*'. The meaning of this is unclear but it can be approximately translated as 'The winged never build unless soon to bear offspring / men soon to die construct biers'. The term 'winged' (*volucres*) most likely refers to Peregrine Willoughby, so named because he was born abroad after his parents had fled (see above; Trim 2008). On his father's death in April 1582 he inherited the Barbican; his son Robert was born later the same year; 1582 is also the year he was despatched, despite his youth, to the Netherlands, which since 1568 had been rebelling against Spanish rule. This revolt was covertly supported by the English until 1584, when the deteriorating situation necessitated public support and military intervention. So, it is not implausible that the inscription was added around 1582, even if the porch was built earlier.

Charles Bertie continues his visit past the 'old hall' to go up a staircase that 'lands into an old great dining room'. This room he describes as 'all wainscoated [with] ancient carved wainscoat [and] in the chimney

Fig 7. Eastbury Manor façade

peew you see the year of our [Lord] when don viz 1577'. There are four door cases, 'two at each end that answer opposite one to another'. Of these, 'On the left hand as you come in written over one door' is an inscription in Latin to Peregrine Bertie, son, 21, and then 'a little further on the same side over the other door' a similar one to Richard Bertie. 'On the other end of the room you see in the same order' an inscription to 'Catherine' (sic), Duchess of Suffolk, and then to 'Susanna' (sic), Countess of Kent. With each of the names is an age, Peregrine 21, Richard 58, Katherine 56, and Susan 24, which suggests the years of inscription as 1575 for Richard and Katherine, 1576 for Peregrine and 1578 for Susan. This might give an indication of the position of the chimney/fireplace, suggesting that it was in one of the long walls between the doors of Peregrine and Susan.

From about the third quarter of the 15th century in grander residences the room above the parlour on the first floor came to be known as the 'great chamber', but it was sometimes known as the dining chamber and may have had a stately approach from

Fig 8. Eastbury Manor porch

a staircase (Schofield 2003, 67). At the
Barbican a parlour is listed in the 1609 deed
(2-ANC 1/43/6), so it is possible that the 'great
dining room' was above the parlour at the
end of the hall, but its four door cases suggest
a larger room. It is possible that an upper
floor was inserted into the open hall during
the 16th or 17th centuries: this happened
at Ashleworth Court, Gloucestershire
(Grenville 1987, 111; Emery 2006, 18, 54).
As seen below, Katherine and Richard Bertie
did do quite a lot of work to the house in
the 1560s, and the wainscoting dates to the
1570s, so it is possible they created the dining
chamber by adding a ceiling to the hall.

At Zouche's Inn/Robert Lee's House,
Leadenhall Street, a schedule gives details
of the house acquired by Robert Lee and
rebuilt immediately before 1600 (Schofield
2003, 233). It had a great staircase that was
probably between the hall and the parlour
that led to a first floor dining chamber and
the main bedchambers. The dining chamber
was on the garden side, wainscoted and with
an elaborate chimney piece. Sutton House,
Hackney, built *c.*1535, retains on the first
floor a wood-panelled 'Great Chamber' (Fig
9), which was above the 'Great Hall' (Gray
1997, 11). The Great Chamber is reached
by a narrow stairway in the west service wing
from which one goes into the great chamber
or into a little wainscoted chamber through
which one can then also enter the great
chamber. The great chamber has four doors,
two at each end, and a fireplace in the long
back wall. At the east end, a door leads to
the principal bed chamber with its own privy.
While Sutton House was probably smaller
than the Barbican, its surviving 16th-century
layout does give some indication of how the
'great dining room' at the Barbican may
have been. Charles Bertie's progression of
passing an old hall and going up a staircase
may possibly suggest he went down the cross
passage and up some stairs either between
the hall and the service rooms or towards the
back of the house. In either case, it would
seem likely that the 'old great dining room'
was above the hall.

As well as the great dining room, there
may also have been a gallery at the Barbican.
There is a letter dated 14 May 1586 to Lord
Willoughby from his secretary, John Stubbe,
that is addressed from London, Barbican,

and begins 'From your own open gallery
there' (8-ANC 1/61).[21] First floor galleries
as access corridors between buildings or
rooms are known in London from the early
15th century: there were two galleries at
Zouche's Inn/Robert Lee's House (Schofield
2003, 194–5). Recreation rooms were often
referred to as 'long' galleries. As John Stubbe
is writing a letter from the gallery at the
Barbican, it would suggest that he is referring
to a recreation room, as would be their usual
function in royal or noble houses, rather than
a corridor (Schofield 2003, 86). Alternatively,
there was sometimes a gallery above the high
end of the hall, as recorded at Gainsborough
Old Hall, Lincolnshire (Grenville 1987, 110).
The long galleries recorded in London were
alongside or ended in a view of the garden
(Schofield 2003, 86). If this was the case at
the Barbican, this would mean facing north;
there was a general belief in medieval times
both of the health benefits of gardens but also
of the north wind (Rawcliffe 2008, 5). Bertie's
entrance to the great dining room suggests
he came through a fifth door and judging by
the Ogilby and Morgan map the Barbican was
enlarged at some stage(s) from its hall and
cross wings plan. The north, or long, side of
the house does appear to have this extra width
so possibly a long gallery was added either
by Richard and Katherine, or by Peregrine
himself. The Barbican's gardens were quite
famous. John Evelyn (1661, 7), in his treatise
on the air pollution of London extolled the
virtues of the gardens of London, mentioning
in particular 'My Lord Bridgewater's and
some others about the Barbican, which were
observed to bear such plentiful and infinite
quantities of fruit'.

The other major source of information
about the house itself is an accounts book (1-
ANC 7/A/2).[22] When Katherine and Richard
Bertie return from exile in 1559 after six years
away, it is recorded that Grimsthorpe Castle,
their main seat in Lincolnshire, required
considerable repairs (Knox & Williams 2003,
5). It would seem likely that the Barbican
did also. A household accounts book dating
to 1560–2 principally records accounts for
Grimsthorpe, but it also includes purchases
for the Barbican. At the beginning there is a
list of at least 80 of the people employed in
the household at Grimsthorpe. Mentioned
in the accounts concerning the Barbican are

Fig 9. Sutton House Great Chamber

B Salmon, clerk of provisions, Father Fryer, yeoman of the cellar, and Mr Barton, one of the 'gentleman waiters' (HMC 1907, 459–60). The published extracts included 'for three dozen of russhes for the Barbican and my Ladie's lodging at the Corte, 6s. 8d' under 'Wardrobe of beddes' (HMC 1907, 462). Under the extensive and fascinating 'Gyftes and rewardes' there is 'To the minister that ministred the communion at Barbican last Ester, 10s' (HMC 1907, 466), and in May 1562 'to Mistress Asheleys man that brought herr Grace to Barbican with a lytle wagon, 12d'. Under 'Necessaryes' in November, there is reference to 'brown paper bought to stoppe crenies in the chambes, herr grace being sycke, 3d' (HMC 1907, 469). Under 'Jurnyeng', there is reference to Katherine and her entourage travelling to London from Grimsthorpe in October 1561, which is followed by an entry in November 'For a carre to bring a bedde from my Lady Katherine Capells to Barbican when herr Grace was sicke, 4d' (HMC 1907, 473). Katherine did seem to have quite a good time when she was sick as there is reference to her being given

some money to play cards and 'For a pynt of claret wyne in herr Grace's sycknes, Father Frier [the yeoman of the cellar] not being within, 2d.' (HMC 1907, 469–70).

The most interesting section is, however, 'Wurkes and Buyldings' (1-ANC/7/A/2, folios 68–79) that includes works at the Barbican between December 1560 and June 1562. There are references to works done in different rooms, the use of materials and of improvements. There is a payment to labourers for moving bricks 'for sprigges and nayles to be occupied abowte the howse', for 300 nails, for lime, 'rowfe tyles', and for tile pins for the larder (1-ANC/7/1/2, folio 73). There are also payments to a variety of craftsmen: xvj s. vj d was paid 'To Skipper upon a bill for carpint[er]s briklayers plaisterers glasiers & laborers and for lime and other thing[es] as by his bill for work at Barbican is appeareth' (1-ANC/7/1/2, folio 74).

There are several rooms in the Barbican that are referred to in the accounts. One is 'to carpinters for making a p[ar]tision in the chappell w[i]th benches iiij s. viij d.' (1-ANC/7/1/2, folio 73). Chapels had been a

feature of secular noble residences since at least the 11th century (Schofield 2003, 69). They were very common in manor houses by the 13th century, and often close to the hall or solar. In the 13th and 14th centuries chapels were often located on the first floor, but by the 15th century they were frequently situated on the ground floor (Grenville 1997, 118). It is documented that Sir Thomas Wriothesley added a chapel to Garter House (see above). As Katherine Willoughby was considered quite puritanical (Wabuda 2008), this suggest that the décor of the chapel at the Barbican during her time would have been plain and functional (Sprunger 1997, 36). No indication of where the chapel may have been in the house is given, but there is an entry in St Giles' Church Register, quoted by Denton (1883, 156 fn 2), recording the Lord Archbishop of Canterbury marrying the third Earl of Bridgewater, John Egerton, to Lady Elizabeth Cranfield 'in ye Chapel at Bridgwater House in ye Barbican' on 17 November 1664. Although these private chapels could be very small, it would seem that at least by the 16th century, the chapel at the Barbican was large enough to be part-itioned and have benches added in 1561, and then to hold a wedding presided over by the Archbishop of Canterbury in 1664.

In typical hall houses, off the cross or screens passage at the 'lower' end were ser-vice rooms, usually a buttery (for keeping ale and wine) and a pantry (for bread and other dry goods); sometimes there was a third doorway to a passage leading through a hall to a kitchen, which could be in a separate building (Grenville 1997, 89). In the accounts book there is reference to a number of such rooms – a larder, a cellar, and then also to a privy. It would seem that quite a lot of work was carried out on the larder:

> To Skipper w[hi]ch he paid to a carpinter for working iiij daies over the Larder at Barbican iiij s. viij d. to a tyler ij s. iiij d. to a plaister xiiij d. to three laborers ij s. viij d. w[hi]ch is for iiijC nayles xxij d. for [d? md?] of sprige v d. for lyme xviij d. for rowfe tyles x d. and for tyle pynes ij d. occupied abought the said chamber p[ro]vided by Henry Skip-per. (1-ANC/7/1/2, folio 73)

In January 1562, a man was paid to carry water out of the cellar, which suggests that it may have flooded and may therefore have been at least partly below ground level (1-ANC/7/1/2, folio 75). At Headstone Manor, Harrow, the 14th-century buttery has a lower portion added in the early 1600s that has a drain so that water could be thrown down to help keep the room cool (Fig 10), but it also has a below ground cellar, as does Sutton House. There is also an account in June 1562 'For the two gallons of Renish wyne to fill the grett vessell at Barbican, 3s 4d.' (HMC 1907, 470), which would have been located in either the buttery or the cellar. 'Cellers' are also mentioned in the 1609 deed (2-ANC 1/43/6).

There is also a reference to putting a pair of 'garnettes' – 'T'-shaped hinges – on a 'privie' door (1-ANC/7/1/2, folio 73). Privies were sometimes located off the kitchen as they could also be used for the disposal of kitchen waste, as evidenced by the finding of food waste and kitchen utensils in some cesspits (Schofield 2003, 70). Houses often had private privies on the first and upper floors, though there is little information regarding where exactly they were in London houses of the 13th to 15th centuries (*ibid*, 87). At 16th-century Sutton House, there was a privy off the main bedchamber on the first floor (Gray 1997, 11), and at Eastbury Manor, there was one on the first floor at the back of the house accessible from the rooms above the service quarter.

Of the remaining 'sollers Chambers rowmes' of the 1609 deed there is also the occasional mention: these throw light onto some other aspects of the Barbican. A record of February 1562 reveals that when the 'gentleman waiter' Mr Barton was ill, a joiner, John Osun, was paid for 'paper, oyle, nayles, tymber' and for workmanship of 'paper wyndowes' for the wardrobe (1-ANC/7/1/2, folio 77). Not all the windows at the Barbican were covered with paper, as there is a reference 'To a glasier w[hi]ch sett upp some newe glasse and setting in of divers quarett[es] other windowes at Barbican viij s.' (1-ANC/7/1/2, folio 73). In the 1609 deed, there is also reference to 'light casements' and to 'singular glass' (2-ANC 1/43/6). Window glass did not become common, even in comparatively high status buildings, until the late 16th century; prior

Fig 10. Headstone Manor buttery

to that it was only really seen in church buildings and those of the very wealthy (Morriss 2000, 113). Glass was 'crown' glass cut into small, usually diamond-shaped panes that were then usually fixed together using lead cames. These were then either mounted directly into the window frame or on hinged wrought iron casements, and the windows themselves divided into smaller lights by wooden or stone transoms (Pickles *et al* 2017, 13). Tudor windows survive at Sutton House and in the surviving portion of the hall at Headstone Manor, Middlesex (Fig 11). As recorded above, rooms of low status or service rooms were often unglazed until the 17th century (*ibid*). Not until French glaziers revived the glass industry in Kent in the 1560s and 1570s did the price begin to come down, and within twenty years or so it was much cheaper. It was also about that time that timber-framed casement and sash windows came into use (Morriss 2000, 113).

While the great dining room was timber panelled in the 1570s, there is a reference to the children's chamber being made over with timber by John the Frenchman in 1562

(1-ANC/7/1/2, folio 77). Besides their own children, the Berties also housed a number of 'children of honour': Anne Gannocke, George Sebastian, George Adams, John and Richard Turpin, Anthony Blackborne, Thomas Hallyday, Richard Hall, John Jeny, and William Lyon 'the lackey' (HMC 1907, 462).

Auxiliary Buildings

There is not a great deal of evidence for auxiliary buildings beyond mention in the title and other such deeds. The initial grant of 1331 merely states 'of the houses with the gardens and other appurtenances'. By the time of the 1609 deed, there are mentions of stables and outhouses. A building that is exempt from the mortgage of 1609, and again from the 1611 deed (2-ANC 1/43/7), this time in addition to some new stables that had been built, was the Still House in the western part of the garden. In the Accounts for 1562 there is reference to work on this:

> paid to Abote by Salmon for j bundell
> of reed[es] j d. for nayles vj d. for a lood

Fig 11. Headstone Manor, Elizabethan window exterior

of sand ob. j d. for x tyles to sett the still w[i]th xv d. for a bricklayer and his man for j daye xxij d. and for a laborer ij d. for the setting of stell[es] at Barbican. (1-ANC/7/1/2, folio 77)

Sand was sometimes used for flooring, while, from the late 16th century in high status buildings, lath and plaster ceilings, often decorated, were introduced to hide floor structures and allowed for 'pugging' beneath the floorboards to reduce sound and smell transmission between floors. The most common way of doing this was a simple lath and plaster infill between the floor joists, but sometimes sand was added on top (Morriss 2000, 112), though whether it was used in the still house for such a purpose is unclear. A 'stell' in this context almost certainly refers to a stand for a barrel (though the OED suggests this use of the term is only from the mid-17th century).

The earliest evidence for distilling in Britain comes from the 13th and 14th centuries using simple ceramic and glass stills (Booth 2016, 419). It tended to be associated with monastic and high status secular sites, remaining much the same until the late 17th century (*ibid*, 421).[23] The term 'still house' was used to refer to both a separate building or to a specific room within a house. At Wanstead Manor, originally dating to the 13th century and rebuilt in the 16th century, there is a reference to a still house, along with a brewhouse, in the probate of the Earl of Leicester of 1588 (Powell 1973, 322–7). The state papers of Queen Elizabeth I contain a letter of 1597 from John Delabere complaining that he was 'forced' to build his own still house to produce the medicine he needed (Everett Green 1869a, 365–78). There is a still house recorded next to the kitchen at Zouche's Inn/ Robert Lee's House on Leadenhall Street and described in the schedule of 1607: 'Item a doore to the still house with locke and key and Three shelves in the same' (Schofield 2003, 233). Both Westminster Palace in 1599 and Hampton Court in 1611 had keepers of the stillhouse (Everett Green 1858b, 96–109; 1869b, 230–73). Sir Walter Raleigh, while imprisoned in the Tower of London during 1603–16, converted a 'little hen-house to a

still-house' where he produced 'distillations' (Giuseppi 1938, 374–409). There survives at Hunts Court Farm, Dymock, Gloucestershire, a free-standing timber-framed structure that from documentary research and a process of elimination has been identified as a 'distilling house' dated to the 17th century; a reference to a distillery in the village is from 1696 (C Martell 2018 & pers comm; Jurica 2010, 129).

All of these examples date to the late 16th and 17th centuries, making the Barbican's still house in the 1560s seem to be an early example, which by 1609 appears to be comparatively and unusually substantial and may have been lived in as well: it is referred to as 'all that tenem[en]t or house comonly called the Still house with thappurtenanc[es]' (2-ANC 1/43/6), though there is nothing discovered as yet to suggest that it was being used for commercial distillation. The distillation of alcohol was initially associated with alchemy and for the production of medicine, and commonly known as *aqua vitae* (Rasmussen 2014, 98). In the Accounts book there is in July 1561 note of a payment 'To Wm. Edwardes daughter which brought a basket with 'isope' to still, 1d' (HMC 1907, 464); 'isope' probably refers to hyssop (*Hyssopus officinalis*), a plant originally from southern Europe and the Middle East that has a long history of both medicinal and culinary uses (Gaur 2016). It is unclear if this payment is for a still at Barbican or Grimsthorpe, but in 1562 there is reference to 'mending of an Aquavitae bottoll by Abott ij d' at the Barbican (1-ANC/7/1/2, folio 75).

If the still house survived until 1676, it is not clear from the Ogilby and Morgan map which building at the Barbican it may have been (Fig 3). There are lots of smaller properties to the west of Bridgwater House but also a long narrow undivided building which may possibly represent a barn. No other contemporary maps provide any indication of anything else.

As of yet, it is not known what changes the earls of Bridgewater made to the house once it came into their possession in the 17th century. The second Earl of Bridgewater, John Egerton, although often with financial problems, did spend lavishly on his houses and grounds (Espinasse & Knafla 2007). The depiction of Bridgewater House on Ogilby and Morgan is of a large complex and the

Hearth Tax of 1666 lists the Earl as having 36 hearths, far exceeding the 13 recorded for Francis Wilson in Garter Court and everyone else's ten hearths or less – usually only one – in the area (London Hearth Tax 1666).

CONCLUSIONS

Barbican/Bridgwater House burnt down in 1687 and three people were killed in the fire (see above). It was not rebuilt and Sir Christopher Wren bought the site, redeveloping it after 1688 as Bridgwater Square. Strype (1720, I (iii), 93) describes Bridgwater Square as 'a very handsome open Place, with very good Buildings, well inhabited. The middle is neatly inclosed with Palisado Pales, and set round with Trees; which renders the Place very delightful. … And where this Square is, stood the House of the Earl of Bridgewater'. Today Bridgewater Square still exists – just – as a playground tucked away down Bridgewater Street, so the space that the Barbican occupied is still identifiable in the modern streetscape.[24]

As mentioned at the beginning, with no physical remains, the history of the Barbican is reliant on documentary and secondary sources. The primary evidence is its name 'Barbican' along with Bas Court: it is distinct, unusual and it persists. This suggests that far from being imaginary, a defensive or watch tower complex of some sort existed on the site, possibly from the late 12th century, or at least during the Second Barons' War. It was evidently a self-contained/clearly delimited property, as indicated by the references to the Barbican and whether nearby properties were without or at Barbican in the Court of Hustings calendar from the late 13th century. Certainly, there was a house and other buildings on the site when it was confiscated from John Mautravers and granted to Robert de Ufford in 1331. It cannot be said for sure whether or not de Ufford rebuilt it, but some of the features suggest a typical courtyard house that was built in the 14th century and then expanded and embellished. Katherine and Richard Bertie made many improvements after their return from exile in 1559, suggested by their accounts and the observations made by Charles Bertie in 1686. Peregrine Bertie, Lord Willoughby, may also have made changes as he refers to 'my great

mansion house called Willoughby House' in his will (Green 2010), and judging by the descriptions in the 1609 and 1611 deeds, it had become quite an elaborate property that reflected some of the architectural fashions of the period, for example the glazing, the wainscoting and the use of brick about the place as recorded in the 1560–2 household accounts book. Charles Bertie's description suggest that at least the core of the house, its 'old hall' and 'great old dining chamber' had been retained and not been much changed by the Earl of Bridgewater's ownership of the house either.

What is perhaps also evident is how much can potentially be gathered from documentary sources when combined with comparative archaeological and architectural history sources, even when there seems at first glance to be nothing but a name remaining. Emery (2006, 218) argues that the 'almost total eradication' between the mid-16th and 18th centuries of London's lay and ecclesiastical mansions is one of the 'outstanding losses' of medieval England. It is hoped that this paper on the Barbican has helped to bring back into the literature one such vanished mansion and to reclaim a place name normally only associated with an, albeit impressive, modernist housing estate and arts centre.

ACKNOWLEDGEMENTS

NOTES

1 Augusta refers to London; the fear is of 'Catholic plots', *Norton Anthology of Poetry* 371.
2 See http://www.historictownsatlas.org.uk/; this and other maps are also available on the Layers of London website (https://www.layersoflondon.org/).
3 *Notes on Survey of London (labelled 'beginning of Barbican?) c.1950–1960*, Royal Institute of British Architects, Chamberlain, Powell & Bon Archives CPB/6/19.
4 Egerton, family, Earls of Bridgewater collections, National Archives, http://discovery.nationalarchives.gov.uk/details/c/F21469, accessed 17 May 2018.
5 2-ANC 1/43/6: Counterpart of the Mortgage of Barbican, 2-ANC Second Deposit of the Manuscripts of the Earls of Ancaster, Lincolnshire Archives.
6 The Second Barons' War of 1264–7 was a period of civil war when Simon de Montfort's forces fought against Henry III. The City of London supported de Montfort, so after his death and the defeat of his forces, the city's refurbished defences were dismantled as part of its punishment.
7 Ct HR I Roll 24 (44): 'Wills: 23 Edward I (1294–5)' in Sharpe (ed) 1889, 114–23.
8 Ct HR I Roll 32 (100) 'Wills: 32 Edward I (1303–4)' http://www.british-history.ac.uk/court-husting-wills/vol1/pp160-167 (accessed 26 July 2017).
9 Ct HR I Roll 36 (40) 'Wills: 1 Edward II (1307–8)' http://www.british-history.ac.uk/court-husting-wills/vol1/pp189-199.
10 Ct HR I Roll 44 (28) 'Wills: 9 Edward II (1315–16)' http://www.british-history.ac.uk/court-husting-wills/ vol1/pp256-262.
11 Ct HR I Roll 56 (58) 'Wills: 2 Edward III (1328–9)' http://www.british-history.ac.uk/court-husting-wills/vol1/pp329-343.
12 Ct HR I Roll 76 (82) 'Wills: 23 Edward III (part 1 of 2)', http://www.british-history.ac.uk/court-husting-wills/vol1/pp512-578.
13 3-ANC 8/1/14f: Memorandum by Charles Bertie about a visit to Lord Bridgewater's house, 3-ANC: Family and estate papers, Lincolnshire Archives, Lincoln.
14 London Hearth Tax 1666, http://www.british-history.ac.uk/london-hearth-tax/london-mddx/1666/st-giles-cripplegate-barbican-north.
15 2-ANC 1/43/1: Letters patent of grant: King Edward III to Robert de Ufford earl of Suffolk, 27 January 1348.
16 2-ANC/3/A/41: Last will and testament of William Lord Willoughby, 4 May 1526.

[17] Read (1963, 106) and Baldwin (2015, 144), interpret this incorrectly as 'Charterhouse'.

[18] 2-ANC 1/43/5: Indenture of lease: Richard Bertie and lady Katherine to Edmund Atkinson, Somerset herald, 21st October 1554.

[19] ANC 1/43/7: Indenture of mortgage (counterpart), Robert lord Willoughby and Henry Atkins, doctor of physic of the city of London, to Sir Charles Montagu knight of the county of Northampton, 4 Nov 1611.

[20] AH1122: 'Answer in Chancery' *c.*1669, CAH/12/6/122, Ashbridge II Collection, Hertfordshire Archives and Local Studies, Hertford.

[21] 8-ANC 1/61: Letter, Jhohn Stubbe, scaeva, to Lord Willoughby, 14 May 1586, 8-ANC Manuscripts of the Earl of Ancaster, Lincoln-shire Archives, Lincoln.

[22] 1-ANC 7/A/2: Household accounts, 1560–1562, 1-ANC First deposit of the manuscripts of the Earls of Ancaster, Lincolnshire Archives, Lincoln.

[23] The 1690 Distilling Act abolished the monopoly of the Worshipful Company of Distillers and other royal patentees, which encouraged the commercial distillation of spirits from grain, this led to a huge increase in the production and consumption of gin.

[24] The site of the Barbican is recorded on Historic England's online database *Pastscape* as Monument No 404588 at TQ3226 8190, https://www.pastscape.org.uk/hob.aspx?hob_id=404558 (accessed 20 September 2018).

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FURTHER EVIDENCE FOR THE ABBEY OF ST CLARE AND LATER OCCUPATION AT 24–26 MINORIES, EC1

Antonietta Lerz

With contributions by Ian Betts (building materials), Lyn Blackmore (pottery), Julian Bowsher (coins), Jacqui Pearce (clay tobacco pipes), Alan Pipe (animal bones, bone and horn working), Beth Richardson (accessioned finds) and Karen Stewart (plant remains)

SUMMARY

During redevelopment of the site of 24–26 Minories, an archaeological excavation revealed multi-period remains dating from the Roman period to the 19th century. Medieval activity began during the 12th century when part of the site was exploited for quarrying. Properties fronting onto the main streets were established by the 13th century and several of these tenements were subsequently acquired by the Abbey of St Clare, Aldgate (in existence by 1293), for the extension of their precinct. A large portion of the site fell within the north-western part of the outer precinct of the abbey, which from the mid-14th century was developed into a residential quarter reserved for lay tenants.

The most significant features to be uncovered were the remains of a row of these properties which lined the northern side of the access road into the precinct. The excavations revealed stone-lined cesspits, cellars and the masonry foundations of two large buildings arranged around a central courtyard, one of which had a large cellar. Documentary sources confirm that this building was leased to a series of wealthy tenants and evolved into a large property known as the 'great house' during the late 16th century.

The medieval cellars and cesspits remained in use for centuries, ensuring their survival during a period of heightened urban development in the 17th and 18th

centuries. As the demand for housing in London's eastern suburb increased these large properties were subdivided into smaller units. Three of the properties were turned into a tavern, the 'Sieve', which served the locality into the 19th century. A brick furnace was uncovered in one of these 19th-century cellars and finds of elephant ivory and turtle bone, possibly waste after removal of the 'tortoiseshell' layer, show the types of small scale industries that existed locally. The extent of the late 19th-century warehouses followed the boundaries of these historic tenements.

INTRODUCTION

Between March and September 2013, Museum of London Archaeology (MOLA) carried out an excavation at the site of 24–26 Minories, in the City of London. The redevelopment of the site comprised the demolition of a 1960s office block to make way for a 16-storey hotel in a development by investor Aberdeen Asset Management and Developer Endurance Land. The National Grid Reference for the centre of the site is 533660 181065 (Fig 1).

The archaeological excavation of the site was preceded by a watching brief in early 2012 and an archaeological evaluation in October 2012 (full details are in MOLA
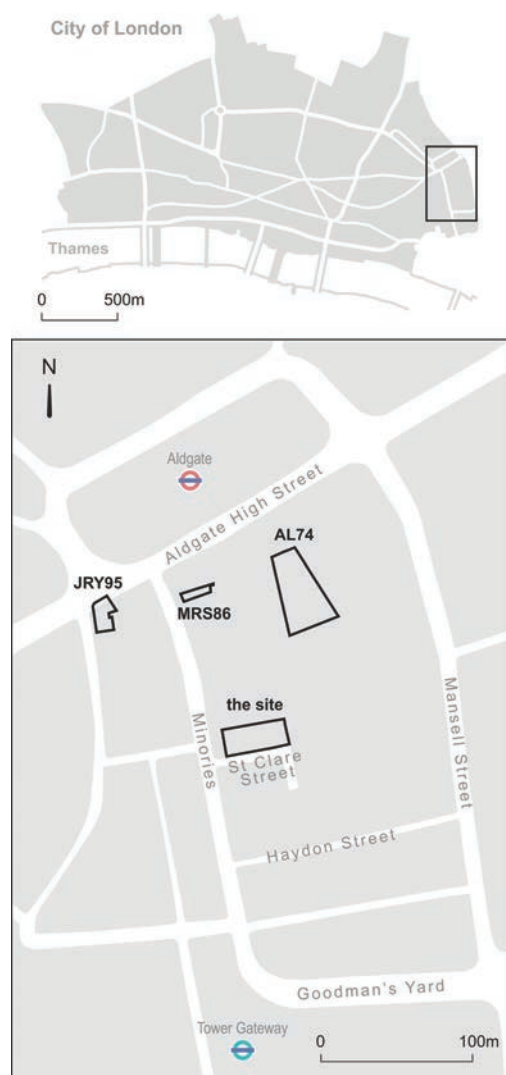
Fig 1 Site location and sites referred to in the text (scale 1:5000; inset 1:50,000)

2012). The subsequent fieldwork comprised the excavation of the central and eastern parts of the site with a watching brief on a series of concrete support locations around the southern, western and northern edges of the site. The extreme western part of the site is occupied by the route of the London Underground tunnel (District Line) and lay outside the area of investigation (Fig 2).

The excavations yielded evidence spanning from the Roman period to the present day though it is the medieval and post-medieval

remains which form the basis of this article. The Roman sequence has been published elsewhere, together with a description of the natural topography and drift geology (Lerz *et al* 2017). The site archive will be deposited under the site code MNR12 in the Museum of London Archaeological Archive (LAA), 46 Eagle Wharf Road, London N1 7ED where it may be consulted by prior arrangement.

Organisation of the Text

The sequence described here is a direct continuation of the Roman one. Therefore the numbers allocated to the Land Use entities of Buildings (B), Structures (S) and Open Areas (OA) follow sequentially from the Roman sequence. Context numbers cited in the text appear in square brackets [10] and accessioned finds are shown in angled brackets <20>. Certain categories of finds have been given illustration numbers preceded by a letter denoting their category. Concordance tables are provided for illustrated pottery (<P1> *et seq*; Table 1) and registered finds (<S1> *et seq*; Table 2). The clay tobacco pipes (Tables 3, 4) have been classified according to Atkinson and Oswald's (1969) classification (AO prefix) and that of the 18th-century types has been refined by reference to Oswald (1975) (OS prefix). Quantification and recording follow guidelines set out by Peter Davey (1997). The archaeobotanical remains were identified with the aid of the MOLA reference collection and seed identification manuals (Cappers *et al* 2006). Plant names follow Stace (1995). The analysis of the excavation resulted in a series of specialist research reports which will be deposited as part of the archive. The results of assessed strata and all assemblages of artefacts, environmental and osteological remains were recorded on the MOLA Oracle database. Detailed descriptions of the building material fabrics and pottery codes with date ranges are posted on the LAA and MOLA pages of the Museum of London website.[1]

The Sources

The historical background to the foundation and development of the Minoresses in London has been covered in several studies

Fig 2 Areas of archaeological investigation (scale 1:400)

(Reddan 2007, 145–8; Tomlinson 1907).[2] This nunnery has also been the subject of a detailed topographic survey by Martha Carlin (1987) which traced the development of the Aldgate area from *c.*1100 until the Great Fire of 1666. The wealth of the documentary evidence collated in the latter study has allowed the historical background of many of the properties identified archaeologically on the site to be followed throughout this period.

EARLY MEDIEVAL OCCUPATION: *c.*AD 1100 TO THE FOUNDATION OF THE ABBEY OF ST. CLARE IN *c.*1281 (PERIOD 5)

The site is located outside the City of London within the parish of St Botolph without Aldgate. St Botolph's Church, located *c.*140m north of the site, may have been in existence by the 11th century (Weinreb *et al* 2008, 717). The focus of the area was the High Street (Aldgate High Street) which led from the city to Essex. Extending north and south from Aldgate and parallel to the city wall were two thoroughfares, now known as Houndsditch and Minories. Medieval

Minories was known as the 'king's highway' (*via regia* or *vicus regius*) (Keene 1987, 7, fig 2).

There is little archaeological evidence from sites previously excavated in the vicinity for early medieval occupation predating the documented foundation of the Abbey of St Clare in 1293 (see below). Medieval plough soils recorded at 3 Minories (MRS86; Schofield with Maloney 1988, 232) suggest that this area beyond the City walls was arable land until the 14th century.[3] Activity increased following the Norman Conquest, as the importance and size of London steadily increased. Mid-11th- to mid-12th-century rubbish pits were recorded at 37 Jewry Street (JRY95; Tyler 1996) and to the north of the site at 62–64 Aldgate High Street (AL74; Thompson *et al* 1984) 12th-century sand or brickearth quarry pits were identified (Fig 1*)*.

By the 13th century, the two main street frontages had been built-up. The High Street was lined with substantial residences and shops while along Houndsditch and Minories the houses were smaller (Keene 1987, 3). These properties typically comprised long strips of land containing one or two

Fig 3 The 12th-century landuse: pits and quarries within the medieval property boundaries (period 5) (after Carlin 1987, fig 2) (scale 1:400)

'messuages' (houses with gardens or yards to the rear). Carlin identified a number of properties that fell within the site boundary at 24–26 Minories (Carlin 1987, *Part 2*, 77–101, fig 2; reproduced in Fig 3). These properties were first documented in the late 13th century and their owners included the Priory of Holy Trinity.

The earliest medieval features, dating to the mid-12th century, were very large quarry pits located within the eastern half of the site (OA8; Fig 3). These pits were backfilled with deposits of clay and silt and despite their large size, they produced little in the way of finds, indicating that they were infilled rapidly and not systematically used for the disposal of rubbish and waste materials. The pottery recovered from the fills of these pits comprised mostly residual Roman material and only five sherds of medieval date were recovered. One quarry pit was dated to 1140–70 by a combination of local greywares (LOGR) and coarse London-type wares (LOND). The largest quarry pit is dated no earlier than the late 12th to late 13th century by three sherds from London-type ware jugs.

Environmental sampling of the quarry fills revealed a moderately rich waterlogged assemblage of seeds from both food and wild species. Although it is possible that these were introduced from earlier deposits contained in the backfill, the wild plants are probably representative of the local environment. These included fumitory (*Fumaria officinalis*), elder (*Sambucus ebula/ nigra*), and hemlock (*Conium maculatum*). Hemlock is commonly found in urban/waste ground type assemblages and the elder seeds may represent the natural deposition from a nearby tree or defecation by wild birds feeding on elderberries.

A small number of rubbish and cesspits were located in the western part of the site (OA9 & OA10; Fig 3). The pits did not contain any datable materials but their position in the stratigraphic sequence places them within this period. The few finds mainly comprised small groups of adult cattle bone with a single metacarpal (fore-foot) of adult horse (*Equus caballus*), common/flat oyster (*Ostrea edulis*) shells and a few roof tile fragments. Although these features may not be strictly contemporary, their distribution away from the road frontage suggests they

were situated within the backyards of the medieval properties identified by Carlin (shown on Fig 3). No structural remains were found of any contemporary houses, though a number of peg roofing tiles, some with a splash glaze on their lower top surface, and a shouldered peg roofing tile of mid-12th- to early 13th-century date recovered from a later context might have been derived from such buildings.

THE OUTER PRECINCT OF THE MEDIEVAL ABBEY OF THE MINORESSES *c.*1281–1539 (PERIOD 6)

Historical and Archaeological Background to the Abbey

The Minoresses or Poor Clares were Sisters of the Minor Order of St Francis, an offshoot of the Franciscan monastic order established by St Clare of Assisi in *c.*1212 (Roest 2013, 11). There is some evidence that a community of Minoresses was established outside the City walls by 1281, though the exact location of this early foundation is not known (Röhrkasten 2004, 64). References to the foundation of the House of the Grace of Blessed Mary in 1293 by Blanche of Artois, the widow of Henry III of Navarre and wife of Edmund, the Earl of Lancaster, may refer to the refoundation of the nunnery, probably in the same location, when Blanche brought at least eight nuns, probably from France (*ibid*, 66).

The Abbey of St Clare was the last of the nine 13th-century mendicant foundations to be established within the capital and it was probably the lack of available space within the walled city which resulted in it being situated outside the walls to the south-east of Aldgate (Watson & Thomas 2010, 283; Fig 4). Sited just beyond the ditch that flanked the City wall, in the parish of St Botolph, the nunnery had a fairly small precinct covering just under 2.5 acres (1.01ha) (Carlin 1987, ii (2), 12).

The bulk of the precinct was created from 13 plots of land acquired through purchases and donations made between 1293 and
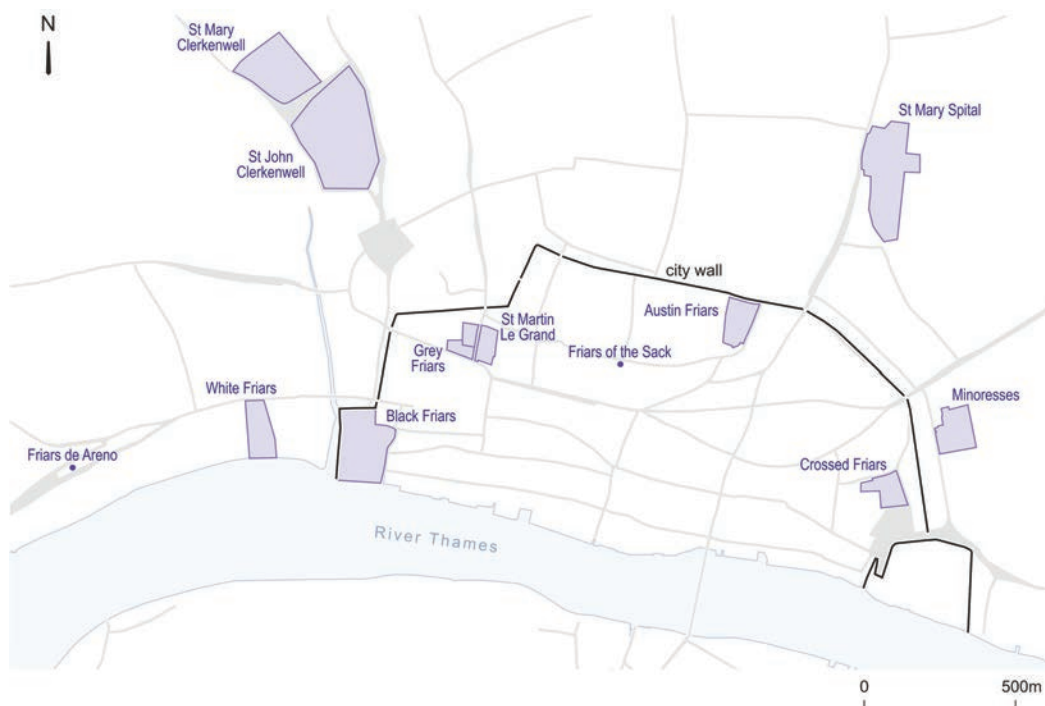
Fig 4 The religious houses of medieval London and its environs. The Abbey of St Clare is located outside the city wall to the north of the Tower (scale 1:25,000)

1294. By 1295 there was a functioning church dedicated to the Blessed Virgin Mary (Röhrkasten 2004, 204). The nunnery was further enlarged in the early 14th century with plots extending the northern limit of the precinct. The expansion of the nunnery appears to have been completed by 1311 with the incorporation of property located to the north of the church (*ibid*, 66). In the 14th century the convent was referred to as the 'new abbey' or the Abbey of St Clare and only became known as 'the Minories' in the 15th century (Watson & Thomas 2010, 283).

There is little documentary information concerning the construction of the Minories church and other conventional buildings though apparently they were erected during the late 13th or early 14th century (Carlin 1987, 13). Several of the nunnery buildings survived the destructive effects of the Dissolution in 1538 and were incorporated into the post-medieval developments of the precinct. Redevelopment of these buildings during the late 18th century revealed their medieval fabric which was recorded by antiquarians. In addition, the limited archaeological work that had taken place within the Minories precinct before 1985 assisted with the production of a conjectural plan showing the extent and layout of the precinct buildings on the eve of dissolution (*ibid*, fig 2). This reconstruction has been revised following further archaeological evidence from the site at 13 Haydon Street (HAY86; Wooldridge 1987; Watson & Thomas 2010, plate 34; Fig 5).

The precinct was divided into two main areas divided by an east–west access road skirting the south edge of the site, which led from Minories to the nunnery chapel (Fig 5). The church and cloisters lay within the south part of the precinct, with the 'conventual' buildings which contained the nuns' residential accommodation arranged to the south and west (Carlin 1987, 13; Fig 5).

Around 1805 the demolition of a number of houses abutting the north wall of Holy Trinity parish church revealed a masonry wall containing a blocked medieval window (Fly 1806, 112). After the Dissolution most of the chapel was retained as a parish church; it closed in 1899 and was subsequently used as a parish hall. In 1930 an architectural

survey of the hall recorded the late 13th- or early 14th-century fabric of the north wall, including a blocked doorway (RCHME 1930, 72). The building was badly damaged during the Blitz in 1941 and demolished in 1956–8. Subsequent redevelopment of the parish hall revealed the ground plan of the nave and chancel of the medieval chapel (Collins 1961; Fig 5).

More is known about the Minories church as excavations in the 1960s and 1980s revealed key elements of its ground plan: it appears to have possessed an aisled plan with a polygonal east end. A substantial length of its northern and eastern walls was revealed during the redevelopment of the nunnery chapel site in 1983. Inside the north choir were seven medieval graves (SCS83; Ellis 1985, 119). Redevelopment of the centre of the church choir site in 1964 revealed two masonry vaults (AMS64; Watson & Thomas 2010, plate 34). One vault was empty but the other contained the small anthropomorphic lead coffin of Anne Mowbray, Duchess of York (1472–81). She was the only child of John (VII) Mowbray, fourth Duke of Norfolk and his wife Elizabeth Talbot. In 1478 when Anne was only five years old Edward IV arranged her marriage to his younger son Richard, Duke of York (aged 4). The reason for this child marriage was Anne's vast inheritance that Edward IV wanted to secure for the benefit of his own family. Anne died, however, in November 1481, shortly before her 9th birthday and was buried in the chapel of St Erasmus in Westminster Abbey. In *c.*1502–3 her remains were transferred to the choir of the Minories church when St Erasmus's chapel was demolished to make room for Henry VII's own mausoleum. As Anne's mother Elizabeth (the dowager duchess) was still alive at this time it is possible that she asked for possession of her daughter's remains and organised her reburial. By 1487–8 Elizabeth was renting a house within the Minories precinct and she apparently lived here until her death in 1506–7 (see below) (Watson & White 2016, 229–36).

In 1797 a fire destroyed an 18th-century warehouse on the south side of Church Street (now St Clare Street). Subsequent clearance of the building revealed extensive remains of a medieval building, interpreted

N

the site

gardens

great garden

great house

great place

C
chapel

tenants' houses

great gate

?cemetery

steward's house

abbey church

D

B

yard & ?laundry

friars hall

buttery

A

kitchen

sacristy & chapter house with dorter above

privy garden

cloister

gate

great hall with refectory above

brew & bakehouse

new infirmary

gallery over

stables

yard

E

guest house

gardens

long house

great court

gate

A   precinct boundary wall, Haydon Square (1793)
B   Church Street warehouses (1797)
C   Holy Trinity Church (1956–58, 1805 and 1983)
D   Ann Mowbray site, 14–18 St Clare Street (1964)
E   13 Haydon Street (1986)
         precinct boundary

0   25m

Fig 5 The Abbey of the Minoresses showing the location of the site within the precinct (after Carlin 1987, and Thomas et al 2010; scale 1:1000)

as the nun's refectory or possibly part of the 'friars hall' or 'lodgings' (Fly 1806, 113; Smith 1815, 8; 'B' on Fig 5). More recently, the redevelopment of 13 Haydon Street revealed the stone paved floors and stone rubble walls standing to first-floor height and incorporated into the fabric of a Victorian warehouse. These are thought to be remains of the 16th-century infirmary adjoining the cloisters (HAY86; Wooldridge 1987; Fig 5).

The precinct boundary seems for the most part to have been defined by a stone wall (Carlin 1987, *Abbey*, 12) part of which was uncovered in 1793 during the construction of houses on the east side of Haydon Square. The wall extended from north to south following the course of the modern parish boundary, west of Mansell Street (Fly 1806, 112–13; 'A' on Fig 5). It was also noted that the standing fabric of many of the houses on the west side of Haydon Square was medieval in origin, with stone walls nearly 3ft (0.91m) thick (*ibid*, 113). The location of the convent's burial ground is not known, though it is thought to have initially lain to the south of the cloister or in the gardens to the east of the church (Carlin 1987, iv, 29).

From around 1350 the Minoresses acquired a series of plots of land lying to the north of the nuns' enclosure. The former (period 5) tenement plots in the site area were redeveloped with a series of houses which were leased by the nuns to lay residents. The residential area occupied a fairly large portion of the precinct which at the time of the abbey's suppression in 1538 contained around a dozen houses (Carlin 1987, *Abbey, 32*). Many of the houses were leased to servants but also included a number of grand residences built in order to attract wealthy and aristocratic tenants. A large mansion was built in 1352 by Elizabeth de Burgh which was occupied by a succession of noblewomen and wealthy widows and a second large house was built nearby in the following decades (*ibid*, table iii).

The nunnery was relatively poor, but from its foundation it was popular with noble and aristocratic women who resided within its walls (Carlin 1987, *Abbey*, 32, table iii). Possibly due to their influence the nunnery received important royal privileges which granted it exemptions from taxes and levies on all monastic lands raised in 1316, 1328 and 1348 (Reddan 2007, 146; Carlin 1987, *Abbey*, 68/1, 2). A papal bull of 1303 removed the lands of the abbey from the adjacent parish of St Botolph Aldgate and henceforth pastoral care of their residents was fulfilled by the abbey's priests in one of the church's side chapels (House 2006, 77).

The secular occupancy of many of London's mendicant houses from the mid-13th century is well documented as the religious houses increasingly rented out buildings for a variety of purposes or provided accommodation for guests and tenants (Röhrkasten 2006). Tenements have been identified at the Augustinian priory and hospital at St Mary Spital and at St Mary Clerkenwell (Thomas 2004, 59; Sloane 2012, 144).[4]

Part of the attraction the Minoresses held for the wealthy elite may have been the financial incentives and exclusivity afforded to its residents. In return, patronage by wealthy and influential noble women made an important contribution to the finances of the nunnery that enabled it to survive a series of setbacks in the early 16th century. Stow (1601, 830) recorded a plague in 1515 which reportedly killed 27 of the approximately 50 nuns, lay residents and servants. A few years later many of the conventual buildings were destroyed by a fire which caused more than £500 of damage (Reddan 2007, 147). The City and the king contributed to the costs of reconstruction, but the nunnery does not seem to have recovered until 1530 (*ibid*; Carlin 1987, *Abbey*, 4).

No archaeological remains associated with the Minoresses' tenants' quarter in the north part of the precinct have previously come to light. The 24–26 Minories site straddles the north-west corner of the outer precinct near the main street frontage and provided the first opportunity to investigate this part of the Minories precinct (Fig 5).

THE OUTER PRECINCT TENEMENTS

There was some evidence for ground preparation associated with the construction of the new tenements. The 12th-century (period 5) quarry pits were sealed by levelling dumps which survived to a maximum depth of 1m in the eastern part of the site (OA8; Fig 6). These deposits produced the largest
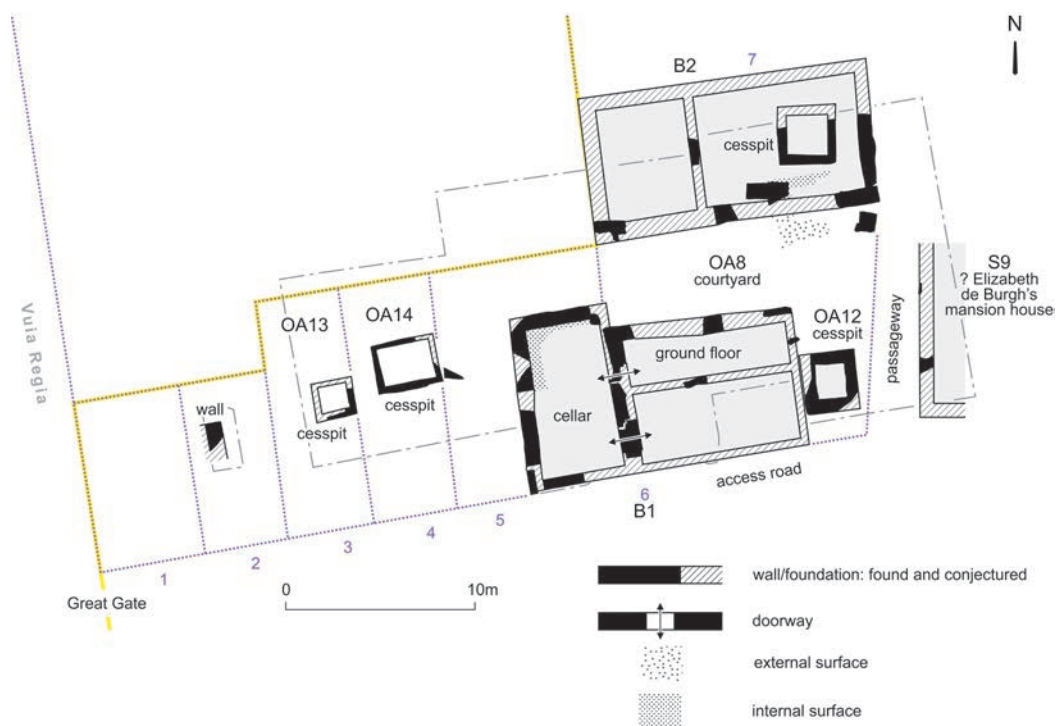
Fig 6 The tenement buildings and structures located within the projected property boundaries on the north side of the access road into the Minoresses' precinct (scale 1:400)

quantity of medieval pottery recovered from the site, which date their deposition from the late 13th to the mid-14th century, the period when the nunnery was extending the north-western part of their precinct.

London-type wares (LOND) were the most common type of pottery present in the levelling dumps; jugs were the main form but a nearly complete drinking jug and part of a cauldron/pipkin were also represented. In second place was Mill Green ware (MG, MG SQU), with seven sherds from five vessels, including a squat jug dating to *c.*1290–1350 or later. The four vessels in coarse Surrey-Hampshire border ware (CBW) included part of a baluster jug and a substantial portion of a pipkin. Also recovered were fragments from vessels in Kingston-type ware (KING) and south Herts-type greyware (SHER) fabrics, the latter including a handle with slashed and stabbed decoration <P1> (Fig 7).

One of these levelling deposits comprised

burnt material, including fragments of daub, metalworking debris and 19 pieces of ceramic bell mould (used to cast copper alloy bells), some with characteristic flanged rims (<33>). These were the only pieces of
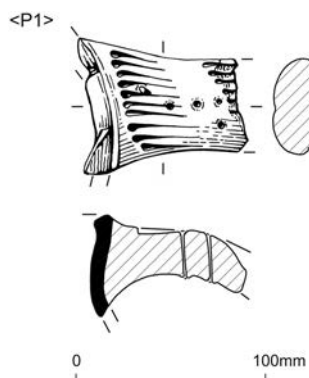
Fig 7 South Herts-type greyware jug handle with slashed and stabbed decoration <P1> recovered from made ground deposits [469] in Open Area 8 (scale 1:4)

232 Antonietta Lerz

ceramic bell mould discovered on the site and although they are likely to have been brought onto the site, they were probably produced locally.

Documentary evidence indicates that copper-alloy founding was a significant industry in the eastern sector of the City in the medieval period. The parish of St Botolph Aldgate had been associated with bell-making since the mid-13th century when a bell foundry was established near the church (GLHER 080968; Stahlschmidt 1884, 13). In 1965 a possible bell-casting pit was discovered in the church yard (GM10). The business flourished in the 14th and 15th centuries, spreading to the nearby Whitechapel area where pits backfilled with foundry waste may be associated with the historic Whitechapel Bell Foundry (Sygrave 2005, 80–4; Weinreb *et al* 2008, 1016). Three bell founders (*campaners*) are listed as residing (and possibly working) along the east side of Minories in the vicinity of the site in the period from the mid-14th to mid-15th century (Carlin 1987, *Index of institutions*, 136). A possible 14th-century bell-casting pit was identified to the north of the site, at 3 Minories (MRS86, Schofield with Maloney 1998) and larger quantities of bell mould fragments dating to the 13th and 14th centuries have been recovered from nearby sites such as Plantation Place (Richardson & Bayley 2013, 61–2) and Baltic House (Egan 2002, 58–60).

The survival of late medieval levels on site was poor and most of the horizontal deposits were removed by the construction of 19th-century basements. A group of modern piles in the central part of the site had removed all deposits in their footprints. What did survive were deep cut features, including stone-lined cellars, cesspits and masonry wall foundations, which together with the documentary evidence allow for the reconstruction of the ground plan of buildings and the property boundaries. The longevity of these structures, particularly cesspits and cellars, also meant that often the only associated finds relate to their final use and disuse during the post-medieval period.

Tenements 1–5

It is documented that by 1487–8 a row of six tenements existed along the northern side of the access road (Carlin 1987, *Abbey*, 31) (numbered 1–6 on Fig 6). This road, known successively as the Little Minories (1612, 1747), Church Street (1799, 1913) and currently as St Clare Street was accessed on Minories by the Great Gate and led to the nunnery chapel at the east end. The houses were apparently built after 1380 and the first five were small, rectangular properties which extended back from the street frontages.

The first house (located at the corner of Minories and St Clare Street) appears to have been leased to Philip fitzLowys, the Minoresses' steward in 1487–8. The second house is described as a little house called the porter's lodge which in 1537 was granted for life to John Foxe, the Minoresses' sick and aged porter and gardener (Carlin 1987, 35).

The third, fourth and fifth houses were in existence by 1487–8 and were leased out to Elizabeth Billington, John Braye and Thomas Lawny respectively for an annual rent of £2 each. The rear parts of these properties may have been extended in 1494 when the Minoresses acquired an additional property which ran to the north of the houses.

The structural evidence for these five properties was limited to a fragment of chalk wall foundation within tenement 2 of uncertain extent and two cesspits (Fig 6). The two chalk-lined cesspits within the third and fourth tenements (OA13 and OA14 respectively) were set back approximately 7m from the road frontage and presumably lay within the back yards or gardens of the properties fronting onto the east–west access road. The cesspit in Open Area 14 (tenement 4) was the best preserved of the two and survived to a depth of 1m. Its primary fill produced a small finds assemblage comprising animal bones and pottery dating from the 15th century. The pottery included a nearly complete domed lid in a coarse Surrey-Hampshire border ware (CBW) fabric and 11 sherds from a cauldron in London-area early post-medieval redware (PMRE), which suggest a date of 1480–1500 for their deposition.

There was no archaeological evidence for tenement 5 and no traces of buildings survived in any of these properties. The houses would have lain close to the street

frontage and outside the main area of excavation.

Tenement 6 (Building 1)

This property seems to have been one of the largest residences leased out by the nuns. It appears to have been produced by amalgamating the eastern half of tenement 5 with the neighbouring tenement. It is not known when this house was built, though construction may have begun soon after the incorporation of the eastern end of the neighbouring property (tenement 5) into the precinct in 1374 (Carlin 1987, 37). This is consistent with the dating of the associated levelling deposits, which suggests that building did not commence before the mid-14th century.

The structural remains for this property defined a large rectangular building with at least three rooms on the ground floor (B1; Figs 6, 8). At the western end of the building was a large, well-preserved vaulted cellar and a chalk-lined cesspit appears to have been sited outside the eastern end.

The cellar walls survived up to 1.7m in elevation, in places almost to ceiling height where the sprung courses for a vaulted ceiling were preserved. The cellar measured 8m by 4.2m internally and was built from large, squared chalk blocks and ragstone, with occasional tile courses bonded by a yellow brown gravelly lime mortar. It was floored with a succession of beaten earth floor surfaces, raising the floor level to 10.3m OD. Access to ground level was via two, *c.*1m-wide doorways located approximately 3.4m apart in the east wall (Fig 8). The thresholds lay at 10.97m OD, nearly 0.5m higher than floor level, suggesting an additional stepped access led into the cellar rooms. The presence of two doorways might suggest that the cellar was divided into two rooms by an east–west partition wall, perhaps constructed in timber. If so, this did not survive and it may have been demolished during the 19th-century modifications to the cellar (period 8, discussed below).

This was a grand property comprising parlours, private quarters (solars), corridors (galleries), a yard and cellars which commanded the second highest rent of the

Fig 8 The north part of the medieval cellar (B1), view looking north-east. The doorway in the east wall had been blocked with bricks in the 17th century (period 7) and the floor had been almost completely removed by modern piles.

properties in the Minoresses' precinct (Carlin 1987, *Abbey*, 36). The first recorded occupant of the house was John Ferrys, who in 1487–8 paid £3 in rent. Richard Pate, the Archdeacon of Lincoln from 1528 rented this house for a time until 1538 after which the lease was passed to Ralph Pylkyngton or Pilkyngton, a haberdasher, for a term of 40 years to expire Michaelmas 1578 (*ibid*, 36–7). The abbey was responsible for all repairs and payment of quit-rents, and the lease was to become void if the rent fell six months in arrears (*ibid*, 36).

A chalk-lined cesspit was built up against the eastern wall of the building, in Open Area 12 (OA12). The structure was reused periodically throughout the post-medieval period (periods 7 and 8) and did not produce any contemporary medieval finds.

Tenement 7 (Building 2)

To the north of Building 1 was a passageway or courtyard (OA8; Fig 6), beyond which was a separate but parallel uncellared building (B2). The outline of Building 2 was demarcated by a series of fragmentary chalk wall foundations which defined the southern part of a rectangular building measuring at least 15m east–west. Two rooms were identified, separated by a north–south internal partition wall, and within the eastern portion of the building was a chalk-lined cesspit. This structure survived to a depth of over 2m but did not produce contemporary medieval finds. The cesspit remained in use following the Dissolution (period 7: see below) when any earlier deposits were cleared away. There were a number of isolated chalk foundations within this area (OA8) which do not obviously follow the main alignment of the adjoining building and it is not clear how they relate to it.

The structural remains of Buildings 1 and 2 are interpreted as two adjoining dwellings separated by a wide passage way or courtyard (OA8), though it is possible that both buildings actually formed part of one larger residence. Indeed, their layout bears a striking similarity to the plan of a 17th-century property owned by the Merchant Taylors Company on this plot (Fig 11) and it is possible that this later arrangement reflects the pre-Dissolution plan.

Elizabeth de Burgh's Mansion (Structure 9)

Due east of Building 1 was a 3m (10ft) wide passageway on the other side of which was another property, represented by the chalk foundations of its western wall (S9; Fig 6).

A building in this location was identified by Carlin (1987, *Abbey* 68/1, 37–40) as the large residence built by the Minoresses' great benefactor Elizabeth de Burgh, Lady of Clare, in 1352. Until the early 1350s, Elizabeth divided her time between her residences at Clare in Suffolk, Angelsey in Cambridgeshire, Great Bradfield in Essex and Usk in Gwent (Barron & Sutton 1994, 14). She increasingly spent time in London and was granted papal indulgences to reside within the abbey precinct with her servants in the 1340s and 1350s and finally given permission to build her own residence on land leased within the abbey's precinct (*ibid*, 32). Though little remained of Elizabeth's Minories house on site, details of the character and grandeur of her residence are known from the documentary sources.

Elizabeth's house was built under the direction of Richard de Felstede, who was paid a total of £171 14s. 5d. for the work. Comparison with his work at Kenilworth Castle in 1347 for Henry of Grosmont, Earl of Lancaster (Carlin 1987, *Abbey* 68/1, 38; Barron & Sutton 1994, 32) shows it must have been fairly substantial. Richard's contract in 1347 explained that he was to be paid £166 13s. 4d. for roofing the hall measuring 89ft by 46ft (27.1 by 14.0m), together with the pantry, buttery and kitchen, and he was to supply the doors, shutters and screens for the hall. Though the timber was supplied by Elizabeth, Richard provided the labour, scaffolding and other equipment (Barron & Sutton 1994, 49).

Elizabeth's household accounts mention that her house possessed a pantry, buttery and kitchen, and in 1353 she had a chimney constructed in the kitchen. The property also included a garden and stables, the accounts for which list payments for feed for 13 horses in 1355–6 (Carlin 1987, *Abbey* 39). Elizabeth frequently entertained important and aristocratic guests at her Minories home and it remained her London base until her death in 1360 (*ibid* 68/1, 37–40). Elizabeth was buried within the Minoresses' church

where her executors founded a perpetual chantry for her in 1363 (*ibid*, 39).

Following Elizabeth's death her house was let to a succession of aristocratic tenants, including the wife of the 12th Earl of Warwick, Margaret Beauchamp, who in 1398 received papal permission to reside at the abbey as long as she wanted with three matrons of her choosing (House 2006, 517). By 1487–8 the widowed mother of Anne Mowbray, Elizabeth, dowager Duchess of Norfolk, had taken up residency at the house which by this time commanded the highest rent of any of the properties within the precinct (Carlin 1987, *Abbey*, 32). Elizabeth was still residing there at the time of her death almost twenty years later (between 6 November 1506 and 10 May 1507) and left instructions that she was to be buried in the nun's or 'inner' choir at the abbey church (*ibid* 68/1, 41; Watson & White 2016, 230–1).[5]

Elizabeth de Burgh's successors almost certainly carried out enhancements to the property, including a private entrance to the church made by the duke of Gloucester with the abbess' permission (Carlin 1987, Abbey, 42). In 1537 was described as comprising chambers, lodgings, cellars and a garden (*ibid*).

Medieval Discussion

The evidence for the medieval period primarily consisted of truncated, trench-built, chalk rubble wall foundations of various buildings and associated cesspits which are difficult to phase due to the lack of dating evidence. A small number of medieval finds were recovered from later contexts which may give some insight into the appearance of these vanished buildings. Finds of glazed floor tiles include a mid- to late 14th-century 'Penn' example decorated with Eames's (1980) design 2200 (Hohler 1942, 34, design P69) plus a complete worn, green glazed Low Countries floor tile probably dating to 1300–1480. This tile had a pattern of five 1mm diameter nail holes in its top surface, one in each top corner and in the centre; these nail holes are a distinguishing feature of Low Counties tiles. Large numbers of such tiles were used in London churches and monastic buildings, particularly during the 15th century when

Penn and other decorative floor tile types were no longer available (Betts 1994, 134). Some usage of brickwork, possibly for paving is indicated by the recovery of two cream coloured bricks (fabric 3031), found reused in a later drain (S12, period 8). These bricks are thought to have been brought to London from the Low Countries between the 14th and the mid-15th century. The roofs of these properties may have been clad with peg tiles. The examples found on site are of standard London type with two round nail holes with a splash glaze covering the lower third of the tile. Several peg tiles were incorporated into the foundations of Buildings 1 and 2 as levelling courses.

Most of the 65 sherds of medieval pottery came from the levelling deposits and are typical of the late 13th to 14th centuries, but some examples could be of 15th-century date. The late 15th-century finds recovered from the Open Area 14 (tenement 4) cesspit relate to its final usage. The lack of 14th and 15th-century pottery, finds and environmental data associated with these tenements is attributed to the continued use of these cellars and cesspits in the post-medieval period, as periodically emptying the cesspits and keeping the cellars tidy would have constantly removed all the earlier material. It appears that domestic rubbish during this period was disposed of elsewhere, perhaps using middens or pits within the gardens located further north (Fig 5).

THE DEVELOPMENT OF THE TENEMENT BUILDINGS FOLLOWING THE DISSOLUTION OF THE ABBEY, 1539–1700 (PERIOD 7)

The abbey was surrendered to the king on 30 November 1538 (Tomlinson 1907, 80). It formally closed on 31 March 1539, when the nuns departed; the abbess and 24 nuns were granted pensions by the Crown. Almost immediately ownership of the precinct passed to the bishopric of Bath and Wells in exchange for Bath House in the Strand, and remained their London residence until 1548, when Bishop Barlow returned the precinct to the Crown in exchange for other property belonging to the Duke of Somerset. By 1553 the 'Myniry House' was

granted by Edward VI to his kinsman Henry Grey, Marquis of Dorset (Duke of Suffolk from 1551) who it seems had resided there since 1548, though he kept it only until the following May (Carlin 1987, *Abbey,* 75).

The new parish of Holy Trinity Minories was formerly established by 1552 within the former abbey precinct.[6] The abbey chapel was converted into the parish church and the parish retained its ecclesiastic privileges and jurisdictional franchises as one of the post-monastic liberties of London. In 1563, the Ordnance Office and its stores were transferred to Minories from the Tower of London, for the most part occupying the former convent buildings. According to Stow (1603, 115) by the late 16th century the former church and other nunnery buildings were being used as 'storehouses for armour and the habiliments of war, with divers workhouses, serving … the same purposes.' In the mid-17th century the Merchant Taylors Company began to buy up properties in the area, many of which seem to have been left intact by Grey and

his successors (Tomlinson 1907, 351). The precinct escaped the Great Fire of 1666, resulting in the continued survival of many of its buildings.

The copperplate map of 1553–9 shows that the land on the northern side of the access road leading from Minories was lined with buildings arranged around a central courtyard. The eastern side of this courtyard was occupied by a large rectangular property accessed from the road (Fig 9a). A century later, Ogilby and Morgan's map of 1676 shows a more detailed layout of the properties within the site and the adjoining area. It shows the six properties lining the northern side of the access road (Fig 9b). Some buildings situated further north of these six properties were accessed via a passageway and a small courtyard. The impression is that the area was becoming increasingly built-up and that the properties were getting smaller due to subdivision. The partial remains of a row of six late 17th-century houses and workshops with individual back yards containing cesspits were excavated in 1974 to
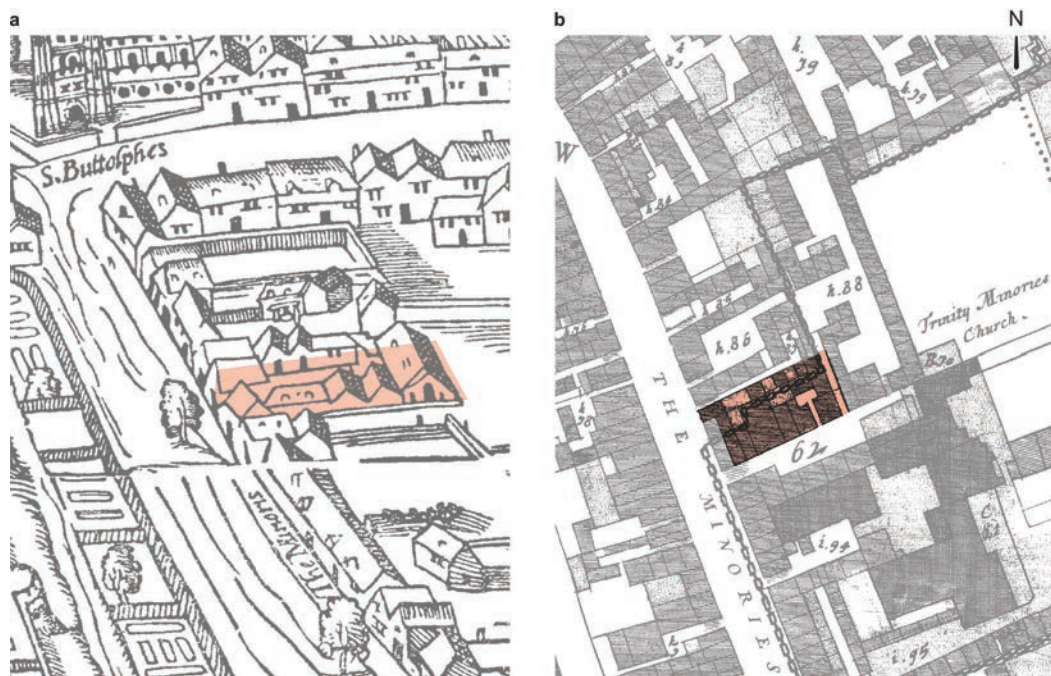
Fig 9 The houses on the north side of the former precinct access road are shown on the (a) Copperplate map of 1562 and (b) the Ogilby and Morgan map of 1676. The latter shows the passageway leading to the courtyard of the 'great house' and the passageway at the east end of the site

the north-east of the site (AL74; Thompson *et al* 1984). These developments are echoed in the parish records which show a marked increase not only in the population but also in the number of occupants in the properties in the years following the nuns' departure.

The Tenements

Tenement 1

The first property in the row of six houses lay on the corner of Minories and later Church Street, shown on Ogilby and Morgan's map of 1676 (Figs 9b, 10); no trace survived on site. The Duke of Suffolk sold this property to Francis Boyer or Bowyer by 1553. Its freehold and tenancy exchanged hands several times and in 1591 it was occupied by John Nowell, a doctor (Carlin 1987, *Abbey*, 66–7). The later history of this property is not known.

Tenement 2

All that remained of this property was a rectangular brick-lined cesspit dated 1500–1666 from the types of bricks used in its lining (OA17; Fig 10). No contemporary finds were

recovered from the rubble backfills. In a lease of 1588 this property is described as possessing shops, cellars, rooms (*chambers*) and yards (Carlin 1987, *Abbey*, 68–74). By the time the property passed to the Merchant Taylors Company in 1614 it was no longer used as a porter's lodge and responsibility for opening the gate had passed to the parish victualler (*ibid*, 68–9). In July 1616 Thomas Baylie, yeoman, obtained a 21-year lease for the house and a cellar under the adjoining property which was let separately. The lease eventually passed in 1662 to Henry Standish, cordwainer (specialist shoemaker), who remained the tenant until at least 1670–1. A plan made of the Merchant Taylors Company estate holdings in the Minories in 1680 shows this property in the tenure of Henry Standish (MS 342165; Fig 1). This property was fairly small, measuring 13ft by 15ft 6in (13.96 x 4.75m), and was entered from Little Minories.

Tenements 3–5

The freeholds of the third, fourth and fifth houses were sold to Robert Bowier. In his
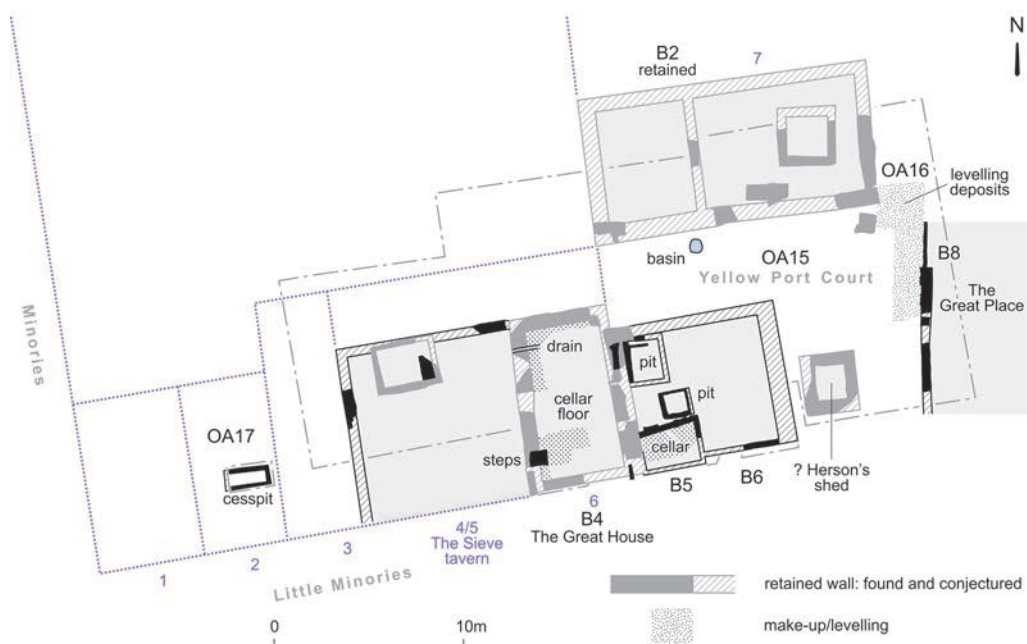
Fig 10 The 17th-century buildings on the north side of Little Minories (after Ogilby and Morgan 1676; scale 1:400)
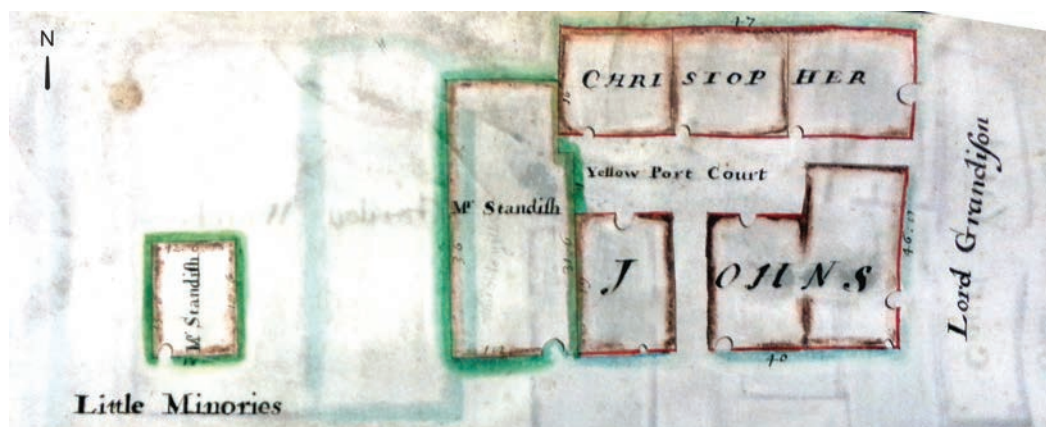
Fig 11 Detail from The Merchant Taylors Company Estate Plan of 1680 showing the properties on the north side of Little Minories (Guildhall, MS 342165). The small property (tenement 2) was in the tenure of Mr Standish in 1662. The large property (tenement 6) can be identified as the 'great house' referred to in a lease of 1591

will, dated October 1557, these properties were described as containing shops, cellars, and appurtenances (probably outbuildings) in the tenure of Thomas Hide, tailor, Richard Moore, freemason, and 'Frowe' Taillour (Carlin 1987, *Abbey,* 75–9). By 1567, the fourth property was occupied by Edmund Goddart, basket maker, succeeded by Goodman Maddyson. Nothing more is known of the tenants and freeholders of this property until the second half of the 17th century, when the fourth and fifth properties became the site of an alehouse or tavern, called the 'Sieve'.

The medieval cesspit in the fourth property (former period 6; OA14) continued to be used into the early 17th century, though it was reduced in size by the addition of an internal wall and its medieval fills were sealed beneath brick and chalk rubble. The associated pottery from the sealing deposit comprises single sherds from a late 15th-/early 16th-century early Surrey-Hampshire border ware (EBORD) lobed cup, a London post-medieval redware (PMR) flowerpot (1480–1600), and a polychrome tin-glazed ware (TGW D) dish dating to after 1630. The presence of the tin-glazed ware dates the addition of this partition wall to the second half of the 17th century, perhaps contemporary with the conversion of this property into a tavern. The presence of a small 19th-century stoneware jar is considered intrusive.

All the pottery (21 sherds, 15 ENV – estimated number of vessels) from the upper fill of this cesspit is typical of the late 16th to 17th century. Redwares from London (PMRE) and Essex (PMFR) were the most common, with 11 sherds derived from a chamber pot, a bowl, two dishes, a jar, a mug and a porringer. Four Surrey-Hampshire border whiteware (BORD) vessels are represented, comprising a colander, dish and porringer (BORDG, BORDY), and part of the EBORD lobed cup found in the lower fill. Other finds comprise one sherd from a Midlands purple stoneware (MPUR) butterpot, one from a Frechen (FREC) stoneware jug and fragments of two 17th-century wine glasses (<145>, <146>). The faunal assemblage from the upper fill comprised a substantial group derived mainly from cattle and sheep/goat (*Ovis aries/ Capra hircus*), the latter including a sheep/goat tibia (lower hind-leg) that had been charred brown indicating a low combustion temperature of approximately 300–400°C (Lyman 1994, 386).

The Sieve tavern was one of the oldest public houses in this part of London. It survived into the late 19th century (period 9, see below) and is frequently mentioned in parish records as a meeting place for local dignitaries (Tomlinson 1907, 159).[7] A watercolour of the exterior of the Sieve was painted by John Crowther in 1886 during the demolition of the neighbouring building

(Fig 23).[8] The works exposed its internal timber framing, which on stylistic grounds may date back to the 17th century.

The archaeological remains of the tavern comprised the fragmentary chalk and brick foundations of the northern and western external walls. The types of bricks used are dated 1550/1600–1700. These foundations may have supported a timber-framed superstructure for a building measuring *c*.9m square which extended over the former cesspit (Fig 10). The location of the building corresponds with the large property shown in this location on the Ogilby and Morgan map of 1676 (Fig 9b).

Tomlinson described the tavern as having very large cellars which extended far beyond the limits of the house (1907, 159). No evidence for cellars was uncovered within this property, though they could have been removed by modern intrusions if they were situated close to the street frontage. However, Tomlinson's description could refer to the medieval stone vaulted cellar of the neighbouring property (B1) and it is possible that these were used for a time by the tavern.

Tenement 6: the Great House

Following the Dissolution, the freehold of the sixth house descended with that of the capital estate and the property continued to be leased under the tenure of Pilkington until 1541 (B4; Fig 10). The freehold of this property subsequently exchanged hands several times, initially passing in 1553 to Thomas Ackworthe, merchant taylor (and later the Duke's draper), and subsequently in 1572 to John Hide who retained the freehold until his death in 1604. The property is referred to as the 'great house' in a memorandum made in 1591 (Carlin 1987, *Abbey,* 80) and it appears Hide occupied part of the premises until *c*.1569 together with his wife, two sons, seven men and one maid.

There were probably several other households living within this property (*ibid,* 82) and following Hide's death his Minories estate passed to the Merchant Taylors Company. Initially held in trust for Hide's son, Edward, when he died in 1614 the company inherited the freehold in remainder. The rentals and other accounts of the Merchant Taylors Company reveal that by 1604 the property had been parcelled up among 10 tenants (*ibid*, 84).

There are four plans of this property dating from the late 17th to the 19th century which were produced by the Merchant Taylors Company. The earliest, dating to 1680, shows a rectangular property comprising seven individual buildings of unequal size arranged around a central courtyard, labelled Yellow Port Court (Fig 11).[9] The buildings may not all have been constructed at the same time: the two easternmost buildings may be later additions made in the 2nd quarter of the 17th century (*ibid,* 80). The central courtyard was accessed by two narrow passageways: one on the south leading from Little Minories and the second leading between the buildings on the east side of the property into the northern extension of that street. The measurements on the plans agree with only minor discrepancies and give overall measurements of 66ft (20.12m) east–west by 46ft 8in (14.26m) north–south. The layout of the property closely follows the pre-dissolution arrangement of Buildings 1 and 2 (period 6), including the small recess in the north-west corner which was occupied by the yard of the adjacent tenement 5 (Fig 11).

Very few structural alterations were made to the medieval buildings that can be dated to the first decades following the Dissolution, which suggests that they remained largely unchanged during the late 16th century.

The Buildings

Building 1

Several structural alterations were made to the medieval fabric of Building 1 (tenement 6) during the late 17th century which indicates that the residence was divided into separate buildings (B4 & B5, see below; Fig 10). The structural remains of these buildings roughly agree with the corresponding properties and measurements outlined on the 1680 plan (Fig 11). The additional building at the eastern side of the property and the buildings on the northern side of the courtyard were not represented archaeologically.

Building 2

The earliest evidence for the post-Dissolution

Fig 12 Mid- to late 16th-century ceramics from the fill [221] of the rubbish pit in Building 2: skillet with a curved handle <P2>, dripping dish <P3>, the base of a sprinkler with pinched thumbing around the base angle <P4>, Surrey-Hampshire border wares money box <P5>, part of a cauldron <P6> and a handled bowl <P7> in Dutch redware, and a complete large Raeren stoneware jug <P8> (scale 1:4)

occupation comes from the chalk-lined cesspit within Building 2 north of the central courtyard (Fig 10). Its fills produced a large group (55 sherds, 24 ENV) of 16th-century ceramics, including some complete or nearly complete vessels. London-area redwares (PMBR, PMRE) and the slipped equivalent (PMSRY) are the most common, totalling 30 sherds from 14 vessels. Most of the vessels are associated with the storage, preparation, cooking and serving of food and drink. These included a skillet with a curved handle (<P2>; Fig 12) and a nearly complete dripping dish (<P3>; Fig 12); the base of a sprinkler was also found, unusually with pinched thumbing around the base angle (<P4>; Fig 12). Surrey-Hampshire border (BORDG/Y) wares and imports were both represented by four vessels, the former (nine sherds) including three money boxes: one was broken but complete (<P5>; Fig 12), another was nearly complete and a third was represented by its base. The imported wares (15 sherds) comprised part of a cauldron (<P6>; Fig 12) and a handled bowl (<P7>; Fig 12) in Dutch redware (DUTR), a complete large Raeren stoneware (RAER) jug (<P8>; Fig 12) and the base of another. The remaining sherd was from the base of a Cistercian ware (CSTN) mug. The imports date the deposition of the group to 1550–1600, and, in the absence of London-area post-medieval redware and tin-glazed wares, the date range can possibly be refined further to 1550–80.

Building 4

This was by far the largest building within the Great House (tenement 6) and extended over the medieval cellar of former Building 1 (B4; Fig 10). It is recorded in the 1680 plan as measuring 36ft (10.97m) north–south by 18ft (5.49m) east–west. To the rear lay the backyard of the adjoining tenement 5 (Fig 11). The building is described in a lease of 1662 as containing a cellar and five or six rooms arranged over two floors and a garret. The building was concurrently occupied by several tenancies but in October 1662 the entire property together with a nearby tenement (tenement 2, also shown on Fig 11) was leased to Henry Standish, for a term of 41 years, at a rent of £10 per annum. By 1674–5 it was held by his executor though the plan still records it as being held in his name (Carlin 1987, 84–5).

The medieval cellar of the former Building 1 preserved the best evidence for 17th-century occupation in the form of a series of structural alterations. The two doorways in the east wall were bricked up, blocking access to the ground floor in the central part of the building. The doorways between the adjacent rooms at ground level were presumably also closed, effectively creating separate buildings. New access to ground level from the cellar was created at the southern end of the west wall where a flight of brick steps led down to a new brick paved floor which was partly preserved in the northern and southern parts of the cellar at a surface level of 10.6m OD (Fig 13). Amongst the bricks were some fragments of stone paving slabs which were cut from a type of Kentish ragstone and fine grained light grey sandstone, neither of which are particularly common finds in London and might be reused materials derived from the medieval building.

These structural modifications are dated to the second half of the 17th century by the dark red bricks used, which are in a post-1666 fabric (type 3032) and may have been conducted under the tenure of Henry Standish, or his successor. The dating is compatible with that of the eight sherds of post-medieval pottery recovered from the gravel and silt floor make-up, which comprise sherds of Surrey-Hampshire border whiteware (BORDG) and redware (RBOR), the base of an Essex post-medieval fine redware (PMFR) jug, tin-glazed ware (TGW A), and imported Weser slipware (WESE) dating to 1580–1630/1700.

Building 5

The property adjacent to Building 4 was described in a view of the property in September 1591 as comprising a room occupied by John Wright, with a little cellar below it leased to Philip Chandler; and two first-floor rooms occupied by John Parker (Carlin 1987, *Abbey*, 89–91). In 1605, this property was leased to Oliver Herson who also held a lease for a shop and a small shed. The shop may have been located in the building to the east of

Fig 13 The late 16th- to 17th-century modifications made to the medieval cellar include steps built into the west wall leading down to a new brick floor (the cesspit to the north is a 19th-century addition), view looking north (1m scale)

the passageway shown on the 1680 plan and the shed in the adjacent plot to the east (*ibid*, 86–7).

Three subterranean structures survived within the western property (B5; Fig 10) which can be dated to the second half of the 17th century. A brick-lined cellar or store room was dug into the ground against the medieval chalk foundations in the south-western part of the building. This cellar, which survived up to 1m in height, had a brick paved floor with a surface level of 10.3m OD. The eastern wall of this cellar was lined internally with roof tiles and rendered with a hard, light grey mortar, perhaps acting as either a repair or a layer of damp proofing. The eight sherds of pottery recovered from the construction backfill of the cellar date this event to 1630–80. They include post-medieval redwares from London (PMR), Essex (PMFR) and Surrey (RBOR), Surrey-Hampshire border whiteware (BORDY) and part of a tin-glazed (TGW D) bowl with a sketchily painted tulip design (<P9>; Fig

14), which has visible firing faults on the underside and was not of the best quality. At a later date, the cellar was partly infilled with rubble and resurfaced with a mortar floor with a surface level of 11.3m OD.

Immediately north of the cellar was a second smaller square structure built from ragstone, chalk and brick. Its function is unclear as no primary deposits remained though it might have served as a storage chamber. A third small cellar or store room was located in the north-west corner of the building. Its brick walls were rendered with a greyish-brown plaster and the floor was lined with clay, which may have served as damp proofing. The function of this structure is also uncertain, though the apparent need to keep its contents dry could suggest it was used for the storage of perishable foodstuffs. Its fill produced a tightly dated assemblage of clay tobacco pipes and pottery dating from the late 17th century. In fact, all the period 7 pipe bowls came from this deposit, totalling 32 examples dating to *c.*1680–1710
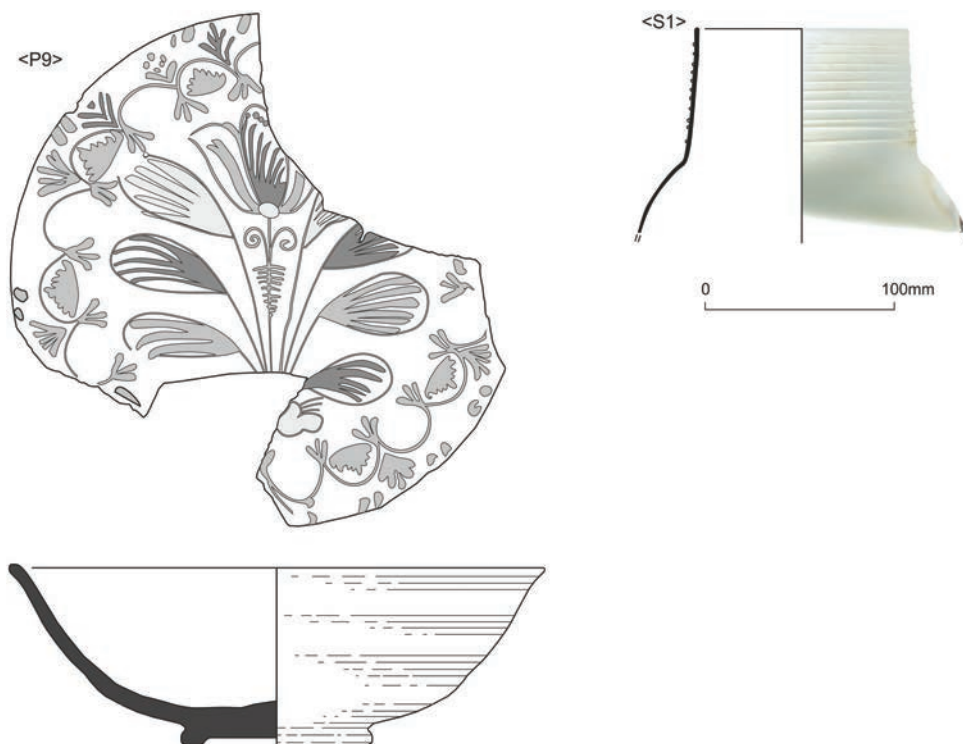
Fig 14 17th-century finds from Building 5: tin-glazed bowl <P9> from the construction backfill [128] of the cellar and mid- to late 17th-century Venetian opaque white glass tankard <S1> recovered from the backfill [418] of the clay-lined structure (scale 1:4)

(39 type AO22 examples and two of type AO20). All exhibit milling around the top of the bowl (covering between ¼ and ½ of the circumference), all have been smoked and none of the pipes are marked by their makers or decorated. The 25 sherds of pottery are from six vessels, dated 1680–1700. The material comprises a deep bowl in Surrey-Hampshire border whiteware (BORDY), an Essex post-medieval fine redware (PMFR) mug, a tin-glazed plate (TGW) and chamber pot (TGW C), the latter smashed but substantially complete, and two sherds of Chinese porcelain (CHPO BW) from a bowl and a plate.

Other finds from the backfill of the third structure include a corroded copper-alloy barrel-tap (<51>) and part of a fine glass tankard (<S1>; Fig 14). The tap is a common early post-medieval form with a double-arched handle and cylindrical tap-housing. The tankard is a rare mid- to late 17th-

century Venetian import made from opaque white milk glass decorated with closely-spaced fine horizontal trails on the neck (Fryer & Shelley 1997, 195, no 73; Willmott 2002, 56).

A small piece of a tin-glazed decorated delftware wall tile was also recovered from the backfill of the third structure. It depicts what may be the tail of a sea creature and a small barred ox-head corner painted in blue on white. The design may have been similar to the sea creatures illustrated on various Dutch tiles by Schaap (1984, 149, no. 190, 151, no. 194). Tiles with similar barred ox-head corners were made between 1640 and 1680 (van Dam 1991, 80–1, nos 89–94) which is probably the date of the Minories example. The wall tile probably came from a fireplace surround, the most common location for such tiles in London, but it could also have been used in a kitchen or tiled dairy (Betts & Weinstein 2010, 38–43).

A substantial group of animal bones recovered from the backfill of the third structure mostly represented cheaper cuts of meat. This is perhaps surprising given the occupants paid some of the highest rental charges in the parish (Carlin 1987, 87). The bones were largely derived from the heads and feet of cattle and sheep/goat. Cattle (*Bos taurus*) included fragments of rib with single fragments of mandible (lower jaw), hyoid (tongue), phalange (toe joint), vertebra and metacarpal (fore-foot); single fragments of sheep (*Ovis aries*) included astragalus and calcaneum (ankle and heel), and two fragments of adult metatarsal (hind-foot); sheep/goat (*Ovis aries/Capra hircus*) comprised fragments of rib, scapula (shoulder blade), and tibia (lower hind-leg) with single fragments of mandible (lower jaw), radius and ulna (lower fore-leg), and single fragments of pig (*Sus scrofa*) scapula (shoulder blade) and juvenile innominate (pelvis). The poultry comprised single fragments of adult chicken (*Gallus gallus*) scapula and humerus (upper wing), and juvenile tibiotarsus ('drumstick'). Game consisted of a humerus (upper fore-leg) of an adult rabbit (*Oryctolagus cuniculus*).

Building 6 and Herson's Shed

Fragmentary remains survived of the external wall foundations of the adjacent house (B6; Fig 10) which may have been held by Herson, together with a small shed located on the eastern side of the building along the road frontage and pertaining to it. The shed was described in a view dating from 1631 as a small structure comprising a cellar, a ground floor room and a first floor room each measuring about 7ft (2.13m) square (Carlin 1987, 89). This structure may well have utilized the medieval chalk-lined cesspit (OA12, period 6) as a cellar. While its location and size agree with the description of the shed, this interpretation is conjectural as it did not produce any contemporary dating evidence.

The location of the shed suggests the fourth house along the street frontage, occupying the south-east corner of the building shown on the Merchant Taylors Company plan (Fig 11), was in fact a later construction. There were no archaeological remains of this building, all traces having been removed by the modern basements.

Yellow Port Court

The area occupied by the central courtyard of the 'great house', identifiable as the Yellow Port Court (OA15; Figs 10, 11) had been severely truncated by later intrusions, leaving no horizontal deposits. However, an interesting feature located in the courtyard was a small oval-shaped timber-lined structure (measuring *c*.0.7 x 0.6 x 0.2m deep) that was set in the ground close to Building 2 ('basin'; Fig 10). Its two fills, in particular the primary one, produced the largest and most diverse group of plant food and faunal remains from the whole of the post-Roman assemblage. Although the main two fills exhibited some significant differences, they both appear to represent a mix of cess, food waste and botanical material. This feature may therefore have been associated with a waste disposal system serving the surrounding properties; perhaps it served as a silt trap or catch basin in a drain or sewer collecting matter that might otherwise have blocked the system. It is tentatively phased to period 7 from the few fragments of peg tile and brick (dated 1480–1600) recovered from its fills. A very small fragment of imported clear glass with turquoise blue, white and red enamelled decoration (<71>) and a small wound wire headed copper-alloy pin (<49>) were also recovered from its fills.

Both fills of the catch basin contained fig (*Ficus carica*), grape (*Vitis vinifera*) and elder (*Sambucus nigra*) seeds. However, the primary fill contained mineralised plant material, while the secondary one did not. Mineralisation occurs when both phosphates and calcium are present in a deposit (Green 1979) – these conditions are usually associated with cess deposits and therefore it is likely that this assemblage includes faecal matter. The mineralised remains included plum/bullace (*Prunus domestica*) stones as well as fragments of corncockle (*Agrostemma githago*) seeds. Corncockle was formerly a very common weed of arable crops and though its seeds are potentially toxic they are often found associated with food waste within London. Waterlogged seeds of blackberry/raspberry (*Rubus fruticosus/idaeus*) were also

very numerous in the primary fill and small numbers of pear/apple (*Pyrus/Malus* spp.) seeds were also present. The secondary fill of the feature contained a slightly broader assemblage of wild taxa including fumitory (*Fumaria officinalis*), self-heal (*Prunella vulgaris*), hemlock (*Conium maculatum*) and fool's parsley (*Aethusa cynapium*). Both hemlock and fool's parsley are common species in urban waste ground assemblages.

The animal bone assemblage from the catch basin consisted mainly of infant calves plus juvenile and adult sheep/goats. It also included a substantial component of fish and smaller numbers of game and other, presumably non-consumed, domesticates. The cattle were represented mainly by infant calf metacarpal and metatarsal (fore- and hind-foot) with fragments of juvenile and adult vertebra, ribs and phalanges (toe joints). Sheep/goats were represented mainly by vertebra, ribs, elements of the upper and lower hind-leg, and a single fragment of metatarsal (hind-foot). Single fragments of chicken (*Gallus gallus*) included ulna (lower wing) and tibia (lower leg, the 'drumstick'), game species comprised only three fragments of mandible (lower jaw) and an innominate (pelvis) of juvenile and adult rabbit (*Oryctolagus cuniculus*).

The substantial assemblage of fish bones derived mainly from economically important marine/estuarine species, particularly head elements and vertebrae of flatfish (Pleuronectidae), including at least five plaice (*Pleuronectes platessa*), with vertebrae of herring family (Clupeidae), probably Atlantic herring (*Clupea harengus*). There were a few fragmented bones, mainly vertebrae, of freshwater fish of the carp family (Cyprinidae), including a single pharyngeal bone of gudgeon (*Gobio gobio*). This bottom-living fish is widely distributed in southern Britain in lakes and slow- or moderately fast-flowing rivers (Wheeler 1978, 120). Although it is commonly caught by anglers and the flesh is palatable, it is too small to be of economic food value (Wheeler 1969, 183) and probably represents accidental 'by-catch' or consumption of an angler's catch. Remains of non-consumed domesticates included a horse scapula (*Equus caballus)* and femur and tibia (upper and lower hind-leg) of juvenile and adult cat (*Felis catus).*

Building 8: The Great Place

The northern extension of Church Street (OA16; Fig 10) was built up in the mid- to late 17th century with further dumped deposits. These deposits are associated with the rebuilding of the large medieval property which flanked the east side of the road. At the time of the suppression of the abbey, this building was held by Elizabeth, Countess of Kildare. During the course of the 16th and 17th centuries the building, which became known as the 'Great Place', was occupied by various noble and notable residents, including two royal musicians from Italy: Anthony Maria and Mark Anthony Galliardello who were resident here by 1564 (Carlin 1987, 144–7) and served as churchwardens at Holy Trinity parish church. Galliardello was a member of a Venetian musical family that provided a number of musicians to the Elizabethan court (Usher 1994, 97–8).

The property may be the large L-shaped building or group of buildings shown in this location on the Ogilby and Morgan map of 1676 (Fig 9b). The excavations only revealed the western portion of this building close to the eastern edge of the site (B8; Fig 10), represented by part of the external brick wall and fragments of brick-paved cellar floor (bricks dated 1450–1700). The wall was orientated on the same north–south alignment as the previous building in this location (period 6).

THE 18th-CENTURY DEVELOPMENT OF THE SITE, 1700–1840 (PERIOD 8)

By the 18th century, many of the parish's historic buildings had fallen into disrepair, including its parish church. In 1706 Holy Trinity parish church was demolished (apart from its north wall) and rebuilt in 1709 (Collins 1961, 160; RCHME 1930, 72). Subsequent events completely transformed the character of the parish: in 1770 the East India Company purchased a large area of land to the east of Minories for the erection of warehouses, shown on Horwood's map of 1799 (Fig 15). The predominantly residential character of the neighbourhood was changed in 1801 as more houses were demolished to facilitate the expansion of the warehouses. Development in the former
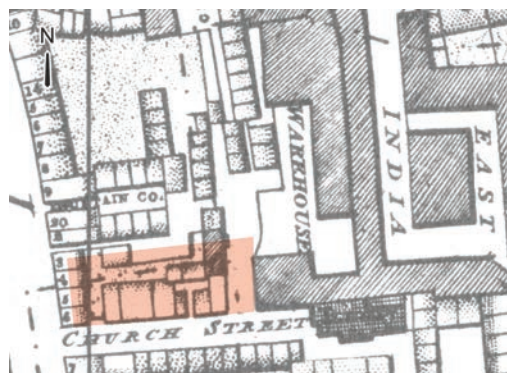
Fig 15 Detail of Horwood's map of 1799, revised by Faden in 1813

abbey precinct was spurred on by a serious fire in 1797 which destroyed many of the old monastic buildings lying between Church Street and Haydon Street. The majority of the properties on the site were untouched by these events and resisted redevelopment. The Sieve tavern remained in business during this time, eventually passing to the Byng family through marriage (Tomlinson 1907, 159) though little evidence remained of this building on the site (Fig 16).

The Buildings

Buildings 4 and 13

The large medieval cellar on tenement 6 continued to be used throughout the 18th century, but by this date it had been subdivided (B4; Fig 10). During the mid-18th century, the northern portion of the cellar floor was resurfaced with timber planking which raised its level to *c*.10.5m OD, only 0.3m higher than the medieval surface (not illustrated). This resurfacing is dated to *c*.1730–60 by the clay tobacco pipes recovered from the associated make-up deposits. This room appears to have fallen into disuse in the early 19th century when it was backfilled.

In contrast, the southern portion of the cellar appears to have remained in use, unaltered, until the building was demolished in the mid-19th century. At this time the room was infilled with deposits of chalk and brick rubble containing a variety of 17th- to 19th-century household items, including 21

sherds of pottery derived from 12 vessels, seven of which are industrial fine wares (CREA, REFW, TPW) and yellow wares (YELL) dating to after *c*.1800. The latest find was a sherd from a jug with transfer-printed decoration in green (TPW4) which dates the deposition of the group to 1825–50. Other finds include two early 18th-century colourless lead glass wine glasses (<72>, <126>). One nearly complete example with a funnel-bowl and an inverted baluster stem sealing a large tear on a ball knob is very similar to a glass dated *c*.1710–25 from the Broad Arrow Tower, in the Tower of London (Shepherd nd). A single pipe bowl (type OS11, dated *c*.1730–60) carries the moulded maker's initial WR crowned on the sides of the heel (Table 4).

The new building constructed on this plot incorporated the eastern and southern walls of its predecessor (B13; Fig 16). The brick-built cellar of the new building extended further north and a brick-lined cesspit (shown on Fig 13) was dug through the centre of the backfilled medieval cellar. Only two sherds of 19th-century pottery were recovered from the primary fill of the cesspit, one from a yellow ware (YELL) jug and the other from a refined red earthenware (REFR) chamber pot dating to 1820–1900. The new cellar was paved with a mixture of reused 17th- and 18th-century bricks and had a surface level of 11.5m OD. Contemporary ground level is unknown.[10]

Buildings 9 and 10

The cellared structures of Building 5 were sealed under dumps of brick rubble and compacted sand, raising the level of the area prior to the construction of two new cellared buildings (B9 & B10; Fig 16). The dumping associated with Building 10 contained a diverse array of redeposited late 16th- to 17th-century ceramics but is dated by the clay tobacco pipes to *c*.1730–60, based on the predominance of types OS10 and OS11. The greatest number of clay pipe fragments from the site (82 bowls, 15 stems and one mouthpiece) was recovered from these deposits. Nineteen of the 18th-century pipes are marked with the maker's initials TD moulded in relief on the sides of the heel. They consist of nine type OS10 and ten type
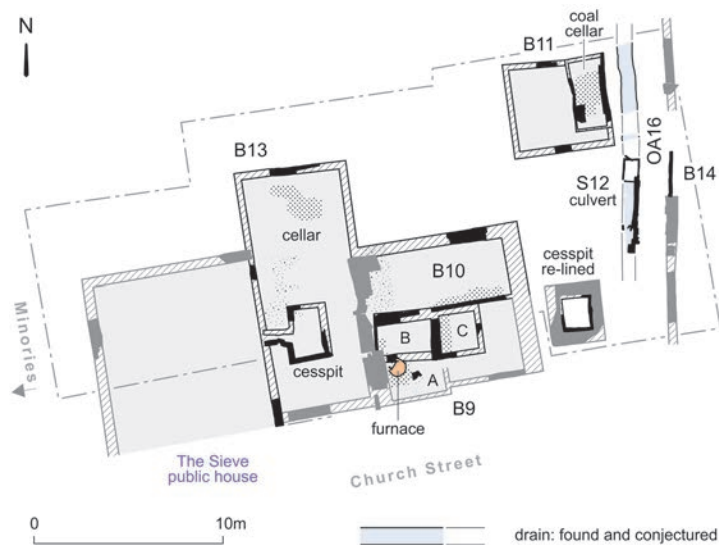
Fig 16 Structural remains of the 18th-century properties (period 8, scale 1:400)

OS11 bowls, and were almost certainly made by Thomas Dormer, recorded in Hermitage in 1748–70, and in Bones Yard Lane in 1768 (Oswald 1975, 135). Fifteen more pipe bowls are marked, all of them types OS10 or OS11, including four with flowers on the sides of the heel, three with the initials IM and one each with the initials RB and RR (discussed below; Table 4).

Fragmentary remains of the brick-built walls defined the extent of the cellars of Building 10 (Fig 16). The northern cellar had a compacted mortar floor with a surface level of 11.5m OD. Directly to the south of Building 10 was a separate new property defined as Building 9. The make-up deposits associated with the new building contained 18th- to early 19th-century ceramics dominated by creamwares (CREA) and pearlwares (PEAR). Other finds comprise 18th-century glassware and five clay tobacco pipes, two of which were marked, one (type AO28) with the name HOBBS. The latest type AO29 bowl is dated to *c*.1840–80, which may provide an approximate date for this new phase of construction.

The Building 9 cellars comprised three brick-paved, interconnected rooms (A–C on Fig 16). All three had similar floor levels (11.9–12.0m OD) and were probably interconnected though no doorways were identified. A large number of reused 17th-century bricks were used in the construction

of these rooms, though their southern wall consisted of the medieval fabric retained from Buildings 5 and 6. Located in the north-western corner of room A was the base of a small, circular furnace (*c*.0.9m in diameter) constructed from mid- to late 18th- and 19th-century bricks (Fig 17). The upper part of the furnace had been demolished, exposing the internal chambers at the base of the structure, which were filled with ash and clinker. The rear chamber of the furnace, however, contained four complete small English salt-glazed stoneware (ENGS) cylindrical ink bottles <P11>–<P14> (Fig 18). These ranged from 106mm to 128mm in height and are typical of the period 1865–90 (Green 1990, 169–70, fig 138.412). The function of this furnace remains uncertain as no associated waste products were recovered from inside it or from the adjacent rooms. One possibility is that it was used for clay tobacco pipe manufacture, which was an important industry within the Aldgate area (see Pearce below), though the absence of kiln muffle fragments or obvious pipe wasters from the cellar or the overlying demolition debris (period 9) is unusual if that is the case. Any manufacturing waste appears to have dumped outside the area of excavation. The furnace appears only to have been used for a period of 10–15 years and was abandoned some time before the building was demolished.

Fig 17 The 19th-century brick furnace located in the western corner of Building 9, looking north (1m scale)

Fig 18 Four complete 19th-century English salt-glazed stoneware (ENGS) cylindrical ink bottles recovered from the furnace [499] in Building 9: <P11> (height 106mm), <P12> (height 115mm), <P13> (height 117mm) and <P14> (height 128mm)

The adjacent rooms (B and C; Fig 16) appear to be associated with the usage of the furnace as their floors were scorched and blackened with sooty deposits. These dumps produced ten sherds of pottery derived from a cup, a saucer and three plates in pearlware (PEAR BW, PEAR POLY) and transfer-printed ware (TPW, TPW FLOW), and part of an English stoneware (ENGS) bottle, the dating of which suggests they were deposited *c.*1830–40.

Re-Used Cesspit

No structural remains were recovered of the house adjacent to Buildings 9 and 10 on the east, shown on Horwood's map of 1799 as the last building before the northern extension of Church Street (Fig 15). Evidence for occupation consisted of the reuse of the medieval cesspit in this location which was partly relined with clay and bricks (Fig 16). The pit was located under the house and may now have functioned as a refuse pit or a small storage chamber. The disuse fill produced 21 sherds of pottery (17 ENV), closely dated to 1820–30, which suggests disposal over a short period of time. These comprised industrially made table wares, including a painted pearlware (PEAR BW) cup with floral decoration (<P15>; Fig 19), a saucer, a plate and a tureen in pearlware (PEAR) and transfer-printed ware (TPW2), and sherds from three creamware (CREA) chamber pots.

<P15>
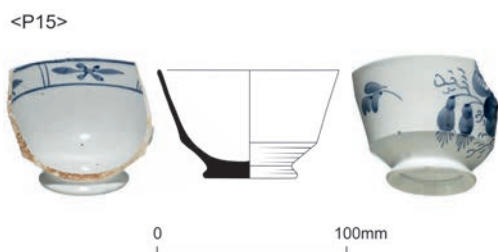
Fig 19 Cup in painted pearlware with floral decoration <P15> from the backfill [555] of the reused rubbish pit in OA12 (scale 1:4)

Building 11

Horwood's map of 1799 shows three buildings on the site of the former medieval Building 2 located on the north side of the courtyard (Fig 15). Archaeological evidence survived for the easternmost building (B11; Fig 16) which was defined by fragmentary foundations of the north and south brick-built walls. A small, rectangular brick-lined cellar with a floor level of 12.37m OD had

been squeezed into the gap between the stone foundations of the medieval building and the chalk-lined cellar (Figs 6, 20). The cellar was poorly constructed: its lining walls were only one stretcher-course of bricks wide and built from re-used pre-Great Fire bricks (dated 1550–1600/1666), though the 12 sherds (8 ENV) of pottery recovered from the associated make-up deposits dates its construction to the 18th century. An internal buttress or column was located in the south-western corner of the cellar and a stack of unmortared bricks (dated 1700–1900) was piled up against its western wall. The blackened walls and floor of the cellar indicate it was used to store coal.

The disuse fill of the cellar contained large quantities of peg roofing tiles, bricks and coal fragments. Most of the pottery (14 sherds, 14 ENV) recovered from the debris is typical of the 17th to 18th century, including sherds from London-area post-medieval redware (PMR, PMSRY) vessels, others in Surrey-Hampshire border wares (BORDG, RBOR) and two Dutch redware

Fig 20 The 19th-century coal cellar in Building 11. The narrow walls are supported by the medieval foundations of Building 2. The buttress and the stack of bricks can be seen in the south-west corner (top right hand corner) of the cellar, looking south-east

(DUTR) cauldrons. Also present was one sherd of English porcelain with underglaze transfer decoration (ENPO UTR) and four sherds from a chamber pot and table wares in industrially made finewares (CREA, PEAR TR2), which date the backfill and presumably the demolition of the building to no earlier than 1807–30.

An unusual find from the backfill deposits was a battered shell of a large marine snail, a conch (Strombidae), *c.*200mm long. This is identified as a pink or queen conch (*Strombus gigas)*, a large ornamental species from the Caribbean, occurring from Florida to Venezuela. Adult shells usually range from 150–300mm in total length (Wye 2003, 78). The shell has been punctured, probably to allow extraction of the edible meat which may be eaten as conch chowder for example. When fresh, these glossy pink shells are highly sought-after as ornaments and collectors' specimens.

A second large mollusc shell, that of a triton of the family Ranellidae (= Cymatidae), the trumpet triton or Triton's trumpet (*Charonia tritonis*), was an unstratified find from the area of this cellar. This species is a very large tropical marine snail able to attain lengths of up to 490mm although this example would have been no more than 280mm long when complete. Its distribution is the Indo-Pacific ranging from Madagascar and East Africa to the Galapagos Islands, including the Red Sea, India, Indonesia and northern Australia (Wye 2003, 381–2). When fresh and in good condition, the shell is very ornamental, and would have been traded and imported into London as a valuable item, either as a collector's specimen or as a domestic ornament.

Building 14 and the Extension of the Warehouses

Building 8 was rebuilt during this period, but its new western wall was in the same position as its predecessor, so the earlier foundations were reused (B14; Fig 16). The properties at the eastern end of Church Street appear to have been acquired by the East India Company in 1801 for the extension of their warehouses: this new building was demolished within a few decades of its construction to make way for the warehouses shown on Horwood's map of 1799 (Fig 15).

The remains of Building 14 were sealed under demolition and levelling deposits of brick rubble. The pottery recovered from these deposits included a chamber pot base in creamware (CREA), and part of a Sunderland slipware dish with mottled glaze (SUND MOT) which date the group to 1790–1830. The other significant finds included a nearly complete Surrey-Hampshire border redware (RBOR) pipkin (<P10>; Fig 21) and an 18th-century circular-sectioned bone knife handle (<127>).
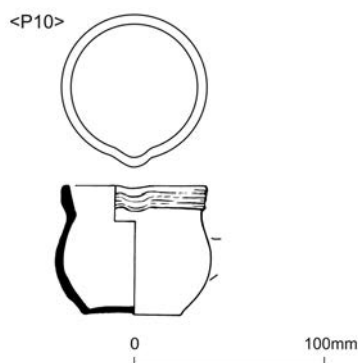
Fig 21 Almost complete Surrey-Hampshire border ware pipkin <P10> from the backfill [562] of Building 14 cellar (scale 1:4)

The northern extension of Church Street (OA16; Fig 16) was built up with further dumped deposits and a substantial brick-lined culvert or drain with a centrally located sump was built along its length (S12, OA16; Fig 16), which probably served as a sewer. The fills of the culvert and sump produced a large assemblage of 19th-century ceramics, totalling 237 sherds from an estimated 155 vessels. The culvert is likely to have served the surrounding houses; this is reflected in the range of ceramics which is dominated by kitchen and table wares. The most common forms are bowls, plates and saucers; others comprise cups, mugs, tea bowls, jugs, jars and a sauceboat. These are in factory-made finewares, with more or less equal amounts of creamware (CREA), pearlware (PEAR) and transfer-printed ware (TPW) and their variants, and smaller amounts of bone china (BONE) and refined white earthenware (REFW). These finewares were supplemented by wares in imported Chinese
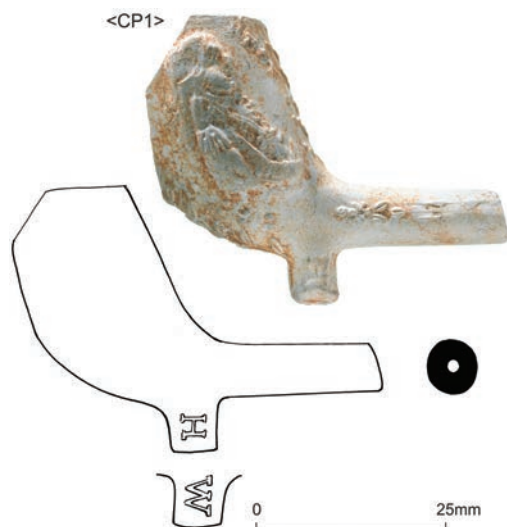
Fig 22 Decorative type AO27 bowl pipe <CP1> with a moulded bust of Admiral Nelson, oak leaf seams and floral details from fill [458] of the 19th-century brick culvert S12 (scale 1:1)

blue-and-white and *famille rose* porcelain (CHPO BW, CHPO ROSE), including two bowls, two tea bowls, seven saucers, a jug and a jar, and a mug in white salt-glazed stoneware (SWSG). Also present were a few sherds of blackware (BLACK) and tin-glazed ware (TGW, TGW H). Heavy duty wares were in the minority but included sherds from a jug, a jar and flower pots in London-area post-medieval redware (PMR), bowls and a pipkin in Surrey-Hampshire border redware (RBOR) and 11 stoneware bottles and jars. Of interest was a sherd from a north Italian marbled slipware costrel (NIMS), which is a relatively uncommon find in London. Judging by the range of fabrics and forms this assemblage is likely to date to *c.*1810–20, which fits well with the dating of the clay tobacco pipes and glassware. Seven type AO27 clay pipe bowls (dated *c.*1780–1820) and one type AO28 (which is dated at the latest to *c.*1820–40) were recovered. Seven of the AO27 bowls are decorated, two (<87>, <89>) have simple moulded leaf seams, with fragments from two more bowls recorded (all unmarked). One pipe has moulded leaf seams and vertical ribbing or fluting (<85>), a type of decoration that was very popular at this date. The most decorative pipe from this group, however, is a type AO27 bowl with a moulded bust of Admiral Lord Nelson, oak leaf seams and floral details (<CP1>; Fig 22). This appears to commemorate the Battle of Trafalgar, at which Nelson lost his life on 21 October 1805.

A small number of everyday domestic objects were also recovered from the culvert fills including an iron needle with a rectangular eye (<4>), a small cylindrical red ceramic bead (<29>), and a bone disc with a central eye which would have been the basis for a thread- or cloth-covered 'Dorset' button (<26>). Industrial activity is indicated by a sawn and eroded strip of turtle shell, perhaps a discarded workshop offcut from the preparation of 'tortoiseshell' (see Pipe below).

The environmental samples taken from the culvert fills produced a moderately sized waterlogged assemblage of botanical material comprising grape, blackberry and raspberry seeds. Significant numbers of mineralised figs (*Ficus carica*) and wild cabbage/mustard (*Brassica/Sinapis* spp) seeds were also recovered, and these appear to represent a mix of domestic food waste and local wild plants. The faunal material recovered from the culvert fills included a particularly large and diverse range of fish. It comprised only marine/estuarine species of economic value: roker or thornback ray (*Raja clavata*), herring family (Clupeidae), probably all Atlantic herring (*Clupea harengus*), plaice (*Pleuronectes platessa*), flounder (*Platichthys flesus* dentary), cod family (Gadidae), gurnard (Triglidae), garfish (*Belone belone*), mackerel (*Scomber scombrus*) and haddock (*Melanogrammus aeglefinus*). Smaller quantities of poultry, cattle, sheep/goat, pig and rabbit bones were also recovered. Of note was a fragment of sheep-sized rib which had been calcined, indicating a high combustion temperature of at least 700°C.

THE 19th-CENTURY DEVELOPMENT OF THE SITE, 1840+ (PERIOD 9)

During the 19th century, many of the historic houses within the Minories area were replaced by warehouses, offices and railways as the locality became more commercial. A large area of the warehouses within the former abbey precinct was bought by the

Fig 23 View of the exterior of the tavern in the late 19th-century watercolour of the Church Street frontage painted by John Crowther (1886) (London Metropolitan Archives, COLLAGE 17966)

London and Blackwall Railway Company for the erection of their Haydon Square Goods Depot, which was taken over by the London and North-Western Railway Company in 1854. Aldgate Station, located *c.*120m to the north-west of the site, opened in 1876; the railway line was later extended south of Tower Hill in 1882 via a cutting that crossed the extreme western edge of the site (Bradley & Pevsner 1997, 103), where many of the buildings were demolished to facilitate its construction. The Sieve tavern remained in the Byng family for many years but eventually it was acquired by the Metropolitan Railway Company. A watercolour by John Crowther in 1886 of the Church Street frontages shows the building the year it was closed; though apparently it was not demolished until 1890 (Fig 23; Maskell & Gregory 1911, 165). The last of the houses on site was pulled down by 1899 and replaced by warehouses (see below for the later history of the site).

The Buildings

Demolition of Buildings 9, 10 and 13

Archaeologically, this period is characterised by the demolition of the houses occupying the eastern side of the site and the erection of the commercial warehouses depicted on the late 19th-century maps. The large warehouse (B18; Fig 24) built in this area closely followed the footprint of the historic property boundaries, even preserving the recess in its north-west corner.

The demolition of Buildings 9, 10 and 13 is uniformly dated to the first half of the 19th century with the demolished superstructure used to infill the cellars. The demolition deposits from Building 9 contained a broad range of household objects and ceramics, dating their deposition to 1836–60. The 29 sherds of pottery (16 ENV) comprise factory-made table wares, sanitary wares, and other household wares, including a nearly complete, very large English stoneware (ENGS) bottle (<P20>; Fig 25) of Green type 18C (Green 1999, fig 126), the base of a stoneware blacking bottle, and part of a German stoneware (GERST) seltzer bottle with a lion mark for mineral water from Nassau (<P21>; Fig 25). Other finds included four 18th-century wig-curlers, and part of a machine-made copper-alloy thimble (<23>). The dating is refined by four clay tobacco pipes: two of which are marked IH (type AO29) and decorated with
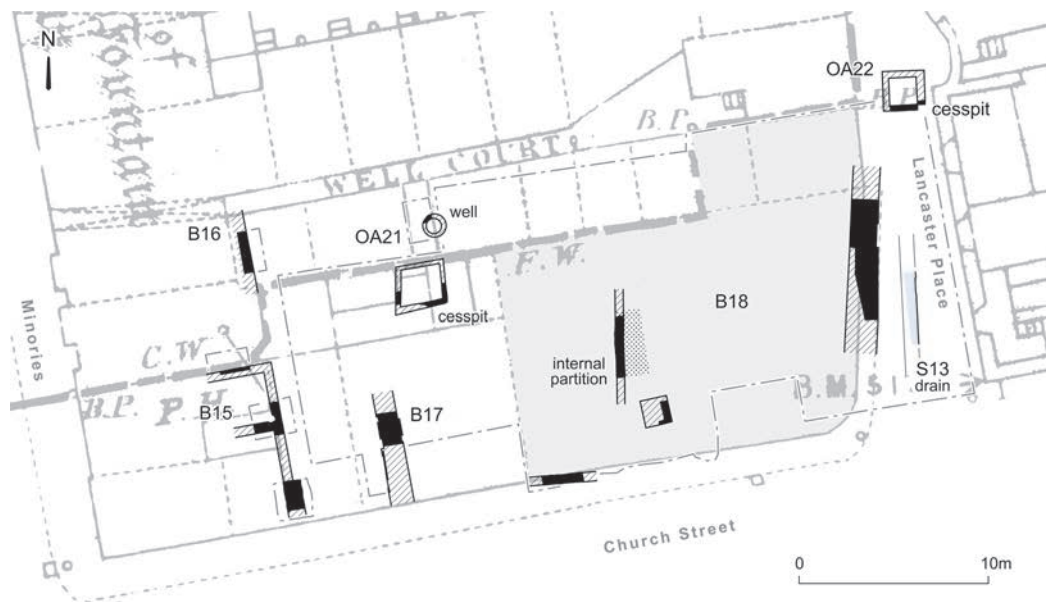
Fig 24 Structural remains of the 19th-century houses and warehouses overlain on the OS map of 1894 (scale 1:400)

moulded leaf seams (<CP2>; Fig 25). These were manufactured by local pipe maker John Hobbs (see discussion below) and are dated 1840–80; the two others have different markers' initials.

The cellar of Building 10 was also infilled and then sealed by levelling deposits. These dumps contained the largest amount of pottery recovered from the site, totalling 566 sherds from *c.*395 vessels dated to *c.*1810–30. The assemblage differs from other demolition deposits in that it consists almost entirely of Chinese porcelain (CHPO) (521 sherds, 356 ENV, 3.953kg), making up 95% of the assemblage (see Blackmore below). Although the other wares are more typical for the site, the high proportion of porcelain is very unusual. The assemblage is badly fragmented, with rarely more than one sherd per vessel, but similar designs appear on different forms, suggesting that parts of various sets are represented: the porcelain is likely to be derived from one of the nearby warehouses outside the site rather than a private residence. Blue-and-white wares (CHPO BW) are the most common, with 350 sherds, mostly from saucers (44 ENV), plates (150 ENV), saucers (50 ENV) and tea bowls (28 ENV), but including four bowls, five cups (two with scalloped rims, one fluted with ogee-shaped profile), part of a lid, and base fragments from two tankards. The plates mainly have landscape designs (<P16>; Fig 26), but some are floral. The tea bowls generally have a floral or landscape motif in the base. The more expensive porcelain with *famille rose* decoration (CHPO ROSE) is relatively common, with 79 sherds (57 ENV, 540g) from plates, saucers, tea bowls, bowls, and a coffee cup or beaker. Decoration comprises either landscapes, several with finely painted figures (<P17>, <P18>; Fig 26), or floral designs, but one tea bowl has a pseudo-heraldic motif (<P19>; Fig 26). In addition there are 31 sherds (24 ENV) that lack any obvious pink colouring and so could be either *famille rose* or *famille verte* (CHPO VERTE). Some vessels in both groups have a distinctive chevron border around the rim with filled green and yellow triangles (a plate, a saucer and a bowl). Also present are 22 sherds of Chinese Imari-style porcelain (CHPO IMARI, at least 8 ENV, 170g), mostly plates but including a tea bowl, four sherds
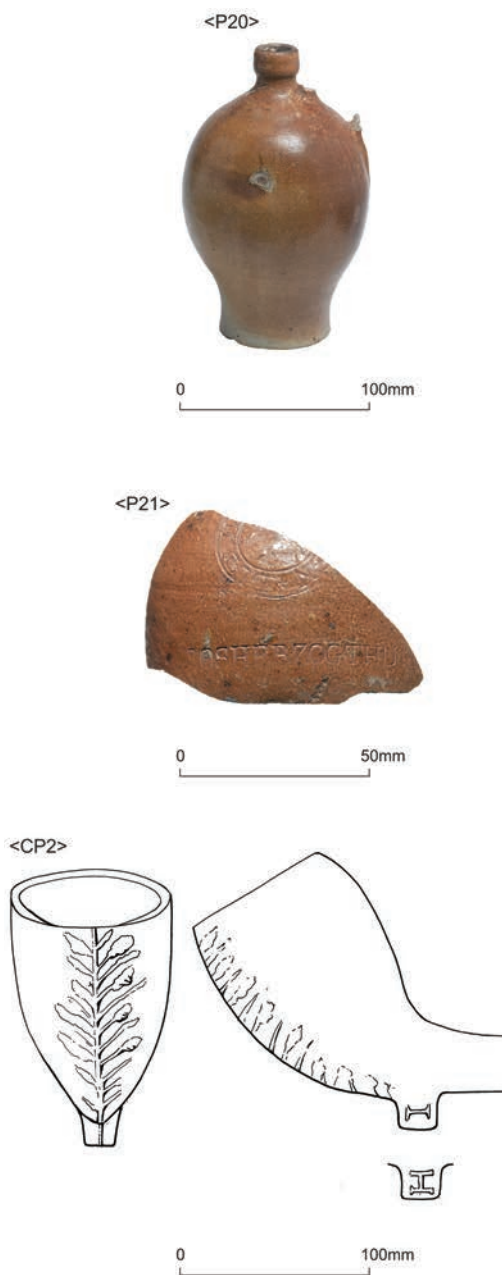
Fig 25 Large English stoneware bottle <P20> (scale 1:4), German stoneware seltzer bottle mineral water from Nassau with stamp 'BOSHERZOGTHUM' below a stamped medallion containing the name 'LUDWI[G]' around lion mark <P21> (scale 1:2) and a decorated clay pipe <CP2> (scale 1:1) from the workshop of John Hobbs recovered from backfill deposits [153], [502] of the B9 cellars

Fig 26 Chinese porcelain from the early 19th-century ground raising deposits [388] associated with the construction of warehouse B18: plate with landscape design in blue <P16> (scale 1:2), a plate and a saucer with famille rose decoration with painted figures <P17>, <P18> and a teabowl with a pseudo-heraldic motif <P19> (scale 1:1)

with Meissen-style *en grisaille* decoration in black and gold, five sherds from a plate, a saucer, a bowl and a tea bowl with gilded decoration in the Napoleonic style, and 25 sherds from 16 vessels with no obvious decoration, mainly saucers and plates but including four bowls.

The cesspit of the neighbouring Building 13 was backfilled with deposits of brick and chalk rubble (Fig 16). These fills produced two farthings of George IV (dated 1822; <119>) and Victoria (dated 1840; <120>), and a group of ceramics comprising mostly factory-made finewares for use at the table and which may have been discarded by the departing household.

The Warehouse (Building 18) and Lancaster Place

The structural remains of the warehouse included a substantial section of the stepped, brick-built wall foundations, plus some internal features including a number of brick and stone column bases and a partition wall (B18; Fig 24). The Victorian bricks used in the flooring and walls of the building were of two types: London-made red bricks and yellow London stocks (fabric 3035), the latter probably from north Kent or south Essex. The eastern wall of the warehouse was built right up against the brick culvert (S12) which was replaced by a brick drain located a little further to the east (S13; Fig 24).

The land on the western side of Lancaster Place was developed with commercial warehouses which extended beyond the boundaries of the site. At the north-eastern corner of the site was a brick-lined structure, possibly a cesspit, which was built against the corner of the warehouse (OA22; Fig 24). Less than half the structure fell within the excavation area but it is nevertheless of interest for the substantial collection of late 18th- to 19th-century ceramic and glass bottles and glass drinking glasses recovered from its fills.

Twelve ceramic vessels were recovered from the brick-lined pit, of which five are imported stoneware (GERST) seltzer bottles for mineral water, including two complete/near complete examples (<P24>, <P25>; Fig 27). The others comprise a mix of tin-glazed wares (TGW, TGW H), London-area and Surrey-Hampshire border redwares (PMR, RBOR), Staffordshire white salt-glazed stoneware (SWSG) and transfer-printed ware (TPW FLOW). These were found alongside large sherds of 11 late 18th- or early 19th-century wine and beer glasses (see Richardson below) plus body fragments from eight early cylindrical English green wine bottles. Two clay pipes (type AO28 bowls), again made by Hobbs/IH, refine the dating of the disuse of the cesspit to *c.*1820–40.

The faunal remains from the pit included a moderately sized group of cattle and sheep/goat with single fragments of juvenile pig humerus (upper fore-leg) and calcaneum (heel), rabbit maxilla (upper jaw), and a sawn and scraped fragment of elephant ivory, probably an off-cut from the initial preparation and trimming of a tusk base (see Pipe below).

The Haydon Square Goods Depot

Comparatively few remains of the properties to the west of the warehouse (B18) shown on the contemporary maps survived due to the impact of the modern basements. These buildings were identified archaeologically by fragmentary remains of various late 18th- or 19th-century brick-built wall foundations (B15–17; Fig 24) and features within their backyards, including a brick-lined cesspit and a circular well or soakaway (OA21; Fig 24). Little remained of the well, though the disuse fill of the cesspit contained a small group of pottery which included one complete example of a mineral water bottle stamped 'Herzogthum Nassau' and 'H 2 NUM 22' under its handle (<P22>; Fig 27) (see Blackmore below). Also recovered were sherds from two plates in refined white earthenware (REFW) and transfer-printed ware (TPW2), a Sunderland slipware (SUND) bowl and a London redware (PMR) flowerpot, which along with the stonewares date the group to 1840–80. How a near-complete 17th-century Dutch redware (DUTR) cauldron (<P23>; Fig 27) ended up in this pit is unclear. A small collection of contemporary clay tobacco pipes was also recovered: three are decorated and seven are marked by their makers, five of these by the same individual (IH/Hobbs).

On the evening of 25 April 1904, a fire broke out in one of the Haydon Square Goods Depot warehouses, which caused extensive damage. It was reported that over 300 firemen attended and that a record number of 48 steam fire engines were used (*Times* 1904). By morning the fire was under control but it smouldered for several days afterwards. Two firemen were injured but there was no loss of life and Holy Trinity Church was undamaged.[11] The Blitz during the Second World War resulted in further destruction, with most of the depot buildings being damaged beyond repair (Woolven & Saunders 2005, map 63). Haydon Square Station and Goods Depot closed in 1962. Its remaining buildings were demolished and cleared; and in the 1960s an office block was constructed on the site.

Fig 27 Complete German stoneware selzer bottle for mineral water <P22> (height 686mm), and detail of stamp 'HERZOGTHUM NASSAU' and stamped medallion with 'SELTERS' around lion mark, and a near complete 17th-century Dutch redware cauldron <P23> from backfill [294] of the cesspit in OA21. Two near complete German stoneware selzer bottles, <P24> (height 215mm) and <P25> (height 277mm), recovered from fill [249] of the cesspit in OA22, as <P22> but with 'W NUM 93' (<P24>) and 'W NUM 97' (<P25>) below handles (scale for all 1:4)

THE POST-MEDIEVAL FINDS

Pottery

Lyn Blackmore

The post-medieval wares from periods 7–9 total 1261 sherds (828 ENV, 40.641kg). Relatively little pottery dates to the 16th or 17th centuries (period 7, 143 sherds) or to the earlier 18th century; while these sherds must relate to domestic occupation and development following the Dissolution, they are not particularly informative. Most of the 443 sherds from period 8 and 675 sherds from period 9 date to the late 18th and 19th centuries respectively. Taking these three

periods together, the main feature of the assemblage is the unusually high proportion of imports which account for 47% of the total sherd count (up to 80% for period 9 alone), or 50% by ENV, 31% by weight. The earliest, dating to the 16th century, comprise sherds from a cauldron and a bowl in Dutch red earthenware (DUTR) and from two jugs in Raeren stoneware (RAER), one of them whole; 17th-century wares comprise Frechen stoneware (FREC), Weser slipware (WESE) and Martincamp-type ware (MART). The latest and most abundant imports are the Chinese porcelain and German stoneware, which offer opportunities for comparison with finds from elsewhere in London (below).

In second place are industrially made fine earthenwares (25% by sherd count, 22% by ENV, 12% by weight), mostly table wares, including some forms more likely to have been used 'below stairs'. The other ware types, comprising London-area and Essex-type redwares (PMRE & PMFR), Surrey-Hampshire border wares (BORD), including pipkin <P10> (Fig 21), tin-glazed wares, including <P9> (Fig 14), stonewares, including ink bottles <P11>–<P14> (Fig 18) and the large bottle <P20> (Fig 25), and other English wares are all standard for London. The range of forms is typical of domestic usage in London at this time, consisting chiefly of cooking vessels (cauldrons and pipkins), bowls and dishes, jugs, mugs, jars, chamber pots, flower pots and other less common forms such as candlesticks and costrels.

Chinese Porcelain

An intriguing aspect of the post-medieval ceramic assemblage is the unusually high proportion of Chinese porcelain, with a total of 553 sherds (385 ENV, 4.199kg) from nine deposits. By far the largest amount is from the levelling deposits associated with the construction of Building 18, totalling 521 sherds (356 ENV, 3.953kg; see above), *ie* 92% of the pottery from this context; a further 25 sherds were found in S12, while the other groups from Buildings 6 and 9, and Open Areas 8 and 19, are all very small. By sherd count this ware type exceeds all others, comprising 42.1% of all post-medieval wares.

The estimated number of vessels is also high (26%), although by weight the overall proportion is much lower. This apparent imbalance is not altogether surprising, since the main vessels represented are tea wares (specifically tea bowls and saucers), which are small, lightweight, thin-walled vessels.

Demand for Chinese porcelain in London was fuelled by the increasing popularity of drinking tea and coffee, alongside which it was imported. London's first coffee house at St Michael's Alley, Cornhill, opened in 1652 and by 1714 there were approximately 500 of them in the capital (Porter 1994, 170). Cargoes of porcelain imported from Canton by the East India Company were packed in chests filled with sago (Barry 1994, 153). Most commonly found across London are blue-and-white wares with underglaze decoration made at Jingdezhen, at first typically Chinese in style, but later with designs adapted to the western market. Of higher quality are the Imari-style wares in blue, red and gold, and enamelled wares with overglaze painting in the *famille rose* and *famille verte* styles, the former more common in the present assemblage. Most vessels from the Minories site are in the Chinese blue-and-white style, a selection shown in Fig 26. Both landscape and floral designs are present in the *famille rose* group (<P17>, <P18>), the former including some finely painted figures, the latter less well executed. One piece has a heraldic crest (<P19>), probably made to order. A few vessels have gilded decoration, either alone or with underglaze blue, while a plate and a bowl have Meissen-style '*en grisaille*' decoration, rare in London, but seen in a cesspit group on the East Slingsby site at Upper St Martin's Lane (Blackmore 2008). There are no examples of Batavian ware, with brown glaze on the exterior.

Significant assemblages of Chinese porcelain have been found on three other sites within the area, the first and second to the south-west at 8–10 Crosswall (XWL79; Vince & Egan 1981) and America Square, Crosswall (ASQ87; Schofield with Maloney 1998, 239), the third, slightly further south at Colchester House, Pepys Street (PEP89; *ibid*, 295) is both smaller and earlier than the others, dated to *c*.1720–45. The Crosswall assemblage was from the fill of a brick-lined cesspit and considered a household

clearance of *c.*1770 (Vince & Egan 1981, 162). There is no quantification of this mixed group as such, but Chinese porcelain accounts for 31% of the assemblage (by EVEs; Thompson *et al* 1984, 29). The 16 bowls, cups and dishes appear to be relatively complete and are described as deriving from at least two high quality services made in the first quarter of the 18th century or earlier; they were thus carefully curated for up to 50 years (Pearce 1981, 165–8, figs 5–7; Thompson *et al* 1984, 29). The finds from America Square, also from a brick-lined cesspit, were found along with other wares, including English porcelain, many complete or reconstructable nearly complete vessels; the assemblage has never been fully quantified, but the presence of some 300 vessels, many high quality and some from sets, suggests the clearance of an upper class property *c.*1795–1800 (Pearce 2008, 296). By contrast, just to the north of the present site at 62–64 Aldgate (AL74), porcelain appears to be quite rare, accounting for only 1.5% of the large group of pottery from Building 8, phase 3, dated to *c.*1700–20 (Thompson *et al* 1984, 29; Orton & Pearce 1984, 58, fig 29, nos 139, 140). The pottery from the latest phase of Buildings 1–4 however, dated 1700–50/70, is not discussed in detail.

The presence of large amounts of porcelain in this part of London can be explained by its proximity to the Custom House, the Legal Quays and the port of London, which made the area ideal both for warehouses and for merchants to reside. The Chinese porcelain from the Minories site differs from the America Square assemblage in that, although deriving from a high number of vessels, most are represented by only one or two sherds, raising the question as to where the rest of these vessels were discarded.

German Stoneware Mineral Water Bottles

Among the latest imports from the site are 13 tall, straight-sided German stoneware mineral water bottles (17 sherds, 5552 g); one is unstratified, but the others are all from period 9, three from Building 9 (including <P21>; Fig 25), one from Open Area 19, five from Open Area 21 (including <P22>; Fig 27), and five from Open Area 22 (including <P24> & <P25>; Fig 27). Four bottles,

including <P21>, <P24> and <P25>, bear a stamped medallion with a lion mark within the word 'SELTERS' over the name of their source, 'HERZOGTHUM NASSAU'. Bottle <P21> has the name LUDWI[G] around the surviving part of the lion medallion and the word 'BOSHERZOGTHUM', while an unstratified example has a stamp ending in 'SSEN', suggesting a different source. The main sources of 17th- to 19th-century mineral water bottles in Germany were Westerwald and the middle Rhineland (Gaimster 1997, 23, 55). The present examples are most likely to be from the Westerwald area, as the source of the spa water, Selters an der Lahn (Hesse), lies to the south-east of the Westerwald and to the north-east of Nassau (Rhineland-Palatinate). Both are situated in the valley of the Lahn, which joins the Rhine south of Koblenz, an area of spa towns, popular during the 19th century. The Herzogtum of Nassau was created in 1806 and lasted until 1866; the lion mark was used in Nassau between 1836 and 1866, when it was replaced with an eagle. The bottles from the Minories can thus be dated to within this time span. Such bottles are not uncommon in London, but it is unusual to find such a cluster with so many complete or near complete stamped examples. The bottles were probably reused after their original contents had been drunk.

Accessioned Finds

Beth Richardson

Most of the other finds are small everyday objects which include pieces from items related to eating and drinking (wine and beer glasses, plus a knife handle), dress fittings and personal items (buttons, beads, wig-curlers), tools and production (a needle, pins, a thimble), fittings (a mount, a stud) and horse equipment (a spur and possible harness-buckle). Most of these items are probably singly discarded items of rubbish or losses. The only relatively large rubbish deposit was a group of fragmentary drinking glasses from a 19th-century cesspit (Period 9, OA22; Fig 24). These are hand-blown from colourless lead glass; their essentially plain forms decorated only with solid stem-knops date them to the late 18th or very early 19th century. Six (<74>–<76>, <78>, <80>, <82>)

Table 1 Illustrated pottery <P1>–<P25>

Ref	Period	Land use	Context	Accession no.	Description	Fig no.
<P1>	6	OA8	[469]	<173>	SHER jug handle with slash and stab decoration	Fig 7
<P2>	6	B2	[221]	<174>	PMSRY skillet	Fig 12
<P3>	6	B2	[221]	<175>	PMRE dripping dish	Fig 12
<P4>	6	B2	[221]	<176>	PMRE sprinkler	Fig 12
<P5>	6	B2	[221]	<177>	BORDG money box	Fig 12
<P6>	6	B2	[221]	<178>	DUTR cauldron	Fig 12
<P7>	6	B2	[221]	<179>	DUTR handled bowl	Fig 12
<P8>	6	B2	[221]	<180>	RAER jug	Fig 12
<P9>	7	B5	[128]	<181>	TGW D bowl	Fig 14
<P10>	8	B14	[562]	<182>	RBOR pipkin	Fig 21
<P11>	8	B9	[499]	<183>	ENGS ink bottle	Fig 18
<P12>	8	B9	[499]	<184>	ENGS ink bottle	Fig 18
<P13>	8	B9	[499]	<185>	ENGS ink bottle	Fig 18
<P14>	8	B9	[499]	<186>	ENGS ink bottle	Fig 18
<P15>	8	OA12	[555]	<187>	PEAR BW cup	Fig 19
<P16>	9	B18	[388]	<188>	CHPO BW plate with landscape design	Fig 26
<P17>	9	B18	[388]	<189>	CHPO ROSE plate with figural design	Fig 26
<P18>	9	B18	[388]	<190>	CHPO ROSE saucer with figural design	Fig 26
<P19>	9	B18	[388]	<191>	CHPO ROSE tea bowl with heraldic motif	Fig 26
<P20>	9	B9	[153]	<192>	ENGS bottle Green type 18C	Fig 25
<P21>	9	B9	[153]	<193>	GERST Bottle with lion mark	Fig 25
<P22>	9	OA21	[294]	<194>	GERST bottle stamped 'Herzogstum Nassau 'and 'H 2 NUM 22'	Fig 27
<P23>	9	OA21	[294]	<195>	DUTR cauldron	Fig 27
<P24>	9	OA22	[249]	<196>	GERST Seltzer bottle	Fig 27
<P25>	9	OA22	[249]	<197>	GERST Seltzer bottle	Fig 27

Table 2 Illustrated accessioned finds

Ref	Period	Landuse	Context	Acc No.	Description	Fig No.
<S1>	5	B5	[418]	<143>	Venetian white glass tankard	Fig 14

are pieces from large 'roemers' or 'rummers' generally used for beer or wine rather than rum. The other glasses are wine glasses with bucket- or funnel-shaped bowls (<77>, <79>, <81>, <83>, <84>), of which <77> is ribbed and <79> facetted with six-sides. Unlike the small fragments of earlier mainly imported glass vessel from the site these are everyday glasses that might have been used in a household or public house.

Marked Clay Tobacco Pipes

Jacqui Pearce

A total of 57 clay pipes marked by their makers were recovered from period 8 and 9 contexts (Table 4); with one exception, they all can be dated to the 18th and 19th centuries. The one earlier pipe is a type AO10 bowl (*c.*1640–60), a residual find in context [288] (OA18, period 8). It is marked with a six-pointed star stamped in relief on the heel, a common motif for this period and one that cannot be linked to any known pipe makers.

The sources of the clay pipes are in keeping with their tendency to be sold and smoked within a limited radius of the workshop where they were made. The majority of the marked 18th-century clay pipes were from the workshop of Thomas Dormer which was located only a short distance from Minories, to the east of the Tower of London and near the waterfront. Thomas Dormer is known to have been exporting his wares to North America through the Hudson Bay Company between 1748 and 1770, and examples of mid-18th-century pipe bowls marked TD have been found on numerous excavated sites, including Williamsburg and Yorktown in Virginia, Fort Loudon in Tennessee and the Fortress of Louisbourg in Nova Scotia, Canada, as well as Port Royal, Jamaica (Atkinson & Oswald 1980, 370)

The Hudson's Bay Company records have Thos Dormer listed for 1748–53; Thomas Dormer and son 1754–6; Thomas Dormer 1757–69; and Thomas Dormer and Thomas Smith in 1770 (Oswald 1978, 346). In 1763 Thomas Dormer was also recorded at The Hermitage in Mortimer's Directory, and in a Sun Company insurance policy for 1770 (*ibid*, 347, 353). The policy was drawn up on 22 March 1770 for Dormer's properties at Brewhouse Yard near Hermitage Street, with a valuation of £1100. This includes a brick-built dwelling house, wash house, workshop, sandpit, warehouses, some of which were held in tenure by other individuals, various sheds and a stable. In the insurance records for pipe makers studied by Oswald, this is the only policy in which a stable and sandpit are mentioned, which Oswald suggested meant that Dormer was marketing his pipes by horse within range of his neighbourhood (*ibid*, 353). The sandpit would have been used for breaking down his clay. The insurance valuation is very large for a pipe maker and does not include household goods and wearing apparel.

It seems that Dormer had become prosperous through his involvement in the export trade; Oswald suggests that the 1770 policy could have belonged to his son (Oswald 1978, 353). Further evidence for the working relationship between father and son may come from pipes with the TD mark in relief on the back of the bowl found at Louisbourg, Canada, in mid-1750s contexts. This would coincide with the listing of Thomas Dormer and son in the Hudson Bay export records, perhaps marking the combined operation of the two pipe makers. Marks of this kind are rare in England and were perhaps intended mainly for export. Dormer also seems to have been making pipes with armorial decoration before 1755, as suggested by an example with the moulded initials TD on the sides of the spur

Table 3 Illustrated clay tobacco pipes

Ref	Period	Land use	Context	Acc No.	type	Description	Fig No.
<CP1>	8	S12	[458]	<91>	AO27	Bowl with moulded bust of Nelson. Stamped HW	Fig 22
<CP2>	9	B18	[502]	<113>	AO29	Bowl with moulded leaf stem. Stamped IH	Fig 25

Table 4 Marked clay tobacco pipes with their date range and number of bowl types, and suggested makers

Mark	No.	Date	Maker?	Reference
...SEA...	1	1580–1910		
..BS	1	1820–40	John Hobbs, St George in the East, 1828–58	Oswald 1975, 138
Crowned ?O?R	1	1700–40		
FI	1	1820–40		
Flowers	4	1700–60		
HOBBS	6	1820–40	John Hobbs, St George in the East, 1828–58	Oswald 1975, 138
HW	1	1780–1820	Henry Wickham, St Mary Whitechapel, 1817	Hammond 2004, 23
IC?	1	1730–60		
IH	5	1820–80	John Hobbs, St George in the East, 1828–58	Oswald 1975, 138
IM	3	1700–60	John Mules, St George, 1768	Hammond 2004, 20
IW	1	1730–60	John Watts, Whitechapel, 1731	Oswald 1975, 40
IW?	1	1700–40	John Watts, Whitechapel, 1731	Oswald 1975, 40
LD	2	1780–1820		
LE	1	1780–1820		
RB	1	1730–60	Richard Bryant, 1733–40	Oswald 1975, 132
RR	1	1730–60	Richard Romaine, Old St, 1763	Oswald 1975, 39
SB	1	1840–80		
Star	1	1640–60		
Stars	1	1820–40		
T?	1	1700–40		
TD	15	1700–60	Thomas Dormer, Hermitage/Bones Yard Lane	Oswald 1975, 135
TD?	4	1700–60	Thomas Dormer, Hermitage/Bones Yard Lane	Oswald 1975, 135
WL	1	1820–40	William Lickford, Shadwell, 1839–56	Oswald 1975, 141
WR Crowned	1	1730–60	William Rushton, Moorfields, 1763	Oswald 1975, 144
WW	1	1730–60	William Wilder, Whitecross St, 1717–63	Oswald 1975, 149

found at Williamsburg (Noël Hume 1970, plate 6B). However, neither of these types was recorded on the Minories site, where the finds appear to represent the output of the Dormer workshop intended for purely local consumption – undecorated pipes marked simply with the pipe maker's initials.

The products of six other mid-18th-century pipe makers were represented on the site, all of type OS11. One pipe (and possibly a second) is marked IW, which stands for John Watts, recorded in 1731 in Whitechapel when he took Thomas Turner as apprentice (Oswald 1975, 40). A single pipe with the initials RB was probably made by Richard Bryant, recorded 1733–40 (*ibid*, 132). Three pipes are marked IM, probably for John Mules, recorded in St George in 1768 (Hammond 2004, 20); one pipe has the initials RR, possibly Richard Romaine of Old Street, recorded in Mortimer's Directory in 1763 (Oswald 1975, 139) or for R Rutledge of Vinegar Yard, St Giles, also 1763 (*ibid*, 144). A WR mark with crowns above the moulded initials was likely to have been made by William Rushton, recorded at Moorfields in 1863 (*ibid*, 144). A residual period 9 pipe is marked WW and was most likely made by William Wilder, recorded in 1717–63 at Whitecross Street (*ibid*, 149). This pipe was made at a workshop located just over a mile from the Minories site, as the crow flies;

all other pipe makers identified operated within a radius of about the same distance from the site. This serves to emphasize the predominantly local distribution of clay pipes, which were seldom marketed within London at any great distance from their source.

There are four pipes of type AO27, dating to *c.*1780–1820, bearing the initials of three different pipe makers moulded on the sides of the heel. These again demonstrate a local distribution pattern, with HW standing for Henry Wickham of St Mary's, Whitechapel, 1817 (Hammond 2004, 23). The other two pipe makers, LD and LE, have not been identified. For the later 19th-century pipes, one AO28 pipe is marked with the initials WL, which probably stand for William Lickford of Shadwell, 1839–56 (Oswald 1975, 141). The main pipe maker identified, however, is John Hobbs, recorded in St George in East in 1828–58 (Oswald 1975, 138). Six pipes of type AO28 (*c.*1820–40) have HOBBS stamped incuse on the back of the bowl, facing the smoker, with one additional incomplete mark. Two of these were found in period 8 contexts in Building 9 and Open Area 18, and five in period 9, from the cesspits in Open Areas 21 and 22; all are undecorated. Five more pipes, all in period 9 contexts, are marked with the initials IH moulded in relief on the sides of the heel. These too were made by John Hobbs in a long working life. One of them, from Open Area 22, is of type AO28 and undecorated, while the remaining examples are all of type AO29 (*c.*1840–80). They are all decorated with moulded leaf seams of the kind popular at the time (<CP2>; Fig 25). The two different bowl shapes and forms of maker's mark, as well as the plain and decorated bowls, show that John Hobbs' workshop had several moulds at its disposal, and that they kept up with changes in fashion.

Bone and Horn Working

Alan Pipe

Toolmark evidence for industrial activity was extremely sparse throughout the assemblage, with sawn fragments of elephant ivory from Period 8 and Period 9 cesspit fills and a single fragment of marine turtle bone, perhaps associated with 'tortoiseshell' manufacture. The latter was used in the production of small decorative items such as spectacle frames, inlays, handles and particularly combs. Tortoiseshell forms a shield of keratinous scales on the outer sides of the carapace and plastron, the dorsal and ventral elements of the turtle shell, and is detached from the underlying bony plates by heating or boiling (O'Connor 1987, 17). It is usually obtained from tropical and subtropical species including the loggerhead turtle (*Caretta caretta*), hawksbill turtle (*Eretmochelys imbricata*) and green turtle (*Chelonia mydas*). The consumption of turtle meat was expensive but popular, becoming almost a 'mania' in the late 18th century, with green turtle very much the most commonly consumed species in 18th- and 19th-century London (Armitage & McCarthy 1980, 11–12; Plumb 2015, 61–2), often becoming the featured dish in royal or City banquets (Tames 2003, 27). Fragments of green turtle bone, usually of the carapace or plastron, have been recovered from various sites across Greater London, including the backfill of a late 18th-century well at Leadenhall Buildings in the City of London, the 18th- or 19th-century backfill of a well at Butcher Row, Ratcliff, and Thames foreshore deposits from Southwark (Armitage & McCarthy 1980, 11–12).

There was no definite evidence on site for general bone-working, and none for the preparation or working of cattle or sheep/goat horn. The absence of evidence for bone-working is surprising as this locality was known for its semi-industrial character, attracting artisans who established their workshops outside the City. For instance, excavations at the New Churchyard burial ground, Liverpool Street, revealed extensive evidence of 17th- and 18th-century bone and ivory working (Cubitt *et al* forthcoming).

CONCLUSIONS

The archaeological excavations at 24–26 Minories revealed an important structural sequence of medieval and early post-medieval occupation which traces the development of the houses of the Abbey of St Clare's tenants into the 17th century and beyond. It is apparent that after the Dissolution, whilst

the majority of the former abbey precinct underwent significant changes, the site retained its medieval residential character. However, within this area where once a few upper-class households had lived alongside the nuns, the population increased during the late 16th century and this process was achieved by the subdivision of larger properties into smaller tenements. It has been possible to follow the well-documented increasing intensity of landuse from the structural evidence, so where the large single property (Building 1) is known to have contained one tenement in 1487, this increased to at least 10 by 1604 (Figs 6, 10). This process of subdivision was mirrored on the ground by the division of one building and its cellar into increasingly smaller units. A similar trend has been identified within a number of other London monastic properties. The period 1532–70 has been defined as the 'era of urban palaces and other prestigious uses of precincts', while the period 1560–1600 has been described as the 'fragmentation of the precincts into several tenancies, comprising in some cases industrial premises and smaller scale housing' (Schofield 1993, 29).

The redevelopments of the 18th and 19th centuries respected the medieval property boundaries, resulting in little change to the overall layout of the site. Indeed, the survival of the medieval cellars and cesspits is no doubt partly due to their reuse in the 17th and 18th centuries, and in one case even into the 19th century. The downside of this is that few medieval primary deposits associated with the usage of these buildings and associated features survived.

Throughout the centuries the character of occupation on site was overwhelmingly domestic, though the presence of some rare post-medieval faunal remains (elephant ivory and 'tortoiseshell' waste) and marine mollusc shells provides evidence of international trade via the Port of London. In the future, the post-medieval finds and faunal assemblages recovered from the various cesspits and the culvert (S12) on site could be compared with those from other archaeological investigations within the parish.

NOTES

[1] MOLA Resource Library, http://www.mola.org.uk.uk/research-community/resource-library (accessed 27 November 2017).
[2] More recently the scope of research has widened, tracing the development of the Minoresses from their foundation and spread across Europe until the 16th century (Roest 2013).
[3] For details concerning all site codes, see the Museum of London of Archaeological Archive online catalogue http://archive.museumoflon-don.org.uk/laarc/catalogue/siteinfo (accessed 27 November 2017).

4 Excavations at St. Mary Spital, the Augustinian priory and hospital outside Bishopsgate to the north-east of the City, revealed 14th-century timber-framed houses with stone foundations located alongside a path leading to the cemetery (SRP98; Thomas 2004, 59). A similar style of tenements dating from the 13th century onwards has been identified at St Mary Clerkenwell (Sloane 2012, 144). The documentary evidence for the tenements at St John Clerkenwell has shown that the residents included priory officials and officers, corrodians and a number of artisans and tradesmen and their workshops (Sloane & Malcolm 2004, 213–21).

5 Other aristocratic residents of this mansion included the countess of Kent, Lucia di Visconti (1421), the duchess of Buckingham (1480), and the countess of Suffolk (by 1510), Robert Radcliffe, earl of Sussex (before 1537), and Elizabeth, Countess of Kildare (July 1537) (Carlin 1987, *Abbey*, 40–3).

6 The earliest known reference to the parish has be traced back to the 1550 will of Robert Olyver who identified himself as a gentleman of the parish of St Trinity in the Minories (House 2006, 78).

7 The 'Hoop and Grapes' at 46 Aldgate High Street, is reputed to be the oldest licensed premises in the City, dating from the medieval period, but the surviving timber-framed building dates from the mid-17th century (HAG80; Weinreb *et al* 2008, 414).

8 London Metropolitan Archives Catalogue No q9517986 accessed on Collage, Record No 17966 (accessed 27 November 2017).

9 *Merchant Taylors' Company Estate Plans 1680* (CLC/L/MD/G/MS 34216), London Metropolitan Archives held at Guildhall Library. The remaining three plans date to 1694–5 (MS 64217), (MS 34218) and 1880 (MS 34219/2).

10 The basement lies significantly below modern street level. The ground level at the junction of St Clare Street and Minories is at 15.2m OD, sloping down to 14.6m OD at the eastern end of St Clare Street.

11 'Great City Fire – goods depot destroyed' *London Evening Standard*, 27 April 1904 and 'Big City Fire- railway depot in flames' *Daily Telegraph & Courier*, 26 April 1904.

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PINNER'S SUFFRAGETTES

Thamar MacIver

SUMMARY

This is a detailed study of the members and activities of a local branch of the Women's Social and Political Union (WSPU) which campaigned for women's suffrage between 1903 and 1917, becoming commonly known as 'the suffragettes' from 1906. It demonstrates how the national union was able to draw on such branches for funding and participation in demonstrations and activism. It emphasises the commitment of local members to the cause and shows how they were influenced by the long background of campaigning for women's rights. It sets the branch in its social context and highlights the support given to the women involved by sympathetic family members, including men, and by informal women's networks.

INTRODUCTION

For a relatively small place, Pinner was unusual in boasting an active branch of the Women's Social and Political Union (WSPU), the militant organisation campaigning for women's rights founded in 1903 and dominated by Emmeline and Christabel Pankhurst. The branch's story is interesting both as an example of the role that local branches played in the activities of the Union and for what it reveals about local society, and in particular the world of women, at the time. Detailed consideration of those involved and their activities emphasises the way the WSPU channelled both frustration over decades of fruitless campaigning and the abilities and energies of middle-class women, which otherwise had little outlet in contemporary society. It also reveals the importance of informal networks of women.

BACKGROUND

Today, Pinner is part of the London Borough of Harrow in north-west London, but in the years before the First World War it was changing from a rural Middlesex village to a London suburb. The opening of a station (now Hatch End) on the mainline to Birmingham in the 1840s, over a mile from the village centre, had resulted in an isolated commuter estate near the station and a scattering of grander houses for carriage-folk. After the Metropolitan Railway arrived in 1885, this time with a station near the village centre, spacious housing for middle-class commuters began to develop. One consequence of this rapid development was that many Pinner residents were newcomers, with young families. During the working day, the community would have been predominantly female.

Nationally, women's rights had been a live issue for decades, although advances had stalled: the unpopularity of Balfour's Conservative government (1902–5) raised hopes of renewed progress under the Liberals. This background is reflected in events in Pinner. In 1894 one woman, Lady Elizabeth Watkin Williams, was among the 24 who stood for positions on the nine-seat parish council, coming tenth (Gray 2014). After this, no woman stood for election in Pinner until 1920. Local societies debated the issue: for example, in 1901 the Young Men's Discussion Class discussed 'Women's Rights or Wrongs' (*Harrow Obs*, 5 Dec 1901, 5) and in 1906 it considered whether women should have the vote, with an address by a speaker from the National Union of Women's Suffrage Societies (NUWSS, founded 1897)

and contributions by local women (*ibid*, 21 Dec 1906, 2). The Liberal Association formed in Pinner in March 1904 passed its first resolution in favour of women's suffrage (*ibid*, 3 June 1904, 5).

THE WOMEN WHO ESTABLISHED THE PINNER BRANCH

The First Officers

According to a founder member, the Pinner branch owed its existence to five women (*Harrow Gaz*, 1 March 1912, 3), presumably the five who became its first officers (*Votes for Women* iv, 360). One, Miss Bessie Barrett ('*Votes for Women*' secretary – responsible for sales of the WSPU journal), remains an enigma. The other four – Janie Terrero (secretary), Marie Verden (treasurer), Elspeth McClelland (speakers' organiser), and Edna Verden (literature secretary) – were neighbours, all from Paines Lane in Pinner, and all had earlier connections to the suffrage movement.

Elspeth McClelland and her Family Background of Campaigning for Women's Rights

Elspeth McClelland (1879–1920) was the first Pinner woman significantly involved with the WSPU and had recently been working as a WSPU organiser, helping to establish other local branches. She had grown up with a mother and two aunts, all engaged with both the applied arts and the campaign for women's rights, with particular reference to that 19th-century priority, enlarging employment opportunities for women (Crawford 2015; 2017).

Elspeth's mother Epsey McClelland (1847–1912), née Robinson, was the daughter of a Yorkshire lawyer. Articles written at the time of her death (*Votes for Women* v, 302) described her as having supported the suffrage movement for 40 years, and having been a friend and colleague of Priscilla Bright McLaren (1815–1906), an activist for many women's causes. Epsey's sister, Anne Atherton (1847–1913), spent much of her life with a friend, Kate Thornbury, who was secretary to the Central Committee of the National Society for Women's Suffrage from 1877 to *c*.1881. Together in about 1883 Anne

and Kate set up 'the Society of Artists', based in New Bond Street, which sold craft work by women artists and did decorative work. A third sister, Charlotte Robinson (1859–1901), completed her education at the pioneering girls' school, Queen's College, Harley Street, probably chosen by her siblings since both parents were dead. She then worked as a secretary, accompanying long-term women's rights campaigner Emily Faithfull on a lecture tour of America in 1883. On their return Charlotte and Emily set up house together in Manchester, remaining together till Emily died in 1895. Charlotte became an interior decorator, a new specialism open to women because no professional qualification was needed: she designed interiors for clients and sold furniture decorated with paintings. One journalist (in *The Cabinet Maker and Art Furnisher*, cited in Crawford 2015) described her stock as 'in some aspects too "pretty" for our taste'. Charlotte's first shop was in Manchester, and in 1890 she opened another at 20 Brook Street, in Mayfair. She was appointed 'Home Art Decorator to Her Majesty', probably because she employed a female workforce. Emily, who in 1860 had established the Victoria Press, employing women, had been appointed printer and publisher in ordinary to Queen Victoria for the same reason. Charlotte's business venture was publicised in articles by Emily. The involvement with journalism culminated in Charlotte becoming an editor of *The Queen* magazine. Newspaper coverage would also characterise Elspeth's career.

The McClellands were involved in Charlotte's business. Epsey headed the studio which produced the decorated furniture Charlotte sold. When Charlotte died in October 1901, Epsey and Elspeth inherited the business.[1] By 1904 Elspeth (25) had experience of interior design and designing furniture (*Harrow Obs*, 26 Oct 1906, 5). One interior by Elspeth was photographed, the living room in her Letchworth cottage (see below). It had white-washed walls and a dark, hard, floor. The furnishings (a dresser, table and chairs) were in stained pine, with the tops of the table and dresser painted white.[2] In 1906 she created a nursery for a Glasgow exhibition, probably resembling the ideal nursery she described in a *Daily Mail* article: 'a palace of delight' for 'little ones'

– comfortable and simple, with child-sized furniture of unstained oak decorated with green stencils or pokerwork mottos, a child-height frieze featuring nursery favourites, and a 'cosy corner' with a seat around it, windows and a gate (*Daily Mail*, 27 Mar 1907, 9).

In 1904 she embarked on a course in building at London's Polytechnic, to equip herself to supervise building work incidental to decorative schemes (enlarging windows, erecting staircases *etc*) (*Cambridge Independent Press*, 18 Nov 1904, 6). Newspaper articles emphasised that she was the only woman among 600 students. She then became interested in cottages, designing several over the coming years, and would later describe herself, contentiously, as the first woman to work as an architect (*Suffrage Annual*, 1913, 361–2).

She entered the Letchworth Cheap Cottages Competition of 1905, which explored cheaper ways of building working-class cottages. Features praised at the time, and sometimes attributed to her womanly awareness of the needs of the housewife, included the lightness and airiness afforded by generous windows, and the porch which gave covered access to coals and WC. National newspapers focused on her being the only female competitor. In professional journals the design won no particular plaudits – unsurprising, as other exhibitors were established architects with long experience designing affordable housing and weekend cottages. Doubts were expressed, about her cottage and many others, as to whether it could be constructed for the target £150 and whether it was not more suited for use as a weekend cottage. Were the cottages thought too comfortable for working-class families? Elspeth had certainly differentiated. She designed a cottage for a friend around the same time. The 'cheap cottage' was of concrete, whereas the friend's cottage was brick, whitewashed over. The friend's cottage had a long, slanting slate roof and an outside porch, while an upstairs bathroom was considered essential for the friend, but not for the cheap cottage (*The Builder* 89, 9 Sept 1905, 268; *The Building News* 89, 28 July 1905, 106; *Star*, 22 Apr 1905).

In Pinner Elspeth became involved with a 'lads' club', the Pinner Crusaders, estab-lished in 1905/6 (*Harrow Obs*, 1 Jan 1906, 5). The only woman on the committee, she was officially their librarian but seems to have become their driving force, sometimes referred to as their manageress (*ibid*, 20 Mar 1908, 3). Certainly the vicar thought so. When in 1908 boys on its committee voted against having his new curate as vice-president, he accused Elspeth of leading the club in a direction unlikely to benefit the parish.[3] The club's activities included entertainments – crowd-pleasers, with the emphasis on humour and accessible music (including those Edwardian favourites, 'coon songs'), with local references. For example, the pantomime *Cinderella* included a character 'Lord Stick in the Mud of Love Lane' – a reference to a notoriously muddy Pinner lane lined with large new houses. Elspeth wrote material for these entertainments, helped produce them and performed in them (*Harrow Gaz*, 19 Apr 1907, 5; *ibid*, 3 Jan 1908, 10; and *passim*). One piece by Elspeth was a farce, *The House of Jagger*. In July 1907 Elspeth formed part of the Committee's cricket team in a match against the boys. The Committee won, though the local paper reported that both Elspeth and the local JP had failed to score (*Harrow Obs*, 12 July 1907, 3). Another woman distinguished herself however. Irene Dore, from Pinner's grandest house, a woman with several brothers, had been co-opted when the committee was one short.

The McClellands and the WSPU

The WSPU had extended its campaign to London in 1906. Elspeth and her mother had probably joined by December 1907. In 1908 Mrs Drummond, a key WSPU organiser in London, had several hundred women volunteers helping her, Elspeth very likely among them. Certainly a 'Miss McClellan' was one of those sent from the central headquarters to help fund-raising in Hammersmith in February 1908 (*Votes for Women* i, 57 ('McAllan'), 144, & supplement, 2 Mar 1908, xcv).

February 1909 saw Elspeth take part in the so-called 'human letter stunt'. This was devised by Christabel Pankhurst to draw attention to a planned deputation to Parliament demanding women's suffrage.

New postal regulations were said to have made it possible to post human letters, and Christabel asked Jessie Kenney to find two members willing to be posted to the Prime Minister. Elspeth and Daisy Solomon were despatched from the Strand Post Office, the women being escorted by a telegraph boy to Downing Street, where officials refused delivery (Kenney, not dated, 1). Newpaper photographs show Daisy and Elspeth with sandwich-boards, Daisy's announcing the deputation and Elspeth's addressed to Asquith at 10 Downing Street, as well as Jessie Kenney, Mrs Drummond, the telegraph boy, and some amused policemen (*eg Daily Express*, 24 Feb 1909, 7; *Daily Mail*, 24 Feb 1909, 3, 6).

Shortly afterwards, Elspeth became a paid WSPU organiser. She worked first in Croydon, during a bye-election (March 1909) in which the WSPU opposed the government candidate. Elspeth was in charge until, shortly before the election, a more senior organiser took over. Then Elspeth was responsible for a secondary centre in Thornton Heath, where Mrs Pankhurst spoke at a big meeting. Subsequently a local branch was formed in Croydon. Then Elspeth was moved to Marylebone (April–June 1909), to develop local support for WSPU processions passing through the area. This generated a local branch in Marylebone (*Votes for Women* ii, 407, 432, 454, 478, 538, 556, 754, 764, 779, 780).

After this, her main activities, and whether she remained an organiser, are unclear, though she occasionally spoke at WSPU meetings around London (Peckham Rye in July 1909, Stonebridge and Kensal Rise in January 1910) (*Votes for Women* ii, 958; iii, 256). Perhaps she reduced her activities to look after her mother: when Epsey died in 1912 she had been an invalid for some years (*ibid*, v, 302).

Janie Terrero

Janie Terrero, née Beddall (1858–1944), was born into a middle-class Essex family and in 1885 married Manuel Terrero, the grandson of an Argentinian general who had lived out his exile in Southampton. Manuel was a London graduate and an associate of the London School of Mines, though it is

not clear whether he used his qualification professionally. The couple were childless. Janie said she had been a suffragist since she was 18 (in the 1870s). She had hosted meetings for the local branch of the NUWSS in 1905 and 1907, when they were living in Southampton. She became a member of the WSPU in 1908, shortly before they moved into newly-built Rockstone House in Pinner (*Suffrage Annual*, 1913, 374; Crawford 2006, 163).

Marie and Edna Verden

Marie Verden (1866–1956) was married to Mark, a partner in furnishing firm Bartholomew and Fletcher, Tottenham Court Road (*London Gaz*, 24 Jan 1902, 537). The couple had seven children, Edna (b 1884) being the oldest. They had moved into their house, Pinnercote in Paines Lane, by 1906.

Marie was the daughter of John Handford Ryley, famous in his day as a performer in Gilbert and Sullivan operettas. In the 1880s Ryley and Marie had lived with a female fellow performer, who in 1890, following his divorce, became Ryley's second wife; she was best-known as Madeleine Lucette Ryley. Madeleine was famous both as performer and playwright, and as a suffrage campaigner: she was a vice-president of the Actresses Suffrage League from 1908.

It is clear Mrs Verden had a good relationship with her stepmother, a regular speaker at Pinner WSPU meetings.[4] In Pinner Mrs Verden was first prominent as secretary of the new Siddons Dramatic Society: she and her daughters were among their performers (*Harrow Obs* 1907, *passim*).

ESTABLISHING THE PINNER BRANCH OF THE WSPU

Towards the end of 1909 WSPU campaigning nationally was strongly influenced by the looming general election. In October 1909 'the North West London WSPU' was established in Kilburn. The branch was intended to cover the Harrow constituency, of which Pinner was part. The constituency had the largest population of any in the country because of suburban expansion: the branch's main focus was nearer Kilburn, much more developed then than Pinner. Its organisers,

Mrs Penn Gaskell (secretary of the North West London WSPU) and Miss Myers, had been involved with Elspeth McClelland in the Marylebone campaign and, as we have seen, Elspeth was among their many speakers in January 1910 (*Votes for Women* ii, 779–80; iii, 28, 92). Early WSPU activities in Pinner were under their auspices, though the Pinner women seem already to have been running things. Over the coming years there would be many cases of these local branches' officers working together, for example acting as speakers for each other.

In March 1910, Mrs Penn Gaskell chaired a meeting at a tea-rooms in Bridge Street (*Votes for Women* iii, 378, 413). Marie Verden later recalled limited interest, despite good speakers (*Harrow Obs*, 10 Nov 1911, 8), including Lady Emily Lutyens, wife of the architect and sister of Lady Constance Lytton. A meeting a fortnight later at Rockstone House saw new members joining the WSPU (*Votes for Women* iii, 445). A series of outdoor meetings was organised by Elspeth McClelland (*ibid*, iii, 524), outside the fire station in Bridge Street: Elspeth herself addressed a crowd of around 50 in early April 1910 (*Harrow Gaz*, 8 April 1910, 8). The Pinner banner, worked by the McClellands, was unfurled that October (*Harrow Obs*, 30 Sept 1910, 8).

Pinner WSPU was formally established in February 1911 at a meeting at Rockstone House, attended by Mrs Drummond (*Votes for Women* iii, 360). It would remain active until the start of the First World War, despite the national union becoming increasingly controversial.

MEMBERS AND OFFICERS OF THE PINNER WSPU

Membership, which would have fluctuated, seems to have reached about 80: Mrs Terrero said in March 1912 they were approaching her target of 100 members (*Harrow Gaz*, 1 Mar 1912, 3) and in January 1913 that membership was around 80 (*Harrow Obs*, 31 Jan 1913, 5). Some meetings, where non-members were encouraged, were attended by many more: over 100 were said to have attended a meeting in February 1911 (*ibid*, 3 Mar 1911, 2), while another, in July 1911, with Lady Constance Lytton as guest

speaker, reportedly attracted around 140 'guests' (Fig 1; *Votes for Women* iv, 680). It has been possible to identify 10 officers of the society and around 30 other members, whose involvement can only be deduced (in the absence of union records) from frequent attendance at meetings, involvement in union activities including bazaars, contributions to the 'Pinner purse' presented to the national union, and so on.

The officer cadre changed over the period of the branch's existence. Bessie Barrett and Elspeth McClelland left Pinner in 1912 (*Votes for Women* v, 821; *Suffrage Annual*, 361–2), the latter when she married after the death of her mother. So did Edna Verden, when she married in January 1914 (*Suffragette*, 6 Feb 1914, 384).

The role of speaker's organiser was taken on by Edith Heal, wife of furniture designer Ambrose Heal (Golland 2000, 7). She had been an art student at the Slade, like many involved in the suffrage movement. In these years she appears a rather sad figure (Heal 2014). The mother of very young children, for whom she wrote plays and stories, she felt herself being left behind by a husband fulfilled by his London life. An attempt to involve herself with design – she exhibited a mirror and a hanging at the Arts and Crafts Exhibition of 1912 – does not appear to have borne fruit, while both her suffrage activities and her difficulties managing small children became the stuff of family jokes, which claimed she had chained herself to Tower Bridge (Heal 2014; 2015). Edith Heal additionally took Janie Terrero's place while she was in prison, also in 1912 (*Votes for Women* v, 605).

Marie Verden remained an officer throughout the branch's existence, and by 1914 was secretary and organiser (*Suffragette*, 6 Mar 1914, 476). Her second daughter Phyllis was Secretary for some months in 1913 (*ibid*, 27 June 1913, 625). Other officers included Mrs Muller of Meadow Road (secretary after Phyllis) (*ibid*, 10 Oct 1913, 912; 14 Nov 1913, 112); Miss E M Wadeson (press secretary and secretary of the Hatch End sub-committee 1912) (*Votes for Women* v, 657; *Suffragette*, 25 Oct 1912, 26); and a 'Miss Wright' (who shared responsibility for running the branch with Mrs Verden in 1914: *Harrow Obs*, 20 Mar 1914, 8). One committee member was

Fig 1. Pinner's Suffragettes at a meeting at Rockstone House, 4 July 1911 (Mary Evans Picture Library)

Mrs Spencer, née Amy Harrison, a graduate of the University of London (Aberystwyth College): she and her husband Frederick Herbert had met as research assistants to Beatrice and Sidney Webb.[5]

Members came largely from Pinner but included some from the area around. They included Mrs George Edwards, who in 1911 hosted a meeting of the branch at nearby Eastcote (*Votes for Women* iv, 725), and Mrs Heap of Watford, who made numerous contributions to the branch and whose daughter volunteered to sell the WSPU journal, *The Suffragette*, for the branch in 1913 (*Harrow Gaz*, 10 Oct 1913, 4; *Votes for Women* v, 467; *Suffragette*, 1 Nov 1912, 32; 5 Dec 1913, 183; 31 July 1914, 290). The branch tried to attract support from all classes. In 1910 a meeting was advertised 'working women especially invited' (*Harrow Obs*, 4 Mar 1910, 8); a tea was arranged for 'working women' for Christmas 1913 (*Suffragette*, 5 Dec 1913, 183); working-class speakers and the hope that women voting would raise the level of women's wages were both regularly promoted.[6] Members identified were, however, overwhelmingly middle-class. They included a few tradeswomen: Mrs Emery, wife of the High Street photographer[7]; Miss Starling, who ran a sweetshop;[8] and possibly Mrs Platnauer and Miss Marjorie Simmond,[9] who ran a tea-room owned by the Platnauers and used by the branch. Those interested in branch activities included a local headmistress (Miss Lavinia Conder),[10] the secretary of a religious society whose members were effectively early social workers (Miss Zoe Puxley, later distinguished as a senior civil servant),[11] and a woman whose troubled marital history left her in financial difficulties (Mabel de Roxe, see below). Members did not come from families deeply involved with either political parties, the parish church, or the highest reaches of local society. In the early days at least the branch sought to appeal to all who sympathised with the cause of women's suffrage, and some appear to have joined this branch of a militant organisation while doubting its methods. Mrs Edwards in 1911 spoke at

one meeting of her opposition to militant methods (*Harrow Gaz*, 26 May 1911, 7). As the WSPU's tactics became increasingly controversial, involving destruction of property, it is likely that branch membership fell off: some names cease to appear, though it is impossible to gauge the significance in individual cases.

ACTIVITIES OF THE PINNER WSPU AND ITS MEMBERS

Local Activities

In Pinner, suffrage activity was directed mainly at promoting informed support for women's suffrage and raising money for the branch and the national union. It consisted largely of different kinds of meeting. There were regular outdoor meetings on Saturday evenings. Some speakers were local women – for whom Elspeth McClelland had run a course in public speaking (*Votes for Women* v, 76) – but they also included suffragettes from elsewhere: the most eminent was Mrs Drummond, who talked about women's wages to a 'crowded' meeting (*Harrow Gaz*, 8 Sept 1911, 7; *Harrow Obs*, 8 Sept 1911, 5).

Speakers had to contend with heckling (*eg Harrow Obs*, 8 Apr 1910, 6; 22 July 1910, 5): members would be urged to attend to support them (*ibid*, 18 July 1913, 5). Heckling often took the form of attempts to drown out the suffragettes – interruptions by 'hobbledehoys' (*ibid*, 8 Apr 1910, 6), 'jeers of noisy local boys' (*ibid*, 12 May 1911, 7, relating to an earlier meeting), the 'usual singing and booing' (*ibid*, 19 June 1914, 6), and playing gramophone music (*Harrow Gaz*, 21 July 1911, 5). There were also challenges to WSPU beliefs and tactics, for example from a 'gentleman', accompanied by a lady who shared his views: he had spent time in New Zealand and said he had no objection to women having the vote if they behaved themselves in a ladylike way, but thought visiting suffragette speakers in Pinner had done more harm than good (*Harrow Obs*, 22 July 1910, 5; 29 July 1910, 5). Then there were questions, which may or may not have been genuine requests for information, for example the many 'cleverly answered' by speaker Mrs Leigh (*Harrow Gaz*, 21 July 1911, 5; heckling is also discussed below).

There were indoor meetings at local tea-rooms and, for a few months in 1913/14, in a shop in the High Street then run by the branch (*Suffragette*, 14 Nov 1913, 112; 23 Jan 1914, 337). There were At Homes and drawing-room meetings in grander local houses (*Harrow Gaz*, 1 Sept 1911, 7); often those belonging to officers, with non-members encouraged. There were garden meetings, fetes and bazaars. All featured suffrage campaigners from elsewhere, including Lady Constance Lytton (Fig 1; *Votes for Women* iv), Mrs Pankhurst's brother (*ibid*, vi, 44), and Madeleine Lucette Ryley (see above).

Members sold the WSPU magazine, wrote to local papers (*eg Harrow Obs*, 7 June 1912, 6), and engaged in minor activism. Elspeth McClelland, for example, formally applied to be included on the electoral register: though the application was rejected, she was recorded as entitled to vote in local elections (*ibid*, 6 Oct 1911, 5).[12] She and Mrs Terrero attended, and she spoke at, a meeting of rate-payers: the failure of other women rate-payers to participate seems to have been a matter of social convention locally (*ibid*, 28 Apr 1911, 6). They raised money for the local branch and for the central organisation, through bazaars, jumble sales – one featuring a baby competition judged by two women doctors (*Harrow Gaz*, 10 Nov 1911, 5) – and seeking individual subscriptions. They sold items sewn at a regular working party, and things like homemade cakes and jam (*Suffragette*, 10 Apr 1914, 602, and *passim*). In 1911 they exploited the dramatic talents already shown by the Verdens and Elspeth McClelland to put on a pro-suffrage play *How the Vote was Won*, by Cicely Hampton and Florence St John (*Harrow Gaz*, 22 Dec 1911, 3): the event appears to have been intended both to reinforce the branch's campaigning and to raise money, also including some small items which were suffrage-themed and others which were not. The branch's collection would be presented in a purse sometimes at great Albert Hall meetings: in November 1911 about 30 people contributed, and in January 1914, about 20 (*Votes for Women* v, 161; *Suffragette*, 10 Apr, 584). Some contributions were apparently individuals' collections from others.

Involvement with the National Campaign

Some Pinner members became more deeply involved with the movement. The WSPU encouraged members to boycott the census in 1911 (just after the Pinner branch was established) and not one of the current officers of the Pinner branch appears in it. The return for Rockstone House records only Manuel Terrero – not Janie or any servant. Elspeth went to the trouble of obtaining a form as if she and her mother lived in separate households, and then refused to fill it in. None of the adult Verdens appear at all, nor does Bessie Barrett. Some members of the North-West London WSPU spent the relevant night at the branch's shop in Kilburn: perhaps some Pinner women were among them. Other Pinner women later prominent in the branch did complete their forms, or appear on one completed by someone else. These included Mrs McClelland, who was probably unwell (she was described as having been an invalid long before her death in 1912 and as having worked the Pinner banner on her sick-bed: *Harrow Gaz*, 9 Feb 1912, 5), Mabel Wilkinson, who became a WSPU prisoner as Mabel de Roxe (see below), and Mrs Heal.

The current secretary would attend weekly meetings of branch secretaries and other gatherings in central London where forthcoming events were planned. In July 1912, for example, Janie Terrero was recorded:

> 'in her old place, on the platform at the usual meeting of the Women's Social and Political Union, at the Pavilion Piccadilly Circus, bearing the banner of the Pinner Branch'. (*Harrow Obs*, 5 July 1912, 5)

Meetings could be eventful. WSPU leaders might attend while on release from prison on licence, before they were sufficiently recovered from the effects of hunger-strike to be re-arrested. In July 1913, Mrs Pankhurst was re-arrested at the Pavilion. WSPU members tried to prevent this. Mrs Verden later appeared in court as a witness for a Miss Rogers, who was accused of striking a policeman: Marie confirmed Miss Rogers' account that on the contrary, the policeman had made 'a most brutal assault on a woman' (*Votes for Women* vi, 632).

Pinner women also took part in various processions. In June 1911 a contingent marched behind the Pinner banner through the West End to the Albert Hall (*Harrow Obs*, 16 June 1911, 8; *Harrow Gaz*, 9 Feb 1912, 6) and on 14 July 1912, several Pinner members including Mrs Terrero (released from prison some two weeks earlier) took part in a big demonstration in Hyde Park, when Mrs Verden was said to have led 'a band of 50 strong through the Grosvenor Gate' (*Harrow Obs*, 27 July 1912, 5). They also took part in a huge meeting in Gladstone Park, organised by the North West London WSPU, in June 1912 (*Harrow Gaz*, 28 June 1912, 5).

Involvement with Militancy

Some Pinner women took part in more controversial actions. In February 1912, Mrs Terrero sought volunteers for 'the next protest', a planned deputation to Parliament (*Votes for Women* v, 311). The government had recently thwarted the Conciliation Bill, and was refusing to negotiate an alternative route to *Votes for Women*. WSPU members began co-ordinated smashing of windows in the West End on 1 and 4 March. Two Pinner members were arrested for their involvement.

One was 'Mabel de Roxe', who can be identified as Mabel Roxburgh Wilkinson, a married woman who had left her husband: in the 1911 census he was living alone, their two teenage daughters were away at school, and Mabel Wilkinson was living in 7 Meadow Road in Pinner – the address given by 'Mabel de Roxe' (*eg Votes for Women* v, 348; vi, 47). She described herself as a widow, teaching art at home, with a three-year-old son. The household was unusual, with two adult boarders – single women in their 30s described as 'retired sick-nurse' and 'retired housekeeper', and a married servant with two teenage children, one at school and one working in a sweet shop. As a separated woman Mabel might well have had a real interest in women's rights: her constant advertisements offering accommodation in her house, at what seem high prices, suggest financial problems (*ibid* v, 708; vi, 47). Her previous involvement with the Pinner WSPU included acting in the pro-suffrage play *How the Vote was Won* (*Harrow Gaz*, 22 Dec 1911, 3) and participating in a bazaar as a palmist (*Harrow Obs*, 26 July 1912, 6). On 1 March

1912 she was one of a number of women who broke windows in the West End and was among the first window-smashers to appear in court, perhaps because the evidence against her was unusually straightforward. Mabel had been caught breaking windows in The Strand by an errand boy, and arrested by a police constable who said he saw her with a hammer in her hand: when charged at Bow Street she said 'I did not think I had broken so many' (*Votes for Women* v, 361, 396). She spent four months in Aylesbury Prison. She was among the first released and so in the small group ceremonially greeted when they arrived at Marylebone Station (*ibid*, v, 602, 624).

Also arrested on 1 March, but not sentenced for some weeks, was Janie Terrero, who had smashed four windows in Oxford Street. She had told a Pinner meeting a few days earlier that she hoped to be arrested (*Harrow Gaz*, 1 Mar 1912, 3). Later she attributed her militancy to 'Black Friday' (*ibid*, 27 July 1912, 5) – an episode in November 1910 when a WSPU deputation to Parliament was met with violence, involving men believed to be plain clothes policemen – after which Mrs Terrero had cared for three injured women (Murray & Brailsford 1911, 59). She was sentenced to four months' imprisonment (*Votes for Women* v, 549). Her husband publicised the speech she would have made had she been permitted, and kept her position in the public eye (*Harrow Obs*, 29 Mar 1912, 3, 8). While in Holloway, Janie took part in two hunger strikes, in connection with the demand of WSPU members to be treated as political prisoners, and was force-fed (*Suffrage Annual*, 1913, 374). Janie's second hunger strike damaged her health so she was released a little early. In the next few weeks she attended meetings and recounted her prison experiences but subsequently reduced her involvement in the WSPU on medical advice (*Votes for Women* v, 664, 689). Mrs Verden acted as secretary during the summer of 1912, probably because Mrs Terrero was convalescing (*Harrow Obs*, 5 July 1912, 5; 26 July 1912, 5; 23 Aug 1912, 5). Mrs Terrero then resumed the post (*ibid*, 29 Sept 1912, 3), but by early September 1913 she had resigned due to ill health (*ibid*, 12 Sept 1913, 3). She would later sell her jewellery for the WSPU (*Suffragette*, 21 Nov 1913, 120). She was clearly proud of her

status as a released hunger-striker: she was photographed wearing the medals awarded to WSPU prisoners and hunger-strikers. This photograph is part of a small collection of material relating to her at the Museum of London, together with a handkerchief she embroidered in Holloway with the signatures of fellow hunger-strikers.

Finally, Mrs Verden, interviewed in June 1914, was said to be recovering from injuries sustained in a recent deputation from which she had returned in an ambulance (*Harrow Obs*, 19 June 1914, 6). This indicates that she took part in the deputation to Buckingham Palace on 21 May 1914, in theory an attempt to petition the king. The WSPU asserted that the police were present in overwhelming numbers and employed 'disgraceful violence'. Some 67 women were arrested. This was the last major act of militancy in the WSPU campaign, shortly to be suspended because of the start of the First World War.

There is nothing to indicate any Pinner woman was involved in the more controversially destructive actions carried out by WSPU activists in this later period, although the identity of WSPU activists was rarely documented. No destruction is recorded in Pinner: in nearby Harrow there was at least one case of a post-box being sabotaged (*Harrow Gaz*, 13 December 1912, 5), while haystacks in Wembley (*ibid*, 10 Oct 1913, 5) and the new station at Croxley Green were also destroyed by arson attributed to suffragettes (*Suffragette*, 14 Mar 1913, 350–2). Hugh Franklin, a suffrage supporter who had previously chaired a meeting for the Pinner WSPU, set fire to a train at Harrow station (*Harrow Gaz*, 29 Mar 1912, 7; *Suffragette*, 14 Apr 1913, 287).

THE ATTITUDE OF LOCAL PEOPLE TO THE WSPU

Family Support

Pinner's WSPU officers often came from supportive households, those connected with them, male and female, sharing their views. Manuel Terrero, for instance, spoke frequently and forcefully at suffrage meetings (*eg Harrow Obs*, 3 Mar 1911, 2; 12 Jan 1912, 5). Mrs Verden's eldest son (Horace) John, an occasional WSPU speaker

(*eg Suffragette*, 27 Mar 1914, 552), was also involved with the Men's Political Union for Women's Suffrage (*eg Suffragette*, 4 July 1913, 647) and was engaged to a WSPU activist (*Harrow Obs*, 19 June 1914, 6). Those named as contributors to WSPU funds included Manuel Terrero, John Verden, Mrs Verden's husband Mark, and Ambrose Heal (*Votes for Women* ii, 291; iv, 140; *Suffragette*, 5 Sept 1913, 812; *Votes for Women* v, 261). Heals' placed advertisements in WSPU's journals *Votes for Women* and *Suffragette* – but not in *Votes for Women* after it stopped being the WSPU's mouth-piece. This support for the WSPU by Verden senior and Heal would have exposed them to condemnation by fellow London tradesmen, enraged by the breaking of West End shop windows. Heal himself seems to have been open-minded about women's rights, while Verden senior had grown up with a widowed mother and a widowed sister. Elspeth McClelland's future husband was Albert William Spencer, a local man some seven years her junior, who had been a Pinner Crusader (*Harrow Obs*, 9 Jan 1909, 5). He acted with her and the Verdens in the pro-suffrage play *How the Vote was Won* (*Harrow Gaz* 22 Dec 1911, 3).

Local Attitudes Generally

Local papers make it clear that Pinner was seen as exceptional for its vigorous branch of the WSPU (eg *Harrow Gaz*, 26 Jan 1912, 7). There was however much other suffrage activity locally.

Nationally societies affiliated to the NUWSS ('suffragists') had more members than the more militant WSPU ('suffragettes'). By 1909 it had a branch in Willesden, overseeing activity in the Harrow area (*Common Cause*, 8 July 1909, 171; 3 Feb 1910, 596). Some Pinner members are known. In January 1910, during the general election, the NUWSS promoted a petition for women's suffrage: the organiser in Pinner was Mrs Henderson. The local paper reported that 'suffragettes' collected signatures outside Pinner's polling station throughout the day and wet night (*Harrow Obs*, 28 Jan 1910, 3). Mrs Henderson and her husband were local Liberal party stalwarts and he is recorded as criticising suffragette militancy (*ibid*, 26 Mar 1909, 7) – specifically hoping they would become 'dead letters', an

allusion to the human letter stunt involving Elspeth McClelland. The Coles, sisters who had lived briefly in one of Pinner's grand old houses, contributed to NUWSS funds (*Common Cause*, 1 June 1911, 137): one earlier spoke in favour of suffrage at a local debate (*Harrow Obs*, 21 Dec 1906, 2). In 1909 there were hopes that a Pinner branch would be established (*Common Cause*, 2 Dec 1909, 457); a branch was set up then in nearby Harrow (*Harrow Obs*, 17 Dec 1909, 6). Pinner itself saw a branch of the Church League for Women's Suffrage established by 1913 (*ibid*, 20 June 1913, 7). Harrow also had a branch of the Women's Freedom League, which sent a van to Pinner in 1909 (*ibid*, 24 Sept 1909, 5), and a branch of the Church League for Women's Suffrage established in 1910 (*Harrow Gaz*, 25 May 1910, 7). The WSPU were active in Harrow by December 1909, in connection with the general election, and with involvement of North West London and Pinner members: a branch was established there late in 1911 (*Votes for Women* iii, 174, 256, 413; v, 27).

More generally, local people seem to have been very equivocal. Several local societies debated whether women should have the vote, usually in male-dominated groups. At the Pinner Free Church Society in 1912, for example, no woman is recorded to have spoken and a pro-suffrage resolution was lost 26:11 (*Harrow Gaz*, 21 Jan 1911, 3). Some felt bewildered disdain, often expressed in patronising humour. This characterised comment pieces in the local paper, which also reprinted anti-suffragette cartoons from *Punch*. A local tennis club produced a comedy sketch, burlesquing the suffrage campaign (*Harrow Obs*, 23 Feb 1912, 8). A similar attitude can be detected in the recollections of Margaret Maddocks who grew up in Pinner:

> 'When we were small [my mother] … sometimes entertained an alarming woman with a moustache, who sat in our father's chair and told her how down-trodden she was. We gathered the visitor was something called a suffragette. Because our mother could not help being welcoming … she came often and stayed a long time, leaving behind a pile of tracts about *Votes for Women*. We all became a little tired of her ...'. (Maddocks 1977, 76)

Local members of political parties, constrained by the policies of Westminster leaders, preferred to avoid the divisive topic of the franchise, which rarely featured on the agenda of local party meetings, for example. Forced to take a position, local candidates tied themselves in knots. Mallaby Deeley, elected MP in January 1910, had included a pledge to support women's suffrage in his election address. By 1912 he had changed his position. First he said this was because of suffragette militancy and because he thought few women wanted the vote. Pressed by constitutional suffragists, who argued it was unfair to penalise women ratepayers because of the actions of a minority, he said he had revised his views because campaigners saw giving some women the vote as a first step to a wider suffrage. The constitutional suffragists then pointed out that the Conciliation Bill he was opposing would only achieve the limited suffrage he had promised to support: he could oppose any subsequent extension. Soon he was telling a local meeting he was reluctant to ask for women's help in campaigning in case he was accused of betraying them (*Harrow Gaz*, 22 Mar 1912, 7; 12 Apr 1912, 3; 24 Apr 1912, 3; 5 July 1912, 3). Meanwhile H E A Cotton, his prospective Liberal challenger, who opposed women's suffrage, faced a problem with local Liberal women, many of whom strongly supported it. He tried to evade the issue on the grounds the question would be settled before he was elected and was reported as suggesting a referendum was held on the issue. He also said that if it was proved that a majority of local women wanted women's suffrage (he probably meant a majority of those on the electoral register as voters in local elections) then he would support it (*Harrow Obs*, 13 Sept 1912, 8; *Harrow Gaz*, 20 Sept 1912, 3; 22 Nov 1912, 1, 3).

Opposition and Hostility: the Pinner 'Riot'

There were also people strongly opposed to women's suffrage, or at least suffragette tactics: predictably the most vocal were men. Between October 1911 and January 1912 there was a short-lived branch of the Anti-Suffrage League in Pinner. It held at least four meetings, and organised a children's fancy dress ball and a whist drive (*Harrow*

Gaz 1911, 13 Oct, 6; *Harrow Obs*, 20 Oct 1911, 6; 24 Nov 1911, 8; 1 Dec 1911, 3; 22 Dec 1911, 3; 12 Jan 1912, 5). The secretaries were Mrs Gardner Williams, the wife of a mechanical engineer involved with the local Conservative party, and her neighbour, Kathleen Parkhouse, the daughter of the late accountant of the London and North-Western Railway, a churchwarden.

Usually hostility to the suffragettes was less formalised. From the beginning suffragette speakers – above all when in the street – had to deal with both challengers and hecklers. Interviewed in 1913, Mrs Terrero claimed the only 'rowdyism' they had encountered was from boys and youths (*Harrow Gaz*, 12 Sept, 1913, 3). Recollections recorded by the Pinner Local History Society in the 1970s give another perspective. Charles ('Nobby') Paradine, born 1904, remembered:

'I used to get paid 3d per week, to go to … a baker in the High Street, get the flour and the biscuit tin, … go across the road to Fred Gurney's the grocer who used to save the bad eggs and I used to have to go round to dish them out egg in one hand and handful of flour in the other and when the meeting broke up, and they used to go home … across [fields] … they used to get it then, and I suppose really they … got naughty with them at times, because they used to throw stones and bricks through windows, …' 'What was the police reaction to this?' 'Nothing.' … 'They turned a blind eye then.' 'Exactly. The police sergeant [Fishlock] used to say to my old uncle [George 'Parry' Paradine, the grave-digger, who lived with Charles and his siblings, parents and grandfather in a terraced house opposite the police station where Fishlock lived] … : "Well, what are you going to do to them this week, Parry?" he used to say "… we haven't decided. I haven't seen Amos yet" [George's friend, Amos Deacon, worked for a cartage contractor based near the police station]. … a trolley … used to be put down outside the Red Lion and these suffragettes used to get up on there, so did my old uncle, he used to get up there and do a devil dance, and … people … all cheering

Good Old George ... And then ... every time she said anything he'd keep taking his bowler hat off, and bowing to the crowd, and he infuriated them so much, they turned round and pushed him straight back over the edge into the garden ... then, they moved from there and ... went up to where the War Memorial is now [at the top of Pinner High Street], ... and ... that was on a bit of a slope, ... and I remember one man speaker ... he wasn't on there long before something had hit him, and then someone kicked the blocks out from under the trolley, and that was going down the High Street, ... and there was two of 'em trying to hold it back...' 'They won in the end, didn't they?' 'Oh they never give in ... they still used to come back every week for more. And of course ... the police just used to ... completely ignore 'em because I suppose anything that a woman done [then] ... they didn't use to worry about ...'.[13]

This account suggests a sustained campaign. The 'organisers', George Paradine and Amos Deacon, were Pinner-born bachelors in their 40s.[14] The temporary move for public meetings to the High Street – not otherwise recorded – is probably connected to the period in 1913/14 when the Pinner WSPU had a shop there.

By 1914 the suffragettes' controversially destructive tactics were creating some moral ambivalence as to the proper way to oppose them. In June 1913 a speaker at a Pinner WSPU meeting was challenged by someone who asked how he would feel if arson was directed against the Terreros' Rockstone House (*Harrow Gaz*, 25 Apr 1913, 7). The speaker was confused by the question, but Mr Terrero responded that if the questioner believed a great cause could be furthered by burning down Rockstone House, he was welcome to do so, and that he (Terrero) would not ask the government to burn him alive.

In June 1914 a speaker outside Pinner fire station was set upon by a crowd. She was Miss Rogers, John Verden's fiancée, the woman for whom Mrs Verden had acted as witness. What ensued was described in local papers as a riot involving several hundred people,

though doubtless many were onlookers. A fracas started when John Verden tried to get rid of a drunken heckler. Miss Rogers was attacked, being knocked from the chair from which she was speaking, and was with difficulty escorted by police to a passing bus – the police sergeant getting hit by a bag of flour in the process. Then the crowd, said to be 400 strong, followed the bus into Paines Lane, where windows were broken at the Verdens' Pinnercote and the Terreros' Rockstone House. The Verdens preserve a tradition that family members were chased up Pinner High Street by those opposing the suffragettes.[15] No prosecutions resulted.

Mrs Verden blamed 'hooligans' from Harrow, incited by local publicans and tradesmen (*Harrow Gaz*, 19 June 1914, 7; *Harrow Obs*, 19 June 1914, 6; 26 June 1914, 3). This is to some extent corroborated by Paradine's mention of grocer Gurney (who kept a large and prospering shop catering to Pinner's affluent residents) keeping the bad eggs for hecklers. The *Harrow Observer* also made a link between trouble in Pinner and Harrow on the same day. Paradine's final comment, indicating that even in retrospect he blamed the authorities for failing to control the suffragettes, rather than those confronting them, is particularly interesting. Perhaps authority figures locally, sympathising with the suffragettes' opponents, were felt to have given tacit licence to a hostility which had roots in class differences and resentment of affluent newcomers, especially unconventional women.

LEGACY

Almost all the women associated with the Pinner movement would have obtained the vote in 1918. So far as I know, none was later involved in politics. A Pinner woman, Mrs Ida J Causton, would become the first woman councillor on Hendon Rural District Council in 1919, co-opted to represent Pinner, but though she lived there during the campaign she is recorded only as secretary of the local branch of St John's Ambulance (*Harrow Obs*, 20 Dec 1912, 5), coming into prominence as that role developed during the First World War.

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NOTES

1 Directories name Mrs Epsey McClelland among the occupiers of 20 Brook St in 1905, and Mrs [sic] Elspeth McClelland in 1906: their occupancy seems then to have ended.

2 *Photograph (interior 106 Wilbury Rd)*, Garden City Collection LBM2255, The Garden City Collection, Letchworth Garden City.

3 *Pinner Parish Magazine*, 1908, Pinner Local History Society Archive.

4 She spoke at meetings in October 1910 (*Votes for Women* iv, 27), July 1911 (*Harrow Gaz*, 21 July 1911, 7), March 1912 (*ibid*, 29 March 1912, 7) and October 1913 (*Suffragette* ii, 16).

5 A card from Janie Terrero inviting Mrs Spencer to a committee meeting, now in the Pinner Local History Society Archive, was found behind a mantelpiece of a house in West End Avenue, Pinner. She and her husband can be identified, through the 1911 census, with the Webbs' research assistants, mentioned in Webb 1948.

6 For example, Mrs Leigh (*Harrow Gaz*, 14 July 1911, 40); Mrs Walker 'a working woman of East London' (*Harrow Obs*, 24 Nov 1913, 5); speech by 'General' Drummond (*Harrow Gaz*, 8 Sept 1911, 7); speech by Goulden (*Harrow Gaz*, 1 Nov 1912, 7).

7 Sold tickets (*Harrow Obs*, 23 Feb 1912, 2); stall-holder (*Harrow Gaz*, 26 July 1912, 5); donation (*Suffragette*, 1 Nov 1912, 32). Her husband took photographs of Rockstone House and of a Pinner WSPU meeting there.

8 Donation (*Suffragette*, 12 June 1912, 153); possibly 'Miss Stirling' Pinner member at Hyde Park demonstration (*Harrow Obs*, 26 July 1912, 5) and at meeting (*Harrow Gaz*, 7 Mar 1913, 5); remembered by Paradine as running a sweetshop and wearing a WSPU sandwich board in Pinner (Paradine, *Reminiscences*).

9 Mrs Platnauer contribution (*Votes for Women* v, 161); 'Miss 'Simmons' lent tea-room' (*Votes for Women* iii, 413); Marjorie Simmond was living with the Platnauers in 1911 census; Mr Platnauer leased the tea-room (*Inland Revenue Field Books*, The National Archives, IR58/ 37986, no 355).

10 Attended meeting (*Harrow Gaz*, 26 May 1911, 5); donation (*Votes for Women* v, 161). Miss Conder ran Pinner High School/St Mildred's, attended by Mollie Verden (*Harrow Gaz*, 23 July 1911, 8).

11 Attended meeting (*Harrow Obs*, 12 May 1911, 5). Identified in 1911 census as secretary to the London Biblewomen and Nurses Mission, on which see Platt 1937.

12 In fact both Epsey and Elspeth McClelland had been on the Harrow municipal register as early as 1906; so too, significantly, had Marie Verden, Miss Lavinia Conder, and the Cole sisters, all mentioned here.

13 Paradine, *Reminiscences*.

14 In 1912 Amos, described as of no fixed abode, was prosecuted for drunkenness. Sergeant Fishlock told the magistrates he had known Amos for seven years and he was generally drunk (*Harrow Obs*, 2 Aug 1912, 6). In 1916 Amos married a caterer, a widow with teenage children: in the 1920s her name appeared next to his on electoral rolls for Harrow.

15 Information from Mrs Joanne Verden (Nov 2016).

ACKNOWLEDGEMENTS

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A REVIEW OF THE 56th LAMAS CONFERENCE OF LONDON ARCHAEOLOGISTS HELD AT THE MUSEUM OF LONDON ON 16 MARCH 2019

Compiled by Bruce Watson

ON THE EDGE OF THE CITY, EXCAVATIONS AT 56–62 MOORGATE

Shane Maher (Pre-Construct Archaeology Ltd – PCA)

This site was situated along the headwaters of the Walbrook stream and just inside the northern portion of the Roman walled city. Activity began during the later 1st century AD with the draining, levelling and fencing of building plots. This preparatory work was quickly followed by the construction of various clay and timber buildings on a consistent north-east to south-west alignment. Over the next 50 to 80 years there was a rapid succession of levelling dumps, plus the construction of replacement buildings and associated floors. The levelling dumps contained glass working debris and a Verulamium region whiteware crucible. Possible industrial activity was indicated by the presence of a tile-built kiln or oven. By the later 2nd century AD a gravel metalled road aligned east–west was constructed across part of the site, flanked by a revetted drainage ditch. Finds from the backfill of the ditch included a number of dog skulls and bone working debris. During the 3rd and 4th centuries the level of activity on site dramatically declined: the only significant new feature was a large drainage ditch, its backfill containing two human skulls. A bear humerus was recovered from other late Roman deposits. During the medieval period the site was marginal land and prone to flooding.

TWELVE MONTHS IN THE MUD: A YEAR IN THE LIFE OF THE THAMES DISCOVERY PROGRAMME

Josh Frost (Thames Discovery Programme)

Last year was the tenth anniversary of the Thames Discovery Programme (TDP) and it was another busy year for the group with 128 events. These included training 35 new FROGs (adult Foreshore Recording and Observation Group members) and 41 TaDPoles (junior members). An important activity which is a mixture of training and monitoring is the annual visits to eroding foreshore structures, including the Tudor palace jetty at Greenwich, the Swan Lane stairs, structures on the Cannon Street Station foreshore (Fig 1), plus a number of abandoned barges and hulks at Woolwich Arsenal and Rainham Marshes; many of these decaying vessels have now been digitally surveyed. The accelerating rate of foreshore erosion, worryingly, is both revealing and destroying a lot of structures and deposits, making the TDP's recording work a vital record. There was a two-day conference in

Fig 1. Thames Discovery FROG members recording structures on the Cannon Street Station foreshore in the City of London during June 2018 (© Thames Discovery Programme, photo: Eliott Wragg)

October to celebrate the achievements of the TDP and their work was highly commended by the 2018 British Archaeological Awards. An important part of the TDP's work is public outreach, which included foreshore walks at the Tower of London during September's Totally Thames festival.

MINING THE ARCHIVES: REVISITING AMERICA SQUARE WITH MOLA'S ARCHAEOLOGY ACADEMY

Jacqui Pearce (Museum of London Archaeology - MOLA)

During 2018–19 the MOLA Academy for Archaeological Specialist Training (MAAST) carried out a pilot programme to teach 'citizen scientists' how to identify and record a variety of archaeological finds. The site selected was the 1987 excavation at 12 America Square, EC3, and adjoining prop-

erties (site code: ASQ87) carried out by the Department of Urban Archaeology of the Museum of London. The project focused on the large finds assemblage dated to *c.*1800–20, which was recovered from the infill of a culvert inserted into the Roman city wall. America Square was built between 1768 and 1774 to a design by George Dance the Younger, its terraced houses occupied by wealthy sea captains and merchants working in the lucrative trade with the American colonies. The assemblage appears to represent a household clearance group, probably discarded by a departing family, perhaps that of Georg(e) Wolff after his death in 1828; he was a Norwegian timber merchant and served as the Danish Consul in London from 1787 until 1804. The group was dominated by Chinese porcelain and Creamware vessels: the former included sets of dinner plates, tea bowls and cups, one of which was decorated with a European

Fig 2. A Chinese porcelain cup from America Square decorated with a European harbour scene copied from a Meissen vessel (height of vessel 62mm) (© MOLA)

harbour scene copied from a Meissen vessel (Fig 2); vessels in the latter fabric included dinner plates and chamber pots, plus a sauce boat, a drainer and a soup ladle. There were also some English porcelain vessels from Bow, New Hall and Worcester. In terms of statistical breakdown, 35% of the ceramics represented were serving plates, 20% teawares and 15% hygiene wares. Glass vessels present included drinking glasses and numerous wine bottles, plus a few female urinals. Other finds included clay tobacco pipes, bone handled tooth brushes, bone counters and a scrubbing brush.

EXCAVATIONS AT THE ADRIAN BOULT MUSIC CENTRE, WESTMINSTER ABBEY

Joe Brooks (PCA)

In 2017–18, part of Westminster School on the site of the abbey's 'Great Kitchen' to the south of the abbey church and its cloisters was redeveloped as a new music room. Westminster Abbey was apparently founded or refounded during the early 10th century AD on Thorney Island. The earliest structural remains found on site consist of the south-eastern corner of a masonry building, probably of late 11th-century

date. Underpinning holes revealed a well-preserved sequence of rammed clay floors (there was no sign of any paved surfaces), upon which all sorts of food waste (mainly small animal, bird and fish bones) had accumulated. One underpinning hole in the south-west corner of the building revealed a possible hearth: perhaps each corner of the medieval kitchen originally possessed a similar feature. There was also evidence of internal hearths. In the external area to the south of the kitchen was a large east–west aligned ditch, into which a large quantity of locally manufactured floor tile wasters were dumped during the 13th century. In the 14th century a new fireplace and chimney were added to the south wall of the kitchen; internal drains were also fitted and a lead water pipe installed. During the 15th or 16th centuries new brick-paved floors were laid and a brick-lined hearth and an oven were fitted within the north-eastern corner of the kitchen. A 1541 inventory of the kitchen included a furnace and two brass boilers.

In 1571 the kitchen was demolished and large portions of its masonry foundations were subsequently robbed out. New drains and cesspits were constructed on the vacant site by Westminster School. Finds from one of the cesspits included a gold mourning finger ring inscribed 'Ca Lindsey 13 June 1722.' It might have been lost by a member of Catherine Lindsey's family: she was the wife of Richard, a City of London wine merchant, and two of her children attended Westminster School [Catherine and a daughter, Mary, were buried together in the chancel of St Dionis Backchurch, Lime Street, on 21 June 1722]. Many of the archaeological remains including the brick-paved flooring will be preserved and displayed beneath a new glass floor.

ARCHAEOLOGICAL WORK AT CHAMBERS WHARF, PART 2

Stella Bickelmann (MOLA Headland Infrastructure)

Last year there was a lecture on the preliminary fieldwork on this Thames Tideway site (Gilpin & Watson 2017, 259–60). The 2018 fieldwork consisted of the excavation of a drop-shaft on the edge of the Bermondsey
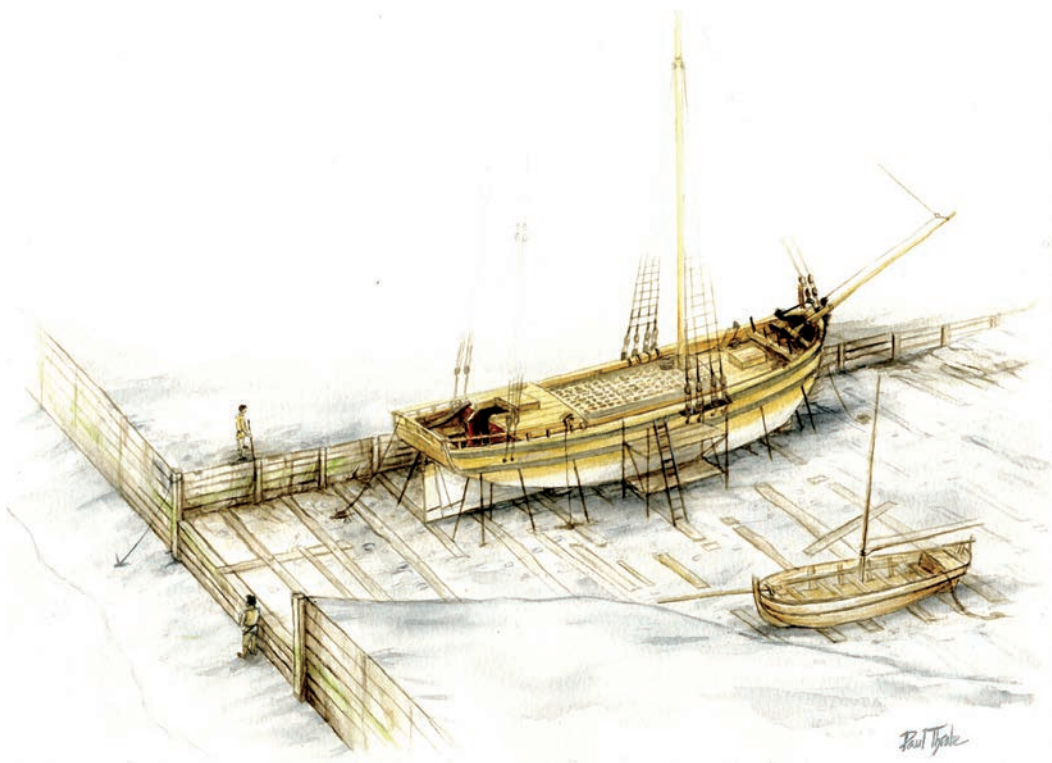
Fig 3. A reconstruction by Paul Thrale of the 17th-century half-slip at Chambers Wharf (© MOLA Headland Infrastructure)

foreshore. The earliest phase of flood defence on site was a substantial east–west aligned clay bank, revetted front and back with wattle work and stakes. It was probably constructed during the 12th or 13th centuries, hence the name of the nearby street: Bermondsey Wall Road. Later a timber-lined drain or sluice was inserted into this bank to dispose of water from landward drains. By the 16th or early 17th century attempts were being made to reclaim more of the foreshore to the north of the medieval bank by building additional east–west aligned revetments, which included a number of reused ship timbers, probably derived from the dismantling of vessels nearby on the foreshore. During the later 17th century there was further reclamation which involved the construction of a new post and plank revetment secured by back-braces. At the same time a half-slip (a slip dock with a sloping base for building or repairing ships) was constructed, which included a timber-lined water tank (Fig 3). The most intriguing discovery was the skeleton of an adult male found lying face down in the foreshore sediments and wearing thigh-high leather boots or waders of 15th- or 16th-century date (Fig 4). He appears to have lived a hard life as his bones showed signs of osteoarthritis (even though he was younger than 35 years old) and he had deep grooves in his teeth, presumably caused by some repetitive action, such as passing a rope between his teeth, as a fisherman might do. Was he a very unlucky fisherman who had been trapped in the mud and drowned? Significant post-medieval finds from the site included London delftware kiln waste (almost certainly derived from the nearby production site at Potters Fields, which was established before 1630), a hand auger, a sundial, a wooden folding ruler and trade tokens.

Fig 4. The prone male skeleton on the Thames foreshore at Chambers Wharf being recorded (© MOLA Headland Infrastructure)

AFTERNOON SESSION: THE THAMES AND ITS TRIBUTARIES

One casualty of the post-medieval expansion of Greater London has been a number of its smaller tributaries, which have ended up as culverted drains and sewers: these concealed watercourses are sometimes described as 'lost' rivers. The theme of the afternoon session was the study of some of these 'lost' rivers and their more fortunate counterparts which are still visible.

Secret Rivers: The Making of an Exhibition

Kate Sumnall and Tom Ardill
(Museum of London)

From 24 May until 27 October 2019 at the Museum of London Docklands there was an exhibition devoted to 'Secret Rivers', which explored how people then and now interact with the Thames and its tributaries, both 'lost' and visible.

This exhibition had a number of inter-linked themes. First, there is the sacred aspect of water. Every January, the Baptism of Christ is also the occasion when Church of England clergy carry out the annual ceremony of the blessing of the Thames at the centre of London Bridge, which ends with the casting of a wooden cross into the river. For millennia people have been throwing all manner of objects into the Thames, including prehistoric weapons, Roman coins and medieval pilgrim badges. The impression is that certain rivers were regarded as sacred during the later prehistoric period and that precious objects such as the Battersea shield and Waterloo Bridge helmet recovered from the Thames were gifts to deities or water spirits. Secondly, there is the theme of 'poverty and pleasure', explored by means of a number of case studies. The 'polluted and poor' River Neckinger in Southwark was still being used in the mid-19th century as a source of water by the inhabitants of the surrounding slums, despite being grossly polluted by the local tanneries and lead works,. It was also a source of cholera. In complete contrast the River Westbourne was 'ornamental and posh' it flowed across Hyde Park where it filled the Serpentine and then swept through Ranelagh

Pleasure Gardens in Chelsea. Thirdly, there are the ongoing campaigns for 'daylighting' or reopening culverted watercourses including the Effra and the Tyburn. Fourthly, some neglected water courses such as the Lea have benefited from recent regeneration schemes. Today the River Wandle is regularly cleared of rubbish by volunteers as part of a programme to improve its ecology. Fifthly, there is the Thames in literature, a topic which has been given a contemporary twist since 2011 by Ben Aaronovitch with his *Rivers of London* series, in which Peter Grant, a Metropolitan police officer and wizard tries to sort out 'Mama Thames' (a river goddess) and her squabbling family.

A Programme of Archaeological Collaboration on the Battersea Channel

Mark Stevenson (Historic England)

After many delays the shell of Battersea Power Station (which closed in 1983 and was then gutted and abandoned) is now being redeveloped along with a vast area of its environs (known as Nine Elms). To provide adequate public transport for this huge new residential development, two new tube stations are being added to the Northern Line. This redevelopment is situated on an archaeologically important part of the Thames flood plain and therefore the challenge for the planning service of London Historic England was to design and monitor a complex programme of archaeological and geoarchaeological fieldwork, to be carried out by various archaeological contractors all working for different developers over some years. Fieldwork included the excavation of a new Thames Tideway drop-shaft. Previous fieldwork on the former estuarine marshes downstream at Belmarsh in the London Borough of Greenwich has revealed a deeply buried prehistoric landscape, including Early Neolithic timber trackways (Hart 2015). Meanwhile the ongoing redevelopment of the Greenwich peninsula has similarly encountered a prehistoric land surface comprising a maze of channels and eyots or small islands, providing some idea of what might be expected at Battersea.

The archaeological potential of the Battersea area has long been demonstrated by votive finds recovered from the Thames, including the famous Iron Age shield. Fieldwork started with evaluation boreholes to provide information on the buried topography and the sequence of deposits. Borehole transacts allowed the compilation of topographic maps, so that eyots or potential areas of human activity could be identified and then targeted for fieldwork. This mapping exercise established that the area around the power station was originally a series of small eyots bounded to the north by the Thames and to the south by a parallel palaeochannel, infilled with organic sediments. The lowest peats within this channel were dated to 4369–4230 cal BC, the Early Neolithic, and the associated pollen suggests the presence of mixed coniferous and deciduous woodland. By the Middle Neolithic and Early Bronze Age the pollen shows that the environment had changed to open woodland and pasture, implying that the area was now being grazed (Branch *et al* 2010, 268–72). The excavation of linear trenches and areas of ground reduction has allowed the various different topographic environments to be sampled and studied. Finds from one eyot included two Mesolithic flint tranchet axes, while fieldwork on the site of the new American embassy has revealed Mesolithic activity including fish traps and hearths. The expertise gained during this project is contributing to a forthcoming Historic England guidance paper on deposit modelling.

A Changing Tyburn: From Deep River Valley to Sewers, and from Mud to Online Story Maps

Virgil Yendell (MOLA)

The Westminster Tyburn is the most studied of London's 'lost rivers' and for some years MOLA Geoarchaeological staff have been examining its deeply buried sediments, plus their flora and fauna. Often this data is obtained from cores or samples from boreholes drilled on development sites to assess ground conditions. These individual cores are linked with previous discoveries and conventional archaeological investigations to provide a three-dimensional digital map that can be linked with geological and historic data to provide an overall plan of a watercourse. Several recent geoarchaeological investigations of the Tyburn have led to a reconsideration of the number

and position of its channels as it approached the Thames, the exact number of which, plus their relative importance and status as either natural or managed watercourses, has previously been the subject of debate (Donovan 2016). Now it has been established that the early Holocene Tyburn within the vicinity of Buckingham Palace split into four separate channels. The northernmost two of these channels defined Thorney Island (Nichols 2018; Yendell & Scaife 2017; Yendell 2018). This research has also been used to produce an imaginative online account of this enigmatic river (MOLA 2018).

Prehistoric Occupation of the Wandle Valley

Barry Bishop (PCA)

Today the River Wandle is little more than a stream and it only flows about 27km from its source near Croydon northwards into the Thames, but it was once a much larger and longer watercourse. Until about 500,000 BP, when the Thames adopted its present course, the Wandle flowed much further to the north and east. It was also a much larger river as its headwaters were then a vast area of the frozen chalk or permafrost of the North Downs, which are still incised by this network of former water courses. The Pleistocene Wandle laid down a broad band of terrace gravels, which contain the remains of some of the contemporary fauna, including mammoth, woolly rhinoceros and giant deer. By about 10,000 BC as the ice age ended the chalk downs thawed out and became porous aquifers depriving the Wandle of almost its entire source of water. So it became a much smaller river fed by seepage from along the spring line on the northern edge of the downs (the interface of the chalk and the underlying clays). This permanent source of water would have had high potential for hunting and gathering, so was an ideal place for Mesolithic groups to camp. The 1964–5 excavation of reworked garden or plough soils along the spring line at Orchard Hill, Carshalton, revealed a large collection of residual Mesolithic flints (*c.*9600–*c.*4100 BC), which included a relatively large number of tools. Other finds included a small amount of Neolithic, Bronze Age and Iron Age pottery, showing a pattern of human activity spanning some nine millennia (English *et al*

2018). Other Mesolithic flint scatters found all along the Wandle Valley are smaller than at Orchard Hill and tend to be knapping debris containing very few tools. One possibility is that when people spotted good quality flint nodules exposed in wood-land tree throw holes, they immediately manufactured some tools, which they took with them leaving all the debris behind. The Neolithic (*c.*4100–*c.*2000 BC) saw scattered activity all along the Wandle Valley, probably mainly pastoral, and there are stray finds of both flaked and polished flint axes.

By the Late Bronze Age (*c.*1000–650 BC) the river valley was now a network of ditched fields associated with a series of dispersed farmsteads; these are the first evidence of permanent settlement sites in the locality. The most well-known settlement from this period is the ringwork or aggrandised enclosure at Queen Mary's Hospital, Carshalton (Groves & Lovell 2002). Its extensive finds assemblage includes quern stones, spindle whorls and loom weights, confirming that a variety of manufacturing and craft activities were taking place here. The presence of perforated clay slabs implies the usage of ovens (a new technical innovation). As quite large numbers of these slabs are found at these aggrandised enclosures, which are often interpreted as the residences of a social elite, bread was perhaps baked here specially for feasts (Champion 2014, 289). During the Iron Age (650 BC–AD 43) there was a similar settlement pattern of dispersed farmsteads. At Queen Mary's Hospital there was a pastoral farmstead with its own shrine. Several storage pits were reused to bury a number of complete animal carcasses, plus some iron objects: a spearhead, a hammer head and a hoop for a wheel axle. The deposition of these objects and carcasses presumably had some spiritual purpose (Powell 2017).

Extracting the Past: Early Settlement and Monuments in the Middle Thames Valley

Gareth Chaffey and John Powell (Wessex Archaeology)

Two large scale excavations carried out in advance of gravel extraction in Berkshire have both produced important new evidence of Neolithic activity. At Kingsmead Quarry, Horton, fieldwork uncovered four Early Neolithic houses dating from *c.*3700 BC; all

Fig 5. Excavating the basal fill of one of the ditch segments of the causewayed enclosure at Riding Court Farm (© Wessex Archaeology)

were two-room structures, with a distinctive paired arrangement of six large postholes. Two examples had beam slot walls and others had clusters of small postholes to define their wall-lines. Set within an oval ditched enclosure of Early Neolithic date was a U-shaped ditch, possibly part of a truncated barrow; associated finds included Mortlake pottery. The excavations have also revealed a rare example of a beaker burial dating from *c.* 2300 BC.

At Riding Court Farm, Datchet, fieldwork has uncovered a large portion of an Early Neolithic oval shaped causewayed enclosure, consisting of 24 segmental ditches. While causewayed enclosures are not particularly rare ceremonial monuments, what is very unusual is the vast quantity of finds recovered from its basal ditch fills: 80kg of pottery including many complete but crushed vessels, over 7,600 worked flints including leaf shaped arrowheads, scrapers and axes, and 86kg of animal bones, mainly cattle and sheep (Fig

5). Human bones have been recovered from four ditch segments. All the human remains are incomplete, but often still articulated, implying that their deposition might have involved corpses being dismembered. Inside the enclosure were a contemporary house and a ring ditch. The presence of a Mesolithic flint scatter within the enclosure suggests that it was previously considered to be an important place within the landscape.

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PAPERS READ AT THE 53rd LAMAS LOCAL HISTORY CONFERENCE HELD AT THE MUSEUM OF LONDON, 17 NOVEMBER 2018: 'AN EMPORIUM FOR MANY NATIONS; LONDON SHAPED BY TRADE'

Summaries of lectures given by Nuala Zahediah, Fiona Haughey and William Clarence-Smith provided by these speakers; the remainder compiled by Roger Chapman, Richard Gilpin, and Oliver Harris

SHAPED BY TRADE: THE CHANGING TOPOGRAPHY OF THE MEDIEVAL PORT

Gustav Milne (Project Leader CITiZAN)

Gustav explained how excavations over the past 40 years have dramatically informed our understanding of London's waterfront during the medieval period. He demonstrated the changes in ship construction went hand in hand with profound changes in the port of London from AD 900 to 1500. During the late Saxon period flat bottomed vessels were beached on the foreshore at low tide, so they could be loaded or unloaded. However, the introduction of larger ocean-going vessels with a deeper draught from the 10th century onward, such as cogs, meant that they needed to unload at quays or jetties. This initially involved the construction of timber revetted waterfronts and later, masonry river walls. Over time, partly to increase the area of dockside space and also to provide deep water moorings, more of the foreshore of the port was gradually reclaimed, accidentally preserving the earlier waterfronts.

When Old London Bridge was completed in 1209 one of its spans was a drawbridge, which was partly defensive, but it also was intended to allow ships to pass up or downstream. However, the drawbridge was not a success and the bridge prevented movement of larger vessels upstream; this resulted in the port for seagoing vessels and a thriving ship building industry developing downstream of the bridge. Upstream of the bridge only barges and smaller craft used the river (see below). There is abundant evidence showing how the port of London and its immediate hinterland had been transformed by centuries of commercial activity, but the question is, had London been changed by trade or had trade been changed by London?

BEATING HEART OF LONDON'S COMMERCIAL LIFE: UNLOCKING THE RICHES OF BUSINESS ARCHIVES AT LONDON METROPOLITAN ARCHIVES, CITY OF LONDON

Richard Wiltshire (Senior Archivist, the London Metropolitan Archives)

The London Metropolitan Archives (LMA) curates the records of the City of London,

which are the largest single collection of business archives held by any local authority in England and Wales. This extensive range of business records dating back to the 15th century provides details of the activities not just of individual merchants and tradesmen, but also those of large and sometimes global companies. Documentary evidence shows the ways in which these businesses have influenced the City and how they operated. Following company closures, sometimes their records have regrettably finished up in skips, but other archives have fortunately been retrieved from business premises that were about to be demolished.

To illustrate the range of material held by the LMA, Richard chose a number of individual cases. These included posters and promotional materials created for Chubb & Sons and J Lyons (whose Corner Houses would have been patronised at some time by more than a few members of the audience!). The sales records from J Lock & Co (hatters of St James's Street) show that they had Lord Nelson and his father as customers. The records of auction houses and shipping companies are useful in showing the range of goods, such as tea, coffee, and even ostrich feathers, that were being imported into London, and by inference suggesting the warehouse facilities that they would have needed for storage and distribution. In short, the resources of the LMA provide an outstanding opportunity for any researcher to uncover the details of the ways in which businesses and traders have shaped the London that we know today.

ERIC WILLIAMS AND WILLIAM FORBES: COPPER, COLONIES, AND CAPITAL ACCUMULATION IN LONDON DURING THE AGE OF REVOLUTIONS

Nuala Zahedieh (University of Edinburgh)

This keynote address focused on the business career of William Forbes of Callendar (1743–1815), a self-made business tycoon of the late 18th century, who understood how to profit from London's role as the commercial and industrial hub of an expanding empire. Forbes's story puts flesh on Eric Williams's argument that Britain's Industrial Revolution

was inextricably linked to the expansion of the Atlantic trading complex, dominated by sugar and slavery, and highlights London's neglected role in the process. Forbes started life in Aberdeen, where he trained as a coppersmith, and moved to London where he understood that he could sell his skills in an international market arising out of Europe's insatiable demand for sugar, and the expansion of the plantations which depended, not only on the notorious trade in enslaved African workers, but also on the large-scale copper equipment needed to refine the sugar and distil the rum. Plantation records suggest that £1 was spent on copper equipment for every £6 spent on enslaved labour and, as London dominated the import of sugar, it also dominated the exports of supplies to the plantations. Forbes took advantage of the market opportunity and placed himself midway in a long production chain which linked Cornish miners, Welsh smelters and colliers, provincial rolling-mill workers, and London coppersmiths, to the enslaved workers in the fields and factories of the West Indies, and back to the sugar refineries and distilleries at home. The chain created thousands of jobs, exploited tens of thousands of workers (many of them 'coerced'), and established Forbes on a career ladder which led to naval contracts to sheath the fleet, and provided the fortune needed to purchase a substantial estate and join the landed elite. He did this through London, Britain's principal manufacturing centre and trading port, and the hub of its commercial empire.

THE CRAFTSMAN, THE MERCHANT AND THE LABOURER: COMPARING THE FORMATION AND EARLY HISTORY OF THE GIRDLERS, WOOLMEN AND CARTERS

Claire Martin (Independent Researcher)

Claire discussed three very different groups of traders and considered how, when and why they formed a collective identity and co-operative organisation. The Girdlers (belt makers) were craftsmen who produced a commercial product with the skilled labour of their hands and who lived and worked near each other. The Woolmen

included in their number both national and international traders and manual workers. They travelled widely, and their networks stretched far outside the city to the wool producing counties of England, or even to the continent. Both trades formed their own guilds or fraternities in the early 13th century, a time when many other London professions were embarking upon the same evolutionary journey, but their activities and motivations were very different. In contrast the Carters or Carmen were labourers with a skill that was widespread, engaged in a profession which severed them from strong connection to any place or city and whose membership included Londoners and non-Londoners, citizens and non-citizens. It was not until 1517 that the Carters organised themselves in a fraternity and many more years before they gained full control over their own affairs.

The relationship which each group of traders established with City government differed enormously. While some sought influence and positions of power, others had less interest in joining the ruling classes or were otherwise engaged in a struggle to escape the controls and restrictions imposed upon them by the civic authorities. The different experiences of these trades and traders enhance our understanding of the development and later evolution of the city.

PORTERS, SUGAR BOILERS, STONE CUTTERS AND SURGEONS: TRADES IN LONDON ON THE EVE OF THE GREAT FIRE

John Price (Goldsmiths, University of London)

The Hearth Tax was introduced in England in 1662 and operated until 1689. As the name suggests, it was a tax on fireplaces and householders were charged for each fireplace within their property at the rate of one shilling per hearth, twice a year.

In 1666, just before the Great Fire of London, an assessment was made of the hearth tax for London and Middlesex. Contrary to usual practices, several of the books of assessment listed the occupation or trade of the householder alongside the number of hearths they were liable for. Although far from comprehensive, the information on occupations provides not only a window on

the different trades operating in London at that time, but also insights into occupational zoning and the relationships between different trades and traders. This assessment is now available online (https://www.british-history.ac.uk/london-hearth-tax/london-mddx/1666, accessed 21 March 2019). It is an underused resource for research on this period of London's history. Analysing the different occupations, and particularly their locations, reveals that the expansion of trade in an increasingly populated City of London and its suburbs was breaking down some of the stricter demarcations of social class. In order to prosper, the wealthier tradesmen required the services and materials provided by those from more lowly and manual occupations, and this led to districts where the rich and poor lived and worked side by side. This early-modern occupational zoning also reveals the origins of some of modern London's trade areas and retail districts.

IT IS ALL HAPPENING AT THE WESTERN END OF THE TIDAL THAMES!

Fiona Haughey (Archaeologist and Archaeological Illustrator)

Post-medieval maritime trade on the Thames is generally associated with eastern London. However, this linkage has more to do with the siting of the City of London and the design of Old London Bridge. Once a drawbridge in the centre of the bridge ceased to operate regularly during the late 15th century, its narrow arches restricted larger vessels with high masts to downstream of this obstacle, which encouraged the development of port facilities below the bridge (Watson *et al* 2001, 107, 157). Prior to the construction of medieval London Bridge sea-going vessels potentially could make their way upstream into the interior via the Thames river system – the biggest in England. This routeway was used from the prehistoric period onwards. What seems to have been forgotten is that despite the fact from 1209 onwards medieval London Bridge and its successors have restricted upstream access for larger vessels, there was still a large volume of upstream Thames trade throughout the western portion of Greater London. Evidence of the infrastructure that supported this trade still

exists in Brentford, Chiswick, Isleworth and Strand on the Green. At Brentford wharves have been recorded since the 1600s and ultimately they lined the entirety of the waterfront (Clegg 1995, 119).

What types of vessels were used in this up-stream trade? Firstly, the most important was the Thames barge, which has Dutch ante-cedents. These wooden sailing vessels have flat bottoms to cope with shallow water and an average length of 80–90 feet (24.3–27.4m) with a 20-foot (6.0m) beam. They could run without ballast and carry 120 tons of cargo. Secondly, lighters or dumb barges, with no engine or sails, which in earlier days were rowed with two long oars or towed by horses. These lighters also used the tides to assist travel up and down the river. Thirdly, 70-foot (21.3m) narrowboats with a 7-foot (2.13m) beam, originally horse-drawn and designed for canal use, transporting 20–25 tons of freight to and from manufacturing centres in the Midlands and beyond. Once engines began to replace horses narrowboats generally towed an additional unpowered vessel ('butty'), eff-ectively doubling the carrying capacity (Clegg 1995, 123–5; Cornish 1987, 15).

Brentford underwent major changes with the canalisation of the northern branch of the river Brent and the excising of its southern branch. At first this waterway was known as the Grand Junction Canal (opened in 1794), but in 1929 it was renamed the Grand Union as part of an amalgam extending into a countrywide system in central England. Init-ially tolls were collected at Brentford and Ux-bridge. The trade revenue recorded in 1845 was equivalent to nearly £12.5 million today. By the 1930s, the canal was not coping with demand and a railway loop was constructed adjacent to the canal, designed by Brunel but built by the Great Western Railway. In 1919, J Lyons and Co purchased a site in Greenford straddling the Grand Union Canal and in 1921 the company opened a food processing factory here. This new factory blended large amounts of imported tea and coffee, which was shipped upstream from the London docks along the canal. Many of the factory's products were distributed nationally by rail
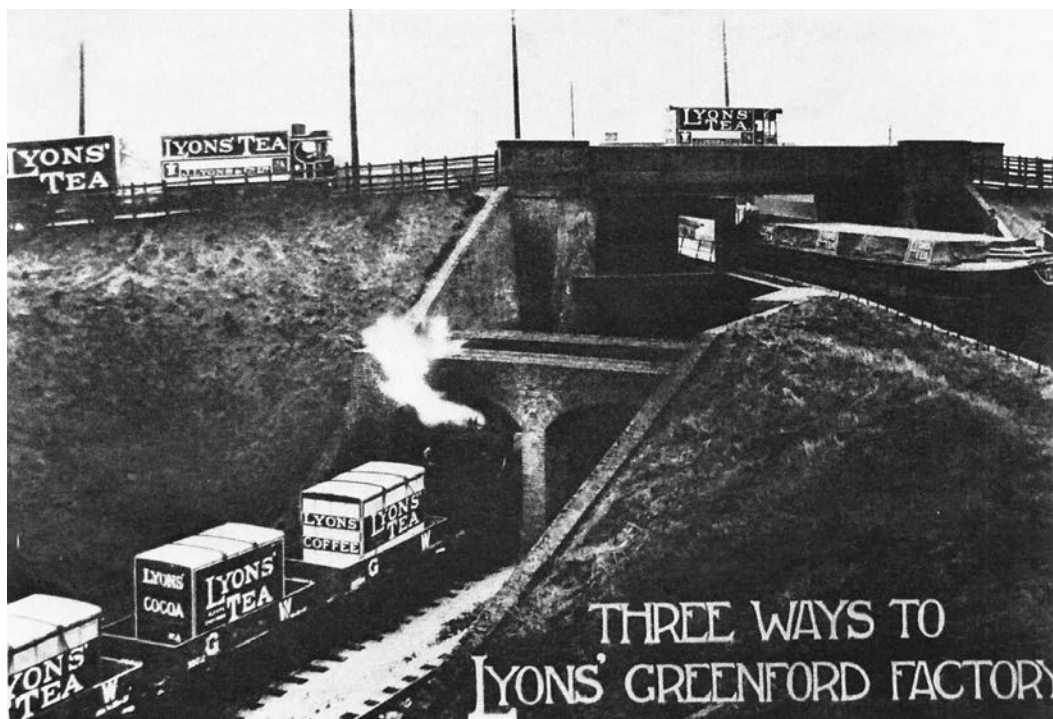
Fig 1. 'Three Ways to Lyons, Greenford Factory' (London Metropolitan Archives, City of London ACC/ 3527/ 833, from the J Lyons and Company Ltd Collection)

(Fig 1). By the 1930s it has been estimated that 10% of London's trade was passing through Brentford, in both directions (Willment 2009, 62). A working example of the symbiosis of rail, boat and road transport can be seen at Three Bridges, Hanwell, where the railway is crossed by the Grand Union canal, which in turn is crossed by the road (Fig 2). This clever arrangement was designed by Isambard Kingdom Brunel, who died two months after its completion in 1859. The nearby flight of canal locks at Hanwell is now a Scheduled Ancient Monument (Historic England – 1001963). The railway closed in the 1960s, although some track is still visible today. The dock, now a marina, was closed by the Greater London Council in 1964. Two gatekeepers for the dock, James William Penny and William Knock, who worked for the company collectively for over 90 years, were made redundant without even a handshake (Willment 2009, 74)!

Lots Ait, which lies just downstream of the entry point of the canal at Brentford was a former osier bed as were the adjacent marshes, plus Brentford and Isleworth Aits and Chiswick Eyot. Basketry was an important local industry. Baskets were formerly used to transport a wide range of foodstuffs including fish and fruit. Close to the canal near Lots Ait was a soap factory, another important local industry (Bolton *et al* 1982, 116). Boat building and repair yards developed locally, the one at Lots Ait was owned by the Thames Lighterage Company. They were the largest such company on the Thames and were based at Goat Wharf, adjacent to Lots Ait (*ibid*, 140). This was also the site of the British Waterways Brentford depot, so it was the meeting of two worlds – river and canal. Lots Ait boatyard finally closed in 1980. In 2012 John Watson opened a traditional boatbuilding yard on the ait.

At Isleworth, there were three wharves
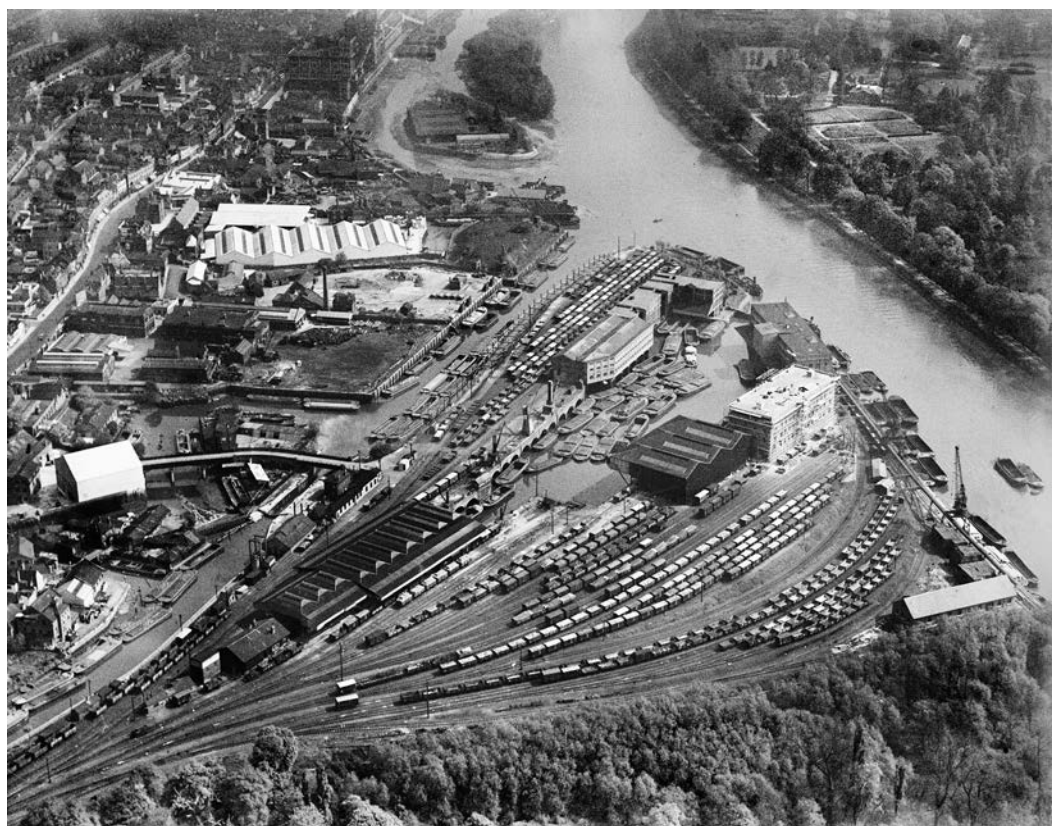
Fig 2. Brentford Dock, Brentford 1939 (© Historic Scotland HES EPW060952)

– Bridge, Church and Lion. Commodities handled here included gunpowder, which was manufactured on the nearby Hounslow Heath. The gunpowder was transported from the wharves in specially designed vessels intended to minimise the risk of accidental explosions. Further downstream, at Strand on the Green, vessels could easily be held up at high tide at the first of the two Kew Bridges. The Strand was the site of five malting houses serviced by cereal-carrying vessels arriving from the Thames valley as well as sites much further afield (Wisdom 1985). Oliver's Island, now owned by the Port of London Authority, was from 1777 the location of a toll barge; the toll-collector lived on the island itself. Later after the erection of a smithy on the island in 1865, it became a site for barge repairs. This facility finally closed in 1990. Other local industries included a tile factory and a very large laundry, which relied on barges for the transportation of goods and raw materials.

Chiswick is the site of one of the few breweries still operating on the Thames, its location was due to a combination of abundant supplies of water and the presence of riverine transportation links. An unusual trade at Chiswick was undertaken at Thorneycroft's, founded here in 1866 (they relocated to Southampton in 1908). This firm manufactured torpedo rafts from 1837 and was a major naval supplier of vessels (Arthure nd, 10–11).

An examination of commodities transported and traded by river gives an indication of the basics needed to underpin many of the industries operated, not only within south-eastern England, but also across the country as a whole. Important commodities included: alcoholic drinks; ballast; bricks; castings; chains; chemicals; China clay; coal from both south Wales and the Midlands; ceramics; chalk; coke; colliery equipment; flour; gas; grain; granite; gravel; gunpowder; oil; paper and cardboard boxes; lime; Portland cement; rags; sand; shavings and wood pulp; steel; sugar; tar; timber; varnishes and waste paper (Grand Union Canal Co nd, 33).

Much of this commercial hustle and bustle has now gone. With the closure of the dock at Brentford and the demise of the railway, the canal was no longer a serious transport route. Some of these derelict industrial sites have been redeveloped as high-value flats and a marina, obliterating aspects of the locality's heritage, but on the plus side, the islands have benefitted environmentally from the demise of their industries. The legacy of the riverine heritage of the area is now muted, but it is still evidenced by the boat building and repair yards along the banks of the Thames and the Grand Union canal. Gone but not forgotten!

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LONDON'S SHELL TRADE *c.*1800 TO 1945

William Gervase Clarence-Smith (Professor of the Economic History of Asia & Africa, SOAS, University of London)

London's trade in shells grew fast from around 1800, stimulated by rising incomes and new techniques of production. Some 50 tons a year arrived in 1804–8 (Milburn 1813, 140). For the United Kingdom as a whole, this figure had had risen to 1,500 tons by 1870, although many shells were re-exported to France and Austria (Martínez & Vickers 2015, 30). A boom from the 1880s was followed by stabilisation from 1914, and

a collapse of the trade from 1939. The term 'shell' in commerce usually referred to the exoskeleton of various molluscs, mainly marine bivalves and gastropods, valued for their iridescent nacre or mother-of-pearl (Strack 2006). Tortoiseshell is not included here.

'Pearl buttons' accounted for about three-quarters of the shell consumed in Britain by 1900. Despite gradual mechanisation, many small manufacturing units persisted. Birmingham was the main centre of manufacture, though London also participated (Perfect 2001). Shells were also used to produce cutlery handles, inlay work, jewellery, combs, fans, and so forth. Bullmouth shell was used mainly for cameos.

There was also a market for whole shells. Victorian collectors prized rare specimens, as conchology took the country by storm. In addition to museums, people of some education, often women, assembled cabinets of shells. Day-trippers to the seaside purchased 'shell-boxes' as mementos and gifts. Whole shells decorated exterior or interior walls, including the mysterious subterranean shell grotto at Margate in Kent (*c.*1800).

The three basins of Saint Katharine's Dock, just to the east of the Tower of London, opened in 1828–9. While wool and tea dominated in terms of bulk, many semi-precious goods also arrived there, such as shells, feathers, gemstones, ivory, coral, furs, fragrances, spices, nuts, vegetable oils, ceramics, carpets, and curios. When ships became too large to enter the lock and basins, goods were landed downriver, transferred to lighters, and then brought upstream to the docks (Stone 2017). Saint Katharine's Dock was surrounded by warehouses. In 1883, the basement of the East Indian Company Crutched Friars warehouse contained many shells, notably of *Pinctada*, abalone, and bullmouth (Dickens 1883, 27). A recent archaeological investigation of part of this warehouse complex at Trinity Square discovered some windowpane oyster shells (*Placuna placenta*) (Watson 2013, 299).

A number of brokers, dealers, commission agents, auctioneers, merchants and others were active in the shell trade, as they were in similar ones, but many of these individuals remain shadowy figures (Stein 2008). Thus, one 1896 advertisement refers to Messrs

Henry Kiver as 'well-known shellbrokers' of London. Information on the Samuel family is unusually abundant. Marcus Samuel Senior, from an Ashkenazi Jewish family of dealers in curios, had a small shop in Upper Smithfield from the 1830s. As his premises were conveniently close to Saint Katharine's Dock, he initially purchased shells from seamen returning from overseas. By the 1840s, he imported shells in bulk from East Asia through British agency houses, and shells were still his leading commodity at his death in 1870. His son, Marcus Samuel Junior, had large private warehouse behind his offices at 31 Houndsditch, where shells were stored in huge chests and insured with the London Assurance Company. He also owned factories, where women made shell-boxes and buttons. The Shell Oil Company later gave the names of shells to its tankers and adopted the scallop shell as its logo (Henriques 1960).

Shells were initially sold *ad hoc*, and then through advance contracts on the basis of samples. Fluctuations in quality led to auctions in London, which came to set global prices (Ganter 1994, 200–2). Wholesalers and manufacturers received catalogues and had 48 hours to view samples. From the 1870s, auctions were held at Bull Wharf, part of the Queenhithe Dock (Turner 1903, 288).

By the 1900s, shell auctions had allegedly been 'cornered' by a 'Trinity' of Jewish purchasers, who colluded on price, while extending credit to dealers and manufacturers. Australian producers, then the foremost in the world, countered by forming a sellers' cartel, but they proved unable to maintain selling discipline for long (Mullins 2005). In 1936, 'public sales' of shells took place in the London Commercial Sale Rooms in Mincing Lane, where five brokers displayed their wares.

Substitutes for shell existed from the outset. Indeed, there was hardly a material from which buttons had not been made. However, plastic was the real nemesis of shell after 1939, even imitating the iridescent sheen of pearl buttons.

The 'pearly kings and queens' of London remain as a visible legacy of this Victorian trade. From around 1875, London street sweeper Henry Croft picked up stray pearl buttons and sewed them onto costumes,

Fig 3. The funerary statue 'In memory of Henry Croft who died January 1st 1930 aged 68 years', in its present location in the crypt of St Martin-in-the-Fields

achieving considerable fame. This started the modern practice of various London boroughs having their own 'pearly king and queen'. These regal couples, who were often from costermonger families, collected money for charities. Henry Croft (died 1930) was buried in St Pancras cemetery in East Finchley. In 1934 a life-sized marble statue of him was erected on his grave. After his statue had been vandalised several times in 2002, it was moved to the crypt of the church of St Martin-in-the-Fields (Fig 3).

London hosted a multiplicity of 'semi-luxury' trades in the 19th century, in which East End Jews figured prominently (Stein 2008). The boundaries between commerce and industry were often quite blurred in these trades. The shell trade needs to be further researched within this wider context.

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REVIEWS

'The River's Tale': Archaeology on the Thames Foreshore in Greater London. By Nathalie Cohen and Eliott Wragg with Jon Cotton and Gustav Milne. Museum of London Archaeology, 2017. Pp viii + 116, many figs. ISBN 978 1 907586 45 3. Price: £15.00 pb.

Despite its relative brevity, this well-illustrated book is outstanding. The authors will be well known to many readers of this review. They have charged themselves with the task of presenting some of the key thematic and topographical elements successively revealed by the Thames Archaeological Survey and the Thames Discovery Programme (TDP). As Nathalie Cohen intuitively states at the beginning of her introduction: 'this book is about exploring thousands of years of human activity along London's largest archaeological site – the intertidal foreshore of the River Thames'. That long story of our relationship with the ever-changing river, with its powerful twice-daily tidal rhythms, is not only brilliantly told but evocatively enhanced with extracts from Rudyard Kipling's poem *The River's Tale*.

From the outset, the authors have grounded their work through formal and informal acknowledgments. The latter includes the 'FROG role of honour', which lists 652 members of the Foreshore Recording and Observation Group of trained volunteers who have done so much to record and research foreshore features. This is a splendid touch and one that has come to be expected from the TDP, given the strong participatory nature of its work. This is archaeology at its most welcoming and most democratic.

In a similar vein, Nathalie Cohen's introduction pays proper tribute to some of the key professional and amateur foreshore archaeologists who have gone before. The most special credit, and rightly so, is given to the early post-War work of the late Ivor Noël Hume. It is also good to see the more recent work of Mike Webber in this field properly recognised.

Jon Cotton's *The Prehistory of Old Father Thames* presents an intensely rich chapter which links the ways in which the river has helped shape the physical geography of the London region, provided a ready means of communication, formed occasional boundaries, and acted as a sacred stream. This is really good history, although – perhaps inevitably, given its long time span – it deals more with the general than with discoveries of the TDP.

Nathalie Cohen has contributed two other illuminating chapters on *The Fishful Thames* and *Ritual and Religion.* The former examines elements of fishing, from the prehistoric to the 19th century, with a special focus on remains of Anglo-Saxon fish traps. The second contains much of interest, both in terms of intriguing discoveries and related speculations.

Nathalie Cohen and Eliott Wragg's *Infrastructure and Engineering* examines discoveries relating to river defences, jetties, quays, causeways, and bridges in some detail. Eliott Wragg's three wide-ranging chapters – *From Sail to Steam: London Shipbuilding*; *Shipbreaking: London's Forgotten Industry*; and *Boats and Barges: the Archaeology of Thames Rivercraft* – fulsomely reflect what have become particular areas of interest and expertise.

Gustav Milne's *The Thames at War: a Secret History Uncovered* reveals the little known story of the London County Council's WW2 riverbank repair service, directed by the engineer Thomas Peirson Frank, which kept vast low-lying areas of the city safe

from flooding. There is also a brief forward looking conclusion and a very useful two page bibliography.

Chris Ellmers

Creating Society and Constructing the Past: Social Change in the Thames Valley from the Late Bronze Age to the Middle Iron Age. By Alex Davies. British Archaeological Reports, British Series 637, 2018. Pp xviii + 275, 151 figs, many tables, graphs, maps; appendices online. ISBN 9781 407316 06 2. Price £53 pb.

This is an important, original and welcome addition to the study of later prehistoric society in the Thames Valley. As with many recent studies it draws upon the results and data of developer-led archaeology that has taken place over the last 40 or more years, along with the dataset provided by the Portable Antiquities Scheme (PAS). The volume is based on the author's PhD and is subdivided into seven printed chapters consisting of an introduction, a theoretical chapter, four period chapters and a discussion with a further 12 supportive appendices available to download from www.barpublishing.com. The volume defines and explores a series of themes and applies a set of standardised theoretical and methodological approaches, and as the title suggests, consciously examines a period of time that is so often the preserve of different period specialists. One strength of the study is that the author is compelled to define the time, place and duration of the period of social and cultural 'transition' that occurred in the 8th and 7th centuries BC.

Chapter 1 sets out the time period and area of study: it focuses on 1100 years of later prehistory from the start of the Late Bronze Age to the end of the Middle Iron Age, subdivided into four temporal units 250 to 350 years long for the sake of analysis (LBA, Transition, EIA and MIA). Geographically the study is set within the Upper and Middle Thames catchment and includes the gravel terraces of the Upper and Middle Thames and the adjoining upland areas of the Corallian Ridge, the eastern Berkshire Downs and the western Chilterns. In selecting this temporal and geographical slice the study attempts to take a unified theoretical and methodological approach to what can be seen as a number of similar but different subregions. Some readers will be disappointed that the study did not also include some of the Cotswolds and take in all of the tributary river catchments (*eg* the Evenlode and Windrush in particular). Chapter 2 sets out the theoretical approach to understanding the relationship be-tween people (personhood, individuals, community and ancestors) and material, and like much interpretative archaeology draws on ethnographic observations to enrich interpretation and develop different social models and practices.

Chapters 3–6 examine the four periods and cover very similar themes (*eg* houses and settlements, boundaries, human remains, special deposits, pottery and metalwork). Each chapter is complemented by a good set of maps, site plans, comparative artefacts, tables of data and summary graphs. The appendices provide a useful critique of pottery and metalwork, as well as a reassessment of some key sites, fieldsystems, and houses along with tabulated supportive data. These chapters present an important synthesis of recent discoveries, results and data in particular for the Late Bronze Age (Ch 3) and its treatment of the range and diversity of the evidence, and the Middle Iron Age (Ch 6), especially the lengthy discussion of house gullies, enclosures and boundaries. However, the chapters also present new analyses and interpretations of the various sites and material. Running through the various chapters are sections on special deposits, roundhouses, metalworking and metalwork that readers will find useful as a source for comparanda and synthesis. These chapters also provide a new body of synthesised contextural data and intra-regional patterns – all of which are generated through a comprehensive treatment of the primary data. Underlining the whole study is a reading of this evidence to provide insights into how society was created in the past through the use of material culture. Occasionally wider patterns are discussed with adjacent regions (*eg* with the lower Thames Valley and the almost mutually exclusive distribution of ring works, hoards and perforated clay plaques).

The discussion, which is relatively short

(ten pages of metalwork illustrations seem somewhat misplaced), summarises the various key themes and takes a long view in discussing change in practice from the 12th to 1st centuries BC. In so doing it reveals subtle changes in roundhouse architecture, use and duration, and an increase in enclosure. As with so much archaeology there can be a tendency to forget that we only see much of this evidence in restricted dimensions and our gaze is very much a floorview. Many special deposits, human heads and prized ornaments would however have been placed in plain sight and at eye level within homes. The study has established important patterning in the occurrence and treatment of human remains from a shift in burial rite from cremation to inhumation and an increase in the circulation and use of ancestral bone. The social role of metalwork and how this changed is similarly discussed. The chapter (and book) ends with a discussion of models of social organisation, and the processes and causes of social change.

This book deserves to be read by anyone interested in later prehistory and provides a good source of information, fresh insights, synthesis and comparanda. For those working in the commercial sector it should also provide a work of reference for developing, implementing and assessing excavation strategies. Some readers may be slightly disappointed that it has not made more of available environmental evidence and a growing body of good quality radiocarbon dates. There are hints that the author considered a more precise relative chronology and at times this shines through in the analysis. The latter perhaps reflects the current state of Iron Age studies, which (unlike the Bronze Age) is yet to fully embrace the so-called Bayesian revolution in radiocarbon dating and how this can transform our understanding of temporality. However, when this happens this study will prove an invaluable sourcebook of synthesised data and interpretation.

Alistair Barclay

Londinium: A Biography – Roman London from its Origins to the Fifth Century by Richard Hingley, with illustrations by Christina Unwin. Bloomsbury Academic, 2018. Pp xv + 383, 75 figs. ISBN 978 1 350 94729 7. Price £25 pb.

More than 20 years have passed since Roman London was last given book-length academic treatment (G Milne *Roman London*, Batsford/English Heritage (1995)). Hundreds of excavations have subsequently taken place and the research landscape has been transformed by scientific advance and theoretical repositioning. Richard Hingley's compendious book is therefore both long overdue and enormously welcome.

The approach is firmly biographical. We are presented with nine chapters dedicated to dated phases in London's urban evolution (AD 45–60; 60–70; 70–120 etc), which are framed by short introductory and concluding essays. The evolution of the urban fabric is a principal concern, and the work is tightly focussed on the archaeology of the City and Southwark. The handling of matters of record is near faultless, based on a well-judged review of published evidence. Altogether the results of over 250 archaeological excavations are drawn on, as listed in a useful appendix. This is an impressive achievement, given how many important discoveries required attention. Given the central importance of topographic detail to so much of this book it is a particular shame, however, that Christina Unwin's informative illustrations are poorly reproduced: a likely consequence of an ill-judged conversion of coloured artwork into black and white illustration. I would like to encourage the authors/publishers to disseminate the original material on-line, as an advertisement for what is otherwise a well-produced published work.

The main scope for scholarly divergence is found in areas where Hingley (hereafter H) has been obliged to rely on the partial reporting of results from incompletely published sites. Insufficient weight is given to the evidence of Claudian defensive earthworks found at Regis House and Walbrook House, leaving H over-tentative in his engagement with recent debate over London's role in the Roman conquest. Similarly, the evidence of fragmented human remains found at

Blossom's Inn and Regis House would have merited greater prominence, if only it were more readily available. This would have added usefully to one of the main themes developed in the book. H draws on the evidence of human skeletal material and votive deposition from the Thames to describe a ritual late Iron Age landscape that he suggests may have influenced the siting and character of the first Roman town. This is an interesting idea, challenging received wisdom on the exclusively Roman nature of London's origins. We lack convincing evidence, however, for continuity of ritual practices at London. The disturbed human remains found in wet-places on the borders of the Claudio-Neronian town might alternatively be the product of corpse abuse and necrophobic ritual introduced by the Roman administration. An interest in ritual process threads throughout the book, and future work in London will be informed by observations made here on issues such as the votive deposition of ritually-imbued objects, the use of cultural material in the colonisation of the land, and the symbolic importance of water and its sources.

Much of the narrative is otherwise fairly conventional, adopting conclusions favoured in more recently published excavation reports. London's early growth is therefore seen as the product of mercantile endeavour, assuming the place to have been governed by some form of urban council. H's assertion that 'the creation of Londinium was probably a joint and cooperative venture between the urban authorities and Roman administration' sounds reasonable, but leaves us none the wiser as to how this might have worked in practice. I would have liked to see more attention given here to arguments concerning London's legal status and political identity, where Dondin-Payre and Loriot's important 2008 paper in *L'Antiquité Classique* warranted citation and consideration. Otherwise the early chapters bring us right up to date with new discoveries concerning London's early growth, amongst which the treatment of London's rehabilitation in the aftermath of the Boudican revolt is particularly useful.

The central chapters are necessarily a little more hesitant, reflecting on the more problematic nature of the source material.

As a consequence, the treatment of evidence for Antonine change veers from challenging to inconclusive. H argues that the case for mid 2nd-century contraction has been overstated, whilst faithfully summarising a considerable body of published evidence that appears to confirm that there had been a significant change in London's urban character. H suggests that the use of ephemeral timber architecture might help to explain some absences of evidence that have perplexed London's excavators. This is plausible in some instances, less so in others. But it still leaves open the questions as to why building technologies might have changed so drastically at this particular point in time. London's early timber buildings left deep sequences of superimposed floors, owing to the frequent rebuilding of such structures: so why was this not also the case in later Roman London? Essentially we are dealing with a matter of emphasis: H proposes an economically vital city in which some districts witnessed a reduced building density, whilst others (myself included) identify a city in contraction where some districts witnessed sustained vitality. There is scope to argue about the character and extent of change, and whether this can be characterised as decline, but converging agreement over the fact of change.

There are similar arguments to be had over the relative weight to give to the continuities and disruptions witnessed in the late antique city. H is undoubtedly correct in emphasising the continued political importance of the town, but there is a risk that his narrative of continuity will detract from the important evidence we have for fluctuations in the city's fortunes. In particular, I find it hard to recognise the 'third-century stability' that H describes. Here, as elsewhere in this volume, more could have been made of the opportunities to contrast architectural continuities with discontinuities and reconfigurations of supply evident in associated finds assemblages.

One of the most fascinating features of this book is that it reminds us how much further we still have to go in converting our descriptions of London's archaeology into arguments of wider resonance. H brings new ideas to our reading of the wealth of archaeological detail recovered from Roman

London, and in the process draws our attention to the many, many arguments still to be had about what it might all mean.

Dominic Perring

Ragstone to Riches: Imperial Estates, Metalla *and the Roman Military in the South of Britain During the Occupation.* By Simon Elliott. Pp xiii + 142, 48 figs. British Archaeological Reports, British Series 638, 2018. ISBN 9 781407 316529. Price £32 pbk.

This book seeks to establish that the iron production area of the eastern Weald and the ragstone quarrying industry of the Medway Valley were both imperial estates, that both were run by the *Classis Britannica* (henceforth CLBR), that there were modifications to the River Medway to allow for river transport of the stone direct from the quarries and that the actual quarries in use in the Roman period have been identified. It does not succeed.

The claim that 'the research has … shown for the first time the division in terms of geography and scale of the central and the eastern/coastal iron manufacturing zones' (p 101) is not acceptable as this was done years ago, especially by Jeremy Hodgkinson. Another 'first time' claim is the location of 'the five specific quarries utilised by this *metalla* [sic: quarries <u>are</u> *metalla*]' (p 101), even though the author himself says of two of them that they are only 'likely Roman quarries' (p 90). The argument seems to be that there must be big quarries; here are some disused, on a late 18th-century map: they must be Roman. In fact, the only 'hard data [sic]' (p 87) offered anywhere in the book amounts to a photograph (fig 43) on which the supposed Roman mason's marks cannot be seen. The possible impact of medieval or early post-medieval quarrying is not considered, ignoring Pearson's point that 'it is often impossible to determine the age of a surviving working', given little change in tools or technique until the onset of mechanisation (A Pearson *The Work of Giants. Stone and Quarrying in Roman Britain* (2006), 45–6).

Pearson and others are misquoted concerning a very early date for the Medway quarries (p 84; references given there). The former in fact gives a much more soundly-based analysis of the quarrying, the imperial estate angle, and river transport (Pearson (2006), 44, 92–3). In doing so he draws attention to the Bois des Lens quarries which served Nîmes, Arles and even Narbonne. They make a far better comparison for the Medway than some of the sites Elliott mentions (J-C Bressac *La Pierre en Gaule Narbonnaise et les Carrières du Bois des Lens (Nîmes)*, JRA Supp Ser 16 (1996), is noticeably missing from his bibliography).

Elliott's consideration of possible major works to allow river transport is muddled, speculative and almost completely unconvincing (pp 94–7). He also claims that 'This research has … specifically linked for the first time the elite settlements in the upper Medway Valley … with their associated quarries' (p 108). The nature of that argument is well illustrated by the following: 'This correlation of the villa on one bank and the quarry on the other is strong evidence that this location did indeed feature a Roman bridge. A clear analogy can be seen in Rome [!] where bridges across the Tiber were specifically built to link elite settlement on one bank with industrial activity on the other …' (p 72).

The survey of the Medway valley (pp 59–100) would be more useful if the author had the knowledge and experience to assess the evidence. Instead, he even accepts hearsay ('anecdotal evidence', p 96, *cf* p 139) or suggestions such as a so-called 'remote' bath-house as 'a meeting place for local businessmen (*negiatores*) [sic: *negotiatores* is meant], possibly associated with the quarrying industry' (p 71), or a supposedly Roman bridge with drawbridges (pp 63–4). The postulated Dean Street quarry (fig 40) cannot possibly be compared with the huge mining complex at Las Médulas (p 86; placed on entirely the wrong river: p 94).

Elliott has no answers to Millett's measured rejection of the existence of an imperial estate in the eastern Weald or his argument that the fleet's role there was transport (M Millett, 'Roman Kent', in J Williams (ed) *The Archaeology of Kent to AD 800* (2007), 135–84 (at 178–9)). He fails to note that the lack of settlement (p 48) applies equally to the entire Wealden area or consider the implications of CLBR tiles coming from

only four iron-winning sites (pp 57–8, hardly the 'often' of p 38). There is no evidence whatsoever for fleet involvement on the Medway (Elliott is 'reduced to expressing an informed opinion': p 109). The suggestion seems to arise from an unspoken assumption that the construction of London's defences was an imperial project. But it may well have depended on the citizens (see J S Wacher, 'Some thoughts on Roman urban defences in the west' in J Maloney & B Hobley (eds) *Roman Urban Defences in the West*, CBA Research Report 51 (1983), 141–4 (at p 142)). If anyone would know how to arrange shipping for the stone it would be London merchants. The assumed 'state' involvement arises automatically from the strong 'exploitative Roman occupation' bias (made explicit on p 10 and in the book's subtitle). It is unfortunate that Elliott has not consulted Kasper Evers' much more balanced discussion based on evidence rather than opinion, which demonstrates the complexity of interaction between the civilian and military spheres (K G Evers *The Vindolanda Tablets and the Ancient Economy*, British Archaeological Report (British Series) 544 (2011), esp 5–8 and 47–50).

The supposedly important *vilicus* at Beauport Park probably did not exist as such (R S O Tomlin, R P Wright, & M W C Hassall *The Roman Inscriptions of Britain, III, Inscriptions on Stone Found or Notified Between 1 January 1955 and 31 December 2006* (2009), 50–1, no. 3036 – another significant omission in the book). Moreover, if there had been a *procurator metallorum* for the region as suggested (*eg* pp 101–2), he would have been listed on this inscription.

The book is apparently based on a PhD; it seems odd that the faults were not ironed out in the course of research. It would certainly have benefitted from strong editing. The self-congratulatory approach becomes wearing, there is much repetition and unnecessary padding, including illustrations of the Teston villa (figs 3, 11 and 36, which do not inspire confidence in excavation standards) and the jumbled appendices – yet only one sentence on quarrying methods (p 92).

The reader may be startled by the references 'Dio 1925, 20' (p 67) and 'Pliny the Elder (III.53–4, 1940)' (p 96), constant use of Latin plurals for the singular (*eg oppida*

for *oppidum, liburnae* for *liburna, beneficiarii* for *beneficiarius, fabricae* for *fabrica*), the use of the word *metallum* (but always in the plural) as though it is a special technical term rather than just 'mine' or 'quarry', misuse of a number of words including especially 'provenance', and errors such as Brohol valley for Brohltal, Vetara for Vetera (p 107; the latter is the fortress not the colonia), Carrera for Carrara (p 94). There are also startling ideas such as: 'Kent and the South-East suffered its own bespoke crisis in the middle of the 3rd century AD' (p 113), or, at the end of the Roman period, 'the surviving population retrenched into their core areas' in Canterbury and Richborough (p 24).

There is clearly a strong case for a thorough re-assessment of all available Roman-period evidence in the Medway Valley and detailed study of the ragstone quarrying. This book will require comprehensive revision if it is to serve as the basis for such work.

David Bird

The Roman Pottery Manufacturing Site in Highgate Wood: Excavations 1966–78. By A E Brown and H L Sheldon. Archaeopress Roman Archaeology 43, 2018. Pp xii + 392, 228 figs, 10 tables. ISBN 978 1 75891 978 5 (paper), 978 1 78491 979 5 (e-pdf). Price £60 pb; pdf of text free from Archaeopress.

Although much of the work published in this volume was completed quite a long time ago – the excavations in 1978, and the main Roman pottery report in 1994 – it is still a very welcome and important contribution to London's Roman archaeology, and in particular to the study of Roman ceramics in the London region. In this writer's experience as a pottery specialist formerly at the Museum of London, about 10% of the pottery found on London sites was made at the Highgate Wood production centre. It was the largest supplier of grey-ware cooking and storage vessels for London in the period from about AD 50 to 160.

The introductory chapters are concerned with the excavation itself, which was directed by the main authors. The report is, like all modern excavation reports, a collaborative effort that in this case involved almost 20 specialists, but by far the largest contribution

is on the Roman pottery, by Paul Tyers, who has also contributed, or contributed to several of the shorter reports.

The location of the site, at some eight or nine kilometres away from the Roman city and in a place that has since remained remarkably isolated, has undoubtedly contributed to the fact that the site itself is now, with this volume, much better known and understood than sites within modern London usually are. The site was extensively excavated, and its presentation is followed by a chapter with two sections on wider aspects, the evidence for other pottery making sites in the area and Highgate Wood before, during and after the Roman potters were active. The excavations revealed the presence of at least ten kilns, along with some other features, notably pits, that were probably associated with the pottery-making process. Sadly there do not seem to have been any other significant structural remains that were sufficiently important to have left post-holes or other evidence, other than some 'possible plank floors and many iron nails' (p 65), and thus we lack any concept of the spatial arrangement of the production process.

The substantial site report is then followed by the chapters on the Roman pottery, the largest part of the volume, filling some 237 pages, with an introductory section and a large catalogue entitled 'Analysis of the excavated pottery', with seven further subsections of specialized reports. The introduction includes a discussion accompanied by photographs of sherds of the six different Highgate fabrics, and a discussion of the four phases of the site, along with a full-page table (table 2) listing all the assemblages with quantification by Estimated Vessel Equivalents (EVEs) and weight, and an indication of the presence of non-local wares. This latter discussion is accompanied by a set of four figures showing the pottery types present in each of the four phases. In essence, the first phase contains the coarse vesicular fabric, Highgate Wood A ware, and grog-tempered fabrics, Highgate Wood B ware; the second is also predominantly Highgate Wood B and Highgate Wood B/C wares; the third is defined by the arrival of the fine sandy Highgate Wood C ware; and the fourth contains Highgate Wood C ware occurring in forms 'modelled on the black-

burnished style' (p 101), although none need be later than the middle of the 2nd century. Tyers does not assign dates in years to these phases: clearly this would not have been appropriate with material which contains relatively little specific dating evidence.

The main analysis consists of the presentation of a series of 55 assemblages by phases and sub-phases (plus one of 'unassigned and topsoil'), divided into four main phases of development. Each assemblage begins with a reference to the excavation report, followed by a brief discussion of the pottery, first local and then non-local ceramics and a list of the other objects present. There is also a small plan of the feature involved, and a histogram showing a quantitative comparison by EVEs of both the main Highgate fabrics and the main form types in the group (the form quantification is shown in the length of the bars, while the fabric quantities appear as colours within each bar). There is a list of the illustrated vessels, sometimes with very brief comments, and then the illustrations themselves.

Alongside the basic types shown in figs 56–9 in the introductory section, these phased groups, containing both Highgate products and some non-local types, are the part of the report that will probably be most significant in the future. Vessel forms found in occupation sites throughout Roman London can now be associated with the four phases, or their subdivisions, at the kiln site, and gradually we can establish a closer chronology for Highgate wares and also for other wares found in the same contexts. This gives us a chance to better understand the significance of changes in form styles – or the lack of significance, where form variants have been found together in the same phases or sub-phases. London already has a remarkable set of dating horizons, beginning with the founding of the city, followed by the Boudican destruction, the building of the quays on the riverfront, and then transitions from pre-Flavian to Flavian to Trajanic, Hadrianic, Antonine and the later Roman periods. But the details that define each period are important, both for our general understanding of the development of the city and for understanding each excavated site. This report, through its presentation of Highgate products in closed groups, has the

potential to refine the dating for the 1st and 2nd centuries in many sites, including those already excavated and studied. Highgate ware forms are generally not especially exciting to look at: often the non-local wares (especially the mortaria) seem to be the most interesting pieces in the groups, but for researchers working on ceramic assemblages throughout Greater London the typological evolution that can be seen here includes more detail than has ever been visible before.

Among the pieces included in the main pottery report, fig 165, one of the last of the illustrations of the chapter, shows local pottery from 'unassigned and topsoil' contexts: this figure consists entirely of the feet of tripod bowls (there are others in the stratified groups). This is a relatively rare form in Britain that was the subject of a specific study by the late Vivien Swan completed just before her death in early 2009, but, sadly, she was apparently unaware of the number of such vessels that had been made and found at Highgate.

The first two supplementary chapters concerned with pottery are brief reports on the terra sigillata by Brenda Dickinson and Joanna Bird, and on the mortaria by Kay Hartley, both including sections by Paul Tyers. There is a one-page report on a potter's stamp on grey ware by Val Rigby, followed by slightly longer pieces on a Hercules Medallion in *sigillée claire B*, by Paul Tyers; on a spouted strainer bowl, by Paul Sealey; and on a vessel called a *clibanus* (a specialised vessel for baking bread) by Paul Tyers. These are all unusual, rare vessels, the first two being imported, while the second two were both probably Highgate products. The spouted strainer bowl is one of only three from within Greater London, and the *clibanus* is described as belonging to vessel-types that are "loose 'imitations' or 'derivatives' of imported types" (p 290). These vessels stand out, since generally the Highgate potters' repertoire is very standardised, as might be expected for a production of utilitarian vessels mainly intended for storage and cooking. Highgate's tempered and grey wares seem to have played a complementary role to the productions of oxidised wares at Verulamium and Moorgate.

Following these short reports there are two additional chapters on petrographic analysis and chemical characterisation of the Highgate pottery, by P S Quinn and M J Hughes respectively. While the petrographic work suggests where the clays used to make Highgate wares may have come from, the chemical work is useful for showing how generally consistent – or not – the fabric designations of Highgate early B ware, B ware, B/C ware, early C ware and C ware are likely to be. Fabric B/C falls intermediate between them (p 316). The last section on ceramics is concerned with the baked clay objects, many of which were undoubtedly tools used in various aspects of pottery making. There also firebars, and clay plates and sheets.

The final chapters of the book present the 'Other Finds', including the metal small finds (by M J Hammerson and M R Hull), the stone artefacts (by A Wardle), the glass (by D B Harden and J D Shepherd), the flintwork (by A D Lacaille), the prehistoric pottery (by J C Barrett), and the biological remains (by G Jarvis, A Locker and I Tyers).

While it might be regrettable that this report has taken so long to be published, the result is nevertheless a very remarkable and important accomplishment, and all the authors are to be commended for contributing to a major milestone in the understanding of early Roman pottery in London. This volume has the great merit of clarifying what was made at Highgate, and in itself that is extremely useful. A longer version of this review is due to appear in the *Journal of Roman Pottery Studies*.

Robin P Symonds

Kingdom, Civitas, *and County: The Evolution of Territorial Identity in the English Landscape.* By Stephen Rippon. Oxford University Press, 2018. Pp xxii + 438, 119 figs, 33 tables. ISBN 978 0 19 875937 9. Price £85 hb.

East Anglia, Essex and the south-east Midlands (Middle Anglia) are the focus of this book, thus of immediate interest to the readers of this journal. Stephen Rippon's specialism is landscape history over long time-spans and in this book he explores the possibility that certain territories in this region can be discerned over much, if not all, of the millennium and more from Middle

Iron Age to Middle Saxon. These territories were founded in topographical features such as relief, drainage, geology, and soils, conditioning human behaviour without being overly deterministic. It develops by seeking to identify territories, partly on the topographical grounds but also by drawing on the evidence of the distribution of human creations such as settlement types or artefacts.

'Territory' here is an elastic word, never really pinned down and tending to be discussed in socio-political and economic terms, often associating territory and a definable social group. Territories have boundaries, often now irrecoverable, or imprecise or fluid, though in some cases possibly recoverable through documentation or the persistence of physical landscape features such as earthworks. Underlying these is the topographical substrate, which Rippon argues can impose a 'logic' on the definition of territory and social group (equally other workers' boundaries can be 'illogical'). But how far should we allow our modern, map-driven perspectives to structure past peoples with very different starting points and priorities? Humans can and have ignored apparent physiographical divisions as and when it suited their purposes; indeed, access to the different resources in different areas can be an incentive so to do. Nevertheless, the distinction in material culture of the 5th to 7th centuries AD to north and south of the Chiltern ridge and the boulder clays of Essex and south Suffolk is certainly evident and deserves more thought. 'Essex', or rather the north Thames basin, does not look much like 'East Anglia'. The difference is also discernible in some material culture classes back into the Roman period and the Iron Age. But what causes this? Ultimately it must reflect human choice and agency, even if acted upon by topography and resources. But does it reflect 'territories' and 'boundaries' or something else?

Archaeologists have of course long used differential distributions of anything from house-plans to depilators to map 'peoples' in the 'culture-historical' approach, but the pitfalls in this have become more and more apparent. One is the 'pots means peoples' fallacy; that the distribution of a particular type of artefact (often pottery because it survives) equates with the area under the control of a particular 'people', particularly tempting when documentary sources gives us names of peoples in a region (*eg* the Iceni or the East Angles). But human identities are made up of many, many strands expressed in many, many ways, so to rely on one in isolation, such as the type of pottery they use, is a very risky business. Rippon is well aware of these traps but does skirt very close to them particularly in the use of pottery, for instance in his discussions of the late Iron Age, where pottery styles do risk standing proxy for peoples. Arguably he tumbles into one of these traps with his equation of the distribution of Middle-Saxon Ipswich wares with the kingdom of the East Angles. On occasion he does use several types of evidence together, but the results can be unhappy. To be told that two of the early medieval Cambridgeshire dykes (but not the other two) '… occur so close to a line of Iron Age hillforts, early Roman pottery kilns and Romano-Celtic temples cannot be a coincidence' invites scepticism both at the curious selection of evidence types (and how many other types do not fit?) and for the ingenuous conclusion, inviting the response 'Oh yes it can'. Overall, the approaches to the interpretation of the material culture are very traditional, perhaps especially so for the post-Roman period where terms such as 'Anglo-Saxon', 'British', 'Anglian' and Saxon' are freely employed and assigned to supposed archaeological correlates too uncritically. The large and important body of recent work on the relationship between object and identity, particularly at the end of the Roman period, could have been better exploited. For all that caveats are issued, the culture-historical temptation proves too strong.

What of London and Middlesex? Middle sex hardly troubles the discussion, which is perfectly reasonable because of the lack of evidence, documentary or archaeological, much beyond a name and an approximate location. London, of course, was not a reality in the Iron Age. For the Roman period London, interestingly, might as well not be there, either as regards territories and boundaries or as regards the incidence of material culture. This accords with the view held by some Romanists that London in some

sense stood outside the normal structures of Roman Britain, a creation of the imperial authorities and mercantile advantage, lacking a territory or *civitas*. Its resources hinterland could be local, but also more distant up and down the Thames and of course across the North Sea. For the Middle Saxon period *Lundenwic*/London's associations were again fluid. Associated both with Middlesex and also with the kingdom of Essex, which became its diocese, it nevertheless often found itself under Mercian suzerainty. Why did a site so peripheral achieve this pre-eminence within Essex? It is odd that these early-medieval links seem only to lie north of the communication corridor of the Thames: is this 'logical'?

If one can take issue with approaches and arguments in this book, it does marshal impressive amounts of evidence and clearly there are equally insights worthy of further consideration and reflection. By ignoring traditional academic period territories and crossing their boundaries the book seeks to detect long term features and processes that determined human activity, part of a current scholarly interest in the long term. Another such interest is increased concern with climate variation over the long term; factoring this into the approaches here could be very illuminating. This work opens up a subject and approaches which certainly have much yet to tell us.

Simon Esmonde Cleary

Building Anglo-Saxon England. By John Blair. Princeton University Press, 2018. Pp xxiv + 471, 152 figs. ISBN 978 0 691162 98 0. Price £40 hb.

The last half century has witnessed a phenomenal growth in archaeological data about the Anglo-Saxon built environment, although until now much of it has languished undigested and unpublished. This bold synthesis, the result of several years' work including a three-year Leverhulme Trust research fellowship, goes a long way towards rectifying this. It reflects the author's academic interests in the history and archaeology of Anglo-Saxon landscapes, settlements and buildings, aspects of which he previously explored in *Early Medieval Surrey* and *The*

Church in Anglo-Saxon Society. Here, however, he works on a larger canvas, considering how the Anglo-Saxons built and formed a landscape across 'English England' between AD 600 and 1100, focusing on their houses, rural settlements, linear earthworks, bridges, fortifications, monasteries, churches, central places and communication networks, within prevailing cultural, social, economic and geopolitical frameworks. Larger settlements, including *Lundenwic* and *Lundenburh*, are also considered, but with a relatively light touch – as such places were exceptional and, until the 10th century, nearly all settlement in England was rural.

Blair's approach is multi-disciplinary, interweaving 'multiple strands of evidence'; place-names and topography are considered together with historical and archaeological evidence. Gaps are filled with ethnographic parallels mainly drawn from Scandinavia and eastern Europe. Like prehistorian Richard Bradley, he mined a rich seam of data from 'grey literature' produced by developer-funded digging units. His initial sample of unpublished reports, selected from Bournemouth University's Archaeological Investigations Project database, was whittled down by selecting only those containing reliable accounts of well-dated structural evidence. These were supplemented with data from the Early Medieval Corpus of Coin Finds and the Portable Antiquities Scheme.

These data, together with published sources, enabled the author to address major questions 'about regional diversity, change over time, and the relationships of settlements with each other' and with surrounding landscapes. Results are graphically illustrated in a series of distribution maps showing patterns of settlement and activity and regional disparities. It is argued that after AD 600 England comprised two distinct zones (excluding the British west). One, the 'eastern zone', extended from the Vale of Pickering south into the east Midlands and across the northern half of East Anglia. This zone, at the edge of the Scandinavian sphere of influence, provides much of the detailed evidence for buildings and material culture considered by the author. The other, the 'middle zone', encompassed much of the Midlands and southern England and looked towards the Frankish and Frisian

world. London's immediate hinterland receives relatively little attention; outside *Lundenwic* and *Lundenburh,* the annexed hall in Downing Street (Treasury) is discussed and a dozen other Greater London sites are briefly mentioned.

This hefty tome is divided into five parts, each comprising two or three chapters subdivided into thematic sections. Part I defines the scope of the study and its regional and chronological frameworks, and provides essential background information. It includes, in Ch 3, an evocative reconstruction of how the Anglo-Saxons related to their landscapes, viewing places not just as settings for domestic and economic life, but also associating them with 'memories, heroes and supernatural beings'. Parts II–IV are organised chronologically and discuss periods of transformation in the 7th and 10th centuries, characterised by social change, burgeoning trade and contact with the continent, and 'resurgent monasticism', which were separated by a period of 'consolidation, extension and adaption' from the 8th to early 10th centuries. Throughout these periods, Anglo-Saxon rural settlements appear to have comprised loose ('semi-nucleated') clusters of farms. There is also evidence that from the 7th century many ecclesiastical and secular building complexes and enclosures were planned on grids of the short perch of 15ft, especially in Anglian areas, while some other settlements appear to have been radially planned.

Part V ends the chronological review with a discussion of further change during the 11th century, which saw increased urbanisation, development of planned nucleated villages and the appearance of castles and manor-houses – features that remain quintessential elements of the English countryside. It also contains a concluding chapter that draws out the main themes of the book, which would have been better as an independent end-piece.

A central message of this book is that 'Anglo-Saxon England cannot be understood without understanding regional diversities', although perhaps the dichotomy between the proposed 'eastern' and 'middle' zones is too stark? Another important idea is that the impermanent nature of Anglo-Saxon

structures and timber buildings did not necessarily preclude sophistication, for contemporary sources (including illustrated manuscripts) suggest that at least some houses and tents would have been richly furnished with decorative textile hangings and that structural timbers may have been elaborately shaped, carved and painted. The point is also made that buildings lacking foundations, such as 'laftwork' structures found in Scandinavia and Russia today, would have been invisible to archaeologists, and the extensive use of such buildings may explain the paucity of known Anglo-Saxon settlement sites after about AD 650. The apparently common use of tents may explain why sites such as Dorney, Buckinghamshire, yielded the debris of feasting and imported items, but no evidence for buildings.

Although the main focus of this book lies beyond London, it contains much that is applicable and relevant to the lower Thames valley, and it should enable us to view our region in a broader context. Moreover, this well-illustrated and engagingly written book is brimming with interesting ideas that should encourage even the most jaded archaeologist to look at current evidence with a fresh eye.

Robert Cowie

Medieval London: Collected Papers of Caroline M. Barron edited by Martha Carlin and Joel T Rosenthal. Medieval Institute, Western Michigan University, Kalamazoo, 2017. Pp. xix + 592, 30 figs. ISBN 978 1 580 44256 5. Price £101.50 hb.

The 18 essays presented in this collection were first published over a period of 41 years between 1968 and 2009 and represent the work of one of our most distinguished medieval historians. Although their focus is principally – but not entirely – upon London, they should be essential reading for any student of urban history, and, indeed, of the late Middle Ages in general. As the bibliography at the end of the volume reveals, the editors were spoiled for choice. They have sensibly selected papers that fall into the four basic categories of civic and national politics, religion, the people of medieval London and, lastly, the intellectual

and cultural world inhabited by residents and visitors. In this way, they suggest, the reader can more easily appreciate Professor Barron's engagement with the history of London and its voluminous records, while also discovering how a 'working historian moves with the times'. We certainly gain a clear sense of her development as a scholar, although in many instances, as, for example, her study of parish guilds and fraternities (Ch 6), and in the systematic interrogation of testamentary evidence that is a hallmark of her later work, she may be said to have set rather than followed an 'academic agenda'. The essays on aristocratic town houses (Ch 15) and merchant and political culture (Chs 17 and 18) demonstrate an interdisciplinary approach to urban life, drawing upon topography, material culture and literature. Here, too, she has forged a path that is now well trodden by others.

Like many late medievalists who served their apprenticeships in the 1960s, Professor Barron began her career by studying the politics of the elite. Her exploration of the challenging relationship between the rulers of London, who sought to protect the city's wealth and privileges, and the crown, which was frequently desperate for money, draws upon national as well as civic archives (Chs 1–6). The scale of corporate and individual loans made to the government by Londoners emerges from a detailed analysis of Exchequer material that reflects her familiarity with, and meticulous use of, an impressively wide range of documentary sources. Prominent among those who kept the government afloat was the 'living success story' Richard Whittington, whose stellar career forms the basis of an early biographical essay (Ch 10). A connoisseur and aesthete, like his royal patron, Richard II, Whittington was easier to admire than to love, unlike the radical firebrand, Ralph Holland, who emerges as the Danton to his Robespierre, or, in Barron's words, 'truly a forbear of John Wilkes' (Ch 11). It is, perhaps, debateable how 'humble' his followers may have been, since many were freemen who sought to consolidate their economic privileges. Yet his struggle to extend the civic franchise clearly resonated with a far wider audience beyond the disgruntled tailors for whom he initially spoke.

Thomas Salter, whose problems in adjusting to the austere Carthusian rule haunted him to the grave, presents a very different subject. Professor Barron's analysis of the long and revealing will that he drew up in 1558 (Ch 9) is a particularly welcome inclusion in this volume, as it offers a master-class in the close reading of a highly personal historical document. It is a shame that the reproduction of some of the images, including a fascinating marginal sketch of the distribution of alms among the needy, is of such poor quality, given the generally handsome appearance of the rest of this volume.

Professor Barron's interpretation of the historical evidence has occasionally proved controversial. Her essay on 'The "Golden Age" of Women in Medieval London', first published in 1989 (Ch 12), prompted a lively and ongoing exchange among leading historians of gender, including Judith Bennett and Marjorie McIntosh. It was still exercising Jeremy Goldberg as recently as 2016; and his provocatively entitled 'Material Girls Reconsidered', is unlikely to be the last word on the subject (see www.academia.edu/27188127/Material_Girls_Revisited_Problematising_the_Social_and_Economic_Position_of_Women_in_Later_Medieval_England). Surprisingly, the editors do not refer to this debate, which underscores the long term historiographical significance of Barron's work. The lifestyle of most of late medieval London's female population might have been rather less 'rosy' than she suggests, but there were notable opportunities for some, especially the wives of affluent freemen. Reproduced from a volume on *Medieval London Widows*, which she and Anne Sutton edited in 1994, her essay on two widows who took over their husbands' bell-founding businesses (Ch 13) reveals that women could play their part in the most quintessentially male crafts. Many of them would have been able to read and write, for, as we learn from a paper on the expansion of education in late medieval London (Ch 16), children of both sexes were increasingly expected to possess these skills, which might even have been taught by a 'scholemaysteresse'.

The final essay in this volume concludes with the observation that 'a town as large

as London never spoke with a single voice' (p 536), a message eloquently conveyed in the preceding chapters. Here we encounter all sorts and conditions of people, from the philanthropic draper, Simon Eyre, who left a fortune for the education of his fellow citizens, to the bereaved shopkeeper, Margaret de Irlaunde, whose month-old child was savaged to death by a stray pig (Ch 14). Inevitably, given the nature of the surviving evidence, we discover more about the upper ranks of the civic hierarchy than the disenfranchised, the poor and the criminal. Even so, the rich variety of material presented here is testimony to the work of a great scholar, who responds with sensitivity to the hopes and fears of her subjects, whatever their station.

Carole Rawcliffe

The Temple Church in London: History, Architecture, Art. Edited by Robin Griffith-Jones and David Park. Boydell Press, first published 2010, this edition paperback 2017. Pp xx + 286, 109 figs. ISBN 978 1 78327 263 1. Price £19.99 pb.

Originally published in hardback in 2010, the paperback of this volume contains nine essays that focus on aspects of the history of the Temple Church, London, from the arrival of the Templars in England in 1128 down to 1941.

Helen J Nicholson addresses the New Temple in the Middle Ages down to 1540 and includes investigations of the Templars' way of life, their financial and commercial services, and the New Temple as a religious centre in London. Christopher Wilson examines the nave of the Temple Church which he dates to before 1161 when the Templars moved from the old church to the New Temple, rather than associating it with the previously accepted date in connection with the consecration in 1185. His analysis of the documentation and architectural elements provides a compelling case for the earlier date. He attributes the design to an architect from Picardy working in the Gothic style some 15 years before the start of the reconstruction of the choir of Canterbury Cathedral (1175–84). With a keen eye for detail his specific parallels with churches in

northern France and Tournai Cathedral are convincing. His essay brings an important new perspective on the beginnings of Gothic architecture in England which he allies with Archbishop Roger of York's eastern arm of York Minster (1154–81) and the cloister of the Augustinian Priory at Bridlington. Whether the connection between the Temple Church and these Yorkshire buildings is quite as direct as Wilson suggests is a moot point. He glosses over the allied contemporary work in the crypt and east arm of St John's Hospital church, Clerkenwell, London. Although strictly speaking outside Wilson's focus on the architecture of the nave, it would have been good to find a more detailed discussion of the aisle dado arcades and especially the wide range of heads in the spandrels. All too-little studied, these expressive heads are all the more remarkable if they are completed by 1161. General antecedents are found in English Romanesque corbel sculpture, especially those from Sarum Cathedral for Bishop Roger of Salisbury (d 1139), and the heads in the presbytery and aisles at St Frideswide's Oxford, a building commenced around 1160. He compares the foliage voussoirs on the west doorway with capitals from the abbey church of Dommartin (Pas-de-Calais) commenced in 1153. This association may be traced back to the round window on the west front of Abbot Suger's Saint-Denis which may have also been the source for the Temple Church wheel window. Robin Griffith-Jones's essay on some details of damage and repair 1840–1941, is also of great significance for the west doorway, especially for his discussion of the voussoirs in light of the restoration of the doorway.

Virginia Jansen investigates the early Gothic choir in the context of contemporary buildings including Salisbury Cathedral, the retrochoir of Winchester Cathedral and Winchester Castle Hall, Canterbury Cathedral and Lambeth Palace Chapel. The construction is not documented; Jansen suggests 1233 when Henry III expresses a desire to be buried in the Temple Church. She considers the proportions of the hall church design in terms of the Golden Mean. Why she opts for a different phase of construction for the arches connecting the eastern arm with the nave is hard to understand. She relates the exquisite

heads on the jambs of these arches to Wells sculpture. Associations might also be sought in the label stops of Salisbury Cathedral and the little-studied examples in the eastern arm of Worcester Cathedral which would have been completed for the burial of King John, father of Henry III, in his new tomb between St Oswald and St Wulfstan in 1232.

In 'Medieval Burials and Monuments' David Park questions the 1128 foundation of the Old Temple and suggests that 1139 might be more appropriate. He focuses on the evidence that burial and monuments in the Temple Church provide for medieval attitudes towards death and commemoration in general and specifically for the Templar's perspective. In his complementary essay, Philip Lankester presents a detailed study of 'The Thirteenth-Century Military Effigies in the Temple Church' and grapples with questions of identification and date, problems not easily resolved in the study of English medieval effigies as a whole.

Robin Griffith-Jones investigates Sir Christopher Wren's refurbishment of the Temple Church in three projects in 1682–3, 1695 and 1702, in the context of the church's imagined past and its present patrons, Wren recognised the association with the Holy Sepulchre in Jerusalem and accounts for the classicising details in relation to the lawyers' wishes.

Rosemary Sweet addresses 'Changing Perceptions of the Temple Church in the Long Eighteenth Century' and observes that there was a transformation of its meaning from the early 18th-century notion of a memorial to the lawyers of the Inns of Court to the early 19th-century appreciation of the knights' tombs and the role of the building in the transition phase of Gothic architecture. William Whyte explores the Temple Church in the 19th century, a strangely neglected area. He lauds the pioneering work of Joseph Mordaunt Crook on the topic, on which he builds significantly and, complimenting Rosemary Sweet's essay, accounts for changing attitudes towards restoration in the 19th century.

In his second essay in the volume, Robin Griffith-Jones's provides an excellent account of the restoration from 1840 down to 1941. It is a pity that he does not continue to the restoration of the church after it was bombed in 1941; It is to be hoped that he will follow up with that topic in a separate paper.

The book is to be thoroughly recommended. The quality of the essays is excellent. They are accompanied by good illustrations, especially those from antiquarian sources. It is a volume that is sure to stimulate further research on all aspects of the Temple Church, for which it provides a solid foundation with ample footnotes, something that is especially useful for students.

Malcolm Thurlby

London's Medieval Waterfront: Excavations in Thames Street, London, 1974–84. By John Schofield, Lyn Blackmore and Jacqui Pearce with Tony Dyson. Archaeopress in association with the City of London Archaeological Trust, 2018. Pp xxiii + 513, 292 figs, 200 tables. ISBN 978 1 78491 837 8 (paper), 978 1.78491 838 5 (e-pdf). Price £90 hb; pdf free from Archaeopress or CoLAT.

This is both a wonderful and occasionally a frustrating volume. Fortunately, the wonders far outweigh the frustrations with much being delivered from four waterfront sites (Swan Lane, Seal House, New Fresh Wharf and Billingsgate Lorry Park) located in two blocks of properties, one each above and below London Bridge. A rich wealth of material has had to be marshalled into a coherent whole and the editors and writers are to be congratulated on producing a volume which is both useful and accessible.

Three key themes are set out in the introduction: an examination of waterfront development between 1100 and 1666; exploration of the lives of inhabitants on the two blocks of properties; and how the myriad artefacts and pottery sherds enable insights into both those lives and lives further afield. These themes are augmented by nine research questions (p 17) covering topics such as functionality of buildings and space, trade, industrial activity, and comparison with sites elsewhere in London and beyond. Evidence is drawn from a wide range of archaeological material (often beautifully illustrated either in colour photographs or drawings such as the Seal House tiled floor in fig 131) and from documentation (also

with occasional illustration; the opening page of the parish cartulary of St Botolph Billingsgate is reproduced as a full-colour image covering an entire page, crisp enough for both words and marginalia to be read without difficulty). The work as a whole complements earlier publications dealing with Roman and Saxon material from the same sites. A further post-1666 volume is to follow.

The principal text opens with a cogent summary of the port of London in the 12th century (section 2.1; Period M1). It provides a snappy contextual assessment for the succeeding site-by-site descriptions and is a methodology followed for subsequent periods (1200–1350 M2; 1350–1500 M3; and 1500–1666 P1). The range of well-referenced material is impressive, if occasionally a little outdated: as an example, the assertion on p 144 that hulks developed out of cogs in the 15th century is unlikely to be a widely-accepted view. Discussion of ships, however, is indicative of the range of contextual information that is provided by these sections – that for the period 1500–1666 has sub-headings for topics addressing the Legal Quays, trading companies, the Steelyard and Custom House, London Bridge, and livery company halls as well as ships.

The site descriptions are pithy enough not to deter the interested general reader but detailed enough to ensure sufficient information for the inquisitive expert. The drawings are clear, especially those in colour, but a little more consideration to the provision of a key would have been appreciated: on fig 29, p 25 for instance some 13 features appear to have been ovens; it is only on p 28 that one discovers that they were hearths. Short but useful assessments of finds are integrated into the text as is documentary evidence. Tables summarise waterfronts, buildings, dates and documents, occasionally with added comments. The eye is continuously drawn to illustrations of startling discoveries, from everyday objects to excavated structures and even the only surviving European medieval straight trumpet. Occasional asides, such as that provided by fig 81 which suggests the form of the pre-Wren church of St Magnus, provide context for individual sites (in this case Tenement 9 at New Fresh Wharf).

Each substantive period also has a short section discussing the waterfront area in the light of the site descriptions. Where possible these seek to integrate archaeological and documentary evidence as with B: Waterfront 3 on Tenement 6 at Swan Lane where 'it is an attractive possibility, but no more …' that a 1246 complaint regarding narrowing of access was reflected in the physical evidence of the building (p 136). Data is also sought from a range of comparable locations across northern Europe.

Notwithstanding the often fascinating data within the above texts, the principal focus for most readers is likely to be Ch 6, a series of essays and specialist reports exploring 'the development and character of the waterfront of the City of London, 1100–1666, and suggestions for future research'. An immediate and useful table here (table 50) summarises outcomes to each of the nine research questions posited earlier. The discussion sections understandably have a London focus, although occasionally referencing analogies elsewhere, and provide particularly useful assessments of the development of buildings in the city as well as examining individual trades such as dyeing, fulling or brewing. The exploration of the non-ceramic finds is especially interesting, not only concluding that the reclamation dumps behind the excavated waterfront features did not represent local activity but also exploring topics such as mass production, recycling and consumer demand – and the difficulties inherent in such study. The contribution of both pottery and other ceramics to understanding of the sites is presented both clearly and thoroughly as is assessment of wares and their development, and the methodological approach adopted. The referencing throughout the volume is very good (footnotes are helpfully grouped at the base of the page) with a solid bibliography.

The book can nevertheless be frustrating, especially in terms of ease of use. The somewhat bland chapter and section headings identify the main parts of the text clearly enough but need to be supplemented by a good index. At best, that which is provided can be described as capricious: 'Jamestown' gets an entry – for a reference noting that it was founded in 1609 – and

even 'Japan' in a note about the wife of the first Englishman known to sail there (!) – but not Hull or Siegburg, both of which have considerably greater, and more relevant, mention in the volume. The index does not list pilgrim badges even though pilgrim souvenirs are shown on figs 53, 61, 62, 106, 116, 122, 128, 165, and 236, with mentions of discoveries throughout the text.

The opening summary of the volume points out that the four excavations which comprise the contents are presented as 'a starting point for further study of the material culture of the whole City …'. Elsewhere it is stated that the report is primarily a study of reclamation and land uses at the waterfront. It is thus hardly appropriate to cavil at omissions although one would perhaps have liked comment on such lacunae as the apparent complete absence of continental stove tile fragments from the ceramic assemblages. Such items were certainly rare in later medieval and early post-medieval England but not unknown; it is surprising that not one fragment seems to have been recovered in the vast quantities of material located at the various sites.

Notwithstanding, this commendable publication details analysis and synthesis of a mass of data, much of which was recorded on sites excavated before archaeologists at the Museum of London had access to any computers at all. Its emergence in the 21st century, aided by digital technology, means that the volume is now also accessible through the generous provision of a completely free download. This doubling of provision is terrific; the sheer pleasure of reading through the printed text and studying the images can be augmented by a digital version with a word-search facility, mitigating the shortcomings of the index. In print and digitally, the book is both a major contribution to the archaeology of London and a rich source of material, methodological approaches and ideas for archaeologists and historians elsewhere in Britain and north-western Europe.

Brian Ayers

The Friaries of Medieval London: From Foundation to Dissolution. By Nick Holder with contributions by Ian Betts, Jens Röhrkasten, Mark Samuel and Christian Steer. Boydell Press, 2017. Pp xvi + 363, 91 figs, 20 tables. ISBN 978 1 78327 224 2. Price £50 hb.

The archaeology and history of British medieval friaries in general have enjoyed some close scholarly attention in recent years, with some justification (for example, Nicholas Rogers (ed) *The Friars in Medieval Britain* Harlaxton Medieval Studies Vol XIX (2010); D O'Sullivan *In the Company of the Preachers: The Archaeology of Medieval Friaries in England and Wales* Leicester Archaeology Monographs 23 (2013)). These studies have set the context for a much closer examination of those which existed in London between the 1220s and 1540s. London's friaries on the eve of the Dissolution took up as much as 5% of the walled city and were highly popular, complex and significant institutions, so a systematic and integrated analysis is long overdue. Holder and his colleagues have done a superb job.

The stated aim of the book is to attempt to reconstruct the layout of churches, cloisters and precincts of the seven London friaries – colloquially known as Blackfriars, Greyfriars, Whitefriars, Austin Friars, Crossed Friars, Sack Friars and the Pied Friars. In doing so, Holder consciously omits the female house of the Minoresses (better seen as part of an ensemble of nunneries), the Trinitarians at Hounslow, and the later 15th-century Observant Friars at Richmond and Greenwich (each too distant).

Following a clear and useful exposition of the methods and approaches taken in the project, the book is structured in two principal parts. Part 1 (pp 15–172) considers the evidence for each of the seven houses (including the three successive locations of Blackfriars), reconstructed from a rigorous combination of cartographic, documentary and archaeological sources. This evidence (and its weaknesses) is fully explained and referenced, drawing on Holder's PhD thesis of 2011. Each chapter takes the reader carefully through the chronology of the development of the friary and its precinct, offering a quick background to each of the mendicant orders in turn. It synthesises the archaeological evidence (from numerous

separate excavations or observations) to create a properly geo-referenced map of the entire precinct in as much detail as possible.

In Part 2 (pp 173–324), this evidence base is then used to consider the friaries as a group, to consider similarities and differences between the houses. Chapters compare and contrast the churches, the precincts, the architecture and building materials (provided by Mark Samuel and Ian Betts), and the water supply before widening their scope to cover economy, spiritual life and educational roles (Jens Röhrkasten), burial and commemoration (Christian Steer), and relationships with London. A final chapter reviews the impacts of the Dissolution. The end-matter comprises a timeline of significant events relating to the friaries, a full bibliography and a clear index.

The initial house-by-house reconstruction in Part 1 is very well presented; each chapter reviews the evidence for how the land for each friary was acquired, how the church developed, the evidence for the cloister, and then the evidence for the wider precinct. The graphics are very clear and combine archaeological and documentary evidence effectively and persuasively. There is a welcome focus on trying to understand the structure of the early friaries – broadly between the 1220s and the mid-1270s. This latter period is demonstrated as a significant watershed which, for a variety of reasons, saw considerable expansion, often including the development of secondary cloisters, reconfiguration, and two closures.

The chapters are brimming with detail relating to the land acquisition sequence, benefactors and land, and illustrate the remarkable forward planning that must have been involved in carving out substantial holdings within a significantly built-up environment. Among some of the more interesting elements of the developed precincts, we learn of a parliament hall in Blackfriars (p 35), a prison in Austin Friars (p 139), and a set of almshouses for poor widows of the Clothworkers' Guild opposite the infirmary at Whitefriars (p 106); not, perhaps, the most obvious facility to expect in a male religious house. At Austin Friars, we see that the choir was connected by a row of arches to the adjacent parish church of St Peter-le-Poor (pp 131, 141), a feature

otherwise only identified in the nunneries of the Minoresses (Franciscan), St Helen Bishopsgate (Benedictine) and St Mary Clerkenwell.

Moving to the thematic chapters, the book provides some very useful plan-based comparisons of churches along with a particularly neat graphic (p 181) showing how the churches evolved on a common timeline. The review of the 13th-century church plan forms (insofar as they are known) is particularly welcome, demonstrating clearly the relatively humble and simple early churches and providing a stark contrast with the 14th-century replacements. The treatment of the precincts, especially the later medieval evolutions (pp 197–8) is very impressive, allowing us to see these as the complete, multi-functional entities that they were.

The chapters on architecture and building materials give a clearer sense of the structural material culture of these institutions, confirming that they shared much with other well-funded religious and secular establishments of their age, but that they were not overtly rich in their adornment.

The chapters on the friaries and their social relationships reveal centres of learning and the seats of master scholars; very close ties with London guilds and religious fraternities, but also, interestingly, with foreign mercantile groups and fraternities as at Blackfriars and Crossed Friars (pp 206–7) which extended to burial for some 'aliens' (p 288). The examination of burial and commemoration, with some beautiful illustrations of tombs created in the 1520s before their destruction, confirms the important links that many of the upper tiers of society felt to these houses (pp 274–6).

An interesting approach to the use of precinct space by the various kinds of visitor or resident is presented graphically by mapping routeways (pp 208–9), following on from work done by Roberta Gilchrist at Norwich cathedral priory, but one feels more might be made of it. The expansion of tenements within friary walls in the 15th and 16th centuries is remarkable and is demonstrated as a significant element of the total friary income. The reference from the 1530s, just before the Dissolution, to the rental of apartments in cloisters (p 300) suggests that this permeability was increasing.

The book concludes with a very useful research agenda (pp 313–15) which might well help future students and scholars direct their efforts. One topic which I would add to this is the influence of the friars' architecture on other later medieval religious houses of London. The 14th-century churches of St John Clerkenwell and St Mary Graces both show distinct friary-like attributes, for example.

Overall, the book, while clearly scholarly in nature, is very well-written, engaging and accessible. There is a small number of mistakes in the volume. Fig 23 is not of Greyfriars – the building shown lies beyond what is clearly Smithfield and must be St John's Clerkenwell. Greyfriars may be detectable on the same view as a long roof line just visible above St Paul's. Fig 68, comparing the use of internal spaces within the churches, suffers from omission of a key.

In summary, however, this volume is a major addition to the scholarship on the archaeology and historical geography of medieval London and a significant contribution to the study of mendicants in this country and further afield. It is an excellent case study in approaching the religious landscape of other towns and cities. The authors and those who provided funding for it (AHRC, LAMAS, CoLAT and Francis Coales Charitable Foundation) are to be warmly congratulated.

Barney Sloane

A Map of Tudor London: England's Greatest City in 1520. Map originally produced in 1989, now revised by Caroline Barron, Vanessa Harding and Nick Holder, with cartography by Giles Darkes. The Historic Towns Trust in association with the London Topographical Society, 2018. ISBN 978 0 9934698 3 1. Price £8.99.

It is unusual to have the opportunity to review a new map of old London, and more unusual still to have the chance to compare it with its predecessor, published 30 years before. But what a pleasure it is.

For the price of perhaps three cups of coffee, one gets a handsomely produced, two-sided map measuring *c.*1.25m by 85cm, folding, Ordnance Survey style, into a card-bound wallet readily slipped into a bag. The paper is of high quality, though not laminated. The principal map is a beautifully printed, crystal-clear, full-colour rendition of what we know about the city and its immediate suburbs in *c.*1520, at a scale of 1:2500. On the reverse, an alphabetical gazetteer of more than 1000 entries to be found on the map (and their grid references) provides an alternative means of exploring the city. This is accompanied by helpful thematic box texts and a close-up map showing the arrangements of the city wards.

The cartography is precise and very legible. There is a considerable amount of information shown. Beyond the principal street pattern, careful colour coding allows one to distinguish churches and religious houses, defensive, royal and legal structures, and significant commercial and residential buildings. The extent to which the city was (or indeed was not) built up is quickly apparent, as is the range of orchards, gardens and fields both around and within the walls.

This characterisation of land in the city immediately draws one in. The wealth of religious facilities is noteworthy, but so too is the range of some 40 livery halls serving the city's guilds. The map is bang up to date with new archaeological and historical research integrated. So, Nick Holder's recent work on the friaries of the city has been included, as has new understanding from archaeological excavations at the hospital of St Mary Spital in the east, the priory of St John of Jerusalem in the north, and the great houses of Winchester Palace and Fastolf Place in Southwark.

But the map isn't just a portable hard copy. There is also a digital version available on the Layers of London website (https://www. layersoflondon.org/), where it is possible to compare the 1520 layout with the modern streetmap, for example. This will ensure that it can be more readily updated after another thirty years of research.

This map will appeal to anyone interested in London's history, to those electing to walk around the city and to researchers of urban development and archaeology. The potential for school projects seems rich. Finally, it should also be of significant help in managing the city's historic environment. For such a modest price, I heartily recommend it.

Barney Sloane

The History of the London Water Industry 1580–1820. By Leslie Tomory. John Hopkins University Press, 2017. Pp xiii + 314, 52 figs, 8 tables. ISBN 978 1 4214 2204 6. Price £40.50 hb.

The water pipes of the City of London in the early modern period are not often found, because archaeologists rarely record beneath the present streets. But when you do, this is the book to have in hand.

Leslie Tomory describes how the new water supply, gradually replacing the medieval system of conduits, was established by immigrant entrepreneur Peter Morris in the 1580s, then developed by the rival New River Company of the early 17th century (led by Hugh Myddleton, a crafty manipulator) as others piled in. Further chapters explore how technological innovation sustained the industry in the later 17th century, the establishment and fortunes of other companies, how water purity became an issue to the increasingly important consumer market in the 18th century; and finally how steam engines and iron pipes, instead of the previous accident-prone wooden ones, transformed the industry again after 1800.

What was new in 1600 was that entrepreneurs started selling water to the city using their own infrastructure. The joint-stock financing of the New River Company was the backbone of its success and longevity. Tomory is interested in the financing (the 'business model' of the early entrepreneurs) and the politics, but we can also concentrate on what may be left in the ground. By 1620 the New River Company had mains in many streets on the north side of the City, which Tomory has plotted onto the map of the Civil War forts in 1642–3 by Vertue. In the 18th century John Strype proudly described how 'there is not a street in London, but one or other of these waters runs through it in pipes, conveyed under ground … there is scarce a house [above a certain rent level] but hath the convenience of water brought into it'. Various methods were employed to provide the water: man-made channels such as the New River using gravity; pumps and waterwheels, such as at the Bridge; and later steam engines, after a difficult period of experimentation. Tomory plots the New River's pipe network in 1770 on a map of 1795, showing (dimly, alas, in the book; reproduced here, Fig 1, p 318) a forest of pipes along streets from the West End to Shoreditch and Spitalfields, any point on which can be checked by archaeological work. He has used the records in London Metropolitan Archives to very good effect.

Tomory examines London's water supply network as an integrated infrastructure project, similar to but preceding the supply of gas, electricity or the telephone. The innovative organisation (pipes, stopcocks, channels, waterwheels) was better than in Naples or Paris for many years; it was driven by the consumption needs of the rapidly expanding metropolis after 1600. By 1800, around 75% of houses had piped water, that is to cisterns in the basement; though only for periods of hours on certain days. The London system was imitated by the authorities in Paris in the 1820s, and aspects of it in Hamburg slightly later.

In general the author's London topography is sound, though the engraving of Cheapside in 1638 does not show the Great Conduit, but Cheapside Cross. A disappointing number of the maps are too small and are poorly printed; the result probably of using coloured artwork without changing it into greyscale. This is a widespread negligence by publishers of books and journals these days (see review of *London: A Biography*, above) and is easily remedied with one minute on the computer per figure. When will publishers wake up? Much of the work that went into the maps in this book is rendered pointless. Perhaps the e-book version could include colour figures at a much larger scale and with greater clarity.

In sum, an important first synthesis of a subject archaeologists should add to their repertoire, and a calling of attention to a large range of documentary sources in the archives.

John Schofield

Fig 1. The New River's pipe network in 1770, reconstructed by Leslie Tomory from records in London Metropolitan Archives, overlaid on Bowles's Reduced New Pocket Plan of the Cities of London and Westminster with the Borough of Southwark (1795) (Tomory, The History of the London Water Industry, fig 4.6)

In Life and Death: Archaeological Excavations at the Queen's Chapel of the Savoy, London by Lucy Siburn and Paola Ponce. Spoilheap Productions (Archaeology South-East and Surrey County Archaeological Unit) Monograph 17, 2018. Pp xix + 207, 144 figs, 76 tables. ISBN 978 1 912331 04 9. Price £30 pb.

Archaeological studies of London cemeteries continue to provide important new perspectives on the city's former populations and this volume is no exception. Presenting the results of excavations carried out in 2011–12 at the burial ground of the Queen's Chapel of the Savoy, Westminster, *In Life and Death* details the archaeological and historical development of this fascinating site, the Savoy Precinct, from its origins as a 16th-century hospital for the poor, through its use as a 17th-century hospital for parliamentary soldiers of the English Civil War and 18th-century barracks and prison of the Foot Guards, to its redevelopment in the 19th century for civilian use.

Arranged over eight chapters, the volume breaks with convention by presenting the archaeological results later and after the osteology results. The introductory chapters describe the circumstances of the excavations and the historical context. The excavations were undertaken ahead of works to extend the chapel to include a robing room and sunken garden. The archaeology almost entirely comprised burials which represent around 17% of the original burial ground, used up until 1854. A nicely illustrated general historical summary is presented in Ch 2 giving a flavour of London society and the population that lived and died in the Savoy Precinct during the time span of the burial ground.

The precinct itself has a fascinating, rich and varied history, effectively conveyed in Ch 3, beginning with its development as a hospital out of medieval palace ruins at the instigation of Henry VII. Historical source material (for example, hospital accounts and hospital statutes) is woven into a clear and informative narrative on the 16th-century hospital, its character, design, daily life and expenses. During the 17th century, the hospital became the first military hospital for wounded parliamentary soldiers and information is presented on military

medicine and some of the surgeons who practised at the Savoy, their treatments and ideas, including some compelling material, such as using human corpses for medicinal purposes (p 27). Some 50 years later, the hospital became the barracks and prison of the Foot Guards. A good part of the chapter is given to reviewing historical sources on the lives of the resident soldiers, their recruitment background, uniforms, weapons and daily military life, and of the prisoners, brought in from the late 17th century.

The latter part of Ch 3 turns to the Savoy Chapel and burial ground. The latter was used from the beginning of the hospital and was also used by parishioners of St Mary-le-Strand. The Chapel itself contains burials and the biographies of some of the individuals commemorated there are presented. This information may seem superfluous, but presenting it in the context of this book provides a new perspective, in particular, linking what survives today with the past.

Detailed consideration of the Savoy Chapel's surviving burial registers and London Bills of Mortality for the Savoy Precinct (1625–1758) is next. Burial registers cover a total of 11,000 burials dating between 1680 and 1854 and relate to all phases of the burial ground except the medieval hospital. Research on these is logical and sensible: shortfalls are discussed and work targeted towards demography, cause of death and soldiers, derived from 10,926 entries – an impressive data set. This research also cleverly integrates newly generated historical data by using census material, obtained from the Great Britain Historical Geographical Information System Project (see: http://www2.port.ac.uk/research/gbhgis/aboutthegbhistoricalgis/).

A total of 609 articulated skeletons and a quantity of disarticulated human bone was osteologically analysed and the results are detailed in Ch 5. The majority of skeletons are probably associated with the 18th-century barracks and prison and the 19th-century civilian population, so incorporate a specialist group, rarely observed in the archaeological record. The analyses combine detailed description with statistical analysis and beautiful photography of selected cases. Data are presented so that other osteologists

may use it, but it is a shame that true prevalence rates (number of bones affected with a condition out of the number observed) are not more forthcoming. Demography and pathology appear to be reflective of a military population. Trauma was prevalent but this result may be biased by the inclusion of some conditions that may have other causes. Some examples of surgery and post-mortem intervention were identified and are detailed with reference to factors such as the tools used and motives. In addition, bone and hair isotope reports offer an insight into the diets of some of the individuals, although because they are preliminary they are, by their very nature, limited in scope. That said, individual isotope results are very effectively integrated with findings of disease in later sections of the chapter. A summing up, at the end of the chapter, would have been good.

A very detailed and thorough interrogation of the evidence to explore the burial ground, such as its organisation, phasing, development, burial practice and named individuals is the focus of Ch 6. Archaeological data, funerary inscriptions, osteology, GIS, 1930s survey data and historical information are effectively integrated. Despite all the effort, it was not possible to phase burials to distinguish military from civilian burials. The work is robust and forensic with attention to details such as insects from the graves and funereal textiles. A short section on cranial variation and ancestry is set within a discussion on burial registers and coffin plates. Non-burial features are described, but all finds which could not be associated with burials are presented in a collection of specialist reports in the penultimate chapter. The final chapter provides a good and very useful overview to the volume.

Overall, this is an attractively produced book which is rich on information and specialist input. In particular, it is exemplary in the application of recent and emerging scientific techniques to the study of burial grounds and the integration of these with history and archaeology. It demonstrates nicely how traditional analysis of human remains is enhanced, but not replaced, by new techniques and how archaeology projects like this are important opportunities for such studies.

Louise Loe

South-East Marylebone Part 1 and Part 2. Edited by Philip Temple and Colin Thom. Survey of London volumes 51 and 52, published by Yale University Press for The Bartlett School of Architecture, UCL, 2017. Pp xix + 913, 915 figs, folded map in pocket. ISBN 8978 0 300 33197 8. Price £126.62 hb.

These two weighty volumes are only the first fruits of the Survey's keenly awaited work on Marylebone, of which we have been given tantalising glimpses in the Survey's online blogs. Still to come are further volumes which will tell the stories of Oxford Street and the area around and west of Baker Street. The two volumes have to be read together – the introduction is in vol 51, followed by the western streets from Marylebone High Street eastward; vol 52 carries on the story from Portland Place to the borough boundary. The index to both volumes is in vol 52; sensibly, however, the references for each chapter are at the end of each relevant volume.

Unlike early Survey volumes which aimed to cover whole parishes, this is not a history of the old parish and borough but a forensic examination of only a part of it, a slice of inner London, now within the City of Westminster. The buildings described are predominantly residential or commercial. There are no obvious civic or municipal landmarks, no board schools and only one council estate. The scope of what is included here, dating from the 18th century to the present day, is suggested by the contrasting frontispieces – in vol 51 a view of 1791 of the Marylebone Manor house shortly before its demolition, in vol 52 the proudly formal Portland Place as it appeared *c.*1831, epitomising the expansion of west end grandeur as entrepreneurial landlords developed the surrounding countryside with regular grids of streets. The maps in the end pockets take the story further. The first, *c.*1870, shows an area entirely built up, disturbed only by a few patches of green and the snaking line of the ancient Marylebone Lane leading to the High Street. The second, *c.*2010, seems superficially similar – the regular street grids of the 18th century still dominate. But scrutinise the map further and one can spot the changes: fewer green patches, single buildings replacing rows

of houses, and between the main streets subtle changes to the former mews areas which remain such a distinctive aspect of the original layout, details which are all given the careful attention characteristic of the Survey's recent volumes.

The text is clearly written with well integrated illustrations, which include a selection of plans and drawings and many fascinating older views (many from the British Museum's Crace collection). Through them one can explore some of the interesting buildings which no longer exist: among them Soane's elegant chapel for Noel Desenfans, inspiration for the mausoleum at Dulwich picture gallery later built for the Desenfans collection; the mid 18th-century Foley House whose 'right to a view' dictated the width of Portland Place; the youthful James Wyatt's own house, Foley Place, which stood on the site of the BBC; nearby, the lavish Queens Hall of 1890 by T E Knightley made famous by Henry Wood's concerts, destroyed in 1941, and the Middlesex Hospital whose more recent demolition left a great gap in the centre of the area covered by vol 52.

The defining role played by the great estates is explained in the historical introduction – successively Cavendish-Harley, Portland, and from 1901, Howard de Walden – with the smaller Berners estate to the east. The story is enlivened by character sketches of the chief players: owners, agents and architects. Character and personal taste had significant effects: Robert Adam's developments in Mansfield Street and Portland Place displayed 'speed, guile and resilience': the Adam brothers' financing was built recklessly on mortgages to their sisters and loans from their craftsmen. The early 20th-century Howard de Walden surveyor, Colonel Blount, attempted to maintain appearances in opposition to more progressive architects, insisting on homely shutters for the 'bijou houses' tucked into the spaces behind the grander streets, in an effort to retain the area's superior residential character. For the same reason run-down Adam terraces in Portland Place were replaced by desirable blocks of fashionable flats. But not all – the Survey's illustrations demonstrate how much elegant 18th-century interior detail and subtle variety of plan still survives in the houses in this area.

Clients could be unpredictable. In 1717 the Harleys had ambitious hopes for Cavendish Square as an aristocratic Tory stronghold, centred on a palace for the Duke of Chandos on the north side, but this foundered when Chandos lost much of his wealth, and the square was not completed until later in the century. The smaller enclave of Stratford Place dating from the 1770s was more successful in expressing Georgian hierarchy: a palace of stone (much altered but still extant) for Lord Stratford, an Anglo-Irish aristocrat, coherently flanked by brick and stucco terrace houses and (originally) including shops and mews. The layout may owe something to the City Surveyor, George Dance, as well as to the little known architect Richard Edwin to whom payments were made (the buildings were on land leased from the City of London, known as the Lord Mayor's Banqueting Ground, from Mayoral visits to inspect the conduits bringing water from the Tyburn to the City). The Stratford Place terraces survived into the 20th century, although exactly what remains now is not easy to work out. But the chapter does include fascinating lists of past 'notable occupants': artists, politicians, diplomats and 'others'.

Moving a little further to the north east, a different pattern emerges from the lists of occupants: Cavendish Square south side has 'eminent medical residents', Wimpole Street and Devonshire Place have 'medical residents' (a total of 55), while Harley Street, (within the chapter rather than at the end) lists over 70 'medical practitioners' in addition to those mentioned in the text. The growth of private medicine around Harley Street is explained by the proximity of the Middlesex and the University College teaching hospitals, together with the development of numerous specialist hospitals established in the area in the 19th century. The medical profession already began to occupy domestic buildings in the later 18th century; purpose built institutions followed. A remarkable combination is the Royal College of Nursing in Cavendish Square where the exceptional painted interiors of a grand house of the 1730s (perhaps associated with the architect James Gibbs) were cleverly enveloped in Edwin Cooper's College building of the 1920s.

The fashionable medical character of the western streets contrasts with the less grand

streets of vol 52. These had been frequented by artists and craftsmen, but commerce and industry gained ground during the early 20th century, a little known story which is especially fascinating. The growth of Oxford Street as a fashionable shopping area encouraged the development of the garment trade in the streets to its north, at first in modest premises but from around 1900 in specially built workshops. Meanwhile much of Great Portland Street, sold off by the Howard de Walden estate, was developed speculatively. The site of the 18th-century proprietary chapel of St Paul was replaced in 1907–8 by an ambitious classical building intended as a concert hall, but by 1912 the ground floor was a motor showroom. The trade burgeoned rapidly; by 1921 the street was famous as the 'Motor Market of the World', and a motor showroom was even included on the upper floor of Great Portland Street station when rebuilt in 1929–30.

The Survey is an enjoyable quarry for social and biographical detail, and the excellent introduction offers helpful guidelines. There are mini-histories of the many institutions and societies established in the area as well as of individuals. But no less rewarding are the scholarly architectural assessments. Among the older landmarks are several very different churches: the modest St Peter Vere Street by James Gibbs (with a reconstruction of the original interior instead of a depressing view of its present state), Nash's All Souls, and (a real tour de force) Butterfield's All Saints Margaret Street, where the colour photography of the details is especially revealing. Colour also brings out the quality of some of the quirkier late 19th-century buildings in the eastern streets, such as F L Pither's striking Radiant House, Mortimer Street, with its turquoise-blue faience panels, given the honour of a full page chapter-head position, while the green mosaic nameplate of the ironmongers Boulting & Sons in Riding House Street appears on the back cover of vol 52. Due attention is given to the work of Beresford Pite, the most lively and inventive of the architects working in this area in the later 19th century; others were Frank Minshull Elgood, and C H Worley; Wigmore Street illustrates the liveliness of later 19th-century streetscape in contrast to Georgian sobriety.

Highlights from the 20th century are two significant headquarters in Portland Place, both dating from the early 1930s: the BBC and the RIBA, which both raised questions about appropriate style and form. The debate over the plan which eventually evolved on the BBC's awkward site is discussed in detail, and the entry brought up to date by a description, aided by some stunning photos, of the alterations and additions of 2000–5. In contrast, the building of the RIBA was a calmer affair, the account brings out the fine materials, craftsmanship and sculpture that contribute to the elegant interiors. The final chapter in vol 52 is devoted to the story of the University of Westminster, whose disparate buildings are scattered through Marylebone, starting with the Royal Polytechnic Institution founded in 1837, and culminating in the colossus of the Marylebone campus of 1970.

One cannot do justice in a review to the depth and diversity of these volumes, to their infectious enjoyment of discovery and to their enhancement of understanding of a complex area of London. They are worthy successors in the great traditions of the Survey established by Francis Sheppard, who laid the groundwork with his own history of the parish of St Marylebone. This is an expanded version of a review which appeared in the newsletter of the London Topographical Society in May 2018.

Bridget Cherry

Trading in War: London's Maritime World in the Age of Cook and Nelson. By Margarette Lincoln. Yale University Press, 2018. Pp. xii + 292, 28 figs. ISBN 978 0 300227 48 2. Price £25.00 hb.

In this attractively produced and deservedly recommended book, Margarette Lincoln has set herself the challenging task of presenting some of the complex 'forgotten histories' of 'London's Maritime World' between 1760 and the beginning of the Napoleonic War, with occasional sorties beyond these dates. As with her other books, Lincoln addresses these stories with empathy and deep historical understanding, vividly enhanced through an engaging lyrical literary style. Lincoln tells her selected stories – of the great, the good,

the not so good, the ordinary and the not so ordinary – with panache, as she deftly journeys backwards and forwards across the fluid worlds of social, cultural, maritime and urban history. There is a real wealth of material relating to the riverside districts east of the Tower between the book's covers, especially for those coming relatively new to the subject or stepping in from different historical specialisms.

The book has a very widely-drawn cast list. Here, for instance, Captain James Cook and his wife, Elizabeth, rub shoulders with: Captain William and Elizabeth Bligh; Mary Lacey, 'the female shipwright'; the East India Company; the Cleveley family of marine painters; the Thames Marine Police; sundry criminals; shipwrights, coal heavers and lightermen; slavers; and the poor. The role of women is a core theme throughout, with a special chapter entitled 'Spirited Women'. Other chapters focus on 'London's Riverside', 'Opportunities and Pressures of a World City', 'War with America', 'Crime and Punishment', 'Money and Pleasure', 'War with France' and 'Grand Designs'. In the latter chapter, which deals with the 1790s pressure for port reform and the subsequent building of new trading docks, it is good to see that Lincoln avoids the usual trap of eulogising Patrick Colquhoun and his self-serving views on the supposed levels of criminality amongst portworkers.

This is, essentially, the story of maritime London written from a rich micro-historical perspective rather than from a more staid macro one. Thus – and this is no criticism – there is relatively little statistical and other detail on overseas trading patterns, London's coastwise trade, merchant networks, shipowning and marine insurance. For a deeper understanding of these aspects of London's trade, some readers will need to look further afield for source material. Also, given the range and pitch of the work, the 'Trading in War' part of the title seems to have been unnecessarily shoehorned-in.

The book is enhanced by one in-text map, focusing on the shipbuilding and naval facilities of Rotherhithe and Deptford, and 27 colour and black and white plates, helpfully set over 16 pages towards its centre. The plates, which are of very high quality and image resolution, are accompanied by properly informative captions. Taken together, these both reflect the book's subject range and enhance its text. If only all history publishers were prepared to follow suit, the world would a more rewarding place for authors and readers alike. Each chapter is accompanied by selective endnotes. There is an extensive bibliography, which is particularly good in relation to published material – although some readers may notice omissions of favourite texts – and an excellent index.

Chris Ellmers

Images of Hampton in the 1920s and 1930s: The Roads and Buildings, Businesses and Shops, The River and Recreation. By John Sheaf. Borough of Twickenham Local History Society, 2017. Pp 100, 126 figs. ISBN 978-0-903341-99-8. £7.50; obtainable from Borough of Twickenham Local History Society (www.botlhs.co.uk). Winner of the LAMAS Local History Publications Award 2018.

As we walk through our neighbourhoods, many of us ask ourselves how the built environment was in the past: what the roads and streets looked like; what the buildings were used for; who designed and built them; who used them; and how the open spaces were used.

In the case of Hampton, John Sheaf has chosen to focus on the interwar years in order to answer such questions with well-researched information. His main emphasis however is visual. As the title of his book suggests, there is a preponderance of images, many of them comparatively rare, most of them never previously published, and these include a number of black and white or sepia postcards of the period. For various reasons, postcard publishing and collecting, having been fashionable in the late Victorian period and after the turn of the century, became less popular in the inter-war years. Fewer postcards were printed and fewer were collected. Changes in photographic technology had enabled amateurs to create their own images, but many of these, not having been provided with contextual details, were forgotten and thrown away.

In the 1920s and 1930s however, Hampton was fortunate to have a local timber importer

named Edward Yates. He was also a gifted amateur photographer, who did label and date his images. Photographs that he took in his travels around Hampton are joined in this book by locally published postcards and original plans for housing in the borough, many of which are beautifully drawn and coloured.

Each of seven chapters focuses on a road or street deemed by the author to be important to the essence of Hampton: Church Street, Hampton Court Road, High Street, Station Road, Thames Street, Upper Sunbury Road, and Uxbridge Road; in every one he offers a close-up map as a guide for the reader. Details and images of buildings and their (changing) use are then given. He moves on to a collection of 'Some Other' roads, lanes and avenues, and includes many architects' drawings. A similar approach can be discerned in 'New Roads', many of which were constructed during the housing boom of the 1920s and 1930s.

'People at Work' describes the changes through time of specific businesses and shops, and the book concludes with a look at 'People at Play – Recreation and Celebration'. This places great emphasis on ways in which Hamptonians enjoyed the benefits of the borough's river frontage. Some of them lived on houseboats, and many of them were entertained by regattas on the water; regular fairs were held on Hampton Court Green; and processions were held to mark important local and national occasions.

For anyone with past or present (or indeed future) roots in Hampton, this will be an excellent and entertaining acquisition, in which every page shows the love that the author has for the local history of this area. John Sheaf's book is a worthy winner of the LAMAS Local History Publications Prize for 2018.

Richard Gilpin

INDEX

Susan Vaughan

Illustrations are denoted by page numbers in *italics* or by *illus* where figures are scattered throughout the text