A research framework for London archaeology 2002

A research framework for London archaeology 2002 sets out three inter-related aims for the future of London archaeology: realising the potential of the London Archaeological Archive, managing the archaeological resource more effectively, and facilitating better focused archaeological research. It follows on from publication of the resource assessment *The archaeology of Greater London* (MoLAS 2000), and is intended to be used in conjunction with it.

Introductory chapters describe the character of both the buried and recorded archaeological resource. The main chronological periods are summarised with reference to current knowledge, research questions and priorities. The summaries are intended to prompt further review, rather than acceptance as set 'shopping lists' for future work. Research priorities are also addressed in a separate chapter, set out as five major research themes investigating what London was like in the past: topography and landscape; development; economy; people and society; and continuity and change over time.

The final chapter considers how we can move towards a research strategy for London. It describes important initiatives in research and archive access, and goes on to look at how we can develop and nurture a research culture and get more out of London archaeology. The newly opened London Archaeological Archive and Research Centre, which contains archives from the majority of over 5200 archaeological interventions in Greater London, will help in achieving these goals.

It is hoped that this *Research framework* will act as a catalyst for continued debate, leading to new thoughts on the direction of research in the future.

MUSEUM OF LONDON

ENGLISH HERITAGE

A research framework for London archaeology 2002

Front cover: The London Archaeological Archive and Research Centre

CONTRIBUTORS

CONTENTS

LIST OF FIGURES

FOREWORD

The London Archaeological Archive and Research Centre (LAARC) contains enormous, untold and untapped potential. The archaeological record created over the last 75 years is of international value and significance. Our premise is that it is only by studying the recorded data, by working with what we have and extending our understanding of it, that we – and others – will be able to use the records of London's past to inform the future.

Therefore, the prime motivation for presuming to produce this document was to help to unlock the potential of the LAARC. While the document does not set out priorities for managing the *in situ* resource *per se*, it recognises that inevitably, our evolving understanding of the archive will flavour our approach to managing, protecting and recording *in situ* archaeological deposits.

We have set out to meet two important principles. Firstly, we have based the framework on encouraging partnerships and collaboration between different individuals and organisations. There is a significant body of research already underway using LAARC data, involving a large number of people and organisations, and there are projects and research programmes that have added enormous value by drawing together not only different groups and different disciplines, but also different sources of funding. We have sought, therefore, to develop a research framework that will help to integrate the many strands of ongoing research into London archaeology. We recognise that an effective research framework needs to be capable of guiding large numbers of research programmes and projects while providing cohesion. We have unashamedly promoted integrated, thematic analysis as an approach to understanding the archaeological record, and want to encourage – in partnership with other groups – research seminars and conferences on different themes to challenge our evolving interpretations.

Secondly, our intention has been to create a *sustainable* framework for research. Inevitably, this document contains views and aspirations that are of its time. Understanding and interpretation should – and will – change, and we have set out to foster an approach that is heuristic, rather than didactic. As the contents of the LAARC become more accessible, better known and collectively understood, new ideas and avenues for study will evolve and it is important that interpretations are challenged. As the curator of the LAARC, the Museum of London (MoL) therefore proposes both to cross-examine and regularly republish the *Research framework*, and to act as publisher and distributor for a series of individual statements ('Research matters'), by different bodies, individuals and partnerships, about very specific research questions – or answers. It is our hope that this will recognise and embrace the cultural diversity of London's people (and consequently of their material culture) at all stages in its past and, importantly, help to underpin the role that archaeology plays in showing how modern London has grown out of and is linked to the past – and how past landscapes will continue to mould the future.

Taryn Nixon, Museum of London

SUMMARY

This *Research framework* sets out three interrelated aims for the future of London Archaeology: realising the potential of the London Archaeological Archive; managing the archaeological resource more effectively; and facilitating better focused archaeological research. The LAARC, which opened to the public in February 2002, contains the archives from the majority of the total of 5200 archaeological interventions known to have taken place in the 32 boroughs of Greater London and the City, but most of these archives have not been analysed and are unpublished. The information and proposals presented here are the fruits of an extensive consultation involving over 120 individuals and organisations interested in the archaeology of London (see Chapter 10, Appendix 1). That consultation, and this document, follow on from the archaeological resource assessment presented in *The archaeology of Greater London* (*AGL* 2000).

It is the intention of this framework to guide but not proscribe the direction of archaeological research in London. To that end, Chapter 2 briefly outlines the character of both the buried and recorded archaeological resource, including the London Archaeological Archive and current research. Chapters 3–7 present the common-usage chronological periods for London with reference to our current knowledge and emergent research questions and priorities – a research agenda. Selected (rather than comprehensive) bibliographic references to general research areas and current research projects are included in order to try and give an indication of the present direction of archaeological work. The period statements do not pretend to be exhaustive and are not intended as shopping lists from which to select worthy research topics. Researchers may identify valuable subjects which are not specifically referred to here, but it is hoped the framework may act as a catalyst for the development of new ideas and directions in archaeological work.

The review of research priorities can be also be considered through five major research themes to discover what London was like in the past. These are set out in Chapter 8 and can be summarised as: topography and landscape – their diversity across the London region and influence on human activity; development – the relationship between urbanism, rural settlement and other regions; economy – its origins, dynamics and products; people and society – identity, status and beliefs and continuity and change over time.

Chapter 9 considers some of the ways we can move towards a research strategy for London. It describes important initiatives in research and archive access, and goes on to look at how we can develop and nurture a research culture and get more out of London archaeology.

Chapter 10, Appendix 1 lists the many consultees who took part in the development of the *Research framework*. Appendix 2 summarises the major research themes as a series of points and Appendix 3 sets out strategic objectives. The bibliography is selective but lists many works central to our knowledge of London archaeology, including the very latest publications of 2002 and in preparation.

ACKNOWLEDGEMENTS

I

INTRODUCTION

Aims

This *Research framework* has been driven by three separate but related imperatives: the need to realise the potential of the London Archaeological Archive; the importance of managing the archaeological resource effectively and the desire to target academic endeavour to where it will have greatest effect.

The LAARC represents the largest excavated and recorded archaeological resource in Europe, comprising the majority of data from over 5200 known archaeological interventions. As well as the archives of hundreds of published excavations, it contains a mass of unexamined data and untold stories. The London Archaeological Archive, like many archives across the world, has a speckled history which includes periods when it was closed completely. Today, however, considerable investment has been made to enable researchers to begin to use its data effectively. The publication of a research framework is a vital tool for guiding, facilitating and integrating research by a whole range of individuals and groups that will actively contribute to a deeper and holistic understanding of London's past.

Officers in local planning authorities have expressed the desirability of incorporating agreed research priorities into conservation plans as a means both of enhancing the credibility of the development control process and of ensuring cost-effectiveness and value for money, while legitimately maximising the intellectual return on expenditure (Olivier 1996; English Heritage 1997, 11). In an age when so much archaeological research stems from property development, the establishment of an agreed research framework offers a vital link between the intellectual and the practical, between ideas and data.

It is widely agreed throughout the archaeological community that understanding derives from rigorous questioning, and that research is therefore best conducted in the context of focused academic debate. Thus researchers need a background against which to frame their research proposals, a yardstick against which to measure their results and a mechanism that provides feedback and publicises findings – and hypotheses.

Notwithstanding these three imperatives, it was felt that a research framework for the London region must shape research and not dictate it. Accordingly, the aim of this document is very particularly to shape research that concerns data held by and destined for the London Archaeological Archive. It aims primarily to guide and integrate the study of the recorded resource, although there is a tacit assumption that the results of that study will inevitably help to inform resource management decisions as well. Ultimately, the aim of this *Research framework* is to contribute to the integrated study, understanding, conservation and popular appreciation of London's rich archaeological past.

Purpose – who is the *Research framework* for?

London represents 500,000 years of superimposed human occupation, the last 2000 years of which have taken the form of intense urban growth. The physical layers of the archaeological record are paralleled by a similar period of conceptual development. Ideas of what is meant by and thought of as London have changed throughout time. London has a multi-cultural, multi-lingual population with differing views and expectations of the past. The origins of many Londoners lie elsewhere, and if they identify with London at all it is with their local area or neighbourhood rather than with the immensity of the modern city.

The challenge is to tell histories and stories that make those people realise that London's history is theirs. Creating a research framework is the means of harnessing and interpreting the archaeological resource to tell those stories, within a context of conserving the resource itself.

A research framework for London archaeology is therefore for the people of Greater London, for those who manage and curate the archaeological resource (landowners, planners, curators and archivists, developers, conservators, consultants and contractors), and for anyone with an interest in Greater London or wishing to research the archaeology of Greater London, particularly through the LAARC, for whatever reason and at whatever level.

The history of archaeological research strategies in London

Aspirations for a research framework for London archaeology are not new, although the context and approach may be. The publication in 1973 of *The future of London's past* was a landmark in terms of heritage management (Biddle and Hudson 1973). Restricting itself to the City of London, it assessed the surviving archaeological resources, compared them with what was known of London's history and recommended strategies for fieldwork and conservation. This was followed by *Time on our side?* a more superficial but wide-ranging assessment of archaeology in Greater London (Grimes 1978) and the London and Middlesex Archaeological Society's (LAMAS) useful summary of the then current state of knowledge (Collins et al 1976).

During the 1990s the understanding of the archaeological resource continued to be updated. English Heritage's document *Exploring our past* (English Heritage 1991a) promoted a mix of chronological and thematic strategies and identified landscape types meriting further attention nationally. Regional studies followed: to the east of London a research framework has been produced for the Greater Thames Estuary (Williams and Brown 1999). To the north east, the archaeology of the five eastern counties of Essex, Suffolk, Norfolk, Cambridgeshire and Hertfordshire have been addressed in a resource assessment (Glazebrook 1997) and a research agenda and strategy (Brown and Glazebrook 2000). A research framework is also being prepared for the east Midlands. National research questions and implementation strategies were again addressed in the consultation document *Draft research agenda* (English Heritage 1997). In 1998, *Capital archaeology* (English Heritage 1998a), although not part of the research cycle outlined below, described the framework of understanding of London's archaeology that guides the work of English Heritage's Greater London Archaeological Advisory Service (GLAAS) and promotes the thematic analysis of London's past rather than study by traditional chronological period.

These documents form a sound basis for archaeological research and management in the region in the 21st century, and together with national and international period- and subject-based research frameworks (eg Gamble 1999; Haselgrove et al 2001; James and Millett 2001; see also Olivier 1996, 46–55, for a comprehensive list) enable research to be viewed within a western European, and wider, context.

The archaeology of Greater London (*AGL* 2000) represented a comprehensive assessment of the state of knowledge of London's archaeology in the 1990s. It is *AGL* in particular which forms the basis for identifying and questioning new research agendas for London in this document, as indicated in Chapter 2.

The context of a new research framework for London

The approach

For a research framework to be effective it must represent the involvement of the whole archaeological community. A wide consultation process began in 1998, followed by a series of period-based seminars organised during 1999 (Chapter 10, Appendix 1). A draft setting out archaeological research priorities was first circulated within the Museum of London in February 2000 and went to external consultees in the summer of 2000 (Chapter 10, Appendix 1). The document represented the collective efforts of a very large number of people involved in the archaeology of Greater London.

The approach chosen was based on that promoted by English Heritage (Olivier 1996) which defines three main stages of the research cycle: assessment, agenda and strategy. Here, the *resource assessment* summarises the available resource and the state of our current understanding of London's archaeology; the *research agenda* identifies gaps in our knowledge, the potential of the resource to fill those gaps and objectives for future research; and the *research strategy* sets out the proposed methods of achieving the stated objectives. The structure of other archaeological research frameworks, for example that for the Greater Thames Estuary (Williams and Brown 1999) helped to inform our approach.

In defining 'London', two particular aspects of London archaeology have stood out – the perceived obscurity to London's present residents of its past, and the tremendous potential of the London Archaeological Archive to inform us of that past. These factors set London archaeology apart from many other areas of the country, and were seen as the key influences in creating an effective research framework.

The perceived obscurity of the past to today's London

There is and may always have been a tension between London as a capital city and the London region as an 'umbrella' for numerous communities. As the largest city in England for most of the period since its foundation by the Romans, and, for a time, the largest conurbation in the world, London claims the attention of researchers at both the national and international level. On the other hand, Londoners themselves are often more focused on the very recent history of their family origins and their own neighbourhoods, the places where they live and work. This may be partly a factor of how London developed, by spreading over smaller settlements, and partly a factor of scale.

Today's modern cityscape bears little resemblance to historic landscapes, which in much of the London region are particularly heavily obscured. Roman roads may continue to leave their imprint, but suburban development largely conceals the fundamental differences between heavy clay uplands and riverside mud flats, between light gravel terraces and chalk hill slopes. Urban sprawl has swallowed up many individual historic settlements, yet replaced them with neighbourhoods of a distinctive character of importance to those who live and work in them. Adjacent areas with superficially similar building styles may conceal widely varying origins, say in Roman staging posts, farming villages, medieval market towns, moated manors or Edwardian commuter 'dormitories'. The areas most densely occupied in the Roman and medieval periods now house businesses, and relatively few homes.

The size, complexity and potential of the London Archaeological Archive

The potential of the London Archaeological Archive has scarcely been tapped. Notwithstanding the thousands of evaluation, excavation and research archives contained in the LAARC, the pre-1990s emphasis on excavations in the historic urban core of London has produced a wealth of records from deeply stratified sites and exceptionally well-preserved finds and environmental material from an abundance of waterlogged deposits. There are over 20 local archaeological societies in the Greater London area, and many more local historical and amenity societies, each with their own research ambitions. Most of the 32 boroughs of London have their own museums or heritage centres that complement the Museum of London's capital-wide collections, which are undoubtedly of world importance. There is also a very considerable amount of archaeological research presently underway, undertaken by societies, universities and professional field archaeology units.

Definitions of London

The LAARC takes as its definition of London the 32 boroughs and the City of London (Fig 1). The research questions and strategies outlined in this document are therefore primarily concerned with data contained within – or destined for deposition in – the LAARC.

Fig 1 The boroughs of Greater London and the City of London

It goes without saying, however, that London as a geographical entity has been viewed very differently at different times, and that its modern administrative boundaries cannot readily be imposed on past precepts; it is impossible to define a single study area that makes sense in terms of historical geography.

Equally, to many peoples – past and present – London is more a concept than a geographical entity. It is function, form, and socio-economic and political factors that determine how people viewed, visited, inhabited, traded with and generally treated London, or indeed the myriad different parts of London. Research into London's past must, without doubt, address the influences of and relationships with other societies – both well beyond London and closer neighbours (Fig 2).

At the same time London's shape has been influenced by the region's landscape, with settlement patterns reflecting variations in the underlying geomorphology of clays, gravels and silts (Fig 3), a phenomenon which is considered in more detail in Chapter 3.

To avoid confusion, and accepting the arbitrary nature of such definitions, the following terms have been adopted throughout this document.

London region: the geographical area of Greater London and its surroundings, the lower Thames valley
Greater London: the geographical area covered by the current 32 London boroughs and

the City of London

west London gravels: the terrace gravels of the Thames in west London around Heathrow airport

east London: the low-lying areas north of the Thames in east London; marshlands in later prehistory

north Kent: the chalk downlands south of the Thames

south-west London: the clays and gravels of north-east Surrey and the Wandle floodplain

London: the historic urban core of Westminster, the City and Southwark

the city of London: the urban centre of London at any point in time

the City of London: the medieval and later City

Westminster: medieval Thorney Island and its later development

north Southwark: the area of the Roman settlement on the south bank of the River Thames and its later development

Fleet Valley, Walbrook Valley, Wandle Valley, Colne Valley, Lea Valley etc: the floodplains of these tributaries of the Thames

Fig 2 *The south-east of England, showing Greater London and the surrounding counties*

Fig 3 *Drift and solid geology of the Greater London region (copyright British Geological Survey)*

Fig 4 *Lamps and tazze forming a cremation group from a 2nd-century AD roadside cemetery at 165 Great Dover Street, Southwark*

Fig 5 *The Spitalfields Archaeology Centre was visited by over 27,000 people during the excavation work at Spitalfields*

The structure of this document

It is the intention throughout this document to create a pragmatic framework that will guide but not proscribe archaeological research, and to create sustainable mechanisms to update the agenda.

Resource assessment

The detailed assessment of London's archaeological resource was presented in *AGL* (2000). Here, in Chapter 2, a summary of the character of the archaeological resource that is 'available' to researchers is given, with particular reference to data held in or due to be deposited in the LAARC. To complement the statement in *AGL*, which summarised our understanding of London archaeology in the 1990s, an outline is given of some of the major research programmes that are currently underway involving LAARC data.

Period-based research priorities

Taking *AGL* as our starting point, the common-usage chronological periods are addressed with reference to emergent research questions (Chapters 3–7). Inevitably, like the statements in *AGL*, these represent snapshot, or moment in time commentaries (rather than period summaries) and will need review. They may be viewed as the research priorities for the next decade with the caveat that we must expect that these priorities will change, perhaps subtly, perhaps dramatically, well before ten years have elapsed. The reasons for identifying particular research questions or priorities are discussed, and then summarised as Framework objectives. The period statements contain selected bibliographic references to major research projects that are currently underway or proposed.

The Framework objectives are coded for ease of reference as follows: prehistory P1–P6; Roman R1–R13; Saxon S1–S8; medieval M1–M6; London after 1500 L1–L10.

The research agenda – major themes

The proposed review mechanism is based on thematic analysis. Therefore, a small set of research themes are put forward here (Chapter 8), not with the intention of providing an inclusive or exhaustive list, but as a means of helping to integrate current and future research initiatives and of focusing our understanding of London's past as it develops. Many of the themes emerged as prominent during the preparation of *AGL*, and in some cases are being addressed at least in part by existing programmes of research, such as some of the projects cited in the period statements.

As with the period-based research priorities the Framework objectives are coded as follows for ease of reference: topography and landscapes TL1–TL4; development TD1–TD7; economy TE1–TE4; people and society TS1–TS8; continuity and change TC1–TC4.

Fig 6 *Surveying the tidal reach of Deptford Creek for the Environment Agency*

A research strategy for London

This section (Chapter 9) describes the actions proposed in order to address the research agenda questions raised in previous sections.

The implementation strategy is set within the three philosophical parameters described above, and is focused on delivery to all the users identified. Importantly, the strategy is founded on sustainability: mechanisms are described for reviewing, revising and regularly updating thoughts on the research themes, involving the collaboration of a wide range of researchers. In addition to the proposed regular review of the *Research framework* itself, as an umbrella document, a new series of widely disseminated bulletins entitled 'Research matters' will be a key tool in developing ideas on different research themes and evolving project proposals.

Fig 7 *Teaching extra-mural students recording techniques at the Birkbeck College-MoLAS training dig*

2

RESOURCE ASSESSMENT

The archaeological resource falls into three categories: the extant, buried or *in situ resource*; the residual or *recorded resource*, which has been destroyed but recorded, and the published and unpublished sources describing and interpreting it; and *related resources* from relevant, non-archaeological sources. Each is very different in nature, in management requirements and in research strategies, yet needs to be addressed within the same research framework.

The *in situ* resource

The extant or *in situ* resource is that which still has physical existence, such as surviving archaeological deposits and buildings (Darvill and Fulton 1998). The *in situ* resource consists of the following.

The buried resource

In 1973, Biddle estimated that only approximately one-fifth of the archaeology of the City was still 'reasonably intact' (Biddle and Hudson 1973, 51). In retrospect this was clearly an understandable but significant underestimate of the remaining resource. It has also proved to be the case that more archaeology survived in the Greater London area than was thought likely in the 1970s.

Standing buildings

These are a more easily quantifiable resource, their accessibility allowing better qualitative and chronological assessment. Although an extensive survey of the standing and demolished buildings of London has been undertaken by the Survey of London, published since 1900 in a series of 45 volumes plus 18 monographs on individual buildings, these cover only a fraction of London's parishes and much of their potential for interpreting the history of London in combination with the archaeological evidence remains untapped. The work of the Survey now includes development of the capital, its architecture, buildings and topography.

Fig 8 Moving the London Archaeological Archive into its new home at 46 Eagle Wharf Road

The quantification of the *in situ* resource is normally only tackled on a site-by-site basis, in response to development proposals. The London boroughs each have Unitary Development Plans, many of which incorporate archaeological 'constraint maps' showing 'priority zones' of presumed high archaeological potential and/or, conversely, zones where archaeological deposits are presumed no longer to survive. The best mechanism to update such maps is still a matter of discussion. While some towns and cities in England have developed Urban Archaeological Databases, with English Heritage's backing, there is no single, up-to-date, relational database – the Greater London Sites and Monuments Record (GLSMR) is an incomplete and quite limited record – used in the research and management of London's extant archaeological resource. There is a strong argument for producing updated maps showing the survival across London of deposits of different periods, perhaps in tandem with work to maintain the GLSMR, for it is by analysing what we know, that we can propose a framework for managing and researching the *in situ* resource (Carver 1996, 53). Naturally, such a framework will need to cope with the unexpected – either new discoveries or conversely sites where survival below ground turns out not to be as good as anticipated.

The recorded resource

The recorded resource for London is biased: for a variety of reasons, the vast bulk of collected data and material relates to the very small geographical area that forms the historic core of London - the City of London, north Southwark and, to a lesser extent, Westminster. That bias has been addressed to an extent by the adoption of Planning Policy Guidance Note 16, *Archaeology and planning* (known as PPG 16), introduced in 1977 (DoE Circular 23/77), which substantially reinforced the treatment of archaeology as a material consideration in the planning process. PPG 16 (DoE 1990) has had an immense effect in terms of both the greater numbers of archaeological interventions and their wider geographical spread, with areas which had hitherto been overlooked now receiving routine attention. It is important to recognise developer-funded archaeology as 'a research activity with an academic basis, the aim of which is to add to the sum of human knowledge' (Wainwright 1978, 11, quoted in Thomas 1997, 138). Planning Policy Guidance Note 15, *Historic buildings and conservation areas* (DoE 1993), has had a similar though lesser influence for standing buildings.

Fig 9 Recording medieval skeletons at Spitalfields

The archaeology of Greater London (AGL 2000)

The extraordinary discoveries and enormous leaps in understanding London's archaeology during the last 20 years or so have been summarised in *The archaeology of Greater London* (*AGL* 2000), a comprehensive volume first commissioned by English Heritage from the Museum of London's archaeology departments. It stands as a detailed statement of the sum of our knowledge and understanding in the 1990s. *AGL* addresses data from all 32 London boroughs and the City, and covers the period from *c* 300,000 BP to approximately AD 1800. It is in two parts, comprising an assessment of the resource in the form of descriptive chapters on the changing natural environment and ten common-usage chronological periods, with period maps and gazetteers of sites and finds, and reference material – including a summary of regional resources and a large bibliography.

A key part of the original purpose of *AGL* was to stimulate debate and to provoke questions. As Roger Thomas pointed out: 'Paradoxically, the more quickly this volume … begins to seem in need of revision, the more successful it will have been in achieving its aims' (*AGL* 2000, viii).

The Museum of London archive gazetteer series

The gazetteers were published by the Museum of London (MoL) in order to facilitate access to the archive. These gazetteers list and summarise archaeological excavations in the capital and as such serve as a summary of and index to the London Archaeological Archive. Volume 1 covers excavations in the City of London 1907–91 (Schofield 1998), volume 2 excavations in Greater London 1965–90 (Thompson et al 1998) and volume 3 records of excavations by Professor Grimes in the City of London 1946–72 held by the Museum of London (Shepherd 1998). Further publications in this series, particularly on various classes of find, are planned.

The Greater London Sites and Monuments Record (GLSMR)

English Heritage's Greater London Archaeology Advisory Service (GLAAS) manages the GLSMR, which represents the regional index to all archaeological work ever undertaken in London. It is

generally treated as the top level of enquiry. The GLSMR includes 75,000 records, divided more or less evenly between archaeological sites and listed buildings: 14,000 of the records relate to archaeological sites, of which 11,900 have a site code (the unique alphanumeric code assigned to each new intervention). In 1999 alone the London Archaeological Archive issued 293 site codes for work ranging from small evaluations to complex urban excavations. A total of 320 site codes were issued in the year 2000, and 336 codes were issued in 2001. More recently, the work of the Thames Archaeological Survey has resulted in a baseline archaeological survey consisting of over 2000 records and 2000 images (Webber 1999).

The London Archaeological Archive

With the opening of the LAARC in 2002, archaeology in London reached another major milestone. It faces a challenge as significant as that which it faced in 1972 (before the establishment of professional archaeological units in London) or again in 1990, with the advent of PPG 16. By the end of 2001, over 5200 sites had been archaeologically investigated in some way in the Greater London area, and the material currently housed in the London Archaeological Archive is, without doubt, the largest archaeological archive in Europe. Since the archaeological material in the Museum's archive represents some 20% of the total English resource, it is clear that this archive is not just of overriding importance for the study of the capital and its hinterland, but also it is without question a collection of national importance.

The LAARC, curated by the Museum of London, contains over 120,000 boxes of material, including paper records, pottery, building materials, metal and composite finds, palaeobotanical and faunal remains, from thousands of archaeological interventions in the 32 London boroughs and the City of London. Most of the archives from these interventions remain unpublished save for gazetteer summaries.

Its future effectiveness as a research tool depends on actively enabling flexible access to and manipulation of the data (see Chapter 9, London Archaeological Archive access enhancement).

Other museum collections

Material relating to the history and archaeology of London is also housed in the British Museum, and in private and borough Museums throughout London and elsewhere. Undoubtedly there is a great deal more dispersed material which remains undocumented. It is beyond the scope of this document to take full account of this material; nonetheless, it is hoped that the proposed framework will be compatible with research into this material, and that future access programmes may enable us to link currently scattered archives and material.

Published accounts and 'grey literature'

The recorded resource is of course supplemented by hundreds of reports and other sources, which are more or less accessible. Often, excavation reports are accused of being dull, inaccessible and encumbered with unnecessary detail (see Shanks and McGuire 1996, 80). Unpublished reports prepared by archaeologists for developers to submit to local planning authorities (so called 'grey literature') have their own, limiting, styles; they are designed for a specific purpose and it is dangerous to hold too high an expectation of them as interpretive reconstructions of history. Nonetheless, it is common for archaeologists only to access archives when some form of interpretive report already exists (Jones et al 2001; B Sloane and S Mays, pers comm). Although we know very little about how and why archaeological archives are consulted, the impression is that they are under-used (Swain et al 1998, 45), and that the most used archives seem to be those that have been most fully published, such as Danebury, Hampshire (H Swain, pers comm).

Fig 10 An iron padlock and rotary keys formed part of a remarkable assemblage of Tudor finds from More London Bridge in Southwark

Current research and use of the London Archaeological Archive

A great deal of archaeological research, involving a very wide range of organisations and individuals, is in progress. Most of that research is driven by commercial imperatives, representing the post-excavation work following developer-funded field interventions; a smaller but equally significant body of synthetic research is being funded by grant-aid. Without over generalising, it is true to say that much of this work is done in relative isolation; it is rare for two organisations to collude to any great extent during post-excavation research – though it is more common for individual researchers to approach organisations for access to unpublished material and for that to result in a degree of collaboration. This is perhaps an inevitability, given the present legislative framework. Nonetheless, there are good examples of collaborative projects involving professionals and amateurs, students and field archaeologists, university researchers and commercial units (see Chapter 9). The success of collaboration is evidenced in the value that is added to the original, necessarily tightly defined project brief, by the results of work that the original brief could not have justified.

The key to encouraging more of this sort of collaborative work is seen as providing meaningful access to the archaeological archive. That is, not simply opening the doors to the archived material, but setting in place the infrastructure that allows people to explore and study that material. The Museum of London has embarked on a 'minimum standards' project, with funding from the Getty Foundation, which involves identifying and indexing all of the site archives held, and subsequently digitising this information for both on-site and remote computer access by individual researchers. This is part of the LAARC Access System, which is underpinned by the LAARC Management System (see Chapter 9).

Fig 11 Recording a 19th-century brewery in Mortlake High Street – the oast-house floor contains reused refractory material from an 18th-century pottery

3

PREHISTORY
RESEARCH PRIORITIES

As recently as 25 years ago the prehistory of the London region could have been described, not unfairly, as comprising little more than a striking collection of artefacts fished from the Thames or dug from the gravel terraces that marked its ancient floodplains upstream and downstream from the City. The few excavated sites (for example, Caesar's Camp at Heathrow (Grimes and Close-Brooks 1993) and the Neolithic causewayed enclosure at Yeoveney Lodge, Staines (Robertson-Mackay 1987)) were isolated monuments unrelated in space and time; virtually nothing was known of the overall pattern of human habitation of which they formed a part.

The work undertaken since, largely without the benefit of otherwise standard predictive techniques such as aerial photography and fieldwalking, has begun to transform our understanding, and revealed much that is new and unexpected. The implementation of PPG 16 from 1990 (DoE 1990) made it possible to target a far wider range of geologies and topographies, and a recent review of PPG 16 (Phillpotts 1997) identified a marked increase in known prehistoric finds and find spots, particularly for the Neolithic and Bronze Age. Yet the amount of prehistoric evidence recorded in modern excavations is still small in comparison with virtually all other periods, and the fact that so many sites remain to be published is a major obstacle to understanding.

The need, therefore, for better data cannot be over-emphasised and baseline surveys (eg Wessex Archaeology 1996; Wymer 1999 see below) are much needed. A detailed review of aerial photography evidence is also long overdue. The establishment of firm regional chronologies is an equally urgent requirement. London has a major – yet untapped – potential to contribute (as with, for example, Needham et al 1997) to national chronological frameworks, including projects such as Ancient Human Occupation of Britain (AHOB), a five year study funded by the Leverhulme Trust and involving The Natural History Museum and partners led by Professor Chris Stringer.

Similarly, recent regional and period-based thematic and synthetic reviews have begun to address the lack of published material, and the preparation of a range of interdisciplinary site-specific and thematic reports for central and outer London is welcome (Sidell et al 2002). New approaches to interpretation seek to reconstruct the ways in which human beings perceived and moved through their physical world, in an 'archaeology of inhabitation' (Barrett 1994; Barrett et al 2000). Advances in the new discipline of biomolecular archaeology are providing new opportunities for the determination of sex and kinship within human burials, palaeopathology, human origins and migrations, and studies of animal and plant domestication (Renfrew 2000).

We now not only recognise the tremendous potential of the region to tell us about the human communities who populated it in the half a million years or so before the Roman conquest; we also recognise the pivotal importance of the River Thames for human habitation in the region. The Thames was a barrier, a link, a resource, a focus for votive and ritual activity and an artery of communication. The questions for future research lie in understanding the Flandrian regression/transgression sequence, the effect of the oscillating relative sea and river levels on local plant, animal and human communities, and in understanding – through interdisciplinary studies – the relationship between the Quaternary gravel terraces and the Holocene floodplains (see Fig 3). Geomorphological evidence can increasingly be used to predict the location of surviving sites. Recently located inter-tidal sites, such as the drowned forest at Erith (Seel 2000) and the pile-built 'bridge' or structure at Nine Elms, Vauxhall (Haughey 1999, 18–19) now need further work to characterise and date the material. In turn, such work will shed new light on the historic collections of artefacts dredged from the river, just as the study of river management, ballast dumping and dredging activities may help to explain how and when antiquarian finds came to be deposited (Cotton 1999). In the study of London's prehistory, therefore, the perspective will necessarily shift between the global, regional and local, from the North Sea basin to the Thames Valley or to a single pit.

P1 Framework objectives

- Establishing firm regional chronologies tied into national chronological frameworks, taking the opportunity to clarify extant terrace sequences

- Carrying out baseline surveys for the Pleistocene in the London region, focusing on reconstructing geomorphology, ecology, ecosystems and climate, hydrology, and vegetational (eg building on the simple model of the Holocene vegetational succession in London created by Rackham and Sidell 2000), and faunal development (addressing the bias towards botanical reconstruction, attributed to the preserved evidence)

- Making comprehensive use of predictive digital terrain models based on borehole and other geophysical data, and opportunistically examining known sites and exposures

- Understanding the many and changing roles of the River Thames through the periods of prehistory since Oxygen Isotope Stage (OIS) 12 (478,000–423,000 BP), and the relationship between the many fluvial and terrestrial environments, between the floodplains and the gravel terraces, and between inner and outer parts of the Thames Estuary

- Reviewing palaeoecological reconstructions with specific regard to cognitive issues, such as the nature of the animal presence and human interaction with wild and domestic species needs research

- Understanding environmental change, especially climatic change, with respect to behavioural implications in the past (eg for shelter and migration) and providing context and coherence to research into future climate change

Early scavengers and hunters: the Lower Palaeolithic (c 500,000–38,000 BC)

In terms of numbers of artefacts recovered, the London region is one of the most important in Europe for the Lower Palaeolithic period, and contains a series of key sites and localities. Reinvestigation of several of these sites in recent years (for example, Conway et al 1996) has underlined their continuing potential to contribute to ongoing reassessments of the original data, some of it now over a century old. Guidance from English Heritage (1998b) has emphasised to planning authorities and developers the importance of managing the surviving Palaeolithic resource.

London also has one of the best understood river sequences in Europe: a lengthy terrace sequence from the Anglian to the mid Devensian with expanses (albeit diminishing) of fine-grained sand and silt deposits and a plethora of known sites and individual artefacts. Valuable work has been carried out on the Thames terrace sequence within the London region (Gibbard 1994; Gibbard 1995; Bridgland 1994; Bridgland 1995; Bridgland et al 1995). However, problems remain regarding the detailed correlation of some parts of the terrestrial sequence with marine Oxygen Isotope Stages.

Palaeogeography is seen as a fundamental area of research, and the Southern Rivers and English Rivers Palaeolithic Projects (Wymer 1999; Wessex Archaeology 1993; Wessex Archaeology 1996) provide a strong basis on which to build further work. Fundamental questions about how geomorphology and ecology influenced human activity, about the opportunities or hindrances that topography and environment posed to people, and about how and why people manipulated particular features of the landscape, remain to be answered. There is evidence for the presence of people in London since at least the Anglian diversion of

Fig 12 A Lower Palaeolithic pointed flint handaxe

the Thames (OIS 12), with the exception of the Ipswichian Interglacial (OIS 5e) and probably some time around it (parts of OIS 6 and 4). Specific objectives can be identified with the aim of reconstructing environmental conditions in the Palaeolithic, concentrating on dry, open areas (as opposed to river channels), marshes and densely forested areas. Again, understanding hydrology and establishing highly resolved chronologies for the period should be key research priorities.

The period also requires a particular focus on understanding the initial hominid colonisation and subsequent re-colonisations of peninsula Britain. It is not possible to conceive of these peoples' lives without understanding the terrain and ecosystems. Apart from the well known Swanscombe skull (Bridgland 1994, 205), thought to belong to a female dated to OIS 11, direct fossil evidence for the types of humans who produced Palaeolithic artefacts in the London region is non-existent.

P2 Framework objectives

- Creating baseline surveys on topography and landscape

    Modelling pleistocene geomorphology and ecology. Complete ecosystems need to be reconstructed across geographic zones, followed by the superimposition of settlement locations to build models of regional settlement patterns. The Palaeolithic has been studied in much less detail than the Holocene, therefore, this balance needs redressing

    Local and regional analysis of new sequences and landscapes (such as completed for the Crayford silts (Wessex Archaeology 1999)); it is possible, for instance, that palaeo-landsurfaces exist beneath the surviving expanses of the Langley Silt Complex ('brickearths') in west London (Gibbard 1994)

    Re-examining geological sections at known sites, using interdisciplinary teams with Quaternary scientists

- Establishing a sound chronology for the period (clearly distinguishing between dating and correlating sequences, events and horizons)

    Further technological research into dating techniques, including optically stimulated luminescence (OSL) and tephra chronology, and the testing of biostratigraphic dating against radiometric methods

    Co-ordinating a programme to test and develop dating techniques could yield valuable results. If it could be justified on a site-by-site basis, then opportunistic testing of different dating techniques could be carried out cost effectively in the context of commercial archaeological projects

- Targeting categories of research and geographic areas that commercial fieldwork should address

    Biostratigraphic research especially on interglacial deposits, in order to understand the prevailing ecological systems. This should include opportunistic sampling for pollen, vertebrates and invertebrates (eg Nightingale Estate, Hackney (Green et al 2000))

    Targeting specific areas and deposits with high potential: Stoke Newington, Ealing and Acton, Crayford, Southall and Ilford, and physiographic zones such as the Langley Silts, the edges of gravel terraces and palaeoconfluences

- Extending the analysis of different modes of flintworking (defined by, for example, Wymer 1999, 6–12 and Barton 1997, 19–24) to establish whether, as White and Schreve suggest (2000, 15–20), they are culturally significant

- Developing models which, rather than focusing on cultural-historical explanations seek a different focus using issues of human perception, human behaviour and cognitive issues using London material (for example from Crayford (Bridgland 1994, 250), from the Southall mammoth kill site (Wymer 1991), and from megafauna assemblages)

Later hunters: the Upper Palaeolithic and Mesolithic (*c* 38,000–4000 BC)

The Upper Palaeolithic is poorly represented nationally and, unsurprisingly, there are few *in situ* assemblages or associated faunal remains of this date from the London region. The lack of sites may be due to a number of factors, climatic, cultural and/or taphonomic. Areas in London that may produce further material include the Kempton Park and Shepperton Gravels of the floodplain, and the base of the Langley Silts Complex (*AGL* 2000, 54).

The early Upper Palaeolithic is represented in London by a single broken leaf point from Ham (Ellaby 1987, 53) and a small flint assemblage from Heathrow (Lewis in prep a). There is currently no evidence for human presence in the region in the millennia on either side of the Late Glacial Maximum, centred on 18,000 BP. However, humans were certainly present at the end of the Late Glacial (late Upper Palaeolithic), as the important 'long-blade' sites in the Colne Valley at Three Ways Wharf, Uxbridge (Lewis 1991; Lewis in prep b), and Church Lammas, Staines (*AGL* 2000, 52), demonstrate. These two sites provide vital regional evidence for the climatic transition between the Late Glacial and the Flandrian, enhanced by small faunal assemblages which at Uxbridge furnished two radiocarbon dates centring on *c* 10,000 BP. The important Upper Palaeolithic site at Sandy Lodge, Rickmansworth underlines the importance of the Colne.

Much of the evidence for the Mesolithic consists of isolated finds of flintwork, although other stone, bone and antler artefacts have been recovered from the Thames. However, recent excavations across different landscape types have produced a range of *in situ* early Mesolithic material, including lithic and faunal assemblages and important environmental data. These include the Colne Valley at Three Ways Wharf, Uxbridge (Lewis 1991; Lewis in prep b), the high ground on West Heath, Hampstead (Collins and Lorimer 1989), and the shoreline of a silting Late Glacial lake in Bermondsey, Southwark (*AGL* 2000, 52). The Lea Valley is generally very important for early Mesolithic evidence, especially sites that are preserved in peat, such as the nationally important Rickoff's Pit in Hertfordshire (Bonsall 1977), and these are a key research objective of the Thames Northern Tributaries Project (Lewis 1995). Publication of key sites will enable inter- and intra-site comparisons regarding issues such as cultural and environmental change, seasonality, hunting strategies, raw material procurement, tool manufacture, use and discard.

P3 Framework objectives

- Carrying out comprehensive baseline surveys

    The approaches set out in the Thames Northern Tributaries Project (Lewis 1995) could provide a useful regional starting point. Publication of key site assemblages include those of early Mesolithic type from Three Ways Wharf, Uxbridge (Lewis 1991; Lewis in prep b), the Old Kent Road (Rogers 1990), Creffield Road, Acton (Burleigh 1976; Bazley et al 1991) and a rare late Mesolithic assemblage from Amersham in Buckinghamshire

- Understanding what London looked like

    Geomorphological mapping of key feature types (such as lake basins, river channels and channel/dry land interfaces, as well as deeply sealed, surface-intact sites in the floodplains) is of importance in predicting the likely whereabouts of human activity. Predictive modelling using integrated borehole and geophysical ground investigation programmes have already proved valuable (Merriman 1992; Bates and Bates 2000)

    The nature and chronology of the hunter-gatherer impact on the natural environment requires greater resolution to establish, for instance, the extent to which the charcoal-rich horizons noted in the middle and upper valleys of the Colne and Lea are the result of human intervention

• Addressing aspects of continuity and change in the nature of the subsistence strategies pursued by human groups: how did they change and develop through time, and why?

• Explaining why the late Mesolithic is so poorly represented in the London region needs addressing. The validity of a model wherein communities retreated up the major tributaries and the valley sides in the face of rising sea and river levels needs testing

Early farming communities: the Neolithic and early Bronze Age (*c* 4000–1500 BC)

Evidence for the late Mesolithic and the Mesolithic–Neolithic transition is still poorly represented. In the centuries after 4000 BC there is evidence for the accelerating transformation of the landscape by human communities. This eventually manifested itself through the construction, maintenance and periodic reworking of earthen monuments of various forms on the gravel terraces away from the river floodplains, particularly in west London (Barrett et al 2000). This area appears to demonstrate a distinction between finds-rich monuments on the lower terrace gravels and 'clean' monuments on the upper terraces. Moreover, it displays contrasting distribution of prestige finds on the terrace gravels (few) as opposed to the Thames (many).

Apart from Runnymede Bridge (Needham 1991), domestic settlements have largely eluded identification, but may lie sealed beneath alluvium. Earlier Neolithic flint assemblages from Rainham (*AGL* 2000, Gz HV14; Macdonald 1976) and Ham may be relevant here, and urgently require assessment and publication. The subsistence strategies of these scattered local communities seem to have been geared (at least initially) to pastoralism rather than full mixed agriculture, and continued to be supplemented by the gathering of wild resources. However, without further large assemblages of botanical and faunal remains for comparison, the full significance of those from Runnymede Bridge remains difficult to gauge. Food residues on pottery from Runnymede confirm the continuing importance of gathered foodstuffs in the earlier Neolithic. Does the presence of gathered fruits and nuts in a series of later Neolithic pits in west London (*AGL* 2000, 73–4) and elsewhere similarly reflect the wider economy, or are these specially selected 'placed deposits'? Increasingly, cosmology was expressed in physical form through feasting, funerary ceremony/burial ritual and the deposition of 'placed deposits' in the river and on land, in the form of copper artefacts from 2500–2400 BC and bronze artefacts from 2200–2100 BC.

Ceramic studies have highlighted distinctions which need further elucidation such as the association of Peterborough ware with sheep/cattle lipids and of grooved ware with pig lipids (Gibson 1999, 161–2). But whilst Peterborough ware is particularly well represented as a class in London, the region scarcely contributed a single date to the recent national accelerator programme (Gibson and Kinnes 1997).

Fig 13 *A Neolithic/Bronze Age blade knife from the Royal Docks Community School site in Newham*

P4 Framework objectives

• Elucidating the nature of the Mesolithic to Neolithic transition
The pollen and coleoptera sequences at West Heath, Hampstead (Greig 1989), are relevant to wider debates regarding pre-Neolithic horticultural experimentation and the elm decline, but neither is secured by independent dating, and there is no direct evidence for any accompanying human presence. Elsewhere the floodplains probably provide the best opportunities for the discovery of the sealed, surface-intact sites that will throw light on the processes at work

• Reconstructing the environment and ecology on a regional basis
The west London gravel terraces have revealed a complex landscape dominated by earthen monuments of various forms (Barrett et al 2000), and this material needs to be compared, using environmental data, with sites away from the gravels, including West Heath, Hampstead (Greig 1989), on the northern heights, and Runnymede Bridge (Greig 1991), Bramcote Green, Bermondsey (Thomas and Rackham 1996) and Erith (Seel 2000) in the Thames floodplain. The examination of species composition, for example within the submerged forests at Erith, is adding important detail

• Researching the potential for categorisation of settlement sites
Future research should consider whether the lack of 'settlement sites' is more apparent than real, and if so, what it signifies. In this context the lithic assemblages from Brookway (*AGL* 2000, Gz HV14), Rainham (*AGL* 2000, Gz HV14; Macdonald 1976) and possibly Ham require assessment and publication

• Examining the influence of landscape, establishing whether the Thames confluences were considered important settings for different types of monument
Can the apparent dichotomy in west London between monuments on the lower and upper terraces be upheld? Similarly, can the differential distribution of prestige finds between the terraces and Thames there be explained? Does the pattern represent the presence of different communities? Or are the terraces and the river simply different parts of a landscape used by people who drew clear distinctions between the most appropriate settings for particular actions?

• Gathering and analysing data to understand the subsistence economy. In the absence of good botanical and faunal assemblages (such as Runnymede Bridge), the subsistence economy is poorly understood

• Establishing a (long overdue) dated regional ceramic sequence which includes an analysis of fabrics and vessel contents

Later farming communities: middle Bronze Age to middle Iron Age (*c* 1500–150 BC)

The monument-dominated landscapes of the Neolithic and early Bronze Age were gradually incorporated into an increasingly organised and recognisably modern agricultural landscape given over to a subsistence economy apparently founded on a mixed farming regime. On the gravel terraces, co-axial field systems serviced by droveways and waterholes were laid out by communities who lived initially in small and latterly aggregated open settlements (eg Muckhatch Farm (Needham 1987; *AGL* 2000, 88) and North Shoebury, Essex (Wymer and Brown 1995; *AGL* 2000, 88)). These were accompanied, at any rate in the early part of the period, by flat-grave cremation cemeteries. A normative burial rite disappears in the centuries after 1000 BC. The role and status of late Bronze

Fig 14 *Recording a Bronze Age timber platform at Atlas Wharf, Tower Hamlets*

Age ringforts (eg Carshalton (Adkins and Needham 1985; *AGL* 2000, Gz ST22, 89,92) and possibly Mayfield Farm (Merriman 1990; *AGL* 2000, Gz HO18)), and of the few defended enclosures of hillfort type (eg Caesar's Camp (*AGL* 2000, Gz MT1) and Warren Farm, Romford (*AGL* 2000, Gz HV1)), remain obscure. In the floodplains there is evidence for rising base levels and correspondingly intensive activity in the form of the construction of wooden trackways (eg Bramcote Green, Bermondsey (Thomas and Rackham 1996; *AGL* 2000, 87, Gz SW11)). Some of the locally higher sand islands in the Southwark and Bermondsey areas were under plough for short periods in the mid second millennium BC (*AGL* 2000, 91), and at least one field here had been manured (Drummond-Murray et al 1994, 254).

The period witnessed a steady rise in, and then a diminution of, river finds, reflecting a European-wide phenomenon (Needham and Burgess 1980; Fitzpatrick 1984; Bradley 1990; Thomas 1999). It is possible that this pattern in the consumption of prestige goods is intimately connected with the generation of agricultural surpluses in the field systems which were set back on the gravel terraces (Yates 1999). Can the metalwork deposition in the Thames be linked with the propitiation of supernatural or elemental forces, for example at the tidal head of the river, and can the metalwork be used to map the whereabouts of the shifting tidal head at different times (cf Needham and Burgess 1980, 452)? Did the deposition of weaponry accompany funerary/burial ceremonies or feasts, or can it be linked with the competitive destruction of valuable property to gain social prestige (Bradley 1990)? Why did the headwaters of tributary streams such as the Wandle attract a wide range of activities connected with feasting and the deposition of placed deposits including metalwork hoards? What part, if any, was played in the physical deposition of such items from structures of the sort recently located within the intertidal zone at Vauxhall (Cotton and Wood 1996, 14–16)?

Plant remains, pollen and field systems provide evidence of agricultural intensification from the middle/late Bronze Age (eg Phoenix Wharf, Bermondsey (Merriman 1990, 25; *AGL* 2000, 88)). Wooden structures suggest locally intensive use of the floodplain (*AGL* 2000, 89). Although limited, the early and middle Iron Age evidence hints at the continued use of an organised landscape, with some limited environmental evidence for both pastoral and arable economies (*AGL* 2000, 105).

The middle and Lower Thames are often assumed to be the localities in which Deverel-Rimbury ceramics first appeared, though there are still virtually no dates available for their inception or development. There is an urgent need for the publication of domestic Deverel-Rimbury assemblages, in order to balance a middle Bronze Age ceramic record hitherto dominated by cemetery groups (Barrett 1973). Following the publication of extensive late Bronze Age ceramic assemblages from, for example, Runnymede Bridge (Needham 1991) and Petter's Sports Field (Needham 1990), the local sequence of plain and decorated post-Deverel-Rimbury ceramics is relatively well-dated and understood. The same cannot, however, be said for the succeeding early and middle Iron Age sequences, which would benefit from the publication of key assemblages.

P5 Framework objectives

- Re-evaluating the core/periphery model proposed for the Thames Valley in the Bronze Age (Barrett and Bradley 1980), which identified relationships between the Upper and Lower Thames and between the river valley and its hinterland, on the basis of new evidence

- Re-evaluating the burial evidence, including undated inhumations and cremations, in order to identify first millennium remains. Radiocarbon dating of burial features is imperative in the light of finds of unfurnished inhumations of Iron Age date in Britain (Haselgrove et al 2001)

- Clarifying the mechanisms that prompted agricultural intensification. Is there a link between such intensification and the production and consumption of prestige goods? Establishing more, better dated evidence for the subsistence economy. The balance between pastoral and arable economies and patterns of subsistence are areas for further study, but these require improved data sets, particularly the retrieval of good faunal assemblages

Fig 16 A Bronze Age double-ditch round barrow at Whitehill Road near Gravesend

- Understanding the relationship between the wooden trackways in the floodplain and the settlements to which they presumably led. What was happening in the areas between the wetlands and the settlements? What light do the trackways shed on woodcraft and woodland management?

- Identifying the roles that ringforts played in the developing settlement hierarchy of the late Bronze Age, and their relationship, if any, with the few succeeding early Iron Age sites of hillfort type such as Caesar's Camp on Wimbledon Common (*AGL* 2000, Gz MT1) or Warren Farm, Upminster (*AGL* 2000, Gz HV1)

- Preparing settlement plans
   It may be hard to define complete settlement plans for open settlements, where scattered roundhouses and unenclosed features extend over several hectares. Nonetheless, it is imperative that large enough areas of such sites are examined to determine where settlement ends and other activities, such as stock pens and fields, begin.
   Exploring the extent to which less hospitable geologies such as the London Clay were exploited. Is the absence of sites merely apparent, the result of the comparative lack of success of standard predictive techniques on such terrain, or real? Mapping and characterising metal detected finds, and more general finds mapping, to inform consideration of the exploitation of the claylands

- Understanding the origins of the metalwork sequence from the Thames – which is second to none
   A review of metallurgical industries to try and establish the extent to which metalworking took place locally, by looking at the evidence for clay moulds and iron deposits in Surrey (*AGL* 2000, 88, 109)

- Refining and dating the local ceramic sequence
   Petrological analysis of fabrics, in order to characterise the production, sourcing, styles and influences of London's ceramic assemblages, and a usable form and fabric typology for the region. Once this work has been established comparisons with material from Kent, Essex, Surrey and the Upper and middle Thames Valley will allow London to be considered within its south-eastern context

- Constructing models for cultural links and boundaries and, in turn, a focus on wider questions about the political and socio-economic role of the Lower Thames at the time

- Understanding the place of lithics in the region at this time? Important assemblages from Runnymede Bridge and elsewhere await further study and publication

- Exploring seasonal craft activities such as salt production and weaving, and gaining an understanding of the sources and processes used in the manufacture of iron and quernstones (*AGL* 2000, 92)

Dynastic polities to urban hinterland: the late Iron Age and early Roman period (*c* 150 BC–AD 50)

The period from 150 BC is characterised in some parts of the Thames Valley by agricultural intensification involving the re-alignment of long-established field boundaries and the establishment of new types of enclosed settlements. Political elites began to emerge in certain areas of southern Britain, their presence linked with the appearance of early 'enclosed oppida' (Haselgrove 1989, 10–12). The latter were usually larger and more accessible than hillforts, and encompassed a wide range of craft activities. There is no local evidence for the presence of later 'territorial oppida' like Silchester, St Albans or Colchester, though stretches of linear earthworks such as Grim's Dyke remain poorly dated or understood. However, there is at least one possible site of this type in the London area, at Uphall Camp on the River Roding near Ilford (Greenwood 1989; Greenwood 2001), with a possible second reported from Woolwich (Greenwood 1997). Other settlement types include the small conquest-phase rectilinear enclosures such as Moor Hall Farm, Rainham (*AGL* 2000, Gz HV11), and Gun Hill, Tilbury (Drury and Rodwell 1973) that overlook the Essex marshes. It has been suggested that these might be local versions of Continental *Viereckschanzen* (Greenwood 1997, 160). There are also larger enclosed sites such as Loughton Camp, Ambresbury Banks (Morris and Buckley 1978, 22), Charlton Camp (Elliston Erwood 1916), Caesar's Camp (Hounslow, Grimes and Close-Brooks 1993) and Wimbledon (*AGL* 2000, Gz MT1).

Coinage, in the form of imported Gallo-Belgic gold staters, was in circulation from the middle of the 2nd century BC, and the earliest locally produced coins (the chill-cast tin bronze 'potins' of north Kent) appear a little later (Haselgrove 1988). In the decades after Caesar's invasions of 55 and 54 BC, wine amphorae and metal drinking and/or sacrificial vessels appear in the graves of certain sections of the populace in Sussex, Hertfordshire, Kent and Essex (Creighton 2000, 201–4). Direct Roman influence was increasingly felt in these areas through cross-Channel trade contacts which quickened after *c* 20 BC. Rome apparently maintained close links with certain favoured southern British dynasties from this time. On present evidence, London appears to have been on the western periphery of the primary contact zone.

More generally, the late Iron Age metalwork deposition in the Thames is of national significance and marks out the London region for the period. It could be argued that the coins and other items of prestige metalwork from the region were deliberately deposited in a recognised boundary zone between competing power blocs. In the light of the recent identification of traces of late Iron Age settlements along the river is this model sustainable?

The question of a pre-Roman settlement is still uncertain. Millett (1990, 89) has argued that it was precisely because there was no strong late Iron Age presence in the area that *Londinium* was sited where it was. The sustainability of this argument may be examined not only through evidence for continuity in the landscape, but also through a comparison of the pre-Roman landscape with the immediate post-Roman period. The road lay-out and the need for the bridge at London, suggest that Watling Street, north and south, and Stane Street, are later (part of a package that included the new bridge and town).

P6 Framework objectives

- Evaluating potential oppida
  Uphall Camp (Greenwood 1989; Greenwood 2001) and Woolwich (Greenwood 1997) are of regional importance and require publication. It will be valuable to clarify the relationship between these sites and other extensive settlements further out in the Thames estuary on the Hoo peninsula (Williams and Brown 1999, 17) and at Rochester.

Assessing stretches of linear earthworks such as Grim's Dyke which remain poorly dated or understood. It is possible that further earthworks lie unrecognised in the wooded claylands of the northern heights

- Assessing the relationship of the London region to the core south-east zone of coinage, oppida, Continental imports and elite burials in the period following Caesar's invasions

- Examining the evidence for a phase of renewed agricultural intensification in the London region at this time

- Elucidating various elements in the settlement pattern from the small rectilinear enclosures (eg can the attribution of *Viereckschanzen* be sustained?) to the larger enclosed sites. How do they compare with other elements in the local landscape?

- Examining the Roman foundation of *Londinium* from the perspective of pre-Roman settlement and continuity

- Identifying a pre-London road pattern? For instance, was there a Silchester–Colchester by-pass road? It should be possible to find a London–Winchester road and many more local roads (Bird and Bird 1987); was it not more likely that road transport was used rather than local river transport?

4

ROMAN (AD 43–410) RESEARCH PRIORITIES

At present much of our detailed knowledge of *Londinium* is based on simple descriptive records of its buildings, material culture and chronology, and relatively little is known about its social, cultural and economic character. Future research should begin to redress the balance, and answer some of the fundamental issues which everyone – from schoolchild to academic – wants answered: what was life like in Roman London?

Londinium was a Roman implant on the native landscape, and quickly became a major meeting point for Briton and Roman, incorporating the main elements required by a Roman city. This process, often called 'Romanisation', might equally be described as 'cultural interaction' (Woolf 1998). To be a Roman Londoner was to live in a complex and diverse society, and our critical understanding of how this society worked is sketchy at best and, it must be said, influenced by our own contemporary views of social inclusion. We assume that there was a cultural affinity towards the 'legacy' of Rome – through language, literature, the western church, law, architecture and art – but there was also much about a Roman Londoner's attitudes which would be alien to us – such as views on the institutions of family, marriage and slavery (Bradley 1994). The 'Roman' experience of the elite would also have differed substantially from that of marginalised groups such as out-of-favour tribal societies, women, slaves and the poor.

The physical residue of Roman London's four centuries of occupation has been documented in a systematically collected archaeological record, presenting an extraordinary opportunity for the study of long-term processes of continuity and change in one of the western Empire's major settlements and capitals. Identification of the social, economic and personal processes which drew people into the Roman experience, or led to its sometime rejection, will help to further define what it was to be a Romano-British Londoner.

Other major themes deserving more thorough investigation include the environmental impact of Roman development, the status of the settlement and its public and private institutions, its economic character, the role of the family in social organisation, systems of belief, and attitudes towards work, recreation and death. In all these areas, later Roman London is less well understood than the early town, as are the factors which influenced its contraction and decline. There has been even less research into aspects of *Londinium*'s hinterland and its wider region – mainly because of the relative scarcity of data outside the urban core. Roman London's interaction with rural settlement in the Lower Thames Valley is as important a subject for research as the nature of urbanism and the role of the city within the province and the Empire.

More has been written about the archaeology of Roman London than that for any other period, but there is still a vast quantity of unpublished data on *Londinium* in the London Archaeological Archive; the success of much future research will depend on 'unlocking' this evidence. While the archive is our largest 'unpublished site', its exploration will take place at the same time as new excavation work. Research into Roman London, as with other periods, will need to make the most of complementary initiatives involving both archive- and field-based work. In both cases there will be a continuing need for further publication of analysed site sequences, well beyond the large number of publication projects presently underway.

R1 Framework objectives

- Understanding whether the transition from the late pre-Roman Iron Age to Roman Britain was wholly about change, or whether there is more evidence than previously thought for continuity

- Investigating whether the Roman Conquest of AD 43 can be identified in the archaeological record

- Exploring cultural interaction between Briton and Roman – taking account of such factors as inclusion, rejection and marginality

- Examining the evidence for the development of provincial government at London

- Exploring the nuances of civic status and governance: of private, public and military life

- Understanding how the relationship between hinterland and *territorium* of *Londinium* operated

- Analysing *Londinium*'s demographics, and the social and ethnic identity, family life and beliefs of its residents

- Defining the economic character of different parts of the region (and the region as a functioning whole) through time – focusing on production, consumption and distribution

- Examining the reasons for and characteristics of contraction, decline and abandonment of the urban settlement

Landscape and environment

We have but a general understanding of the topography, geology and soils of the London region and of the pre-Roman ground cover and climate. The diversity of soil types and landscape types can be seen in the range of cultivated ground, grassland, forest and wetlands. Study of this complex landscape has been hampered by the 'hard surfaces' of modern development which cover most of the Greater London area.

To overcome this, a more co-ordinated approach to landscape studies is needed to make the most of the numerous small-scale interventions. More extensive sampling for palaeoenvironmental data will provide information on changing landscapes, exploitation strategies, agricultural systems and environmental and hydrological conditions. There must have been major woodland industries near London, in Essex, Middlesex and Surrey, which presumably would have involved large numbers of people. Roadside settlements might have represented woodland industry rather than agriculture. Synthetic study of existing data would help to advance this work, considering the impact of *Londinium* on the prehistoric landscape, and its exploitation through land reclamation, woodland management, and agriculture and extractive industries.

Study of the Thames and its tributaries is equally important to consideration of the Roman landscape and environment. The river was heavily exploited – the subject of reclamation and the victim of pollution. Overall, the relationship between settlement location and topography, hydrology, soil type and vegetation cover needs to be investigated and mapped.

The multi-disciplinary study of archaeological evidence relating to subjects as diverse as patterns of occupation, diet and changes in the tidal regime of the Thames, may also provide important insights to changing climatic conditions during the period.

R2 Framework objectives

- Defining the relationships between the landscape, river and settlement

- Studying the impact of settlement on the environment

- Researching evidence of climatic conditions and climate change

Development – the chronology and character of settlement

A great deal is known about the chronological development of Roman London, particularly for the first three centuries of its existence, and this provides us with a remarkably solid base for further research. In a few instances archaeology documents a major event which is also known from a literary source – most notably in the case of the Boudican destruction of the settlement in AD 60, which provides a *terminus ante quem* for the buildings, artefacts and environmental evidence beneath it.

This freeze-frame of life in frontier Roman London is arguably of comparable research value to the final occupation phase at Pompeii and Herculaneum destroyed in AD 79. Site archives also include many hundreds of structures and events from Roman London which have been precisely dated by dendrochronology, from an AD 47 drain beneath the main east–west road at 1 Poultry in the City of London (Rowsome 2000, 19) to an AD 294 construction of a palace by the usurper Allectus (Milne 1995, 75). Work on the archive and on future sites will reveal many more such structures, continuing the important development of chronologies and typologies for the settlement and for many categories of artefact.

Characterising the nature and purpose of development is less straightforward. The settlement has been accorded both a trading origin and, given its strategic location, a military origin (Millett 1990). Recent research is helping to present more evidence from both the City of London and Southwark (for example, Cowan et al in prep), but whether the detection of a military presence indicates the existence of significant military infrastructure remains a matter of debate. Significant pieces of the jigsaw remain missing and may yet provide information of fundamental importance to our understanding of the larger settlement. Roman finds from Westminster hint at a focus of activity on Thorney Island (*AGL* 2000, Gz WM12–18) and to its north around St Martin-in-the-Fields (*AGL* 2000, Gz WM6), and represent a case in point. Theories on the status of London (eg Wilkes 1996; Hassall 2000 for a summary) will no doubt continue to contribute to our understanding of the character and social economy of the urban centre and broader region.

In contrast with the data available for the central urban settlement, much more information is needed about how the countryside was managed during the invasion period. It is to the London region that we need to look for new evidence of the Boudican revolt, and here that we may have the best chance of understanding how 'Romanisation' affected the native population. The rural transition from the late pre-Roman Iron Age to the Roman period is poorly understood, and little is known about the origins of roadside settlements, villages, outlying villas and non-villa farmsteads, and their subsequent development.

There was extensive settlement, farming and industrial activity throughout the region and known sites seem to be located where there were better soils (Bird 2000). Were some of the roadside villages settlements in their own right, with their own economic region, as opposed to being dependent on passing trade? The evidence is biased towards higher-status or larger-scale sites, and the excavation and study of non-villa farms should be a priority, particularly in relation to changes in settlement patterns in the later Roman period. The development and distribution of agricultural settlement in different parts of the London region also needs study, and we need to compare the pattern to that elsewhere in the province. More fundamentally there is a need to explore the Roman experience away from the urban centre and to consider whether there was transparency of movement between town and country.

Research should also be directed to the transition at the end of the Roman occupation, to investigate socio-economic and political change and develop explanatory models: Roman London is sometimes considered a failed settlement, unlike other Romano-British towns that continued into the 5th century. Some structural evidence survives from the late Roman period, and areas adjacent to the Thames and Walbrook may have the greatest potential, as shown at 1 Poultry in

Fig 17 Investigating the Roman culvert which ran south from the forum area to the Thames, discovered at Monument House

the City of London. Publication of key site sequences from Roman Southwark and the City will contribute to our perception of later Roman *Londinium* but broader syntheses, and a wider knowledge of the London region, will be needed. The analysis of well-dated artefacts (such as pottery, and certain types of glass) will help to gauge the extent and nature of occupation, and the analysis of reworked deposits and residual artefacts may provide valuable secondary evidence of late Roman levels destroyed in antiquity – although this will require further development of sampling strategies. In all, the surrounding region is crucial to understanding the demographic and economic mechanisms at work. At some East Anglian settlements deposits of 'grey earth' have been found in late Roman and post-Roman contexts, apparently the remains of ploughed-out middens (Crummy 1992), and similar deposits may exist in the London region.

R3 Framework objectives

- Further refining our understanding of the foundation of London, and the functioning and management of the countryside up to and during the period of the Boudican revolt

- Identifying the factors influencing structural change, from single events such as fires to long-term trends such as late Roman economic contraction

- Elucidating the relationship of the central core to nucleated settlements and villas, or agricultural settlements; did people gradually drift into the roadside settlements and the city itself?

- Comparing Roman London's development with other major Roman towns in Britain and on the Continent, particularly western provincial capitals

- Reviewing the relative merits of, and developing improvements in sampling methodologies

Development – the built environment

Infrastructure

London developed as a strategic and economic centre, the focus for road and river transport. The study of the interplay between these and other key elements of the infrastructure – public building and amenities, residential, industrial and work areas – will help to elucidate the factors influencing its development and regulation. Detailed study of the morphology of the town, both through the analysis of site sequences and inter-site comparison, is also a prerequisite to understanding the social structure and demographics of the settlement and the relationship between public and private services.

A sound basic knowledge exists of river crossings and major roads in *Londinium* itself, and their relationship to the settlement (Watson et al 2001), but some refinement of their dating and evolution is needed. Within the settlement, on both the north and south banks of the Thames, analysis of the internal street system should consider the reasons for variations in street pattern in different areas and the arrangement of *insulae* (Rowsome 1998). Were different parts of the town subject to different levels of planning and did this change over time? In the environs of the settlement, an accurate chronology for roads, including their prehistoric antecedents, will help to foster a clearer understanding of the relationship between settlements and their economic development. The nature and chronology of radial development along the main roads leading from the urban area has received relatively little attention and is under-represented in the archaeological record, with roadside areas along Ermine Street outside Bishopsgate, the Silchester Road in Holborn, and Watling Street along the Old Kent Road all deserving closer study (C Thomas, pers comm). The relatively few excavated roads outside the settlement vary

considerably in size and construction (Bird 2000), and whereas the road network would have resulted in a number of roadside settlements on the approaches to London, relatively few of these so-called 'roadside villages' are known (for example along the Colchester road at the River Lea crossing). Many minor roads and tracks must have linked farms and settlements in rural areas.

Roman London's early port – particularly its central waterfront – is well documented (Brigham 1998; Milne 1985), but evidence is less plentiful downriver. Future research should be conducted in the context of the published research framework for the greater Thames estuary (Williams and Brown 1999). Development of the early quays in Roman London may have included wharves and warehouses devoted to particular commodities. A greater understanding is also needed of the stream channels on the south bank, and associated port facilities in the Fleet and Walbrook rivers; study of the mouth of the Walbrook to determine the presence of a 1st to 2nd century harbour basin (Milne 1995, 93) would be revealing and might throw light on the nature of the 'palace' site to the west (Marsden 1975; Marsden 1978). At present, no late Roman ports have been recorded but, given known importation during this period, this is unlikely to be a real dearth. Neither do we really know how far upriver the Thames – or its tributaries – were navigable, and how the tidal regime changed over time.

The water supply and drainage systems in the main settlement are known at a site-specific level, but overall understanding of the system is poor, with little evidence for 'networks' and systematic provision and maintenance. There is no clear evidence of aqueducts on either bank of the Thames, and few examples of piping systems (*AGL* 2000, 129). The overall water demand, though large, may have been met by a more piecemeal system and the use of private and public – either communal or commercial – wells. The dramatic discovery in 2001 of mechanised water-lifting equipment in wells at Blossom's Inn and Arthur Street (Blair 2002) indicates that some wells were capable of high-capacity supply, and a review of evidence in the London Archaeological Archive may add to this picture. The reconstruction of varying water table levels may help to explain why different types of water management were used at different locations. An overview of the existing water supply evidence from Southwark and the City should include topographical reconstruction to identify likely locations of wells, routes of piping systems and possible aqueducts. Similar questions relate to private and public drainage, and the 1998 discovery of a large storm drain at Monument House, running south from the area of the forum (Blair 2000), demonstrates the potential for further field and archive based work.

R4 Framework objectives

• Analysing the nature and reasons for the evolution of the road system, river crossings and internal street layouts and their importance as engines of development and change

• Refining understanding of how the port of Roman London functioned and what it meant for Londoners

• Establishing an overall understanding of water supply and drainage provision and maintenance

• Studying the procurement and supply of building materials and labour; management of woodlands, quarries and other resources

Private houses and properties

Hundreds of Roman houses and properties have been recorded in the City and Southwark. The integrated analysis of this information is in its infancy and offers a tremendous opportunity for the study of objective evidence relating to social organisation and other key issues in understanding the Roman town. As well as a wide range of building styles and construction methods throughout the Roman period, there is evidence for the coexistence of different building traditions, with rectilinear 'Roman' buildings in the centre of the settlement and 'British' circular buildings in peripheral areas. Larger townhouses are seen as centres of prestige and power where

important people did business and received guests, but little is known about attitudes towards the home, or even if Londoners owned or rented buildings. The many ordinary buildings of the average inhabitants combined residential, commercial and industrial activities which can sometimes be identified in detail (Hill and Rowsome in prep), and the potential for studies in this area has already been touched on with the 'High Street *Londinium*' exhibition, based on findings from 1 Poultry (Hall and Swain 2000).

Much more work is needed, however, on the analysis and synthesis of site archives. The identification of the average life-spans and replacement cycles of buildings would be of great value. Allied research should consider the transition from the public space of the street to the private home by studying evidence from drains and street frontages. Evidence of the creation and maintenance of property boundaries could provide information on patterns of ownership, security and legal protection of even the humblest private building. Central sites such as Bucklersbury and 72–5 Cheapside indicate a remarkable degree of continuity of boundaries despite destructive fires which necessitated total rebuilding. Evidence for the late Roman extension of early properties was seen at 1 Poultry, and a review of existing data at the LAARC may reveal similar instances of this phenomenon, but at present it is unclear whether the continuity of property boundaries in the middle Walbrook area and along major thoroughfares was repeated elsewhere (*AGL* 2000, 140). The comparative analysis of the construction of buildings before and after destructive fires and other disruptive events is deserving of particularly close study as a measure of the settlement's changing resilience.

A broad analysis of building types and materials, including construction techniques and internal layout can provide information on many aspects of daily life but may equally offer insight into the cultural identity and social strata of their users and inhabitants. The study of function is essential, and finds and environmental assemblages have an important contribution to make, as demonstrated for example at Lincoln (Darling 1998), wherein the analysis of artefactual and environmental evidence is integrated with the detailed land-use data from buildings and their associated yards.

R5 Framework objectives

• Refining our understanding of the range of domestic building types and their function

• Analysing patterns of property ownership, continuity and change

• Studying buildings as indicators of cultural and familial associations

Public building and amenities

Aside from the forum-basilica, our interpretation of the function of most other public or governmental buildings and our knowledge of their builders, is tentative. (The notable exceptions include the amphitheatre and public baths, which are discussed separately, below). *Londinium's* public, non-religious buildings may include: on the north bank an aisled hall near the forum (*AGL* 2000, 137, Gz CT45), a 'palace' – possibly Flavian – beneath Cannon Street Station (Milne 1995, 91–3), a late Roman 'palace' at Peter's Hill (Milne 1995, 91–3); and on the south bank a complex of buildings with military connections at Winchester Palace, Southwark that might also be considered a 'palace' (Milne 1995, 84; Yule in prep). The Treasury and mint may have been within the area of the Tower of London.

Opportunities should be taken to improve our understanding of the purpose and role through time of *Londinium's* public buildings, through either excavation or archival research. Many public buildings were located on the banks of the Thames, and issues of display may have influenced their prominent siting - an important theme in the study of Roman urbanism and the significance of connective architecture (MacDonald 1986). As symbols of power, public buildings are linked to an understanding of the political organisation of the city and province, including the role and status of individual officials. Research and publication of the Cannon Street Station 'palace' sequence would be particularly valuable (Hill 2001). The refinement of dating for public buildings, and research into the resources used in their design, construction and use may provide valuable

insights into the changing economic and political circumstances of the town (DeLaine 1997). The identification of other buildings, such as a circus and a theatre, postulated as lying near Knightrider Street and between Queen Victoria Street and Ludgate Hill respectively (Fuentes 1986), remains unproven. The Knightrider Street wall has also been cited as evidence of terracing and even as a possible low-level aqueduct. The distinction between public and private was not always rigid and comparative analysis of buildings is required, as is consideration of who paid for them and how processes of munificence may have worked in *Londinium* (Bateman 1998).

R6 Framework objectives

- Expanding our knowledge of the settlement's public buildings – their locations, construction and disuse dates, builders, character and purpose

- Studying public buildings as symbols of status display, and the role of public and private munificence in their provision and maintenance

- Comparing *Londinium*'s public building provision with other major Roman towns

People

Society

Critical surveys of Roman society published in recent years (Garnsey and Saller 1987) are establishing new approaches to the study of various aspects of daily life, many of which might be applied to Roman London when framing research questions in the future. Although most of the population of Roman Britain was probably rural, most citizens, with their defined rights, would have lived in or belonged to the city, with its complement of public buildings and amenities, and would have enjoyed rights there. There has been little research into the people of Roman London, either as individuals, as class members – including ruling and servant classes – or family members. The Roman familial system was centred on a *paterfamilias* who exercised legal and social control over an extended family (Dixon 1992), but it is unclear to what extent this model held sway in *Londinium* and how it was influenced by Romano-British traditions. As already stated, detailed study of domestic buildings and their use may reveal social arrangements. Burial evidence also offers opportunities to learn about groups of Roman Londoners and individuals, as in recent cases such as the Spitalfields Roman (Swain and Roberts 1999) and the Great Dover Street bustum burial (Mackinder 2000). Evidence for the presence, role and experience of women and children is generally absent from the archaeological record or has gone unnoticed, and this represents a significant gap in our knowledge.

Finds and environmental assemblages have the potential to answer many questions about people and society, particularly when integrated with contextual information and land-use analysis. Stratigraphically excavated finds can also date and contextualise unprovenanced artefacts in museum collections. Pottery, faunal and botanical assemblages can provide evidence of change between Iron Age and Roman communities and, indirectly, levels of acculturation. The spatial and chronological distribution of finds, coupled with analysis of functional categories and examined in conjunction with building types may enable different functional, cultural or ethnic zones to be defined across *Londinium* and within the London region. Perring (pers comm) suggests a direct comparison between patterns of artefact use in buildings of AD 65 and AD 120/125.

Epigraphic evidence, particularly inscriptions from tombstones, and documents preserved on writing tablets, provide specific information on the identity and background of Roman Londoners.

Fig 18 The 'Londiniensium' inscription, found at Tabard Square, Southwark, in 2002, translates as 'To the spirits of the emperors [and] the god Mars Camulos, Tiberinius, ranking moritex of the [traders] of London, set this up'. It is the only known inscription referring to London by name

Though relatively few in number they will continue to make a valuable contribution to our understanding of cultural and ethnic diversity.

R7 Framework objectives

- Identifying Roman Londoners and visitors through the archaeological record and evidence of their actions, buildings and possessions

- Examining the social (rather than economic) meaning of artefacts (eg fashion) and ecofacts (eg diet reflecting tastes)

- Establishing the role of men, women, children, servants and slaves in the social and economic organisation of urban and rural life and their associated hierarchies

- Finding evidence of the exercise of social and political power in society

Demography

Direct demographic evidence for Roman London is restricted to cemeteries, with inhumations being the most informative, as demonstrated by the publication of the eastern cemetery (Barber and Bowsher 2000) describing 550 inhumations and 136 cremations. Early Roman burials tend to be cremations, but good-sized assemblages exist for the 2nd–4th centuries. The Great Dover Street cemetery, with 25 inhumations and 5 cremations (Mackinder 2000), and recent work at 1 America Street and Union Street which has uncovered over 80 inhumations, provide important comparanda from Southwark. The western cemetery is represented by antiquarian findings, supplemented by 18 inhumations and 29 cremations from Atlantic House (Watson 2002) and 127 inhumations from Giltspur Street (as yet unpublished). Recent work at Spitalfields, Broadgate and Houndsditch has led to the recovery of over 100 burials from the less well-known northern cemetery which flanked Ermine Street, raising the possibility of worthwhile comparative study with London's other cemeteries (C Thomas, pers comm). A large number of artefacts in museum collections (Barber and Hall 2000) had already testified to a relatively large burial population in the northern cemetery. Isolated graves and small cemeteries have been found elsewhere, and their relationship to settlement patterns and roads remains unclear.

Fig 19 Learning about Roman London's character and identifying its people are topics of interest to the general public and researchers alike; street scene from the Museum of London exhibition 'High Street Londinium' based on findings from 1 Poultry

Published data from the eastern cemetery provides an important baseline for further synthetic work. Future fieldwork should aim to locate additional cemeteries in the London region for comparison with rural cemeteries from the Upper Thames Valley as well as those of *Londinium*, providing insight into the social character of urban and rural settlements. The existing skeletal archive is large enough to permit population-based research into many demographic questions, including pathology, disease, ageing and sexing. This is a major resource for further research, and at the broadest level may provide insights into the realities of life and death for men, women and children (Saller 1994).

Indirect demographic research might consider evidence from private buildings and their use, particularly by looking at family size, and looking at the estimated manpower used in public building campaigns (Brunt 1971). Research into population change should also consider any evidence of population movement between town and country, at different times. A tacit but unacknowledged tendency to assume a sort of 'sub-Roman' population surviving in the countryside around London, and surviving into the 6th century, might be elucidated by marrying demographic studies with questions about food supply and the production of goods within the region.

R8 Framework objectives

• Estimating population size, character and composition, and changes over time, including evidence for settled and transient populations

• Investigating the development of cemeteries around London over time, and the relationship between their location and major and minor roads

• Examining population density and household size

• Identifying patterns of life expectancy, origins and belief, indicated by studying health, diet and disease, and preparing models for further research

• Identifying regional models for studying population size and character of roadside settlements

Recreation

Major buildings associated with recreation, and already the subject of detailed excavation, are the amphitheatre at Guildhall Yard (Bateman and Cowan in prep) and the public baths at Huggin Hill (Rowsome 2001). Publication of the evidence for these important public amenities and their settings is a priority as they provide the strongest evidence for inclusion in Roman society. Several smaller, private or commercial bath houses have also been excavated, many of them several decades ago. The unusual baths and late Roman building complex at Billingsgate has the potential both for detailed academic publication and public display (Rowsome 1996). An overview of *Londinium*'s baths could be the catalyst for an investigation of wider social and economic aspects of daily life (Rowsome 1999), and the provision of recreational facilities, particularly baths, should be compared with other major Roman towns.

Other important recreational facilities, such as theatres or a hippodrome, remain to be found. Artefacts associated with recreation also merit synthesis: gaming boards and pieces and dies used for gambling are examples. The synthetic analysis of artefacts may indicate activity foci and help to locate London's unidentified public and recreational buildings.

R9 Framework objectives

• Investigating the role of leisure and recreation in daily life, both within the household and through public amenities
• Examining the changing provision of public and private facilities such as the baths and games, and the social and economic implications

Military organisation

While there is evidence for a military presence in the city, especially during the late Roman period, we need a better understanding of the interaction between military personnel and other political and administrative sectors, and of the intended and perceived role of the military in the development and building of *Londinium*. Evidence for a military 'presence' in London may take many forms, and what appears in the archaeological record might also reflect the lives of soldiers on leave or off-duty, veterans and families in civil society.

The publication of Bishop's corpus of military objects (Bishop in prep) will give a new impetus to addressing military issues, as will important evidence from Plantation Place, in the south east of the City, of a large defensive enclosure on Cornhill and immediately post-dating the Boudican revolt (Brigham 2000). The involvement of the governor and procurator also needs further consideration (Fulford 1995). Numerous theories have been put forward for military installations in Greater London which, in turn, would have influenced the development and siting of settlements and roads. A detailed review of the archival evidence, coupled with recent discoveries, could help to explain the situation. In the case of Cripplegate fort, work on the Grimes's archive (Shepherd in prep) and recent fieldwork (Howe and Lakin in prep) have both proved valuable in gaining a better understanding of its chronology, internal organisation and character.

The history of the City Wall and Riverside Wall, and associated bastions and gates, is a major topic for investigation. We have a poor understanding of how the 3rd-century wall line related to earlier perimeters and local topography, or of the subsequent effect of the wall on settlement and topography. Later evidence for military occupation comes from tombstones and military equipment. The 3rd-century tower at Shadwell has been cited as a military structure, but recent re-evaluation of the site has now identified it as a mausoleum (Lakin et al 2002). Further investigation of linear earthworks such as Grim's Dyke/Pear Wood and a large late Roman linear feature in Southwark is needed to clarify their date and function.

R10 Framework objectives

• Examining the changing role and influence of the Roman military (army and to a lesser extent navy) in the urban make-up of London

• Studying the evolving relationship between military and civil society

• Refining our understanding of the chronology and function of the landward and riverside defences and extramural evidence of defensive or military structures

Beliefs – religion, magic, rationalism and superstition

Few dedicated religious structures or sites are known from *Londinium* or its surrounding region. A handful of temples have been identified from dedications or references, and a range of religions can be identified. There is some evidence for a public religious complex west of Huggin Hill, and evidence for worship of Olympian gods from excavations of the riverside wall at Baynard's Castle (Hill et al 1980). Ritual activity is clearly identified along the Walbrook valley – where a Mithraeum was discovered by Grimes in 1954 (Shepherd 1998). Shrines or religious structures would have been expected in buildings such as the Cripplegate Fort and the amphitheatre (Haynes 2000), although no such evidence survives. The presence of Christianity is known, and a tentatively identified basilica building at Colchester House in the south-east corner of 4th century *Londinium* has been postulated as a cathedral (Sankey 1998). The areas around Tower Hill and St Paul's may yet provide further evidence, the latter for the *capitolium* or principal temple complex.

Antiquarian finds and more recent work in Greenwich Park has identified a masonry building on the prominent hill which may have been an important temple complex (*AGL* 2000), but further fieldwork and a review of existing archives will be needed before firm conclusions can be reached. Evidence for religious activity has been identified at many other sites and in many forms

throughout the Greater London area and its hinterland, ranging from Romano-Celtic temple sites such as Wanborough in Surrey (Williams 2000), to a statue of a genius – a guardian spirit – recovered from beneath Southwark Cathedral in 1977 (Haynes 2000).

In all, the evidence from Roman London paints a picture of tremendous diversity in religious belief. More positive identification of the many cults and religions, including Christianity, remains a priority in order to understand how divers belief systems coexisted and in some cases blended to give a unique character to life in London and in the surrounding countryside.

Most worship took place within the home and research into the evidence from private houses is needed, as is greater emphasis on the socio-economic context of religious beliefs. Synthetic analysis of finds and environmental assemblages, combined with land-use evidence, may allow identification of ritual sites and practices. The possibility of continuity with pre-Roman rituals should be considered. Burials and cemeteries remain a rich source of information, and would repay further research. Religious observance in the home and alongside other activities, is suggested by the quantity and variety of religious evidence from the Walbrook Valley, and a review of the archive may identify evidence for household shrines and other religious structures. The religious significance of the Thames, Walbrook, Fleet and other rivers needs further consideration and synthesis.

R11 Framework objectives

• Identifying religious sites and buildings, their chronology and use

• Giving consideration to the distribution and influence of religious sites in Greater London

• Examining the role and diversity of religion in society, and how it changed over time

Economy

Agriculture, woodcraft and fishing

Roman farming methods have been closely studied across the Empire (White 1970). Agriculture must have been an important area of economic endeavour around Roman London but it has left little trace in the archaeological record and is poorly understood. Good soils are not common in the London region (Bird 1996), and farm sites were often located on well drained soils near the junction with other soil types, perhaps implying a preference for mixed farming. There are virtually no villas on the gravels.

It may be that there were different landscapes: villa country, open gravels, extensive (managed) woodland on the clays, heathland, meadows on the river alluvium, and so on (Bird, pers comm). Where were the vineyards, or fisheries along the rivers? A synthesis of the available archaeoenvironmental evidence is overdue and would contribute significantly to our understanding of site location, of the use and perception of the countryside generally, and our knowledge of the chains of food production, distribution and consumption. Understanding the strength of the economy in the countryside is a prerequisite to understanding its strength in the city.

Similarly, although Roman London was a major consumer of cereals and animal products, there is little understanding at a regional level of how this new market affected agricultural production in different parts of the region or neighbouring regions, or to what extent demand was supplied locally or by imports. The absence of nearby rural settlement requires explanation – some have suggested that fields around the settlement were used for market gardening and cultivated by the townspeople themselves. A review of existing evidence should examine agricultural specialisation or improvements in reaction to the growth of *Londinium*. Weed seeds can provide an indication of the habitat in which grain crops were grown, and DNA and other

biomolecular techniques applied to plant and faunal remains may throw light on the sources of production. Exotic imports have been identified but more work is needed to establish whether they were a significant part of the diet. Comparison of the diet of the population with those in different parts of the region may also be revealing.

There is a danger of assuming that settlement evidence in the countryside must mean agriculture; it might equally represent woodland industry centres (David Bird, pers comm). Research should set out to determine how the major woodland industries around London were managed, and how their products were delivered to the city.

R12 Framework objectives

• Analysing field and archive data to improve the understanding of agriculture practice in the region

• Investigating the relationship between town and country in the production and supply of food

• Aiming to characterise woodland industry 'signatures' as distinct from evidence for agriculture

• Using an integrated approach to the analysis of environmental and land-use evidence for understanding how food was processed, prepared and served

Production, distribution and consumption

An understanding of how the Roman economy worked continues to develop. *Londinium* was a major consumer of raw materials, from luxury goods to grain and other foodstuffs, and the sources of supply and organisation of this trade require clarification. An improved understanding of the relationship between *Londinium* and its surrounding area is an essential component of the investigation of production, distribution and consumption, and has been identified by English Heritage as a nationally significant theme (English Heritage 1991a). Analysis and publication of site sequence evidence needs to be complemented by a broader and more synthetic approach to evidence from the city and region to identify geographical and chronological changes in economic structures.

More work is needed to understand how crafts and industries were organised and functioned. The identification of industrial sites, in conjunction with integrated artefact studies, can address various aspects of craft and industry, including technological expertise, sources of raw materials, the influence of traditions, and market structure. Integrated examination of artefactual and environmental evidence, allied to land-use analysis, should be used to improve our understanding of industrial and craft production. Evidence of glassworking (Perring 1991, 52) and pottery manufacture (Drummond-Murray 2000) from sites in the area of the Upper Walbrook should be compared with Romano-British and Continental data on production and supply. The same approach can be taken with a range of industries related to food production, cloth-making and leatherworking.

Fig 20 *Products of the local Roman pottery industry at Highgate, north London*

Roman London's consumption of energy is still quite poorly understood. Timber and fuel were required for building and industrial processes, but the amounts are unquantified and the implications for woodland management at a regional level barely known. Even less is known of the use of water power, although some evidence suggests the presence of mills on the Walbrook (Perring 1991) and Fleet. We cannot say whether Roman London was usually supplied with its chief necessities (fuel, timber and food) from its region (Bird 2000).

Londinium's role as a redistribution centre is difficult to document, but evidence such as the supply of north Gaulish grey wares up the east coast of England (Richardson and Tyers 1984) indicate that the city did play such a role. More work is needed on this and other industries to gain an overview of distribution patterns between London and other centres.

Artefacts that can be securely provenanced and dated have a special role to play in evaluating the flow of goods in and out of *Londinium*, and pottery is particularly useful in understanding patterns and mechanisms of distribution. Pottery supply and pottery source studies can be used to identify further London's economic territory and how it changed over time. The compilation of standard fabric and form typologies for the late Roman period will enable closer comparison between sites and regions. Mortarium and samian stamps and decorated samian which are particularly sensitive because of their precise dating and sourcing have been relatively understudied. Building material supply, particularly timber, may contribute to understanding of the organisation of the building industry.

Evidence relating to the evolution of *Londinium*'s waterfront should also be used to inform our understanding of the settlement's changing fortunes as a place of import and export. The internal organisation of the waterfront installations on the north and south banks of the Thames and on the Walbrook are poorly understood – for example, the lack of 4th-century quays may reflect the organisation of trade during this period.

Londinium's importance as a centre of consumption is seen in the wide array of imported products that appear in varying quantities throughout the Roman period. Analysis of the settlement's material culture – related to land-use data – may identify regional variations and chronological changes in patterns of consumption among different groups and individual households. Detailed finds analysis may also reveal economic cycles and broader patterns of over-arching importance to the understanding of Roman London (MoLSS 2001).

Fig 21 Roman ceramic oil lamp in the shape of a sandaled foot, from the excavations at Borough High Street, Southwark

R13 Framework objectives

• Investigating the relationship between the urban centre, its hinterland and other settlements in the supply of raw materials, using consumption as a key indicator

• Considering the evidence for Roman London's role as a port and centre of trade and trans-shipment, and how this changed over time (distribution)

• Examining the evidence for Roman London's role as a centre of manufacture, warehousing and value-added commerce (production and services), and distinguishing between production in the periphery for the core, and production in the periphery for the region

• Investigating evidence for the operation of economic and market mechanisms and the relationship between personal wealth and social hierarchy

• Refining theories of trade specialisation over time, shifting zonation within the main settlement and peripheral areas, and the influence of pre-Roman and Roman road patterns. (Do we see differences in the north, south, east and west regions or was there, in economic terms, a general 'London region effect'?)
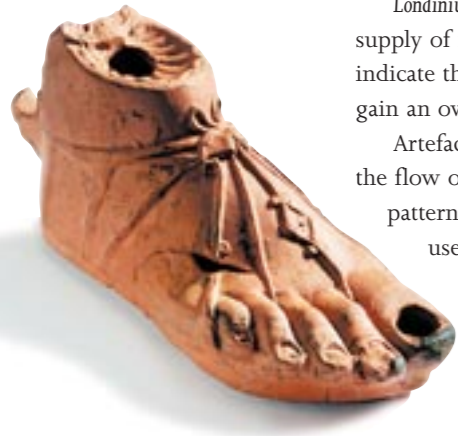

Fig 22 Excavation of a Romano-British brick clamp at Downs Road, Gravesend

5

SAXON (AD 410–1066) RESEARCH PRIORITIES

The Saxon period, poorly documented in comparison to the medieval period and the subject of less intensive excavation than the Roman period, is crucial to the understanding of the evolution of England. In AD 500 the region had no major focus and lay at the boundaries of a number of competing petty kingdoms and yet by the mid 11th century London was the most populous and important city, of an emerging nation state. It attracted trade from the Continent and the Baltic and its inhabitants were the most vocal and expressive at articulating their rights and opinions as Englishmen and as Londoners.

Currently knowledge of the transition from the late Roman period (from the end of Imperial rule in 410) to the return of Christianity in the London region in the 7th century is extremely limited. Few sites have been identified, and so less recent or small-scale and poorly dated excavations of isolated features assume an exaggerated importance. An improved understanding of what happened in the late 4th to early 5th century, and the so-called 'migration period' when Germanic people moved from their Continental homelands to England, will be critical for clarifying this transition. In contrast to other cities, no structures of this early Saxon or pagan Saxon era have been found. Instead, excavations have yielded substantial deposits of incompletely understood 'dark earth'. It is not clear whether the gap in occupation is apparent or real, and, if real, what its causes may have been.

The middle and late Saxon periods are better understood than the early Saxon period. Archaeological work has shown that the middle Saxon period was characterised by a trading centre known as Lundenwic, in Covent Garden, north of the Strand, and that Saxon strata survive over much of the settlement (Blackmore and Cowie 2001). The late Saxon period, beginning in the mid 9th century (AD 839 or AD 842), is characterised by the onset of Viking attacks on London (Anglo-Saxon Chronicle 1859), and the shift of the Covent Garden settlement from the Strand to the walled area of the former Roman city in AD 886 (Anglo-Saxon Chronicle 1859). Theories behind the reasons for this have altered with each new piece of evidence.

In order to understand inter- and intra-site relationships, however, a better control of chronology is required. A high priority should be assigned to developing a framework of absolute dates. Pottery from the Saxon period is not closely datable so emphasis should be placed on refining the chronology by use of high precision radiocarbon determinations linked to material culture typologies.

S1 Framework objectives

• Studying the transitions between late Roman and early Saxon, including the reasons and implications for shifting settlement patterns

• Refining existing chronologies

• Understanding regional relationships

Topography and landscapes

Analysis of early Saxon deposits indicate environmental conditions similar to those of the pre-Roman era and a regenerating mixed deciduous forest. Evidence from a site at West Drayton indicates that there was regional forest cover in west London in the early post-Roman period, with some evidence for arable cultivation and grassland/pasture (*AGL* 2000, 180–1). Agricultural settlement is mainly concentrated on the brickearths and gravels.

The most important factor in the landscape was the Thames, which provided access to markets, routes for settlement and migration and barriers for defence. From the 9th century onwards the river was also a vulnerable artery for attacks. Although hardly an advantage, this did act as a stimulant to social and military countermeasures which have left an enduring mark on the whole

country. Compared with the Roman and later medieval periods the tidal regime is poorly understood. Among the specific points to be clarified is whether the Thames was tidal at the sites of recently discovered fish traps at Lundenwic and further upstream. Recent work has considered the reasons for the siting of the main settlement areas at Covent Garden and then in the City in terms of tidal scouring and silting (Cowie et al 1998).

The presence of both Roman ruins and infrastructure, such as roads, were important features within the Saxon landscape. The degree to which these affected subsequent occupation and landscape exploitation requires further study, particularly with regard to the hinterland of London. The results will be comparable to Continental studies of cities like Huy, Trier, Tournai and Metz where more information of the transition from Roman to Frankish rule has been preserved, providing a valuable model for comparison with London (Nicholas 1997).

S2 Framework objectives

• Identifying rural land use and the extent of agricultural exploitation

• Studying the tidal regime of the River Thames and its influences on settlement, communications and social interaction

• Linking landscapes and chronologies to determine the influence of the pre-existing landscape on subsequent development

• Devising comparative modelling with Continental counterparts

Development

The character and extent of the early and middle Saxon settlement

Known early Saxon settlements consisted of dispersed, undefended villages and farmsteads (eg the communities at Mitcham (Bidder and Morris 1959) and Mucking (Hamerow 1993, 90–1)), with slight evidence for hillfort reuse. Cemeteries and occupation sites are concentrated along the River Thames and its tributaries. These may provide evidence for determining issues concerning the 'Saxon migration'. A number of 5th-century settlements and cemeteries have been found close to late Roman villa sites (eg Keston, Orpington and Beddington (*AGL* 2000, 178, Gz BY4, BY9, ST15)) or with Roman field systems (eg Mortlake and Rainham (*AGL* 2000, 178, RT13, LSA98)). Continuity in the use of certain boundaries implies much about the relationship between the indigenes and the immigrants. Most excavated settlement sites have consisted of small numbers of sunken-featured buildings and other associated features but there is little evidence for settlement layout. This may be factor of small-scale fieldwork interventions. The only early Saxon settlement to have been investigated on any scale is Prospect Park in Hillingdon (Andrews 1996). As in other parts of England, known sites concentrate on free-draining soils near watercourses, possibly on the outward bend of meanders.

Rural settlements of middle Saxon date are scarce in Greater London, as elsewhere, although this may be partly a factor of their generally undiagnostic finds assemblages. Topographical models, and the correlation of Roman and later road systems with parish boundary and tenurial evidence, place name evidence, documentary evidence (especially sites in Domesday) and archaeological finds may help to trace continuity predict the location of rural sites. Without a better sample of excavated sites and finds assemblages, wider questions of land use and economy remain difficult to examine.

Fig 23 Saxon saucer brooch found at Floral Street in Covent Garden

London comprised two elements during the middle Saxon period, an extramural mercantile settlement which grew into a major trading port known as Lundenwic and the intramural area of the former Roman town, occupied by a small number of buildings including churches and possibly a royal hall (Vince 1990, 54). The archaeological discovery of the extramural settlement is one of the great triumphs of archaeological investigation during the last twenty years, radically altering perceptions about the focus of settlement in London (Biddle 1989; Vince 1990). The most notable gap in knowledge is the nature of intramural occupation before AD 886. A number of hypotheses about the nature of settlement within the walled area have been postulated (Vince 1990, 50–7; *AGL* 2000, 182–7) but archaeological evidence is so far absent. A study of sites in the area between St Paul's and the Thames and the area between Kingsway and the Fleet, especially in the waterfront zone and around St Andrew's, Holborn, which at present are little understood, might prove fruitful.

Many questions remain to be asked of Lundenwic, from the reasons for its foundation, to the development and the spatial organisation of the settlement. Patterns of rubbish disposal have already been studied at site level (Malcolm and Bowsher 2003), but the results have wider application for understanding the distribution and use of open space within the settlement and how the concepts of public and private areas were articulated. The routes of several major Roman roads radiating from London survived through the period. It has been suggested that Lundenwic had a gridded street pattern (Malcolm and Bowsher 2003), but the evidence is very limited.

Archaeological evidence suggests that some of Lundenwic was formally laid out in the late 7th or early 8th century (Cowie 1988), but the mechanism behind this is obscure, and the extent of the planned area (and the settlement as a whole) at different times remains to be determined. Building and population density seem to have increased dramatically during the middle Saxon period, probably reaching a peak around the end of the 8th century (Malcolm and Bowsher 2003). It has been noted that the London of this time appears to be similar in character to 12th-century London in a number of respects, including building density, susceptibility to fire and development of infrastructure (D Keene, pers comm). A more detailed comparison might help to refine models to predict structural and social consequences which can be tested archaeologically.

S3 Framework objectives

• Understanding the size and character of Lundenwic, in relation to the wider region

• Studying the correlation between Saxon sites associated with watercourses and meander bends, with a view to understanding the origins and roles of the settlements

• Addressing the question of the 'Saxon migration': taking account of place names, archaeological evidence and the role of rivers to determine if and how it happened

• Examining the influence of surviving Roman structures on Saxon development, and, conversely, developing predictive models based on surviving 12th century evidence

• Studying how the two urban foci interrelated and whether functional distinctiveness was masked by later developments

• Considering the origins of rural settlements through a range of evidence, including the study of place names

The character and extent of the relocated later Saxon settlement

Within the city several lengths of pre-Conquest waterfront have been excavated but very little of it published, and dendrochronological dating and detailed publication are needed to study how and why rates of riverside development differ, chronologically or in terms of construction. No overall synthesis of archaeological evidence exists for the period, and the mass of information on 9th-to

11th-century urban topography and roads should be collated in order to analyse patterns of development. It is also important to elucidate the development of road systems leading from London, and river crossing points.

The location of the settlement focus was not the only major change during the late Saxon period. Concepts of group affiliation and loyalty, economic dependence and opportunity and, in particular, the emergence of the nation state of England were all important developments.

The resettlement of the walled city may have begun as early as the mid 9th century. The nature and extent of occupation in the City in this period has proved difficult to establish**,** but the settlement was initially small, possibly sited between the Thames and Cheapside (Vince 1990, Burch and Treveil in prep). Subsequent development of the burh must have been rapid, as the walled area was the site of a major town by the late 10th century, although the organised settlement may not have extended far to the north of Cheapside until the early 11th century (Vince 1990, fig 65). It seems that another fortified town, or burh, was established in Southwark in the late 9th or early 10th century, and that London Bridge may have been rebuilt to connect the burhs and prevent Viking raiders from sailing upstream (Watson et al 2001, 52–3). This remains to be confirmed but would have major implications for understanding how the later settlement functioned.

We do not know whether Lundenwic continued to function as a market or settlement in the late 9th and/or 10th centuries, or what the effect of becoming part of the estate of Westminster Abbey may have been.

Within the walled area there have been many archaeological advances, most notably the creation of a ceramic dating framework, but more evidence is needed to help establish the relationship between the latest activity on the site of Lundenwic and the first 9th-century occupation within the Roman walls. It is still unclear whether there was a Viking presence in the City when Alfred founded Lundenburh in AD 886, and whether the general population had begun to move back into the walled city before that date. Queenhithe was selected as the first market (Ayre and Wroe-Brown 1996), and the 10th- and 11th-century development of the waterfront and the street pattern is now becoming clearer (*AGL* 2000, 192–4), but we do not know the boundaries of the Alfredian burh or to what extent the town was planned. Archaeology may be able to define the expansion of the burh, and the role of the church in the development of London. The relationship between Wessex and Mercia and the role of the Bishops of Worcester deserves closer attention.

Virtually nothing is known of occupation in Southwark in this period and whether it is the burh listed in the Burghal Hidage (Hill 1969). Current knowledge of the settlement pattern in the hinterland is largely based on what may be surmised from documentary sources. It is important that rural sites are identified in order to establish if and how they developed from earlier Saxon settlements, how different types of site were organised and when the region's settlement pattern took on its medieval form. Kingston and Chelsea in particular merit closer attention as they may have had a continuing religious and political significance (Cowie and Blackmore in prep).

S4 Framework objectives

• Understanding how economic and social factors underpinned the development of the urban topography and the emergence of the medieval city

• Analysing the spread of housing within the walled settlement and considering whether it equates to population growth, and whether this is related to migration from Lundenwic or elsewhere

• Studying data from Southwark, in order to be able to characterise the nature of the settlement there

• Studying the use made of surviving Roman fabric and the ways that this influenced the development of masonry building techniques

- Examining the role played by catastrophe in the development of London, especially fire, but including war, pestilence, famine, flood and climatic change

- Examining in detail the relationship between the urban foci and other settlements such as Kingston and Chelsea, their nature and their association with royal villas or religious estates

- Addressing the gap in the 9th century in the ceramic dating typologies of Lundenwic and Lundenburh to understand the process of transition between the two settlements

- Understanding the role of the Vikings on settlement in the London region

Buildings

A number of different types of building has now been excavated although the majority of these date to the late Saxon period in the City (Horsman et al 1988; Hill and Woodger 1999). Two principal building types have been recorded consisting of surface laid structures and sunken-featured buildings. During the early Saxon period the rectangular buildings are generally post-built and probably functioned as halls or general living quarters. Sunken-featured buildings may have served primarily for storage and other ancillary functions. Evidence of timber halls has also been found at four rural settlements, including Barking Abbey and the Treasury, Whitehall (*AGL* 2000, 186). Buildings in the urban areas were generally rectangular in plan. Relatively little is currently understood about functional specialisation at the building, neighbourhood and settlement levels, although some progress is being made as a result of the excavations at the Royal Opera House (Malcolm and Bowsher 2003) and with pre-Conquest buildings from 1 Poultry (Burch and Treveil in prep). To an extent this may be a factor of modern construction patterns and the limited number of wide-area studies in the wic. There are currently no archaeologically identified churches or other important administrative buildings from the period before 1000 and very few from pre-Conquest deposits.

Fig 24 A sunken-floored Saxon building found at Tulse Hill School

S5 Framework objectives

- Synthesising the existing information with an examination of building techniques, development, architectural refinement and longevity

- Studying the standardisation of methods and measures and what evidence this provides for woodland management and provision of and access to timber supplies

- Understanding, through material studies, functionality and specialisation within buildings, and the impact on social interaction and economic linkages

- Studying the use and function of sunken-featured buildings to explain why they are, apparently, absent from the middle Saxon urban area

- Studying buildings from the rural settlements

People

Demography and society

There is no evidence to suggest that the Roman walled city continued to be occupied for long after AD 410. A handful of finds from central London are of a Germanic type but the question of the role of *foederati* in the Saxon settlements is now treated with some caution. The fate of the British population remains uncertain (Barber and Bowsher 2000, 208, 305–6).

Osteological remains are currently too few to sustain a more in depth study of the people of the period. Many issues relating to the changes in population and social and ethnic hierarchies remain obscure. The scale of the Saxon migrations and the relationship between the settlers and the existing population has yet to be established. The evidence suggests that the indigenous population remained in the area but most cemeteries provide evidence for a Saxon material culture. There has been little excavation of cemetery sites using modern techniques and current information is principally related to sites away from the urban core in areas for which there is little other evidence of Saxon occupation. A few burials from around Covent Garden relate to a cemetery predating the Lundenwic settlement (Malcolm and Bowsher 2003). These may document a change in the beliefs of the inhabitants since the burials, with grave goods, were disturbed by the expansion of the purportedly Christian settlement. Limited excavation of an early mixed inhumation and cremation cemetery at 82–90 Park Lane, Croydon led to the recording of several graves and associated grave goods, but the human remains were poorly preserved (Welch 1997). London has the potential to inform on many interesting themes including the process of conversion and apostasy, the competing influences of ideas from the surrounding kingdoms, the Continent and later the Vikings.

Fig 25 Timber platform dated to c 1045 found at Thames Court near Queenhithe

The middle Saxon settlement is described as an international emporium by Bede (AD 673–735) but identifying ethnic traits from material remains has proved immensely difficult. The homogeneity of north European material culture at this time has obscured ethnic distinctiveness and only a few finds can be attributed as 'foreign' with confidence. One of these is the foreshore burials at Queenhithe in the City, where unusual Scandinavian (probably Finnish) rites were used (Ayre and Wroe-Brown in prep). There is some evidence for ethnic distinctiveness at Guildhall Yard where Scandinavian bulwerk construction techniques are associated with a pre-Conquest building (Bateman 2000, 57–8). Frisian boat fragments provide indirect evidence for the presence of Frisian merchants in London. Evidence of diet displays a similar homogeneity except for that from one building at the Royal Opera House which is associated with an unusually high percentage of rye (Malcolm and Bowsher 2003, Building 31). Whether this is a result of ethnic or personal preference is questionable.

Social status is more clearly defined in terms of grave goods from early Saxon cemeteries and the variety of domestic cultural assemblages. The most obvious difference is between town and country. In the former there is growing prosperity throughout the period reflected in both the

variety and quality of goods available. Even the economic decline of the early 9th century and the subsequent Viking wars do not seem to have affected the types of goods available or the ability of Londoners to acquire them to any great extent. In the countryside and small rural settlements the limited information currently available suggests a markedly inferior standard of living and an absence of quality imported pottery and metalwork.

A number of artefact studies have been completed but these have tended to result in catalogues which have either been of discrete assemblages or on artefact types which have often failed to explain their presence in terms of for example literacy, leisure pursuits or fashion and ethnicity. Although parallels have often been noted for artefacts which seem to be ethnically distinct, their implication has tended to be overlooked. Thus Frisians and Vikings, in particular, are usually credited with having a major impact on the development of London but up to now they have proved to be archaeologically elusive.

S6 Framework objectives

• Studying the contribution that work in London has made to understanding systems of cult and belief during the Saxon period. To date this has been minimal because of the small sample of graves, religious buildings and iconography

• Understanding who the middle Saxons were and identifying their signature in the archaeological record

• Investigating the fate/role of the indigenous population in society

• Analysing the social organisation of the kingdoms of Kent, Essex and Mercia, all of which played a role in the development of Lundenwic, but was this as a consumer elite or a stimulant to a distinct urban social fabric?

• Extending and using existing artefact catalogues to pursue a number of different themes related to the people who used them eg literacy, leisure pursuits, personal adornment and fashion

• Researching artefacts at a regional synthetic level to elucidate ethnic diversity

• Developing the use of scientific techniques to identify the presence of ethnic groups

• Examining evidence of diet not only for clarifying economic models and social hierarchies but also for taste and choice

• Defining the role of women in the social and economic organisation of both urban and rural life. Whether they were present in Lundenwic at all has been questioned previously

• Addressing childhood experience during the period. It is not clear whether the absence of children from the record reflects the poor osteological sample or the social organisation of the landscape

• Understanding the concepts of ownership and responsibility and mapping their archaeological expression. These undergo a number of changes during the period both at a personal level in terms of material culture and as part of a wider change in the role of an individual within society

• Studying the marked contrast in the material culture of the town and country which manifests itself in artefacts and environmental evidence. This offers enormous potential for understanding social hierarchies and economic relationships

Economy – production, distribution and consumption

The mechanisms of the economy and the acquisition and dispersal of wealth are currently assumed to mirror the social hierarchies that developed, but archaeological evidence suggests a burgeoning economic diversity and independence in the 8th century which needs to be explored as part of the production-distribution-consumption cycle

The basis of the Saxon economy was agricultural, but evidence is sparse. A number of landscape features such as ditches have been found across London but there is often little to which they can be related. The site at LESSA Sports Ground, in east London has provided more information with evidence for the development of a field system (Sankey in prep). Virtually nothing is known about the farms that supplied London (Cowie and Blackmore in prep; Pickard in prep), or the rural settlements of the region, or how diet in the country compared with that in the town. Almost all the evidence comes from consumption sites in the middle and late Saxon towns. This evidence points to an organised supply and distribution network based around a few staple commodities. Diversity of taxa is more narrow than at monastic sites possibly suggesting supply in the form of food rents from dedicated estates in the middle Saxon period. There was more variety in the late Saxon period, particularly with regard to fruits and wild vegetable foods. Fish bones indicate sea and freshwater fishing, and on the Thames foreshore single rows of vertical posts are thought to be the remains of fish traps.

There is almost no evidence in London of production or trade in the early Saxon period, but it seems likely that the exchange of prestige items acted as a stimulant to the development of more formalised trade at the start of the middle Saxon period. Initially this may have been based around long distance networks linking England to the Continent. Kent was the main beneficiary at first but the political dominance of Northumbria and Mercia encouraged links beyond the south east. Lundenwic may have been one of the consequences of this; able to exploit its access to both Continental shipping and roads and rivers leading inland.

Very few remains of the middle Saxon waterfront at Lundenwic have been found. A number of other settlements along the Thames such as Barking (Redknap 1992), where Continental imports have been found, may also have possessed 'beach-markets' for riverborne trade. The only known vessel of middle Saxon date is a dugout canoe found next to the Lea at Walthamstow (Marsden 1994). In contrast to the late Saxon waterfronts of Lundenburh, virtually nothing is known about the ports of Lundenwic or Barking Abbey. Much more information is needed on the extent and nature of the waterfront, and what kind of boats it served. Further work is also needed to locate 'beach-markets', including the location of administrative and ancillary buildings, which of the tributaries of the Thames were navigable at this time and what kinds of craft were used.

The role of the kings of Mercia and the Frisians in the development of trade also deserves attention, especially with regard to the organisation, provisioning and reward for manufacturing labour within the settlement. In order to understand how goods were redistributed from the wic there is a need to investigate how Lundenwic related to contemporary sites and whether the known trading connections with Minster in Thanet, Rochester and Worcester can be demonstrated archaeologically. There is also a need to understand the actual process of trade and commerce at this date. Simple exchange seems to have given way to a trading shore then more formalised markets. Documentary sources mention the rights to weights and measures together with tolls and exemptions from them, so by the 8th century trade possessed its own infrastructure which should be detectable archaeologically. Some of the wharves and warehouses associated with this have been identified at Queenhithe (Ayre and Wroe Brown 1996) but artefacts associated with shipping are poorly known.

Outside Lundenwic, Barking Abbey is the only site in the region with significant evidence of trade and is thus of key importance (Sloane 2001). In particular the role of monastic sites in glass production and consumption warrants further study.

By the mid 7th century London was already an important mint and by the close of the period it had eclipsed all the other towns of England in terms of its economic muscle and financial strength.

Evidence for production in the middle and late Saxon periods is more widespread, with manufacturing taking place at a number of levels related both to direct trade goods and secondary support industries (Malcolm and Bowsher 2003). Amongst the latter are smithies carrying out repairs and turning recycled metal into useful artefacts. There was a complex interdependence between the various industries, which made maximum use of the raw materials available. Cattle provided meat for food and hides for tanning. Bone, and more usually antler was also used for the production of household goods and personal artefacts. Handles were a common product and thus antler/boneworking establishments are found in association with smithies. There is very little evidence for manufacturing industries in late Saxon London: smithing, weaving, wool preparation and woodturning were probably all carried out on a local community or household scale. The range of clothing and footwear suggests that the manufacture and/or import of goods for the clothing trade was important. Evidence for manufacture elsewhere in the region is sparse, consisting of possible fibre-retting pits at West Drayton and glass-making kilns at Barking Abbey (*AGL* 2000, 196).

Pottery was obtained from the surrounding regions, notably East Anglia. Continental imports included lava quernstones, schist honestones, glass and pottery. The diet at Barking Abbey was more varied, and it too obtained goods through long-distance trade.

We do not know which activities took place on a permanent or seasonal basis, whether different crafts and industries were zoned, or how they interacted. Other questions to be explored include what factors governed the location of industrial sites and the scale, and market for, the output needs to be calculated.

There is documentary evidence for the harbours and markets at Queenhithe, Billingsgate and Dowgate (Dyson and Schofield 1984). All the pottery used in London was imported; from the late 9th century onwards it came from the Chiltern area, changing in the mid 11th century to more local sources in north Surrey, north Kent, Middlesex and Essex.

S7 Framework objectives

- Understanding and seeking evidence for agricultural practice and exploitation across the region

- Investigating the role of fish and fishing in both the diet and economy of the region

- Studying the relationship between town and country, both in terms of how London was supplied with food and raw materials and how smaller settlements and suburban centres operated within this arrangement

- Understanding contacts with Kent during the 6th and 7th centuries and the political development of Northumbria, Wessex and Essex will be particularly important for revealing the processes which led to the foundation of Lundenwic

- Elucidating and defining transport networks, including the utilisation of Roman roads and shipping which were all vital to the success of London as a trading town. Recent technological developments such as geographical information systems (GIS) offer greater opportunities to define London within this network of contacts

- Understanding the mechanisms of the economy especially the diversity in the 8th century

- Producing a synthesis of the scope, technological development, specialisation and distribution of manufacturing and products

- Investigating seasonal specialisation and zonation at neighbourhood, town and regional levels

Politics and religion – the centres of power

It is known from historical sources that Saxon kingdoms were administered from royal centres or vills with documentary evidence pointing to the existence of several royal vills in the London region. One may have been sited within or close to the Roman fort at Cripplegate, and another in the wic. There may also have been palaces at Brentford and Chelsea, and Fulham Palace may have been established by the middle Saxon period. In the late Saxon period a royal palace was built at Westminster by Edward the Confessor, but its precise form, location and original founding date remain unknown. Later documents suggest the presence of a minster by the middle of the 10th century and Westminster Abbey may have originated as a minster founded as early as the 8th century (Thomas et al in prep). There is currently no systematic comparison with other English and Continental wics. Collaboration between archaeologists and historians may help identify the location of rural estate centres, royal vills and religious estates. Archaeologists should also consider how they can draw on and add to the recent work by numismatists on the complex territorial and administrative relationships between the kingdoms of Mercia and Wessex (Blackburn and Dumville 1998).

Early Saxon settlements were mostly undefended but some Iron Age works may have been reused and more extensive earthworks such as Grim's Dyke may date to this period. Whether this was a defence or a boundary is not clear but it certainly marks a political division in the landscape expressed in terms of the power to organise labour on a large scale. It is generally accepted that for most of its history Lundenwic was not defended. However, ditches at Maiden Lane and the Royal Opera House, both appear to have been defensive. Dating suggests that these were 9th century in date and that they were probably dug in response to external threats. Despite any short-term success these defences ultimately proved inadequate and the walled city was reoccupied (Malcolm and Bowsher 2003).

The move to the walled city marked a major change in defensive philosophy since the population were inexperienced at masonry construction and were apparently forced to adopt new building techniques. The refounding of London within the walled city was thus as much a statement of power as a practical defensive measure.

The identification of any Alfredian defensive work will be of great importance, especially the date and function of the western ditch to the city. Confirmation that there was a burh in Southwark is much needed, and the location of its defences should be a priority.

Religion played a particularly important role during this period but it is often understated in the archaeological record. There are few objects displaying either pagan or Christian iconography and little is known about early churches. Place names and documents provide some clues where to look but modern land use has tended to restrict investigation at these sites. Nothing is known of the first church, ancillary buildings or associated cemetery of St Paul's, or of the other potentially early church sites, either in the wic or the region. An important area requiring detailed appraisal is the location of early churches such as St Martin-in-the-Fields, St Bride and St Andrew, Holborn, found by Roman roads and just outside the city gates. The well-preserved deposits at Barking Abbey (MacGowan 1987) may aid the understanding of the more ephemeral remains at Chertsey, and permit comparison of these twin foundations.

Fig 26 A group of late Saxon shoes found in 10th- and 11th-century rubbish pits at 1 Poultry

S8 Framework objectives

• Comparing the defences of Lundenwic with other contemporary settlements to establish their importance in the development of burhs

• Studying the role of the church in relation to the economy and culture of the region. Documentary evidence provides a rich source for its place in society but it is poorly represented in the archaeological record at present

• Exploring the developing concepts of administration and rulership through archaeological investigation. Much has been written about the evolution of kingship during the period but London has a unique position as wic, bishop's seat and royal city

• Studying monasticism and religious houses may inform national debate as London has several striking examples (especially Barking), but they are largely unknown elsewhere

6

MEDIEVAL (*c* 1066–*c* 1500) RESEARCH PRIORITIES

Students of London's archaeology have access to an ever-increasing documentary, pictorial and surviving architectural record dating to after c 1000, in addition to the exceptional and world-class archaeological archive. This inevitably means that research into the changing character of the City and its region between c 1100 and 1500 must take into account these parallel sources of data. The boundaries between the 'medieval' and the 'Saxon' and 'post-medieval' periods are highly porous, and in some cultural aspects, entirely absent. However, the archaeological flavour of London's culture between the Norman Conquest and the upheavals of the 16th century is distinctive enough for the divisions still to be useful in identifying research priorities.

The development of London's urban core needs to be appreciated in order to understand how people throughout the region lived, worked, thought and died. However, if anything has changed in the last 25–30 years it is a growth in a holistic approach to the medieval archaeology of both core and periphery, City and countryside. Increasing understanding of how and when the components making up the City and its surroundings developed and expanded will permit comparison of evidence for concomitant changes in settlement patterns, land management, ecology, and other broad issues across the wider region. By combining knowledge of the lifestyles, religious beliefs and practices, and demography of medieval Londoners across the region with this broader analysis of the way London grew into its environment, a more coherent sense of the backdrop to London as a world city will be formed, a city whose influence extended far beyond the City walls.

M1 Framework objectives

- Understanding the nature and extent of urban development, and the social and economic relationship of the core to its region

- Comparing medieval London with other towns in Britain and on the Continent, charting the reasons for changes in perception and influence

- Targeting archaeological research which has potential to complement documentary knowledge

Topography and landscapes

Much archaeological work waits to be done on the medieval landscape of the London region. The relationship between the drift geology, topography and hydrology of the region and the emerging pattern of rural settlement requires considerable synthetic work, not least to determine whether the apparent pattern of dense nucleated settlements in the north and west compared to more sparse scatters in the south and east are significant in this regard (*AGL* 2000, Map 11).

The medieval period included changing climatic conditions that have left traces in the archaeological record. From certainly the late 11th century through to the middle of the 13th century, documentary evidence, for example of viticulture in Fulham and enormous tidal floods in Lambeth, suggests relative warmth and rising water levels. Dated evidence in Southwark of extensive flooding and erosion in the 12th and 13th centuries, and settlement desertion in Wallington, Surrey in the early 14th century, may be related to climatic change during this period. A comprehensive synthesis of climatic change is needed before human responses in the region can be observed, and in due course the effect of those responses on the system.

The potential for synthesis of valuable environmental and ecological data from preserved soils such as marshland, ditches and riverine deposits is untapped. Indirect data from the ever-growing assemblage of excavated timbers, and direct data from very old woods such as at Lesnes, Kent, can be harnessed to shed light on changing landscape and woodland management practices.

Such changes will quite clearly have affected profoundly agriculture and food production, or river defence strategies, and therefore had effects upon living standards, health and demography, and on trading systems. Issues such as rates of deforestation, loss of navigability and/or pollution

of waterways, ecological changes wrought through introduction of new species and increasing domination of farming for London's needs can be addressed through the archaeological record. Tackling them requires primary data collection on a series of fronts through dendrochronology, sedimentology, survey, excavation and historical research.

M2 Framework objectives

- Understanding the influence of the environment on human habitation, and the impact of man on the environment

- Understanding what London and its region looked like to its medieval inhabitants and visitors

- Developing baseline chronologies using multiple source materials

People

Demography and society

Employing archaeological evidence to reveal Londoners' sense of personal identity is an aim that has certainly developed over the last quarter of a century. Such avenues of research were only very indirectly touched upon in archaeological assessments of London in the 1970s. Yet quite clearly, study of the private lives of Londoners leads back into the study of the city as a community.

One rich vein of research should be the characterisation of social status through the archaeological record. In some cases this can be seen directly in the patronage and investment of the wealthy and powerful in large-scale building projects. However, the character of discarded material in different areas of a settlement may also demonstrate significant variation which may shed light on the status of the occupants. Many of these questions have already been dealt with by historians, but archaeological evidence has the potential to add complementary detail to documentary sources. Such an approach might be applied to the study of resident immigrant and ethnic groups established within the City.

Estimates of the City population between 1100 and 1300 indicate a rise from c 25,000 to perhaps 60,000–80,000 (Keene 2000, 190–6). The population for the modern Greater London region at the time has not been similarly estimated. To date, some 15,000 human skeletons have been excavated from the region, spanning the whole period from 1100 to 1500. They form an assemblage with excellent potential to consider the population's changing demography, health, and levels of personal hygiene. Analysis is ongoing for several samples from mainly urban religious houses (eg St Mary Spital and Merton Priory), but evidence from the wider region is very slender indeed.

Death was a central element of medieval life. Cemeteries were places for the living as much as the dead. There is still a very substantial amount of research to be done in the London region on burial grounds. To what degree were the sizes of the cemeteries possessed by monastic houses dictated by the growing urban population and overfilling of parish cemeteries? What archaeological evidence survives of ethnically distinct cemeteries such as the Jewish burial ground at Aldersgate or the Flemish burial ground in Southwark, or the functionally distinct cemetery around the Pardon Chapel in Clerkenwell where the Hospitallers buried felons (Barber and Thomas 2002, 12–13)? Interest in burial practice has grown over the last decade and the large sample sizes recovered from cemeteries in the City make population-based research possible (Thomas et al 1997). Similar assemblages from cemeteries outside the City, and from parish, nunnery and college cemeteries, are needed. Were different kinds of people buried in monastic cemeteries from those in parish cemeteries, or in different parts of the cemetery? What are the differences, if any, between burial practice in City cemeteries and in the surrounding region?

Assessing the response to chronic and acute diseases is also an important research priority. For example, we need to establish the prevalence of leprosy in London through examination of the specialist hospitals that ringed the City. The region's response to plague can also be examined through the archaeology of the two Black Death cemeteries outside the City walls; the numbers of dead indicated by the excavations at St Mary Graces, East Smithfield, suggest that far fewer people were buried than has been supposed in the literature (Grainger et al in prep; Grainger and Phillpotts in prep). What does this indicate about London's communal response to plague and about the plague itself?

M3 Framework objectives

• Using the archaeological record to address issues of social status and, with reference to interpretations based on documentary sources, develop models which underline the areas where archaeological and documentary research can complement each other

• Addressing regional variations in the health of the population over time, and considering parallels with modern societies in terms of 'urban regeneration' issues

• Understanding the differences, if any, between burial practices in City and outlying cemeteries

• Understanding how the archaeological record reflects the changing demography of the London region with respect to different ethnically and functionally distinct groups

• Contributing through archaeological analysis to understanding the pathology of major diseases

Religion and ideology

The evolution of religious ideology over the five centuries prior to the Reformation directly had an impact on places of worship, treatment of the dead, art and iconography. The London region contained an enormous collection of religious buildings (some 250 churches, over 30 religious houses, over 30 hospitals, 3 synagogues, and hundreds of private chapels (Knowles and Hancock 1971)). Of these, the larger monasteries are currently the best understood, and it is now possible to begin producing syntheses of their archaeology (Thomas et al 1997). The archaeology of the small and specialised religious establishments includes 'alien' cells (eg Ruislip), smaller hospitals (eg Kingsland) or double houses (eg Syon). The archaeology of the friaries of London (eg Austin

Fig 27 The late 11th-century parish church of St Benet Sherehog, Poultry

friars (Watson 1994), Blackfriars and Greyfriars (*AGL* 2000, 214)) has not yet been considered in detail: it is the urban expression of monasticism and thus helps to describe the identity of Londoners. We need to know more about female monasticism in London in comparison with that in the predominantly male houses, and with the experiences of religious women in other British cities. We also need to examine the archaeology of medieval colleges in their context as corporate religious and charitable foundations.

Extremely rare discoveries include two 13th-century *mikvaot*, small sunken baths used by Jews to achieve purity before worship, both located within private houses in the London Jewry south of the Guildhall and the only ones known from England (Blair et al 2002). These finds should serve to remind us that there may be some potential for the identification of London's medieval Jewish community, and other religious or ethnic minorities, through the study of their material culture.

St Paul's cathedral and Westminster Abbey (the latter a World Heritage Site) form expressions of civic pride and royal power and patronage, and represent important steps in the study of European architecture. While both churches are the subject of much research, they are yet to be considered in the context of their environs (associated courts and closes). The parish churches of the London region are in contrast a vastly understudied archaeological resource. Only around 40% of the City's churches (surviving and demolished) have been the subject of any archaeological investigation (Cohen 1994), and much of this has taken the form of partial recording and observation. We know very little about structural development and trends in church building. Although some detailed church sequences are being published, such as that of St Benet Sherehog, excavated at 1 Poultry (Burch and Treveil in prep), more synthetic work is required. Assessing the order and rate of appearance of the churches will provide information about religious administration and the relationship between the City and the surrounding region. The sources of building stone, techniques and styles of stonemasonry and the chronology and range of forms of timber churches also merit more detailed investigation.

M4 Framework objectives

• Examining the London mendicant houses in light of the many (relatively recent) archaeological excavations that have taken place in their precincts. Were the houses that occupied the City of London vastly different from those of the much smaller cities and towns around the kingdom?

• Using archaeological data, standing building records and historical research to consider the female monastic experience in London, as part of the religious experience of half the City's population

• Attempting to identify religious and ethnic groups, such as the medieval Jewish community, through the study of their buildings and material culture, and comparing the archaeological and documentary evidence

• Understanding the relative socio-economic roles of London's cathedrals, and the parish churches of the region, as well as its smaller religious houses

Development

Archaeological reconstruction of the form and development of the settlements of the region is a necessary base from which to consider the development and effect of urbanism in the wider region. We may start at the core where undoubtedly the archaeological evidence rivals that of any European city.

In the City in particular, knowledge of urban medieval housing and its development has advanced considerably, despite some concerns over the lack of potential (eg Biddle and Hudson 1973). A wealth of data remains to be tapped to inform on the range of house types, on the divisions of space in different types of housing, and on the nature and development of associated garden and yard spaces. An area worthy of study would be the function of the houses of the nobility and bishops as innovators and influences on lesser buildings. The range of large mansions along the Strand between the City and Westminster is a little-investigated group whose proximity to the river may have enhanced survival. Study of the structures and development of Westminster and Southwark are far less evolved. Two historical surveys (Rosser 1989; Carlin 1996) have done much to lay a framework for archaeological study, but the late Saxon origins of both settlements are very poorly understood. The development of Southwark in particular should be compared with that of similar riverine 'suburbs' at Bristol (Redcliffe) and York, considering how they became integrated with their larger neighbours.

Private housing should be examined in close connection with infrastructural elements of urbanism, such as administrative structures (civic halls, courts, prisons), communications (streets, bridges), water supply – both public and private, and waste management. Civic and administrative functions, for instance, include infrastructure and public works, and the capacity of each community to think and act corporately. There was also a military component to life, at least in the urban centre. This corporate capacity took a measurable material form which should be discernable in the archaeological record.

It may also be that London and its area reflected the interests, cultural and economic, of successive monarchs. The archaeology of Westminster, with the combination of private royal living and public governmental complex, demands far closer attention than it has generally received, since there is nothing like it anywhere else. Civic authority and identity were expressed in architecture and works of infrastructure in London and the other centres. To what extent did the civic works in the City indicate ambitions on a national as opposed to regional scale, and can this be detected in its material culture?

Tied closely to questions of the regional and national influence of London are considerations of the defences of the region and military matters. London's three Norman castles (the Tower of London, Baynard's Castle and Montfichet's Tower) make it uniquely fortified. In what way were these castles designed to impact upon the local populace, and how did they relate to each other? There is a need to integrate the archaeology of the Tower and the walls in the medieval period with that of the City, especially its trading functions. What is the material evidence for successive defensive strategies for the City, or of the Thames, a major route leading into the heart of England? Why did Southwark not merit any defences?

Rural settlement types also need to be brought into this examination. Progress has been made on studying some of the manor houses (eg Carew Manor, Low Hall, Essex (Blair in prep)), but not enough evidence on form and development has been gathered to attempt comparisons and approach a regional synthesis. The moated manors, of which the region has dozens, were clearly expressions of status, but exactly how did this expression work, and on whom? How does the expression of status through the development of moats in the London region compare with other regions? The smaller scattered farmsteads are almost completely unknown, and exploration of their sites would be of great interest to act as a counterbalance to the wealthier established manor complexes.

Our understanding of the relationships between the towns in the London region is hampered by the paucity of published data. Archaeological interventions in the smaller town centres have been patchy at best, but examples which have produced good results are Uxbridge, Kingston, Croydon and Barking (*AGL* 2000, 213); none of these have yet been published in detail. These rank among the larger settlements within the London region at this date, and so perhaps might be expected to show clear archaeological indicators of relationships between core and periphery. Evidence at Uxbridge of a planned town and the presence of a major river crossing at Kingston (Potter 1992) both suggest independent patronage and ambition. For the many small hamlets and villages in the region, extremely limited information has been gathered as yet and these cannot be integrated into an overview of medieval settlement development. This lack of synthesis stands in contrast with areas with less urban masking, which have attracted far greater field study.

The origins and spread of ribbon developments, particularly between the medieval urban centre and nearby nucleated settlements (eg Islington, Shoreditch, Newington and others) indicate the beginnings of a metropolis, but we have not yet been able to scrutinise this archaeologically. Once a synthesis of some basic regional data has been produced, the apparent dearth of large or middle-sized settlements in the London region can be explored with more confidence, and the pattern of nucleated versus dispersed settlements can be examined within the context of the emerging domination of the urban core. It will be important, though, to take account of the potential impact of major social catastrophes, such as the Black Death, in dictating changes in housing patterns.

M5 Framework objectives

- Investigating whether the Conquest can be identified in the archaeological record

- Working towards an understanding of the origins and development of government

- Analysing, both in terms of function and socio-economics, different types of housing, and the influence of the houses of nobility and bishops

- Understanding the relative and evolving character of development in Westminster, along the Strand between Westminster and the City, and Southwark, and comparison with other riverine settlements beyond London

- Considering the tension between private and civic enterprise, and the use and influence of power – by monarchs, governments and military authority – in urbanism and infrastructure

- Addressing a regional understanding of rural development through synthesis and comparison with other regions

- Studying the evidence for rural housing before 1400 and the impact of the Black Death

- Creating baseline surveys of the form and development of settlements to enable the analysis of the emerging metropolis

Economy – production, distribution and consumption

In recent years historians have made great strides in assembling an overview of what was happening to the countryside around the urban core of London (the City, Westminster and Southwark), in terms of agricultural production, woodland management and provision of grain and fuel (Campbell et al 1992; Campbell et al 1993). That overview should now be complemented by archaeological research.

The consequences for the breeding of domesticated animals appear to have been considerable, but no broad-based analysis of medieval consumption of meat-bearing animals has yet been undertaken, so the strategies employed for animal husbandry and their effects on the different species are not yet understood. The management of wild fauna (including fowl and fish) through deer parks, chases, warrens and fisheries, and the exploitation of the Thames estuary and seaboard for marine and migratory fish have all left their indirect (sometimes direct) marks in the archaeological record, but no syntheses of the data for the region have yet been attempted.

Medieval London was probably the single largest concentration of industrial production in England, with over 100 craft groups operating within the walls, and it should be expected that many will demonstrate a special archaeological trace. Several of these have been encountered, and

include metalworking, bell-making, textile manufacture and horn preparation (Howe 2002; Burch and Treveil in prep), but many more (such as pewter making or embroidery) have not. Having identified the archaeological 'signature' of these crafts, craft quarters or neighbourhoods may be distinguishable, relating back to questions about settlement patterns and landscape. The roles of Southwark and Westminster are much less clearly understood than that of the City and need to be established. At a more general level, the importance of London's industries to its growing pre-eminence needs to be established. Many products from London were considered on the Continent to be highly desirable and innovative. To what extent did this excellence result from the craftsmen's location in the capital? Outside the core, we need to locate more sites of medieval industry. Archaeomagnetic dating of pottery kilns and thus their products should increase our refinement of the typologies. Identifying the source of 'Westminster' type decorated floor tiles (Betts 2002) would be extremely helpful in examining the London tile manufacturing industry.

The essence of medieval London, as in the periods before and since, was its role in importing and exporting, and a substantial part of its professional and mercantile life was geared to that role. The dominance that London exerted over the region means that the patterns of distribution across and into the region have to be considered in this context. The archaeological resource comprises the structures and spaces where trade took place (aspects of this also fall within research about settlement forms), the methods of distribution (transportation, containers) and, of course, the items distributed.

There is a large body of documentary studies on London's trade (particularly of the wool and wine trades), although quantitative documentary evidence for overseas trade only begins to appear in force during the 13th century (Miller and Hatcher 1995, 182–225). Historians suggest that by 1450 (and probably earlier) the North Sea was a coherent cultural and economic region. The contribution archaeology can make to our understanding of such a region is relatively new and undeveloped, although initial surveys of the data, principally covering the City, have recently been published (eg Cowie 1999). Important aspects of London's trading patterns at a national and international level clearly had a marked effect on the manner and character of goods and materials traded. For example, the transfer in the 13th century of trade to London from the big regional fairs (such as Boston and Winchester), and the shifts in trading patterns attached to the fortunes of

Fig 28 Recording the timbers of a 13th-century rowing galley reused as the lining for a fish pond at More London Bridge in Southwark

the German merchants from the 12th century, might both be expected to have marked effects on the quantity and range of materials passing through the London region. Fairs remained important in the London region, as evidenced by the 13th-century rise of the October fair at Westminster, which only declined in the later 14th century (C Thomas, pers comm).

The rich evidence from the waterfront structures in the City continues to provide extensive and very tightly dated chronologies for the development of the City waterfront (Steedman et al 1992). To date very few waterfront sites from Southwark and Westminster have been published, although both will be at least partly addressed by existing projects (Seeley in prep; Thomas et al in prep). Clearly, if we are to understand the port as a whole we need to examine both banks together (Ayre and Wroe-Brown 2002). Archaeological evidence for other distributive structures such as shops and markets almost certainly exists both in the ground and in unpublished archaeological archives, but no serious treatment of the subject has yet been undertaken.

The unparalleled quality of dumps of material behind waterfront revetments from the City and Southwark (notwithstanding good data from York and Bristol) have bequeathed us the largest data set of medieval finds and waterfront structures anywhere in the country. From such data, we should be able to make detailed studies of London's place in the national development of units of weight and measurement, quality control of products (eg cloth seals), technological development, patterns of consumption and the increased commercialisation of the economy, such as the appearance of tokens instead of coinage.

In terms of transport of goods archaeological evidence has not contributed a great deal to the documentary evidence for the mechanisms by which goods were carried into and through London – the development of riverine and sea-going vessels, the use of road transport and containers. Some evidence may be sought, however, in the reuse of ships' timbers in waterfronts and in the reuse of barrels and other containers in cesspits, wells and storage pits in urban properties.

There was a great diversity and quantity of goods flowing into the London region, especially into the City. Distribution networks

Fig 29 The Houses of Parliament and Westminster Abbey superimposed on Thorney Island, which may have been a focus for development in the Roman and Saxon periods

ranged from local to international sources. While distribution patterns of particular forms of traded goods, such as pottery (eg south Hertfordshire grey wares, Surrey white wares, and others) are becoming well understood, there is a huge amount of work to do on other classes of material. How does the material culture of rural and smaller urban centres in the London region compare with and relate to that of the urban core? Trade in raw materials such as stone can be analysed through the architectural fragments retrieved in abundance from religious and palatial sites throughout the London region. Transport and trade in livestock and perishables should be examined, through the indirect evidence of consumption assemblages, to add the material evidence to the large body of historical data. Trade in all classes of luxury goods would repay examination, allowing the exploration of spatial distribution and change over time in sources, and complementing the historical record. Almost nothing has been done in this sphere as yet.

Archaeology's greatest potential contribution can probably be made to the better understanding of patterns of consumption. Historical records seldom allow a view of the materials that are 'consumed' within individual buildings or establishments. Many good archaeological assemblages have already been excavated and can provide high-quality data on relative wealth, status and class. The potential for identifying patterns of trade and distribution, of changing fashions, and of innovations in design or technology seems high. In London, building particularly

Fig 30 Fifteenth-century pottery from the Baltic Exchange site: a coarse border ware cooking pot, Cheam white ware pipkin and coarse border ware lid

on the last twenty years of research into medieval artefacts, but also considering the untapped potential of faunal and botanical remains, we should begin to pose questions that are not approachable in other urban centres where smaller amounts of material have been excavated.

In addition to the wider study of traded goods, there is also an archaeology of the personal. The changing fashions of, for example, dress accessories or scabbards have been charted (Egan and Pritchard 1991; Cowgill et al 1987), but mostly on the basis of the objects themselves, divorced from the context in which they were used, and all the examples are from the City. Evidence of, for example, literacy, gender-related items, children's toys or adults' leisure activities can be securely linked to their dated contexts of deposition and placed within our growing awareness of the spaces inhabited by the people who owned them. This will contribute to an overall understanding of the way in which individuals fit into the community.

M6 Framework objectives

• Creating a regional synthesis of breeding programmes and wildlife management, and marine and riverine exploitation, to understand the strategies used and the consequential effects

• Charting how and why different areas of London developed as specialist producers, and understanding the implications for London as a world city

• Using the archaeological record to challenge or augment inferences from documentary research on national and international trade and transport

• Understanding the social and economic implications of patterns of consumption across the City and region, and using the archaeological record to trace individual lives

7

LONDON AFTER 1500 RESEARCH PRIORITIES

Because post-medieval archaeology in Britain is not as well developed as the archaeology of earlier periods, many of the questions to be addressed for study of the period from 1500 to the present are exploratory. In most cases, documentary evidence (including maps, engravings and photographs) has contributed enormously to our understanding. We know in historical terms that London was the political and commercial capital of England by the beginning of the 16th century; it had been a major European trading port for centuries and went on to become the capital of the British Empire, although its status and physical appearance have changed dramatically since the Second World War. What is less clear is the extent to which the archaeological record reflects this and, more pertinently, how archaeological research can complement, augment or even challenge the understanding we have. There is an emerging framework of questions about life in London and its surrounding region – including many very basic questions which perhaps have been overlooked in recent years – which archaeological endeavour has the potential to answer. Improved communication between archaeologists and social and economic historians working on London material is clearly desirable, and might lead to a joint approach to projects and result in more directed research. This applies equally to 20th century material, although the latter has been deliberately excluded from this document.

L1 Framework objectives

•   Instigating corroborative research with other historic disciplines to elucidate a framework for future research

Development

London's inexorable growth over the last 500 years is well known. The population of Greater London rose from an estimated 120,000 in 1550 (after Finlay and Shearer 1986, 49) to just over a million in 1801 (Beier and Finlay 1986). Much of this growth remains to be understood, particularly the changing relationships between the expanding City, the countryside and the towns. The effects of this expansion on the surrounding towns, villages and rural areas, and even beyond, can be traced in the archaeological record.

During the 17th century the central conurbation was divided into three distinctive areas: Westminster – a political and social area; the City and Fleet Street – a commercial, financial and legal district and the East End – associated particularly with trade and industrial activities.

The effects of the expansion of London into the surrounding region can be traced in the surviving domestic architecture, with what remains of original internal fittings, and in the archaeological evidence for different classes of buildings, methods of construction and building materials across the social spectrum (Schofield 1995). The daily life of Londoners from the wealthiest landholder to the poorest city dweller can be elucidated by the study of artefact assemblages in conjunction with documentary records. Much work on vernacular architecture has been carried out in the last 40 years, but our knowledge of the structure of timber-framed and early brick buildings in the London region would benefit greatly from archaeological analysis. Away from the growing urban centre, a survey of farm buildings is needed to highlight developments in agricultural practice. Within the densely occupied City, the effect of the Great Fire of 1666 on house types and their internal arrangements is in need of reassessment. More standing building recording of domestic buildings, including those of the 19th century, is required: lower status building types have tended to be neglected and are under-recorded. For all parts of the period up to 1900, large closed assemblages (eg from cesspits and wells) have considerable potential to demonstrate the range and variety of household goods discarded across the London region, with a particular emphasis on pottery, glass and clay tobacco pipes as the most common types of artefacts recovered.

The surroundings of a great house or a royal palace, its gardens, park and use of water, were of importance in displaying the wealth and status of its inhabitants while maintaining the physical separation between the house and the outside world. The study of soil profiles may identify garden areas in urban environments, while chemical analysis of soils may establish the use of different areas of gardens; for example, high phosphate concentrations may imply heavily manured soils, suggesting horticultural and arboricultural practices. In association with documentary evidence, surviving garden plans and archaeological techniques such as resistivity or ground-penetrating radar and environmental evidence can be used to define the layout and features of gardens.

Royal palaces have been excavated across the London region, from Greenwich to Nonsuch. These served not only as residences but also as centres of court life, with the palace at Whitehall effectively functioning as the focus of national government from 1530 until its destruction in 1698 (Thurley 1999). At the same time, separate functions of government and administration were increasingly being housed in purpose-made buildings. The development of specialist local and central government buildings throughout this period is a topic of interest for the history of government, the civil service and the rise of London as an imperial capital.

The daily life of the capital and its environs was maintained by an elaborate infrastructure which can be seen in the systems and services which developed to meet its ever-growing demands. Both survey and excavation can complement the documentary sources concerning public and civic buildings (including town halls, hospitals, almshouses, prisons, schools and workhouses), markets, transport, water supply, waste disposal, communications, and other services such as gas and electricity. The archaeological record has the potential to reveal the implications of civic works at a local and even at an individual level. Similarly, the impact of canals and railways on supply and production in the region is a fertile topic for research, while a comparative study of coaching inns, an integral part of the nation's transport network, is much needed.

Fig 31 An elaborate 17th-century jug imported from the Rhineland, decorated with 'peacock eyes' and 'lion masks'

L2 Framework objectives

•   Identifying the changes in house design and construction during the period, and considering what social and economic origins and effects these changes had on urban life

•   Understanding how the proximity of the metropolis, the largest urban conurbation in Britain, affected the lives of people living and working in the immediate surrounding area

•   Considering the impact of royal palaces in the London region in comparison with other cities in the British Isles and in Europe during the period. Tracing the influence of palatial design and architecture on domestic structures

•   Developing archaeological models for studying the material culture of government buildings

•   Establishing through the archaeological record how sustainable and determined (or not) were public and civic efforts to put in place, and then maintain, different aspects of London's infrastructure

•   Identifying the consequences of infrastructural development at a local level

•   Contributing to our understanding of the creation of the London suburbs and the meanings and values of domestic as well as public gardens

People

Society

By analysing domestic assemblages in the context of their associated buildings archaeology can provide evidence of standards of living and variations between social groups. In some cases it may be possible to identify ethnic groups through their material culture, although the presence of a Huguenot community is not apparent from the pottery assemblage at Spitalfields, but it is in the case of similar groups at Norwich and Canterbury (C Thomas, pers comm). The archaeological record can substantiate – or may refute – assumptions about the health and nutrition of individuals and groups of people, sometimes addressing whole neighbourhoods or ethnic groups. Integrated analysis of archaeological data can tell us about diet and the way in which food was prepared, or what personal adornments people wore, or what household furnishings they used and how they arranged their living space. Importantly, coupled with documentary research, the archaeological record has the potential to tell us about the choices people faced, and can take us from understanding the social topography of a city to understanding the consequences, for both individuals and for different areas, of different mechanisms for social control and exclusion.

The size and diversity of the population are among the features that have given the City of London its unique character, and research should aim to encompass the entire social spectrum. Whereas high-status establishments such as palaces and manor houses are relatively well known to archaeology, they are a source of information on the lives and social organisation of only a small proportion of the populace. The habitat of ordinary Londoners is an equally important field of study, and one which archaeology is ideally placed to elucidate. The everyday lives of the poor and disadvantaged, and of the growing middle classes, have been described in a wealth of social commentary and literature by writers from Pepys to Dickens, but it can be easy to lose sight of these largely anonymous inhabitants of the capital in the face of the larger issues being addressed by archaeologists and historians alike. The considerable body of material evidence which resides in the archive (and that is still being uncovered) offers unique opportunities for the examination of social organisation, class differentiation, the effects of the increased wealth and economic growth which accompanied the consumer revolution, social emulation, the spread of fashions from the capital, and the differences between the historic urban core and the growing suburban area with its increasingly provincial outlook and values.

Whereas it was not long ago that '19th-century archaeology' would have referred to the study of the work of 19th century archaeologists, we now acknowledge the important contribution archaeology can make to topographical and socio-economic studies of the 19th century. The Museum of London's 'World City' Gallery, interpreting the period from 1789 to 1914, displays two groups of archaeologically excavated finds. One, from Jacob's Island, Southwark compares the material record with Dickens's celebrated literary description of that site. Excavators in the 1990s routinely collected 19th-century material, in contrast to their colleagues in the preceding decades (Nigel Jeffries, pers comm). Here London's archaeology is taking a lead from the growth of World Archaeology, wherein scholars in the Americas, Australia and South Africa have shown how valuable archaeology is in not only reconstructing socio-economic history but also 'giving back' a history to people excluded from the writing of it. A good example of the potential of this type of research is the recent excavation and publication of post-medieval wharfside buildings at Narrow Street in Limehouse (Divers 2000). Archaeologists researching the largest city in Britain during the 19th century will need to ensure that they can characterise the material 'signatures' of 19th-century Londoners, allowing comparison with groups elsewhere in the British Empire.

L3 Framework objectives

• Characterising assemblages for use in analytic models where the archaeological record helps to define the nature and extent of different neighbourhoods, in social, economic, ethnic, or religious terms

• Developing assemblage 'signatures' for different groups of Londoners, including the 19th century, in which many London communities may well have gone unrecorded and, to that extent, be 'without history'

• Encouraging a joined-up approach with social and economic historians

Demography

Demographic studies rely heavily on the excavation of large numbers of human skeletons from cemeteries and burial grounds. The 18th- and19th-century burials from Christ Church Spitalfields remain one of the few published examples from a London hospital cemetery (Reeve and Adams 1993), but other reports on cemetery excavations are in various stages of preparation. Analysis has the potential to contribute greatly to population studies for the period and, when allied with documentary evidence, may be used to identify socio-economic groups and study the effects of disease and industrial pollution.

L4 Framework objectives

• Characterising the effects on people's bodies of living in London

• Establishing and testing models (eg on aging cemetery populations) for potential use in studying earlier, non-documented populations

Military organisation

Archaeological evidence provides an important complement to documentary and architectural evidence for naval and military developments. These include shipbuilding and victualling, the supply, equipping and housing of the army and navy, and the manufacture of arms and ordnance. Analysis and publication of evidence for the Navy Victualling Yard in East Smithfield is currently in progress (Grainger and Falcini in prep) but has already confirmed the potential for study of the topic. Extensive excavations have recently taken place at the Royal Arsenal in Woolwich, the nation's principal arsenal and armaments factory from 1671 until 1967 (Anon 2002). This work, revealing the development of industrial technology through the period, gives an indication of the potential of the topic.

Work at Woolwich has included evidence of Prince Rupert's Fort, a gun battery built in 1667 to 1668 to defend the dockyard, just one of the many forts and military installations along the Thames and in the London area. Archaeological recording may be the only means of preserving the meaning of extensive defences in many cases. The Civil War defences have been examined at several points but not considered as a whole. A comprehensive synthesis of the documentary and archaeological evidence for all stages in the defences of London is called for.

L5 Framework objectives

• Establishing how well the various defence systems around London from the 16th century to the beginning of the 20th century survive, and considering their influence and effect on Londoners both practically, and psychologically as reflections of power and political security

Fig 32 *Recording the two halves of an 18th-century ship's bilge pump, found reused as a drain in Beatson's shipbreaking yard at 165 Rotherhithe Street*

Religion

The religious and social upheavals resulting from the Reformation and Dissolution of the monasteries had far-reaching consequences on the life and appearance of the capital. The latter topic is now being addressed for individual monastic sites including St Mary Spital, St Mary Clerkenwell, St John Clerkenwell, Holy Trinity Priory Aldgate, St Mary Graces, Bermondsey Abbey and Merton Priory (for example Barber and Thomas 2002; Thomas et al 1997). The organisation of religious life changed dramatically and is reflected in the structure and fittings of churches, with a notable expansion of parish church building projects following the Great Fire. The specific worship needs of minority religious groups can be seen in the establishment of purpose-built structures across the City, for example meeting houses for the Quakers at Aldersgate, the Dutch at Austin Friars, Broad Street, and French Protestants at St Anthony's Hospital, Threadneedle Street, and the Jews at Bevis Marks and other sites.

The Dissolution of the monasteries brought significant changes to the physical appearance and social topography of both city and countryside (Sloane 1999). While some of the monastic precincts were converted to mansions, others began to fragment into smaller domestic and commercial units. Archaeological investigation of Wren's post-Fire churches can contribute significantly to our understanding of Wren's designs by demonstrating the extent to which his plans were based on the form of the previous structure. The archaeology of the Reformation in London's parish churches however, has yet to be developed. There has been very little work on parish churches of the 17th to 19th centuries in the region.

From the 16th century refugees, minorities and non-conformists were settling in London and establishing their own places of worship, and the identification and recording of these structures (and associated burial grounds), whether as standing buildings or archaeologically, should receive a high priority for their potential contribution to a better understanding of development of cultural diversity in the City.

L6 Framework objectives

• Establishing how the material expression of religious belief changed through the Reformation and subsequent religious upheavals

• Identifying the extent to which religious minorities and non-conformists had a distinct material culture in London, and developing archaeological models for future analysis

Recreation and culture

Opportunities and venues for social interaction multiplied from the 16th century onwards, both in number and variety, and there is considerable scope for the archaeological investigation of the associated material culture of leisure. The area of Bankside is particularly important in this regard, and was the site of 'stews' – inns or brothels – and animal-baiting arenas (Mackinder and Blatherwick 2000), although it is by no means the only area of London with important evidence to contribute. London was home to an array of leisure activities, ranging from cock-fighting and freak shows at one end of the spectrum to gentlemen's clubs, designed gardens, opera and the theatre at the other. Prime examples in any study of recreation are the theatre sites of Shakespeare's Globe (Blatherwick and Gurr 1992) and Marlowe's Rose (Bowsher 1998), where excavations have taken place but the findings await publication. Even more recent work near the Rose has located the remains of the Hope theatre (Cowan 2001), also on Bankside, which will be the subject of a developer-funded publication. Other purpose-built 16th- and 17th-century playhouses have yet to be exactly located.

The introduction of tobacco, followed by new beverages such as coffee, tea, chocolate (Tyler et al in prep), punch and gin, had a profound influence on society between the 16th and 18th centuries. This can be traced through the study of clay tobacco pipes, and the rapid proliferation of coffee-houses, which were accompanied by a plethora of utensils designed specifically for the consumption of new drinks, with all the social implications tied up in the etiquette of their use.

L7 Framework objectives

• Establishing how archaeology can contribute to the history of leisure in London, and identifying assemblage characteristics

• Considering the links between leisure, trade and economy

• Reviewing existing archaeological data to establishing the extent to which leisure activities were a particularly metropolitan feature or pastime

• Contributing to our understanding of how leisure activities became accepted as a worthwhile type of land use, and how did their physical expression, such as theatres and pleasure gardens, fitted with the other pressures on space

Fig 33 View of the Rose theatre, discovered on Bankside, Southwark, in 1989

Economy – production, distribution and consumption

Agricultural production and the environment

Study of the physical environment of the London region is of crucial importance in understanding the balance between town and countryside and the management of the landscape for the supply of food, timber and a wide range of other goods. Need for food resulted in the exploitation of marginal environments, such as the Isle of Sheppey, and food coming from as far afield as Wales, Cornwall and Berwick.

The growth and importance of market gardens (Boulton 2000) to the rapidly expanding capital cannot be underestimated. Their role in provisioning the population was crucial; we know from maps where many were located, but their organisation, layout and the range of produce cultivated is largely unknown.

Research into the changing ecology of the London region, including pollution levels, human health, faunal and floral composition – introductions and extinctions – can be related to population growth and changes in land use. Changes in water supply and waste disposal have had a major impact on London's rivers and hence on public health and the river and upper estuary fisheries. In addition to environmental evidence, surveys of the surviving fragments of ancient woodland and open country preserved in parks, gardens and graveyards throughout the region could contribute to a better understanding of the changing nature of the countryside and the impact of the expanding City.

L8 Framework objectives

• Developing models to demonstrate how archaeology can contribute to the history of food production and market gardening in the London area

• Examining through the archaeological record the environmental consequences of London's growth, and its high population density

• Characterising the physical substance of different stages of London's growth and through complementary documentary and archaeological analysis, considering how the different assemblages reflect the reasons for those stages

Industrial production

If an archaeology of capitalism were to be written, the London region would surely figure large in

its development. London's role as innovator, introducer and disseminator of technology, goods and ideas was of critical importance, and archaeology can both locate the sites where innovation occurred and study the technical processes used. What are the differences between the City and the surrounding area? Comparative studies are needed of the nature and scale of manufacturing in the City, its immediate environs – particularly the transfer of industry to Southwark – and the more rural, outlying areas. In researching production, archaeology should seek to distinguish between domestic or workshop modes and factories versus cottage industries. There is significant potential for the study of the development of specialised manufacturing centres across the London region. An example is the textile industry along the River Wandle at Merton, where a major centre for calico-printing and dyeing developed from the 17th century onwards, including water mills and other facilities, leading to the establishment by William Morris of a stained glass, weaving, printing and tapestry works in 1881 (Saxby 1995).

There is some evidence that the pottery trade in 17th-century London had already recognised the benefits of some of the techniques of industrial production such as division of labour, specialisation and economies of scale. From the late 16th to early 18th centuries the ceramic industries of London led the country in stylistic innovation and technological advance, offering considerable scope for research as can be seen from work on the Limehouse porcelain industry (Tyler and Stephenson 2000). Work on the Southwark and Lambeth's delftware industries is ongoing and will be of great value in establishing precisely which pot forms, especially of those used in the early North American colonies, were manufactured at which pothouse.

Although the Industrial Revolution came late to the capital, an immense and varied range of heavy and light industries was focused on London and concentrated in specific areas. What part did London play in the Industrial Revolution and what were the effects of increasing industrialisation on the population and the growth of the capital? Very little of the evidence has seen detailed publication, though the work at Benbow House – which included the Bear Gardens pothouse of 1702–10, a contemporary glasshouse and the foundry and metalworks of the Bradley family and later James Benbow – shows the potential for study (Mackinder and Blatherwick 2000).

Fig 34 Moulded and painted 'lion's mask' from foot of sauceboat; from the Limehouse porcelain manufactory which operated 1745–8

L9 Framework objectives

• Identifying the industries that especially represented London (the conurbation, different neighbourhoods or areas and the region as a whole), and, through the ability of the archaeological record to trace back to individuals, considering the role of those industries in developing the character of Londoners in different areas

• Contributing to the understanding of London's place as an industrial power

• Examining the wider issues relating to poverty, social deprivation and disease in the East End of London and how these related to industrialisation

Distribution and consumption

By 1500 London was Britain's largest port and market centre, its commercialisation underpinned by the introduction of customs duty in the 13th century, and the opening of the first customs house at Woolwich in 1382. The development of London's docklands must form a central plank in this study, beginning with the opening of the Royal Dockyards at Deptford and Woolwich in 1515, during the reign of Henry VIII, and the creation of the East India Company in 1560, through to the opening of one dock after another in response to the furious growth of the British Empire and the success of establishing warehouses next to moorings. The opening of the Brunswick Docks at Blackwall (1790), the West India Dock (1802), the London Docks (1805),

the East India Dock (1806), the Surrey Docks (1807), St Katherine's Dock (1828), the Royal Victoria Dock (1855), Millwall Dock (1866), the Royal Albert Dock (1880) and the Tilbury Docks (1886) were part of a great, virtually unchecked surge of economic and social change, that would in due course see the Great Dock strike of 1889, and the subsequent nationalisation of the private dock companies and creation of the Port of London Authority. There is considerable potential for archaeologists to study finds and environmental evidence for the development of the extended system of distribution and exchange which ultimately became global. This would not only yield direct evidence of the range of contacts and goods in circulation, and throw light on the efficacy of distribution networks in bringing both essential commodities and exotic luxuries to London and the surrounding region, but would also draw out the consequences of the creation of London's docklands on the many thousands of people, from all over the world, who lived and worked there.

As a major centre of population and an important international market, London's consumption of goods and materials took place on a massive scale. The growth of consumerism and bourgeois culture are well demonstrated by changing fashions in pottery and other material goods, and future finds surveys should address questions of wealth, status, increased disposable income and social emulation (conspicuous consumption); archaeology can particularly elucidate documentary sources in examining questions about the relationship between the mundane and exotic in the domestic context, function and form, the choice of different materials, the changing habits of shopping consumption, drawing on large assemblages and closed groups. Other questions might include how material remains relate to growth, patronage, investment and the institutional framework. More generally, there is a very extensive collection of artefacts from the period and a typological review could make a valuable contribution to our knowledge of the development of material culture. Similarly, the potential of the environmental data has only just begun to be explored but it is clear that it has much to say about changes in diet, disease, pollution and the exploitation of resources and, therefore, about the social and economic forces and consequences of consumerism.

L10 Framework objectives

• Identifying materially how London became a distribution centre for the western world

• Developing an archaeological research strategy towards understanding the development and history of London's docklands from the 18th century onwards

Fig 35 The Regent's Canal, connecting the Grand Junction Canal's Paddington Arm with Limehouse, was opened in 1820. View of the canal from Mortimer Wheeler House at 46 Eagle Wharf Road

- Examining the success with which small towns in the London region adapted to the capital's growth

- Investigating the factors behind London's rise as a world financial centre

- Developing the potential of artefacts and environmental data to inform us of cultural and economic change

- Understanding how London attained and kept its position as the centre of fashion in many things for England, and how material remains can be interpreted as evidence of conspicuous consumption

- Establishing how daily work and life in London, by individuals, reflected and contributed to the rise of London as the commercial centre of the British Empire, and to its continued eminence as a world city thereafter

8

THE RESEARCH AGENDA
MAJOR THEMES

What was London like?

A number of themes, including both research subjects and methodologies, have been prominent throughout the formal process of assessing London's archaeological resource for the production of *AGL*. These are areas which most urgently need to be addressed to be able to answer the question 'what is London and who were its people?' at different times in the past. These themes cut across chronological periods and specialisms; in many cases they positively require the attentions of multiple disciplines. The themes have been embraced to a large extent in a wide range of current research projects and, importantly, in a number of major ongoing research programmes, which are outlined below. To be clear, these particular themes are not being promoted as a complete or inclusive list, but in order to provide and enhance an interpretive focus in future research programmes.

The thematic approach to analysing data from London has been promoted, *inter alia*, in *Capital archaeology* (English Heritage 1998a), wherein nine major themes were identified: river and estuary; city, hinterland and region; urban status and royal power; personal and communal space; ritual and religion; migration and community; agriculture and subsistence; industry and industrialisation and London, Britain and the world. The overlap with the themes promoted for a new research framework for London is not coincidental; however, the headings and nuances are slightly different, reflecting the shifts in thinking even very recently. It should go without saying that we can expect these themes, too, to evolve and change, as discovery and research answers old questions and poses new ones.

In this document, five themes have recurred consistently throughout the period assessment: topography and landscapes, people and society, development and economy, and continuity and change. Unsurprisingly, these are themes which are in many cases being addressed through current and proposed research projects. Inevitably, there is some overlap between the themes. In this section, thematic objectives are given for each theme; examples and references to specific periods are generally avoided, as these appear in the preceding, period-based chapters. It is hoped that, in addition to the many current and proposed projects on researching aspects of London's archaeology, the focus on these themes, in the context of a research framework, will prompt their development and evolution and even their replacement with other themes as new priorities emerge. Initiatives such as the proposed 'Research matters' series, described below in Chapter 9, will enable researchers to actively take part in and shape the debate. The potential for collaboration and partnership between different individuals and institutions is clear, and might also lead to complementary research strategies involving different agencies.

Fig 36 A 1st-century Roman brooch in the form of three men in a boat, with the prow in the style of a bird, probably imported from the Continent

Topography and landscapes

An enormous diversity of different landscapes and environments has existed across the Greater London region at different times. For each of these, the questions of how geomorphology and ecology has influenced human activity, what opportunities or hindrances topography and environment have posed and how and why people manipulated those features, are persistent questions that cut across all period boundaries. It is proposed that future research should focus on reconstructing geomorphology and ecology, hydrology and river systems, ecosystems and climate. The fundamental questions 'what did London look like?' and 'what did that mean to its people?' need to be posed for all stages, in all periods of its evolution.

Ecology and geomorphology

TL1 Framework objectives

• Conducting baseline surveys, and use these to develop models for understanding the significance of geomorphology, ecology, ecosystems and climate, hydrology, and vegetational and faunal development, on human lives

• Synthesising evidence of ancient woodland from recent fieldwork (especially that carried out since Rackham's work in 1976), moving towards characterising the countryside of the Greater London region and understanding the economic, ecological and symbolic relationship between trees and people

• As a means of managing data across the London region, and overcoming the fact that today's political and territorial boundaries may have had little or no meaning in the past, a series of 'landscape study areas' are proposed. The topography of Greater London, lying at the centre of the London Basin, is largely determined by the underlying geological structures and the hydrology of the Thames and its tributaries (see Fig 3). In this context, the following landscape study areas, based on the drift geology of Greater London, are proposed:

> the inner Thames estuary (Tower Bridge to Teddington Lock)
> the outer Thames estuary (Tower Bridge to Purfleet)
> the tributary valleys (Lea, Wandle, Colne, Crane, Roding, Ravensbourne, Fleet, Walbrook, Tyburn)
> the wetlands
> the gravels (and brickearths)
> the high-level terraces (pre-OIS 12)
> the claylands
> the chalk

Fig 37 Medieval waterfronts and the Boss Alley inlet, discovered during excavations for the northern abutment of the Millennium Bridge

Hydrology – river systems as barriers, links and resources

TL2 Framework objectives

• Understanding London's hydrology and river systems and tributaries and, in particular, understanding the role of the River Thames (as boundary, communication route, resource, ritual focus, barrier, link, etc) in shaping London's history, and the relationships between rivers and floodplains

• Understanding the relationship between landscape, river and settlement, and the influences of the Thames in particular on communications and social interaction

• Understanding the origins of the prehistoric metalwork sequence from the Thames, and examining the links between the metalwork hoards deposited at the headwaters of river tributaries and other activities

• Understanding the evolving character of development in central London between Westminster and the City, and Southwark, in comparison to other riverine settlements beyond London

Cognitive landscapes

TL3 Framework objectives

- Considering the roles that landscape features may have played in human activity and settlement, looking beyond the opportunities or hindrances presented by topography and environment to what the landscape, whether natural or artificial, meant to London's inhabitants and visitors

Climate

TL4 Framework objectives

- Characterising changing climatic conditions, and air and water quality and pollution, throughout the archaeological record, towards understanding its implications for how people behaved

- Using the understanding that comes from reconstructing London's past to contribute to wider environmental studies about contemporary concerns such as: climate change; sea level fluctuations; flood defence initiatives; links between pollution, health and quality of life

Development

There are many facets of London's rise as a world city, and its intricate and varyingly balanced relationship with its region. These require an understanding of urbanism, set against rural settlement, and exploring the notion of core and periphery.

Settlement patterns and hierarchies

TD1 Framework objectives

Settlement plans need to be prepared using baseline survey data (see above) and exploiting geographic information systems.

- Taking in large enough areas to identify where settlement ends and other features such as fields begin and developing predictive models for settlement location

- Identifying the roles and significance of different types of monument, structure and enclosure

- Investigating how urban centres commanded surplus from the surrounding countryside or what impact the urban imposition had on the pre-existing patterns of economic and social relationships (Perring in prep; *AGL* 2000). Differential access to resources will be represented in many aspects of the finds assemblages (most evidently in the animal bone and pottery) and there are fascinating comparisons to be made between the economies of roadside settlements, suburbs, villas, farmsteads and so on

- Understanding the size and character of the urban centre at different times

- Studying the correlation between sites associated with watercourses and meander bends, so as to understand the origin of settlements

- Understanding the relationships between the different urban foci within the London region (such as two urban foci of Saxon Lundenwic and Lundenburh)

- Understanding the relationships between urban settlements and royal or religious estates

- Supplementing archaeological endeavour with place name and documentary research

- Understanding issues of nucleation and desertion, especially in connection with major events that are traceable in the archaeological record, such as the Black Death, and construction of the London docklands

London in its hinterland – core/periphery models and regionality

TD2 Framework objectives

- Examining the concept of core/periphery for different periods in London's past, as a means of understanding how evolving settlement patterns reflect the need for sustainable, beneficial relationships between a settlement and its environs, a city and its hinterland

- Understanding how the proximity of London – in its various definitions at different times, but frequently a large settlement or conurbation – affected the lives of people living and working in the immediate surrounding area and how in turn they would have been perceived by those in the centre, and those in other regions

- Contributing to our understanding of the creation of the London suburbs with direct contribution to today's aspirations for an urban regeneration

- Examining the success with which small towns in the London region adapted to the capital's growth

- Comparing Roman London's development with other major Roman towns in Britain and on the Continent, particularly western provincial capitals

Power as an agency of development and urbanism

TD3 Framework objectives

- Looking at how, at various stages, power has been represented and replicated, and how that in turn might have been imposed, adopted, adapted or rejected by provincial society

- Studying the role of the military (army, and to a lesser extent, navy) in bringing de facto or symbolic stability

- Establishing through the archaeological record (as a balance to documentary interpretations) how sustainable and determined (or not) were public and civic efforts to put in place, and then maintain, different aspects of London's infrastructure

- Exploring the concepts of administration and rulership, taking account of London's often unique position as wic, bishop's seat and royal city

- Considering the tension between private and civic enterprise, and the use and influence of power – by monarchs, governments and military authority – in urbanism and infrastructure

- Considering how the high number of royal palaces in the London area in the post-medieval period affected life in the capital and its environs, in comparison with other cities

- Examining the proposal that there was an ideological polarity between town and anti-town systems: Roman towns did not so much fail as were discarded

Infrastructure

TD4 Famework objectives

- Understanding the relationship between the Bronze Age wooden trackways and the settlements to which they presumably led, and what the trackways represent in terms of woodcraft and woodland management

- Understanding the reasons for evolution of the road systems, street layouts, river crossings and ferries, and their importance as engines of development and change

- Refining our understanding of how the Roman port of London functioned and what it meant for Londoners

- Understanding how water supply and drainage provision were installed and managed

- Understanding the development of London's docklands and waterways

Defences

TD5 Framework objectives

- Refining our understanding of the chronology and function of the landward and riverside defences and extramural evidence of defensive or military structures in the Roman period

- Understanding the cultural and symbolic roles played by London's defences through the ages as reflections of power and political security or imposition and dominance

Buildings

TD6 Framework objectives

- Completing baseline surveys of buildings and synthesising data to establish patterns of building renewal and replacement and to understand the life cycle of buildings of different types and function, at different periods

- Comparing Roman London's public building provision with that of other Roman cities

- Understanding functionality and specialisation within buildings, and the impact on social interaction and economic linkages

Material culture studies

TD7 Framework objectives

- Synthesising material evidence for the exercise of social and political power in society

Economy

The economy of the region can be elucidated by studying the application of power in politics and understanding the role of individuals, government and the militia. It can be further elucidated by understanding the relationships within and between core and periphery on production, distribution and consumption. This theme overlaps extensively with questions about development.

Production

TE1 Framework objectives

- Clarifying the mechanisms that prompted agricultural intensification in prehistory and, specifically, the links between production and consumption of prestige goods, as against staple commodities

- Understanding the procurement and supply of building materials and labour, and the management of woodlands, quarries and other resources

- Analysing field and archive data to improve our understanding of agricultural practices in the region

- Understanding the relationship between town and country in demand and supply

- Examining Roman London's role as a centre of manufacture, warehousing and commerce

- Refining theories of trade specialisation over time, and zonation in the Roman period

- Examining breeding programmes and wildlife management, and marine and riverine exploitation, to understand the strategies used, their success or otherwise, and their consequences

- Charting how and why different parts of London developed as specialist producers, and understanding the implications of this for London as a world city

Distribution

TE2 Framework objectives

- Understanding Roman London's role as a port and centre of trade and trans-shipment, and how this changed over time

- Considering whether there was a 'London region effect' in economic terms, or whether there are differences, distinguishable in the archaeological record, in the north, south, east and west of the region

- Investigating evidence for the operation in the Roman period of economic and market mechanisms, and the relationship between personal wealth and social hierarchy

- Identifying materially (through the archaeological record) how London became a distribution centre for the western world

Consumption

TE3 Framework objectives

- Examining distinctions between production in the periphery for consumption by the core and production in the periphery for consumption throughout the region, with regard to contemporary models for urban regeneration and sustainable development

- Establishing whether, during the Saxon period, the social organisation of the kingdoms of Wessex, Kent, Essex and Mercia were most influential as a consumer elite or a stimulant to a distinct social fabric

- Understanding how London attained and kept its position as the centre of fashion in England for many things, and how material remains can be interpreted as evidence of conspicuous consumption

- Understanding the economy of entertainment and recreation

Material culture studies

TE4 Framework objectives

- Identifying assemblage characteristics for greater understanding of the history of recreation

- Characterising the economies of different parts of the region during different periods – establishing type assemblages and models that enable inter- and intra-regional comparison

- Synthesising finds and ecological data in order to address issues of surplus, extraction, provisioning, consumption and disposal

- Carrying out petrological analysis of prehistoric ceramic fabrics, to characterise production, sourcing, styles and influences across the region

People and society

People and society can be studied through an understanding of what London's past environments meant to different groups and individuals, in terms of their identity, their social status, their ideology and religions, their health and their way of death.

TS1 Framework objectives

- Understanding what London's past environments meant to different groups and individuals

- Considering cultural interaction between immigrants, invaders and indigenes, between, for example Britons and Romans, in terms of diversity and marginality, or issues of social inclusion or exclusion

Regionality

TS2 Framework objectives

- Establishing the roles of men, women, children, servants and slaves in the social and economic organisation of urban and rural life

- Considering regional variations in health, especially from the medieval period onwards, drawing parallels with modern societies in terms of urban regeneration aims

Cultural and social property

TS3 Framework objectives

- Studying buildings as indicators of cultural and familial associations

- Examining how *Londinium* – one of the most cosmopolitan communities of Roman Britain – played a significant role in the genesis of new cultural and social identities; how was material culture exploited in the definition and transformation of identity; where did the first Londoners come from (Millett 1996); how were separate identities defined in successive periods and to what extent can we describe trajectories of convergence and /or divergence?

Identity – ethnicity and social status

TS4 Framework objectives

- Using the archaeological record wherever possible to trace individual lives

- Understanding the experience of children through London's past

- Considering the changing role and influence of the military in the urban make-up of Roman London

- Addressing Saxon migration concepts, using place name and archaeological evidence, to determine if, and how, migration took place

- Considering ethnic diversity, for instance between Frisians and Vikings, and how these are represented in the archaeological record

- Developing scientific techniques and recording/sampling methodologies that will help to identify ethnic identities

- Researching the influence of the houses of nobility and bishops in the medieval period

Demography, death and disease

TS5 Framework objectives

- Estimating population sizes, character and composition, and changes in these over time, including evidence for settlement and transient populations

- Examining population density and the size of different households

- Understanding life expectancy, origins and belief, seen through studying health, diet and disease, and preparing models for future research

- Considering the relationship between cemeteries and major or minor roads, in terms of symbolism, status, privacy and convenience – both in London and at roadside settlements around the region

- Understanding the differences, if any, between burial practices in the city and outlying cemeteries

- Using environmental reconstructions (see topography and landscapes, above) to characterise the effects on peoples' bodies of living in Greater London

- Using documentary information to create and test models for understanding cemetery populations, which might be applied to sites for which no documentation exists

Ideology, cult and religion

TS6 Framework objectives

- Understanding the nature and meaning of the deposition of metalwork in the Thames and at the headwaters of river tributaries

- Synthesising data on known religious sites and buildings, their chronology, use and influence locally, regionally or nationally

- Examining the changing roles and diversity of religions in London society at different times

- Identifying the role of the church in society through the archaeological record

- Examining the London mendicant houses in the light of the many excavations that have taken place in their precincts; especially whether those in the City of London were different from those in much smaller cities and towns elsewhere

- Understanding the female monastic experience in London

- Identifying the extent to which religious minorities and non-conformists had a distinct material culture in London, and developing archaeological models for future analysis

Recreation

TS7 Framework objectives

- Investigating the role of leisure and recreation in daily life, both within the household and through public amenities

- Examining the changing roles of public and private facilities, such as baths and games, and their social and economic implications

- Establishing how archaeology can contribute to the history of leisure in London

- Reviewing existing archaeological data to establish the extent to which leisure activities were a particularly metropolitan feature or pastime

- Understanding how leisure activities became accepted as a worthwhile type of land use, and how their physical expression, such as in theatres and pleasure gardens, fitted with other pressures on space

Material culture studies

TS8 Framework objectives

- Developing models which identify the social (rather than economic) meaning of artefacts (eg fashion) and ecofacts (eg diet reflecting tastes)

- Characterising assemblages for use in analytic models, where the archaeological record helps to

Fig 38 Roebuck skull and antler; sawn-off antler tines can be an indicator of medieval boneworking industries

define the nature and extent of different neighbourhoods – in social, economic, ethnic and religious terms

- Compiling a synthesis of small finds, to trace domestic life, personal ornament, literacy, etc – using artefactual analysis to characterise domestic space

- Developing the evidence for assemblage 'signatures' for different groups of Londoners, including the 19th century, in recognition that many London communities may well have gone unrecorded and to that extent be 'without history'

Continuity and change

A prerequisite is to understand the social and economic drivers behind continuity and change, and their potential importance in modern living.

Chronologies

TC1 Framework objectives

It is necessary to establish firm chronologies in order to provide a coherent framework within which to understand the nature and causes of social and economic change, and the rate of such change.

- Absolute dating should be routine on all prehistoric sites

- Dating techniques should be tested where possible (for example, to establish why TL dating on Ipswichian deposits in London has such problems; and to correlate biostratigraphic dating and radiometric techniques)

Transition periods

TC2 Framework objectives

An understanding of the processes at work during so-called transition periods is particularly important in the following areas:

- The Mesolithic to Neolithic transition: understanding the significance of horticultural experimentation at this time, and the transition from hunter-gatherers into farmers

- The change and diversification in farming communities

- The evolution from a landscape of communal monuments into one of settlements and field systems

- The relationship, if any, between ringforts of the later Bronze Age and the few early Iron Age sites of hillfort type, such as Caesar's Camp, Wimbledon, or Warren Farm, Upminster

- The earlier to later Iron Age: comparing the cause and consequences of settlement expansion in Greater London with different regions of Britain after *c* 300 BC, and explaining the abundance of finds on later Iron Age sites and the contemporary changes in the organisation, intensity and scale of agriculture and craft production, through local investigation and inter-regional comparison (Haselgrove et al 2001)

- Briton into Roman: re-evaluating the model wherein south-eastern England changed (adopting coinage, elite burials, shrines, the emergence of oppida, continental imports, etc) as a result of contact with Rome and because there was no strong late Iron Age presence in the area – and looking instead for evidence of continuity in the landscape

- The end of the Roman occupation: developing explanatory models to explain socio-political change and considering the influence of surviving Roman structures on Saxon development

- Establishing how daily work and life in London reflected and contributed to the rise of London as the commercial centre of the British Empire, and to its continuous eminence as a world city thereafter

- Having regard to how London will continue to grow, change, develop and renew in the future

Catastrophe and upheaval

TC3 Framework objectives

- Examining the role played by catastrophe in the development of London and the character of its people – whether fire, war, pestilence, famine, flood or climatic change

- Understanding and characterising how long-term trends differ as drivers for change from catastrophic and single events

- Establishing how the material expression of religious feeling changed through the Reformation and subsequent religious upheavals

Material culture studies

TC4 Framework objectives

- Publishing key site assemblages, to facilitate inter- and intra-site comparisons, focusing on issues of cultural and environmental change, seasonality, subsistence strategies, economic manufacture and distribution, and use and consumption

- Establishing a dated regional ceramic sequence for the Neolithic and Bronze Age

- Refining and dating the local ceramic sequence for the middle Bronze Age and Iron Age, finding dates for the inception and development of Deverel-Rimbury ceramics and extending the sequence known mainly through cemetery assemblages

- Examining the use in any one period of materials from an earlier period (eg Saxon use of surviving Roman fabric) and the influence on craftsmanship, manufacture and building techniques

- Analysing patterns of property ownership

Fig 39 The floor of a Victorian flour mill which occupied the site of medieval Winchester Palace after the fire of 1814

9

TOWARDS A RESEARCH STRATEGY FOR LONDON

Two characteristics were identified above (Chapter 1) which, to those actively engaged in its research, particularly distinguish London archaeology: the quantity of available data and diversity of London's populations, and the obscurity and perceived irrelevance of past landscapes to today's populations. These characteristics have set the philosophical parameters for the archaeological research strategy outlined below. The strategy is therefore twofold:

1) to provide an opportunity for guiding, and potentially integrating, large numbers of research programmes and projects while providing cohesion and opportunity.

2) to embrace the diversity of London's people (and consequently their material culture) during the past and present, and to find ways of illuminating the present by demonstrating how modern London has grown out of and is linked to the past and how past landscapes will continue to mould the future.

It seems inappropriate for any one body to prescribe the research priorities for the rest of the archaeological community, especially at a time when archaeology is embracing theoretical and methodological diversity and pluralist approaches are being advocated (for example by Hodder 1999, 6). We believe it is appropriate for different groups and organisations to define their own detailed research strategies, perhaps identifying their priorities and methods in the light of their own aims and areas of operation in the context of this framework.

Accordingly, the priorities for research into London's past, identified above, are by no means prescriptive. They are priorities that, having been articulated, the Museum of London intends to review regularly, with the involvement of a wide range of people. As the many bodies working in London archaeology continue their research our collective ideas and understanding will change and evolve. An important strand of the strategy is therefore to encourage communication by the simple act of articulating those priorities, and in turn by fostering a research culture where those interested can learn from shared lessons and results. The strategy will make use of a wide range of media and discussion fora.

The archaeological resource

Excavating the London Archaeological Archive

Fig 40 *Researchers using the newly opened LAARC in February 2002*

Some have shied away from the sheer scale of the recorded resource (resulting in the temporary closure of the London Archaeological Archive in 1996), while others have talked about 'drowning in data' (Thomas 1991).

This *Research framework* is based on the premise that it is only by embracing the size, complexity and potential of the recorded resource that its value can be harnessed. In London, the focus has shifted from the desperate need to record sites before their imminent destruction (a very real dilemma in 1972) to the need to study, analyse and publish results, without which the efforts of the excavators would arguably be wasted. In the 21st century, the greatest advances in our knowledge of London's past are expected to come not from new sites, but from the curated archive, through a concerted programme of study and publication. This is not to say that no new, unexpected discoveries will be made in the course of current and future phases of evaluation, assessment and archaeological intervention: archaeologists are trained to expect the unexpected. Rather, it is the sheer scale and weight of hitherto unpublished data that has the potential to drive a research programme with a far greater momentum and with truly surprising results. For most people, 'archaeological research' is synonymous with excavating sites: in London it must become synonymous with excavating archives too.

Current research programmes

There is a very significant body of research already underway using LAARC data, involving a large number of people and organisations. Inevitably, the results of a substantial amount of research have become available since the completion and publication of *AGL*. It is important to publicise the contents of such programmes so that researchers not only avoid duplication of effort, but also have the opportunity to focus their work more effectively.

Impressively, there are also some strong examples of projects and research programmes that seek to add value to what is possible under the terms of necessarily focused and financially constrained project briefs. Such projects are drawing together not only different groups and different disciplines, but also different sources of funding. More partnerships and greater collaboration between different individuals and organisations is to be encouraged.

Local societies

It is a priority to collate the very great amount of work being done by archaeological and historical societies in and around London. There are numerous examples of private and individual research taking place alongside co-ordinated society projects. Some societies, such as the Richmond Archaeological Society, have recently published their work for the Thames Archaeological Survey (TAS) in two exemplary reports. Overall, much archaeological work tends to be done independently, with a gulf between so called amateur and professional archaeology exacerbated by a focus on the contractual stages of fieldwork. However, there are many examples of strongly collaborative projects. These include the Orpington and District Archaeological Society's (ODAS) Upper Cray Valley Project, a survey carried out by ODAS in conjunction with local museums, which has resulted in the publication of a series of five period-based volumes with gazetteers of sites and finds. The TAS has built partnerships with the Richmond Archaeological Society, the City of London Archaeological Society (CoLAS) and other local societies as well. Other examples include the work of the Surrey Archaeological Society (SyAS) at Wanborough Roman Temple, the Hendon and District Archaeological Society (HADAS) project at Brockley Hill, and the work of HADAS, Birkbeck College and Museum of London Specialist Services (MoLSS) on Church End Farm in Hendon.

Universities

Students undertaking research at undergraduate and graduate level have made direct contributions to the archaeology of London, through their work placements and dissertations. Between 1992 and 2001, for example, sixteen dissertations by students from University College London (UCL) have been summarised for publication, usually in the *London Archaeologist* journal (some of these are listed in *Archaeology International* 2000, 13), while other student projects have formed components in major reports, such as the volume on St Bride's church (Milne 1997). A number of important PhD theses are underway using London archive material at UCL and Birkbeck.

Archaeological contractors

Since 1990, there has been a marked increase in the number of evaluations, excavations and watching briefs carried out by independent archaeological contractors, professional field archaeologists and consultants. Most significantly, AOC Archaeology, Framework, the Museum of London Archaeology Service (MoLAS), Oxford Archaeology (OA) (formerly Oxford Archaeological Unit (OAU)), Wessex Archaeology and Pre-Construct Archaeology (PCA), have all undertaken important projects across Greater London, and the results of that fieldwork are being researched and published. The scale of this work is enormous, and most of it funded by developers with English Heritage as the second largest contributor. The current Museum of London Archaeology Service (MoLAS) and Specialist Services (MoLSS) programme will produce, over the next five plus years, over 50 integrated monographs, nearly 30 Archaeology Studies publications, more than

10 popular books and booklets, and nearly 100 journal articles and contributions. The current PCA programme will result in publication of over 35 journal articles and one monograph (Gustav Milne, pers comm). There may well be a similar number of publications being prepared by others, and a 'research audit' is urgently needed. In spite of the nature of contractual agreements in a highly competitive industry, it is desirable to integrate these research programmes into a wider agenda, as discussed below. Publication via web sites and the Internet is now beginning to develop rapidly, and the archives from two major sites, the Royal Opera House and 1 Poultry, will be made available through the Archaeology Data Service (ADS).

Curatorial research

The Museum of London's Curatorial Division also undertakes research and has recently completed a five-volume review of the work of the Roman and Medieval London Excavation Council, as part of the Grimes's London Archive project. Much research relates to dissemination through gallery displays, for example for the prehistory gallery 'London before London' due to open in 2002, the medieval gallery in 2003 and temporary exhibitions based around new discoveries. Importantly, there is the ongoing study and cataloguing of the core collections.

Conclusion

There is a very substantial amount of multi-facetted research already in progress, the results of which sensibly need to be evaluated before shopping lists of 'new' research topics should be proposed. A research programme for London, and the *Research framework* which encourages it, does not have to be established anew; rather, the creation of the LAARC raises the prospect of finding major new insights and improved approaches which harness the very significant efforts already underway.

London Archaeological Archive access enhancement

Naturally, in addition to the challenge of effectively interrogating such large bodies of data, researchers will need to recognise the implications of different theories and different methods of data collection over the years. Following the assumed bias in early excavation towards recovery of

the better preserved material, through decades in the 'rescue years' of the 1970s and 80s of emphasising objectivity in data description, and of separating evidence from interpretation (Barker 1982, 140–1), to the almost universal adoption of a formal post-excavation review stage to assess the potential of collected data for further analysis (English Heritage 1991b), selectivity is now a recognised plank of interpretation.

The solution is not, however by any means as simple and straightforward as reading the assessment document (*AGL* 2000), noting what 'gaps' there seem to be in the knowledge base, and then setting about adding the necessary stamps to the collection. Real life and real archives are rather more demanding. A series of ongoing initiatives will lead to greater physical and intellectual access to the LAARC. The first priority is to bring each of the archives to an acceptable minimum standard, where their contents are known and indexed, and their storage is in appropriately stable and accessible conditions. The 'LAARC minimum standards project' is well underway at the time of writing, with funding from the Getty Grant Programme and City of London Archaeological Trust (CoLAT). The Archive Management System (AMS) indexes all of the archive and stores the digitised elements. The second priority is to make the contents and indices available digitally through a computerised Archive Access System (AAS) which allows basic and advanced searches on key themes. This will be available over the web, and through work stations in the LAARC for the use of visiting researchers.

In the longer term, the aim will be to add the data from those archives created before computerised systems were in use, and to enable computer searches right across the LAARC, with on-line access to principal catalogues, reference collections and the databases of digitised data themselves.

A sizeable body of finds and records from excavations in London exists in a number of other organisations around and beyond London. Clearly, there is potential for a pan-London information and communications technology (ICT) project to trace and index that material.

The 'London Past Places' project

A separate but related initiative, between English Heritage and the Museum of London, is setting out to link GLSMR data to LAARC data. The 'London Past Places' project aims to provide information held in the GLSMR and the LAARC through a web site. Individuals will be able to search through information about individual archaeological sites and finds using modern and historic maps (via a Geographic Information System) and by asking basic questions about types of site, chronological periods or historic Londoners. The 'Past Places' project is aimed in the first instance at providing a sense of place and community history to those with a general interest in London, and encouraging them to delve deeper into their past.

The natural corollary of this project is the use of a digital map base for all of the archaeological interventions carried out in London, as a platform for accessing and manipulating different levels of data. In turn, there is considerable potential for integrating data from standing building recording projects.

LAARC Management System

The LAARC Access System will be underpinned by a LAARC Management System which will work alongside the two major databases operated by the Museum: the database developed for managing the Museum of London's social history collections (using MultiMimsy), and the relational database developed (using Oracle) by MoLAS for the integrated analysis of site and finds data. These two systems will hold indices for the whole of the London Archaeological Archive and computerised information, where it exists, for individual sites. The long-term aim will be to add the data from those archives created before computerised systems were in use, and to enable computer searches right across the LAARC.

It goes without saying that for all future archives, standardisation and adherence to minimum standards at the time of deposition are pre-requisites, and that those standards will need, therefore, to be continually reviewed for their appropriateness and adoption.

A research culture

'Preservation by publication'

The aim must be to replace the maxim 'preservation by record' with 'preservation by publication' – where dissemination may take many forms and many levels so as to be useful to both the expert and non-expert. Presentation and dissemination would probably include traditional publication, Internet and web site access, exhibition papers and conference proceedings, abstract summaries and even spiral-bound reports and 'grey literature'.

Unlocking the potential of the LAARC undoubtedly begins with understanding the (current) processes of site-based archaeological research, since they differ from other forms of research, such as text-based historical research, or the study of unprovenanced artefact groups. For example, a simple period-based project might start with the study and publication of a single site sequence. At the next level, it would be possible to compare and contrast the results from several site sequences, integrating data from material culture studies, to publish an area study, perhaps by extracting all the required period information from a series of multi-period reports. In turn, it would be possible to discuss a series of such site and area studies in a consideration of London as a whole. As part of this process, new discoveries and allied research might enhance the research potential of important antiquarian finds held in the London Archaeological Archive. These different levels of research are clearly inter-related, since the synthetic or themed studies depend to a large measure on the availability of primary data published (or at least disseminated) in an accessible format. From this it follows that the greater the number of site sequences 'published', the wider and deeper the range of the next generation of studies.

The very act of publication is itself a spur to further research; experience shows us that a site for which at least a summary phased report has been published in an accessible format is far more likely to be incorporated in more detailed research than one for which no such report is available. At present it is clear that researchers tend to focus on plans and sections at the expense of any text description of individual contexts. However, many unpublished sites in the archive have an interpretive report that provides a platform for recombination and reinterpretation (B Sloane, pers comm); the next task is to consider how best to provide an interpretive account across the whole archive, without fixing any single interpretation for all time. An archaeological gazetteer covering the period 1991–2001 should be compiled to complement the existing London gazetteers. The site records, the finds and ecofacts are all stored in the London Archaeological Archive under the original site code and with the original site context numbers. The published site narrative is the key to that material. Conversely, an unpublished site or associated assemblage, however rich, remains invisible to the wider research community. Consequently, such primary data must be made available, or 'published', as they are the building blocks of all subsequent research.

Once this basic groundwork has been completed, other levels of study become possible. Groups of sites or features, some (perhaps all) previously published, can be analysed and re-evaluated. A major theme or industry can be studied, combining features, artefacts and environmental material from several sites, perhaps integrated with documentary, cartographic or illustrative sources. At a national or international level, groups of well-stratified, closely-dated London material can be considered in conjunction with data from a different region or country.

Challenging theory and practice

As the LAARC is used, even more thought will be given to methodology and approach; to how different groups use archaeological data, and the most effective relationship between report and archive. This, in turn, could have fundamental implications for the way in which archaeological data is collected and recorded. To its enormous benefit, London's material past has been examined, recorded, curated and interpreted in a multitude of ways; researchers have adopted and evolved different philosophical approaches and methodologies. The development of archaeology as a discipline has seen London play a key role in several areas, such as the 1970s development of

stratigraphic recording systems, and the London Archaeological Archive has the potential to contribute to a history of archaeology.

Access to the LAARC raises two interrelated, methodological issues. First, it places a requirement on the Museum of London to develop innovative tools to ensure that data held in its archives are accessible regardless of their origin or mode of collection. And second, it places an onus on researchers to consider and continually challenge their own approach to data collection and interpretation. Whereas interpretation and narrative is seen as an essential part of the archaeological process (encouraging us to ask questions and challenge our understanding) their place in the process vary considerably, for many reasons. The explicit act of interpreting findings during excavation and involving all members of the excavation team, as, for example, at Perry Oaks (Andrews et al 2000), has undoubted benefits – not least in contextualising information, empowering and informing the excavation team and better targeting excavation and sampling strategies (Hodder 1999). Other projects, such as the Blossom's Inn excavations in the City of London by MoLAS and AOC, have also sought to break the mould described by, for example, Shanks and McGuire (1996) wherein the description of the material is kept distinct from interpretation and large sections of the workforce are excluded from decision-making, by bringing large multi-disciplinary teams together to challenge understanding and strategy during excavation (Nick Bateman, pers comm). Numerous debates and conference sessions (eg Lawson 1999; Dalwood and Moore 2000) endorse the motivations of most commercial archaeological contractors to interpret and publish. Similarly, while most archaeologists currently working in London might agree that the constraints imposed on fieldwork by construction timetables might not permit the methodologies adopted in seasonal site investigations, eg by Hodder at Çatalhöyük; most would equally agree that excavation and recording are inextricably tied to interpretation (eg Hodder 1995; Hodder 1997; Hodder 1999), and that in order for the archaeological record to be recognised as being valuable, we need to assign particular interpretations to data (Carver 1996, 52).

Archaeological research in London therefore faces a dual challenge: firstly, to develop flexible systems that provide full access to the archives of interventions going back many decades – and to continue to evolve those systems, and secondly, to challenge and improve systems of recording and interpretation in light of results and the needs of London archaeology's users. Many classes of data are recognised now (for example, undecorated coarseware body sherds, animal bones,

Fig 42 Surveying at 10 Downing Street, where part of Whitehall Palace, built in 1531, was recorded during the excavation of new rosebeds

stratigraphic relationships, soil micromorphology) which were discarded at different stages in the past. Similarly, some classes of material which were rigorously collected in the past (for example, oyster shells) are now discarded given the limited information they yield. We must assume – and be alive to – further changes in the future.

Awareness

At present, while the London Archaeological Archive's potential to inform national studies – of prehistoric chronologies, Roman building types, medieval demography, or the dating of post-medieval pottery – is one of its major virtues, it is largely untapped. Once its value in this regard is better known, it is to be hoped that London material will become a common component in a very wide range of non-London-centric research projects. Study of the archaeology from London will become as important as study of the archaeology of London.

One of the ways of achieving greater awareness of the contents of the LAARC will be through extensive use of the Internet. Universities and other members of the research community (nationally and internationally) should be actively encouraged to undertake research on London material as part of their own projects – on projects, for example, like using dated London material in setting up reference collections for post-medieval research in the United States or in Australia. In this way, the research potential of web-based archives needs to be considered and developed, with full account taken of the way in which the balance, format and role of the next generation of printed reports may alter.

Discussion, debate and review

Systems aside, managing the LAARC and encouraging its use and exploration is being enhanced not only by the Museum's archive team, but also through the recently created post of Research and Development, funded jointly by the Institute of Archaeology, University College London, and the Museum of London. A key aim of this initiative is to encourage partnerships between different groups and individuals, and to spot opportunities to add value to archaeological research by building bridges between developer and research funding and between commercial and so-called amateur archaeology.

The Museum of London Head of Archaeological Research and Development will encourage integration of research projects between different groups and individuals. This will entail establishing links with other related disciplines and agencies with a view to pursuing collaborative research. Obvious outcomes could mean encouraging satellite research projects to complement work which is otherwise constrained by the terms of its contract; or, say, adding an engineer to an archaeological team studying the function of an ancient structure, or bringing medical researchers to teams studying the pathology of a cemetery group.

Another key role will be to establish a forum to encourage dialogue between archaeological researchers. The web will be used to encourage interest in and use of the LAARC and help to create an on-line research community; an up-to-date register of current research projects will facilitate new levels of research by a much wider range of researchers in London, the UK and abroad, with the potential not only to access data on-line but also to discuss questions with each other. This will mean the development of an interactive research network which facilitates enquiry and discussion. Models for such facilities are already being developed by, for example, the Archaeology Data Service (ADS). The LAARC research community would comprise anybody (curators, contractors, students, academics, interested parties) involved or considering undertaking a bona fide London-related project.

The web will also be used to promote major research themes, to enable new research to complement or contribute to a collective effort or indeed to redefining the research themes themselves. The aim must be not to stifle new initiatives but to avoid re-inventing wheels and therefore maximising research opportunities. An annual summary of research on London archaeology, published as an illustrated report and on the Internet will supplement the existing Internet-based research register for London archaeology.

Periodic conferences and seminars will be promoted, to review results of new research and propose new or changed priorities and strategies for the future. These will be mainstays of the regular revision of the *Research framework* document itself.

Perhaps the most tangible aspect to the proposed research forum will be the production of a new series of short bulletins entitled 'Research matters'. These bulletins might describe a particular research project, challenge an interpretation, call for collaboration and partners in a research programme, develop an idea or hypothesis in response to the *Framework*, or even overturn our thoughts on a major research priority. Equally, they might focus on method and technique. 'Research matters' will be written by different researchers engaged in the challenge of understanding London's past, and will be published through the year as required, as part of the effort to create a much more tangible research community from the very large and currently quite disparate group of individuals and organisations. 'Research matters' will be made accessible both in paper form and on the Internet through the Museum of London web site.

Putting the archaeology of London to work

People, diversity, the historic environment and regeneration

Heritage has been described as 'something of a sleeping giant both in cultural and economic terms' (DCMS 2001). The historic environment is something from which we can learn, from which our economy benefits and something which can bring communities together in a shared sense of belonging. In this context, the data and collections in the LAARC are undoubtedly a 'learning resource' of extraordinary value.

The contribution of the historic environment to regeneration has been well demonstrated by the Commission for Architecture and the Built Environment (CABE) and English Heritage, the latter in two key studies: *Conservation-led regeneration* (English Heritage 1998c) and *The heritage dividend* (English Heritage 1999). Urban renewal and sustainable development are mainstays of Government and Greater London Authority policy. The Government is now encouraging local authorities in preparing their community strategies, to consider the role of the historic environment in promoting economic, employment and educational opportunities within the locality (DCMS 2001). An example of good practice in Greater London is the urban regeneration work at Spitalfields in Tower Hamlets, where the public have been kept closely informed of archaeological discoveries as they have happened.

At a more detailed research level there are countless examples of how archaeological endeavour has advanced scientific and environmental research, sometimes in unexpected ways. Research into protecting archaeological remains has found a way to control asthma-causing house-mites and, through research on rock art, identified a new species of bacteria-producing antibiotic (Cassar et al 2001).

Fig 43 Preparing to lift the stone sarcophagus of the Roman lady found at Spitalfields in 1999

Archaeological techniques have frequently revealed data about ground conditions which have a direct bearing on environmental issues – such as fluctuating water tables, rising sea levels and subsidence – and can inform the development of better conservation and construction policies. Archaeology has long been recognised for its contribution to the history of medicine; the human osteology collections in the LAARC, comprising nearly 15,000 individuals when we include the c 10,000 medieval skeletons from the St Mary Spital cemetery, represent unparalleled potential for palaeopathological, bioarchaeological and biomolecular research.

To unlock the wider economic, social and scientific value of the LAARC two broad priorities must be met – increased public awareness and more research.

Public interpretations

The Museum of London's own gallery exhibitions and 'outsite' programme (small displays of archaeological and historical material in buildings and public places around London) will need to continue to draw upon the results of research carried out by a wide range of people and organisations. Research themes identified in this document are already being developed for gallery interpretations. Public workshops and day schools, while not part of a formal gallery programme, will also continue to play a vital role in providing hands-on access and indeed tuition in particular research techniques. These sorts of activities have the potential to introduce people to new ways of finding out about their own recent and distant pasts. The need for professional archaeologists to engage with a wide range of interest groups is clear, and the value of their contribution can be seen in initiatives such as the Museum of London's exhibition 'The Dig' and its 'Roman boxes for schools' scheme, whereby boxes of real Roman artefacts have been sent to over 200 London primary schools. But at present it still tends to be the museum profession (for example, Merriman 1991), rather than contracting archaeology, which extends its traditional roles to respond to a diversity of public audiences. The huge growth in popularity of television programmes about archaeology, of exhibitions that both interpret for the public and also ask the public to query and cross-question, and the increase in archaeological discoveries that make the main daily news bulletins are exceptions that illustrate the public's hunger for knowledge from archaeology. Other models go further, to involve the public in interpreting the results of fieldwork: the database for Çatalhöyük will be available on the web, enabling users to draw their own decisions about the data.

Research in commercial archaeology

The role of research in commercial archaeology is still dysfunctional. Contracting archaeologists serve commercial requirements with the design and conduct of projects that almost invariably have to marry two very diverse objectives: satisfying a planning obligation and producing an academically appropriate research product. While the introduction of a strong planning tool (PPG 16, DoE 1990) has achieved great successes in improving *inputs*, (in how development-led archaeology is controlled), there is no equivalent mechanism for regulating the *output* of results into understanding and the community (Baker and Morris 2001, 610). It is clear that in order to realise the social and economic value of archaeology, the management of the *in situ* resource needs to be tied more closely to research. This would require resource managers, contracting archaeologists and archaeological consultants alike to adopt a value-led approach. For Greater London, a project such as that advocated in the Monuments at Risk Survey would be useful – and potentially of pivotal importance – to develop procedures that assess both the risk to the archaeological resource and the potential value of the archaeological resource to address agreed research priorities. Pragmatically, it is only within the context of an accepted framework of knowledge and research that the development industry will continue to increase their understanding and acceptance of archaeology as a mainstream environmental issue.

Overtly bringing management of research into the cultural resource closer together, would bring at least two obvious benefits. First, it would be possible to overcome the otherwise constraining nature of contractual agreements with different archaeological units in a highly competitive industry. The research projects and programmes of different bodies could be integrated into a wider agenda, for example through information-exchanging exercises during the post-excavation stages of the projects, or at least by being able to consider how each new research initiative might contribute to our wider understanding of London's past. Second, outputs which returned information to the public and sought their input into a research agenda – popular publications, open day events, putting 'culture on-line' and so on – would become increasingly accepted and, indeed, expected.

(10)

APPENDICES

Appendix 1 The consultation process

Meetings

March 1998: initial meeting to discuss how a research agenda should be formulated
November 1998: launch of archive gazetteers and general discussion of format of research agenda
May–October 1999: period seminars: early prehistory, later prehistory, Roman, Saxon, medieval and post-medieval
August 2000: consultation on first draft

Greater London *Research framework* consultees

Peter Addyman	York Archaeological Trust
David Andrews	Essex County Council
Gill Andrews	Archaeological consultant
Nick Ashton	British Museum
Grenville Astill	University of Reading
Rose Baillie	City of London Archaeological Society
Ellen Barnes	formerly English Heritage
John Barrett	University of Sheffield
Caroline Barron	Department of History, Royal Holloway
Nick Bateman	Museum of London Archaeology Service
Martin Bates	University of Lampeter
Justine Bayley	English Heritage
Martin Biddle	University of Oxford
David Bird	Surrey County Council
Joanna Bird	Freelance Roman finds specialist
Lyn Blackmore	Museum of London Specialist Services
Philippa Bradley	Museum of London Specialist Services
Richard Bradley	University of Reading
Duncan Brown	Southampton Museums
Gary Brown	Pre-Construct Archaeology
Nigel Brown	Essex County Council
Stewart Bryant	Hertfordshire County Council
David Buckley	Essex County Council
Paul Chadwick	CgMs Ltd
Tim Champion	University of Southampton
John Cherry	British Museum
John Clark	Museum of London Early Department
Mike Corfield	English Heritage
Jon Cotton	Museum of London Early Department
Paul Courtney	Archaeological consultant
Robert Cowie	Museum of London Archaeology Service
David Cranstone	Archaeological consultant
Alan Crocker	Surrey Archaeological Society
Sue Davies	Wessex Archaeology
Michael Fulford	University of Reading
David Gaimster	British Museum
Julie Gardiner	Wessex Archaeology
Sarah Gibson	Archaeology and Planning Officer, Southwark
Roberta Gilchrist	University of Reading
Kenneth Grabett	President, Kent Archaeological Society (deceased)
David Graham	Surrey Archaeological Society
James Graham-Campbell	Institute of Archaeology, University of London
Pamela Greenwood	Archaeological consultant
Clare Halpin	Hertfordshire Archaeological Trust
Guy Halsall	Birkbeck College
Vanessa Harding	Birkbeck College
Mark Hassall	Institute of Archaeology, University of London
Ian Haynes	Birkbeck College
Peter Hinton	Institute of Field Archaeologists
Edward Impey	Historic Royal Palaces
David Jennings	Oxford Archaeology
Matthew Johnson	Durham University
Derek Keene	Centre for Metropolitan History
Graham Keevill	Freelance archaeologist
George Lambrick	Council for British Archaeology
Andrew Lawson	Wessex Archaeology
Tony Legge	Birkbeck College
John Lewis	Wessex Archaeology
Ellen McAdam	formerly Museum of London Specialist Services
Scott McCracken	Standing Conference on London Archaeology
Gordon Malcolm	Museum of London Archaeology Service
John Maloney	AOC Archaeology
Nick Merriman	Institute of Archaeology, University of London
David Miles	English Heritage
Janet Miller	WS Atkins
Martin Millett	University of Cambridge
Gustav Milne	Institute of Archaeology, University of London
Audrey Monk	Surrey Archaeological Society
David Morgan Evans	Society of Antiquaries
Julian Munby	Oxford Archaeology
Stuart Needham	British Museum
Janet Nelson	King's College
Taryn Nixon	Museum of London Archaeology Service
Adrian Olivier	English Heritage
Clive Orton	Institute of Archaeology, University of London
Janet Owen	Society of Museum Archaeologists
Sebastian Payne	English Heritage
Jacqui Pearce	Museum of London Specialist Services
Dominic Perring	University Of York
Geoff Perry	Sutton Archaeological Services
Stephen Porter	English Heritage
James Rackham	Environmental Archaeology Consultant
Peter Rauxloh	Museum of London Archaeology Service
Louise Rayner	Museum of London Specialist Services
Richard Reece	Institute of Archaeology, University of London
Julian Richards	Archaeology Data Service
Steve Roskams	University of York
Peter Rowsome	Museum of London Archaeology Service
Tim Schadla-Hall	Institute of Archaeology, University of London
John Schofield	City of London Archaeological Trust
Chris Scull	English Heritage
Harvey Sheldon	London and Middlesex Archaeology Society
Steve Shennan	Institute of Archaeology, University of London
John Shepherd	Museum of London Archaeological Archive
Jane Sidell	Institute of Archaeology, University of London
Barney Sloane	Museum of London Archaeology Service

Denis Smith	Greater London Industrial Archaeology Society
Craig Spence	Goldsmiths College
Kathryn Stubbs	Senior Planning and Archaeology Officer, City of London
Hedley Swain	Museum of London Early Department
Fiona Talbot	SEMS
Roger Thomas	English Heritage
Roberta Tomber	Museum of London Specialist Services
Dennis Turner	Surrey Archaeological Society
Alan Tyler	Bromley Museum
Peter Ucko	Institute of Archaeology, University of London
Alan Vince	Archaeological consultant
Angela Wardle	Museum of London Specialist Services
Francis Wenban-Smith	University of Southampton
Ken Whittaker	Giffords
Rob Whytehead	Greater London Archaeology Advisory Service
John Williams	Kent County Council
Tim Williams	English Heritage
John Wymer	Archaeological consultant

Appendix 2 Summary list of major research themes

Topography and landscapes
• Ecology and geomorphology
• Hydrology – river systems as barriers, links and resources
• Cognitive landscapes
• Climate

Development
• Settlement patterns and hierarchies
• London in its hinterland – core / periphery models and regionality
• Infrastructure
• Defences
• Buildings
• Material culture studies

Economy
• Production
• Distribution
• Consumption
• Material culture studies

People and society
• Regionality
• Cultural and social property
• Identity – ethnicity and social status
• Demography, death and disease
• Ideology, cult and religion
• Recreation
• Material culture studies

Continuity and change
• Chronologies
• Transition periods
• Catastrophe and upheaval
• Material culture studies

Appendix 3 Summary of strategic objectives

The objectives described above are summarised as follows:

1) Obtain support among contributors and users for a twofold strategy which aims:
   - to provide an opportunity for guiding, and potentially integrating, large numbers of research programmes and projects while providing cohesion and opportunity; and to acknowledge and measure London's cultural diversity during the past and present, and
   - to find ways of illuminating the present by demonstrating how modern London has grown out of and is linked to the past and how past landscapes will continue to mould the future.

2) Conduct a wide-ranging 'research audit' involving all London archaeology's users; publicise the findings (ie the nature of research themes and questions already being addressed); and, with reference to the priorities identified in this *Research framework* document, identify and encourage opportunities for partnership and collaboration.

3) Archive Access Enhancement: complete the first stage of the 'minimum standards project'; commence and complete the second stage – digitising and making available on the Internet the summary data on each archive.

4) Link London archive data to Sites and Monuments Record data and make it publicly accessible.

5) Develop plans for a map-based interface (using GIS) to all sites represented in the LAARC, and for setting in place the infrastructure to enable archive data to be accessed and interrogated using the two extant databases Oracle and MultiMimsy.

6) Consider the need to integrate data from standing building recording work.

7) Consider the implications of web-based archives for publication of archaeology by various bodies.

8) Devise a prioritised programme for publishing primary data 'site narratives', based on replacing the maxim 'preservation by record' with 'preservation by publication'; make these available digitally.

9) Consider the merits of a pan-London ICT project to trace and index material from excavations in London not housed in the LAARC.

10) Provide a focus for promoting major research themes and priorities, enabling new research to contribute to a collective effort. Publish an annual summary of research in London archaeology, both on paper and the Internet.

11) Develop (using the web) an interactive research forum, which allows enquiry and discussion, as well as (in light of above actions) data access and interrogation.

12) Promote conferences and seminars to examine major research themes and priorities, and facilitate the periodic republication of the *Research framework* itself.

13) Create, publish and disseminate a series of 'Research matters' bulletins to develop particular themes, research questions, or methods, and to share results and lessons learned.

14) Keep archive deposition standards under regular review.

15) Promote exhibitions, 'outsites', workshops and dayschools that present new ways for people to find out about and study London's past, and that make archaeology relevant to today and tomorrow.

F R E N C H   A N D   G E R M A N   S U M M A R I E S

Résumé

Dans ce document, trois buts de recherches étroitement liées tracent l'avenir de l'archéologie de Londres: réaliser le potentiel des archives archéologiques de Londres, gérer les ressources archéologiques d'une façon plus efficace, et encourager une meilleure orientation de la recherche archéologique. Le LAARC qui a ouvert ses portes au public en février 2002 contient les archives de la plupart des 5200 fouilles archéologiques que l'on sait avoir pris place dans les 32 faubourgs du Grand Londres et de la Cité mais dont le plus grand nombre n'a été ni analysé ni publié. Les informations et les projets présentés ici sont le fruit d'une période de consultation large qui a compris plus de 120 individus et organisations pour qui l'archéologie de Londres présente un intêret certain (voir le chapître 10, appendice 1). Cette période de consultation et ce document font suite à l'évaluation des ressources archéologiques présentée dans *The archaeology of Greater London* (*AGL* 2000).

L'intention derrière ce document est de guider et non de prescrire la direction que prendra la recherche archéologique de Londres. Dans ce but, le chapître 2 trace rapidement les caractéristiques des ressources archéologiques sous terre et de celles qui ont été enregistrées, y compris les archives archéologiques de Londres ainsi que la recherche en cours. Les chapîtres 3–7 sont organisés selon l'ordre chronologique en vigueur pour Londres et se réfèrent aux connaissances et aux questions de recherche actuelles et aux priorités – formant ainsi un cadre de recherches. Des citations bibliographiques pour les diverses catégories de recherche ont été sélectionnées (et non incluses dans leur totalité) et les projets de recherches en cours sont inclus afin d'indiquer l'orientation que l'archéologie est en train de prendre. Les textes par période chronologique n'essaient pas de tout comprendre ni de constituer une liste d'où les projets de recherche les plus méritants seront sélectionnés. Les chercheurs vont peut-être remarquer que des sujets de valeur ne sont pas spécifiquement mentionnés ici mais l'on espère que ce document va être un point de départ pour le développement de nouvelles idées et de nouvelles orientations pour la recherche archéologique.

Pour découvrir le Londres d'autrefois, les priorités de recherche peuvent être examinées à partir de cinq principaux sujets de recherche. On les trouvera au chapître 8, ce sont: topographie et paysage – leur diversité dans l'ensemble de la région de Londres et leur influence sur les activités humaine; développement – la relation entre l'urbanisme, les villages ruraux et les autres régions; l'économie – ses origines, dynamique et production; les personnes et la société – identité et croyances; continuité et changements au cours des siècles

Au chapître 9, on examine les moyens à prendre pour atteindre une stratégie de recherche pour Londres. On y décrit les initiatives importantes prises pour accèder aux recherches et aux archives, et également la manière de développer et d'encourager une culture de recherches pour améliorer nos connaissances sur l'archéologie de Londres.

Au chapître 10, appendice 1, l'on trouvera la liste des nombreux participants au développement de ce document. L'appendice 2 donne le résumé des thèmes de recherche les plus importants point par point et dans l'appendice 3, on trouvera la stratégie de la recherche. La bibliographie est sélective mais donne la liste de beaucoup d'ouvrages qui sont essentiels pour nos connaissances de l'archéologie de Londres y compris les toutes dernières publications de 2002 et celles en préparation.

Zusammenfassung

Dieser Forschungsrahmen legt drei in Wechselbeziehung stehende Ziele für die zukünftige Archäologie in London dar: Die Realisierung des im Londoner Archäologischen Archivs enthaltenen Potentials, eine effektivere Organisation der archäologischen Ressourcen, und die Förderung besserer Zielgerichtetheit der archäologischen Forschung. Die LAARC, die im Februar 2002 dem Publikum zugänglich gemacht wurde, enthält das Archivmaterial über die Mehrzahl der insgesamt 5200 archäologischen Eingriffe, von denen wir wissen, daß sie in 32 Stadtteilen Groß-Londons und der City stattfanden. Die meisten dieser Archive sind weder analysiert noch publiziert. Die hier vorgestellten Informationen und Vorschläge sind das Ergebnis ausgiebiger Konsultationen mit über 120 Individuen und Organisationen, die ein Interesse an der Archäologie Londons haben (siehe Kapitel 10, Appendix 1). Diese Konsultationen und das vorliegende Dokument bilden die Fortsetzung zur Beurteilung der archäologischen Ressourcen, wie sie in *The archaeology of Greater London* (*AGL* 2000) vorgestellt wurden.

Die Absicht dieses Forschungsrahmens ist, Richtung zu weisen, nicht aber Vorschriften für die archäologische Forschung in London aufzustellen. Zu diesem Zweck gibt Kapitel 2 einen kurzen Abriß über das Wesen des unausgegrabenen und des dokumentierten archäologischen Materials, inklusive des Londoner Archäologischen Archivs und der gegenwärtigen Forschung. Die Kapitel 3–7 stellen die allgemein gebräuchlichen Londoner chronologischen Perioden nach unserem gegenwärtigen Wissen, und die sich daraus ergebenden Forschungsfragen und Prioritäten dar – die Forschungsagenda. Ausgewählte – im Gegensatz zu

umfassende – bibliographische Hinweise auf die allgemeinen Forschungsgebiete und gegenwärtigen Projekte sollen einen Anhaltspunkt über die gegenwärtige Richtung der archäologischen Arbeit geben. Die Anmerkungen zu Zeitabschnitten wollen weder erschöpfend noch eine Einkaufsliste sein, von der man würdige Forschungsthemen auswählen kann. Forschende mögen andere wertvolle Themen erkennen, die hier nicht aufgeführt sind. Es bleibt jedoch zu hoffen, daß der Forschungsrahmen als Katalysator für die Entwicklung neuer Ideen und Richtungen in der archäologischen Arbeit wirken wird.

Der Überblick über die Forschungsprioritäten kann auch unter dem Gesichtspunkt der fünf wesentlichen Forschungsthemen über die Vergangenheit Londons betrachtet werden. Diese sind in Kapitel 8 dargestellt und können zusammengefaßt werden zu: Topographie und Landschaft – deren Verschiedenheit im Londoner Gebiet und deren Einfluß auf menschliche Aktivitäten; die Gesamtentwicklung – der Zusammenhang zwischen

Urbanisierung, ländlicher Siedlung und anderen Regionen; die Wirtschaft – ihre Ursprünge, Dynamik und Produkte; Menschen und Gesellschaft – Identität, Status und Glaubensanschauungen, sowie deren Kontinuität und Wechsel über die Zeiten.

Kapitel 9 beschäftigt sich mit der Art und Weise, wie eine Forschungsstrategie aussehen könnte. Es beschreibt wichtige Initiativen in der Forschung und für den Zugang zu Archiven und fährt fort, wie eine Forschungskultur entwickelt und unterhalten werden kann, um mehr aus der Londoner Archäologie herauszuholen.

Kapitel 10, Appendix 1 gibt eine Liste aller Befragten, die an der Ausarbeitung dieses Forschungsrahmens teilnahmen. Appendix 2 faßt die wesentlichen Forschungsthemen in einer Reihe von Punkten zusammen und Appendix 3 legt die strategischen Ziele dar. Die Bibliographie stellt nur eine Auswahl dar, erwähnt aber viele Werke, auf denen unsere Kenntnis über die Londoner Archäologie beruht, inklusive der letzten Veröffentlichungen in 2002 und derer in Vorbereitung.

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INDEX

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Page numbers in **bold** indicate illustrations, tables and maps