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URBAN ARCHAEOLOGY IN BRITAIN

Edited by

John Schofield
and Roger Leech





Urban archaeology in Britain

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Introduction

John Schofield & Roger Leech

This volume of papers is a review of current work and research priorities in a number of areas of British urban archaeology. It is part of the research programme initiated by the CBA Research Committee following the *Erosion of History* (Heighway 1972) and two summary reviews of the decade of archaeological research which followed (CBA 1976; Schofield & Palliser 1981). The essays are divided into two groups: period surveys of the four main periods of urban archaeology, from the Roman to the post-medieval (ending c 1700); and topic surveys, dealing with eight individual aspects, all topographical in nature. The volume is prefaced by two general papers and concluded by a contribution on the study of pottery in towns as a link to and reminder of the artefactual analyses which are of equal importance but which are not dealt with here. Certain other topics, eg urban industry, were considered, but it was thought either that the time was not yet right for a cogent overview to be attempted, or that a sufficient review had been published recently. The main questions to be considered by the contributors were:

(1) What are the main achievements in the topic addressed, and what were the research questions remaining; what do we wish to know, and how can archaeological excavation provide the answers?

(2) Are there approved, or disapproved, methods of excavation or investigation which have become apparent?

(3) How should resources be spread between towns to get the best kind of information?

All of Britain was to be considered if possible. Contributors were also asked to take note of the research policy of the CBA for urban archaeology (reproduced in Schofield & Palliser 1981, v-vii and in Thomas 1983):

It is a measure of the progress made since 1972 that this thematic review can now be undertaken. In 1972 urban archaeology was in its infancy, largely unaware of the New Archaeology and preoccupied with problems relating to the need for more financial support, legally supported access rights, surveys of the archaeological potential of towns and architectural and documentary research linked to excavation strategies (progress as filtered and reflected by the CBA Urban Research Committee is charted in Schofield 1983). Financial support is always likely to be a matter of concern in urban archaeology, but the other considerations now constitute lower priorities. The archaeologist's right of access to the most important urban sites is now at least partly secured by the Ancient Monuments and Archaeological Areas Act 1979, and surveys of the archaeological implications of development have now been undertaken for many individual towns. The need for architectural and documentary research linked to excavation strategies is still important, but now would often be considered as part of a wider approach to investigate archaeologically all aspects of urban society, equal emphasis being placed on the rigorous analysis of many other categories of data.

These points are well illustrated in the first two papers (Schofield, Carver), for while neither of these could have been attempted in 1972, sufficient urban excavations have now been undertaken for the general phenomena in post-depositional sequences to be identified and analysed. It will also be clear from these papers that many urban archaeological research projects have been leading the way in evolving new and more rigorous techniques of excavation and post-excavation analysis.

In the four period surveys which follow, the authors (Jones & Wacher, Hill, Palliser, and Davey) list both the achievements and outstanding problems in their respective areas. A wide variety of successes and future aims is presented, but recurring themes are the potential of water-logged deposits, already attested in the introductory papers, and the need for regional studies, also emphasized in the Committee's research proposals.

The topic surveys which occupy the major part of the volume are concerned with urban defences, castles. domestic and public buildings. water fronts, parish churches and religious houses (Jones & Bond, Drage, Mackreth, Perring, Munby, Milne, Morris, Butler). There is an inherent topographical definition, but the scope of the papers is far wider. The authors are concerned not only with topographical and architectural matters, but also particularly with the changing economic. social and political systems of urban societies. All provide statements of objectives for the future. The authors were given a wide brief which they have interpreted variously; but the points of contact and overlap between their papers and the period surveys reward careful consideration. and both type of survey can be compared with the largely methodological concerns of the first two paper.

None of the participants in this early attempt at strategic thinking in urban archaeology would claim it is refined. So what is the purpose? To bring together profitable themes in archaeological research and to promote informed decisions about the safeguarding of our cultural heritage. It is hoped that the discussion of these themes will establish priorities and improve the selection of sites both for excavation and for preservation. In this regard we wish to point to two related propositions which arise from this volume:

(1) there is still a great need for archaeological assessments of towns which go beyond the implication survey, which have depth maps of the available strata;

(2) from the collected results which are now filtering through, surveys of particular urban monument-types can be used as the basis of scheduling policy in towns. We would suggest that the papers on urban defences and on castles furnish such a data bank of considered examples.

It remains for us to thank the many colleagues who have helped to produce this collection of papers. We thank the authors most warmly for agreeing, on top of their many commitments, to present their thoughts and proposals. The CBA Urban Research Committee and its Chairman, Tom Hassall, have been most supportive from the inception of the project. Our thanks are also extended to Henry Cleere and Marie Puttick at the CBA for their editorial care, to Peter Addyman for many useful comments, and to Tim

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Bibliography

CBA, Urban Research Committee, 1976 *Recent research in urban archaeology,* CBA

Heighway, C M (ed), 1972 *The erosion of history: archaeology and planning in towns*

Schofield, J, 1983 The CBA Urban Research Committee, in *25 Years of medieval archaeology* (ed D Hinton), University of Sheffield, 83-9

Schofield, J & Palliser, D (eds), 1981 *Recent archaeological research in English towns,* CBA

Thomas, C (ed), 1983 *Research objectives in British archaeology,* CBA

GENERAL SURVEYS

1 Recent approaches in urban archaeology

John Schofield

This introductory paper seeks to provide one possible framework for the assessment of the papers which follow, by drawing together some of the ideas current in urban archaeological thinking. It seeks to do this by starting with a close-up of the deposit, then widening the focus to include the town in its region. This is not the proposition of a paradigm, but we should conclude that urban archaeology, after twenty years or so of rewarding exploration and information-collection, now requires the 'paradigmatic shock' of interrogation of the findings according to comprehensive and persuasive models.

The nature of urban deposits

Layers in towns tend to be distinctive, even colourful, by comparison with those on rural sites. Although gradual and natural accumulations do occur, the majority of urban contexts (individual deposits) by bulk are the stratigraphic traces of events of short duration, such as construction or demolition programmes. Urban deposits also have a higher proportion of crisply definable forms such as brick or stone, imported materials or waterlogged contexts containing timbers. Thus, it can be suggested, urban layers are in the main more easily defined.

Urban deposits are found in great variety; they are also often in complex sequences, and whether complex or not, they survive to greatly varying degrees throughout the length and breadth of each town. As Carver notes (ch 2), first we need to identify the common components and then use them to evaluate the town as an archaeological source, including how the variety will affect the strategy of our excavations and the likely results. Deposits of bulky proportions, for instance, were left in the Roman and Victorian periods, with periods of lesser detritus between. Features can be divided into positive and negative types, and often can be dated broadly from their shape or composition; parts of buildings, kilns, and perhaps rubbish dumps are examples. Negative features (pits, ditches) can be analysed in a similar way. We need to map the survival of deposits within towns, to chart the resources still available. A likely conclusion will be that not all periods are available for examination everywhere. The first factor in archaeological excavation strategy must be the nature of the site.

If we chronicle the major earth-moving episodes in the town's history, as has already been done in a few British towns, then we will not only have a catalogue of the available resources but the earth-moving operations themselves show something about the town at those periods. Here we are not talking so much about single acts of an influential power, such as the building of castle mounds or clearance of whole streets for public or religious complexes, but inferences from physical growth of deposits over long periods. As Vince suggests (ch 15), the sheer volume of strata or finds may give rough clues. The percentage of residual pottery, or the volume of pottery, or even the number of contexts per period or interval, may give grounds for inferences about growth and decline of communities. One obvious example is the waterfront expansion now recorded in many medieval and some Roman towns.

One of the greatest problems facing the analyst of urban strata, however, is the possibility that an unknown proportion of the finds or inclusions (building material, charcoal, environmental material) within any stratum may be residual, ie surviving from a significantly earlier period and thus misleading. For example bones, pottery and the hardier seeds or fruit-pips could be redeposited centuries after they were discarded. To identify this background noise the archaeologist requires single-period sites (at the level both of individual building-types and whole single-period towns) for comparison; and needs to employ tools of analysis such as Harris-Winchester matrices or seriation diagrams for the finds, whether pottery, building materials or bone fragments. Some current work suggests that deposits may be divided into primary, secondary and even tertiary deposits in order to assess their residuality scores. In time, this may work the other way and deposits might be characterized, at least partially, by their residual contents.

The key is the stratigraphy. Long intact sequences of deposits are the best material for effective analysis; shorter sequences or single-period sites must be validated against the longer urban sequences which are the norm. Hence the emphasis among most urban units today on the excavation matrix as the key to explanation and the starting point for interrogation of the archive. To give only one example, Carver (1983, 38-9) has demonstrated that the occurrence of medieval floor and roof tiles through a sequence at Shrewsbury was meaningless when listed against the intrinsic dating of layers, but when listed against deposition date, the introduction of different types of roofing tiles in different stratigraphic periods could be seen clearly.

Urban finds and inferences from them

Urban finds are of several kinds: ceramics, animal bones, human bones, buildings and loose building material, non-ceramic artefacts (leather, wood, metal), biological and botanical assemblages. If we talk of archaeological assemblages in towns we should see buildings and streets as

species of artefact, to be analysed in the same general ways as pottery or small finds. This volume is primarily concerned with topographical matters and with buildings or larger constructions: defences, churches, temples, and the like. One paper (by Vince, ch 15) on ceramics has been included to go some way towards correcting the imbalance. Some other illustrations of current approaches to urban assemblages from other topics only touched on in this volume, such as animal and human bones, may be useful here.

Studies of large groups of animal bone fragments have now been published for several towns (eg O'Connor 1982; Maltby 1979) and the various approaches recently described (Coy 1982; for overview see Armitage 1982). Beyond the basics of animal husbandry practices, butchery and marketing of meat and preparation of bones and hides as raw materials for other industries, study of the bones has pointed the way to some stimulating lines of thought. Changes in butchery practices over time can align with other dating evidence; one notable case is the late 11th century changes at Lincoln which may be consequent upon the Norman invasion (Fig 1). The proportions of contrasting sub-groups within the samples, eg old vs young beasts, may indicate 'urban' tendencies such as eating predominantly older beasts no longer wanted for dairy or wool production in the surrounding area (Maltby 1979, 46). There are suggestions that the urban meat diet was of a peculiar and perceptible kind, a distinctive profile of proportions between the main domestic species (cow, sheep/goat, pig) which differed from that of rural settlements (Coy 1982; Randsborg 1980). It may be that this bone-profile can help chart the onset of urbanism in any one town.

The analysis of urban life now possible by animal bones is theoretically possible for other finds, notably building materials (including the buildings themselves as artefacts) and ceramics. In all these artefacts we can look for items present which are not those normally used for agricultural purposes, a skewing of demand for urban needs (veal, houses greater than two storeys, industrial vessels); for signs of systematic marketing and organization of surplus; for better quality of stock, responding to growth in the urban population; and for new methods in the face of a greater intensity of exploitation.

Environmental factors influencing these changes, or environmental results from them (such as pollution) are charted by studies of flora and fauna, insects and microbiological assemblages, discussions of which can be found elsewhere (Hall & Kenward 1982). The study of human bones can also reveal much about past societies and the groups which formed them-not only inherited traits (at both familial and population-wide level) and congenital disorders, but evidence of famine, weather conditions, infectious diseases, dental pathology and osteopathologically evident diseases such as cancer; serological techniques can reveal blood types (Dawes & Magilton 1980; Haneveld 1982; White, forthcoming). Thus archaeological excavation of groups of skeletons can make a limited contribution to population studies.

Archaeological mapping of urban groups and their attributes

Recent approaches have therefore stressed that the town's archaeology is the result of a bundle of influences-climatic regimes, physical factors in the environment such as geology or gradual pollution, or biological factors (eg dietary differences). The archeologist seeks to identify economic

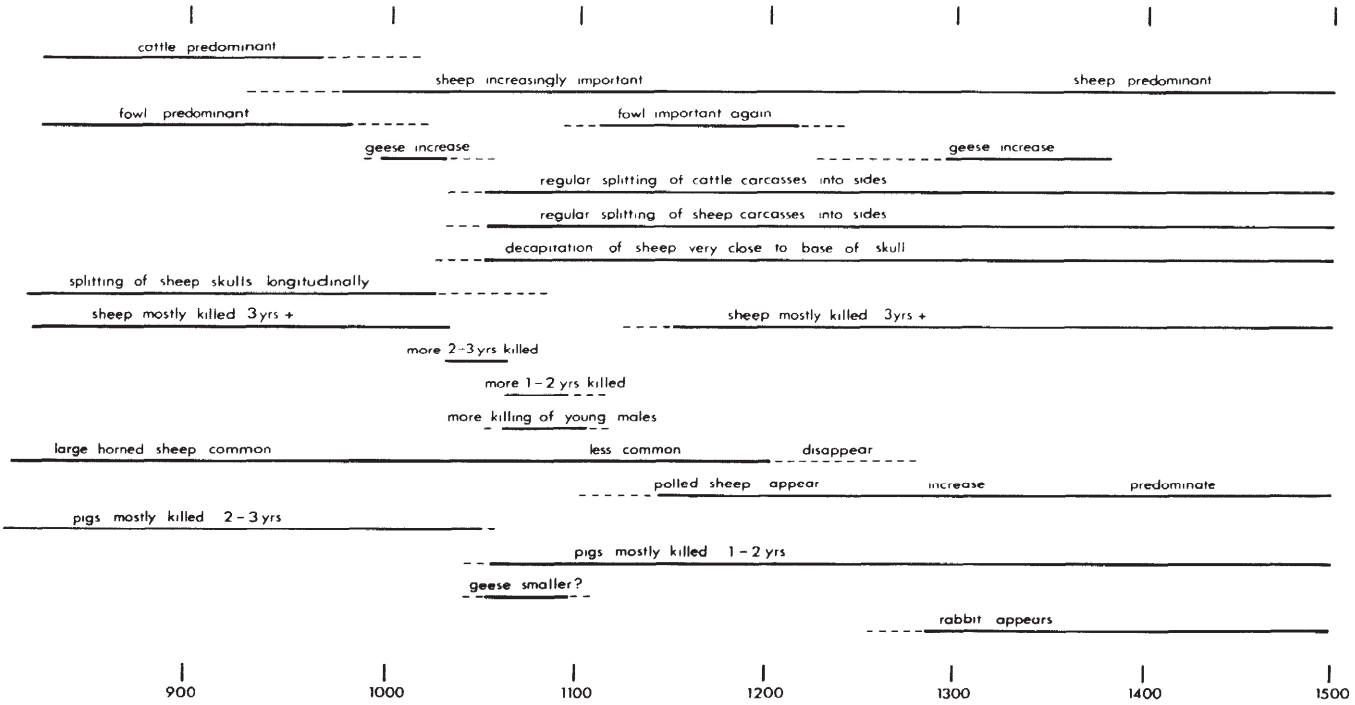


Fig 1 Chronology of some of the variables noted in the animal bones from Flaxengate, Lincoln, c 870-1500 (O'Connor 1982, fig 58)

and social groupings (including industrial, military or religious groups) in the town by purely archaeological means. The diagnostic evidence is at three levels-the artefact, the feature, and the structure or building, and the correlation of all three types of evidence may provide patterns of differential use of space, firstly within buildings and secondly, over wider areas, between parts of a town.

Functions of rooms or buildings can be defined by artefacts or by the technological processes betrayed by industrial scrap, but often there are more artefacts in the dumping layers between floors than on or in the floors, leading to misleading assumptions. Roman timber buildings, with frequent tires, appear to offer tighter assemblages. For the medieval period, cesspits, if not cleaned out by their users, can offer good ceramic groups (Vince, ch 15). Defining workplaces by studying the structure of a building, wholly or in part, is easy if there are clear traces, usually of heavy industry, but in many Roman and medieval buildings rooms could assume a variety of functions, and often did over short periods of time. Certain buildings can be identified by structural attributes (eg hypocausts) or decoration. The purpose of rooms may be deduced from their plan form, access patterns or proportions (see Perring, ch 10, on Roman urban domestic buildings). Particular parts of buildings, such as shops or cellars, are generally only found in numbers in urban contexts and can form the basis of a study of urban building forms.

Between the building and the town there is an intermediate level of analysis, that of the use of space within the property in which the buildings or structures lie. The distribution of pits-which may be divided into functional groups on their shape, size and primary backfill-may reveal spaces formerly occupied by buildings, show the establishment of property boundaries or contain specific concentrations of industrial waste. Here, however, some caution may be required, since urban rubbish of the same date tends to be of similar character regardless of whether it ended up in a domestic pit, the city ditch or the waterfront reclamation zone. Thus mapping of artefacts in secondary contexts may not produce satisfactory results. Finds in dump deposits are useful for general hypotheses rather than particular topographical statements.

Once the site has been characterized, it can be compared with other sites in the vicinity and in the rest of the town. In both secular and religious buildings, the archaeologist seeks to ascertain broad trends in building, by excavating several sites to gain an idea of normal and abnormal development (Morris, ch 13). Further specification is then required; the types of religious establishment, or the designation of workplaces associated with particular trades. In the latter case the waterfront zones of ports offer reference collections of artefactual material, well preserved in waterlogged conditions, for the range of industries practised elsewhere in the town, particularly those in organic materials such as wood, leather, bone and cloth. At this level finds from primary deposits assume great importance. The distribution map, either of sites or finds, has an honourable history in urban studies. The growth of a settlement in its crucial early years is especially amenable to charting by this method (eg Marsden 1980 for Roman London; cf Vince, ch 15 on Gloucester); similarly Dark Age contraction, topographical movement and resettlement can be illuminated in certain cases only by the distribution map (Vince 1984 on mid-Saxon London). Within extensive settlements large-scale fires may be traced from site to site and, if a sufficient number of the component sites are individually dated, can suggest widespread catastrophe.

The degree to which one local area will be delimited from another will vary greatly. Previous building styles (eg pre-Roman Iron Age or late Saxon vernacular) are usually pushed aside by the stamp of municipal, provincial or regal authority in towns, and thus there are often stark contrasts between parts of towns. The monastery, the temple, the forum and the cemetery are areas usually with sharply defined borders. Public and private buildings or zones may be differentiated by use of building materials (at least in the Roman period), such as the quantity of imported stone or better quality brick. Archaeological analysis can perceive areas with specific functions, eg butchery, markets, and the mix of residential and commercial occupation within areas, More subtle groupings within blocks of the townscape may take years to study, since, for example, the excavation of complete *insulae* in Roman towns such as Chichester (Fig 2) and London will take generations as redevelopments occur. Meanwhile studies in which models from social geography are applied to comparatively intact sites such as Pompeii (Raper 1977, 1979) are of great interest,

Once the main groups have been characterized, the archaeologist can move to consideration of the relationships between groups, both within the town-how did these military, industrial, commercial, social and religious functions fit together in the comparatively confined space of the town?-and over time, by comparing how groups rose and fell, infiltrated each other or disappeared from view. Here we are considering questions which link the actions of separate groups over time, such as origins and continuity. Several suggestions will be found throughout this collection of papers: that links with pre-Roman settlements, now proposed for many Roman towns, will only be brought out by area excavation (Jones & Wacher, ch 3); that 10th and early 11th century minsters, the precursors of monasteries or medieval secular colleges, may have been situated in places which were not yet towns and which had a dynamic function in bringing about post-Roman towns (Morris, ch 13); and that archaeologists can record the size and prosperity of towns both before and after the Black Death, for example by the quality of domestic housing at various levels (Palliser, ch 5). There is even an archaeology of events which studies society before and after, or possibly during, a cataclysmic occurrence (the Black Death, the Civil War, a siege or enemy attack such as that on Southampton in 1338).

At this strategic level we have extra desiderata. We need to bring dating frameworks to bear on our recorded information. Dates for specific examples of structures, diagnostic artefacts or processes are needed, and here sites of short duration are extremely valuable as type-sites. These can occur in towns as well as in the countryside. And on each site, the widespread, archaeologically identifiable horizon is commonly used to anchor points in a sequence, corroborating (or occasionally challenging) evidence from other sources (eg epigraphy or documentary record). The fossilizing effect of a religious precinct, Roman or medieval defences, and churchyards may be perceptible on adjoining sites, archaeologically as well as historically. Fire horizons are another hook, though they must be used with care. They can be the archetypal archaeological event, which can be

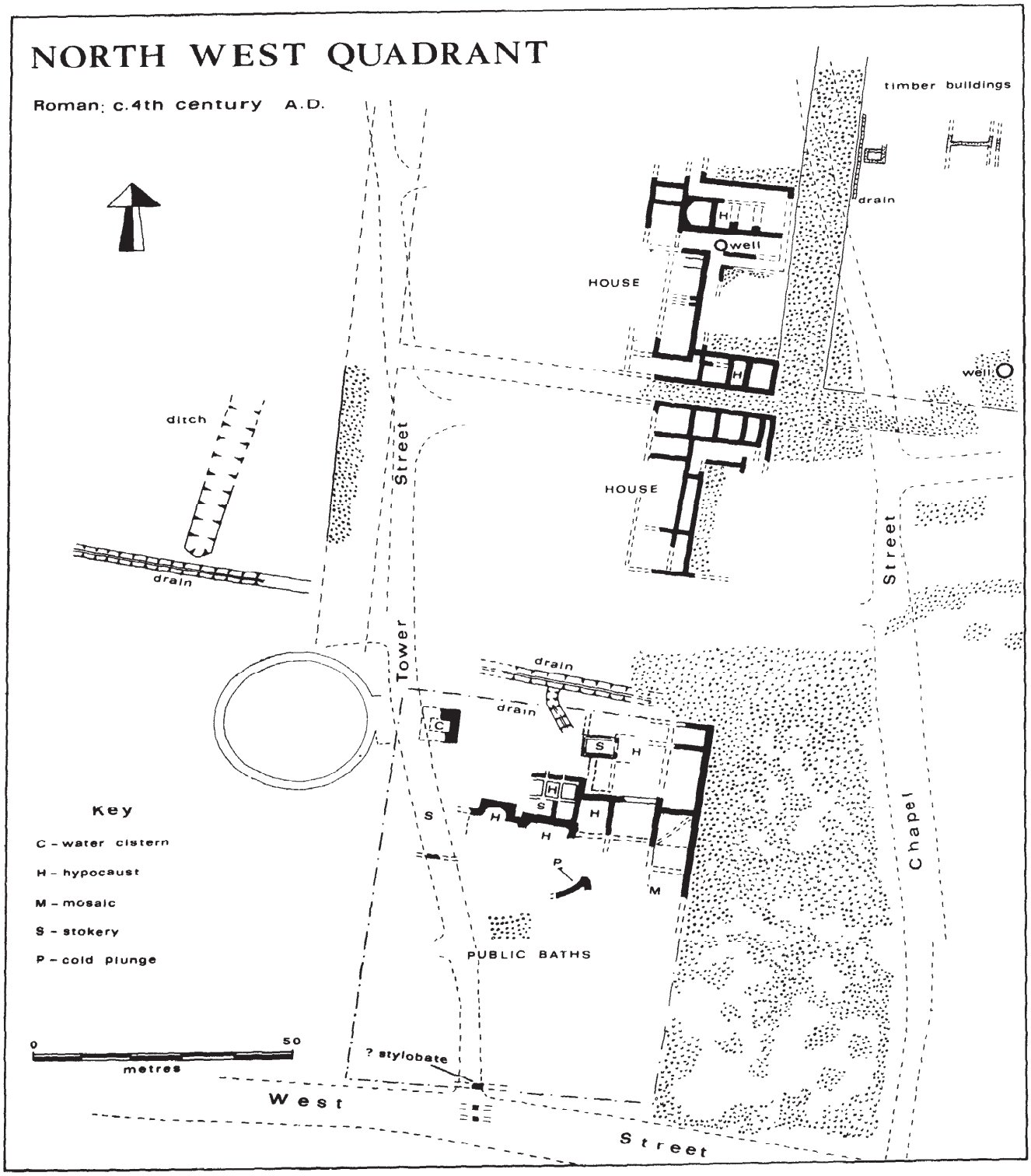


Fig 2 North-west quadrant of Chichester in the 4th century after a programme of excavations of several years (Down 1981, fig 8.9)

studied in two ways: as a good source of artefacts (whether buildings or finds) at one instant of history (eg the Great Fire of London of 1666 providing a dating mechanism for London's region of influence, which by this time stretched to the New World, from the wide range of pottery and artefacts trapped in its precisely dated destruction deposit); or as a 'before and after' study, in which the degree to which the town seized the chance for radical replanning over large areas can be traced.

Conjunction of archaeological and non-archaeological sources

Having constructed his model of the stratigraphy, and armed with a site matrix and seriation diagram, the archaeologist can turn to two outside sources for immediate input into his analysis: scientific dating methods and documentary records. To consider the former in detail is beyond the scope of this collection of papers. However, behind several recent notable discoveries lies the development of dendrochronology as a precise dating mechanism which in certain fields has taken over from typology and coin evidence as the major dating framework (Fletcher 1978; Hillam & Morgan 198la, 1981b; and see Vince, ch 15).

The critical assessment and use of documentary sources in or with archaeology has been the subject of some debate. As many a local history has proved, enquiry based on written records, including maps and plans, can provide, at least for historic periods, much complementary information. Differential use of space within buildings, and within defined areas within towns, or relations between groups within the town are all matters on which the documentary historian has much to contribute.

Many post-war archaeologists and historians have expressed views on the ways in which archaeology and history coexist. These views range from the complete separateness of the two subjects to their complementing each other, meeting and even overlapping. Thus some historians have taken an extreme view (eg Wickham 1983: 'Archaeology cannot pick up land tenure, social control, coercion; history can, though, and does'). Others have stressed the debendence of the archaeologist upon the historian in certain situations: 'the historian identifies a royal palace site at Yeavering and the archaeologist reconstructs by excavation its appearance . . . at all stages in our study we must turn to the historical sources for aid' (Wilson 1976, 2-3); 'It seems to me axiomatic that the archaeologist who chooses to work in an historic period must recognize openly his dependence on historians' (Alcock 1983, 57). Towards the other end of the scale: 'Archaeology reaches those parts of the past that other sources cannot illuminate' (Clack & Haselgrove 1981, 3-4). This semi-independent role contributed to the development of ideas in urban archaeology.

Definitions of the town in terms derived from historical archaeology were brought together by Schledermann (1970) and in a British context by Heighway (1972); besides specific topographical features and institutions such as a planned street-system, market and mint, archaeologists then believed that large-scale excavations complemented by documentary work could identify social differentiation, a diversified economic base and the town's role as a central place. With Schledermann, it was thought that this list of criteria did not apply to the period before the 11th century, when only archaeology could supply the evidence.

A stimulating example of the hard-line archaeological approach has been Carver's study of medieval Worcester (Carver 1980). To him, ideas drawn from historical archaeology, such as urban origins, continuity and growth, may be harmful, and towns should be seen in as large a context as possible. 'Archaeology . . . might prefer to see no "town" at all, but only the successive occupation of the site by culturally various groups for their own purposes. This is a process which has no one beginning and many discontinuities'. 'Archaeological study . . . [is] the evocation of the natural and material world which was the experience of Worcester citizens. Made up of buildings, streets, landscape, foodstuffs, minerals and weather, it is a parcel of evidence which the archaeological method seeks first to isolate, and then to present, as independent testimony to the historian'. The archaeological virtue of a place lies in its 'best' deposits, which are those structures, finds and biological sequences which are best preserved. This need not mean big sites or samples, since sample size should be matched to what is being sampled. These ideas are developed further in Carver's paper in this volume, and they have been warmly received by many of the present generation of excavators.

Though archaeologists have often taken an uncritical view of historians' propositions (cf Palliser's comments, ch 5), Carver's strictures seem to be an over-correction. Even in his own work on Worcester, the carefully constructed archaeological patterns must be stretched on a documentary framework. This is evident in discussion from the micro-level of the identification of a late medieval stone building to the absence of any archaeological evidence for entire periods (the late Roman and mid-Saxon periods). The position taken by the majority of authors and by the editors of this volume is that archaeological and historical sources are complementary; the archaeological evidence should be considered first within its own framework before it is compared with and possibly (though not necessarily) integrated with hypotheses generated from documentary evidence. Neither is the handmaid of the other.

When documentary evidence is meagre, as in mid and late Saxon towns, archaeology must supplement and explain the documentary record by underpinning it with general patterns, eg the spread of artefacts, to chart general expansion and decline. In the well documented medieval town, on the other hand, written sources can make contributions of at least three kinds:

1 In prediction, can identify a site for excavation; this need not only be sites of high status such as palaces or cathedrals-though they are important-but also kilns, industrial sites, mills, and cemeteries.

2 Detailed descriptions of individual sites, eg from tenurial histories and/or financial accounts.

3 Setting and typicality of a particular site, ie the archaeological site is only a sample, and documentary work will put one building in its setting. This is surely the most effective and significant cooperation. Documentary evidence gives trades, names of the site occupants, the wider context of native and foreign artefact assemblages, and explains trade objects, foreign imports, building styles. It has in the past provided dating frameworks for ceramics, a function now being shared with dendrochronology.

Significantly perhaps, archaeologists themselves have pointed to the potential within (medieval) archaeology to understand and interpret past societies in finer detail, and at a higher level, in periods when written history provides a control or constraint (Rahtz 1983, 15). 'Archaeology and documentary history draw on very different sources, and it can justifiably be argued that archaeology has a more explicit role in well documented contexts' (Hodges 1982, 11). It does seem that the comprehensively excavated and well documented medieval town or city enables certain questions of central concern to be posed in circumstances where the amount of relevant information may be sufficient to give detailed answers.

The town in its region

During the 1960s and 1970s urban archaeologists were impressed and influenced by contemporary thinking in geography, with its new interest in spatial analysis. The traditional approaches of geography as a study of landscape had relied heavily on describing man/land relationships, and examining cause and effect. These approaches were challenged in the 1960s by a more mathematically oriented methodology, based on data collection and hypothesis testing. This is in turn being replaced or modified by study of (behavioural) individual and group perceptions. Geographers are turning to man-man relationships within defined spaces rather than man-land relationships. The most relevant geographical considerations include geographical explanations or models of urban growth, urban morphology, central place theory, and urban field (the town in its region) (eg Daniel & Hopkinson 1979).

A key idea is that towns have certain functions to perform. An urban geographer might supply the following list of functions: a town is *(a)* an institutional centre, of political and administrative organization, of religion, social contact and culture; *(b)* the seat of production, agricultural and industrial; *(c)* the seat of commerce and transport; *(d)* the seat of residence for the ruling classes; *(e)* the living place of the people who work in it, and these living places may have to take on special forms because of the social forces generated by the previous functions.

A similar tendency can now be seen among economic historians: to move away from the town as a generic social reality, to a view of towns instead as fields of action integral to some larger world and within which the interactions and contradictions of that larger world are displayed with special clarity (Abrams & Wrigley 1978, 3). The analyst is therefore concerned with the relationships concentrated in towns, especially the social construction and maintenance of power (Abrams 1978, 20- 1); change is not perceived as progress, but in terms of need for other functions (Hodges 1983, 29).

The CBA Urban Research Committee policy statement of 1978 (reproduced in Schofield & Palliser 1981; Thomas 1983) sought to reinforce and extend the regional study of towns by archaeology. Despite some regional approaches, such as implication surveys covering whole counties (eg Eddy 1983), little theoretical headway has been made since. This section suggests some of the ways towns interacted with their surroundings, which might repay further attention.

The main functions for a town outlined above-as an administrative, political, cultural, industrial and agricultural centre-all require an area of influence for each of the functions to be perceived. Archaeological work, together with documentary history and the study of standing buildings, can reconstruct the ways in which larger cities gradually dominated an increasing hinterland (for example by seeking to move further out towards the sources of the food or raw materials supply), or the influences of cities on the artefactual, building or biological assemblages in neighbouring, possibly satellite, towns and villages. The nature and concentration of agriculture near towns, particularly in the immediate periphery, will be of this urban-dominated character (cf comments on study of the Roman territorium by Jones & Wacher, ch 3). Within the city, by contrast, agricultural buildings and practices (eg small-scale husbandry) will gradually disappear or assume awkward, restricted forms as they vie with more dominant urban functions or pursuits. Other buildings may fossilize a previous organization of the hinterland, as Morris notes: when churches appear in documents of the 13th century they probably reflect urban expansion and development of the countryside at the end of the 11 th century. The growing amount of regional thinking, which is the basis of strategic archaeological planning, is shown by the number of maps in this volume. Notable attempts to grapple with the problems of sampling and understanding the archaeology of the small town-which the papers in this volume approach but do not in any substantial way resolve-are now beginning to appear (Astill 1985; Eddy 1983; Morris 1983).

Archaeology and the social sciences

This review and introduction to the papers which follow has attempted to follow one common thread among them: that urban archaeology is a very productive form of spatial social science. As urban archaeologists consider the archaeology of ancient town planning and civic administration, or of group perceptions within the town, they can find useful parallels in sociological studies of the same subjects in modern settings. The application of ideas from anthropology and ethnoarchaeology to British urban archaeology is likewise beyond the scope of this volume, which is based on a gathering of the fruits of the last twenty years' labour in the ground. Urban archaeology has quite rightly been concerned up to now with the problems of exploration-developing at times quite spectacular techniques to win the information from the urban site (Fig 3). This volume is a contribution to the formation of paradigms of the next stage, that of analysis of the evidence.

Bibliography

Abrams, P, 1978 Towns and economic growth: some theories and problems, in Abrams & Wrigley, 9-33

Abrams, P, & Wrigley, E A (eds), 1978 *Towns in societies*

Alcock, L, 1983 The archaeology of Celtic Britain, fifth to twelfth centuries AD, in *25 years of medieval archaeology* (ed D Hinton), 48-66

Armitage, P, 1982 Studies on the remains of domestic livestock from Roman, medieval and early modern London: objectives and methods, in *Environmental archaeology in the urban context* (eds A R Hall & H E Kenward), CBA Res Rep, **43,** 94-106

Astill, G G, 1985 Archaeology and the smaller medieval town, in *Urban history year book* (ed D Reeder), 46-53

Carver, M O H (ed), 1980 Medieval Worcester—an archaeological framework, *Trans Worcestershire Archaeol Soc*, **71**

—— (ed), 1983 Two town houses in medieval Shrewsbury, *Trans Shropshire Archaeol Soc*, **61**

Clack, P, & Haselgrove, S (eds), 1981 *Approaches to the urban past*, Durham Univ Dept of Archaeol Occ Paper 2

Coy, J, 1982 The role of wild vertebrate fauna in urban economies in

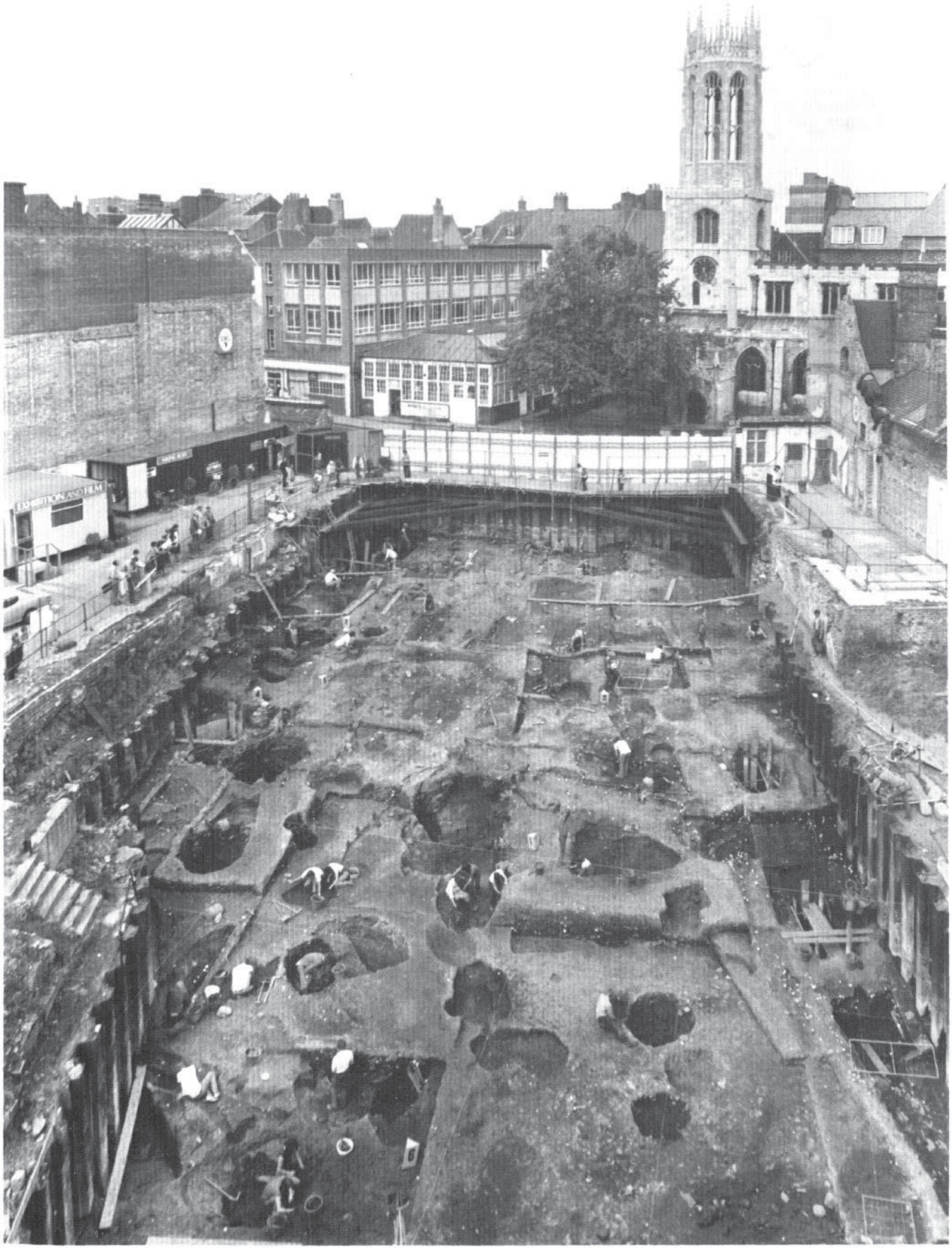


Fig 3 Coppergate, York: one of the largest urban excavations undertaken in Britain in recent years; now the site of the Jorvik Centre, in which some of the Viking structures and the artefacts from them are displayed (York Archaeological Trust)

Wessex, in *Environmental archaeology in the urban context* (eds A R Hall & H E Kenward), CBA Res Rep, **43**, 107-16
Daniel, P, & Hopkinson, M, 1979 *The geography of settlement*
Dawes, H, & Magilton, J R, 1980 The cemetery of St Helen-on-the-Walls, Aldwark, Archaeology of York, **12/1**
Down, A, 1981 *Chichester excavations V*
Eddy, M R, 1983 *Historic towns in Essex*, Essex County Council
Fletcher, J (ed), 1978 *Dendrochronology in Europe*, BAR **S51**
Hall, A R, & Kenward, H E (eds), 1982 *Environmental archaeology in the urban context*, CBA Res Rep, **43**
Haneveld, G T, 1982 Medieval osteo-pathology; its possibilities and limitations—a survey, in *Rotterdam papers IV* (ed J G N Renaud), 57-62
Heighway, C, 1972 *The erosion of history*
Hillam, J, & Morgan, R A, 1981a What value is dendrochronology to waterfront archaeology? in *Waterfront archaeology in Britain and northern Europe* (eds G Milne & B Hobley), CBA Res Rep, **41**, 39-46
——, 1981b Dendro dates from Sheffield, *Current Archaeol*, **7** (9), 286-7
Hodges, R, 1982 *Dark Age economics: the origins of towns and trade AD 600-1000*
—— 1983 New approaches to medieval archaeology part 2, in *25 years of medieval archaeology* (ed D A Hinton), 24-37
Maltby, J M, 1979 *Faunal studies on urban sites: the animal bones from Exeter 1971-75*
Marsden, P, 1980 *Roman London*
Morris, M, 1983 *Medieval Manchester: a regional study*, Archaeology of Greater Manchester **1**
O'Connor, T, 1982 *Animal Bones from Flaxengate, Lincoln c 870-1500*, Archaeology of Lincoln **XVIII-1**
Rahtz, P, 1983 New approaches to medieval archaeology part 1, in *25 years of medieval archaeology* (ed D A Hinton), 12-23
Randsborg, K, 1980 *The Viking Age in Denmark*
Raper, R A, 1977 The analysis of the urban structure of Pompeii: a sociological examination of land use, in *Spatial archaeology* (ed D L Clarke), 189-222
——, 1979 Pompeii—planning and social implications, in *Space, hierarchy and society* (eds B C Burnham & J Kingsbury), BAR, **S59**, 137-48
Schedermann, H, 1970 The idea of the town: typology, definitions and approaches to the study of the medieval town in northern Europe, *World Archaeol* **2**, 115-27
Schofield, J, 1983 The CBA Urban Research Committee, in *25 years of medieval archaeology* (ed D A Hinton), 83-9
——, & Palliser, D (eds), 1981 *Recent archaeological research in English towns*
Thomas, C (ed), 1983 *Research objectives in British archaeology*
Vince, A G, 1984 The Aldwych: Saxon London Discovered, *Current Archaeol*, **8** (10), 310-2
White, W J, forthcoming *Skeletal remains from the cemetery of St Nicholas Shambles, London* (ed J Schofield)
Wickham, C, 1983 Review of R Hodges, *Dark Age economics*, in *History*, **68**, 138-9
Wilson, D (ed), 1976 *The archaeology of Anglo-Saxon England*

2 The nature of urban deposits

M O H Carver

Beneath the modern parks and pavements of British towns lies the mangled detritus of the earlier townsmen, their muddy streets and pitted yards, their blocked sewers and collapsed drains, their tips, dumps and middens (laced with cabbage stalks, dead cats and bronze slag), the scarred foundations of their houses and, in the cemeteries, the fossilized tangle of generations of their skeletons. Truncated, compressed and decayed, these are the deposits which the urban archaeologist seeks to resolve and interpret, in order to provide new and independent evidence for a history that was never written down. His opportunities and ambitions have greatly increased in recent years, giving rise almost to a separate branch of the discipline, with its own objectives, vocabulary, techniques and ethos. But rigid demarcation lines should not be drawn. The urban experience has itself been markedly different over the country, encompassing the whole range of archaeological phenomena: metres of organic strata captured on the waterfronts of London and York, traces of structures on rubble platforms at Wroxeter, caves under Nottingham and earthworks in Hereford. Taking a short, imaginary journey through the urban deposits of the British Isles, we need first to identify those components that seem to be common, then to evaluate the town itself as an archaeological source in all its variety; and lastly, to examine the effect that this variety may have on the strategy of our excavations and on the history that will come to be written from them.

Looking through, or over, the paling of an urban excavation in action the visitor is often struck by its complexity: a matrix of intersecting pits, criss-crossed with shallow trenches, narrow runs of masonry apparently leading nowhere, the unlined cavities left by wells or cellars, islands of metalling and patches of clay; all this decked with little white labels, and contained by a neat, vertically-sided cut, whose sides are dominated by dark grey earth, rubble and protruding wall-stubs. Viewed together the impression is one of irredeemable dereliction. However, an urban site is of course composed of sets of individual features, many of which can be consistently recognized and which occur, moreover, repeatedly from town to town. These are the elements of the language of the urban deposit, from which ultimately must come its meaning. The corpus is enlarged and improved year by year, and each feature varies in form and in the terminology given to it over the country. A preliminary review can, however, offer a taste of the kind of classification which will one day be possible (Figs 4-9).

Figure 4 shows a hypothetical slice of urban strata beneath a quarter awaiting redevelopment. The materials used by town builders through the centuries, and their efforts to achieve structural stability varied greatly. Romans and Victorians built to last; deep and massive foundations, good-quality mortared stone and brick-work, concrete floors, and large-scale earth-moving and terracing operations are often due to them. The structures of the Middle Ages were often more fragile: timber-and-daub, poor-quality mortared stone, shallow foundations, floors and yards of beaten earth or rammed pebbles. The character of these materials affects their survival and thus their detection, as does the way they are contained in the natural geology. These matters are considered further below. Let us note for the present that the stratification is often dominated by the larger constructions, and these often originate in those periods for which we already have most information. To hunt out the surviving fragments of the more vulnerable urban settlements (the Iron Age, the early Middle Ages) will always suggest itself as a priority for our research. It should be noted too that organic preservation has a powerful effect on the legibility of features in the ground. Sites with organic preservation are immeasurably richer in the information they can immediately offer, and in their potential for further analysis. Very few town sites preserve no organic debris whatever, but even fewer and more precious are those with total preservation, due usually to anaerobic conditions, through waterlogging or other forms of airtight sealing (Biek 1958, 1978, 1979).

Figure 5 presents a number of archaeological features frequently encountered on sites without full preservation, called here, for convenience only, 'dry archaeology'. The 'negative' features are those which have survived only below their contemporary ground surface, and the drawings carry up the appropriate reconstructions in faint lines. The information yielded by these features is of two types: that from the form and components of the feature itself and that from the contents which remain within it, though for purposes of interpretation the two are interdependent. Many feature typologies have already been worked out and can offer evidence for date. The structures implied by stone, rubble, earth-fast post, post-in-trench and beam-slot configuration often find reflections in dated buildings that survive; kilns and ovens (Fig 6) are found to be differently constructed for the making of pottery, tile, bronze-workers moulds or bread, and to evolve in different shapes from the Roman to the later medieval periods (eg Musty 1974). Rubbish is deposited in municipal dumps in the Roman period, in middens in early medieval towns, in lined or unlined pits in the 12th-13th centuries, in municipal dumps again in the 14th-15th centuries, and in pits again in the 16th-17th centuries (Esmonde-Cleary 1981; Keene 1982; Platt 1975; Carver, forthcoming). Roman York was provided with main sewers, while timber-lined latrines were used in, for example, early medieval Durham, and stone-lined pits with access steps, or board-lined for easy cleaning are found, for example, at Southampton by the 13th century.

The information offered by the contents of these negative features is less easy to extract, since the strata within, say, a rubbish pit, a ditch or a quarry are very different in origin. Most buried holes show at least three types of filling: a

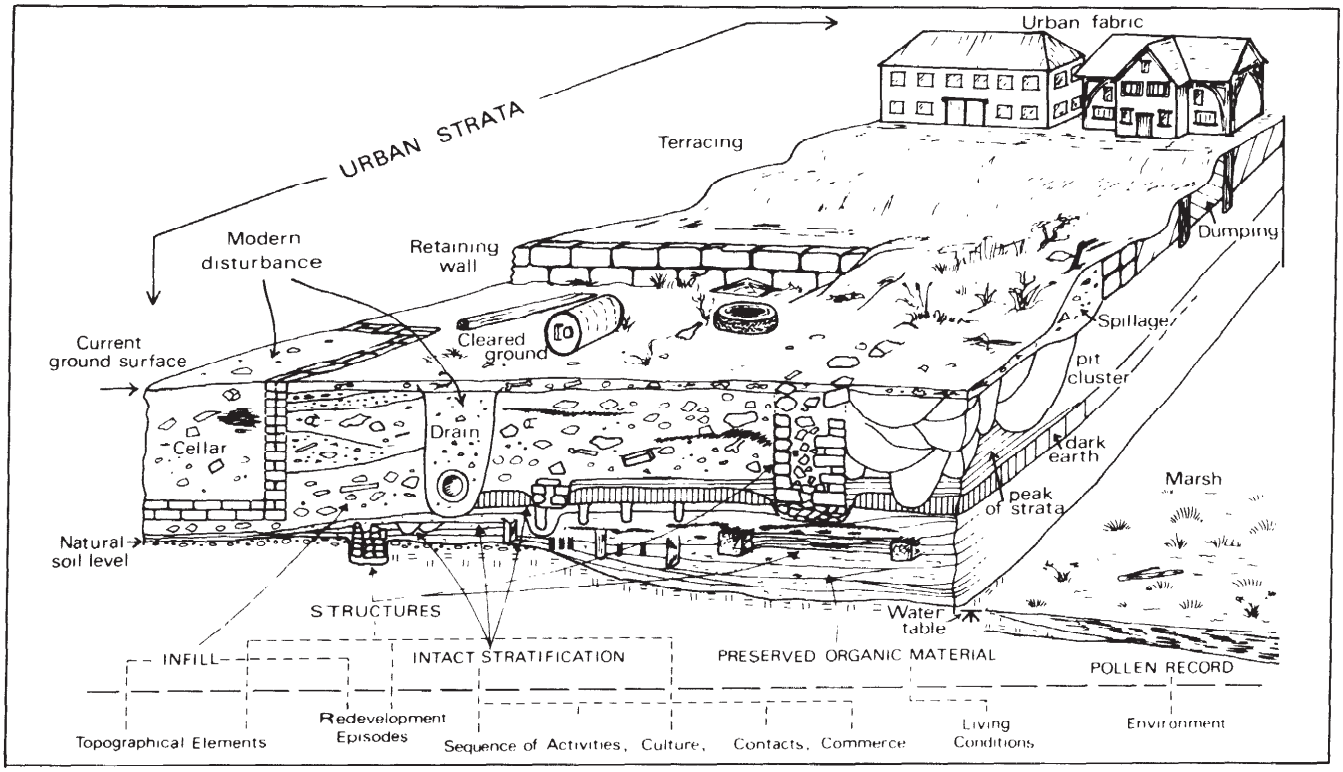


Fig 4 A hypothetical slice of urban strata (Carver in press, fig 8)

primary residue, sometimes extremely thin or negligible, left from its contemporary use such as the cess in F22 (Fig 6) or the tipped rubbish layers in F19 (Fig 15); a **back-filling** when the pit was disused (often featuring a clay cap for hygienic sealing); and the set of **layers dished** into the soft cavity of the backfill owing to the weight of strata subsequently deposited. Sometimes, owing to levelling operations, the excised layers pushed into the tops of pits are all that survive from certain later phases of the site's occupation. Of these three sets of strata the first, containing debris relevant to the feature's use, is the most important for its interpretation. From it materials such as metal scrap, pottery, glass, animal bone, seeds and chemical traces can be extracted in varying quantities and combinations, which are governed by its original function and the degree of preservation on site. Pit 14 at Cuckoo Lane, Southampton, the Skeldergate well at York, the Pottergate cellar at Norwich, and Pit 420 at Lower Brook Street, Winchester are examples of famous primary rubbish assemblages (Platt & Coleman-Smith 1975, 293; Carver *et al* 1978; *Current Archaeol* 1975 **8;** Biddle 1975). Sampling techniques, such as partial selection of building materials, sieving for fish bones and microflotation for seeds and insects may be used to maximize the recovery ofprimary assemblages in the most cost-effective way (Hall & Kenward 1981).

This discarded rubbish is often the best evidence a site has to offer for the interpretation of activity. Only rarely does a catastrophe such as fire or flood provide discard patterns on a surface from which activity can be read from material distributed over its area of use. Infested grain burnt at Coney Street, York, or the butcher's shambles buried in mud at Worcester, provide examples (Kenward & William 1979; Carver 1980b, 161).

In all ages, some 'positive' features do survive below ground. Dumps, which may derive from levelling operations (F30), or slighted ramparts (F28), are distinguishable from their form and make-up. The ubiquitous so-called 'dark-earth' layers, common in the early Middle Ages, may consist of humic soils transported into towns for horticultural purposes, or may be accumulated ash tipping (MacPhail 1981, 1983; Brothwell 1981). In special circumstances a whole sequence of positive structures may be recovered underground, as in the London waterfronts (Milne & Milne 1982). Some extant buildings show great longevity. The town wall at Canterbury contains original Roman fabric (Schofield & Palliser 1981), and Christian churches are of course noted survivors, containing the masonry of many centuries (Rodwell 1982). A town house such as that at Pride Hill, Shrewsbury (Fig 7) may continue in use, to be refurbished over a number of centuries. On occasion a whole group of town houses may survive above ground to provide a valuable corpus of information about medieval life upstairs. Shrewsbury is an example (Smith 1953), while Norwich has about 1,000 buildings earlier than AD 1800 *(Current Archaeol, op cit* **8).** Whether in timber or stone, such structures betray the signs of numerous alterations and adaptations to new purposes. Such signs are, however, notoriously difficult to interpret, and require exceptionally detailed observation and recording. At the same time it is a characteristic of certain positive features,

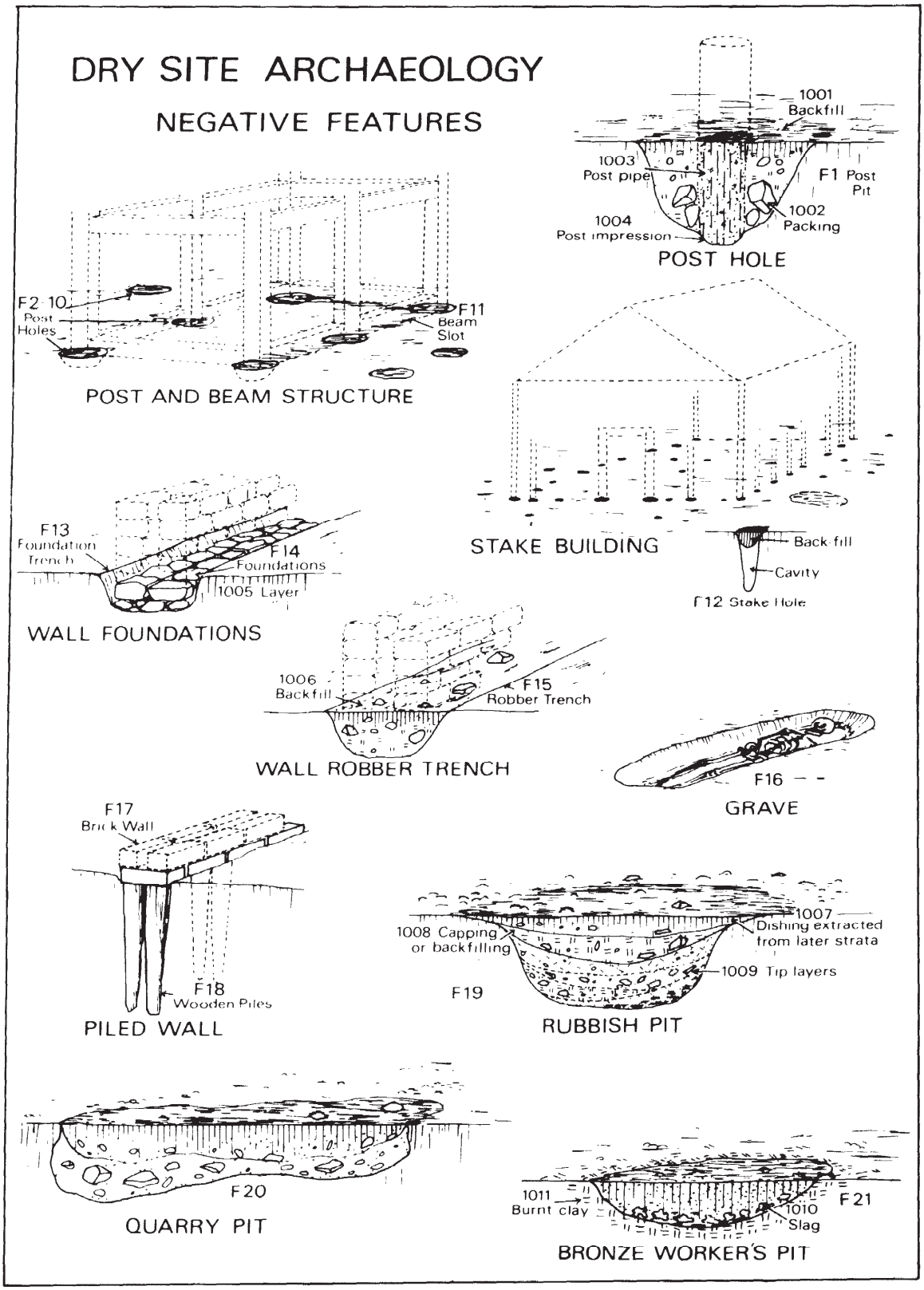


Fig 5 Features encountered on 'dry-sites' (Carver, forthcoming)

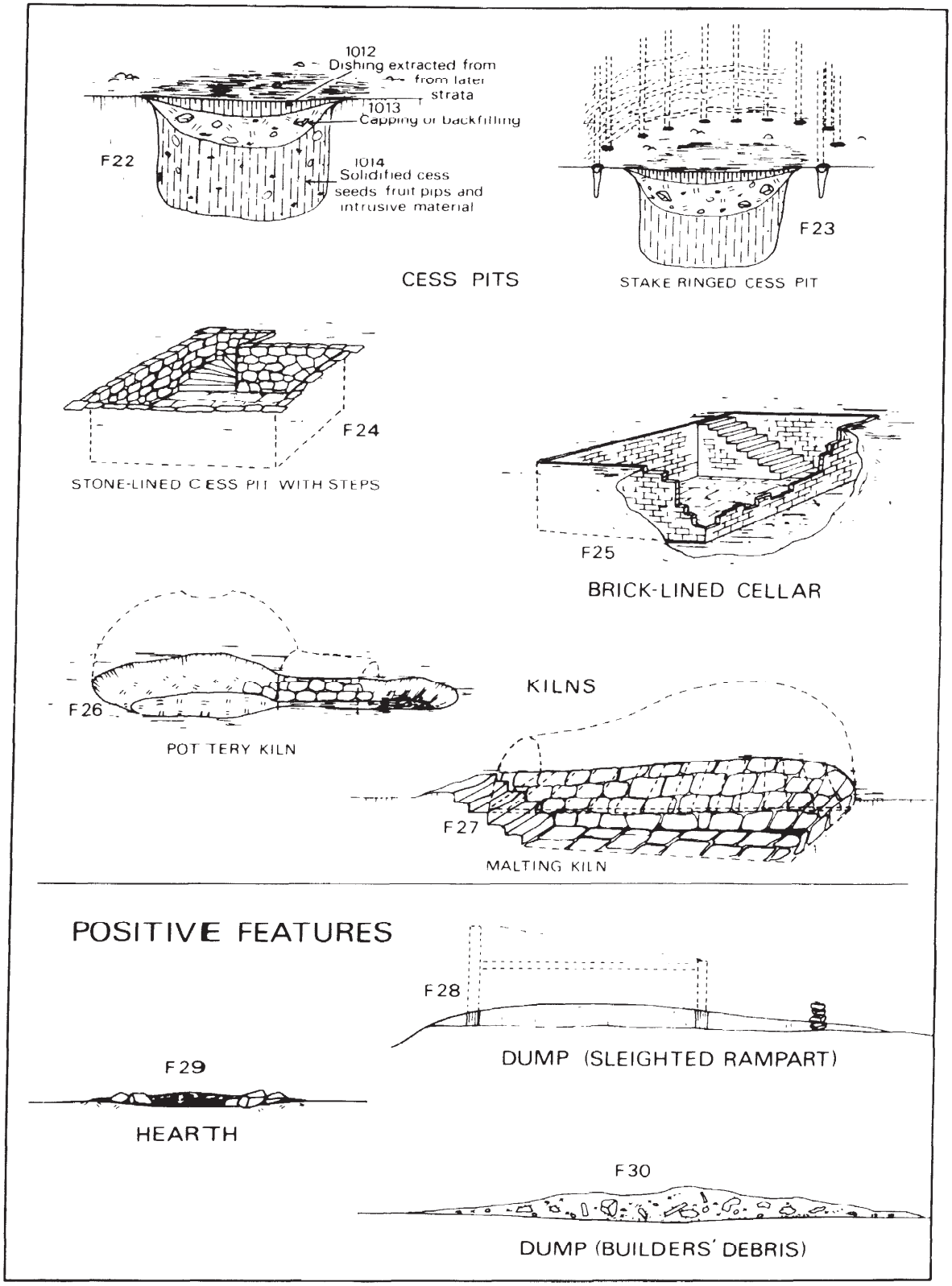
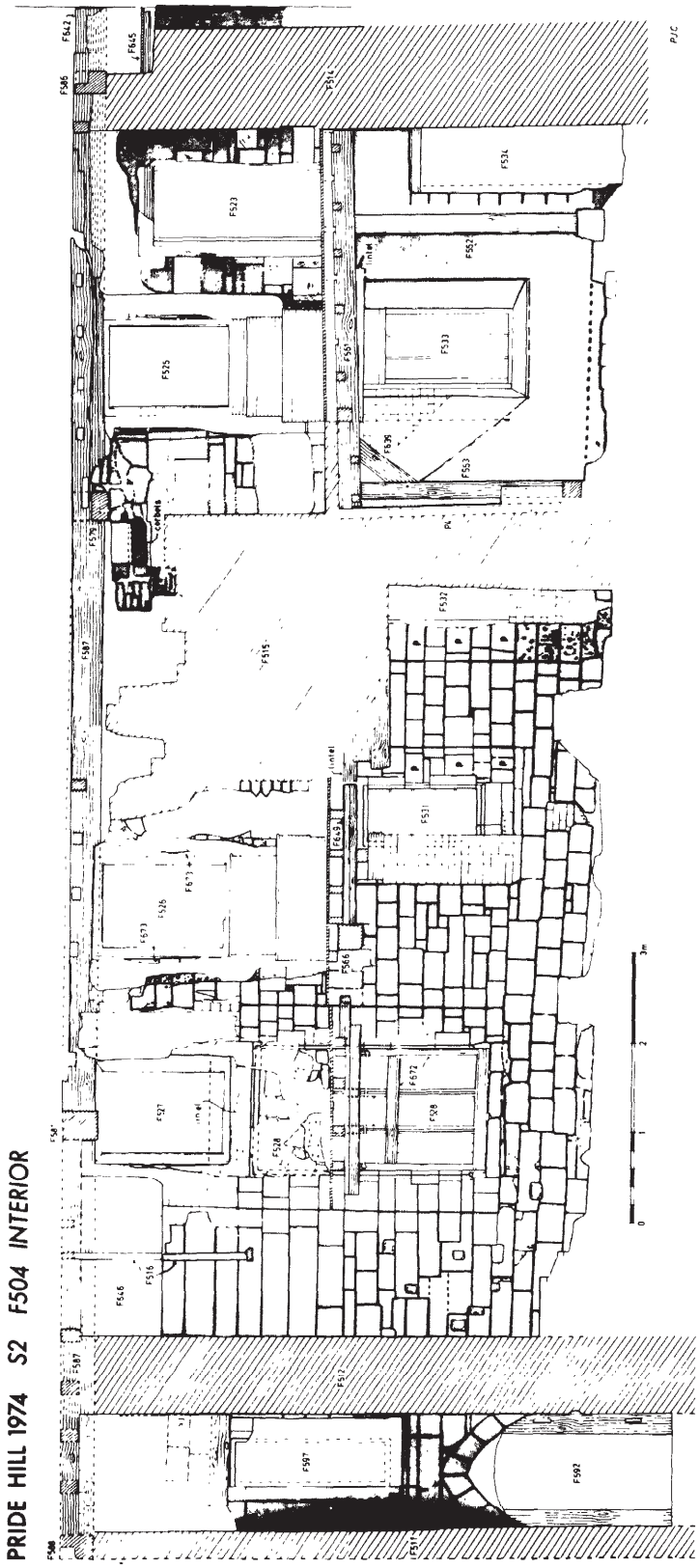


Fig 6 Features encountered on 'dry-sites' continued (Carver, forthcoming)


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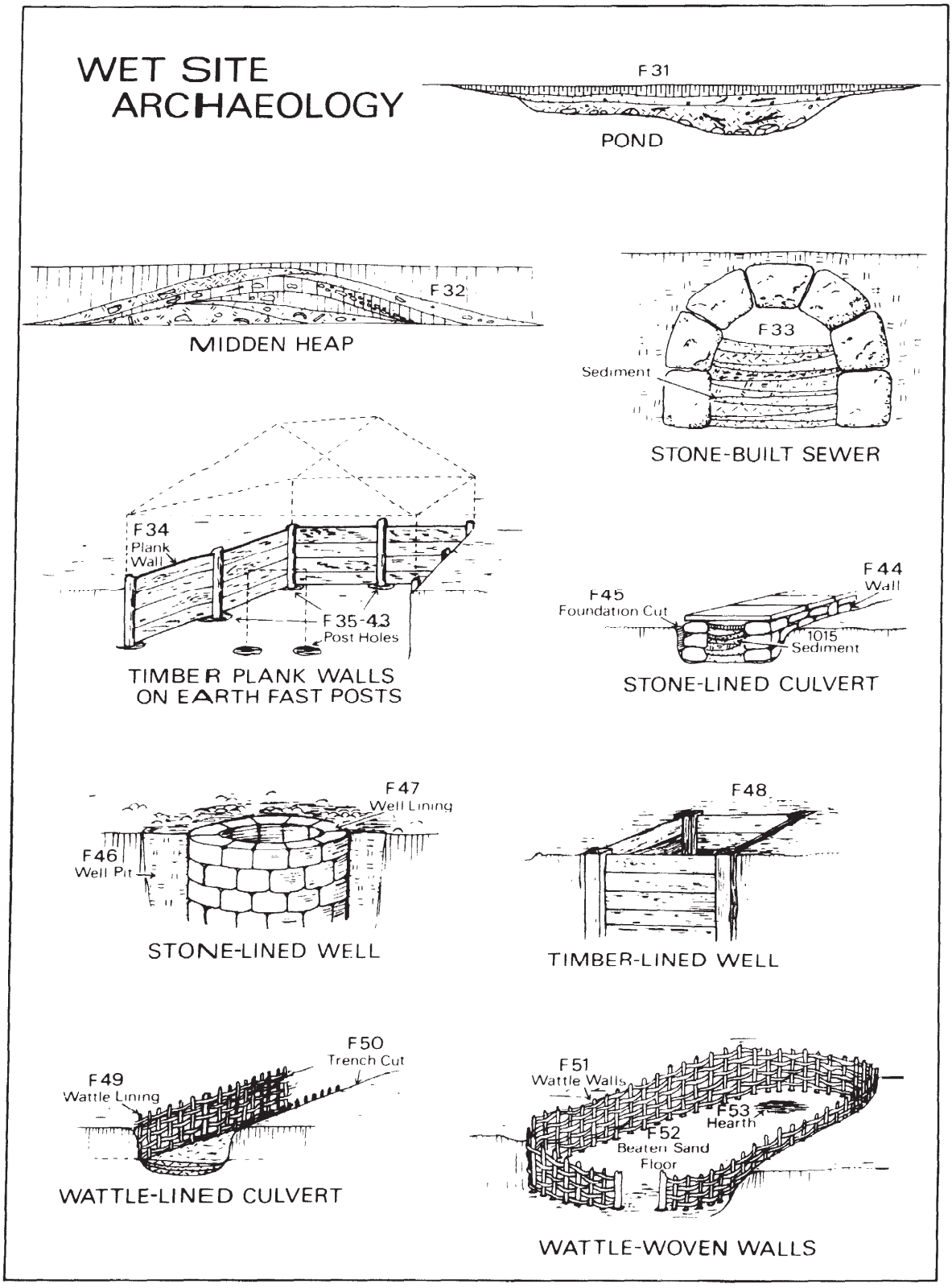


Fig 8 Features encountered on 'wet-sites' (Carver, forthcoming)

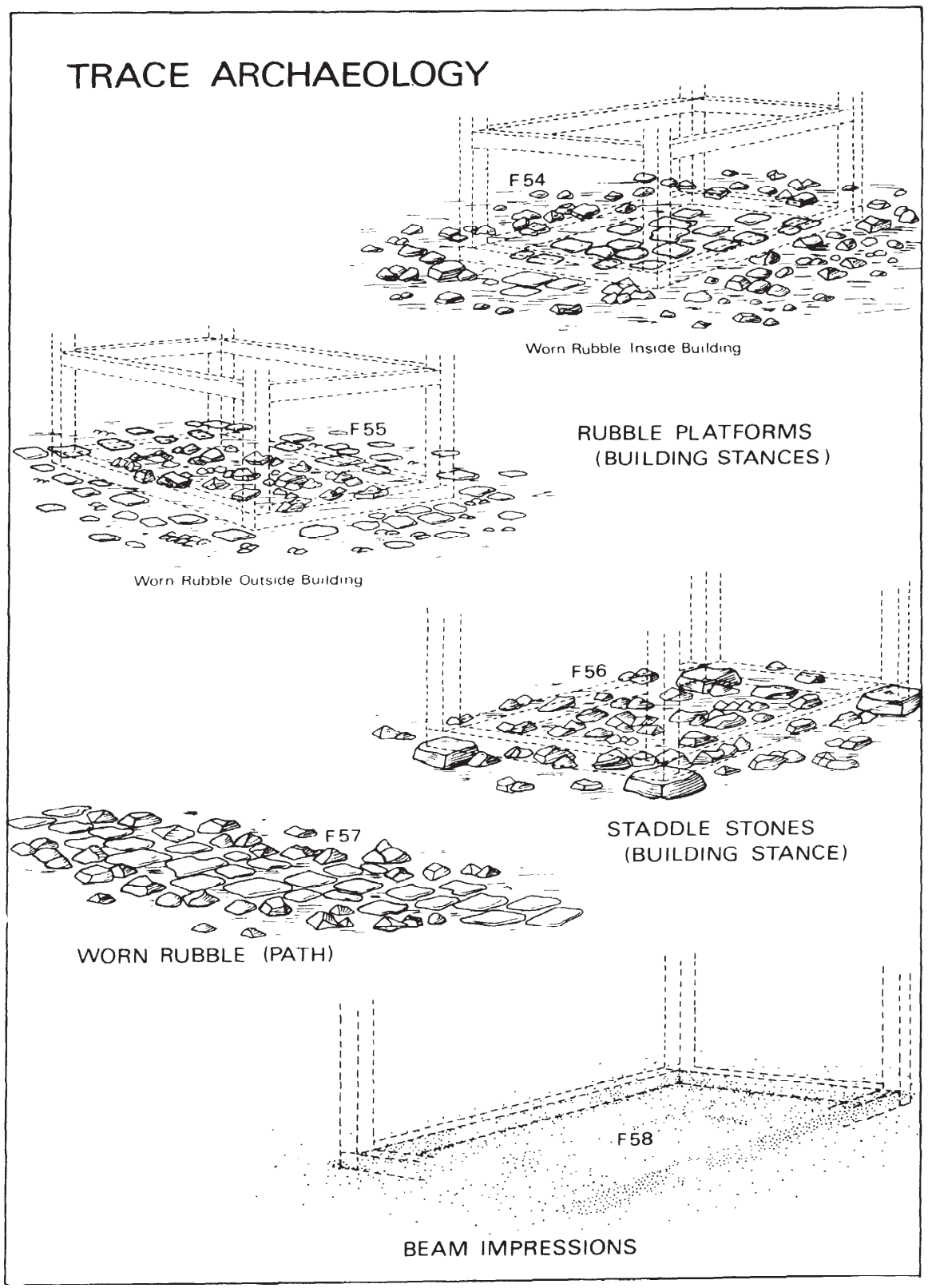


Fig 9 Features encountered of 'trace-archaeology' (Carver, forthcoming)

particularly houses, to 'shrug off' primary contexts. The telltale accumulation furnished by disuse or decay is often absent, either due to good husbandry or extensive levelling operations in the course of refurbishments. Wherever possible, people try to prevent their floors rising towards the ceiling.

Similar classifications are possible for wet sites (Fig 8), although here the range is extended and the structural forms clearer owing to the preservation of timber; and the yield from content is improved owing to the presence not merely of seeds and skeletal material, but actual plants, hair, and even flesh (cf Carver 1979). Common localities for organic preservation are sewers, deep ditches and wells. The midden (F32), a 'positive' feature, is far easier to resolve than its dry site analogue the rubbish pit; not only is it free of dishing and backfilling, but the preserved texture and colour make each tipping operation easier to distinguish. Some controversy remains about the deposition circumstances of these middens. In the interpretation of some scholars, middens may be trodden into the floors of occupied houses, providing somewhat obnoxious living conditions as at 9th century York (Buckland *et al* 1974; Buckland 1983). Middens may, however, be sited outside, and buildings stay clean until their disuse or collapse, as in 10th century Durham or 14th century Newcastle (Harbottle & Ellison 1981).

A third category of feature definition, called here 'trace archaeology', deserves separate consideration (Fig 9). It consists of observing and planning colour, wear and character distinctions, which may be all that remain of a particular structure or activity. Work at Wroxeter showed how worn areas or configurations of rubble could indicate where buildings had stood or people had walked (Barker 1977); at Hen Domen, Barker showed that faint linear discolourations or stone rows could be left by sill-beams (Barker & Higham 1982). Biddle at Winchester contoured the wear pattern in the 11 th century floor of St Mary in Tanner Street, to reveal evidence of repeated ritual perambulation (Biddle 1972, 106). Such investigations require large intact areas, which are not always available in a deeply stratified urban sequence. However, these researches and many others which unfortunately cannot find place in this short paper are continually broadening urban archaeology's powers of recognition and detection.

The sources of evidence discussed above have been contacted in only a tiny fraction of the urban deposits that lie beneath British towns. A great deal awaits recovery, or would do, were it not for its continuous erosion and affliction from modern development. The partial recovery of the evidence (known as 'sampling' in other fields of archaeology) is inevitable in towns that are still occupied, not only within our lifetimes, but always. We must therefore continually refine our research priorities. Clearly, the arbitrary collection of rubbish pits, latrines and malting kilns becomes less relevant once the type is defined. We look rather to ways of making archaeology, through its urban deposits, speak about the structure and destiny of a whole town; and of comparing the experience of one settlement with that of another, so as to explore more confidently the anthropology of urban man. The geography of the extant deposits is particularly relevant to such an aspiration. We have already seen how sites can vary in their yield, so that to characterize urban strata in advance must bear heavily on the decision as to what is to be saved and what lost by our own generation. It is a decision of some importance, since by it, our version of urban history will actually be chosen.

The way that archaeological deposits are distributed within a town has not been well studied, and methods of prospection remain generally crude. Random observation, non-destructive trial cutting (for example behind cellar walls) and borehole plotting have been used, and geophysical survey on both grass and tarmac has also had some success (Carver, in press). These methods serve to locate strata, and sometimes to predict the degree of preservation and their potential for resolution into a coherent sequence. An estimate of the 'legibility' of an archaeological deposit is possible, using criteria related to feature definition and context yield. Figure 10 is an attempt to express this graphically. Each potential source of information survives more or less well under different circumstances of deposition; a 'good site' follows the arrows.

Some preliminary work in France has suggested that the survival of these different categories of strata is not entirely a matter of chance, and there is some correlation with what is so far known from England. Among the factors recognized as influential are the primitive topography (hill, valley, plain), the surface geology (rock, gravel, sand, clay), and the presence of large earthworks or monuments which become, as it were, part of the permanent topography (Fig 11). Thus, 'hard high sites' tend to 'shrug off' strata allowing little accumulation except on terraces, while 'soft high sites' may be actually lowered through time, from the process of seeking foundations (cf Shrewsbury, Carver 1978). Buried valleys and streams invite the capture of strata, often in waterlogged conditions, as the primitive topography is ironed out and the town becomes gradually flatter. These 'deep wet sites' are exemplified by the early medieval strata captured beside the buried Roman dock in Bordeaux or the underground stream in Bergerac. English examples may be found in London at Walbrook (Grimes 1968) and Chester (Mason 1976); while the waterfronts or riverbank sites of York (on the Fosse) and London are special examples of the same process (see Hall 1978; Milne & Milne 1982).

Much rarer is the type of archaeological deposit which is often optimistically demanded of a town, where deep litter rises on a 'hard flat' site to form a mound. In the 'tell' sites of the Middle East, the mound is largely laid down by broken mud-brick buildings, but few such material analogues exist in Britain. One broadly comparable effect was, however, noticed in France-namely the low, dry mounds formed by the debris of demolished 2nd century Roman towns, before refortification in the 3rd century. In some cases deep rubble was held in the 'cloisons' of damaged buildings, allowing occupation to recommence on a hard, high, well drained surface (Bourges). In the special case of Carcassone, the permanence of the new walls induced a 'belting effect', retaining until the present day several metres of accumulated strata (Fig 1l), and the same effect has been noted at Chester (Mason 1976) and York (Hall 1978, 32). Very often, several of these trends have been noticed in the same town, giving zones of survival which contrast with the known areas of historical exploitation. Pre-Roman occupation may have preferred the higher part of the site, and be extensively damaged by Roman reconstruction (Poitiers, Rodez). 1st-2nd century Roman towns can occupy the largest extent, but that part which lay on flat ground may be deserted in the 3rd century and thereafter remain

unexploited until the 19th century. Roman Cirencester and late Saxon Thetford are examples of towns which have benefited from such shifts of settlement-nucleus. However, early medieval activity may be attracted to the already cluttered *Castrum,* where it is distinguishable only with great difficulty on the rubble carpet or within the upper parts of refurbished monuments, such as Henri Galinié was able to do at Tours (Galinié 1978).

From these generalizations it can already be seen that within a town site not all periods are available for examination everywhere, and that the survival of each is influenced by the lodging chosen. The early Middle Ages do in fact present an intriguing challenge to the urban archaeologist both in England and across the channel. On the one hand they appear to be most elusive, lacking the wealth of diagnostic artefacts which characterize other periods; on the other hand they seem to have a special affinity, in certain areas, for organic preservation. There appears to exist an 'organic crescent'-a geographic zone where organic preservation is especially prevalent, stretching across northern and western Europe, from Novgorod, Bergen and Lübeck, to London and York, from Dublin to Bordeaux, and the most famous examples found are nearly all 7th-11th century in date. Whether this is particular to research strategy, or to the north-west European biosphere, or to early medieval preferences of siting and disposal, remains to be seen. Preserved (early medieval) organic strata have been found at Ferrara (Ward-Perkins, pers comm) and, among English examples, not all are cases of valley-capture, nor are they all early medieval. At Droitwich (Vines Park) Roman riverside deposits rise to 4-5 m in waterlogged conditions (Schofield & Palliser 1981); at Wells some 3 m of stratified deposits have accumulated around the springs *(ibid)* and early Roman levels at Winchester were preserved at Lower Brook Street (Biddle 1975). At Durham 10th-12th century preserved strata were captured on a clayey terrace beneath the castle (Carver 1979). At Great Yarmouth several metres of 1lth- 12th century strata were layered in wind-blown sand (Schofield & Palliser 1981). At Stafford, 10th-12th century preservation occurs on the downslopes to the surrounding marsh, but elsewhere the early medieval sequence is protected by the importation of large amounts of humic soil in the early post-medieval period, apparently to raise the ground level and encourage horticulture (Carver 1981 a). At Lichfield some medieval preservation was noted besides the artificial 12th century Minster Pool, which was gradually encroached over the centuries (Carver 1981c).

Such tendencies are, however, of little value when encountered in isolation. The disposition of the urban deposits needs to be known throughout a town site before its potential as an archaeological source can be appreciated, and efficient recovery planned. Published sources offer some examples of deposit mapping. That for London is one of the first detailed site evaluations to be attempted (Biddle & Hudson 1973). It shows, for example, the deposit-depths over the primitive topography, related to cellaring and the known extent of the walled town. The tradition of plotting casual finds, which provided the basis for many of the earlier 'implication surveys' carried out for individual towns and counties, is also continued in London, but like the majority of such exercises offers information about where strata are disturbed, rather than intact. Evaluation of the strata itself was attempted at Shrewsbury (Carver 1978, fig 26) and Worcester (Carver 1980a, fig 7), in each case producing a more intimate prediction of archaeological resources, through the simple technique of over-plotting records of observed strata, ancient and modern, on the natural geology. At Shrewsbury much destruction on the peninsula had been occasioned by later stone buildings seeking firm foundations beneath the sand and gravel cap. In one isolated area, a re-entrant on the south side, backfilled clay for the construction of a new marketplace in 1261 had sealed a pocket of preserved medieval occupation. At Worcester a number of large-scale earth-moving operations were discovered which had modified both the topography and the inventory of settlement evidence available for study. The construction of the motte in the 11th century caused the removal of about 6,000 cubic metres of the late Roman and early medieval surface deposits in Sidbury. Nine hundred'years later 20 million cubic yards of dredging from the River Severn, including the pre-existing ford, were dumped in Diglis, raising the ground surface above the Roman deposits in the Frog Brook delta, so as to escape flooding. A still more striking example of wholesale earthmoving is given by the laying down of a carpet of gravel 11 m thick over much of the earlier Roman city at Chichester (Frere 1975, 14). An effect particularly characteristic of the 12th-17th centuries was also observed at Worcester, along the spinal ridge of the spur which carried the principal north-south axial road, namely the artificial raising of the occupation surface through continuous pit digging. Analogous to the process by which the surface of churchyards rises through grave-digging, it raised the back of tenements by some 2 m of dark soil comprising a mass of intersecting pits whose outlines cannot always be seen. At Chester this deposition inside the walls has produced a 'clover-leaf' of backlands rising with respect to the streets (Mason 1976). The residuality in these pit-groups is notoriously high and their primary assemblages are often very difficult to extract, so the retrieval of such sequences is sometimes scarcely cost-effective. A group at Castle Yard, Winchester was excluded from the excavation area in an early example of evaluation technique (Biddle 1970).

Chronicling the major earth-moving episodes, seeking the character of the deposits in each quarter of the town, pursuing locations where preserved organic materials or pollen reservoirs may lie can offer a coarse estimate of the quality and disposition of a town's archaeological resources. No one pretends that such exercises are precise, or that they provide any kind of a substitute for research by excavation carried out to scale. On the contrary, sequences can seldom be read, only sighted. 'Site evaluation' is merely a singular method of prospection, creating a resource map upon which research strategies may operate. An attempt to produce such a resource map was made for Worcester, its deposits correlated with desiderata for the medieval period (Carver 1980a, fig 8).

It is not known how the resources offered by urban deposits as a whole are distributed throughout the 1500 historic towns of Great Britain (Heighway 1972). One could guess that the variation will be considerable, so that a deliberate and sustained research project would be necessary to map it. But such a map would represent the finite corpus of possible information from which the archaeologist can hope to explore urban society; ideally all research designs should start from such a map (Carver 1981b). Some

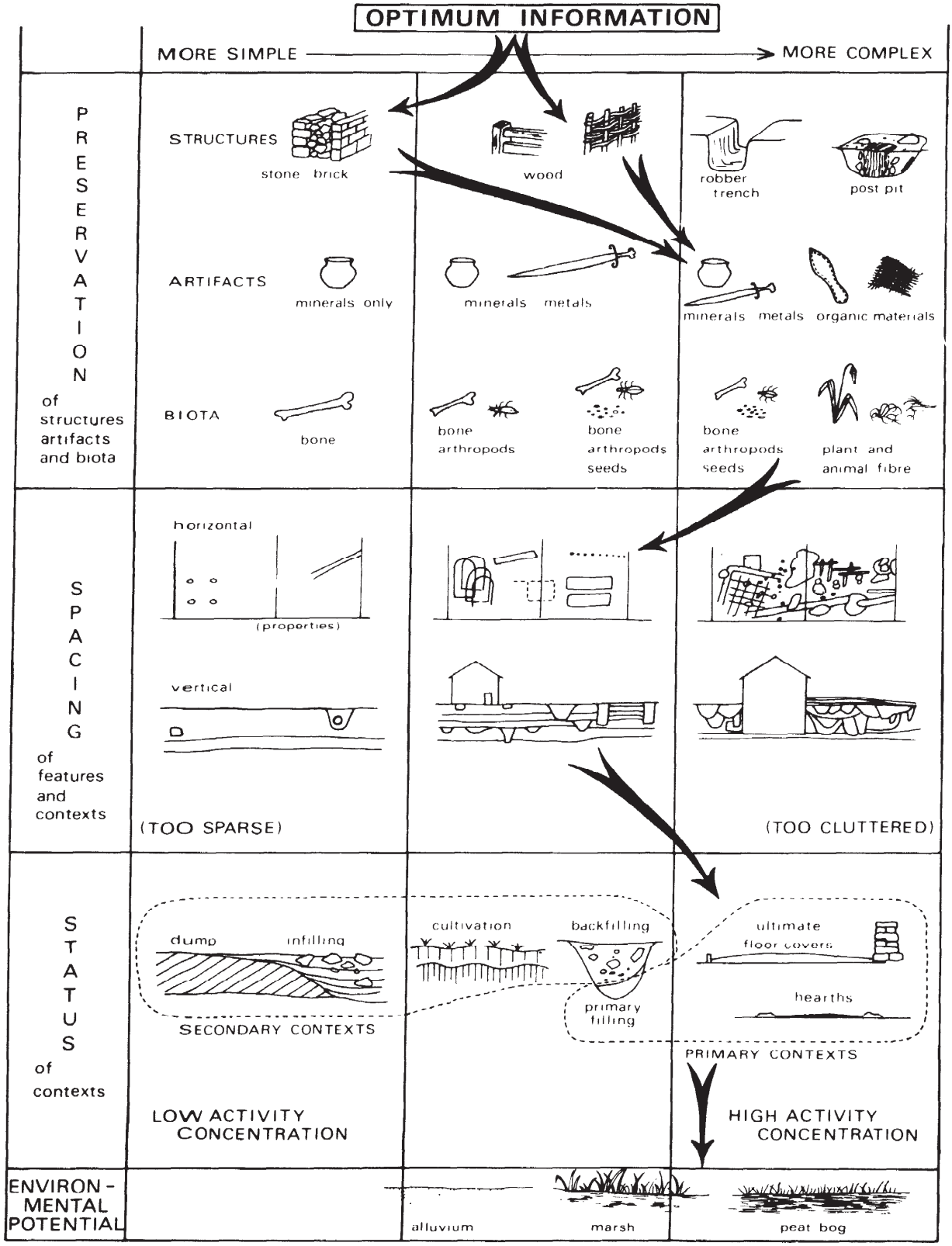


Fig 20 A scheme for evaluation of strata (Carver in press, fig 8)

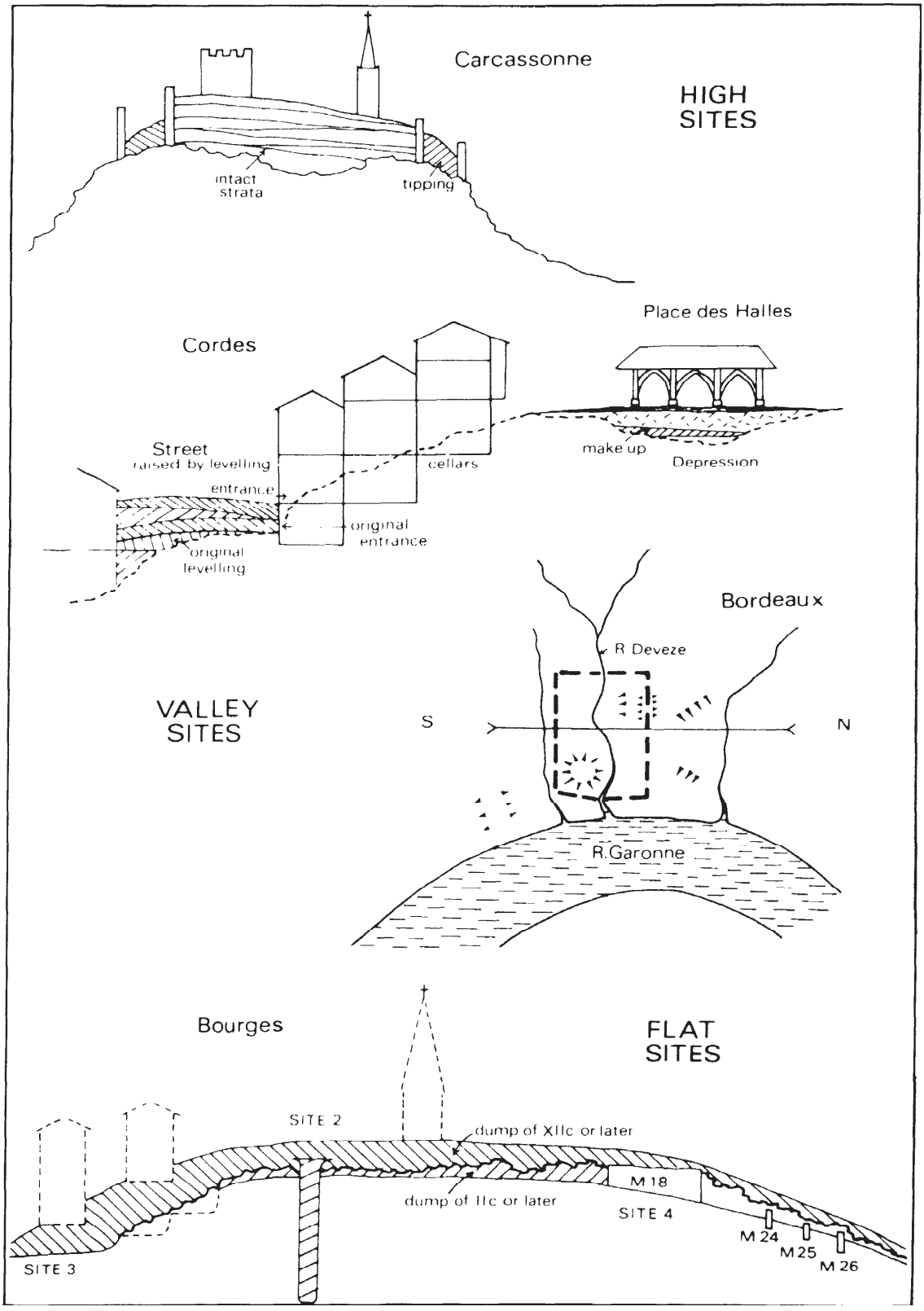


Fig 11 Characteristic urban deposit forms shown diagrammatically (Carver in press, figs 4-6)

preliminary observations and principles may be offered here. At a time of constraint and urgency, archaeologists would probably be wise to concentrate on those fields in which they can be most original and most confident. To take only the most obvious: street plans, building types and the distribution of debris lead to independent assessments of social structure within a town. In some cases we can observe, through generations of deposition in the same place, how the form and fortune of such society fluctuates through time. By examining the sequence of pollen deposited nearby we can chronicle the character of the adjacent vegetation (Greig in Hall & Kenward 1981; Kenward *et al* 1978). The conclusions gather substance when the range of sites is as broad and as numerous as possible. These general ideas suggest that we should map our resources according to a simple list of assets: the most intact town plans, the largest sets of intact structures, and those sites where, just outside the town walls, lies a bog.

Many candidates and examples will immediately enter the minds of readers of this book. Abandoned sites offer the best chances of retrieving complete *plans;* Wroxeter and Silchester for the Roman period, Thetford (south), and Cledemutha (Rhuddlan I) for the late Saxon: Winchelsea, Old Roxburgh and Fyvie for the Middle Ages. *Preserved assemblages* from Carlisle (Roman), York (early medieval), and London (medieval) are already famous. *Sequence* (by which, *ipso facto,* plan suffers), is given by the great regional and riparian multi-period centres, for example Carlisle, York, Northampton, Gloucester. Pollen reservoirs are present at Stafford, York (Askam Bog) and no doubt elsewhere. Figures 12 and 13 are the most preliminary attempts to map the deposit corpus, and the appendix a most provisional list of the towns which appear on the maps, offering little more than an indication of the great variety of this archaeological heritage. Nevertheless, this assessment indicates where the record of British town life may most easily be examined. The single-period sites, with their capacity for revealing the towns as an artefact, are now very few. The multi-period sites are more numerous but of variable potential and relevance. A number of research projects are proposed (see Appendix), suggesting, for example, that the fortunes of the late Saxon *burh* are most readily studied in Somerset, the 12th century borough in Scotland, and the 13th century town in Kent.

This list reflects also the small range of sites so far examined, under the stimulus of what has been, for the practitioner, a somewhat oblique research strategy-one that puts documentary survival before archaeological survival (Schofield & Palliser 1981). The prehistoric Roman and medieval experience in Great Britain underground strongly indicates that the fortunes of urban settlement were by no means as simplistic as its contemporary commentators believed. For archaeologists the town had a spasmodic and precarious existence, favoured in one century, all but deserted in the next, run now as a military garrison, now used as a compound for manufacturers, at one time a thriving metropolis, at another little more than a country estate for the Bishop. Neither are archaeologists much persuaded by the designations of officialdom. To 'city', 'town' and 'village', we would wish to add 'small city' and 'townish village', 'urban sprawl', 'empty fortress', 'factory farm' and 'useful ruin'. If the British version of urbanism is ever to be understood by archaeological methods, then all settlements must be included in the reckoning. This is a type of research we can only begin to plan once the principal archaeological resource in all its prodigious variety is better known: the urban deposit, our most precious and least enduring asset.

Acknowledgements

I am most grateful to Elizabeth Hooper and Amanda Balfour of Birmingham University Field Archaeology Unit who prepared the figures from my drafts.

Appendix

The purpose of this inventory is to show approximately where the emphasis of the surviving archaeological evidence for town life now lies in England, Scotland and Wales. The sources used are Heighway 1972 and HMSO 1981.

Part 1 (Fig 12) lists historic foundations which do not now lie in offtcial urban areas. Their preservation status varies from not now occupied and largely in state protection (such as Wroxeter), to small, thriving settlements, such as Ludlow. Since these are not currently defined as towns by the Office of Population Census and Surveys, their 1981 population pressure is not yet published (in 1983). The figure of 1 person per hectare should serve to distinguish which of these small towns are most likely to preserve the elements of their foundation plans.

Inclusion on the lists does not imply that such elements are presently accessible, only that they should be there. Figure 12 therefore indicates where, for each period, the town as an artefact may theoretically be most easily studied.

Part 2 (Fig 13) lists currently occupied town sites known to have originated before the Norman Conquest, or in the 12th century for Scotland. The list has no implications of archaeological quality, which would have to be determined town by town. The population pressure gives some indication of where strata should have survived best (low pressure) and where they are most threatened (high pressure). Figure 2.10 therefore shows the network of long-lived central places from which town life and fortunes through the last two millennia may be monitored theoretically by archaeological sampling.

The following observations may be made on priorities and research design:

Single-period town sites appear to be available as follows:

Roman	27 (including 6 deserted sites)
Middle Saxon	4 (all uncertain)
Late Saxon	13 (majority uncertain)
11th/l2th c	32 (including 1 deserted site: Old Roxburgh)
13th c	57 (of which 35 are in England, 7 in Devon: 1 deserted site: Fyvie (Aberdeen))
14th c	33 (of which 11 are in Kent)
15th c	11 (of which 9 are in Scotland)
Total	177

Multi-period sites, 241 of which 39 have Roman origins or predecessors. The most concentrated system lies in Somerset, with eleven Saxon foundations still functioning to a greater or lesser extent. The long-lived central places with the lowest modern population pressure are Cirencester (6.9

persons per hectare), Huntingdon and Godmanchester (6. l), Alcester (non-urban), Carmarthen (5.9) and Caerleon (5.7). The sites with the greatest modern population pressure are Southampton (41.8), Newcastle-on-Tyne (42.9) and Southwark (73.5).

This corpus (Groups 1 and 2 together) is suggestive of a whole range of research programmes, of which the following are examples:

(1) *Middle-Saxon system:* reconnaissance for and sampling of middle Saxon settlements around the long-lived central places of Ipswich and Bury St Edmunds (the only sites known to show continuity from the 7th century).

(2) Late Saxon system: (a) Excavation of Rhuddlan I, or Old Sarum, or South Cadbury etc, after evaluation, to establish character of *burh* structure on deserted site.
(b) Somerset Saxon foundations; sampling programme to define a contemporary urban system.

(3) *The 12th century town:* Excavation of Old Roxburgh (total structure) and sampling programme in Scotland to define a 12th century urban system.

(4) The 13th century towrz: Excavation of Fyvie (total structure) and sampling programme in Devon, Carmarthenshire, or Herefordshire to define urban system.

(5) The 14th century town: Urban structure and system by selecting one site for total excavation and sampling the contemporary set, in Kent.

(6) *The 15th century town:* Urban structure and system investigated in Scotland.

(7) Roman economic network reconnaissance for and sampling of municipal rubbish dumps (1st-4th century AD) in the 27 Group 1 and 39 Group 2 towns. Location and excavation to scale of specific industrial complexes (eg salt at Droitwich).

(8) Roman urban structure total excavation of one small and one large successful site in Group 1 (eg Rochester and Silchester).

(9) Regional and national economic and social history: the town as monitor of historical geography of Great Britain. Intrasite sequence sampling within evenly distributed multi-period urban places, over the Group 2 Corpus. The set sampled should include regional centres (eg Northampton), routeside centres (eg Oxford) and gateway centres (eg London).

(10) *Ambience of origins* Pollen sampling from peat bogs adjacent to sets of Roman, Saxon, and medieval foundations to indicate preferred terrain.

Single- and multi-period town sites in England, Scotland and Wales

Table 1 Group 1: single-period town sites (Fig 12)
CRITERIA for inclusion in these lists are (1) towns showing zero population growth and zero development in Heighway 1972; (2) registered as non-urban or having a population of less than one person per hectare in HMSO 1981 (England and Wales only); (3) occupied in specific period or periods, following Heighway 1972.
Pre- 1974 counties in parentheses.
* Site not now occupied.

A Roman

1 Hampshire: *Bitterne *(Clausentun)*
2 *Portchester
3 *Silchester
4 (Herefordshire): *Kenchester *(Magnis)*
5 Hertfordshire: Braughing Station
6 Huntingdonshire: The Castles *(Durobrivae)*
7 Kent: Richborough
8 Lincolnshire: Ancaster *(Causennae)*
9 Norfolk: Caister-on-Sea
10 Caistor-St. Edmunds
11 Northamptonshire: Irchester
12 Nottinghamshire: Castle Hill *(Margidunum)*
13 Oxfordshire: Alchester
14 Dorchester
15 (Rutland): Great Casterton
16 Shropshire: *Wroxeter
17 Staffordshire: Gnosall
18 Rocester
19 Wall *(Letocetum)*
20 Wiltshire: Blackfield *(Cunetio)*
21 *Old Sarum
22 Yorkshire: Brough-on-Humber *(Petuaria)*
23 Catterick *(Cataracronium)*
24 Aldborough *(Isurium Brigantium)*
25 Tadcaster *(Calcaria)*
26 Monmouthshire: Caerwent

B Midde Saxon

27 Hampshire: *Portchester ?
28 Norfolk: *North Elmham ?
29 Northumberland: Bamburgh ?
30 Oxfordshire: Dorchester ?

C Late Saxon

31 Cornwall: Launceston St Stephens
32 Cheshire: Eddisbury
33 Devon: Lydford
34 Kent: Fordwich
36 Gloucestershire: Berkeley
37 Nottinghamshire: Southwell
39 Shropshire: Chirbury ?
39 Quatford ?
40 Somerset: *South Cadbury
41 Suffolk: Dunwich
42 Wiltshire: Bedwyn
43 *Old Sarum
44 Yorkshire: Tadcaster
45 Flint: *Rhuddlan I

D 11th/12th century

46 Cornwall: Tregoney
47 Ravenglass
48 Devon: Plympton Earle
49 Dorset: Corfe
50 (Herefordshire): Castle Clifford
51 Ewias Harold
52 Richard's Castle
53 Stapleton
54 Cambridgeshire: Yaxley
54 Lancashire: Hornby
56 Northumberland: Alnmouth
57 Bamburgh
58 Norham
59 Wooler
60 Oxfordshire: Burford
61 Shropshire: Ludlow

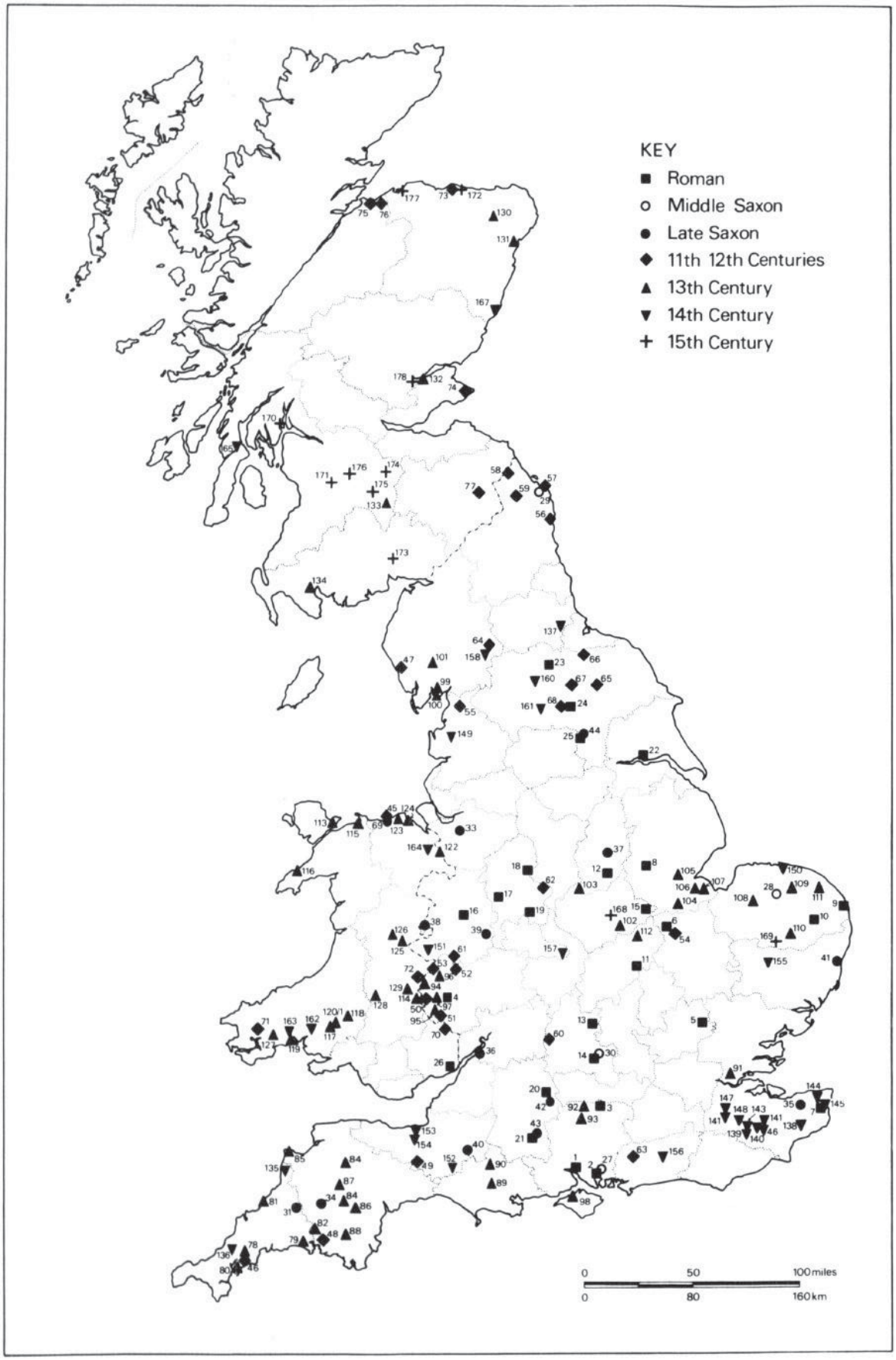


Fig 12 The British urban corpus: provisional distribution of single-period town sites (source: Appendix)

62 Staffordshire: Tutbury
63 Sussex: Midhurst
64 (Westmorland): Brough
65 Yorkshire: Helmsely
66 Stokesley
67 Thirsk
68 Boroughbridge
69 Flint: Rhuddlan II
70 Monmouth: Skenfrith
71 Pembrokeshire: Wiston
72 Radnor: Old Radnor
73 Banffshire: Cullen
74 Fife: Crail
75 Nairn: Nairn
76 Auldearn
77 Roxburgh: *Old Roxburgh

E 13th century

78 Cornwall: Grampound
79 St. tiermans
80 St. Mawes
81 Tintagel
82 Devon: Bere Alston
83 Chagford
84 Chulmleigh
85 Hartland
86 North Bovey
87 North Taunton
88 South Brent
89 Dorset: Milton Abbas
90 Srurminster Newton
91 Essex: Horndon-on-the-hill
92 Hants: Kingsclere
93 Overton
94 (Herefordshire): Huntington
95 Longtown (Ewias Lacey)
96 Pembridge
97 Preston-on-Wye
98 Isle of Wight: Newtown (Franchville)
99 Lancashire: Cartmel
100 Flookburgh
101 Hawkshead
102 Leicestershire: Hallaton
103 Kegworth
104 Lincolnshire: Crowland
105 Donington
106 Holbeach
107 Long Sutton
108 Norfolk: Castle Acre
109 Cawston
110 New Buckenham
111 Worstead
112 Northamptonshire: Weldon
113 Anglesey: Beaumaris
114 Brecknockshire: Hay-on-Wye
115 Caernarvonshire: Conway
116 Nevin
117 Carmarthenshire: Dryslwyn
118 Llangadog
119 Laugharne
120 Newton-by-Dinefor
121 Old Dynevor
122 Denbighshire: Holt
123 Flintshire: Dyserth
124 New Mostyn
125 Montgomery: Dolforwyn
126 Caerswys
127 Pembrokeshire: Templeton
128 Radnorshire: Cefnllys
129 Painscastle
130 Aberd: *Fyvie
131 Newburgh
132 Fife: Newburgh
133 Lanarkshire: Crawford
134 Wigtown: Wigtown

F 14th century

135 Cornwall: Kilkhampton
136 Michell
137 Durh: Sedgefield
138 Kent: Elham
139 Goudhurst
140 Headcorn
141 Ightham
142 Lenham
143 Marden
144 Minster-in-Thanet
145 Richborough
146 Smarden
147 Wrotham
148 Yalding
149 Lancashire: Garstang
150 Norfolk: Cley-next-the-sea
151 Shropshire: Clun
152 Somerset: Montacute
153 Stogursey
154 Stowey
155 Suffolk: Ixworth
156 Storrington
157 Warwickshire: Brinklow
158 Westmorland: Kirkby Stephen
159 Yorkshire: Seamer
160 Middleham
161 Pateley Bridge
162 Carmarthenshire: Aberwili
163 St. Clears
164 Flint: Hope
165 Argyle: Tarbert
166 Dumfries: Sanquhar
167 Kinchard: Inverbervie

G 15th century

168 Leicestershire: Billesdon
169 Norfolk: East Harding
170 Argyll: Kilmun
171 Ayr: Newmilns
172 Banffshire: Fordyce
173 Dumfries: Torthorwald
174 Lanarkshire: Carnwath
175 Douglas
176 Strathaven
177 Moray: Kinloss
178 Perth: Abernethy

Table 2 Group 2: long-lived central places (Fig 13)
Towns on sites continuously or nearly continuously occupied since before the Norman Conquest.

R = Roman; S = Saxon; N = not now urban
The figures give the population pressure in persons per hectare in 1981 (HMSO 1981).

1	City of London	21.5	R
2	Southwark (London)	73.5	S
3	Bath (Avon)	27.8	R
4	Bristol (Avon)	35.4	S
5	Bedford (Beds)	30.5	S
6	Reading (Berks)	33.6	S
7	Aylesbury (Bucks)	33.1	S
8	Buckingham (Bucks)	3.1	S
9	Newport Pagnell (Bucks)	7.8	S
10	Cambridge (Cambs)	22.2	R
11	Ely (Cambs)	1.7	S
12	Huntingdon and Godmanchester (Cambs)	6.1	R
13	Peterborough (Cambs) (incl Newton)	26.0	S
14	Chester (Ches)	30.9	R
15	Bodmin (Corn)	9.1	S
16	Carlisle (Cumb)	29.0	R
17	Bakewell (Derbys)	3.2	S
18	Derby (Derbys)	27.6	S
19	Barnstaple (Devon)	20.8	S
20	Exeter (Devon)	21.8	R
21	Totnes (Devon)	9.8	S
22	Bridport (Dorset)	22.2	S
23	Christchurch (Dorset)	17.1	S
24	Dorchester (Dorset)	20.8	R
25	Shaftesbury (Dorset)	11.4	S
26	Wareham (Dorset)	16.1	S
27	Wimborne Minster (Dorset)	20.9	S
28	Chester le Street (Durham)	19.1	R
29	Durham (Durham)	14.3	S
30	Chelmsford (Essex)	30.1	R
31	Colchester (Essex)	16.9	R
32	Maldon (Essex)	7.8	S
33	Gloucester (Gloucs)	6.9	R
34	Southampton (Hants)	4.8	S
35	Winchester (Hants)	19.4	R
36	Droitwich (Here-Wore)	21.8	R
37	Hereford (Here-Wore)	23.4	S
38	Leominster (Here-Wore)	2.6	S
39	Worcester (Here-Wore)	30.0	R
40	St. Albans (Herts)	24.5	R
41	Ashwell (Herts)	N	S
42	Hertford (Herts)	13.6	S
43	Bridlington (Humbers)	12.7	S
44	Canterbury (Kent)	17.7	R
45	Dover (Kent)	21.6	R
46	New Romney (Kent)	7.4	S
47	Rochester (Kent)	31.5	R
48	Sandwich (Kent)	4.9	S
49	Lancaster (Lancs)	22.4	R
50	Leicester (Leics)	38.1	R
51	Caistor (Lincs)	N	R
52	Gainsborough (Lincs)	7.3	R
53	Grantham (Lincs)	19.2	S
54	Lincoln (Lincs)	21.5	R
55	Louth (Lincs)	11.7	S
56	Stamford (Lincs)	20.8	S
57	Torksey (Lincs)	N	S
58	Manchester (Met Dist)	38.7	R
59	Great Yarmouth (Norf)	31.9	S
60	Norwich (Norf)	31.4	S
61	Thetford (Norf)	6.8	S
62	Northampton (North)	26.4	S
63	Oundle (North)	3.6	S
64	Towcester (North)	N	R
65	Hexham (Northumb)	4.0	S
66	Nottingham (Notts)	36.5	S
67	Abingdon (Oxon)	32.0	S
68	Oxford (Oxon)	27.7	S
69	Wallingford (Oxon)	20.5	S
70	Shrewsbury (Salop)	15.7	S
71	Whitechurch (Salop)	N	R
72	Axbridge (Som)	N	S
73	Bruton (Som)	N	S
74	Crewkerne (Som)	10.2	S
75	Frome (Som)	30.1	S
76	Ilchester (Som)	N	S
77	Langport (Som)	N	S
78	Milborne Port (Som)	N	S
79	Somerton (Som)	N	S
80	Taunton (Som)	33.0	s
81	Watchet (Som)	15.3	s
82	Yeovil (Som)	28.3	S
83	Stafford (Staffs)	27.0	S
84	Tamworth (Staffs)	20.8	S
85	Bury St Edmunds (Suff)	19.5	S
86	Ipswich (Suff)	29.9	S
87	Sudbury (Suff)	13.3	S
88	Guildford (Surr)	19.1	S
89	Lewes (E. Suss)	17.1	S
90	Chichester (W. Suss)	20.8	R
91	Steyning (W. Suss)	N	S
92	Newcastle-on-Tyne (T/W)	42.9	R
93	Alcester (Warks)	N	R
94	Warwick (Warks)	10.7	S
95	Bradford on Avon (Wilts)	10.1	S
96	Chippenham (Wilts)	26.0	S
97	Calne (Wilts)	19.9	S
98	Cricklade (Wilts)	N	S
99	Malmesbury (Wilts)	27.4	S
100	Warminster (Wilts)	6.6	S
101	Wilton (Wilts)	3.7	S
102	York (N Yorks)	33.9	R
103	Doncaster (S Yorks)	24.1	R
104	Carmarthen (Dyfed)	5.9	R
105	Neath (W Glam)	15.1	R
106	Abergavenny (Gwent)	9.7	R
107	Caerleon (Gwent)	5.7	R
108	Usk (Gwent)	7.2	R
109	Caernarvon (Gwynedd)	10.6	R

Scotland (12th c foundations)

110	Jedburgh	125	Inverurie
111	Peebles	126	Kintore
112	Stirling	127	Inverness
113	Annan	128	Edinburgh
114	Dumfries	129	Haddington
115	St, Andrew's	130	Linlithgow
116	Crail	131	Glasgow

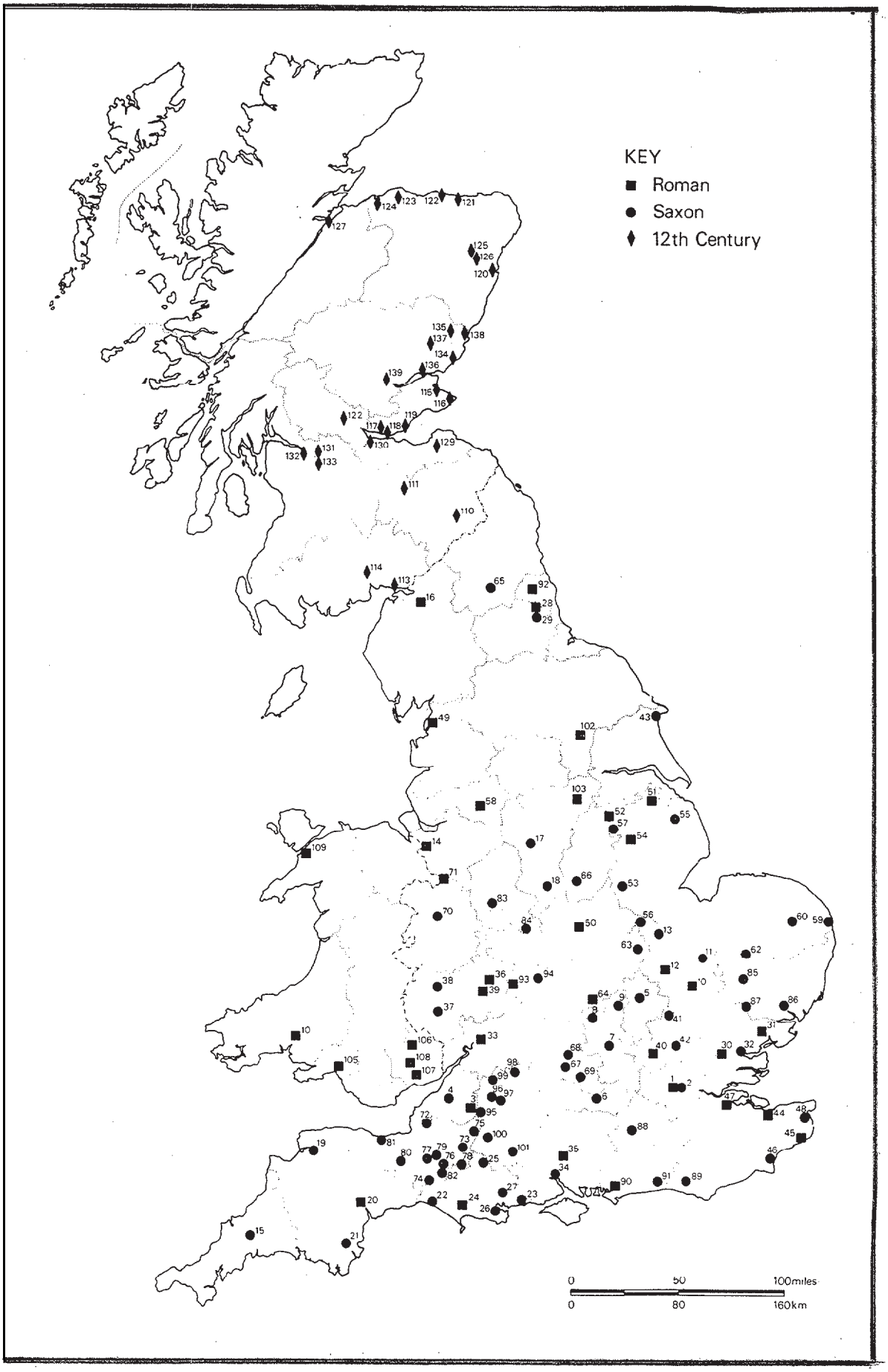


Fig 13 The British urban corpus: provisional distribution of multi-period town sites (source: Appendix)

117 Dunfermline
118 Inverkeithing
119 Kinghorn
120 Aberdeen
121 Banff
122 Cullen
123 Elgin
124 Torres
132 Renfrew
133 Rutherglen
134 Arbroath
135 Brechin
136 Dundee
137 Forfar
138 Montrose
139 Perth

Bibliography

Barker, P A, 1977 *Techniques of archaeological excavation*, London

——, & Higham, R, 1982 *Hen Domen, Montgomery*, Royal Archaeological Institute

Biddle, M, 1970 Excavations at Winchester 1969: Eighth Interim report, *Antiq J*, **50**, 277–326

——, 1972 Excavations at Winchester, 1970: Ninth Interim Report, *Antiq J*, **52**, 93–131

——, 1975 Excavations at Winchester 1971: Tenth and final interim report, *Antiq J*, **55**, 96–126, 295–337

——, & Hudson, D M, 1973 *The future of London's past*, Worcester

Biek, L, 1958 Note on preservation in Excavations at the South Corner Tower of the Roman Fortress at York 1956, *Yorkshire Archaeol J*, **39**, 515–35 (appendix)

——, 1978 A note on preservation, in *Excavations at Little Waltham 1970–71* (P J Drury), CBA Res 26, 8–10

——, 1979 A note on preservation, in Excavations at 1 Westgate Street, Gloucester in 1975 (C M Heighway, A P Garrod & A G Vince), *Medieval Archaeol*, **23**, 205–10

Brothwell, D, 1981 Linking urban man with his urban environment, in *Hall and Kenward*, 126–129

Buckland, P C, 1983 An uninvited guest, *Antiquity*, **57**, 127–30

——, Greig, J R A & Kenward, H K, 1974 York, an early medieval site, *Antiquity*, **48**, 25–33

Carver, M O H, 1978 Early Shrewsbury: an archaeological definition in 1975, *Trans Shropshire Archaeol Soc*, **59**, 225–63

——, 1979 Three Saxo-Norman tenements in Durham City, *Medieval Archaeol*, **23**, 1–80

——, 1980a The site and settlements at Worcester, in Carver, M O H (ed), *Medieval Worcester: an Archaeological Framework* (Trans Worcestershire Archaeol Soc, 3rd ser, **7**), 15–30

——, 1980b The excavation of three medieval craftsmen's tenements in Sidbury, Worcester 1975–6, in Carver, M O H (ed), *Medieval Worcester—an archaeological framework* (Trans Worcestershire Archaeol Soc, **7**), 155–219

——, 1981a *Underneath Stafford Town*, Stafford

——, 1981b Sampling Towns: an optimistic strategy, in *Approaches to the Urban Past* (eds P Clack and S Haselgrove), Durham Univ Occ Paper, **2**, 65–91

——, 1981c Excavations south of Lichfield Cathedral, 1976 77, *Trans South Staffordshire Archaeol Hist Soc*, **22**, 35–69

——, 1983 Two town houses in Medieval Shrewsbury, *Trans Shropshire Archaeol Soc*, **61**

——, in press Forty French towns: an essay on urban site evaluation and historical bias, *Oxford J Archaeol*

——, forthcoming *Underneath English towns*, Batsford

——, Donaghey, S & Sumptor, A B, 1978 Riverside structures and a well in Skeldergate and buildings in Bishophill, Archaeology of York, **4/1**

Esmonde-Cleary, S, 1981 *Towns and urbanisation in Roman Britain: the evidence from outside the defences*, unpublished DPhil, Oxford

Frere, S, 1975 The cities of Roman Britain, 1960–1974, *Comité International pour l'étude des sites antiques: lettre d'information IV*, Strasbourg, 7–34

Galinié, H, 1978 Fouilles archéologiques sur le site du Château de tours 1974–78, Rapport preliminaire: l'ère partie, *Bull Soc. Archéol Touraine*, 639–62

Grimes, W F, 1968 *The excavation of Roman and medieval London*, London

Hall, A R, 1978 The topography of Anglo—Scandinavian York, in *Viking Age York and the North* (ed R A Hall), CBA Res Rep **27**, 31–6

——, & Kenward, H K (eds), 1981 *Environmental archaeology in the urban context*, CBA Res Rep **43**

Harbottle, B, & Ellison, M, 1981 An excavation in the castle ditch, Newcastle-upon-Tyne 1974–6, *Archaeol Aeliana*, 5th series, **9**, 75–250

Hassall, T G, 1971 Excavations at Oxford 1970: third interim report, *Oxoniensia*, **36**, 1–14

Heighway, C M (ed), 1972 *The erosion of history*, (CBA)

HMSO, 1981 *Office of population censuses and surveys: census 1981: preliminary report for towns. Urban and rural population, England and Wales*, HNSO

Keene, D J, 1982 Rubbish in medieval towns, in Hall and Kenward, 26–30

——, & Williams, D, 1979 Biological evidence from the Roman Warehouse in Coney Street, Archaeology of York

Kenward, H K, Williams, D, Spencer, P J, Greig, J R A, Rackham, D J, & Brinklow, D A, 1978 The environment of Anglo-Scandinavian York, in *Viking Age York and the north* (ed R A Hall), CBA Res Rep **27**, 58–70

MacPhail, R I, 1981 Soil and botanical studies of the 'dark earth', in *The Environment of Man: the Iron Age to the Anglo-Saxon Period* (eds M Jones and G Dimbleby), BAR 87, 309–31

——, 1983 The micromorphology of dark earth from Gloucester, London and Norwich: an analysis of urban anthropogenic deposits from the late Roman to early medieval deposits in England, in *Proceedings of the International Working Meeting on Soil Micromorphology August 1981* (eds P Bullock and C Murphy), **I**, 245–52

Mason, D, 1976 Chester—the evolution and adaptation of its landscape, *Chester Archaeol J*, **59**, 14–23

Milne, G, & Milne, C, 1982 *Medieval waterfront development at Trig Lane, London*, London Middlesex Archaeol Soc Special paper No. 5

Musty, J, 1974 Medieval pottery kilns, in *Medieval Pottery from Excavations* (ed V Evison *et al*), 41–66

Platt, C, 1975 *The English medieval town*

——, & Coleman-Smith, R, 1975 *Excavations in medieval Southampton I, II*, Leicester

Rodwell, W, 1982 *The archaeology of the English church*, London

——, & Rodwell, K, 1977 *Historic churches: a wasting asset*, CBA Res Rep, **19**

Schofield, J A, & Palliser, D with Harding, C, 1981 *Recent archaeological research in English towns*, CBA

Smith, J T, 1953 *Shrewsbury—topography and domestic architecture to the middle of the 17th century*, unpublished MA Thesis, Birmingham

PERIOD SURVEYS

3 The Roman period

M J Jones & J S Wacher

It could be argued that around the Mediterranean the Roman period witnessed the highest stimulus to urbanization-as a cultural pattern rather than an economic development-until the Industrial Revolution. The case in Britain was somewhat different. As a frontier province, there were fewer Roman towns, whereas many market towns emerged in the Middle Ages. Nevertheless urbanization took place fairly rapidly under the Romans and was moderately sucessful.

The process of urban origins and development is still imperfectly understood. As Frere has stated (Frere & St Joseph 1983), 'Few towns ever arose in fully developed form; understanding of their growth comes with historical analysis.' Other kinds of analysis, some based on theories of society, have also been applied to the data, though with varying results (see below). Critical to our investigation of Roman towns in Britain is the fact that, compared with their medieval successors and some of their Continental contemporaries, less has survived of the fabric apart from defensive features (below). Excavation is therefore essential.

Discussion of the Roman period in *The Erosion of History* was confined largely to the investigation of those towns succeeded by medieval or later urban areas, with the Roman settlement regarded essentially as a background and basis for medieval origins or revival (see Haslam 1984). Forts were listed where these underlay medieval towns (although some were not recognized at the time, eg Chesterfield). In the more recent CBA survey (Schofield & Palliser 1981), only a small proportion of Roman urban sites were included. It is of course of prime concern to the study of medieval urban origins that the nature of the pre-existing Roman settlement be established. However, there is also value in looking at the problem from the other direction, and in the present survey (Fig 14), all the major towns ('cities') of Roman Britain and many of the minor towns, whether abandoned or not, have been taken into consideration for several reasons. In terms of continuity of site, failure is as interesting as success. It is also on the abandoned sites where, although not threatened by redevelopment, some of the best opportunities for large-scale investigation lie. Furthermore we can best establish priorities for individual sites after examining the whole problem of Roman urbanization in Britain.

Since the publication of *The Erosion of History,* much new evidence from survey and excavation, and synthetic research have between them advanced the study of Roman towns in Britain. Wacher's volume (1975) drew together for the first time detailed knowledge of the major towns, while understanding of the nature of the minor (or 'small') towns has been much improved following Todd's seminal article (1970). The publication of the proceedings of the Oxford Conference on these sites (Rodwell & Rowley 1975) has been followed up by increased field activity, while a major synthesis is in preparation (Burnham & Wacher forthcoming).

One of the problems that remains is the distinction between 'towns' and 'villages' (see eg Webster in Rodwell & Rowley 1975: this can be a problem in later periods too: cf B K Roberts' 'townish villages' of the medieval and later periods). It is a distinction which was in any case blurred. There is no adequate term for such intermediate settlements in English or in Latin (the Roman or Greek terminology having changed through time; see Johnson in Rodwell & Rowley 1975), but the status and function of the cities is a little clearer (Wacher 1975; Rivet in Rodwell & Rowley 1975). The only real way forward is large-scale excavations at a number of sites-some of which are still being recognized-if we are to understand what economic functions they performed, their position in the surrounding countryside, and their relationship to major towns.

The basis of the present survey was a report prepared by the Roman Society's Advisory Committee under the chairmanship of Professor J S Wacher to the Department of the Environment. In 1977 that committee sought from each of the excavation directors at major Roman towns a list of recommended priorities for future investigation. Some analysis of individual priorities at each town was carried out by J S Wacher, while in 1982 the Committee submitted to the Department of the Environment its report on priorities for all aspects of the Roman period in Britain- (It is hoped that these recommendations will be circulated in due course to all interested parties.)

The report as presented here is more wide-ranging and detailed, incorporating not only the information described above but also the results of an examination by M J Jones of other published works. It includes minor towns but, perhaps unwisely, not large *vici* which possessed some urban characteristics. These are worthy of a separate study (see R F J Jones in Wilson *et al* 1984). Each aspect of archaeological interest is considered in turn below in as logical an order as possible, but inevitably in many cases there is some overlap with other themes.

Origins

The stimuli for urbanization were complex, but several, factors can be identified. Foremost among these were the

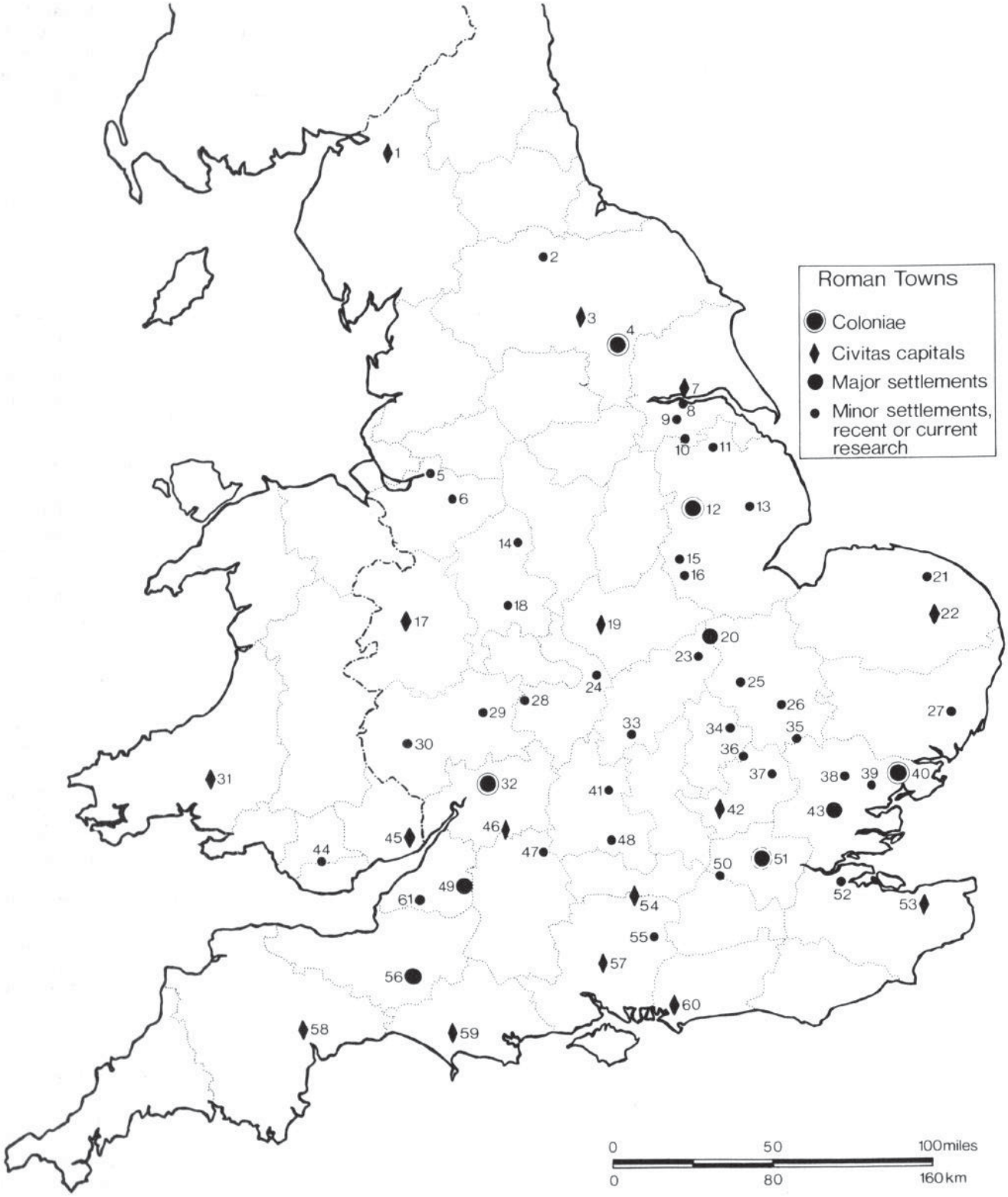


Fig 14 Map of Roman towns in England which have been the subject of recent or current research (Jayne Peacock)

1 Carlisle
2 Catterick
3 Aldborough
4 York
5 Wilderspool
6 Middlewich
7 Brough on Humber
8 Old Winteringham
9 Dragonby
10 Hibaldstow
11 Caistor (Lincs)
12 Lincoln
13 Horncastle
14 Rocester
15 Ancaster
16 Sapperton
17 Wroxeter
18 Wall
19 Leicester
20 Durobrivae
21 Brampton
22 Caistor by Norwich
23 Ashton
24 Caves Inn

25 Godmanchester
26 Cambridge
27 Hacheston
28 Alcester
29 Worcester
30 Kenchester
31 Carmarthen
32 Gloucester
33 Towcester
34 Sandy
35 Great Chesterford
36 Baldock
37 Braughing
38 Braintree
39 Kelvedon
40 Colchester
41 Alchester
42 Verulamium
43 Chelmsford
44 Cowbridge
45 Caerwent
46 Cirencester
47 Wanborough
48 Dorchester on Thames
49 Bath
50 Staines
51 London
52 Rochester
53 Canterbury
54 Silchester
55 Neat ham
56 Ilchester
57 Winchester
58 Exeter
59 Dorchester
60 Chichester
61 Charterhouse

topographical situation, proximity to a navigable watercourse, good drainage, as well as the availability of building materials and the local political circumstances. The influence of native settlements has perhaps been underestimated in the past as a factor in Roman town development, principally because it is a very difficult and long-term process to define all the characteristics of a late Iron Age settlement (see papers by Collis and by Burnham in Burnham & Johnson 1979; Cunliffe 1976). Large-scale excavations can help us understand what sort of settlement, if any, existed before a town was established, and what trading links it had. Some success can be reported (eg Fig 15), and it has become clear that almost all the Roman urban settlements in certain areas (notably the lands of the Corieltauvi and the Trinovantes (May 1976, 1984: W Rodwell 19756; K Rodwell 1979) had native origins. How many of them can be classified as 'urban' or 'proto-urban' is another matter (it partly depends on the contrasting interpretations of 'urban' by prehistorians and most Romanists), but trading links with the Continent appear to have been responsible for allowing growth on a large scale at several sites in the south and east.

Frere's analysis (in Rodwell & Rowley 1975) of the origins of 'small towns' identified a mere 13% directly overlying only Iron Age settlements, the vast majority emerging from the presence of a fort on the site (as expounded by Webster 1966; see also Rivet 1977). The fort 'anchored' the population to the site. There is much still to be learned, however, about the relationship of fort-siting to native settlement and some recent models of the process of urban development have stressed both the role of taxation and the importance of a certain pre-existing level of socioeconomic organization (Millett 1984).

The army's influence did not stop there. It created roads and subsequent trade networks which allowed towns to flourish (and may have influenced their siting) while military expertise (and, conceivably, labour) was available for town building. In the case of London, trade appears to have been an original element, but the problem of a military base is not yet solved.

Roman policy in Britain encouraged urbanization, and while there is no definite evidence for coercion or for financial subsidy, it is possible that some of the army's expertise was made available. The political and economic advantages of a town-based administrative system were recognized and exploited: 'The Romans did not create urban centres for their own sakes: what mattered was the concentration of wealth and stable authority which brought into existence the "temples, fora, and town-houses" urged on the Britains by Agricola (Tacitus, *Agricola,* 21) as a means of enticing them from their backwardness' (Wilkes 1981, 412-3). We are still unsure whether Agricola's 'public' assistance involved financial grants or remission of taxes. In his valuable survey of the development of towns in the province, Frere (1974b) suggested that the army's presence was the principal reason for early urbanization compared to, say, north Gaul. Blagg (1980, 1984) has argued recently from the architectural evidence that for the construction of stone buildings masons, who did not stay, were imported (from northern Gaul?), while the military masons and surveyors were probably busy with fort construction. Walthew (1982) contends that this was only the case with regard to sculptural detail, and not planning and construction, Some notable early developments, such as the 'proto-palace' at Fishbourne and the first temple at Bath, clearly indicate the presence of skilled craftsmen as early as the Neronian period.

The earliest town houses known, however, were of timber and show military influence, from the barrack-like shops at Verulamium to the modified barrack-houses at Colchester and Gloucester. These early levels are too seldom reached in area excavations, and the 1st century timber phases of many sites need to be investigated much more intensively.

Town planning

All the cities were subject to town planning in its broadest sense, but in the minor towns only certain elements of planning are to be found. Although these normally excluded a street-grid and a civic centre, there are hints of some order in the organization of space.

At those cities which occupied the same sites as earlier fortresses the military street pattern was maintained to a large extent (Crummy 1982, 1984; Webster forthcoming). For new foundations we need to establish at what date(s) the streets were laid out and whether Hadrian and other emperors were primarily responsible for major urban developments (Webster 1980); whether the grid-pattern was formed in one or more phases (eg Colchester, eastern part; Wroxeter; cf Amiens: Walthew 1981), and if we can detect any unit of measurement (Crummy 1982). There is some disagreement about the validity of recent hypotheses about the use of such units, as well as about which unit of measurement-the *pes monetalis* or the *pes drusianus* - was employed (see most recently Millett 1982b; cf Frere 1979b). Accurate measurement in modern survey and excavation is essential, but we cannot always be sure about the accuracy of Roman measurements.

The search for patterns is a worthwhile exercise and the excavator can assist in our understanding of the mechanics of town layout by looking for evidence, eg in the form of post sockets, for markers used by surveyors. We also need to know more about *insula* sizes-not only whether they were based on units such as the *actus* (120 ft)-and about the size of plots allocated, especially in the *coloniae.* It is clear that town boundaries were established at an early date, often many years before the construction of defences, and in the cities they might be defined on the major route(s) by

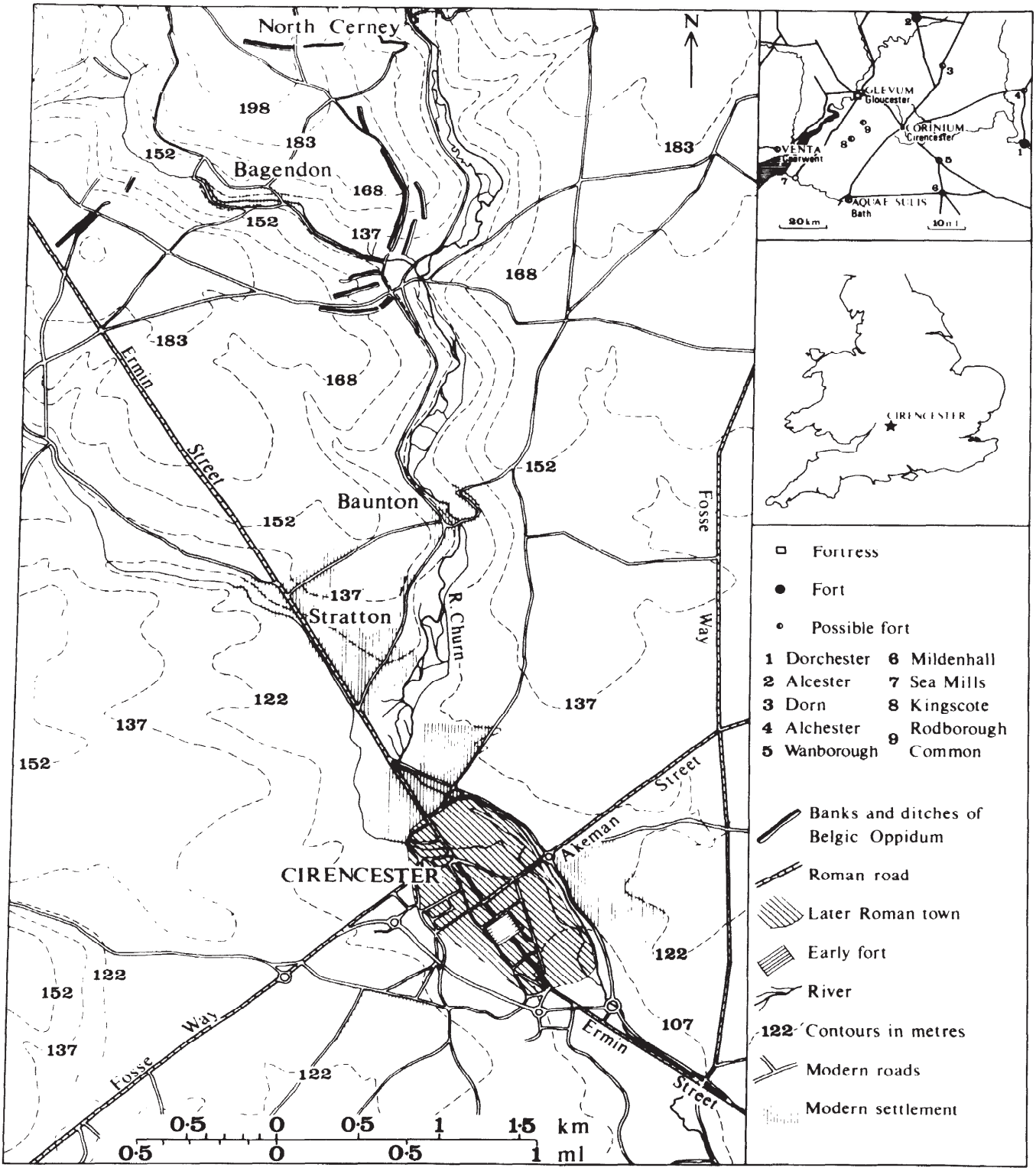


Fig 15 Map of Cirencester and district, showing the Roman(?) fort, towns and surrounding roads, in relation to the Iron Age settlement at Bagendon to the north (Cirencester Excavations, 1, *courtesy of A D Mc Whirr & J S Wacher)*

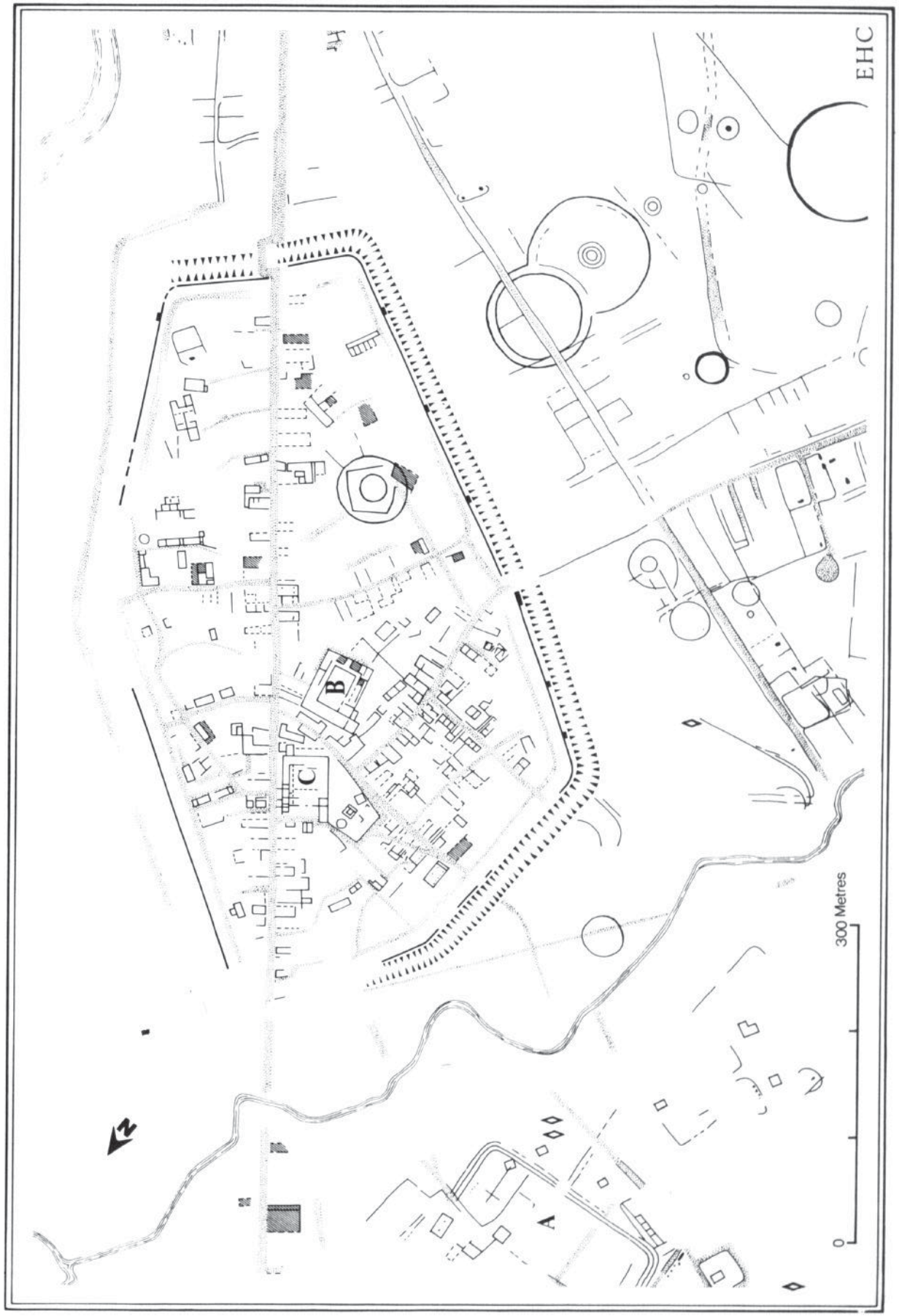


Fig 16 Plan of Durobrivae based on aerial photographs A = Water Newton fort; B= ?mansio; C = large building with temple-enclosure attached; shaded areas = heavy parching; diamonds = recorded kilns (D F Mackreth, Nene Valley Research Committee)

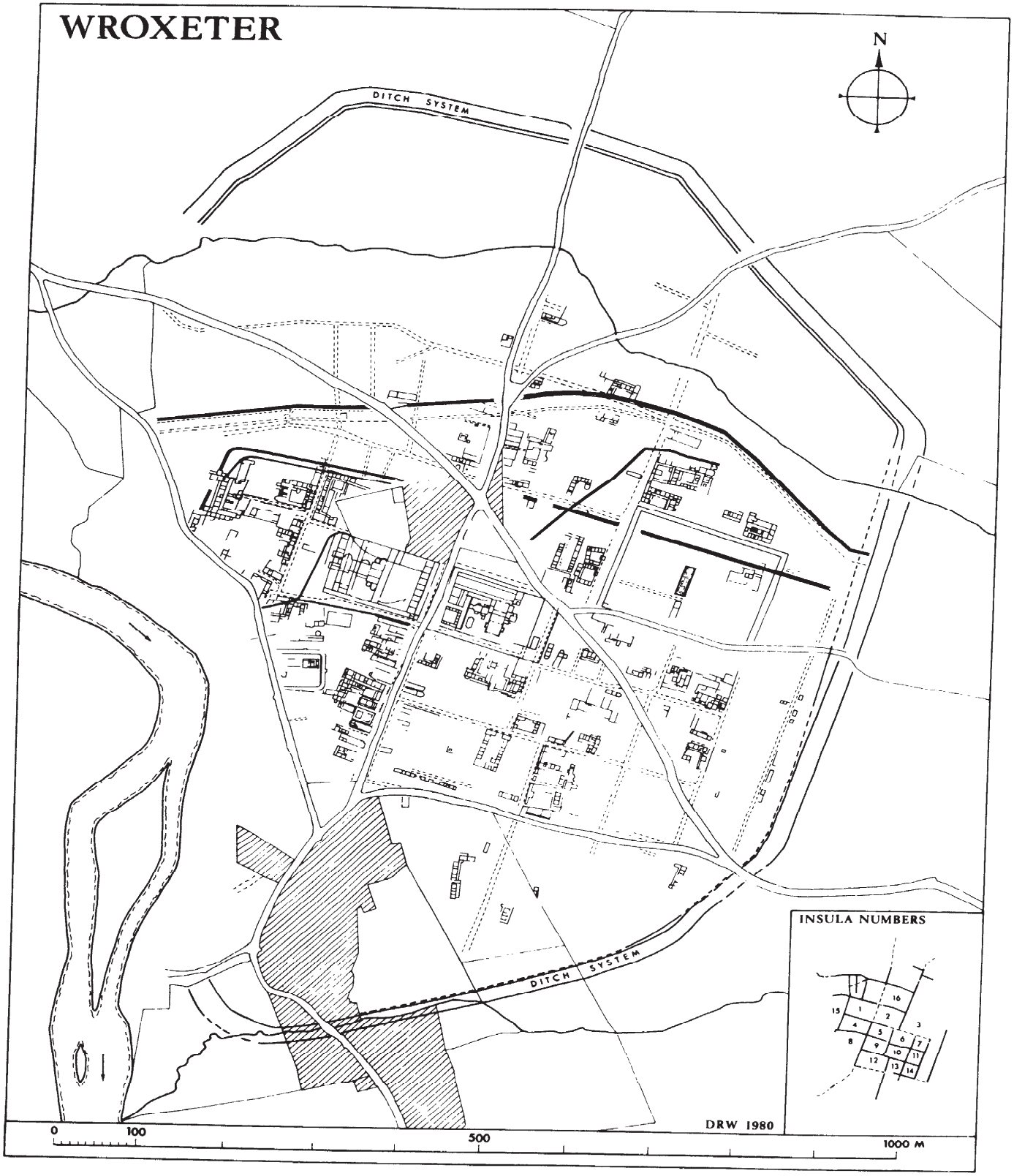


Fig 17 Plan of Wroxeter Roman town (D R Wilson, Cambridge University Committee for Aerial Photography)

monumental arches, already known at Colchester, Verulamium, and several towns in Gaul. Space was sometimes left for further expansion, and *insulae* reserved for public buildings. This is discernible too when considering areas later defended.

Aerial photography has added much to our knowledge of town plans in recent years (eg Wroxeter: D R Wilson 1984; Figs 16-17), and must continue to be funded. It is not only a cost-effective way of providing new information, but also helps to monitor the survival of buried features in areas threatened by plough damage. Sometimes areas devoid of visible archaeological features may indicate open spaces-and evidence has accumulated from several towns that such open areas may have been common at times. We need more details, however, if we are to draw general conclusions.

Buildings

Several architects and surveyors must have been responsible for the fully developed appearance of the town, for both the people and the buildings came and went. It is difficult in a province like Britain to establish just how much thought went into details such as vistas, colour, and texture. It is only rarely that we can reconstruct a major building three-dimensionally, not to mention whole streets, but the general pattern is emerging slowly. There are a number of building types which did not penetrate to Britain, such as *capitolia* (Todd 1985). Some of the public buildings were poor shadows of their Continental equivalents, whereas others-such as the Verulamium forum-were just as impressive. At the same time there is some evidence of foreign influence, and (from inscriptions) imported expertise, in city, town and country (Blagg 1980). We are gradually accumulating a considerable amount of data on building techniques, and well preserved deposits and structures have been investigated in various parts of the provinces. Yet much more effort needs to go into the study of architecture and building materials and techniques, and the British tradition needs to be examined against the Continental for evidence of particular insular development. Apart from the Romano-Celtic temple, it is now clear that native building styles are not widely apparent in developed towns.

Defensive structures are considered in detail elsewhere (ch 7). Ramparts, walls and ditches, and their dating still continue to excite much interest even after many years of investigation and academic argument, but only recently have they been considered in the context of the town as a whole. The construction of fortifications may have had an economic as well as a topographical effect on the later development of a town, both in terms of cost and the availability of funds for public works, and of the fate of areas of occupation cut off. It needs to be further studied in relation to the street system. In some cases in Britain (and many in Gaul) the late Roman defences enclosed a much smaller area than the earlier settlement, and we need to identify what needed protection and what could be left outside.

The range of public buildings found in Britain (Wacher 1975, 45-60) appears to exclude urban granaries-why?-and there is no firm evidence as yet for circuses (in spite of circumstantial hints at Lincoln and Wroxeter). With one or two notable exceptions, few inscriptions have survived to identify those who paid for individual schemes, and it is notoriously difficult to establish how long a project took to complete (the Wroxeter forum, perhaps begun after Hadrian's visit and completed when the dedication stone was cut, may have taken between five and eight years), but quantifications could be a useful tool (cf Boon 1974 on the Silchester city wall, and now Fulford & Startin 1984 on earthen defences). In summary, much more excavation is needed, particularly on the latest periods of occupation: Barker's work at Wroxeter is notable in this respect.

Recent work on the Silchester *basilica* has identified both a timber predecessor and traces of industrial activity in the 4th century. On the whole, however, we still know the civic centres of Britannia only superficially (and the council chambers even less well), although complete or outline plans have been recovered or can be conjectured at a large number of sites. There is much variety in plan, especially in detail, but most appear to be derived from the military *principia* (Hassall 1979, following Atkinson; cf Ward-Perkins 1970, 1974; Blagg 1984). This may reflect the comparative poverty of British towns until well into the 2nd century. At a number of cities of colonial or municipal status the plan of the *forum-basilica* does suggest something more ambitious, and Verulamium and, probably, Lincoln are included in this category (and perhaps Colchester will be added in the course of time). Related to the frontage of the forum is the colonnaded street, about which little is yet known from Britain: what evidence there is indicates that there are no examples of the continuous long colonnades, designed as one, found in the eastern provinces. At the same time, many adjacent buildings had colonnaded frontages (Frere 1979b). Another question is the extent of commercial use of the *fora* and the possible creation of a *macellum* as an overspill from the forum, as at Cirencester, Leicester and Verulamium.

Some impressive bath-buildings have been excavated and a few published in detail (Fig 18). Others await publication (eg Lincoln) or even discovery (eg Colchester, Winchester). It would be interesting to be able to relate the dates of provision of bath-houses (and perhaps of *fora)* to the dates of granting of constitutional status to the *civitas* capitals. The baths also need to be studied in terms of their exact relationship to water supply and drainage, the source of fuel used for heating, and their capacity in relation to the civic population.

More is also to be learned about temples, especially those of classic type, in addition to the information which has been recently collected and published (Lewis 1966; Rodwell (ed) 1980; Cunliffe & Davenport 1985). The range at Colchester is a useful model (Crummy in Rodwell, *op cit;* Drury 1984). Since theatres may have had a partly religious function, they were related to some extent to the temples, and there is a distinctive Romano-Celtic style lacking the *scaenae frons.* Only a few have been identified-at Canterbury, Verulamium, Colchester, and possibly also at Cirencester and at Brough on Humber-but others might confidently be expected at the other *coloniae* and at London, as well as at some other *civitas* capitals. There is value in estimating their capacity in terms of the size of the population, as for amphitheatres, examples of which are known only at Carmarthen, Chichester, Cirencester, Dorchester and Silchester, while inscriptions indicate others at York and Leicester. The presence of further amphitheatres in or near the cities, especially those which followed a legionary fortress with its *ludus,* is likely. It will be interesting if any monumental types emerge, for none of these are

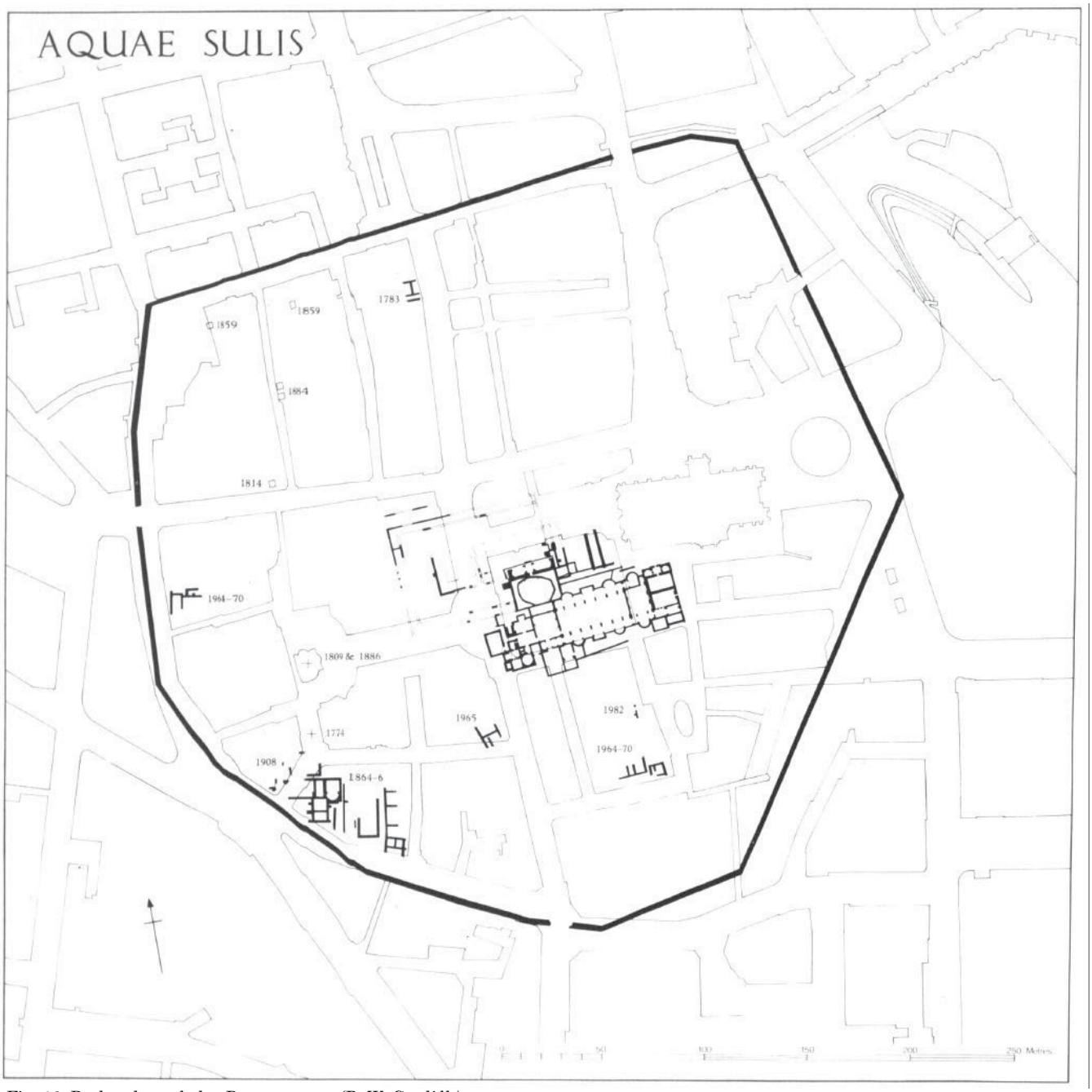


Fig 18 Bath: plan of the Roman town (B W Cunliffe)

yet known from Britain (the rebuilt theatre at Canterbury comes closest so far). Any evidence for the public activities which took place at theatres and amphitheatres would represent a considerable step forward.

The final questions under 'public works' relate to water supply and drainage. It is important to establish where and at what date aqueducts, fountains, or drainage and sewer systems were provided. We also need to know how the system worked, and their relationship to both public and private supply. Taking the evidence at Lincoln (Lewis 1984) as an example, this can prove a daunting task, but it should not prove difficult, by careful fieldwork, to establish the sources and courses of more aqueduct systems.

Private houses

It is generally accepted that the courtyard-type of house was not common in British towns before the middle of the 2nd century (Walthew 1975), but the reasons are still uncertain (Walthew 1983). This development may have been earlier in the *coloniae,* where many earlier houses resembled military barracks in their design (and were in fact refurbishments of them). In contrast, most commercial establishments (traders' houses) usually were of the 'strip' plan also commonly found in the *vici* outside the forts. To argue, as some have done, that these shops tended to be further away from the administrative and commercial centre than the larger houses is misleading. At some cities, it is true, they

lined some of the major roads outside the walled towns. Information about the relative prosperity of a particular *civitas* may be discovered by a comparison of its town houses, its shops, and its local villas (Hodder & Millett 1980).

The most important priorities with regard to houses are the excavation of complete examples (as for instance is being carried out at Caerwent) and, where possible, complete *insulae:* too much existing knowledge relies on fragmentary plans. It is therefore desirable to maintain existing research excavations at those sites not threatened by development in order to achieve this, for full plans are unlikely to be recovered beneath modern towns.

Commercial buildings

It has been argued that the increased size of houses means that towns were less important for business transactions after *c* 150, and the new residents might have been those who had accumulated sufficient capital from agriculture. But this development could equally have stemmed from the incorporation of the trade into the residential complex. There does appear to be a steady growth of commercial establishments at some sites through time, and the varying fortunes of different towns need to be recorded. In London, for instance, the development was early (though not as early as at Colchester and Verulamium), and the subsequent 'decline' was also relatively early. In contrast, at Lincoln expansion continued through at least until the early 4th century. Such growth was presumably roughly proportional to the city's importance as a market centre for a large area: a hypothesis which might be tested.

In certain cases it may be possible to identify commercial zones both inside and outside the walls, and the concentration of certain or specialized crafts at certain minor towns, although the interpretation of what particular business was carried out at each place is notoriously difficult on purely archaeological evidence. Detailed examination of any technological processes is essential. For this reason, excavation of whole complexes (particularly those not on the strip model) is desirable, and should include the backyards with their rubbish disposal areas, which might provide the only clues to the nature of the trade. Waterlogged deposits should be particularly rewarding in this respect. Any evidence for two-storeyed structures would also be valuable, as would that for the expansion of businesses and the linking of properties (eg Cirencester, *insula* V). Much may be learned about property tenure from such archaeological sources.

The suburbs

Much of the area beyond the walls was occupied by the very establishments discussed immediately above, and in major towns this may have been its primary function. Identification of other functions apart from commercial would be most useful. Minor settlements often straggled along a particular route and, as a result, even if the town was defended much of the street frontage remained undefended. Extensive suburbs are known so far at only a few cities, but the paucity of evidence is due largely to the concentration of excavation inside the walls. Much can be learned about the extent of the suburbs from watching briefs, small-scale excavation, and intensive survey (Corney, in Fulford 1984b, 239-92).

The effect of the construction of defences on the parts of a settlement which thereby became extra-mural seems to have been fairly negligible, owing partly perhaps to the early definition of two boundaries. As noted above, there was often considerable expansion or decline of the suburbs in the 3rd and 4th centuries. Decline could also allow infill by cemeteries on land formerly zoned for expansion, as happened at Canterbury, Chichester and York, while expansion at Lincoln involved redevelopment for commercial buildings of an early cemetery area.

The cemeteries were of course an important element of the suburban landscape, and the areas used for burial purposes can be plotted for many towns from early maps and antiquarian discoveries. Systematic large-scale excavation, however, has taken place only in a small number of towns. Careful investigation and recording is needed, as at Lankhills, Winchester (Clarke 1979), to provide details about burial practice so that changes in fashion, for whatever reason, can be documented. It is not clear by what agency new ideas in burial were spread: there is no evidence yet, for instance that the army brought them to Britain, but few military cemeteries have been investigated. The work at Ancaster, Colchester, Poundbury near Dorchester, Chichester, Cirencester, Winchester and York has provided much new information about the late period, and the study of the anatomical evidence is an intrinsic part of those studies (see for instance Wells in McWhirr *et al* 1982, 135-202). So far very little has been achieved in the study of the urban population, but here is potential for looking at social stratification (see Jones in Addyman & Black 1984, 34-42, for further discussion of the potential).

Beyond the suburbs

The areas immediately outside the town should be examined for the light which they can throw on the town itself. It is useful to ascertain their physical nature, whether they were cultivated, and how land-use was organized. No success can yet be reported in defining the *territorium* of any Roman city in Britain; that problem and those associated with centuriation are best put aside until better evidence comes to light. The question of the 'town-zone', however, is worth consideration (Rodwell 1975a), and boundaries may still survive in modern field patterns where they have not been built over.

The later Roman period

It is now generally accepted that Britain continued to prosper in the 3rd century in spite of problems elsewhere in the Empire (some scholars still disagree eg Reece 1981). Much was expended on town buildings and especially on defensive walls in this period (King & Henig 1981). As Millett *(loc cit)* has noted, the 'crisis' need not be reflected in the archaeological record.

The problems of the 4th century and beyond are a special area of interest. There is much apparent evidence of decline, or at least change, in towns during the century, but Reece's hypothesis (1980) of a lack of investment in urban areas after the Continental crisis of the late 3rd century has not met with general acceptance. Although some streets and building were going out of use, new buildings for private or public function were being erected in several towns, at a time when the refurbishment or construction of fortifications must have drained local resources. Among the new structures we might expect to find more Christian churches

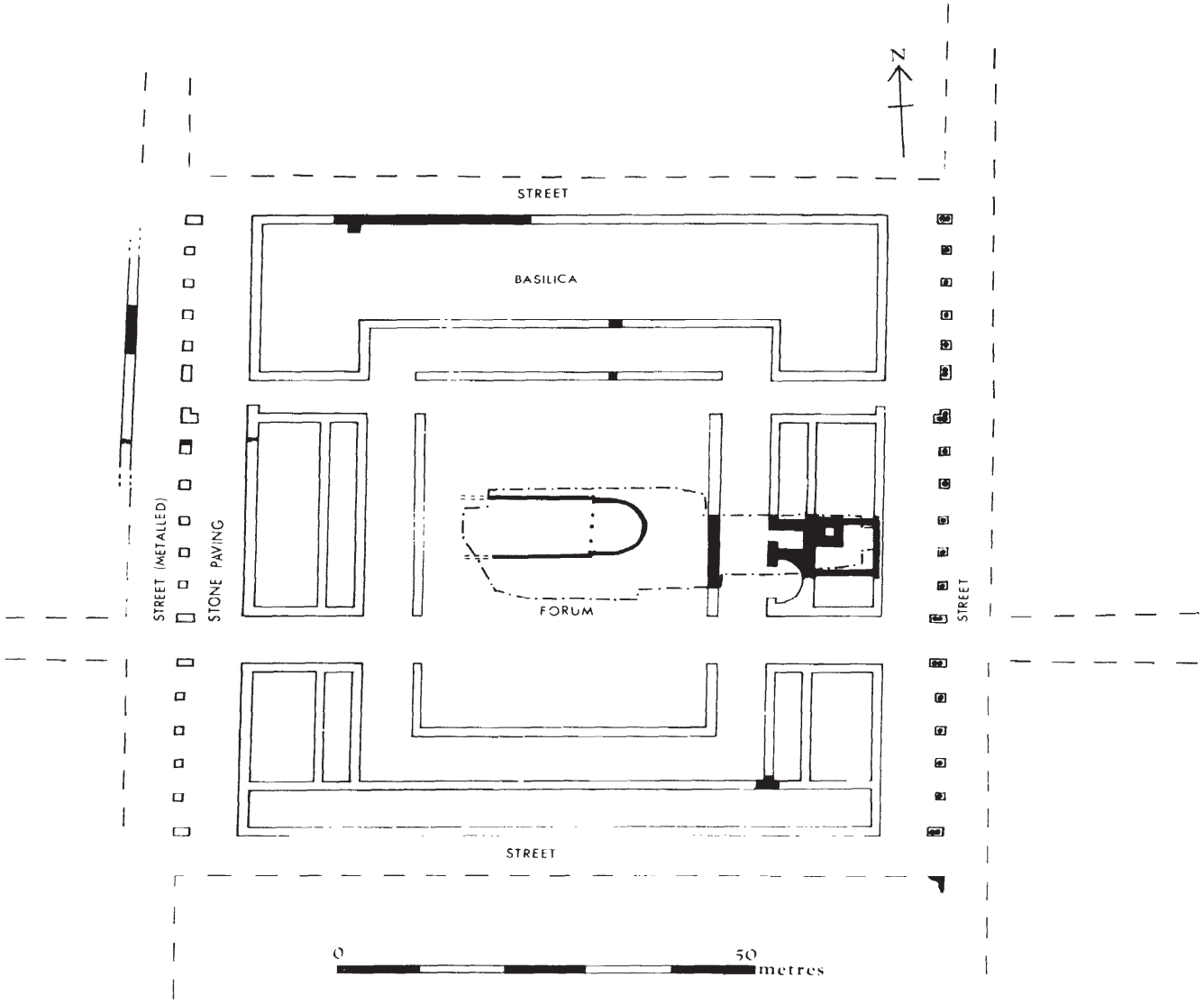


Fig 19 Conjectural reconstruction of forum-basilica with (?)4th century church, Lincoln (Lincoln Archaeological Trust)

(Fig 19), especially in the second half of the century (Thomas 1981).

Biddle (1983) has argued that after *c* 350 Winchester was primarily an administrative and military base. Other scholars have argued for a less commercial function for towns from the 3rd century, but this is a subject on which it is dangerous to generalize.

From traces in the basilica at Silchester and the forum at Lincoln later activity appears to have been of a more commercial nature than in earlier periods. It has to be asked whether their administrative functions were depleted, or (less probably) lost completely. Similar details are needed of the state of other public building and works, fortifications, streets, and houses. Archaeological evidence does not allow us to be precise about the process of economic decline; what can be documented is physical decay, settlement shrinkage, and changing trading patterns, but to be useful these have to be studied in detail over a large area. The significance of 'Germanic' belt-buckles is no longer considered to be clear evidence for the presence of imported mercenaries in late Roman towns, whose defence would have been undertaken by the local militia.

So far, incontrovertible urban continuity into the Anglo-Saxon period has not been claimed or found for any British site (Hill in Barley 1977; Arnold 1984), but the sites of major Roman towns were hardly ever deserted completely, even if they now only survive as an adjacent village such as Wroxeter or Silchester. Few urban functions appear to have continued, although there was often some sort of activity within the walls (even if only as a Christian cult-centre), but physical survival was often extensive. Discoveries made in recent years at towns on the Continent provide models for British investigators (see papers by Böhner and Février in Barley 1977), and some progress can now be reported.

At Canterbury occupation seems to have come to a halt by the mid 5th century before a 6th century resurgence. Few towns lasted as long, especially on the eastern side of the country, and most had suffered considerable contraction by the beginning of the 5th century. The remarkable evidence from Wroxeter for a late replanning of the city may be of only local significance; elsewhere such evidence, if it exists, can be obliterated by later occupation, and the traces of 5th century commercial activity and public works at Verulamium strengthen the case for careful large-scale investigation. Other non-urban traces which have survived, such as the burials in the forum-basilica area at Exeter and at Lincoln, should be studied properly to evaluate their significance, and work at these and at other sites including London, Cirencester, Canterbury, Winchester, and York must be allowed to continue, with special emphasis given to any remains of this period.

Social and economic aspects

Archaeological investigation can contribute to our understanding of certain social and economic aspects of the ancient world. However, as with the historical sources, which may be reinterpreted but are unlikely to be augmented, modern statistical approaches are generally inapplicable (Salway 1981, 540-2). In spite of such limitations, new evidence from survey or excavation of physical remains is the only way of making substantial progress, and Cunliffe (1984) has recently accused Roman archaeologists of being slow to follow prehistorians and others in adopting ideas from related disciplines to examine socioeconomic aspects. To what extent can the student of Romano-British towns investigate these matters?

Using our existing knowledge of the various classes which constituted Roman society, we can try to define the population mixture of a town, and perhaps discern social change and mobility through time, but only if its site, and its cemeteries, have been studied fairly comprehensively. This is an ambitious task and Romano-British specialists have, on the whole, been slow to explore the possibilities of the new approaches being adopted by related disciplines. A beginning might be to select a single class-that, say, of trader-to study the types of activity and houses/workshops for which we have evidence, and to compare the evidence from different urban settlements. We may be able to identify the specialized crafts which formed the economic base for some minor towns. The role of the native population is an important question-how it was integrated into the town and what functions it performed in relation to those carried out by incoming settlers, but the difficulties in answering these questions should not be underestimated.

The size and population of urban areas is the subject of some recent research (Duncan-Jones 1982, 259-87). The total population estimates for the whole Roman province are of course related directly to those for the late Iron Age (Salway 1981, 542-52; Cunliffe 1978), but urban research contributes to this larger problem. Archaeological work can establish for particular dates the extent of a settled area and its population density, and we now know that town-zones varied in size from only two hectares to several hundred. It is also possible to discover some evidence for different living standards across the town, and area excavation can indicate changes, such as a tendency to larger properties. Such data provide theoretical archaeologists with much on which to hypothesize.

Archaeologists must be grateful that several historians of the Roman Empire are currently working on related problems, such as the function of towns in the economy (eg Hopkins 1978, 1983). It has to be remembered that money was based on land, agriculture being pre-eminent in the economic system, and that towns were centres of consumption rather than production (see further below). Knowledge of the success of the Roman town would be increased if we could throw light on the communications network available for trading as well as studying questions of size, population density, rate of occupancy, living standards and types of employment, what local resources-say of building materials (Buckland in Addyman & Black 1984)-were available, and what was the cost of public works in relation to the annual turnover.

Yet the greatest advances can probably be made in terms of understanding the economic relationship between major and minor towns, and between towns and the countryside. A vital factor here is to derermine the various functions of minor towns (see Crickmore 1984a; Fig 20). From origins associated within the military framework, some continued to function as centres of communications, as overnight stops, as depots for collecting and storing grain, as redistribution centres, or as centres for local administration itself. Others were market centres, specialized craft centres, associated with a local source of raw materials, or provided recreational or ritual facilities. There must have been other categories (see Todd 1970, Rivet in Rodwell & Rowley 1975, and Burnham & Wacher, forthcoming), as well as changes through time. In other words, the settlement 'hierarchy' needs to be understood (Hodder 1975; Johnston 1984, 51-87).

With sufficient data, the 'market-type' economy of the Roman world can be analysed in modern terms. Some scholars feel that the data are not yet adequate for this type of analysis, but others are keen to put the study of economic patterns onto a more scientific basis (eg Hodder 1972, 1975), often based on theoretical models of society. This work is to some extent aimed at elucidating the functions of each unit, including the towns, in an economic network or ecosystem: there are debts here to recent theories in human geography (Johnston 1984). One objective might be to define whether prosperity came first to town or to country (here the relative quality of houses is a clue; Walthew 1975, 1983; Hodder & Millett 1980), and what influence an overall authority had on such matters. Trading patterns do of course throw light on the urban economy (see eg Hodder 1974). The economic relationship of towns to the countryside is a question which has long interested ancient historians (Finlay 1977) and has recently been confronted by Romano-British specialists (Fulford 1982; Millett 1982a). One central point here is the supposed consumer nature of large towns, with their various craft specializations, and their demand for produce from the surrounding land. What was done with the income from manufacturing industry? How much of it was spent on luxury items?

Such questions will not be answered for many years, if ever, and though difficult to solve, they stimulate a lively debate which is healthy for the subject. It seems generally agreed among urban scholars that the best way to look at economic patterns is to identify regions for examination of

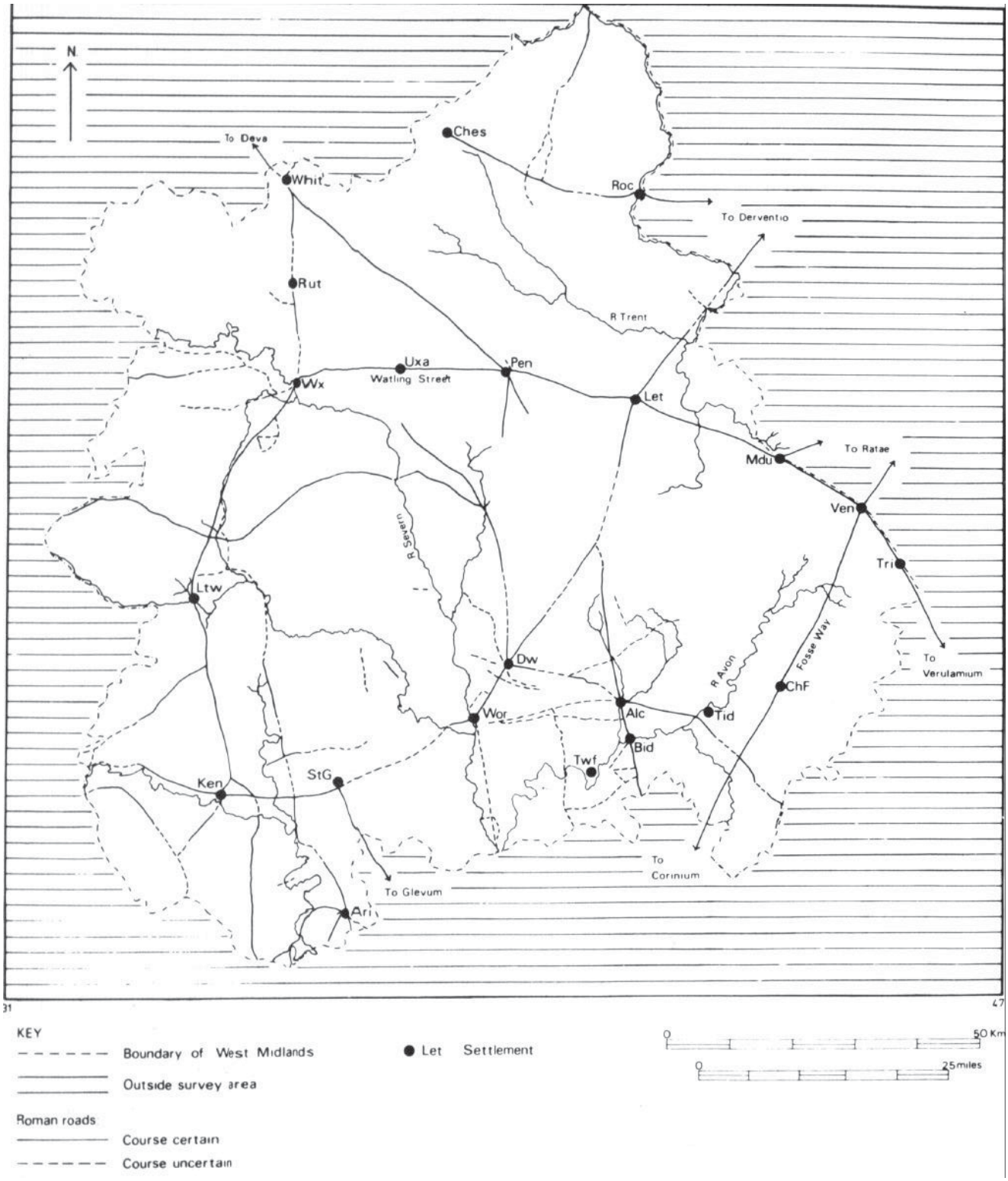


Fig 20 Roman towns in the West Midlands (Crickmore 1984, fig 1)

their major and minor towns, The regions chosen ought to include a major town already well studied (Keene 1978; reproduced with additions in Schofield & Palliser 1981). The relative success of both larger and smaller towns, in terms of size, wealth, industrial activity, etc, can be plotted over a period of time, and if possible, all this should be done against the background of the pre-existing Iron Age pattern.

The value of rich stratified sequences here is manifest, especially if they produce good groups of environmental samples (Hall & Kenward 1982, *passim).* Animal bones can for instance throw light on the way in which the local agriculture might be organized to meet the needs of the

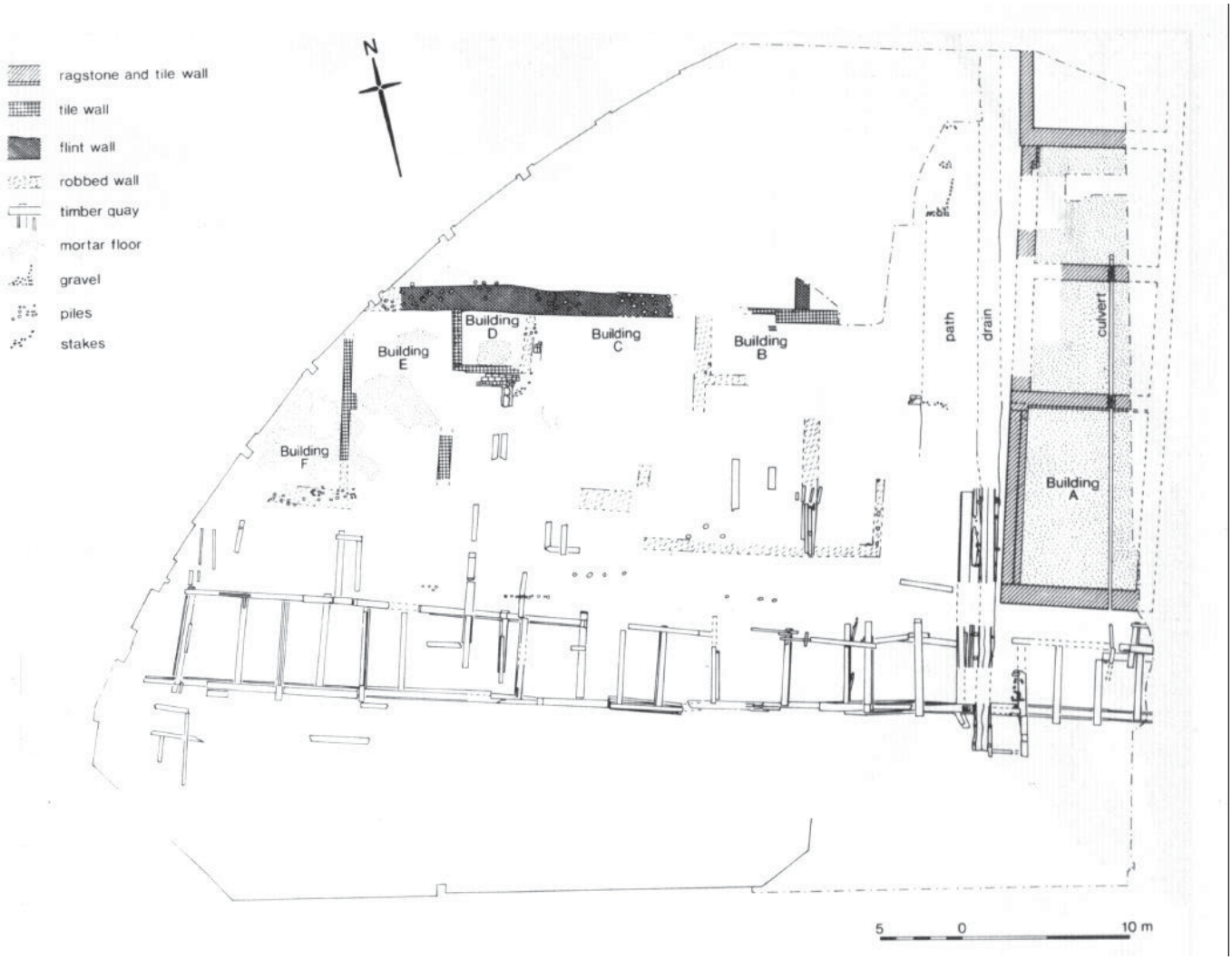


Fig 21 First century Roman quay and contemporary and subsequent buildings, Miles Lane, London (Merrifield 1983, 94)

urban community, but they can also contribute in other ways to our knowledge of urban life. Methods of anlysis of assemblages are still being refined, but it is clear that samples are needed to provide representative cross-sections of the town, as well as from rural sites in its catchment area (Maltby 1979; King in Blagg & King 1984; Luff 1982; Addyman in Addyman & Black 1984). It helps if the principal areas of potential have already been identified by the archaeologist.

Other types of sampling are useful, of course, but the study of the past environment has wide relevance, and each excavation ought to include at least some environmental work (Hall & Kenward, *op cit).* Like economic patterns, this is a comparatively new area of interest, and although teething troubles are unavoidable, it is one which has great potential for elucidating many areas of urban life-climate, landscape, clearance, flooding, soil changes, commodities available for food, conditions of life and work, more details of human activity and its effects on the environment. There is much to be gained from the scientific analysis of rubbish deposits and residues from technological processes.

One aspect of the town which has received much (long overdue) attention in recent years is the waterfront (Fig 21), where the damp soil conditions normally preserve organic remains including the timber structures (Milne & Hobley 1981). Many Roman towns have yielded next to no evidence so far about this important area of commercial activity. Where possible, every town ought to have at least one large waterlogged area excavated, and this ought to be part of a sampling policy for the whole town. Any such policy needs, however, to be established against a background of the knowledge of the survival of stratified deposits ('site evaluation'), and the availability of areas for investigation. Some recent discoveries from 'wet' sites in Carlisle and York have added considerably to the store of knowledge about timber construction and such levels of preservation are another factor to be borne in mind (Fig 22).

Table of priorities: a commentary

Any attempt to demonstrate the relative importance of various aspects of different towns is fraught with dificulties, for it is bound to be somewhat subjective. To illustrate such matters in tabular form reduces the problem to an even more simplistic level. Nevertheless it is a useful exercise to assemble the conclusions of the study, however tentative, on to a single page.

It can be seen that a large number of themes have been asterisked as being of some importance, and here the border-



Fig 22 Roman York, showing areas where all levels have been destroyed (black), and areas where Roman strata remain intact though post-Roman strata have been destroyed (shaded) (Andrews 1984)

line between those asterisked and those not is a vague one to define. In some cases the evidence is so lacking that 'importance' is difficult to rate. Those squares given three asterisks represent those themes/sites which are clearly of academic interest on an international scale. Two asterisks indicate those themes/sites which are of special interest in national terms. Where no asterisk is indicated, the reason may be that (i) sufficient work appears to have been carried out at present to make further investigation of less than national priority; or (ii) it is not clear that this aspect is available for study at a particular site; or (iii) no rescue archaeology is in prospect at this site but that research excavations might be directed towards the asterisked themes. At the same time, it may still constitute a regional priority.

The table as a whole does show some trends, which reflect

Table 3 Romano-British major towns (including also Bath, Chelmsford, Durobrivae, and Ilchester): priorities for further investigation at individual sites

Site	Pre-Roman Settlement	Early Military	Transition to Town	Street Plan	Defences	Gates	Forum-Basilica	Baths	Temples	Theatre	Amphitheatre	Macellum	Other public Buildings	Aqueducts	Sewers and Drains	Private Houses	Commercial Premises	Industrial Activity	Suburbs	Cemeteries	Rural Environment	Waterfront	Environmental Sampling	Late Military	5th Century and Later	Remarks Policy/Priorities	Bibliographical References
Aldborough		*	*	*		*	*	*								*				*				*		Preserve	Jones 1972; Charlesworth 1971
Bath	*	*	*	*		*	*	⁂ *	⁂ *	*			*		*	*			*	*					*	Explore baths and temple complex to full	Cuncliffe 1976, 1979, 1984; Cuncliffe and Davenport 1985
Brough on Humber		*	*	*			*									*			*	*		*	*	*		Forts, late Roman; harbour, Suburbs	Wacher 1975, 1971; P.R. Wilson et al 1984
Caerwent		*	*	*	*	*	*	*	*	*	*		*			*	*		*	*				*	*	Update results of Early excavations	Wacher 1975: Casey 1983; Brewer forthcoming
Caistor by Norwich	*	*	*																						*	Preserve, survey; suburbs	Myers and Green 1973; Swan 1981
Canterbury	*	*	*	*		*		*			*														⁂ *	Investigate important sites,	Bennett et al 1982; Frere et al 1982; Frere et al 1983
Carlisle		*⁎	*	*⁎	*⁎	*	*⁎	*	*					*	*	*	*	*	*	*⁎	*	*	*	*	*⁎	Investigate important sites Especially waterlogged; public Buildings, cemeteries	Charlesworth 1978; McCarthy 1982, 1983; Wilson Et al 1984
Carmarthen		*	*			*	*	*	*							*	*	*		*				*	*	Public buildings; transition from Military	Jones 1970; James 1979, 1980, 1982
Chelmsford	*	*	*		*	*	*									*	*	*		*		*			*	Waterfront only likely site for Future	Drury 1973, 1974; Drury and Rodwell 1980
Chichester	*	*⁎	*	*	*	*	*⁎	*⁎	*	*		*				*⁎	*		*		*				*	Investigate large sites, complete Plans	Down 1871
Cirencester	*		*	*	*	*			*																	Still much to learn re early Military phase, public buildings And houses	McWhirr 1973, 1977, 1981, 1982; Wacher And NcWhirr 1982
Colchester	*	⁂ *	⁂ *		*	*	*⁎	*	*⁎	*	*			*		*⁎	*	*	*	*⁎	*	*			*	Fortress/colonia transition. Forum And public buildings, cemeteries	Dunnett 1975; Crummy 1977, 1982, 1984, Drury 1984; Webster forthcoming
Dorchester		*	*			*	*	*			*			*		*			*	*⁎	*				*	Large sites, late cemetery	Wacher 1975; Startin 1981; graham 1982; Draper And Chaplin 1982
Durobrivae			*		*	*	*⁎		*				*			*	*	*	*	*	*				*	Intensive survey, excavation of Valid samples	Wacher 1975; Mackreth 1979
Exeter		*⁎	*⁎	*	*	*	*	*			*			*		*	*	*	*	*		*	*		*	Investigate important sites, Including military occupation	Bidwell 1979, 1980; Henderson 1984; Webster Forthcoming
Gloucester	*	⁂ *	⁂ *	*	*	*	*	*	*	*	*		*		*	*	*	*	*	*	*	*	*		*	Investigate important sites, Including military occupation, Waterside suburb and defences	Hurst 1972,1974, 1975, 1985; Heighway 1974, 1980, 1984; Garrod and Heighway 1984; Webster Forthcoming
Ilchester		*	*	*	*	*	*									*	*	*	*	*	*	*	*		*		Leach 1982; Aston and Burrows 1982
Leicester	*	*	*		*	*	*	*	*		*	*		*		*		*	*	*						Investigate important sites	Hebditch and Mellor 1973; Wacher 1975; Mellor 1976; Lucas 1981; Clay and Mellor 1985; Mellor forthcoming
Lincoln	*	⁂ *	⁂ *	*	*	*	*⁎	*	*	*	*			*⁎	*⁎	*	*	*	*	*	*	*⁎	*	*	*⁎	Investigate important sites; Fortress colonia transition, IA Settlement, sub Roman	Colyer 1975; Wacher 1975; Colyer and Jones 1979; Jones 1980, 1981, 1985 (Grew and Hobley); Jones And Gilmour 1980, forthcoming; Webster Forthcoming
London		*	*⁎	*	*	*		*	*	*	*		*⁎			*	*	*	*	*	*	⁂ *	⁂ *		*⁎	Investigate important sites, dendro Curve	See bibl. Under Grew, Holbey, Dyson, Schofield, Maloney, Marsden, Merrifield, Milne Bird, Sheldon
Silchester	*	*	*				*⁎	*	*	*	*⁎					*⁎	*⁎	*⁎	*	*⁎	*				*	Continue research excavation at Forum and amphitheatre; rural Environments	Boon 1974, Fulford 1981, 1984b
Verulamium	*	*	*			*	*⁎	*			*		*			*	*	*	*	*	*				*⁎	Preserve where possible; extra-Mural sites at risk	Frere1972, 1974, 1979, 1983, 1985; Hinchliffe 1979; Fulford 1984a
Winchester	*	*	*	*	*	*	*	*	*		*								*	*	*					Investigate important sites	Biddle 1975, 1983, forthcoming (Winchester Studies); Collis 1978; Clarke et al 1979
Wroxeter	*	*⁎	*⁎	*	*	*				*	*	*		*		*	*	*	*	*	*			*	*⁎	Continue research excavations: Preserve from plough	Barker 1975, 1981, forthcoming in Grew and Hobley; D. R. Wilson 1984; Webster forthcoming
York		*⁎	*	*⁎	*⁎	*⁎	*	*	*		*		⁂ *		*	*	*	*	*	*	*	*⁎	⁂ *	*⁎	*⁎	Investigate all well preserved Sites–so little known; dendro. Survey	Caryer et al 1978; Hall et al 1980; Kenward et al 1979; Addyman & Black 1984; ottaway in P. R. Wilson et al 1984

to some extent the recommendations made above, where a theme is of interest at every (or almost every) town, or where so little is known of a town that any new information is of interest, or where certain groups of towns are of special importance for certain themes.

Such trends must also be set beside the constraints which affect archaeological investigation: see above.

Summary of recommendations

1 All major towns need further investigation, both inside and outside the walls. A trial excavation is often necessary to confirm that archaeological deposits survive sufficiently to make area excavation worthwhile. Priorities for each site, period and type of structure should be established (see table 3).

2 Minor towns need to be investigated selectively, with several regions chosen for special study. Within each region a few minor towns could be identified with good preservation of levels and potential for solving important problems. Public, military an administrative buildings should be investigated in small defended sites.

3 On the whole intensive investigation of single sites yields better results than small-scale work in a large number, ie large-scale excavation in well known sites is preferable, but needs to be tied to specific objectives. Against this must be balanced the need for information about comparatively unknown sites.

4 Small-scale excavations, including trenching and watching briefs, are sometimes useful for solving specific questions.

5 Cost has to be borne in mind-some objectives will be expensive if in deep, heavily shored excavations-yet there are often benefits for understanding stratigraphic sequences and post-Roman aspects in such cases.

6 Since much is still being lost without record, the nature of the intended damage to the site must be taken into account and balanced against other factors. Some problems can only be solved research excavations over a long period on sites not affected by development. At the same time, sites liable to plough damage should be preserved.

7 Carefully devised programmes of aerial photography should be supported in areas likely to be productive.

Areas of academic priority (in no significant order)

(a) Identification and collection of good environmental samples-research programmes need to be compatible with those for the surrounding countryside

(b) Waterfronts (often consistent with *(a)),* harbours, bridges

(c) Iron Age-Roman transition

(d) Roman military-civil transition (Britain important here in imperial terms)

(e) Public buildings (especially early and late phases) and works

(f) Complete examples of prilvate houses or *insulae*

(g) Good examples of mosaics and wall-paintings

(h) Well preserved buildings with evidence of superstructure

(i) The 3rd century evidence for social and economic change

(j) Late 4th-5th centuries and transition to Anglo-Saxon period: some towns, including the larger Roman, were also important in the medieval period and their complete sequences need to be examined.

(k) Large cemeteries, suburbs and areas beyond.

Minor towns

Much of the above also applies to minor towns, but here the study of individual sites is the only way to understand the different functions they performed. Much survey work is necessary to determine their potential for excavation, and sites under threat from urban development or ploughing need to be identified. Few have been excavated on any scale. Burnham (forthcoming) and Smith (forthcoming) have recently specified the following priorities for future investigation:

(a) undefended settlements

(b) regional studies (eg Crickmore 1984a) and the relationship of the town to other towns and to the countryside

(c) street patterns, building frontages, any organized planning, and subsequent changes; the impact of defence construction on the settlement, building materials and construction techniques

(d) functions—area excavations necessary

(e) Iron Age/Roman transition, *(f)* Roman/Anglo-Saxon transition } regional trends

Other specific objectives are:

(g) the extent of the settlement at any time

(h) identification of the houses of those who farmed the local land

(i) water supply and disposition of wells

(j) methods of refuse disposal, use of rubbish dumps, and intensity of rubbish-pits (Marsden 1980 re London).

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Bibliography

A General

Arnold, C J, 1984 *From Roman Britain to Saxon England*

Barley, M W (ed), 1977 *European towns: their archaeology and early history*

Blagg, T F C, 1980 Roman civil and military architecture in the province of Britain: aspects of patronage, influence and craft organisation, *World Archaeol,* **12,** 27-42

——, & King, A C (eds), 1984 *Military and civilian in Roman Britain,* BAR 136

Branigan, K, & Fowler, P J (eds), 1978 *The Roman west country*

Burnham, B, forthcoming *Urban development in SE Britain c 500 BC-AD500*

——, & Johnson, H (eds), 1979 *Invasion and response: the case of Roman Britain*, BAR 73
——, & Wacher, J S, forthcoming *The small towns of Roman Britain*
Crickmore, J, 1984a *Romano—British urban settlements in the West Midlands*, BAR 127
——, 1984b *Romano-British urban defences*, BAR 126
Crummy, P, 1982a The origins of some major Romano-British towns, *Britanna*, **13,** 125-34
Cunliffe, B W 1976 The origins of urbanisation in Britain, in *Oppida in Barbarian Europe* (eds Cunliffe & T Rowley), BAR **S11,** 135-61
—— , 1978 Settlement and population in the British Iron Age: some facts, figures and fantasies, in *Lowland Iron age Communities in Europe* (eds B W Cunliffe & T Rowley), BAR **S48,** 3-24
——, 1984 Images of Britannia, *Antiquity,* **58,** 175-8
Davey, N, & Ling, R, 1981 *Wall-painting in Roman Britain*, Britannia Monograph Series 3
Drinkwater, J F, 1983 *Roman Gaul*
Duncan-Jones, R P, 1980 Length units in Roman town planning, *Britannia,* **11,** 127-33
——, 1982 *The economy of the Roman Empire: quantitative studies* (revised ed)
Esmonde Cleary, S A, forthcoming *Towns and urbanisation in Roman Britain: the evidence from outside the defences*, BAR
Finley, M I, 1977 The ancient city: from Fustel de Coulanges to Max Weber and beyond, *Comparative studies in society and history*, 305-27
Frere, S S, 1974a *Britannia: a history of Roman Britain*, 2nd ed
——, 1974b Verulamium and the towns of Britannia, *Aufstieg und Niedergang das römische Welt* (ANRW) (ed H Temporini), II.3, 290-327
——, 1975 The origin of small towns, in Rodwell & Rowley, 4-7
——, 1979a Verulamium: urban development and the local region, in Burnham & Johnson, 273-80
——, 1979b Town planning in the Western Provinces, *Beiheft zum Bericht rom germ komm*, **58,** 87-103
—— , & St Joseph, J K, 1983 *Roman Britain from the air*
Fulford, M G, 1982 Town and country in Roman Britain: a parasitical relationship?, in *The Romano-British Countryside* (ed D Miles), BAR 103, 403-20
Grew, F & Hobley, B (eds), 1985 *Roman urban topography in Britain and the Western Empire*, CBA Res Rep 59
Hall, A R, & Kenward, H K (eds), 1982 *Environmental archaeology in the urban context*
Hassall, M W C, 1979 The impact of Mediterranean urbanism on indigenous nucleated centres, in Burnham & Johnson, 241-53
Haslam, J (ed), 1984 *Anglo-Saxon towns in southern England*
Hodder, I, 1972 Locational models and the study of Romano-British settlement, in *Models in Archaeology* (ed D L Clarke), 887-910
——, 1974 Some marketing models for Romano-British coarse pottery, *Britannia*, **5,** 340-59
——, 1975 The spatial distribution of Romano-British small towns, in Rodwell & Rowley
— , & Millett, M, 1980 Romano-British villas and towns: a systematic analysis, *World Archaeol*, **12,** 69-76
Hopkins, K, 1978 Economic growth and towns in classical antiquity, in *Towns in societies* (eds P Abrams & E A Wrigley), 35-77
——, 1983 Introduction, in *Trade in the ancient economy* (eds P Garnsey, K Hopkins, & C R Whittaker)
Johnston, R J, 1984 *City and society: an outline for urban geography*
Keene, D J, 1978 Research priorities for urban archaeology, *CBA Annual Report 1978-9*, 76-8
King, A C, & Henig, M (eds), 1981 *The Roman west in the third century*, BAR S109
Lewis, M J J, 1966 *Temples in Roman Britain*
Ling, R & Davey, N 1981 *Wall painting in Roman Britain* (*Britannia* monograph series no 3)
Luff, R M, 1982 *A zooarchaeological study of the Roman north-west provinces*, BAR S137
Maltby, J. M, 1979 *Faunal studies on urban sites; the animal bones from Exeter 1971-75*
May, J, 1976 The growth of settlements in the Later Iron Age in Lincolnshire, in *Oppida in Barbarian Europe* (eds B Cunliffe & T Rowley), BAR **S11,** 163-80
——, 1984 Major settlements of the Later Iron Age in Lincolnshire, in *A prospect of Lincolnshire* (eds F N Field & A J White), 18-22
Millett, M, 1975 The native towns of Roman Britain, *Current Archaeol*, **52,** 134-8
——, 1982a Town and country: a review of some material evidence, in *The Romano-British countryside* (ed D Miles), BAR 103
——, 1982b Distinguishing between the *Pes Monetalis* and the *Pes Drusianus*: some problems, *Britannia*, **13,** 315-20
——, forthcoming Forts and the origins of towns: cause or effect?, in *Military and Civilian in Roman Britain*, BAR
Milne, G, & Hobley, B (eds), 1981 *Waterfront archaeology in Britain and Northern Europe*, CBA Res Rep 41
Neal, D S, 1981 *Roman mosaics in Britain* (*Britannia* monograph series no 1)
Raper, R A, 1979 Pompeii—planning and social implications, in *Space, Hierarchy and Society* (eds B C Burnham & J Kinsbury), BAR **S59,** 137-48
Raven, S, 1984 *Rome in Africa*, revised
Reece, R, 1980 Town and Country: the End in Roman Britain, *World Archaeol*, **12,** 77-92
——, 1981 The Third Century: Crisis or Change, in King and Henig, 27-38
Reynolds, S, 1977 *An Introduction to the History of English Medieval Towns*, 1-15
Rivet, A L F, 1977 The origins of cities in Roman Britain, *Colloques internationaux du CNRS*, **52,** 161-72
——, 1980 Celtic names and Roman places, *Britannia*, **11,** 1-20
——, & Smith, C, 1979 *The place names of Roman Britain*
Rodwell, K, 1979 Rome and the Trinovantes, in Burnham & Johnson, 327-38
Rodwell, W, 1975a Milestones, civic territories, and the Antonine itinerary, *Britannia*, **6,** 76-101
——, 1975b Trinovantian towns and their setting: a case study, in Rodwell & Rowley 1975, 85-101
—— (ed), 1980 *Temples, churches and religion in Roman Britain*, BAR 77
——, & Rowley, T (eds), 1975 *The small towns of Roman Britain*, BAR 15
St Joseph, J K, 1977 Air reconnaissance in Roman Britain 1973-76, *J Rom Stud*, **67,** 125-61
Salway, P, 1981 *Roman Britain*
Schofield, J, & Palliser, D (eds), 1981 *Recent archaeological research in English towns*
Sherratt, A (ed), 1980 *The Cambridge encyclopaedia of archaeology*
Smith, R F, forthcoming *Civilian roadside settlements in Roman Britain*
Swan, V G, 1984 *The pottery kilns of Roman Britain*, (RCHM Suppl series no 5)
Thomas, A C, 1981 *Christianity in Roman Britain to AD 500*
Todd, M, 1970 The small towns of Roman Britain, *Britannia*, **1,** 114-30
——, 1976 The Vici of western England, in Branigan & Fowler
——, 1981 *Roman Britain (55BC to AD 400)*
——, 1985 *Forum* and *capitolium* in the early empire, in Grew & Hobley, 56-66
Wacher, J S, 1971 Yorkshire towns in the 4th Century, in *Soldier and civilian in Roman Yorkshire* (ed R M Butler), 165-78
——, 1975 *The towns of Roman Britain*
——, 1978 *Roman Britain*
——, forthcoming A comparative study of selected towns in Britannia during and after the Late Empire, *ANRW*, III
Walthew, C V, 1975 The town house and the villa house in Roman Britain, *Britannia*, **6,** 189-205
——, 1978 Property boundaries and the sizes of building plots in Roman Britain, *Britannia*, **9,** 335-50
——, 1981 A note on the street plan and early growth of Amiens, *Britannia*, **12,** 298-301
——, 1982 Early town development in Gallia Belgica, *J Archaeol*, **1,** 225-36
——, 1983 Houses, defences, and status: the towns of Roman Britain in the 2nd half of the 2nd century AD, *Oxford J Archaeol*, **2.2,** 213-24
Ward-Perkins, J B, 1970 From Republic to Empire: reflections on the early provincial architecture of the Roman west, *J Roman Stud*, **60,** 1-19
——, 1974 *Cities of Ancient Greece and Italy: planning in classical antiquity.*
——, 1981 *Roman imperial architecture*
Webster, G, 1966 Fort and town in Early Roman Britain, in *The civitas capitals of Roman Britain* (ed J S Wacher), 31-45
—— (ed), forthcoming *The fortress cities of Roman Britain*
Whitewell, J B, 1982 *The Coritani: some aspects of the Iron Age tribe and the Roman civitas*, BAR 99
Wightman, E M, 1985 *Gallia Belgica*
Wilkes, J J, 1981 Review of P Marsden, *Roman London*, in *Britannia*, **12,** 412-16
Williams, J H, 1971 Roman building materials in south-east England, *Britannia*, **2,** 166-95
Wilson, P R, Jones, R F J, & Evans, D M (eds), 1984 *Settlement and society in the Roman north*
Woloch, G M (ed), 1983 *Roman cities* (P Grimal)

B Site: select list of principal publications since 1970

Addyman, P V, 1974 Excavations in York, 1st Interim Report, 1972-3, *Antiq J*, **54,** 200-31
——, 1976 *Excavations in York 1973-4: second interim report*, CBA
——, & Black, V E (eds), 1984 *Archaeological papers from York presented to M W Barley*
Aitken, G M, & G N, 1982 Excavations on the library site, Colliton Park, Dorchester 1961-3, *Proc Dorset Natur Hist Archaeol Soc*, **104,** 93-126
Alexander, J A, 1975 The development of urban communities: the evidence from Cambridge and Great Chesterford, in Rodwell & Rowley 1975, 103-9

Anderson, A S, & Wacher, J S, 1980 Excavations at Wanborough, Wiltshire: an interim report, *Britannia*, **11**, 115–26

Aston, M, 1974 The Roman town defences at Dorchester, Oxon; an interim assessment, *CBA Group 9 Newsletter* no 4

Barker, P A, 1969 The origins of Worcester, *Trans Worcs Archaeol Soc*, **3**, II

——, 1975 Excavations on the site of the Baths Basilica at Wroxeter, 1966–74, *Britannia*, **6**, 106–17

—— (ed), 1981 *Wroxeter Roman city: excavations 1966–80*

Bateman, N, & Milne, G, 1983 A Roman harbour in London: excavations and observations near Pudding Lane, City of London, 1979–82, *Britannia*, **14**, 207–26

Bennett, P, Frere, S S, & Stow, S, 1982 *The archaeology of Canterbury Vol I: excavations at Canterbury Castle*

Biddle, M, 1975 Excavations at Winchester, 1971: tenth and final interim report, *Antiq J*, **55**, 96–126 and 295–337

——, 1983 The study of Winchester: archaeology and history in a British town, *Proc Brit Acad*, **69**, 93–135

Bidwell, P T, 1979 *The legionary bath-house and forum-basilica at Exeter*

——, 1980 *Roman Exeter: fortress and town*

Bird, J *et al* (eds), 1978 *Southwark Excavations 1972–4*

Blagg, T F C, 1979 The date of the temple of Sulis Minerva at Bath, *Britannia*, **10**, 101–7

——, 1982 Roman Kent, in *Archaeology in Kent to AD 1500* (ed P Leech), CBA Res Rep **48**, 51–60

Boon, G C, 1974 *Silchester: The Roman town of Calleva*

Booth, P, 1980 *Roman Alcester*

Bradley, R, 1978 Rescue excavation in Dorchester on Thames 1972, *Oxoniensia*, **43**, 17–39

Bradley, R J, 1975 Maumbury Rings, Dorchester. The excavations of 1908–13, *Archaeologia*, **105**, 1–98

Brewer, R J, forthcoming *Excavations at Caerwent*

Brown, A E, & Alexander, J A, 1982 Excavations at Towcester 1954: the Grammar School site, *Northants Archaeol*, **17**, 24–59

Brown, A E, 1983 Excavations at Towcester, Northants: the Alcester road suburb, *Northants Archaeol*, **18**, 43–140

Browne, D M, 1974 An archaeological gazetteer of the city of Cambridge, *Proc Camb Antiq Soc*, **65**, 16–22

Browne, D M, 1977 *Roman Cambridgeshire*

Buckland, P C, 1976 *The environmental evidence from the Church Street Roman sewer system*, Archaeology of York 14/1

Buckland, P C, & Magilton, J R, forthcoming *The archaeology of Doncaster: the Roman extra-mural settlement*

Budge, A R, Russell, J R, & Boon, G C, 1974 Excavations and fieldwork at Charterhouse on Mendip, *Proc Univ Bristol Speleol Soc*, **13** (3), 327–47

Cameron, H, & Lucas, J, 1973 Tripontium. Second interim report, *Trans Birmingham Warwickshire Archaeol Soc*, **85**, 93–144

Carver, M O H (ed), 1980 Medieval Worcester: an archaeological framework, *Trans Worcestershire Archaeol Soc*, **3** (7), 15–29

Carver, M O H, Donaghey, S, & Sumpter, A B, 1978 *Riverside structures and a well in Skeldergate and buildings in Bishophill*, Archaeology of York 4/1

Casey, P J, 1983 Caerwent (Venta Silurum): the excavation of the NW corner tower and an analysis of the structural sequence of the defences, *Archaeol Cambrensis*, **132**, 49–77

Chapman, H, & Johnson, T, 1973 Excavations at Aldgate and Bush Lane House 1972, *Trans London Middlesex Archaeol Soc*, **24**, 1–73

Charlesworth, D, 1971 The defences of Isurium Brigantum, *Soldier and civilian in Roman Yorkshire* (ed R M Butler), 155–64

——, 1978 Roman Carlisle, *Archaeol J*, **135**, 115–37

Clarke, G, 1979 *The Roman cemetery at Lankhills*, Winchester Stud, **3**, (2)

Clay, P, & Mellor, J E, 1985 *Excavations in Bath Lane, Leicester*

Collis, J R, 1978 *Winchester excavations 2: 1949–60, excavations in the suburbs and western part of the town*

Colyer, C, 1975 Excavation at Lincoln 1970–2: the western defences of the lower town, *Antiq J*, **55**, 227–66

——, & Jones, M J (eds), 1979 Excavations at Lincoln, 2nd interim report: excavations in the lower town 1972–8, *Antiq J*, **59**, 50–89

Crouch, K, 1976 The archaeology of Staines and the excavations at Elmsleigh House, *Trans London Middlesex Archaeol Soc*, **27**, 71–134

——, 1978 New thoughts on Roman Staines, *London Archaeol*, **3.7**, 180–6

Crummy, P, 1977 Colchester: fortress and colonia, *Britannia*, **8**, 65–105

——, 1982 The Roman theatre at Colchester, *Britannia*, **13**, 299–302

——, 1984 *Colchester archaeological report 3: excavations at Lion Walk, Balkerne Lane, and Middleborough*

Cullen, P R, 1970 Cirencester: the restoration of the Roman town wall, 1967–8, *Britannia*, **1**, 227–39

Cunliffe, B W, 1973 *The Regni*

——, 1976 The Roman baths at Bath: the excavations of 1969–75, *Britannia*, **7**, 1–32

—— (ed), 1979 *Excavations in Bath 1950–75*

——, 1984 *Roman Bath discovered*, 2nd revised ed

——, & Davenport, P, 1985 *The Temple of Sulis Minerva at Bath*

Darling, M J, 1977 *A late Roman pottery group from Lincoln*, Archaeology of Lincoln XV/1

Detsicas, A P, 1983 *The Cantiaci*

Dix, B, & Hadman, J, 1984 Ashton, *Durobrivae*, **9**, 26–9

Down, A, 1971– *Chichester excavations vols I et seq*

——, 1978 Roman Sussex—Chichester and the Chilgrove Valley, in *Archaeology in Sussex to AD 1500* (ed P L Drewett), CBA Res Rep 29, 52–8

Draper, J, & Chaplin, C, 1982 *Dorchester excavations*, **1**

Drury, P J, 1973 The Romano-British settlements at Chelmsford, Essex: Caesoramagus. Preliminary report, *Essex Archaeol Hist*, **4**, 3–29

——, 1974 *Archaeology in Chelmsford 1975–6 and beyond*

—— (ed), 1976 Braintree: excavations and research 1971–6, *Essex Archaeol Hist*, **8**, 1–144

——, 1984 The temple of Claudius at Colchester reconsidered, *Britannia*, **15**, 7–50

——, forthcoming *Roman sites in the SE sector of Caesaromagus*

——, & Rodwell, W, 1980 The Roman period, in *Archaeology in Essex to AD 1500* (ed D G Buckley), CBA Res Rep 34, 59–75

Dunnett, R, 1975 *The Trinovantes*

Eddy, M R, 1982 *Kelvedon: the origins and development of a Roman small town*

Evans, J, 1983 Towns and the end of Roman Britain in northern England, *Scot Archaeol rev*, **2** (2), 144–9

Frere, S S, 1970 The Roman theatre at Canterbury, *Britannia*, **1**, 83–113

——, 1971 The forum and baths at Caistor by Norwich, *Britannia*, **2**, 1–26

——, 1972 *Verulamium excavations*, **1**

——, 1981 Verulamium in the 3rd century, in *The Roman west in the third century* (eds A C King & M Henig), BAR **S109**, 383–92

——, 1983 *Verulamium excavations, Vol II*

——, forthcoming *Verulamium Excavations, Vol III*

——, Stow, S, & Bennett, P, 1982 *The archaeology of Canterbury, vol II: excavation on the Roman and medieval defences of Canterbury*

——, & Stow, S, 1983 *The archaeology of Canterbury, vol VII: excavations in the St George's Street and Burgate Street areas*

Fulford, M G, 1981 *Guide to the Silchester excavation 1979–81: amphitheatre and forum-basilica*

——, 1984a Review of Frer 1983, *Britannia*, **15**, 357–61

——, 1984b *Silchester: excavations on the defences 1974–80*

Fulford, M G, & Startin, D W A, 1984 Note in *Britannia*, **15**

Garrod, A P, & Heighway, C M, 1984 *Garrod's Gloucester: archaeological observations 1974–1981*

Graham, A H, 1982 Observations on the site of the Assembly Rooms, Dorchester, *Proc Dorset Natur Hist Archaeol Soc*, **104**, 188–9

Green, C J S, 1977 Excavations in the Roman kiln field at Brampton 1973–4, *East Anglian Archaeol*, **5**, 31–95

Hall, A R, Kenward, H K, & Williams, D, 1980 *Environmental evidence from Roman deposits in Skeldergate*, Archaeology of York 14/3

Harrison, A C, 1972 Rochester East Gate, 1969, *Archaeol Cantiana*, **87**, 121–57

Hart, C R, 1981 Buxton, in *The North Derbyshire archaeological survey to AD 1500* (1981), 94

Hassall, M, & Rhodes, J, 1974 Excavations at the new Market Hall, Gloucester, 1966–7, *Trans Bristol Gloucestershire Archaeol Soc*, **93**, 15–100

Hebditch, M G, & Mellor, J E, 1973 The forum and basilica at Leicester, *Britannia*, **4**, 1–83

Heighway, C M, 1974 *Archaeology in Gloucester: a policy for city and district*

——, 1980 The cemeteries of Roman Gloucester, *Trans Bristol Gloucestershire Archaeol Soc*, **98**, 57–72

——, 1983 *The east and north gates of Gloucester*

Heighway, C M, & Garrod, P, 1980 Excavations at Nos 1 and 30 Westgate Street, Gloucester, *Britannia*, **11**, 73–114

Henderson, C G, 1984a The Roman walls of Exeter, *Devon archaeol*, **2**, 13–25

——, 1984b *Archaeology in Exeter 1983/4*

Hill, C, Millett, M, & Blagg, T F C, 1980 *The Roman riverside wall and monumental arch in London*

Hinchliffe, J, 1979 Excavations within the Roman city of Verulamium 1978, *Herts Archaeol*, **7**, 10–27

Hobley, B, & Schofield, J, 1977 Excavations in the City of London 1974–5, *Antiq J*, **57**, 31–66

Hurst, H R, 1972 Excavations at Gloucester, 1968–71: first interim report, *Antiq J*, **52**, 24–69

——, 1974 Excavations at Gloucester 1971–3, second interim report, *Antiq J*, **54**, 8–52

——, 1975 Excavations at Gloucester, third interim report: Kingsholm 1966–75, *Antiq J*, **55**, 267–94

——, 1985 *Kingholm: Gloucester Archaeological reports I*

——, & Field, F N, 1983 Roman Horncastle, *Lincs Hist and Archaeol*, **19**, 47–88

James, H, 1978 Excavations at Church Street, Carmarthen, in

Monographs and collections relating to excavations financed by HM DoE in Wales I: Roman sites (ed G C Boon), 63–106
——, 1982 *Roman West Wales*
James, T, 1980 *Carmarthen: an archaeological and topographical survey*
Johnston, D, 1974 The Roman settlement at Sandy, *Bedfordshire Archaeol J*, **9**, 35–54
Jones, D, 1981 *Excavations at Billingsgate buildings 'Triangle', Lower Thames Street, London*, London Middlesex Archaeol Soc Special Paper 4
Jones, G D B, 1970 Excavations at Carmarthen 1969, *Carmarthen Antiq*, **6**, 4–14
——, 1971 Excavations at Northwich (*Condate*), *Archaeol J*, **128**, 31–77
Jones, M J, 1980 *The defences of the upper Roman enclosure*, Archaeology of Lincoln VII/1
—— (ed), 1981 Excavations at Lincoln, third interim report: sites outside the walled city, *Antiq J*, **61**, 83–114
——, & Gilmour, B J J, 1980 Lincoln, *principia* and forum: a preliminary report, *Britannia*, **11**, 61–72
——, & ——, forthcoming *The western defences of the Lower City*, Archaeology of Lincoln VII/2
Jones, M U, 1972 Aldborough, West Riding, 1964: excavations at the S gate and bastions and at extra-mural sites, *Yorkshire Archaeol J*, **43**, 39–78
Kenward, H K, & Williams, D, 1979 Biological evidence from the Roman warehouses in Coney Street, Archaeology of York 14/2
Kenyon, K M, 1976 Excavations at Viroconium in Insula 9, 1952–3, *Trans Shropshire Archaeol Soc*, **60**
Knowles, A K, 1977 The Roman settlement at Brampton, Norfolk: interim report, *Britannia*, **8**, 209–21
Lambrick, G, 1980 Excavations in Park Street, Towcester, *Northamptonshire Archaeol*, **15**, 35–118
Leach, P J, 1982 *Ilchester vol I; excavations 1974–5*
Leech, R H, & Leach, P J, 1982 Roman town and countryside 43–450 AD, in *The archaeology of Somerset* (eds M Aston & I Burrow)
Lewis, M J T, 1984 Our debt to Roman engineering: the water supply of Lincoln to the present day, *Ind Archaeol Rev*, **7.1**, 57–73
Lucas, J N, 1981 The debris of history: an archaeological survey of Leicester, *Trans Leicestershire Archaeol Hist Soc*, **56**, 1–9
MacKreth, D F, 1979 Durobrivae, *Durobrivee*, **7**, 19–21
McCarthy, M R, Padley, T G, & Henig, M, 1982 Excavations and finds from the Lanes, Carlisle, *Britannia*, **13**, 79–90
——, 1983 Roman timber buildings at Castle Street, Carlisle, *Antiq J*, **63**, 124–30
——, *et al*, forthcoming *Excavations at Blackfriars Street, Carlisle*
McWhirr, A D, 1973 Cirencester, 1969–72: ninth interim report, *Antiq J*, **53**, 191–218
——, 1978 Cirencester, 1973–6: tenth interim report, *Antiq J*, **58**, 61–80
——, 1981 *Roman Gloucestershire*
—— (ed), 1976 *The archaeology and history of Cirencester*, BAR 30
——, 1981 *Roman Gloucestershire*
——, *et al*, 1982 *Cirencester Excavations II: Romano-British cemeteries at Cirencester*
Maloney, J, forthcoming *Excavations on the defences of Roman London*
Marsden, P R V, 1975 The excavation of a Roman palace site in London, 1961–72, *Trans London Middlesex Archaeol Soc*, **26**, 1–102
——, 1976 Two Roman public baths in London, *Trans London Middlesex Archaeol Soc*, **27**, 1–70
——, 1978 The discovery of the civic centre of Roman London, *Collectanea Londiniensia* (eds J Bird, H Chapman & J Clark), London Middlesex Archaeol Soc Special Paper 2, 89–103
——, 1980 *Roman London*
Mellor, J E, 1976 Roman Leicester, in *History of Leicester* (ed C D B Ellis)
——, forthcoming *The Roman forum at Leicester*
Merrifield, R, 1983 *London: city of the Romans*
Millard, L, 1975 *A report on the archaeological implications of development in Canterbury*
Miller, L, Schofield J & Rhodes, M 1986 *The Roman quay at St Magnus House, London*, London Middlesex Archaeol Soc Special Paper 8
Millett, M, 1975 Recent work on the Romano-British settlement at Neatham, *Britannia*, **6**, 213–6
Milne, G, 1982 Further evidence for Roman London Bridge?, *Britannia*, **13**, 271–6
—— (ed), 1985 *The port of Roman London*
Morris, J, 1982 *Londinium: London in the Roman Empire*
Myres, J N L, & Green, B, 1973 *The Anglo-Saxon cemeteries of Caistor by Norwich & Markshall, Norfolk*, 16–42
O'Leary, T J, 1981 Excavations at Upper Borough Walls, Bath, *Medieval Archaeol*, **25**, 1–30
Osborne, P J, 1971 An insect fauna from the Roman site at Alchester, *Britannia*, **2**, 156–65
Penn, K J, 1980 *Historic towns in Dorset*
Philips, B, & Waters, B, 1977 A *mansio* at Lower Wanborough, Wiltshire, *Britannia*, **8**, 223–7
Philp, B J, 1977 The forum of Roman London: excavations of 1968–9, *Britannia*, **8**, 1–64
Potter, T W, forthcoming *The Roman settlement at Stonea*
Price, J, 1983 Excavations in Wigan 1982–3, *Greater Manchester Archaeol Unit, Annu Rep 1982–3*, 25–30
Reece, R M, 1976 The Ashcroft site, Cirencester, *Trans Bristol Gloucestershire Archaeol Soc*, **94**, 92–100
Robinson, D M, 1980 *Cowbridge: the archaeology and topography of a small market town in the Vale of Glamorgan*
Robinson, J F, 1978 *The archaeology of Malton and Norton*
Rodwell, K, 1975 *Historic towns in Oxfordshire*
——, 1979 Rome and the Trinovantes, in Burnham & Johnson 327–38
Rogerson, A, 1977 Excavations at Scole 1973, *East Anglican Archaeol*, **5**, 97–224
Sheldon, H L, 1974 Excavations at Toppings and Sun Wharves (Southwark), *Trans London Middlesex Archaeol Soc*, **25**, 1–116
——, 1981 London and S E Britain, in *The Roman West in the third century* (eds A C King & M Henig), BAR **S109**, 363–82
Sheldon, H L, & Tyers, I, 1984 Recent archaeological work in Southwark and its implications, *London Archaeol*, 355–61
Simco, A, 1984 *The Roman period*, Survey of Bedfordshire
Simmons, B B, 1976 Sapperton: an interim report, *Lincolnshire Hist Archaeol*, **11**, 5–11
Smith, R F, 1981 Hibaldstow, *Current Archaeol*, **77**, 168–71
Startin, D W A, 1981 Excavations at S Grove Cottage, Dorchester, *Proc Dorset Natur Hist Archaeol Soc*, **103**, 21–42
Stead, I M, 1976 *Excavations at Winterton Roman villa and other Roman sites in North Lincolnshire*
Swan, V G, 1981 Caister by Norwich reconsidered and the dating of Romano-British pottery in East Anglia, in *Roman pottery research in Britain and NW Europe* (eds A C Anderson & A S Anderson), BAR **S123**, 123–55
Tatton-Brown, T W, 1974 Excavations at the Custom House site, City of London, 1973, *Trans London Middlesex Archaeol Soc*, **25**, 117–219
Thompson, F H, 1976 The excavation of the Roman amphitheatre at Chester, *Archaeologia*, **105**, 127–239
Thompson, F H, Whitewell, J B, 1973 The gates of Roman Lincoln, *Archaeologia*, **104**, 129–207
Todd, M, 1973 *The Coritani*
——, 1981 *The Roman town of Ancaster; the excavations of 1955–71*
Wacher, J S, & McWhirr, A D, 1982 *Cirencester excavations I: early Roman occupation at Cirencester*
Webster, G, 1975 *The Cornovii*
——, 1980 A note on new discoveries at Viroconium (Wroxeter), in *Roman Frontier Studies 1979* (eds W S Hanson & L J F Keppie), 291–6
Webster, G, & Daniels, C M, 1970 A street section at Wroxeter in 1962, *Trans Shropshire Archaeol Soc*, **59**, 15–23
Williams, J H, 1976 Excavations at Gravel Walk, Canterbury, 1967, *Archaeol Cantiana*, **91**, 119–43
Williams, J H *et al*, forthcoming *Excavations at Wilderspool*
Wilmot, A R, 1980 Kenchester (*Magnis*): a reconsideration, *Trans Woolhope Natur Fld Club*, **43**
Wilson, D R, 1984 The plan of Viroconium Cornoviorum, *Antiquity*, **58**, 117–20
Young, C J, 1975 The defences of Roman Alchester, *Oxoniensia*, **40**, 136–70

4 The Saxon period

D Hill

Introduction

Urban research into the Anglo-Saxon period has been carried on at some level for over a century, but the archaeological research and the processing and digesting of its results is entirely a post-war development. So much so in fact that in the immediate post-war years the handbook issued by the Ordnance Survey for the use of fieldworkers in archaeology remarked that no Anglo-Saxon town structures or defences were known (Ordnance Survey 1956). We are therefore dealing with a subject less than a generation old. It is a surprisingly lusty and vocal youth.

In the 19th century the limited discussion of urban life and institutions in pre-Conquest England often reflected continental thinking, so that Maitland's 'Garrison Theory' (Maitland 1897) reflects German theories of the genesis of towns based on the references to Henry the Fowler setting up fortifications and garrisoning them with a levy on the surrounding populace. The general tenor of the few serious commentators is in line with the legalistic German approach (no borough charter-no town). Outstanding at the beginning of this century was the work of Armitage in recognizing that the Anglo-Saxon *burh* was in fact a large area site and not, as was the generally held belief of the time, to be equated with the mottes of the various castles around the county towns (Armitage 1912). Dogging all the Anglo-Saxon research before 1945 (and frequently thereafter) was the Beowulf syndrome, a view of the early medieval period as primitive, heroic **and** tribal; an England in which the deeds of Alfred were at home but the grubby business of trade and towns did not fit.

Whilst the works of Green (1883) were illustrated by town plans, Stenton cast his shade over the study of Anglo-Saxon England for almost half a century and the views expressed by him, whilst eminently reasonable, stunted thought on many aspects of the period. The reasons for this included Stenton's literary approach which relied so little on illustration, plans or excavation reports. However it should be noted that there was little of this work available to Stenton throughout most of his working life, and the little that was available was often misleading or poorly carried out (Stenton 1971). The major works of the interwar years were those generated by reactions to Pirenne's theories: Stephenson's (1933) attempt to fit Pirenne's model to England, a view which relied heavily on long-distance trade, and its rebuttal by Tait (1936). Whilst Tait's rejoinder 'The medieval English borough' held the academic field, ably demonstrating the evidence for the growth of towns and trade from at least the 8th century, Stephenson's book was more readable and contained maps and plans; it was influential for a generation. That Stephenson's approach should have remained on the reading lists for so long was unfortunate as it was not conducive to the idea of any large degree of town activity in England and thus stunted the search for evidence. Progress could be made even without major urban excavation and this was demonstrated by Sir Mortimer Wheeler in his publications on Viking and Saxon London (Wheeler 1927, 1935). These discussed a major centre in two periods on the basis of the chance finds, the surviving buildings (mainly churches), placenames, topography and documentary references. As would be expected, although the material was slim, Wheeler made a remarkable job of these early attempts.

At the close of the Second World War progress had been poor. There was a strong feeling in many quarters that the Anglo-Saxon town did not exist; there was a lack of ideas of what specifically an excavation should be looking for; to Anglo-Saxon scholars urban studies were irrelevant to the mainstream of their studies. Perhaps worst of all, most archaeologists at that time, unprepared by their own university education and unwarned by Anglo-Saxon specialists, were conditioned to the idea that the important-Roman-layers were cloaked by medieval and early medieval, overburden. Too often this was cleared off as a preliminary to the investigation of the Roman layers; this accounts for the disappointing results of early medieval date when excavating multi-period sites in the post-war period. Meanwhile there were a number of small-scale enterprises underway, first charted in such ephemera as the *Archaeological Newslerter* which shows Group Captain Knocker at work in Thetford, a scatter of enthusiasts rescuing material from the bombsites around Southampton's docks, a little rescue work in London and such continuing efforts as Jope's in Oxford. The fifties thus opened with at least some work underway. The decade saw several important excavations at Wareham, Cricklade and Oxford, with particular interest developing in defences-in fact the beginnings of problem-orientated excavations.

The floodgates of research opened in the 1960s. Tamworth (1960) was a small but important operation; Winchester started modestly but hopefully in 1961, blossomed throughout the sixties as a multi-period and highly professional excavation series, and thus deeply influenced British archaeology. The series of problem-centred, long-continuing scientific excavations, linked with a centre where the documentary research proceeded in parallel, all moving towards the illumination of a common problem, impressed the academic and the professional world and all those who worked with it. Before Winchester the bulk of archaeological endeavour had been rural, intermittent, small-scale and amateurish; the balance shifted in the mid-sixties and has not changed since. It has led to a myriad of units and serious endeavours in the majority of the important medieval towns in England. The results of this explosion of effort dominate the study of Anglo-Saxon life 25 years later. For those who did not live through it it is difficult to convey the excitement and scale of the revelations from 20 cities all working at the same time. It is also difficult to realize the sheer weight of data now available compared with a quarter of a century ago, the quality of the professional effort, the confidence to tackle major sites and the availability of a large group of technically skilled archaeologists to carry out the work. In 25 years we have grown up.

There have been serious problems due to over-expansion, vast expenditures leading to archaeology being at the mercy of the vagaries of government financing, the domination of the study by large-area excavations (themselves hideously expensive), and to the widening gulf between the universities and the workers. The achievements, however, have been striking. One way of marking the impact is to note the sites that are now clearly understood to be Anglo-Saxon town sites and as such are displayed to the public. York is a prime example with its walls, the section displayed with Roman, and then Anglian, Viking and later medieval layers clearly marked and explained. The Anglian Tower, the Coppergate site and its exhibition centre all attract the public. London places its Saxon and early medieval development on a par with that of the Roman city; its wharves and streets are fully explained whereas two decades ago it would have been concerned mainly with Boudicca and Mithras. The ramparts of Wallingford and Wareham are also open to the public, while there are a series of more modest sites such as the inconspicuous plaque for the Saxon bank at Lydford (Devon). In displays the development of the towns has a reasonable place, whether it be at the recent Viking exhibitions or in the local museums.

The recent spate of easily accessible works on the Saxons contain recognition of the place of the development of towns in the overall appreciation of the period. Pride of place should perhaps go to *The Anglo-Saxons* (Campbell 1982). This handsome volume contains substantial expositions of several areas of urban studies; the problems of continuity are squarely faced. There is a section on 'the burhs' with three town plans, a general map and two photographs including an air photograph of Wallingford. There is another picture essay on 'Norwich and Winchester' and a whole section (173-81) deals with the rise of towns; there is also an essay on Hamwih and on towns and trade. The urban studies are well informed and up to date; they have been brought up to the standard of the accompanying numismatic studies. The work has thus not only been done, but it has also been communicated. This level of information has reached the available town guides.

In the field of financing, the excavation of town sites has attracted its fair share of the available funds and effort. No longer is the layer above the Roman seen as overburden. The period from 1945 has also seen an expansion in the number of journals and societies involved in the study of the Anglo-Saxons; *Medieval Archaeology, Anglo-Saxon England* and the *British Archaeological Reports* all cover the area of urban studies, in addition to the long-established local and national journals.

Within the universities there are several lecturers in post whose main or primary interest is in the field of urban archaeology, and many more of the younger archaeologists who deal with early medieval topics have worked on or supervised urban sites. Therefore the input into undergraduate teaching has increased and with it the subsequent number of postgraduate research students.

The increase on all fronts in the study of early medieval urbanization is not simply to be equated with the enormous growth in archaeological activity in general, in university provision, available funds, excavation units, data and in public interest. We have seen not only growth but the creation of a subject.

Current thinking

This section of the paper will take the form of a commentary on the state of knowledge as portrayed in three recent standard works: Martin Biddle's section of *The Archaeology of Anglo-Saxon England* (Biddle *1976); Recent Archaeological Research in English Towns* (Schofield & Palliser 1981); and *Anglo-Saxon Towns in Southern England* (Haslam 1984). Biddle's article lays down the agenda for the other two works, and perhaps its eight sections should be commented on, particularly as 'it must be hoped that subsequent editions of this book (ie Wilson 1976) will provide an opportunity for revision as a result of the now burgeoning activity in all aspects of the study of the Anglo-Saxon Town'. Ten years later this revision is needed. The sections are of uneven length and it may well repay study if they are taken one at a time.

What is a town?

Since 1976 few major articles have appeared on this-perhaps the central-issue for archaeologists. It should be realized that tying ourselves in knots over these definitions is only worthwhile if we gain insight from the exercise. The structuring of the material and the explanation should always come from the sources, both physical and documentary. Biddle reviewed the state of knowledge in 1976. He pointed out that Beresford (1967) had been forced to consider in a legalistic way the sites that he investigated and followed a long tradition in proposing to accept 'any place that passes one of the following tests: had it a borough charter? did it have burgages? Was it called *burgus* in the Assize Rolls, or was it separately taxed as a borough? Did it send members to any medieval Parliament?' None of these can be satisfactorily and widely applied to Anglo-Saxon towns, owing to the lack of written sources, so Biddle offered:

> 'Since there is no basic agreement on what a town was or is, a conceptual definition was adopted according to which a place was accepted as a town if it possessed or fulfilled more than one of the following criteria
>
> 1 Defences
> 2 A planned street system
> 3 A market(s)
> 4 A mint
> 5 Legal autonomy
> 6 A role as a central place
> 7 A relatively large and dense population
> 8 A diversified economic base
> 9 Plots and houses of 'urban' type
> 10 Social differentiation
> 11 Complex religious organization
> 12 A judicial centre'

Apparently this is what is described by Edith Ennen as a *Kriterienbündel;* but compared with the elegance and truth of Stenton's simple statement that an Anglo-Saxon borough had a wall, a mint and a market, the list seems heavy and over-complex. The real problem is that we know what a town is, but have trouble expressing it. Biddle's list reveals many things, mainly about the state of Anglo-Saxon urban studies in the early seventies. It is heavily influenced by Continental thought, Biddle's own experience at Winchester and by specifically West Saxon considerations. Town definitions by Slav or Scandinavian researchers also define

the town only in their area. For example the British list is little help in Byzantium where mints are rare, although Scandinavians like the idea of mint = town; in Andalusia the towns had no planning and so on, local conditions vary, and on top of all this at least six of the criteria in the list are capable of subjective interpretation.

When we return to our sources we find there is nothing new with our problem. Al-Muqaddasi writing in the 10th century about the North African towns (*c* 985) says: 'I do not know which district possesses more settlements than this one; all are well populated and great. I am going to try to cite those towns which are smaller than many villages in other areas, but which are universally known as towns. My knowledge is based on first hand experience. Do you not see that Mukha, al-Jami'ayu and al-Murifa are indisputably towns, whilst Kafarsallam, Qasr ar-Rih' and Raj a tin, although larger, are without doubt villages?'

When discussing a particular town it is of interest what this 10th century geographer first noted: 'Tahert is also the name of the main settlement of the district . . . the town is surrounded by watercourses and trees; it is hidden amongst gardens, there are springs everywhere . . . It is a great city, very rich, vast, thriving, pleasant, with organised markets; abundant water and a good population; a city of ancient foundation, solid construction and magnificent appearence, but how can one compare the Maghrib with Syria? Where in the Islamic Empire has Damascus any parallel?'

Some of Al-Muqaddasi's criteria do not fit well with those of Ennen and Biddle; we would not be so impressed with water supply for example. He also raises obliquely another problem: what appears to be a great city to the inhabitants of one area would be considered very small in another area. The great 10th century cities of Constantinople and Cordova dwarf Lydford and Winchester. It is therefore difficult to grasp what criteria group these places under the same heading. Clearly there is a question of ranking but what one gains from Al-Muqaddasi as criteria are: 1 a concentration of population; 2 markets; 3 the agreed status of town; common sense forces us to add: 4 a high proportion of the population earning their living by trade, craft or commerce, the settlement being non-agricultural, non-clerical and permanent. Thus the castle, garrison and the great refuge and marshalling areas can be eliminated (for example in the lands of the Avars and Bulgars), and probably the great monastery.

The study of the early medieval town

This section can stand unchanged, for little has happened on the methodological front and his suggestion that the important material in local ephemera should be noted has been taken up by Schofield & Palliser.

The Romano-British foundations

Of the eight sections in Biddle's synthesis this is the largest, ranking with section 6 in length. Much of the length is taken up with a consideration of the twilight of the Roman town, although the real question for continuity is not how long the town lingered but whether any town site contained town life in the period 575-600; in other words before the reorganization of bishoprics led to some status being awarded to some Roman sites. In particular we are offered a peculiarly Winchester-based model of the *laeti* taking over a town site, a model which has not been seized on by any other town historian in Britain. In fact the question of continuity uses too few pieces of evidence spread too thinly over too long a period. In this particular the evidence of Continental parallels is of little worth owing to the short duration of the French pagan period. The towns at least stayed as bishoprics, but the evidence from the Continent is of very dramatic shrinkage in area of all the places that bridged the period 500-700 as recognizable central places.

The rise of the Anglo-Saxon town

Biddle's survey of the urban scene from 600 to the 850s depends greatly on the discussion of Hamwih and its Continental trading partners. Ipswich comes too late for his survey but the last ten years have revealed it as an important centre ranking with Hamwih. The discoveries of 1984-5 in York are also revealing a similar *emporium*. Across the Channel Quentovic, the most important of all the *emporia,* at least if the documentary sources are to be believed, is being uncovered around Vismarest on the south side of the Canche Valley. What is lacking from the synthesis is any real discussion of why this form of settlement appeared, apparently spontaneously, around the southern North Sea. Another theory links Winchester and Southampton into a pair sharing functions and so becoming a single city on two sites, a theory which again has yet to be followed by other researchers.

Towns in Mercia before the tenth century

The link between the *wics* and *emporia* such as Hamwih and the flowering of the Anglo-Saxon towns in the reigns of Alfred the Great and Edward the Elder is tenuous in the extreme. Biddle used the towns in Mercia, in particular Hereford, to provide some sort of link-up to the time when the evidence for towns and town foundation bunches dramatically in the 40 years from 880, for it is clearly realized that these towns, very different from the *emporia* that are contemporaneous with town foundations up to *c* 840, did not emerge completely formed.

Hereford comprised a settlement showing a regular pattern from *c* 700. It later contracted and was walled by the early part of the 9th century. The example cannot be unique, but the parallels have been slow to emerge. In the final pattern one would expect some of the following:

1 Parallels will be found in southern England: for example, dates are still to be established for the *first* stages of Wareham which would seem to be at least pre-Alfredian.

2 Perhaps the most important developments were taking place within those sites which had been Roman towns. Lincoln, for example, now has a shorter period of 'empty years' during the Dark Ages and the revival first of life in towns and then of town life should be noted in these places.

3 In view of the power of Mercia one would expect to find more evidence in Mercian towns of their beginnings in the century of Mercian greatness under Aethelbald and Offa (Fig 23). Settlements in Northampton, Stamford and Tamworth are recognized, but they are not specifically urban. There are also sites such as the Kingsbury at St Albans which should be carefully investigated because of their documentary evidence.

4 It is clear from the extent and complexity of the Offa's and Wat's Dykes that great efforts could be made by the mid-Saxon kingdoms, and the defensive aspects of the Dykes should have coloured Mercian views. But two points arise

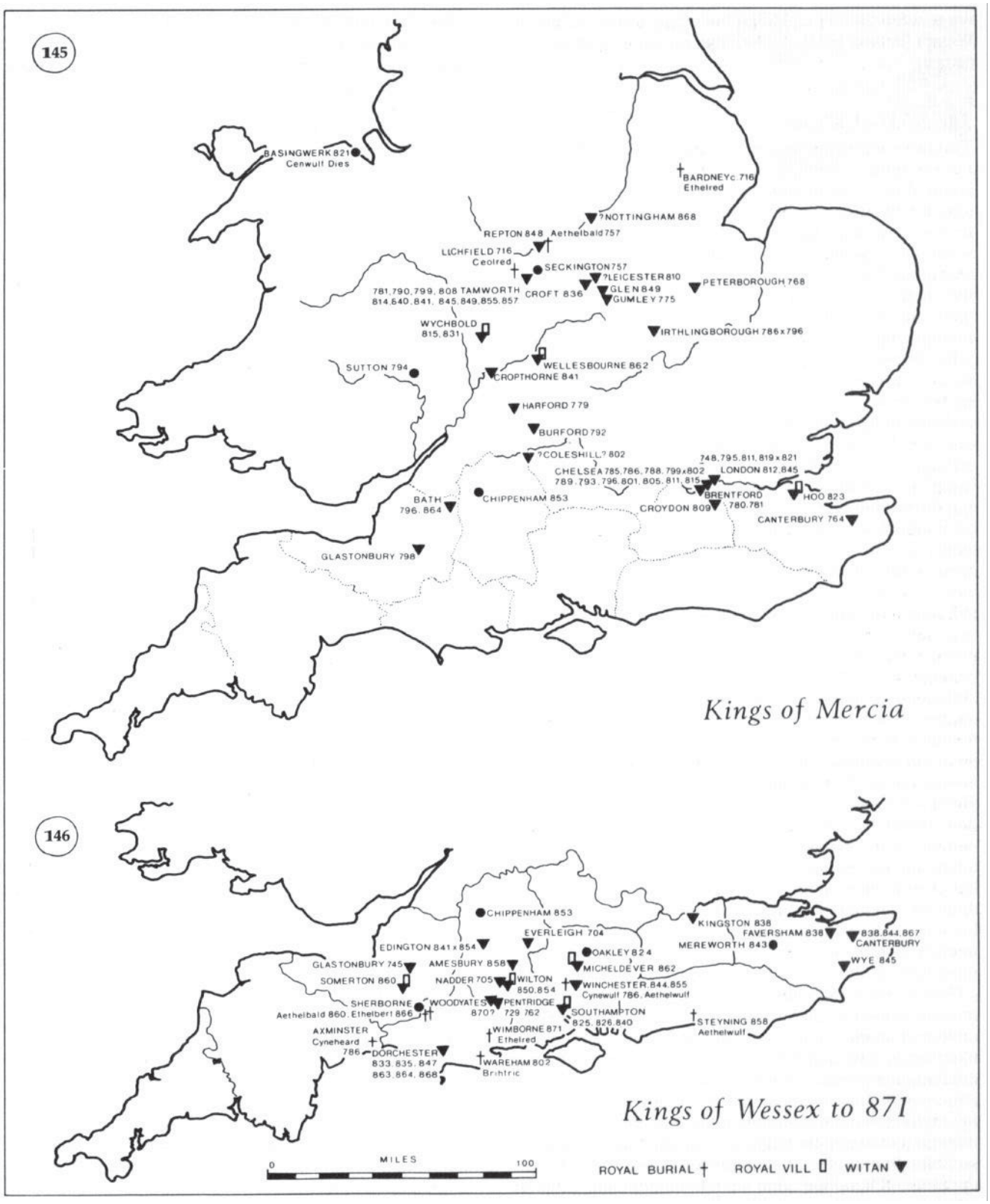


Fig 23 Map of the 8th and 9th century royal circuits to illustrate kingdoms (Hill 1981, maps 145-6)

from that: firstly our inability to find defensive enclosures supporting the Dykes, and secondly the question of whether settlements were being enclosed, which would be the clearest definition of a town.

It was a historian, Nicholas Brooks, who provided a framework for the development of the town in Anglo-Saxon England in these barren years with his examination of the charters where borough or at least *burh* work appears from

the mid-8th century in Mercia but nearly a century later in Wessex (Brooks 1971). Archaeology has yet to illustrate that pattern.

The burhs of Wessex

This forms one of the largest portions of Biddle's 1976 paper and the subject is amplified by Haslam (1984). The whole group of southern English towns forms an invaluable database for the study of Anglo-Saxon towns, since the area studies in Haslam's book and the local updating supplied by Schofield & Palliser (198 1) provide a range of sites. A weakness of all three works is the failure to appreciate adequately the range of towns, their ranking and their varying functions. Biddle (1976, 126-7) does make an attempt to disentangle 'forts' from 'towns' (see also Hill 1981, 143-4).

In like manner the ranking of the towns is important and an acceptance of the range of the towns is to be seen in many modern works. With it comes the realization that as the town proceeds up the ranking, the number and importance of its functions increases. In England there is the feeling that by the end of the period one can discern at least three tiers of towns: the national and provincial centre; the shire town; and the secondary marker (eg respectively, London, Shrewsbury and Warminster). It appears that many researchers would like to find an indicator for the ranking of these centres that is both objective and can be excavated easily. I doubt if it exists. What should be avoided when discussing the great range and overlap of functions of these sites is the invention of a new vocabulary of jargon words which finally obscure meaning, such as 'tending to become a centre of proto-urban activity' meaning that there is evidence in the archaeological record of goods gathered from a wide area and appearing to be present in some quantity. We should also be aware of the range of technical terms available to early medieval man and attempt to use these. Examples are the use of *burh* (fortified enclosure) *port* (marketplace) and mint. However, a further division was clear to the Saxons when Asser wrote *De civitatibus et urbibus renovandis et aliis, ubi nunquam ante fuerant, ccnstruendis?* (What of the cities and towns he restored and others he built where none had been before?) (Stevenson 1959, 77). Asses was referring to a division clear in placenames, descriptions and charters, between *Caester,* cities, places of Roman foundation, and the towns which were not so founded. He also goes on in the same sentence to refer to the *de novo* sites (the new towns).

Finally, when discussing the function and ranking of sites, it is of interest that the 9th century provides a very sophisticated and specific grouping of places minting coins which Charles the Bald and the other Carolingians offer on their coin signatures (and is reflected to a limited degree by Athelstan): *civitates-originally* Roman sites with bishoprics eg Amiens; *castrum/castellum-* primarily fortified sites eg Mons; *vicus-* an open market site eg Quentovic; *portus--* a secondary market site eg Valenciennes; *fiscus--* toll or tax site eg Lens. There -are also simple descriptions such as monastery (eg St Fursey at Peronne), palace (eg Compiegne) and mints. This is a complex pattern for a limited period (840-75) and could be made more complex by adding a range of defensive and temporary sites, for example the fortified bridges at Pont de l 'Arche, beacon and lookout sites, and simple forts. This complexity of response becomes even more marked in the succeeding period.

The extension of the burghal system

It is in the last two sections of Biddle's review that the most serious omissions occur. There is a model of the development of the town until 900. What is not fully contemplated is the complexity of the 10th and 11 th centuries. True, as Biddle shows, the extension of the burghal system can be charted at least to the reign of Athelstan in terms of reconquest and defence. But the true picture is more complex. It is at least four-dimensional: firstly, the number of sites increases; secondly, this happens through time; thirdly, the majority of existing sites (ie the successful ones) grow internally in population, variety of roles, productive capacity and importance to their hinterlands; fourthly, there is infilling, the foundation of small, and often specialized towns and markets. The fabric is wider and richer.

In this period there is an opportunity to explore this process of town foundation through the examination of the defences, which are of central importance. The circuit of the walls together with the evidence of town planning in streets, plots, water leats and wells, as well as walls, ditches, towers, gates and approach roads can reveal the intention of the authority which laid out a planned town or fort. Recent work on the size and shape of the burgage plots, for instance, has proved interesting with regard to the complexities of the layout. The subsequent history of the town is then linked with its commercial viability. In contrast with Continental examples, royal decisions affect a minority of towns after 930. The deaths of Towcester and *Cledemutha* as Saxon towns are probably a result of royal decisions, but the supremacy of York and London are basically a result of their strengths in trade and defence. What is clearly a European phenomenon is the grouping of mints and minor towns in areas favoured as the residence of a royal house; thus the clustering of small urban centres in Somerset and Wiltshire is paralleled by clusters in northern France for the late Carolingians, in the Ardennes for the early Carolingians, and in the Magdeburg region for the Saxon royal house.

It is in these periods- from the Wessex *burhs* of Alfred to the Conquest-that the study of structures comes into its own. For there is enough archaeology from enough sites to progress. From the rubbish pit to the urban cathedral, archaeology has been able to examine, explore and explain the actual contemporary buildings and structures (Fig 24). In fact the whole area has been a creation of the post-war years. Schofield & Palliser (1981) signal the great range of material now awaiting collation and comparison.

The Anglo-Saxon town reveals itself through its structures, many of them not specifically urban, and the relationship of those structures to one another. It has long been realized that the finds within a town-ceramic, bone, stone, etc-can reveal trade and marketing patterns, but what should also be carefully considered is that the structures reveal planning, and therefore intent, and control and maintenance. We can see the administration of the town and its place in the fabric of the whole society if we relate structures to each other and to the context of the whole state.

The structures associated with a town start far from that town; placenames reveal roads aligned on specific towns, and the market function is revealed by charter references to the portways (market roads). There are also bridgeworks linked specifically to towns and at least two examples of riverworks intended to improve access and trade. When the fields around a town are considered, can any provision for

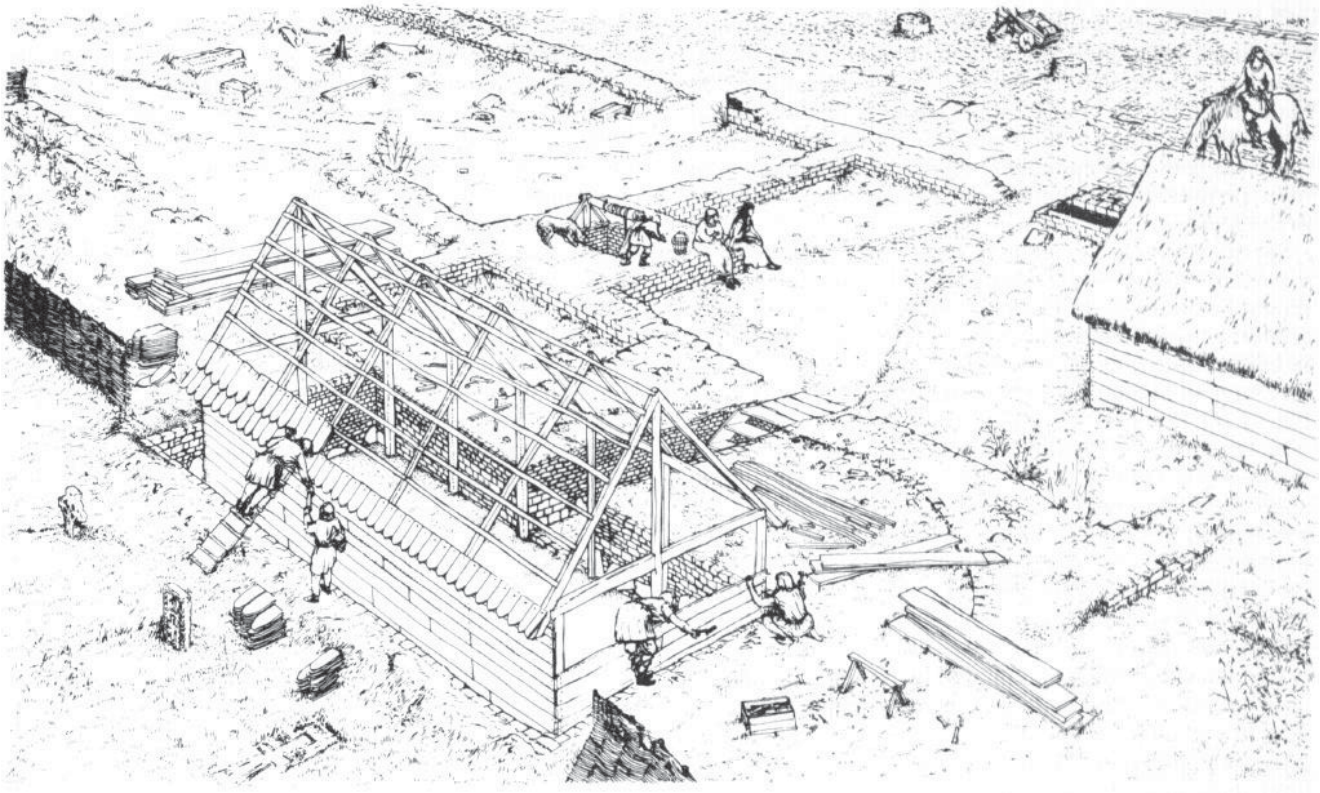


Fig 24 Lincoln: reconstruction of sunken-floored house inside the east range of the Roman forum in the 10th century (Tig Sutton, Lincolnshire Archaeological Trust)

market gardening, open spaces for fairs or pens for animals associated with travellers be recognized?

It is around the circumference of the town that specific urban structures are revealed. Winchester first alerted us to the suburbs of Anglo-Saxon towns and their growth in the 10th and 11th centuries; within those suburbs the ditch systems are reached, often skirted by a twitchen (which could be argued as indicating that some traffic avoided the town and skirted around, thus avoiding the toll). The ditches themselves can belong to a complex pattern of multiple ditches (eg Wareham, Christchurch, Lydford) and the planning of the ditch systems and their recutting reveal much of the military use of the Anglo-Saxon town. However, it is also likely that the ditch marked the limit of the specifically urban legal provisions possessed by the town and so it should also be recognized that ditches may enclose a town simply for that legal, definitive, purpose (eg Yeovil, St Albans). They can also be taken out around a suburb so that it too can share both in the legal rights and obligations of the borough. The walls, whether of turf, timber, stone or a mixture of materials, chart the design, renewal and upkeep of the town. Apart from the light they throw on the early history of the town, they also chart its prosperity and the threats which it faced. We need to know much more about the turrets, towers and the bastions–if they existed, their design and their functions.

The dignity of a medieval town is often represented by its walls–more specifically its gates–in coins, heraldry and seals. This focus on the gates should be reflected in our studies. *Burh* gates have been recognized in several places (Portchester, Winchester, Tamworth, South Cadbury) and they should be discussed not only with regard to their defensive function but also their legal function. It might be assumed that the gates would house not only guards but toll collectors, as the most convenient places to control access, and in a society that mirrors much of the practice of Old Testament Israel, it is here that one would expect that the judge who provided petty justice would be found. These roles should be reflected in the structure along with information about the traffic passing through, for it is clear that the gates are designed for wheeled traffic, and the portals provide a gauge for the size of the carts. Other questions still need answering concerning the relationship between these gates and the churches which, in later medieval times, were often established over them.

Much interest has been shown during the past two decades in the street pattern, and to a lesser extent in the streets themselves. We should not divorce the streets, lanes and open spaces from their function; we should be ready to note change of use, abandonment, new ways; note that remetalling or the build-up of debris can offer insight into the maintenance (and therefore control and administration) of the arteries of pre-Conquest towns. The process of encroachment both from the sides and from colonization on top of the streets should be noted and we should be prepared to find 'street furniture' – should we not expect crosses, shrines, gallows, pillories, post and pits for bull-baiting and toll booths to be set up? Finally we should not regard the streets alone but along with the total enclosed space, for the apportionment of that space into various zones is mainly controlled by the layout of the streets and lanes (eg at Winchester): a zone of defence with the walls, a zone of refuge with large plots and then two zones of varying size of plots for commerce and industry. We should be aware of

elements within the plan of walls, streets and property boundaries for areas for administration, particularly for the moot (eg Lincoln and Yeovil). Was provision made at the initial stage for the church? The examples of Cledemutha and medieval Southampton would seem to argue against this. Was provision made for the garrison? The area of the royal garrison of Wallingford has always been a matter of lively debate.

Specifically urban structures such as the guildhalls or moneyers' houses may be discovered, but special interest should be shown in the churches and their several histories of development. One would expect to see by now population estimates made from the urban churches in the same way as they have been made in Ummayad Spain from the ground area of the Friday Mosques.

In the urban provision there is also the question of 'services'. Is the example of Winchester's water system unique? Continental 9th and 10th century parallels suggest not; therefore should Cricklade and other *de novo* sites be considered, and are the wells found on the corners of plots a provision of the municipality? In the setting up of towns the failed sites, particularly Rhuddlan (Cledemutha), are going to be central to our understanding.

The plots and houses themselves have been extensively investigated, and the results of such sites as Brook Street in Winchester and Coppergate in York will condition the research priorities of the next generation. We should learn from them how important it is to integrate study of the buildings, spaces, pits, access ways and finds against the dimension of time within the one plot. In this respect, the study of the plots and their contents, we can probably be content that the high standards of observation and record have been maintained and little has been missed.

It is with the function of these urban centres that there are often problems, for it is relatively easy to find potsherds but more difficult to excavate town councils and their deliberations.

Later developments

The later developments bridge the period between c 930 and the Conquest. In this period there are many strands to be untangled, a new complexity of town types, a growing range of functions. The *burhs* of Athelstan appear to belong to a reorganization of the burghal system; there is an increase in knowledge when the mint evidence increases and this shows a process of constant addition to the number of sites to be considered. The emergency *burhs* of Ethelred then appear, and finally another set of sites, apparently founded in Anglo-Saxon times but first evidenced in Domesday. There are some documents to help us, and the publication of the Winton Domesday (Barlow *et al* 1976) is a great addition to the readily available services. It is clear that the town of Domesday has the complexities and range of the true medieval town and there is a great need for work on this part of the period.

The model and the framework

So the work of Biddle offers a framework in which to work; it is developed in details by Haslam; and the Schofield & Palliser volume offers a route to update the available data. There are gaps and inconsistencies in the 'model', particularly in the late stages and with regard to northern England. The whole, however, would have been understood and approved by Wheeler, There is a lack of a sense of the dynamic which drove the engine, though there is continual growth, spread, and development. With the lack of a dynamic and of a clear exposition of function in the later period we fall into the hands of the theorists. Since Stephenson and Tait's day there has been a linkage in all major volumes and articles of towns and trade. This may be mainly that Pirenne set the agenda and subsequent scholars accepted or disputed the dictum that no town could exist without long-distance trade. The waters were then further muddied by the questioning of much of the evidence thought to demonstrate trade by relabelling the same goods as 'gifts' in a process of gift exchange; these and other labels then obviated the need to accept trade. In fact Grierson's original article (1959) offers an alternative means for the transmission of goods in some cases; he was not suggesting there, as his followers seem to be suggesting, that all goods move by these 'anthropological models'. However, the removal of trade leads on to a complexity of problems, made more difficult for those brought up on the texts and on the classic works of Anglo-Saxon scholarship, by the need to learn new and ever-changing vocabularies. The most recent, and extreme, cases have been the two works of Hodges (1982, 1983). I would not wish to criticize an approach which I do not fully understand; suffice it to remark that it would appear perverse to give more weight to a few reports of anthropologists of the customs and practices of a 19th and 20th century set of disparate tribes, chosen because they are different, than the contemporary, early medieval, reports of the people we are studying. There is much to be gained by rereading the sources, even the well known Anglo-Saxon sources reread after ten years. There is also a mass of material on the European town in the fine editions of the charters of the Carolingian kings and their successors, in the polyptyques and in excavation reports from Spain to Hungary. There is no lack of material. Unfortunately fashion dictates the use of anthropological models, and to do this before digesting the more relevant, and voluminous, material appears to be wrong-headed. It may well be a useful approach in prehistory but not, I suggest, in early medieval Europe.

We should be warned by what has happened to the 'New Geography' and spatial analysis. That these approaches should have been the received wisdom of geographers for many years is not the problem, but what is surprising is that we should adopt many of their more simplistic approaches and hold to them long after they have been abandoned by geographers. There is a need for an underlying concept, a dynamic one, that accounts for change over time and space. The growth of the Anglo-Saxon and Continental town cannot be divorced from changes and growth in the society as a whole. Towns should be seen as a response to certain stimuli and it is this pattern of stimuli and response for which a model is needed. We should rake note that the model will be highly complex and interactive; we should not expect to find a model as simple as the water wheel.

If we do not have a framework we shall not pose the questions that lead to problem-orientated excavations and we shall be relegated to digging blindly. That framework, however, should be pragmatic, should grow from the observations and sources and should be in harmony with the Continental developments.

Conclusion

It is difficult to offer advice on the direction of urban studies in the pre-Conquest period for two reasons; firstly there is the financial fact that our funding relies on central and local government in a variety of ways, some overt, some covert. Thus, secondly, we are constrained, and are likely to continue to be constrained by the limits imposed on university, municipal and national resources (Selkirk 1983).

Then what priorities should be suggested to rescue archaeologists when faced with an Anglo-Saxon town? As anyone who has tackled the realities of urban excavation will know, once an excavation starts, the day-to-day problems and discoveries are such that priorities become a luxury; nevertheless it is the residential, industrial and trade areas that need the priorities awarded to them. We should excavate the mundane, for it is here that the reason for the existence of the town is to be found. Balance should however always be sought, so that features such as defences, waterfronts etc should not be ignored. Some topographical subject areas are dealt with in more detail by other contributors in this volume: for example defences (ch 7) parish churches (ch 13) and waterfront (ch 14).

The large unit, such as London, or York, is essential in offering a detailed study which affects all towns, and where the 'critical mass' of researchers can come together. It is inconceivable that we could proceed without the urban unit and still have a credible research programme.

The theoretical approaches, the framework for town studies must be strengthened. This could be done by the elaboration of thesis in Biddle, Schofield & Palliser, and Haslam. A dynamic must be supplied and more work is needed particularly in the 10th/11th centuries and in attempting to bring in all areas of England, not only the south.

Finally a few practical steps can be suggested:

1 There is an enormous amount of unfinished business, not just in unpublished reports but with the texts and editions that are central to our understanding. The progress on charters and on town mapping has been glacial.

2 We should have the courage to initiate some fresh research and the 'greenfield' sites (for example Burpham, Cledemutha or Pilton) would not only provide answers at a modest cost but would, because of the ultimate failure of the sites, reveal much about the origins and layout of towns at particular periods.

3 The CBA should continue its role as a meeting place for various disciplines in its specialist committees and also take a leading role in fostering specialist conferences. The role of European scholars should be recognized and the small funds necessary should be found to bring them, and enlightenment, to Britain and to a wider audience. In the absence of an 'Institute for Urban Studies' on a Continental model the CBA has a wide role, simply because of the lack of a suitable forum. We need a body to advise MA or PhD students, for example, on topics of research that are not only rewarding for them but have a national relevance.

4 Finally a continuing role should be restored to the amateur bodies, particularly in these straitened times. The amateur and county bodies, once the pride of British archaeology, have sadly declined in these last decades. They are a resource–not simply as fund raisers; we must consider their training and organization.

It is a matter for celebration that the subject of Anglo-Saxon towns has established itself on so many levels with the public, in the general textbooks and within the universities. Among specialists of all hues, urban growth is established as part of the early medieval world; its problems are seen to be central to the study of the period; the excavation of pre-Conquest layers is given a priority equal to that of any other epoch. This impetus should not now be lost, although we need to digest so much material. We must progress on the basis of interdisciplinary studies; the highest professional standards; and within an international framework. It is hoped that we may see all approaches, from the massive and intense urban site to the lone topographer, given their due weight. In the next 25 years the study will do well to match the solid gains of the last quarter-century.

Bibliography

Armitage, E S, 1912 *Early Norman castles of the British Isles*

Barley, M W (ed), 1977 *European towns, their archaeology and history*

Beresford, M, 1967 *The new towns of the Middle Ages*

Biddle, M, 1976 Towns, in Wilson 1976, 99–150

Brooks, N P, 1971 The development of military obligations in eighth and ninth-century England, *England before the Conquest. Studies in primary sources presented to Dorothy Whitelock*, (ed P Clemoes and K Hughes)

Campbell J, 1982 *The Anglo-Saxons*

Ennen, E, 1953 *Frühgeschichte der Europäischen Stadt*

Gould, J, 1967–8 Tamworth: The Saxon defences, *Trans S Staffordshire Archaeol Hist Soc*, **9**, 17–29

Green J R, 1883 *The conquest of England*

Grierson, P, 1959 Commerce in the Dark Ages: a critique of the evidence, *Trans Roy Hist Soc*, **9**, 123–40

Haslam J (ed), 1984 *Anglo-Saxon towns in southern England*

Hill, D H, 1981 *An Anglo-Saxon atlas*

Hodges, R, 1982 *Dark Age economics: the origins of towns and trade AD 600–1000*

——, 1983 New approaches to medieval archaeology part 2, in *25 years of medieval archaeology* (ed D A Hinton), 24–37

Lobel, M D, 1969 *Historic towns*

Maitland, F W, 1897 *Domesday Book and beyond*

Pellat C, 1950 *Description de l'Occident Musulman au IV^e^–X^e^ siècle*

Schofield, J, & Palliser, D (eds), 1981 *Recent archaeological research in English towns*

Selkirk, A, 1983 Archaeology—the next twenty-five years?, in *25 years of medieval archaeology* (ed D A Hinton)

Stafford, P, 1985 *The East Midlands in the early Middle Ages*

Stenton, F M, 1971 *Anglo-Saxon England*, 3rd ed

Stephenson, C, 1933 *Borough and town: a study of urban origins in England*

Stevenson, W H, 1959 *Asser's life of King Alfred*

Tait, J, 1936 *The medieval English borough*

Wheeler, R E M, 1927 *London and the Vikings*

——, 1935 *London and the Saxons*

Wilson, D M, 1976 *The archaeology of Anglo-Saxon England*

5 The medieval period

D Palliser

The pursuit of medieval urban archaeology has of course advanced far since Biddle castigated its neglect in 1968 and pointed to important excavations still concentrating 'entirely on the Roman levels' (1968, 109) (Fig 25). Yet there is still a greater emphasis on early than late medieval levels, in part, admittedly, because later cellars and other intrusions are more likely to have destroyed the latter than the former, but in part also because of a belief among many historians and archaeologists that archaeological excavation is more fruitful for the 8th-11th centuries than for the 12th-16th. The later period, it is argued, is relatively well understood from documentary records, whereas for the crucial periods of urban origins and early growth documentary records are scanty or non-existent and the contribution of physical evidence much more important.

Yet, as Biddle also pointed out (1968, 110), the challenge of the better documented later Middle Ages is at least as exciting, because archaeological and documentary evidence complement rather than duplicate one another, and 'it is only through a combination of these two complementary sources . . . that a balanced account of urban history can be written'. It is a point that he and his collaborators abundantly proved on the Lower Brook Street site at Winchester, where a large-scale excavation of houses, industrial premises and two parish churches, coupled with the abundant documentation for owners and tenants, shed an astonishing degree of light on one of the less prosperous quarters of a great medieval city. The great success of the Winchester excavations (1961-71), on later as well as earlier medieval sites, has of course been followed by important achievements elsewhere, to such an extent that towns have been adjudged by Professor Harvey 'one of the biggest successes' of late medieval archaeology over the past quarter-century. They are places where 'archaeologist and historian working together have begun to show what may be learned when the written sources and the material remains are investigated side by side to build up a total picture of the past' (Hinton 1983, 75, 77). And if historians of the medieval town have much to gain from this, so too have archaeologists, not least by providing a 'control' for the interpretation of archaeological data for periods with far less documentary evidence.

There are still, however, historians and archaeologists working on later medieval England who can urge the primacy of 'their' type of record, despite the eloquent objections of Dymond (1974) and others. To say it again, both sources are complementary. Archaeological evidence is strong on daily life, common everyday objects, and the economic and cultural life of townsmen, but 'by its very nature does not lend itself easily to the solution of specific "historical" problems' (Astill 1983, 217). Documents are by contrast largely administrative, legal and financial, throwing light on civic rulers and on named individuals of the upper and middle strata, but having much less to say on the poor, the humbler crafts and trades, or the physical environment and common objects in daily use.

Awareness of these complementary strengths and weaknesses would avoid the still widespread attempts by historians to discuss major issues of urban prosperity and decay without any reference to the archaeological evidence (eg Bridbury 1981; Gottfried 1982), and would encourage more studies synthesizing documents, standing buildings and the results of excavations, like the recent study of Worcester (Carver 1980). It would also reduce the volume of urban excavation reports which either describe antiquarian detail unrelated to important questions, or try to fit the archaeological evidence to the known documentary history in a naive fashion. Among the urban summaries in the 'Medieval Britain' section of *Medieval Archaeology* appear statements like 'the site did not provide any evidence to refute the postulated date for the 12th-century new town' (21, 243), or 'nothing was found to give any clearer indication of the date of construction than that indicated by documentary sources' (26, 214). It is this type of conclusion that, perhaps unfairly, reminds one of Sawyer's (1976) warning about archaeology becoming 'an expensive way of telling us what we know already'.

The range of urban communities

To place medieval work in perspective, it is worth stressing that although towns multiplied during the nearly five centuries under review, and many increased considerably in size, they remained small communities in an overwhelmingly rural island. That is true whether they are judged by the standards of our own urbanized society or by those of late medieval urbanized territories like Flanders or north Italy. Even by the 1520s there were only about a dozen British towns with over 5,000 inhabitants (all in England except Edinburgh), and they accounted for only 5% of the English population. At the same period there were about 25 west European towns of over 40,000 inhabitants, only one of them (London) British.

Nevertheless, it would be wrong to assume that only a tiny fraction of medieval archaeological effort should be devoted to the towns. One reason is that those larger medieval towns with good surviving deposits have much to reveal on the agriculture and society of their hinterlands as well as on trade and on the activities of the town-dwellers themselves. As Keene has put it, 'towns have some claim to be more representative of the nature of the society of which they formed part than any other type of site' (quoted in Schofield & Palliser 1981, v). Secondly, many communities in later medieval England which had well under 5,000, or even under 1,000, inhabitants, were recognized as urban in some sense. Taking England alone, Beresford (1981, 59-60) has counted 640 boroughs in existence by 1500, and they were heavily outnumbered by market centres–possibly over 2,000 at their peak in the 13th and 14th centuries. Of course, the actual number of towns allowed depends on the definition (whether legal, economic, or demographic), and Harvey (1965) has suggested that instead of dividing medieval settlements into towns and villages one should think of three types: the larger and more complex towns, the

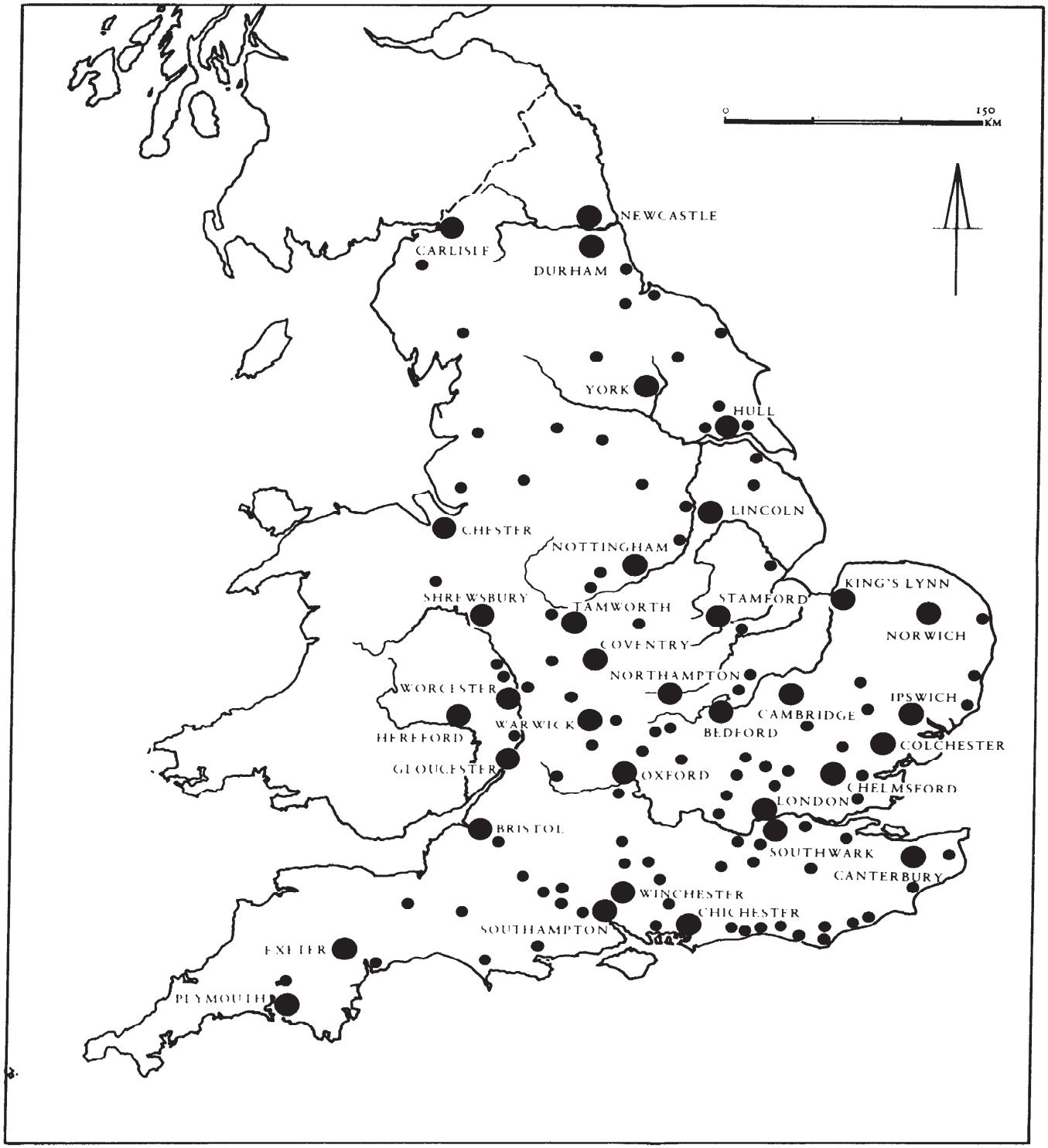


Fig 25 Distribution of excavations in English towns 1956-80 (Clarke 1984, fig 83)

agricultural villages, and between them 'local market centres which differed from villages in having . . . a substantial proportion of traders and craftsmen whose services would be drawn on by the villages of the surrounding area' (Hinton 1983, 77-8).

There is another commonly drawn distinction *within* the range of urban communities which is worth questioning before the derailed evidence is reviewed: that between organic and planted towns, firmly made in Beresford's magnificent study of medieval 'new towns' (1967) and faithfully followed in much of the literature since (eg Barley 1976, 19-56). Beresford identified 251 English and Welsh towns planted between 1066 and 1368, to which a few more have been added since (eg Lichfield: Taylor 1968-9; Bassett 1982a). It is possible, however, to make too sharp a distinction between natural and planned growth, for there was in reality a continuum from haphazardly growing towns to the minority of thoroughly planned communities like Salisbury and Winchelsea. Many town plans, superficially of one date and uniform planning at first, yield on closer inspection a series of units of different periods and with differing degrees of regularity (eg Conzen 1968, 122-7; Brooks & Whittington 1977; Slater 1980, 1983). And even where the town is a clearly planned one, interpretation of the character of settlement needs field survey and excavation as well as documentation. Two 12th century Midland grid towns, Lichfield and Stratford (Fig 26), seem to have been laid out on agricultural land, with their street lines and perimeters determined by field boundaries and ridges (Slater & Wilson 1977, 9; Bassett 1982a, 116).

What can be agreed is that however the line is drawn between urban and rural communities in medieval Britain, and into whatever categories the towns are divided, they were both numerous and very varied in their size, topography, and histories-so varied, indeed, that it is misleading to generalize about 'the' medieval town. As Maitland put it (1898, 36), 'I am far from thinking that any one history should be told of all our boroughs'. For that reason alone, a significant archaeological contribution to urban history requires the investigation of a large sample of widely differing towns; yet this has not yet been achieved. The directors of the major units in London, Winchester, York, and elsewhere have been able, despite the pressures of redevelopment which cut across any ideal research programme, to achieve some sort of balance *between* sites *within* their towns. The same success has not, however, been achieved nationally, or even regionally, in distributing resources between towns, a point to which I shall return after reviewing recent work and some of the remaining problems.

Historical problems

Taking the period chronologically, there are two main phases, one of urban growth and one of contraction, bounded roughly but conveniently by the Norman Conquest, the Black Death and the Reformation. 'Growth' and 'contraction' are perhaps begging the question, for they do not necessarily imply a period of growing prosperity followed by one of poverty and decay: indeed, some archaeological evidence, and some historical arguments, point the opposite way. Yet if we consider simply the numbers and size of towns, there is no doubt that in general they varied in accordance with national demographic trends, a period of growth already underway before the Norman Conquest, followed by a period of contraction and stagnation from *c* 1350-1530.

The first major problems, in point of time, concern the impact of the Norman Conquest and the interpretation of the Domesday Book. Domesday may have had more weight placed on its urban entries, both by archaeologists and documentary historians, than they can properly bear, for it does not attempt a standardized and comparable entry for every borough. Some towns were omitted, notably London, Winchester, Tamworth and Bristol; the East Anglian towns of vol II are provided with full numbers of households, whereas the entries in vol I give only minimal burgess figures. An account of two West Midland boroughs a decade or so later credits Winchcombe with 141 burgesses (as against 29 in Domesday) and Gloucester with 614 (as against 81). 'We must . . . face the likelihood that settlements in the central and western part of the country were somewhat more numerous and populous than a straight reading of Domesday figures will allow' (Sawyer 1976, 196-7). Here is an area where archaeologists need to quantify the size and shape of settlements *c* 1066-86 without trying too hard to fit their findings to the Domesday framework.

The most systematic urban entries in Domesday appear to be those recording the planting of royal castles and the numbers of houses displaced, although even there the archaeological record of the streets and housing cleared, as at Oxford and Winchester, tells us a good deal more. As for urban churches, mills and markets, the royal commissioners make no attempt to number or locate them systematically, and it would be unwise to argue from their silence. There are also numerous entries which cry out for archaeological testing, such as the much disputed references to 'waste' tenements. At York, where they are often identified as houses destroyed by William I in the Harrying of the North, archaeological corroboration is not yet forthcoming, though at Durham (not recorded in Domesday) the burning of tenements in the late 11 th century and their replacement on modern alignments does very likely indicate the devastation of 1069-70 (Carver 1979, 71).

The records of the Norman church also indicate that, for reasons unconnected with the Conquest, some towns were flourishing at the expense of others' decline. An ordinance of 1075 commanded English cathedral sees to be moved from villages to towns, and altogether six sees were transferred in the late 11 th century (Stenton 1971, 666-7), but more work is needed to corroborate this evidence archaeologically. The removal of one see from Thetford to Norwich *c* 1095 fits with known evidence for the decline of Thetford, but that decline has yet to be explained (Schofield & Palliser 1981, 99). Similarly, Davis has argued (1976, 16-18) that Coventry must have been an important town by 1102 to have acquired a cathedral, despite its omission from Domesday, but 'no systematic excavation has been done where the earliest town is likely to have been' (Rylatt 1977, 12). One excavation within 140 m of the cathedral did reveal 'semi-rural' conditions as late as the 12th century (Schofield & Palliser 1981, 27-8), but the site lay outside the postulated original urban core.

Between 1066 and 1348 lies the great period of recorded growth in the number and size of towns. In England alone some 2,500 markets were granted or confirmed, while 495 of the 640 medieval boroughs are recorded by 1300. New towns were created, while many older towns had planned

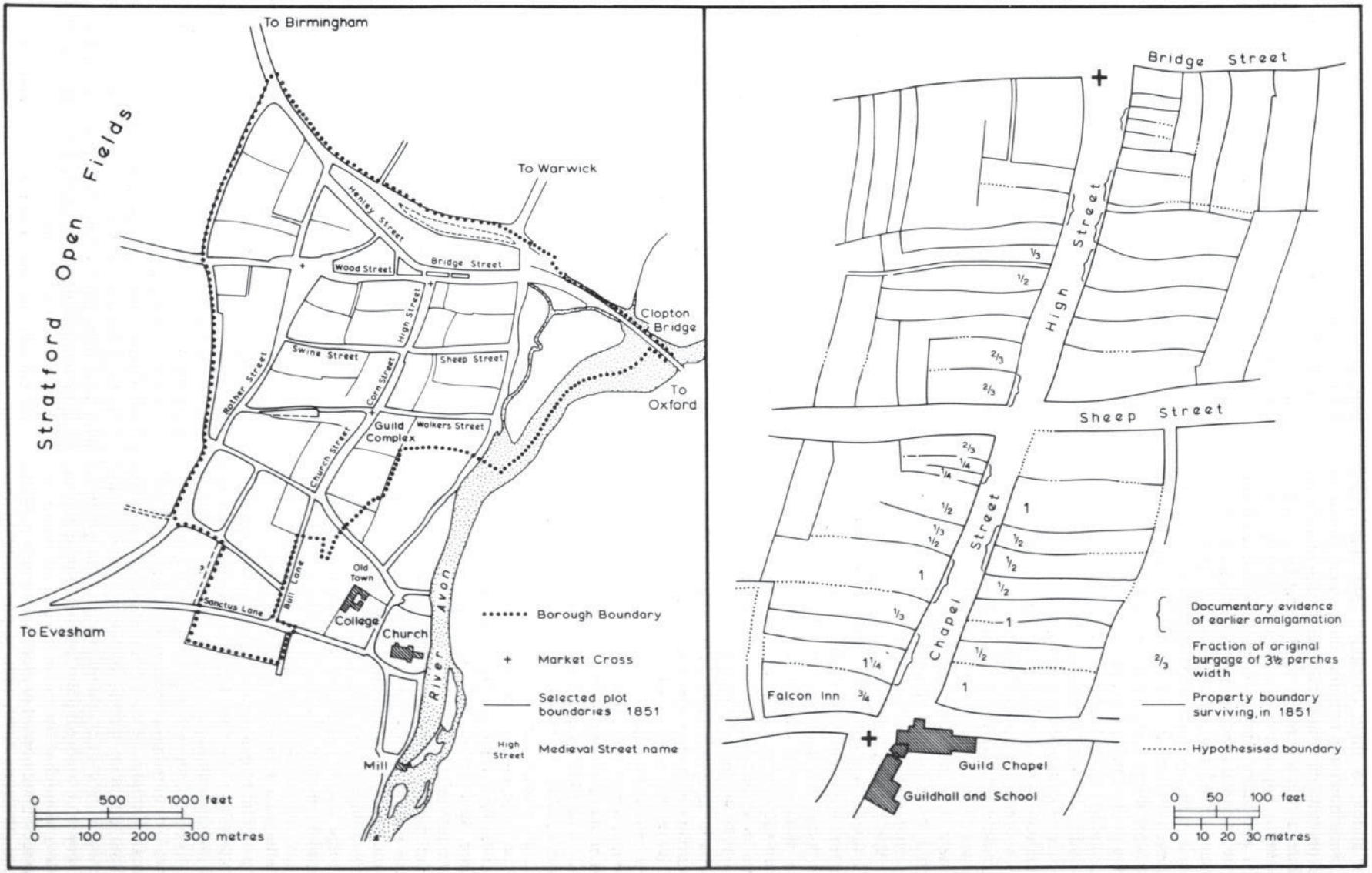


Fig 26 Geographical analysis of Stratford-on-Avon, illustrating how the burgages show evidence of being adapted from earlier open-field strips of the village (Slater 1980)

extensions added to them. Between 1348 and 1530, however, the process was reversed: most towns shrank in size, while promotions of new markets or boroughs almost ceased. Much of this is what one would expect in a country first growing in population and then contracting. More interesting, and more relevant to archaeological investigation, is the relationship between size and prosperity. Some historians have linked the population decline of the 14th and 15th centuries with a general urban crisis or decay; others (eg Bridbury 1981) argue that the swollen populations before the Black Death spelled poverty and overcrowding, and that the later shrinkage, by contrast, meant a higher standard of living for the survivors.

One means of testing the alternatives is to study the quality and size of domestic housing at different social levels (eg Carver 1979, 1983). The concentration on the atypical stone houses of the urban rich in the 12th and 13th centuries can distract attention from the fact that, for many, timber-framing was a great advance on earlier dwellings, like the early 13th century cob house uncovered at Wallingford in 1972 but still unpublished (Simpson 1973, 14). How far does 14th and 15th century housing reveal growing prosperity, and how far decay? At Winchester, one city in undoubted decline, at least some of the Brook Street housing was consistent with 'a long period of devolution and decay' (Biddle 1969, 309: again, the full evidence is still unpublished), but at Lincoln, equally notoriously in decline, demolished houses were replaced and not left as vacant sites. At Chester, in spite of late medieval decline, two sites showed evidence of new development, and at Norwich the evidence of surviving buildings suggests 'that very many houses were built between about 1470 and about 1525' (Campbell 1975, 17).

Yet other towns seem to have had areas of abandoned housing, a clear sign of population decline if not necessarily of economic decay. Much of the area taken into Hereford by a 12th century walled extension, for instance, has been shown to have been under cultivation by this period, while at Nottingham most of the eastern suburb had become derelict by *c* 1350, not to be reoccupied until *c* 1600 (Schofield & Palliser 1981, 46, 80). The evidence needs careful sifting, however; at Lynn there was so little material from the late 14th to mid 16th century that it was 'difficult to detect any change in the extent of the built-up area', and although one site had almost no pottery of this period, suggesting abandonment, 'the documentary evidence suggests otherwise' (Clarke & Carter 1977, 430).

More specific events, rather than processes, can in principle' be used to identify precisely datable layers in the archaeological record. Of the documented devastations of towns in civil wars and foreign invasions, some have already proved very helpful in this respect, like the French descent on Southampton in 1338 (Platt 1973, 111). Others have so far eluded archaeological confirmation, notably the Lancastrian sack of Stamford in 1461, and the natural suspicion must be that the contemporary chronicles exaggerated the destruction (Richmond 1983, 51 n7). It should also be possible to test the extent of fires which allegedly destroyed whole cities (eg York in 1137: Harvey 1965) or large sectors of them. At Norwich the fire of 1507 has already been shown to have destroyed much of the poorer housing excavated; at Northampton St Peter's Street proved to have been burned down *c* 1500 (Williams 1979, 147); and at Lichfield the suggested replanning after a major fire of 1291 (Bassett 1982a, 107-8, 118) should be testable. Likewise, if mortality from the initial outbreaks of bubonic plague was as high as is usually believed, corroboration should be possible. Stow, for example, recorded the opening of two special London cemeteries for plague victims in 1348-9 (Kingsford 1908, 2, 81-2), the excavation of which might be richly rewarding.

The function of archaeology

If, it must be admitted, archaeology does not lend itself easily to the solution of specific 'historical' problems, it does play an important part in reconstructing the urban fabric and its changes over time. Given the wealth of' evidence pieced together at Winchester since 1961, other urban units have been slow to follow this example in combining documentary, architectural and archaeological evidence. Good use has been made at Oxford of the remarkable tenemental survey by H E Salter, at Southampton of the God's House cartulary and 1454 terrier, and at Hull of the fee farm rental of 1347; yet more towns than is usually realized possess extensive urban surveys which could be used fruitfully as frameworks for rescue archaeology. Examples in print include the Cambridge Hundred Roll of 1279 (Maitland 1898, 142-60), the York husgabel roll of *c* 1284 (Palliser 1978), and the Gloucester rental of 1455 (Stevenson 1890; Langton 1977).

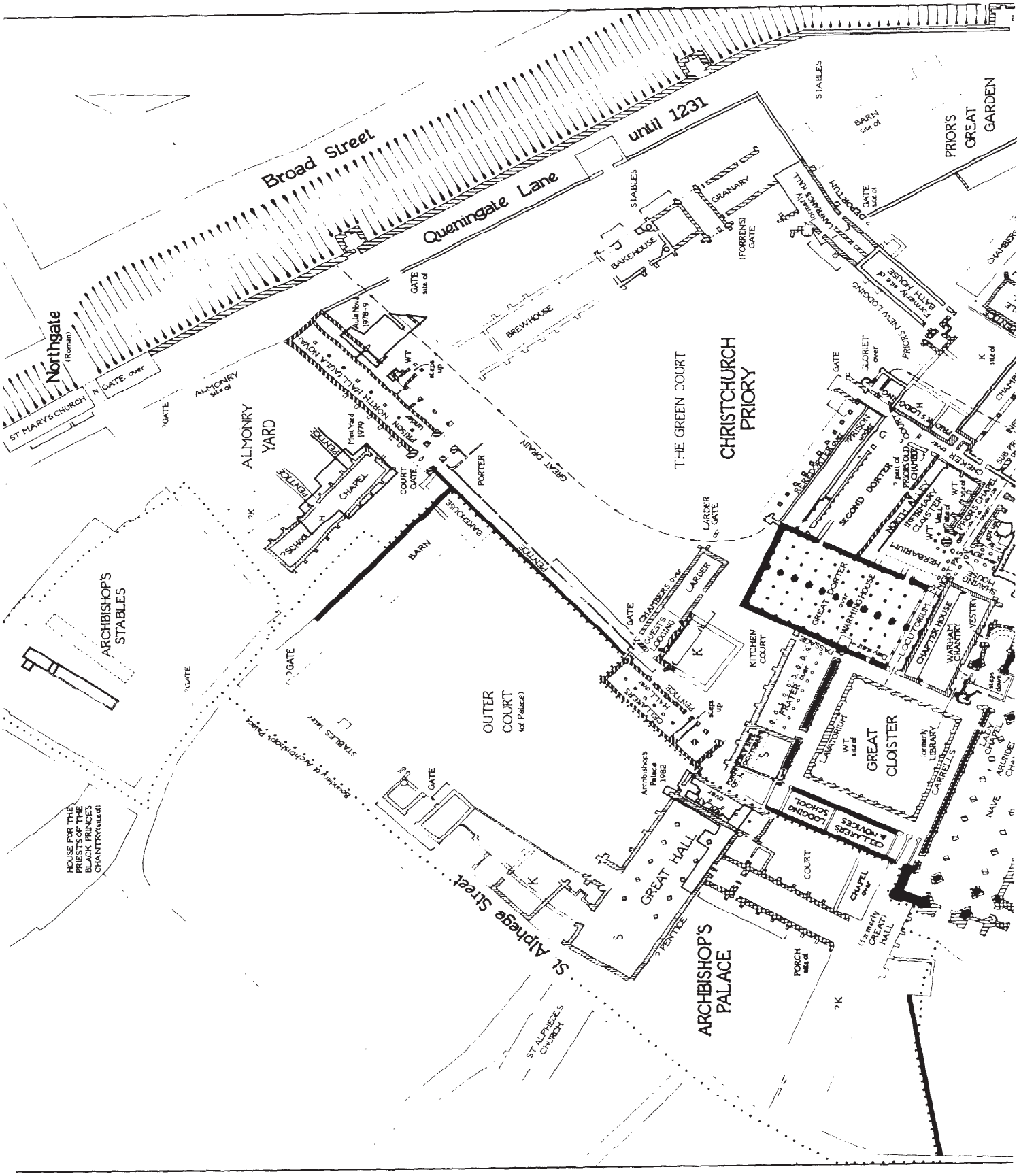
One of the most important tasks for any town is to date the main elements of the town plan, especially the pattern of streets and tenement boundaries. Until recently historians and geographers analysed these entirely from documents, maps and fieldwork; such was the case even with such splendid studies as Beresford's on the 'new towns' (1967) or Conzen's plan analyses of Ludlow and Conway (1968). Yet archaeologists have recently demonstrated that a complete reliance on documents and maps can prove misleading. Only excavation could have shown, for instance, that some at least of Yarmouth's rows were laid down no earlier than *c* 1200, well after the origins of urban settlement (Schofield & Palliser 1981, 43).

The alignments of some streets and tenement plots prove to have remained unchanged since well before the documentary record, eg since *c* 900 in parts of York. In other towns the tenement divisions can be traced back at least to the later Middle Ages-to the 13th century at Lynn, for instance (Clarke & Carter 1977, 427, 430) and to the 13th and 14th centuries in Aberdeen and other Scottish towns (Talbot 1980, 17). In some major towns the street system still remains to be firmly dated, as at Norwich, where no pre-1300 street surface has yet been excavated. Whole streets prove to have been closed or diverted in post-Conquest times, for the planting of Norman castles or the enlargement of religious precincts. Where a lost street has been found and sectioned, as beneath the castles at Winchester and Oxford, the evidence is especially valuable, for the 'sealed' and dated evidence of the street surfaces themselves as well as the houses fronting them. So many town centre streets have been widened and repeatedly disturbed for service trenches that, as in London, 'we know very little about the construction and shape of the streets' (Schofield & Dyson 1980, 48).

The controlling plan element in most larger towns was the circuit of defences, documented in stone or earth for at least 137 English and Welsh towns. Our knowledge of their nature and chronology, as Barley remarked in taking that



Fig 27 York: excavations at the site of the Vicars Choral, Bedern; medieval and post-medieval structures under investigation (York Archaeological Trust: J Bailey)


Broad Street
Quemingate Lane
until 1231
Northgate
(Roman)
ST MARY'S CHURCH
GATE over
ALMONRY
site of
ALMONRY YARD
GATE
site of
Hall Now
(1978-9
WT
site of
steps up
PRISON
NORTH HALL (AULA NOVA)
Flint Wall
1979
PENTICE
CHAPEL
SCHOOL
COURT
GATE
PORTER
BAKEHOUSE
BREWHOUSE
GREAT DRAIN
THE GREEN COURT
CHRISTCHURCH
PRIORY
STABLES
BAKEHOUSE
GRANARY
(FORRENS)
GATE
BARN
site of
PRIOR'S
GREAT
GARDEN
DEACONRY
GATE
site of
PRIORY NEW LODGING
PRIOR'S
BATH HOUSE
Priory
site of
GLORIET
over
PRISON
PRISON
SECOND PORTER
PRISON OLD
CHAMBER
NORTH ALLEY
INFIRMARY
CLOISTER
WT
site of
PRIOR'S CHAPEL
CHAMBER
LARDER
GATE
LARDER
CHAMBERS
over
GUESTS'
LODGING
GREAT PORTER
WARMING HOUSE
LOCUTORIUM
CHAPTER HOUSE
WARHAM
CHANTRY
VESTRY
KITCHEN
COURT
PASSAGE
PENTICE
CELLARERS'
HALL
and
CELLARERS'
CHAMBERS
over
steps up
WATER
CONDUIT
ARCHBISHOP'S
STABLES
OUTER
COURT
(of Palace)
GATE
Archbishop's
Palace
1982
GREAT
CLOISTER
(formerly
LIBRARY
CARRELLS
LADY
CHAPEL
ARUNDEL
Chapel
NAVE
LODGING
SCHOOL
CELLARERS'
PENTICE
GREAT HALL
COURT
CHAPEL
over
(formerly
GREAT)
HALL
PORCH
site of
ARCHBISHOP'S
PALACE
St. Alphege Street
ST ALPHEGE'S
CHURCH
HOUSE FOR THE
PRIESTS OF THE
BLACK PRINCE'S
CHANTRY (site of)
STABLES later
Boundary of Archbishop's Palace

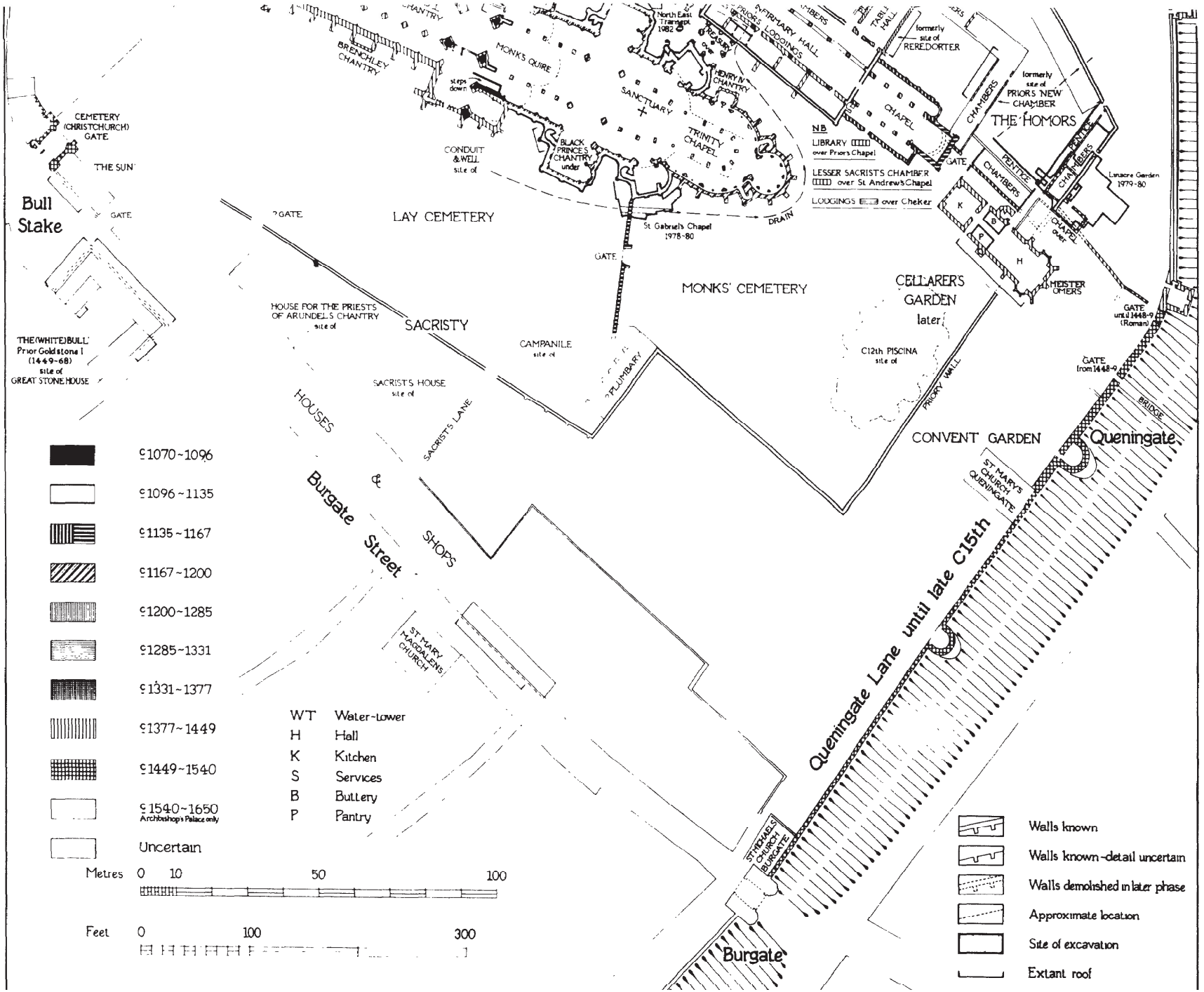


Fig 28 Canterbury: plan of the cathedral precinct, including the sites of recent excavations (scale 1: 1250) (Canterbury Archaeological Trust: 'John Bowen)

census, still 'varies very greatly from town to town' (1976, 68). The standing circuit at York, for instance, has been meticulously recorded and documented, but surprisingly little archaeological work has been carried out on it, and at the time of writing some sections are threatened with thorough restoration without the resources for adequate archaeological recording. At Canterbury, Hereford and Worcester, on the other hand, much less is still standing but there has been a good deal of archaeological investigation (Frere *et al* 1982; Shoesmith 1982; Carver 1980, 53-l 11). The value of such research has been demonstrated in several other towns, for instance in showing that the new borough at Nottingham remained unfortified until *c* 1150, in revising the documentary dating evidence on the Oxford wall *(MedievalArchaeol* **16,** 190) and in giving a firm dating (late 12th century) for the northern extension to Hereford's defences (Shoesmith 1982, 85,95). Elsewhere major puzzles remain to be resolved. Why, for instance, did Ipswich-the earliest urban centre in East Anglia and still one of the largest in the 12th century- apparently possess no defences before 1204? Were Coventry's defences really as late as they are usually dated, or could the earliest ditch represent a pre-Conquest *burh?* There are also, apparently, still a few extra cases of walled towns to be identified or confirmed, such as Usk *(Medieval Archaeol* **20,** 193), or to be queried. Recent excavations have, for instance, cast doubt on the prevalent belief that Lewes was ever walled on the north and east (Rudling 1983, 49, 50).

Similarly, urban castles are by no means fully understood. It is clear why William I should have planted castles in most county towns, with two at York and three in London; but whereas York castle and the Tower of London have been fairly well studied, there has been only limited excavation at York's Old-Baile (Addyman & Priestley 1977), and the very sites of Baynard's Castle I (ie the original Norman castle) and Montfichet Castle have yet to be firmly established, though sites have recently been proposed (Schofield 1984, 38-9). Problems elsewhere include the apparent shift of site of the royal castles both at Stafford (Palliser 1971-3) and Canterbury (Bennett *et al* 1982, 70-1)-was it the case that badly-sited originals needed replacement?

Together with fortifications, the major churches and religious houses were perhaps the most important urban buildings, with-to put it mildly-important implications for the histories of the towns which contained them. It is therefore good news for urban historians that the first volume of reports on the York Minster excavations (1967-72) is now in the press, and that much of the standing fabric of Exeter cathedral, and of the cathedral complex at Wells, have been surveyed. There will also be much to learn from the forthcoming reports on the large-scale excavation at the York College of Vicars Choral (Fig 27) and on the recent survey of the Canterbury cathedral close (Fig 28). The latter survey has unearthed previously unknown medieval structures and has located Archbishop Lanfranc's great hall, where Becket dined on the day of his death. 'The result has been to produce one of the most detailed plans of a great Benedictine house ever achieved in Britain' (Tatton-Brown 1983, 26).

Although monasteries were not specifically urban institutions, friaries were, and it is desirable that a range of British friaries be studied in detail. Archaeologists have been aware of their potential, and between 1957 and 1980 50 friary sites were excavated in England (though only one in Scotland) (Addyman & Black 1984, 126). Most, however, were small-scale explorations. Only a handful of houses have been the subject of large-scale, published excavation-the Bristol Greyfriars (Ponsford 1975), the Oxford Blackfriars (Lambrick & Woods 1976) and Greyfriars, and the Austin Priory at Leicester, and the report on the last points out that 'the potential of these houses within medieval archaeology has yet to be fully realised' (Mellor & Pearce 1981, viii). The position is still less satisfactory with the ubiquitous urban hospitals, none of which appears to have been subject to recent large-scale excavation except two at Bristol (St Bartholomew) and York (St Mary Horsefair). The latter exemplified how an apparently well documented site could reveal more to the archaeologist: beneath the known hospital (1318-1557) and Carmelite friary which preceded it (1253-95) lay an unsuspected 12th-century church or chapel, so far unidentified. Furthermore (to move beyond the Christian majority in the towns) no British town has yet firmly identified a recognizable synagogue or even its Jewish quarter, though Hereford's Jewry may have been uncovered in part *(Medieval Archaeol* **21,** 244), and the recently excavated cemetery at Jewbury, York, was probably Jewish.

The number and location of parish churches has likewise an importance for urban history far beyond the interest of the structures themselves. It is well known that the greater towns had enormous numbers at their peak in the 13th and 14th centuries-about 104 in London, 57 each in Winchester and Norwich, 45 in York, 22 in Canterbury and so on. The lack of documentary evidence for many of them before the 12th century makes it important to date as many as possible from the archaeological evidence; the establishment of numbers and locations of new churches built in York or Lincoln, for instance, between 900 and 1066, and 1066 and 1200 respectively, would tell us much of the periods and areas of rapid urban growth. Conversely, close dating of the churches closed and demolished in the 14th and 15th centuries would help in tracing urban decay, and a study of their fabrics and burials would illustrate the humbler side of urban parish life and act as a corrective to the inevitable concentration on the wealthy from the evidence of domestic buildings. The detailed studies of two small churches in the Brook Street area of Winchester, and of St. Helen-on-the-Walls at York (Fig 29) (Magilton 1980) have done much in this respect.

Public buildings other than defences and churches have been generally neglected, though there has recently been a welcome trend towards surveying standing buildings in conjunction with limited excavation, as at Winchester (castle hall), Gloucester (Tanners' Hall), Poole (Town Cellars), Canterbury (archbishop's palace), York (hall of vicars choral), Lincoln (St Mary's Guildhall) and Chesterfield (Peacock Inn). A recent survey of medieval bridges in Oxfordshire has identified surviving parts of the 11th and 12th century bridges at Oxford and Wallingford *(Medieval Archaeol* **26,** 205), while the important bridge at Kingston-upon-Thames has been sectioned.

Other public buildings in need of more investigation are docks, quays and waterfronts (Milne & Hobley 1981). Much has been recovered at London, thanks to investigations on eight sites in the past decade, culminating with Billingsgate, and a good deal also at Bristol and Hull, in all of which 12th- 15th century waterfront revetments in timber (eg Fig



Fig 29 Church of St Helen-on-the- Walls, York, under excavation. The view is to the west, with the chancel in the foreground (York Archaeological Trust: Mike S Duffy)

30) have been recovered. In these and other port towns (eg Lincoln, Lynn, York) a process of medieval land reclamation has been confirmed, successive revetments being built further out into the rivers from the 12th century onwards (a process earlier traced in major Continental ports like Lübeck, Bergen and Dordrecht). Elsewhere land reclamation could take the form of simply dumping domestic refuse into the water, as at Leith in the 1470s *(Medieval Archaeol* 25, 2 14). Against such successes, however, must be set missed opportunities like the major port of Hedon, where a remarkable group of medieval docks was almost wholly destroyed without archaeological record (Slater 1983, 18).

What might be called industrial buildings other than docks and shipbuilding yards were of course rare; most medieval urban industries were small-scale and practised in domestic workshops. There are, however, exceptions such as the salt industry, Two 12th century 'with houses' have been excavated at Nantwich (McNeil 1983), though no comparable finds have yet been made in the more important salt town of Droitwich. The more widespread cloth industry is represented, among other structures, by probable dyeing houses found at Winchester (1969) and Beverley (1982), but much more work on this crucial urban industry is needed. Occasional finds of more specialized industries include the horners' workshop excavated at York in 1957-8.

By far the most numerous structures in towns were, of course, domestic houses, and here again the record of success is patchy. Much is known both from standing buildings and from foundations of the houses of the wealthier citizens of the 14th to 16th centuries; houses of earlier centuries (other than the de luxe stone examples) and of lower social levels are more obscure. For the middling and lower levels good examples now studied include the Brook Street housing of Winchester and St Peter's Street, Northampton, all of which was apparently rebuilt at one time in the early 15th century for artisan housing (Williams 1979, 145). For the earlier periods, there is now, for example, evidence for seven houses of the 11th and 12th centuries at Winchester (Biddle 1976, 345-8), the humbler early 12th century house at Wallingford, and a lath-century (?) timber-framed longhouse at Stratford-upon-Avon (Slater & Wilson 1977, 24). More housing of humble social levels still needs locating and studying, however, and so does housing of all levels in certain areas without standing examples (eg London; Schofield 1984). It is striking that much urban housing survives in Kent and East Anglia, but that surviving examples are scarcer in some other regions also prosperous in the Middle Ages, and almost completely absent from towns in northern England, Wales and Scotland.

Turning from buildings to artefacts, the classic datable examples are coins. There has understandably been more study-at least for the purposes of urban history-of the pre-Conquest coins which often provide datable evidence earlier than any written records (Bristol is first recorded as a name on pennies of Cnut). One welcome study of the later period is Rigold's analysis of coins from post-Conquest excavations, which avoids the common bias towards high denominations in hoards. He demonstrates a sharp decline in coin losses in 15th century towns, and suggests as an explanation the increasing use of tokens and jettons, a point corroborated from finds of coins and jettons in Oxford (Mayhew 1977, *59-95).*

The abundant post-Conquest hoards and single finds could, however, yield much more (Astill 1983, 239-42). Rankings of towns, for instance, can be made on the basis of numbers of coins and moneyers, but 'the basic statistical approach now available for the surviving coins of the period 975-1066 does not unfortunately yet extend into the post-Conquest period. It seems certain that this approach to the ranking of early medieval towns will be of increasing value as it takes in a greater period, particularly now that the intimate association between moneyers and the commercial life of their city has been demonstrated from the Winchester evidence' (Biddle 1976, 485). More comprehensive publications are the essential preliminary, such as Yvonne Harvey's study of the entire surviving output of the Winchester mint, scheduled for publication as *Winchester Studies* 8.

Nearly as durable as coins, and much more abundant, are of course pottery sherds, their abundance helping our understanding of an industry much less well documented than coining. For instance, a site of only ten houses in Northampton has yielded over 24,000 sherds, which provide a firm stratigraphical sequence throughout the Middle Ages (Williams 1979, 151). Pottery can, however, be used for purposes well beyond dating stratification, as a means of detecting manufacturing and trading patterns and shifts in fashion (Astill 1983, 219-30). Naturally the exotic imports have attracted most attention, like the abundant French and Spanish pottery on Chester sites, or the North Rhineland pottery in Edinburgh (Schofield 1975-6). More important still are recent studies of major native potteries and their output, urban examples including Stamford ware (Kilmurry 1980), Hallgate (Doncaster) ware (Buckland *et al* 1979) and preliminary indications of a pottery industry at Worcester (Carver 1980, 9-10). Consequently more is becoming known of the pottery industry and its distribution patterns, though full use has still to be made of the pottery found in medieval urban houses as evidence of changing living standards (Sawyer 1976, 169-70).

Surviving pottery is, nevertheless, ubiquitous and relatively well studied; so, to a lesser extent, are metal objects. Glass, both window and vessel glass, is naturally scarcer, so that a single group unearthed in London in 1982 can immediately become the largest cache of 'Syro-Frankish' glass yet found anywhere in the world (Clark 1983). Still rarer and more precious are the more perishable artefacts of larger industries, above all of clothmaking. Here documentary evidence is abundant, but largely for the fine quality exports; samples of surviving cloth, especially for the cheaper types for the home market, have much to tell us. Large groups of woven fragments are currently being analysed from London (Baynard's Castle XI) and Perth, but so far the only substantial group published is of 443 woollen fragments from early Tudor Newcastle (Walton 1981). Significantly, the only English fragments discussed in the latest symposium on the European cloth industry were not excavated in England but found attached to a French notarial contract (Harte & Ponting 1983, 120-5), while the very useful symposium on archaeology and medieval English industries (Crossley 1981) includes only one paper on textiles.

Next to textiles, leather-working probably accounted for the largest group of urban crafts, and here also suitable soil conditions have preserved large samples of products and off-

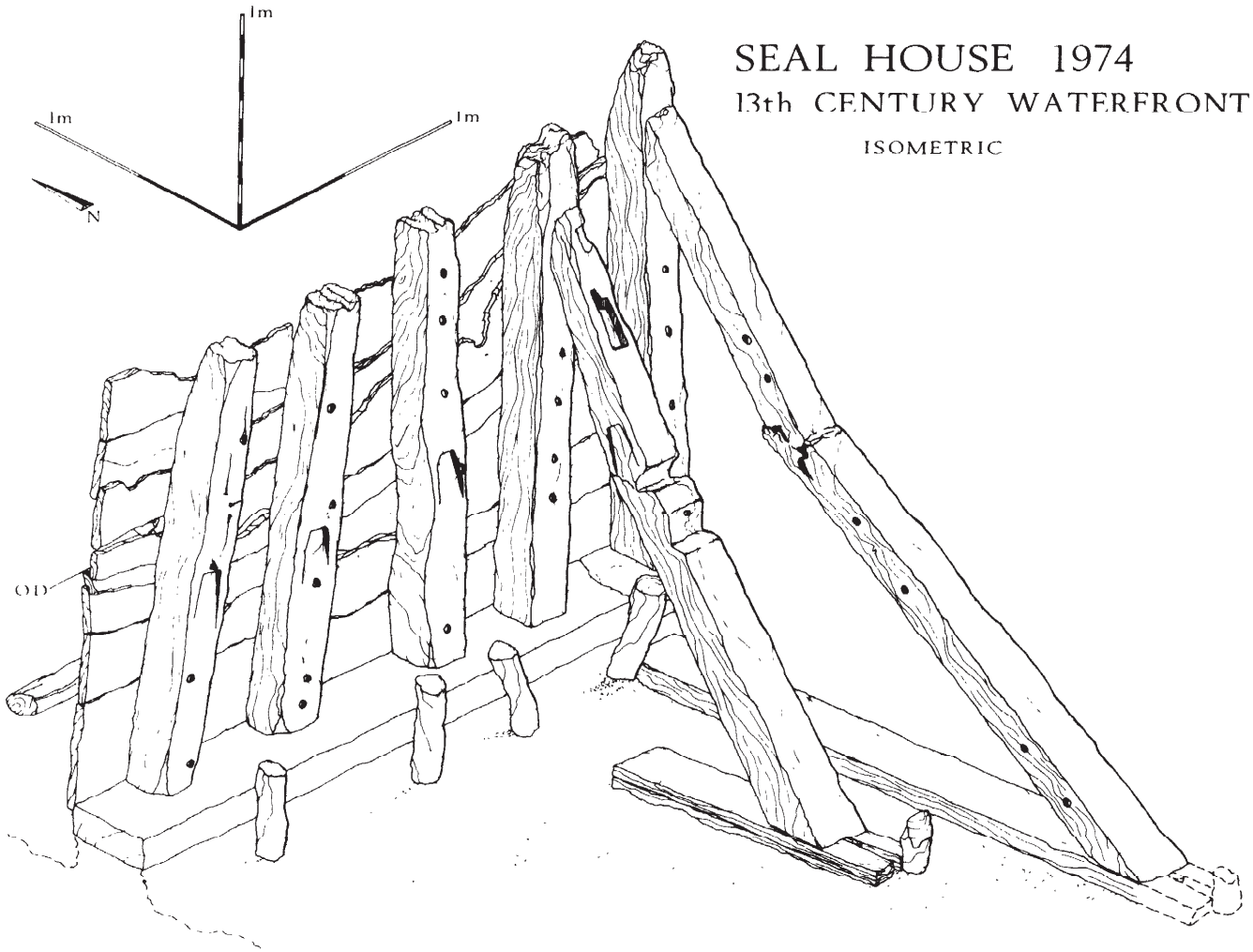


Fig 30 London: early 13th century Seal House Waterfront III, dated by dendrochronology to c 1210-20. These revetment structures provide evidence of settlement expansion, medieval carpentry and increasingly securely dated artefact groups of large size and variety (Museum of London: S Garfi)

cuts for analysis: published groups include a 14th/15th century one from Worcester (Barker, 1969) and another of the 15th and 16th centuries from Lichfield (Gould 1972-3), while other important groups found include one from Caernarvon *(Medieval Archaeol* 24, *256).*

Outstripping in importance the detritus of industries is the retrieval and analysis of organic waste, especially from waterlogged sites, which can yield much undocumented information on environment, flora, fauna, crops and diet (Hall & Kenward 1982). Progress is slow for understandable reasons: thus from York so far have emanated four published fascicules on environmental evidence, but all on pre-Conquest material, although a redressing of the balance is promised soon (Addyman & Black 1984, 17 1). Similarly the evidence of three large rubbish dumps recovered at Baynard's Castle II, London, in 1972-3 still awaits publication. However, interim results from the Baynard's Castle drains and from a 14th century cesspit at Worcester, and a report on five medieval and post-medieval pits also at Worcester, afford tantalising glimpses of human diet and parasites (Donaldson *et al* 1980; Greig 1981, 1982; Carver 1980, 209-12); while the report on the Austin Friary at Leicester (Mellor & Pearce 1981) makes extensive use of the environmental evidence. One material well preserved by waterlogging is wood, which can of course yield absolute dating sequences as well as details of timber construction: samples so far published include timbers from Seal House, London (Fig 30), covering the period 861- 1193, and from a Hull waterfront spanning 1126- 1297 (Milne & Hobley 1981, 42-4).

Another abundant source, which does not require water-logged conditions for its preservation, is animal bone, invaluable as an index of diet and, indirectly, of pasture farming. It is not always an easy source to interpret, but those urban reports which have devoted most attention to mammalian bones are very informative (Astill 1983,243-4). An early example was the analysis of 12,000 mammal and bird bones, and many more fish bones, excavated at King's

Lynn in the 1960s, which shed considerable light on medieval diet. There are now notable samples published from Lincoln and York (O'Connor 1982, 1984; Clarke & Carter 1977,378-409). Other large samples, such as the fish bones found on the 11th-12th Lacons Brewery site at Yarmouth in 1974, still await published analyses, but interesting contrasts between fish samples from Yarmouth and Norwich are already apparent (Schofield & Palliser 1981, 78). It should be added that a complete assemblage of the surviving evidence for diet and living conditions, based on bones, organic refuse and other evidence, can be invaluable when it is attempted (eg Carver 1979, 72).

Fauna1 assemblages, informative though they are, are eclipsed in interest for the urban historian by human skeletons, especially those retrieved in large samples from cemeteries. Little was published until recently apart from a preliminary analysis of 207 post-Conquest burials from Winchester (Brothwell 1972, 83), but a detailed study has now been published of the largest excavated medieval graveyard group in England. It consists of at least 1,041 burials from the York parish churchyard of St Helen-on-the-Walls, ranging in date from the 10th to the 16th centuries. Even more usefully, the author also publishes comparative data from eighteen other samples, some of them from a forthcoming analysis by Brothwell; they include, besides smaller York samples, post-Conquest groups from three other towns-Hythe, Pontefract and Scarborough (Dawes & Magilron 1980, 66-82).

Interpretation of changes in British urban populations is, however, still at an early stage, and there is a need for published analyses of more urban samples, such as the recently-excavated groups from Canterbury (St Mary Bredin), London (St Nicholas Shambles), St Andrews Wallingford (St Rumbold) and York (Jewbury). Brothwell and Dawes both draw attention to an apparent and relatively rapid change in predominant skull type between pre- and post-Conquest populations, both in the urban samples and in rural cemeteries like Wharram Percy, but the reason remains, as Hurst described it fourteen years ago, 'still a complete puzzle' (Beresford & Hurst 1971, 135; Dawes & Magilton 1980, 82-3). Beyond this, Harvey has drawn attention to several ways in which the systematic study of a few carefully chosen cemeteries might add enormously to our knowledge of medieval demography (Hinton 1983, *76-77).*

Conclusions

There have, therefore, been many successes in medieval British urban archaeology over the past decade, and it would be churlish to emphasize too much the gaps in the evidence, and the remaining problems, when so much has been achieved. If it could be said ten years ago that 'more has been learnt about Winchester and its development than for any other British town' (Dymond 1974, 143), no such primacy could be conceded today, with many successful urban programmes to choose from. Yet it remains true that a well balanced sample of British towns has yet to be achieved, and that those towns which have achieved most have been generally those with the most skilful directors and with the strongest support from central and local government and from commerce.

If one takes as an arbitrary yardstick the largest and wealthiest English towns between 1066 and 1523-7 (Maitland, 1897, 216; Stephenson 1933, 222-5; Hoskins 1972, 238-9, Biddle 1976, 500-l), it becomes clear that those which are still flourishing today have fared relatively well in the past decade. Those, however, which suffered late medieval decline and have never recovered their importance (eg Beverley, Boston, Droitwich, Grimsby, Stafford, Thetford, Wallingford) have been relatively neglected. There has for instance, been valuable recent work at Droitwich (Schofield & Palliser 1981, 33-4), but considering its astonishingly high tax yield in Norman times-second after London in 1066 and still twelfth in 1086 even after the king had granted away many of his valuable salt revenues (Biddle 1976, 500)-very little of the later Middle Ages has come to light. And in Wiltshire Wilton is a prime candidate for investigation, since it was the leading county town in late Saxon and Norman times before being eclipsed by Salisbury (Haslam 1976, 68). Also neglected have been some of the late arrivals which supplanted them: Newcastle upon Tyne was already a regional and industrial centre by the early 16th century, yet it has been little explored. This is, moreover, to speak only of England; there has been much less work on Scottish and Welsh towns, with honourable exceptions like Aberdeen, and even a key border town and port like Berwick-upon-Tweed-neglected, one suspects, by nationally-minded scholars on both sides of the border-has only recently been subject to small-scale but informative excavation (Hunter 1982). And within England major excavation programmes have been confined almost entirely to the large and successful medieval towns, a policy which has been recently criticised as 'suspiciously close to treasure-hunting' (Clarke, 1984, 173).

In contrast, the numerous small towns remain in general 'a neglected feature of the medieval urban scene' (Hilton 1979, 3). R Leech has calculated that in the decade 1972-82 some 40% of the largest 100 post-Conquest English boroughs had been investigated archaeologically, but only 7% of the 550 smaller boroughs, while only seven of the latter had been the scenes of any large-scale excavation (CBA Urban Res Committee, minutes and papers). An impressive summary of 'excavations and research' at Saffron Walden, for instance, has to lean entirely on documents and topography for the late medieval period because archaeological evidence 'is almost entirely lacking at present' (Bassett 1982b, 27). Of course small towns of the Middle Ages were generally the less important (but not less typical) urban communities, and of course their deposits are often shallower. Nevertheless there is at least a case for specially investigating certain key categories, such as the flourishing wool and cloth towns of the end of the Middle Ages (eg Chipping Campden, Castle Combe, Lavenham), or the rising small towns starting on their way to conurbation status like Birmingham, still little explored despite one valuable report on a watching brief (Watts 1978-9).

It has been well said that large-scale excavations have concentrated on successful towns and unsuccessful villages, so that failed towns, no less than prospering villages, are needed to redress the balance (Fig 31). Failed towns would include not only those already listed which underwent severe medieval decline, but even more those which suffered partial depopulation (eg Hedon, Winchelsea) or total desertion (eg Old Sarum). Here there is the prospect of total excavation of the same order of value as at, say, Wroxeter or Wharram Percy. Large towns, of course, rarely dis-



Fig 31 Torksey (Lincs): an aerial view of the shrunken medieval river port, sited in the angle of the River Trent (left) and the Foss Dyke. The medieval town stretches from *the Foss Dyke in the foreground towards the railway line half a mile away (Cambridge University Committee for Aerial Photography:* Crown *copyright reserved)*

appeared (Sarum merely changed site), but some smaller towns, like their village cousins, could succumb completely, especially in the period of declining population after 1348. One entire seignorial borough and market town, Chipping Dassett, lies beneath Town Field, Burton Dassett, Warwickshire (Alcock 1981, 28, 33), and it and similar cases (Caus, Salop; Milton Abbas, Dorset; Richards Castle, Here-Worc) might well repay large-scale excavation.

Finally, however, a strategy which aims simply at a cross-section of towns of different sizes and types is not enough; the brute facts of stratigraphy need to be taken into account, just as with historical studies abundance of documentation is the criterion. Carver (1980) has approached towns like Worcester and Shrewsbury with a sampling strategy designed to test the richness of the archaeological evidence, and it has become clear that some towns of considerable historical importance (eg Shrewsbury and Warwick) have simply lost large chunks of their stratigraphic record through erosion or later levelling of the ground. Yet Carver's point on 'best-deposit' towns (1980, iv) has not been sufficiently taken. Eddy and Petchey, for instance (1983, 14) can complain that Colchester has given the false impression that every urban site in Essex is deeply stratified, whereas in some of the smaller towns 0.3–1.0 m is the normal depth of build-up. Furthermore, 'the best excavation sites in a settlement are not only those where the stratification is deepest, but also those which most effectively test the current model for the whole settlement's development' (Bassett 1982a, 119n). Finally, more sites need investigating where organic as well as inorganic remains survive, so that a complete assemblage can be used to reconstruct the culture and life-style of the townsmen and women, as has been done so effectively, if on a limited scale, for Saxon and Norman Durham (Carver 1979, 67–76).

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Bibliography

Addyman, P V, & Black, V E (eds), 1984 *Archaeological papers from York presented to M W Barley*

——, & Priestley, J, 1977 Baile Hill, York, *Archaeol J*, **134**, 115–56

Alcock, N W, 1981 Warwickshire grazier and London skinner 1532–1555, *British Academy, Records of Social & Economic History*, n ser, **4**

Astill, G G, 1983 Economic change in later medieval England: an archaeological review, in *Social relations and ideas: essays in honour of R H Hilton* (eds T H Aston *et al*), 217–47

Barker, P, 1969 The origins of Worcester, *Trans Worcestershire Archaeol Soc*, 3rd ser, **2**, 1–116

Barley, M W (ed), 1976 *The plans and topography of medieval towns in England and Wales*, CBA Res Rep 14

Bassett, S R, 1982a (1980–1) Medieval Lichfield: a topographical review, *Trans S Staffordshire Archaeol Hist Soc*, **22**, 93–121

——, 1982b *Saffron Walden: excavations and research 1972–80*, CBA Res Rep 45

Bennett, P, Frere, S S, & Stow, S, 1982 *The archaeology of Canterbury: Volume I: excavations at Canterbury Castle*, Kent Archaeol Soc

Beresford, M W, 1967 *New towns of the Middle Ages*

——, 1981 English medieval boroughs: a handlist: revisions, 1973–81, *Urban History Yearbook 1981*, 59–65

——, & Hurst, J G (eds), 1971 *Deserted medieval villages: studies*

Biddle, M, 1968 Archaeology and the history of British towns, *Antiquity*, **42**, 109–16

——, 1969 Excavations at Winchester 1968, *Antiq J*, **49**, 295–329

—— (ed), 1976 *Winchester in the early Middle Ages: an Edition and Discussion of the Winton Domesday*, Winchester Studies **1**

Bridbury, A R, 1981 English provincial towns in the later Middle Ages, *Economic Hist Rev*, 2nd ser, **34**, 1–24

Brooks, N P, & Whittington, G, 1977 Planning and growth in the medieval Scottish burgh: the example of St. Andrews, *Trans Inst Brit Geogr*, **2**, 278–95

Brothwell, D, 1972 Palaeodemography and earlier British populations, *World Archaeol*, **4**, 75–87

Buckland, P C, Dolby, M J, Hayfield, C, & Magilton, J R, 1979 *The medieval pottery industry at Hallgate, Doncaster, The Archaeology of Doncaster 2/1*

Campbell, J, 1975 Norwich, in *The atlas of historic towns 2* (ed M D Lobel), separately paginated

Carver, M O H, 1979 Three Saxon-Norman tenements in Durham city, *Medieval Archaeol*, **23**, 1–80

—— (ed), 1980 *Medieval Worcester: an archaeological framework, Trans Worcestershire Archaeol Soc*, 3rd ser, **7**

——, 1983 Two town houses in medieval Shrewsbury, *Trans Shropshire Archaeol Soc*, **61**

Clark, J, 1983 Medieval enamelled glasses from London, *Medieval Archaeol*, **27**, 152–5

Clarke, H, 1984 *The archaeology of medieval England*

——, & Carter, A, 1977 Excavations in King's Lynn 1963–1970, *Soc Medieval Archaeol Monograph Ser*, **7**

Conzen, M R G, 1968 The use of town plans in the study of urban history, in *The Study of Urban History*, ed H J Dyos, 113–30

Crossley, D W (ed), 1981 *Medieval industry*, CBA Res Rep 40

Davis, R H C, 1976 The early history of Coventry, *Dugdale Soc Occ Papers*, **24**

Dawes, J D, & Magilton, J R, 1980 *The cemetry of St. Helen-on-the-Walls, York*, The Archaeology of York 12/1

Donaldson, A M, Jones, A K G, & Rackham, D J, 1980 A dinner in the Great Hall: report on the contents of a fifteenth century drain, *J Brit Archaeol Ass*, **133**, 86–96

Dymond, D P, 1974 *Archaeology and history: a plea for reconciliation*

Eddy, M R, & Petchey, M R, 1983 *Historic towns in Essex*, Essex County Council

Frere, S S, Stow, S, & Bennett, P, 1982 *The archaeology of Canterbury: volume II: excavations on the Roman and medieval defences of Canterbury*, Kent Archaeol Soc

Gottfried, R S, 1982 *Bury St. Edmunds and the urban crisis: 1290–1539*

Gould, J, 1972–3 Finds of medieval leather and pottery from near Minster Pool, Lichfield, Staffs, *Trans S Staffordshire Archaeol Hist Soc*, **14**, 51–60

Greig, J, 1981 The investigation of a medieval barrel-latrine from Worcester, *J Archaeol Sci*, **8**, 265–82

——, 1982 Garderobes, sewers, cesspits and latrines, *Current Archaeol*, **85**, 49–52

Hall, A R, & Kenward, H K (eds), 1982 *Environmental archaeology in the urban context*, CBA Res Rep 43

Harvey, J H, 1964 The fire of York in 1137, *Yorkshire Archaeol J*, **41**, 365–7

Harte, N B, & Ponting, K G (eds), 1983 *Cloth and clothing in medieval Europe: essays in memory of Professor E M Carus-Wilson*

Haslam, J, 1976 *Wiltshire towns: the archaeological potential*, Wiltshire Archaeol Natur Hist Soc

Hilton, R H, 1979 Towns in feudal English society, *J Interdiscipl Hist*, **3**, 3–20

Hinton, D A (ed), 1983 *25 years of medieval archaeology*, Univ Sheffield & Soc Medieval Archaeol

Hoskins, W G, 1972 *Local history in England*, 2nd ed

Hunter, J R, 1982 Medieval Berwick-upon-Tweed, *Archaeol Aeliana*, 5th ser, **10**, 67–124

Kilmurry, K, 1980 *The pottery industry of Stamford, Lincolnshire, c AD 850–1250*, BAR 84

Kingsford, C L (ed), 1908 *A survey of London by John Stow*, 2 vols

Lambrick, G, & Woods, H, 1976 Excavations on the second site of the Dominican Priory, Oxford, *Oxoniensia*, **41**, 168–231

Langton, J, 1977 Late medieval Gloucester: some data from a rental of 1455, *Trans Inst Brit Geogr*, **2**, 259–77

Magilton, J R, 1980 *The church of St Helen-on-the-Walls, Aldwark*, Archaeology of York 10/1

Maitland, F W, 1897 *Domesday Book and beyond*

——, 1898 *Township and borough*

Mayhew, N J (ed), 1977 *Edwardian monetary affairs, 1279–1344*, BAR Brit Ser, **36**

McNeil, R, 1983 Two 12th-century wich houses in Nantwich, Cheshire, *Medieval Archaeol*, **27**, 40–88

Mellor, J E, & Pearce, T, 1981 *The Austin Friars, Leicester*, CBA Res Rep 35

Milne, G, & Hobley, B (eds), 1981 *Waterfront archaeology in Britain and northern Europe*, CBA Res Rep 41

O'Connor, T, 1982 *Animal bones from Flaxengate, Lincoln c 870–1500*, Archaeology of Lincoln 18/1

O'Connor, T P, 1984 *Selected groups of bones from Skeldergate and Walmgate*, Archaeology of York 15/1

Palliser, D M, 1971–3 The castles at Stafford, *Stafford Hist Civil Soc Trans*, 1971–3, 1–17

——, 1978 York's earliest administrative record, *Yorkshire Archaeol J*, **50**, 81–91

Platt, C, 1973 *Medieval Southampton: the port and trading community, AD 1000–1600*

Ponsford, M W, 1975 *The Grey Friars in Bristol*

Richmond, C, 1983 After McFarlane, *History*, **68**, 46–60

Rudling, D R, 1983 The archaeology of Lewes: some recent research, *Sussex Archaeol Collect*, **121**, 45–77

Rylatt, M, 1977 *City of Coventry: archaeology and redevelopment*, Coventry Museums

Sawyer, P H (ed), 1976 *Medieval settlement: continuity and change*

Schofield, J, 1975–6 Excavations south of Edinburgh High Street, 1973–4, *Proc Soc Antiq Scot*, **107**, 155–241

——, 1984 *The building of London: from the Conquest to the Great Fire*

——, & Dyston, T, 1980 *Archaeology of the City of London*, City of London Archaeol Trust

——, & Palliser, D M (eds), 1981 *Recent archaeological research in British towns*, CBA

Shoesmith, R, 1982 *Hereford city excavations volume 2: excavations on and close to the defences*, CBA Res Rep 46

Simpson, C, 1973 *Wallingford: the archaeological implications of development*, Oxfordshire Archaeol Unit

Slater, T R, 1980 *The analysis of burgages in medieval towns*, Univ Birmingham Dept of Geography, Working Paper, **4**

——, 1983 *A medieval new town and port: the plan analysis of Hedon, East Yorkshire*, Univ Birmingham Dept of Geography, Working Paper, **21**

——, & Wilson, C, 1977 *Archaeology and development in Stratford-upon-Avon*, Univ Birmingham

Stenton, F M, 1971 *Anglo-Saxon England*, 3rd ed

Stephenson, C, 1933 *Borough and town: a study of urban origins in England*

Stevenson, W H, 1890 *Rental of all the houses in Gloucester, AD 1455*

Talbot, E J, 1980 Scottish medieval burghs, in *The medieval town in Britain* (ed P J Riden), Univ College Cardiff, Dept Extramural Stud, 15–21

Tatton-Brown, T, 1983 *Canterbury Archaeol Trust Annu Rep 1982–83*

Taylor, C C, 1968–9 The origins of Lichfield, Staffs, *Trans S Staffordshire Archaeol Hist Soc*, **10**, 43–52

Walton, P, 1981 The textiles, in B Harbottle & M Ellison, An excavation in the castle ditch, Newcastle upon Tyne, 1974–6, *Archaeol Aeiliana*, 5th ser, **9**, 190–206

Watts, L, 1978–9 Birmingham moat: its history, topography and destruction, *Trans Birmingham Warwickshire Archaeol Soc*, **89**, 1–77

Williams, J H, 1979 *St Peter's Street Northampton: excavations 1973–76*, Northampton Development Corporation

6 The post-medieval period

P J Davey

In 1965 the CBA produced a list of historic towns as a guide to planners and archaeologists to assist decisions about research and excavation possibilities brought about by the large scale redevelopment of many urban centres in Britain. This was followed in 1972 by the seminal work *The erosion of history* (Heighway 1972) in which the role of archaeology in the period after 1500 is clearly stated: 'Nor does archaeological evidence lose its significance when documents begin. Until at least the nineteenth century and perhaps until World War I, the evidence of archaeology and of documents is complementary. Each records aspects of the past with which the other does not deal. Each gains much from the existence of the other.' When measured against subsequent fieldwork and publication this admirable statement seems to have been virtually overlooked by both archaeologists and their paymasters. *The Erosion of History* stimulated a great deal of survey work and the publication of implications studies for towns and regions all over Britain. The status and role of archaeology in the post-medieval period can be judged from two such reports, both typical and excellent examples of their type, *Historic towns* in *Oxfordshire* (Rodwell 1975) and *Wiltshire towns-the archaeological potential* (Haslam 1976).

The Oxford study considered twenty historic towns in the County. In the introduction entitled 'The need for urban archaeology' the major section on the present state of knowledge, which is four and a half pages long, does not refer to any knowledge accumulated or to any research problems remaining after 1500. A single paragraph, squeezed inappropriately at the end of a section on town plans, refers to this period: 'Post-medieval archaeology has inevitably received even less attention than earlier periods, except incidentally when rubbish pits of the period have been encountered. Several towns in the region were the scene of action during the Civil War period and excavations at Banbury castle revealed details of Civil War period defences. But on the whole post-medieval archaeology is likely to yield the most fruitful results when linked closely to a study of written sources and standing structures, whether domestic or industrial, which are still numerous in the towns in the region' *(ibid,* 21).

This paragraph highlights a number of features which help to define the problem of lack of identity and perceived role for post-medieval archaeology. Much of the work done was not anticipated at the start of the project. Post-medieval deposits were encountered on the way down to earlier levels, originally considered more important. Although post-medieval archaeology is recognized to be of potential use, there is no indication that any actual projects have been instigated on the lines suggested. There is an overt denigration of archaeology as a tool, or independent means of investigation, once documentary sources exist in numbers. The individual town studies in the monograph discuss the known archaeological evidence, where finds have been made or excavations carried out and the archaeological potential of areas where future research and excavation should be concentrated, especially where threatened by development. None of these sections refers to the post-medieval period.

The Wiltshire volume is similarly organized. 'The primary aim of this study has been to assess the relative importance of towns in Wiltshire at different periods of their history, in order to establish a sound basis from which to work out a programme of archaeological excavation and research (Haslam 1976, 1). This involves, for each of 30 towns, the presentation of a historical and topographical outline and culminates in a 'discussion and recommendations' section which refers to 'some of the basic questions which archaeological research and excavation can answer, and how' *(ibid,* 1). None of these town studies makes any reference to post-medieval criteria as elements in the ordering of priorities. Two examples will suffice. For Bradford-on-Avon the main problems on which archaeological investigations should attempt to shed some light are:

1 The detailed topography of the earliest settlement
2 The nature and position of the early ford
3 The location and extent of the alternative site of the early monastic precinct
4 The location and dating of the chapel of St Olaf, St Margaret's Hospital and St Catherine's Chapel *(ibid,* 10, 11)
5 The nature of the early occupation in the area of the medieval town

For Chippenham archaeological research should be directed towards:

1 The site of the possible Saxon palace
2 The extent and site of possible Saxon fortifications
3 The extent and effect of Danish occupation
4 The nature of Saxon settlement
5 The layout and activities of the medieval town

So for 50 towns in Oxfordshire and Wiltshire post-medieval archaeology has no independent role or priority.

Even as late as 1981 the research priorities for urban archaeology as agreed by the CBA Urban Research Committee manage to restrict mention of the period to a single reference to Georgian Bath. The major research areas to be concentrated on are origins (ie of early towns), continuity (ie pre-Roman to Roman; Roman to Anglo-Saxon) and development (Schofield & Palliser 1981, vi). This volume on *Recent Archaeological research in English Towns* also clearly reveals the lack of importance given to post-medieval deposits by the majority of excavators in recent years. In none of the 146 towns discussed are post-medieval objectives even formulated. Analysis of perhaps the thirteen most important towns (Bristol, Canterbury, Chester, Exeter, Gloucester, Leicester, Lincoln, London: City, London: Southwark, Norwich, Southampton, Winchester and York), in which many excavations have been carried out over the past two decades, reveals how small is the significance attributed to post-medieval deposits in their summaries. Out of 1,238 lines devoted to these town summaries only 87 *(c* 7%) deal with the period, and research problems or results are mentioned in very few. This is

clearly out of all proportion to the time, money and effort spent on the excavation of post-medieval structures and deposits. Perhaps the best and most balanced group of summaries comes from Chester *(ibid,* 20, 21), where there appears to be a genuine attempt to present the results from Roman times onwards without a period prejudice. A paragraph is included which discusses some of the problems of the interpretation of pottery from local and distant sources, much belonging to the 16th to 18th centuries. Bedford includes a section on problems of the town's expansion between 1610 and the 18th century and Plymouth has important post-medieval finds. York manages to produce one mysterious feature type-the narrow ash or rubble-filled trench-as the only post-medieval discovery worthy of note.

A perusal of the 'Post-Medieval Britain in 19xx' sections of *Post-Medieval Archaeology* reinforces this picture. Although the growing number of urban reports, especially from the major towns, exhibit an increasing seriousness in the way in which post-medieval phases are being tackled, the majority of reports either state or imply that post-medieval material was encountered 'on the way down' to earlier structures, which were themselves the real object of the excavations. The vast majority are pits and wells, reported because of the interest of their contents, often ceramic groups of considerable size. A reading of the major articles in the journal itself confirms that urban archaeology as such takes a rather cinderella position in the minds of the Society and its members. Out of 118 main articles from 1967 to 1982 only seventeen are mainly urban in content and of these nine deal with architectural and/or documentary evidence and a further two are concerned with ceramic/artefact groups (ie Newcastle, Black Gate; London, Inns of Court). The remaining six, which are truly archaeological and excavational in character, deal with rather specialized types of structures; the Ship-master's house, Faversham (vol 2), Waltham Abbey (vol 3), Woolwich kilns and dock-yard (vol 12), St Mary's St Edinburgh (vol 14), Coventry Grammar School (vol 15), Bridewell Palace (vol 15). This is partly due to problems of backlog which are particularly acute for urban archaeology and to the high cost and bulk of complete urban excavation reports, but it also reflects the lack of academic coherence in much post-medieval work. Main papers on such subjects as military sites, timber-framed buildings, ceramics, clay pipes and metallurgy, each occupy positions of greater importance in the history of the Journal, and are often directed towards specific specialized interest groups. Given diffuse, site-by-site publication, what is lacking is any attempt at a synthesis of the available evidence at regional or national level.

In 1982 the Society issued a policy statement directed towards the Department of the Environment, which included the following passage on urban settlement:'The 16th and 17th centuries mark a significant change in the function of many towns. Some suffered from a diminishing importance as centres of primary manufacture, notably of cloth, but this was often compensated for by growth of secondary trades, in clothing, metals or leather. This aspect is often overlooked, in the concentration upon morphology of the medieval town during its initial growth period. A particular field for enquiry is the rate at which quarters which stagnated in the later medieval period were re-occupied. Close consideration should be given to ways in which towns coped with rapidly expanding populations from the late 16th century onwards, and, in particular, to the question as to whether the provision of housing kept up with expansion in population or whether it lagged behind. Particular attention should be given to towns which entered the catchment area of metropolitan food-supply trades in this period, their markets being no longer distributors, but collecting centres for onward trading. This can often lead to market facilities and buildings, houses and shops being more substantial than expected, and urban sites should be studied with such possibilities in mind. As with rural areas there is a need to examine sites of the dwellings of the poor: the opportunities for seeking pre- 18th century slums are limited in the extreme, given subsequent development, but ignorance of the conditions and possessions of the urban poor should be a factor in the examination of sites which for any reason were fossilised during the period.'

Given this noble attempt to state clear post-medieval urban objectives, a perusal of the urban section of *Research objectives in British archaeology* (Thomas 1983) shows, regrettably, how few of even these minimal goals have penetrated national forums. A throwaway reference to Georgian Bath, twice repeated, is the only specifically post-medieval statement. Indeed the whole structure of the book which 'is not being offered within the old chronological framework' has provided a formula for the almost total suppression of the post-medieval period throughout its length.

There is no doubt, then, that post-medieval archaeology enjoys a very low status among' urban archaeologists and even among the councils of post-medievalists themselves.

Achievements and trends

Despite this gloomy diagnosis it would be quite untrue to suggest that no progress has been made over the past two decades. Whilst an increasing number of post-medieval structures and deposits are being excavated, changes in method and approach are taking place among archaeologists at large which suggest that the prognosis is a much better one. Knowledge has increased in three main areas-artefacts, below-ground structures and standing buildings. At the same time attitudes both to urban archaeology in general and to the relationship between the archaeologist and other research workers, are changing.

Artefacts of post-medieval date

Recent excavations have produced very large quantities of artefacts, albeit largely undigested, particularly pottery. Attempts to understand local sequences and to describe regional and national trends are beginning to appear. These are laying the foundations for the future of post-medieval archaeology as they provide an increasingly comprehensive data-base for many parts of the country. A few examples:

(a) Pottery Studies such as the Norwich volume (Jennings *et a/* 1981), and the forthcoming Chelmsford publication are presenting the basic information in a coherent way for the first time. Syntheses, such as the post-medieval sections in the Dunning *festschrift* (Evison *et a/* 1974) are also multiplying. Many of these deal with exotic and imported pottery (eg Rutter & Davey 1977 on north-west England and north Wales), but increasingly documentary evidence is being brought to bear on the archaeological evidence (eg Allen 1983 on the distribution of

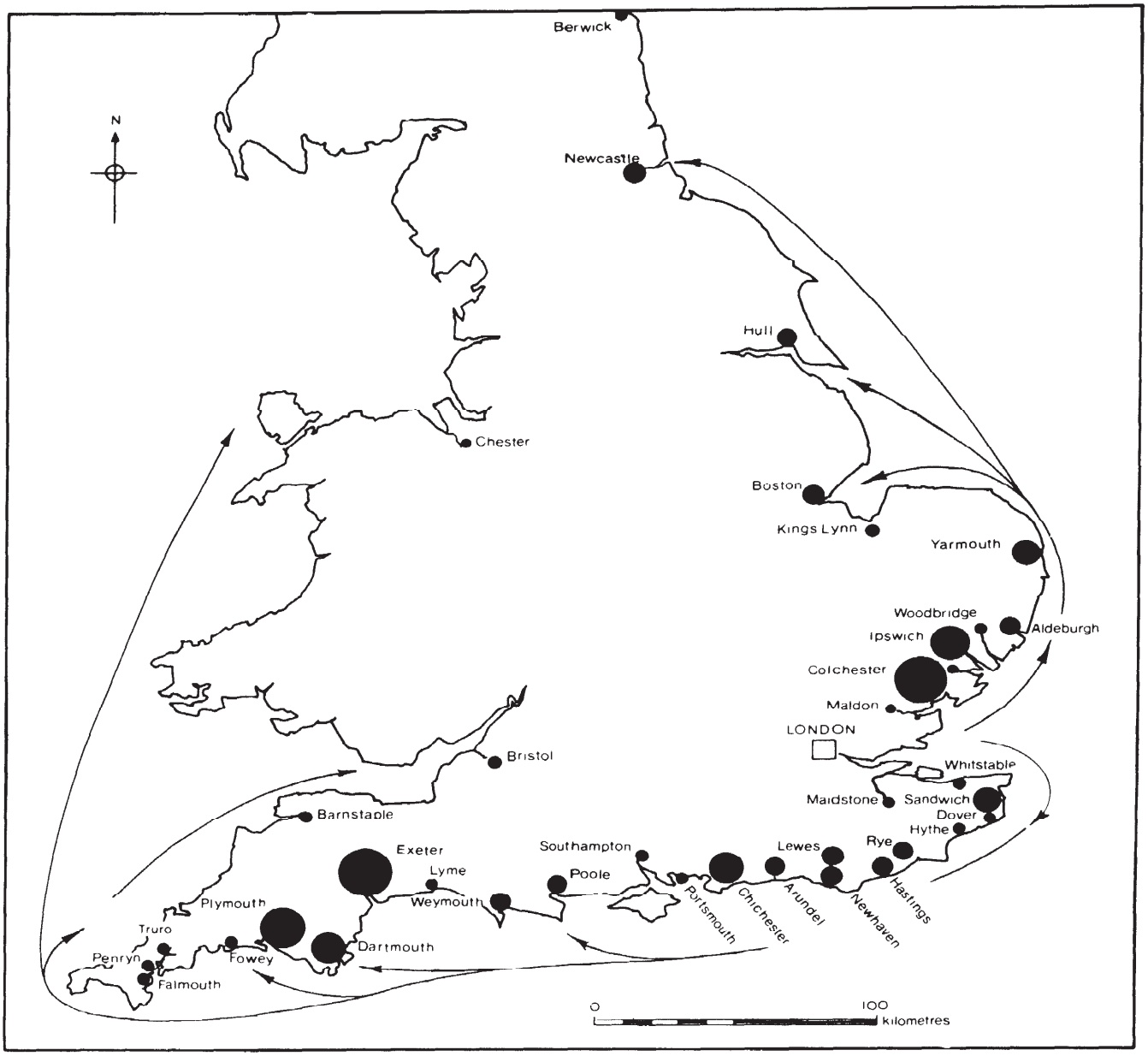


Fig 32 Coastal re-exports of stoneware from London in 1579-80 and 1585-6 (Allan 1983, fig 4.1)

German stonewares around the south coast of England, Fig 32). Chelmsford is probably the first attempt to sort out a local coarse-ware industry based on the stratigraphic evidence. At the same time the number of individual studies of pottery production centres has continued to grow, for example Brears (1967) on Potovens, the Stoke-on-Trent monograph series, Denholm (1982) on Glasgow, and Grant (1983) on Barnstable. All this activity is beginning to provide an outline picture of the nature of pottery production in the post-medieval period. It should be remembered that for many wares the towns were centres of production as well as consumption and that for the ports in particular, a redistribution function was also important. What is still badly needed is a well stratified sequence for each town.

(b) Glass Similarly a good deal of new evidence has appeared. While production centres appear to have been outside towns, urban pit groups have already provided much evidence for typology, chronology and trade in glass wares in north-western Europe and are particularly sensitive for the delineation of social class or wealth differences between sites. The sequence from Southampton is of great importance (Charleston 1975), but other sites such as Plymouth (Preston 1979), or Newcastle (Ellison 1983) have

also provided valuable evidence. In spite of all the information which now exists a synthesis of basic forms has not yet been attempted.

(c) **Metallurgy** Bronze, iron and pewter finds are still much too rare, due to poor conditions of preservation and inherent scarcity for a full inventory to be attempted. A good example of the range of material often present is the group from the Free Grammar School in Coventry (Woodfield 1981) where objects in bronze, iron and copper alloy abound. Most published material is, however, scrappy, probably unrepresentative and consequently difficult to interpret. The inherent value of the material used and the likelihood of many discarded objects being melted down reinforces this problem.

(d) **Leather** The need for special types of deposit in which this material is likely to be preserved limits the range of sites that can provide a satisfactory sequence. Although good groups are known from Hull (Armstrong 1977), York (Goodfellow & Thornton 1972) and Coventry (Thomas 1980), these only extend a century or so into the post-medieval period for which a coherent developmental sequence has still to be produced. A type site is required. Northampton would be an ideal location both because of the importance of its leather industry and because the documentary evidence for the post-medieval period has been well studied (Thomson 1981).

(e) **Textiles** These are even more difficult to find than leather artifacts and can only be studied on any scale at sites like London with extensive waterlogged deposits.

(f) **Clay tobacco pipes** Although the literature on this subject is now enormous and the general development throughout Britain is well established (Oswald 1975), kiln sites, which are usually found in an urban context, have only rarely been excavated (Peacey 1982) (Fig 33). Nothing is known of these until the late 17th century. Similarly, while some regional types have been very thoroughly studied and published, other areas of England such as Cumbria and the south-west peninsula, together with most of Wales, Scotland and Ireland remain to be described. Despite the large number of finds from excavations, groups occurring in a well stratified sequence are exceptional. In Aberdeen, for example, only one excavation in ten provided such evidence (Davey 1982).

(g) **Environmental evidence** This is even more frequently overlooked on post-medieval sites or phases of earlier sites than other periods. When environmental evidence has been collected great benefits can already be seen. Even on sites such as the Christchurch excavations where the post-medieval archaeological evidence was poor, aspects of the environmental evidence may be of considerable interest (eg Coy 1983, Green in Hall & Kenward 1982) (Table 4). The scientists who study domestic animal bones, pollen, insects, seeds etc are not bound by archaeological period biases unless forced into them by site sampling policies. For them a sequence of material from the earliest activity on the site to the most recent is needed for the best understanding of the evolving environmental background and natural framework within which human societies developed on a particular site.

Table 4 Ranges for Sheep Withers' heights (in cm)

Bone	(Middle Saxon) Hamwih	Christchurch 13th/16th c.	16th/17th c.	18th/19th c.
Scapula	–	59		
Humerus	50–57(5)	–	–	–
Radius	57–71(58)	51–57(5)	47–58(8)	–
Metacarpus	54–71(65)	46, 49	51–60(13)	53–70(6)
Femur	63.5	52+	–	–
Tibia	60, 63	–	–	–
Metatarsus	55–68(53)	55	51–56(12)	61–71(3)
Overall range	50–71(181)	46-59(10)	47–60(33)	53–71(9)

Note. The number of estimates is given in brackets after the range, where more than two estimates are involved.

Structures

However accidental, in the majority of cases urban archaeologists have not been able to avoid the excavation of post-medieval structures. Often their elucidation was very closely linked to medieval or even Roman antecedents, so that extremely careful examination of all deposits was essential; sometimes the post-medieval date would only become clear at a later stage. The result is that we have accumulated a wide range of knowledge about a variety of structures:

1 **Pits** Probably the best known aspects of urban life in Britain is the construction of rubbish and cess pits from the earliest period of urbanization often until the nineteenth century. As structures these do not provide much useful information and they tend to be destructive of earlier occupation evidence. In *Excavations in medieval [sic] Southampton* (Platt & Coleman-Smith 1975) a majority of all the pits reported on were of post-medieval date.

2 **Kilns** and ovens The more substantial structures involved in the burning of lime, bell-founding, the production of malt or firing of pottery and clay pipes have turned up frequently on urban excavations (Fig 34). For some of these, for example lime or pottery kilns, it is possible to show technological developments taking place from early medieval times to the recent past and the study of these activities in towns must be seen as a continuum. Such sites allow the study of complete production, distribution and consumption cycles in a given market area.

3 **Town walls** The investigation of the medieval defences of towns has inevitably led to the discovery of a good deal of information about their latest phases. A study of documentary sources such as town accounts shows that money was spent on town walls on frequent occasions during the post-medieval period. The Civil War is one obvious occasion which led to refurbishment and also to extension of the town's defences in many cases. In the 16th century in particular, many new defensive systems, like those at Berwick-on-Tweed, were also created. In some areas there may be a complex of defences dating from this period, eg in Ulster, where the political situation suffered a number of major changes within the span of not much more than one century. This kind of work, which is often linked in with the investigation of medieval or Roman defences, tends to be well funded and the standing monuments well recorded (eg the Royal Commission volumes on Newark and York).

4 **Buildings** Large urban area excavations have produced many fragments of domestic, public and industrial buildings of the period. Many of these appear as the latest phases of medieval structures, many others represent new

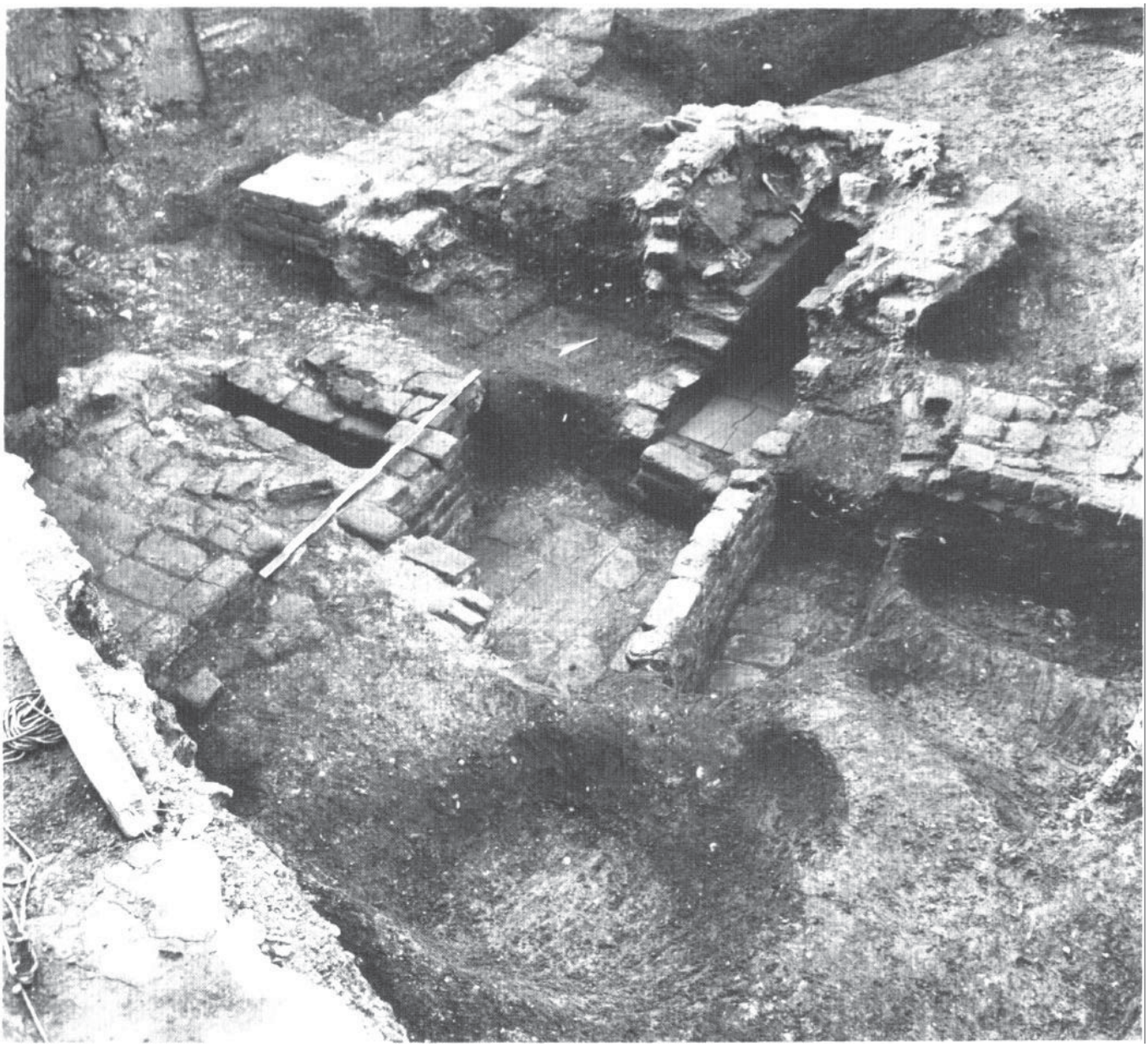


Fig 33 Clay tobacco-pipe kiln excavated at Arcadia Buildings, Southwark (Museum of London, Department of Greater London Archaeology)

urban expansion or redevelopment. A much clearer picture of these developments and changes in individual towns and regions is beginning to emerge. Public or semi-public structures such as palaces, market halls, libraries, prisons, lock-ups, theatres and schools have all been investigated (Fig 35). Specialized industrial buildings constructed for brewing, dyeing, tanning and milling of various kinds are beginning to be recognized.

5 **Tenements** The post-medieval excavations whose results may be most sensitive for the interpretation and evaluation of socioeconomic change are those in which a number of contiguous tenements are studied for their entire history. It is clear that, as with the medieval period, we are dealing, in some towns, with an extraordinary degree of continuity of plot boundary. For example at Saddler Street in Durham (Carver 1979) the same plot divisions endured from the 11th century to the 20th. Others suffered a series of replanning episodes in response to political and economic stress. In order to study the dynamics of these factors it is essential to excavate the whole available sequence with the same degree of attention to detail, even if this means looking at 19th century housing or industrial activities. That good results are being obtained may be seen from the excavations at Exeter, where at Friernhay Street three tenements were excavated, the final six phases of which were post-medieval in date (Cherry 1982) (Fig 36).

Standing buildings

The series of urban surveys stimulated by *The erosion of history,* such as the Oxfordshire and Wiltshire studies already referred to, were undertaken with local authority planning functions in mind. One of the most obvious

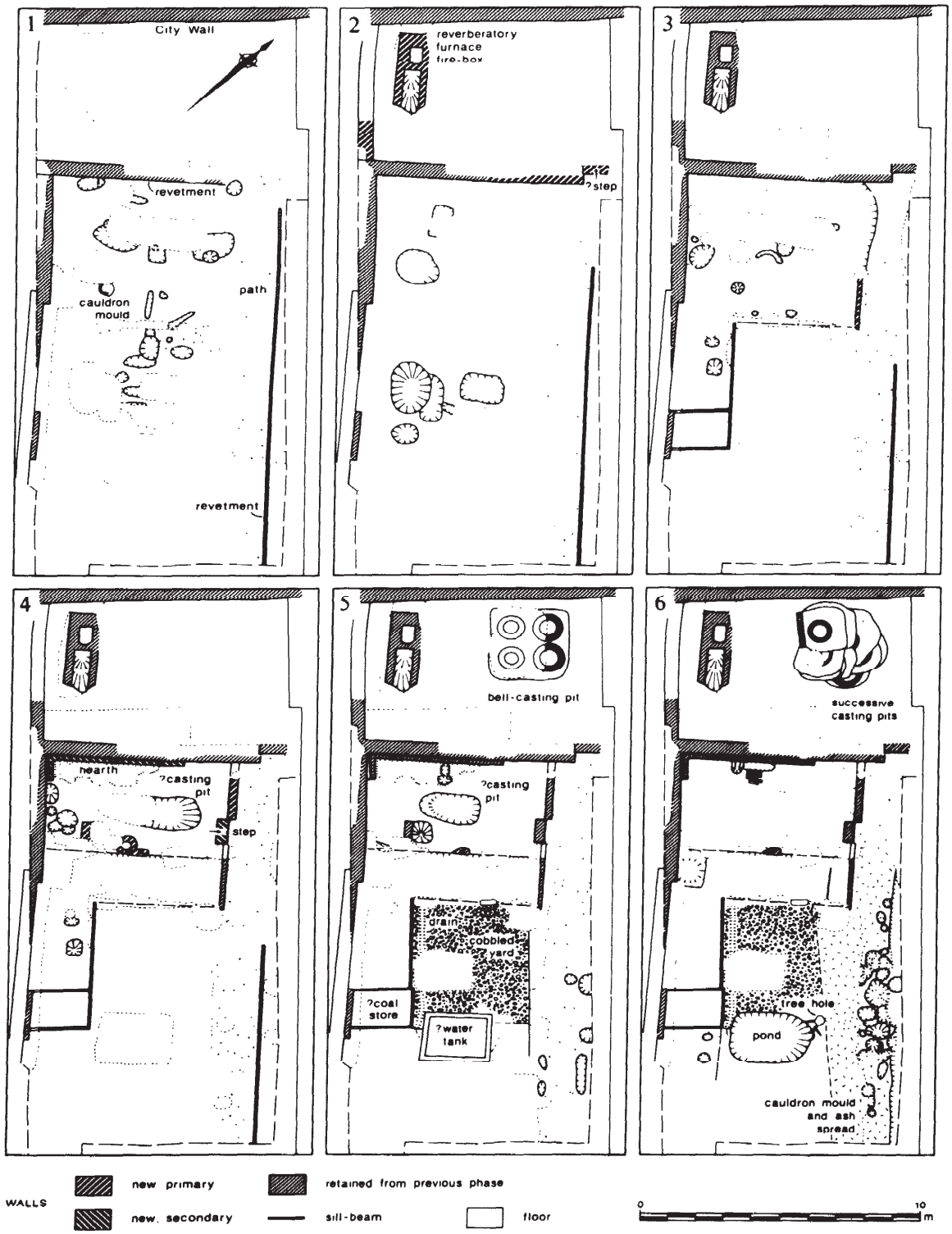


Fig 34 Plans of the remains of the Pennington Bell Foundry, c 1625- 70, excavated at the Paul Street site, Exeter, 1982-3; phases 1-5 c *1625 to* c *1660; phase 6* c *1660 to* c *1720* (Post-Medieval Archaeol, 17 *(1983), 200)*

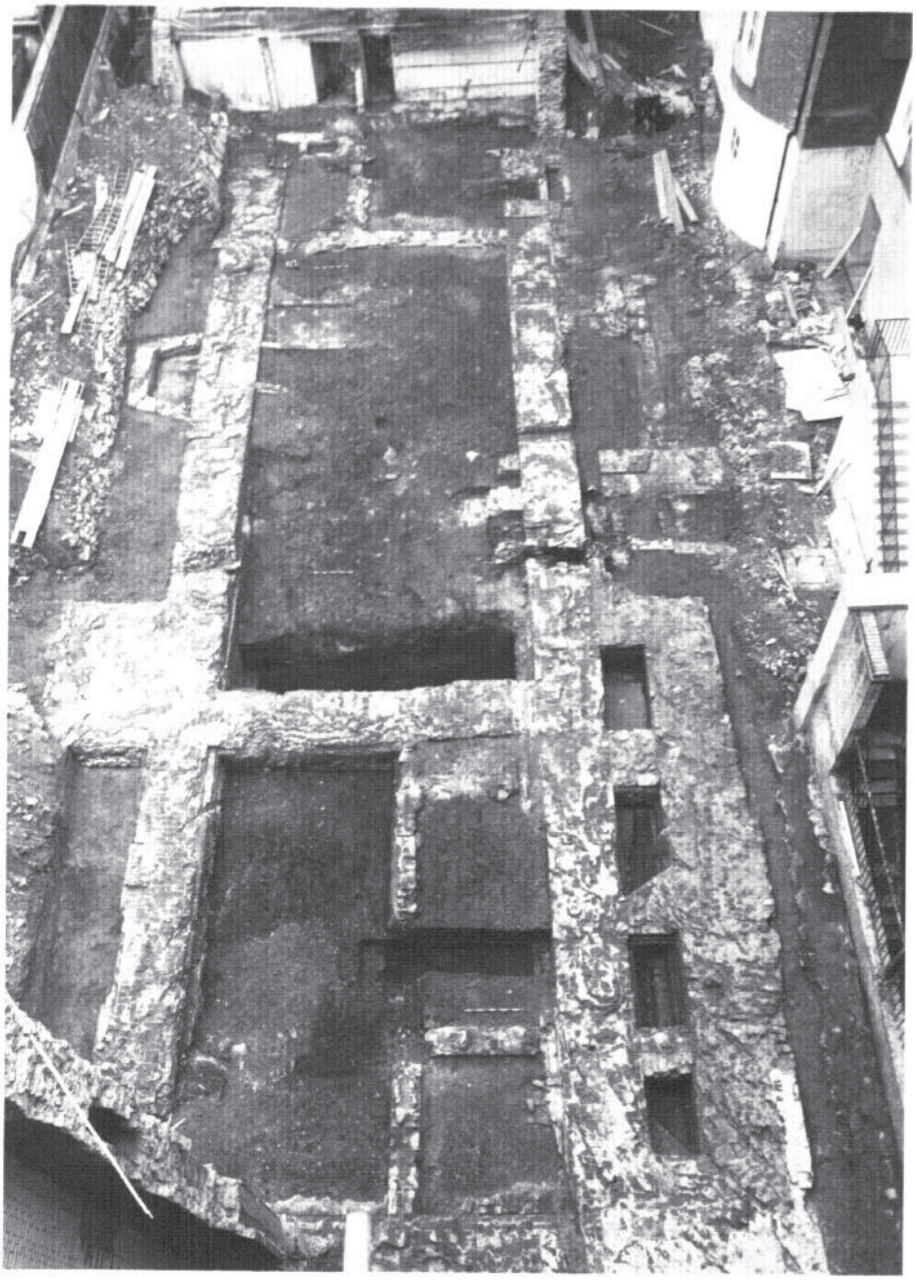


Fig 35 Bridewell Palace, London: southern half of the eastern range of the principal courtyard (1515-23), excavated in 1978. The entire plan of the palace could be constructed from two excavations and detailed cartographic evidence (Museum of London: Dyson &, Gadd 1981)

historic resources of our medieval towns, the standing buildings, could not be ignored. Archaeologists found that assessments of value, advice about conservation areas or areas of archaeological significance became inevitably bound up with the status, location and future of the standing buildings, The excavation of vacant plots in towns often involved the elucidation of foundations which could best be understood by reference to contemporary standing structures in other parts of the town. Although research into buildings, the vast majority of post-medieval date, has been traditionally carried out by architectural historians, vernacular architects, planners and special interest groups, archaeologists have been drawn into serious consideration of the standing buildings for a number of reasons.

The CBA Churches committee, set up to consider the archaeological implications of large scale redundancy and re-use of our medieval churches, has established in archaeologists' minds that detailed, stone-by-stone, *archaeological* recording, with full attention being paid to evidence for sequence and objective planning of everything above ground (and below ground where demolition is involved) is the only way to begin to understand the full history of the structure involved. In more and more town excavations, building fragments, such as undercrofts, buried walls and

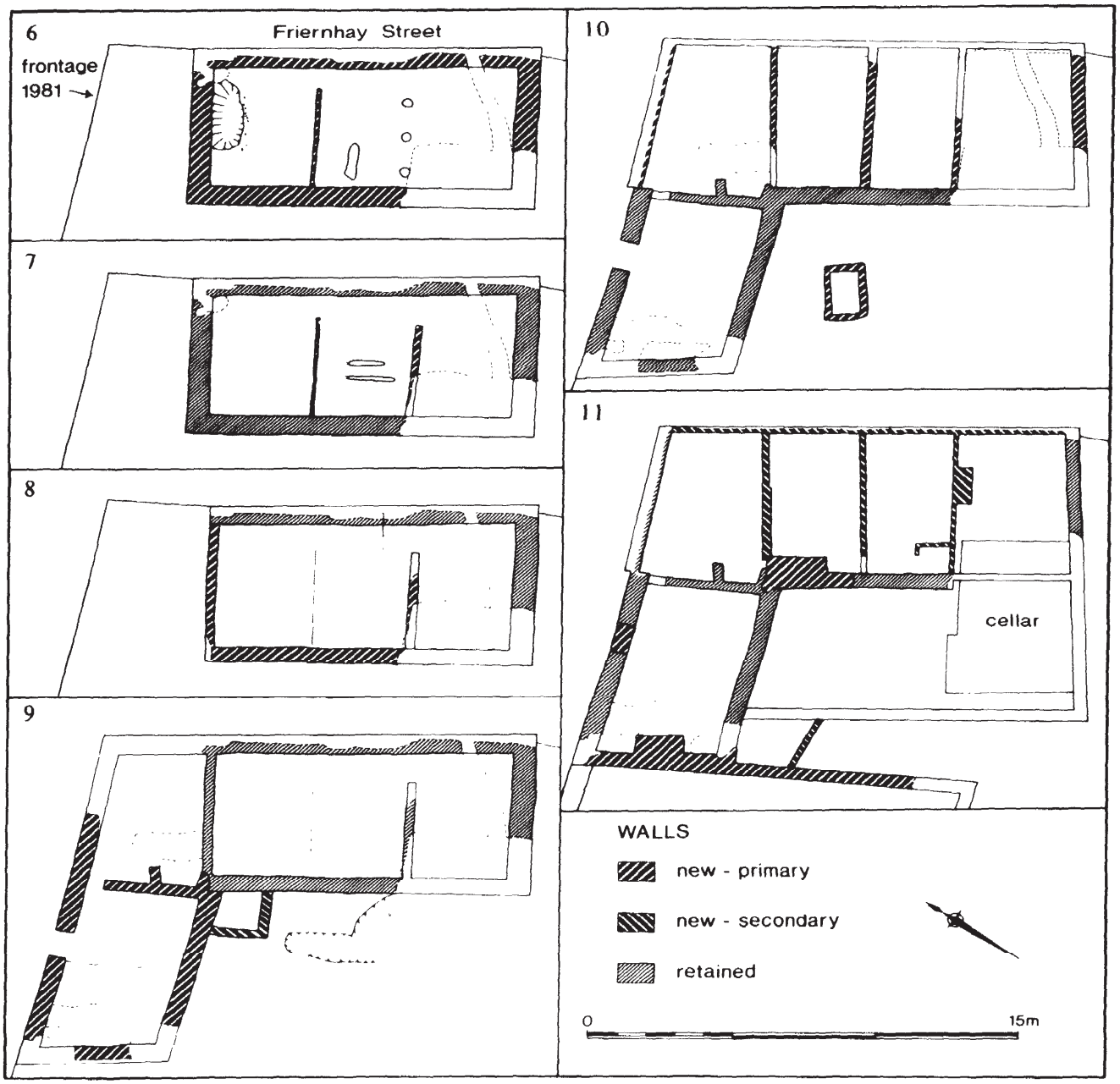


Fig 36 Development of Tenement C on the Friernhay Street site, Exeter, in the post-medieval period phase 6 c *1500; phases 7-8 16th century; phase 9 late 16th to early 17th century; phase 10* c *1700; phase 11 19th century* (Post-Medieval Archaeol, **16** *(1982), 219)*

floors have been recorded in this way. Despite the separation of powers enshrined in the Ancient Monuments Acts and Town and Country Planning Acts, archaeologists have increasingly felt the absurdity of dealing with standing buildings as if they were two separate kinds of animal.

In general, then, we know a great deal more about post-medieval towns as a result of the major urban excavations that have taken place over the past two decades. We know a great deal more about what was produced in them, what they consumed and what they marketed abroad. We also have a much better idea of the kinds of buildings they used both in public and private. In many towns the details of social and economic continuity and change are beginning to be understood.

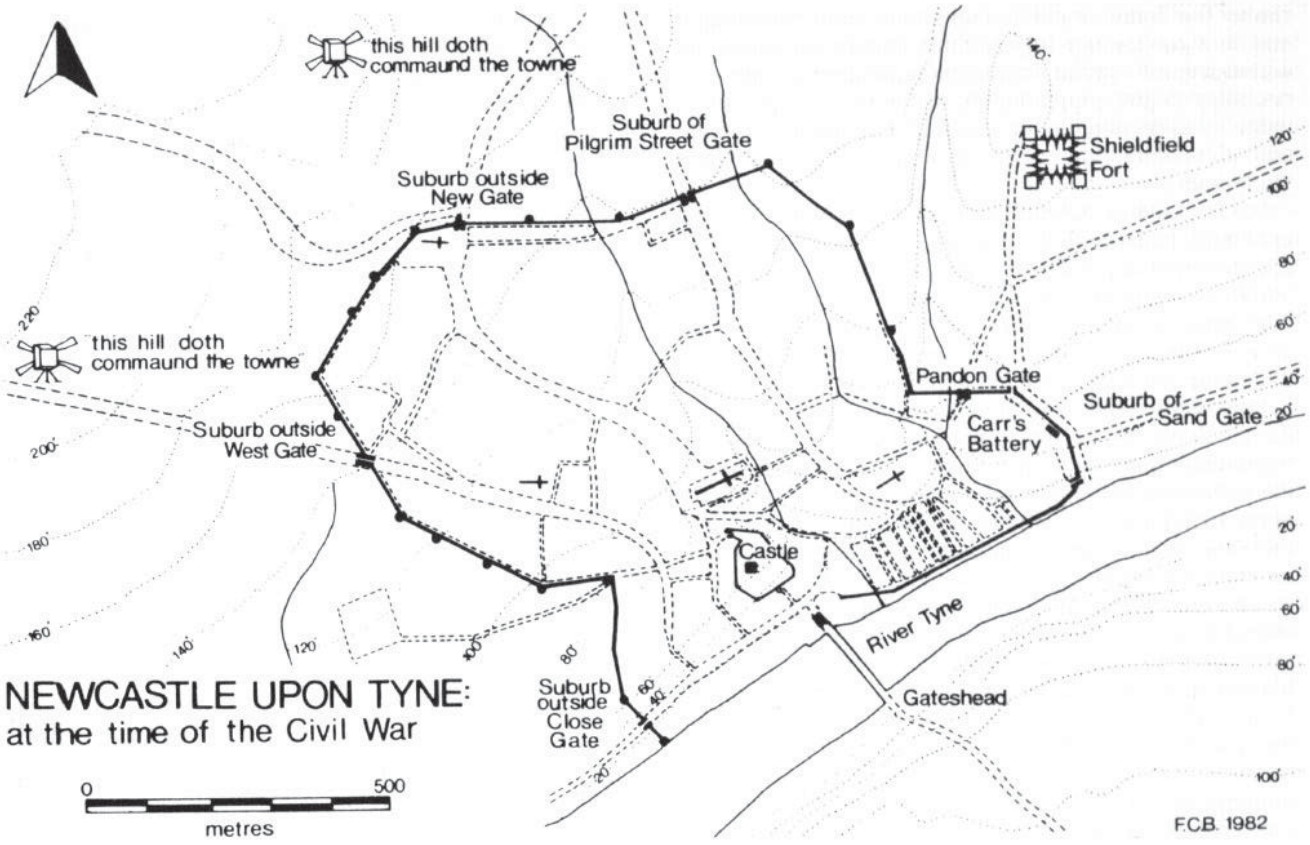


Fig 37 Newcastle-upon-Tyne at the time of the Civil War (Ellison & Harbottle 1983, 139)

Trends in archaeology to the advantage of post-medieval urban studies

There have been a number of changes of emphasis within archaeology at large which have had important effects on urban studies. There has been a general move away from simple questions of structure and date, towards attempts to see sites of all types in a wider social, economic, environmental framework. With this has gone a much greater emphasis on the study of process rather than event. In the case of towns there has been a move away from questions such as the date of the earliest urban settlement or the location of the first defences, which so dominated early archaeological work, towards a consideration of towns as commercial, industrial, military, domestic and cultural foci, seen in the context of their agricultural hinterland and marketing areas.

A milestone in urban studies was the publication of *Plans and topography of medieval towns in England and Wales* (Barley 1975), which attempted to bring together geographers, historians and archaeologists to provide a combined appraisal of the evidence for and approaches to the history of our towns. Although the archaeologists involved kept to their briefs rather closely–Planned towns before and after 1066 (Biddle & Butler), Town defences after 1066 (Barley) and Suburban growth (Keene)–the general trend of the volume is towards an interest in evolutionary processes and away from purely structural or period confined problems. Platt's paper on the growth of towns went up to the 16th century. Barley contributed three paragraphs on post-medieval defences, emphasizing the importance of the Civil War (Fig 37), while Keene's discussion of suburban growth took as its starting point the detailed evidence of 16th century maps.

Even more, Palliser's account of documentary sources for urban topography makes it clear how many of these are of post-medieval date. Their correct use as evidence for earlier phases of occupation depends on a clear grasp of the history of the town between the date of the document or map–say, 1611–and the period of interest–say, 1200. Some concept of an urban occupation continuum from foundation to recent times is necessary in order to avoid spatial and temporal non-sequiturs. This is made even more clear in Carter's paper entitled 'The geographical approach' in which techniques of plan and network analysis and the assessment of degrees of topographical determinism require the site to be viewed as a continuous sequence over time. Whether this means a broad comparison between Ely in 1611 as portrayed by Speed and the 1927 OS Map (Platt *ibid,* 48), or Carter's own more detailed approach when he discusses Aberystwyth using four plans and views between 1748 and 1834, a full study of the last four or five centuries is an essential prerequisite to the understanding of earlier periods.

Slowly, archaeologists are being persuaded by the many specialists whose advice and assistance has become increasingly necessary, to take on a less period-dominated and more comprehensive approach to urban problems. The building historian, for example, may be concerned with the evolution of the use of a particular material such as slate from medieval times to the 19th ,century, or with the use of

timber box frame or cruck construction from beginning to end in a particularly region. Such studies cut across our archaeological period divisions and demonstrate the necessity to give proper weight to the end of a process in order to understand its origins and deveopment. What is true of buildings is also true of whole towns or complete landscapes.

In a similar way our environmental colleagues also see the excavated evidence from towns as an opportunity to study the continuity of plant, animal and insect presence in an area within a historical framework created by the archaeology. The arrival of particular plants, animals, birds, fish etc into an area, their exploitation by people and the development of domestic animals can only be understood properly when a dated sequence of deposits containing such evidence can be provided by a particular site. If this sequence is truncated, especially if this is done for arbitrary reasons by the archaeologists, lack of recent material makes evaluation of earlier deposits very much more difficult. Urban cess and rubbish pits offer unique sources of evidence from early medieval times until the 19th century in most towns, by which time methods of rubbish and cess disposal had altered. From this date the beginnings of scientific recording and the existence of more detailed documentary evidence are likely to give sufficient information to bring the subject up-to-date. These long sequences are essential to archaeologists because they provide the environmental and natural resource background against which urban societies can be understood. By implication, the evidence for food consumption which they give can be a vital element in the study of the rural areas around individual towns. The provision of services and the implied healthiness of the local community is a major theme for research.

Each of these methods of archaeological study is tending to give added significance to post-medieval phases on urban sites and to force excavators to give such levels much more careful attention.

A further spur to post-medieval urban research has been a political one. The 1960s and 1970s saw a rapidly increasing awareness by planners and politicians of the importance to contemporary society of its historic towns (cf Heighway 1972). The spate of surveys, implications studies and town-centre plans and the appointment of many urban rescue archaeologists were the products of this. It is as well to remember that many of the reports which came out of these appointments, although full of archaeological information, were addressed primarily to the present day town-dweller who felt a need to understand his present environment with reference to the past and who often paid through his rates for much of the archaeological work. Thus consideration of conservation and present urban economic use were as important as a narrowly defined purely archaeological priority system based on age alone. In many such studies the potential of standing buildings, many or all of which were of post-medieval date, ranked equal with that of underground archaeology.

Towards a post-medieval urban archaeology

Given the greater sympathy in the academic climate towards the post-medieval period described above, what is the special role of archaeology in the study of towns from 1500 to the present? The history of towns after 1500 is full of change and development. As in the medieval period, towns are created, evolve, decline, are defended and redefended and experience changes of function or radical innovations in old ones. They are replanned, boom, stagnate, develop new suburbs and slums, abandon old ones. House plans and social organization alter and new building materials are introduced. In particular, many towns saw the contraction of major medieval functions and the evolution of new ones during the 16th and 17th centuries. Within their boundaries many minor industries continued, declined or were introduced. Changing patterns of markets, with improved communications, greatly accelerated by the canals, turnpikes and railways in the modern period led to increasing specialization often determined by the location of raw materials. The development of new markets in the expanding colonies in America, Africa and elsewhere threw extra weight on the ports as both centres of production and the organization of distribution. The growth of London as a metropolitan market, dwarfing all others, had a major effect on the market towns at some considerable distance. These changes of function and economic status of the towns also had profound implications for local agriculture. Already specialized to some degree by the late Middle Ages, cash economy forced new methods, an increase in enclosure and regional specialization. Throughout the period and increasing with time there exists a large and, as yet little tapped, reservoir of documentary sources for urban life.

Given a period of rapid change and increased documentary evidence the special role of archaeology may be summarized as follows:

1 To excavate very well documented sites in order to gather as wide a range of archaeological and environmental evidence as possible and to provide a control for the use and interpretation of the documents. In addition the written evidence can be used as an independent test of archaeological hypotheses. Post-medieval sites can provide a proving ground for theoretical approaches in earlier periods.

2 To excavate poorly documented or non-documented aspects of urban life of the period. These may include the technologies and products of minor industries, tenements of the poor, 'lost' structures or areas and the determination of the nature of food supplies and local environmental variables.

3 To assess the effects of dramatic events such as the Civil War in England, the Plantations in Ireland or the Great Fire of London on local urban life. Archaeological evidence can demonstrate a variety of concrete products of what are otherwise rather abstract historical events.

4 To provide detailed technological and chronological production centre evidence for a wide range of artefacts which were widely traded during the period. These include glass and ceramic finewares made in such centres as Bristol, Glasgow or Liverpool and a variety of other artefact types, such as metal-wares and coarse ceramics which require the excavation of actual production sites for their correct elucidation. In European 'colonial' settlements from the 16th to the 19th centuries many artefacts are of British origin. The lack of understanding of the production of these is a continual impediment to archaeologists overseas in the interpretation of their excavations.

Academic Research Priorities

Given the present state of knowledge and the special role of

archaeology in this period research priorities may be suggested as follows.

1 To consider the level of material culture characteristic of the different ranks and occupations of society throughout the period

2 To consider the degree to which these variations in material culture have a specifically regional expression

3 To undertake integrated projects involving inter-disciplinary cooperation. These should involve urban geographers, historians, economists, architects, environmentalists, specialists in differing industrial and related processes as well as archaeologists. At the same time to test archaeological hypotheses against the relevant documentary evidence

4 To examine the occupation sites of the less well known groups in society, particularly urban slums and the poorly documented industrial processes

There is strong reason to suggest that more effort should be spent on urban investigation during this period as towns provide concentrations of evidence and served as the foci for political and social organization, external contacts and industrial development. The almost total absence of rural settlement research is, however, a serious impediment to the interpretation of urban structures and assemblages. In some regions of the country, such as north-west England, we know practically nothing of the post-medieval archaeology of towns or countryside and little more about the medieval. When efforts are made to rectify this a number of specifically urban problems must be borne in mind. These relate to matters of origin, continuity and development.

Origins What was the stimulus or stimuli which lead to urbanization? What was the nature of the previous settlement (eg Ulster Plantation Towns)?

Continuity Few towns in the British Isles have their origins in the post-medieval period. Most derive from Roman or medieval foundations. What are the processes by which the town has developed and how have these affected house plans, street networks, diet and trade? How has the town responded to major changes of role or violent interruptions to its physical well-being (eg the Civil War, the Great Fire of London)? How far have such events affected its structure, size or internal organization?

Development What was the size and density of population at different dates? What were the specialized activities of its inhabitants? How and why did slums and suburbs develop? How and why did areas decline or stagnate?

Thus when decisions have to be made about the input of physical or financial effort into particular post-medieval projects, highly integrated multi-disciplinary projects and the investigations of types of site or activities which lack documentation should be given priority. Specific problems of siting or dating, which can be solved with small resources such as the whereabouts of an early 17th century town wall or the date of a new suburb, should also be given favourable consideration. A number of projects which look at very well documented sites should also be supported. Specific 'specialist' problems such as the study of pottery variations with time and social status, the establishment of dendrochronological frameworks, the study of cattle and sheep domestication, or the establishment of dated metalwork or glass sequences also deserve backing.

When choices between towns have to be made, sites of international importance should be given priority. In the post-medieval period sites such as Bristol, London, Glasgow and Belfast assume an international importance because of the volume of their trade and contacts with the outside world. Other ports, particularly those with the possibilities of waterlogged waterfronts and deposits which contain evidence of external trade also deserve attention as do those small towns which carried out some specialized activity, such as salt production or the provision of mineral waters. In addition a selection of sites which have post-medieval defences or major late repair phases in their defences, or suburbs which are particularly well developed or under-developed, should be investigated. A number of new towns of the period need to be considered.

What follows from all this is that a new awareness of the potential is needed by excavators of post-medieval sites. It will not be enough to argue that an urban site needs excavation because it happens to be there and available. Large-scale area excavations in towns are unlikely to be cost effective unless designed as part of a wider integrated project and, in any case, will only be financially possible in very few cases. Regional priorities need to be drawn up and agreed so that the available resources can be used according to a rational plan according to the kinds of criteria discussed above, In order to make real progress in understanding post-medieval towns we need much more information from excavations.

At the moment the period after 1500 is less well understood than almost any other in the life of our towns. In the present economic climate and state of awareness only something like 1% of all projects will be post-medieval urban, though, on past experience, something between 6% and 10% are likely to encounter significant structures or finds of the period. In this situation all urban archaeologists and historians need to be made aware both of the potential and the priorities for post-medieval research.

Bibliography

Allan, J P, 1983 The importation of pottery to southern England c 1200–1500, in *Ceramics and trade: the production and distributions of later and medieval pottery in North-West Europe* (eds P J Davey & R Hodges), 193–207

Armstrong, P, 1977 *Excavations in Sewer Lane, Hull 1974*

Barley, M W (ed), 1975 *The plans and topography of medieval towns in England and Wales*, CBA Res Rep 14

Brears, P, 1967 Excavations at Potovens near Wakefield, *Post-Medieval Archaeol*, **1,** 1967 (1968), 3–43

Carver, M O H, 1979 Three Saxo-Norman tenements in Durham City, *Medieval Archaeol*, **25,** 1–80

Charleston, R J, 1975 The glass, in *Excavations in medieval Southampton 1953–1969*, **2,** (eds C Platt & R Coleman-Smith), 204–26

Cherry, J, 1982 Post-medieval Britain in 1981, in *Post-Medieval Archaeol*, **16,** 218–20

Coy, J, 1983 The animal bones, in *Excavations in Christchurch 1969–1980* (ed K Jarvis), 91–7

Cunningham, C M, & Drury, P J, 1985 *Post-medieval sites and their pottery: Moulsham Street Chelmsford*, CBA Res Rep 54

Davey, P J, 1982 The clay pipes, in *Excavations in the medieval burgh of Aberdeen 1973–1981* (ed J C Murray), 216–23

——, & Hodges, R, 1983 *Ceramics and Trade*

Denholm, P C, 1982 Mid eighteenth-century tin-glazed earthenware from the Delftfield Pottery, Glasgow; excavation at the Broomielaw, 1975, *Post-Medieval Archaeol*, **16,** 39–84

Ellison, M, & Harbottle, B, 1983 The excavation of a 17th-century bastion in the castle of Newcastle upon Tyne 1976–81, *Archaeol Aeliana*, **11,** 135–263

Evison, V I, Hodges, H, & Hurst, J G, 1974 *Medieval pottery from excavations: studies presented to Gerald Clough Dunning*

Goodfellow, A V, & Thornton, J H, 1972 Leather shoe parts and other leather fragments, in excavations in Low Petergate, York 1957–58 (P Wenham), *Yorkshire Archaeol J*, **44,** 97–104

Grant, A, 1983 *North Devon pottery: the seventeenth century*

Hall, A R, & Kenward, H K, 1982 *Environmental archaeology in the urban context*, CBA Res Rep 43
Haslam, J, 1976 *Wiltshire towns: the archaeological potential*
Heighway, C M, 1972 *The erosion of history: archaeology and planning in towns*
Jennings, S, *et al*, 1981 *Eighteen centuries of pottery from Norwich. E Anglian Archaeol Rep*, **13**
Oswald, A, 1975 *Clay pipes for the archaeologist, British Archaeol Rep*, **14**
Peacey, A A, 1982 The structural development of clay tobacco pipe kilns in England, in *Archaeology of the clay tobacco pipe VII* (ed P J Davey), *British Archaeol Rep*, **100**, 3–17
Platt, C, & Coleman-Smith, R, 1975 *Excavations in medieval Southampton 1953–1969*, 2 vols
Preston, A, 1979 The glass, in *St Andrews Street 1976* (ed G J Fairclough), 120–24
Rodwell, K, 1975 *Historic towns in Oxfordshire*
RCHM (Eng), 1964 *Newark-On-Trent: the Civil War siege works*, Royal Commission on Historic Monuments, England
——, 1972 *City of York: vol II, the defences of York*, Royal Commission on Historic Monuments, England
Rutter, J, & Davey, P J, 1977 A note on continental imports in the North-West 800–1700 AD, *Medieval Ceram*, **1**, 17–30
Schofield, J, & Palliser, D M, 1981 *Recent archaeological research in English towns*
Thomas, C, 1983 *Research objectives in British archaeology*
Thomas, S, 1980 *Medieval footwear from Coventry: a catalogue of the collection of Coventry Museums*
Thomson, R, 1981 Leather manufacture in the post-medieval period with special reference to Northamptonshire, *Post-Medieval Archaeol*, **15**, 161–75
Woodfield, C, 1981 Finds from the Free Grammar School at the Whitefriars Coventry c 1557/58, *Post-Medieval Archaeol*, **15**, 81–159

TOPIC SURVEYS

7 Urban defences

M J Jones & C J Bond

Introduction

The evolution of town defences was acknowledged in *The erosion of history* (Heighway 1972, para 2-l 3) to be of fundamental importance in urban archaeology. Roman, Anglo-Saxon and medieval defences have all been the subject of several recent syntheses (Maloney & Hobley (eds) 1983, Hartley 1983, Johnson 1983, Crickmore 1984, Frere 1984, Radford 1970, Turner 1970, Biddle 1975a, Barley 1976), as well as of some important individual studies (see site bibliography). Since 1970 archaeological investigation of defences have been reported from more than 100 towns in Britain, some of them already fully published, the results of others still only available in interim summaries. Inevitably this work has amplified and modified our understanding, and there is therefore a continuing need to distil the elements of general importance, to review progress, and to reassess the factors which have influenced the formulation of our research policies.

For the Roman period, the survey below discusses both defensive features and their historical significance. For the Anglo-Saxon and medieval periods, so many diverse sites are involved that it is not possible, within the confines of a short paper, to provide a comprehensive overview of the present state of knowledge; but attempts are made to assess the archaeological significance and potential of town defences, to identify aspects of their development which are still imperfectly understood, and to indicate some directions in which work might profitably proceed.

Roman defences

M J Jones

Although the sites of many Romano-British towns continued to be occupied in the Anglo-Saxon and medieval (and indeed the modern) periods, nowhere in Britain is urban continuity as such claimed. On the other hand many medieval towns have Roman occupation of some sort beneath them, and in studying their origins we need to know what the Roman settlement was like and what survived from the Roman period. In this context, the fortifications are a significant element, for medieval defensive circuits were often wholly or partly survivals from the Roman period. In addition to the towns, there are a number of Roman military sites, such as Chester and Doncaster, whose defences and/or those of their *vici* were a significant feature which ought to be borne in mind in studying the medieval settlement.

The study of Romano-British town defences (Fig 38) has traditionally concentrated on two aspects, often considered independently: the architecture and archaeology of the defensive features themselves, and the history of defence construction in *Britannia.* Perhaps excessive ink has already been spilt on the latter problem, but the subject of the dating and historical contexts of defence-building is still very much alive as an academic battleground, a microcosm of the hypothesis-dogma-reassessment-refined hypothesis development which characterizes several aspects of Romano-British studies (Wacher 1983). In addition, a third area of investigation is of comparatively recent origin. This might be defined as the study of the function of defences and of defence construction in the context of urban life in general. It deals with the effect of their construction on the settlement pattern, and the relationship of their extent to that of the settlement as a whole. The area defended can be a rough guide to the population size, but only at settled periods and in major towns, where a large proportion of the settlement was encircled, sometimes with room for later expansion. The defence of the small towns was usually confined to the protection of administrative and legal centres at their core.

The principal concern of the present paper is with our growing knowledge of the fortifications-ramparts, walls and towers, gates, and ditches, the extent to which recent archaeological work and research has improved our knowledge, the limitations of existing knowledge and approaches, and areas and aspects for future investigation.

The Romans viewed town defences essentially as an element of the public works (classified as *res sanctae)-and*

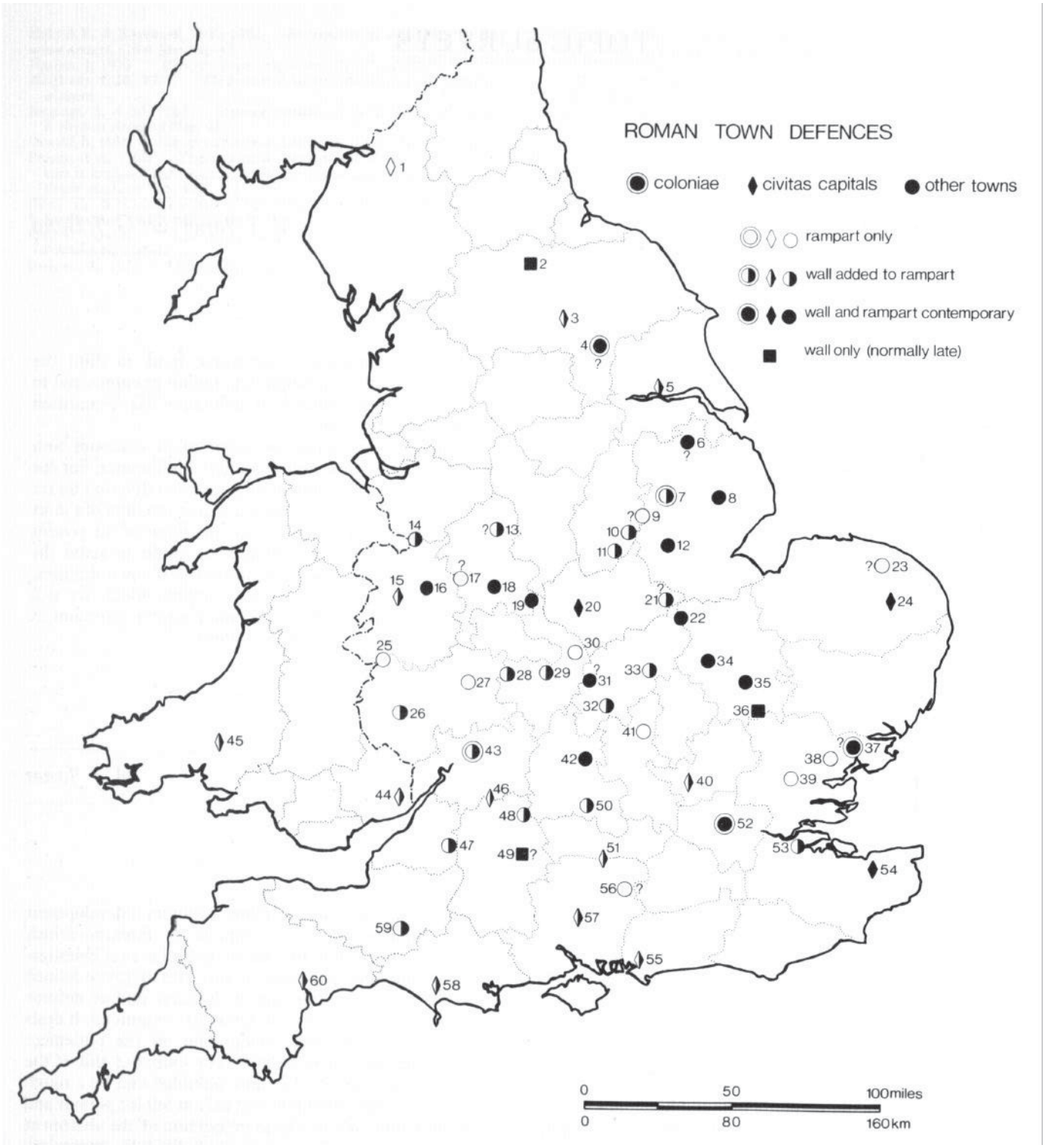


Fig 38 Map of Roman town defences (Jayne Peacock)

one probably controlled by the Emperor or provincial governor. Although not usually an original element of the townscape, the line which they took (in major towns at least) was often defined by earlier decisions on town-boundaries. As time went on, their relative importance increased, and in many cases they were the only element to survive the Roman period. (On the Continent survival tends to be even better but available dating evidence less precise.) Fortifications are best understood by taking into account both the context of each particular town and that of the province.

Any study of the defences must take into account the historical background. From evidence for their legal status, notably the rescripts of M Aurelius (about the status of which cf the views of Hassall and Wacher in Maloney & Hobley 1983, and Frere 1984), it is clear that defence construction was strictly controlled. Why did the local

ROMAN TOWN DEFENCES: Key to Map

1	Carlisle	31	Whilton Lodge
2	Catterick	32	Towcester
3	Aldborough	33	Irchester
4	York	34	Godmanchester
5	Brough on Humber	35	Cambridge
6	Caistor (Lincs.)	36	Great Chesterford
7	Lincoln	37	Colchester
8	Horncastle	38	Kelvedon
9	Brough on Fosse	39	Chelmsford
10	Thorpe by Newark	40	Verulamium
11	Margidunum	41	Fenny Stratford
12	Ancaster	42	Alchester
13	Rocester	43	Gloucester
14	Witchurch	44	Caerwent
15	Wroxeter	45	Carmarthen
16	Red Hill	46	Cirencester
17	Penkridge	47	Bath
18	Wall	48	Wanborough
19	Mancetter	49	Mildenhall
20	Leicester	50	Dorchester on Thames
21	Great Casterton	51	Silchester
22	Durobrivae	52	London
23	Brampton	53	Rochester
24	Caistor by Norwich	54	Canterbury
25	Leintwardine	55	Chichester
26	Kenchester	56	Neatham
27	Worcester	57	Winchester
28	Alcester	58	Dorchester
29	Chesterton on Fosse	59	IIchester
30	Caves Inn	60	Exeter

inhabitants, emperors or governors want to see defences built? Was it for security, status, or other reasons? It is now generally accepted that those who bore the cost were the local population, or in particular their representatives, aided in some cases by the emperor and the army (Johnson 1973). The financial burden must have had an effect on the community's ability to fund other public works. The cost in time and money is uncertain, but in the case of Silchester Boon has at least made an attempt to quantify the operation, a task which Wacher recommended for all sites (Boon 1974, 101-2; see also Fulford 1984, 236-7; Wacher, *op cit).* The research on likely historical contexts for defence construction was carried our some time ago, but other contexts not documented are possible. Dating methods are still being refined, the best hope for advances in precision probably lying with dendrochronology (eg Xanten: Precht in Maloney & Hobley 1983, 29-4 1).

Just how the defences themselves functioned has recently been reviewed by Baatz (in Maloney & Hobley, 136-40) in a paper which reinforces the growing clamour against earlier assumptions of the use of heavy artillery. Such machines were unnecessary, since sieges were never a feature of warfare in late Roman Britain. Baatz recommends that excavators make a systematic search for stones of different sizes, and for any surviving details of the superstructure of the parapet, to understand further what missiles were employed against the scaling and ramming which were the normal methods of attack.

Defensive features

We can similarly take each element of the defences in turn and systematically list what to look for in survey and excavation-detailed survey of existing remains is desirable for all well preserved sites (as recommended by von Petrikovits 1971), if only to disentangle the Roman fabric from that of medieval date. Such detailed examination has been carried out in recent years with productive results at a number of sites-among them Canterbury, Cirencester, Gloucester, Lincoln, London and Silchester, and the military bases at Burgh Castle, Portchester and York (cf also Cologne; Hellenkemper in Maloney & Hobley 1983, 20-8). The work at Cirencester, Gloucester and at Lincoln (Fig 39) in particular has shown us how complex a sequence can be. As Wacher has noted (Maloney & Hobley 1983, 141), we should not necessarily expect homogeneity around a circuit even at one period. The recommendations on excavation methods at post-Roman towns (below) also largely apply to Roman sites. Two recent accounts of late Roman fortifications have helped systematize the study of the various elements which might be encountered, and which therefore ought to be taken into account in any research framework/ excavation policy (S Johnson 1983; Butler in Maloney & Hobley 1983). To these can be added two works on lst-2nd century military defences (Jones 1977; A Johnson 1983).

The study of earlier fortifications and of contemporary sites in other parts of the Empire helps to place the British evidence in the wider context of the development of fortifications. The style of Romano-British town defences is derived from those of the Hellenistic period and from Augustan sites in Northern Italy and Southern Gaul; style cannot therefore be taken in most cases as a clue to dating until the local sequence has been established. There is some feeling that Roman fort-defences also formed a model for earthwork and earth and stone defences (eg Hassall in Maloney & Hobley 1983, l-3). This is only as might be expected-we are a long way from the 'ideal' as set out by Vitruvius-for many of the towns were close to the frontiers (as also in Gallia Belgica: Martens in Maloney & Hobley, 42-57), but close scrutiny suggests that the military neatness of this aspect of fort-building was not entirely carried over to the urban sites. Most urban earthworks were in fact of dump construction. There are exceptions to the standard British development. Colchester can possibly be seen in terms of the Italian model, similar to Cologne, with a large walled circuit laid out in a rectangle with little or no relation to the long-gone legionary defences.

The rampart

Town defences in Britain began with ramparts without walls, progressed through ramparts with narrow walls, ramparts with wider walls, and ended with thick walls without ramparts. While evidence for banks has been recovered from many sites, we still need to learn much more about their structural details. Ramparts often sealed earlier buildings which help to provide useful dating evidence, but the material from which they were constructed is frequently no precise guide to date. The source material was sometimes that excavated from the newly dug ditch and so contained little or no cultural artefacts, or sometimes redeposited rubbish mostly if not all of residual date in a secondary context. The use of rubbish deposits for rampart construction is a problem which perhaps deserves more attention in the context of the town as a whole-where was the rubbish from? Was the bank used casually as a rubbish dump? The

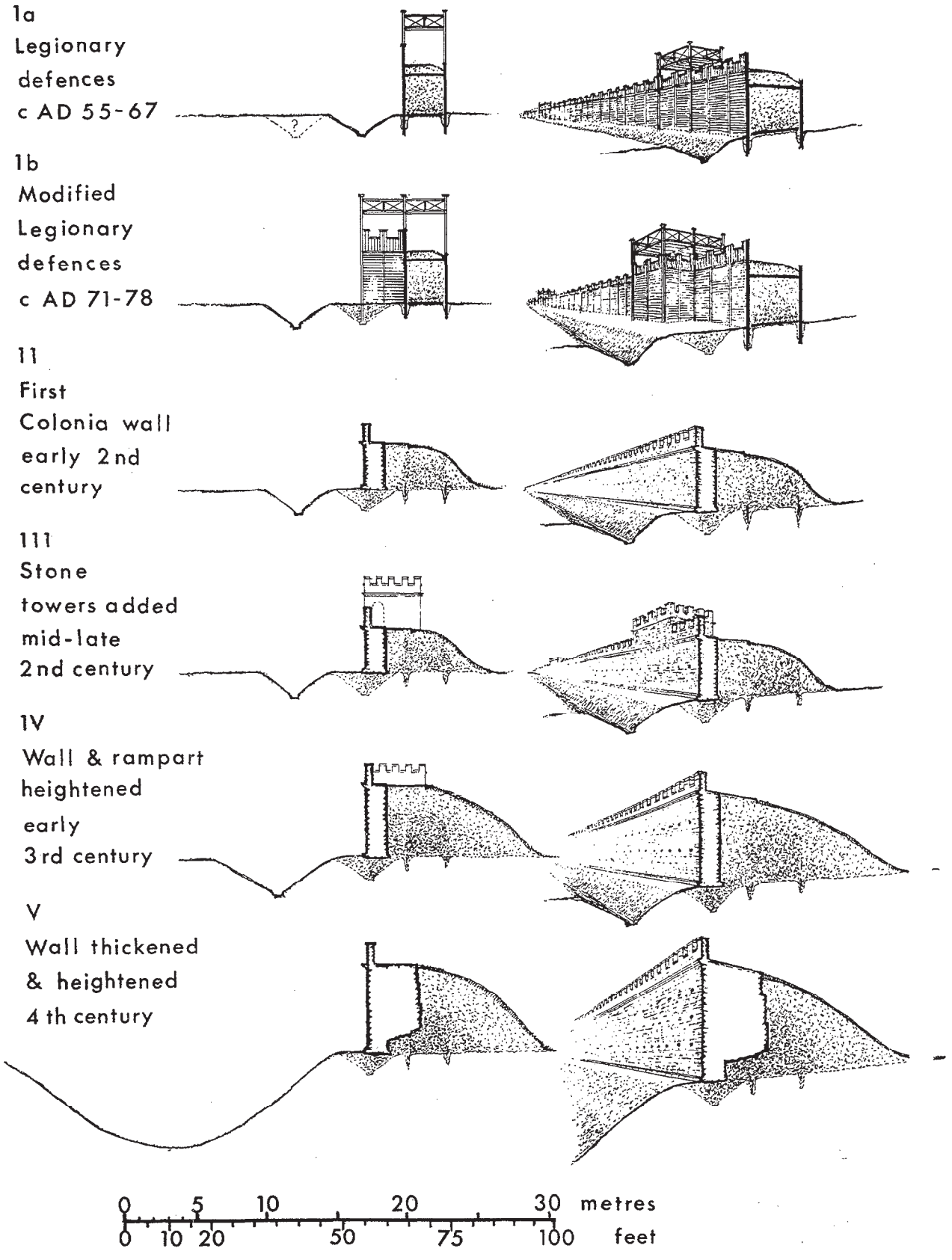


Fig 39 Reconstructions showing development of defensive sequence in the upper Roman enclosure at Lincoln (D R Vale)

new evidence from Exeter suggests that this was not general practice, but that it occurred occasionally for short periods (Henderson in Maloney & Hobley, 21).

Furthermore we need to look closely at the full published reports and section drawings to understand the variety of construction methods-differing widths, revetment methods, and especially, where the evidence survives, the nature of any breastwork (as found for instance on the east side of the lower city at Lincoln). Unlike fort-ramparts, rear revetments were not standard, but dump construction-requiring less expertise and possibly indicating haste-has been found at many sites. Turf was quite commonly employed for frontal revetments. We are still a long way from understanding the relationship of 1st and 2nd century town defences to those of contemporary military sites.

The wall

By contrast, the early 2nd century narrow walls at both Gloucester and Lincoln were of similar pattern to the roughly contemporary work at the three permanent legionary fortresses. These, and the more individual circuit at Colchester, were the earliest stone walls to surround British towns.

Although the wall at Colchester survives well, it has not so far yielded evidence of more than one period of construction. However, excavations and surveys at Gloucester, Lincoln and other sites indicate several rebuilds in addition to repairs. All sites need to be comprehensively examined in this detailed way, in particular the nature of the facing stones, but also their sizes, and the height of courses, timber lacing, scaffolding, beams laid above the foundations, and the construction of the core. Sources of stone and mortar used are of interest in economic terms but have only been established on a small number of sites. Dating of mortar by remanent magnetism might repay the effort. The help of geologists and other appropriate scientists needs to be enlisted for a nationwide attack on this problem.

The success in dating the wall at Xanten by dendrochronology could not be repeated at every site, but it is worth considering where piled foundations are known. (This would not of course solve the problem of the dating of 2nd century ramparts, except where-as at Cirencester -carbonized timber structures have been found in association.)

In surveying standing walls or excavating buried remains, many aspects and elements of the wall construction need to be borne in mind: evidence of *ascensus* to the rear, traces of timber from the wall-walk or from the upper courses, and coping stones-details of which might tell us the original height of the wall and the nature of the parapet and merlons. Plinth or string courses were regularly provided at rampart walk level, while merlon widths are a clue to the missiles available to the defenders. In late walls, normally thicker than 2nd-3rd century examples, few examples yet exist of re-used blocks as found commonly in Gaul (Blagg in Maloney & Hobley 1983) but where found they can throw important light on other aspects of the town.

Towers

The height of the wall may have corresponded to the level of tower doorways, at 6-9m above ground level. Interval towers were common, but often spasmodic, and not always an original feature of stone circuits. It is important to establish their exact relationship to the wall and the rampart, and to look for clear dating evidence which might tell us just how much time elapsed before they were added to the wall.

A distance of 100 Roman feet *(c* 30m) was common for spacing but not universal. Sizes, shapes and heights varied, even on the same circuit. Some towers were undoubtedly hollow-accommodation for the defenders was an important part of their function - a n d it is presumed that they were usually provided with an extra storey above the wall. Again much is to be learned of the incidence of decoration, the provision of windows, and the treatment of the roof, of which several different types are known.

Externally projecting towers, known commonly but (some would argue) wrongly as 'bastions', can be found on most walls of mid-late 4th century date. At London, for instance, there was a regular series, built between 341 and 375 (for their dating, see below). The assumption almost universally found in fairly recent literature that they were built as artillery emplacements is now discredited, but their existence did allow coverage of the outer face of the wall and does help our perception of the nature of the warfare intended (see above). These towers were normally rounded in plan, but other shapes occurred-for instance there appears to be a group in eastern England with fan-shaped angle-towers, our knowledge of which is based on the model at Ancaster. Evidence for more examples or similar groups would be welcome: more research needs to be done on the apparent concentration of polygonal towers in the west of the province, rectangular in the east, and circular in the south (Wacher 1983).

Gates

There is often, but not inevitably, a resemblance between the plans of towers at a particular town and those of its gates. Styles vary, as well as plans (Figs 40-3), but all were fairly conservative and in any case none can definitely be dated on stylistic grounds. Few late gates are known as yet and these may resemble forts. Inscriptions are the best dating clues quite apart from their other uses.

It is noteworthy that in Gaul only those gates which had originated as free-standing arches had double carriageways. While there is no guarantee that this was also the case in Britain, the identification of triumphal arches re-used in later gates at Colchester and Veralumium should sharpen our scent for such structures. Arches defined the town boundary on the major route and might be expected at a few more locations than those known so far.

Evidence for postern gates is fairly slight but they do occur in some well known circuits and more are likely to emerge. The gateway was also useful as an entry and exit point for water, in aqueducts or drains, and roadways should be excavated for such details. Road surfaces are also prolific in lost coins and the earliest surface through a gateway can often provide the best means of dating its construction-as long as the road was contemporary and not an earlier feature. Coin-finds show that some gates continued to be used into the 5th century, but several certainly were partially or totally blocked before this date. Details of what happened at individual towns should be accumulated.

Ditch-systems

Some gates were provided with bridges over the ditch-system; little is still known of bridge construction, and

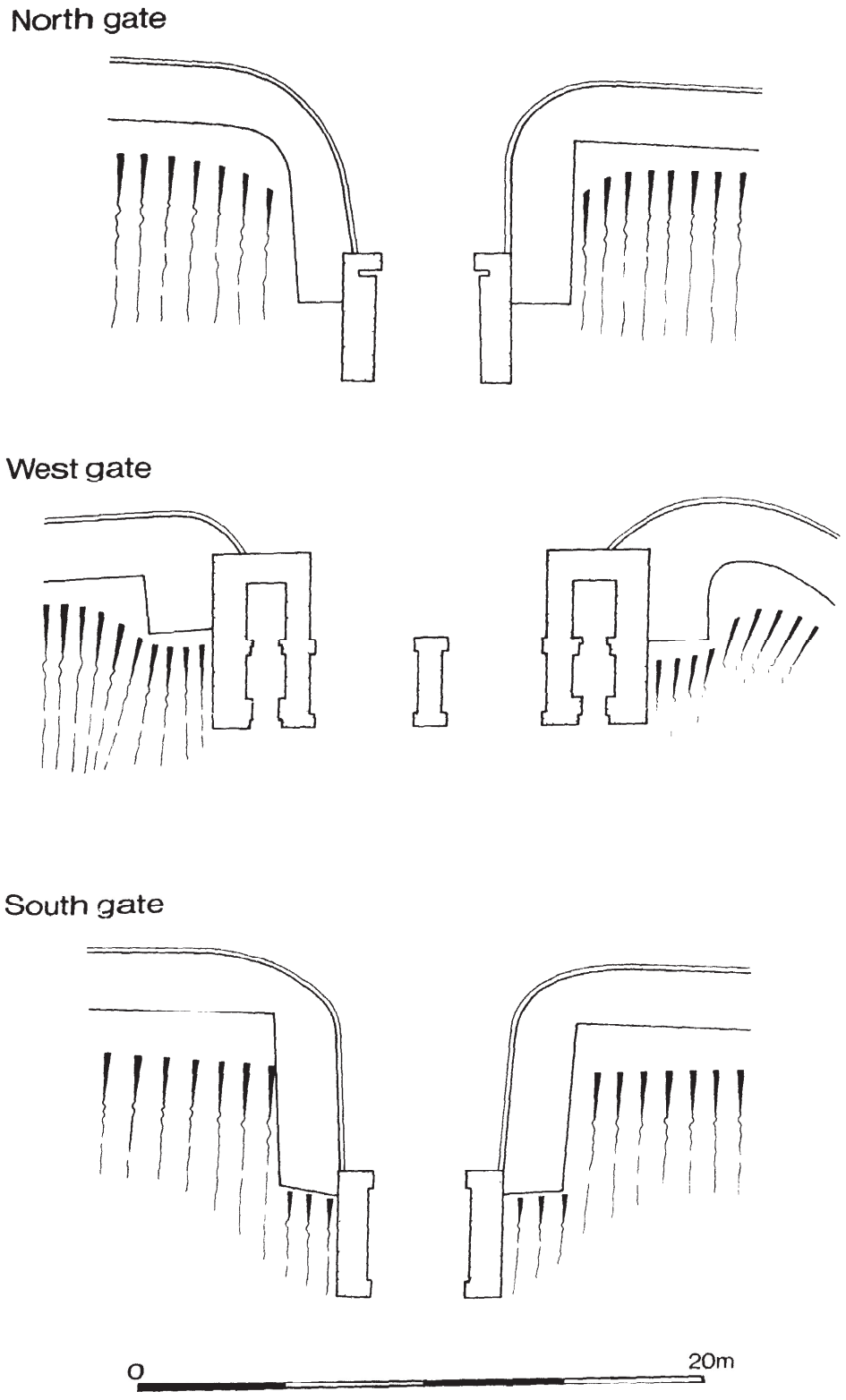


Fig 40 North, west and south gates of Silchester (Fulford 1983, fig 84)

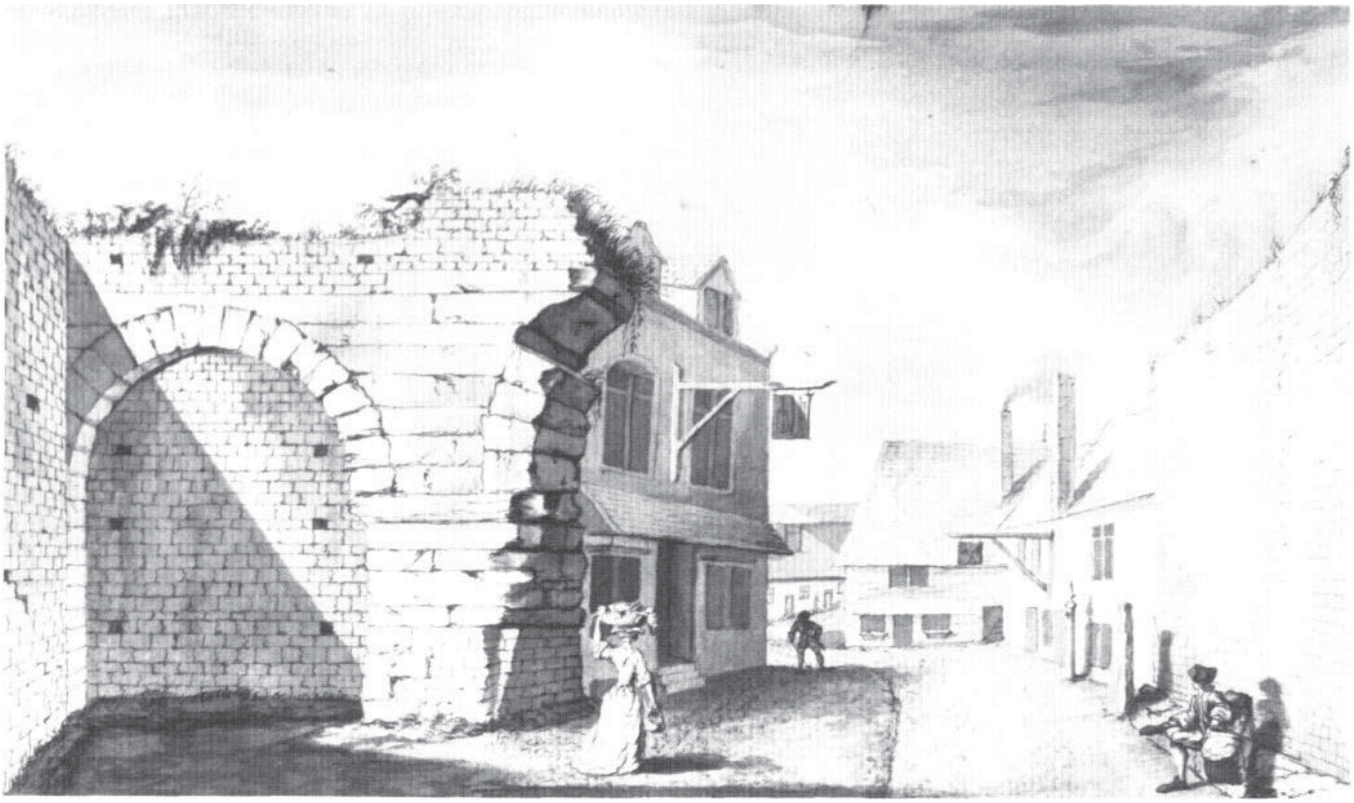


Fig 41 Lincoln: drawing of south gate of Roman upper city as surviving *in 1710 by Nathan Drake; the first evidence (uncovered in Canada in 1983) that this gate had a double carriageway (Usher Gallery)*

evidence may survive in the ditch-fill. Even when the ditches stopped either side of the causeway, they were favourite places for rubbish dumping.

Ditch-sections should be excavated completely. Additionally they may harbour missiles discharged from the wall and so provide clues about the equipment of the town garrison. Unfortunately many ditches were so substantial in scale that total excavation can be dangerous, expensive and difficult. This is especially true of the late period, when many towns were given single wide ditches (although some still had more than one). Yet the lower fills often provide the right conditions for preserving artefacts, including evidence for a construction date.

Ditch systems of the 2nd–3rd century normally comprised two or three ditches, occasionally more. Where they were replaced, the later work could have removed evidence for any earlier cuttings, but sometimes the lowest point survives. Ditches were provided to break the formation of assailants, and logically the outer edge of the outer ditch should represent the points at which accurate fire ceased to be feasible–this is something which ought to be checked against the evidence. Care should be taken in tracing the ditch system, for the outermost ditch can sometimes be at some distance from the other(s).

Chronological development

Few towns in the Western Empire were defended between the Augustan period and the late 3rd century, and it is reasonable to seek reasons for the exceptions to this rule, most of which were to be found in Britain. Frere (1984) has recently touched on the historical background to the British development. Three sites in southern Britain-Silchester, Winchester and Verulamium–all received banks in the mid or late 1st century, while a newly discovered line at Chichester also appears to predate AD 100. Recent thinking on the likely historical context for the first three, if they can be considered thus as a group, suggests a link with Cogidubnus and an early Flavian date. Yet much more precise dating is required as well as more detailed information on the structure of the ramparts. The evidence for a post-Boudican and extended Flavian defensive circuit at Colchester has broadened the picture somewhat, but may have no implications for the other sites, and may rather be grouped with the other towns of colonial or municipal status.

In the 2nd century, the three *coloniae* were the first to receive stone walls, again because of, as Todd has it succinctly (1981, 164) 'special reasons of status or history' (see also Jones in Maloney & Hobley 1983). *Coloniae* were expected to have defences: the temporary lapse at Colchester was a disastrous exception to the rule. Closer dating is desirable; all we know at present is that the new walls were begun and finished between *c* 100 and *c* 150. It has been argued that there are more early defensive lines, some never finished, still to be found. The clues may be, as perhaps at London, in the street pattern and especially at those sites with no earlier bank than the known wall. It is, however, becoming widely accepted that town boundaries–the limits of the grid system of streets– were often established before any consideration of defensive lines.

It is really when we reach the late 2nd century that questions of dating and likely historical context present most

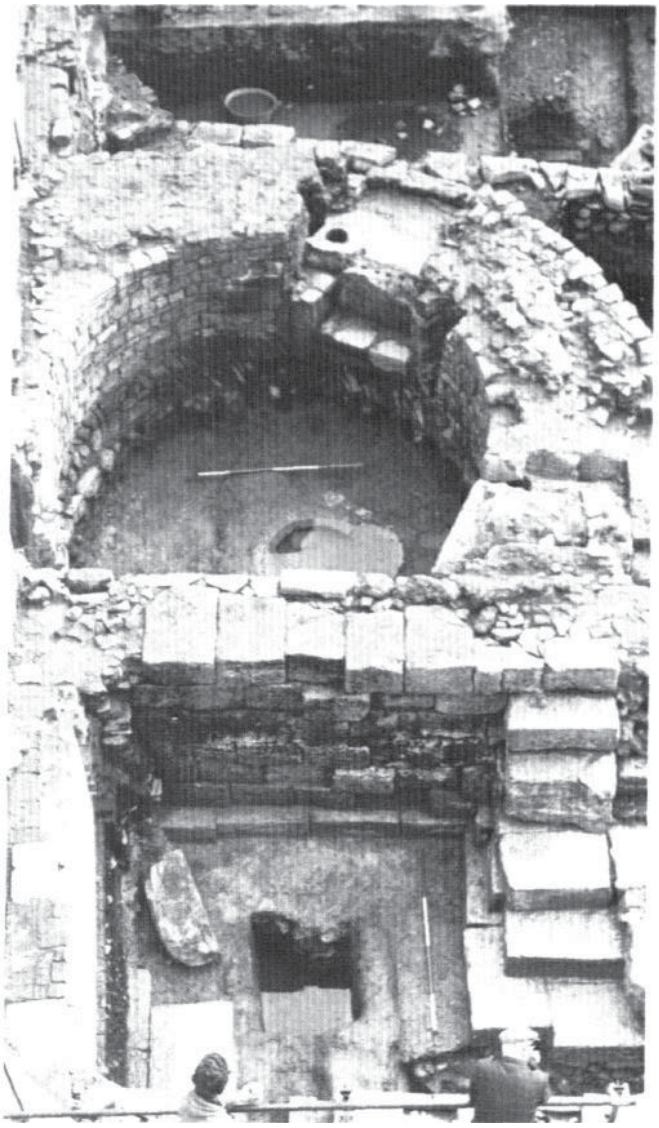


Fig 42 Gloucester: Roman east gate in foreground, with post-pit of timber fortress gate of c AD 70 also visible. The round tower is of c 1250 (Gloucester Excavations Unit)

problems–at least in the eyes of some scholars. The history of this problem was documented some time ago by Wacher (1966), and more recently the same scholar (1983), as has Hartley (1983), made some less confident assertions, while Crickmore (1984) and Frere (1984) have, independently, reviewed the whole question. There is little need to rehearse the earlier hypotheses which inadvertently become the standard orthodoxy in a number of textbooks, but some discussion of the latest ideas is called for.

Hartley's inconoclastic review of the dating evidence for earlier banks relies principally on samian ware; briefly stated, he argues for a *t p q* of 140–160 for most ramparts, but would not claim that the evidence tells us to which (single, if any) historical contexts thay should be assigned (*contra* Frere, 1984). Rather than a single context he would prefer a piecemeal development in imitation of the *coloniae,* as each town's resources on public works allowed it to proceed with defence construction. Frere clings strongly to the idea that 'the latest dating evidence for any town in the group will broadly apply to them all'. The analysis of the pottery from recent excavations at Silchester supports Frere in this respect.

Hartley is also unwilling to concede the idea that stone gates were built as the first stage in a masonry wall which was for reasons of urgency changed to an earthen rampart. This is reinforced by Crickmore, who stresses the show value of stone gates, a view not however accepted by Salway or Wacher, while Frere has suggested that stone gates would signify existing earthen defences. Crickmore is less confident than Hartley about close dating of the banks, and recommends more extensive excavations of defences, as has been carried out at, for instance, Cirencester and Lincoln. A gradual sequence is favoured from the Hadrianic period, in recognition of Britain's special position as a frontier province (a fact which Frere formerly used in favour of an Albinan date). Mertens' survey of town defences in Gallia Belgica leads him to suggest that their construction was unconnected with a sudden military, threat (in Maloney & Hobley 1983, 49). Frere has shown, however, that contemporary wall building in Thrace was a reaction to crisis, and would now prefer a context in the late 180s in the aftermath of the problems of 180–4 (1984; Birley 1981, 135–6).

While it is generally acknowledged that Britain was unusual in the comparatively early date of town ramparts, the hard evidence on precise dating is so slight that different scholars argue in contrasting directions on its significance– from Britain's exceptional nature making a single context necessary to several possible contexts of no military significance. (One must here single out Frere's recent contribution to the interpretation of the dating evidence as essential reading for all excavators.) The place of minor towns in the argument may be significant, since (some scholars believe) an Albinan date cannot be accepted for them. On the other hand, some of the minor sites may have formed part of the

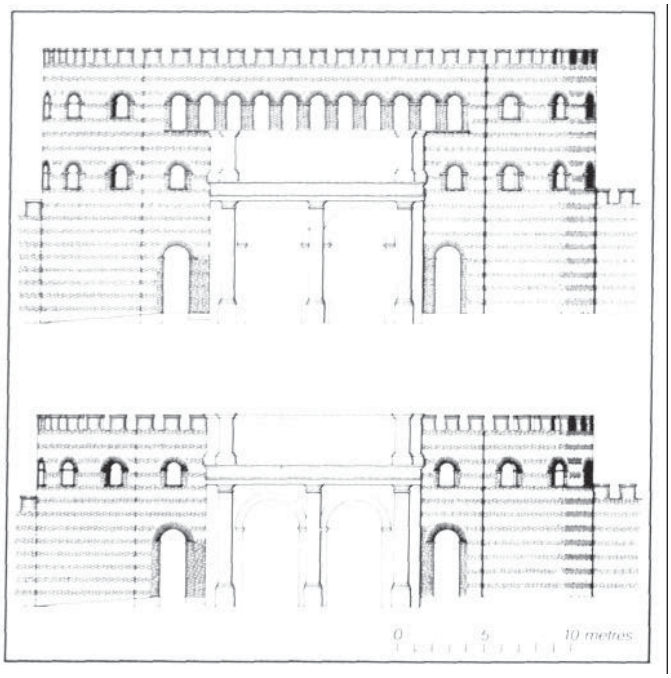


Fig 43 Colchester: reconstruction of Balkerne Gate by P Crummy (Colchester Archaeological Trust)



Fig 44 London: Excavation of the Roman riverside wall in 1975. Dendrochronological analysis of the piles indicates that this section of the Wall,, and several other sections, were built in the period 255–70 (Museum of London: T Hurst)

local administrative system by the late 2nd century and were defended at the time for this reason.

The fact that the existing archaeological evidence can be taken both ways, the problem of interpreting the imperial rescripts, and the lack of epigraphic dating mean that this problem is likely to be with us for some time, although Frere's masterly survey will solve these problems for one camp. As Wacher has put it, we must recognize that our hypotheses are no more than that and seek better evidence, but at the same time not merely collect data and thereby lose sight of the general pattern. In spite of Frere's persuasive and forceful arguments it is still possible to believe in a gradual, piecemeal development, but this now appears less probable.

The stone walls added to the banks in the 3rd century were of various dates up to *c* 280, Verulamium and Canterbury coming latest in the sequence. Why they were added may, it is true, have been connected with the need for a permanent solution to the problem of maintaining the rampart front, and in this sense they resemble the fort walls of the previous century. Too little is known of the state of rampart maintenance before rebuilding. The date of the erection of walls at different sites is thought to have varied also according to the availability of local funds. Comparison with the development of other aspects of the town would be useful; expenditure on a city wall was considerable, and though perhaps fashionable, would not have been undertaken unless the town contained something of value. The wall at London appears to have been erected at a time when the city had declined somewhat–a fact which could argue for a military directive for its construction, or on the other hand could be seen as arguing against the idea of 'decline'.

It is only at the end of the 3rd century that a new type of defensive wall is found in Britain, thicker than before, and in some cases (especially if newly erected) lacking a rampart. At some sites, the new wall-line did not follow that of the existing rampart. The rash of urban fortifications (eg Fig 44) which sprang up at this period can certainly be seen as a

reaction to danger, in the context of a threat to the imperial system which is also found in other provinces. The new style of 'stronghold' construction, more akin to that of the medieval period, is discernible not only in the scale of the fortifications but also in the readiness to employ the natural terrain. Since it is clear that there was no threat of siege warfare in the west, the principal reason for the change in style must have been connected with the awareness of growing insecurity and a need to deter attack by small groups.

A study of the distribution of towns and areas defended makes it clear that what was being defended was the administrative system, with the land and sea communications required to maintain it. Most large towns and many of the smaller sites received new or refurbished walls, but in the latter case the late circuit often protected only the administrative centres. The pattern is reflected elsewhere, in, for instance, Gallia Belgica.

A distinctive feature of the mid to late 4th century was the addition to many sites of the so-called 'bastions'–externally projecting semicircular towers. These were traditionally assigned to the work of Count Theodosius in 368–9, but more recent study of evidence indicates a date of *c* 350 for their provision at certain towns, and consequently the whole question of whether they belong to a single campaign of refurbishment is being reassessed. Stylistically they are difficult to date, being common in the 1st century in other provinces. There are in any case several other known contexts (and presumably others undocumented) for such activity. The pattern of their occurrence might have some significance in terms of the local garrison and its expertise and weapons, but there is as yet little evidence on which to develop this hypothesis. It would also be useful to know if the wider ditches which became common in the 4th century were largely associated with the same military strategy.

Certain groups have been defined. One, a series of 'burghi' along Watling Street, was originally identified by Graham Webster in the 1960s, while there is an apparent group of sites, perhaps not unconnected, with fan-shaped corner towers in eastern England (Webster 1971, 1975; Todd 1981). There is some blurring between military and civilian at this time: certain so-called defended towns may in fact have been forts (eg Caistor and Horncastle in Lincolnshire), and some of the larger *vici* in northern England, including Corbridge and Catterick, were on a considerable scale.

In the late 4th century there are hints, even in the large towns, of strengthening of a part of the defences–eg at London, although this is no longer the earliest date in Britain for the incorporation of reused stonework into rebuilt walls (see Sheldon & Tyers 1984). Since some of the stone was derived from funerary monuments outside the walls, there is a possible link here with ditch-widening. The very rare occurrence of reused stone suggested to Blagg that town boundaries were defined at an early date, often much earlier than the construction of the defences. It was the fortifications themselves, however, especially the immense scale of the 4th century barrier, which was the factor which above all others influenced the subsequent layout of the town in the medieval period.

Table 5 Major towns: Present state of knowledge and potential

Site	Recent accounts	Policy Preserve (P) Rescue (R)	Priorities/Comments
London	Maloney in Maloney & Hobley 1983, and forthcoming; Merrifield 1983; Sheldon & Tyers 1984	P/R	refine dating by dendrochronology; towers at riverfront?; confirm height to parapet; western 'bastions' of Roman origin?
Colchester	Jones in Maloney & Hobley 1983; Crummy 1984	P/R	check dating; rampart and wall contemporary?; early defences little understood.
Lincoln (upper) (lower)	Jones 1980; 1983 Colyer 1975; Wacher & Reynolds in Colyer & Jones 1979; Jones & Gilmour forthcoming	P/R	refine dating reconcile evidence for lower city; date of latest modifications; check for presence of projecting towers.
Gloucester	Jones in Maloney & Hobley 1983; Heighway 1984; Hurst 1972, 1974	P/R	width of early wall; check late sequence (periods 4 and 5); gates; extension to river?
York	RCHM 1962; Jones in Maloney & Hobley 1983; Addyman & Black 1984	P/R	establish course, dating, constructional details–a major gap in knowledge; potential for dendrochronological dating?
Canterbury	Frere *et al* 1982; Blagg 1982	P/R	good survival; dating recently refined; late date–earlier line to be found? Towers contemporary? Some gate sites uncertain.
Chelmsford	Wacher 1975; Drury 1975; Drury & Rodwell 1980	R	short-lived, no stone wall; northern defences.

Site	Recent accounts	Policy Preserve (P) Rescue (R)	Priorities/Comments
Verulamium	Frere 1983	P	dating recently modified including that of earlier lines.
Caistor by Norwich	Wacher 1975	P	survey desirable; earlier earthwork Roman?
Chichester	Down & Rule 1971; Wacher 1975; Down 1978; Britannia IX, 466; XII, 363; XIV, 332-3	P/R	early defence line recently identified–course needs establishing, date refining: more information on projecting towers; dating of ditches.
Silchester	Boon 1974; Fulford 1983, 1984b	P/?R	sequence now well studied; outer earthworks in danger?
Winchester	Wacher 1975; Biddle 1975; Britannia XI, 385-6	P/R	early defence line–more details needed.
Cirencester	Cullen 1970; Wacher 1975; McWhirr 1981	P/R	well studied, complex sequence; dating of early wall needs refining.
Dorchester (Dorset)	Wacher 1975; Penn 1980; Startin 1981; Graham 1982; Putnam forthcoming	P/R	early defence line abandoned?–more information; NE side needs further definition; gate positions inferred.
Exeter	Bidwell 1980; Henderson 1984a, 1984b	P/R	military defences not demolished–useful information on their decay when abandoned.
Leicester	Wacher 1975; Lucas 1978-9 and forthcoming	P/R	earlier line? no earthwork known predating wide wall; exact course and gates still uncertain; ditch system not fully explored; wide wall thickened?
Wroxeter	Wacher 1975; Barker 1981, and in Grew & Hobley 1985; D Wilson 1984	P	dating of demolition of fortress defences; earlier line S of Bell Brook? Survey; dating to be refined; conflation of results of aerial photography.
Caerwent	Wacher 1975; Casey in Maloney & Hobley 1983 (but cf Frere in Antiq J **64** (1984), 464-5)	P/R	dating of earlier excavations needs confirmation; rampart not understood and gates require further investigation.
Carmarthen	Wacher 1975; T James 1980; H James 1982	P/R	exact course needs confirming by excavation; late modiftcation.
Brough on Humber	Wacher 1969, 1975	R	Unusual–military/naval?
Aldborough	Charlesworth 1971; Wacher 1975; Bidwell *1980; Britannia* V, 416	P	dating; bank earlier than wall?
Carlisle	Wacher 1975; Charlesworth 1978	R	important to establish presence, exact course, details and dating.
Water Newton (Durobrivae)	Wacher 1975; Mackreth 1979	P/R	part of important study of whole settlement.
Ilchester	Leach 1982; *Britannia* XIII, 381	R	course on certain sides still to be established.

Select Bibliography

A General

Birley, A R, 1981 *The Fasti of Roman Britain*

Crickmore, J, 1984 *Romano-British urban defences*, BAR 126

Frere, S S, 1978 *Britannia: a history of Roman Britain*, 2nd ed, esp 283–93

——, 1984 British urban defences in earthwork, *Britannia*, **15**

Hartley, B R, 1983 The enclosure of Romano-British towns in the 2nd century AD, in *Rome and Her Northern Provinces* (eds B R Hartley & J S Wacher), (festschrift S S Frere), 83–93

Heighway, C M (ed), 1972 *The erosion of history*

Hill, P R, 1981 Stonework and the archaeologist, *Archaeol Aeliana*, **9**, 1–22

Johnson, A, 1983 *Roman forts in the 1st and 2nd centuries*

Johnson, S, 1973 A group of late Roman city walls in Gallia Belgia, *Britannia*, **4**, 210–23
——, 1983 *Late Roman fortifications*
Jones, M J, 1977 *Roman fort-defences to AD 117*, BAR 21, revised edn
Maloney, J, & Hobley, B (eds), 1983 *Roman urban defences in the west*, CBA Res Rep, 51
Petrikovits, H von, 1971 Fortifications in the NW Roman Empire from the third to the fifth centuries AD, *J Roman Stud*, **61**, 178–218
Rodwell, W, & Rowley, T (eds), 1975 *The small towns of Roman Britain*, BAR 15
Salway, P, 1981 *Roman Britain*
Todd, M, 1981 *Roman Britain 55 BC–AD 400*, esp 164–5, 188–9
Wacher, J S, 1966 Earthwork defences of the second century, in *The Civitas Capitals of Roman Britain* (ed J S Wacher)
——, 1975 *The towns of Roman Britain*, esp 72–8
——, 1978 *Roman Britain*, esp 95–100
——, 1983 Some thought ..., in Maloney & Hobley 1983, 141–3
Webster, G, 1971 A Roman system of fortified posts along Watling Street, *Roman Frontier Studies 1967*, 38–45
——, 1975 Small towns without defences, in Rodwell & Rowley 1975, 53–66

B Individual sites
See general paper on Roman Towns

Anglo-Saxon and medieval defences

C J Bond

Quantitatively one of the most significant achievements of the last few decades has been a steady increase in the number of towns where post-Roman defences have been recognized. Turner (1970) identified over 130 examples in England and Wales, Barley (1975) listed 146 examples in use or constructed after 1066, while Aston & Bond (1976, 101) predicted that the final total might approach 200. Now, in England alone, at least 211 places can be said to have possessed some sort of communal defences in use at some time between the Roman period and the end of the Middle Ages, some of them with more than one circuit; corresponding totals for Wales and Scotland are 55 and 24 respectively (Figs 45-6). It must be emphasized, however, that these figures conceal a considerable chronological, typological and functional diversity which provokes semantic inquiries about the definition of both 'towns' and 'defences'. At the top of the scale there are the major walled towns like York and Chester, the status of which is undeniable. Below these, however, there is a considerable range of smaller urban and quasi-urban settlements surrounded only by ditches or with just their access roads controlled by gates, which in many cases can have had only minimal military value. At the bottom of the scale such works grade with no clear distinction into mere village boundary banks having no defensive pretensions. Correspondingly there are cases where the defensive attributes of a site are beyond question but its qualifications for urban status are debatable. As an aid to the evaluation of the known sites, an attempt has been made in the checklist appended to this paper to subdivide them into more cohesive categories according to period of origin and type.

The archaeological significance of town defences

At first sight defences might seem to represent a comparatively limited field of study, interesting for their own sake, but much less informative about medieval town life than domestic tenements and workshops. However, their significance transcends that of mere military architecture in at least three respects:

1 They reflect a considerable range of primary and secondary functions in addition to their ostensibly defensive purpose. The motive of defence may itself vary significantly. Many Saxon *burhs* seem to have exercised a specifically regional function (Fig 45), providing a refuge and rallying-point for a given area in addition to their general strategic role. The walling of towns along the south and east coasts can be seen as a contribution towards the defence of the realm, the need for which was evident enough in view of the recurring threat from the Continent. By contrast, many of the defended English towns in Wales (Fig 46) were a product of colonization within a potentially hostile area. Such plantations could themselves provoke a backlash of imitation: several native Welsh towns acquired defences of their own, while the seaward defences erected in towns along the east coast of Scotland in the 16th century can also be seen as a precaution against English aggression.

Elsewhere the building of town walls was an exercise in self-defence, independently undertaken by an established urban community for the protection of its own people, buildings and goods. While defence in one or other of these guises was clearly an important motive for building walls or ramparts, it is not always possible to recognize any direct pattern of cause-and-effect whereby defences represent a response to a specific threat. Indeed, periods of crisis when defences were most urgently needed were often also times when the organization of labour and supplies was most likely to suffer disruption. By contrast, stable conditions were more likely to produce a wealth surplus which might be channelled into prestige projects. The considerable expenditure on town walls during the later 13th century in places like Nottingham, Leicester, Oxford and Winchester, remote from the sources of any predictable threats, suggests that there were other motives beyond the purely military need.

Another primary function of ramparts and walls-arguably for most of the time an even more important one-was the control of people and goods entering the town. The gates served as points for the collection of tolls and could be an aid to policing and the exclusion of undesirable or diseased persons. Indeed, a number of small towns had gates without any additional linear defences other than the rear boundaries of their burgage plots; and the documentary references to 'town gates' or 'bargates' at places like Henley-in-Arden, Droitwich and Tewkesbury must imply structures of minimal defensive quality.

The town defences were often administrative boundaries

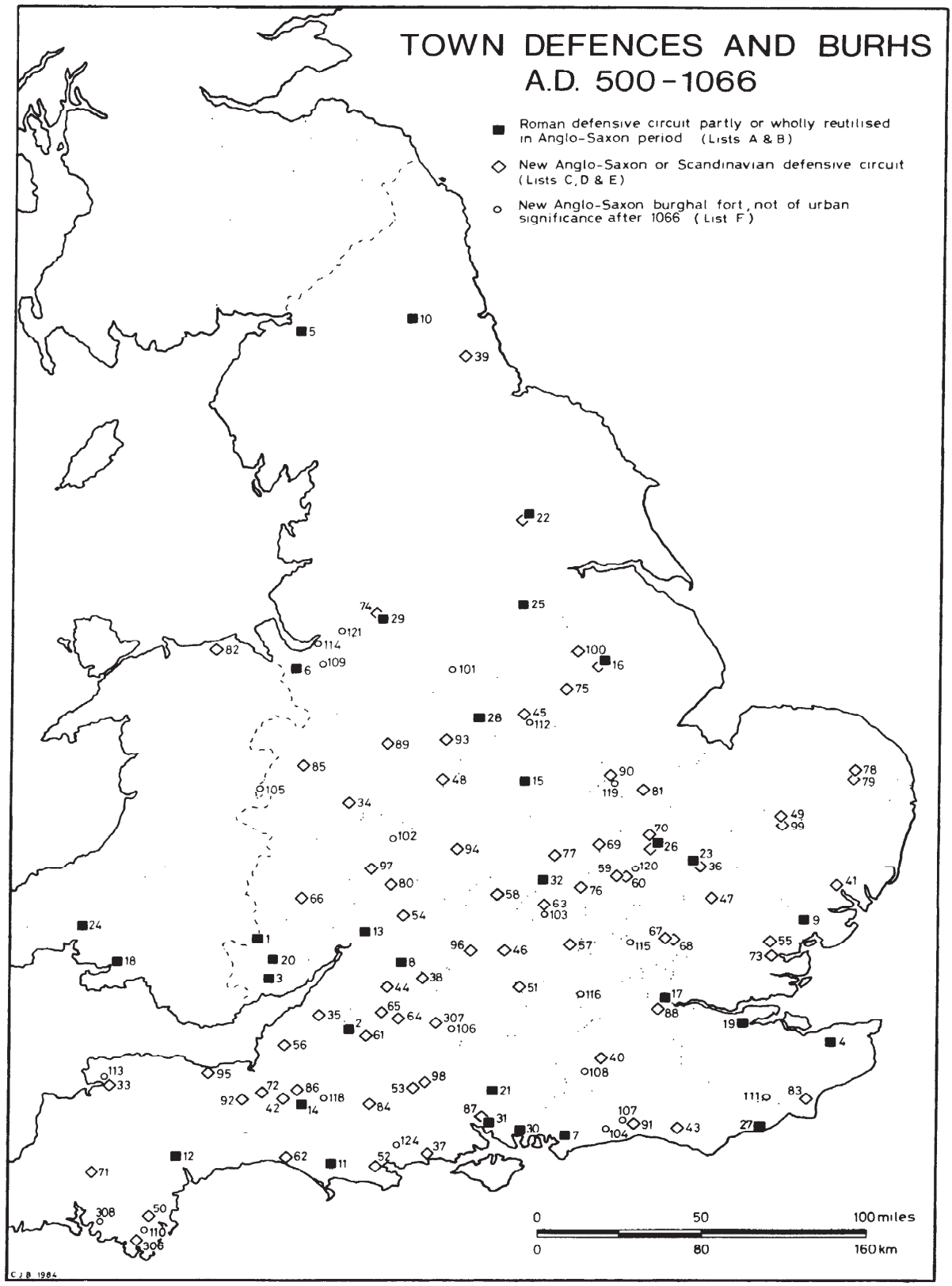


Fig 45 Distribution map of town defences and burhs, *500-1066 (for key see Table 5)*

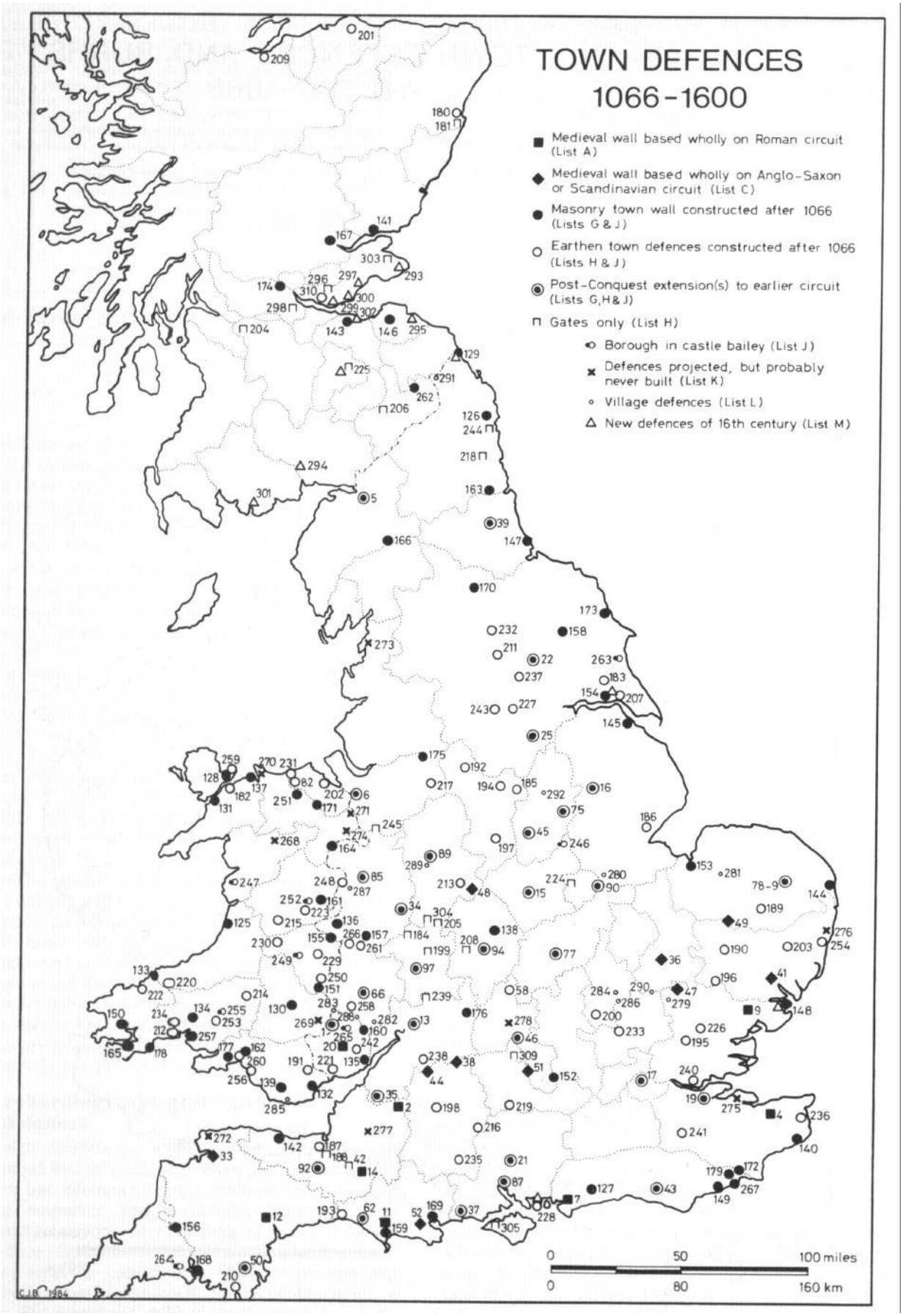


Fig 46 Distribution map of town defences, 1066-1600 (for key see Table 5)

Table 5 Anglo-Saxon and medieval town defences

	Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
	List A Roman defensive circuit partly or wholly re-utilized by Anglo-Saxon and medieval town						
1	ABERGAVENNY II	C11	E	5	5	3	Ashmore & Ashmore (1972-3)
2	BATH	RO+	S	4	2	2	O'Leary (1981)
3	CAERLEON	RO	S	4			
4	CANTERBURY I	RO+	S	2	1	1	Frere *et al* (1982)
4	? CANTERBURY II	?C9	U	5	4	5	Brooks (1977)
5	? CARLISLE I	RO+	S	U	3	5	Charlesworth (1978)
6	CHESTER I	RO+	S			2	Alebon *et al* (1976) Alldridge (1981); Strickland (1981)
7	CHICHESTER	RO+	S	1	1	2	Down & Rule (1971); Searle (1974)
8	CIRENCESTER	RO	S	4	5		
9	COLCHESTER	RO+	S	3	2	3	Crummy (1981, 1984)
10	CORBRIDGE	RO+	E	5	4		
11	DORCHESTER (Dorset)	RO+	S	4	4	4	
12	EXETER	RO+	S	2	1	4	Burrow (1977), Griffiths (1974)
13	GLOUCESTER I	RO+	S	5	4	3	Heighway (1975, 1980); Hurst (1972, 1974)
14	ILCHESTER	RO+	S	5	4	2	Leach (1982)
15	LEICESTER I	RO+	S	5	1	3	Lucas (1978-9)
16	LINCOLN I	RO+	S	3	2	1	Colyer (1975); Jones (1980); Reynolds (1979); Thompson & Whitwell (1973)
17	LONDON I	RO+	S	3	2	1	Dyson & Schofield (1981); Guildhall Museum (1970); Hobley & Schofield (1977); Maloney & Harding (1979); Schofield (1978)
18	LOUGHOR	RO+	E	5	5	2	
19	ROCHESTER I	RO+	S	2	2	2	Harrison (1972, 1981); Harrison & Williams (1979)
20	USK	RO+	E	4	5	2	
21	WINCHESTER I	RO+	S	3	1	1	Biddle (1970, 1975b); Biddle & Keene (1976)
22	YORK I	RO+	S	2	2	2	Radley (1972); RCHM (1972); Sumpter & Co11 (1977); Waterman (1980)
	List B Roman defensive circuit partly or wholly re-utilized in Anglo-Saxon period, but of no post-Conquest importance						
23	CAMBRIDGE (N)	RO+	S	5	5	4	Lobel (1975b)
24	? CARMARTHEN (OLD)	RO	S	5	5	3	James (1980)
25	DONCASTER II	AS	E	5	5	2	Buckland & Dolby (1972)
26	GODMANCHESTER I	RO+	S	5	4	3	
27	HASTINGS (OLD)	RO+	U	U	3	5	
28	? LITTLE CHESTER (Derbys)	?RO+	U	U	3		Hall (1974)
29	MANCHESTER (OLD)	?RO+	S	5	3		Bu'lock (1974)
30	PORTCHESTER	RO+	S	1		1	Cunliffe (1976, 1977)
31	? SOUTHAMPTON I (BITTERNE)	RO+	S			4	
32	TOWCESTER	RO+	E/S	5	3	3	Brown & Alexander (1982)

	Site	Period	Form	Con-dition	Documen-ration	Archaeo-logy		Principal recent published references
	List C New Anglo-Saxon defensive circuit partly or wholly re-utilized by post-Conquest medieval town							
33	BARNSTAPLE	AS+	E/S	5	4	3		Markuson (1980); Wood (1980)
34	BRIDGNORTH I	C10	E	5	3	5		
35	BRISTOL I	C11	E/S	4	2	3		Lobe1 (1975a); Price (1979)
36	CAMBRIDGE (S)	AS	E	4	2	4		Lobel (1975b)
37	CHRISTCHURCH I	AS	E	5	5	3		Jarvis (1983)
37	CHRISTCHURCH II	C9	E/S	5	3	2		Jarvis (1983)
38	CRICKLADE	C9	E/S	4	3	2		Haslam (1981); Radford (1972)
39	DURHAM I	C11	E/S	5	3	3		Clack (1980)
40	GUILDFORD	AS	E	5	4	5		
41	IPSWICH	C11	E/S	5	2	4		Dunmore *et al* (1976); Owles (1971)
42	LANGPORT	C9	E	2	3	3		
43	LEWES I	C9	E	5	3	3		
16	LINCOLN II (WIGFORD)	AS	E/S			5		
44	MALMESBURY II	C9	E/S	4	2	5		
45	NOTTINGHAM II (ANGLIAN *BURH)*	C9	E	4	3	3		Young (1970)
46	OXFORD I	C10	E/S	3	3	1		Hassall (1973, 1978a)
46	OXFORD II (E EXTENSION)	C11	E/S	2	2	1		Hassall (1971, 1978a); Palmer (1976)
47	SAFFRON WALDEN	AS	E	3	5	2		Bassett (1982)
48	TAMWORTH	?C8	E/S	5	3	1		Sheridan (1972-3a, b, 1974-5)
49	THETFORD (N)	C11	E	5	5	5		Dunmore & Carr (1976)
50	TOTNES I	C10	E/S	4	2	5		
37	*TWYNEHAM* –see CHRISTCHURCH							
51	WALLINGFORD	C9	E/S	2	3	2		Durham *et al* (1972); Hassall (1978b)
52	WAREHAM	C9	E/S	2	3	4		
53	WILTON	C9	E	4	3	3		
54	WINCHCOMBE	AS	E	U				
55	WITHAM	C10	E	5	3	3		
22	YORK II	C9	E/S	1	2	3	}	RCHM (1972); Waterman (1980)
22	YORK II (WALMGATE)	C11	E/S	1	2	3		
22	YORK IV (MICKLEGATE)	C11	E/S	1	2	3		Pearson (1982); RCHM (1972); Waterman (1980)
	List D New Anglo-Saxon urban defensive circuit of no post-Conquest importance							
56	AXBRIDGE	C9	U	5	3	5		Batt (1975)
57	AYLESBURY	AS	E	5	5	3		Farley (1974)
58	? BANBURY I	?AS	E	U	4	5		
59	BEDFORD (N)	C10	E	5	3	3		Baker (1979)
60	BEDFORD (S)	C10	E	4	3	3		Hassall & Baker (1975); Hill (1970)
61	? BRADFORD-ON-AVON	AS	U	5	4	5		
62	BRIDPORT I	C9	E	5	3	5		Bailey (1976); Short (1976)
62	*BRYDIAN* –see BRIDPORT I							
63	BUCKINGHAM (N)	C10	U	U	3	5		
64	CALNE	AS	E	5	4	5		
65	CHIPPENHAM	AS	E	5	4	5		
	CLEDEMUTHA –see RHUDDLAN I							

	Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
26	CODMANCHESTER II (SW EXTENSION)	AS	E	5	4	4	
66	HEREFORD I	?C8	E	5	4	1	Shoesmith (1971, 1972, 1982)
66	HEREFORD II (E EXTENSION)	?C9	E/S	5	4	1	Shoesmith (1982)
67	HERTFORD (N)	C10	E	U	3	5	
68	HERTFORD (S)	C10	E	5	3	3	Petchey (1977)
69	? HIGHAM FERRERS	?AS	E	5	4	5	
70	HUNTINGDON	C10	U	U	3	5	
306	? KINGSBRIDGE	C10	U	5	5	5	
71	LYDFORD	C9	E/S	4	3	3	
72	LYNG	C9	E	3	3	5	
73	MALDON	C10	E	U	3	3	
44	? MALMESBURY I	AS	E	5	4	5	
74	MANCHESTER (NEW)	?C10	E	5	5		Bu'lock (1974)
307	? MARLBOROUGH	?C10	U	5	4	5	
75	? NEWARK-ON-TRENT I	?AS	U	U	4	5	Todd (1974, 1977)
76	NEWPORT PAGNELL	?AS	E	5	4	5	Robinson (1975)
77	NORTHAMPTON I	AS	E	5	5	3	Mynard (1976); Williams (1982)
78	NORWICH I (CATHEDRAL AREA)	?C10	E	5	5	3	Carter *et al* (1973)
79	NORWICH II *(Northwic)*	C10	E	5	4	2	Atkin & Carter (1977); Atkin *et al* (1976); Carter *et al* (1973, 1974)
79	? NORWICH III (COSLANY)	?C11	E	5	5	3	Atkin & Sutermeister (1978); Carter *et al* (1974)
45	NOTTINGHAM I	?C8	E	5	5	2	Young (1971, 1972, 1974)
80	? PERSHORE	?AS	E	U	4	5	Bond (1977)
81	PETERBOROUGH	C10	S	5	4	3	Selkirk (1983)
82	RHUDDLAN I *(CLEDEMUTHA)*	C10	E	2	3	3	Manley (1982)
83	? ROMNEY (OLD)	?AS	U	U	4	5	
84	SHAFTESBURY	C9	E/S	U	3	5	
85	? SHREWSBURY I (INNER WALL)	?C9	E/S	5	4	3	Carver (1969-74)
86	SOMERTON	AS	U	U	4	5	
87	SOUTHAMPTON II (? *BURH)*	C10	E	5	3	2	Selkirk (1981)
88	SOUTHWARK	AS	U	U	3	5	
89	STAFFORD I *(BURH)*	C10	U	U	3	3	
90	STAMFORD I (DANISH BOROUGH)	C9	E	5	3	3	RCHM (1977)
91	? STEYNINCG	?AS	U	U	4	5	
92	TAUNTON I	C8	?E	U	3	4	
93	TUTBURY	?AS	E	4	5	5	
94	WARWICK I *(BURH)*	C10	E	U	3	5	Klingeihofer (1975)
95	WATCHET	C9	U	5	3	5	
96	? WITNEY	AS	E	5	4	4	
97	WORCESTER I *(BURH)*	C9	E	5	3	5	Beardsmore (1980); Carver (1980)
	List E New Anglo-Saxon defensive circuits around town subsequently largely or wholly deserted						
98	OLD SARUM	IA/C9	E/S	2	3	4	
99	THETFORD (S)	C11	E	4	5	3	Dunmore & Carr (1976)
100	? TORKSEY	AS	U	U	5	4	

Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
List F New Anglo-Saxon burghal forts of no later urban significance						
101 BAKEWELL	C10	E	?U	3	3	Hart (198 1); Swanton (1972)
102 *BREMESBURH* (? = BROMSGROVE)	C10	U	U	3	5	
103 BUCKINGHAM (S)	C10	U	U	3	5	
104 BURPHAM	C9	U	U	3	5	
105 CHIRBURY	C10	U	U	3	5	
106 CHISBURY	IA/C9	E	1	3	5	
107 CISSBURY	IA/C1	E	1	4	5	
108 EASHING	C9	U	U	3	5	Aldsworth & Hill (1971)
109 EDDISBURY	IA/C10	E	1	3	4	
111 *EORPEBURNAN* –see NEWENDEN						
110 HALWELL	IA/C9	E	1	3	5	
111 NEWENDEN	C9	E	2	3	3	Davison (1972)
112 NOTTINGHAM (W BRIDGFORD)	C10	E	U	3	5	
113 PILTON	C9	E	3	3	5	
308 PLYMPTON	C10	U	5	5	5	
114 RUNCORN	C10	U	U	3	5	
115 ST ALBAN'S (KINGSBURY)	AS	E	U	4	5	
116 SASHES	C9	U	U	3	5	
117 *SCERGEAT*	C10	U	U	3	5	
118 SOUTH CADBURY	IA/C11	E/S	1	4	1	
119 STAMFORD II (ENGLISH BOROUGH)	C10	E	5	3	3	RCHM (1977)
120 TEMPSFORD	C10	E	2	3	5	
121 THELWALL	C10	U	U	3	5	
122 *WEARDBURH*	C10	U	U	3	5	
123 *WIGINGAMERE*	C10	U	U	3	5	
124 WIMBORNE MINSTER	?C9	U	U	4	5	
List G New post-Conquest medieval defensive circuits and extensions to existing circuits, in their final form mainly or wholly of masonry						
1 ABERGAVENNY III	C13	S	4	2	2	Radcliffe & Knight (1972-3)
125 ABERYSTWYTH	C13	E/S	5	3	3	
126 ALNWICK	C15	S	4	2	5	
127 ARUNDEL	C13	S	5	3	5	
128 BEAUMARIS I	C15	E/S	4	2	5	
128 BEAUMARIS II (1536-8 CONTRACTED CIRCUIT)	C16	S	5	3	5	
129 BERWICK-ON-TWEED II	C14	E/S	2	1		
130 BRECON	ME	E/S	4	5	5	
34 BRIDGNORTH II	C13	E/S	3	2	4	
35 BRISTOL II	C12	S	5	2	5	Lobe1 (1975a)
35 BRISTOL III (PORTWALL)	C13	S	5	2	3	Lobe1 (1975a); Williams (1981)
35 BRISTOL IV (MARSH WALL)	C13	S	5	2	3	Lobel (1975a)
131 CAERNARVON	C13	E/S	1	1	5	Taylor (1975a)
132 CARDIFF II	C14	S	5	3	3	
133 CARDIGAN	C13	E/S	5	3	5	
5 CARLISLE II	C11	?S	3	2	3	Gosling (1976); Jones (1976); Perriam (1976)

	Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
5	CARLISLE III (SE EXTENSION)	C12	S	5	4	3	McCarthy (1980)
134	CARMARTHEN (NEW) I	C13	S	4	2	5	James (1980)
134	CARMARTHEN (NEW) II	C15	S	4	3	5	James (1980)
135	CHEPSTOW	C13	S	2	3	3	
6	CHESTER III (W EXTENSION)	C12	S	1	2	5	Alldridge (1981)
136	CLUN II	C13	?S	4	3	5	Hindle (1981)
137	CONWAY	C13	S	1	1	5	Taylor (1970, 1975b)
138	COVENTRY II	C14	S	3	1	3	Bateman (1978); Lancaster (1975)
139	COWBRIDGE II	C13	E/S	3	5	3	Robinson (1980)
140	DOVER	C14	S	5	1	5	
141	DUNDEE	ME	S	3	4	5	
142	? DUNSTER	ME	S	U	4	5	
39	DURHAM II	C14	S	5	2	3	Clipson (1980)
143	EDINBURGH I (KING'S WALL)	C14	E/S	5	4	3	Schofield (1975-6)
13	GLOUCESTER II (NW EXTENSION)	C12	E/S	5	2	3	Hurst (1972, 1974)
144	GREAT YARMOUTH	C13	S	2	1	3	Carter (1980); Green (1970)
145	GRIMSBY	C13	S	U	2	5	
136	HADDINGTON	ME	S	4	4	5	
147	HARTLEPOOL	C13	E/S	2	2	3	
148	HARWICH I	C14	S	U	3	5	
149	HASTINGS	ME	S	4	5	5	
150	HAVERFORDWEST I	C12	?S	5	5	5	
150	HAVERFORDWEST II (S EXTENSION)	C13	S	5	3	5	
151	HAY-ON-WYE	C13	S	4	2	5	
152	? HENLEY-ON-THAMES	C14	?S	U	4	5	
66	HEREFORD III (N EXTENSION)	C12	E/S	2	1	1	Shoesmith (1982)
153	KINGS LYNN	C13	E/S	3	1	3	Carter (1977); Smith (1970, 1976)
154	KINGSTON-UPON-HULL I	C14	E/S	5	1	3	Bartlett (1971)
155	KNIGHTON (POWYS)	C13	S	U	3	5	
156	LAUNCESTON	C13	S	3	3	5	
15	LEICESTER II (NEWARKE)	ME	S	5			Chinnery (1981)
43	LEWES II	C13	S	3	3	3	Freke (1975); Lewis (1972)
16	LINCOLN IV (CATHEDRAL CLOSE)	C13	S	2	3	5	
17	LONDON II (BLACKFRIARS EXTENSION)	C13	S	4	3	4	
157	LUDLOW	C13	S	3	1	5	Lloyd (1979)
158	MALTON (NEW)	C12	S	4	4	5	Robinson (1978)
159	MELCOMBE REGIS	C14	E/S	5	3	5	
160	MONMOUTH I	C13	E/S	4	3	3	Kissack (1974)
161	MONTGOMERY	C13	E/S	2	2	4	
162	? NEATH (NEW)	C12	?S	U	4	5	
75	NEWARK-ON-TRENT II	C12	E/S	4	4	2	Todd (1974, 1977)
163	NEWCASTLE-ON-TYNE	C13	S	2	1	2	Cambridge & Daniels (1974); Graham (1972); Harbottle (1974); Tullett (1979)
77	NORTHAMPTON II	C12	E/S	5	3	3	(Williams (1982)
77	NORTHAMPTON III	C13	S	5	2	3	Greenhall (1979); Williams (1982)
78-9	NORWICH IV	C13	E/S	3	1	2	Campbell (1975)
45	NOTTINGHAM III (NORMAN BOROUGH)	C12	E/S	3	2	3	Carter (1971); Ponsford (1971)

Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
164 OSWESTRY	C13	E/S	5	2	3	Day (1973-4); Border Counties Archaeol Group (198 1); Pratt (1980)
46 OXFORD III (W EXTENSION)	C11	E/S	3	4	1	Hassall (1970, 1972, 1978a)
165 PEMBROKE I	?C12	E/S	3	5	5	Hindle (1979); King & Cheshire (1982)
165 PEMBROKE II (E EXTENSION)	C14	S	3	4	5	Hindle (1979)
166 ? PENRITH	C14	S	U	3	5	
167 PERTH	C13	S	5	3	3	Bogdan & Wordsworth (1978)
169 PLYMOUTH	C14	S	U	2	5	
169 ? POOLE	C15	?S	4	3	4	
170 RICHMOND (YORKS NR)	C14	S	4	2	5	
19 ROCHESTER II (CATHEDRAL CLOSE)	C14	S	4	3	4	
171 RUTHIN	C15	E/S	5	3	5	
172 RYE	C14	S	3	1	3	Hadfield (1981)
173 SCARBOROUGH I (AWBURGH)	C13	S	5	2	5	
85 SHREWSBURY II	C13	S	3	2	1	Carver (1981, 1983)
85 SHREWSBURY III (WYLE COP)	ME	S	4	4	5	
87 SOUTHAMPTON III	C13	E/S	2	1	1	Faulkner (1975); Kenyon (1977); Platt & Coleman-Smith (1975); Saunders (1976); Wacher (1975)
89 STAFFORD II	C13	E/S	4	2	5	
90 STAMFORD III	C13	S	3	2	5	Mahany (1978); RCHM (1977)
174 STIRLING	ME	S	5	5	3	
175 ? STOCKPORT	ME	S	5	4	4	
176 ? STOW-ON-THE-WOLD	IA/ME	?S	5	4	5	
177 SWANSEA	C14	S	4	3	2	Lightfoot (1979); Morris (1975)
178 TENBY I	C13	S	1	2	5	
178 TENBY II (1457 EXTENSION)	C15	S	3	3	5	
94 WARWICK II	C12	E/S	3	2	3	Klingelhofer (1976-7)
179 WINCHELSEA (NEW) I	C13	E/S	3	2	3	
97 WORCESTER IV	C13	E/S	3	2	1	Beardsmore (1980); Bennett (1980); Carver (1980); Wills (1980)
22 YORK V (ST MARY'S ABBEY)	C13	S	1	3	5	RCHM (1972); Waterman (1980)
List H New post-Conquest medieval defensive circuits and medieval extensions to earlier circuits, consisting only of gates and/or earthen defences:						
180 ABERDEEN (OLD BURGH)	ME	E	5	4	5	
181 ABERDEEN (NEW BURGH)	ME	G	5	4	5	
309 ABINGDON	C15	G	U	3	5	
58 BANBURY II	C13	E	5	3	5	
182 BANGOR	C13	U	U	3	5	
183 BEVERLEY	C14	E	3	3	5	Miller *et al* (1982)
184 BEWDLEY	ME	G	5	4	5	
185 BOLSOVER I	ME	E	5	5	5	Hart (1981)
185 BOLSOVER II (HORNCROFT)	ME	E	3	5	5	Hart (1981)
186 BOSTON	C12	E	4	4	4	Harden (1978)
187 BRIDGWATER I	C13	E	5	3	5	

	Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
188	BRIDGWATER II (EASTOVER)	ME	G	5	4	5	
62	BRIDPORT II	C13	E	5	5	5	Short (1976)
35	BRISTOL V (OLD MARKET)	ME	E	5	4	5	Lobel (1975a)
189	BUCKENHAM (NEW)	ME	E	3	5	5	
190	BURY ST. EDMUND'S I	C12	E	5	2	3	West (1970a)
190	BURY ST, EDMUND'S II (S EXTENSION)	ME	?E	5	3	5	
191	CAERPHILLY	ME	U	U	3	5	
132	CARDIFF I	C12	E	5	3	4	
192	CASTLETON (Derbys)	C12	E	2	5	5	Hart (1981)
193	CHARMOUTH	C14	E	4	4	5	
6	? CHESTER II (S EXTENSION)	C12	?E	5	5	5	Alldridge (1981)
6	CHESTER IV (E SUBURB)	ME	G	5	4	5	
194	CHESTERFIELD	ME	E	U	4	3	
195	CHIPPING ONGAR	C12	E	2	5	3	
37	CHRISTCHURCH III (W SUBURB)	?ME	E	4	4	5	
196	CLARE (W Suffolk)	ME	E	4	5	5	
136	? CLUNI	?C12	?E	5	5	5	
138	COVENTRY I	C12	E	5	4	2	Lancaster (1975); Rylatt (1980); Stokes (1980, 1981)
139	COWBRIDGE I	?C13	E	4	5	5	Robinson (1980)
197	DERBY	ME	E	U	4	5	Hall (1974)
198	DEVIZES I (OLD PORT) (OUTER CIRCUIT)	C12	E	5	4	3	Haslam (1977-8)
198	DEVIZES II (NEW PORT) (INNER CIRCUIT)	C12	E	5	4	5	
25	DONCASTER III	C12	E	5	5	2	Buckland & Dolby (1972)
199	? DROITWICH	?C14	G	U	4	5	
310	DUNFERMLINE	C14	E	U	4	5	
200	DUNSTABLE	ME	E	5	5	5	
201	ELGIN	ME	E	5	4	5	
202	FLINT	C13	E	4	1	3	
203	FRAMLINGHAM	?C12	E	3	5	5	
204	GLASGOW	?C15	G	5	4	5	
13	GLOUCESTER III (OUTER GATES)	C13	G	5	4	3	Hurst (1974)
205	? HALESOWEN	ME	G	U	4	5	
206	HAWICK	ME	G	4	4	5	
207	HEDON	ME	E	2	4	5	
208	HENLEY-IN-ARDEN	ME	G	U	4	5	
66	HEREFORD IV (ROW DITCH)	C12	E	2	4	5	Shoesmith (1982)
209	INVERNESS	C12	E	5	3	3	Duncan (1977); Wordsworth (1981)
210	KINGSBRIDGE	ME	E	U	4	5	
211	KNARESBOROUGH	ME	E	U	4	5	
212	LAUGHARNE	C15	E	5	3	5	
213	LICHFIELD I	C12	E	5	4	5	Bassett (1980-1)
213	? LICHFIELD II	?C13	E	5	4	5	Bassett (1980-1)
16	LINCOLN III (NEWPORT)	?C12	E	4	4	5	
214	LLANDOVERY	ME	E	5	4	5	
215	LLANIDLOES	ME	E	5	5	5	
216	LUDGERSHALL (Wilts)	ME	E	4	5		
217	MACCLESFIELD	ME	E	5	4	5	
160	MONMOUTH II (MONNOW ST)	C14	G	1		5	

	Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
160	MONMOUTH III (OVER MONNOW)	ME	E	2	4	4	Kissack (1974)
218	MORPETH	ME	G	5	4	5	
219	? NEWBURY (Berks)	ME	?E	5	4	5	
220	? NEWCASTLE EMLYN	ME	?E	5	5	5	
221	NEWPORT (Gwent)	ME	E	U	4	5	
222	NEWPORT (Dyfed)	?C12	E	2	5	5	
223	? NEWTOWN (Powys)	ME	?E	5	5	5	
224	OAKHAM	ME	G	5	4	5	
46	OXFORD IV (ST ALDATE'S)	ME	G	5	4	5	
225	PEEBLES I	C15	G	5	4	5	
226	PLESHEY	C12	E	2	4	3	
227	PONTEFRACT	C12	?E	5	5	5	
228	PORTSMOUTH I	C14	E	U	3	5	
229	RADNOR (NEW)	C13	E	2	2	5	
230	RHAYADER	ME	E	4	5	5	
231	RHUDDLAN III (EDWARDIAN BOROUGH)	C13	E	4	3	2	Miles (1971–2, 1972)
232	RIPON	C13	E	U	5	3	
233	ST. ALBAN'S	C13	E	5	4	5	Hunn (1981)
234	ST. CLEAR'S	ME	E	5	5	5	
235	SALISBURY	C13	E	4	2	5	RCHM (1980)
236	SANDWICH	C13	E	2	1	3	Tatton-Brown (1978)
173	SCARBOROUGH II (NEWBURGH)	C14	E	5	3	5	
237	TADCASTER	ME	E	U	4	5	
92	TAUNTON II	C11	E	5	2	3	Bush & Leach (1977)
238	TETBURY	ME	E	U	4	5	
239	TEWKESBURY	ME	G	5	3	5	
240	TILBURY	C15	E	U	3	5	
241	TONBRIDGE	C13	E	4	3	3	Streeten (1976)
50	? TOTNES II (FORE ST)	ME	?E	5	5	5	
242	TRELECH	ME	E	3	5	5	
243	WAKEFIELD	ME	E	U	4	5	
244	WARKWORTH	C15	G	3	5	5	
245	WHITCHURCH (Salop)	ME	G	U	4	5	
179	WINCHELSEA (NEW) II (1414 CONTRACTED CIRCUIT)	C15	E	3	3	3	
21	WINCHESTER II (W SUBURB)	C12	E	2	5	4	Biddle & Keene (1976)
97	WORCESTER II (SIDBURY)	C12	E	5	5	1	Beardsmore (1980); Carver (1980); Hirst (1980); Sawle (1980)
97	? WORCESTER III (BRIDGEHEAD)	C12	E	U	4	5	Whitehead (1979)
	List J New post-Conquest medieval defences of towns subsequently largely or wholly deserted						
246	BELVOIR	ME	?CB	U	5	5	
247	BERE	C13	?CB	U	3	5	
129	BERWICK-ON-TWEED I (SPADES MIRE)	C13	E	2	5	4	
248	CAUS	ME	E	1	4	5	
249	CEFNLLYS	C13	CB	2	4	5	Brown (1972)
250	CLIFFORD (Here-Worc)	ME	E	2	4	5	
251	DENBIGH (OLD)	C13	S	2	4	5	Butler (1976)

	Site	Period	Form	Condition	Documentation	Archaeology	Principal recent published references
252	DOLFORWYN	C13	?CB	U	4	5	
253	DRYSLWYN	IA/C13	E	1	3	5	James & Simpson (1980)
254	DUNWICH I	C12	E	U	3	5	
254	DUNWICH II	C13	E	4	3	3	West (1970b)
255	DYNEVOR (OLD)	C13	?CB	U	3	5	
256	KENFIG	C12	E	U	3	5	
257	KIDWELLY (OLD) I	C12	E	2	5	5	H James (1980)
257	KIDWELLY (OLD) II	C13	S	2	3	3	H James (1980)
258	KILPECK	ME	E	1	5	5	
259	LLANFAES	ME	?E	U	4	5	
260	NEATH (OLD)	?C12	E	5	5	5	
82	RHUDDLAN II (NORMAN BOROUGH)	C11	E	5	4	2	Miles (1971-2, 1972)
261	RICHARD'S CASTLE	C13	E	4	5	4	
262	ROXBURGH	C12	S	5	3	5	
263	SKIPSEA	ME	?CB	U	5	5	
264	TREMATON	ME	?CB	U	5	5	
265	WHITECASTLE	ME	?CB	U	5	5	
266	WIGMORE	ME	E	3	5	5	
267	WINCHELSEA (OLD)	C13	S	U	3	5	
	*List **K*** New post-Conquest medieval town defences projected but probably never built or never completed						
268	BALA	C13	E/S	5	3	5	
269	CRICKHOWELL	C13	S	U	3	5	
270	DEGANNWY	C13	S	U	3	5	
271	HOLT (Clwyd)	ME	S	U	4	5	
272	ILFRACOMBE	C15	?S	U	3	5	
273	LANCASTER	C14	S	U	3	5	
274	OVERTON (Clwyd)	C14	?S	U	3	5	
275	QUEENBOROUGH	C14	U	U	?3	5	
276	SOUTHWOLD	C13	S	U	3	5	
277	WELLS	C14	S	5	3	5	
278	WOODSTOCK (Oxon)	C14	?S	5	3	5	
	List L New post-Conquest medieval village defences of no known urban significance						
279	ANSTEY (Hcrts)	ME	E	2	5	5	
280	HOURNE (Lincs)	ME	E	2	5	5	
281	CASTLE ACRE (Norfolk)	?ME	E	2	5	5	
282	ENGLISH BICKNOR (Glos)	ME	E	3	5	5	
283	LONGTOWN (Here-Worc)	ME	E	2	5	5	
284	MEPPERSHALL (Beds)	ME	E	2	5	5	
285	PENMARK (S Glam)	ME	E	4	5	5	
286	PIRTON (Herts)	ME	E	4	5	5	
287	PONTESBURY (Salop)	ME	E	5	5	5	
288	SKENFRITH (Gwent)	ME	E	4	5	5	
289	STAFFORD (CASTLECHURCH)	ME	E	4	5	3	
290	THERFIELD (Herts)	ME	E	4	5	5	
291	WARK-ON-TWEED (Northumbd)	ME	E	4	5	5	
292	WELLOW (Notts)	ME	E	3	5	5	

	Site	Period	Form	Con-dition	Documen-tation		Archaeo-logy	Principal recent published references
	List M New urban defensive circuit of 16th/early 17th century (excluding detached artillery forts and defences of Civil War period and later)							
129	BERWICK-ON-TWEED	C16	*S*	1	1			5 Ellison (1976); MacIvor (1976)
293	CRAIL	C16	*S*				5	
294	DUMFRIES	?C16	E	5		2	5	
295	DUNBAR	C16	S	3			4	
296	DUNFERMLINE	?C16	G	4		4	5	
297	DYSART	C16	S				5	
143	EDINBURGH II (FLODDEN WALL)	C16	S	5	3			3Holmes (1980)
298	FALKIRK	?C16	G	5	4			5
148	HARWICH II	C16	S	U	3			5
299	INVERKEITHING	C16	S				5	
300	KINGHORN	C16	S				5	
154	KINGSTON-UPON-HULL II (E OF HAVEN)	C16	S	5	2			5
301	KIRKCUDBRIGHT	C16	E	4	4		5	Graham (1976-7)
302	LEITH	C16	S	3	3			5
225	PEEBLES II	C16	S	4		3	5	
228	PORTSMOUTH II	C16	E	5	3			5
303	ST. ANDREW'S	C16	G	3	3			5
304	? STOURBRIDGE (Worcs)	?C16	G	U	4			5
305	YARMOUTH (IoW)	C16	G	5	4			5

as well as physical ones, defining the limits of the city liberties. Long after their physical remains had been reduced, their alignments tended to be perpetuated in parish, ward and property boundaries. A sense of prestige also came to be attached to the possession of town defences, and they became vehicles for the expression of civic independence, prosperity and pride, which was reflected particularly in the lavish display on many late medieval city gates. Local rivalry may be important; for example, Coventry, whose rise to prosperity came comparatively late, chose to embark on an ambitious programme of wall-building at a time when the walls of neighbouring Warwick were already falling into disuse.

Town walls, gates and ditches were put to a variety of secondary uses.. Gates often included chambers which could be used as lock-ups, chapels or meeting-rooms. Bastions were sometimes adapted for domestic accommodation or as workshops. The town ditch might be employed in other capacities: the head of water in the town ditch at Hereford was used to drive mills. Large fishponds form elements of the defences in Stafford and York, while there is documentary evidence for the use of the town moats as fisheries at Hereford in 1249 and at Oxford in 1378. After its abandonment the town ditch might be used as a rubbish dump, and might ultimately be levelled up and colonized by houses and gardens or by industrial premises.

2 Town defences may preserve a range of archaeological evidence which is not available or does not survive anywhere else in the town. A broad rampart may seal, preserve and provide a well defined chronological terminus for early occupation levels which elsewhere stand little chance of surviving intact. At Hereford the northern extension of the city ramparts at the end of the 12th century sealed an area of 11th and 12th century buildings and property boundaries, and at Norwich the mid-12th to mid-13th century defences cut through the earlier settlement of Heigham; other examples where ramparts have sealed earlier medieval occupation include Saffron Walden and Dunwich. The course of the defences may have been dictated by pre-existing field, plot or precinct boundaries, and traces of these may similarly be preserved. Town ditches may be partly waterlogged, preserving organic material and environmental evidence.

3 The study of defences cannot be divorced from the study of other aspects of the town, and the course and extent of the original circuit and any subsequent modifications must be examined in relation to the contemporary street-plan and built-up area. Other things being equal, the line of the defences might be expected generally to reflect the limits of the town at the time they were built. The growth of population and expansion of building beyond the original walls might, therefore, be expected to result in extensions to the original circuit (Fig 47). In fact probably no more than 50 towns in Britain display such extensions, and many of these represent minor adjustments to the original wall-line or consist only of ditches or outer gates beyond the suburbs. With a few classic exceptions such as Bristol, Lincoln and Norwich, successive concentric rings of defences on the

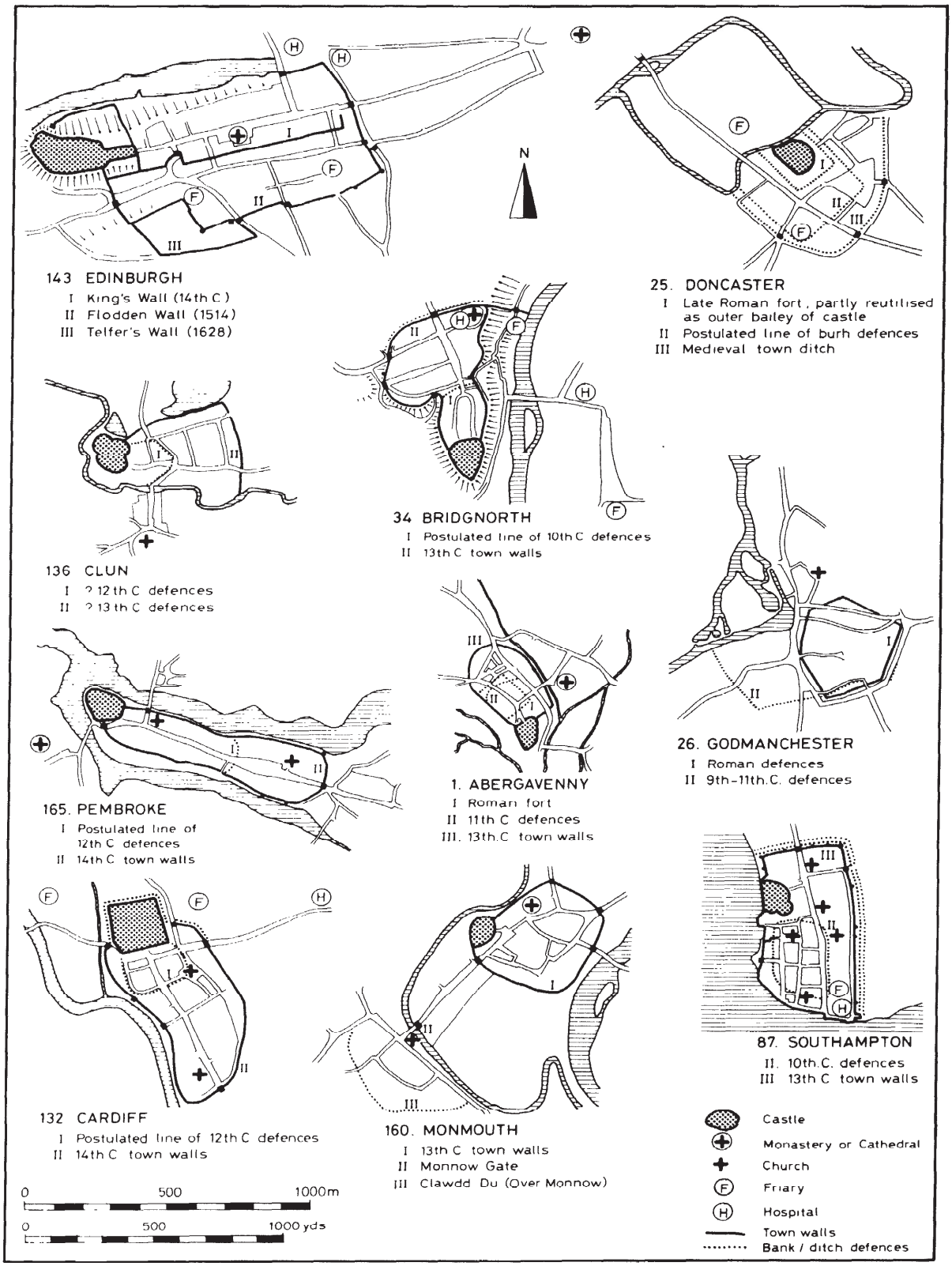


Fig 47 Known and postulated enlargements of earlier enceintes

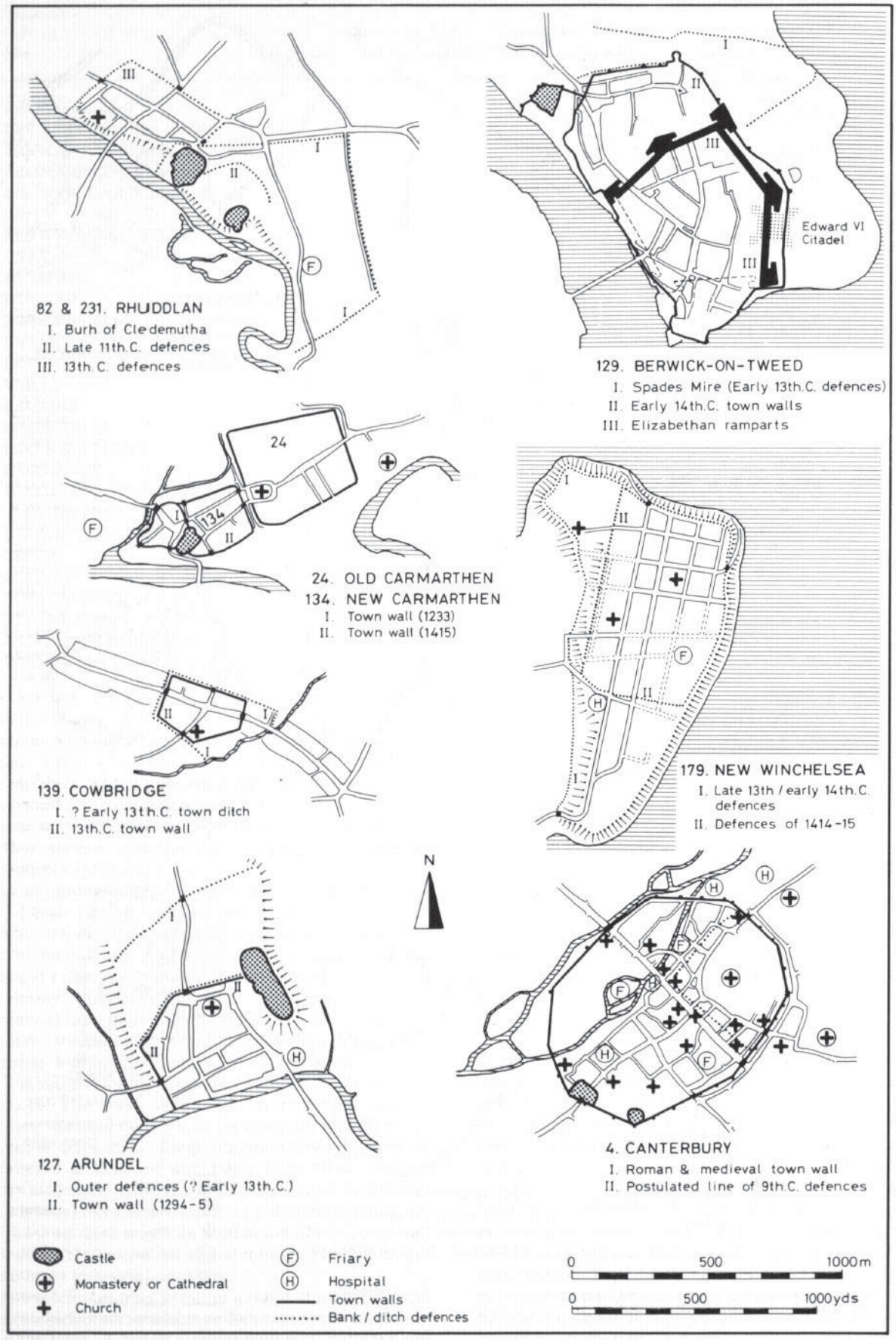


Fig 48 Known and postulated replacements and contractions of earlier enceintes

Continental model appear to be rare, though new evidence for early earthen defences on lines unrelated to the later circuit at Doncaster, Coventry, Abergavenny, Cardiff, Southampton and elsewhere suggests that their occurrence may have been underestimated. However, many English towns were probably not walled until they were approaching the peak of their prosperity in the 13th century. Their subsequent economic decline relieved the pressure to extend their defences further, and by the time they were beginning to recover the need for defences had usually passed. Contractions in the circuit reflecting the decline of the urban community are even rarer (Fig 48), though to the classic examples of New Winchelsea and Berwick-upon-Tweed we can now add Saxon and Norman Rhuddlan and possibly also Cowbridge and Christchurch.

It would, however, be wrong to view the relationship between the defended circuit and the size and shape of the town in too simplistic terms. The alignment and location of defences may be influenced by many other factors, including the tactical advantages offered by the natural contour of the ground, the presence of pre-medieval defences or other pre-existing boundaries which could be partly or wholly re-utilised, and the siting of castles which could provide a convenient 'anchor' for the circuit. These attractions could lead to the exclusion of peripheral parts of the settlement and the sealing of occupation areas beneath ramparts, as indicated earlier. Conversely, defences might include extensive unbuilt areas, reflecting topographical constraints or unfulfilled aspirations. At Chester much of the land enclosed by the westward extension of the walls in the later 12th century remained vacant until it was bought up cheaply by the Franciscan and Dominican friars, despite the evident prosperity of the eastern extra-mural suburb of Foregate Street. At Chepstow the course of the walls was virtually dictated by the slope of the ground, and even allowing for some late medieval depopulation probably less than 20% of the 113 acres enclosed was ever occupied by streets and buildings.

A final important topographical aspect of town defences is that, once they had come into existence, they might influence the location of other elements of urban life. Early market places often lay just outside the gates of the *burh,* and this has left a lasting impression upon the plan of many towns, eg Nottingham, Northampton, Hereford, Worcester. Tile and pottery kilns, often forbidden within the walls because they constituted a fire hazard, are frequently encountered just outside the defences (eg Colchester, Chichester). Noxious trades such as tanning were sometimes similarly excluded. Hospices catering for travellers and institutions such as leper hospitals would normally be found outside the gates.

Approaches and techniques

Our present knowledge of town defences may be extended in various ways:

Documentary research

Much of the basic documentation housed in central government records, such as the murage grants scattered through the Patent Rolls, has already received attention. For many towns, however, there may still be a wealth of information relating to collection of murage tolls and expenditure on building and maintenance in bailiffs' or wardens' accounts or other local records. Additional casual references to defences may be encountered in the most unexpected of sources.

While further study of the documents has much to offer, it is essential that they be used critically. Disproportionate faith has sometimes been placed in sources which have been readily accessible and appear to provide accurate dates; in fact these are often inadequate and misleading. Charters permitting the enclosure of a borough by a wall or ditch do not imply that construction was immediately put in hand, or indeed that it was ever begun at all. Murage records provide no more than circumstantial dating, the earliest grant being as likely to represent a levy for the repair of a wall already in existence as for the commencement of a new one. Moreover, permission to levy murage was not inevitably followed by its collection, and even when tolls were collected the income was not invariably put to the use for which it was intended. Building accounts will indicate that construction was actually taking place, but even these provide only a contingent date for any extant structures. Certainly there are a few securely dated examples, notably Edward I's bastides of Conway and Caernarvon, where local political conditions rule out any possibility of the town walls existing prior to their first record in the building accounts, and the uniformity of their masonry suggests that they have not undergone significant modification since their completion. However, in the majority of cases where walls were maintained over a period, very little of the extant fabric may survive from the time of the original building accounts. The ambiguities and shortcomings of the documentary record are illustrated both by the number of towns where permissions to fortify or levy murage seem never to have been followed up (see List K) and by the places like Pembroke, Brecon, Chepstow and Cowbridge where substantial remains of walls survive but no contemporary documentation is known.

Our understanding of the dating of Anglo-Saxon and medieval town defences still relies far too heavily upon written sources. Even now some archaeological investigations still tend to draw on documented events to date the phases observed, thereby running grave risks of producing circular arguments. The need for archaeology to develop and pursue its own methods and principles independently, without reference to preconceptions derived from historical models, is paramount. Certainly at the final stage attempts to integrate and reconcile the documentary and archaeological evidence must be made. However, each must be evaluated independently on its own merits, and when conflicts occur it must not be assumed that it is the archaeological evidence which is the more likely to be at fault.

Topographical research

It is estimated that some 20% of all town defences known from archaeological or architectural remains are undocumented in contemporary written sources, and there could therefore be still more examples to be identified from fieldwork. In a number of towns where defences are unambiguously documented, their actual circuit remains partly or wholly unidentified on the ground. The careful evaluation of breaks of slope, parish and property boundaries and street patterns will often permit the formulation of hypotheses about possible alignments, and sometimes further investigation will identify surviving fragments of

wall masonry behind or within standing buildings or cellars, or subsidence cracks in buildings which have encroached over an infilled ditch. There are many pitfalls in the topographical approach; much of the evidence encountered will be inconclusive and some will be misleading. Nonetheless, employed critically and in combination with other evidence, it still has much potential.

Architectural research

There is still much more to be learned from the detailed examination of upstanding masonry-not only gates and bastions which may contain stylistically datable details, but also the intervening lengths of curtain wall. Stone-by-stone elevation drawings (Fig 49) allied with analysis of building stones and mortars frequently suggest a much more complex sequence of building phases and repairs than is suggested by the documentary evidence.

Archaeological excavation

Even very limited excavations of defences can yield some useful information. Much of our present archaeological knowledge is derived from the cumulative results of many small-scale operations. This has been largely inevitable owing to the many constraints imposed by working in an urban context. However, while opportunist sections and watching briefs remain a valid and worthwhile exercise, as with virtually any other class of site, the more extensive the excavation the greater the potential information yield. Ideally the following requirements should be considered (these recommendations also apply very largely to Roman defences):

1 Sections cut at right-angles to the line of the defences are of limited value unless they traverse the entire width of all elements from the intra-mural road or rampart tail to beyond the outer lip of the outermost ditch. Winchester, Wareham, Cricklade and Lydford have all produced evidence of outer ditches probably of late Saxon date up to 50m out beyond the face of the wall or rampart; such features may have been missed elsewhere simply because they have not been sought. Later medieval defences too may have a greater complexity in depth than is generally realized; are the late 13th century double wall of Oxford and the additional 14th century outer ditch of Southampton really as unusual as they now seem? Successive phases of defence along the same general alignment and occupation levels predating the defences are also far more likely to be identified and understood in a more extended section.

2 Lengths of wall or rampart also need to be examined. Most defensive systems which survived over any length of time were subject to alternating periods of neglect and repair, the sequence of which may vary considerably in different sectors. A section at any single point, if it happens to intersect some uncharacteristic but locally dominant piece of repair, may give a totally misleading impression of the evolution of the defences as a whole. Even where only a single phase of construction is represented, slight changes of direction, offsets or vertical discontinuities in the masonry, detectable only if a reasonable length of wall is exposed, may provide indications of the organization of the labouring gangs. Unexpected posterns and bastions may be encountered. Evidence of secondary uses, eg lean-to workshops or domestic occupation of bastions, is more likely to be recognized.

3 Ditches need to be bottomed wherever possible. Secondary recuts and enlargements have sometimes totally destroyed all traces of their original form, but even a slight variation in the alignment of a recut may allow sufficient vestiges of earlier ditches to survive to contain critical evidence. Where the ditch-fill is undisturbed, it may contain evidence of phases of rampart or wall construction which have been entirely razed by later redevelopment above-ground; at Wallingford, for example, the only evidence for the addition of a late Saxon town wall to the crest of the rampart was the spill of rubble and mortar into the ditch which occurred during its destruction in the late 13th century; not even its footings survived *in siru.*

4 Where ditches are waterlogged they may preserve organic materials and environmental evidence; their potential in this respect requires special care in investigation.

5 Special consideration should be given to features such as gates (which may antedate the walls), bastions (which may be additions) and less common items such as barbicans and spur-walls (Figs 50-1). Re-entrant angles may provide critical evidence of extensions to the original circuit or, as at Newcastle-upon-Tyne, of changes of plan during the course of construction. Bridgeheads with their own defensive systems also warrant special attention; the Row Ditch at Hereford (once thought to be part of the 9th century circuit, but now dated to the 12th century) and the Over Monnow defences at Monmouth are well known, but indications at Worcester and Wallingford suggest that further examples await recognition.

Future policy (Lists A to M)

The formulation of any strategy for future research faces the perennial dilemma of whether to aim for breadth and quantity of data, or whether to limit the horizons and concentrate upon the examination of a few problems in depth. One view is that too many resources have been dissipated in small projects in the past; and that it would now be better to concentrate on towns such as London, York, Oxford and Hereford, where there is a considerable tradition of archaeological research on all aspects of urban life, and where the knowledge and experience already gained provides a sound foundation for future research. The opposing school of thought would argue that the towns which have been most thoroughly researched so far have tended to be those which are the largest, richest, best documented and therefore in some respects the least typical; that the operation of the law of diminishing returns there may be anticipated; and that the time has now come to divert attention towards previously neglected areas, such as the multitude of smaller, lesser known towns, which may be more representative of the medieval urban community at large.

The former option, the intensive investigation of a limited but carefully selected number of towns and their hinterlands, has gained increasing favour in recent years, and undoubtedly represents the most cost-effective approach for urban archaeology in general. Whether it is the best way of tackling the specific problems connected with town defences is another matter. Here previous investigations show a significant imbalance in at least three respects:

1 **Chronologically** While important results have come from investigations of Anglo-Saxon and early medieval

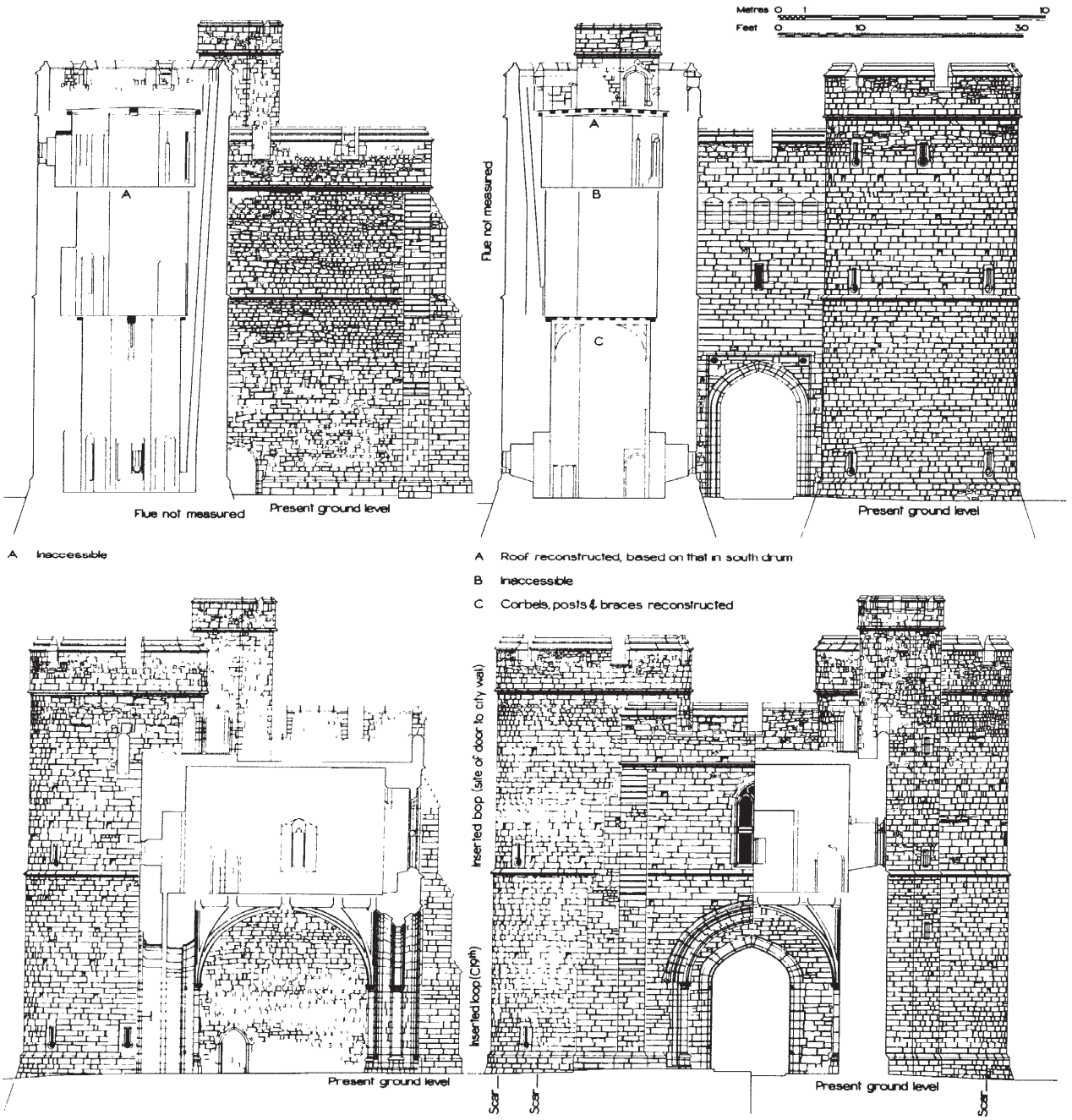


Fig 49 Canterbury West gate, elevations (Canterbury Archaeological Trust: John Bowen)

defences, comparatively little attention has been devoted to late medieval and post-medieval works.

2 Typologically Previous work has generally concentrated upon major town walls which aspired towards some military strength. There has been little investigation in smaller towns of the lesser banks, ditches and gates which lie near the threshold between true defences and mere boundary works.

3 Regionally While there has been a reasonably adequate balance of archaeological work in the midlands and south of England, less has taken place in the far west, Wales and the north; and in Scotland the study of town defences is still in its infancy.

It is accepted that defences are not ultimately the most important aspect of urban life and that it would be inappropriate for the needs of research in this particular field



Fig 50 Scale and complexity in a surviving medieval town gate: Monk Bar, York, the interior of the second floor showing portcullis

to dictate the entire direction of urban archaeology. Moreover, if certain towns are selected as priorities for intensive archaeological research on other grounds, it obviously makes sense to examine their defences as part of the programme, even if this makes a comparatively limited contribution to our understanding of town defences at large. However, it would be regrettable if our present policies serve only to perpetuate the imbalances noted above, and it is to be hoped that some proportion of our resources could be reserved for thematic enquiries on a broader front. Apart from the general areas of neglect already noted, certain outstanding problems in the study of town defences can be defined.

Occurrence and distribution

The whole rationale of town defences is still imperfectly understood. Why were some towns provided with defences while others of similar size in similar situations were not? One major distribution anomaly is the contrast between the Welsh border, where there is a considerable concentration of walled, embanked or gated settlements including many quite small towns and villages, and the Scottish border where, in equally unstable conditions and vulnerable locations, towns like Kendal, Hexham, Darlington, Barnard Castle and Appleby seem never to have made the least attempt to acquire their own defences.

Continuity of Romano-British defences

At least 22 medieval towns in Britain had defensive circuits based wholly or partly on Roman predecessors (List A). However, this apparent continuity may represent (i) more or less continuous use and maintenance during the post-Roman centuries, (ii) re-utilization after a period of abandonment or (iii) merely the passive toleration of structures too substantial for easy demolition. The difficulty facing the archaeologist is that continuing or revived use is not necessarily reflected in modifications to the fabric. Evidence from London, Canterbury and Chichester shows that some Roman walls long survived in near-perfect condition and could be named as they stood. The continuing employment of Roman walls as communal defences through the sub-Roman and early Saxon periods, which may be implied by literary references at Carlisle, Cirencester, Gloucester, Bath and Rochester, may not therefore be readily susceptible to archaeological proof. In the archaeological record there is a lapse of five centuries or more before any substantial evidence for the refurbishing of Roman defences with timberwork begins to appear at Bath, Chester, and perhaps also Lincoln. Defences whose post-Roman use was not maintained after the Norman conquest and which therefore escaped later medieval interference (List B) perhaps offer the best prospects of assessing the form of continuity.

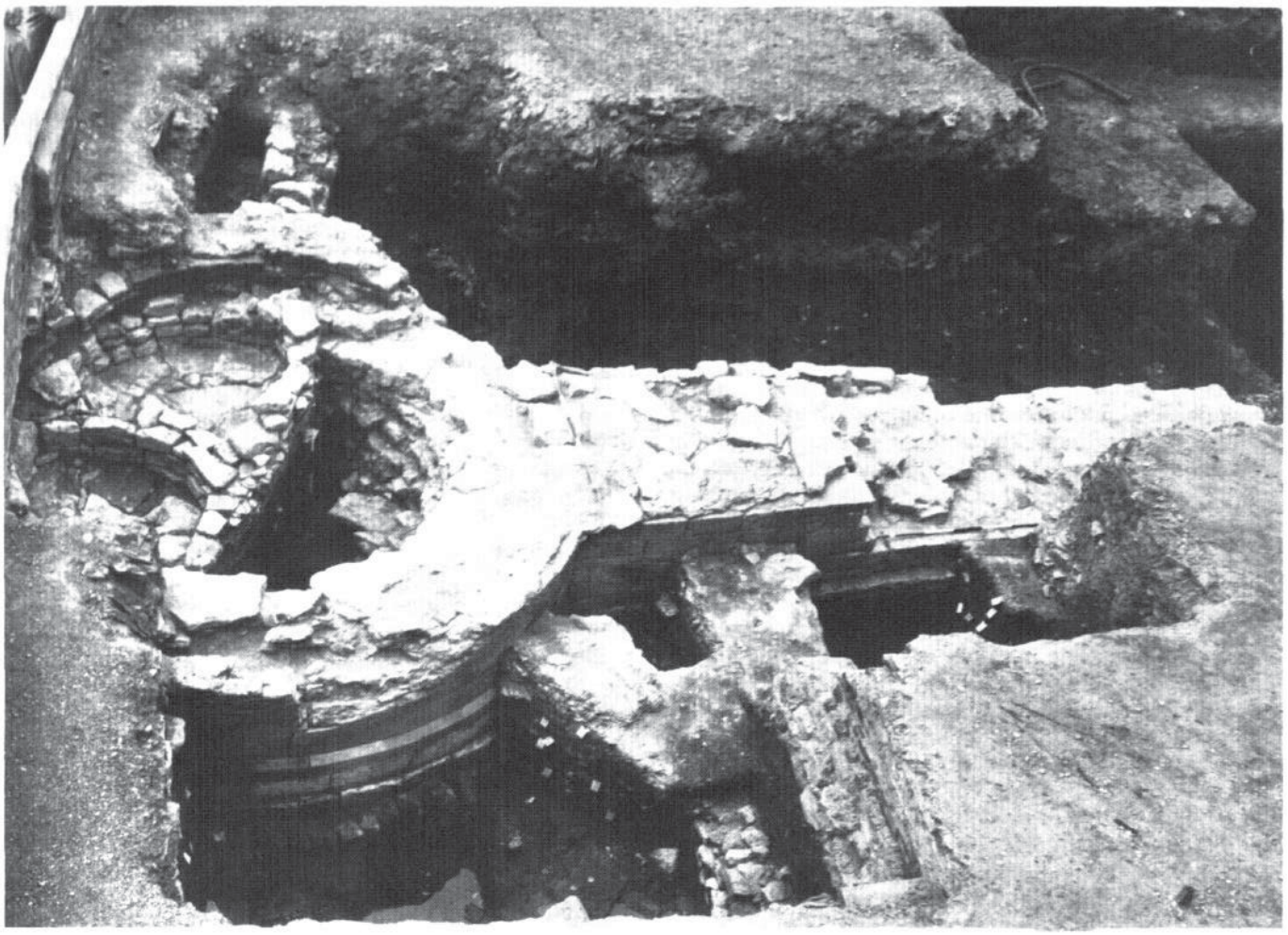


Fig 51 Lucy Tower, Lincoln: the excavation of a 13th century spur-wall and tower in 1972-3 (Lincoln Archaeological Trust)

Replacement of Romano-British centres

In contrast to the preceding examples, some Roman walled towns were abandoned and replaced by a new defended centre on a different site nearby, eg Wroxeter by Shrewsbury, Kenchester by Hereford, Great Casterton by Stamford. At Carmarthen the Roman and medieval circuits are closely juxtaposed but nowhere coincident. The reasons and chronological context for such 'migrations' are still inadequately understood. Where moves of this sort have occurred, the identity of *burhs* -documented in the 10th century, eg Manchester or Derby, poses particular problems; do these represent re-use of nearby Roman fortified sites, or are they to be sought within and beneath their latest medieval successors? The relationship between Roman Bitterne, Saxon Hamwich, the *burh* of Hampton and medieval Southampton has been especially controversial, and only recently has the recognition of a small ditched Saxon *enceinte* within the south-western quarter of the medieval walled town thrown new light upon the location of the *burh*.

Origins of new Anglo-Saxon dejences

The well documented Danish wars have traditionally been seen as the context for the origins of the burghal system in Wessex and the first appearance of new defended centres with no direct Roman predecessors. However, as early as the 8th century, Hwiccan and Mercian charters were recording the due of 'borough work', which may imply the emergence of some earlier system of local strongholds in the midlands. Post-Roman earthwork *enceintes* which antedate the 9th and 10th century *burhs* of Wessex have now been recognized archaeologically in several Mercian boroughs, eg Nottingham, Tamworth, Hereford and perhaps Northampton. Further work is needed to refine their dating and to determine whether they represent merely the precincts of *villae regales* or are of proto-urban character.

Nature of the Danish boroughs

Another traditional tenet, that the Alfredian *burhs* were imitative of contemporary Danish practices, must also now be doubted. None of the principal Danish boroughs in Mercia has yet produced evidence of major defensive works unequivocally dated to the initial conquest. The numerous Chronicle references to sites fortified by the Danish army usually seem to imply makeshift affairs rapidly thrown up and equally readily abandoned, and the slight works directly underlying the defences of Edward the Elder's *burh* in Nottingham seem to be of this type. The repair and extension of the Roman defences at York recorded in 876 may have been more ambitious, but were commenced nearly

a decade after the Danes first took the city. Elsewhere more substantial works, such as the timber-framed turf rampart at Stamford, seem more likely to date from the period of English recovery, when the Danes were first thrown back on the defensive. No evidence for Danish defences has yet come from Derby, Leicester or Lincoln.

The burhs *of Alfred and his immediate successors*

The defences of the planned Alfredian *burhs* of Wallingford, Cricklade, Wareham and Lewes and the promontory *burhs* of Lydford, Twyneham and Wilton have been investigated archaeologically, but many problems remain. The *Brydian* of the Burghal Hidage now seems likely to be Bridport rather than Littlebredy, but the circuits postulated here, at Langport, Shaftesbury and other sites still await positive archaeological confirmation. The Aethelflaedan defences of Chester, Tamworth and Hereford are partly known, and at Shrewsbury, Worcester and Warwick their likely alignment can be traced in the street-plan, but at Stafford even their outline remains a mystery. Several named Aethelflaedan *burhs,* probably forts rather than towns, are still unlocated; though *Bremesburgh,* built after the battle of Tettenhall in 910, is possibly to be sought at Bromsgrove, an ancient royal demesne with the same personal toponomic element occupying a strategic position on a Roman road linking English Mercia with Danish Mercia. Of Edward the Elder's *burhs,* Oxford is the most thoroughly investigated, and work has also taken place in Witham, Bedford, Towcester, Northampton, Stamford, Nottingham and *Cledemutha;* but the two double *burhs* of Hertford and Buckingham are still little known archaeologically, and the sites of Edward's *burhs* at Bakewell and Maldon are still doubtful.

Late Saxon defences

During the 10th and 11th centuries the earthen defences of Hereford, Wallingford, Cricklade, Wareham and Lydford underwent masonry reinforcement, the circuit at Oxford was considerably extended, and important new defended urban centres emerged at Norwich, Ipswich and Thetford. The main outstanding problem of this period is the nature of the host of smaller defended centres which must have come into existence if Athelstan's decree that mints were to operate only in defended *burhs* is to be taken seriously. Contractors' trenches dug in Aylesbury in 1973 revealed a previously unknown late Saxon defensive ditch, and possible circuits can be traced from topographical indications at Bradford-on-Avon, Newbury, Witney, Pershore, Newport Pagnell and Higham Ferrers.

Norman town defences

The Norman contribution to the development of town defences has been generally underestimated. There is now considerable evidence for the refurbishment of earlier defences at Tamworth, Colchester, Cricklade, Bath and Wareham, for the extension of earlier *enceintes* at York (Walmgate), Doncaster, Nottingham, Chester, Hereford, Worcester (Sidbury), Northampton, Norwich, Oxford and Winchester, and for the cutting of new defences at Newark-on-Trent, Rhuddlan, Taunton, Pleshey and Chipping Ongar. Much of the Norman work used earthen defences, but at Nottingham, Oxford and Bath sectors near the gates were already employing masonry, and at Lincoln the area reclaimed from the Witham marshes was protected by a stone spur wall in the 12th century. The location of Norman defences made redundant by enlarged circuits later in the Middle Ages poses a special problem. In addition to known examples at Coventry, Abergavenny and Cardiff, a case could be made for others at Dunwich, Clun and Haverfordwest, and more may well await discovery.

Thirteenth century defences

The importance of the 13th century contribution may be a little overemphasized by the new availability of documentary sources such as murage grants, but it still seems to represent the peak of activity in England and Wales, with many earthen defences being replaced in stone, major extensions to earlier circuits at York, Shrewsbury, Worcester, Bristol, Southampton and Norwich, a number of minor extensions to accommodate monastic precincts, and many towns being enclosed for the first time. Town defences were beginning to appear in Scotland, eg at Perth, where the wall and ditch was first located in 1976. The survival of defences of this period is greater, and their nature is generally better understood; the main outstanding problem is the number of circuits whose exact course is still unknown, eg Grimsby, Harwich, Knighton, Haverfordwest, Newport (Monm), Plymouth and Dover.

The later Middle Ages

Only in Scotland do substantial new works appear in the later Middle Ages, and outside Edinburgh and Inverness these have received little investigation. At Durham the previously undefended marketplace area was enclosed by a new wall early in the 14th century. Elsewhere work was generally confined to maintenance, the addition of bastions in a few places and the rebuilding of a number of gates in more elaborate style. Many town defences were lapsing into decay. The most significant development was the appearance, towards the end of the 14th century, of gunports in the walls of certain important southern towns, eg Southampton, Winchester and Canterbury. This foreshadowed a new initiative towards the development of a very different style of fortification, the finest example of which is the Elizabethan circuit at Berwick-upon-Tweed. The evolution of artillery defences represents a major field of study in its own right, and cannot be pursued here.

Deserted walled towns

Finally, more attention might be paid to the special case of walled towns like Roxburgh, Caus, Denbigh, Kidwelly and Kenfig which have subsequently become deserted. How much did their defensive role ultimately contribute to their failure as towns? The least vulnerable sites are those which are least accessible, and this is the exact reverse of the requirements of a successful trading community, which places a higher premium upon convenience of access to the market and comfort of, living accommodation. Failed walled towns, like deserted medieval villages, have considerable potential for the preservation of medieval deposits undisturbed by later occupation, and it is especially desirable that an adequate sample be kept intact for future investigation.

Acknowledgments

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The maps and plans are the work of Jayne Peacock and C J Bond.

Key to lists of Anglo-Saxon and medieval town defences

An attempt has been made to provide a complete checklist of all towns and some villages believed to have possessed some form of communal defensive barriers in the Anglo-Saxon and medieval periods.

The checklist has been subdivided into ten sections, according to the origins and nature of each circuit. Towns with successive extensions to their defensive *enceintes* are distinguished by Roman numerals after their name, and may appear in more then one section.

The number preceding each name serves as a key to the maps (Figs 45-8). Where an early circuit has been extended or realigned, the number of the *enceinte* first listed has been retained in subsequent sectional lists; however, where the entire community has been relocated, different key numbers have been employed for the initial and subsequent sites.

Period

IA: Iron Age defences re-utilised
RO: Roman defences retained
RO+: Roman defences actively maintained and modified
AS: New Anglo-Saxon or Scandinavian defences
ME: New post-Conquest medieval defences
C: Century of origin of circuit indicated, where reasonably securely known

Form

S: Stone (or brick) walls
E: Earthen bank and/or ditch (may include wooden palisade and timber or stone gates)
E/S: Earthen defences later succeeded by stone wall on identical alignment
G: Gates only
CB: Town probably within castle bailey
U: Form unknown

Condition

1: Major part of circuit in good state of preservation
2: Substantial lengths of circuit in good state of preservation
3: Short lengths of circuit preserved
4: Fragmentary remains only
5: No remains visible, but position known or suspected
U: Position largely or wholly unknown

Documentation

1: Excellent documentation, eg with full range of building or maintenance accounts
2: Good documentation, eg succession of murage grants
3: Occasional contemporary references only, but sufficient to confirm that defences existed or were planned
4: Circumstantial or secondary evidence only
5: No documentary record of defences known

Archaeology

1: Extensive archaeological research on defences since 1970
2: Substantial rescue work on defences, including controlled excavations, since 1970
3: Occasional or limited excavations on defences undertaken or reported since 1970
4: Archaeological investigations of defences reported before 1970, but no recent work
5: No archaeological excavation on defences known.

Principal recent published references

A complete bibliography would include many hundreds of references. In the interests of brevity only the main works specific to each town published since 1970 are given here, and only those which contain significant information on the town defences. Many of these include references to earlier work, and other references will be found in Kenyon (1978, 1983), which also lists work on urban castles and post-medieval defences.

Other sources consulted during the compilation of the checklist, but not individually referenced here, include the annual reviews of excavations published in *Medieval Archaeology,* CBA *Newsletter and Calendar* and HMSO *Archaeological Excavations;* standard works such as VCH and RCHM accounts; earlier general studies of Anglo-Saxon and medieval towns and their defences (eg Barley (1975), Beresford (1967), Biddle (1975a), Colvin (1963, 1982), Harvey (1911), Haslam (1984), Hogg & King (1967), Soulsby (1983) and Turner (1970)); and several compendia of implications surveys, among which Aston & Leech (1977), Gourlay & Turner (1977), Haslam (1976) and Penn (1980) have been especially helpful.

The process of tabulation inevitably involves taking a simplistic view of a complex reality and imposing a subjective judgement upon evidence which is itself variable in both quality and accessibility. While conscientious efforts have been made to minimize mistakes, some omissions, misapprehensions and errors of jugement will probably have crept through. I can only offer my apologies to anyone whose work I have unwittingly overlooked or misrepresented here.

Bibliography

Aldsworth, F, & Hill, D, 1971 The burghal hidage—Eashing, *Surrey Archaeol Collect*, **68,** 198–201

Alebon, P H, Davey, P J, & Robinson, D J, 1976 The Eastgate, Chester, 1972, *J Chester Archaeol Soc*, **59,** 37–49

Alldridge, N J, 1981 Aspects of the topography of early medieval Chester, *J Chester Archaeol Soc*, **64,** 5–31

Ashmore, P J, & Ashmore, F M, 1972–3 Excavations at Abergavenny Orchard site, 1972, *Monmouthshire Antiq*, **3** (2), 104–10

Aston, M, & Bond, C J, 1976 *The landscape of towns*

——, & Leech, R, 1977 *Historic towns in Somerset, CRAAGS survey 2*, Bristol

Atkin, M W, & Carter, A, 1977 Excavations in Norwich, 1976–7: the Norwich Survey, sixth interim report, *Norfolk Archaeol*, **36,** 287–304

——, ——, Baxter, M, Donaldson, P, & Roberts, J P, 1976 Excavations in Norwich, 1975–6: the Norwich Survey, fifth interim report, *Norfolk Archaeol*, **36,** 191–201

——, & Sutermeister, H, 1978 Excavations in Norwich, 1977–8: the Norwich Survey, seventh interim report, *Norfolk Archaeol*, **37,** 19–55

Bailey, J, 1976 Excavations in the Glebe, Bridport, *Proc Dorset Natur Hist Archaeol Soc*, **97,** 63

Baker, D, 1979 Excavations in Bedford, 1967–1977, *Bedfordshire Archaeol J*, **13,** esp 7–64

Barley, M W, 1975 Town defences in England and Wales after 1066, in *The plans and topography of medieval towns in England and Wales* (ed M W Barley), CBA Res Rep, 14

Bartlett, J, 1971 The medieval walls of Hull, *Kingston-upon-Hull Museums Bull*, **3–4**, (1969–70), revised 1971

Bassett, S R, 1980–81 Medieval Lichfield: a topographical review, *Trans S Staffordshire Archaeol Hist Soc*, **22,** 93–121

Bassett, S R, 1982 *Saffron Walden: excavations and research, 1972–80*, CBA Res Rep, **45**

Bateman, J, 1978 Late medieval town defences, Coventry, *W Midlands Archaeol News Sheet*, **21**, 90–2

Batt, M, 1975 The burghal hidage—Axbridge, *Somerset Archaeol Natur Hist*, **119**, 22–5

Beardsmore, C, 1980 Documentary evidence for the history of Worcester city defences, *Trans Worcestershire Archaeol Soc*, 3 ser, **7**, 53–64

Bennett, J, 1980 *Excavation and survey on the medieval city wall (of Worcester)*, 1973, *Trans Worcestershire Archaeol Soc*, 3 ser, **7**, 65–85

Beresford, M W, 1967 *New Towns of the Middle Ages: town plantation in England, Wales and Gascony*

Biddle, M, 1970 Excavations at Winchester, 1969, eighth interim report, *Antiq J*, **50**, 277–326

——, 1975a Towns, in *The Archaeology of Anglo-Saxon England* (ed D M Wilson), 99–150

——, 1975b Excavations at Winchester, 1971, tenth and final interim report, part i, *Antiq*, **55**, 96–126

——, & Keene, D J, 1976 General topography, vi: the city walls and gates, in *Winchester in the early Middle Ages, Winchester Studies 1* (ed M Biddle), 272–7

Bogdan, N Q, & Wordsworth, J W, 1978 *The medieval excavations at the High Street, Perth, 1975–76: an interim report*, Perth High Street Archaeol Excavation Committee

Bond, C J, 1977 The topography of Pershore, *Vale of Evesham Hist Soc Res Pap*, **6**, 2–42

Border Counties Archaeological Group, 1981 *Oswestry Town Wall*

Brooks, N, 1977 The ecclesiastical topography of early medieval Canterbury, in *European towns, their archaeology and early history* (ed M W Barley), 487–98

Brown, A E, 1972 The castle, borough and park of Cefnllys, *Trans Radnorshire Soc*, **42**, 11–22

——, & Alexander, J A, 1982 Excavations at Towcester, 1954: the Grammar School site, *Northamptonshire Archaeol*, **17**, 24–59

Buckland, P, & Dolby, M, 1972 Doncaster, *Current Archaeol*, **33**, 273–7

Bu'lock, J D, 1974 The problem of post-Roman Manchester, in *Roman Manchester* (ed G D B Jones), Manchester Excavation Committee, 165–71

Burrow, I, 1977 The town defences of Exeter, *Rep Trans Devonshire Ass for the Advancement of Science and Art*, **109**, 13–40

Bush, R, & Leach, P, 1977 *Taunton: the borough defences*, CRAAGS

Butler, L A S, 1976 *Denbigh Castle, town walls and friary, Clwyd*, HMSO

Cambridge, E, & Daniels, C M, 1974 New light on Sandgate, Newcastle-upon-Tyne, *Bull CBA Group 3*, **8**, 8–12

Campbell, J, 1975 Norwich, in *Historic towns Atlas*, **2**

Carter, A, 1971 Nottingham town wall: Park Row excavations, 1968, *Trans Thoroton Soc*, **75**, 33–40

——, 1977 The defences, in *Excavations in Kings Lynn, 1963–1970* ed H Clarke & A Carter), Soc Medieval Archaeol Monogr Ser, **7**, 432–8

——, 1980 Yarmouth—the defences, *Archaeol J*, **137**, 303–4

——, A, Roberts, J P, & Sutermeister, H, 1973 Excavations in Norwich, 1972: the Norwich Survey, second interim report, *Norfolk Archaeol*, **35**, 443–68

——, ——, & ——, 1974 Excavations in Norwich, 1973: the Norwich Survey, third interim report, *Norfolk Archaeol*, **36**, 39–71

Carver, M O H, 1969–74 Early Shrewsbury: an archaeological definition in 1975, *Trans Shropshire Archaeol Soc*, **59**, 225–63

——, 1980 An archaeology for the City of Worcester, 680–1680 AD, *Trans Worcestershire Archaeol Soc*, 3 ser, **7**, 1–11

——, 1981 Shrewsbury town and defences, *Archaeol J*, **138**, 42

——, 1983 Two town houses in medieval Shrewsbury, *Trans Shropshire Archaeol Soc*, **61**,

Charlesworth, D, 1978 Roman Carlisle, *Archaeol J*, **135**, 115–37

Chinnery, G A, 1981 *Leicester Castle and the Newarke*, Leicester Museums

Clack, P A G, 1980 Rescue excavations in County Durham, 1976–1978, 3: an excavation at Queen's Court, 2 North Bailey, Durham City, *Trans Architect Archaeol Soc Durham Northumberland*, new ser, **5**, 56–70

Clipson, J, 1980 Back Silver Street, Durham: 1975–6 excavations, *Archaeol Aeliana*, 5 ser, **8**, 109–126

Colvin, H M (ed), 1963 *The history of the King's Works: the Middle Ages*, 2 vols

—— (ed), 1982 *The history of the King's Works: 1485–1660*, 2 vols

Colyer, C, 1975 Excavations at Lincoln, 1970–1972: the western defences of the lower town: an interim report, *Antiq J*, **55**, 227–66

Crummy, P, 1981 *Aspects of Anglo-Saxon and Norman Colchester*, CBA Res Rep 39

——, 1984 *Excavations at Lion Walk, Balkerne Lane and Middleborough, Colchester, Essex*, Colchester Archaeol Rep 3

Cunliffe, B, 1976 *Excavations at Portchester Castle, vol II: Saxon*

——, 1977 *Excavations at Portchester castle, vol III: medieval, the outer bailey and its defences*

Davison, B K, 1972 The burghal hildage fort of *Eorpeburnan*: a suggested identification, *Medieval Archaeol*, **16**, 123–7

Day, W, 1973–4 Oswestry town walls, *Trans Shropshire Archaeol Soc*, **59, iii,** 278–9

Down, A, & Rule, M, 1971 *Chichester Excavations, I*

Duncan, W G, 1977 Inverness: Eastgate, medieval defences, *Discovery and excavation in Scotland, 1976*, CBA Scottish Group, 37

Dunmore, S, *et al*, 1976 Ipswich archaeological survey: second interim report, *East Anglian Archaeol*, **3**, 135–40

——, & Carr, R, 1976 The late Saxon town of Thetford; an archaeological and historical survey, *East Anglian Archaeol*, **4**

Durham, B, Hassall, T, Rowley, T, & Simpson, C, 1972 A cutting across the Saxon defences of Wallingford, *Oxoniensia*, **37**, 82–5

Dyson, T, & Schofield, J, 1981 Excavations in the City of London: second interim report, 1974–8, *Trans London Middlesex Archaeol Soc*, **32**, 24–81

Ellison, M, 1976 An archaeological survey of Berwick-upon-Tweed, in *Archaeology in the north* (ed P A G Clack & P F Gosling), 147–64

Farley, M E, 1974 Aylesbury, a defended town ?, *Rec Buckinghamshire*, **19**, 429–48

Faulkner, P A, 1975 Gatehouses, in *Excavation in medieval Southampton, 1953–1969* (ed C Platt & R Coleman-Smith), 56–72

Freke, D J, 1975 Excavations in Lewes, 1974, *Sussex Archaeol Collect*, **113**, 66–84

Frere, S S, Stow, S, & Bennett, P, 1982 *Excavations on the Roman and medieval defences of Canterbury*, Archaeology of Canterbury II

Gosling, P F, 1976 Carlisle: an archaeological survey of the historic town, in *Archaeology in the north* (ed P A G Clack & P F Gosling), 165–85

Gourlay, R, & Turner, A, 1977 *Scottish burgh surveys*

Graham, A, 1976–7 Kirkcudbright: some vanished landmarks, *trans Dumfries Galloway Natur Hist Antiq Soc*, 3 ser, **52**, 173–7

Graham, F, 1972 *The castle and town walls of Newcastle*, Northern History Booklets 21

Green, C, 1970 Excavations on the town wall, Great Yarmouth, Norfolk, 1955, *Norfolk Archaeol*, **35**, 109–117

Greenall, R L, 1979 The demolition of Northampton's walls, July 1662, *Northampshire Past Present*, **6** (2), 83–4

Griffiths, M, 1974 Recent work by the Exeter Archaeological Field Unit, *Proc Devon Archaeol Soc*, **32**, 167–70

Guildhall Museum, 1970 Archaeological finds in the City of London, 1966–9, *Trans London Middlesex Archaeol Soc*, **22** (3), 1–9

Hadfield, J I, 1981 An excavation on the site of 1–3 Tower Street, Rye, *Sussex Archaeol Collect*, **119**, 222–5

Hall, R A, 1974 The pre-Conquest *burh* of Derby, *Derbyshire Archaeol J*, **94**, 16–23

Harbottle, B, 1974 Excavation and survey in Newcastle-upon-Tyne, 1972–1973, *Archaeol Aeliana*, 5 ser, **2**, 57–90

Harden, G, 1978 *Medieval Boston and its archaeological implications*, S Lincolnshire Archaeol Unit

Harrison, A C, 1972 Rochester East Gate, 1969, *Archaeol cantiana*, **87**, 121–57

——, 1981 Rochester, 1974–75, *Archaeol Cantiana*, **97**, 95–136

——, & Williams, D, 1979 Excavation at Prior's Gate House, Rochester, 1967–77, *Archaeol Cantiana*, **95**, 19–36

Hart, C R, 1981 *The North Derbyshire Archaeological Survey to AD 1500*, Derbyshire Archaeol Trust

Harvey, A, 1911 *The castles and walled towns of England*

Haslam, J, 1976 *Wiltshire towns: the archaeological potential*

——, 1977–8 The excavation of the defences of Devizes, Wilts, 1974, *Wiltshire Archaeol Mag*, **72–3**, 59–65

——, 1981 A 'ward' of the burh of Cricklade, *Wiltshire Archaeol Mag*, **76**, 77–81

—— (ed), 1984 *Anglo-Saxon towns in southern England*

Hassall, J, & Baker, D, 1975 Bedford: aspects of town origins and development, *Bedfordshire Archaeol J*, **9**, 75–94

Hassall, T G, 1970 Excavations at Oxford, 1969: second interim report, *Oxoniensia*, **35**, 5–18

——, 1971 Excavations in Merton College, Oxford, 1970, *Oxoniensia*, **36**, 34–48

——, 1972 Excavations at Oxford, 1971: fourth interim report, *Oxoniensia*, **37**, 137–49

——, 1973 Excavations at Oxford, 1972: fifth interim report, *Oxoniensia*, **38**, 268–98

——, 1978a Oxford, the city walls, *Archaeol J*, **135**, 258–62

——, 1978b Wallingford, the defences, *Archaeol J*, **135**, 291–2

Heighway, C, 1975 The north and east gates of Gloucester, *Glevensis*, **9**, 3–6

——, 1980 *The east gate of Gloucester*, Gloucester City Museum & Art Gallery

Hill, D H, 1970 Late Saxon Bedford, *Bedfordshire Archaeol J*, **5**, 96–9

Hindle, B P, 1979 Medieval Pembroke, *Pembrokeshire Hist*, **6**, 76–80

——, 1981 *The study of medieval town plans with special reference to South Shropshire*, Univ Salford, discussion papers in *Geography*, **14**,

Hirst, S, 1980 Excavations behind the city wall at Talbot Street, 1975, *Trans Worcestershire Archaeol Soc*, 3 ser, **7**, 87–106

Hobley, B, & Schofield, J, 1977 Excavations in the City of London: first interim report, 1974–1975, *Antiq J*, **57**, 31–66

Hogg, A H A, & King, D J C, 1967 Masonry castles in Wales and the

Marches, *Archaeol Cambrensis*, **116,** 71–132
Holmes, N M McQ, 1980 Excavations at St Mary's Street, Edinburgh, 1974, *Post-Medieval Archaeol*, **14,** 157–84
Hunn, J, 1981 A note on the medieval defences of St Albans, *Hertfordshire's Past*, **11,**
Hurst, H, 1972 Excavations at Gloucester, 1968–71: first interim report, *Antiq J*, **52,** 24–69
——, 1974 Excavations at Gloucester, 1971–73: second interim report, *Antiq J*, **54,** 8–52
James, H, 1980 Topographical notes on the early medieval borough of Kidwelly, *Carmarthenshire Antiq*, **16,** 6–17
James, T, 1980 *Carmarthen: an archaeological and topographical survey*, Dyfed Archaeol Trust
——, & Simpson, D, 1980 *Ancient west Wales from the air*, Carmarthenshire Antiq Soc
Jarvis, K S, 1983 *Excavations in Christchurch, 1969 to 1980*, Dorset Natur Hist Archaeol Soc Monogr 5
Jones, B C, 1976 The topography of medieval Carlisle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, new ser, **76,** 77–96
Jones, M J, 1980 *The defences of the upper Roman enclosure*, Archaeology of Lincoln **7** 1
Kenyon, J R, 1977 Artillery and the defences of Southampton, *circa* 1360–1660, *Fort*, **3,** 8–14
——, 1978 *Castles, town defences and artillery fortifications in Britain: a bibliography, 1945–1974*, CBA Res Rep 25
——, 1983 *Castles, town defences and artillery fortifications in Britain and Ireland: a bibliography, vol 2*, CBA Res Rep 53
King, D J C, & Cheshire, M, 1982 The town walls of Pembroke, *Archaeol Cambrensis*, **137,** 77–84
Kissack, K E, 1974 *Medieval Monmouth*, Monmouth Hist & Educ Trust
Klingelhofer, E, 1975 Evidence of town planning in late Saxon Warwick, *Midland Hist*, **3** (1), 1–10
——, 1976–7 Barrack Street excavations, Warwick, 1972, *Trans Birmingham Warwickshire Archaeol Soc*, **88,** 87–104
Lancaster, J, 1975 Coventry, in *Historic Towns Atlas*, **2**
Leach, P J, 1982 *Excavations at Ilchester, 1974–75*, CRAAGS
Lewis, R, 1972 Town defences, Lewes: rear of 11 Keere Street, *Sussex Archaeol Soc Newsletter*, **8,** 2
Lightfoot, K, 1979 The medieval town defences of Swansea: the Whitewalls excavation, 1978–79, *Gower*, **30,** 76–9: *Morgannwg*, **23,** 89–90
Lloyd, D, 1979 *Broad Street: its houses and residents through eight centuries*, Ludlow Research Paper 3
Lobel, M D, 1975a Bristol, in *Historic towns Atlas*, **2**
——, 1975b Cambridge, in *Historic towns Atlas*, **2**
Lucas, J N, 1978–9 The town walls of Leicester: evidence for a west wall, *Trans Leicestershire Archaeol Hist Soc*, **54,** 61–6
McCarthy, M R, 1980 Excavations on the city defences, Carlisle, *Trans Cumberland Westmorland Anti Archaeol Soc*, **80,** 69–78
MacIvor, I, 1976 The fortifications, Berwick-upon-Tweed, *Archaeol J*, **133,** 182–4
Mahany, C, 1978 Stamford Castle and town, *S Lincolnshire Archaeol*, **2,** 1–32
Maloney, J, & Harding, C, 1979 Dukes Place and Houndsditch: the medieval defences, *London Archaeol*, **3,** 347–54
Manley, J, 1982 Rhuddlan, *Current Archaeol*, **81,** 304–7
Markuson, K W, 1980 Excavations on the Green Lane access site, Barnstaple, 1979, *Proc Devon Archaeol Soc*, **38,** 67–90
Miles, H, 1971–2 Excavations at Rhuddlan, 1969–71: interim report, *Flintshire Hist Soc*, **25,** 1–8
——, 1972 Rhuddlan, *Current Archaeol*, **32,** 245–8
Miller, K, 1982 *Beverley: an archaeological and architectural study*, RCHM
Morris, B, 1975 Swansea's medieval defences: some recent discoveries, *Gower*, **26,** 11–15
Mynard, D C, 1976 Excavations on the Mayorhold, Northampton, 1971, *Northamptonshire Archaeol*, **11,** 134–50
O'Leary, T J, 1981 Excavations at Upper Borough Walls, Bath, 1980, *Medieval Archaeol*, **25,** 1–30
Owles, E, 1971 The west gate of Ipswich, *Proc Suffolk Inst Archaeol*, **32** (2), 164–7
Palmer, N, 1976 Excavations on the outer city wall of Oxford in St Helen's Passage and Hertford College, *Oxoniensia*, **41,** 148–60
Pearson, N, 1982 City walls, (York), Tower 11, *Interim*, **8** (3), 16–20
Penn, K, J, 1980 *Historic towns in Dorset*, Dorset Natur Hist Archaeol Soc Monogr 1
Perriam, D R, 1976 The demolition of Carlisle city walls, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **76,**
Petchey, M R, 1977 Excavations in Hertford, 1973–4, *Hertfordshire Archaeol*, **5,** 157–75
Platt, C, & Coleman-Smith, R (eds), 1975 *Excavations in medieval Southampton, 1953–69*
Ponsford, M W, 1971 Nottingham town wall: Park Row excavations, 1967, *Trans Thoroton Soc*, **75,** 5–32
Pratt, D, 1980 Search for town wall (Oswestry), *West Midlands Archaeol*, **23,** 105–8
Price, R, 1979 Excavation at the town wall, Bristol, 1974, in *Rescue archaeology in the Bristol area: 1* (ed N Thomas), City Bristol Mus Art Gallery Monogr 2, 15–27
Radcliffe, F, & Knight, J, 1972–3 Excavations at Abergavenny, 1962–1969, II: medieval and later, *Monmouthshire Antiq*, **3** (2), 65–103
Radford, C A R, 1970 The later pre-Conquest boroughs and their defences, *Medieval Archaeol*, **14,** 83–103
——, 1972 Excavations at Cricklade, 1948–1963, *Wiltshire Archaeol Natur Hist Mag*, **67,** 61–111
Radley, J, 1972 Excavations in the defences of the City of York: an early medieval stone tower and the successive earth ramparts, *Yorkshire Archaeol J*, **44,** 38–64
Reynolds, N M, 1979 Saltergate, in Excavations at Lincoln, second interim report: excavations in the lower town, 1972–8 (ed C Colyer & M J Jones), *Antiq J*, **59,** 84–9
Robinson, D M, 1980 *Cowbridge: archaeology and topography*, Glamorgan–Gwent Archaeol Trust
Robinson, J, 1975 *The evolution of the townscape of medieval Newport Pagnell*, Bradwell Abbey Occ Pap 2
——, 1978 *The Archaeology of Malton and Norton*, Yorkshire Archaeol Soc
RCHM, 1972 *City of York, II: the defences*
——, 1977 *The town of Stamford*
——, 1980 *Ancient and historical monuments in the City of Salisbury, I*
Rylatt, M, 1980 Salvage recording of medieval defensive ditch at Kirby House (Coventry), *W Midlands Archaeol*, **23,** 83
Saunders, A D, 1976 The defences of Southampton in the later Middle Ages, in *The Southampton Terriers of 1454* (ed L A Burgess), *Southampton Rec Ser*, **15,** 20–34
Sawle, J, 1980 Excavations on the city wall (Worcester) at 61, Sidbury, *Midlands Archaeol*, **23,** 132–5
Schofield, J, 1975–6 Excavations south of Edinburgh High Street, 1973–4, *Proc Antiq Scot*, **107,** 155–241
——, 1978 Bastion 10A: a newly-identified bastion in the City of London, *Trans London Middlesex Archaeol Soc*, **29,** 91–8
Searle, C, 1974 The appearance of the gates, in *Chichester Excavations II* (ed A Down)
Selkirk, A, 1981 Hamwih, *Current Archaeol*, **79,** 243–9
——, 1983 Peterborough, *Current Archaeol*, **80,** 182–3
Sheridan, K, 1972–3a Sixth report of excavations at Tamworth, Staffs: A section through the Saxon and medieval defences, Albert Road, *Trans S Staffordshire Archaeol Historical Soc*, **14,**
——, 1972–3b Seventh report of excavations at Tamworth, Staffs: a section through the northern defences excavated by Dr F T Wainwright in 1960, *Trans S Staffordshire Archaeol Hist Soc*, **14,** 38–44
——, 1974–5 Ninth report of excavations at Tamworth, Staffs, 1972: a section through the defences at Bell Inn Corner, *Trans S Staffordshire Archaeol Hist Soc*, **16,** 54–7
Shoesmith, R, 1971 Hereford City Excavations, 1970, *Trans Woolhope Natur Fld Club*, **40** (2), 225–40
——, 1972 Hereford, *Current Archaeol*, **33,** 256–8
——, 1982 *Hereford City Excavations, II: excavations on and close to the defences*, CBA Res Rep, 46
Short, E B, 1976 The bounds of Bridport, *Proc Dorset Natur Hist Archaeol Soc*, **97,** 62–3
Smith, T P, 1970 The medieval town defences of Kings Lynn, *J Brit Archaeol Ass*, 3 ser, **33,** 57–88
——, 1976 The date of the Kings Lynn south gate, *Norfolk Archaeol*, **36** (3), 224–32
Soulsby, I, 1983 *The towns of medieval Wales*
Stokes, M A, 1980, 1981 Excavation of medieval defensive ditch at New Law Courts, Earl Street (Coventry), *W Midlands Archaeol*, **23** (1980), 83–4; *ibid*, **24** (1981), 61–4
Streeten, A D F, 1976 Excavations at Lansdowne Road, Tonbridge, 1972 and 1976, *Archaeol Cantiana*, **92,** 105–18
Stickland, T J, 1981 City Wall, engineering yard near the Northgate, Chester, *Cheshire Archaeol Bull*, **7,** 42
Sumpter, A B, & Coll, S, 1977 *Interval Tower SW5 and the south-west defences: excavations, 1972–5*, Archaeology of York, 3 2: the legionary fortress
Swanton, M J, 1972 Castle Hill, Bakewell, *Derbyshire Archaeol J*, **92,** 1972, 16–27
Tatton-Brown, T, 1978 The Sandown gate at Sandwich, *Archaeol Cantiana*, **94,** 1978, 153–6
Taylor, A J, 1970 The walls of Conway, *Archaeol Cambrensis*, **119,** 1–9
——, 1975a Caernarvon Castle and town walls, *Archaeol J*, **132,** 287–9
——, 1975b Conway Castle and town walls, *Archaeol J*, **132,** 245–7
Thompson, F H, & Whitwell, J B, 1973 The gates of Roman Lincoln, *Archaeol*, **104,** 129–207
Todd, M, 1974 Excavations on the medieval defences of Newark, 1972, *Trans Thoroton Soc*, **78,** 27–53
——, 1977 Excavations on the medieval defences of Newark, 1976, *Trans Thoroton Soc*, **81,** 41–54
Tullett, E, 1979 An excavation at the Corner Tower, Newcastle upon Tyne, 1978, *Archaeol Aeliana*, 5 ser, **7,** 179–90
Turner, H L, 1970 *Town defences in England and Wales: an architectural and documentary study, AD 900–1500*

Wacher, J S, 1975 The town defences, in *Excavations in Medieval Southampton, 1953–1969* (ed C Platt & R Coleman-Smith), 142–8
Waterman, R D, 1980 *The bars and walls of York, a survey: an assessment of their condition and state of repair*
West, S E, 1970a Excavation of the town defences at Tayfen Road, Bury St Edmunds, 1968, *Proc Suffolk Inst Archaeol*, **32** (1), 17–24
——, 1970b The excavation of Dunwich town defences, 1970, *Proc Suffolk Inst Archaeol*, **32** (1), 25–37
Whitehead, D, 1979 Medieval trans-riparian defences at Worcester ?, *Worcestershire Archaeol Local Hist Newsletter*, **23**, 2–3
Williams, B, 1981 *Excavations in the medieval suburb of Redcliffe, Bristol, 1980*, Bristol City Mus Art Gallery
Williams, J H, 1982 Four small excavations on Northampton's medieval defences and elsewhere, *Northamptonshire Archaeol*, **17**, 60–73
Wills, J, 1980 Excavations and salvage recordings at Friar's Gate (Union Street), (Worcester), 1976, *Trans Worcestershire Archaeol Soc*, 3 ser, **7**, 107–11
Wood, M, 1980 Barnstaple, North Gate, east abutment, *Proc Devon Archaeol Soc*, **38**, 123–4
Wordsworth, J, 1981 The archaeological investigation of medieval Inverness, in *The Middle Ages in the Highlands* (ed L MacLean), 71–8
Young, C, 1970 Excavations in Nottingham, *Trans Thoroton Soc*, **74**, 2–3
——, 1971 Excavations in Nottingham, *Trans Thoroton Soc*, **75**, 1–2
——, 1972 Excavations in Nottingham, *Trans Thoroton Soc*, **76**, 1–3
——, 1974 Excavations in Nottingham, *Trans Thoroton Soc*, **78**, 2–3

8 Urban castles

C Drage

The subject of the present paper comprises a group of castles superficially distinguished from the generality of that type, not by any intrinsic criterion but by the circumstance of their location. The familiar association of town and castle conceals a dichotomy that exists between them. A town is a community living off commerce (Bloch 1965, 334) with considerable potential for self-organization, which could lead to outstanding corporate and individual liberty. A castle is essentially a private institution, 'the fortified residence of a lord'. The dominant factor in the development of a castle is the person of its lord, a knight, of whose power it is the 'symbol and substance' (Brown 1976, 15-19) In addition to its dual (domestic and military) role, a castle might also serve the administrative needs of its lord.

Two categories of castle associated with towns may be distinguished, based on their chronological relationship. As a base for a lord, who created a new town or who encouraged or allowed the growth of an adjacent settlement, a castle might succour a nascent community, contributing to its security, administration and economy. Apparently the castle is a primary feature in such a settlement and the relationship, to an extent, is symbiotic. The urban status of such communities was often only a potential. Many gained borough status long after their foundation and sometimes after the castle had ceased to be used. Some remained no larger than the average village. The term 'urban castle' is inappropriate for many of these settlements, which might better be described as 'castle-boroughs'. Properly, they form a separate subject which can only be touched upon in the present paper (below).

The term 'urban castle' should be confined to those castles established within existing communities. Such castles are secondary features and the communities into which they are placed are less equivocably urban. An established community sought enhanced security and privilege in the charter of a powerful and often remote lord, while immediate safety was derived from the construction of walls, not of castles. Morphologically, the construction of a castle within an existing community represents the intrusion of one individual on a massive scale. Politically, the construction of an urban castle was an act of conquest.

While it is difficult to *define* precisely what constituted a town, on the eve of the Conquest over 100 communities existed in England, which might be *described* as urban (Biddle 1976b, 100). The towns differed considerably in size and character and their origins were diverse. A factor common to many was their use as communal fortifications, established during the extension of royal power in the 9th and 10th centuries to those areas of England conquered by the Danes. Their defences may not have been maintained, but the towns continued as centres of local, royal administration, mints and commercial foci. By contemporary standards their populations, not tenurially homogeneous, were large and concentrated (Reynolds 1977, 30-6, 90-8).

Not all of these 100 towns were to have castles placed within them, although the possibility that certain castles have been completely destroyed or have left no trace in the documentary record must be allowed. More than 40 urban castles are known, located in the shire towns, later county boroughs, such as Oxford and Chester, and the more important or principal towns, including Tamworth and the 'quasi-county borough' of Stamford (Mahany & Roffe 1982; Platt 1978, 3; Stenton 1932, 234) (Fig 52). No single reason for the construction of urban castles can be deduced from the towns chosen. Characteristically, these towns were centres of local administration with a large population situated on important routes. Ecclesiastical towns, such as Bury St Edmunds and St Albans, and minor administrative centres including Bedwyn, possessing a mint but only 25 burgesses, did not have castles planted within them. Newark, belonging to the Bishop of Lincoln, although situated on a route whose importance was to develop, did not have a castle initially. The construction of the castle, shortly before 1135, may be contemporary with a replanning of the site, a process akin to the Bishop's new towns at New Sleaford and Banbury (Beresford 1967; Braun 1935; Todd 1977, 48).

Urban castles are among the earliest recorded castles, built in England during the first few years of Norman rule. Dover was constructed in 1066, Winchester in 1067 and Exeter in 1068 (Renn 1968, 27-30). The majority of other urban castles, including Norwich, are recorded before 1100, although their precise date of construction is not known. Leicester and Northampton are not recorded until the 12th century, but there is no reason to doubt that they were built earlier, during the 11th century (Armitage 1912, 94-5). Of 93 documented castles before 1100, almost 50% are urban castles. The chroniclers may have attached greater moment to the construction of castles within towns than elsewhere, but such building appears to have been an integral part or an objective of many campaigns.

In 1068, in the course of subduing the North, castles were built along the route of march at Warwick, Nottingham, York, Lincoln, Cambridge and Huntingdon (Renn 1968, 27-30). Domination of routes would appear to be a primary use of these castles, a control which facilitated William's return to subdue a further revolt in 1069. With the exception of siege works and temporary fortifications of the Anarchy, which may not have constituted castles, the foundation of urban castles appears to be confined to the 11th century. The circumstances and date of construction, where recorded, and also their distribution on the major lines of communication, would suggest that they were intended to control major routes. This need not be their sole or even primary role; and their location in towns, situated on major lines of communication, is by no means coincidental or secondary.

It has long been recognized that urban castles are located on the edges of towns, the majority lying outside the limits of the town, a phenomenon ascribed to the 'mistrust of an invader rather than the confidence of a native prince' (Armitage 1912, 95-6). The exact limit of Anglo-Saxon

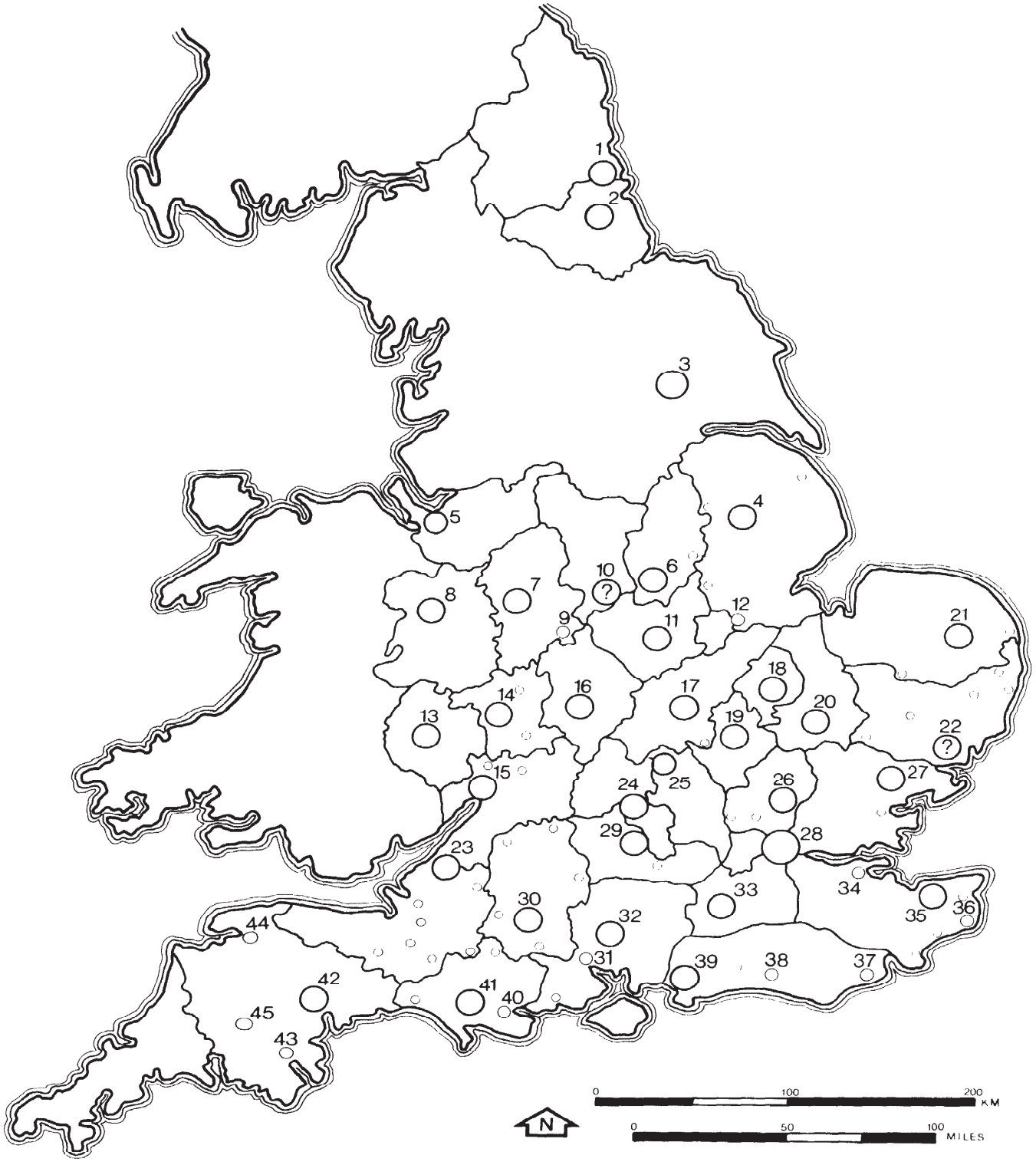


Fig 52 Distribution of urban castles and the more important pre-Conquest towns

urban development is rarely known and may not be conterminous with the defences. Until local studies produce more certain knowledge of the extent of towns, the position of suburbs, the microtopography of settlement and the pattern of property holding, then the peripheral location of urban castles can neither be challenged nor refined (Fig 53). The peripheral location of urban castles may have been determined in part by the re-use of existing defences. At London, Winchester and Exeter, castles were constructed by isolating, with a bank and ditch, a corner of the pre-existing town defences (Davison 1969, 41). The motte and bailey at Lincoln likewise occupies a corner of the Roman defences (Renn 1968, 226-7). The re-use of a corner of an existing defence is an economical method of fortification, not confined to towns. At Pevensey and Burgh Castle, a corner of the Roman defences is re-used, although in neither case was the choice of site constrained by the presence of a town (Brown 1976, 63).

A pragmatic approach to castle building, consistent with the circumstances of the Conquest, is apparent at Nottingham and Stafford. Unlike the majority of urban castles, such as Chester, which lie immediately outside the defences, Stafford lies 2.4 km from the town, separated by low-lying, possibly marshy ground (Armitage 1912, 211-16). Nottingham Castle occupies an elevated position, above a cliff at the end of a ridge, 500 m west of the town (Drage 1983). At Canterbury a Roman tumulus, the Dane John, formed the motte and at Rochester the motte Boley Hill is a natural rock outcrop (Renn 1982, 71-2). The abandonment of the Dane John and Boley Hill, both immediately outside their respective towns, for new sites just within, indicates that the peripheral location was consistently preferred.

The peripheral location does not appear to have spared the towns any of the destruction attendant upon the construction of‘ a castle. At Bedford the street pattern was disrupted (Baker 1973, 15). At Hereford prior occupation appears slight (Shoesmith 1980, 58), but at Winchester the area was densely settled (Biddle 1975a, 104). Traces of buildings also located in excavation at Northampton, Oxford and Southampton confirm the widespread destruction of property and loss of revenue recorded at York, Lincoln and Stamford (Mahany & Roffe 1982, 215; Renn 1968, 12). Nor was the property of the church inviolable. Excavation has revealed that the motte at Cambridge overlies Anglo-Saxon graves (Renn 1968, 128). A cemetery was incorporated at Hereford (Shoesmith 1980, 56), and at Norwich a church was destroyed by the castle bailey (Webster & Cherry 1980, 228-9). At Worcester, the monks did not recover the land lost to the castle until the 13th century (Armitage 1912, 239-42). The widespread destruction of property indicates that the peripheral location of urban castles resulted from a ready determination, fully realized, to secure the optimum site.

Although town plans may have susequently altered, the castles rarely appear to have been sited close to a market or other focus of the town (Armitage 1912, 96). Where the location of a major Anglo-Saxon centre within a town is known, as at Exeter and Winchester, the castle is sited elsewhere, although the palace at Winchester remained in use until the mid 12th century (Biddle 1976a, 305). The apparent disregard of existing centres may be a consequence of the peripheral location and may imply a separate function for the castle, but until there is more evidence of the topography of Anglo-Saxon towns no certain conclusions can be drawn. The exceptional siting of Colchester castle at the centre of the town has been noted, although the bailey extended to the edge of the pre-existing defences of the town (Armitage 1912, 96). Recent excavations have located Anglo-Saxon occupation, interpreted as a *villa regalis* (Drury 1982). It is uncertain whether the re-use of this site was mere convenience of ownership, continuity of function, or was determined by the substantial physical remains of the Roman temple and precinct.

Excavation at Stamford has demonstrated that the motte and bailey occupies the site of an earlier enclosure, defined by a double ditch and internal palisade. This feature, a fortification or a substantial boundary, was constructed in the early 9th century and soon after filled in, possibly before the adjacent development of pottery kilns in the mid 9th century (Mahany 1976). A notable reassessment of the pre-Conquest development of Stamford, using archaeological, documentary and topographic evidence, suggests that the proximity of a royal church indicates the presence of a manorial centre which included the enclosure (Mahany & Roffe 1982). It is uncertain whether the re-use of the site is mere convenience or a conscious perpetuation of the status of the area. However, the determining factor might be the military strength of the site, a defensible spur to the west of the town.

The offensive role of a castle depends upon the ability of a garrison to control the surrounding area and routes. In this role a castle outside the town at some remove, as at Nottingham, would function more readily than one within, hampered by the narrow streets and buildings of the town. The need for access to open land is emphasized at Lincoln where the Upper West Gate is included in the castle. Yet the siting of a castle within or immediately adjacent to a town suggests that a special presence was required. There is no evidence before the mid 12th century that the existing but neglected defences of towns were refurbished or in any way linked to the castle to improve the security of a town (Turner 1971, 13). This is hardly surprising; faced with the immediate problems of acquiring and retaining a newly conquered land, Norman concern for the defence of towns would have represented a reversal of priorities and the construction of castles, with no commensurate work on town defences, an inadequate response.

K e y

Distribution of urban castles and the more important pre-Conquest towns. Castles in the principle towns O Castles in other towns O the more important towns O.

(1) Newcastle-upon-Tyne (2) Durham (3) York: 2 castles (4) Lincoln (5) Chester (6) Nottingham (7) Stafford (8) Shrewsbury (9) Tamworth (10) Derby? (11) Leicester (12) Stamford (13) Hereford (14) Worcester (15) Gloucester (16) Warwick (17) Northampton (18) Huntingdon (19) Bedford (20) Cambridge (21) Norwich (22) Ipswich (23) Bristol (24) Oxford (25) Buckingham (26) Hertford (27) Colchester (28) London: 3 castles (29) Wallingford (30) Old Sarum (31) Southampton (32) Winchester (33) Guildford (34) Rochester (35) Canterbury (36) Dover (37) Hastings (38) Lewes (39) Chichester (40) Wareham (41) Dorchester (42) Exeter (43) Totnes (44) Barnstaple (45) Lydford

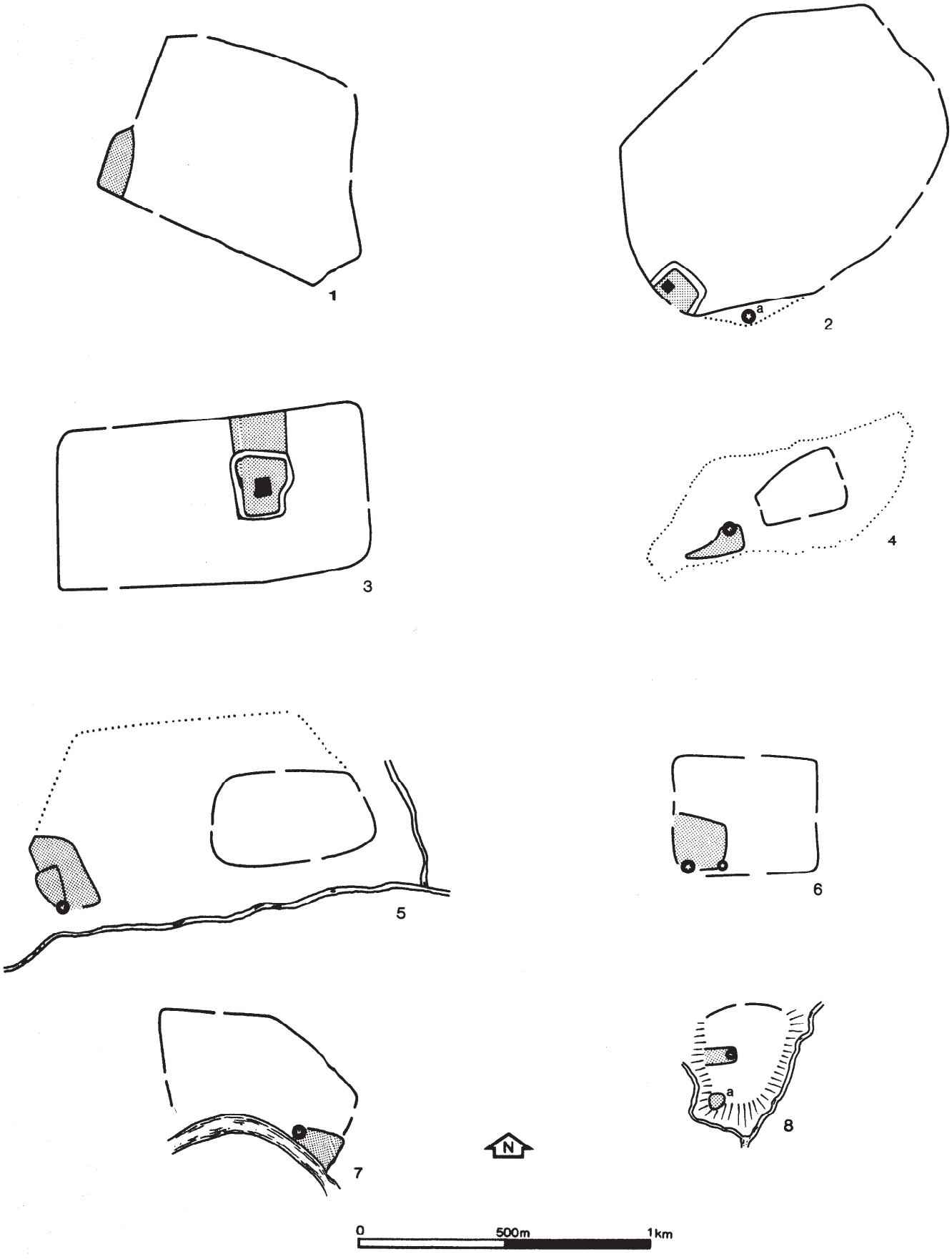


Fig 53 The siting of castles within towns

The construction of a castle within a town to deter urban revolt accords with the widespread destruction of property and is recorded at London, where castles were built 'against the fierceness and fickleness of the vast population' (Foreville 1952, 218). Yet subjection of the towns could have been achieved by the destruction or displacement of communities. That this solution was not adopted suggests that the towns were certainly considered important (Turner 1971,21)-so important as to require a castle to oversee their continued existence. A presence within a town allowed for the direct control of the local administration based there. This consideration, implicit in the 'systematic' nature of the 'planting of strongholds in all the principal English towns' (Colvin 1963, 21), results in a distribution not determined solely by the exigencies of campaigns, the fierceness of the urban populations or the intersections of a road system. The systematic control of pre-existing centres of administration appears to be the result of a policy.

Royal initiative is explicit in the construction of Warwick and Nottingham although, the site having been chosen, the building work was left to others to complete (Stenton 1932, 327). Royal control is implicit elsewhere since, with the exception of York where each half of the city had a castle, and London, where there were at least three castles, only a single castle was built in each town. Neither the greater magnates, whose urban interests are recorded in Domesday Book, nor the local aristocracy, whose presence, perhaps already declining, was attested by the numbers of urban churches, were allowed to turn their urban houses into a proliferation of castles (Platt 1976, 22). While it is difficult in the 11th and 12th centuries to distinguish between a baronial castle-held of the king in fee but rendable at will- and a royal castle-kept by a sheriff or constable as a hereditary office-it is probable that all urban castles were originally royal castles. Alienation, as in the case of Colchester in 1089 (Drury 1982, 399), might come later.

It has been suggested that towns were to an extent anomalies in Late Anglo-Saxon England, and that although the king and his representative the sheriff had the main interests, others had rights and financial claims there also. This, and the diverse nature of towns, has been suggested to account for the uneven treatment of towns in Domesday Book (Finn 1973, 88). However, the Normans were familiar with the town and its castle before they invaded England. In Normandy the 11th century had witnessed the expansion of many thriving communities, which contained aristocratic residences and centres of government. William himself had established a castle and defended town at Caen soon after 1047 (Bates 1982, 114-5, 128-31, 246-7; Brown 1976, 25). The foundation of royal castles in towns provided the king with direct control of the centres of administration and wealth. If indeed the towns were 'anomalous', the construction of a royal castle provided a potent symbol of the Conquest and the advent of a new regime.

The distribution of castles is by no means well understood (Brown 1976, 216). The absence of other castles for some distance around towns has been noted (King 1983, xxiii). This requires further examination, but could further indicate the king's desire to secure sole control of the towns.

To stress the role of the urban castle in controlling the administration is not to deny or denigate its military importance, but is to presuppose a continuing role rather than a temporary military function. The basic forms of fortification current in Europe before the Norman Conquest of England-the motte and bailey and the enclosure castle or ringwork-were used in the construction of urban castles. Their covering frequency, chronology and distribution must be seen as part of patterns covering the rest of England (Alcock & King 1969; King 1972). At Old Sarum a ringwork was constructed at the centre of an Iron Age fort (Braun 1960; Musty & Rahtz 1964). At London, Winchester and Exeter, enclosures were formed within the angles of earlier defences, but the predominant type first used in those castles constructed in 1068 (Cambridge, Huntingdon and Lincoln) is the motte and bailey castle. While it is possible that certain of the mottes may be secondary, as has been demonstrated at Castle Neroche (Davison 1969, 44), it is no longer necessary to consider the motte as an innovation of the latter 11th century (Brown 1976, 34, 39). Further, the early use of stone in the gatehouse of Exeter Castle, built in 1068 (Renn 1968, 31), in St Georges Tower, Oxford, which may predate the adjacent motte (Renn 1968, 185) and at Colchester, *c* 1074-6 (Drury 1982,400), suggests more than a purely temporary instrument of conquest.

A continuing role is implicit in the 11th century, with the relocation of castles at Canterbury and Rochester, the enlargement of mottes at Norwich, Oxford and York (Renn 1968, 259, 351; Hassall 1976), the construction of stone keeps at the Tower of London and Canterbury (Brown 1979; Renn 1982) and the strengthening of Winchester and Rochester (Biddle 1976a, 304; Flight & Harrison 1978). The scale and intensity of work at these towns may well be exceptional. If the distribution of early stone castles and Class 1 mottes (those over 10 m high) is considered (Fig 54), two broad groups are apparent. The first, as might be expected, comprises the developing honour centres; the second is the urban castles.

By the late 11th century, urban castles constitute a distinct group of castles. In addition to their urban location controlling the centres of wealth, population and administration, they are among the strongest castles in England and are all, or largely all, royal castles. Their importance in the Conquest, indicated by the chroniclers, has been maintained and is indicated by their architectural development.

In an age of personal government, the individual preferences of its lord are likely to be paramount in the continued use of any castle (Brown 1976, 15). The continued use of royal castles must also be seen in the context of a steady rise in their number, a growth arising to an extent from the construction of a few entirely new castles, but much more the result of the confiscation of baronial castles. Some castles might be alienated and others destroyed, but by the 15th ce tury more castles existed than could be adequately maintained or used and royal finances were quite insufficient for their upkeep (Brown 1976, 222). The large

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K e y

The siting of castles within towns. Castles shaded. Pre-existing defences solid line, later defences dotted.

(1) Winchester; enclosure castle (2) Canterbury; enclosures and keep replacing the Dane John (a) motte (3) Colchester enclosure and stone keep and northern bailey (4) Stamford; motte and bailey (5) Nottingham; motte and bailey and outer bailey (6) Lincoln 2 mottes and enclosure (7) Hereford; motte and bailey (8) Lydford motte *c* 1350 around stone tower *c* 1195, ringwork (a).

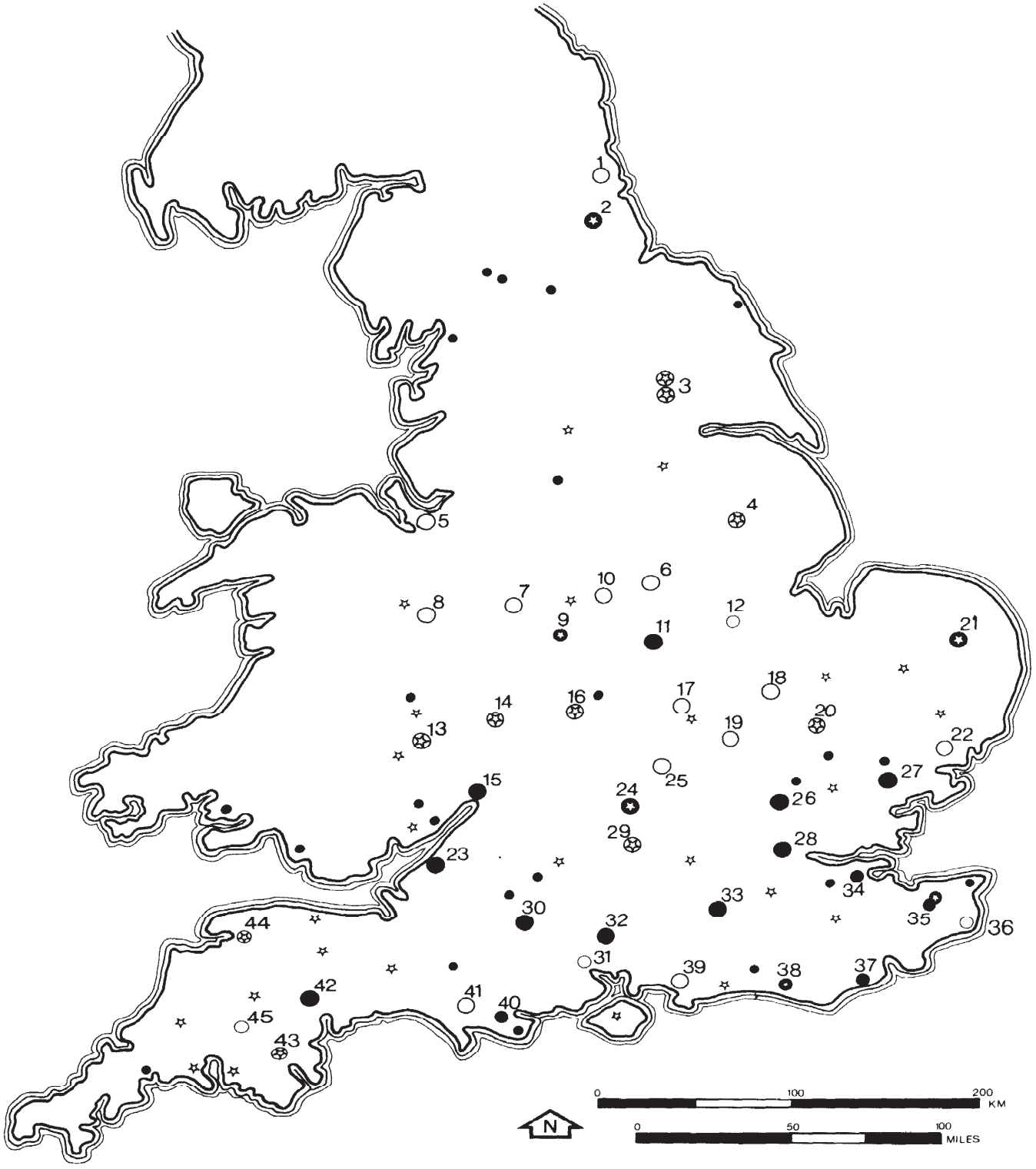


Fig 54 The distribution of urban castles, including those with stone buildings, class 1 mottes or a combination thereof, relative to the incidence of class 1 mottes or stone-built castles in the 11th and early 12th centuries

number of baronial castles established in the early medieval period are likewise greater than is required or can be afforded in later periods (Brown 1976, 216). With these arguments in mind the subsequent development of urban castles can be considered. For the sake of clarity, the military, residential and administrative use of urban castles will be separately considered, although it must be recognized that such a division is artificial.

Military uses

The early military role of the urban castles, evidenced by their construction during the campaigns of the Conquest and their architectural development, continued and is indicated by their subsequent building history, their disputed possession and their subjection to protracted sieges during the rebellions and foreign invasions of the 12th and 13th centuries. Once constructed, a castle is, of course, a place of military value (Brown 1976, 219), but the distribution of urban castles and their administrative role ensured that they were of great military value. Under the Angevin kings royal castles were the subject of considerable expenditure: in the south-east to secure the invasion coast, at Rochester, Dover, Canterbury and Southampton; in the north at Carlisle and Newcastle-upon-Tyne; in the west and along the border with Wales at Bristol, Gloucester, Hereford and Shrewsbury; and also-and here internal security is the paramount reason-on the castles of the interior, particularly Winchester and Nottingham. Keeps were constructed by Henry II at Dover, Winchester and Nottingham, and at York by Henry III.

In the 13th century, reflecting current English trends, improved gatehouses were constructed at Newcastle, Dover and Nottingham. Elsewhere outer works were strengthened and barbicans added (Colvin 1963, 68-78, 114-18). By the early 13th century many of the Midland castles, including Buckingham, Leicester and Worcester, appear to have had little military value and were alienated. Bedford, after its seizure from Fawkes de Breate in 1224, was destroyed, but the site was returned to the hereditary constables (Colvin 1963, 258; Baker 1973). A recent study has indicated that the castles of Bedfordshire in the 13th century had no military value (Baker 1982), a factor probably of great relevance to the decision not to retain Bedford. Little expenditure is recorded at Hereford and Shrewsbury, following the Conquest of Wales, and they appear to have entered a decline.

Subject, of course, to financial constraints, the decline of certain castles at certain periods must represent a considered assessment of their value to the Crown. This considered assessment must be understood primarily in terms of their continued military, that is political use, for urban castles might still be refurbished and rebuilt as the need arose. After a rebellion in East Anglia Edward I replaced the motte and bailey at Cambridge with a concentric castle (Colvin 1963, 584). With the non-recurrence of rebellion the castle, potentially one of the strongest in England, was not completed and declined in the 14th century. Hereford, after a century of decay, was refurbished in the 15th century, following revolt in Wales (Colvin 1963, 677). Recurrent crisis on the Scottish Border led to the occasional repair of Newcastle-upon-Tyne and Carlisle. In the late 14th century fear of French invasion led to the refurbishment of Rochester, and the repair of Canterbury was intended. Southampton, in ruins in 1286, was largely rebuilt by Richard II, but was neglected thereafter (Colvin 1963, 840-4).

The purely military use of urban and non-urban royal castles resulted in only short flurries of building activity and temporary occupation; few, such as Dover, were consistently maintained. Even Nottingham experienced a short decline in the early 15th century. Its reconstruction by Edward IV, and similar work at Warwick, must be understood in the context of recent dynastic struggles and the construction of other Yorkist strongholds, including Ashby de la Zouch, elsewhere in the Midlands. Internal security does not appear to have been an immediate priority since the 13th century, and the decline of urban and other royal castles of the interior was so complete that the majority had no part in the late 15th century dynastic struggles (Colvin 1963, 230-4 1) (Fig 55). The active military use of any castle is commonly short compared to its other roles, and for many castles it remains only a potential.

Urban castles throughout the medieval period were adequate for internal and external security. Other royal castles and baronial castles, some confiscated and some demolished, contribute to this security, but there are few instances of completely new royal castles constructed in England after the 11th century out of purely military necessity. The construction of Orford in Suffolk in 1165 was intended to control Hugh Bigod (Brown 1976, 220). Its construction must be seen in the context of the recent seizure of Norwich and Thetford from Earl Bigod, and also the failure to maintain the royal urban castle at Ipswich. Throughout the medieval period the invasion coast was defended by the existing urban castles at Dover, Canterbury, Rochester and Southampton. This was augmented by new royal foundations and by baronial castles, but was only superseded in the 16th century with the provision of a strategic defensive system based on artillery forts.

The use of a castle to overawe the town's population may have been of limited duration. With the exception of anti-Jewish violence (Hill 1948, 209), or the desultory siege of Nottingham Castle by the burgesses in 1315 occasioned by the high-handed actions of the constable (Cameron 1971,

Key

The distribution of urban castles O, including those with stone buildings ● class 1 mottes ✪ or a combination thereof ✪, relative to the incidence of class 1 mottes ☆ or stone built castles ● in the eleventh and early twelfth century.

(1) Newcastle-upon-Tyne (2) Durham (3) York; 2 class 1 mottes-the Old Baille and York Castle (4) Lincoln; the castle has 2 class 1 mottes (5) Chester (6) Nottingham (7) Stafford (8) Shrewsbury (9) Tamworth (10) Derby? (11) Leicester (12) Stamford (13) Hereford (14) Worcester (15) Gloucester (16) Warwick (17) Northampton (18) Huntingdon (19) Bedford (20) Cambridge (21) Norwich (22) Ipswich? (23) Bristol (24) Oxford (25) Buckingham (26) Hertford (27) Colchester (28) London; The White Tower (29) Wallingford (30) Old Sarum (31) Southampton (32) Winchester (33) Guildford (34) Rochester (35) Canterbury; Castle Keep and Dane John Motte (36) Dover (37) Hastings (38) Lewes 2 Class 1 mottes (39) Chichester (40) Wareham (41) Dorchester (42) Exeter (43) Tomes (44) Barnstable (45) Lydford.

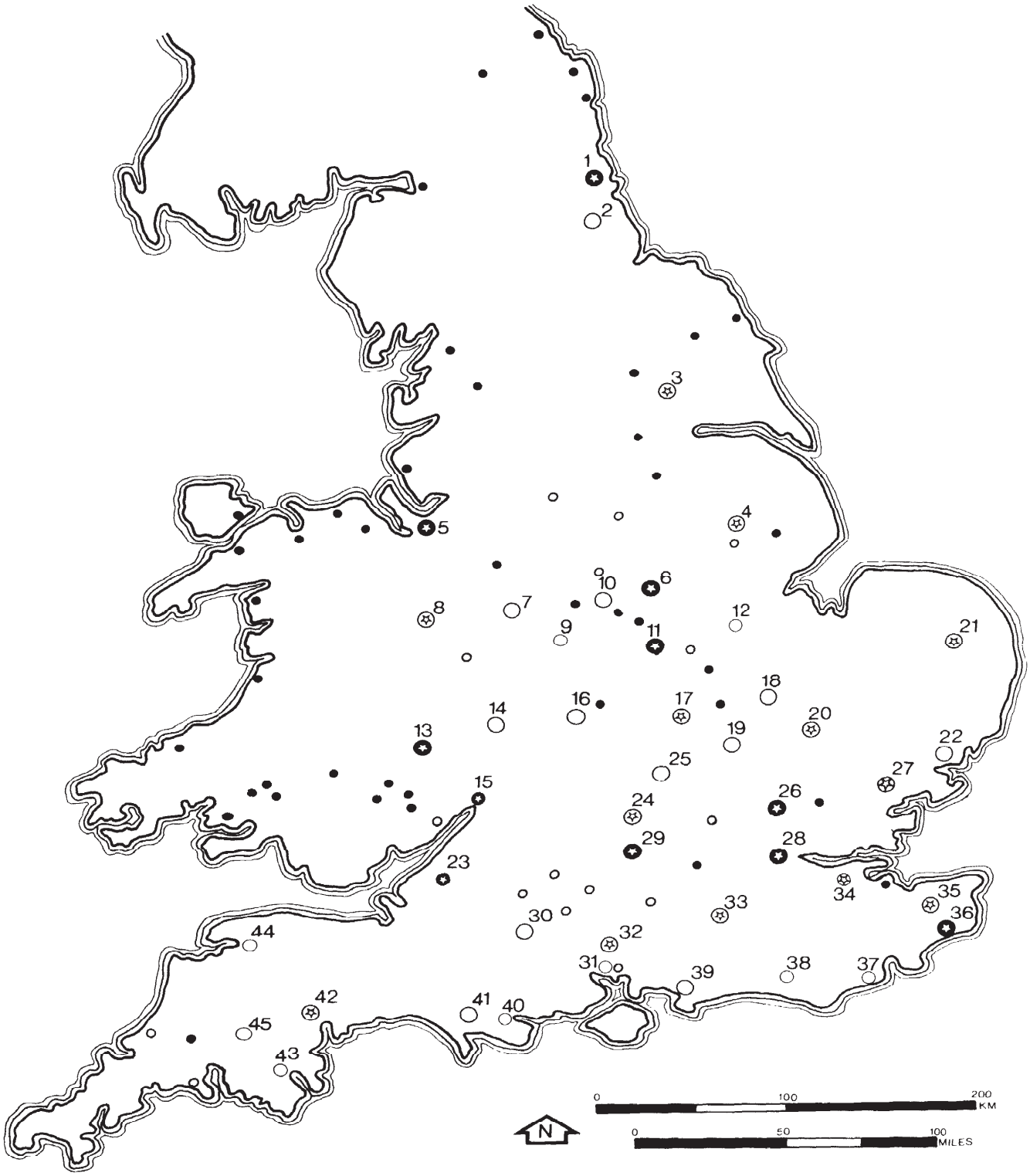


Fig 55 The distribution of urban castles, including those maintained, those out of repair, and those which were destroyed, neglected or alienated from the Crown, relative to the distribution of maintained and neglected castles belonging to the Crown or the Duchy of Lancaster, in the reign of Henry VI

74), there is little evidence that the majority of English towns supported resistant or unruly populations. In contrast with Carrickfergus (Simpson & Dickinson 198l), Jedburgh, Hawick and Galashiels (Dixon 1979, 242), where bastles and tower-houses were constructed into the 17th century, and with the exception of temporary works of the Anarchy, private defensive structures are rarely found in English towns. Monastic precincts might be defended, particularly if a town was not walled or lay in an exposed position (Barley 1976, 69). Their enclosure was for seclusion, and their crenellation, while not ignoring potential or actual violence, as at Salisbury in 1311 and Bury St Edmunds in 1327 and 1334, was largely concerned with status (Coulson 1982).

Reasons of status may also underlie the construction of other secure buildings in towns, although these are, in general, comparatively early and may be related to the insecurity of the Conquest or the Anarchy. The late 11th century west front of Lincoln Cathedral includes doors secured with portcullises. At Norwich, the Bishop's Palace contains an early 12th century tower. Also in Norwich the surviving Music House of *c* 1175 was originally approached from a fore-building (Renn 1968, 210). At Winchester a strong stone tower was constructed at the Bishop's Palace of Wolvesey *c* 1141 (Biddle 1969). At Ipswich a large 11th century ditch and 13th century rampart have been located, significantly, at Shire Hall yard. A substantial ditch with caltrops, surrounding a single property at Cox Lane, Ipswich, is less readily understood. The comparatively small number of licenses for the crenellation of town houses are also concerned with status, rather than defence. They are largely confined to London, where the capital's political life, besides tolerating an unruly proletariat (Williams 1963, 2l), encouraged ostentatious display (Coulson 1982, 69).

Although not a primary reason for its construction, the presence of a castle within a town contributed to the defence of the entire community (Turner 1971, 22), and a town with a castle was regarded as a secure position. As early as 1070 Abbot Thurold of Peterborough fled from Hereward and sought safety at Stamford (Mahany & Roffe 1982, 216). The security provided by a castle allowed for the continued and developing administrative role of the towns, a role enhanced in the 11th century by the transference of bishops' sees (Douglas 1964, 328-9). This security is also implicit in the continued growth of the boroughs, the introduction of communities of foreign traders (Platt 1976, 21) and the formation of new boroughs, as at Nottingham, beside established towns. The role of the urban castle in providing security for the adjacent town, while secondary, is no different from that of the planted castles and towns. The bailey of the castle might provide temporary security for the townspeople. In the 12th century the Jewish community at Lincoln escaped pogrom by sheltering in the castle (Hill 1948, 209).

The protective role of the castle was extended in the mid 12th century as existing town defences, incorporating the castle, were refurbished (Turner 1971, 23). At Wareham excavation suggests that the refurbishment of the defences is contemporary with work on the castle (Radford 1970, 86). At Nottingham an extended circuit of town defences was constructed in the mid 12th century to link with the castle (Barley 1965; Carter & Ponsford 1971) (Fig 53). At Newcastle-upon-Tyne, the re-entrant on the west may also indicate an intended link with the castle (Barley 1976, 70).

From the later 13th century, the decline of many urban castles as purely military structures coincides with the growing ability, or the growing need of towns to provide for their own defence. This initiative appears to have been encouraged, or required, rather more readily by the king than by other lords (Turner 1971, 16). While it is certain that royal permission is implicit in early work on town defences, from the mid 13th century it appears that work on town walls, sometimes aided by the king but often paid for by murage, was a means of avoiding expenditure on royal urban castles without detriment to the security of the town. At Nottingham, a postern to link the town defences with those of the castle in 1255 was constructed by the town to the king's specification. A few years later the murage raised was diverted to the castle, probably the extended outer bailey defences, linking with the town wall (Drage 1983, 121). Moreover, there is little evidence that the stone wall was completed on the eastern side of the town, although the wall to the north and west, the areas closest to the castle, was completed. At Oxford the decline of the castle begins soon after the construction of the town walls (Colvin 1963, 771-5). At Winchester in 1321-2 the castle was strengthened and the city ditch enlarged at the king's expense and Richard II diverted the farm of the city to repair its walls and the *remaining buildings* of the castle at the end of the 14th century (Colvin 1963, 863). Canterbury also had its walls repaired at the king's expense in 1377, but the projected repair of the castle, occasioned by fears of French invasion (above), was not carried out. There is evidence that murage was unpopular and work on walls where possible, despite royal grant and commands, was avoided. However, the late 14th century revival of murage grants, confined largely to the south-east, represents a clear response to the French threat (Turner 1971, 15).

It has been suggested that later medieval warfare, an admittedly little understood subject, was open and not concerned with sieges (Brown 1976, 221). In these circumstances the walls of a town might shelter its community and the administration based there more readily than an urban castle, but the inadequate resources of the later medieval kings must be a factor contributing to this shift of emphasis. The clearest examples of the curtailment of a castle's role in the defence of a town are provided by the new towns of

Key

The distribution of urban castles, including those maintained ✪, those out of repair ✩, and those which were destroyed, neglected or alienated from the crown ○, relative to the distribution of maintained ● and neglected castles ○ belonging to the crown or the Duchy of Lancaster, in the reign of Henry the sixth.

(1) Newcastle-upon-Tyne (2) Durham (3) York (4) Lincoln (5) Chester (6) Nottingham (7) Stafford (8) Shrewsbury (9) Tamworth (10) Derby? (11) Leicester, Duchy of Lancaster (12) Stamford (13) Hereford (14) Worcester (15) Gloucester (16) Warwick (17) Northampton (18) Huntingdon (19) Bedford (20) Cambridge (21) Norwich (22) Ipswich? (23) Bristol (24) Oxford (25) Buckingham (26) Hertford (27) Colchester (28) London (29) Wallingford (30) Old Sarum (31) Southampton (32) Winchester (33) Guildford (34) Rochester (35) Canterbury (36) Dover (37) Hastings (38) I.ewes (39) Chichester (40) Wareham (41) Dorchester (42) Exeter (43) Totnes (44) Barnstable (45) Lydford.

Winchelsea and Rye. The royal grant of these towns to the Abbey of Fécamp was revoked for the safety of the realm in 1247. At Rye the Ypres Tower (the castle constructed by Henry III) was not retained but was granted to the town *c* 1295 as work began on the walls. The grateful burgesses disposed of a useless (to them) building, granting it to the eponymous John de Iprys, and thus avoided the cost of its upkeep. Winchelsea castle, begun by Edward I, remained unfinished and the town relied for defence upon its earthworks (Renn 1979).

Residential uses

The first urban castle, built before 1052 by Ralf, Earl of Hereford, a Norman nephew of Edward the Confessor, was constructed to provide a base for the king's representative in city and shire. It is uncertain whether the castle in Hereford occupied exactly the same site as the post-Conquest building, although the destroyed motte or the surviving Hoggs Mount may represent this pre-Conquest foundation (Shoesmith 1980, 57). Although the exposed position of the town was certainly a factor-it was raided by the Welsh in 1052-the choice of a castle rather than an unfortified residence accords with the status and experience of its occupant, a Norman knight. While it might be expected that the first phases of an urban castle, during the Conquest, might be primarily military in aspect (above), the scale and intensity of later 11th century building, already noted (above) may be directed at least in part to their continued residential use. At Winchester a stone chapel decorated with wall paintings was constructed *c* 1067 (Biddle 1975a, 104-6), suggesting a quite distinct residential role, more private and secure than the continued use of the palace at the centre of the town. At London work on the second phase of the tower-the construction of the White Tower-is thought to have begun in the 1070s. Above a basement, two storeys of accommodation were provided, well supplied with fireplaces and garderobes, the upper storey containing the hall and chapel (Brown 1979). The needs and the resources of the Conqueror, like the design of the White Tower, 'the compression of a Carolingian Palace . . . into a single building' were unique (Renn 1968, 35).

The early development of Winchester, the Tower of London, and the destroyed great tower of Gloucester may be exceptional and related to an especial royal presence in these towns, associated with the ceremony of crown-wearing (Colvin 1963, 42). During the late 11th and early 12th century keeps, with ample residential accommodation, were constructed at Canterbury, Guildford, Norwich and Rochester (Renn 1960, 1982), and at Colchester, the first phase of building, begun *c* 1074-6, comprises a low stone hall with battlements and corner towers (Drury 1982,400). A fore-building was added and the structure raised by a further two storeys in a second phase of building, beginning *c* 1100. An architectural sophistication, commensurate with the scale of the earthworks, is implicit, where individual buildings have not survived on the sites of other, class 1, motte and bailey castles. The early development of urban castles exceeds the mere requirements of garrison and administration. While the form is quite suitable for the occasional visits of king and court, it may be directed to more permanent occupation by the great lords, often hereditary sheriffs and constables, responsible for the keeping of urban castles.

It is uncertain to what extent the king was directly responsible for building work at urban castles, particularly during the 11th and earlier 12th century, although construction work could not occur without some royal consent or acquiescence. Later pipe rolls record expenditure upon urban castles, but there is little recorded expenditure on Bedford Castle during the Beauchamp occupation, although excavation has revealed sophisticated stone defences (Colvin 1963, 258; Baker 1973). Gundulf financed and constructed the stone-walled enclosure at Rochester, at the request of the king and in return for a manor (Colvin 1963, 29).

Detailed examination of the structure, fabric and building materials of early stone buildings, together with an assessment of the political and financial circumstances attendant upon their construction, has resulted in their much closer dating. The keep at Norwich can be attributed to William d'Albini; the keep at Rochester has been identified with the *egregiam turrim* whose construction was permitted by Henry I when he gave the castle to Archbishop Corbeil (Renn 1960, 17-18). The raising, second phase of Colchester Castle *c* 1100 is attributed to Eudo Dapifer, then enjoying possession of the town and castle in perpetuity (Drury 1982, 399). His increased wealth facilitated the construction, but the building, as at many other castles, can be seen as a celebration or outward symbol of the changed circumstances of its owner.

The architecture of an urban castle in the 11th and 12th century may reflect the status and wealth of its keeper rather more directly than its importance to the king, or the level of royal expenditure. The stone walls of Leicester Castle, demolished after its capture by the king in 1173-4, are ascribed to the Beaumont Earls of Leicester (Liddle 1983, 25). Nottingham, occupied by the Peverel family till 1155, appears to have been developed in preference to the more remote Peak (Peveril) Castle, Castleton. To the east of the castle a new borough developed, almost certainly their foundation and the venue for their honour court, while to the west of the castle they founded a monastery (Drage 1983, 120 n 12). The construction of stone curtain walls, recently excavated, arises from its resumption by the crown (Colvin 1963, 756; Drage 1983, 120). Similarly, the reconstruction of Northampton, in the course of which the motte was buried within the bailey rampart, is attributed to direct royal control after *c* 1111 (Renn 1968, 258-9). Investigations in the Observatory Tower of Lincoln Castle suggest that the motte upon which it stands is of mid 12th century date. The context for the construction of this second motte is given in a charter of probably 1151. In it King Stephen permitted the Earl of Chester to strengthen one of his towers and subsequently to retain possession of another tower (fortified by his mother when constable), which has been identified with the primary motte, the Lucy Tower (Reynolds 1977). Recent work has located a third motte or mound close to the west gate (Stocker 1984). A second motte or mound has been located at Bedford (Baker 1973). At Winchester excavation has revealed a second mound or motte, revetted initially with timber and later with stone, at the opposite end of the castle from the donjon, overlooking the west gate of the city and the main approach to the castle (Biddle 1975a, 104).

It seems probable that motte construction is not merely a means of producing a strong tower, but has a special signifi-

cance and affords the tower within or upon it a particular, lordly distinction (Brown 1976, 35). The duplication of the motte, also a feature of Lewes, may indicate the provision of several distinct suites of accommodation for separate households, a provision most clear in later masonry castles (Faulkner 1958; 1963). The 'little castle that was Ravengars', at an early date absorbed into the Tower of London (Colvin 1963, 29), may constitute one further example. The origin of these lordly structures may arise in part from the responsibility of barons, whose vassals performed the service of castle guard, to construct quarters for them in castles (Colvin 1963, 26). Yet they also indicate a duality in urban castles: the presence of one lord-the king-by virtue of ownership, and the presence of the constable by virtue of often hereditary office. Perhaps here most clearly, and implicitly in much of the building elsewhere, can be seen the presence of the hereditary keepers, the majority of whom were removed in the course of the 12th century.

The construction and overhaul of residential buildings is often, but not necessarily, coincident with work on the defences. A considerable proportion of the sums expended by the Angevin kings upon urban castles was devoted to the provision of comfortable lodgings and the maintenance of adjacent gardens and parks. Of the urban castles, Nottingham, Dover, the Tower of London and Winchester were the most lavishly appointed and consistently maintained (Colvin 1963, 79, 114). Progressive rebuilding of the residential buildings, in accordance with increasing standards of accommodation, has removed entire suites and arrangements of earlier buildings. At Winchester and at Leicester parts of the early 12th century great hall and chapel survive, but at Nottingham Castle the plan drawn by John Smithson in 1617 shows suites of buildings which are the result of 14th and 15th century rebuildings (Colvin 1963, pl 48). In the 14th century the ditch separating the motte and bailey was partially infilled and a service area, arranged around an open courtyard, constructed there (Drage 1983, 121). Similarly at Stamford the motte ditch was filled in to accommodate further buildings in the bailey (Mahany 1976, 228-9).

After the removal of hereditary keepers in the 12th century and with the diminished status of later sheriffs and resident constables, accommodation was largely maintained for the occasional visits of king and court. Such visits became less common as the court and central administration increasingly remained at Westminster. Personal preference may have dictated the continued use of certain residential castles. There appears little reason for the disinclination of successive kings to progress through East Anglia, a rich and populous area (Hindle 1982, 199), thus ensuring the decay of Norwich, Colchester and Cambridge. Nottingham experienced a decline in the mid 15th century, as the Lancastrian kings preferred to stay at Tutbury(Colvin 1963, 848-9). Rural castles such as Odiham and Ludgershall, and Tutbury, Kenilworth and especially Windsor, all with small adjacent boroughs, at different periods contained high quality accommodation.

The preference for such castles as Tutbury and Kenilworth may be due in part to the growth of towns, which made the environs of certain urban castles less attractive. In the 14th century, the ditches of Newcastle-upon-Tyne (Colvin 1963, 747) and Colchester were filled with rubbish (Drury 1982, 404-5). In the mid 13th century, Queen Eleanor left Nottingham Castle, complaining of the smoke from the chimneys in the town. Accommodation in the homes of other seigneurs, in monasteries and in undefended houses may have hastened the decline of certain castles. Guildford Castle was abandoned for the neighbouring palace, and from the mid 14th century royal visitors to York lodged with the archbishop (Colvin 1963, 659, 891). The decay of residential builidngs in urban and other royal castles may also be ascribed to the increasing inadequacy of royal finances. Alienation of urban castles did not preclude continued residential use. The site of Bedford castle after its destruction in 1224 was returned to the hereditary keepers, who were permitted to build, but not crenellate, a residence there (Colvin 1963, 258). After 1265 Leicester Castle was developed by the Earls of Lancaster as a residence and in the mid 14th century a hospital, collegiate church and mausoleum were founded there (Liddle 1983, 25).

Administrative uses

It has been suggested that control of administration was a primary reason for the construction of an urban castle (above). The failure to develop castles at Derby and Ipswich, both shire towns, but for administrative reasons paired with, respectively, Nottingham and Norwich (Barley 1976, 70), suggests that this role was a substantial reason for their retention. The construction of minor buildings, almonries, treasuries, clerks' chambers, mints at the Tower of London and at York and, after the Statute of Clarendon, jails, unless merely a consequence of more detailed documentation, suggest a developing administrative role for the urban castle, particularly under the Angevin kings (Colvin 1963, 67). Such structures have rarely been identified, although at Launceston Castle beside the new town of Dunheved a large building in the outer bailey has been interpreted as a court room (Saunders 1977b). At Canterbury the construction of a secondary and quite separate entrance to the keep at ground floor level has been taken to suggest the use of the basement of the keep as a jail from at least the 13th century (Renn 1982, 77). The administrative role of a castle no doubt varied from place to place and with time. Nottingham was used as a treasury, arsenal and supply depot, a jail for political prisoners, prisoners of war, Jews and aliens, forest trespassers and heretics, and the court of the escheated honour of Peverel subsequently met there. The shrieval administrative centre, with courts and a jail, remained in the town on a small enclave of royal, extra-parochial land (Drage 1983, 120).

Documentary evidence implies that the later use of the majority of urban castles, beginning in the 13th century at Chichester and Oxford but thereafter widespread, was limited to the sheriffs court and jail (Colvin 1963, 67), a use which ensured their retention by the crown throughout the medieval period (Colvin 1968). At Worcester land belonging to the cathedral taken into the castle in the 11th century was returned in the early 13th century, although the inner bailey, containing the jail, was retained (Armitage 1912, 239-42). Limited administrative use, albeit the most durable aspect of many urban castles, allowed for the decay of defences and other superfluous (that is underutilized) buildings to decay. The paucity of royal finance, which affected other royal castles, contributes to this decline, Archaeology has yet to record this process with the eloquence or detail of contemporary surveys, but at

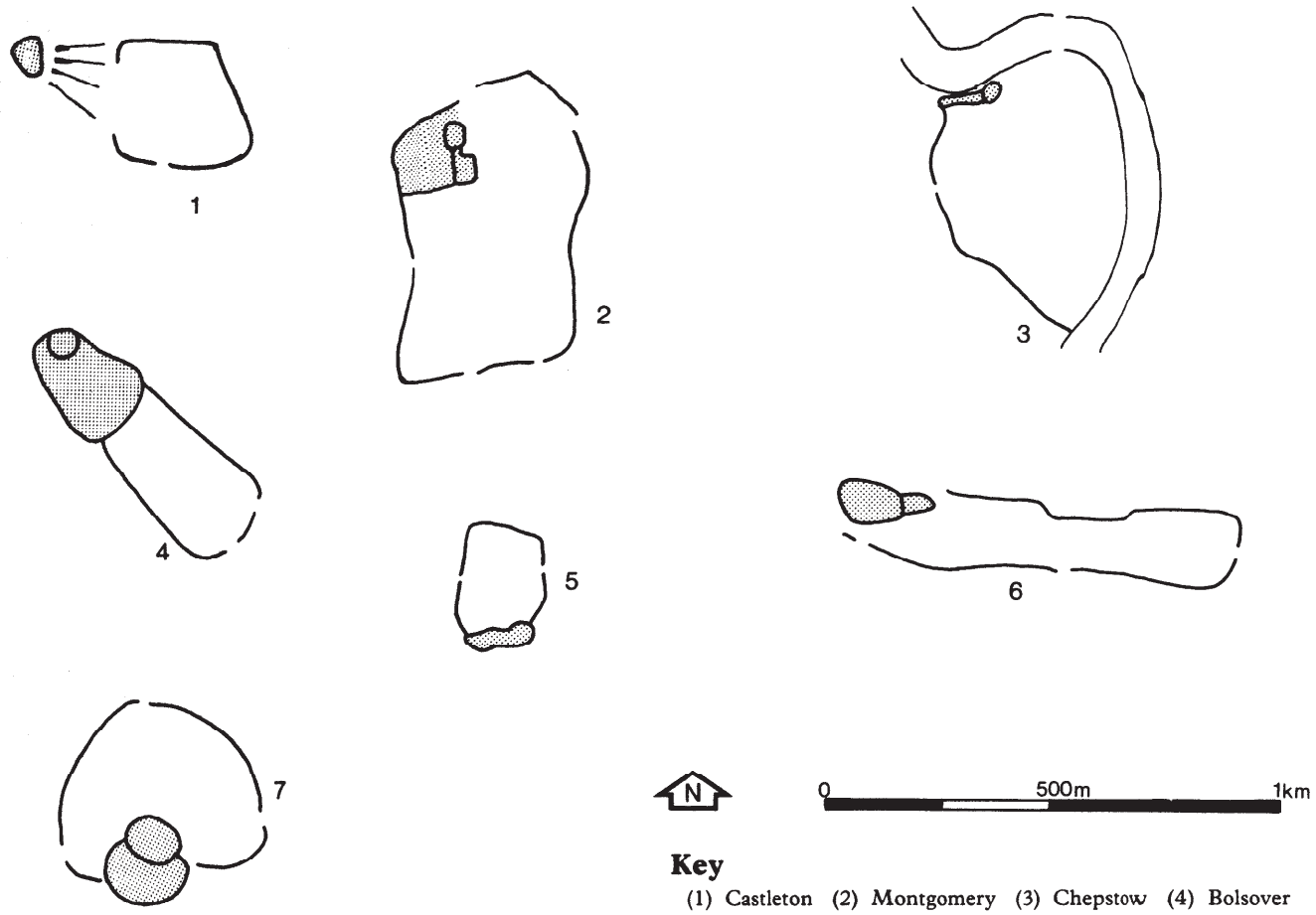


Fig 56 Castles and new town: the area of the castle is shaded

Colchester the decline coincides with the commencement of rubbish dumping in the bailey (Drury 1983,404). The same shortage of money ensured that the keeps of Norwich and Guildford and the gatehouse of Cambridge were kept in repair to accommodate prisoners, rather than incur greater expenditure on purpose-built structures. Lydford Castle remains an exceptional structure, in terms of its form and its location. The castle comprised no more than a court room and jail, built *c* 1195 in the centre of the town, to the north of the earlier ringwork constructed on a defensible spur (Fig 53, above). No change of use attended its reconstruction in the mid 14th century as a motte and tower, 'a conceit giving visual confirmation of the title Lydford Castle' and a display of the wealth and status of its owner Richard, Earl of Cornwall (Saunders 1980).

Castles and contemporary or later settlement; primary castles

A second category of castles associated with towns are those in which the castle and town are contemporary developments, or the castle is primary and later attracts settlement (Fig 56). The castles are a diverse group and comprise the castles of the king and major lords, including Caernarvon and Denbigh; the castles of ecclesiastical lords at Banbury and Devizes; and honour centres, such as Tutbury and Pleshey. Even minor castles, including Bolsover and Bala, might attract settlement. Neither borough status, nor the plan, size of settlement or the provision of walls or earth defences, distinguish the settlements attached to such castles adequately from the villages, sometimes defended, attached to other castles (Barley 1976, 59). If symbiosis is the underlying reason for the association of these castles and settlements, then the incidence of castles with settlements must be related to the distribution of castles without settlements, and also the pattern of overall settlement. Recent studies of the distribution of castles in Devon (Higham 1982) and in the region of Manchester, largely the former County of Lancashire (Morris 1983, 17) suggest that, with obvious and important exceptions, castles are rarely associated with settlements or market centres and have a small role in urban development. Recent study of Welsh town development provides a quite different view (Soulsby 1983).

Castles with contemporary or slightly later settlements beside them were widely established in England and Wales (Beresford 1967; Soulsby 1983) and Scotland (Whitehand & Alauddin 1969) during the medieval period, and were used in Ulster into the 17th century (Leask 1951). That over 80% of all new towns in Wales and 75% of those established in England before 1150 lay beside a castle might suggest that defence was the most important reason for their association. However, the market generated by any aristocratic residence, whether defended or not, and the economic and social motives of seigneurs, both lay and ecclesiastical, must also

be contributory factors (Beresford 1967, 125, 167). The apogee of town and castle foundation is represented by the work of Edward I in Wales. Here, most clearly, the town and castle is revealed as an instrument of conquest, and as a permanent colony to secure social and economic control. The same process on a minor scale is represented at Bala. The town was established in the 14th century beside an already abandoned castle, whose rehabilitation, although intended, did not follow. The purpose of the town was to bring order to a lawless area (Soulsby 1983, 34-5). Between these extremes lie the generality of castles and towns, including Abergavenny (Armitage 1912, 98) and Bridgewater, Somerset (Renn 1968, 117). Particularly in Wales the continued existence of towns was facilitated by their receipt of monopolistic market rights (Soulsby 1983, 7).

Some provision for the defence of the community would seem essential for the continued existence of castle-boroughs in Wales, and for the attraction of new settlers, colonists, to them. Similar considerations would seem to apply to the settlements founded beside castles in England, especially the castellries and honours north of the Trent, particularly in the later 11th and 12th centuries. The symmetry of the town and castle defences at Pleshey and Devizes suggests that these may be contemporary with the foundation of the castles. The settlements at Tutbury and Bolsover, enclosed with an earth rampart, were of little importance in the 13th century, and their defences may be an early feature. While Edward I was able to construct castles and town defences, few at any time could afford such wealth, Excavation at Richard's Castle has revealed that the settlement defences are not a primary feature, but were constructed in the 13th century; they have been taken to represent an 'aspiration towards urban status' on the part of the settlement (Curnow & Thompson 1969, 108). Evren in Wales, where attack was frequent, less than a third of settlements were enclosed and not all of the defences are necessarily a primary feature. Hay obtained a grant of murage only in 1237, following extensive damage in a Welsh raid of 1232. The construction of defences may arise from the success and prosperity of the settlements, rather than the original designs of their founders (Soulsby 1983, 39).

Security, to an extent, was provided by the mere presence of a castle, as has been suggested with the urban castles (above). Yet there is a marked preference, most clear in Wales, for the town and castle to be accommodated together upon a site with strong natural defences. Chepstow and Newton lie within a river meander; St Clears and Newcastle Emlyn occupy promontories formed by a river confluence; Pembroke sits on a ridge between tidal creeks (Soulsby 1983, 107, 209); Clun developed within a river meander to the north of a more open, pre-Conquest nucleus (Hindle 1981, 23-6). Topographic and documentary evidence suggest that the burgesses of Castell-y-Bere, Cefnllys and Dolforwyn lived within the castles (Barley 1976, 60). Excavation at Launceston has revealed a regular planned development within the outer bailey, which has been interpreted as a community rather than the castle household (Saunders 1977b). Traces of domestic buildings have been located within the 2.8 ha outer ward, the Town Ward, at Barnard Castle (Austin 1979, 58). Such settlements may not be typical, but permanent occupation rather than temporary refuge within the castle bailey may be an initial stage of development at a number of sites.

Social or political motives may also account for the association of castle and town. Pleshey, an honour centre established immediately following the Conquest, 'where everything is new' (Brown 1976, 51), exhibits most clearly the 'magnetic forces' (Beresford 1967, 125) around seigneurial residences. Economic motives on the part of the seigneur are more apparent at Lauceston (Dunheved), to which the market of the old borough was moved. Economic motives may also underlie the movement of the settlements of Burpham to Arundel, the abandonment of Old Windsor for New Windsor beside the castle begun *c* 1067 and the movement of Old to New Buckenham (Beresford 1967, 128, 396). The economic potential of a future borough was recognized at Abergavenny (Soulsby 1983, 65) and at Kenilworth soon after the founding of the castles (Beresford 1967, 128). The abandonment of Green Castle for Wooler (King 1969, 100) and the movement of castles at Knighton and Newport (Soulsby 1983, 35) may be a response to the choice of a site more conducive to the establishment of a borough.

Increasingly from the mid 12th century in England the proportion of new towns established beside a castle declines. There were probably sufficient castles in general for the needs and resources of most lords. Defence was no longer essential to the success of a nascent community, and purely commercial considerations are apparent in the siting of many of the latter towns (Platt 1976,41). Purely commercial forces are also evident at Pembroke, Pontefract and Ludlow, with the development of new markets away from the castle. Old Sarum was abandoned for Salisbury *c* 1219, and the walled town of Denbigh for a more accessible suburb (Beresford 1967, 506, 547). Continued seigneurial presence remained of great importance for many settlements. It has been suggested that the settlement at Barnard Castle moved away in the 14th century in the absence of the lord (Austin 1979), and the decline of Bletchingley follows the extinction of the Clare family (Schofield & Palliser 1981, 7). The continued use and the quality of the buildings within the castles directly reflect the interests and wealth of their respective lords. Residential rather than primarily military requirements are evident in the first phases of Castle Acre. The motte has a large stone hall, a country house, contained within a small earthern rampart, approached through an ostentatious gatehouse. The reconstruction of the hall as a keep and the strengthening of the ramparts are a response to the Anarchy of the mid 12th century (Coad 1977).

The variety evident in plans of the Edwardian castles in Wales highlights the differing requirements that even the same lord might seek in his castles. Caernarvon has lavish accommodation within a fairy-tale architectural form, a feature entirely lacking, because not required, at Harlech (Colvin 1963, 357, 370). Residential use of castles might continue long after the castle had ceased to be of military value. Pleshey continued as a residence, although the earthern defences were not remodelled, with regular refurbishment apparent in the chapel at least (William 1977). On the more exposed northern border, continued maintenance of the defences is to be expected. At Warkworth the construction of the keep, hall and collegiate church in the later 14th century was contemporary with improvements to the fortification of the south bailey. While the proximity of the Scots necessitated work on the defences, the development of the castle at this period is very much a

celebration of the rising social status of the family (Blair & Honeyman 1954).

In Scotland the association of royal castle, the centre of shrieval government, and burgh, with extensive trading and manufacturing monopoly is a clear element in the extension of royal power (Houston 1955, 115). Of the 33 burghs founded by the king before 1286, 31 were beside castles. Their use to bring order to troubled areas is apparent from the foundation of Ayr, Lanark and Dumfries in 1186 after the revolt of Galloway, and the establishment of Inverness, Forres and Elgin after the rebellion of Moray in 1160 (Houston 1955, 114-45). The relationship between town and castle has received less study than it deserves (Simpson & Webster 1972, 177; Whitehand & Alauddin 1969, 110). At Peebles the castle stands at a river confluence, and the settlement, located along an approach road, may be later. Selkirk Castle at the edge of the town may be a later addition. The burghs did not develop substantial defences before the 15th century, although their extent was rigidly defined by ditch, property boundary and palisade, and they appear to have relied for their defence upon the castle.

Recent research and current problems

Since the publication of the *History of the King's Works* (Colvin 1963) castle studies have increased and diversified (Kenyon 1978). A gazetteer of English and Welsh castles has been prepared (King 1983). The architectural symbolism of the castle (Coulson 1979) and the uses and social distribution of crenellation have been considered (Coulson 1982). Research into the origins of the castle fostered by the Royal Archaeological Institute (Saunders 1977a) incidentally placed particular emphasis upon urban castles as well dated, early examples. It has been stated that royal castles have been thoroughly explored (Palliser 1976, 4) and provocatively suggested that 'almost any question one may raise about castles has already been raised and answered' (Saunders 1977a, 134). Yet, as is apparent in the present paper, questions arise and assumptions remain to be tested. Perhaps the most important aspect of the recent research, and that which has borne most fruit, is the often controversial collaboration of historians and archaeologists (Saunders 1977a, 1). Unless a purblind approach is to be made, this cooperation must continue. While there are considerable difficulties in the relation of archaeological and documentary evidence, excavation strategy and subsequent interpretation cannot proceed without meeting these problems.

Recent research and excavation have been directed to the origins of the castle, with particular emphasis being placed upon the form of early defences. It is evident that a considerable variety of form is present in the early castle. An incidental result of the Royal Archaeological Institute's programme has been a clear demonstration of the need for large-scale area excavation, with commensurate time and resources, if the detailed understanding of the structural development of early castles is to be significantly improved. Excavation at Winchester and Northampton has demonstrated the complexity and the scale of the early development of urban castles (Biddle 1975a; Renn 1968, 258). The size and strength of the urban castles by 1100 suggest intense development. The sites are likely to contain well sealed early phases, essential to the understanding of the urban castle and to the early development of the castle in general.

Knowledge of the forms and uses of early castles, their incidence and dating, has benefited particularly from wide-ranging studies of their distribution, in particular of the motte (King 1972) and ringwork (Alcock Sr King 1969). The overall distribution of castles remains little understood (Brown 1976, 216), but recent work in Bedfordshire (Baker 1982) and Devon (Higham 1982) provide a model for such studies, Without such work the distribution and continued use of urban castles and associated castles and settlements, is unlikely to be better understood.

The early development of residential and administrative buildings, and especially of timber buildings of all periods, compared to the recent emphasis on defences, remains little understood and will require large, area excavation if advances are to be made. The work at Hen Domen provides the model for such excavation (Barker 1969). In particular it remains to be established whether the quality of such buildings, indicated by the 11th century chapel at Winchester, is represented elsewhere, and further whether there is any relationship between these buildings and the scale and date of the construction of the defences.

To turn specifically to the outstanding problems of the archaeology of urban castles and castles associated with settlement, as opposed to the more general problems of the development of castles, is to reiterate the necessity of large-scale excavation. If excavation is to examine adequately the pre-Conquest uses of the sites of urban castles, then large excavation, preferably on a site with little later stone building will be needed, supplemented, as at Stamford (Mahany & Roffe 1982) by detailed documentary and topographic research.

The outer baileys of castles remain the least studied aspect and potentially areas which may significantly alter the accepted views of a castle's use. At Nottingham the large outer bailey was used for grazing in the later medieval period, and there is little evidence of buildings within it (Drage 1983, 118). Ample grazing for the garrison's horses was provided by the meadowland south of the castle, yet this large area was included in the castle and strongly fortified. At Norwich, however, the outer bailey is simply a fortified meadow to secure the garrison's horses, essential to the offensive role of the castle (Webster & Cherry 1980, 228-9). At Bedford it has been suggested that the outer bailey at first comprised an area of land cleared of all buildings, to protect the approaches to the castle (Baker 1973). Of particular importance during the inital years of the conquest, and in view of their location on important routes, the large outer baileys may have been intended to shelter bodies of troops, gathered to take the field. Porchester Castle as a point of embarkation fulfilled a similar role throughout the medieval period (Rigold 1965, 5). The outer baileys of castles associated with settlement also require examination in the light of the domestic accommodation located at Launceston (Saunders 1977b). Trial trenching or limited sampling, in view of the slight traces of occupation likely in such areas, may damage more than it reveals.

Perhaps the most impressive recent advances have occurred in the study of standing stone structures, including gatehouses and keeps. Close examination of these structures by measured drawing, excavation and some consideration of the local, political and financial circumstances attendant

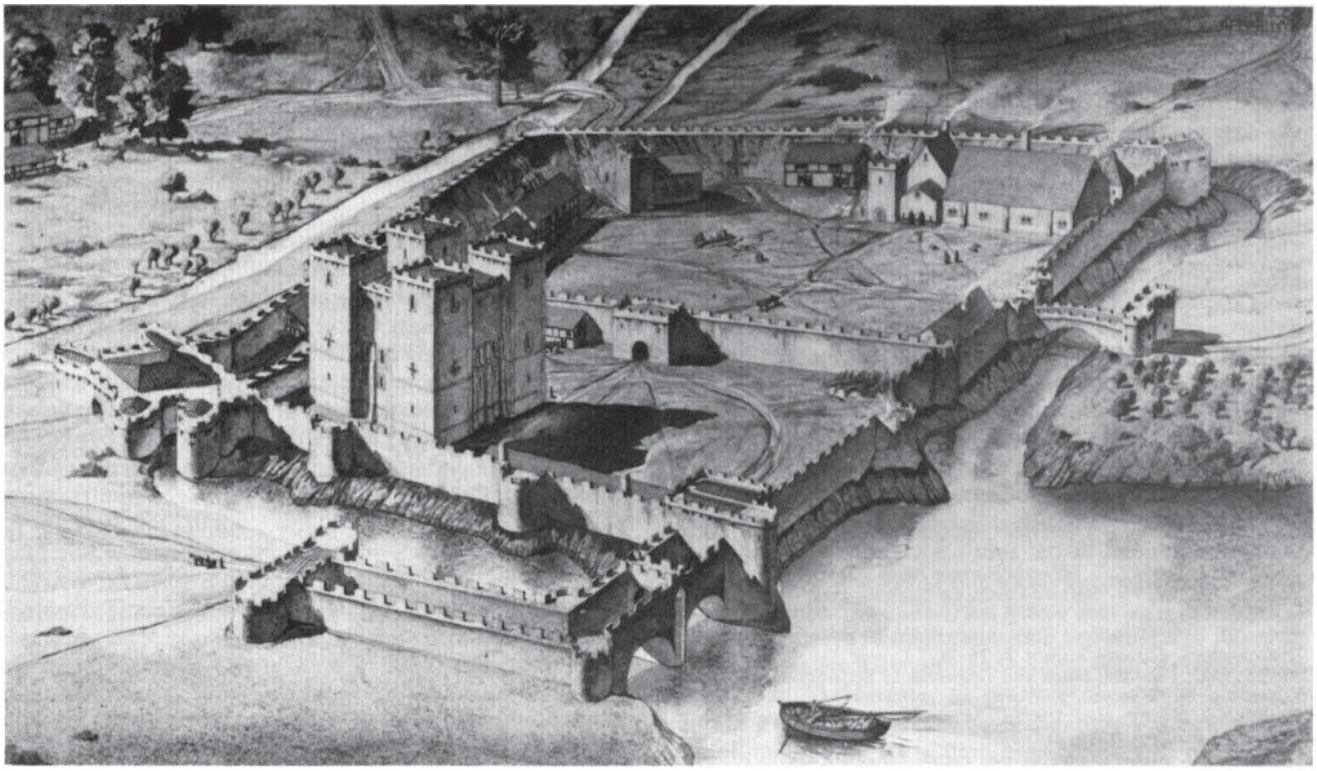


Fig 57 Reconstruction of Bristol Castle, c 1300 (Bristol City Museums)

upon their construction has resulted in their close dating, a more precise understanding of their original plan and its affinities, and detailed knowledge of their subsequent development. The relationship of Rochester and Canterbury (Renn 1982) and Colchester and the White Tower (Drury 1982; Brown 1979) has been established. At the Tower of London, that most familiar of monuments, the original arrangements of the White Tower have been described (Brown 1979) and the design of the west curtain, including large-scale and early use of brickwork, has been discussed (Curnow 1982). In comparison with excavation measured drawing, where possible using rectified photography, is cost-effective and non-destructive. The drawing comprises a full record of the building—a prerequisite for the effective study of these structures and a necessary preliminary to their effective duration. The preliminary results of an extended programme of survey and limited excavation at Lincoln Castle, in advance of consolidation, include the discovery of a further motte or mound and the elucidation of the form and development of the west gate (Stocker 1984).

The relationship between urban castles and their towns requires re-examination in the light of the increased documentary and archaeological evidence available. For the period of the Conquest, while it may be some time before the discoveries at Stamford and Colchester are repeated elsewhere, re-examination of the topographic, documentary and archaeological evidence may refine the present view of the peripheral location of urban castles and their apparent avoidance of existing centres. It will also be a significant advance if a comparison of castellries and pre-Conquest estates with urban holdings reveals close similarities. The castle may then be assumed to take on certain of the residential and managerial roles of the Anglo-Saxon town house, albeit with a new, feudal, architectural form.

The subsequent development of both urban castles and castles with associated settlements should not be studied in isolation but must be related to the development of the adjacent towns. The impact of the castle upon the changing morphology of settlement will be best studied in those places where programmes of documentary research and excavation extend to both castle and town. Relevant to both urban castles and castle-boroughs is the date of the construction of the defences of the settlement.

Fortunately, the sites of many castles are protected and have thus escaped recent development. Where this is not the case, their archaeological potential must be established and their preservation ensured, possibly as sites for public leisure. Such use, as museums or parks, carries its own insidious threats of gardening, tree-planting and the provision of better facilities for visitors. Rescue excavation, unless avoidable, has the additional merit on these sites of bringing modern archaeology to the attention of a wider public. It is also likely to attract non-governmental funds. The results of such archaeology, instanced by the reconstruction of Bristol Castle *c* 1300 (Fig 57), deserve to be attractively conveyed. While it is easy to criticize such drawings (were there no timber buildings in those deserted baileys?), in addition to the necessary popular audience for such drawings, they serve a serious academic purpose. At Nottingham Castle interpretation of individual buildings and the topography and layout of the castle in the light of archaeological evidence, plans, sketches and documents, has been facilitated by the preparation of reconstruction drawings, utilizing and bringing together the different types of evidence.

As the development of our inner cities continues, castle sites increasingly represent the largest and best preserved areas of undisturbed archaeological strata. These levels,

vital to the understanding of castles, will also seal and preserve earlier strata. At Winchester pre-Conquest settlement has been revealed, but at Lincoln Roman occupation is anticipated. For the medieval and post-medieval period the sites are likely to preserve reserves of well dated strata for the future study of building technology, artefacts, and environmental and dietary data. The *Rabies Archaeologorum* debate (Olsen 1982)— the extent to which sites ought to be excavated–is of particular relevance, although Barker's reply, drawing on more general experience, deserves the most attention (Barker 1982). The excavation of the sites of urban castles and castle-boroughs, with adequate funding and with the aid of a properly constituted research design, is a heavy and unrepeatable responsibility.

Bibliography

Alcock, L, & King, D J C, 1969 Ringworks of England and Wales, *Chateau-Gaillard*, **3,** 90–127

Armitage, E S, 1912 *The early Norman castles of the British Isles*

Austin, D M, 1979 Barnard Castle, Co Durham. First interim report: excavations in the town ward, *J Brit Archaeol Ass*, **132,** 50–72

Baker, D, 1973 Bedford Castle: some preliminary results from rescue excavations, *Chateau-Gaillard*, **4,** 15–21

——, 1982 Mottes, moats and ringworks in Bedfordshire, *Chateau-Gaillard*, **9,** 35–54

Barker, P, 1969 Hen Domen, Montgomery, excavations 1960–7, *Chateau-Gaillard*, **3,** 15–27

——, 1982 *Rabies archaeologorum:* a reply, *Chateau-Gaillard*, **9,** 220–2

Barley, M W, 1965 Nottingham town wall: Park row excavations 1964, *Trans Thoroton Soc*, **69,** 50–65

——, 1976 Town defences in England and Wales after 1066, in Barley, M W (ed) 1976, *The plans and topography of medieval towns in England and Wales*, CBA, Res Rep, 14, 57–71

Bates, D, 1982 *Normandy before 1066*

Beresford, M W, 1967 *New towns of the Middle Ages*

Biddle, M, 1969 Wolvesey: the *domus quasi palatium* of Henry de Blois in Winchester, *Chateau-Gaillard*, **3,** 28–36

——, 1975a Excavations at Winchester, 1971: tenth and final interim report: part 1, *Antiq J*, **55,** 96–126

——, 1975b Exacavations at Winchester, 1971: tenth and final interim report; part II, *Antiq J*, **55,** 295–337

——, 1976a *Winchester in the early Middle Ages*

——, 1976b Towns, in *The Archaeology of Anglo-Saxon England* (ed D M Wilson), 99–150

Blair, P H, & Honeyman, H L, 1954 *Warkworth Castle, Northumberland*

Bloch, M, 1965 *Feudal Society*, translated by L A Manyon

Braun, H, 1935 Notes on Newark Castle, *Trans Thoroton Soc*, **39,** 53–91

——, 1960 The earthworks of Old Sarum, *Wiltshire Archaeol Natur Hist Mag*, **57,** 406–7

Brown, R A, 1976 *English castles*

——, 1979 Some observations upon the Tower of London, *Archaeol J*, **136,** 99–108

Cameron, A, 1971 William de Amyas and the community of Nottingham, *Trans Thoroton Soc*, **75,** 70–84

Carter, A, & Posford, M W, 1971 Nottingham town wall: Park Row exacvations, 1968, *Trans Thoroton Soc*, **75,** 33–40

Coad, J G, 1977 Excavations at Castle Acre, Norfolk, 1972–6: an interim report, *Chateau-Gaillard*, **8,** 79–85

Colvin, H M (ed), 1963 *The history of the King's works*

——, 1968 Castles and government in Tudor England, *English Hist Rev*, **83,** 225–34

Coulson, C, 1979 Structural symbolism in the medieval castle, *J Brit Archaeol Ass*, **132,** 73–90

——, 1982 Hierarchism in conventual crenellation: an essay in the sociology and metaphysics of medieval crenellation, *Medieval Archaeol*, **26,** 69–100

Curnow, P E, & Thompson, M W, 1969 Excavations at Richard's Castle, Herefordshire, 1962–4, *J Brit Archaeol Ass* 3rd ser, **32,** 105–27

——, 1982 Some observations upon the planning and construction of the west curtain at the Tower of London, *Melanges d'archéologie et d'histoire medévales*, **27,** 65–74

Davison, B K, 1969 Early earthwork castles: a new model, *Chateau-Gaillard*, **3,** 37–47

Dixon, P, 1979 Towerhouses, pelehouses, and Border society, *Archaeol J*, **136,** 240–5

Douglas, D C, 1964 *William the Conqueror*

Drage, C, 1983 Nottingham castle, *Chateau-Gaillard*, **11,** 117–27

Drury, P J, 1982 Aspects of the origin and development of Colchester castle, *Archaeol J*, **140,** 302–419

Faulkner, P A, 1958 Domestic planning from the 12th to the 14th centuries, *Archaeol J*, **115,** 150–83

——, 1963 Castle planning in the fourteenth century, *Archaeol J*, **120,** 215–35

Finn, R W, 1973 *Domesday Book: a guide*

Flight, C, & Harrison, A C, 1978 The Roman and medieval defences of Rochester in the light of recent excavations, *Archaeol Cantiana*, **94,** 27–60

Foreville, R (ed), 1952 *William of Poitiers, histoire de Guillaume le Conquérant*

Hassall, T G, 1976 Excavations at Oxford Castle, 1965–73, *Oxoniensia*, **41,** 232–408

Higham, R, 1982 Early castles in Devon, *Chateau-Gaillard*, **9,** 101–16

Hill, J W F, 1948 *Medieval Lincoln*

Hindle, B P, 1981 *The study of medieval town plans with specific reference to South Shropshire*, Univ Salford, discussion papers in *Geography*, **14**

——, 1982 Roads and tracks, in *The English medieval landscapes* (ed I. Cantor), 193–217

Houston, J M, 1955 The Scottish burgh, *Town Planning Rev*, **25,** 114–27

Hurst, D G, 1966 Medieval Britain in 1965, *Medieval Archaeol*, **10,** 175–9

Kenyon, J R, 1978 *Castles, town defences, and artillery fortifications in Britain: a bibliography 1945–74*, CBA Res Rep, 25

King, D J C, 1972 The field archaeology of Mottes: *Eine kurze ubersicht*, *Chateau-Gaillard*, **5,** 101–12

— —, 1983 *Castellarium Anglicanum*

Leask, H G, 1951 *Irish castles and crenellated houses*

Liddle, P, 1983 *A guide to 20 archaeological sites in Leicestershire*, Leicestershire Museums, Art Galleries and Records Service, Rep 45

Mahany, C M, 1976 Excavations at Stamford Castle, 1971–6, *Chateau-Gaillard*, **8,** 223–45

——, & Roffe, D, 1982 Stamford: the development of an Anglo-Scandinavian borough, *Anglo-Norman Stud*, **5,** 199–219

Morris, M, 1983 Medieval Manchester

Musty, J, & Rahtz, P A, 1964 The suburbs of Old Sarum, *Wiltshire Archaeol Natur Hist Mag*, **59,** 130–54

Olsen, O, 1982 *Rabies archaeologorum*, *Chateau-Gaillard*, **9,** 213–9

Palliser, D M, 1976 Sources for urban topography, in Barley (ed) 1976, 1–7

Platt, C, 1976 *The English medieval town*

——, 1978 *Medieval England*

Radford, C A R, 1970 The later pre-Conquest boroughs and their defences, *Medieval Archaeol*, **14,** 83–103

Renn, D F, 1960 The Anglo-Norman keep, 1066–1138, *J Brit Archaeol Ass*, 3rd ser, **23,** 1–23

——, 1968 *Norman castles in Britain*

——, 1979 The castles of Rye and Winchelsea, *Archaeol J*, **136,** 193–202

——, 1982 Canterbury Castle in the early Middle Ages, in *Excavations at Canterbury Castle* (P Bennett, S S Frere, & S Stow)

Reynolds, S, 1977 *An introduction to the history of English medieval towns*

Rigold, S E, 1965 *Portchester Castle, Hampshire*

Saunders, A D, 1977a Five castle excavations: introduction, *Archaeol J*, **134,** 1–11

——, 1977b Excavations at Launceston Castle, an interim report, *Cornish Archaeol*, **16,** 129–37

——, 1980 Lydford Castle, Devon, *Medieval Archaeol*, **24,** 123–86

Schofield, J, & Palliser, D, 1981 *Recent archaeological research in English towns*

Shoesmith, R, 1980 *Hereford City Excavations vol 1, Excavations at Castle Green*, CBA Res Rep, 36

Simpson, G G, & Webster, B, 1972 Charter evidence and the distribution of mottes in Scotland, *Chateau-Gaillard*, **5,** 175–92

Simpson, M L, & Dickinson, A, 1981 Excavations in Carrickfergus, Co Antrim, 1972–9, *Medieval Archaeol*, **25,** 78–89

Soulsby, I, 1983 *The towns of medieval Wales*

Stenton, F M, 1932 *The first century of English feudalism, 1066–1166*

Stocker, D, 1984 Lincoln Castle, *Lincoln Archaeol Trust Ann Rep, 12*

Todd, M, 1977 Excavations upon the medieval defences of Newark, *Trans Thoroton Soc*, **81,** 11–54

Turner, H L, 1971 *Town defences in England and Wales, 900–1500*

Webster, E, & Cherry, J, 1980 Medieval Britain in 1979, *Medieval Archaeol*, **24,** 218–64

Whitehand, J W R, & Alauddin, K, 1969 The townplans of Scotland. some preliminary considerations, *Scot Geogr Mag*, **85,** 109–21

Williams, G, A, 1963 *Medieval London*

Williams, S, 1977 Pleshey Castle: excavation in the bailey, 1959–63, BAR 42

9 Roman public buildings

D F Mackreth

Introduction

One of the boons of recent years in the study of Roman towns has been the publication in 1975 of John Wacher's *The towns of Roman Britain*. It is a guide to each town dealt with here and a summary of information up to 1973. Not all details are covered-a general book could not hope to do so-and the public buildings which might be expected in towns that can be argued to have had some form of charter do not receive a separate analysis. The topic reviewed here and the towns selected for discussion are all to be found among those dealt with by John Wacher. Each is confined to the same kind of town which is characterized by a street grid and has evidence for at least one public structure.

There are nineteen such towns and these are given in Table 6. The object of the table is to set out the degree of our knowledge of public buildings at each place. Each item is rated from three stars to a query. Three stars shows that the identification is sure and that a good deal is known of its plan, often its date and sometimes its overall history. Two stars generally means that the identification is reasonably secure and that the other details are less well established. One star indicates that the identification is basically sound but that there is little else known. A query means that there is doubt, sometimes considerable, over the identification. Finally, a blank shows that there is no evidence for that class of building. The two omissions from Wacher's list are Chelmsford and Brough-on-Humber: the first is excluded on the grounds that the evidence is not good enough (Wacher 1975, 195-202), and the second because apart from the inscription (RIB, 1965, 707), there is no adequate evidence at all (Wacher 1975, 393-7).

Before looking at the current state of knowledge, it would be as well to define a 'public building': a structure which was put up to fulfil a public function and was open to the public itself. This bars all possible *mansiones* as these were not apparently for general use but were reserved-for want of a better term-for government officials. It also excludes aqueducts and water supply and, as only one is known (Thompson 1956, 34-6, Fig 7, pls V-VI), public fountains. Monuments, except for arches are also excluded as they were hardly for use and most were, no doubt, appurtenances of other structures (Crummy 1977, 93-4, figs 18-20; Goodburn 1978, 456: Gloucester; Hill *et al* 1980, 124-200: London; Frere 1983a, 75-82, Wheeler & Wheeler 1936, 76-8: Verulamium). Similarly, latrines should be expected in bath-houses, otherwise they are only evidenced as having been integral with private houses (Frere 1983a, 246-7, fig 98). Because of limitations of space amphitheatres are covered very briefly and only a limited discussion of status of temples in towns is attempted.

However, there is one class of building which because of its rarity can be overlooked: a palace. Apart from its residential function, a palace also had an administrative one and as such should have been open to the public in some way. This point is made for period II at Fishbourne (Cunliffe 1971, 153). The only palace to be put forward with reasonable certainty in an urban context is in London, a town of unknown status (Marsden 1975). The site was identified because of the great central hall lying between what were probably matching wings. The whole stood on a terrace overlooking the river *(ibid,* Fig 28). The obvious parallels also occupy prominent sites in similar positions *(ibid,* Fig 30), and terracing to raise the principal range occurs at both Fishbourne and the possible palace at Castor (Mackreth 1984).

From literary evidence York should have had some kind of palace, but in the context of Severus' visit it may not have been a formal structure when he first arrived, though it may have been by the time his sons left Britain. Its site is not known, but an imposing one seems assured if the parallels have any value (RCHM 1962, xxxvi; Wacher 1975, 156). A sanguine approach might associate the buildings found in the two separate Bishophill excavations with the terrace wall located in Skeldergate, to produce one major structure fronting onto gardens running to the river. The heated room found in 1973 seems to have been larger than might have been expected in an ordinary town house and, if part of a bath-house, seems again to be out of scale with purely private needs (Carver *et al* 1978, 38, *figs* 15-16). The apparent misalignment between the two sites on which the buildings were found is no bar when the plan of the London palace is looked at (Marsden 1975, fig 29).

Street systems and public buildings

The nineteen towns considered here are generally admitted as having been *civitates peregrinae* or higher in status. The actual status of some may be unknown, as is the case with the first and last in the list, but all have what can be described as an ordered layout pointing to a degree of deliberate planning at a sufficiently early stage to have dictated the gross development of the overall site. It is within this infrastructure-to use a modern term-that the provision of public services was made.

The plans of Silchester and Caerwent (Boon, 1974; Nash-Williams 1930, pl LXXXV) are the best available, as each was subjected to a single series of excavations under a more or less unified control, and because large-scale plans of each were published. However, both are limited in value as they tend to represent, at best, the final street-plan and not the earliest. After these two the standard of presentation of evidence and the degree of knowledge drop markedly to such a point that at Aldborough no proper street-plan is known (Wacher 1975, fig 86). The quality of the information generally available is so low that exercises in mensuration (Crummy 1982a, 130-4) must be suspect. Recent work, for instance at Wroxeter (excavations by Dr Graham Webster) has emphasized that the development of a street-system is open to many influences, and that the most that can be said of 'gridded' layouts is that a high proportion of street junctions is at or close to 90° and 'restoration' studies can only be approximate (cf Exeter; cf Goodburn 1979, fig 15 with Frere 1983b, fig 23; see also Leach 1982, fig 3).

Insistence on a grid will lead to difficulties (Wacher 1975, fig 65) and chance observations, only a few square metres in extent can lead to wrong conclusions: eg Caerwent, the paved entry to House VI (Ashby *et al* 1903, pl XXVI). Nevertheless, where the street-plan can be seen in reasonable detail, there is an integrity of plan which commands respect.

The feature which connects the laying out of the streets with the main public buildings is that, with a single good exception, no private buildings can be shown to have preceded a forum or a set of public baths (Frere 1977, 396; probably also Rankov 1982, 389). The suggestion made for the earliest Roman pre-forum structures at Silchester is that these are not ordinary domestic buildings (Frere 1984b, 324). However, not all sites have been taken to their lowest levels; for instance Caerwent was stripped down to obvious structural elements and the associated hard surfaces.

Only at Wroxeter can it be satisfactorily demonstrated that one public building succeeds another, the forum being placed on the site of abandoned baths (Atkinson 1942) and the baths proper being built over private housing (Grew 1981, 358, fig 13). However, the problem here is really the correct dating of the early baths: are they early enough to have been intended for Legio XX (Frere 1974, 140), or do they belong to a civilian phase preceding the final dispositions? Renewed excavation may provide an answer.

One problem which a student will soon encounter is that modern town plans complete with all the street names and the basic archaeology are hard to come by. Their lack makes it difficult to pinpoint sites which may be referred to simply as '122a Woolgathers' Row'. There may be little difficulty if the major research is based in the town in question and there are comprehensive archives available. But this is not always the case and the work-schedules imposed upon those in the best position to do the work may prevent any coherent programme. Inventories such as those issued for York (RCHM 1962) and the cumulative sequence developing for Chichester (Down & Rule 1971) provide a contrast to the usual state of affairs. Because remains were often poorly preserved and records of them are not only of variable quality but probably also cover a number of sightings made at different times, interpretation can be difficult. In the first instance, the size of the original complex can only be guessed at and the stages in the defining of the sites of the fora at Leicester and Lincoln provide cautionary tales.

In the second instance the recognition of a public building itself is no easy matter in limited excavation or observation as the area is usually too small to allow ready identification. If walls *c* 0.9m thick are met with, a possibility exists of there being one; if such structural elements are associated with colonnades opening out on to a street or court, or part of a great columned hall, there is near certainty. The rule can only be general, as the published plans of both Caerwent and Silchester show. At the former the wall thicknesses of the basilical range match quite well, but those of the ranges round the court are thinner (Ashby *et al* 1909, pl XCI). The latter is a better example, but the partition walls in the ranges round the court can go down to *c* 0.75m (Fox & St John Hope 1893, pl LIII). The contrast with the wall thicknesses of lesser buildings in each town is between *c* 0.5m and 0.75m, but wider walls can be met with (eg Down & Rule 1971, 130, fig 6.3, room 6) and porticoes are known in what should be assumed to have been private housing (Martin & Ashby 1901, pl XL; also? Ashby *et al* 1902, pl VIII, house VII). It is consistency of observation over an area larger than that occupied by private property which is needed. Description of walls found at Canterbury as having been 'large' is unhelpful and we must wait for detailed publication to see what their size was, and whether they suit both the plan and the probable site of a forum (Frere 1984b, 330).

Fora

Their central siting and their plan proclaim that fora were considered to be of prime importance and their functions would generally be taken to have been plain marketing in the court, and judicial and administrative practices in the basilica and associated range of rooms behind. Whether this was so will be discussed later in this section.

It has been observed that there may be a correlation between the sizes of a forum and the town in which it lies (Frere 1974, 125-9). There is nothing particularly strange in a progressive diminution in size as the apparent population decreases; the size should surely bear some relationship with hoped for prosperity and the money available. Such a point is made by Vitruvius (V.i.2). However, the permissions which seem to have been required for the erection of public buildings from at least the late 1st century (Frere 1984a, 66-7) inject an incalculable element into any theoretical assessment of socioeconomic values, especially if a crude relationship is established with the quantity and quality of other buildings in a town. This is amply illustrated in a letter from Pliny to Trajan concerning the baths at Prusa, and the reply (X.23-4). Pliny's mission in Bythinia was as a kind of financial overseer-hence the insistence on the use of existing funds-but the point is that the petition for new baths went to the governor in the first instance (Sherwin-White 1966, 592-3). This case may serve to show that more than a formal permission was needed as Pliny (X.70) also looked into where a new set of baths could be built. There is also a hint that if what had been private housing had to be demolished, a further permission was needed (Sherwin-White, 1966, 657). Considerations such as this may have been applicable in cases like the Leicester macellum.

The initially planned size of a forum, at least, may not only have been related to how much the local authority was prepared to raise, commensurate with its dignity and ambition, but also to the limits imposed by the governor in the first instance-assuming that he had not referred the matter to Rome. Coupled with this is the possibility that imperial donations were involved as well as the high probability that army staff were seconded to design and control the building (Frere 1974, 276-7). The result may have been that the actual building programme lay outside the hands of the local council; this could also account for the obviously imperial inscriptions put up at Wroxeter and Verulamium. Therefore a straight comparison of size and elaboration will not sufice. There are too many variables for much reliance to be placed on the use of a graph in an attempt to distinguish one town from another in purely economic terms. Two examples show this. At Wroxeter, the Hadrianic inscription may just point to an imperial interest; Hadrian may have given money himself or directed that public funds from outside the civitas be provided. Yet it is certain that the overall size of the forum block is entirely

conditioned by the retained sections of the earlier bath complex. This includes the east range and most of the east portico. No doubt the building materials both stored unused and derived from the now redundant bath-suites helped to further reduce the costs of construction. At Silchester is found the one forum plan commonly taken to represent the class in Britain. However, comparison with other plans shows that it has the highest percentage of covered area of any and, in that respect, is atypical.

It is fashionable to discuss sites in socioeconomic terms. It may be appropriate to do this for towns in the medieval period when both the structure of society is well known and documents survive to illustrate the interaction of these two aspects. The study of medieval towns is also made easier by a greater knowledge in almost every single case of the plan and the distribution of types of activity within its bounds, In contrast, direct knowledge of society in Romano-British times is abysmally thin and documentation virtually non-existent-conditions which lead to such a high degree of circumspection in discussing towns in socioeconomic terms that the result may seem too loosely termed to be of value. In the present case the understanding of the use of public buildings proceeds by analogy with other parts of the empire and what can be gleaned from references in surviving texts. The sum of such information is comparatively sparse and provides an insecure framework for Britain. To elaborate from such slight grounds is unwarranted and could well be misleading. When it comes to 'ordinary' buildings in towns, the truth is that our knowledge of their use is inadequate and the lack of function which can be attributed to what are assumed to be 'commercial premises' merely points to the poor base for any adequate discussion.

A more telling point is that it cannot be assumed blindly that it was the townsfolk who dictated that public buildings be put up. In the conditions of the earlier part of Roman rule it was more likely the political ambition of country-based magnates which was responsible (Frere 1974, 236-7). Therefore any link between the economy of a town and the opulence of its forum and baths may have been less direct than a simple view might suggest. The general degeneration in a town's public buildings in a traditionalist society should reflect either the waning wealth or the growing reluctance to spend on public works on the part of the decurions rather than be a simple reflection of the decline in the economic vitality of the whole commercial class in a town.

Actual evidence for functions within a forum is minimal. A forum, by definition, ought to be a market, yet the evidence that any in Britain was so used is essentially non-existent. The courts at Wroxeter and Silchester were noted by their excavators as having been virtually sterile (Atkinson 1942, 82; Fox & St John Hope, 1893, 544). The small area of the court at Cirencester which has been examined pointed to the same condition (Wacher 1954, 14). Wroxeter is commonly thought to be the prime example of a forum used as a market, but all the evidence-the stacks of samian, the bundles of whetstones and the strew of unused mortaria-came from the gutter along the external east portico. If we look at Caerwent and Silchester, the former is set in the midst of wide streets, especially on the south and west (Nash-Williams 1930, pl lxxxv). The latter has a set of mini-*insulae* on three sides (Boon 1974) in which were pits and immense spreads of oyster shell. This suggests that the vacant ground should be regarded as having been a market in the modern sense (Fox & St John Hope 1893, 561-3, 569), a detail which takes on weight when the *macella* are looked at. If the forum did include among its public functions official rituals involving sacrifices, any altar should have been in the court and this should have precluded such low-level activities as day-to-day marketing.

What has been said so far on fora is, to a large extent, general. Our understanding of these structures in Britain is based on archaeological evidence, and the accumulation of this is impeded by the problems which sheer size impose in comprehending the development of a particular site. Good examples are provided by the London and Gloucester fora (Philp 1977, fig 3; cf Hurst 1972, figs 5-6 with Heighway & Garrod 1980, fig 1B). The former is nearly 3 ha in area. The next largest forum, at Verulamium, is nearly 2 ha in extent. The smallest known, at Caistor by Norwich, at just under 0.5 ha, is big enough to make the point that it would have been difficult to understand had the site lain under a modern town.

Leicester provides an instructive example of the difficulties which can arise during the slow elucidation of the layout of the principal public buildings under a modern city centre. The site of the forum was a mystery despite Kathleen Kenyon's interpretation of her excavations to the west of the Jewry Wall (Kenyon 1948, 14-28). Her work was the first large-scale examination in the town. The forum seemed to have been found when John Wacher discovered a great hall built over a private house (Taylor 1959, 113-5) but it was only in the late 1960s that another candidate was found and it seems, despite pecularities in the proportions of the basilica, that this is the true site (Hebditch & Mellor 1973). The complex of public buildings in the centre of the town now has a unity which will be hard to shake.

Piecemeal publication and apparently unrelated observations can bedevil identification at places where progress has not been as marked as in Leicester. For example, opinions have varied as to where the forum in Colchester should be sought. One view is that it was sited in *insula* 30, opposite the main entrance to the great temple (Crummy 1977, fig 1; 1982, fig 1; Wacher 1975, 105, fig 26; Hull 1958, 203). However, discoveries in the western part of the town are possibly better suited to a forum than any published for *insula* 30. Mrs Niblett found parts of a building in *insula* 18 in which the only wall thickness mentioned is 5 feet and the only interpretative word is 'house' applied to Phase 2 (Dunnett 1966, 39-40, figs 1.6). With walls of that thickness and one room 24m by 9m, and another 11.3m across, this was no domestic structure. However, a notice published by Hull, confusingly listed under *insula* 10, quite apart from the obscurity of the orientation of the main section and its location (Hull 1958, 98-100, figs 30, 40), adds more to the plan of what should be the same building. Use of modern property boundaries published by both writers enables a reconciliation of these two records to be made and although it is not certain what part of a forum plan is present, the result is impressive enough for the site to be put forward as the best candidate so far. Its size, using the whole of *insula* 18, at *c* 10.88ha is between the areas of the fora at Silchester and Wroxeter. The most recent publication on Colchester comes to a similar conclusion, and perhaps attention in the future to *insula* 18 will provide sufficient evidence to raise the possibility to a probability, if not a certainty (Drury 1984, fig 1).

Even when the site can be reasonably assumed to have been found, some caution needs to be exercised before attempting to demonstrate what is felt to be present. The forum at Chichester ought to be east of the baths, but there is so little evidence that confirmation is still lacking and publication of a restoration study of the basilica is somewhat premature (Down 1981, 5-27), especially when only one basilica, at Cirencester, lies along the south side of the court.

Macella

This is a basically recognizable building type for which a good acceptable name is hard to find. There is a tendency for it to be termed a *macellum,* but this word is not commonly found and when it is tends to be related to market structures built for dealing in a narrow range of goods. 'Market' as a substitute is too loose in application as it can be applied to an open area devoid of special structures. Many of the buildings which can be put under the general heading *macella* were covered, but 'market hall' cannot be used instead as it will not suit either the plan of the element in the south-west corner of the Wroxeter baths *insula* or what has been proved at Cirencester. Therefore *macellum* is used as a convenient word to mean a specially designed building with ranges of small rooms apparently better related to commercial than official use. In this sense a *macellum* can be described as the ancient version of a shopping precinct. Perhaps the most famous is Trajan's market-hall built to one side of his forum in Rome (Macdonald 1965, 75-93), which displays the set of characteristics used to identify satisfactorily similar structures in Britain: a series of chambers or shops with covered approaches combined into a single structure which can be shut off from the streets.

It should be emphasized that a built *macellum* was largely a product of a need. At Cirencester the ground which it was to occupy was left essentially vacant from the laying out of the town (Wacher 1962, 8) and can be seen as reserved land, like the strips already noted at Silchester. At Leicester empty land was left in the initial forum layout along its east side. It probably proved too small for the marketing activity which developed; hence the building of what is taken to be a *macellum* on a site previously occupied by a private house (Taylor 1959, 113-5). The position at Verulamium is not certain. There is no sign as yet in the town-plan of either extra-wide streets or of a reserved plot close to the forum. The need for a *macellum* was satisfied by putting one up at some distance from the forum on a site which had already been occupied, possibly by private housing (Richardson 1944, 82-4), despite the presence of a reserved plot on the other side of the road on which the temple and theatre were to be built (Frere 1983b, 73-4). This suggests that here at least what town-planning procedures there may have been were effective and allowance had been made *ab initio* for virtually all the concomitants of civilized life. At Wroxeter the picture is also unclear; unless the apparently vacant area behind the basilica was used as an open market, there were only the external porticoes of the forum and the wide main street available. The building of what is taken to be a *macellum* in the south-west corner of the baths block would certainly have eased the position. The two major rooms in the baths *insula* facing the main entrance of the forum were almost certainly public offices, the evidence for their having been workshops predating the public building (Wright 1872, 16l-3; Johnson 1868, 55). The multi-purpose *insula* opposite the forum here provides evidence that the town was prosperous enough by about 130 for more than one function to be needed in the new building, even if the public offices in the centre of the west elevation are most probably a reflection of the small amount of accommodation in the forum, despite its great size.

Four *macella* have been identified in Britain and all have one thing in common: they date after the building of the fora in the towns in which they occur. The earliest phase at Verulamium is early 2nd century (Richardson 1944,85), the forum in some form having been completed by 79. At Cirencester the stone *macellum* was built in the second quarter of the 2nd century, the forum having been put up most probably during the 80s of the 1st century (Wacher 1962, 5-9, figs 3-5). The same kind of difference in date can also be seen at Leicester, the *macellum* following some 40 or more years after the completion of the forum in probably the fourth decade of the 2nd century (Taylor 1959, 113-5, fig 10; Hebditch & Mellor 1973, 40-1, fig 2). At Wroxeter the difference in date is less; the forum was completed by 129-30 (RIB 1965, 288) and the baths *insula,* which includes the *macellurn,* follows on almost immediately. The reason for this is not clear. With so few dated examples to hand it may be dangerous to suggest that official support for the town was greater here than was generally the case.

It seems that a *macellum* as such was not conceived as part of a town when it was first created. It is a secondary feature and the distance between it and the forum at Verulamium is a warning that only when the main layout of a town is known will the presence or absence of a *macellum* be established. It appears that Silchester never needed one (but see Frere 1977, 292); that trade at Caerwent was never vigorous enough; and that the generally poor quality of the buildings at Caistor by Norwich is probably against there having been one there-the open ground around the forum being sufficient (Wacher 1975, fig 54). The halls at the Blue Boar site in Leicester and opposite the theatre at Verulamium show that the hall without proven associations under the north side of Westgate at Gloucester (see below) cannot assuredly be attached to a set of baths.

Baths

These were the one amenity which a town had to have in addition to a forum for it to have any pretensions to be considered civilized. Only three sets of baths can be described as well known: those at Wroxeter, Leicester and Silchester. Caerwent has after these the next best plan in its coherence, but a great part of the bath suite itself is unknown. The Wroxeter baths are the best understood and a major publication of them is awaited. Those at Leicester, despite the apparent completeness of the plan, were so badly preserved that how the various elements were integrated for use is unclear. There has been no recent discussion of this, and the only restoration drawing uses Kenyon's own interpretation as its basis (Wacher 1975, fig 80; Kenyon 1948, 31-2). What was clearly the *frigidarium* is open to the skies. However, interpretation is difficult and note should be made of Kenyon's comment on the survival of floor levels *(ibid, 7).* Silchester's baths are both small and seem to have a more complicated building history than any other. They also have the advantage of the most sumptuous publication of all (St

John Hope & Fox 1905,34 l-66, pls LXXIV-CI, etc). Their scale was not grandiose; the first *caldarium* was *c* 11.5m by *c* 6m overall, compared with the same room at Wroxeter of *c* 15m by *c* 15m, and its walls were commensurately thinner. The history of the Silchester baths was generally one of expansion, possibly due to a growing population. Unfortunately, the style of clearance employed in its excavation destroyed the dating of the stages of its history.

The Jewry Wall baths can be roughly restored along the basic lines of those at Wroxeter-a main suite with two lateral suites as well as a basilical hall-but there is no evidence at Leicester for an external *palaestra* with a *natatio.* The halls at Wroxeter, Leicester and Caerwent may show influence from military practice. The baths at Chester (Strickland 1984, 15; Strickland & Davey 1978, 22-4 provide an instructive example; the plan of the legionary baths there bears a more than slight resemblance to the layout at Wroxeter.

These basilical halls may point to a function for the great columned hall under Westgate at Gloucester. It does not go against the evidence for wall 1 to be of the same period as the columns, with 'wall 5' being a deliberate infill for an earlier drain (Heighway & Garrod 1980, fig 1, B, 79-84). Using the very small-scale published plan and the standard rule that the nave will be twice the width of an aisle, the other side of the hall would be represented by the wall shown on the other side of Westgate *(ibid,* fig 1) and the whole would lie along the street frontage *(ibid,* 84). The great area of tessellation, *c* 15m by more than l0m, could be part of the *frigidarium.*

Elsewhere the evidence can be even more tantalizing. Cirencester has a tenuous candidate for its baths in poorly located rooms which could have been part of one structure; of two hypocausts, 15.24m by 12.2m and 9.7m by 7.3m, one would certainly be big enough for public baths. Haverfield (1920, 179) did not try to place these remains, but Wacher (1975, 300) puts them west of Tower Street, as the recent excavations have narrowed the choice (McWhirr 1978, fig 1). *Insulae* 2 or 3 are available and, if properly in 2, the *macellum* may have been combined with the baths in a single scheme. Of the baths found at both Chichester (Down 1978, 145-57, figs 7.3, 7.54-60) and Dorchester (Goodburn 1979, 327; *Roman Town Baths,* nd) not enough was revealed for much to be deduced about the overall layout.

At Verulamium a different problem occurs: there is a set of baths large enough for public use just outside the north-west gate. There is no reason why these should not be the town baths except for their peripheral siting. It is awkward that they seem to have been abandoned *c* 225 (Wilson 1975, 258, fig 12), too early for there to have been no town baths thereafter. Other, possibly more splendid, baths should lie inside the defences. At London the Huggin Hill baths passed out of use a hundred years earlier (Merrifield 1965, 142, fig 26) and no other candidate has been satisfactorily identified. Other towns have some evidence for where the town baths were or may have been sited, but the details are either not published or not well established (RCHM 1962, 52 (19), fig 41; Fox 1952, 17-19; Taylor 1958, 136, pl XVIII). As the main social building in a town, the general development and demise of the baths could be one of the chief indications of the strength of Romanized corporate feeling. It is doubly unfortunate that only three sets of baths are known in overall plan and none with a published properly dated sequence.

Theatres and amphitheatres

Both theatres and amphitheatres are buildings designed to hold a large number of spectators. It seems obvious that amphitheatres catered for sports of one kind or another, but the function of theatres is not so straightforward. Early theatres were married to religious observances and the coupling of a temple and theatre should, perhaps, be expected. At Verulamium the theatre was built on a vacant site after the temple (Frere 1983a, 73-4). The Canterbury theatre also has a religious context as there is a colonnaded precinct behind the stage with evidence for a shrine (Grew 1981, 366, fig 18). However, the association between theatre and temple at Colchester is less precise, although this may be due to the topography of the site (Crummy 1982b, 299-301, fig 1; Hull 1958, 105-6, fig 44). These cases raise the question of the possible layout in the north-west corner of the walled area at Cirencester (Wacher 1975, 299-300; McWhirr 1978, fig 1). There is one possible case of a theatre having replaced an amphitheatre: Canterbury (Wacher 1975, 181, fig 12.1). The evidence suggests that more amphitheatres are to be expected than theatres, but there is no need to force facts. The structure at Caerwent is badly laid out, had only one entrance, and what appears to have been a corn-drier integral with the wall which, at 0.6m, was not thick enough to retain a bank (Ashby *et al* 1904, 104-5, pl X).

Temples and churches

There is only one undisputed example of a temple, with altar, having been officially sanctioned in Britain: that at Colchester (Fishwick 1972, 170-81). However, some sort of official shrine is to be expected in every town with a formal foundation, though whether it should be a prominent building specifically allowed for in the plan of a town is not known. Had any such temples been in the full classical mode, additional examples should surely have been found by now. There is always the possibility that official shrines were housed within the one truly official building, the forum, and this has been suggested for Silchester (Boon 1974, 58-9). If an altar was associated with such a shrine, it could only have stood under the open skies in the court, and this would seem to preclude ordinary marketing activities. In only two cases can it be suggested that one or more cults received official recognition: at Verulamium where two, if not three, temples were added to the forum court (Frere 1983a, 63, Figs 22-4); and at Caerwent, where a podium was added to the west range of the forum court to support a vaulted building (Ashby et *al* 1909, 579-8 1, fig 5, pl XCI). In both cases these buildings may only have been supplementary to an established religious function in the court.

However, there is a feature in some town plans which may point in another direction. To take Verulamium again, where an *insula* is occupied by a temple and theatre complex, the temple lay in a major colonnaded *temenos* (Lowther 1937, 30-3, pls XXIII, XXV, fig 1) and was the first building on the site, followed by the walled enclosure. The precinct at Canterbury, already referred to, appears to fill an *insula.* Other instances could be given, but it can be objected that an official cult was unlikely to have had a

temple of Romano-Celtic plan like that at Verulamium attached to it, even if the focus of attention would have been an altar. The proof of standard practice is wanting and a building such as that immediately south of the baths and in the same *insula* at Leicester may pose a problem. The plan is highly individual and the easiest interpretation is that it was a *mithraeum* (Wacher 1975, fig 79; Wilson 1970, 286, pl XXXVIIIA), but it can hardly be doubted that the *insula* in which the structure lies was public land. However, the small amount of space to its west seems unsuitable for the large congregations which might have been expected to be present at public festivals.

It is not clear who owned temple land, nor is the status of public land used for temples known. However, it seems that cities managed temple estates (Jones 1964, 732). There can be no doubt over the close association of town officials and the public observances which served to demonstrate the loyalty of the town to the emperor. The ritual needs of such occasions would require some prominent permanent features, and it is our misfortune that they have proved, with the exceptions of Colchester, Verulamium and Caerwent, so elusive.

The recognition of Christianity by Constantine I was marked by a new type of building designed for public use when he laid out churches over the burial place of St Peter and over the Holy Sepulchre. Both of these buildings were extra-mural and some distinction should be drawn between churches built to serve congregational worship only and those on sites sanctified usually by association with martyrs. The former would be placed where they could, commonly within the walls of a town; the latter represent the consolidation of worship at the sites of the passions or burial places of specific individuals and, hence, are to be expected outside the walls.

In Britain the best known building generally accepted as having been a church is that south of the forum in Silchester (Frere 1976, 277-80, 292-7); perhaps significantly, it must have been built on public land. As for the rest of the archaeological evidence, claims have been made that an aisled building in Lincoln oriented east-west with an eastern apse was a church and that it stood until the 9th century (Frere 1977, 390; 1983b, 301, fig 10), but it remains unpublished. Colchester is the only town so far at which both an intra- and an extra-mural church have been identified. The former lay in *insula* 35 in the town, had a basilical plan apparently with columns and was 33m long by 18m wide (Rankov 1982, 371). The latter was located in a cemetery and is said to have been built no later than 320-40 and to have lasted into the 5th century. It was 24m by 7m and had an eastern apse (Grew 1980, 378). The plan seems also to have been basilical and the effect was not unlike the building in Lincoln. Neither Colchester site is published in full (Crummy 1980, 264-6, fig 11, 16-17). Recent analysis of the remains beneath the castle has elucidated a 4th century building which might also have been a church (Drury 1984, 33). But Drury advises caution *(ibid, 34)*. However, the site of the martyrdom of Alban is the one place in Britain which should surely have been dignified by some form of church, despite the complete lack of direct evidence.

The identification of churches can be based on later traditions or on what is felt to have been likely. Not all such attempts are successful, principally because of the lack of evidence or probability. Nash-Williams' church built in the baths at Caerwent receives little support (Thomas 1981, 141); St Martin's at Canterbury is most unlikely to be Roman as it is too insignificant a building to be built completely of brick in the Roman period-a technique best evidenced in imperial projects such as the 'Basilika' at Trier. Occasionally, a plan relationship looks too good to be true. The excavation of a large room in a Roman building at Clementhorpe just outside York revealed a stone platform in a polygonal apse at the east end and the rest of the floor was cut into by burials described as medieval (Frere 1977, 383, fig 15). Their layout basically forms a line down the centre with clear strips on each side except for three small graves. The occurrence of medieval burials in this fashion in a Roman room could be coincidence, or is the association much closer in time? The publication is awaited.

The evidence for churches is both mixed and sparse, but as there is no particular reason why Britain should differ from other provinces, such sites should be expected; the difficulty will be to identify them. The rules which apply to the other public buildings reviewed here have yet to be established for churches, but the one feature which may prove to be a constant is that they could occur anywhere in a settlement. When there was a need to build them, they had to fit as best they could into a developed site.

Public buildings in the late Roman period

A casual glance at Table 6 at the end of this essay may give the impression that a lot of sites of one kind or another are known. However, it reveals that information for Winchester, Colchester, York, Dorchester, Aldborough and, for reasons due to its late identification, Carmarthen, can only be described as running from poor to miserable. And this is over 30% of the sample. What is not expressed on the table is the amount of knowledge there is for the histories of each structure. For fairly obvious reasons, no town should have had a functioning pagan temple by the end of the 4th century. The general date of the disuse of amphitheatres is not known, probably because they tend to be isolated and are not obvious pottery-using centres. Of the theatres only the one at Verulamium has a known late history. It was deliberately filled with rubbish at a late date, quite possibly, as Lowther (1937, 35) put it when dealing with the temple, *'c* AD 400. Colonnades rebuilt, East gate demolished and west gateway built.' Of *macella*, that at Verulamium was rebuilt *c* 300 (Richardson 1944, 89), that at Cirencester was remodelled after *c* 330 (Wacher 1962, 9, fig 5), and that at Wroxeter was repaired *c* 300 (Frere 1977, 396). There is no information as yet for Leicester, and there are no details to suggest when these buildings may have passed out of use, but in the case of Wroxeter at least, there may have been a change of function.

When it comes to fora, more of which are known, the details are in proportion less well fixed. The London forum is impressive for its scale, but not for the dating evidence. The major building campaign in the court seems to have been at the end of the 1st century with a hint that there was a secondary major campaign before 130-40 (Philp 1977, 37-43). As for the basilica, the first proper notice of its date puts it after *c* 80 (Dunning 1931, 238). More recent work confirms this but also says that the deposits were truncated when the second basilica was built (Frere 1983b, 311). London stands alone in having positive evidence that its basilica had piers instead of columns (Merrifield 1965, 133,

251, 253-4, pl 50-1). The generous use of brick facing is not only unusual in itself but is also a mark of grandiose, often imperial, projects in the Late Empire. It may not be too fanciful to see in these piers the remains of an arcuated structure of late date, possibly *c* 300 and promoted by Constantius Chlorus as part of the same propaganda which produced the Arras medallion.

The basilica at Cirencester was repaired or partly rebuilt in the 4th century while towards the end of the century the forum was joined to the *insula* behind the basilica (Wacher 1962, 7-8). Nothing seems to be known about any 4th century phase at Verulamium (Wacher 1975, 211-2; Frere 1983a, 58), but by implication the continuing presence of drains along the side of the forum seems to carry its history to at least *c* 400. It is possible that the new porches along the north-east side represent part of a major refurbishment close to 300 *(ibid*, 59, 63). The Wroxeter forum was considered by Atkinson, on the basis of coin evidence, to have been destroyed before 300 (Atkinson 1942, 105-7), but the methods of excavation make it difficult to be certain of this *(ibid*, pls 8A, 14B and unpublished). However, until the site has been re-excavated, there is a certain force in his arguments. The forum at Leicester produced slight evidence for work after the middle of the 4th century (Hebditch & Mellor 1975, 42). Recent work at Silchester has suggested that the basilica had passed out of use by the middle of the 4th century, possibly much earlier (Grew 1981, 362), while that at Lincoln was used in the 4th century, but it is not clear that it was still a public building in the older sense (Jones & Gilmour 1980, 68). There was remodelling of the forum at Exeter in the middle of the 4th century, but the whole complex was demolished probably before the end of the 5th century, possibly well before (Bidwell 1979, 104-11). At Gloucester, there is some evidence to show that part at least of the forum had been demolished by the later 4th century and that the main road in front of it had ceased to be recognizable as such (Heighway & Garrod 1980, 78, fig 1). As for Caistor-by-Norwich, the evidence for date is slight and seems to point to a rebuilding at sometime towards the end of the 3rd century (Frere 1971, 11).

The public baths are worse served with information. It is now impossible to date the development and contraction of those at Wroxeter directly: the damaged state of the Jewry Wall site in Leicester precluded detailed analysis there; the Silchester baths were cleared by labourers as were those at Caerwent and nothing can be said about those at Caistor-by-Norwich (Frere 1971, 20). A preliminary notice on the baths at Dorchester mentions that they were probably going out of use between 320 and 360, but no reason is given for the choice of these dates (Roman Town Baths). Chichester baths produced no clear evidence for use in the 4th century beyond showing that modifications were being carried out (Down 1978, 152). The Canterbury baths continued in use into the 4th century (Goodburn 1979, 334-6).

There is, however, a growing record of' the superimposition of timber buildings on the sites of public buildings as well as streets. The classic case is that of Wroxeter where Philip Barker has been carefully stripping the remains of a succession of timber structures and stone rafts mainly in the area once occupied by the large basilical hall attached to the baths. The dating has yet to be established as it is only recently that work has begun to reach the bottom of the sequence. That there had been a change of use before the demolition of the hall is shown by the presence of timber buildings in the south aisle (Frere 1983b, 303). Another building at the north end of the baths service yard was later than *c* 367 (Barker 1975, 107). The same kind of activity has been detected in the whole of the western portico of the *insula* and, of course, is characteristic of the last phase recovered by Atkinson on the site of the forum (Atkinson 1942, 108-13, pl 73). The only dating available for the disuse of the baths themselves consists of the coin hoard found by Wright in the hypocaust of the west lateral suite. The latest identifiable coin was one of Gratian (Wright 1872, 69) and the hoard is unlikely to have been placed there while the baths were in use, hence this part could have been abandoned by *c* 375.

Elsewhere, industrial activity marks the basilica in the forum at Silchester (Rankov 1982, 391); timber buildings were laid out along the street-side by the baths' portico at Canterbury and are said to be 5th century (Goodburn 1979, 336, fig 18); at Gloucester, alterations to buildings opposite the forum led to the remetalling of the whole road in at least the late 4th century, and a timber building was built as a replacement of a stone one (Heighway & Garrod 1980, 78, fig 3) while the suggested baths' basilical hall seems to have been turned over to industry *(ibid*, 81).

Such developments have usually been put down to the gradual run-down of the towns and a sure sign that Roman Britain as a whole was failing, although the view tends to fluctuate (Frere 1974, 420-3; Fulford 1979, 128-9). The present writer wonders whether the question of the vigour of town life in the 4th century, especially after the middle, has to some extent been wrongly framed; one detects effects, but not the causes. The changes are multi-faceted: legal and customary, ethical and material. Towns derived their income from rents from civic lands, fees and *munera* from councillors, interest on money endowments, and local taxes and dues. The 3rd century inflation destroyed the value of fixed incomes and there was no longer an urge to become a town councillor in the 4th century because of the onerous duties. But more important for the maintenance of existing public buildings, Constantine confiscated the rents and dues in the last decade of his reign. He also took temple treasures and estates; the latter had formerly been managed by the towns. Constantius II confirmed the seizure of the town income and by the time that measures were taken to offset the worst effects of this under Valens and again from 374 (Jones 1964, 732-3), it was manifestly too late for many towns.

However, even if the town baths became ruinous and the forum was flattened, the land should still have remained in public ownership and its disposal in the hands of the local council. It would seem to follow that the construction of timber buildings could only occur either if the management of the town had collapsed, or the council had sanctioned them in return for money to meet its commitments. In short, the appearance of timber buildings on prominent sites could be the result of civic need, but should also be a sign that the commercial life of the towns in question was healthy rather than crippled to the point that the economic effectiveness of the place was in question.

At Cirencester where the forum insula was joined to another public building (Wacher 1962, 8, fig 5) towards the end of the 4th century, another explanation could apply. It is possible that the whole was taken over as the palace of the

governor of *Britannia Prima,* if Cirencester was the capital of the province (Frere 1974, 242). Similarly, the London basilica, which may be a late Roman building, possibly came to form part of the offices of the Vicar of Britain. That such large buildings were needed at the division of Britain into four provinces is suggested by the likely dating of the palace-like building at Castor, just outside *Durobrivae,* Cambs (Mackreth 1984). The demands on local government in the 4th century were such that the provision of accommodation of public offices at least should be expected. They could have been relocated in what had been a private house. Such a necessary move could also provide a context for the refurbishment of the *macellum* at Wroxeter; it need not have retained its deduced original function.

The confiscation of temple lands was the beginning of a process which culminated in 391 when all temples were closed by the order of Theodosius and the practice of any pagan rites was forbidden. Whatever lack of observance this may have had in the countryside, it should surely have been followed in the towns. The religious life here at least was publicly Christian, and there can hardly be any doubt that all major towns had a church (Frere 1974, 372-4; Thomas 1981, 155-7). Whether this would normally have been a specific type of building has not been established and there is no guarantee that it must have stood within the walls, although that seems most likely.

Table 6 Public buildings in 19 major Romano-British towns (after Wacher, 1975)

		Fora	Baths	*Macella*	Theatres	Amphi-theatres	Area (ha)
1	London	**	*				128
2	Cirencester	**		**	*	***	88.3
3	Verulamium	**		***	***		78.9
4	Wroxeter	***	***	***			76.9
5	Winchester	*					55.1
6	Canterbury		*		**	*?	52.2
7	Leicester	**	***	**			*c* 48
8	Colchester				*		46.6
9	Silchester	***	***	No?	No?	***	41.7
10	Lincoln	*		*			40.1
11	York		*?				*c* 40
12	Chichester		*			**	38.7
13	Exeter	*	*?				35.6
14	Dorchester		*			***	32.8
15	Aldborough	*?					22.3
16	Gloucester	* *?					18.6
17	Caerwent	*** **		No?	No?		17.8
18	Caister by N.	*** *					14
19	Carmarthen					**	6.1

The sites in the table are ordered crudely by the area enclosed by their defences. This automatically places London at the head and Carmarthen at the tail. The chart is divided by two heavy cross-bars. These represent what appear to be significant changes in area: above the first, the areas enclosed are greater than 70 ha, above the second they are greater than 30. If the figures given in the last column are plotted as a curve, it will be seen that there are three major change points. The first has not been used here; it merely shows that London was by far the largest town. The second reveals that there are no towns with an area in the 60s and the third occurs where there is a jump from 22.3 to 32.8. There ought, perhaps, to be another line which separates Carmarthen from the rest, but this is at present thought to be unnecessary.

Conclusion

To list the successes in discovery over the last 150 years is easy (see Table 6), but such a list does, by contrast, reveal which towns have provided very little information. The prime example must be York. This was a known *colonia,* even if the latest in foundation, as well as the military headquarters of northern Britain, and the probable site of an imperial palace which may well have survived for over a century (Wacher 1975, 156), yet not more than the crudest street plan can be prepared (compare RCHM 1962, fig 38; Wacher 1975, fig 37; Carver *et al* 1978, fig 1) nor even the defences be said to have been established (RCHM 1962, 49-5 1; Wacher 1975, 161-3). In virtually every respect, less is known of York than of Aldborough, knowledge of which, apart from the defences, still depends upon a book published in 1852 (Eckroyd Smith). The poverty of information on urban sites north of the Humber is astonishing and, one suspects, principally because the interests of those dealing with Roman Britain in the north have been military. Carlisle is at last receiving attention and a little is known of the town at Corbridge, but both of these seem to lie outside the limits set by the writer for the present survey and each most probably should be assigned to late developments (Wacher 1975, 305).

The first discovery which every new student of Roman towns makes is that there is scarcely a site with a decent large-scale survey, and the writer knows of no series to a common scale on which discoveries of all types and periods can be plotted with overlays where necessary. The long series of reports on Silchester and Caerwent are exceptional and the plans of each are to the same scale. But the plans in the reports by Bushe-Fox on Wroxeter, published by the same body, are to a different scale. A comparative study of the major towns of Roman Britain is not an easy thing to undertake by an individual and John Wacher's book, though masterly in the way in which it presents the subject, also shows that there is a limit to this kind of research if it is to appear in a single volume. It is perhaps surprising that no academic body has set up a project dealing with such an important aspect of Roman Britain as its towns. But no lead has been established in urban studies of later times in Britain other than the admirable series begun with the issue of the first volume of the historic towns' atlas (Lobel 1969). It should be noted, however, that the scale of these is too small to form a useful example for Roman towns.

One point which emerges from an overview of the evidence for Roman public buildings in Britain is that to write off any particular site as not being worthy of further study is short-sighted. Similarly, the application of a sampling strategy on the grounds that enough is known of, say, fora for only confirmation to be needed before the rest of an area available for excavation is tacitly allowed to be

destroyed, will not do. Enough has been said to show that each site, strictly speaking, is true only unto itself and that it is only the sum of *all* observations which can give rise to comparative statements about the public aspect of Roman urban life.

The scope of study possible must run from the careful re-examination of sites such as Silchester where, indeed, Dr Fulford has been engaged in this, to York and Aldborough which must be in as near an unknown state as it is possible for sites to be. Work needs to be carried out according to a concerted programme and, with a more limited number of towns than medievalists have to contend with, it is not an impossible ideal. Along with the basic establishment of plans and histories, there would be a chance to confirm or discount what appears to be a qualitative change in Roman towns in the 4th century. Despite the apparent solidity of the civilization which produced the bulk of the remains, we seem to be dealing, when it comes to its last manifestations, with something which is much more recognizable as medieval in its archaeology than Roman *(pace* Reece 1980, 81-2).

Summary of a case study: Wroxeter

Of the sites which have been discussed, it is Wroxeter which seems to have been excavated to such an extent that future work might be thought unnecessary. Anyone who has dissected Atkinson's (1942) report on the early baths and forum will, however, have found many questions inadequately answered. As work in the *insula* across the road to the east progressed, the lack of good commensurate information from the forum became more obvious. The date and proper character of the pre-forum arrangements is needed to complement the growing knowledge of both fortress and early town. The date of the early baths is not well established nor how much was actually built before work was abandoned. As for the forum, the principal dating evidence is the famous inscription. In absolute terms, all that dates is itself.

A preliminary exercise on Atkinson's report to see what could be alternative plans of the two major buildings has been done and Figs 58-9 are the result. That a great deal of the baths had actually been put up (Fig 58) and that the whole was converted to a forum 'on the cheap' (Fig 59) can be argued from comparison of the styles of foundation described: an inversion of Atkinson's argument about the junction of the baths' facade wall with the 'forum' court boundary; a proper notice of the rough wall ends at the south-east and north-west corners of the forum block; and the assigning of the unfinished drain to the unfinished baths. Atkinson's view that the curved foundations belong to a second forum period can be upset, as these walls belong to an abandoned first element in the early baths. Confirmation as well as dating is needed. Apart from that, the later history of the forum is poorly understood, and there can be no doubt that the site would benefit from re-excavation, its display to the public greatly augmenting what is the most important Roman civil site available for visiting.

Figures 60-1 try to express the functioning and massing of the later public baths' *insula.* Both were done some time ago and were not assisted by the lack of a good survey of the site. Some details are definitely wrong: the *exedrae* at each end of the *natatio* should be removed and the intercolumniation of the external porticoes needs to be altered to suit the closer spacing revealed in 1982. A close study of the original published reports of the work carried out under Thomas Wright and Dr Henry Johnson provides a fresh insight into the two major rooms facing the forum. All evidence for 'workshop' activity was sealed beneath the make-up introduced for the floors of the public building.

Bibliography

Ashby, T, Hudd, A E, & Martin, A T, 1902 Excavations at Caerwent, Monmouthshire, on the site of the Romano-British city of Venta Silurum, in 1901, *Archaeologia*, **58** (1), 119–52

——, & ——. 1903 Excavations at Caerwent, Monmouthshire, on the site of the Romano-British city of Venta Silurum, in 1902, *Archaeologia*, **58** (2), 391–406

——, & ——, 1904 Excavations at Caerwent, Monmouthshire, on the site of the Romano-British city of Venta Silurum, in the years 1901–1903, *Archaeologia*, **59** (1), 87–124

——, ——, & King, F, 1909 Excavations at Caerwent, Monmouthshire, on the site of the Romano-British city of Venta Silurum, in the years 1907 and 1909, *Archaeologia*, **61** (2), 565–82

Atkinson, D, 1942 *Report on excavations at Wroxeter (the Roman city of Viroconium) in the county of Salop, 1923–1927*

Barker, P, 1975 Excavations on the site of the baths basilica at Wroxeter 1966–1974, *Britannia*, **6**, 106–17

Bidwell, P T, 1979 *The legionary bath-house and basilica and forum at Exeter*, Exeter Archaeol Rep, **1**

Boon, G C, 1974 *Silchester, the Roman town of Calleva*

Carver, M O H, Donaghey, S, & Sumpter, A B, 1978 *Riverside structures and a well in Skeldergate and buildings in Bishophill*, Archaeology of York 4/1

Collingwood, R G, & Richmond, I A, 1969 *The archaeology of Roman Britain*

Crummy, P, 1977 Colchester: the Roman fortress and the development of the colonia, *Britannia*, **8**, 65–105

——, 1980 The temples of Roman Colchester, in *Temples, churches and religion in Roman Britain* (ed Rodwell), Brit Archaeol Rep Brit Ser **77(1)**, 243–83

——, 1982a The origins of some major Romano-British towns, *Britannia*, **13**, 125–34

——, 1982b The Roman theatre at Colchester, *Britannia*, **13**, 299–302

Cunliffe, B, 1971 *Excavations at Fishbourne, 1961–1969, vol I, the site*, Rep Res Committee Soc Antiq London, **26**

Down, A, 1978 *Chichester Excavations III*

——, 1981 *Chichester Excavations V*

——, & Rule, M, 1971 *Chichester Excavations I*

Drury, P J, 1984 The temple of Claudius at Colchester reconsidered, *Britannia*, **15**, 7–50

Dunnett, B R K, 1966 Excavations on North Hill, Colchester, *Archaeol J*, **123**, 27–61

Dunning, G C, 1931 Roman Britain in 1930, *J Rom Stud*, **21**, 236–40

Eckroyd Smith, H, 1852 *Reliquiae Isurianae*

Fishwick, D, 1972 Templum divo Claudio constitutum, *Britannia*, **3**, 164–81

Fox, A, 1952 *Roman Exeter, (Isca Dumnoniorum), excavations in the war-damaged areas, 1945–7*

Fox, G E, & St John Hope, W H, 1893 Excavations on the site of the Roman city at Silchester, Hants, in 1892, *Archaeologia*, **53** (2), 540–73

——, 1894 Excavations on the site of the Roman city at Silchester, Hants, in 1893, *Archaeologia*, **54** (1), 199–238

Frere, S S, 1971 The forum and baths at Caistor-by-Norwich, *Britannia*, **2**, 1–26

——, 1974 *Britannia, a history of Roman Britain*

——, 1976 The Silchester church: the excavations by Sir Ian Richmond in 1961, *Archaeologia*, **105**, 277–302

——, 1977 Roman Britain in 1976, I. sites explored. *Britannia*, **8**, 356–425

——, 1983a *Verulamium Excavations, Vol. II*, Rep Res Committee Antiq London, **41**

——, 1983b Roman Britain in 1982, I. sites explored, *Britannia*, **14**, 280–335

——, 1984a British urban defences in earthwork, *Britannia*, **15**, 63–74

——, 1984b Roman Britain in 1983, I. sites explored, *Britannia*, **15**, 266–332

Fulford, M, 1979 Pottery production and trade at the end of Roman Britain: the case against continuity, *The end of Roman Britain* (ed P J Casey), Brit Archaeol Rep Brit Ser, **71**, 1979, 120–32

Goodburn, R, 1978 Roman Britain in 1977, I. sites explored, *Britannia*, **9**, 403–72

——, 1979 Roman Britain in 1978, I. sites explored, *Britannia*, **10**, 268–338

Grew, F O, 1980 Roman Britain in 1979, I. sites explored, *Britannia*, **11**, 346–402

——, 1981 Roman Britain in 1980, I. sites explored, *Britannia*, **12**, 314–68

Haverfield, F, 1920 Roman Cirencester, *Archaeologia*, **69**, 161–209

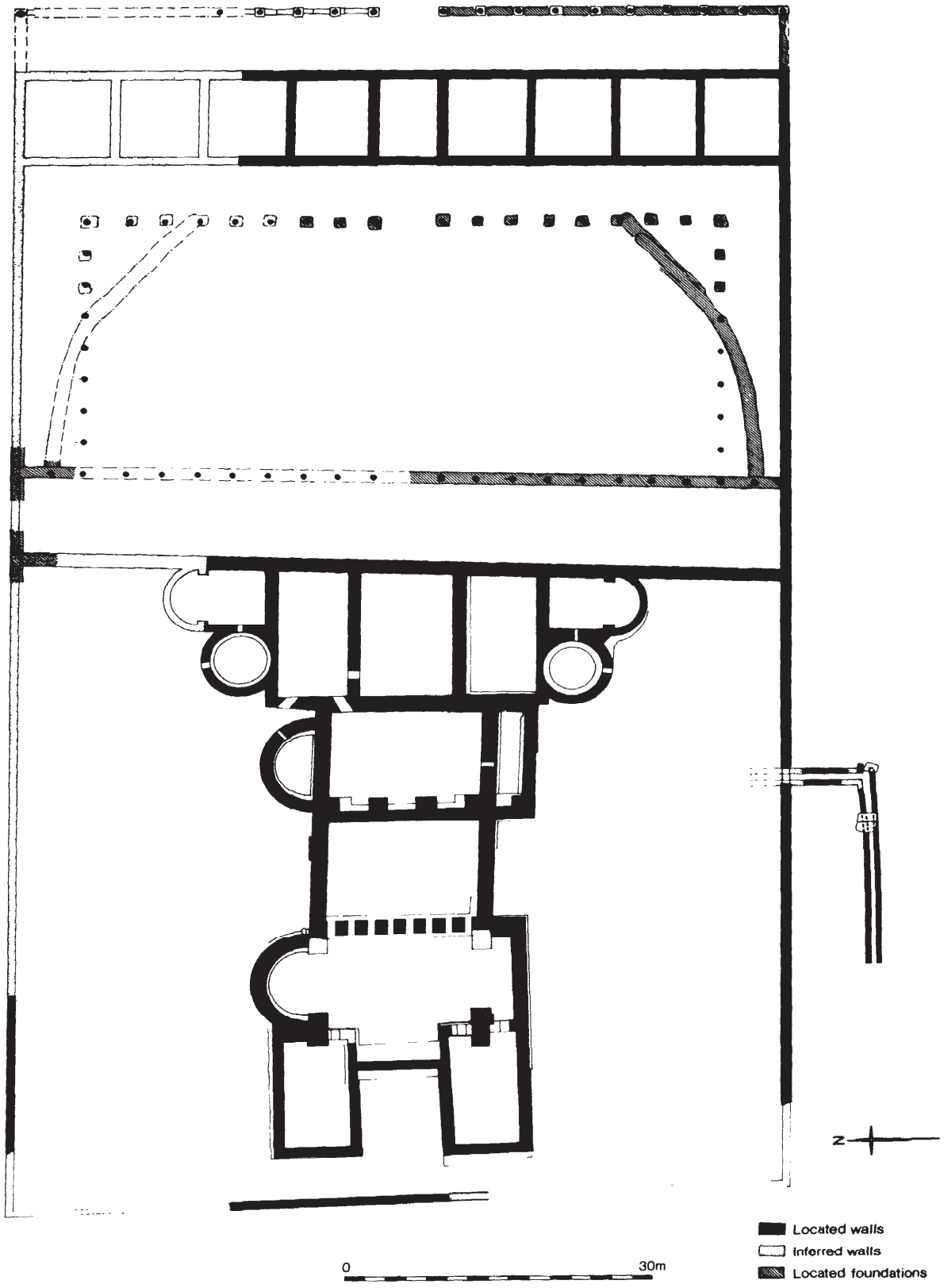


Fig 58 Restored plan of early baths, Wroxeter. For the position of the early baths insula, see Fig 17. The baths were replaced by the forum reconstructed in Fig 59

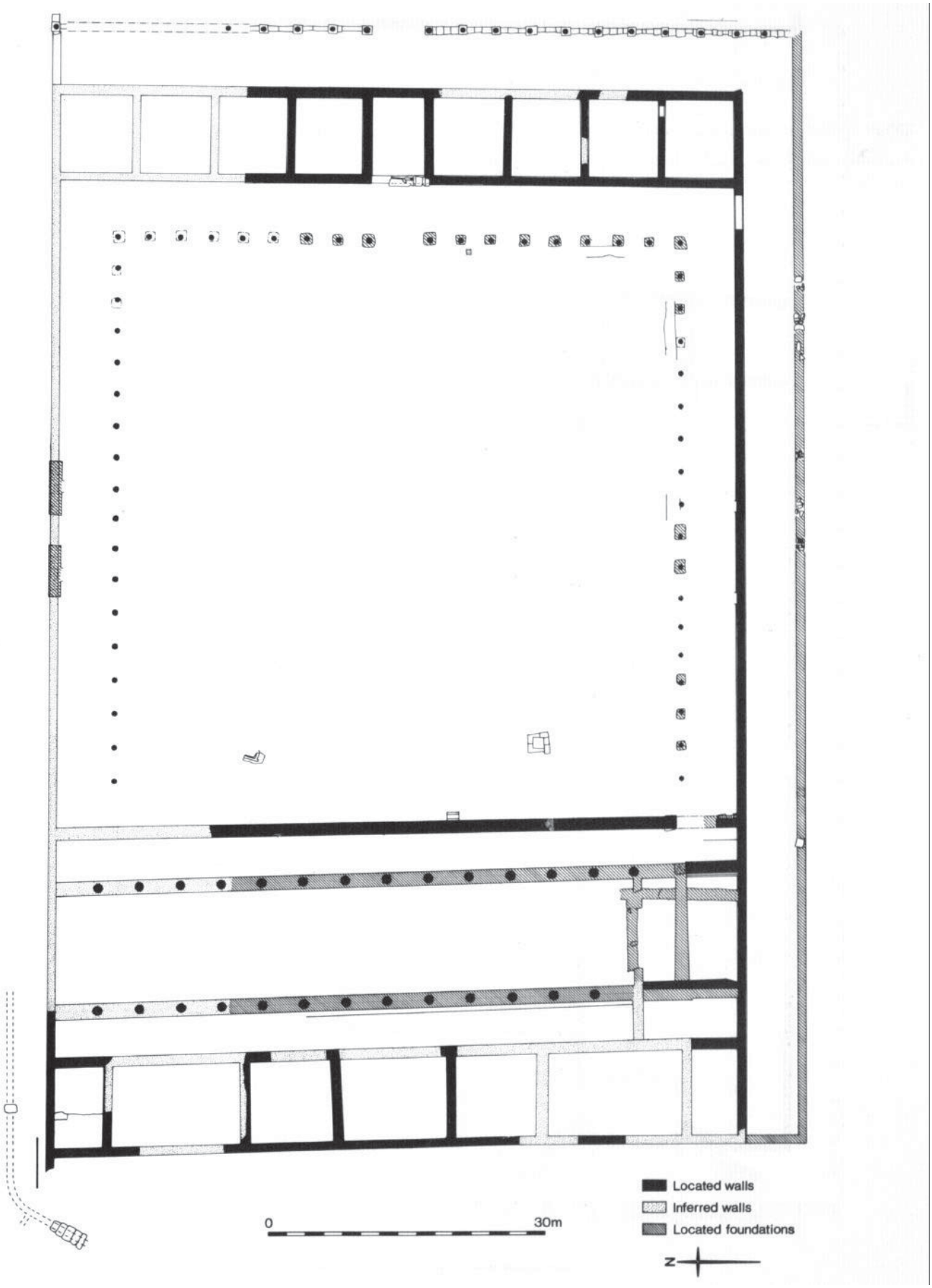


Fig 59 Restored plan of forum, Wroxeter. For the position of the forum insula, see Fig 17

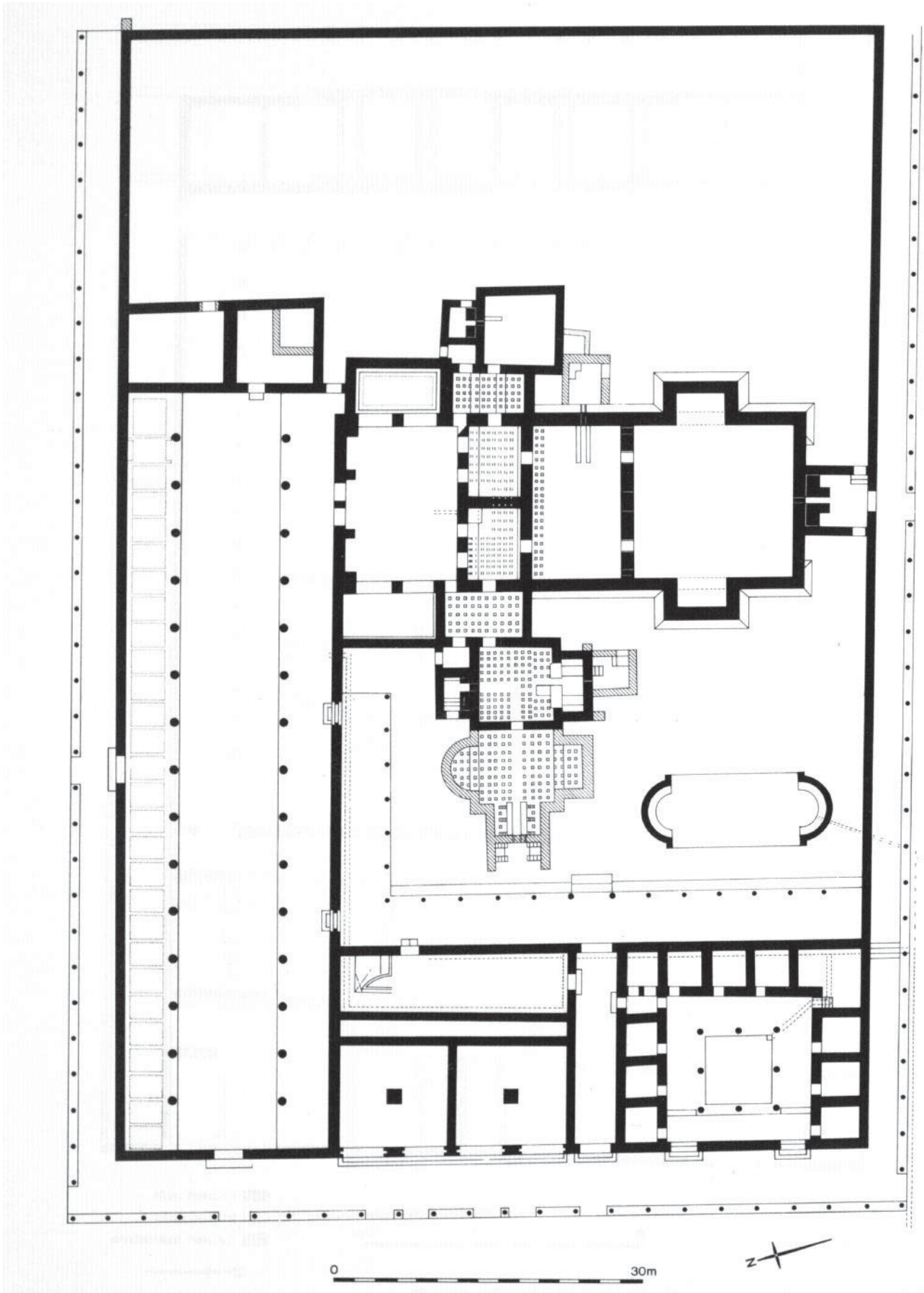


Fig 60 Restored plan of the baths insula, Wroxeter. This insula lay across the street from that shown in Figs 58-9; for position, see Fig 17. For sections through this insula, see Fig 61

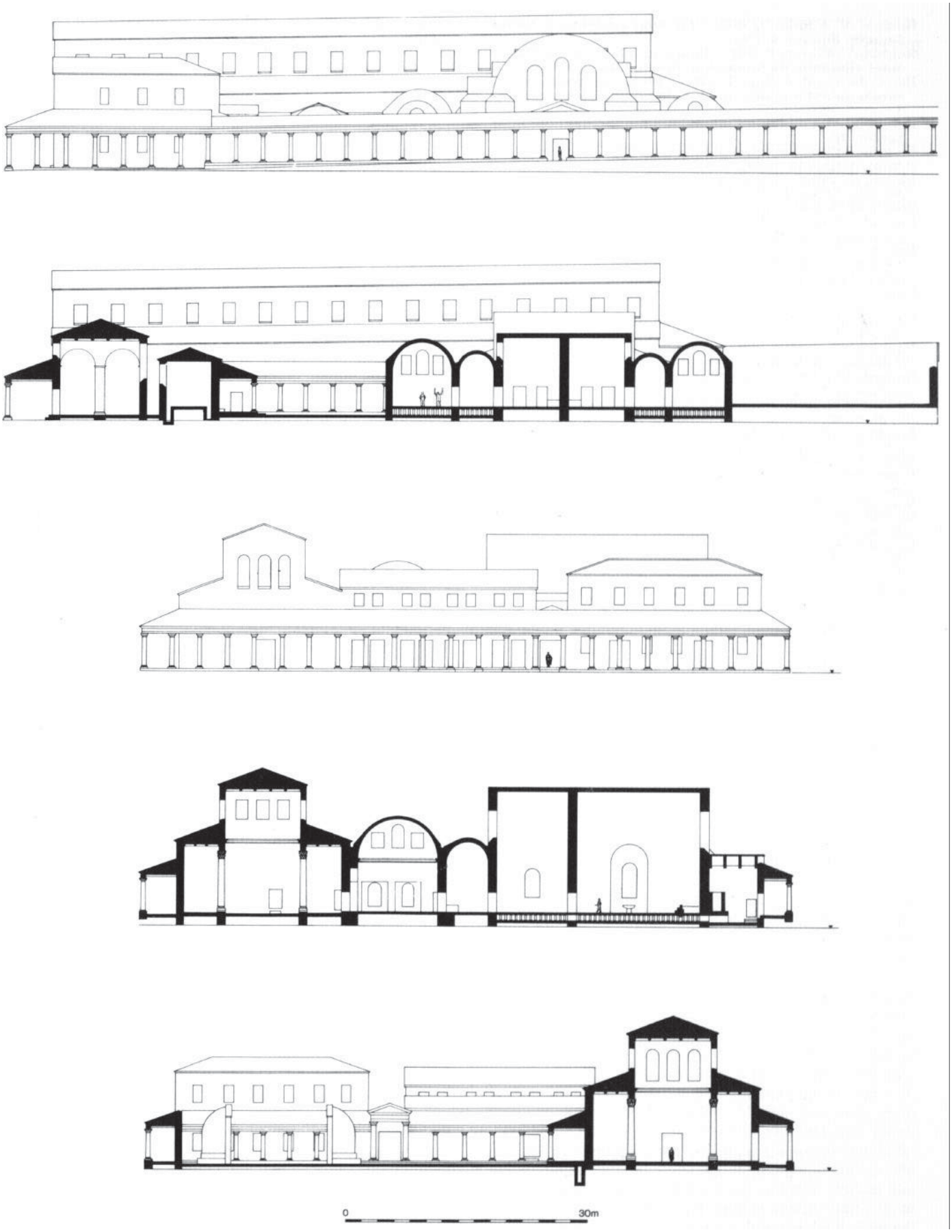


Fig 61 Sections through and elevations of restored baths insula, Wroxeter: from top to bottom, the south elevation; west-east section through the middle; west elevation; north-south section through the baths; and north-south section through the middle of the complex

Hebditch, M, & Mellor, J, 1973 The forum and basilica of Roman Leicester, *Britannia*, **4**, 1–83
Heighway, C, & Garrod, P, 1980 Excavations at Nos. 1 and 30 Westgate Street, Gloucester: the Roman levels, *Britannia*, **11**, 73–114
Hill, C, Millett, M, & Blagg, T, 1980 *The Roman riverside wall and monumental arch in London*, London Middlesex Archaeol Soc, Spec Pap 3
Hull, M R, 1958 *Roman Colchester*, Rep Res Committee Soc Antiq London, **20**
Hurst, H, 1972 Excavations at Gloucester, 1968–1971: first interim report, *Antiq J*, **52**, 24–69
Johnson, H, 1868 Excavations undertaken at Wroxeter in 1867, *Proc Soc Antiq London*, **4**, 28, 54–9
Jones, A H M, 1964 *The later Roman Empire, 284–602*
Jones, M J, & Gilmour, B J J, 1980 Lincoln, *principia* and forum: a preliminary report, *Britannia*, **11**, 61–72
Kenyon, K M, 1948 *Excavations at the Jewry Wall site, Leicester*, Rep Res Committee Soc Antiq London, **15**
Leach, P, 1982 *Ilchester, Volume I, Excavations 1974–75*
Lobel, M D (ed), 1969 *Historic towns, maps and plans of towns and cities in the British Isles, with historical commentaries from earliest times to 1800*
Lowther, A W G, 1937 Report on excavations at Verulamium in 1934, *Antiq J*, **17**, 28–55
Macdonald, W T, 1965 *The architecture of the Roman Empire I*, Yale Publications in the History of Art, **17**
Mackreth, D., 1984 Castor, *Durobrivae, a review of Nene Valley archaeology*, **9**, 22–5
McWhirr, A D, 1978 Cirencester, 1973–6: tenth interim report, *Antiq J*, **58**, 61–80
Marsden, P, 1975 The excavation of a Roman palace site in London, 1961–72, *Trans London Middlesex Archaeol Soc*, **26**, 1–102
Martin, A T, & Ashby, T, 1901 Excavations at Caerwent, Monmouthshire, on the site of the Romano-British city of Venta Silurum, in 1899 and 1900. *Archaeologia*, **57** (2), 295–316
Merrifield, R, 1965 *The Roman city of London*
Nash-Williams, V E, 1930 Further excavations at Caerwent, Monmouthshire, 1923–5, *Archaeologia*, **80**, 229–88
Philp, B J, 1977 The forum of Roman London: excavations of 1968–9. *Britannia*, **8**, 1–64
Rankov, N B, 1982 Roman Britain 1981, I, sites explored, *Britannia*, **13**, 328–95
Reece, R, 1980 Town and country: the end of Roman Britain, *World Archaeol*, **12.1**, 77–92
RIB, 1965 *The Roman inscriptions of Britain. I. Inscriptions on stone* (eds R G Collingwood & R P Wright)
Richardson, K M, 1944 Report on excavations at Verulamium: Insula XVII, 1938, *Archaeology*, **90**, 81–126
Roman Town Baths *Wollaston House, Dorchester, Roman Town baths*, Dorchester, nd
RCHM 1962 *An inventory of the historical monuments in the city of York, Volume I, Eburacum, Roman York*, Royal Commission on Historical Monuments
St John Hope, W H, & Fox, G E, 1905 Excavations on the site of the Roman city at Silchester, Hants. in 1903 and 1904, *Archaeologia*, **59** (2), 333–70
Sherwin-White, A N, 1966 *The letters of Pliny, a historical and social commentary*
Strickland, T J, 1984 *Roman Chester*
——, & Davey, P J, 1978 *New evidence for Roman Chester*
Taylor, M V, 1958 Roman Britain in 1957, I. sites explored, *J Rom Stud*, **68**, 130–49
——, 1959 Roman Britain in 1958, I. sites explored, *J Rom Stud*, **49**, 102–35
Thomas, C, 1981 *Christianity in Roman Britain*
Thompson, F H, 1956 Roman Lincoln 1953, *J Rom Stud*, **46**, 22–36
Wacher, J S, 1962 Cirencester, 1961, second interim report, *Antiq J*, **42**, 63–71
——, 1954 Cirencester, 1963, fourth interim report, *Antiq J*, **44**, 9–18
——, 1975 *The towns of Roman Britain*
Wheeler, R E M, & Wheeler, T V, 1936 *Verulamium a Belgic and two Roman cities*, Rep Res Committee Soc Antiq London, **11**
Wilson, D R, 1970 Roman Britain in 1969, I. sites explored, *Britannia*, **1**, 269–305
——, 1975 Roman Britain in 1974, I. sites explored, *Britannia*, **6**, 221–83
Wright, T, 1872 *Uriconium: an historical account of the ancient Roman city and of the excavations made upon its site at Wroxeter in Shropshire*

10 Domestic buildings in Romano-British towns

D Perring

Domestic architecture has been a comparatively neglected aspect of Roman archaeology. This is in part because such buildings form so large a part of the record that their particular importance is overlooked but is also a sad consequence of the mistaken equation of unimpressive with unimportant. The study of Roman buildings has remained largely under the shadow of the grandeur that was Rome, save in the northern provinces where interest has instead concentrated on military history and architecture. In even the more recent studies it has been possible to approach domestic buildings from the viewpoint of Vitruvius with illustrations drawn from the houses of Pompeii and the large villa estates, where only the remains of Ostia and the brief passing reference to 'strip buildings' serve to provide serious contrast (as in McKay 1975 and Sear 1982).

Sadly there is no alternative general study which treats the different trends in the vernacular architecture of the empire in the sort of detail required to provide a useful context for the discoveries within British towns. Individual excavation reports too often hurry through the presentation of structural information in order to dwell on the evidence of the finds, with the consequence that subtle but important details of construction technique are not made clear. A further problem is posed by the very nature of urban rescue archaeology (occasionally compounded by poor strategic planning) which produces so many fragmentary and largely unintelligible scraps of buildings but so few complete or well preserved examples. Notwithstanding these problems, the shops and houses of Romano-British towns have received an increasing amount of attention in recent years. Of major importance was Frere's publication (in 1972) of the first of the detailed reports on his excavations in Verulamium, excavations (with those reported on in the second volume, published in 1983) which provide a detailed picture of the general development of a town's domestic architecture.

Here the archaeological evidence will be reviewed with reference to buildings as an aspect of urban settlement. Despite some discussion of building technique this is not intended to be a contribution to the study of vernacular architecture. It would be foolish to attempt such from the evidence found in towns alone, and questions of structural reconstruction or building practice are therefore not dealt with. In this paper the value of domestic buildings to the study of urban settlement is considered to lie principally in the following areas:

1 Domestic buildings are generally more responsive to, and better reflect the changing fortunes of a town and its inhabitants than public buildings and works; they can be examined collectively as an indication of urban prosperity or individually to measure the expressed wealth of the urban population.

2 Buildings are artefacts, and although the complex process involved in the planning, erection and decoration of domestic buildings often makes classification difficult, they can be subject to typological analysis, from which conclusions can be drawn as to the cultural and perhaps social background of their makers.

3 The arrangement of space within and around a building reflects not only functional requirements but also the social structure and lifestyle of its inhabitants, which has implications for the economic and social basis of life in the settlement as a whole.

4 The relationship between domestic buildings and public services can be a measure of the degree and effectiveness of civic organization.

Early developments

Recent studies have given much attention to the role that the army may have had in the building of the first houses. Within the *coloniae* there is strong evidence that the early civilian buildings followed, at least in some respects, the plans of the legionary barrack blocks which had preceded them (as at Gloucester, Hurst 1972, 66-7), or might even have been inherited intact from the military base (as is argued for buildings found in Colchester, Crummy 1984, 9-10). This style of building allowed for a fast and inexpensive civilian settlement, although the buildings also illustrate the surprisingly modest nature of the accommodation available to the 1st century veteran colonist. This direct re-utilization of elements from the military establishment renders largely meaningless any attempt to identify particular influences in the early civilian architecture of these *coloniae.*

The evidence argued by Frere (1972, 10-11) to demonstrate a military influence in the design of the first buildings in *insulu* XIV at Verulamium is perhaps more significant. The plan of a row of shops roofed as a single unit (Fig 62) was said to recall that of a barrack block, a resemblance perhaps exaggerated by projected and conjectured wall lines; but this need be no more than a reflection of the normally utilitarian aspect of both types of structure. Rows of single or two-roomed shops are a feature of many Roman town centres and as a building type is more likely to have been derived from publicly built market centres (such as those in fora and *macella).* The suggestion by Frere that army stockpiles had supplied the timber for this building is not supported by archaeological evidence; indeed the probability is that the army normally used locally available timber as needed and had no timber stockyards (Hanson 1978, 293-305), and his identification (Frere 1977, 92-3) of the use of a unit of measure with potential military association (the *pes Drusianus* or northern foot of 333mm rather than the more standard *pes monetalis* of 296mm) in the layout of these buildings has not stood up to statistical analysis (Millett 1982, 315-20). The case for a military involvement rests principally on the evidence of wall construction technique. In the Verulamium shops the walls were of timber uprights set over and morticed into timber ground beams with an infill of clay daubed around vertically woven wattle panels. Although closely paralleled in the fort at Valkenburg (Glasbergen 1972) it is now evident that this technique was also widely used in civilian contexts, as for instance in Lyons where wattle-and-daub internal

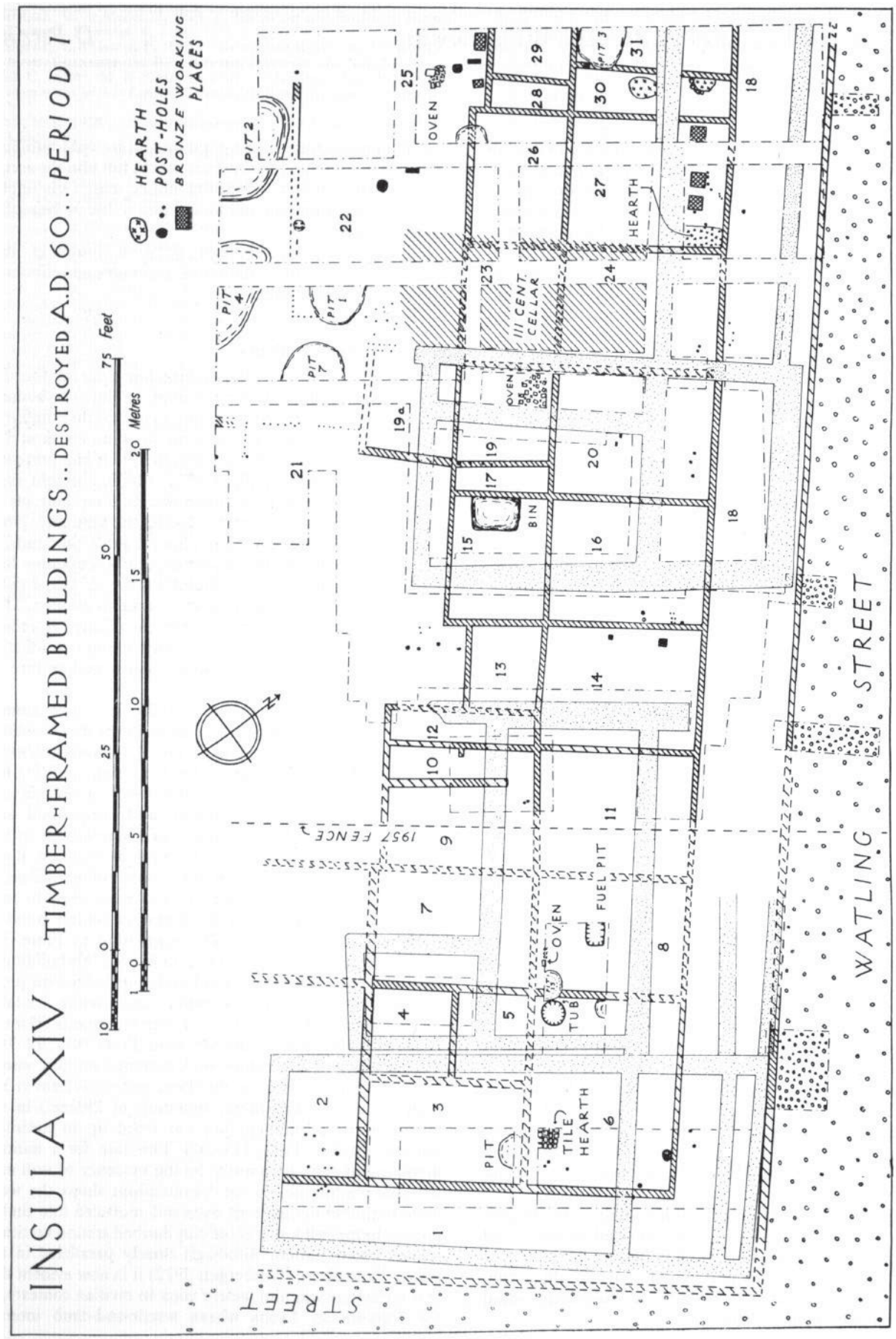


Fig 62 Period I (Claudian) shops in Insula XIV, Verulamium (Frere 1972, fig 8)



Fig 63 Collapsed dried brick walling from a late 1st-early 2nd century strip building at the GPO Newgate Street site, London (Museum of London)

partitions were in use from the late 1st century BC (Desbatz 1981, 55-81).

There is no style of building which can be recognized as particularly military and consequently it is not possible to identify specifically military elements in the early domestic architecture of Romano-British towns. Nonetheless the Roman soldier (in service or as a veteran colonist) remains one of the more probable mechanisms whereby Roman building styles were introduced to Britain. Since the details of construction and design in clay and timber buildings can vary considerably there is some possibility that it will eventually be possible to identify influences from particular areas within the Roman empire. At present, however, the decorative elements, such as wall paintings and mosaics, are of greater value in suggesting such influences since there is a larger body of published evidence.

The extent to which pre-Roman Iron Age traditions were incorporated into the domestic architecture of the early towns is a further problem worthy of consideration. A small number of round houses have been found in 1st century suburban or peripheral areas, as in London (Sheldon 1974, 10-12), and Lincoln (Jones 1981,86-7), and clearly indicate native settlement. The problem is greater with some of the simple rectangular buildings which can be parallelled by both Roman and Belgic examples (see Frere 1983, 102-5 and Partridge 1981, 31-52). In the western suburb of London the introduction of more Romanized building practice was apparently marked by a change from horizontal to vertical in the weave of the wattles in the daubed walls (Perring & Roskams, forthcoming), and it is probable that vertically woven wattling is an indication of Romanized construction. Horizontal weave has, however, been found in contexts which illustrate its use by the Roman army, as in the fort at Vindolanda (Birley 1977, 110-17, pls 52-5), and is not necessarily an indication of the survival of pre-Roman traditions.

Almost all of the early (pre-Flavian) domestic buildings were timber-built. The more generally favoured, and simplest, timber buildings were those with earth-fast posts, although timber ground beams, as those used in the Verulamium shops described above, were employed with increasing frequency as the 1st century progressed. The infill was usually of wattle-and-daub, as described above, although in some buildings unbaked bricks (as in London, Perring & Roskams, forthcoming; Fig 63), or in at least one 3rd century example dry-laid stone (Fig 64; Cirencester, McWhirr 1978, 73-7), was used between the timbers. In Carlisle walls made of planks laid horizontally on edge have also been found in an exceptionally well preserved group of buildings, which are also of interest for the range of wattle-and-daub constructions they displayed (McCarthy & Dacre 1983, 124-30). In Colchester (Crummy 1984, 9-10) and London (Perring & Roskams, forthcoming) walls of clay blocks (adobe) set over gravel or masonry plinths and without timber supports) have been noted, and represent a more sophisticated building type closely parallelled in Lyons (Desbatz 1981, 55-81). However, the general picture, supported by the apparent absence of many-roomed houses



Fig 64 Collapsed Stone and tile infilled partition from a 3rd century shop in Cirencester (J Wilson)

with complex plans, suggests that the houses were built as simply and cheaply as possible. The building techniques employed would also have allowed for very rapid construction. It should be noted, however, that this picture may be distorted by the frequently incomplete investigation of the earliest levels in towns. Buildings of quite complex organization could easily elude identification in the small trenches often hurriedly cut from the surfaces of more fully excavated later Roman houses.

Progressive improvements in the buildings most probably reflect an increase in urban investment during the late 1st and 2nd centuries. Structurally this is illustrated by the increased use of clay walls without timber supports ('cob' walling) and the more frequent relegation of timber and wattle work to internal partitions and outhouses. Timber and earth-walled constructions are not to be despised. In certain regions and at certain times these materials were used in buildings which otherwise displayed, through form and decoration, considerable sophistication. In Colchester where suitable building stone was scarce, sophisticated clay-walled houses continued to be built into the 4th century (Crummy 1984, 23). The mechanisms for the exploitation of stone, and indeed the fashion for its use, would have taken some time to develop in the new province and most of the craftsmen available to work on private building projects would have been more familiar with timber and clay construction techniques.

The form of the buildings also illustrates the increasing prosperity of the towns. At Verulamium shops previously occupied by tenants were bought up by their occupiers, a feature evident from the creation of separate properties out of the previously communally roofed block of shops in *insula* XIV (Frere 1972, 12-13). In London increasing social ambitions are illustrated by the inclusion in the late Flavian period of reception quarters (Fig 65), where previously the strip buildings had seemed entirely functional in character (Perring & Roskams, forthcoming). The standard plan of these more developed strip buildings, which can be paralleled in a number of examples from later towns, consisted of a shop frontage with a large workshop behind and a small number of living rooms to the rear. The inclusion of comparatively well decorated living or dining rooms towards the back of commercial strip buildings was a common feature from the 2nd century onwards. It is also interesting to note that a block of three identically arranged and appointed rooms were added onto the back of one of the London strip buildings. These rooms were probably bedrooms but apparently had no direct communication with the main part of the building. This unusual arrangement could perhaps illustrate the added provision of rooms for rent at a period when the town was at its busiest and most crowded.

In addition to this evidence for commercial prosperity it is possible to demonstrate the presence in London-but perhaps in London alone-of a wealthy urban elite. This is on the basis of a small number of many-roomed, clay-walled buildings with a proportionally high number of rooms decorated with painted wall plaster and mosaics (Fig 66). Sadly, the full plans of these buildings were not established



Fig 65 Late late-early 2nd century strip buildings from the Newgate Street site in the western suburb *of Roman London (Perring & Roskams forthcoming)*

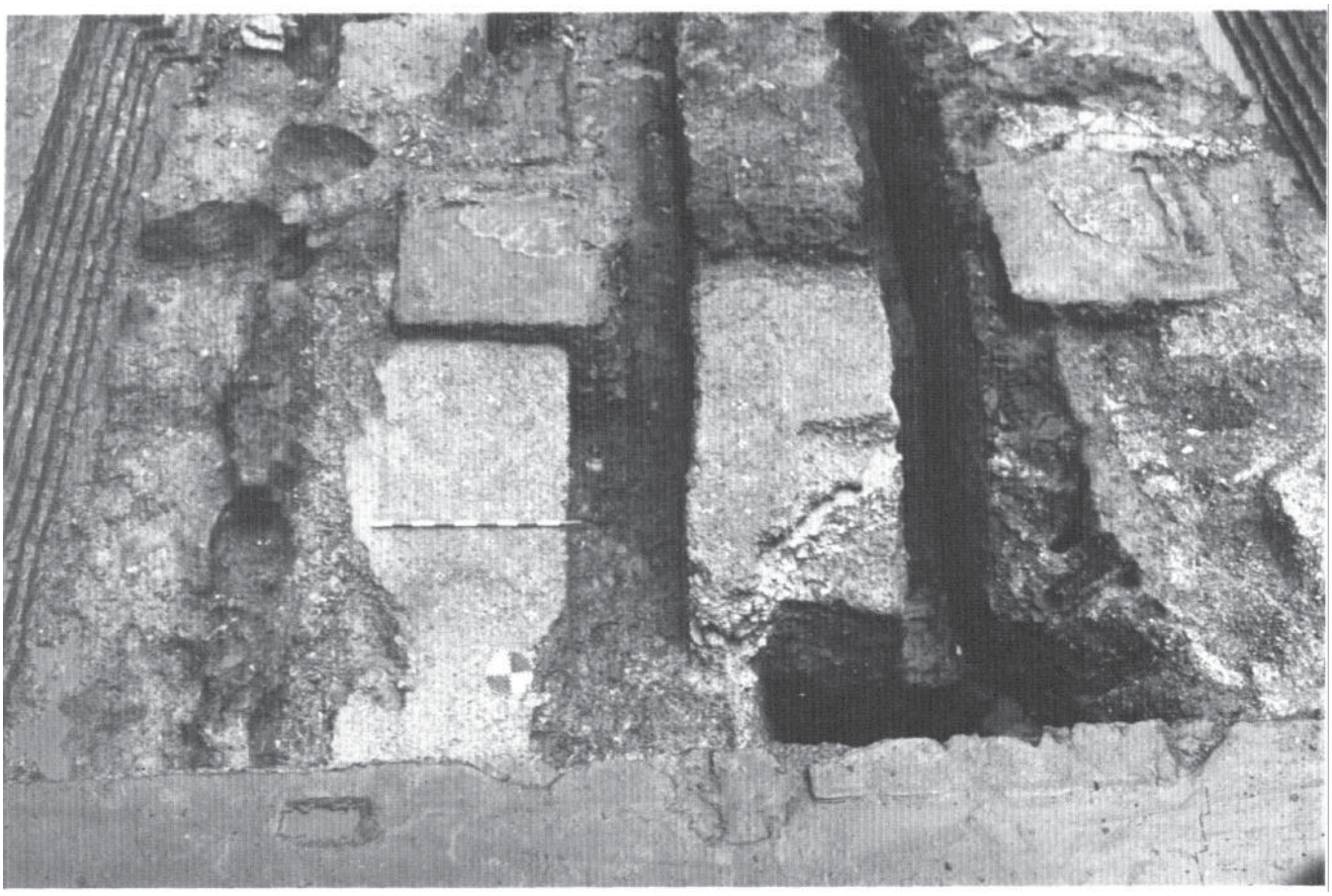


Fig 66 Opus signinum and mosaic flooring within a Flavian building, Watling, Court site, London (perring & Roskams *forthcoming)*

and it is consequently difficult to establish the architectural tradition from which they had been developed, although a group of mosaic pavements from one of these buildings have been argued to imply the presence of Italian mosaicists, if not also Italian clients (Smith in Perring & Roskams, forthcoming).

Later Roman town houses

A number of important changes in the urban character are witnessed by developments in domestic architecture during the 2nd century. The houses, as referred to above, not only illustrate the increasing success of the towns but also indicate that this success was based principally on commerce. Frere writing about Verulamium (1983, 16) comments that, 'In the period before the Antonine fire we get the impression of bursting energy, and quickly increasing rewards for commercial activity'. A high premium was placed on frontage space and in the thriving centres of the south-east and main streets were crowded by houses. A study of the frontages would most probably illustrate a progressive reduction in average property width up until the early part of the 2nd century. The predominance of functional and working areas over living and reception space also shows the bias towards earning money rather than spending it. Towards the middle of the 2nd century delays in redevelopment in Verulamium (Frere 1983, 14) and reductions in the settled area in London (Marsden 1980, 109-17) indicate periods of economic contraction if not decline for these particular settlements, but the evidence of the houses themselves leaves little doubt that even in these towns the urban population continued to be increasingly able and willing to display their wealth.

The later houses seem to represent a population more concerned with spending money than making it. The merging of adjacent shops in rebuilding programmes, as seen in later Roman Caerwent (Ashby et *al* 1911, 427-34) and Cirencester (Wacher 1975, 310), where certain shop owners had presumably bought out their neighbours, is probably as much a sign of the declining value of commercial property as it is of the increased wealth of the shopkeepers that remained. Generally the pressure on frontage space seems much reduced with large town houses occupying the land where once two or three strip buildings had stood.

Stone was apparently much more widely used in domestic architecture, although it is not always clear whether the masonry foundations excavated had really supported masonry superstructures. The use of stone was not restricted to the large town houses referred to above. In Caerwent, for instance, the walls of the smaller shops were apparently built in similar fashion to the town's more imposing houses (Ashby *et al* 1911,427-34). The increasing preference for masonry construction should not be seen as an expression only of wealth, although clearly its use in towns without a ready supply of stone would have represented a considerable investment. Building in stone illustrates

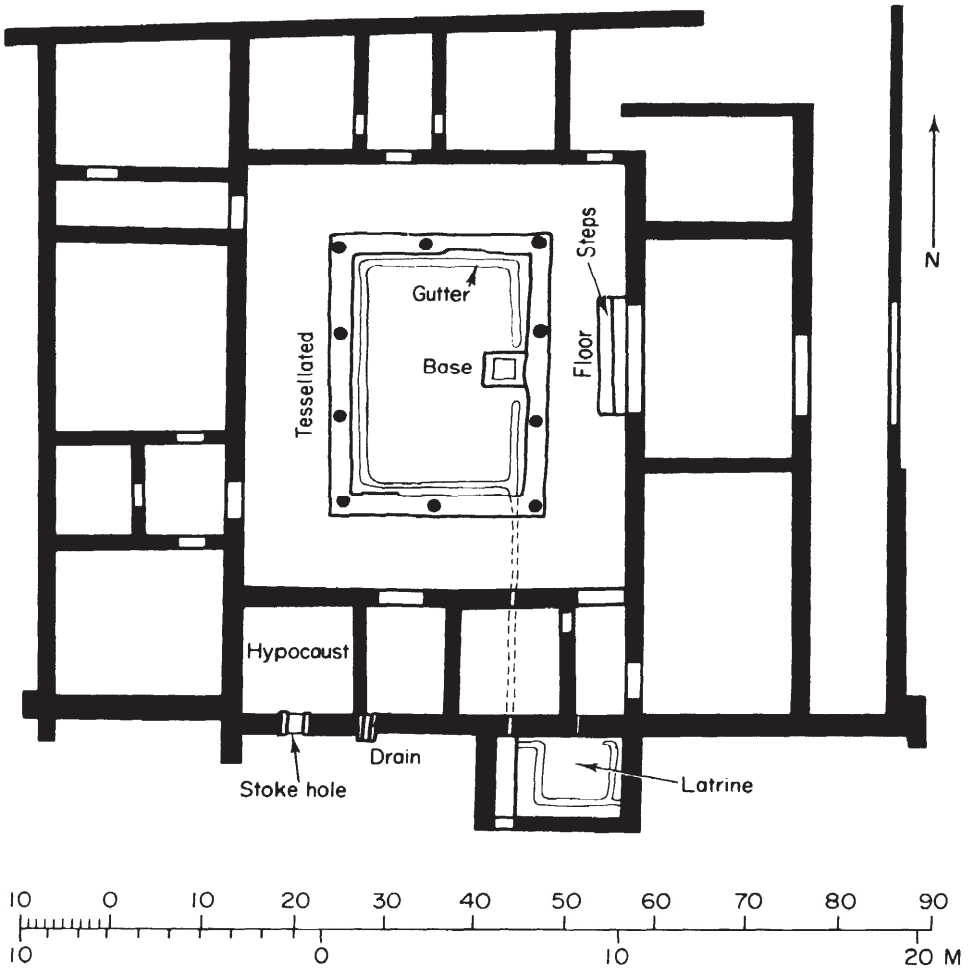


Fig 67 House III S, Caerwent, illustrating in its west wing examples of two of the more frequently identified room-sets (Wacher 1975, fig 83)

a changed attitude to town life, a degree of permanence and confidence not represented by the earlier buildings.

The most significant element of the change in the nature of the housing of the mid-2nd century was the introduction, especially into the tribal capitals, of many-roomed buildings laid out around two or more sides of a yard (Fig 67), or with end rooms projecting from the ends of blocks fronted by a corridor. Such buildings were also richly decorated with mosaic floors and painted wall plaster. Walthew (1975, 189-205) concluded that these plans derived from those of earlier villas and that therefore the buildings illustrated that the wealthier land-based Britons who had previously lived and invested in their country estates had at last been attracted into the towns.

The architecture of these later town houses generally illustrates progressive improvements with the addition of further blocks of rooms to convert winged houses into three-sided or courtyard buildings and the increasing provision of hypocaust floors and private bath blocks. It is a common feature of most Romano-British towns that their largest and most opulent houses were those of the 4th century.

Excavations conducted in Caerwent and Silchester during the first decades of this century uncovered the complete plans of a large number of stone-founded houses, so that it is possible to attempt a study of their building form, although the unsystematic nature of the excavations limits the extent to which firm conclusions can be drawn. It cannot be doubted that there would have been certain standard elements in Romano-British social organization and that these should find some reflection in the architecture employed in their domestic buildings.

In a study of the plans of villas and *mansiones* repeated sets of rooms have been identified (Drury 1982, 289-308), a matter of some relevance here since the plans of town houses are likely to have been derived from villas. It is indeed possible to identify similar groupings of rooms in the town houses (although these suggest an important modification to the sets proposed by Drury). The most basic and frequently recognizable group consisted of two small rooms, across the width of the range, flanked by two larger rooms (a set illustrated by the southern four rooms in the western wing of Caerwent House IIIs, Fig 67), an arrangement recognized

by Boon to have been used in the winged and courtyard buildings of Silchester (1974, 138-44). Entrance into this set of rooms was usually from one of the two small rooms which would have served as a sort of lobby with doorways leading on into the other three rooms. The two larger rooms were in most instances well decorated and must have been reception rooms. The function of the second small room is not clear but its size and more utilitarian appearance might suggest it to have been a bedroom, although an interesting reconstruction of the group (Ward 1911, 146, fig 42) has this room as a stairwell.

Several buildings in Caerwent consist principally of this single group of rooms with a corridor and one or two individual rooms (? service rooms) added against one flank (best illustrated by house XIVs but see also IIn, VIs, XVIIn and the detached south wing of VIIIn (Ashby *et al* 1911, 420, pl 40). In more complex buildings this set was often accompanied by another group which consisted of two rooms: a narrow corridor-like room and a large rectangular one. In a number of instances the two sets were united to form the wing of a building. The standard plan is illustrated by the west wing of House IIIs at Caerwent (Fig 67; see also rooms 28 to 33 in Caerwent House vi, S, Ashby *et al 1902,* pl 8). This arrangement can be found in numerous other buildings, note particularly the plan of the villa at Ditchley, Oxon (Radford 1936, 24-69) which is a mirror image of the Caerwent example noted above.

The presence of such suites of rooms has interesting implications for the organization of the Romano-British household. The small buildings from Caerwent illustrate that the four-room group could function in isolation (note also the north wing of Silchester House xxiii, 2, Fox and St John Hope 1901, pl 30). It seems most probable that here we see the sleeping and reception quarters of a single person. For those who had little time or desire to live in town but needed to conduct occasional business there or were socially obliged to make the odd visit, a small *pied-à-terre* containing just these rooms (and a side room or two for essential service activities) would have sufficed. The very presence of such buildings seems to bear witness to a highly Romanized society in which the patron was as much duty-bound to receive as the client was to attend.

In some of the larger houses this suite of rooms was so arranged that one of the two larger reception rooms lay at the centre of the main wing of the building (as at Silchester House VIII, 1, Fox & St John Hope 1894, pl 17, and see Drury 1982, fig 14.5 for comparative arrangements in Romano-British villas). This room is likely to have been a dining room (Walthew 1975, 201-2), while in others the entrance arrangements had been designed to lead the visitor to the lobby-like room of the suite (as Silchester House XXIV, 2, Fox & St John Hope 1901, pl 30). In some of the very largest establishments this set of rooms had been relegated to one of the side wings or dispensed with altogether, and a completely separate group of more lavishly decorated reception rooms, usually arranged around a single large room, added-an ostentation presumably reflecting social standing. A few houses had more than one of the four-roomed reception groups, as Verulamium House 27, 2 (Frere 1983, fig 82, rooms 3, 6, 7 and 8 and rooms 16-19), and in these it seems likely that more than one person within the building was of a status to receive visitors privately.

Efforts to reconstruct a detailed picture of a household through the remains of a building and its associated features and finds are severely limited by the fact that only the ground floor can be studied. While it seems probable that upper floors were a rarity (although see Neal 1982, 153-71) and that reception rooms would in any case have been situated on the ground floor, lofts or mezzanines could have provided sleeping and storage space. This renders largely meaningless estimates of household size and composition based on attempts to identify and count bedrooms.

Buildings within their urban context

In the above section houses have been considered with little regard to their context. A major value of the study of buildings is, however, the information they can yield about the organization of the settlements within which they were placed. Houses in Verulamium (Frere 1983, 29) and London (Perring & Roskams, forthcoming) illustrate that property boundaries were maintained with some care. In several instances these boundaries were re-established after demolition or destruction had obliterated all trace of earlier buildings, with the implication that detailed records must have been kept. The introduction, interruption or abandonment of maintained boundaries is in many respects a more important indicator of the strength of civic authority than the mere presence or absence of occupation. Another key element is the relationship between house and street. Instances of building encroachment are rare and there are only a few examples where street repair seems likely to have been left in the care of adjacent householders (as indicated by coordinated house rebuilding and street resurfacing). Beyond the apportionment of land and the organization and regulation of access, public involvement in private property was minimal. The study of other service elements, such as water supply, drainage, and rubbish disposal can illustrate the exercise of a certain degree of civic responsibility by private householders, but the extent to which this had been regulated by the community cannot normally be established from the archaeological evidence.

Generalized changes in the character of occupation within Romano-British towns have already been referred to, but a further important topic is the extent to which domestic buildings illustrate dissimilarities in the character of occupation within the different parts of a town and from one settlement to another. Where complete, or near complete town plans exist, quantitative techniques can be employed. Buildings can be compared according to the evidence of their plans, and the comparative incidence of complex plan forms (defined by type) and multi-roomed buildings (defined by numbers of rooms) charted. Building density and pressure on frontage space can be similarly quantified. Pieces of evidence likely to represent functional differences can be compared in even those towns where complete building plans are rare, provided an adequate and representative sample exists. Room sizes and proportions can be contrasted, square yardage of differing types of floor preparation compared, occurrence of different types of hearth and oven recorded, and the distribution of a whole range of loose finds (coins, mortaria, industrial wastes, etc) plotted. From such information it should be possible to distinguish commercial, industrial and residential activities, and from this the different character and status of different areas (see Raper 1977, for a quantitative study of the evidence for land use in Pompeii).

Some general directions for future research

At present the study of Roman domestic buildings is perhaps best served not by further excavation but by the systematic analysis of the information currently available. Buildings need to be accorded the same sort of attention that other artefacts normally receive. The evidence exists, and the means of quantification and classification are determinable, thus allowing the identification of chronological, regional and functional differences. Such studies are neither particularly British nor urban, and should embrace more generally the evidence for the development of vernacular architecture throughout the Roman empire. In this way particular problems and areas of ignorance should emerge far more clearly than they can from a review such as this. For the purposes of excavation within particular towns it is somewhat difficult to devise a strategy for the investigation of domestic buildings independently of the examination of the settlement as a whole. The study of buildings is clearly benefited by the detailed excavation of complete, well dated examples, and the resources invested in a number of small excavations would often be better reserved for fewer and larger sites. The standard of preservation is also evidently important. The information gained from above-ground survival, rather than foundations alone, is immense, allowing as it does for the identification of doorways, rooms with decorated walls, etc. Further important areas of information are provided through the examination of the relationship between buildings and service elements, and by the distribution of finds through a building and adjacent area.

Bibliography

Ashby, T, *et al* 1902 Excavations at Caerwent, Monmouthshire, on the site of the Romano-British city of Venta Silurium, in 1901, *Archaeologia*, **58,** 119–52

–, *et al* 1911 Excavations at Caerwent, Monmouthshire, on the site of the Romano-British city of Venta Silurium, in the years 1909 and 1910, *Archaeologia*, **62,** 405–47

Birley, R, 1977 *Vindolanda: a Roman frontier post on Hadrian's wall*

Boon, G C, 1974 *Silchester: the Roman town of Calleva*

Crummy, P, 1984 *Colchester Archaeol Rep 3: Excavations at Lion Walk, Balkerne Lane, and Middleborough, Colchester, Essex*, Colchester Archaeol Trust

Desbatz, A, 1981 L'architecture de terre à Lyon à l'époque romaine, in *Récentes recherches en archéologie gallo-romaine et paléochrétienne sur Lyon et sa région* (ed S Walker), BAR S108, 55–81

Drury, P J, 1982 Form, function and the interpretation of the excavated plans of some large secular Romano-British buildings, in *Structural Reconstruction: Approaches to the interpretation of the excavated remains of building* (ed Drury), BAR S110, 189–308

Fox, G E, & St John Hope, W H, 1984 Excavations on the site of the Roman city at Silchester, Hants, in 1893, *Archaeologia*, **54,** 199–238

——, & ——, 1901 Excavations on the site of the Roman city at Silchester, Hants, in 1900, *Archaeologia*, **57,** 229–51

Frere, S S, 1972 *Verulamium excavations: vol I*, Rep Res Comm Soc Antiq London, **28**

——, 1977 Town planning in the western provinces, *Bericht der Römisch-Germanischen Kommission*, **58,** 87–103

——, 1983 *Verulamium excavations: vol II*, Rep Res Comm Soc Antiq London, **41**

Glasbergen, W, 1972 *De Romeinse Castella te Valkenburg ZH*, Cingula 1

Hanson, W S, 1978 The organisation of Roman military timber-supply, *Britannia*, **9,** 293–306

Hurst, H, 1972 Excavations at Gloucester, 1968–1971, first interim report, *Antiq J*, **52,** 24–69

Jones, M J (ed), 1981 Excavations at Lincoln. Third interim report: sites outside the walled city 1972–1977, *Antiq J*, **61,** 83–114

Marsden, P, 1980 *Roman London*

McCarthy, M R, & Dacre, J A, 1983 Note, *Antiq J*, **63,** 124–30

McKay, A G, 1975 *Houses, villas and palaces in the Roman world*

McWhirr, A D, 1978 Cirencester 1973–6: tenth interim report, *Antiq J*, **58,** 61–80

Millett, M, 1982 Note, *Britannia*, **13,** 315

Neal, D S, 1982 Romano-British villas: one or two storied? in *Structural reconstructions: approaches to the interpretation of the excavated remains of buildings* (ed Drury), BAR S110, 153–71

Partridge, C, 1981 *Skeleton Green, a Late Iron Age and Romano-British site*, Britannia Monogr Ser **2**

Perring, D, & Roskams, S P, forthcoming *The development of Roman London west of the Walbrook*

Radford, C A R, 1936 The Roman villa at Ditchley, Oxon, *Oxoniensia*, **1,** 24–69

Raper, R A, 1977 The analysis of the urban structure of Pompeii: a sociological examination of land use, *Spatial Archaeology* (ed D L Clarke), 189–221

Scar, F, 1982 *Roman architecture*

Sheldon, H, 1974 Excavations at Toppings and Sun Wharves Southwark, 1970–1972, *Trans London Middlesex Archaeol Soc*, **25,** 1–116

Wacher, J, 1975 *The towns of Roman Britain*

Walthew, C V, 1975 The town house and villa house in Roman Britain, *Britannia*, **6,** 189–205

Ward, J, 1911 *Romano-British buildings and earthworks*

11 Medieval domestic buildings

Julian Munby

The study of medieval town buildings has a long history, and the conscious or unconscious recording of buildings is as old as the tradition of topographical drawing. With the growing pace of destruction in historic towns the camera has replaced the pencil as the recording medium, and on occasions something approaching a systematic record can be made. Analytical destruction, as advocated by Pantin in 1937, has slowly appeared as an archaeological enterprise in its own right (sometimes in conjunction with excavation) but has only in recent years become commonplace, and has been accorded less attention (and finance) than excavation of urban domestic sites. With the large excavation campaigns in towns, the archaeological potential of buried remains of houses has been well explored, and this is an appropriate time to assess what remains to be done.

Why study urban buildings?

The fundamental nature of urban living is reflected in its buildings. The construction of walls, gates, belfries, town halls and other public buildings proclaims to outsiders the town's view of itself. Individually, the private house is a reflection of necessity or status, from the log-built houses of Novgorod to the brick palaces of Siena, and from the courtyard houses of Cairo to the jettied timber frontages of north-west Europe. Buildings are a measure of urbanism, marking the growth and change of a place and of the lives of its inhabitants. By their very proximity they define the space allotted to individual family groups, which is the prime contrast with rural life. They also provide a complementary view of the economic factors revealed by pottery, food remains and industrial activity. If we want to know how people lived in towns we must study their houses.

The current state of knowledge

Many of the better preserved town houses are well known, and have been published in some form or other. The current position is much as that described by Wood (1965), itself depending on the typology proposed by Pantin (1962-3), though attention has been drawn to many more examples in the last twenty years (see Temminck Groll 1963 for the European context). Substantial surveys of York, Stamford and Salisbury have been published by the RCHM (1972-81), providing a massive increase in the available evidence even if the format of publication has prevented the fullest use being made of the material in the Commission files. Individual enterprise has led to the publication of surveys of Burford (Laithwaite 1973), Exeter (Portman 1966), King's Lynn (Parker 1971), Robertsbridge (Martin & Mastin 1974) and Southampton (Faulkner 1975), to name but a few. Innumerable descriptions of buildings have appeared as a result of the rapid growth of interest in vernacular architecture. These are conveniently recorded in the Bibliography of the Vernacular Architecture Group (Hall, 1972; Michelmore 1979), and many records have been deposited in the National Monuments Record of the RCHM. For many counties there are now archaeological surveys of historic towns, and these often include maps of buildings and consider building recording in their recommendations.

Archaeological work below ground has transformed our understanding of the medieval house. The opportunities for large-scale excavation in town centres over the last twenty years have been met with some valiant attempts to uncover whole rows of houses and many less ambitious schemes. Publication has not kept up with the pace of discovery, so it is harder to assess the current state of knowledge (for which see Schofield & Palliser 1981). Even publication does not necessarily help the non-specialist, for whom archaeological reports are a baffling labyrinth. Perhaps the chief result of so much excavation has been the emphasis on aspects not normally apparent from standing buildings: the nature of very poor or temporary structures, the amount of constant rebuilding in whole or part, and the use of the open space behind the house. Reports which cover the plans of whole buildings include ones from Lincoln (Jones 1980), Northampton (Williams 1979) and Oxford (Palmer 1980).

The results of this great expansion of studies on urban buildings have not yet borne fruit in any general synthetic account, and one will not be attempted here, though it is worth considering what sort of questions need to be answered. When the history of the medieval town house comes to be written, there will have to be a more refined chronology of general development and a greater awareness of regional variations (both in building materials and differing building types). The origins of towns, of street layouts and of tenement patterns are related to the earliest buildings, and we still know very little about the architectural significance of the late Saxon 'cellar-pits', and the nature of the earliest town buildings except at York (Fig 68). The nature of early post-built houses and the succession to framed types have not been established. The appearance of stone houses in the later 12th century (Figs 69-70) is now widely apparent and may be part of a general growth in prosperity, or be strictly limited in its social and regional distribution. The phenomenon is certainly reflected in documents as much as archaeology and in the earliest surviving remains above ground, and needs further investigation. While the development of timber framing, now so convincingly demonstrated from surviving rural buildings (Hewett 1980) must have had its parallels in urban building, it may be difficult even to determine whether stone foundations carried timber frames or walls of stone or cob. But it must have been in the towns that the need first arose to build upwards on a restricted site, leading to the technological advances that allowed jettied constructions of several stories. It is still possible that traces of the earliest phases of the development of the jetty may yet be found in surviving examples.

The internal fittings of houses are imperfectly known-the nature of arrangements for stairs and for heating without chimney stacks, to take but two examples. Regional variations in roof construction and wall-framing still depend



Fig 68 Timber wall of a late 10th century sunken building at Coppergate, York (scale is 1m long) (York Archaeological Trust: Mike S Duffy)

on the pioneering suggestions of J T Smith (1958,1965), and little has been added to the identification of urban house plans since Pantin's study (1962-3), though much has been written on post-medieval types (RCHM *passim*). The chronology of rebuilding and the development of new plan-types in the later medieval period may have a part to play in the debate about the 15th century economy, an argument in which buildings have been notable for their virtual absence (though see Dobson 1977). On a local level, phases of building activity may help to build up a picture of change in the town, or emphasize the difference between various areas of the town. The surviving houses alone are likely to give a very distorted picture of what housing was like for the majority of townspeople, and even this will only be partially corrected by the excavation of the lesser houses.

From the end of the medieval period the amount of surviving houses and documentation increase enormously, and this widens the number of questions that can be asked of the evidence. More is known about the furnishing of houses, and there is much surviving evidence for their decoration. Increasingly the sources allow firmer statements to be made about the inhabitants of the buildings. Something approaching a total view can only be possible in the more recent periods, and the work of Beresford on the slum housing of Leeds has shown what can be done by combining written and pictorial records of living conditions with a study of the buildings themselves. (In this context we should not forget the likely reproaches of future generations on our failure to record the vanishing houses of the last two centuries). Indeed, it is the studies of more modern housing that suggest some of the approaches that can be adopted for earlier periods, and lift the subject from being merely a technological study. There are undoubtedly more questions to be asked of our information, and it is also true that the body of evidence is growing fast. When the new synthesis comes to be written at the end of the current surge of activity, the picture of medieval housing will not be unrecognizable, but it will be much altered.

Methods and approaches

The building historian must use all available types of evidence, and any agenda for future work must take into account both the physical evidence, as surviving above ground or excavated beneath it, and the documentary evidence, whether written or pictorial. These will now be discussed, with no particular emphasis on the order of appearance.

Excavated buildings

Archaeological work, as previously mentioned, has changed the body of evidence by the recovery of plans of houses of types otherwise unknown, and by the tendency of archaeology to draw attention to the minutiae of rebuilding and adaptation (Fig 71). At worst, however, excavated sites may produce nothing of value to students of housing, and merely a succession of fragmentary walls that attest to no more than occupation at a given period. In many cases, safety and convenience have led to the omission of the actual street frontage from the excavated area, thus considerably reducing the value of the work by producing only partial plans.

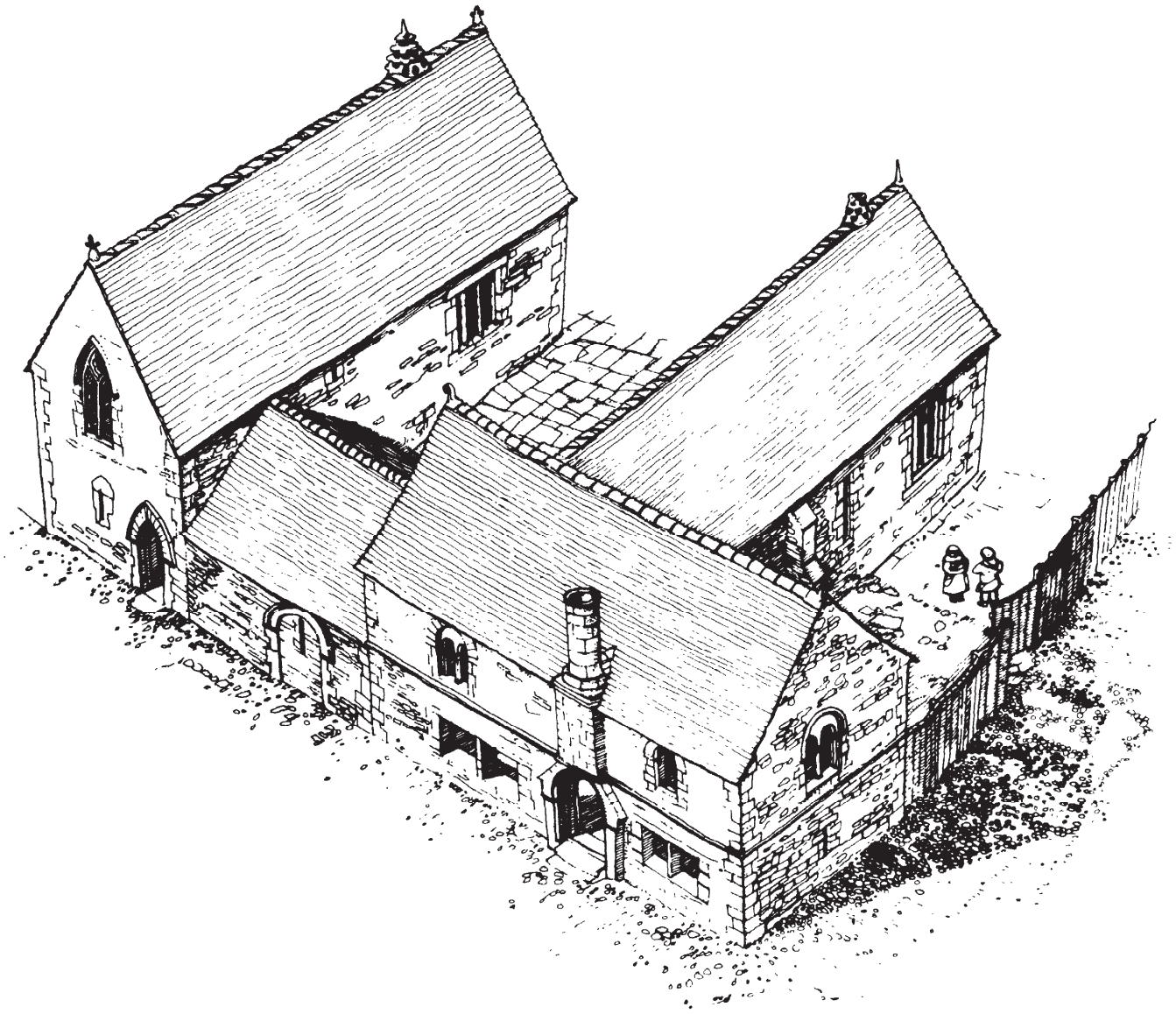


Fig 69 Reconstruction of stone houses at Flaxengate, Lincoln in the 14th century (Lincoln Archaeological Trust: S R Jones)

Conversely, concentration on the buildings at the front of the site has often led to the rear of the tenement being ignored, giving a sequence of building development without any economic context in which to understand it. It is very often the backyards of tenements which have produced the most startling evidence for industrial activities and environmental conditions. Tedious as the unravelling of pit-sequences may be, it must be recognized that often they will be more informative than a few post-holes and stubs of broken walling.

The complete excavation of one whole tenement should prove more instructive than partially investigating several, though there will always be specific questions (eg the chronology of suburban or riverside growth) which can be approached by less ambitious means. No doubt more attention should be given to site evaluation (Carver 1980, 1983a), and funding should not be organized so as to discourage the abandonment of an excavation which proves unfruitful. In the long term attention will turn to the relatively uncontaminated evidence provided by the deserted medieval towns, and to the secrets locked beneath the lawns of Oxford and Cambridge colleges, or for that matter beneath standing medieval buildings. But as long as urban redevelopment continues, every large intra-mural site in large towns has a potential until disproved, and the chance discoveries on rescue sites are as productive as any chosen in a research programme can hope to be.

Standing buildings

Inevitably the major source for the study of urban buildings



Fig 70 Twelfth century building, St Martin at Palace Plain, Norwich (Norfolk Archaeological Unit: B S Ayers)

must be the surviving examples, and it is only recently that these have been treated as archaeological artefacts requiring detailed investigation. It is perhaps not generally realized how uneven is the distribution of houses surviving from before the 16th century. Norwich, like London, has been decimated by fire, Oxford like so many by rebuilding, but what town can match Salisbury with some 80 houses dating from before 1500? It would be-useful to compile a census of known medieval town houses, which would at least provide a stimulus to investigators to fill out the empty spaces with fresh discoveries. Towns with a handful of medieval examples may boast scores of 16th-17th century ones, and yet more Georgian. Perhaps most typical of all is the house of all periods, with a confusing series of accretions of all ages.

As the total number of medieval houses may be relatively small, it would seem worthwhile to continue searching for them and subjecting them to individual study, whereas progressively for later periods the prospect of total survey becomes too daunting. Despite the cessation of the RCHM inventories in their present form, the need for surveys will continue, and the practicability of more rapid surveys has been demonstrated by work in Norwich (Smith & Carter 1983) and Ludlow (Lloyd 1978-9; Speight 1978-80). Survey work of this sort can identify buildings needing fuller investigation, and together with work on other sources lead towards a general study of housing in a town. But the present need is for an adequate response to the problem of threatened buildings, that is the ones threatened by alteration as much as by destruction, where crucial evidence for understanding their development may be lost. In Canterbury a survey is being built up in the wake of building renovation and destruction (Figs 72-5), and in many places individuals or groups undertake this type of rescue recording on an *ad* hoc basis, while the RCHM, with limited resources, provides a nationwide service in cases of total demolition. The problem is not just one of covering cases, but of the usefulness of the record being made and the detail in which they are carried out. By and large the response to the destruction and alteration of urban buildings is entirely inadequate and the lack of financial resources being directed to this end should not be complacently accepted, especially as the new Commission is specifically empowered to spend money on the archaeological investigation of buildings.

The level of survey work appropriate to the investigation of buildings (McDowall 1980) will always be disputed, but



Fig 71 Billingsgate, London: medieval buildings under excavation. In the left foreground is the south aisle of St Botolph Billingsgate; centre foreground a medieval undercroft with stairs to the alley of St Botolph's Wharf. The river lay to the right, the medieval Thames Street to the left (the present level is marked by the gallery floor) (Museum of London: J Bailey)

attention should be drawn here to the contrast between the meticulous recording of the least significant feature in an excavation, and the often cavalier attitude to details of standing buildings. What is important is that a level of recording appropriate to the building and the circumstances should be employed, and this may range from a simple plan and photographs of less important buildings, to a full stratigraphical structural analysis of more significant multi-period buildings. Such detailed work would include the evidence for fittings and decorative schemes as well as the main structure. Common to all records will be an understanding of the building expressed in written form to accompany the visual material.

Pictorial sources

Britain is less well endowed than the Continent of Europe with early and accurate town views and maps (eg that of Venice c 1500 and Antwerp in 1569). However, much information of a general nature can be gleaned from the earliest birds-eye views of towns and those familiar from the margins of county atlases, as well as the detailed views of such places as Oxford, Cambridge and London. But it is to the prolific topographical artists of the 18th and 19th centuries that we must turn for our most valuable information about the appearance of towns and individual buildings before their destruction or modernization (Barley 1974). Whereas the camera in a later generation recorded with perhaps greater accuracy, the photographers came too late for the first wave of improvement and destruction in the late 18th century. In many cases it will be possible to reconstruct complete street elevations of towns before their rebuilding, and this combined with study of maps (especially the large-scale Ordnance Survey plans- Harley 1964, 1972) will be the starting point for all topographical work. Even with less abundant material, the artists' concentration on the more picturesque buildings may preserve useful information on individual buildings.

Any survey of standing buildings should ideally include those which have been lost, and even if the evidence largely helps in reconstructing the appearance of the facade, this can often be instructive (eg for the distribution of jettied houses or of certain window types). In some instances there may be much fuller records of past demolitions, such as those of the Bucklers in the British Library (eg Munby 1978), and the more recent records of war damage or other destruction, which may be found in the NMR.

Written sources

This is not the place to discuss the very wide range of urban sources (West 1983), but it must be stressed that documentation cannot be ignored if buildings are to be studied properly (though buildings must be recorded when necessity dictates, and written sources are safe from immediate threats to their existence). What needs to be appreciated is

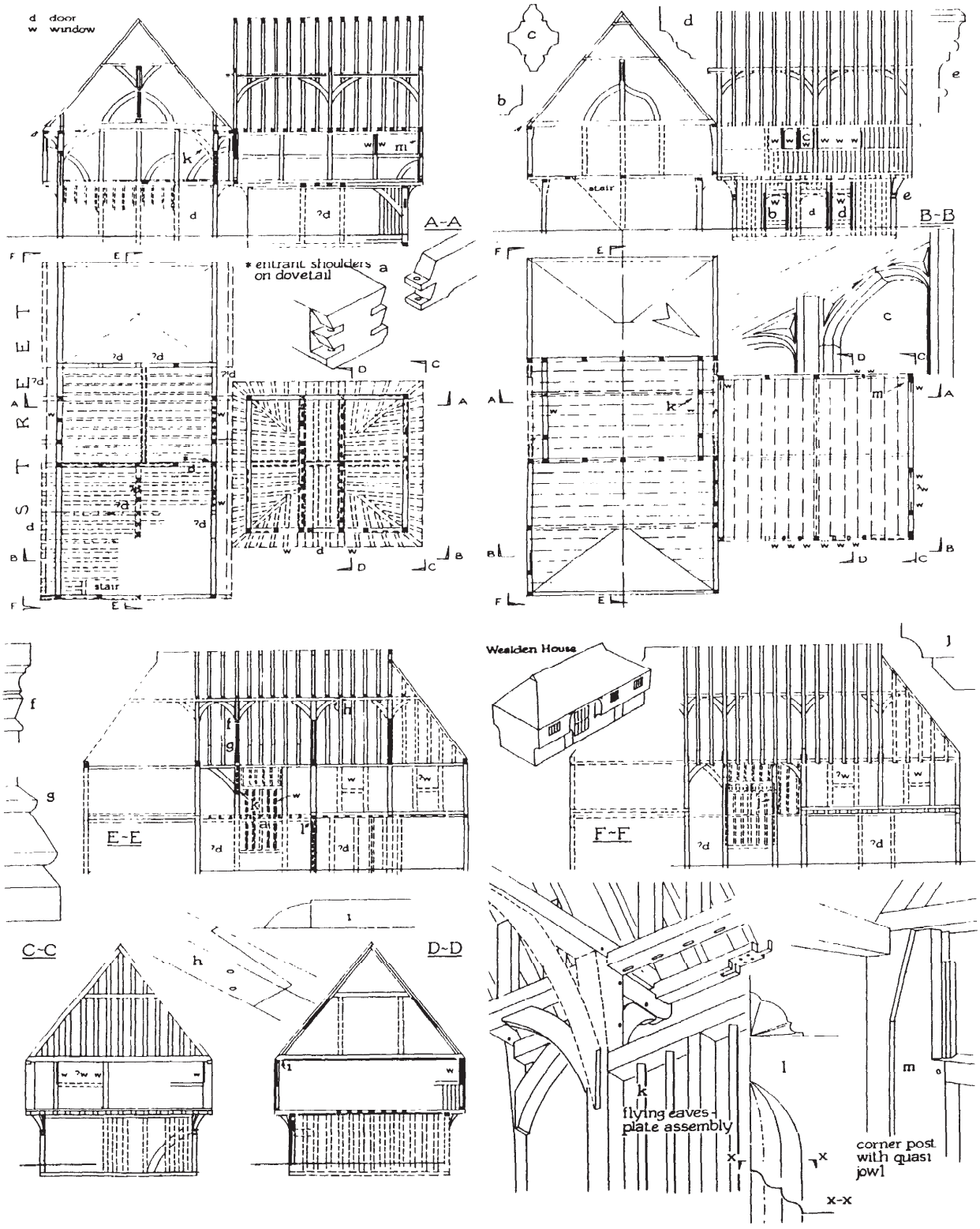


Fig 72 'Maiden's Head: 28 Wincheap, Canterbury: building survey comprising plans and elevations (scale 1:200), orthographic details (scale 1: 10) (Canterbury Archaeological Trust: John Bowen)

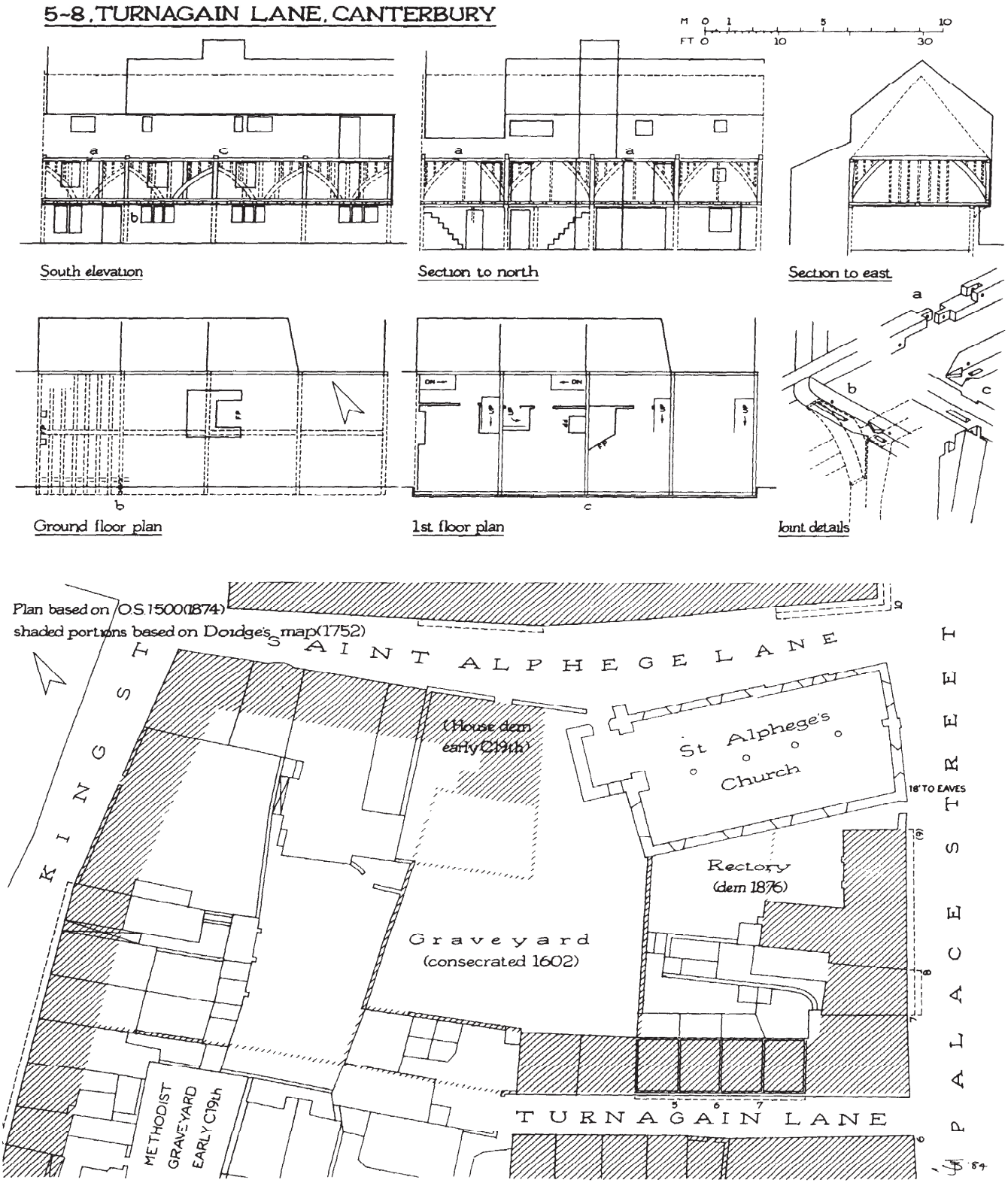


Fig 73 5-8 Turnagain Lane, Canterbury: building survey, comprising elevations, plans (scale 1:200) and details (scale 1:40); below, the topographical setting of the site near St Alphege's church (scale 1:400) (Canterbury Archaeological Trust: John Bowen)

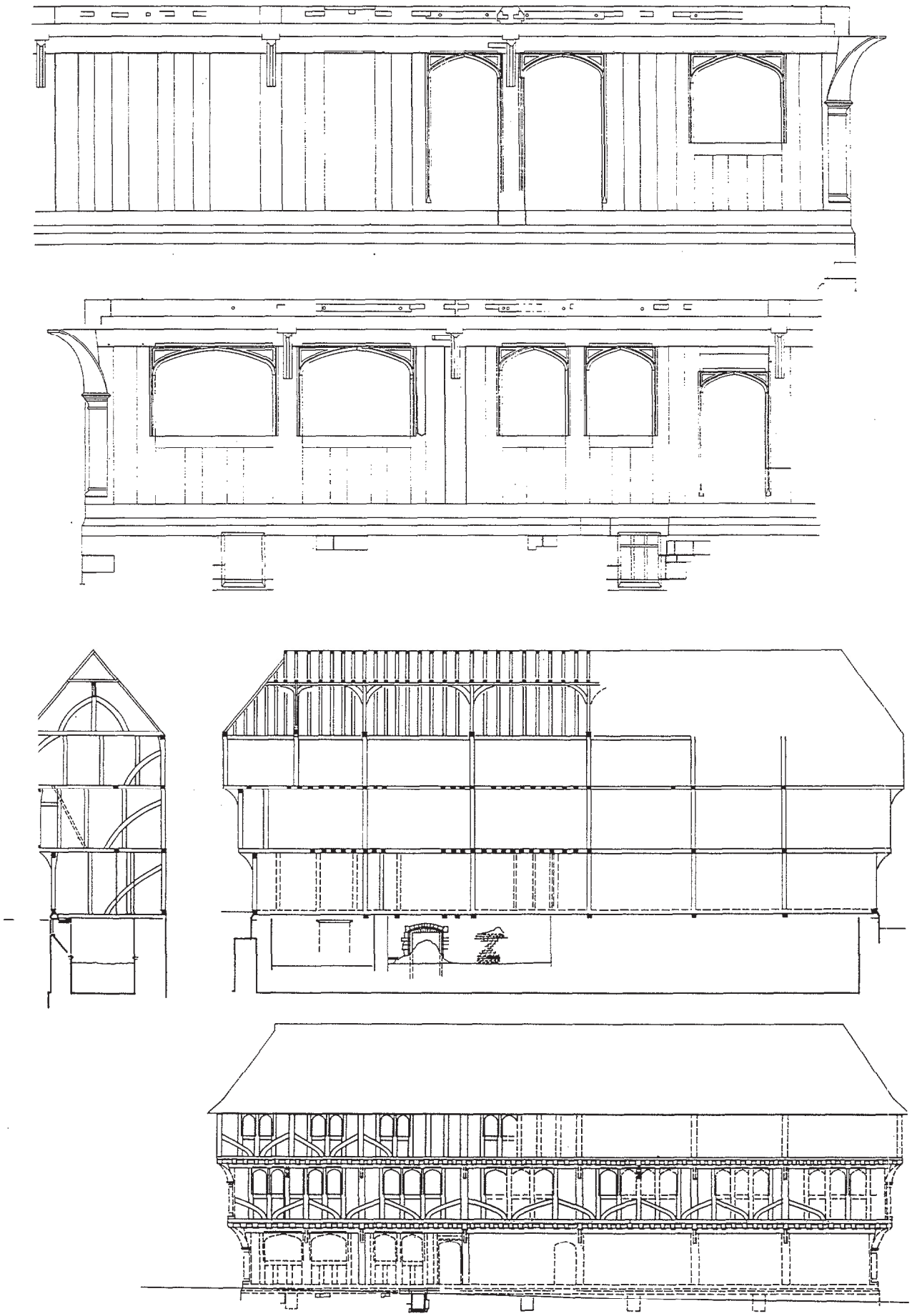


Fig 74 The Bull (41-4 Burgate), Canterbury: existing and restored ground floor framing of NE range (scale 1:64) and (below) section, longitudinal section and front elevant of the range showing existing and restored framing (scale approx 1:200) (Canterbury ArchaeologicaI Trust: John Bowen)

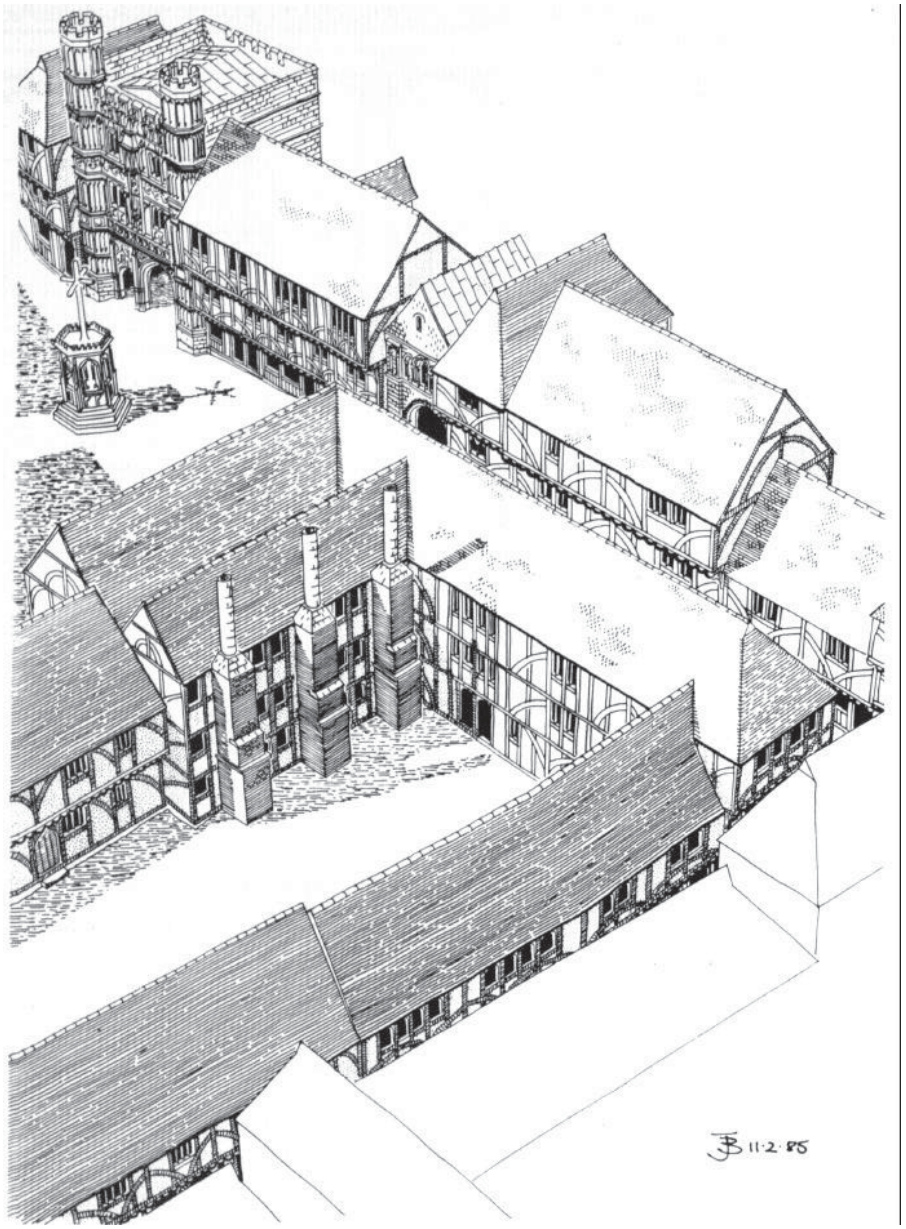


Fig 75 The Bull, Canterbury: aerial perspective from the south as it may have appeared in the early 16th century (see Christchurch Priory plan, Fig 28, for location) (Canterbury Archaeological Trust: John Bowen)

the survival rate of relevant documentation. Canterbury, for example, has excellent sources for the 12th century, Oxford for the 13th, Norwich for the 14th, and so on. Many places will have effectively no useful material for the medieval period at all, and this may be a factor to be considered in the choice of towns to work on, if that invidious decision has to be made.

The study of urban topography is still at an early stage, despite a vigorous and continuous tradition going back to the 17th century, represented by the labours of countless antiquaries in many towns. Few complete studies of towns have been attempted, though there are studies of York (Raine 1955), Canterbury (Urry 1967) and Hull (Horrox 1978). The much quoted Survey *of Oxford* is but a printed version of Salter's working notebooks (Salter 1960, 1969), and the publication of Keene's *Winchester IV* will be the first systematic town study to appear in print.

The bulk of surviving records (deeds, rentals and surveys) are concerned with ownership or rent income and only touch incidentally on the nature of the building, though they may provide brief descriptions. Building accounts and contracts (Salzman 1967) are of more direct use, but they may still be tantalizingly vague when it comes to connecting them to a particular building. While it may be possible to bring together a building and document in an association with a high degree of probability (eg RCHM Salisbury nos 129 & 133), the pitfalls of too hasty assumptions will remain until the whole range of sources for a town are understood.

A chance record of a rebuilding may be but one of many, and identification of named houses with a particular building calls for careful corroboration. Other sources of a legal character, such as Coroners' Rolls, or the London Assize of Nuisance (Chew & Kellaway 1973) can furnish a whole range of detailed information on aspects of medieval building, in dealing with disputed gutters, privies and the like. For example, there are frequent references to earth garden walls in medieval towns, something that excavators should be aware of; if it were not for cases brought before the coroner we should probably not know that tradesmen often slept in their shops, and occasionally met their death in burning straw beds.

In the post-medieval period the amount of documentation is colossal, and more dispersed, but will often be the key to earlier arrangements. One type of record not present before is the building plan, increasingly used from the 16th century onwards, often by corporate landowners. Their use in reconstructing lost buildings is invaluable, as has been shown for pre-fire London (Schofield 1984). There is scope for much more work on the early modern records of the town, and there are excellent possibilities for group work, as has been demonstrated by the results obtained in Chichester (Morgan 1978).

Conclusions

Clearly there is still need for more work on urban housing, and more information to be collected f-or a general account of housing and its relationship to the history and economy of towns. An integrated approach is required, which treats both excavated remains and standing structures with the same degree of academic rigour (as eg Carver 1983b). In excavation, a clearer view is perhaps required of what is being dug and why, though there is no evidence that there is yet any need to look beyond the random sample of sites presented by redevelopment. With standing buildings it would be useful to compile a census of medieval town houses, while continuing survey work will be necessary, supplemented by detailed recording to an appropriate standard; here again it is important to appreciate the purpose for which the record is being made. There is an urgent need for an organized response to the destruction of information through demolition and alteration, where once more there is a 'sample' provided that cuts across any possible 'research aims'. On the documentary side there is still much to be gained from a systematic approach to the mass of unexamined evidence, especially when integrated with building survey and archaeological work.

The information gathered by these means already constitutes a large body, and bibliographical aids will help to keep track of obscure publications, but there is a growing problem of unpublished material held in local or national repositories. It is to be hoped that the NMR incorporating the former Ordance Survey Archaeological Division will develop means of data retrieval that will eventually revolutionize our use of this information, and make it more accessible.

Who is to undertake the work? In the area where the need is most urgent, that of building recording, the RCHM threatened buildings section is able to cover many cases of outright demolition with its limited resources, and these should be extended. Archaeological Units are prevented by financial pressures from taking on as much building recording work as might have been hoped at one time (though the new Commission could make available more money for this). Nevertheless, the work of the Norwich Survey, and of archaeologists in Canterbury and Exeter, for example, has been most productive. Elsewhere County Museum Services have undertaken recording work, though this generally depends on individual enthusiasm for the task, while Planning Officers, with first-hand experience of so much case work, rarely have time to pause to make records, even if they have the inclination. An encouraging development has been the growth in the number of private research groups, such as those in Surrey, East Sussex and North Yorkshire, which have dealt with urban buildings in the course of wider regional studies, and obtain some recompense for depositing their surveys in the NMR. But in the instance of rescue recording there is a strong case for more financial aid being obtained, and compared with excavation, the cost of this work, if made a statutory charge on development, would be a miniscule proportion of the cost of work undertaken. Yet unless more provision is made, a substantial part of the information about our built heritage will be lost.

Bibliography

Barley, M W, 1974 *A guide to British topographical collections*

Carver, M O H, 1980 Medieval Worcester—an archaeological framework, *Trans Worcestershire Archaeol Soc*, **7**

———, 1983a Forty French towns: an essay on archaeological site evaluation and historical aims, *Oxford J Archaeol*, **2** (3), 339–78

———, 1983b Two town houses in medieval Shrewsbury, *Trans Shropshire Archaeol Soc*, **61**

Chew, H M, & Kellaway, M, 1973 *London assize of nuisance 1301–1431*, London Record Soc **10**

Dobson, R B, 1977 Urban decline in late medieval England, *Trans Roy Hist Soc*, **27**, 1–22

Faulkner, P A, 1975 The surviving medieval buildings, in *Excavations in medieval Southampton* (C Platt & R Coleman-Smith), vol 1, 56–124

Hall, R de Z, 1972 *A bibliography on vernacular architecture*

Harley, J B, 1964 *The historian's guide to Ordnance Survey maps*

———, 1972 *Maps for local historians*

Hewett, C A, 1980 *English historic carpentry*

Horrox, R, 1978 *The changing plan of Hull*

Jones, R H, 1980 *Medieval houses at Flaxengate, Lincoln*

Laithwaite, M, 1973 The buildings of Burford, in *Perspectives in English urban history* (ed A Everitt), 60–90

Lloyd, D, & Moran, M, 1978 *The corner shop*, Ludlow Res Pap 2

———, 1979 *Broad Street: its houses and residents through eight centuries*, Ludlow Res Pap 3

McDowall, R W, 1980 *Recording old houses; a guide*, CBA

Martin, D, & Martin, B, 1974 *An architectural history of Robertsbridge*, Hastings Area Archaeol Pap 5

Michaelmore, D J H, 1979 *A current bibliography of vernacular architecture*

Morgan, R R, 1978 Gazetteer of post-medieval sites and buildings, in *Chichester Excavations III* (ed A Down)

Munby, J T, 1978 J C Buckler, Tackley's inn and three medieval houses in Oxford, *Oxoniensia*, **43**, 123–69

Palmer, N, 1980 A Beaker burial and medieval tenements in the Hamel, Oxford, *Oxoniensia*, **45**, 124–225

Pantin, W A, 1937 The recently demolished houses in Broad Street, Oxford, *Oxoniensia*, **2**, 171–200 (esp 200)

———, 1962–3 Medieval English town-house plans, *Medieval Archaeol*, **6–7**, (1964), 202–39

Parker, V, 1971 *The making of Kings Lynn*

Portman, D, 1966 *Exeter houses 1400–1700*

Raine, A, 1955 *Medieval York, a topographical survey based on original sources*

RCHM, 1972–81 *City of York*, ii–v

———, 1977 *Stamford*

———, 1980 *Salisbury*, i

Salter, H E, 1960 & 1969 *Survey of Oxford*, i & ii, Oxford Hist Soc, **14**, & **20**

Salzman, L F, 1967 *Building in England down to 1540*, 2 ed

Schofield, J, 1984 *The building of London from the Conquest to the Great Fire*

———, & Palliser, D, 1981 *Recent archaeological research in English towns*

Smith, J T, 1958 Medieval roofs: a classification, *Archaeol J*, **115**, (1960), 111–49

——, 1965 Timber-framed buildings in England, *Archaeol J*, **122**, (1966), 133–58
Smith R, & Carter, A, 1983 Function and site: aspects of Norwich buildings before 1700, *Vernacular Architecture*, **14**, 5–18
Speight, M E, &Lloyd, D J, 1978 *Ludlow houses and their residents*, Ludlow Res Pap 1
——, 1980 *The Great House*, Ludlow Res Pap 4
Temminck Groll, C L, 1963 *Middeleeuwse Stenen Huizen te Utrecht*, The Hague (English summary, 1969–72)
Urry, W, 1967 *Canterbury under the Angevin kings*
West, J, 1983 *Town records*
Williams, J H, 1979 *St Peter's Street Northampton, excavations 1973–1976*
Wood, M, 1965 *The English medieval house*

12 Medieval urban religious houses

Lawrence Butler

Any consideration of the role of religious houses in urban life must approach a problem that is limited in both time and space. Although the limits are fixed within manageable bounds, the topic is one of an infinite variety that changes from town to town, from century to century and from institution to institution, These three factors form the variables against which the architectural and archaeological pattern must be measured and from which the academic solutions must be drawn.

This survey should be an assessment of the results so far gained in the past 30 years of urban excavation, a diagnosis of the limitations imposed by the archaeological method, and an estimate of the potential for future profitable avenues of research. There has not been a thorough survey of urban religious houses in Britain, largely because the subject is a vast one but also because the definition of towns is fluid, depending on whether legal or functional criteria are used. However, it is not necessary to quibble about the inclusion of those towns at the lower margins of urban status. The general pattern is clear and is remarkably even throughout the country, reflecting the domination of southern England in wealth and other economic resources.

Far less even is the distribution of monasteries between the orders. Before the Norman Conquest of England there were only two categories of religious life; foundations were either monasteries of the Benedictine rule or were secular colleges. Sixty Benedictine houses survived the Norman Conquest; the majority were for monks but twelve were for nuns. Forty of these monasteries may be considered urban, being founded either in or adjacent to a Roman town (Bath, Canterbury, Chichester, Gloucester, St Albans, Winchester, Worcester), or being the nucleus around which a town grew or was planted (eg Abingdon, Amesbury, Evesham, Malmesbury, Shaftesbury, Tewkesbury). There were forty secular colleges in urban locations; nine were founded in Roman towns (Chester (2), Cirencester, Dorchester, Dover, Exeter, Leicester, London, York and also Wroxeter), a few were in towns that may be regarded as Anglo-Saxon burhs (Bedford, Derby, Hereford, Shrewsbury, Stafford, Tamworth, Warwick). A few were in towns that owed their prominence to the college (Beverley, Ripon, Southwell), to the bishopric (Crediton, Durham, Lichfield, Wells) or to economic factors (Taunton). In a few cases there are multiple foundations of colleges in one town (Shrewsbury (4), Chester, Derby and Hereford (each 2)); it is a matter of discussion how this fact is to be interpreted.

With the Norman Conquest of England there was a steady acceleration of monastic foundation by the Benedictines, reaching a peak of 350 houses two centuries after the first invasion by the reformed houses (Fig 76). Over 200 houses were urban, though this description covers a variety of types and situations. The greatest variation lies in the mainstream of the Benedictine movement (50 large abbeys (40 urban); 50 medium-sized houses (21 urban); 50 lesser priories (18 urban); 78 alien cells- 10 urban). Apart from Reading and York St Mary's, all the wealthiest abbeys were of Anglo-Saxon foundation. Some post-Conquest foundations were at existing towns, such as Norwich and Colchester, or within the newly built castles, as at Hereford and Dover. Others capitalized on older traditions as at Leominster and Whitby, and a few stood on entirely new sites as at Selby, Battle and Great Malvern.

A similar pattern is to be observed among the Benedictine priories, though fewer were on pre-Conquest sites. Among the minor houses there is a close correlation between castle, priory and plantation town, particularly in Wales (eight foundations) where the ecclesiastical support of the Normans by their kinsmen consolidated the conquest in the south. The nine alien houses dependent on mother houses in France were suppressed in or soon after 1414 (Andover, Arundel, Clare, Dunwich, Hinckley, Lancaster, Newent, Ware, Wareham). They were either converted into colleges with little alteration to their structures, eg Arundel, Clare, or were granted to a college, presumably suffering a diminution of their domestic buildings (Andover, Newent), or else were granted to a newly founded Carthusian or Bridgettine house (eg Lancaster, Ware) in which case communal life ceased. The fifteen Cluniac houses (more than one-third of the total foundations in Britain) represent a significant contribution to urban monasticism. Apart from the refounded Much Wenlock they were new post-Norman establishments in or near major towns. Some were within the defended area or close to it (Derby St James, Exeter St James, Northampton St Andrew), but the majority because of their extensive land requirements were on the nearest level, suitable site outside the town and the baronial founder's castle (as at Castle Acre, Dudley, Lewes, Pontefract, Thetford, St Clears). In general they were rich houses with substantial possessions in both town and country and with magnificent buildings dominating the landscape.

The minor Benedictine communities in the families of Tiron, Grandmont and Fontevrault preferred rural sites, and the reformed order of Cîteaux aggressively sought the solitude of the rural wastes. Only the cell at Scarborough, set in Cluniac fashion between castle and town, and the late foundation of St Mary Graces near the Tower of London do not conform to this pattern of isolation; a few houses such as Coggeshall and Neath were in sight of a modest town.

The Carthusians as a hermit order also required rural locations, but later founders, perhaps influenced by the Carmelites, endowed urban houses. One-third of English houses were urban (London, 1371; Hull, 1377; Coventry, 1381) all on the fringes of the town (also a projected foundation at Exeter, 1331).

The orders of canons possessed a maximum of 300 houses in England and Wales. The houses of the major family, the Augustinians or Black Canons, showed the same variety as is evidenced by the Black Monks. There were between 45 and 50 urban houses; a few such as Christchurch, Cirencester, Hexham and Gloucester St Oswald's were pre-Conquest foundations, the majority were founded in the

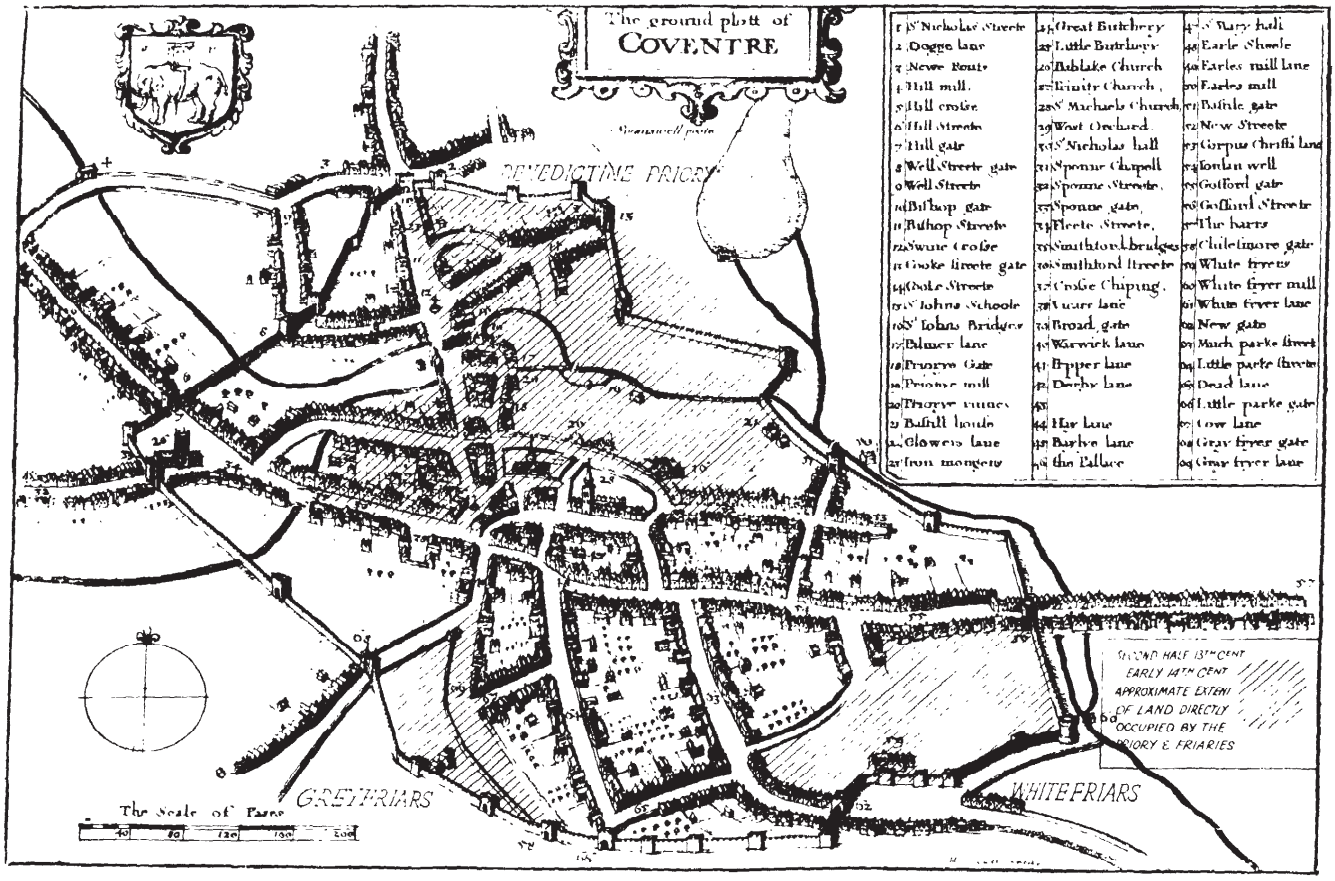


Fig 76 Map on Coventry showing extent of monastic sites, based on Speed 1612 (Hobley 1970)

early 12th century. A quarter of the urban houses were the dominant religious institution of the town, as at Bridlington, Carlisle, Cirencester, Dunstable, Guisborough, Leicester or Worksop; some were prominent houses among a multitude of religious houses and parish churches, such as Bristol St Augustine's, Colchester St Botolph's and Oxford St Frideswide's. Others, such as Thetford, Wigmore and Royston were minor houses or such as Haltemprice belied their name. The suburban or peripheral location at Bristol, Colchester, Haverfordwest and the London houses of St Bartholomew and Holy Trinity Aldgate was also matched by similar evidence from the predominantly hospital ventures of the canons of Holy Sepulchre at Nottingham, Stamford and Warwick.

Another feature of the urban houses is the outpost foundation: Southwark beyond London Bridge, Barnwell beyond the fields of Cambridge, Osney to the west of Oxford and Llanthony Secunda a safe shelter to the south of Gloucester. Of the other orders of canons the Premonstratensians had only one urban house, Alnwick, on the valley floor west of the town and castle; the Bonhommes had only one modest urban foundation at Ruthin in north-east Wales. The Gilbertines had seven houses in England, fulfilling a variety of functions: a retreat-house at Old Malton, houses of study in Cambridge and Stamford, houses adjacent to nunneries at York and Lincoln and houses of canons at Hitchin and Marlborough. The Trinitarians had five urban houses of varied character but possessing in common the principal need of ministering to the poor (Herrford, Knaresborough, Newcastle upon Tyne, Oxford, Totnes).

Houses of nuns reflected the same variations seen in the houses of monks and canons, though with fewer urban bases and more impoverished circumstances. Out of approximately 150 houses of nuns only 25 may be considered to be urban: these included many different categories: *(a)* the wealthy pre-Conquest foundations of Amesbury, Romsey, Wilton and Shaftesbury where the abbey was the initiator of the town; *(b)* Nunnaminster at Winchester, part of a remarkable religious enclave; *(c)* major post-Conquest houses within the town at Nuneaton and Usk; *(d)* the greater number of small houses on the fringes of the town, at Cambridge, Chester, Derby, Norwich, Stamford and York; and *(e)* a few larger houses in the fields such as Derby Kings Mead, Northampton de la Pré, Polsloe near Exeter, St Mary de Pré near St Albans and Godstow near Oxford. Apart from the Gilbertine canons already mentioned at nunneries in Lincoln and York, the Cistercian nuns had a small house at Whistones in the northern suburb of Worcester and the Augustinians had a small nunnery in

Bristol and two larger convents in London at Clerkenwell and at Halliwell, Shoreditch. For all these both the situation and the size of the house are pointers to the urban prosperity, either to the steady increase in gifts or to the main property holding.

Within Scotland there are similar trends, but urbanism was a more fragile institution, particularly outside the Forth-Clyde basin, Fife and the Firth of Tay. There is no evidence that monastic foundations before 1124 had any formative influence upon urban growth. The communities serving the cathedrals at Brechin, Dunkeld, Dunblane and St Andrews may have fostered urban tendencies at those locations, but the evidence is obscure. The Benedictine abbeys at Dunfermline, Paisley, Arbroath and Kelso and the Augustinian abbey at Jedburgh are 12th century foundations which generated urban growth upon a pattern well illustrated in England as at Evesham, Ely or Selby. The Cistercians, both monks and nuns, were not averse to burghal settlement near their houses as at Coupar in Angus, Culross in Fife and Melrose in Roxburghshire. The later foundations of the Trinitarians (Berwick and Dunbar, 1240-8; Aberdeen, pre-1274; Peebles pre-1296) and of the Carthusians (Perth, 1429) followed a pattern already observed in England.

The friars were the urban order *par excellence.* All four orders sought the towns-the Franciscans and Dominicans with an aggressive fervour, the Carmelites after an initial reluctance, and the Augustinians with a more modest approach (Fig 77). The potential for archaeological study had already been assessed (Reynolds 1977, 51, 63; Butler 1984) and need not be rehearsed in detail.

The Templars had urban houses at London, Dover, Dunwich and Warwick; the first three passed to the Hospitallers after 1312 and this order held their own houses at Beverley, Lincoln and London, St John's Clerkenwell. Apart from the houses at London and Dover they are unlikely to be as informative archaeologically as the rural preceptories.

Hospitals were a common medieval urban phenomenon; before the Black Death there were some 650 in England and Wales, and after that catastrophe there were a maximum of 550, many of new foundation. Each town with a vigorous economic life could expect to maintain 3 or 4 foundations, in some cases the local abbey or house of canons also acted as a hospital and so the number was relatively low. In a ranking of towns there are clear divisions with London (23) and York (24) well ahead of Norwich (17), Bristol (15), Newcastle (14) Hull (12), Exeter (11) and Beverley (10). Slightly lower are Hereford (9), Bury St Edmunds (7), Thetford and Canterbury (7). Eight towns had six hospitals (eg Coventry, Scarborough) and nine towns had five (eg Durham, Newark-on-Trent, Cambridge and Winchelsea). The conclusion to be drawn from such spontaneous generosity is the existence of a vigorous economic life which could sustain a continuous flow of alms and could nourish new foundations through rents and property.

The arrival of the friars in Scotland and the character of their growth parallels that already seen south of the Border except for the absence of the Augustinian friars and for the notable growth of the Franciscan Observants with nine houses founded between 1455 and 1505, many with the encouragement of James IV. One can use the occurrence of houses of two or three orders of friars and the frequency of hospitals as a barometer of urban strength. Such a guide identifies the vigorous political, ecclesiastical and academic centres most clearly: Edinburgh (19 institutions), Aberdeen (15), St Andrews and Berwick (11 each), Perth (10), Stirling and Dumfries (7 each), Dundee, Elgin, Glasgow and Haddington (6).

In general the archaeological approach has been site-specific, concerned with the location and plan of a particular house and with the recovery of a destroyed design in order to assess its architectural achievement. Important though that aspect is, the size of sample that monasteries and other urban religious houses present enables the researcher to pose far wider questions of a social and economic nature. Where the monastery is an isolated institution within a town, is the house responding to specific needs, expectations or functions, such as medical care, support of the deserving poor, accommodation for the traveller, provision of religious drama, or does the monastery stimulate those needs by its very presence? Where the monasteries are numerous, is there a perceived hierarchy of status with competition for the support of the masses in terms of gifts and in performance of miracles? Does the competition only exist in fully developed urban centres with economic maturity and social rivalry reflected in guild organizations as well as in the religious field? If urbanization is distinguished by the promotion of inequality within its walls and by the creation of a state of tension between rival classes for political leadership, there should then be in the multiplicity of religious provision the same inequalities and rivalries and a similar trend to protectionism whether it be in the appropriation of sacraments and revenues or in the promotion of special pilgrim offers to boost prestige and esteem. This could be explored at Walsingham, Ely, Gloucester, Glastonbury or Bury St Edmunds.

The economic aspects of monastic success may be measured in the ability an abbey displays in excluding its rivals from land-holding in a town or region, as in Durham or Evesham. Where the abbey does not fear rivals it may enlist the support of other institutions to provide or supplement functions it cannot itself fully perform, as at Walsingham with the incoming Franciscan friars or at Pontefract with the Dominicans. In the case of the friars and of the hospitals the urban community must show not only the ability to attract religious settlers but also possess the capacity to sustain a steady growth of donations. The metropolitan character of London, York and Canterbury and the regional dominance of Norwich, Bristol, Aberdeen and Newcastle (Fig 78) are evident in the dense concentration and varied nature of their institutions.

The political aspects of monastic domination can be assessed in the ability of the abbey to dictate the urban form and to determine its legal privileges in order to establish the spatial translation of an approved type of society able to co-exist alongside the monastery (Beresford & St Joseph 1979, 183-4, 215-7; Bond 1973, 44-9; Parrington & Balkwill 1975). The outcome of this political dominance or precedence would have been marked by the ability of the monastery to secure unconditionally its needs for space whether for worship, for domestic life or for agrarian desmesne at the expense of frustrating the urban requirements. It is the ecological importance of the physical structure (whether the city is the major phenomenon and the monastery the minor unit, or whether the roles are reversed)

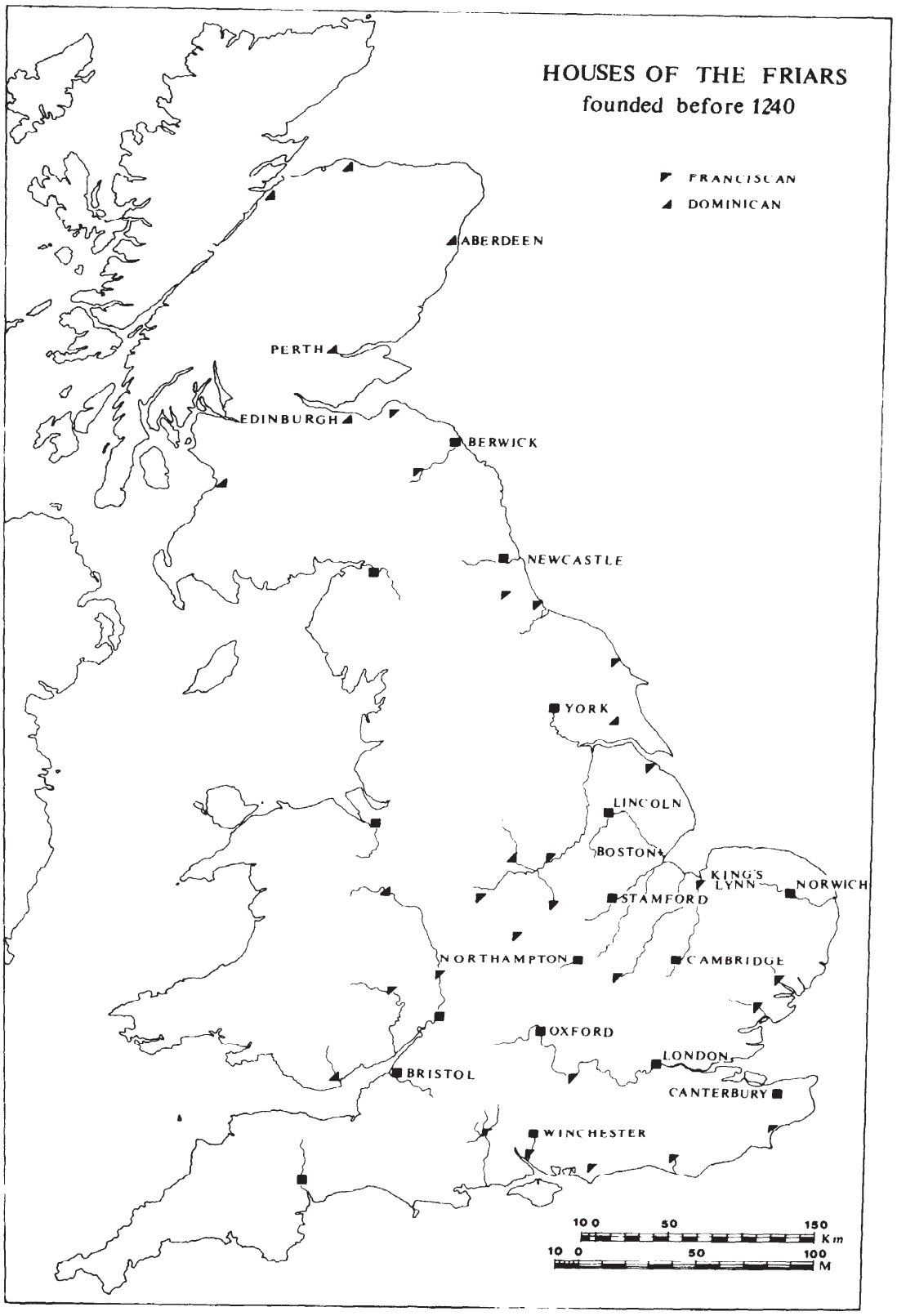


Fig 77 Map of Britain showing distribution of friaries founded before 1250 (Butler 1984)

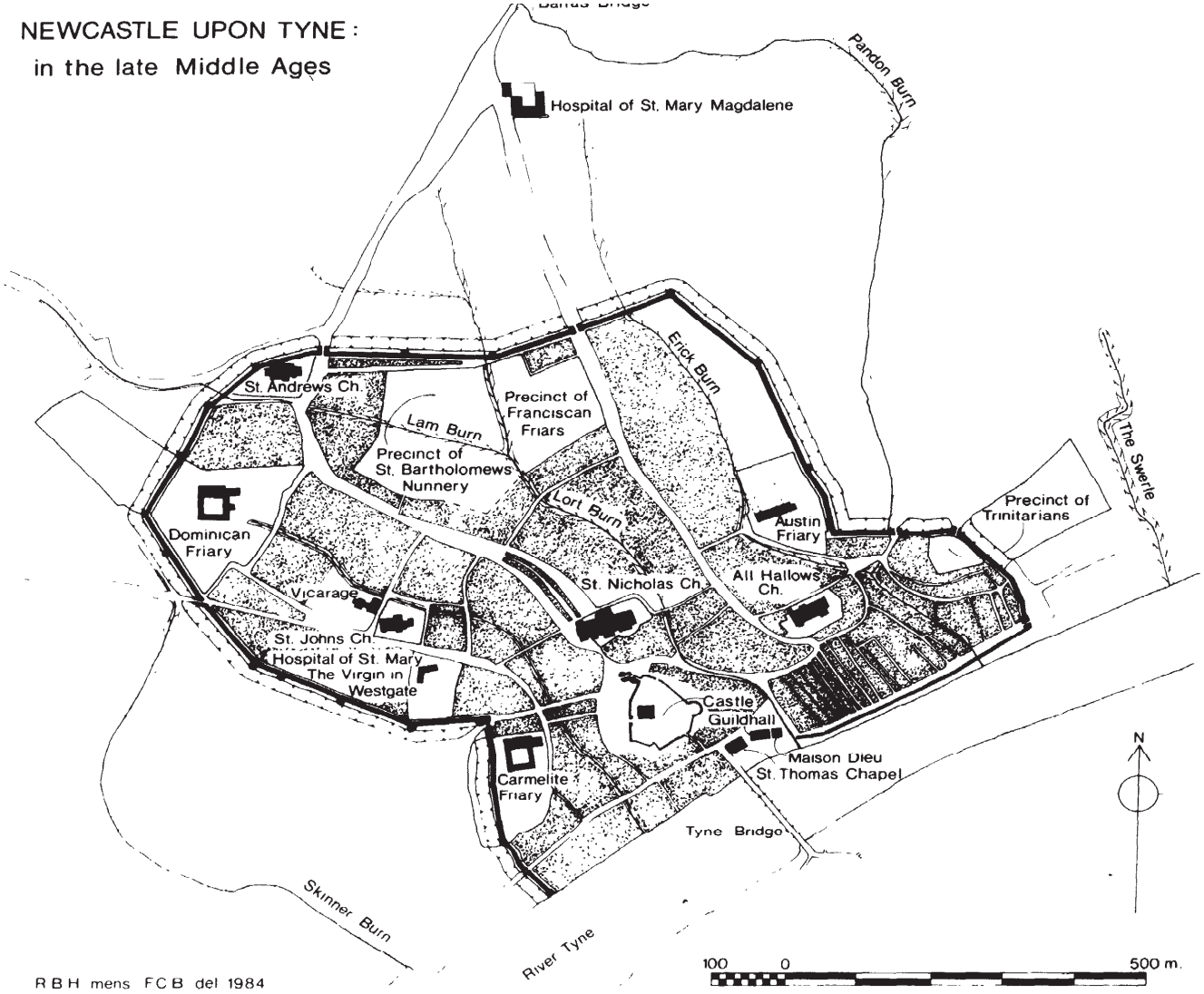


Fig 78 Map of Newcastle-upon-Tyne showing extent of religious institutions (Miss B Harbottle)

that enables the political aspect to be gauged. This should indicate how successful the monastery has been in attaining its perceived land needs and in securing an optimum location, whether the criterion is solitude, visibility or accessibility. The creation of an ideal society within the monastery (Seguy 1971) may be reflected in the external arrangements. The archaeological investigation will show how the abbey is sited in relation to the town and whether its individual buildings are in any way constrained.

The investigation of religious houses is greatly aided by the mass of documentary record, both of a chronological narrative type and of land-holding deeds or financial accounts. However this wealth of evidence is unevenly distributed across the country and for many small houses little more is known than their probable date of foundation, their income at two specific dates and the circumstances of their dissolution. It therefore follows that the information about their physical conditions and their relationship to the urban fabric must come principally from archaeological research. In a few cases this information will contribute to an understanding of a type of site or a period of occupation not previously examined (eg the English monasteries of the 10th century reform movement, the Scottish urban houses of the Trinitarians). In rather more cases there will be information on the peripheral monastic buildings which do not normally survive (eg Waltham Abbey grange, hall and forge (Fig 79): Huggins 1970, 1972, 1973, 1976; Coventry mill: Hobley 1967-70). However, for most towns it is the importance of the religious houses, individually or collectively, in the physical, economic and social structure of the town that will be the major contribution.

Within the pre-Conquest period investigations at three churches have been published in sufficient detail to assess their importance (Exeter: Bidwell 1976; Gloucester St

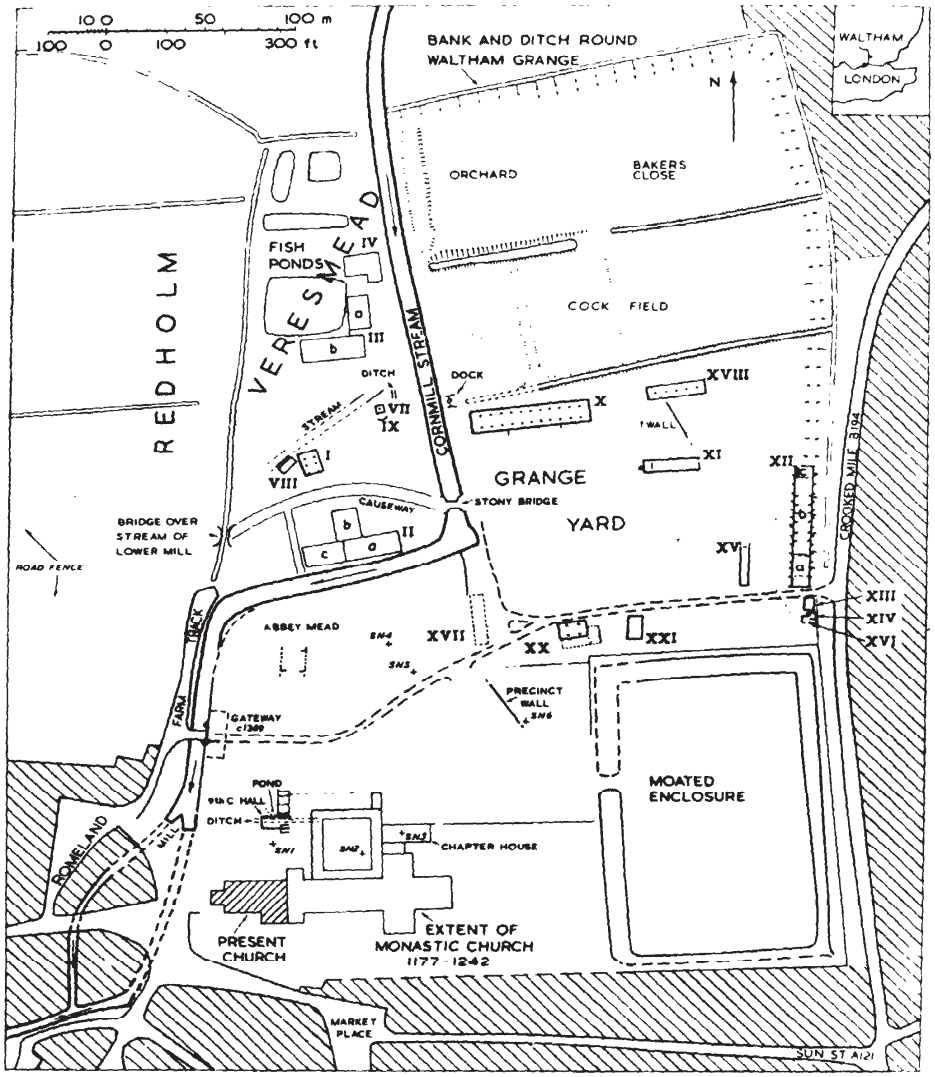


Fig 79 Waltham Abbey, Essex: precinct and environs, showing excavations (Huggins 1973, revised)

Oswald's: Heighway 1978, 1980; Sherborne: Gibb & Gem 1975; see also Peterborough: Mackreth 1980). Work at Romsey is near publication, but at Glastonbury 'there are now 70 years of unpublished excavations at the abbey' (Schofield & Palliser 1981, 38). Excavations on waterlogged deposits on and within the monastic *vallum* at Glastonbury and Beverley Lurk Lane have shown the rich potential of these two sites. At the five English monastic cathedrals of pre-Conquest foundation there has been extensive work at Winchester (Biddle 1972, 1975) and more restricted campaigns on the domestic buildings at Canterbury and Worcester. There has been no excavation at the three English monastic cathedrals of Norman creation.

The post-Conquest period was the time of greatest expansion of monasteries, both urban and rural, and it is possible to select excavations that contribute to an understanding of the monastic remains and may worthily be set alongside the achievements from the golden age of monastic architectural investigation under St John Hope, Brakspear, *Peers* and Clapham. For the major Benedictine houses the work at Coventry (Hobley 1967-70) and Faversham (Philp 1968) is most complete, while that at Hereford St Guthlac (Shoesmith 1980) and Reading (Slade 1971-2, 1975-6) has tackled the problem areas. Of the smaller Benedictine houses the excavation of two cloister ranges at Stamford St Leonard's has been closely related to work elsewhere in the town (Mahaney *et al* 1982, 177-9). The important Cluniac house on the eastern side of Pontefract has been extensively excavated (Bellamy 1962-4), and *more* limited work has been undertaken at Lenton near Nottingham (Beilby 1966)

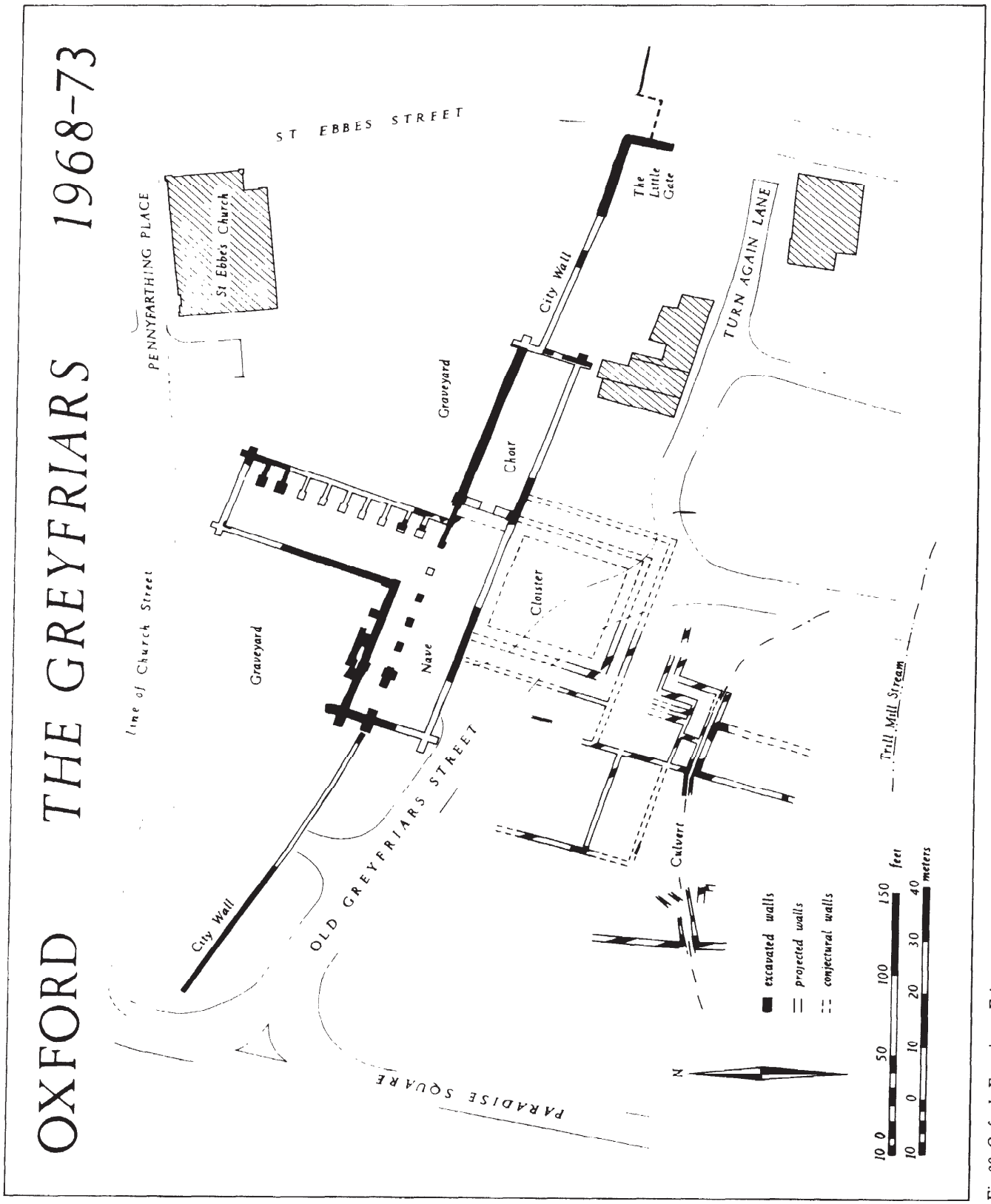


Fig 80 Oxford, Franciscan Friary: recent excavations (Oxford Archaeological Unit)

and Much Wenlock (Jackson & Fletcher 1965). Of the four Carthusian houses in towns in England and Scotland only the London Charterhouse has received much attention (Grimes & Knowles 1954).

The canons were the most numerous of the religious orders, but apart from work at Cirencester (Brown & McWhirr 1966, 1967; Brown 1976), Thetford, Gloucester St Oswald's and London Holy Trinity, and more recent investigations at Haverfordwest, excavations at houses of canons have concentrated on the rural sites. The houses of Benedictine nuns at Polsloe on the northern outskirts of Exeter, Sopwell close to St Albans and Clementhorpe in the eastern suburb of York have been excavated and have produced interesting plans showing the sequence of use within the claustral buildings. There have been numerous excavations at the houses of the friars in England and Scotland (Butler 1984). Particularly noteworthy have been the excavations in Oxford (Fig 80; and Woods & Lambrick 1976) and Leicester (Mellor & Pearce 1981). In all the excavations to which reference has been made, the more perceptive contributions are those which relate the architectural remains both to the plans and aspirations of the order and to the economic resources of the locality, those which view the archaeological material in relation to the religious life and to the urban co-unity which it served, and those which investigate the human, fauna1 and plant remains as an indication of diet, climate and economy.

However, unless there is a site without subsequent re-use, there are many possible difficulties facing an excavator. If the church and precinct are still in use both ecclesiastically and domestically as at Durham, opportunities for further work are limited to the open spaces of cloisters and greens or to service trenches. If part of the church is in use, the post-medieval burial ground may have drastically disturbed the cloister and choir, as at Malmesbury. If the church has been abandoned, the site may have been converted piecemeal to domestic and industrial use with the subsequent occupation bearing little relation to the earlier purposes of the monastic buildings and not even respecting their boundaries. This is equally the case with major abbeys which were attractive to land speculators and with poor friarits situated in cramped inner city areas. The more spacious suburban sites were also prone to destruction and may present the excavator with a nightmare of featureless masonry, robber trenches and damaged floors. If the excavation is primarily directed at obtaining a monastic layout then a rural site will often be more rewarding, but if the strategy of the excavation is to obtain economic data tocompare with other sites in the town or to establish *ab initio* a chronological sequence then the urban monastery has many advantages over other forms of secular and industrial occupation. Retention of re-used stonework in other contexts is also more likely in towns (Fig 81).

There are serious research questions to be answered, more particularly in the pre-Conquest period where the divide between houses of 7th century foundation and those of 10th century foundation is still predominantly a documentary gulf not yet supported by or distinguishable in archaeological evidence. The data from the 'double houses' is also scarce and inconclusive, More work is needed on these prom-historic sites to provide evidence of planning, economy and social relationships. Within the post-Conquest period the general line of plan development are clear and each site must be evaluated for the information it can give on the specific site use and the relationship of that site to the growth or stagnation of its town. In this latter period religious houses possess two advantages: the terminal dates of religious occupation are often known though with varying precision, and some events in their internal history are recorded. The character of the site's use can already be appreciated from comparable well preserved sites, and therefore the changes exceptional to that community or particular to that town or region can be perceived more readily. The ability to relate the evidence of one site (or a group of houses within one town) to an adequately recorded life-style gives enhanced value to the information about diet, dress, crafts, economic requirements and life-expectancy. This is the important contribution of excavations at religious sites: to act as the barometer to measure changes within the adjacent or enveloping town and to use the prior knowledge of the claustral plan as an advantage in assessing economic currents and physical alterations.

In those periods where the character of the entire monastery is unknown excavation should be by open-plan tackling the largest feasible area. However, the advantage of undeveloped sites such as Bardney or Much Wenlock rather than sites still in use for religious and domestic use as at Canterbury and Ely is apparent. Sites already disturbed extensively by monastic or parochial burial throughout the medieval and modern period will be more likely to have suffered from robbing and other destruction. The work at Winchester (Kjolbye-Biddle 1975) has shown how high a standard of excavation is needed in such circumstances. Within the post-Conquest period the greater predictability of plan and of the use of the buildings means that excavation may be more selective, such as the trenching used by Philp at Faversham for the greater part of the claustral ranges or by Harbottle on Newcastle White Friars (Harbottle 1968). Wherever possible such trenching needs to be augmented by open-area excavation.

The dangers of drawing premature conclusions from inadequate work have been shown at Selborne (Augustinian canons). The intricacies of plan changes at sites such as Grove near Leighton Buzzard and Polsloe near Exeter would have been nearly impossible to recover without the open-area excavation. However, in towns the availability of sites owing to urban clearance, inner ring roads and re-development schemes usually dictates that only part of the monastic precinct is available for examination. The importance of establishing the limits of the monastic precinct has been stressed by Rigold (1976). Within the precinct the advantage of examining one aspect of the outer courts in one campaign or of a single cloister range in a concerted programme should yield valuable information, particularly on brewing, milling and fish-management. The piecemeal trenching of unknown areas of uncertain plan is a recipe for inconclusive or misleading results, particularly if the sample is then used to extrapolate a plan related to a known monastic layout. Similarly use of the material finds in isolation from the structures can give an erroneous impression of wealth or indigence, particularly when the monastery, nominally an oasis of individual poverty, could contain a wide spectrum of households from the abbot or prior to the cellarer and lesser officials down to the servants and permitted female laundry maids. This range of class differences could well be reflected spatially in the variations



Fig 81 St Mary's Conduit, Lincoln, probably built c 1540 out of architectural fragments from a chapel at the nearby Carmelite Friary (Lincoln ArchaeologicaI Trust: G Jacklin)

of material finds assemblages and in the location and composition of cemeteries. It should be remembered that in the later Middle Ages financial considerations allowed lay men and women to be accommodated within the monastery as corrodians and also allowed lay persons to be received into the monastic life on their deathbed, thereby obtaining burial in the monastic cemetery.

Although guidelines have already been given on the research directions upon monastic sites (Thomas 1983, 12-13), the suitability of applying them in any one town or city will depend on the available resources. In the early pre-Conquest period the major area to be tackled is the monastery which was the initiator of urban growth and preferably one which has been superseded in importance by another foundation. In the monastic revival of the 10th century there are a number of likely targets, but abbeys where the documentary evidence gives the best stimulus to archaeological work would seem to be most desirable. However it is very difficult to identify urban sites unencumbered by later building.

During the high Middle Ages the hospitals, the houses of the canons and those of the friars are important indicators of major trends in urban growth because of their closeness to the communities they served, rather than the Benedictine or Cluniacs who were far more financially dependent on large rural estates and inherited wealth. These latter orders may be more informative about the relationship of the town to its region and to the major fairs. The special conditions of urban or burghal growth in Scotland mean that only in the later Middle Ages are the friars a really informative source, and in Wales the monastic contribution is particularly modest and unrepresentative, whether one considers the friars or the Benedictines.

Hospitals are worthy of detailed study in respect of their location, their planning and their archaeological contents. Since the main enthusiasm for hospital foundation in England came in the early 12th century, predating the houses of the friars by a century, a study of hospital location can give clear information upon the extent of built-up areas and urban defence-lines within the 12th century. Although the plan form of early medieval hospitals is generally the wide hall, originally undivided and adopted from monastic infirmary halls, there are two exceptions to this plan. The first concerns the possibility that leper hospitals provided their inmates with individual cells in a single extended range from the time of the hospital's foundation; this would be

particularly interesting information to ascertain because the plan would predate the hermit cells of the Carthusian order in southern England by at least 50 years. The second development is the courtyard plan, which is normally regarded as a late medieval phenomenon. It is found at Ewelme, Oxon in 1437 among hospitals, but is seen earlier at academic colleges (Merton, Oxford: 1304-78; Corpus Christi, Cambridge: 1352-77) and at secular colleges (Cobham, Kent: 1362-70). The advantages of compact planning for a permanent pauper residence would be appreciated in a cramped urban environment, but no hospital courtyards of the 14th century are known.

The final contribution that excavation at hospitals can make is to enlarge our understanding of the incidence and treatment of disease. However unless burials are found in waterlogged conditions, it will only be possible to trace those diseases and injuries that affected the bone structure and surfaces. Similarly the survival of specialist items of pottery, glassware and metal instruments suitable for the preparation of medicines and the treatment of inmates may be fortuitous in occurrence and ambiguous in their message.

Apart from the main themes of the pre-Conquest monastery and the outer courts of the major Benedictine abbey, all other monastic phenomena should be considered on their merits in their local setting. The historic circumstances of foundation and dissolution, the post-monastic site use and the likelihood of the survival of deposits will all be factors influencing a decision whether to give high priority to the examination of an urban monastery. When a decision is made to excavate then the greatest available area should be examined to maximize information from the site. This information must relate to the totality of the phases of occupation from initial site clearance and should not be confined to the monastic episode, however prolonged or brief that may be, Only then can one see how the urban monastery was influenced in its location and in its turn influenced the successor uses.

Bibliography

Beilby, B W, 1966 Excavations at the Cluniac Priory of Holy Trinity, Lenton, 1962–4, *Trans Thoroton Soc*, **70**, , 55–62

Bellamy, C V, 1962–4 Pontefract Priory excavations, 1957–61, *Publ Thoresby Soc*, **49**

Beresford, M W, & St Joseph, J K S, 1979 *Medieval England: an aerial survey*, 2 ed

Biddle, M, 1972 Excavations at Winchester, 1970: ninth interim report, *Antiq J*, **52**, 93–131

——, 1975 *Felix Urbs Winthonia*: Winchester in the age of monastic reform, in *Tenth-century studies: essays in commemoration of the millennium of the Council of Winchester and Regularis Concordia* (ed D Parsons), 123–40

Bidwell, P T, 1976 *Excavations in the cathedral close, 1971–5*, Exeter Mus Publ

Bond, C J, 1973 The estates of Evesham Abbey: a preliminary survey of their medieval topography, *Vale of Evesham Hist Soc Res Pap*, **4**, 1–61

Brown, P D C, 1976 Archaeological evidence for the Anglo-Saxon period, in *Studies in the archaeology and history of Cirencester* (ed A D McWhirr), 19–45 and plan at p 60

——, & McWhirr, A D, 1966 Cirencester 1965, *Antiq J*, **46**, 240–54

——, & ——, 1967 Cirencester 1966, *Antiq J*, **47**, 185–97, esp 195–7

Butler, L A S, 1984 The houses of the Mendicant Orders in Britain: recent archaeological work, in *Studies in honour of M W Barley* (ed V Black), 23–36

Gibb, J H, & Gem, R D H, 1975 The Anglo-Saxon cathedral at Sherborne, *Archaeol J*, **132**, 71–110

Grimes, W F, & Knowles, D, 1954 *The London Charterhouse*

Harbottle, B, 1968 Excavations at the Carmelite Friary, Newcastle-upon-Tyne, 1965 and 1967, *Archaeol Aeliana*, 4 ser, **46**, 63–223

Heighway, C, 1978 Excavations at Gloucester. Fourth interim report: St Oswald's Priory, Gloucester, 1975–1976, *Antiq J*, **58**, 103–32

Heighway, C M, 1980 Excavations at Gloucester. Fifth interim report: St Oswald's Priory 1977–8, *Antiq J*, **60**, 207–26

Hobley, B, 1967–70 Excavations at the cathedral and Benedictine Priory of St Mary, Coventry, *Trans Birmingham Warwickshire Archaeol Soc*, **84**, 45–139

Huggins, P J, 1970 Waltham Abbey: monastic site and prehistoric evidence, 1953–67, *Trans Essex Archaeol Soc*, 3 ser, **2** (3), 216–66

——, 1972 Monastic grange and outer close excavations, Waltham Abbey, 1970–72, *Essex Archaeol Hist*, **4**, 30–127

——, & RM, 1973 Excavation of monastic forge and Saxo-Norman enclosure, Waltham Abbey, 1972–3, *Essex Archaeol Hist*, **5**, 127–84

——, 1976 The excavation of an 11th-century Viking hall and 14th-century rooms at Waltham Abbey, Essex, 1969–71, *Medieval Archaeol*, **20**, 75–133

Jackson, E D C, & Fletcher, E G M, 1965 The pre-Conquest churches at Much Wenlock, *J Brit Archaeol Ass*, 3 ser, **28**, 16–38

Kjølbye-Biddle, B, 1975 A cathedral cemetery: problems in excavation and interpretation, *World Archaeol*, **7**, 87–108

Mackreth, D M, 1980 The monastic church [at Peterborough] before 1116, *Durobrivae*, **8**, 11–13

Mahaney, C, Burchard, A, & Simpson, G, 1982 *Excavations in Stamford, Lincolnshire, 1963–1969*, Soc Medieval Archaeol Monogr Ser 9

Mellor, J E, & Pearce, T, 1981 *The Austin Friars, Leicester*, CBA Res Rep, 35

Parrington, M, & Balkwill, C, 1975 Excavations at Broad Street, Abingdon, *Oxoniensia*, **40**, 5–58

Philp, B J, 1968 *Excavations at Faversham 1965*

Reynolds, S, 1977 *An introduction to the history of English medieval towns*

Rigold, S E, 1976 Buildings within precincts, *CBA Monastic Sites Working Party Pap*

Schofield, J, & Palliser, D, 1981 *Recent archaeological research in English towns*

Seguy, J, 1971 Une sociologie des sociétés imaginées: monachisme et utopie, *Annales Economies, Sociétés, Civilisations*, **26**, 328–54

Shoesmith, R, 1980 *Excavations at Castle Green, Hereford*, CBA Res Rep, 36

Slade, C F, 1971–2 Excavations at Reading Abbey, 1964–1967, *Berkshire Archaeol J*, **66**, 65–116

——, 1975–6 Excavations at Reading Abbey, 1971–73, *Berkshire Archaeol J*, **68**, 29–70

Thomas, C, 1983 *Research objectives in British archaeology*, CBA

Woods, H, & Lambrick, G, 1976 Excavations on the second site of the Dominican Priory, Oxford, *Oxoniensia*, **41**, 168–231

13 Parish churches

Richard Morris

This essay centres upon urban (parish) churches in England and Wales during the period *c* 700-1550. The text falls into four main parts. The first looks at the varying size of ecclesiastical provision in different towns. The second examines parochial circumstances in new towns, suggests reasons why towns established after *c* 1150 usually possessed few churches, and offers criteria for the selection of a limited number of 'new town' churches for archaeological investigation. The third and fourth sections concentrate on churches in towns of pre-Conquest origin. In the third, there is discussion of the phenomenon of ecclesiastical growth, and data from a group of recent archaeological investigations are tabulated and examined. The fourth and last section puts forward some particular aims for the archaeological study of urban churches in the older towns.

Ecclesiastical provision in towns

Notoriously, England's older medieval towns were full of churches. By 1200 London had amassed above 100 parish churches within its walls. During the 13th century Norwich and Winchester could boast 57 apiece, Lincoln 48 and York about 40. In a middle range were Exeter (22), Canterbury (22) Thetford (20), and Bristol (18). Below this was a group of towns with ten churches or more, including Cambridge, Chichester, Colchester, Gloucester, Ipswich, Leicester, Oxford, Stamford, Wallingford, and Worcester. Among those more modestly provided for with between five and ten were Carlisle, Chester, Derby, Dunwich, Folkstone, Hereford, Ilchester, Northampton, Shrewsbury and Southampton. At the lower end of the scale, with more than one church and fewer than five, were Bedford, Dover, Guildford, Lichfield, Nottingham, St Albans, Torksey, Wareham, and others besides. As the examples of Winchester, Exeter and Bristol show, proliferation was not confined to eastern towns.

It is fair to regard the period up to *c* 1200 as one of ecclesiastical growth, the 13th century as a plateau, and the 14th and 15th centuries as a time of decline, witnessed in losses and amalgamations. Hence, most of the figures given above represent peaks which had been attained by the 13th century; in a few cases they are aggregate totals which actually exceed the numbers of churches which stood together in a town at any one time. The figures exclude various types of chapel which were supplementary to parochial provision. In some towns these ancillary buildings could be quite numerous. If they were to be counted in with parish churches the total for Bristol would rise from 18 to 27, that for Exeter from 22 to 29, at Worcester from 11 to 23, and at York from 39 to 46.

While losses which were sustained after 1300 are tolerably well documented, the growth which produced the huge totals in places like London and Winchester is only sparsely recorded. Urban ecclesiastical expansion is thus very much a matter for the archaeologist, who alone can hope to furnish dates for the origins of most of the churches concerned. In any given town we may ask if growth was a process of steady accumulation spread across several centuries, or whether it was achieved in a series of spasmodic advances, or even in a single mighty campaign.

Before turning to explore these questions, it is necessary to notice the contrast which existed between towns where parish churches were numerous and boroughs which were served by only one church or none at all. It emerges that the multiparochial places were usually in existence, and possessed of urban traits, before 950. By contrast the monoparochial places were typically towns created after *c* 1100. Thus out of the 100 or so English centres which appear to have been urban before the Norman invasion, over 50% contained more than one church. The comparable percentage for boroughs which emerged during the following two centuries is only 4%.

Parochial circumstances in new towns

New towns were often too small to justify separate parish churches of their own. Where the town absorbed or connected with a pre-existing rural settlement with a church, as apparently in the case of St Martin at Dorking (O'Connell 1977, 15), the need for a new church might not arise. Residents of minor boroughs on green-field sites could go to worship in the church of the parish within which their town had been created, as at Brackley, Northamptonshire (Beresford & St Joseph 1979, 228-9). Alternatively, if the distance was too great or the borough became populous, they could seek leave to establish a chapel-of-ease within the town itself. At Caernarvon (fd 1283), for instance, we hear of a mason-burgess who obtained permission in 1307 to build a chapel on his burgage in the north-west corner of the town (Williams-Jones 1978, 82).

In fact, for towns created after *c* 1150 size was no longer of much consequence as a determinant in the issue of whether or not a place should have a parish church of its own. By this time the churches of existing mother parishes were well entrenched in their rights. Barring episcopal intervention such as occurred at Salisbury, matrices *ecclesiae* were usually successful in resisting attempts at encroachment. This is why a place like Cockermouth (Cumbria), a borough by 1295 and a substantial market-town, remained a chapelry of Brigham. Malton (N Yorkshire) furnished itself with two churches, but both were kept in thrall to the ancient ecclesiastical centre, redeveloped by the Gilbertines, at Old Malton nearby.

In Wales, where urbanism can scarcely be detected before the end of the 11th century, dependency of this sort was normal. Hence Whitchurch maintained parochial supremacy over Denbigh, Llanbeblig over Caernarvon, and the pre-Conquest St Woolos (Gwynllwg) over a trio of chapels at Newport (Gwent). Aberystwyth (fd 1277) had no church at all until the 15th century, and then only a chapel which subsequently fell into the sea (Morgan 1854). Aberystwyth looked to the ancient monastic centre and *clas* at Llanbadarn Fawr, some 3 km distant, until the creation of an independent parish in the mid 19th century. Among the larger

Welsh towns only Carmarthen, Cardiff and Tenby seem to have incorporated independent parish churches from the outset. In the first two cases, at least, the churches are likely to have been inherited from a pre-urban stage, and at both there were chapelries which stood at the heart of new commercial sectors.

Their subjection notwithstanding, parochial chapels in new towns could become great buildings. Holy Trinity at Hull ended the Middle Ages as one of the largest churches in the country, although it remained dependent upon the old *matrix ecclesia* at Hessle until 1661, The grandeur of St Mary's at Nantwich (Cheshire) belies the fact that it was subordinate to neighbouring Acton until the 17th century. Pevsner regarded the steeple of St Dionysius at Market Harborough (Leicestershire) as 'one of the finest in England' (1960, 183), but here too the building was formerly a chapel. The mother church of St Mary-in-Arden is in ruins on the town margin. In 16th century Cardiff the chapel-of-ease dedicated to St John was in all respects more prosperous that the parish church itself (Walker 1978, 116-l7). St Mary's was washed away in 1620.

Holy Trinity at Hull was the cuckoo in Hessle's nest because Kingston-upon-Hull grew up after the parochial system had been laid down. There is an informative comparison to be made between Hull, which was becoming urban in the period 1160-90, and the neighbouring port at Hedon, which attained urban status in the decade 1138-48. Hedon acquired three churches: St Augustine, St Nicholas, and St James. They all seem to have won some sort of freedom from the church at Preston that served the mother parish out of which Hedon had been cut. This piece of parochial surgery may have been simplified by the fact that it was the lords of Preston in Holderness who developed Hedon Haven as a port, but it also points to the date after which parish boundaries hereabouts set hard. Hedon gained a degree of independence, Hull did not.

St Nicholas and St James fell into decay at the end of the 15th century. These were appropriate dedications for churches which stood close to arms of Hedon Haven that permitted ships to moor almost in the midst of the town. Beresford notes that 'Since the community had built them, the sites were regarded as common property and the corporation disposed of them; during the life of these churches the unique proprietary relationship of the burgesses had been demonstrated by the election of churchwardens at burgess meetings' (Beresford & St Joseph 1979, 220).

New towns also provide instances of role-reversal between mother and daughter churches. The borough of Penryn (Cornwall), for example, was founded in 1236 in the parish of Budock. In 1318 a new parish, Gluvias, was created which incorporated Penryn and was detached from Budock. The old chapel of St Gluvias then became the new parish church (Beresford 1967, 173, 409). An exchange of status between chapel and parish church has been observed at Braintree, Essex (Bassett & Drury 1976, 134-5). At Haverhill (Suffolk), the original parish church in the upper town was supplanted by a market chapel in the lower town. Eventually the chapel became the parish church, and the old parish church disappeared.

The rise to prominence of Lichfield's youngest church, St Mary, provides another illustration of the way in which an urban chapel could advance. First heard of in about 1260 as a *Capella* subordinate to the venerable church of St Michael (cf Finberg 1971, 460), St Mary's not only succeeded in loosening its filial bonds, but also reached a pre-eminent position when in 1625-6 it was proclaimed to be the parish church of the town (Bassett 1980-1, 114-15).

Despite the historical interest of these examples there are signs that the urban archaeologist harbours doubts about the value of data that new town churches are expected to yield. Such scepticism seems to be reflected in the pattern of recent work; out of some fifteen complete or near-complete investigations of urban churches which have taken place since 1960, not one has been in a new town (cf Morris 1983, 95-108; Schofield & Palliser 1981).

Contrariwise, Anglo-Saxon towns contain on the whole more churches, and we know less about them in their formative years. If it can be maintained that the first task of archaeology is to garner new knowledge, rather than to colour in the historical record, so to speak, then origins assume priority.

Admittedly, not all archaeologists would concur. Rodwell has warned us that it is 'wrong to suppose that an Anglo-Saxon church must be more important than a Victorian church, or that one should merit meticulous recording and the other should not' (1981, 15-16). Much depends, too, upon the way in which a church has been rebuilt, or whether it has survived at all; in many cases the entire medieval sequence is effectively 'prehistoric'.

Once a site has been selected for study, few would dissent from the need to make a comprehensive record. The issue here, however, centres upon how such churches are to be singled out. If, for reasons mentioned above and to be discussed at greater length below, the main thrust of archaeological effort should continue to be directed towards churches in the older towns, it becomes all the more essential to ensure that 'new town' churches do not languish for want of attention.

Positive reasons for the thorough investigation of a select group of these buildings include the need to ascertain what builders working on ostensibly virgin sites would do between the 12th and 14th centuries. It is also important to check that churches currently assumed to be new really were so, and not developments out of ecclesiastical sites at proto-urban nuclei, such as that which has been entertained for King's Lynn (Owen 1979, esp 153). Another attraction lies in the scope for establishing ground-rules to help us to decide upon the contemporaneity, or otherwise, of medieval substructures and the walls they carry. Rodwell's introductory remarks apart (1981, 112-13) this is not a subject which has been much explored, and it is a task for which older churches with long structural sequences are, by themselves, unsuited. Lastly, the investigation of later medieval parish cemeteries in ground which had not previously received burials may supply comparative data which will assist in the unravelling of churchyards where use was of longer duration.

A limited campaign of investigations into 'new town' churches is therefore justified: as a contribution to knowledge of medieval building practices, as a control upon work elsewhere, and as additional illumination on the histories of the towns themselves. Given the apparent reluctance of urban archaeologists to concern themselves with churches in this category, whether in use or the abandoned sites, there is perhaps a case for the determination of new town ecclesiastical objectives at national rather than local level. This

would involve the compilation of a list of target churches, selected with regard for the quality and survival of their deposits, the needs of urban and architectural history, and regional balance. Once chosen, the churches concerned would be tackled more or less automatically, as and when opportunities for investigation presented themselves.

Turning back now to the older towns, it may be repeated that the natural role for archaeology, within the limits of the method, is to find things out which cannot be ascertained by other means. Even by this criterion, later developments must still loom large. Churches of low value were sometimes omitted from taxation surveys during the 13th and 14th centuries-and could then vanish from recorded history. That a church of Holy Trinity ever existed in Carlisle, for instance, is known only because the 14th century Chronicle of Lanercost mentions how marauding Scotsmen positioned a stone-throwing catapult nearby (Perriam 1979, 51). Most of the larger towns listed at the outset are likely to contain small quotas of unrecorded churches. New towns may hide them too, as in the case of Haslemere, Surrey (O'Connell 1977, 35).

Although the presence of most urban churches is acknowledged in records by the 14th century, the sources concerned seldom say much about the appearance of the buildings. Descriptive information is not normally forthcoming until the tours of antiquaries begin in the late 15th and early 16th centuries. By this time many of the churches had been rebuilt, often several times over. Others had become ruinous, and not a few had already disappeared. The citizens of Norwich, for instance, had divested themselves of more than a quarter of their parish churches before 1400. In York one-third of the city's complement of churches was suppressed during the 16th century (Palliser 1974). When John Leland visited Ilchester in the 1540s he found only one which was still in use. Two others were in decay, and residents told him about a fourth church which had been demolished. A fifth had once existed (Aston & Leech 1977, 69). Few towns were left untouched by such rationalization during the later Middle Ages, although the ecclesiastical losses sustained at Ilchester were unusually severe.

Records which describe churches at regular intervals and thus give connected accounts of their developments are rare at any date. In a town like Norwich, therefore, where almost all of the surviving churches were rebuilt in the 15th and 16th centuries, archaeology has a basic, revelatory role to play until the very end of the Middle Ages. The same is true for the City of London where, despite the availability of pictorial evidence from the mid 16th century onwards, the combined effects of the Great Fire and Sir Christopher Wren have largely obliterated the medieval appearance of church buildings. Pieces of the former pattern are nevertheless present below ground, as excavations by Grimes have shown (1968, 182-209).

Pictorial evidence needs to be evaluated with circumspection. Artists' representations of churches which no longer stand or have been rebuilt are often helpful but not always reliable in matters of proportion or detail. The excavators of St Paul-in-the-Bail, Lincoln, tell a cautionary tale about a tower of 11th-12th century appearance which, although seemingly secure in 18th century drawings, turned out on excavation to have been appreciably younger (Colyer & Gilmour 1978, 104-5).

St Paul-in-the-Bail was one of two churches in Lincoln which were fully excavated by the Lincoln Archaeological Trust in the 1970s. The other, St Mark's, stood in the southern suburb of Wigford (Gilmour 1981, 99-101). It emerges that both churches were built anew on contracted plans during the 18th century, that both were reconstructed in the 1870s, and demolished in 1971. These episodes reflect the recent city in transition, and they hold an intrinsic interest for historians of worship. They may also prompt us to re-examine conventional assumptions. The new orientation of St Mark's, for interest (Fig 82), invites a question about the significance of such departures at earlier dates, when similarities of alignment in successive structures sometimes excite talk about continuity of structure or use, while discordances are loosely interpreted as representing cultural breaks. The pre-Conquest church of St Michael at St Albans offers a case in point. The church stands, somewhat inexplicably (see below), in the forum area of empty Verulamium, and a large Roman building is reported to lie diagonally underneath it.

A task for which archaeology is indispensable is to ascertain broad trends in urban churchbuilding. Within a given town, did churches develop individually, each at its own pace according to the differing means or ambitions of a parish or social group? Or was there some measure of simultaneity in architectural developments, with most churches acquiring a tower, or a lengthened chancel, or an aisle, at roughly the same time? Was there an element of competition between worshippers, or benefactors or patrons, both within a single town or between towns of similar status and aspirations? Questions of this sort have relevance for the town as an entity, in decline as well as in growth. They call for the study of churches in groups-an approach which might indeed be broadened to encompass parish churches in the hinterland. Were all architectural developments exported from the town to its hinterland? Or could the movement be the other way, the town sucking in ideas from outside?

Ecclesiastical growth

The subject of 'town behaviour' returns us to the introductory theme of this essay, namely the problem of how and when urban churches came into existence. Is this an issue about which we can generalize, as some historians have felt able to do, or does the expansion of urban ecclesiastical provision require more concentrated and systematic attention than it has so far received?

More figures will help to set the inquiry in perspective. Canterbury possessed 22 churches by 1200 (the non-parochial St Pancras being omitted), but no more than eight of these can be accounted for with certainty before 1100. In Bristol there were eighteen churches by 1300, of which fifteen are known to have existed before 1200, nine by 1150, and only two by 1100. At least 34 churches were extant in Winchester before 1200, almost all of them by 1150, but not more than ten or eleven are mentioned before the Conquest. At Worcester we hear of ten churches by 1250, but only four can be singled out as having existed before 1100. The comparable figures for York are 39 and 14. It may be asked if the numbers in these examples approximate to the actual pace of growth, or whether it is simply that the bishops' registers and general valuation surveys which become available during the 13th century give the first general views of older patterns.

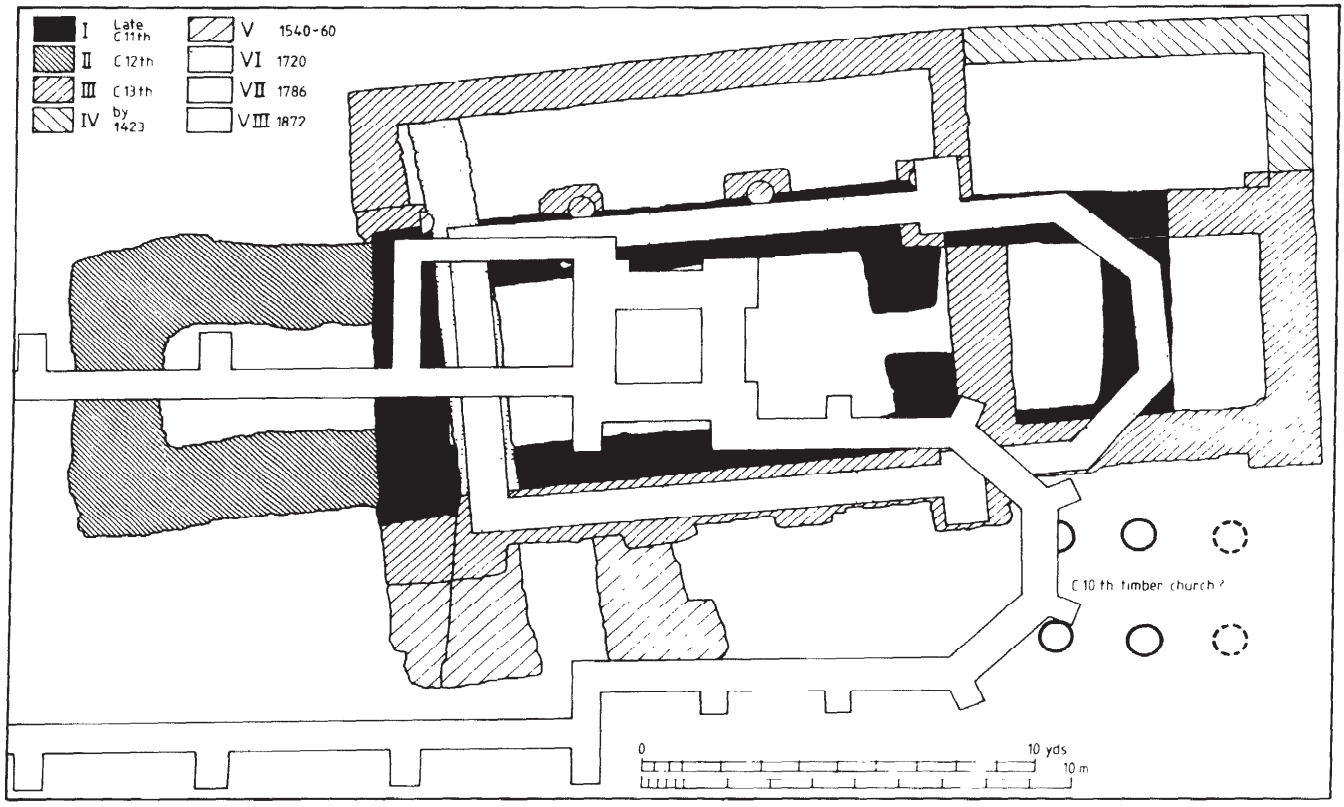


Fig 82 St Mark, Lincoln: plans of main structural phases that were recognized during excavation, seen here in superimposition. The 18th century church was superseded by a rebuilding of 1871 involving a sideways shift and realignment (Linclonshirc Archaeological Trust; redrawn by Dick Raines)

There are several reasons for inclining towards the latter interpretation. In the first place, as we have seen, our inheritance of written records from before 1200 is usually haphazard, and it would be perverse to claim that such references to churches as they provide are normally going to be in measurable proportion to the numbers which were actually standing. Secondly, the multiplication of churches was not by any means confined to towns. Across large areas within the hinterlands of towns like Ipswich, Thetford, Norwich, Lincoln and York it is possible to show that almost every parish church was in position before the end of the 11th century (Morris 1985). Common sense allows us to suppose that these towns present an intensified picture of what was going on around them, although whether urban and rural ecclesiastical growth proceeded exactly in parallel is a different question. (For certain towns of Roman background, like York, the exportation to surrounding country churches of second-hand building materials, possibly released as a result of clearance activity which was in its turn stimulated by urban expansion in the period (?) *c* 900-1100, forms a connected issue which deserves to be mentioned, but cannot be explored, here (cf Morris 1976, 101-3).) Thirdly, and the first point notwithstanding, there is a select list of towns for which written evidence is more than usually full, and where it is feasible to arrive at minimum working totals of churches by 1100.

One of these towns is Ipswich, where no fewer than eleven churches were extant by 1086. Domesday names them: saints Michael, Botolph, Lawrence, Peter, Stephen, George, Julian and Augustine, together with a Holy Trinity, and two churches dedicated to the Blessed Virgin Mary. This bonus reminds us that towns may provide spectra of parish church dedications considerably earlier than does the countryside, where such information is seldom forthcoming in any general way before the 16th century. The eventual total of churches in Ipswich was fourteen or fifteen, so the late 11th century component was not smaller than 75%.

The picture at Lincoln is much the same. Here a combination of archaeological, architectural, and written evidence may be used to demonstrate the presence of at least 32 and possibly as many as 37 parish churches before 1110 (Hill 1948, 130-44; *Reg Ant* I, 33; D Stocker, pers comm). This is between 66% and 75% of' Lincoln's eventual maximum. Yet Domesday Book referred directly to only eleven (the putative minster of St Mary being omitted for the time being). Of these, two were in the hands of the bishop; three are mentioned in connection with a certain Tochi; there are references to St Peter of Lincoln, St Lawrence, and St Michael; All Saints was the subject of a dispute; and two others had recently been built: 'Colsuen has in the city of Lincoln 4 tofts of his *nepos* Cole's land; and outside the city he has 36 houses and 2 churches to which nothing belongs, which he had built on waste land *(in wasta terra)* that the king gave him, and that was never before built upon. Now

the king has all the customs from them (Foster & Longley 1921, 7/21)'. Colsuen's churches can perhaps be identified with St Peter-at-Wells and St Augustine (Hill 1948, 133-4), which stood in a suburb on the eastern fringe of the medieval city. If churches were being built here by the middle of the 11th century, it is reasonable to suppose that most of those which were nearer to the heart of the town were already standing.

Other 11th century minima include Thetford (around 55%: Dunmore & Carr 1976, 17-18); Leicester (70%); and Norwich, where some 24 churches were mentioned TRE (in the reign of King Edward) (40%) and 46 (81%) by 1086. In the case of Norwich, however, it is recommended that we should accept the figures at face value. Carter visualizes a steady accumulation of churches in that city through the second half of the 11th century and for several decades beyond (1978, 194-5). To summarize, in towns where data are available it looks as though at least three-quarters of parish churches were standing before the accession of Henry I.

Admittedly all the examples just given concern eastern towns. It has often been maintained that the parochial system emerged sooner and more strongly in the east than in the west of England (eg Addleshaw 1970, 11). At first glance some of the towns would seem to provide corroboration for this view. Hereford is said to have been a late starter (Brooke 1970, 66). Chester's provision may have been doubled during the 12th century (Alldridge 1981).

Yet on reflection there seems to be no strong reason to suppose that towns in Wessex or Mercia were more immature as regards an ability to produce lesser churches in the 11th century than their counterparts in the east. Their minsters may have been more assertive (Thacker 1982, 208; Shoesmith 1980, 1-6, 53-4; Biddle & Keene 1975, 332), but that in itself did not prevent proliferation of churches, although it might restrict their rights. All five of Shrewsbury's principal churches were named in 1086: St Alkmund, St Juliana, St Milburga, St Chad, and St Mary (Drinkwater 1908, 310). Others existed (cf *Vita W'ulstani* 2, iii). On balance, the rates and periods of urban churchbuilding seem most probably to have been linked to the economies and population trends of the individual towns concerned. If by 1100 Gloucester or Hereford had amassed fewer churches than Thetford or Stamford this may simply be because they were then of less consequence as towns.

In one respect the paucity of references to new church foundations during the later 12th century may be a more faithful reflection of reality than is the partial picture which is available for the preceding period. Few new churches were mentioned because few were now being built. Several factors may be suggested which help to explain this. First, urban growth had slowed down. In certain towns, like Lincoln and Winchester, this is suggested by the extent of suburban developments before *c* 1150 (Keene 1975). Second, in many of the older towns there was already a superfluity of churches in close proximity. Extra foundations would weaken the finances of those already in existence. Third, in place of earlier informality there was now a climate of opinion which came to discourage possession of parish churches by the laity (Kemp 1980, 133). And fourth, as the parochial system was laid down it became increasingly difficult to force apertures in the framework. This must be why so many of the later foundations were of chapelries, which were often squeezed into the interstices of towns, or of hospitals which carried no parochial responsibility.

Archaeological evidence can be used to support the outline that has been put forward. Out of 24 or so urban churches which have been investigated to a reasonable degree of completeness within the last three decades, no more than four or five seem to have yielded evidence which allows us to entertain a date of *origin* after 1100. Not all of the projects have yet been fully published, but from information so far given it looks as though at least one-third and perhaps more than half could have originated before 1000 (Table 7).

Twenty-four is not a large sample (it is about 4% of the likely combined total of churches in the towns mentioned at the outset) and results from some of the churches which make it up must be discounted in what follows. St Mary Major in Exeter and St Alkmund at Derby were pre-Conquest minsters. The inaugural phases of St Mary Major, Exeter, St May-de-Lode in Gloucester, and St Paul-in-the-Bail at Lincoln present special features that require separate discussion. Exactly how we should categorize St Peter at Barton-on-Humber it is difficult to say.

This leaves nineteen churches, all more or less of the 'box-like' type which have been discussed with such affection by Professor Brooke. Of these, four or five are stated to have been founded before 1000, a further two are thought to have been in existence by the early 11th century, six have been assigned to various periods within the 11th century but of occupied sites displaying signs of earlier ecclesiastical or funerary use, one was a creation of the 11th century, and three may have been founded in the late 11th or early 12th century. Two churches were actually *out* of use before 1100.

Small as they are, these figures suggest that the contribution of the 10th century is not to be underestimated. Of particular interest is the size of the group of churches which were built, or rebuilt, after *c* 1050 within older graveyards. Unless we are to entertain the presence of numerous unconsecrated urban cemeteries before this time, it follows that what has previously been looked upon as post-Conquest ecclesiastical expansion may now have to be regarded as a programme of modernization. This issue needs more discussion. The fact that no older church has been positively identified on any of the sites concerned is a worry; but some of the excavations were restricted in scope (eg St Benedict, Norwich, and St Mary Bishophill Senior, York), the deposits at several had been badly mangled (Fig 83), and in two cases fragmentary traces of an earlier timber structure were recorded. The church which was destroyed to make way for the Norman castle at Norwich may be a complete example of such a building, seen at a stage before rebuilding occurred. The metamorphosis from wood to stone of St Michael's church at Thetford is also instructive in this connection *(Medieval Archaeol* 13 (1971), 130, 131).

Increasingly, the secular archaeology of towns like Lincoln, Thetford, Winchester and York provides a plausible context for proto-parochial growth (entries and further references in Schofield & Palliser 1981, 54-7, 99, 105-7, 108-17). At Winchester there is some literary as well as archaeological evidence for 10th century churches. The information is too sketchy to permit talk of anything approaching a 'trend', except to notice that out of eleven parish churches which are known to have existed before

Table 7 Archaeological investigations of urban churches in England, 1952-1984: a sample list

The entries concern churches which have either been subjected to complete or reasonably full archaeological examination, or where although investigation has been limited in scope it has yielded results which are ofparticular relevance to themes discussed in this essay.

Column Di gives a date or date-range by which the earliest church structure to have been identified on each site can be shown or argued to have been in existence. Dates in this column are thus not necessarily dates of origin. Lower-case Roman numerals indicate quarter-centuries.

Information tabulated in column E suggests that 'Phase 1' church structures may on occasion by preceded by deposits which could betoken ecclesiastical use of the site from a date earlier than that given in Di.

Dates given in column F are suggestions, and do not always correspond with dates put forward by the investigators of the churches concerned.

Numbers given in brackets refer to pages in the reference cited.

Brackets have also been used in column E to indicate finds of doubtful or uncertain significance.

Not all the investigations listed have yet been fully published, and all dates cited may of course be subject to revision or refinement in due course.

Town	Church	Year(s) of investigation	Date by which first church recognized was extant	Evidence	Possibility of ecclesiastical use of site pre-Di?	Evidence	Period suggested for original ecclesiastical use of site	Reference(s)
A	B	C	Di	Dii	Ei	Eii	F	G
Barton-on-Humber	1 St Peter	1978-84	*c* 1000	C14 determinations Structural/stratigraphic sequence	x	Earlier cemetery	C9 or earlier	Rodwell & Rodwell 1982
Canterbury	2 St Mary Bredin	1978 1983	*c* 1150	Stratigraphic	x	Burials Timber structure (?)	-C12	Blockley & Day 1983
Colchester	3 St Giles	1972 1975	C12 i	Literary TPQ of *c* 1095 Stratigraphic arguments			*c* 1100	Crummy 1981, 40-6
	4?	1972 1977	C11	Abandoned - 1100	(X)	(Roman burials)	-C11 iii	Crummy 1981, 41-6
Derby	5 St Alkmund	1967-8	C9	Plan-form Reuse of (?) C9 carved stones in modifications to Phase I (34-35)	x	Sculpture Sarcophagus/shrine	C8	Radford 1976
Exeter	6 St Mary Major	1971-7	C11	C12 demolition Structural sequence	x	Burials of C5-6 Cemetery	C7 or earher	Bidwell 1978, 1979; Henderson & Bidwell 1982
Gloucester	7 St Mary-de-Lode	1978 1979	C11	Artefacts Relative chronology	X	Burials Timber structures	-C11	Bryant 1980
Lincoln	8 St Mark	1976-7	C11 iii-iv	C14 determinations Structural sequence C10-11 gravestones re-used in fabric	x	Cemetery	C10	Gilmour 1981
	9a ?	1978-9	C4	C14 determinations on bone from burials interrupting robbing of church			C4	Jones & Wilford 1961
	9b St Paul-in-the-Bail	1975 1978-9	C10?	Artefacts Structural sequence	x	9a	-C10	Gilmour 1979
London	10 St Alban	1961-2	'at least of 8th-9th century date' (206)	Details of construction				Grimes 1968, 203-9
	I1 St Bride	1952	*c* 1100	Relative chronology	X	Human remains in pit interrupted by Di church	-1100	Grimes 1968, 173-99
	12 St Nicholas		C10/C11	C10/C11 pottery in pits preceding church and in construction			C11	Schofield in White, forthcoming
	13 St Swithun	1961	C12	C11 pottery in pits preceding first church			C11-12	Grimes 1968, 199-203

Table 7-continued

Town	Church	Year(s) of investigation	Date by which first church recognized was extant	Evidence	Possibility of ecclesiastical use of site pre-Di?	Evidence	Period suggested for original ecclesiastical use of site	Reference(s)
A	B	C	Di	Dii	Ei	Eii	F	G
Norwich	14 St Benedict	1972	C11 iv	Late C10/early C11 rimsherd in buried topsoil preceding church; constructional character of W wall (13, 15, 21, 23)	X	3 burials preceding church	-C11 iv	Roberts & Atkin 1982
	15 ?	1979	-1050	Phase 2 church destroyed to make way for castle at end of C11			C10-11?	Ayers 1985
Thetford	16 St Martin	1957-9	-C11 iii	DB Cemetery affected by C11 or C12 ringwork Stylistic judgements	(X)	(Disarticulated bones)	-1050	Knocker 1967
	17 St Michael (?)	1969-70	*c* 1050	Pottery Enlargement, early C12 sculpture (TAQ)			C10-11?	*Medieval Archaeol* 15 (1971), 130-1
Winchester	18 St Mary in Tanner St	1965-71	C10 1-ii	Relative chronology Pottery	(X)	(C7-8 burials)	early C10	*Antiq J 55* (1975), 312-15
	19 St Maurice	1959	-*c* 1000	Lit. reference Dating of pre-church deposits; relative chronology (?)			C10	*Medieval Archaeol 4* (1960), 143; cf *Antiq J* 55 (1975), 389, with further refs
	20 St Pancras	1968-71	C10?	TAQ provided by later phases			early C10?	*Antiq J* 55 (1975), 318-20
	21 St Peter-in-Fleshambles	1956-7	-1012	Relative chronology (TAQ grven by apsidal remodelling); historical equation (?): finds (108, Fig 35 1-2; 107 and disc. on 125) assessed with reference to literary evidence?			C10	Cunliffe 1964, 40-6
York	22 St Helen	1973-4 1976	C10 iii-iv	Pottery	(X)	(1 Roman burial)	C10	Magilton 1980
	23 St Mary Bishophill Junior	1980	C10		*X*	Sculpture	-C10	Briden 1981
	24 St Mary Bishophill Senior	1964	C11	Relative chronology; A/S gravestone re-used in footing	X	Earlier burials	C10	Ramm 1976

1066, no fewer than five and possibly as many as seven can be accounted for before *c* 1000 (Keene 1975, 329-30). Of St Albans we are told that a complement of three churches was created at a strike by an abbot around the middle of the 10th century (Lehmann-Brockhaus 1956, 407, No 3788). The truth of this story is difficult to ascertain (there are similar stories for Tournai and Utrecht), but it was accepted as credible in the 12th century and may at least be taken as a reminder of the stimulus to urban churchbuilding which might be provided by an energetic bishop or monastic leader. Dunstan in the 10th century and Wulfstan of Worcester in the next were both depicted as enthusiastic founders of churches, and as encouragers of layfolk who wished to do likewise. The careers and orbit of other leading churchmen of the era might be analysed from this point of view.

A second lesson to emerge from the figures concerns the value of sites where ecclesiastical use was of limited duration. The great majority of candidates will be churches which dropped out of use after 1350, and by no means all of these will be worth the digging. Among them, however, will be some with a known date of abandonment, where absence of post-medieval gravedigging and rebuilding may have left the earlier sequence relatively intact (Thomas 1983, 12). There is a smaller but valuable group of sites to be identified where ecclesiastical development was arrested

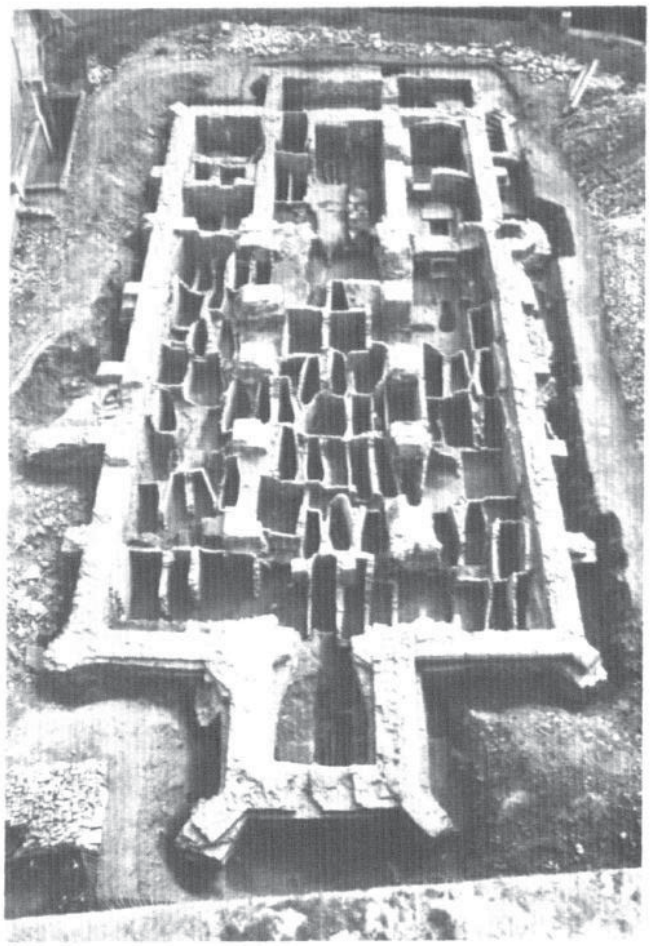


Fig 83 St-Augustine-the-less, Bristol: total excavation of church, showing extreme perforation of earlier deposits by graves and post-medieval vaults (Bristol City Museums)

at an early stage. Such churches are worth seeking out, either for preservation or study, because they offer hope of undisturbed interiors, evidence of ritual layout, a clear relationship with contemporary surroundings, and perhaps an orderly cemetery-all within a tight chronological framework. No list has ever been compiled of churches which were snuffed out by the making of Norman castles. The catalogue would include Cambridge (RCHM 1959, 2, 306, pl 28) and Hereford (Shoesmith 1980); possibly also Leicester, Brecon and Monmouth. At Pontefract (W Yorkshire) an earlier, presumably ecclesiastical cemetery was absorbed into the bailey of the 11th century castle, and a new church of St Clement superimposed on the site (Thorp 1983). The fact that the Norwich case was unexpected gives grounds for optimism that similar episodes occurred elsewhere. Town plans could be re-inspected with this possibility in mind (Wailingford? Lincoln? York?). Ecclesiastical sites could be engulfed in other ways, for example by the laying out of a new monastic precinct, as at Colchester *c* 1095 (Crummy 1981, 41-5), or even by an adjustment in the positioning of a cathedral. At York, for instance, part of a late Saxon graveyard was preserved in eerie completeness beneath the South transept of the Norman minster of *c* 1080 (Fig 84) (Hope-Taylor 1971; Phillips 1975).

Particular aims

In conclusion, five points of a strategic kind may be made

The first concerns the need for excavations of entire churches, not of sample slivers or portions. Those who were Present at the conference on church archaeology held at Middlesbrough in 1975 may recall the sharp intake of breath by some members of the audience when Martin Biddle remarked upon, 'the comparative uselessness of individual trenches in church excavation, unless they are designed to form part of a comprehensive investigation (Biddle 1976a, 70). Whatever the objections to his statement then, results obtained since have done nothing other than to reinforce this view. Ideally we need to examine churches and then Precincts together. Only then can we be confident that 11th or 12th century churches did not have ancestors hiding offstage, make sense of patterns latent in the distribution burials recover sufficient skeletal evidence to enable the systematic study of urban populations (Fig 85) (not covered) in this paper), redeem disturbances caused by Victorian vaults or rebuildings, and see the church in relation to its surroundings.

The case for total excavation does not of course remove the need for archaeologists to concern themselves with small works in and around urban churches, especially the churches that survive. Such operations arise quite frequently for reasons unconnected with archaeology. Limited excavations can on occasion help to settle particular strucrural questions, and they may have a reconnaissance value. In strategic terms, however, they do more to tantalize than to satisfy, they cause archaeological damage, and they should not be seen as ends in themselves.

'Investigation', ofcourse, encompasses standing fabrics as well as buried deposits, and with these there is much yet to do. Many towns contain a small quota of churches with pre- or early post-Conquest fabrics, and there can be no such buildings Which have given up all their secrets. Most would benefit from renewed study and recording at close quarters. Comprehensive investigations of the kind that have taken place at Barton-on-Humber and St Mary Bishophill Junior, York (Briden 1981), point the way. For the rebuilt majority, systematic surveys, accurate plans, and, where called for, more thorough recording of elevations, roofs and bell-frames, are the minimum requirements (cf Rodwell & Rodwell 1977, 24-4 1). Petrological surveys are badly needed and should benefit research into the medieval building industry, the provenance of building materials and the means by which they were carried-subjects which in their turn interlock with those of communications, transport, and bridges. There is much to be gleaned about the relationship between a town and its hinterland from the walls of an urban church (Fig 86).

The second need is for dates. Disembodied parish church plan-forms are difficult to date with precision before *c* 1150. There are, as yet, few local typologies for substructures. Churches, while by no means being devoid of cultural material, are nevertheless not always so rich in it that close dating can be achieved through artefactual techniques alone-at least, not until sharply diagnostic mouldings and architectural sculpture start to make their appearance in the later 12th century. And it is close dating that is needed, particularly before 1150 when our ultimate aim should be to date churches not simply to one century or another, but to refine the chronology of ecclesiastical expansion. At best

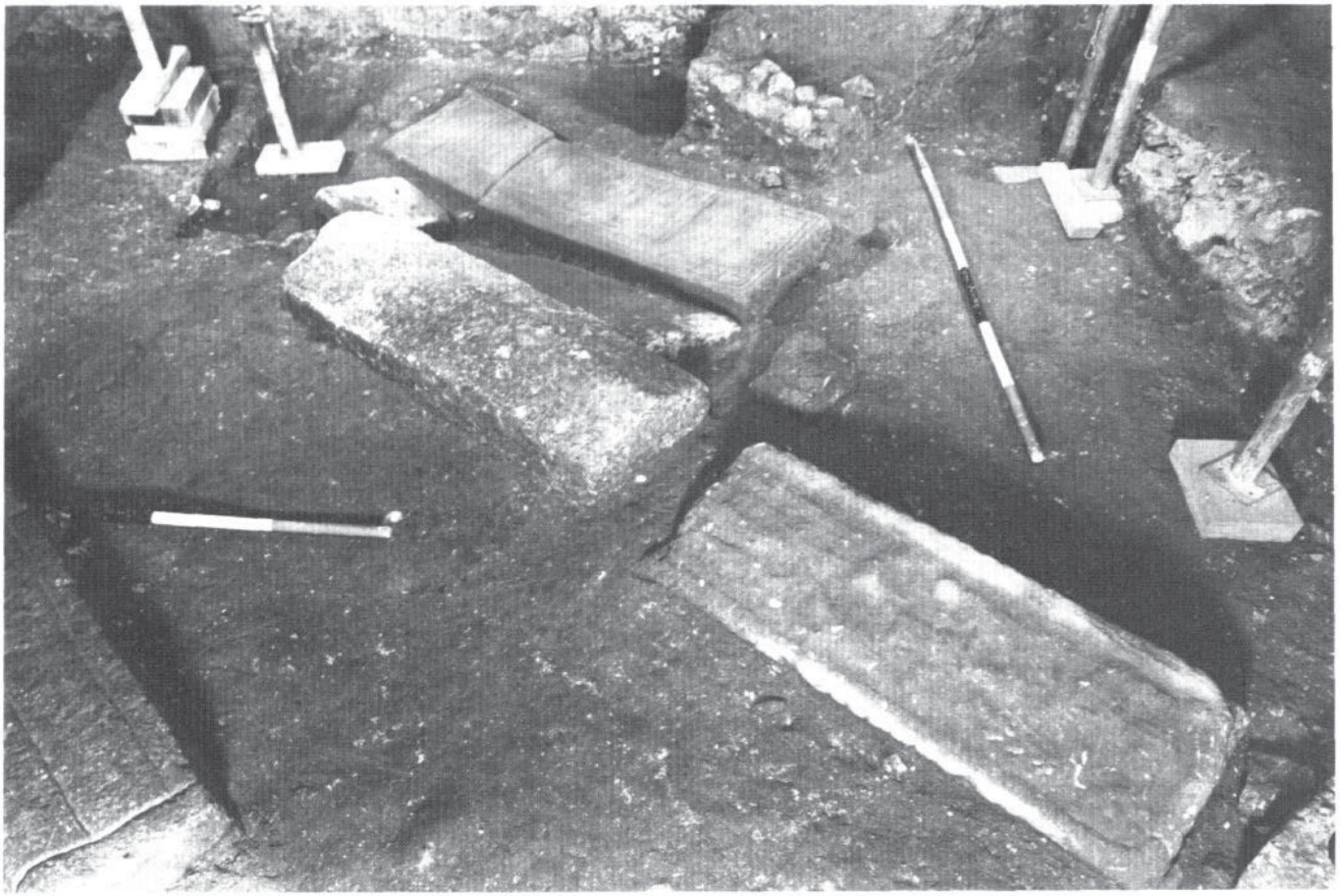


Fig 84 York Minister: relict surface of pre-Conquest graveyard revealed beneath the south transept of the present cathedral during recent excavations in 1969. Such deposits are of high archaeological value, and could be systematically sought in other towns on sites where abrupt changes in the use of land took place (Derek Phillips, by courtesy of RCHM(E))

relative chronologies supply only vague answers to such questions. At worst they abet circular arguments.

The advantages of selecting sites where ecclesiastical use was of short duration have already been mentioned. The analysis of differences between mannerisms of burial practice may have something to offer (cf Shoesmith 1980, 24-48), and should be of enhanced value where the site is waterlogged and preservation of organic materials is good, as at Barton-on-Humber (Rodwell & Rodwell 1982; cf Blomquist & Martensson 1963, 43-62).

The possible contribution of- ^{14}C determinations, generally derived from samples of human bone, but also now from structural mortars, has been viewed with scepticism in some circles. Radiocarbon dating is certainly no panacea, and the limitations of the method must be kept in mind. But for the period before 1100 it may be wondered if the approximation inherent in a set of ^{14}C results is necessarily very much greater than that arising from the opinions of a group of art historians about the date of a piece of carved stone. Some such items can be closely dated (eg the case of Sompting (Sussex): Gem 1982). On the other hand, in span, the architectural-historical 'standard deviation' for a church like St Peter-at-Gowts, Lincoln, seems at present to be of the order of ± 40 years.

Confidence in radiocarbon determinations rises with the quantity of samples from which results are obtained. Thus, while one or two results will be of minimal use, or even downright misleading, a portfolio of a dozen, or several dozen, all taken from key stratigraphic positions, may enable the excavator to 'box' the earliest phase(s) of the church. If such a policy is planned from the outset, due precautions can be made for the taking of samples. Such programmes will be expensive, though hardly more so than excavations which do not deliver the information they were organized to obtain.

Thirdly, parish churches formed part of the fabric of the town. Churches are eminently susceptible to investigation as components of urban settlement, in relation to other components that adjoined them, whether vertically or laterally, at different times. As examples we may consider churches on or beside town gates, as at Oxford, Wareham, Bristol, Chester and Canterbury; churches which clung to town walls, like All Hallows, London Wall, or St Clement at Worcester, or the striking case of St Mary Northgate in Canterbury (Fig 87) (Tatton-Brown 1978, 80-1); 'ceremonial' relationships between churches and important secular buildings, as at Northampton (Fig 88) (Williams & Shaw 1982); parish churches which stand, or stood, on the doorsteps of cathedrals and monasteries (eg at Westminster, York, Bermondsey, Tavistock, Pershore, Evesham and Bury St Edmunds-where there were two and three, respectively); churches and housing, especially with regard to



Fig 85 Cemetery of St Nicholas Shambles, London: detail of a woman with unborn foetus, 11th/12th century (Museum of London: T Hurst)

'private' and 'public' dispositions (cf Biddle & Keene 1976, 333; Brooke & Keir 1975,138); the encroachment of churchyards upon, or formation out of, units of property, as perhaps at Dorking (O'Connell 1977, 17) or Spalding (Roberts 1975, 36); and of course churches and streets, recent studies or discussions of which include Colchester (Crummy 1981, 49) and London (Brooke & Keir 1975,133). St Paul-in-the-Bail at Lincoln, and also recent work at Exeter and Gloucester, remind us of the need to consider churches in relation to underlying Roman urban topography. Nor should we forget those churches and allied buildings which, although defunct for religious purposes after the Middle Ages, came to be embodied in secular structures, as in the case of St Mary at Carmarthen (James 1980, 36-7), and St Bartholomew's Hospital in Bristol (Price 1979).

Fourthly, we should consider the urban minsters which were served by small bodies of secular priests in the 10th and

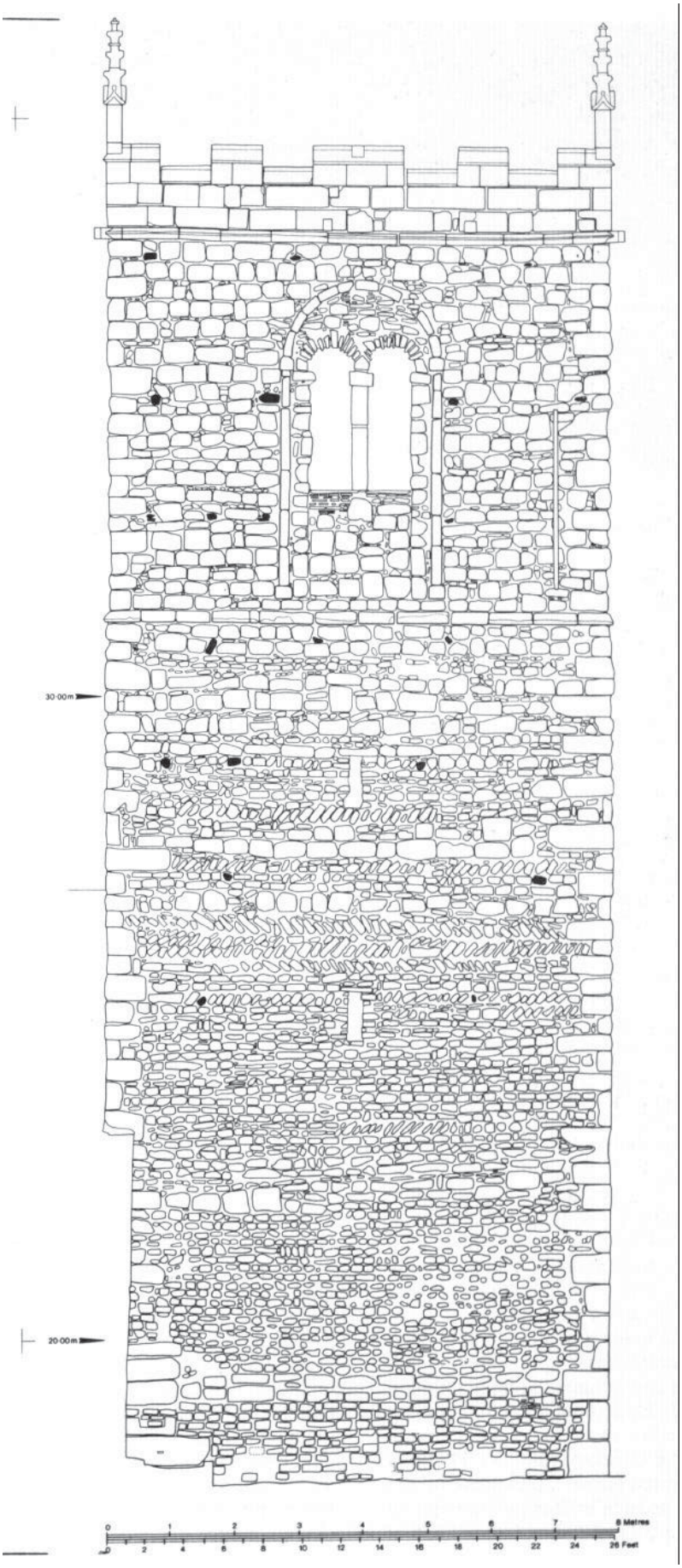


Fig 86 St Mary Bishophill Junior, York: north elevation of west tower. Information about medieval building methods, the use and re-use of materials, can be derived from such recordings. For a discussion of the interpretative possibilities of such studies, see Rodwell 1985 (York Archaeological Trust)

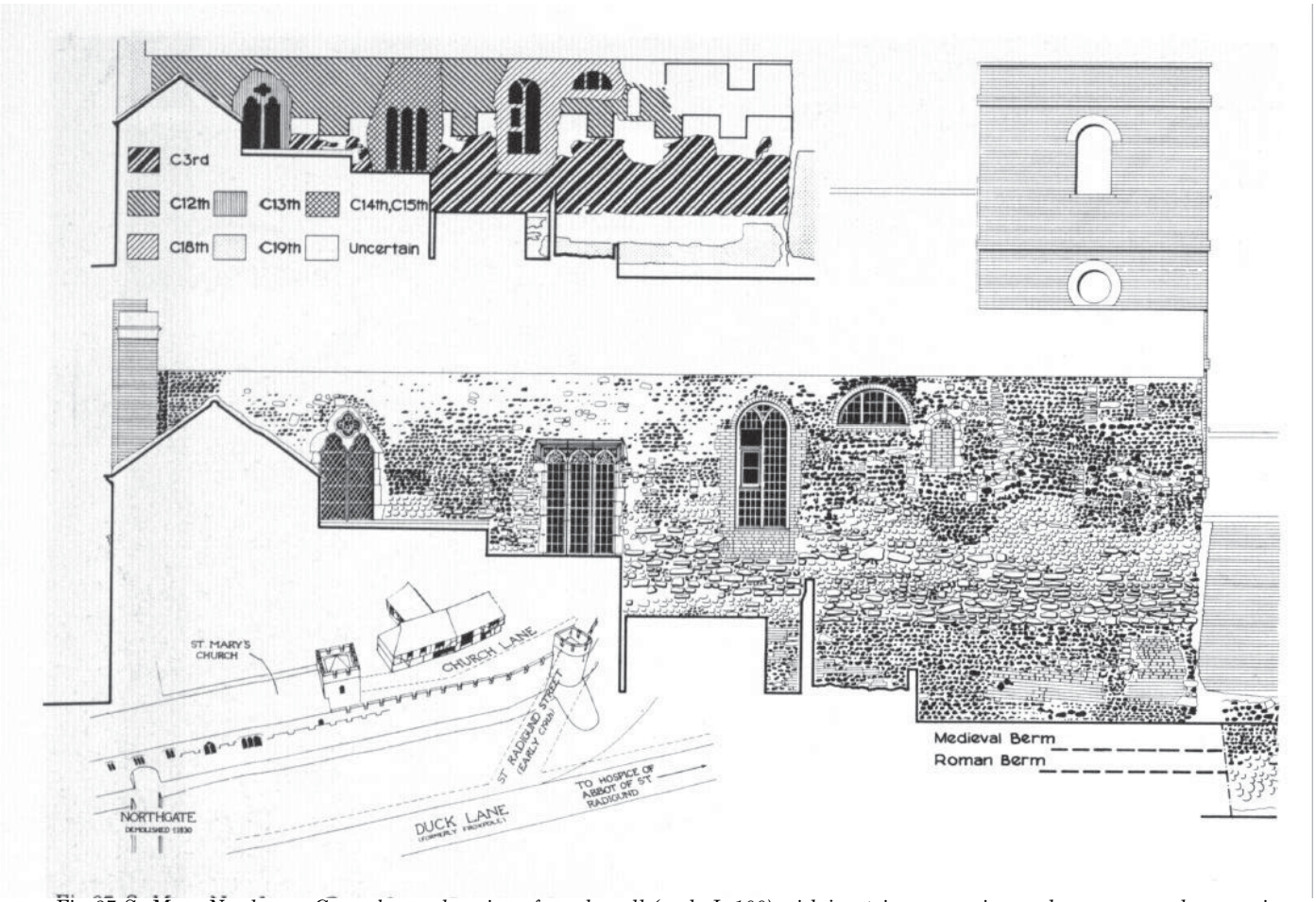


Fig 87 St Mary Northgate, Canterbury: elevation of north wall (scale I: 100) with inset *interpretation and reconstructedperspective view of the church in its late medieval setting (Canterbury Archaeological Trust: J Bowen)*

11th centuries. These establishments seem to have been numerous. Some towns contained several (Campbell 1979, 125). After the Conquest one of three things was likely to happen to a minster: it could be made into a regular monastery; it might continue as some species of secular college (Thompson 1917), sometimes with a royal franchise (Denton 1970); or it could be reduced to the parochial ranks and disappear from memory. Since few minsters were well documented, and many are not evidenced in surviving records at all, it is to be expected that a number of outwardly unexceptional medieval urban parish churches await identification as the successors of pre-Conquest minsters.

Clues which may assist in the recognition of former minsters may be archaeological, like the extensive distribution of burials encounted at Aylesbury, Buckinghamshire (Farley 1979), or the church itself, as at Cirencester (Brown 1976); numismatic, like the St Martin's coinage which was minted in Lincoln around the end of the first quarter of the 10th century (Stewart 1967); or literary, as in the case of the pre-reform monastic community at Tamworth (Staffordshire) which was mentioned in a charter of Burton Abbey (Sawyer 1979, No 29). Traditions concerning the presence of royal burials in particular churches, as at Howden (Humberside) and Steyning (Sussex) (Rollason 1978), or residual customs reflecting the former dependence of one church upon another may provide further pointers. Sometimes suggestive are 'clumps' of churches, like the trio of Holy Trinity (formerly Christ Church) Micklegate, St Mary Bishop (now Bishophill Junior), and St Mary *Vetus* (now demolished), which existed in the Bishophill area of 11th century York. In 1086 Christ Church held extensive lands outside the city, and at a later date we find all three with out-parishes (Clay 1939, 66-8; Harvey 1965; cf Rogers 1972, 63). It is difficult not to think that some bond existed between the three.

If, as is arguable, many of the churches we describe as urban minsters were founded before the end of the 8th century, it follows that the great majority were situated in places which were not yet living towns. Minsters are significant in the passive sense that they are likely to signal the whereabouts of seats of secular power. Such a conjunction seems to have been encountered archaeologically at Northampton (Williams & Shaw 1982), and was actually described at York. Writing early in the 8th century a Whitby author related how the missionary Paulinus and the king Edwin had emerged from the royal *aula,* crossed the *platea populi, and* entered the church (Colgrave 1968, 96).

We may assume that minsters made dynamic contributions to the processes which led to the emergence of towns. They attracted craftsmen possessed of special skills. The colony of priests, monks or nuns, together with its ancillaries, would provide a continuously resident population. Since the population would need to be fed and clothed, estates would be granted for the purpose and draw



Fig 88 St Peter, Northampton: excavated imprints of pre-Conquest buildings which appear to have been in 'processional' disposition. Human figures stand at the angles of what may have been an 8th century timber hall. In the 9th century this was superseded by a larger hall with a masonry substructure. Excavation in 1973-4 had revealed remains of a square-ended masonry *building that projected eastwards from beneath the east end of the present church of St Peter (top of picture). For discussion see Williams 1984 (Northampton Development Corporation)*

the minster into direct relation with part of the hinterland (cf the case of Christ Church, York, mentioned above). Religious communities were meant to provide hospitality for travellers and charity to the poor. Intellectual links with communities elsewhere stimulate travel. If a minster acquired efficaceous relics, people would come to visit them. Most important, the appearance of minsters in the 7th and 8th centuries coincided with a time when, if we can speak of towns at all, we should perhaps describe them as intermittent towns (Wood 1986). In the 8th century one can imagine places like York, Lincoln or Canterbury as being characterized by an overwhelming dormancy for much of the year. But there could be moments when a place suddenly became active, even populous: the arrival of a cargo ship, with attendant buying and selling; the sojourn of the royal household; an important festival. The intermittent town would leave only the most fragmentary and perplexing traces in the archaeological record-a combination of the insignificant, the inscrutable, and the exotic, which is often what we have.

The contribution of the church in this was to add a new series of 'urban moments' to the calendar. Important feasts and patronal festivals were occasions when people would gather in large numbers, and hence provide opportunities to trade. Opposition to commercial activity in churchyards, reiterated in laws of the 10th and 11th centuries (Whitelock *et al* 1981, 321, 352, 393), implies that such practices went on. It has been suggested that the connection between medieval markets and hundredal manors may owe less to the direct role of the king and his agents at these places, than to the fact that many of them had important churches (Sawyer 1981, 160-1). In the case of episcopal minsters, the paschal season might have had intense economic consequences; this was the time of Christian initiation, when in an age before local churches became common an influx of people could be expected. With all this in mind, one of the most intriguing aspects of the material retrieved from the excavation of St Paul-in-the-Bail-amid so much else-is the length of its coin-list (Blackburn *et al* 1983).

The fifth and final point can be expressed as a law of increasing returns for the excavation of churches in towns where such buildings were numerous. In a town which once contained 30 or 40 churches, the excavation of one can do little more than inform about that particular site. The results will form too narrow a base upon which to erect any sort of general hypothesis about parochial development in the town at large. If such things as 'normal' urban churches actually existed, normality can only be defined through the investigation of a significant fraction of the total. The two churches which have been excavated in Lincoln illustrate this point very well. Their later phases have features in common, but as far as origins go they are sharply dissimilar, and for the moment each has to be regarded as being unique to itself. The idea that church investigations should be collected, like scalps, in particular towns may be dismissed as being impracticable, both on grounds of cost and because sites which are suitable and available for study tend not to be clustered in a few places but scattered about. The suggestion also smacks of authoritarianism, and this would doubtless not be welcomed in all quarters,

To the first objection there is no direct answer, save to reiterate that token investigations of urban churches cannot disclose much about urbanism, and that local sampling in the interests of cost-effectiveness may save costs but is seldom effective. As to the second point, no national survey of the deposits of urban churches has yet been undertaken. Such estimations have, however, been made for certain towns, notably Worcester (Baker 1980b, 124) and Colchester (Rodwell 1977, 24-41). They should be embarked upon elsewhere. The results would tell us if concentration in certain towns would be feasible. If not, the data so gathered would still be of the greatest help in deciding upon targets town by town.

A superscription for this essay could have been the saying that 'Chronology is the eye of history'. It is a paramount task of archaeology to provide dates, and hence to furnish the historical community with a chronological framework for places, periods, and components of towns where none are presently available. The appearance of the past, too, is something which only the archaeologist can summon back. Churches, major and minor, early and late, were almost invariably centripetal to towns and parts of towns. By studying them archaeologically we may hope to widen and deepen our understanding of how and when towns developed, and what towns were.

Bibliography

Addleshaw, G W O, 1970 *The beginnings of the parochial system*, St Anthony's Hall Publications 3, 3 edn

Alldridge, N J, 1981 Aspects of the topography of early medieval Chester, *J Chester Archaeol Soc*, **64,** 5–31

Aston, M, & Leech, R, 1977 *Historic towns in Somerset*

Ayers, B, 1985 Excavations within the NE bailey, Norwich Castle, 1979, E Anglian Archaeol Rep no 28

Baker, N, 1980a Churches, parishes and early medieval topography, in *Medieval Worcester: an archaeological framework. Reports, surveys, texts ands essays* (ed M O H Carver), *Trans Worcestershire Archaeol Soc*, 3 ser, **7,** 31–7

——, 1980b The urban churches of Worcester: a survey, in *Medieval Worcester: an archaeological framework. Reports, surveys, texts and essays* (ed M O H Carver), *Trans Worcestershire Archaeol Soc*, 3 ser, **7,** 115–124

Barley, M W (ed), 1975 *The plans and topography of medieval towns in England and Wales*, CBA Res Rep 14

Bassett, S R, 1980–1 (1982) Medieval Lichfield: a topographical review, *Trans S Staffordshire Archaeol Hist Soc*, **22,** 93–121

——, & Drury, P J, 1976 The medieval town and its origins, in *Braintree: excavations and research, 1971–76* (compiler P J. Drury), *Essex Archaeol Hist*, **8,** 1–144

Beresford, M W, 1967 *New towns in the Middle Ages*

——, & St Joseph, J K, 1979 *Medieval England: an aerial survey*

Biddle, M, 1976a The archaeology of the church: a widening horizon, in *The archaeological study of churches* (eds P V Addyman & R K Morris), CBA Res Rep 13, 65–71

——, 1976b Towns, in *The archaeology of Anglo-Saxon England* (ed D M Wilson), 99–150

——, & Keene, D J, 1976 Lesser churches, in *Winchester in the early Middle Ages: an edition and discussion of the Winton Domesday* (ed M Biddle *et al*), Winchester Studies I, 329–35

Bidwell, P T, 1978 The cathedral close, Exeter, *Bull CBA Churches Committee*, **8,** 8–11

——, 1979 *The legionary bath-house and basilica and forum at Exeter, with a summary account of the legionary fortress*, Exeter Archaeol Rep, **1**

Blackburn, M, Colyer, C, & Dolley, M, 1983 *Early medieval coins from Lincoln and its shire, c 770–1100*, Archaeology of Lincoln VI/2, CBA

Blockley, K, Blockley, P & Day, M, 1983 St Mary Bredin, Canterbury, *Bull CBA Churches Committee*, **19,** 14–18

Blomquist, R, & Mårtensson, A W, 1963 Thulegrävingen 1961, *Archaeol Lundensia*, **2**

Briden, C, 1981 St Mary Bishophill Junior, York, *Bull CBA Churches Committee*, **15,** 20–1

Brooke, C N L, 1970 The missionary at home: the church in the towns, 1000–1250, *Stud Church Hist*, **6,** 59–83

——, & Keir, G, 1975 *London 800–1216: the shaping of a city*

Brown, P D C, 1976 Archaeological evidence for the Anglo-Saxon period, in *Studies in the archaeology and history of Cirencester* (ed A D McWhirr), BAR, **30,** 19–45

Bryant, R, 1980 Excavations at the church of St Mary de Lode, Gloucester, *Bull CBA Churches Committee*, **13,** 15–18

Campbell, J, 1979 The church in Anglo-Saxon towns, *Stud Church Hist*, **16,** 119–35

Carter, A, 1978 The Anglo-Saxon origins of Norwich: the problems and approaches, *Anglo-Saxon English*, **7**, 175–204

Clay, C T (ed), 1939 *Early Yorkshire Charters: vol VI*

Colgrave, B (ed & trans), 1968 *The earliest Life of Gregory the Great*

Colyer, C, & Gilmour, B, 1978 St Paul-in-the-Bail, Lincoln, *Curr Archaeol*, **63**, 102–5

Crummy, P, 1981 *Aspects of Anglo-Saxon and Norman Colchester*, CBA Res Rep 39

Cunliffe, B, 1964 *Winchester excavations 1949–1960*

Denton, J H, 1970 *English royal free chapels 1100–1300: a constitutional history*

Drinkwater, C H, 1908 Translation of the Shropshire Domesday, in *VCH Shropshire* I (ed W Page), 309–49

Dunmore, S, & Carr, R, 1976 The late Saxon town of Thetford: an archaeological and historical survey, *E Anglian Archaeol*, **4**

Farley, M, 1979 Burials in Aylesbury and the early history of the town, *Rec Bucks*, **21**, 116–22

Finberg, H P R, 1971 The archangel Michael in Britain, in *Millénaire monastique du Mont Saint-Michel*, **3**, 459–68

Foster, C W (ed), 1921 *The Registrum Antiquissimum of the cathedral church of Lincoln* I, Lincoln Rec Soc 27

——, & Longley, T (eds), 1924 *The Lincolnshire Domesday Book and the Lindsey Survey*

Gem, R, 1982 The early romanesque tower of Sompting church, Sussex, *Anglo-Norman Stud*, **5** (=Proc Battle Conference 1982) (ed R Allen Brown), 121–8

Gilmour, B, 1979 The Anglo-Saxon church at St Paul-in-the-Bail, Lincoln, *Medieval Archaeol*, **23**, 214–18

——, 1981 St Mark's, in Jones *et al* 1981, 93–101

Griffiths, R A (ed), 1978 *Boroughs of mediaeval Wales*

Grimes, W F, 1968 *The excavation of Roman and medieval London*

Harvey, J H, 1965 Bishophill and the Church of York, *Yorkshire Archaeol J*, **41**, 377–93

Henderson, C G, & Bidwell, P T, 1982 The Saxon minster at Exeter, in *The early church in Western Britain and Ireland* (ed S M Pearce), BAR, **102**, 145–75

Hill, J W F, 1948 *Medieval Lincoln*

Hope-Taylor, B, 1971 *Under York Minster: archaeological discoveries 1966–71*

James, T, 1980 *Carmarthen: an archaeological and topographical survey*, Dyfed Archaeol Trust, Carmarthenshire Antiq Soc Monogr, 2 ser

Jones, M J, 1981 Excavations at Lincoln. Third interim report: sites outside the walled city 1972–1977, *Antiq J*, **61**, 83–114

——, & Wilford, J T, 1981 The year's work, in *Lincoln Archaeol Trust Ninth Annu Rep*, 2–7

Keene, D J, 1975 Suburban growth, in Barley (ed) 1975, 71–82

Kemp, B R, 1980 Monastic possession of parish churches in England in the twelfth century, *J Ecclesiastical Hist*, **31**, 133–60

Knocker, G M, 1967 Excavations at Red Castle, Thetford, *Norfolk Archaeol*, **34**, 119–86

Lehmann-Brockhaus, O, 1956 *Lateinische Schriftquellen zur Kunst in England, Wales und Schottland, vom Jahre 901 bis zum Jahre 1307*, I part 2

Magilton, J R, 1980 *The church of St Helen-on-the-Walls, Aldwark*, Archaeology of York 10/1, CBA

Mahany, C, & Roffe, D, 1982 Stamford: the development of an Anglo-Scandinavian borough, in *Anglo-Norman Stud*, **5** (=Proc Battle Conference 1982) (ed R Allen Brown), 197–219

Morgan, T O, 1854 Our Lady's mill and the demolished chapel of St Mary, Aberystwyth, *Archaeol Cambrensis*, new ser, **17**

Morris, R, 1976 Kirk Hammerton church: the tower and the fabric, *Archaeol J*, **133**, 95–103

——, 1983 *The church in British archaeology*, CBA Res Rep 47

——, forthcoming The church in the countryside: two lines of enquiry, in *Medieval villages: a review of current work* (ed D Hooke)

O'Connell, M G, 1977 *Historic towns in Surrey*, Surrey Archaeol Soc Res, **5**

Owen, D M, 1979 Bishop's Lynn: the first century of a new town? in *Proc Battle Conference Anglo-Norman Stud.* **2** (ed R Allen Brown), 141–53

Palliser, D M, 1974 The unions of parishes at York, 1547–1586, *Yorkshire Archaeol J*, **46**, 87–102

Perriam, D, 1979 An unrecorded Carlisle church of Holy Trinity, Caldgate, *Trans Cumberland Westmorland Antiq Archaeol Soc*, **79**, 51–5

Pevsner, N, 1960 *The buildings of England: Leicestershire and Rutland*

Phillips, A D, 1975 Excavations at York Minster 1967–73, *Friends of York Minster 46th Annu Rep*, 19–27

Price, R, 1979 *Excavations at St Bartholomew's Hospital, Bristol*

Radford, C A R, 1976 The church of St Alkmund, Derby, *Derbyshire Archaeol J*, **96**, 26–61

Ramm, H G, 1976 Excavations in the church of St Mary Bishophill Senior, York, *Yorkshire Archaeol J*, **48**, 35–68

RCHM (E), 1959 *City of Cambridge*, 2 vols

Reg Ant, see Foster 1931

Riley, H T (ed), 1867 William of Malmesbury *Gesta abbatum monasterii S Albani*, Rolls Ser 28, IV

Roberts, D L, 1975 Ayscoughfee Hall: the building of a great merchant's house, *Lincolnshire Hist Archaeol*, **10**, 36–47

Roberts J P, with Atkin, M, 1982 St Benedict's church, in Excavations in Norwich 1971–1978, Part 1, *E Anglian Archaeol*, **15**, 11–29

Rodwell, W J, 1981 *The archaeology of the English church. The study of historic churches and churchyards*

——, with Rodwell, K, 1977 *Historic churches: a wasting asset*, CBA Res Rep 19

——, & ——, 1982 St Peter's church, Barton-upon-Humber: excavation and structural study, 1978–81, *Antiq J*, **62**, 283–315

Rogers, A, 1972 Parish boundaries and urban history: two case studies, *J Brit Archaeol Ass*, 3 ser, **35**, 46–64

Rollason, D W, 1978 Lists of saints' resting-places in Anglo-Saxon England, *Anglo-Saxon England*, **7**, 61–94

Sawyer, P H (ed), 1979 *Charters of Burton Abbey*, Brit Acad

——, 1981 Fairs and markets in early medieval England, in *Danish medieval history; new currents* (eds N Skyum-Nielsen & N Lund), 153–68

Schofield, J, & Palliser, D (eds) with Harding, C, 1981 *Recent archaeological research in English towns*, CBA

——, *forthcoming* *Dating the church and graveyard, in The Cemetery of St Nicholas Shambles, London* (ed A J White)

Shoesmith, R, 1980 *Excavations at Castle Green*, Hereford, CBA Res Rep 36

Stewart, I, 1967 (1968) The St Martin coins of Lincoln, *Brit Numis J*, **36**, 46–54

Tatton-Brown, T, 1978 Canterbury, *Curr Archaeol*, **62**, 78–82

Thacker, A T, 1982 Chester and Gloucester: early ecclesiastical organization in two Mercian burhs, *Northern Hist*, **18**, 199–211

Thomas, A C, 1983 *Research objectives in British archaeology*

Thompson, A H, 1917 Notes on colleges of secular canons in England, *Archaeol J*, **74**, 2 ser, **24**, 139–99

Thorp, J, 1983 St Clement's chapel, Pontefract Castle, West Yorkshire, *Bull CBA Churches Committee*, **18**, 16–18

Vita Wulfstani *The Vita Wulfstani of William of Malmesbury* (ed R R Darlington), Roy Hist Soc Camden, 3 ser, **40**, 1928

Walker, D G, 1978 Cardiff, in Griffiths 1978, 102–28

White, W J, forthcoming *Skeletal remains from the cemetery of St Nicholas Shambles, London*

Whitelock, D, Brett, M, & Brooke, C N L, 1981 *Councils and synods with other documents relating to the English church, I: AD 871–1204*

Williams, J H, & Shaw, M, 1982 Middle Saxon 'palaces' at Northampton, *Curr Archaeol*, **85**, 38–41

Williams-Jones, K, 1978 Caernarvon, in Griffiths 1978, 72–101

Wood, I N, 1986 The audience of architecture in post-Roman Gaul, in *The Anglo-Saxon church: essays on architecture, archaeology and history in honour of Dr H M Taylor*, (eds L A S Butler & R K Morris), CBA Res Rep 60, 74–9

14 Waterfront archaeology in British towns

Gustav Milne

Records of the discovery of timber or stone wharves were published over 160 years ago (eg Laing 1818, 5-6), but the wide-ranging concept and the actual term 'waterfront archaeology' are recent additions to urban studies. The subject was effectively launched in London in 1979 at an international conference in which it was shown that waterfront archaeology was not myopically concerned with the form of ancient quays. Since almost any definition of towns must refer to the importance of trade (Heighway 1972, 8-9; Hodges 1982, 20-5) it was suggested that a study of the development of the harbour area as a whole could provide graphic evidence of, and suggest reasons for a town's origins, growth or decline. The first review of waterfront archaeology was published by the CBA as recently as 1981 (Milne & Hobley 1981) and covered work in nineteen British towns. This paper will therefore summarize, analyse and augment the information presented in that volume rather than simply duplicating it.

Waterfront excavations of varying size have recently been conducted in many towns, including:

Bristol (Ponsford 1981; Williams 1981; *Medieval Archaeol,* 26, 1982, 168-70, Figs 1 & 2)
Caerleon (Boon 1978; Boon 1980)
Cambridge *(Medieval Archaeol,* 18, 1974, 199)
Cardiff (Webster 1977)
Dover (Rahtz 1958; Rigold 1969; Philp 1980 & 1981)
Dublin (Wallace 1981)
Durham (Carver 1974)
Exeter (Henderson 1981)
Gloucester (Hurst 1974; Rowbotham 1978; Heighway & Garrod 1981)
Hartlepool (Young 1983)
Harwich (Basset 1981)
Hull (Ayers 1979, 1981)
Ipswich (Wade 1981; *Medieval Archaeol,* 26, 1982, 208)
Kirkwall (McGavin 1982)
King's Lynn (Clarke & Carter 1977; Clarke 1981)
Leith (CBA 1981, 103)
Lincoln (Jones & Jones 1981; *Medieval Archaeol,* 27, 1983, 188)
London (Bateman & Milne 1983; Hobley 1981; Miller 1977, 1982; Milne & Milne 1979, 1981 & 1982; Schofield 1981; Tatton-Brown 1974)
Norwich (Carter 1981; Ayers 1983; Ayers & Murphy 1983)
Oxford (Durham 1977; Durham 1981; *Medieval Archaeol,* 26, 1982, 204-5)
Perth (CBA 1982, 89)
Plymouth *(Medieval Archaeol,* 13, 1969, 264, Fig 80; Barber & Gaskell-Brown 1981)
Poole (Horsey 1981)
Portsmouth (Fox 1981)
Reading *(Medieval Archaeol,* 26, 1982, 173)
Southwark (Sheldon 1974; Dennis 1981)
Staines (Crouch & Shanks 1980)
Westminster (Green 1976; Mills 1980)
Woolwich (Courtney 1974, 1975)
York (Richardson 1959; Addyman 1981, 1983; *Medieval Archaeol,* 27, 1983, 209-10)

In addition, waterfront excavation has been argued as a priority in towns such as Boston (Harden 1978, 36), Great Yarmouth (Rogerson 1976, 43) and Newcastle (McCombie & O'Brien 1983), and for various towns in the south-west including Axbridge, Bridgwater, Minehead, Watchet, Ilchester and Langport (Aston & Leech 1977, 169).

Waterfront reclamation

The first result of the recent work is the realization that the waterfront of many riparian or coastal towns has been artificially extended. This phenomenon is both widespread and of major topographical significance. Although a pioneering paper on the extension of the King's Lynn waterfront was published in 1973 (Clarke 1973) the possibility that other English towns may have had a similar development was initially overlooked by students of urban topography (cf Barley 1976). Medieval waterfront reclamation has now been demonstrated by excavation in many British towns including Bristol, Dublin, Exeter, Harwich, Hull, Ipswich, King's Lynn, Lincoln, London, Middlesborough, Plymouth, Poole, Portsmouth and York. Roman waterfront reclamation has been less extensively studied. However, the evidence from Dover (Philp 1981) and London (Bateman & Milne 1983) (Fig 89) seems to suggest that it too could have been widespread.

Documentary, cartographic or topographical evidence has been used to suggest areas of reclamation in several towns such as Dartmouth (Martin 1980), Gloucester (Heighway & Garrod 1981) and Newcastle (McCombie & O'Brien 1983). Reclaimed land can often be readily identified on the ground. If a town is built on a hill with a steep slope down to the river, then a level terrace extending from the foot of the hill to the present day river bank may well represent an area of artificial encroachment. Examples of this may be seen at Newcastle, where a number of narrow lanes or chares descend the steep cliff edge to the level quayside terrace running 60-100m to the River Tyne; or at Rye where the Strand terrace now occupied by magnificent 18th and 19th century timber-clad warehouses extends from the foot of The Mint/Mermaid Street to the present-day quay on the River Tillingham. Where towns have been built on more level sites, then the reclamation zone is often found between a sinuous street laid out over the original river bank, and the present-day channel of the river. The area between the High (or Hithe) Street and the River Hull in Kingston-upon-Hull, and the area between the line of King, Queen and Nelson Streets and the River Ouse in King's Lynn are two well known examples.

The motivation for extensive urban waterfront reclamation (eg Fig 90) has been discussed in a recent paper (Milne 1981) in which it is suggested that it is possible to distinguish between developments designed to win land; to provide deep-water berths; to overcome the problems of silting or to maintain a sound frontage. Such distinctions are



Fig 89 Late 1st century timber-faced quay surviving to its full height with open-fronted warehouse to the north, showing the remarkable preservation and deep stratification found on a London waterfront site (Pudding Lane, 1980) (Museum of London)

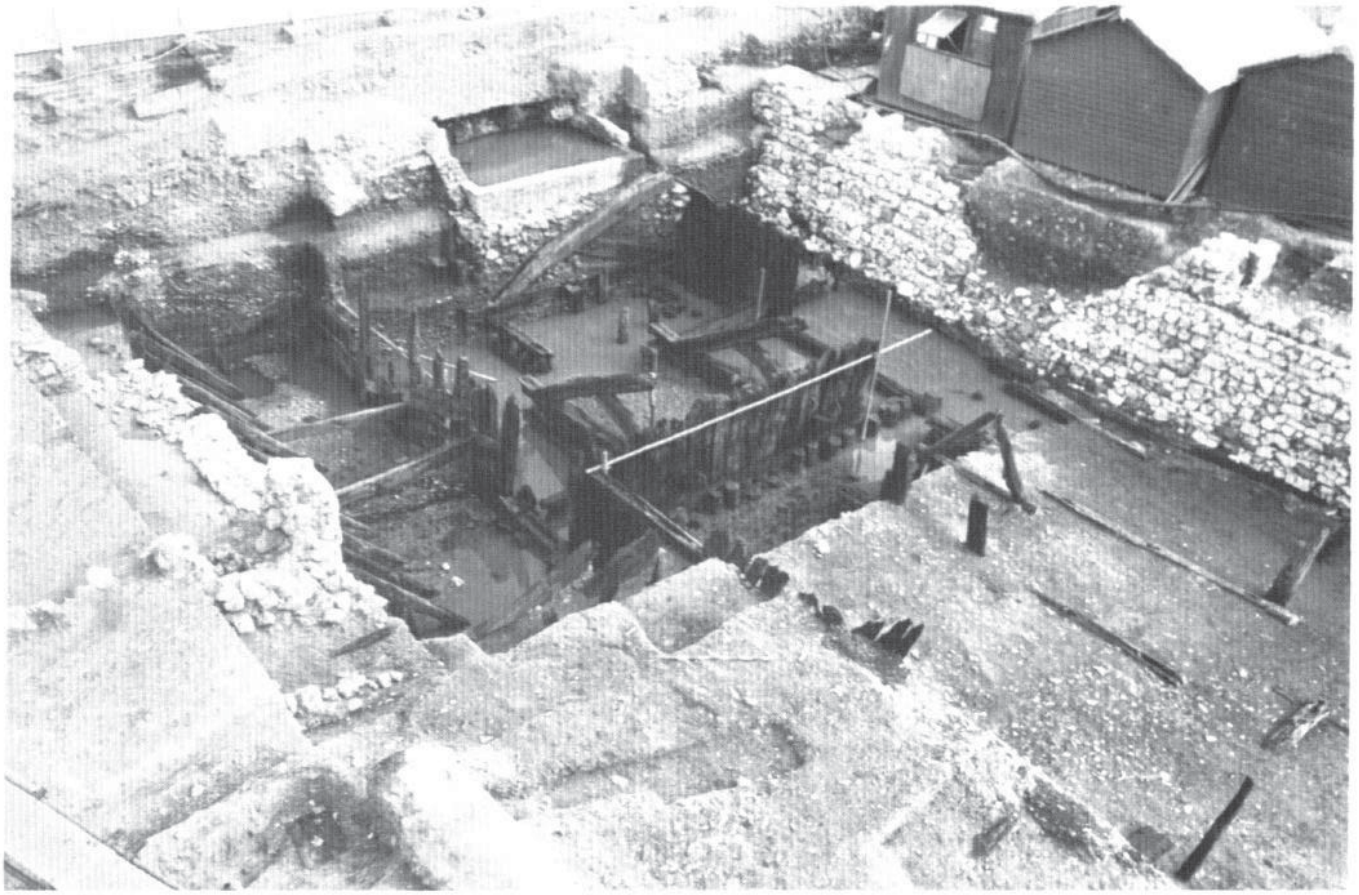


Fig 90 The remains of timber and stone revetments on the foreshore mark successive stages in the advance of London's medieval waterfront (from left to right) at the Trig Lane sire, 1974-6 (Museum of London)

necessary if the correct implication of the extension for the growth of the town is to be drawn.

Waterfront reclamation is not only of considerable interest topographically but is also significant in a wider archaeological sense, for the reclamation zone provides a remarkable archive of deeply stratified, well preserved, waterlogged deposits. These are often rich in environmental evidence, and may contain large artefactual assemblages including organic material such as leather and wooden objects not usually encountered on 'dry' archaeological sites.

Waterfront structures

British urban waterfront excavations have also produced examples of Roman, Saxon, and medieval wharves and revetments. The major Roman sites were at Caerleon, Dover and London (Fig 89), but earlier work in other British towns has been summarized by Fryer (1973), and Cleere (1978). The early medieval waterfront has been examined in Dublin, Ipswich, London, Norwich, Oxford and Poole, while later medieval timber or stone wharf or revetment structures have been recorded in at least seventeen British towns: Bristol, Dublin, Exeter, Harwich, Hull, Ipswich, King's Lynn, Lincoln, London, Hartlepool, Plymouth, Poole, Reading, Southwark, Staines, Westminster and York. Timber revetments have also been revealed on rural sites, such as the moated manor at Stretham in Sussex *(Medieval Archaeol,* 22 (1978), 18l-2). A number of other features associated with the waterfront have also been studied, including bridges at Beverley *(Medieval Archaeol,* **25** (1981), 216-18, fig 7); Exeter; London (Milne 1982b); and Oxfordshire *(Medieval Archaeol,* **25** (1981), 225; *Medieval Archaeol,* **26** (1982), 205); landing stages and jetties at Driffield, Harwich and London (Milne & Milne 1982, 42-7); fish weirs on the Trent (Salisbury 1980, 88-91); and a royal dockyard at Woolwich (Courtney 1974, 1975). The remains of mills have been located on urban and rural waterfront sites at Batsford, Sussex (Bedwin 1980); Glasgow *(Medieval Archaeol,* **26** (1982), 222); Bordesley Abbey *(Medieval Archaeol,* **25** (1981), 188; **26** (1982), 185); and at Waltham, where the wheel-pit and associated features were initially thought to represent part of a wharf (Huggins 1972, 81-9).

The study of the construction and structural development of waterfront structures is of interest in its own right (Milne 1979), but an assessment of the woodworking and carpentry techniques and joinery recorded on waterfront sites also has a much wider significance (Fig 91). Firstly, it often provides closely dated examples of ancient carpentry. The complex bridle-butted scarf joint from the revetment erected in c 1380 at Trig Lane, London is the earliest surviving joint of its type, for example (Hewett 1980, 267).

Secondly, it enables characteristics of the vernacular carpentry of a particular period to be identified and assessed even when few or even no examples of that date are known to survive above ground. In Dublin, Wallace has attempted



Fig 91 Waterfront excavations often reveal well preserved timber *structures such as the 3rd century quay at St Magnus House (New Fresh Wharf), London, providing important examples of ancient engineering and timberworking practice (Museum of London)*

to do this for the Viking, Hiberno-Scandinavian and Anglo-Norman periods, working from the evidence of the Wood Quay and Fishamble Street sites (Wallace 1982, 263-99). Although aspects of Roman woodworking techniques can be studied using data from dry land sites (eg Hanson 1982, 169-86), our knowledge of Roman carpentry has been greatly advanced by the evidence from wells, timber quays and boats from waterfront or waterlogged sites (Weeks 1982). The discovery of two competently executed stave-built structures on the 14th century London waterfront has led to a reappraisal of the stave-building technique in the later medieval period (Milne & Milne 1978, 92-5, 102; cf Meeson 1983).

This work in general, coupled with the specific evidence of excavated timber buildings from waterlogged sites (see for example Hall 1982), will help establish which joints and techniques were or were not current at a particular time and place. As a result, future reconstructions of timber buildings based on the slight evidence of dry-land sites should be built on less speculative foundations (see eg Drury 1982).

Nautical archaeology

Nautical archaeology can also benefit from the excavation of waterfront sites. It has been argued that, with the possible exception of certain log-boats, no major boat-building tradition has been positively identified in Britain. The reason is simply insufficient data (McGrail & Denford 1982, 26-7). However, the discovery of boat remains as wrecks, re-used in waterfront structures or represented by stray finds, is a common feature of urban waterfront excavation, with

recent examples from Bristol, Dublin, and Lincoln as well as London. In 1979, Marsden was able to list thirteen dated ancient ships, boats or parts of vessels found in central London (Marsden 1979, 83), and since then more articulated strakes of early medieval boats were recorded on the Billingsgate excavations, and evidence for a Roman dugout boat tradition on the Thames was recovered (Bateman & Milne 1983, n 44; Milne 1985).

River and sea-level change

Environmental studies have much to contribute to waterfront archaeology, and much to gain from the results of waterfront excavation. Fundamental to any assessment of a port's development is the problem of establishing the relevant rate of river or sea-level change, which varies over time and from coast to coast in Britain. Major ports such as Dunwich (Bacon 1982) have now disappeared under the sea, whereas others like Romney have suffered the reverse fate for the sea 'began little by little to forsake this town, which decayed by degrees ever since and has lost much of its populousness and dignity' (Cunliffe 1980, 51, quoting Camden).

That certain features of ancient harbours and other coastal installations provide evidence of change in relative sea-level since the time when the features were installed has been shown by Blackman (1973) and Fleming *et al* (1973), among others. Although not always directly applicable, the methodology and approach shown in these Mediterranean studies is relevant to work in Britain.

The calculation of ancient river and sea-levels requires detailed site work coupled with general studies of a wide area. The archaeologist can provide precise figures on water levels at a particular time and place, which geographers can then integrate with a more general survey. Such a project was attempted for the mid 1st century Thames in London, working from the excavated waterfront installations coupled with an examination of diatoma from the associated foreshore deposits (Milne et *al* 1983). Substantial changes in the course or level of a rivler have also been recorded in many other towns (eg Chester, Dover, Gloucester, York) and some attempts have been made to relate these changes to the wider area, with Clarke and Carter's chapter on the Fenland river system (Clarke & Carter 1977,413-24) and Cunliffe's paper on the evolution of Romney marsh (Cunliffe 1980). Recent work on sea-level changes with its implications for settlement in other areas of Britain includes Hawkins (1973) on the south-west, and Boon on Caerleon and the Gwent levels, Simmons on the Wash, Tooley & Jones on north-west England, and Devoy on the Thames estuary (all in Thompson 1980). A survey of marshland landscape development has also been published (Rowley 1981).

Trade, industry and waterfront buildings

The form and size of a port's major harbour works will arguably reflect both the quantity and type of vessels it can accommodate, which in turn reflects the relative importance of trade to the town's development. Waterfront excavators may also recover the remains of imported containers-amphorae, barrels, even baskets (Wright 197!5)-as well as fragments of the imported items themselves broken in transit and discarded on the quayside, or dropped into the river during transhipment. In this way a picture of trading contacts can be established.

The location and form of such buildings as major warehouses may also be indicative of a port's development. Roman storage buildings or horrea (Rickman 1971) have been excavated recently in York (Kenward & Williams 1979) and London (Bateman & Milne 1983) and examples of later warehouses still survive above ground in several medieval ports, eg the town cellars in Poole, the Wool House in Southampton and the Steelyard in King's Lynn. In 1963, W A Pantin complained that 'the history of commercial architecture in England has . . . been neglected', and promptly began to rectify matters with a pioneering paper on merchants' houses and warehouses in King's Lynn (Pantin 1963), based on a study of the standing buildings. This important work has since been expanded by Parker (197 1) and subsequently given a greater archaeological dimension (Clarke & Carter 1977; Clarke 1979, 1981). Similarly, the evidence for commercial buildings and undercrofts in Southampton has been studied, with Faulkner describing the surviving medieval buildings (1975, 56-124, esp 72-8) while Platt reports on the excavated buildings at Cuckoo Lane, for example-a site on the western shoreline (Platt & Coleman-Smith 1975, 285-317).

Medieval waterfront buildings, alleys and watergates have also been excavated at Redcliffe, Bristol; Frog Street, Exeter; Quay Pavillion, Harwich; Chapel Lane Staith Hull; St Martin-At-Palace Plain, Norwich; Woolster Street Plymouth; Oyster Street Portsmouth; and Skeldergate, York (Fig 92). In London a recent survey has attempted to integrate a considerable body of excavated material with documentary and pictorial sources (Schofield 1981). It was found that here, as in other towns, waterfront trades included not only the expected merchants, shipbuilders and fishmongers, but also more noxious activities banned from practising elsewhere in the town. Excavated examples of the latter professions include lime-burning and lead-smelting at Southampton (Platt & Coleman Smith 1975, 288-96); dyeing in Westwick Street Norwich (Carter & Roberts 1973, 457-67); and fulling in Swan Lane London *(Medieval Archaeol,* 26 (1982), 193, pl VIIb).

Another field of waterfront study which has seen recent advances is the archaeology of the fishing industry. At Great Yarmouth excavations at Fullers Hill (Rogerson 1976) revealed part of an 11th-12th century fisherman's settlement, complete with buildings, fish hooks and fish bones (Wheeler & Jones 1976, 208-26). At Poole another major marine resource, the cultivation of oysters, is being studied. Oyster beds from which a radiocarbon date of 690 AD ± 100 has been obtained were found to be up to 3.4m thick (Horsey 1981). Evidence for the native production of a fish by-product in the Roman period has been recovered from London (Bateman & Locker 1982). The process involved the fermentation of young herring and sprats caught in the Thames estuary. At the other end of the scale the larger bones of sturgeons and whales have been found in Roman and medieval deposits on four sites on the London waterfront.

The excavation of fishing settlements and associated ship remains would enhance the wealth of information in papers such as Salzman's (1923) review of the medieval fishing industry in general or Dulley's (1969) study of the Rye fisheries in particular. Recent work on inland fisheries (see

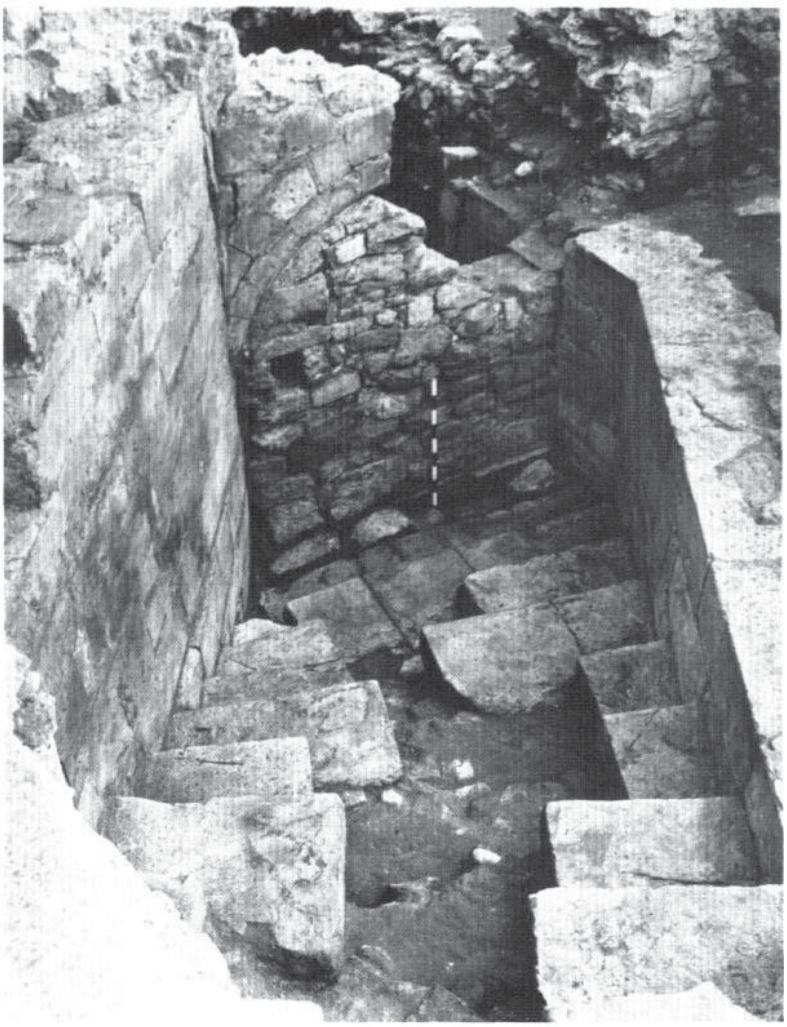


Fig 92 Building on the waterfront: a masonry river stair at Skeldergate on the River Ouse, York (York Archaeological Trust)

eg McGrail 1983, 39-41) has included the recording of Saxon, Norman and Tudor fish weirs on the Trent (Loscoe-Bradley & Salisbury 1979; Salisbury 1980, 1981) and an eel trap at Newark, Ripley in Surrey *(Surrey Archaeol Collect,* **72** (1980), 272).

The case for further waterfront research in Britain is clear. The expertise, techniques and recording systems (eg Milne 1982a) required to tackle such sites have been developed on the first generation of excavations listed above, as well as on many other waterlogged sites-eg the Somerset Levels, Nantwich, Coppergate - not necessarily associated with harbours or landing places. Waterfront sites provide information which is crucial for the understanding of the development of harbours and associated settlements, as well as changes in river or sea-level, while the importance of the nautical and maritime archaeological implications further emphasizes their multi-disciplinary appeal. Deserted ports and shore forts on coasts, creeks or rivers that have silted up provide especially important opportunities for large-scale, profitable waterfront excavation, as they are potentially unencumbered by major disturbance. However, although bodies such as the Medieval Village Research Group have shown the value of excavating deserted settlements in preference to occupied centres, urban archaeologists still accord a higher priority to excavations in developing towns rather than in deserted towns under the plough.

Although it seems obvious that a study of Roman harbour installations must assist our understanding of an epoch dominated by an army that invaded by sea and for which there is already considerable evidence for shipping and trade (du Plat Taylor & Cleere 1978), only two major Roman harbours in Britain have been examined in any detail. Much has been written on the military installations of the Classis Britannica and Saxon Shore forts, but virtually nothing is known about the contemporary military harbours. Roman urban harbours have been served little better.

Any assessment of the re-emergence of urbanism in mid Saxon England which assumes trade was an essential ingredient would benefit from a close study of the contemporary harbours' location, form, function and development. The importance of the fishing industry and of nucleated fishing settlements to the growth of towns in general should also be considered. Such studies are absent from an otherwise stimulating survey of Dark Age towns and trade in Europe (Hodges 1982), a situation which could be rectified with profit. In Britain, detailed work on the waterfronts at Ipswich and Saxon Southampton in particular would be highly significant.

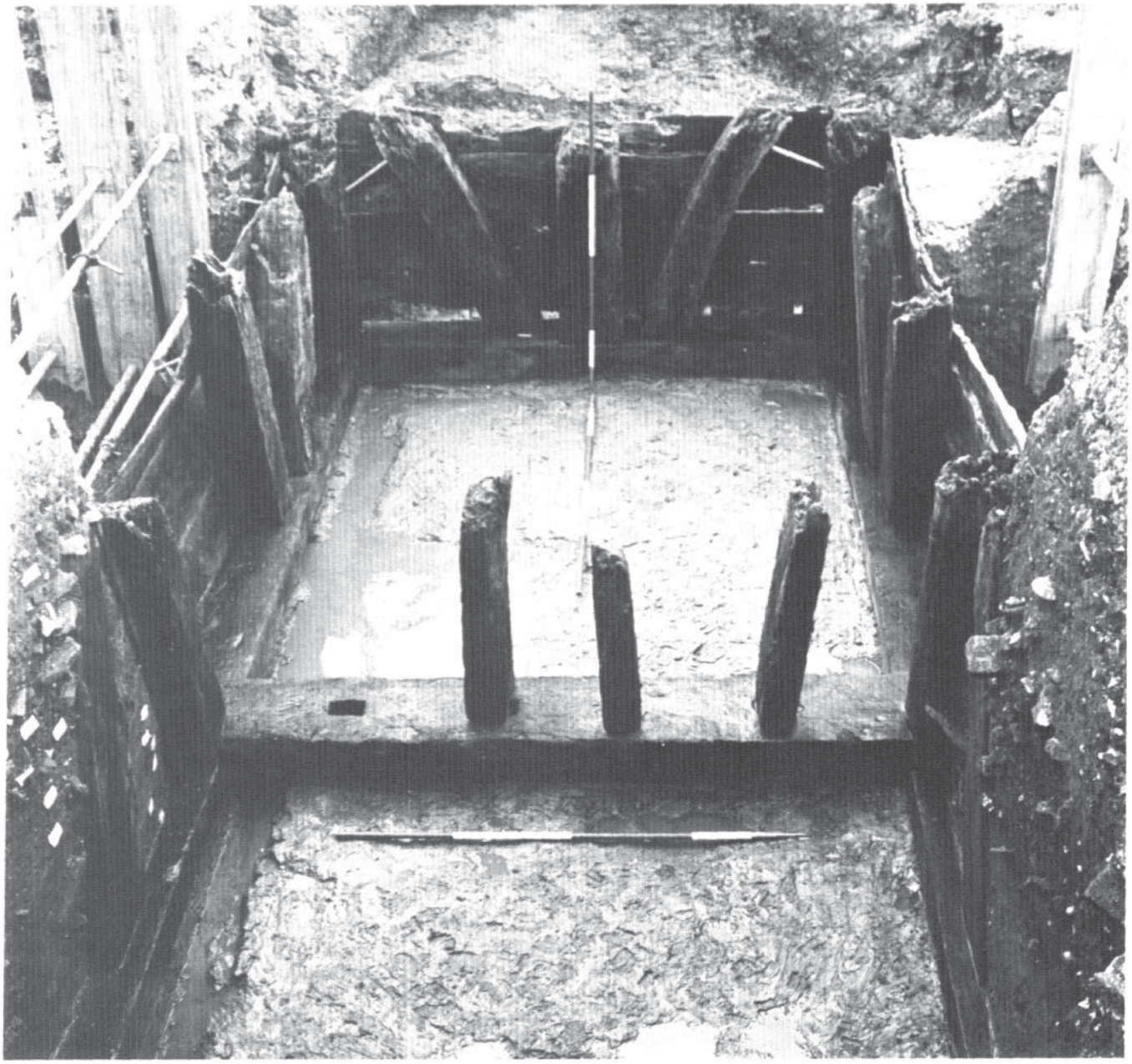


Fig 93 Beverley Hall Garth: medieval bridge abutment, looking east (Humberside Archaeologica! Unit)

The later medieval waterfront has been more widely studied (Clarke 1984, fig 88), although little archaeological work has taken place on the Cinque Ports of south-east England, which should presumably contain evidence of the most advanced harbour technology of the day. For this and later periods, a wealth of documentary material (port books, customs accounts, harbour regulations) can and should complement the urban nautical and maritime archaeological record.

Although a number of excavations have been conducted on post-medieval harbour sites (eg Courtney 1974, 1975) perhaps the most productive avenue of research would be fieldwork coupled with documentary survey, as Graham has attempted for harbours in Scotland (Graham 1967, 1969, 1977; Graham & Truckell 1977). The 18th and 19th century saw the development of extensive dock systems in British ports (eg Jackson 1983). The stupendous task of recording what remains of these sites falls within the realms of industrial archaeology (eg Bracegirdle 1973, 75-81)- beyond the scope of this paper.

The preservation of artefacts, structural timbers, faunal and botanical remains on waterfront or bridge (Fig 93) sites is a welcome bonus common to all waterlogged sites, and may even provide sufficient justification for an excavation by itself. The significance of these assemblages is frequently enhanced by the fact that they can often be closely dated by dendrochronological analysis (Hillam & Morgan 1981). Further, the value of excavating sites on which the structural and artefactual evidence survives in a tangible, often spectacular form should not be underestimated, since the

better the survival the greater the potential gain to knowledge.

John Coles's plea at the 1983 conference of the Prehistoric Society is as relevant to British urban archaeology as it is to the study of European wetlands in prehistory: 'To neglect wetland archaeology is to disregard aspects of environment, economy, chronology and material culture without which our understandings will be severely handicapped.' All waterlogged sites are vital archives of well preserved data, and should therefore always be excavated, or at least investigated, when threatened with destruction. Waterfront sites form a substantial proportion of this well preserved type of urban site, and provide data which are simply not obtainable from dessicated sites further inland; their wide-ranging potential must not only be appreciated, but realized.

Bibliography

Addyman, P, 1981 York, in Milne & Hobley (eds), 149

——, 1983 Archaeology in York, *Popular Archaeol*, **5,** no 6, 5–12

Aston, M, & Leech, R, 1977 *Historic towns in Somerset*

Ayers, B, 1979 *Excavations at Chapel Lane Staith, 1978*, East Riding Archaeol Soc no 5

——, 1981 Hull, in Milne & Hobley (eds), 126–9

——, 1983 *Digging under the doorstep*

——, & Murphy, P, 1983 A waterfront excavation at Whitefriars Street car park, Norwich, 1979, *East Anglian Archaeol*, **17,** 1–60

Bacon, S, 1974 Underwater exploration at Dunwich, *Int J Naut Archaeol*, **3.2,** 314–8

——, 1982 Underwater exploration at Dunwich, Suffolk: Second report, *Int J Naut Archaeol*, **11.2,** 155–61

Barber, J, 1971 Excavations at Woolster Street, Plymouth 1963–9, *Proc Plymouth Athenaeum 1965–9*, 76–82

——, & Gaskell-Brown, C, 1981 Plymouth, in Milne & Hobley (eds), 144

Barley, M W (ed), 1976 *The plans and topography of medieval towns in England and Wales*, CBA Res Rep 14

Basset, S, 1981 Harwich, in Milne & Hobley (eds), 125

Bateman, N, & Locker, A, 1982 The sauce of the Thames, *London Archaeol*, **4,** no 8, 204–7

——, & Milne, G, 1983 A Roman harbour in London, *Britannia*, **14,** 207–26

Bedwin, O, 1980 The excavation of Batsford Mill, Warbleton, East Sussex, 1978, *Medieval Archaeol*, 187–201

Blackman, D J, 1973 Evidence of sea level change in ancient harbours and coastal installations, in *Marine Archaeology* (ed D J Blackmore), 115–39

Boon, G, 1978 Excavations on the site of a Roman quay at Caerleon, in *Monographs and collections, 1, Roman sites* (ed G Boon), Cambrian Archaeol Assoc (Cardiff), 1–24

——, 1980 Caerleon and the Gwent levels in early historic times, in Thompson (ed), 24–36

Bracegirdle, B (ed), 1973 *The archaeology of the Industrial Revolution*

Carter, A, 1981 Norwich, in Milne & Hobley (eds), 139–41

——, & Roberts, J P, 1973 Excavations in Norwich, 1972: the Norwich Survey Second Interim Report, *Norfolk Archaeol*, **35,** 457–62

Carver, M, 1974 Excavations at New Elvet, Durham City, 1961–73, *Archaeol Aeliana*, **5.2,** 91–148

Clarke, H, 1973 The changing riverline of King's Lynn, Norfolk, in the Middle Ages, *Int J Naut Archaeol*, **2,** 95–106

——, 1979 The archaeology, history and architecture of the ports of the east coast of England, with special reference to King's Lynn, in McGrail (ed), 155–65

——, 1981, The medieval waterfront of King's Lynn, in Milne & Hobley (eds), 132–5

——, 1984 *The archaeology of medieval England*

——, & Carter, A, 1977 *Excavations in King's Lynn, 1963–70*, Medieval Archaeol Monograph Ser no 7

Cleere, H, 1978 Roman harbours in Britain south of Hadrian's Wall, in du Plat Taylor & Cleere (eds), 36–40

Courtney, T, 1974 Excavations at the Royal Dockyard, Woolwich, 1972–3, *Post-Medieval Archaeol*, **8,** 1–28

——, 1975 Excavations at the Royal Dockyard, Woolwich, 1972–3: Part Two—the Central Area, *Post-Medieval Archaeol*, **9,** 42–102

Crouch, K, & Shanks, S, 1980 Observations of a waterfront site in Staines, *London Archaeol*, **3,** 398–40

Cunliffe, B, 1980 The evolution of Romney Marsh: a preliminary statement, in Thompson (ed), 37–55

Dennis, M G, 1981 Southwark, in Milne & Hobley (eds), 47

Devoy, R, 1980 Post glacial environmental change and man in the Thames estuary: a synopsis, in Thompson (ed), 134–48

Drury, P (ed), 1982 *Structural reconstruction: approaches to the interpretation of the excavated remains of buildings*, BAR, 110

Dulley, A, 1969 The early history of the Rye fishing industry, *Sussex Archaeol Collect*, **107,** 36–64

du Plat-Taylor, J, & Cleere, H (eds), 1978 *Roman shipping and trade: Britain and the Rhine provinces*, CBA Res Rep 24

Durham, B, 1977 Archaeological investigations in St Aldates, Oxford, *Oxoniensia*, **42,** 83–203

——, 1981 Oxford, in Milne & Hobley (eds), 142–3

Faulkner, P, 1975 The surviving medieval buildings, in Platt & Coleman-Smith, 1975, 56–124

Fleming, N, Czartoryska, N, & Hunter, P, 1973 Archaeological evidence for eustatic and tectonic components of relative sea-level change in the South Aegean, in Blackman (ed), 1–66

Fox, R, 1981 Portsmouth, in Milne & Hobley (eds), 147–8

Fryer, J, 1973 The harbour installations of Roman Britain, in Blackman (ed), 261–73

Graham, A, 1967 The old harbour of Dunbar, *Proc Soc Antiq Scot*, **99,** 173–90

——, 1969 Archaeological notes on some harbours in south-east Scotland, *Proc Soc Antiq Scot*, **99,** 200–85

——, 1977 Old harbours and landing places on the east coast of Scotland, *Proc Soc Antiq Scot*, **108,** 332–65

——, & Truckell, A, 1977 Old harbours in the Solway Firth, *Trans Dumfriesshire Galloway Natur Hist Antiq Soc*, 52–109

Green, H J M, 1976 Excavations of the Palace defences and Abbey precinct wall at Abingdon Street, Westminster, 1963, *J Brit Archaeol Ass*, **129,** 59–76

Hall, R A, 1982 10th century woodworking in Coppergate, York, in McGrail (ed), 231–44

Hanson, W S, 1982 Roman military timber buildings: construction and reconstruction, in McGrail (ed), 169–86

Harden, G, 1978 *Medieval Boston and its archaeological implications*

Hawkins, A B, 1973 Sea level changes around south-west England, in Blackman (ed), 67–88

Heighway, C M, 1972 *The erosion of history*

——, & Garrod, A P, 1981 Gloucester, in Milne & Hobley (eds), 123–4

Henderson, C, 1981 Exeter, in Milne & Hobley (eds), 119–22

Hewett, C, 1980 *English historic carpentry*

Hillam, J, & Morgan, R, 1981 What value is dendrochronology to waterfront archaeology? in Milne & Hobley (eds), 39–46

Hobley, B, 1981 The London waterfront—the exception or the rule? in Milne & Hobley (eds), 1–9

Hodges, R, 1982 *Dark Age economics: the origins of towns and trade AD 600–1000*

Horsey, I, 1981 Poole, in Milne & Hobley (eds), 145–6

Huggins, P J, 1972 Monastic grange and outer close excavations, Waltham Abbey, Essex, 1970–72, *Trans Essex Archaeol Soc*, 81–9

Jackson, D A, & Ambrose, T M, 1976 A Roman timber bridge at Aldwincle, Northants, *Britannia*, **7,** 39–52

Jackson, G, 1983 *The history and archaeology of ports*

Jones, G D B, 1980 Archaeology and coastal change in the north-west, in Thompson (ed), 87–102

Jones, M J, & Jones, R H, 1981 Lincoln, in Milne & Hobley (eds), 138

Kenward, H K, & Williams, D, 1979 Biological evidence for the Roman warehouse in Coney St, *YAT*, **14** no 2

Laing, D, 1818 *The new custom house, London*

Loscoe-Bradley, P M, & Salisbury, C, 1979 A medieval fish weir at Colwick, Notts, *Trans Thoroton Soc*, **83,** 15–22

Marsden, P, 1979 The medieval ships of London, in *Medieval ships and harbours in northern Europe* (ed McGrail), 83–91

Martin, M, 1980 Changes to the waterfront of Dartmouth, 1000–1970, *Mariner's Mirror*, **66,** 129–36

McCombie, G, & O'Brien, C, 1983 *Newcastle quayside archaeological project*

McGavin, N *et al*, 1982 Excavations in Kirkwall, 1978, *Proc Soc Antiq Scot*, **114,** 392–436

McGrail, S (ed), 1979 *Medieval ships and harbours in northern Europe*, BAR S66

—— (ed), 1982 *Woodworking techniques before AD 1500*, BAR S129

——, 1983 The interpretation of archaeological evidence for maritime structures, in *Sea Studies: essays in honour of Basil Greenhill*, National Maritime Museum

——, & Denford, G, 1982 Boatbuilding techniques, technological change, and attribute analysis, in McGrail (ed), 25–72

Meeson, B, 1983 Plank-walled building technique and the church of St Lawrence, Rushton Spencer, *Vernacular Architecture*, **14,** 29–35

Miller, L, 1977 New Fresh Wharf: 2 the Saxon and early medieval waterfronts, *London Archaeol*, **3.2,** 47–53

——, 1982 Miles Lane: the early Roman waterfront, *London Archaeol*, **4,** no 6, 143–7

Mills, P S, 1980 Excavations at Cromwell Green in the Palace of Westminster, *Trans London Middx Archaeol Soc*, **31,** 18–28

Milne, G, 1979 Medieval riverfront revetment construction in London, in McGrail (ed), 145–53

——, 1981 Medieval riverfront reclamation in London, in Milne & Hobley (eds), 32–6
——, 1982a Recording timberwork on the London waterfront, in McGrail (ed), 7–23
——, 1982b Further evidence for Roman London Bridge? *Britannia*, **13**, 271–6
——, 1985 *The port of Roman London*
——, Battarbee, R, Straker, V, & Yule, B, 1983 The London Thames in the mid-first century, *Trans London Middx Archaeol Soc*, **34**, 19–30
——, & Hobley, B (eds), 1981 *Waterfront archaeology in Britain and norther Europe*, CBA Res Rep 41
——, & Milne, C, 1978 Excavations on the Thames waterfront at Trig Lane, London, 1974–6, *Medieval Archaeol*, **22**, 84–104
——, & ——, 1979 The making of the London waterfront, *Current Archaeol*, **66**, 198–204
——, & ——, 1981 Medieval buildings at Trig Lane, *London Archaeol*, **4.2**, 31–7
——, & ——, 1982 *Medieval waterfront development at Trig Lane, London*, London Middx Archaeol Soc Spec Paper no 5
Pantin, W A, 1963 The merchant's houses and warehouses of King' Lynn, *Medieval Archaeol*, **6–7**, 173–81
Parker, V, 1971 *The making of King's Lynn*
Philp, B, 1980 *The excavation of the Roman forts of the Classis Britannica at Dover, 1970–77*
——, 1981 Dover, in Milne & Hobley (eds), 108
Platt, C, & Coleman-Smith, R, 1975 *Excavations in medieval Southampton 1953–69*
Ponsford, M, 1981 Bristol, in Milne & Hobley (eds), 103–4
Rahtz, P A, 1958 Dover: Stembrook and St Martin-le-Grande 1956, *Archaeol Cantiana*, **72**, 111–37
Richardson, K M, 1959 Excavations in Hungate, York, *Archaeol J*, **116**, 55–114
Rickman, G, 1971 *Roman granaries and store buildings*
Rigold, S, 1969 The Roman haven of Dover, *Archaeol J*, **126**, 78–100
——, 1975 Structural aspects of medieval timber bridges, *Medieval Archaeol*, **19**, 48–91
Rogerson, A, 1976 Excavations on Fullers Hill, Great Yarmouth, *East Anglian Archaeol*, **2**, 130–245
Rowbotham, F W, 1978 The River Severn at Gloucester, *Glevensis*, **12**, 4–9
Rowley, R T (ed), 1981 *The evolution of marshland landscapes*, Oxford University Dept External Studies
Salisbury, C, 1980 The Trent, the history of a river, *Current Archaeol*, **74**, 88–91
——, 1981 An Anglo-Saxon fish weir at Colwick, Notts, *Trans Thoroton Soc*, **85**, 26–36
Salzman, L F, 1923 *English industries of the Middle Ages*
Schofield, J, 1981 Medieval waterfront buildings in the City of London, in Milne & Hobley (eds), 24–31
——, 1984 *The building of London from the Conquest to the Great Fire*
Sheldon, H, 1974 Excavations at Toppings and Sun Wharves, Southwark, *London Middx Archaeol Soc*, **25**, 1–116
Simmons, B, 1980 Iron Age and Roman coasts around the Wash, in Thompson (ed), 56–73
Tatton-Brown, T, 1974 Excavations at the Custom House site, City of London, 1973, *Trans London Middlesex Archaeol Soc*, **25**, 117–219
Thompson, F H (ed), 1980 *Archaeology and Coastal Change*, Soc Antiq Occ Papers no 1
Tooley, M J, 1980 Theories of coastal change in north-west England, in Thompson (ed), 74–85
Wade, K, 1981 Ipswich, in Milne & Hobley (eds), 130–1
Wallace, P, 1981 Dublin's Waterfront at Wood Quay, 900–1317, in Milne & Hobley (eds), 109–18
——, 1982 Carpentry in Ireland, AD 900–1300: the Wood Quay evidence, in McGrail (ed), 263–99
Webster, P, 1977 Excavations in Quay Street, *Archaeol Cambrensis*, **126**, 88–115
Weeks, J, 1982 Roman carpentry joints: adoption and adaption, in McGrail (ed), 157–68
Wheeler, A & Jones, A, 1976 Fish remains, in Rogerson (ed), 208–26
Williams, B, 1982 Excavations at Bristol Bridge, 1981 *Bristol and Avon Archaeol*, **1**, 12–15
Wright, D, 1975 The baskets, in Platt & Coleman-Smith (eds), 341–2
Young, G A B, 1983 Archaeology in Hartlepool, in *Recent excavations in Cleveland*, Cleveland County Council Archaeol Section

15 The study of pottery from urban excavations

Alan Vince

The traditional importance of pottery to the urban archaeologist is that it is both datable and found in such large quantities on urban sites that it can help to date the structural sequence. More recently there has been an emphasis on the use of pottery for reconstructing trade patterns, and considerable attention is therefore focused on fabric analysis and other methods of characterization. The uses to which pottery vessels were put are also now being studied, using a variety of techniques. A few researchers are beginning to use this type of data to look for functional differences within and between sites.

The fashionable area of pottery studies is to apply theories developed in sociology or anthropology. Pottery, it is argued, was more than a utilitarian answer to the problems of preparing, cooking and serving food and drink; it was also a medium by which the allegiances of the makers could be expressed and through which users could make a subconscious statement of their place in society (Hodder 1982, 189). These ideas have yet to make an impact upon urban pottery studies, but there is no reason why they might not do so in the future. The main barrier to their use would seem to be the pre- and post-depositional transformations to which most urban deposits have been subjected (Schiffer 1976).

On a more practical level, there have been several recent developments in data processing in pottery studies. The whole field of data processing has been subjected to such tremendous changes in recent years that one hesitates to suggest where future developments might lead. The use and development of the system used at the Museum of London is described below to illustrate the transition from a paper-based record to a machine-based one.

The examples given in this paper are drawn mainly from my own work or that of my close colleagues. This is certainly not meant to suggest that interesting research does not take place other than in London or that ideas and methods applied there are necessarily applicable elsewhere. It is simply an unfortunate fact that the speed of publication in urban archaeology is so much slower than the speed of research that work being published in the 1980s often reflects research which was taking place a decade ago.

Dating

The fundamentals of pottery-dating have been set out by numerous authors (eg Barker 1977, 193-6). Nevertheless, the topic is often subject to lapses of logic, and the steps by which the dating scheme for an excavation was constructed are rarely set out in the published report, particularly if the scheme is tenuous. This is, of course, precisely when a clear statement separating evidence from hypothesis would be of most use. Rather than restating the basic principles of *terminus post quem* and *terminus ante quem,* I will concentrate discussion on the three related concepts-association, intrusion and residuality-which are vital to the construction of a ceramic chronological framework.

Association

As originally used, the term 'associated group' applies to pottery vessels and other artefacts deposited together at one time, such as in a burial. The value of such a group is obvious. The artefacts not only have the same deposition date but can also be associated with a single individual, thus allowing inferences to be made about the wealth and status of the owner. Using these strict definitions, it is clear that there are few associated groups to be found on British urban sites. Exceptions are normally due to the accidental loss or destruction of the effects of a household, such as may be responsible for the burial of a cellar group at Southampton in the late 13th century (Platt & Coleman-Smith 1975, I 293-4, II fig 126). Similar reasons explain the burial of pottery in a series of early 16th cellars at Pottergate in Norwich (Carter 1975, 8-l5) and in the horizons of fire debris which form such a useful feature of many towns from the Roman period onwards. The disadvantage of fire deposits, however, are also quite clear. In many cases the heat was so intense that vessels are now unrecognizable.

If an assemblage does not consist of associated vessels-and most do not-then it must have been deposited over a finite period of time. This affects the inferences which can be drawn from studying the assemblage. If the contents of a house are destroyed by fire, then the proportion of different vessel types present in the debris is the same as that found in the house while in use. However, in normal rubbish deposits the relationship between these figures is different. Those vessels which break most easily, for example thin-walled cups, and those vessels which are in constant use are likely to be over-represented in an assemblage. For example, storage jars might form the most common form in use in a household, but since they sit at the sides of a room or in a separate store or cellar they rarely get broken.

This has several implications. One is that the proportion of vessel forms in the rubbish discarded by the household will not be the same as the proportion in use. Another is that different forms will tend to be of different ages when discarded, thus affecting their suitability as dating evidence. However, for every vessel thrown away it is likely that a similar one was acquired. Therefore the relative frequency of vessels in a rubbish deposit approximates to that of those being bought and made at the time. It is therefore easier to study the output of a kiln from domestic rubbish than it is to reconstruct the ceramic fittings of the household responsible for discarding that rubbish.

For these reasons there is always uncertainty involved in the dating of a rubbish deposit using the artefacts within it. In London the effects of this uncertainty can be minimized by only selecting for analysis groups deposited under similar conditions, for example waterfront revetment dumps. These dumps must have been deposited over a very short period, as indicated by the presence of organic refuse which would rot if exposed to the atmosphere for any length of time. Furthermore, parts of the same vessel often occur

throughout a dump. The period of deposition can therefore be taken to be minimal- There is, however, no evidence for the way in which the rubbish was gathered together before deposition and communal rubbish dumps may well have been left to stand for years before they became such a public nuisance that they were removed and buried. This is unlikely to have been the case in medieval London because of the pressure on space, but the uncertainty remains.

On many urban sites less deeply stratified than the City, the predominant features are a zone at the street frontage in which clear stratification. exists but which usually produces few finds, and the remainder of the site where a thick, dark, garden soil containing material covering the whole period of occupation is found. It can be extremely difficult to recover associated groups of pottery large enough for detailed analysis from such sites.

Intrusion

It is probably not possible to excavate an urban site with such precision that all intrusive features are recognized at the level from which they were cut. There is always the possibility that sherds recorded as being recovered from one context are intrusive from later features. Even if such standards could be attained, they are certainly not the norm and the pottery specialist has to come to terms, for example, with finding small sherds of asbestos sheeting throughout a sequence. Such obviously modern intrusions, together with the obligatory sherds of 19th century drain pipe arrive in the finds tray because when covered with dirt they are not recognized as being modern. This implies that the finds from a context are actually selected on site by the excavator, rather than being a total collection of all the sherds seen. There is little doubt that this happens, because otherwise there would be more 19th and 20th century sherds present in earlier contexts.

Other intrusive sherds are much more difficult to recognize. When the deposits are cut by features of similar date there is a good chance that the same or similar types of pot are to be found in both contexts. Their effect is to alter the relative proportions of types. The seriousness of the problem can be gauged only from a knowledge of the site, by assessing the number of intrusive features, the ease with which they could be recognized and the care with which it was possible to dig the site-

The problems of recognizing intrusive pottery are crucial when the sherds in the earlier context include types which might feasibly be found so early, but which have not been found in other excavations. It is tempting to ignore the data and wait for more securely sealed assemblages to be discovered. However, it is probably better to report all suspetted intrusive finds. If data is 'cleaned' before publication, then specialists working with less intrinsically datable material, such as animal bone or iron artefacts, will be given a false impression of the reliability of their sample.

Residuality

It is much more difficult to define a residual sherd than an intrusive one. The two terms are not opposites and there are many different levels of residuality. Sherds incorporated into the filling of a feature along with soil are termed 'rubbish survivals' or residual sherds. In favourable circumstances it is possible to distinguish such soil-derived sherds from 'contemporary' rubbish- However, most urban excavations produce assemblages which are much more difficult to categorize.

In London a good indication of the quantity of residual medieval pottery in a medieval assemblage is given by calculating the quantity of Roman pottery present. The quantities are often high enough to make any analysis of the medieval pottery suspect. However, when the date range of all the types present is known, the residual pottery can be used, together with a knowledge of the structural development of the site, to increase understanding of this site. It has been suggested that this is the case at Worcester, where differences in the character of residual pottery between phases of pitting lead the excavator to suggest wholesale removal of horizontal stratigraphy from the site between some of the phases (Carver 1980, 172). Following the subsequent history of the sherds of a broken vessel can also lead to greater understanding of the site development, although on most urban sites only a small fraction of each vessel represented on the site is found. The pressure of space seems to have forced urban dwellers to adopt elaborate methods of rubbish disposal (such as the shipping of night soil by boat from London), such that most vessels are represented by only a small fraction of the original sherds.

The limits of accuracy

The crucial factor determining the accuracy with which any sherd or assemblage can be dated is not the precision with which their archaeological context has been excavated and arranged in a stratigraphic sequence, although this obviously sets an upper limit. Fundamentally the dating of potsherds depends on the variability of the pottery assemblages through time. This is shown, for example, by the pottery of the Saxo-Norman period, from *c* 1050 to *c* 1150.

In London there are several assemblages whose deposition can be dated by coin evidence or dendrochronology. Despite this potentially good dating it will never be possible to date a London assemblage of this period accurately, because the same types are present throughout, differing only in their relative frequency. Unless it can be demonstrated that there is no residual pottery in the assemblage, even this change in relative frequency cannot be used as a dating tool. In Gloucester, however, even moderate sized groups can be divided into those of the late 11th century and those of the early 12th century. This is because a new and distinctive type of coarse cooking pot from the Malvern Chase was introduced *c* 1100, as shown by coin and documentary evidence, partially replacing an oolitic, limestone-tempered coarseware, Gloucester TF41b (Vince 1977).

At some periods, notably the late 1st century, the 13th century, and the late 17th to 18th centuries, pottery types tended to change rapidly over the whole country and assemblages can be dated to within 20 or 30 years. For the remaining periods the accuracy depends on fortuitous changes in pottery supply or typology. It can prove quite impossible to date Anglo-Saxon domestic pottery within 200 or 300 years.

The uses to which pottery dating can be put are varied and well known. Given sufficient knowledge of the local pottery sequence and the stratigraphy of a site, it is normally possible to produce a dating scheme which fits the available evidence. However, if based solely on pottery or other finds, such a scheme is never more than a hypothesis. Each context is given a *tpq* by the finds recovered from it and by its

stratigraphic relationship with earlier contexts and their finds. However, the *taq* (the date before which the deposit was laid down) cannot be determined with the same accuracy. I could today discard a collection of Samian ware into a pit cut into natural London brickearth together, perhaps, with a few Roman coins. Stratigraphically it can be demonstrated that the pit is later than the production date of the latest sherd or coin present, Any other dating argument is based on probability which, given the occasional unpredictability of human nature, is a long way from definite proof. As working archaeologists we tend to forget this fact and, indeed, if we did not then all archaeological interpretation would grind to a halt under the weight of *provisos*.

As well as dating excavated sites, pottery is often used to identify areas of occupation when the finds were recovered in an uncontrolled manner. The pitfalls of this method are that pottery can be carried over large distances along with spoil, and that large-scale earth-moving began at least as early as the Middle Ages and continues to this day, at an increasing pace. There is no substitute for controlled excavation although considerable information can be achieved through watching briefs. The advantage of watching briefs is that they are much cheaper than excavations and that one can therefore build up a much wider network of findspots than would otherwise be possible. Figs 94-7 were constructed using pottery from excavations and watching briefs in Gloucester. Both medieval suburban development and the intensification of occupation within the walled city from the 10th to the 13th centuries are shown quite clearly. However, after the 13th century it becomes impossible to construct comparable maps for the city because archaeological deposits of later date have been removed from so much of the area by later cellaring and roadworks. For example, the 13th century road surfaces of Gloucester lie immediately underneath the make-up of the present streets.

Characterization studies

During the 1970s the characterization of pottery from urban excavations grew from being a skill acquired by the specialist over many years to become the object of a battery of objective scientific tests. Summaries of the methods of characterization available, their advantages and disadvantages and the practical difficulties of getting samples analysed have been published as parts of Guidelines for pottery specialists by the Standing Committee for the study of Roman Pottery (Young 1980) and the Medieval Pottery Research Group (Blake & Davey 1983).

The systems promoted by these groups involve the detailed analysis of every sherd, using the binocular microscope. Such intensive work is a necessary preliminary to the study of any town's pottery. The range of rock and mineral inclusions found in the pottery can be determined by this method, and any repeated associations of inclusions or other fabric characteristics can be used to define Type Fabrics. In areas where the underlying geology is bland, pottery from widely separated sources can have a very similar appearance, while excavations at kiln sites of all dates have shown that a wide variation in colour, texture and inclusions can be expected within the products from a single source. Familiarity with the material can often lead to a 'sixth sense' as to its identification. This ability, however, is not easily testable.

In short, there are some areas in which it is not possible to characterize pottery fabrics with any precision using repeatable scientific techniques. There are techniques which can be tried in such cases, for example heavy mineral analysis or neutron activation analysis. These methods examine aspects of the pottery fabric which cannot be seen by eye, with or without a microscope. Methods of this sort are of more use in answering particular questions than in routine characterization. Sampling is a possible solution to this problem but even if rigorously designed, a sampling programme can only enable general trends to be determined. The results would not be comparable with those which can be obtained in areas of high petrological variability. Gloucester, for example, lies in such an area. Sand-tempered wares, which cannot easily be characterized, were rarely used in the city from the Roman period through to the 17th century. It is therefore possible to determine where most of the pottery used in Gloucester was made, and this information can be portrayed in graphs or maps (Fig 98). In London, by contrast, sand-tempered wares form a substantial part of the pottery in use during the Roman period (Green 1980, figs 43-5) and again during the medieval period. Only in the late Saxon period can almost all of the pottery in use in the City be characterized.

The sources of pottery supplying a town can be determined for a particular town and then mapped if the wares are both characterizable and their sequence and relative proportions measured. The results can then be compared with what is known of transport routes and trade in other objects. the relative importance of overland and river transport in the distribution of pottery can then be assessed. However, using the data from a single town to reconstruct the history of a pottery production area is liable to produce some misleading results. A study of the medieval Mill Green ware industry based solely on finds from the City of London would have concluded that the industry died out in the mid 14th century-a good example of the effect of the Black Death-but the evidence from Essex, including that from the kiln sites themselves, makes it clear that potting continued to flourish at Mill Green into the second half of the century (Pearce *et al* 1982, 277, 292). Such studies can certainly utilize data from urban excavations-indeed most of the chronological framework has to be supplied by towns-but they must always have a wider perspective.

The reconstruction of trade routes is therefore a topic in which work in a single town can be of great value, but for which cooperation between numerous researchers is needed to provide a coherent view. This is particularly true of long-distance trade, such as that in Romano-British finewares and amphorae, and Rhenish stonewares in the medieval and later periods. To study the trade in these pottery types it is necessary to examine material from all over western Europe, and beyond. The way in which the pottery is traded-trans-shipment points and trade routes, for example-can be revealed if it is possible to compare the quantity of one type of pottery at any settlement with that from another. To do this the methods used to characterize the pottery must be published to ensure that the identification is correct, and the methods used to quantify the pottery must be comparable.

Quantification is essential if the sequence and relative chronological importance of pottery types is to be determined. This information can then be used in a number of ways. For example, the date of each type can be determined

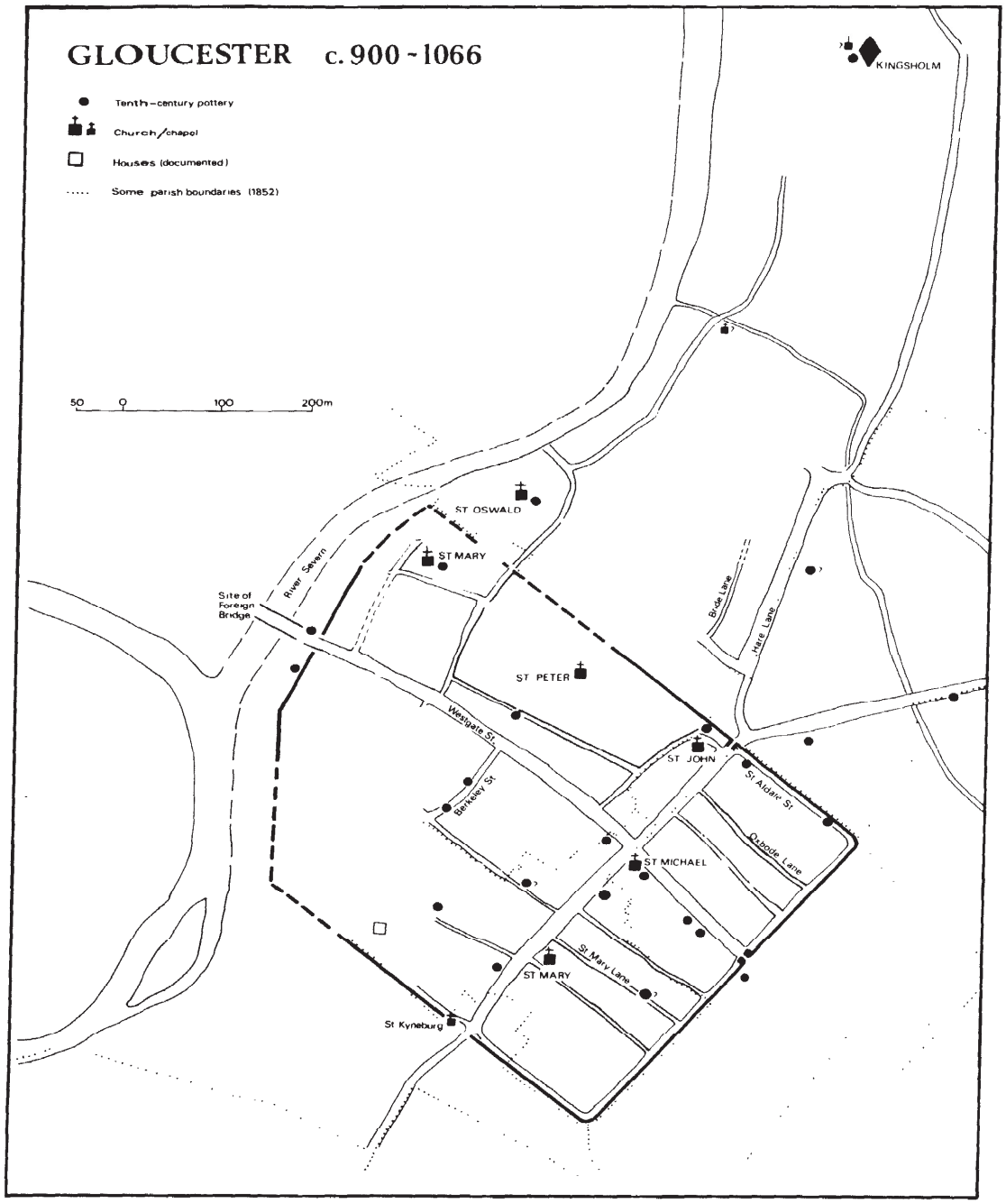


Fig 94 Tenth century Gloucester. The distribution of sherds of Gloucester TF41a, dated between the mid to late 10th century and the mid to late 11th century

or refined, the rise and fall of the pottery industries supplying the town can be plotted, the frequency of imported pottery (which may be related to the overall frequency of long-distance trade) can be plotted, and changes in the way in which pottery was used can be demonstrated. However, in order to use the relative frequency of pottery types in these ways, the context from which the pottery came must have been deposited over a short period of time, and the groups must be of considerable size. Given enough information about the date and frequency of pottery types in a town, it is possible to unravel the depositional history of pottery found in deposits of black garden soil or areas of intercutting pits, but the information content usually makes such analysis unrewarding. Furthermore if detailed local knowledge is not available beforehand, then the anlysis is next to worthless.

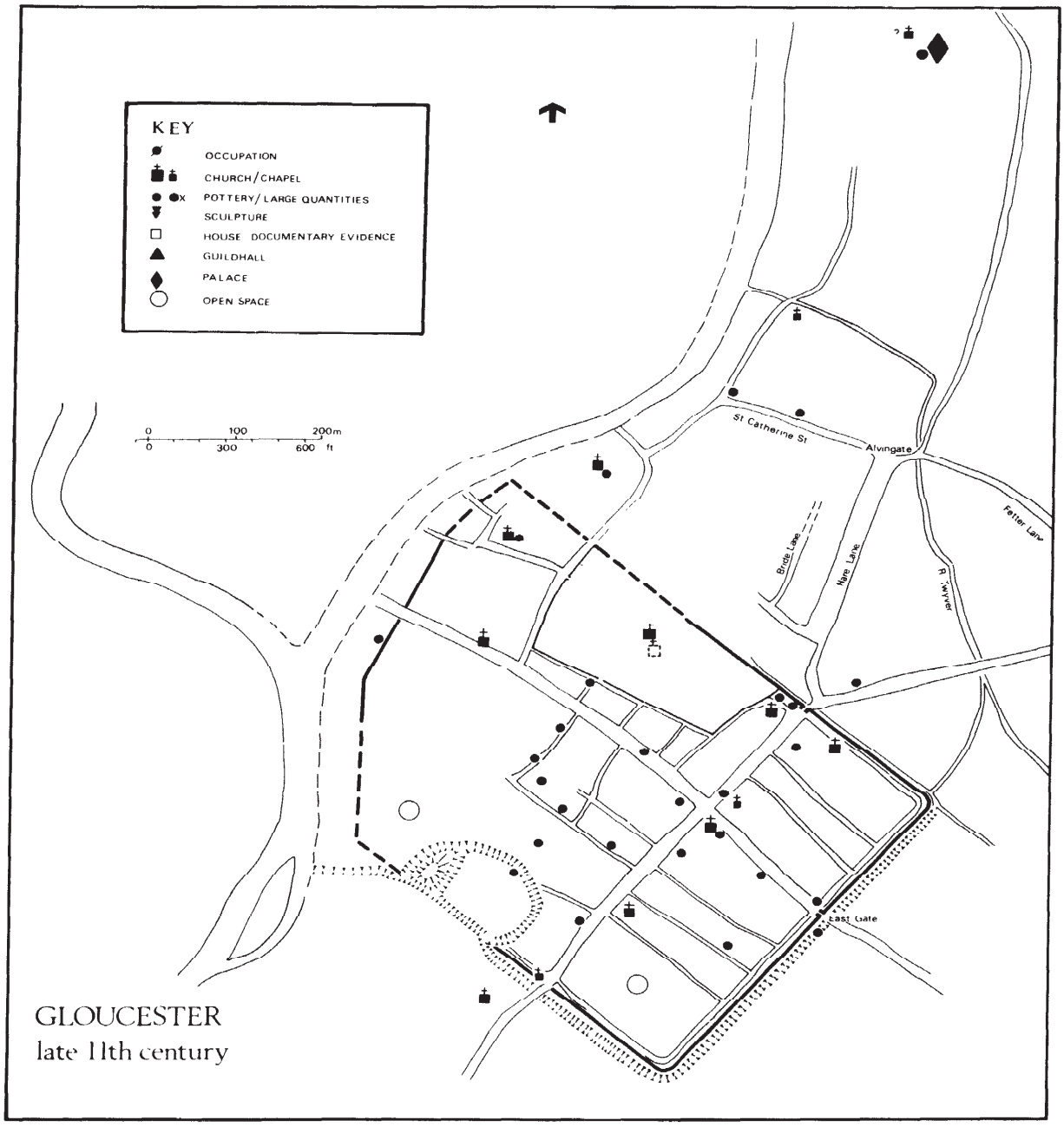


Fig 95 Elventh century Gloucester. The distribution of assemblages containing predominantly sherds of Gloucester TF41b. This ware is dated between the mid 11th and mid 13th centuries and therefore unstratified sherds cannot be used for close dating

Data processing

The introduction of computers into the recording and analysis of pottery started around 1970, although the potential of computers for analysis and information retrieval was realized earlier. The machines available at that time were large mainframe computers to which access was limited. There were therefore more people recording data in a 'computer-compatible' manner than there were specialists actually using computers in their work. Hindsight has shown that to be a pioneer in archaeological computing during the 1970s was to acquire more problems than results. The whole episode is perhaps better forgotten, especially by those specialists who spent years shuflling 'computer-compatible' recording sheets with one hand and operating a pocket calculator with the other.

The computer did not start to make a real contribution to processing speed, accuracy or efficiency until the advent of the microcomputer in the late 1970s. It is here that the

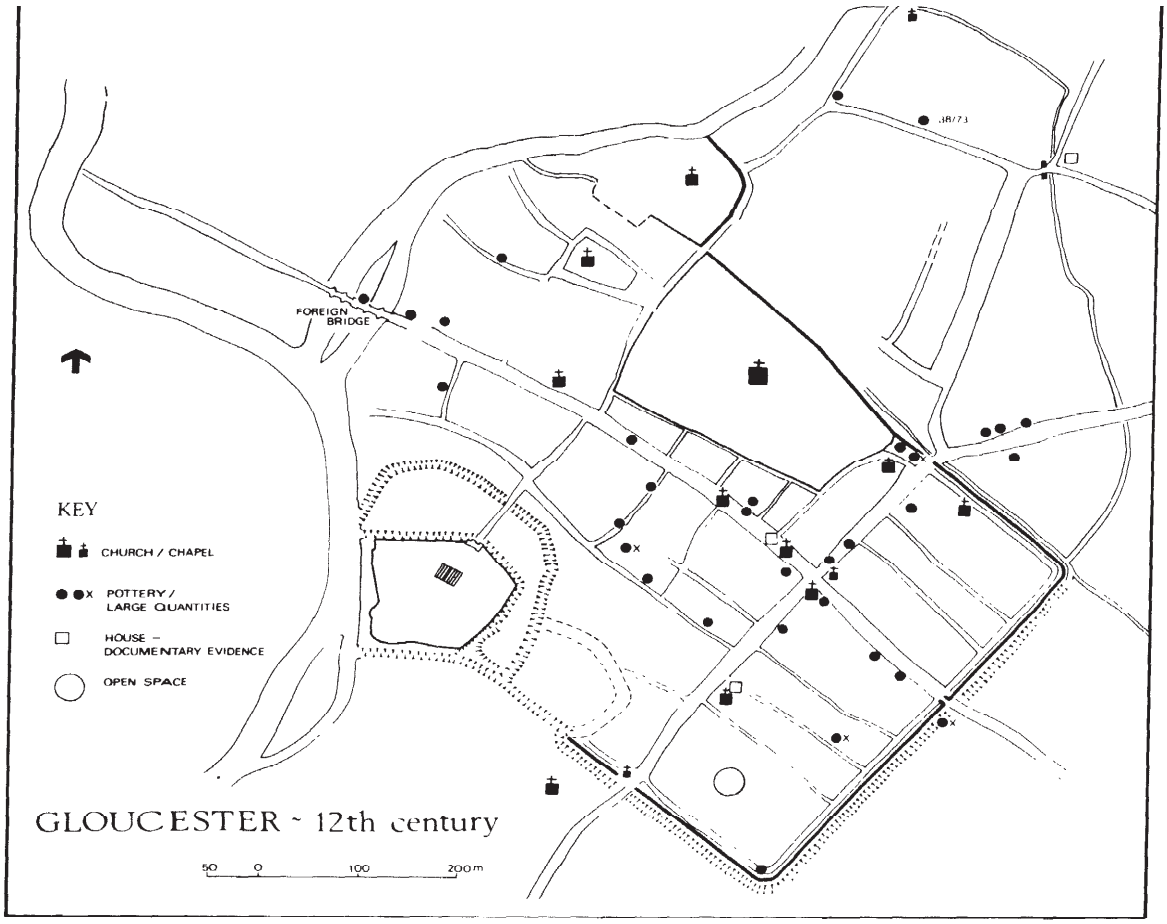


Fig 96 Twelfth century Gloucester. The distribution of skerds of tripod pitchers of Gloucester TF44 and TF52 and cooking pots of Gloucester TF40. All these types continued in use into the early 13th century and, unless stratified assemblages area available, typological features have to be examined to provide close dating

experience of the excavation units which experimented with micros may be of value to those people about to set up similar computer-recording systems.

Since the prerequisite for recording a group of data is to decide on the structure of the record, and since most available software packages make it difficult to alter the data structure once recording has begun, the first stage in designing a system is to set down a list of all the variables ('fields') that could be recorded. This is usually followed by designing a recording form and a trial use of the system to see how easy it is to operate.

What is often not considered (sometimes because the recording system in inherited from the 1970s 'computer-compatable' era) is the use to which the data will be put and the information present in the data. The DUA (Museum of London) recording system, for example, was originally developed as a detailed record, in which the quantities of pottery (measured by weight, number of sherds and rim and base EVEs) was recorded for every group of sherds of the same fabric and form (Orton, 1978). An 'EVE' is defined as a complete rim or base, or its equivalent in broken sherds. The result is a count of the percentage of pots of the same fabric and form but not necessarily the same vessel. Fabric differences owing to firing or minor variations in the quantities of inclusions were also noted.

By 1980 there was a large backlog of sites with pottery awaiting processing, and it was felt that this was holding up the publication of excavations. The system was therefore reviewed to see what, if anything, could be done to speed up processing without losing valuable information. The result was the realization that is some areas information was recorded 'because it was there' or 'to make a full record of the finds' rather than with the hope of retrieving useful information. If the Museum of London had a policy of discarding stratified finds after publication, then such detailed recording would be essential. In fact, despite the considerable difficulties involved in permanent storage of archaeological finds, it is the intention of the Museum to do so. It is not necessary to record the pottery in such detail to be able to give a *terminus post quem* to the deposition of a context, and many contexts contain so little pottery that the relative proportions of types is meaningless. For the

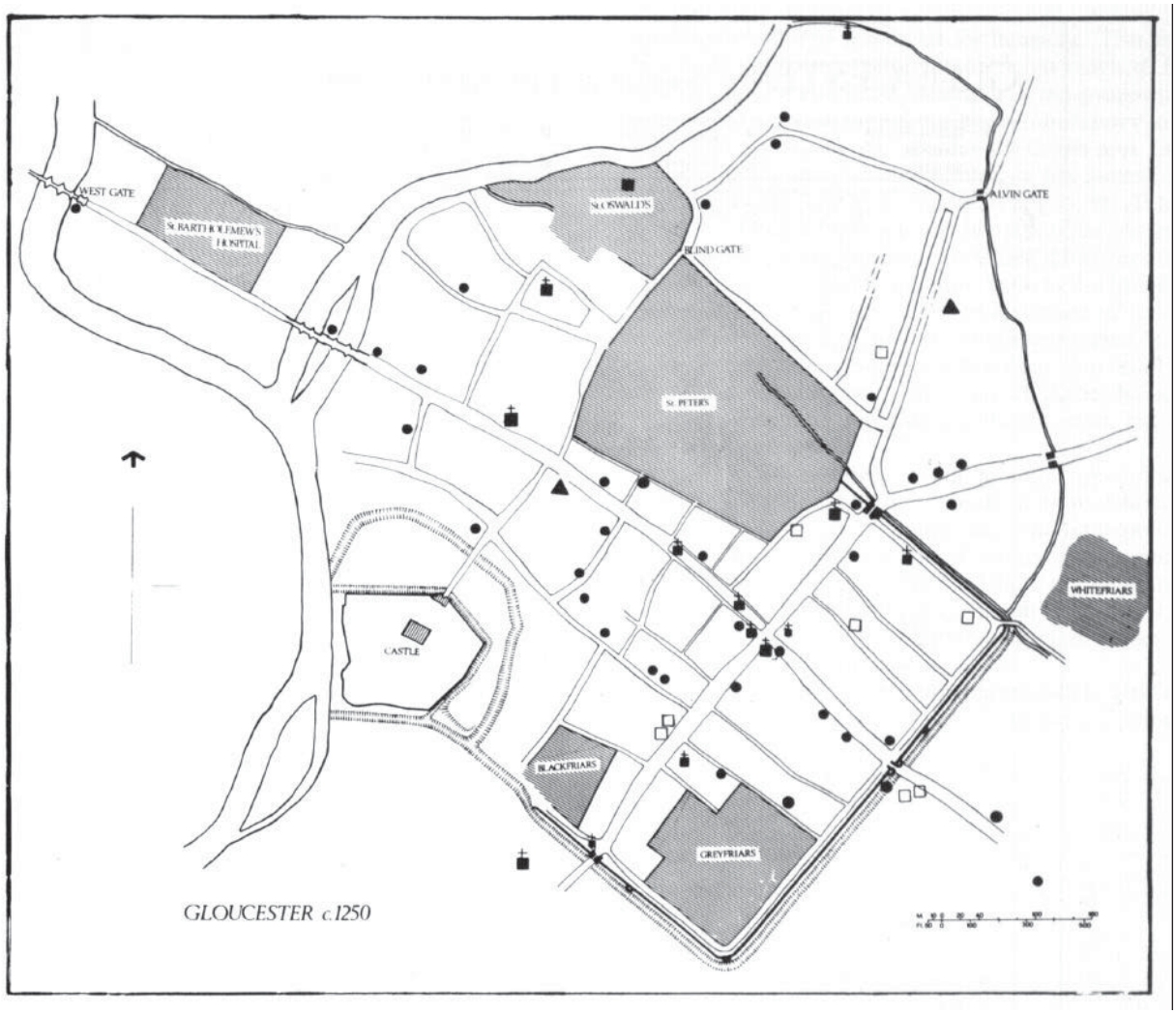


Fig 97 Mid thirteenth century Gloucester. The distribution of sherds of Ham Green and Worcester-type jugs, dating from the early to mid 13th century. The symbols are as for Fig 96

purposes of intepreting and publishing the site sequence it can be quite sufficient to have an accurate list of the pottery types present in each context.

Spot-dating

Until 1981 the DUA pottery section used to give a quick assessment of the pottery from each context soon after excavation in order to make sure that no calamities had befallen the finds between excavation and numbering. By slightly increasing the level of information recorded at this stage the records could, as a last resort, be used as the basis for dating the site sequence-although much more precise dating was achieved by laying out all the pottery in its stratigraphic order and giving an overall assessment of its date. This process is known within the Museum as 'spot-dating' and a complete record of the spot-dates for every site excavated since 1981 is held on the Museum of London minicomputer (Fig 99).

Apart from its primary function of giving quick, accurate dating information this record has proved to be of considerable use in pottery research. For example, the distribution of Ipswich Thetford-type ware across the City can be plotted using the output of a single computer command to produce a list of the number of contexts containing sherds of that ware per site (Fig 100). This can be compared with the distribution of sites producing pottery of approximately the same date (Fig 101). To obtain the data needed to produce these maps manually would either require a long search through a card index or the duplication of the original records to produce a cross-index of pottery finds by type. By computer it took three minutes and six seconds to search through all the spot-dating files to count the quantity of 11th to early 12th century pottery.

Further manipulation of the spot-dating record has been rewarding. For each context examined, the earliest and the most likely latest dates possible for the deposition of the group are recorded. These can be used to give a rough indication of the fluctuations in the amount of stratigraphy excavated of different dates, which in turn can be related to the intensity of occupation and later disturbance. For the medieval period this has shown that there was, in general, as high a level of occupation in the 10th as in the 11th to early 12th century. In the late 12th century there is a dramatic increase in the number of contexts excavated followed by a decline in the later 13th century.

Along the waterfront, this late medieval decline is not

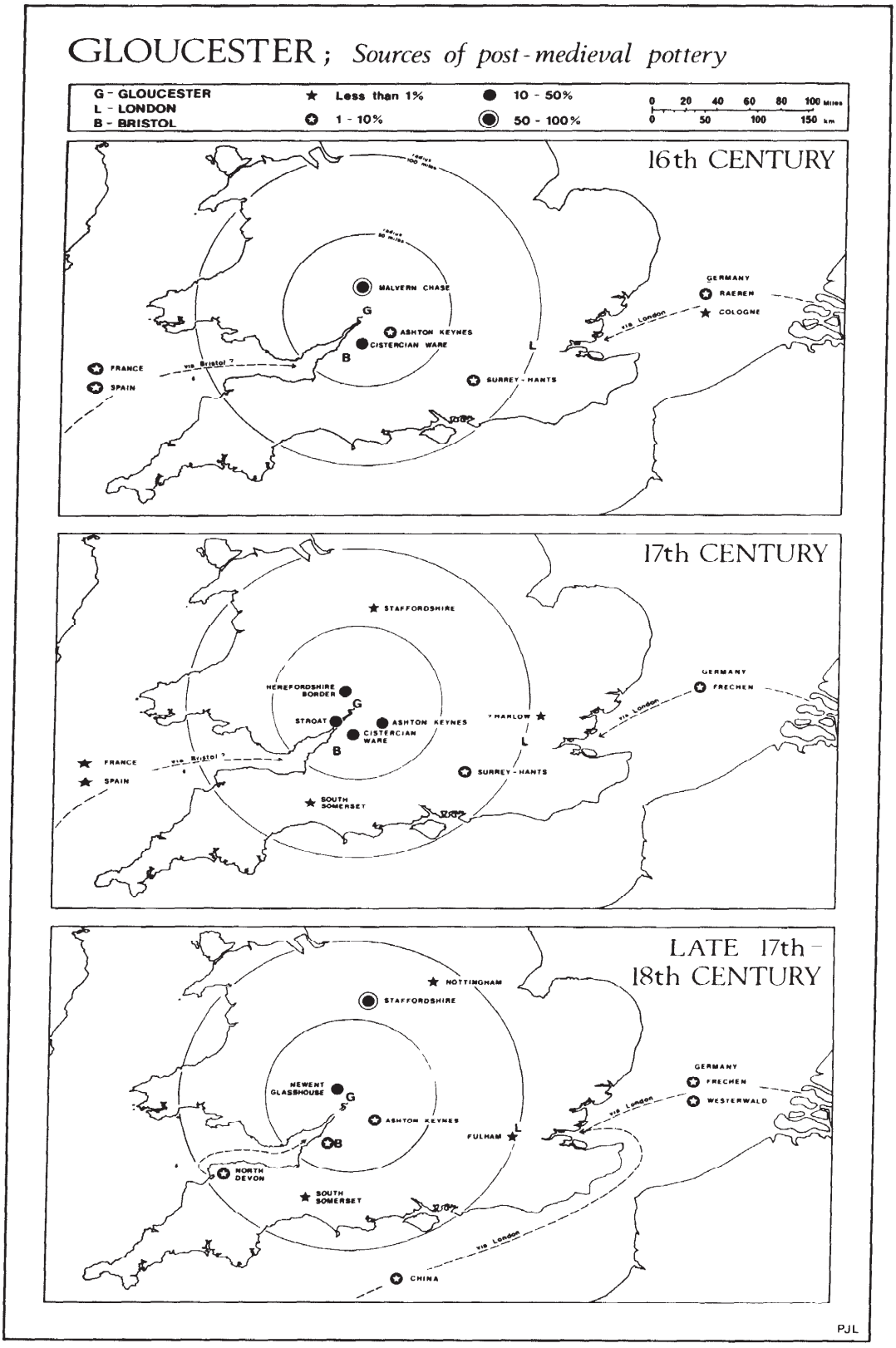


Fig 98 The sources supplying Gloucester with pottery from the 16th to the 18th centuries, based on data from the Gloucester Eastgate excavations

995, MPOT, L,, 1350, 1500, DUTR CP
995, MPOT ,L, 1350, 1500, LOND
995, MPOT, L,, 1350, 1500, SAIN JUG
995, MPOT, L,, 1350, 1500, SAIN PEGAU
995, MPOT, L,, 1350, 1500, SIEG DJ
995, MPOT, L,, 1350, 1500, SIEG DJ CLGL *
995, MPOT, L,, 1350, 1500, SPAN *VERY MICACEOUS
996, MPOT, S, SMA, S, SMA, 1350, 1500, CBW JUG
UNSTRAT, RPOT, S,, SAM DR31 STAMP POTTACUS OF LEZOUX AD 160 TO 190
UNSTRAT, RPOT, S,,, SAM DR33 STAMP

Fig 99 A sample of the Swan Lane spot-dating record. The data fields are: Context number, type of pottery, size of group, comments, terminus post quem, terminus ante quem *and pottery types*

noted (Fig 102). Part of this pattern is therefore probably due to differences in rubbish disposal, rather than intensity of occupation. A feature found throughout the City, on both inland and waterfront sites, is the sparcity of contexts datable to the later 15th and 16th centuries. Dr D Keene comments that the latter feature quite likely reflects a pattern noted by the Social and Economic Survey of London: the City was in a relative population decline during the 16th century.

Functional analysis

The use of pottery to identify the various activities which took place on a site, and possibly where they were located, is a field of study in which much effort has been expended, but from which few results are forthcoming. This may be due partly to the stage which research has reached. Before anything can be said about variations in the proportions of vessel types between or within sites, it is necessary to show that these variations are not due to differences in date between the groups or to the mixture in one assemblage of potsherds of different date. It is necessary to establish what is typical before the unusual can be recognized. At present there are few published studies in which it has been shown that the pottery from an excavation reflects the broad functions or status of the site, with the exception of industrial sites where specialized pottery vessels were used, such as crucibles, moulds and chemical apparatus. This is not to say that the site function or status do not affect the character of the pottery used, merely that insufficient work has so far been done to prove it.

There are few towns where the pottery sequence is well enough known for research to move forward profitably from the initial objectives of dating and characterization. In London, however, the sequence of pottery types in the early Roman period, from c AD 50 to *c* 200, has been elucidated on three large occupation sites in the part of the town west of the Walbrook valley (the GPO in Newgate Street, Milk Street and Watling Court sites).

The, data from these sites form a yardstick with which other assemblages in the City can be compared. Comparison

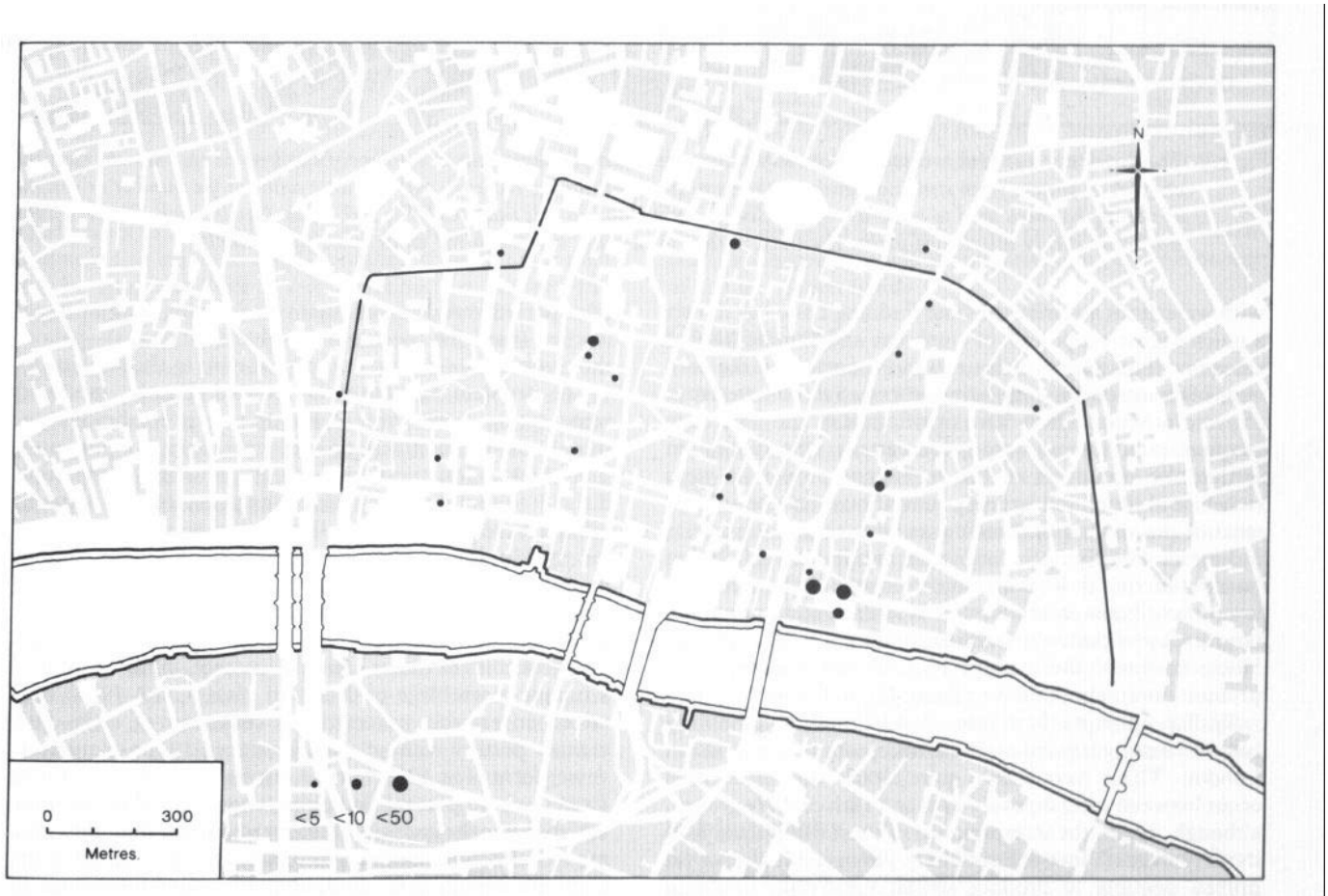


Fig 100 The distribution of Ipswich Thetford-type ware on recently excavated sites in the City of London. This ware is found from c 1000 onwards and is more common in pre-than post-Conquest contexts, although it was probably still in use in the 12th century. Although prepared manually, all the information needed to produce this map is available on the Museum of London computer. Future developments will no doubt allow such maps to be assembled and modified on the VDU screen



Fig 101 The distribution of 11th to early 12th century pottery from recent excavations in the City of London. At each site the number of types of pottery from stratified levels (ie the number of spot-dating records), rather than a count of the number or weight of sherds, has been used to construct the circles. A comparison of this map with Fig 100 shows that Ipswich Thetford-type ware was evenly distributed across the City, rather than being limited to the waterfront, for example

with waterfront assemblages from Pudding Lane has shown a much higher proportion of amphorae and Samian ware at the quay. This suggests that a high proportion of the contents of the amphorae were being processed at the waterfront (Tyers, in Milne 1985). The significance of the difference in quantity of Samian ware is less certain. One suggestion is that the occupants of the waterfront properties were richer, and there are certainly indications that the inhabitants of the west of Walbrook sites were engaged in minor industries and living in utilitarian mudbrick and timber houses (Perring & Roskams forthcoming). Differences certainly exist between the west of Walbrook sequence and a large group of pottery recovered from a pit at Bishopsgate. Here, however, the interpretation of the evidence is at present extremely tentative (Tyers 1984, 373-4).

Similar attempts -have been made to find variability between assemblages of medieval and post-medieval date in London. These have shown quite clearly that differences occur between contemporary 17th and 18th century groups, although, again, the interpretation of these differences is in its early stages (Vince & Egan 1981). However, it has not yet proved possible to produce similar results for medieval London. Almost all groups from the City are characterized by high quantities of coarseware cooking pots and, from the late 12th century onwards, locally-produced, glazed jugs. Variations, if they exist, consist of the presence or absence of imported vessels or unusual vessel forms, such as aquamaniles (used for the washing of hands at feasts)-two or three vessels in a 'high status' pit and none in the remainder.

The problem appears to be twofold. Firstly, medieval vessel types, unlike those of Roman or post-medieval date, were limited in number and used for a variety of purposes. This makes functional differences between assemblages difficult to spot simply by comparing pottery forms between groups. Secondly, it is clear that pottery was not a medium for the display and enforcement of social differences in medieval England in the way in which it may have been during the post-medieval period and, indeed, was during the medieval period in the Mediterranean world. A cess-pit used by a goldsmith at Foster Lane, for instance, which produced a unique assemblage of decorated glass (Clark 1983) contained an entirely unremarkable collection of early 14th century pottery without a single imported type or unusual vessel form (Fig 103). Similar results have been found in Exeter, where post-medieval pit groups showed much more variability in the quantity of imported pottery than medieval groups, although the conclusion there was that this reflected a greater topographic division of the town into areas of different status (Allan 1984).

Towns and pottery

Throughout this paper it has been implicit that towns are

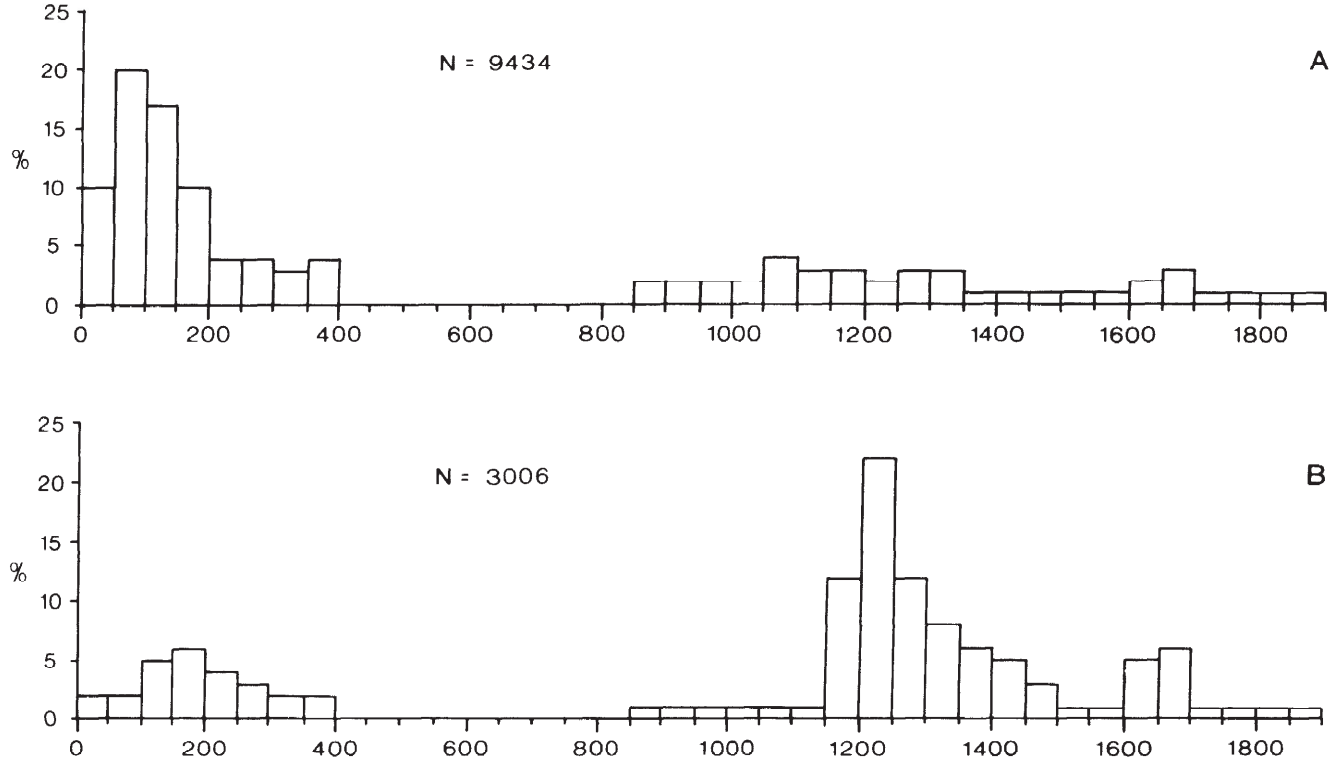


Fig 102 The frequency of recently excavated contexts by dare in the City of London (a) on inland sites, (b) on waterfront sites. The number of pottery types per context changes with rime, and it is therefore better to compare the number of contexts

good places to study pottery for the practical reason that it is possible to examine deeply stratified collections. It may also be true that there is a close connection between the development of the town as an economic centre and the development of the pottery industries which served it. Arguments about the exact status of a settlement which was at one time a town or was later to be one can use the extra information about the local economic climate which pottery can provide. Sometimes this extra data does not conform to previous patterns and may stimulate a rethinking of the current interpretation of the settlement.

In the mid Saxon period, for example, it appears that the London area was supplied by a wide variety of pottery sources, including imports from the continent and the East Anglian coast. Similarly, in the 11th century London was supplied by a wide network of pottery sources, including several of the areas prominent in the mid Saxon period. In between the two, during the late 9th and 10th centuries, the settlement archaeology shows a great increase in activity. Streets were laid out, London Bridge was probably rebuilt and the mint rapidly achieved the largest output in England, a distinction it retained throughout the 11th century. Why is it, therefore, that there was no local pottery used in the City, no pottery from the surrounding region and no imported pottery ? Virtually all the vessels used in 10th century London were produced in the Oxford region and quite probably carted overland to the City through the Chiltern gap. This contrast cannot yet be explained. However, it is clear that pottery is not just fleshing out a skeleton provided by documentary evidence, but will eventually add significantly to our understanding of the economy of the late Saxon town.

Conclusion

The study of pottery is vital to urban archaeology because of its value in dating. This is particularly true in the Saxon and medieval periods, where other datable artefacts are uncommon. Pottery studies have, however, reached the stage in many areas where site-dating using pottery has reached the limits of its accuracy, although there will continue to be advances through the study of closely datable assemblages. Using pottery only as a dating tool leaves much potential information untapped. In favourable areas characterization studies can produce remarkable detail about local and international trade, while the study of pottery forms and functions can chart changes in the life-style of the inhabitants. Once such information is available, variations in pottery use within the settlement can be examined, helping to identify differences in function and status between sites.

Bibliography

Allan, J P, 1984 *Medieval and post-medieval finds from Exeter, 1971–1980*, Exeter City Council and Univ Exeter

Barker, P, 1977 *Techniques of archaeological excavation*, London, Batsford

Blake, H, & Davey, P, 1983 *Guidelines for the processing and publication of medieval pottery from excavations*, Directorate of Ancient Monuments and Historic Buildings, Occ Pap **5**

Carter, A, 1975 Norwich, *Curr Archaeol*, **48,** 8–15



Fig 103 An early 14th century pit group from Foster Lane, City of London. The pottery is all from local and regional sources and does not include either Saintonge polychrome ware or Andalusian lustreware. Both of these types are found in London and are assumed to have been expensive and therefore characteristic of high status sites (Museum of London)

Carver, M O H, 1980 The excavation of three medieval craftsmen's tenements in Sidbury Worcester, 1976, *Trans Worcestershire Archaeol Soc* 3 Ser, **7**, 155–219

Clark, J, 1980 Medieval enamelled glasses from London, *Medieval Archaeol*, **27**, 152–5

Green, C, 1980 Roman pottery, in *Excavations at Billingsgate Buildings Triangle, Lower Thames Street, 1974* (D M Jones), London Middlesex Archaeol Soc Spec Pap 4, 39–79

Hodder, I, 1982 *The present past—an introduction to anthropology for archaeologists*, London, Batsford

Orton, C R, 1978 *Pottery archive: users' handbook*, Mus London Dept Urban Archaeol Publn 1

Pearce, J E, Vince, A G, & White, R, 1982 A dated type-series of medieval pottery in London, Part 1: Mill Green ware, *Trans London Middlesex Archaeol Soc*, **33**, 266–98

Perring, D, & Roskams S, forthcoming *The development of Roman London west of the Wallbrook*

Platt, C, & Coleman-Smith, R, 1975 *Excavations in medieval Southampton, 1953–69*, Leicester Univ Press

Schiffer, M B, 1976 *Behavioural archaeology*

Tyers, P, 1984 An assemblage of Roman ceramics from London, *London Archaeol*, **4** (14 Spring), 367–4

Tyers, P, 1983 Ceramic evidence for mercantile activity, in *Conference on waterfront archaeology in N European towns, no 2*, Bergen, 41–5

Vince, A G, 1977 The medieval and post-medieval ceramic industry of the Malvern region; the study of a ware and its distribution, in *Pottery and early commerce* (ed D P S Peacock), London, Academic Press

——, & Egan, G, 1981 The contents of a late 18th-century pit at Crosswall, City of London, *Trans London Middlesex Archaeol Soc*, **32**, 159–82

Young, C, 1980 *Guidelines for the processing and publication of Roman pottery from excavations*, Directorate of Ancient Monuments and Historic Buildings, Occ Pap 4

Summaries in French and German

Résumé

La collection d'articles réunis dans ce volume est un compte-rendu de l'ensemble du travail en tours et des priorités de recherche dans plusieurs branches de l'archéologie urbaine en Grande-Bretagne. Elle fait partie du programme de recherches établi par le Comité de Recherche du CBA à la suite de *Erosion of History* (Heighway 1972).

Les articles ont été groupés en deux catégories: d'une part les études par périodes des quatre époques principales présentes dans les villes, de l'époque romaine à l'époque post-médiévale (jusqu'en *c* 1700); d'autre part les études par sujet portant sur huit différents aspects de l'archéologie urbaine, tous d'ordre topographique.

En preface, ce volume comprend deux articles d'ordre général et en conclusion, un article sur les analyses de céramique dans les villes. Ce dernier est inclu pour rappeler l'existence de ce type d'analyse et pour faire le lien avec les analyses d'artifacts qui sont toutes d'une importance égale mais qui n'ont pas été traitées ici.

Nous avions aussi pensé à inclure d'autres sujets dans cet ouvrage, par exemple celui de l'industrie urbaine, mais nous avons décidé que dans beaucoup de cas, il n'était. pas opportun d'entreprendre l'étude d'un sujet pour lequel nous n'avions pas assez d'éléments et que dans d'autres cas, une étude appropriée venait d'être publiée.

Les divers contributeurs à cet ouvrage ont traité des questions suivantes:

a) Quels ont été les résultats obtenus et quelles questions de recherche reste-t-il à traiter? Que serait-il souhaitable d'apprendre sur le sujet et comment une fouille archéologique pourra-t-elle fournir les réponses voulues?

b) Existe-t-il dans cette branche des méthodes de fouille ou de recherche qui soient particuliérement recommandées et d'autres qui ne le sont pas?

c) Comment les crédits peuvent-ils être distribué entre les villes de façon à obtenir les meilleurs résultats possibles?

En principe, la totalité de la Grande-Bretagne devrait être inclue dans ces Etudes.

Le fait que cette étude thématique ait pu être entreprise montre que de grands progrès ont été faits depuis 1972. En 1972, l'archiologie urbaine commençait à peine. Les archéologues engagés dans ce domaine, connaissaient peu la Nouvelle Archeologic. Ils avaient beaucoup de sujets de preoccupation. Ils devaient s'occuper de trouver davantage de souriens financiers; ils cherchaient à obtenir une ligislation sur les droits d'accès aux sites; ils devaient mettre au point l'étude du potentiel archéologique des villes et celle de la recherche architecturale et documentaire par rapport aux stratégies de fouilles.

La question du soutien financier est toujours un sujet de preoccupation en archéologie urbaine, mais les autres problèmes ont maintenant perdu de leur importance. Le droit d'accès par les archéologues aux sites urbains les plus importants a été en partie acquis avec la loi sur les anciens monuments et zones archéologiques de 1979. Dans beaucoup de villes on a maintenant entrepris de faire l'étude des conséquences possibles du développement urbain en terme d'archéologie. Le besoin de faire de la recherche architecturale et documentaire par rapport aux stratégies de fouille reste encore très grand. Cet aspect du problème fait maintenant souvent partie d'une approche assez large visant à étudier tous les aspects de la société urbaine d'un point de vue archéologique, étude pour laquelle on donnera une même importance à l'analyse rigoureuse de beaucoup de catégories de données.

Toutes ces questions sont exposées dans les deux premiers articles (Schofield, Carver), de ce volume. Ils n'auraient pas pu être écrits en 1972, mais il y a eu depuis suffisamment de fouilles urbaines pour permettre de mettre en evidence les caractéristiques des diverses couches archéologiques. Dans ces articles, on voit également combien certains projets de recherche en archéologic urbaine ont innové en mettant au point des techniques de fouille et d'analyses aprés fouille qui sont à la fois nouvelles et plus rigoureuses qu'auparavant.

Ensuite, il y a quatre articles par période. Les auteurs (Jones et Wacher, Hill, Palliser et Davey) donnent pour chaque période la liste des succés obtenus et des problèmes qui restent à résoudre. Ils y donnent des exemples varies de réussites et d'objectifs pour l'avenir. Parmi ces derniers, les themes qui reviennent souvent sont ceux du potentiel des couches anérobiques dont on a déjà fait mention dans les chapîtres d'introduction, et la nécessité d'entreprendre des études régionales sur laquelle le Comité a également insisté lors de l'élaboration des projers de recherche.

La plus grande partie de cet ouvrage est composée par les études par sujet tels la defense urbaine, les châteaux forts, les bâtiments domestiques et publiques, les bords de rivière, les églises et les maisons religieuses (Jones et Bond, Drage, Mackreth, Perring, Munby, Milne, Morris, Butler). L'aspect topographique de ces sujets est mis particulièrement en évidence, mais la portée de ces articles dépasse de beaucoup ce domaine. Les auteurs s'arrêtent non seulement sur les aspects topographiques et architecturaux des villes mais aussi sur les changements économiques, sociaux et politiques dans les sociétés urbaines. Ils mentionnent tous les objectifs à atteindre à l'avenir.

Les auteurs avaient reçu des instructions assez générales quant au contenu de leurs articles et ils les ont interprêtées d'une façon variée. Les points communs entre ces articles par sujet et les études par période méritent d'être notés. Par ailleurs, ces deux types d'études peuvent être comparées avec les deux premiers articles de ce volume qui sont surtout d'ordre méthodologique.

Aucun des collaborateurs à ce volume ne prétend que cet essai de prevision pour l'archéologie urbaine est parfait. Quel en est donc son but? D'abord de rassembler des thèmes de recherche en archéologie qui soient valables et d'autre part d'annoncer les décisions qui ont été prises pour conserver notre héritage culturel. Le débar issu de ces questions fera ressortir, nous l'espérons, des priorités et améliorera le

choix des sites à fouiller et à préserver. A ce propos, nous voudrions mentionner deux idées issues de ce volume:

1 Il est nécessaire de continuer à faire des etudes d'ensemble de l'archéologie des villes qui aillent au-delà des etudes preliminaires et qui fournissent des cartes détaillées en trois dimensions des couches présentés.

2 Les études de certains bâstiments urbains types qui seront faites avec l'ensemble des résultats qui commencent à nous parvenir, pourraient servir de base à la preparation des plans pour la conservation des bâtiments dans les villes.

Il nous semble que les articles sur les défenses urbaines et sur les châteaux forts contiennent beaucoup d'exemples bien étudiés pour accomplir ce travail.

Zusammenfassung

Dieser Band gibt einen Überblick über die gegenwärtig vorrangigen Projekte auf verschiedenen Gebieten der britischen Archäologie. Er ist Teil einen Untersuchung, die vom CBA Research Committee eingeleitet wurde, als Folgeband von *Erosion of History* (Heighway 1972).

Die Aufsätze sind in zwei Gruppen unterteilt: Untersuchungen der vier Hauptperioden städtischer Archäologie, von der Römerzeit bis zum späten Mittelalter (Ende *ca* 1700); ausserdem Themen, die acht Einzelaspekte behandeln, alle sind topographischer Natur. Der Band ist eingeleitet von zwei allgemeinen Artikeln und abgeschlossen mit einem Beitrag zur Töpferware in Städten, herausgegriffen such in Hinsicht auf andere Artifakte, welche ebenso wichtig, aber hier nicht behandelt werden konnten. Bestimmte andere Themen, wie zum Beispiel „städtische Industrie" wurden erwogen, sind aber nicht einbegriffen, da es entweder noch zu früh für eine Zusammenfassung ist, oder, weil eine befriedigende Übersicht vor kurzem anderweitig veröffentlicht wurde. Die Hauptfragen, die von den Autoren gestellt wurden, sind:

a) Welches sind die Haupterrungenschaften in den behandelten Themen und was für Fragen bleiben noch offen; Was wollen wir wissen auf diesem Gebiet und wie können Antworten durch die Archäologie gefunden werden?

b) Sind besonders nützliche oder auch ungenügende Ausgrabungsmethoden und Forschungswege bekannt geworden?

c) Wie sollten Hilfsmittel für die Archäologie in den Städten verteilt werden, um dadurch die beste Information zu bekommen?

Ganz Grossbritannien sollte, wenn möglich, erfasst werden. Dass diese Übersicht veröffentlicht werden konnte, zeigt das Mass des Fortschritts, der seit 1972 gemacht worden ist. Denn damals steckte die städtische Archäologie noch in den Kinderschuhen, sie war sich keineswegs der Möglichkeiten der neuen Archäologie bewusst und war hauptsächlich damit beschäftigt, mehr finanzielle Unterstützung zu finden, gesetzlich geschützten Zugang und Übersicht über die archäologischen Potentiale in den Städten zu erhalten, sowie architektonische und dokumentare Untersuchungen zu betreiben, im Hinblick auf Ausgrabungsstrategie.

Finanzielle Unterstützung wird immer ein Problem sein in städtischer Archäologie, aber die anderen Faktoren sind nun zweitrangig geworden. Das Recht des Archäologen auf Zugang zu den wichtigsten Bauplätzen ist wenigstens teilweise gesichert durch den 'Ancient Monuments and Archaeological Areas Act 1979'. Untersuchungen, ob Archäologie unter Bauprojekten zu erwarten sei, sind in vielen Städten individuell durchgeführt worden.

Der Bedarf an architektonischer und dokumentarer Forschung im Hinblick auf Ausgrabungsstrategie ist immer noch stark, wird aber heute oft als Teil einer Annäherung im weiteren Sinne gesehen, indem archäologische alle Aspekte der städtischen Gesellschaft geprüft werden, mit gleichgewichtiger Betonung und genauer Begutachtung vieler anderer Kategorien von Fakten.

Diese Punkte sind gut veranschaulicht in den ersten beiden Aufsätzen, (Schofield, Carver), doch keiner der beiden hätte 1972 geschrieben werden können, denn erst jetzt sind genügend städtische Ausgrabungen durchgeführt worden, welche das Material zur Auswertung zur Verfügung stellten. Ausserdem wird durch diese Aufsätze klar, dass viele archäologische Forschungsprojekte den Weg gewiesen haben zu genauerer Ausgrabungs- und nachträglicher Auswertungstechnik.

In der nachfolgenden Übersicht über die vier Perioden bringen die Autoren (Jones und Wacher, Hill, Palliser und Davey) beides, die gelösten und die noch ausstehenden Probleme der Themen, die sie behandeln. Erzielte Erfolge und zukünftig Angestrebtes sind in aller Breite dargestellt. Immer wieder kehren Themen über gut erhaltene Funde in wasserabgeschlossenen Lagen, worauf such schon in der Einleitung hingewiesen wird, und über die Notwendigkeit für deren regionale Studien, worüber such vom Komitee besondere Vorschläge gemacht werden.

Den größten Teil des Bandes nehmen die Untersuchungen der Stadtverteidigungen, Burgen, privaten und öffentlichen Gebäude, Uferanlagen, Gemeindekirchen und kirchlichen Gebäude ein (Jones und Bond, Drage, Macreth, Perring, Munby, Milne, Morris, Butler). Dabei sind die Autoren nicht nur an topographischen und architektonischen Gesichtspunkten interessiert, sondern berücksichtigen auch besonders den Wechsel der wirtschaftlichen, sozialen und politischen Systeme in der städtischen Gesellschaft. Alle Autoren nehmen such Stellung zu den Zukunftsaussichten ihrer Themen. Die Auffassung der Ausarbeitung der Themen war weit gesteckt und wurde verschieden interpretiert; aber die Verbindungspunkte und Überschneidungen der einzelnen Abhandlungen und der Periodenübersicht müssen sorgfältig beachtet werden und beide Arten können verglichen werden mit den mehr methodisch ausgerichteten Interessen der beiden ersten Beiträge.

Keiner der Beteiligten dieses frühen Werkes über strategisches Denken in städtischer Archäologie würde behaupten, es sei schon vollkommen ausgewogen. Warum dann das ganze? Einmal, um ergiebige Themen zusammenzustellen für die archäologische Forschung, zum Anderen, urn wohldurchdachte Entscheidungen zu unterstützen, die die Erhaltung unseres kulturellen Erbes betreffen.

Die Diskussion dieser Themen wird hoffentlich dazu verhelfen, Prioritäten zu setzen und die Auswahl der Ausgrabungsstätten zu verbessern, in Hinsicht sowohl auf Grabung als such auf Erhaltung. Hierbei möchten wir auf zwei zusammenhängende Vorschläge hinweisen, die in diesem Bande formuliert werden:

1 Es gibt immer noch einen grossen Bedarf an weiterer archäologischer Einordnung von Städten, welche über den

blossen Bericht hinausgeht durch die Zuordnung von Karten über die vorhandene Strata.

2 Von dem gesammelten Material, welches allmählich bekannt wird, könnten Berichte spezieller städtischer Monument-Typen benutzt werden, als Grundlage für eine planmässige Politik in den Städten. Wir schlagen vor, dass die Aufsätze über Stadtverteidigungs-Anlagen und Burgen besonders geeignet sind fur ein solches Beispiel.

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