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The plans and topography of medieval towns in England and Wales

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Introduction

European Architecture Heritage Year is a suitable time to offer in print a collection of papers on historic towns in England and Wales written from a particular point of view: the study of the origin and development of their physical shape, within the context of which there are surviving elements of a heritage of buildings of more than a millennium and a half.

Stages in the development of urban studies may be recalled to place this collection of papers in its context. Historians of the generation 1945-75 have benefited from the growth of a pattern of local record offices, and a tide of interest and concern, which has deposited in those offices many collections of municipal as well as other official and private records. Those interested in the modern period have responded to changes in the urban environment by producing such interdisciplinary studies as H. J. Dyos and M. Wolff (eds.), *The Victorian City* (Routledge 1973) and C. W. Chalklin's *The Provincial Towns of Georgian England* (Arnold 1974). Archaeologistys of the same generation have been obliged to organize themselves for political action: this has been in part a symptom of an emergent discipline and profession, in part a consequence of the fact that their evidence—the material remains of the past, whether still above the ground or buried below it—is at the mercy of social and economic forces to be controlled, if at all, only by government action. Hence the series of pronouncements on historic towns, the publication of which by the Council for British Archaeology must be registered in any history of planning in the decade 1964-74.

Legislation in Britain designed to protect ancient sites and historic buildings has been framed, since the first Ancient Monuments Act (1873), on the principle of enunciating a mode of protection and then of identifying particular sites and buildings to be protected. The publications by the CBA moved step by step in the direction of protecting town centres in that way. The first. *The Buchanan Report and Historic Town* (1964), made a plea for the preservation of historic Street plans and the designation of town centres, rather than individual buildings in them, as worthy of protection. The second. *Historic Towns* (1965). classified forms of town development and included a list of 324 towns in England, Scotland. and Wales worthy of comprehensive protection. Fifty or so towns were claimed to be of national rather than merely local interest. In the Ministry of Housing and Local Government the list was received with misgiving, owing to grave doubts about listing; it was felt that the procedure inevitably placed at risk any towns or parts of towns excluded from the list but still possessing some merit. The publication, especially after reprinting by the Civic Trust (in *Conservation Areas,* 1967), provoked great interest among local planners, annoyed or delighted at particular inclusions and omissions. It is safe to say that the CBA helped to create the climate in which protection for town centres, or parts of them, was acceptable to Parliament. Duncan Sandys's Civic Amenities bill, published in 1966, soon became law, and placed a form of protection on the buildings of town centres or of parts by designation as conservation areas. At about the same time Richard Crossman commissioned pilot surveys of Bath, Chester, Chichester, and York, as studies in the conservation of buildings. The studies were inevitably protracted, and were published only in 1969. To pursue that development further—into, for instance, the matter of using the funds of the Historic Buildings Councils for town schemes—would be beyond the scope of this introduction. Suffice it to say that Lord Esher's survey of York, and in particular his proposals for the Aldwark, have been integrated into the programme of excavations in York.

As the scale of urban redevelopment swelled in the late 1960s—another age, as seen from 1975, when few questioned the primacy of the motor car or the assumptions of property developers—the attention of archaeologists shifted from a general interest in the environmental qualities of historic towns to alarm at the loss of buried deposits occasioned by the scale of capital investment in urban redevelopment and by modern techniques of construction. Hence the publication of *The Erosion of History* (ed. C. M. Heighway, 1972), a detailed review of the precise nature and degree of anticipated redevelopment, compiled for the newly founded Urban Research Committee of the Council for British Archaeology. It summarized information about more than 900 communities with an urban character established before 1750. It contains the sombre conclusion that "the most important towns of all historic periods will be lost to archaeology in twenty years, if not before" (Heighway 1972, 5.57).

Since that publication, events have moved far and fast. Government expenditure on rescue excavation has increased nearly eightfold between 1971-72 and 1975-76. The proposals for legislation made in the *Erosion of History* have been incorporated in a draft Bill and it seems likely that areas of archaeological potential will eventually be safeguarded from redevelopment without excavation, by protection similar to conservation areas.

This possibility highlights the next stage for urban historians and archaeologists: the identification of areas of archaeological potential in towns. A number of surveys have been published, of which the most impressive, and the most lasting in value, is *The Future of London's Past* (Biddle *et al.* 1973), since it constitutes a brief but authoritative review of the early history of London, as well as an up-to-date conspectus of the implications of planning and development in the nation's capital. For provincial towns, especially smaller ones, surveys of the archaeological implications of redevelopment have provided the required focus and framework for excavation programmes, but vicissitudes in planning and the results of excavation have quickly made such surveys out of date. Those interested may obtain a list of published surveys from the Council for British Archaeology. The degree of alertness among archaeologists indicated by these surveys, the increase in government expenditure, and the consultative machinery recently created by the Department of the Environment have together provided somewhat better safeguards against unwitting losses than existed five years ago. However, the continuing absence of any legislative framework for urban archaeology, the rising cost of excavation and publication, and the current inflationary situation provide no grounds for com-

placency. The situation continues to be critical to a degree which can only be offset by immediate and effective action by the Department of the Environment.

That being so, the Urban Research Committee of the Council for British Archaeology has felt at liberty to plan a programme of research. This has necessarily taken the form of an interdisciplinary exercise, calling on archaeologists, historians of several kinds, historical geographers, and archivists concerned with Roman and post-Roman Britain. A number of continuing seminars have been established, on such topics as churches in towns and population; whose examination requires study of both material and documentary evidence. The first such seminar was given the broad theme of the planning and topography of historic towns; the papers prepared for it and read to a seminar at Leamington Spa, in November 1974, are here printed. If it seems to some

readers that under such a title the towns of Roman origin should have had prime place, the best explanation is that the subject of the origins of towns in Britain and continuity from Roman to later times—a topic which has exercised generations of historians and archaeologists–is reserved for another seminar.

The papers have been revised since being read, and the opportunity has been taken of including brief summaries of the discussion at Leamington. The Bibliography (pp. 84-88) has been consolidated. The town plans submitted with each paper have not been consolidated since, although there is some overlap, they were selected and prepared for different reasons. Not the least valuable part of the seminar is the list of further research desiderata gathered from the papers and discussion, and printed on p. 83.

M. W. BARLEY
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Acknowledgments

Sources for Urban Topography: Documents, Buildings, and Archaeology

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Summary

The main documentary sources for medieval urban topography are surveyed, followed by the evidence of standing buildings, structures destroyed but recorded, and the archaeological layers below ground. Many relevant documents are already published or at least listed, but much still remains to be done. More publication is also needed of architectural and archaeological evidence. but in their case the most urgent need is to preserve it, or at least record it in advance of redevelopment.

Sources for the study of medieval urban topography can be divided into three broad categories: documents, the historian's traditronal fare; buildings and the physical fabric of towns, which might be described as 'above-ground archaeology'; and archaeology in the narrower sense to which it has recently been confined. There has until very lately been an unfortunate divorce between studies of the first kind of evidence and those of the second and third; if the three are here considered separately, it is simply for convenience and not with any intention condoning the split. Professor Hexter has cogently attacked the practice of 'tunnel history'— the splitting of historical study into thematic pigeon-holes or tunnels (1961, 194-95)—and his remarks are very relevant to the divisions among students of the medieval town. The recent plea by Dr Dymond (1974) for a united approach to the past by historians, historical geographers, architectural historians, and archaeologists is equally apposite.

Documentary sources

Relevant documentary sources are so voluminous that this brief survey must lean heavily on sources published, or at least referred to in print. Even a cursory view, however, reinforces the conclusion of Professor Elton on historical sources in general that "far more history than is written remains unwritten" (1969, 9). Major urban sources are still coming to light in both public and private archives, or are being more justly valued for the first time. It is therefore unfortunate that the basic published accounts of many urban archives remain those published a century ago by the Historical Manuscripts Commission in their early general reports. The Commission later issued a few detailed reports on some archives, and other catalogues were issued by the corporations concerned, but even a printed catalogue cannot be safely regarded as comprehensive unless it is of recent date. That printed for York (Giles, 1909) does not correctly identify Ms. C6O, a husgable roll of *c.* 1282 and the oldest surviving document originated by the corporation; and that for Coventry (Jeaffreson, 1896) misses a complete census of the city street by street, taken in 1523, the earliest census known for any British town.

Corporation archives, however, are not the best source to consider first; even the oldest of them, not surprisingly, date back no further than the beginning of

municipal liberties (Martin, 1963, 127-28), and in considering a subject as conservative as urban topography it is best to begin with those sources starting as early as possible: not corporate archives, or even the older state archives, but literary sources. Bede, Asser, and the various versions of the *Anglo-Saxon Chronicle* together include much early information on towns, if only in many cases to establish their existence and whether they were fortified. These 'English' sources are easily accessible in modern critical editions, but unfortunately many of the contemporary Celtic annals and saints' lives still lack such treatment. It is therefore unfortunate that a stimulating recent survey of the age of Arthur, making extensive use of this alternative tradition and giving many references to the fate of towns. should cite the sources from an edition not yet published (Morris, 1973).

Literary sources are important not merely for the period before systematic archives were kept; the descriptions of towns surviving in increasing numbers from the 12th century onwards are often valuable. William of Malmesbury and the author of the *Deeds of Stephen* have useful short descriptions of many towns. Only a little later in date are two longer descriptions stimulated by contemporary guide-books to Rome and Jerusalem (Hyde, 1966), Fitzstephen's famous account of London, prefacing his life of Becket (Stenton, 1934, 25-35), and Lucian's *In Praise of Chester* of *c.* 1195 (Taylor, 1912). There is also, of course. useful information scattered among the various late medieval and early modern town chronicles and annals. A new standard of scholarship was set by William of Worcester's detailed description of Bristol in the 1470s, which has, as K. B. McFarlane pointed out. "not yet found the editor it deserves" (Davies, 1957, 220), though it is now being edited by Mrs Frances Neale. There follow the descriptions of towns throughout England by Worcester's successors Leland, Camden, and so on. The 16th century also saw the beginning of histories and descriptions of individual towns, most notably those of London (Stow. 1598) and Exeter (Hooker, *c.* 1580). Recent scholars have provided critical editions of Stow and Hooker, but it is often forgotten that other early town histories remain in manuscript and are therefore not sufficiently known.

Other relevant classes of document starting earlier than the town archives themselves are those of the state and the church. The former begin especially early for southern towns if the term can be held to include the early 10th century Burghal Hidage, which has been much

studied recently (e.g. Brooks, 1964: Hill, 1969), and of course there is Domesday Book, which despite its omission of London and Winchester, is the earliest description covering nearly all English towns. Much critical work remains to be done on its laconic entries about urban topography. and even satisfactory translations are still lacking for many, especially in counties not yet translated for the *Victoria County History. No* later general surveys instituted by the Crown are quite so valuable, though the Hundred Rolls of 1279 do include very full surveys of Oxford and Cambridge; the Cambridge survey has been analysed in masterly fashion by Maitland (1898, 142-49 etc.).

More useful for topographical detail are the Crown's routine records beginning in the 12th and 13th centuries –pipe rolls, patent rolls, close rolls. fine rolls, inquisitions, and so on. The patent and close rolls are especially useful for murage grants, which help to establish the chronology of town defences, and which have now been usefully tabulated (Turner, 1970, 238-43). Beyond that, it is difficult to consider relevant records of the state without making a mere list of almost all classes of public records; but one might single out as especially valuable the huge collection of 'ancient deeds', only partly calendared in print, and the various series compiled during the Reformation – *Valor Ecclesiasticus,* chantry certificates, particulars for grants, and so on.

One much under-used group of state archives is the parliamentary surveys of confiscated Crown and church lands, drawn up between 1649 and 1653 (Newton, 1968); they are late in date but wonderfully detailed, and are especially valuable for cathedral cities. Few have been published, but a notable exception is that of the property of the Dean and Chapter of Worcester in 1649. Many tenements in Worcester are described in detail, not only by location, but with dimensions given and the number and function of individual rooms stated; the result is a detailed picture of a large part of the city (Cave and Wilson, 1924).

Ecclesiastical archives are nearly as valuable for urban topography as those of the state. The bishops' registers, among the earliest, are of some use, but too few have yet been published for the later middle ages. Most important are the probate records, especially wills and inventories. A genealogical bias has ensured that more such records have been printed of gentry than of townsmen, though some recent collections of urban inventories are a welcome sign of change, and an up-to-date survey (Gibson, 1974) makes the tracing of urban wills easier.

The richest archives, topographically, are the records of property ownership by the ecclesiastical corporations, for in many of the larger towns the Church collectively was the largest landlord. Sir Francis Hill's survey of Lincoln (1948) drew heavily on the cathedral's *Registrum Antiquissimum,* now happily printed in full; the deeds relating to chapter property in the city alone take up three volumes (Major, 1958, 1968, 1973). Richer still is Oxford, where H. E. Salter, after a lifetime of editing the deeds and rentals of the colleges and religious houses, was able to produce a house-by-house survey, often going back continuously to the 13th century (Salter, 1960, 1969). Oxford may be exceptional. but riches survive for other towns. like the recently published cartulary of a London priory which throws a flood of light on thc city's 12th and 13th century topography (Hodgett, 1971). Ecclesiastical rentals and surveys can be equally valuable: Dr Urry has been able to construct detailed property plans of Canterbury

from 12th century rentals of the cathedral priory (Urry, 1967). This is a field, however, in which many major documents remain unedited, like Canterbury's London rentals of *c.* 1180 and 1230 (Urry, 1967, 2) and the York cartularies of dean and chapter and vicars choral. Fortunately, one unique ecclesiastical survey is now being given a critical edition in the *Winton Domesday,* which includes a survey of every property in Winchester, ordered by the bishop in 1148 (Biddle, 1972b). At a lower level, individual urban parishes have their own relevant records from the end of the middle ages.

Nevertheless, the largest single group of relevant archives are those of the towns themselves. Some, fortunately, survive from a very early date indeed. A recent survey counted "eleven English boroughs, including London, which have preserved original administrative records from the period before 1272, and another eleven with records earlier in date than 1300" (Martin, 1963, 128), and the list is still being extended. Some of the earliest are of direct topographical concern, for from the beginning all important function of the municipalities was the registering of property transactions (Martin, 1971). Hence the survival of enrolled deeds at Wallingford in 1232, in London from 1252, in Ipswich from 1255, and in Norwich from 1285. The medieval Norwich deeds have been calendared in print (Rye, 1903, 1910, 1915) and the early Ipswich rolls likewise (Martin, 1973), but others have not, though the voluminous London deeds are now being edited by Professor Martin. These enrolled deeds are of great importance, for they concern private properties in the towns, and involve far more numerous tenements than those owned by the corporations themselves.

Then there are the archives relevant to the corporations' own properties, including original deeds relating to properties ultimately acquired by them. Their numbers may be considerable—Coventry and Exeter each possess about 3000 of the 13th and 14th centuries alone—but they have rarely been printed in more than small selections. A fortunate exception is Bridgwater, for which all the 1000 medieval deeds are now published (Dilks, 1933, 1938, 1945, 1948; Dunning and Tremlett, 1971). Then there are the towns' financial accounts, often relevant to buildings and repair work but too seldom published; and some towns have, in addition to rentals, surveys or 'terriers' of all their properties or even of all properties in the town. The comprehensive Gloucester rental of 1455 and the contemporary terrier of Southampton have been printed (Stevenson, 1890; Burgess, 1974), but there must be many others, like the Norwich extent of 1397 (Tingey, 1910, 237-49) or the Northampton terrier of 1586 (Markham and Cox, 1898, 2, 153-65).

Special categories of corporation estate records include bridge archives, orphans' estate papers, common field records, accounts for walls and defences, and occasionally rebuilding records after fires. Notable among the first are the archives of the Bridge House Estates of London Bridge, which include over 1000 medieval and Tudor deeds (Jones and Smith, 1951, 56-57). The Rochester Bridge archives, similar in type, though not actually corporation records, are extremely valuable for the topography of Rochester (Scroggs, 1954, 188). The special rights of boroughs in managing orphans' estates made for another class of valuable records, notably the *Great Orphan Book* of Bristol, which begins in the 14th century, and the Tudor and Stuart inventories at Exeter used by Hoskins in reconstructing house-types (1966, 88-95). For urban

defences, the accounts of the towns' financial officials responsible are, of course, invaluable: they have been usefully tabulated by Turner (1970, 230-37).

Those towns which suffered serious fires in the early modern period may have special sources available. The fire of London is richly documented, giving a detailed picture of the city's topography before as well as after the disaster. Mills' and Oliver's detailed survey of 1667-68 describes the building sites with their measurements and bounds, and the decrees of the Fire Court, which supervised the rebuilding, are now being printed (Jones, 1966, 1970). Those of a similar court, set up at Northampton after the fire of 1675, survive in manuscript (Markham and Cox. 1898, 2, 247-49), and there may be similar archives elsewhere.

Just as useful as the urban records of tenements are those concerning the fields and lands outside the built-up area. There are still too few studies of town fields and their records, despite the example of Maitland (1898, 123-33). Similarly, many descriptions of city bounds remain to be printed; these, too, are often surprisingly early, like those of 1354 specified in a Chester charter (Morris, 1894, 495-99). Within the city bounds. the lines between ecclesiastical immunities and the rest of the town may have been demarcated even earlier if they were disputed: at York, for instance, those of the liberty of the Dean and Chapter were described as early as 1276 (York Dean and Chapter MSS. L2 (1), pt. iv, f44). At a more micro-scopic level, the records of wardmote courts of the larger towns may survive from the very end of the middle ages, as at London and York, and are very use-ful for the detailed topography of streets, lanes, ditches, and watercourses. For Chester there even survives a detailed late medieval account of the ward boundaries, as well as a still earlier list of streets and lanes, both preserved by being copied into a new register in Elizabeth's reign (Morris, 1894, 255-58).

Space does not permit an extension of this survey, though some other types of archive, notably the collections of deeds in private hands or in libraries, have not been discussed. What general conclusions can be drawn about the survival, accessibility, and use of the document relevant to urban topography? As Martin has pointed out (1963, 128-41), they begin remarkably early for some towns, but others start disappointingly late. And too much of what does survive from the Middle Ages, whether in corporation archives or else-where, is unprinted and even, in many cases, not satisfactorily listed (Martin, 1966). The same is true of many of the relevant classes of records at the Public Record Office; many of the rolls with a national historical interest are in print, but there are still too few editions of the detailed documents of local urban interest tax rolls, special inquisitions and so on. It would be good to see more printed collections of key tax and rate lists for a single town, like Thorold Rogers's pioneering collection for Oxford (1891, 1-95) or Hoskins's for Exeter (1957). Key research tools are still lacking for many towns. Adequate lists of street names, with their earliest dates and forms, are usually not available outside the counties covered by the English Place-Name Society, though London does have its own expert survey (Ekwall, 1954). Many towns also lack critical lists of borough officials, one of the major means of dating many of the crucial topographical deeds of the 13th and 14th centuries. Inevitably, there are considerable variations between

towns as to the amount of documentation in print. Some county records societies are doing excellent work, but towns with their own societies, such as Oxford, Southampton, Bristol, and now London and Portsmouth, naturally fare better than those without. There are also variations in chronological emphasis, and the 17th to 19th centuries are notoriously worse served by published urban records than the medieval period, despite the examples of Nottingham and Leicester. This may seem a curious complaint in a study of medieval sources, but much medieval topography has inevitably to be read backwards from later and better documented periods, especially when the history of individual sites and buildings is being traced. To do so satisfactorily, one needs not only printed sources like early directories (listed by Norton, 1950) and newspapers, but also a bridge between them and the medieval sources, especially deeds, leases, rentals, and rare-books. Parish rate-books, listing inhabitants by location, are invaluable (Darlington, 1962), and may occasionally survive from a very early date; those of one City of London parish start in the 16th century and several others in the 17th century. Finally, there are as yet not only too few publications for some towns and periods, but too few helps to urban topography as a whole. The only fairly com-prehensive bibliography of printed sources is nearly 80 years old (Gross, 1897), although the first volume of a new bibliography on a much larger scale has now been published (Martin and McIntyre, 1972). Nor is there any published list of printed sources is nearly more recent than 1912 (Rhodes, 1910-12), though later volumes of the bibliography will meet the need. There is also no short-cut to finding out where the property deeds relevant to a particular town survive, for important deeds relating to a given town may be included in estate collections in almost any county record office or University archive, in a special institute like Shakespeare library at Stratford or the Huntington library in California, or in private hands almost anywhere.

Standing buildings

It should scarcely need to be demonstrated today that the surviving urban fabric—the houses and tenement boundaries, the pattern of streets, lanes, and boundaries—is itself a document, often able to provide what can no longer be recovered from traditional documentary sources. This physical dimension falls perhaps most appropriately into the geographical section. and the brief remarks here will be mostly confined to the evidence of individual buildings rather than the urban fabric as a whole. It may be worth remarking, however, that the physical approach among urban historians is recent and is still too often ignored, despite the demonstrations of its value by Stephenson (1933, 186-205), Hoskins (1959, 71-92), Conzen, and others. For instance, Hoskins points to the value of parish bounds, which are very informative in reconstructing early street-plans (1959, 88). Yet the authoritative *Victoria County History* for York (Tillott, 1961) has no plan showing the forty pre-16th century parishes, although most of their bounds are known from the Ordnance Survey 1: 1056 plans of 1852.

Surviving buildings of the 16th century and earlier are still not sufficiently recorded in many towns, and there is a real danger that many will vanish without

having been studied in detail. A few towns are fortunate to possess surveys of their early domestic architecture: there are, for instance, Forrest's pioneering accounts of Shrewsbury (1911) and Stratford (1925), and the recent surveys of Exeter (Portman, 1966). Stamford (Rogers, 1970). King's Lynn (Parker, 1971), and Burford (Laithwaite, 1973), but the only series covering all towns is Pevsner's *Buildings of England,* invaluable but necessarily brief and selective. Much more thorough, but therefore much slower to appear, are the *Inventories* of the Royal Commission on Historical Monuments: so far the only entirely urban volumes cover London, Edinburgh, Oxford, Cambridge. and (still in progress) York. The pace may be too slow in view of continuing destruction–some important pioneer studies by Pantin were based almost entirely on buildings being demolished—but a recent change of policy is allowing more rapid surveys of threatened towns. The situation remains perilous, however, for the recent CBA Survey showed satisfactory architectural studies in progress in only ten English and Welsh towns out of 507 threatened with redevelopment (2%). and in only one in 76 in Scotland (Heighway, 1972, 44).

These strictures apply chiefly to medieval domestic buildings; public buildings, secular and ecclesiastical, are generally both better studied and in less danger of demolition. Royal castles, which include most castles in county towns, have been thoroughly explored by a combination of architectural and documentary evidence (Brown, Colvin, and Taylor. 1963) and, although there is no similar definitive survey of town defences, there is a useful general survey of them (Turner, 1970) as well as a detailed inventory of the York walls (RCHM *York* 2, 1972). Surviving parish churches and urban religious houses are also, on the whole, well recorded and documented.

Fortunately there is documentary as well as architectural evidence, often of equal importance for standing buildings, and indispensable for those which have been demolished or extensively altered: a recent survey of the documentary sources for architectural history shows how numerous they are (Colvin. 1967). Most surviving building contracts of the Middle Ages have been collected in print (Salzman, 1967, 413-584. 595-602), and the recent growth of interest in probate inventories has led to the publication of some of them for the Tudor and Stuart periods. However, much remains to be done in studying and publishing the documentary history of domestic buildings, as also in planning and recording surviving structures, and there is still too great a divorce between the two activities.

One outstanding exception to this criticism is the *Survey of London,* with so far 37 parish volumes to its credit and 16 others on individual buildings. It is based on a combination of architectural and documentary research and includes topographical history as well as architectural description (Dyos, 1968, 131-45). Unfortunately for the medieval urban historian, however, very little of the city itself has been covered (only one parish, two churches, and the College of Arms), and recent volumes have been concerned mainly with estates developed between *c.* 1660 and 1850.

Early illustrations form a special category of architectural documents. preserving the appearance of streets and buildings since destroyed, altered, or 'restored'. The value of such visual evidence has been convincingly demonstrated (Martin, 1961; Dyos, 1968, sect. 3), but scholars have until very lately left it to the province of the antiquarian. Besides several collections like that of the National Monuments Record, large numbers of 19th century photographs are available for towns like Oxford, Bristol, and York, and many of the Bristol views have been edited in print (Winstone, 1957, etc); one could wish that the editors of the numerous collections of early photographs now being published would emulate Winstone in trying to date every one.

For the pre-photographic age there are topographical views dating from as early as the 17th century, or for London the 16th, and they are still under-used by urban historians, especially perhaps the valuable general collections like the Buckler drawings at the British Museum and the Bodley library. Public topographical collections, including photographs as well as drawings and prints, have recently been made more accessible by a published guide (Barley, 1974). As so often, sources already printed are especially neglected, such as the fine series of engravings of urban buildings published by Parker over a century ago (Turner and Parker, 1851, 1853, 1859). Even pre-Reformation illustrations are not entirely lacking. The 14th century register of benefactors of St Albans illustrates houses in the town given to the abbey (Martin, 1961, ill. 7), and there is the amazing survival of a pictorial plan showing the cathedral-monastery at Canterbury in the 12th century (Evans, 1966, 55).

True town plans are discussed elsewhere, but it is perhaps worth remarking that many pre-Ordnance Survey plans combine elements of the plan and the bird's-eye view, or include topographical views in the margins. Hogenberg's and Hoefnagel's plans of London, Norwich, and Exeter in the 16th century are oblique views and include much pictorial detail: Millerd's Bristol (1673) and Cossins' York (1737) are true plans but include good marginal views of public and private buildings respectively. Furthermore, the very earliest town plans, some discovered recently, can claim to be latest-medieval primary sources Manuscript plans of Norwich and York survive which were apparently drawn up under a government plan for sanctuaries in 1541. Still more important is a carefully surveyed plan of London *c.* 1559. Two copper plates have been identified out of a set of perhaps twenty which would have formed a plan about 8 ft. by 5 ft. (Holmes, 1966). and there is strong evidence that Stow's *Survey of London,* though written in the 1590s, leaned heavily on the lost plan (Hollaender and Kellaway, 1969, 273-85). This in turn suggests that Stow's is really a survey of the pre-Elizabethan city (Phythian-Adams, 1971).

Buried evidence

Finally, there is the evidence from excavations below-ground archaeology to set alongside that of standing or formerly standing structures. It has become a commonplace that the two complement one another, and that archaeological excavations uncover the buried archives of a town. Successive layers of occupation enrich our knowledge of periods only imperfectly documented and, of course, are indispensable for periods without documentation, especially the crucial centuries after the Romans, when so many towns were founded or revived. But this recognition by historians

and archaeologists is very recent; by and large urban historians have had a documentary bias, and archaeologists a Roman and pre-Roman bias, or, if there were medieval excavations, they were concerned with monasteries and castles rather than with urban problems as such. Biddle made a cogent plea for more British urban archaeology before it was too late (Biddle, 1968), and the complementary nature of above-ground and buried evidence was stated at a conference of planners held in York in April 1968 (Ward, 1968, 127-155), but it had not then influenced Government policy. In the pilot reports on historic cities commissioned by the Government the problems and needs of Bath, Chester, Chichester, and York were surveyed (HMSO, 1969); though they were much concerned with conserving standing buildings and townscape, below-ground archaeology was not even mentioned. The scale of redevelopment, and the threat it poses to archaeological layers, have recently been quantified. The conclusion was that "of those historic towns which remain for study, the archaeological value of one-fifth will most probably have been destroyed" by 1991, and another 40% will be redeveloped to a lesser extent; yet satisfactory archaeological work was in progress in only 20 (4%) out of 507 threatened towns (Heighway, 1972, 2, 44).

The excavation of individual medieval buildings in towns is not new (St Mary's Abbey, York, was systematically explored in the 1820s), but attempts to answer general questions about post-Roman towns came much later. Pioneering work was done on blitzed London sites after World War II (Grimes, 1968), but inevitably the excavations took place on sites selected by the Luftwaffe and not by urban historians. Since then, limited excavations have been successfully carried out in a number of towns to answer specific medieval questions (Biddle, 1968, 114), but only with the Winchester programme of 1961-71 did large-scale excavations first attempt to deal with the topography and growth of a major city as a whole. The example has fortunately proved contagious, and similarly ambitious programmes are now under way in Southampton, York, Lincoln, Norwich, Lynn, Oxford, and other towns. London is now, belatedly, being added to the list, though so much of the city's buried past has already been destroyed by redevelopment that that selection of sites for research purposes is not easy. Even so, the number of major medieval towns without an organized programme of excavations is as large as those which have one, and, of course, the smaller towns, with notable exceptions like Tamworth and Abingdon, have fared less well.

Despite the fact that such work is mainly of very recent date and confined to a limited number of towns, it has already sufficed to justify the view that archaeological layers are literally buried archives, and are not to be turned to only as a last resort where the documents fail. Even for the post-Conquest period, where documentation is relatively plentiful, discoveries have been plentiful. Urban defences, parish churches, friaries, and hospitals have yielded much unrecorded information, and of especial importance has been the 'area excavation' of residential and industrial areas, most notably the Brook Street area of Winchester, enabling the detailed processes of rebuilding, planning, and change of use to be studied in conjunction with the documents and to the enrichment of both. For the pre-Conquest period—which for English towns is also, with limited exceptions,

the pre-documentary period—archaeological excavation is naturally of even greater importance. It would be invidious to select from many valuable discoveries, but two periods have been especially illuminated in ways impossible from documentary study alone. The fate of towns between the end of the Roman period and the firm establishment of the Saxons is becoming gradually clearer, and the impact of the town-planning of Alfred and his successors is now seen to have been even greater than was previously believed, with even towns of Roman origin like Winchester and Gloucester owing their street-plans to them and not to a surviving Roman pattern. Furthermore, the old objections to archaeological dating as being too imprecise are breaking down, as techniques like radiocarbon dating, thermoluminescence, and dendrochronology are more widely used.

One major discovery has been that many, though by no means all, modern tenement boundaries are very ancient, despite the well known processes of amalgamation and subdivision of tenements. Property boundaries in Norwich (Westwick Street) and York (Skeldergate) have been found unchanged from the 12th to the 18th centuries, and in the heart of Viking York for even longer (Radley, 1971; 41-45). On the other hand, the Brook Street excavations at Winchester have revealed a more fluid pattern (Biddle, 1972 A, 102, 110). It will be of great importance to see whether, at least in the town centres, stability of boundaries was the norm or not. For in the countryside, where village plans have often been used to infer early settlement patterns, it has now been shown that peasant houses, manor houses, churches, and even whole settlements could change their alignment or their sites, and that recent plans are a very unsafe guide to the distant past (Beresford and Hurst, 1971, 122-31).

The rewards of adding below-ground archaeology to the urban historian's library of sources are great, despite the scepticism of some conventional historians (e.g. Elton, 1969, 221-26). However, the problems and obstacles are also great. Village archaeology may have become distorted because only the failed sites can be systematically excavated, and the same applies *a fortiori* to the towns. Deserted or semi-deserted towns can be tackled as a whole (Cadbury, North Elmham, Old Sarum), but the successful towns have built on their own detritus and can only be tackled piecemeal by 'rescue' archaeology, the selection of sites being related as much to the process of redevelopment as to the needs of research, and having also to take account of cellars which may already have destroyed much. There is also the problem that urban development is accelerating to the point where much is being destroyed unrecorded (Heighway, 1972). Finally, even when important sites are excavated they are often only inadequately, or tardily, published. This is understandable given the pressure to excavate other threatened sites rather than to describe those already completed, but it is a pressure that must be resisted. A site excavated is a site destroyed, and the excavation report becomes a vital archive, The documentary archives of state, church, and corporations are now safe, even if private collections are occasionally threatened, but the equivalent archaeological archives are still very much at the mercy of developers and of archaeologists reluctant to publish. The preservation, exploration, and recording of 'buried archives' have still far to go to match the state of documentary sources.

Discussion

Limitations of space had necessitated an abridged and over-simplified account of a very wide field, but participants were quick to take up and amplify some of the aspects discussed most briefly.

The usefulness of early historians like Bede and Asser provoked a lively discussion, which extended also to Anglo-Saxon charters. There was as yet no systematic study of Bede's vocabulary: terms like *urbs* and *civitas* might, if he used them consistently, indicate the urban status of the settlements he named. Some participants favoured a CBA study of urban terminology in early literary sources, but there were warnings of the technical and literary difficulties of such an apparently simple task. Bede especially wrote good classical Latin, so that his terminology was not necessarily precise, and it was also strongly affected by the sources he quoted. There was some support for a similar analysis of charters. The recent *Rochester Charters* (Campbell, 1973), the first volume of a projected edition of all pre-Conquest charters, contained no index to places of attestation, and locations in Rochester which might have been identified had not been; it was useless for topographical research. Urban charters should be analysed, though the study of pre-Conquest charters was described as a quagmire.

Attention was drawn to still earlier sources. The Comité International pour l'Etude des Cités Antiques (CICA) was currently working on the documentation of cities of the Roman world; a bibliography of work on Romano-British cities during the last fifteen years had been prepared by Professor S.S. Frere, chairman of the British committee, and would appear in *a Lettre d'Information* edited by M Edmond Frézouls, of Strasbourg University. Furthermore, a comprehensive work on Romano-British towns by Mr J. S. Wacher was due to be published very shortly (Wacher, 1975).

Discussion turned to the archives of the Crown, and the value of 'Ancient Deeds' was emphasized. When monastic estates had been confiscated at the Dissolution, their title-deeds often became separated, and were now frequently to be found among that miscellaneous collection. They were particularly valuable because they often included title-deeds to the properties prior to their acquisition by religious houses. The printed calendar was unfortunately unreliable as well as incomplete, but a systematic search of the indexes at the Public Record Office was not a major task. Among the more useful tax records were the poll tax returns, which often helped to define urban settlement by parishes, and the Subsidy of the Ninth of 1340, which was especially informative on this point.

The value of ecclesiastical archives was also stressed, especially those of cathedral chapters, of monastic houses owning town properties, and of urban chantries (the two last now unfortunately scattered among numerous repositories). The chantry title-deeds for Lincoln, for instance, were fully as useful as those of the Dean and Chapter, yet there was no prospect of their publication.

Considerable interest was shown in the enrolled deeds among corporation archives, the existence of which was not, apparently, widely known. It was explained that their keeping arose from a concern over widows' rights of dower. Borough custom took a generous view of widows' rights, and the enrolment of a grant together with the disclaimer of the donor's wife was a protection to the purchaser. It was therefore a widespread practice, and only the accident of survival (and not any special privilege) determined whether a particular town possessed such rolls. They were worthy of special consideration in any programme of records publication, as they included a sample of properties throughout a town, with the partial exception of ecclesiastical franchises. At Winchester, the rolls included properties in the northern and western suburbs, which were within the corporation's jurisdiction, but not the southern and eastern suburbs. In a brief discussion on suburban development, attention was drawn to the documentary evidence for urban tenements having been carved out of town fields as early as the 12th century at Bristol and Canterbury (Urry, 1967, 188-89). The discussion was widened to property deeds as a whole. and the creation of a national index of medieval deeds found support.

Discussion of archaeology and 'above-ground archaeology' was briefer than of documentary sources, reflecting the balance of the paper. The former was at least as important as the latter, and vastly more important for the crucial periods of urban origins and early growth. The only justification for treating documentary sources at greater length was that they had been both studied and published extensively for a long time. Architectural and archaeological evidence, by contrast, often remained unpublished or even unstudied despite the fact that both standing buildings and archaeological layers (unlike documents) were threatened with destruction on a very large scale. The main theme of the paper's second and third sections was, therefore, the imperative need for recording and publication, rather than a consideration of work already achieved.

The value of town plans was stressed and attention was drawn to a plan of Cambridge in 1592, and to Ogilby's large-scale plan of Ipswich in 1674, both of excellent quality. There was some disagreement on the reliability of parish bounds marked on the early large-scale Ordnance Survey plans, especially where the boundary was explicitly stated to be uncertain; and the earliest plans of some Norwich parishes (the tithe award plans of the 1840s) did not always agree in their bounds with the earliest OS plans. However, the OS surveyors had perambulated each parish's boundaries with a 'meresman' appointed for that parish; the books of evidence for the bounds were still preserved by the Survey, though the detailed records of investigation into disputed bounds had been destroyed by bombing in World War II.

There was general agreement on the importance of parish bounds, whether recorded in documents, on OS plans, on surviving boundary stones, or in the survival of beating the bounds. This custom, still practised in some urban parishes like St Michael's-at-the-North-Gate, Oxford, was a substitute for a written record and relied on memory. Some towns must have demarcated parishes before the Conquest, as at least one Anglo-Saxon charter mentioned urban parish bounds (Sawyer, 1968, 272). The Ipswich bounds were recorded as early as the 14th century, and two late medieval bounds of York parishes survived in later copies. Many (though not all) parish boundaries were very ancient, and recent evidence of them might be safely used where medieval records were lacking. A 14th

century parochial union in Lincoln had not prevented the old parishes from continuing as points of reference in property deeds, and the OS plans of York of 1851-52 still recorded as civil parishes most of the seventeen parishes amalgamated ecclesiastically in 1586 (Palliser, 1974). However, the sixteen parishes amalgamated at Norwich in 1534 had not left similar traces of their boundaries. Evidence was produced that many parish boundary stones were erected in the 18th century (e.g. Norwich, York), and that in some towns (e.g. Bristol, Oxford) they were being meticulously replaced during redevelopment. The policy of the RCHM, it was explained, was to record in their inventories any such boundary-stones drawn to their attention, but no systematic search was made for them.

Some doubts were expressed about the author's examples of deserted and semi-deserted towns where archaeological work had been done, though his general point that such towns were *ipso facto* untypical was not challenged. Cadbury fell into his category only if it was correctly to be identified with the short-lived mint of *Cadanbyrig,* though this identification was accepted by Stenton and others. Doubt was cast on the urban status of Old Sarum; settlement had been found on three sides outside the hillfort, but it was now believed that no urban settlement existed within the ramparts. North Elmham, however, with its large pre-Conquest settlement, planned streets, and cathedral, was generally felt to be a true town. As in other discussions, the difficulty of satisfactorily defining a town was raised but not resolved.

Finally, the stability of medieval tenement boundaries was discussed. Support for the York pattern of apparent fossilization was adduced for Bristol and Norwich: of 27 sites excavated in Norwich, only two exhibited any boundary changes after the 12th century. Winchester evidence suggested that it was not so much respect for property divisions that maintained such fossilization as simply the physical constraints of a densely built-up area. Adjacent structures naturally limited the form of rebuilding, but the stability of burgage plots need not reflect stability of occupation; it was not unusual for four adjacent houses to be united and later redivided. Those exhibiting no change of boundaries over long periods were usually those in long-term institutional ownership. The suburbs, however, were more like villages, in that larger plots gave a freedom to rebuild on entirely different alignments. The discussion concluded, as it began, with a strong sense of the need for much more work to be done, particularly publication, classification, and comparison.

The Geographical Approach   **H. Carter, MA**

Summary

The traditional geographical interest in early town plan as part of the reconstruction of urban growth processes has waned somewhat in recent years as new theoretical departures have diverted research effort into more modern studies. Four aspects of the geographer's contribution are, however, selected for discussion: (1) A review of cartographic evidence, for such material is basic to the reconstruction of early town layout although rarely providing in itself complete and satisfactory data; (2) the influence of topography on the form of towns, for the detail of site has often conditioned the way in which towns developed; (3) the method of plan analysis introduced into British geography by Conzen in his study of Alnwick; (4) statistical measures which can be applied to street systems and plot shapes in order to provide objective means of describing the patterns on the earth's surface constituted by urban forms.

Introduction

A town-plan is a physical manifestation of the way in which a society organizes space; it is most effectively represented in map form. It follows that town plans have always been of prime interest to geographers but, nevertheless, it is difficult to identify what can be called a geographical approach in relation to a specific historical period. In considering early British town plans, a set of four relevant aspects of geographical investigation can be identified. In an obvious and direct way a discussion of the avaliabllity and characteristics of town plans is called for, since these constitute the basic 'documentary evidence'. Traditionally, the geographer has been concerned with a man/land relation, and hence one of the dominant areas of investigation has been the influence of topography on town form. Again, carto-graphic evidence leads to methods of plan analysis by which the system of streets and plots is considered as a feature in itself. Finally, statistical measures can be applied to the analysis of plan. The remainder of the paper will be devoted to a discussion of these four topics.

The cartographic evidence

Critical to any study of plan and plan development is the availability of maps sufficiently accurate to be used in detailed reconstruction. This problem has been dealt with in a valuable general survey by Angela Fordham (Fordham, 1965) and more recently by M. R. G. Conzen (Conzen, 1968). In this paper no attempt will be made to consider the special case of London, for which a bibliography of maps is available (Darlington and Howgego, 1964). There are two main bases to which

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	1700	1800	1900
Aberystwyth		*	**	*
Banbury		***	** *	*
Caernarvon	*	**	** ** *	*
Gloucester	* *	*	* *	*	*
Hereford	*	*?	*	*	*	*
Nottingham	* *?	*	*	* *	*
Reading	* *?	*	*	*
Salisbury	*	* *	* *	*

1600	1700	1800	1900

*   Maps used in 'Historic Towns'

*?   Maps of castles or defences.

1   *Chronological table of historic maps of selected towns*

the availability of town plans has to be related, the *Theatre of the Empire of Great Britain,* published by John Speed in 1611 (Arlott, 1953; Rawnsley, 1970) and the first editions of the Ordnance Survey plans, using that term as the OS does to refer to maps on the scale of 25 in. to the mile and larger, which were completeted for the country by 1890.

John Speed's maps, dated 1610 and 1611, contain some 73 plans or views of towns. He apparently claimed that only the plans of Pembroke and St David's were his own work and the remainder were derived from other sources (Tooley, 1949). There were two major precursors of Speed from whom maps were derived. The first was the sixteen manuscript sketches of William Smith which were used in his book *The Particular Description of England, with the Portraitures of Certaine of the Chieftest Cities and Townes,* which had appeared in 1558 (Wheatley and Ashbee, 1879). The second was the great town plan atlas of Braun and Hogenberg, *Civitates Orbis Terrarum,* published between 1572 and 1618. The English towns that appeared in the atlas were Bristol, Cambridge, Canterbury, Chester, Exeter, Lancaster, London, Norwich, Oxford, Richmond, Shrewsbury, Windsor, and York. The recent facsimile edition (1966) indicates the sources which were used for these maps (Skelton, 1966). Most those in the early parts were based on Smith, while in the sixth part (Exeter, Lancaster, Richmond, Shrewsbury, York) were derived from the published maps of speed. Although in part tending to reflect the older tradition of producing sketched or panoramic views, these maps are an invaluable source which is generally available and, as Fordham comments, they were copied for the next 150 years (Fordham, 1965, 7). During that time they were amended and updated but nevertheless they remain essentially the maps of the Speed atlas.

The second cartographical basis lies at the end of the period and is marked by the first edition of the 25 in. maps of the OS which provide a universal, accurate, and essential frame for the reconstruction of earlier periods. This scale was accepted by 1853 and the series was completed by 1893 (Palmer, 1873; Close, 1926; Winterbotham, 1934; Harley, 1964). Again there were precursors to this universal series. The first of these is the maps accompanying the Tithe Apportionments following the Tithe Commutation Act of 1836 (Munby, 1972). There is no standard scale and the plans are of varying accuracy, but nevertheless together with the OS maps they provide an indication of town form before the major extension of the 19th century. The second associated source is the maps often constructed in relation to health and sanitary legislation during the 19th century. These are on varying scales and are far from universal. Where available, however, the scale used was often larger than 1:2500. The OS itself between 1843 and 1894 was engaged in a programme of urban survey on scale of 1:1056, 1:528, and 1:500. The first English town to be surveyed was St Helens and the maps were published in 1843-44. The simplest source for tracing the availability of these plans is the *Annual Catalogue* of the Ordnance Survey for 1914, which provides a full list (Ordnance Survey, 1914; British Museum, 1967).

Between the maps of Speed and the developments of a nation-wide series of town plans by the OS there is little that is universal. Certainly the emergence of the professional surveyor following on the dissolution of the monasteries greatly increased the number of estate plans particularly after about 1550 (Lynam, 1944;

Emmison, 1973). It is not until the middle of the 18th century that new series of town maps appear. The best example is probably the work by John Rocque and particularly *A Collection of Plans of the Principal Cities of Great Britain and Ireland* (Drury, 1764) published in 1764, which included maps of Oxford, Lewes, Exeter, Chichester, Bristol, Bath, Bury St Edmunds, Shrewsbury, York, Chester, and Boston. By this date the plan proper was being used rather than the attempt to present both layout and an indication of building. The panorama or bird's-eye view map was generally going out of fashion after 1700, although to some extent Ogilby's *Brittania* (Ogilby, 1675) represents for the country as a whole the transition stage between the map as portrait and the map as scientific plan, even though Ogilby's intention of providing an atlas of plans, a *Description of 24 cities with peculiar charts of each of them,* was never fulfilled (Harley, 1964). The small diagrams of towns which are part of the road strips are generally useful, though they provide an inadequate basis for any detailed work. This trend to accurate formal maps is reinforced in the plans by Cole and Roper in *The British Atlas* of 1810 and those by John Wood of the period 1810-1840 (Cole and Roper, 1810).

There is a further source of evidence in the great variety of topographical prints and drawings of towns although, since many views were artistic creations which sacrificed accuracy to composition, they need to be treated with appropriate reserve. There is a guide to British topographical collections (Barley, 1974), concerned primarily with original drawings; there are no published guides to the enormous numbers of prints of all kinds which appeared in the 18th and 19th centuries.

To give some indication of the available evidence of published maps, two brief compilations have been attempted. The first of these (Fig. 1) is a diagram showing the dates of maps used in the construction of the plans which appeared in *Historic Towns* (Lobel, 1969). The starting base represented by the Speed plans is clearly in evidence but there were few additions during the rest of the 17th century. The plans of castles used suggest that the Civil War stimulated the mapping of urban defences. The 18th century only produces sporadic mapmaking, often related to estate surveys and also linked with improving surveying techniques, but it is not until after 1800 that a clumping again occurs with all towns having some form of plan, for by this time the stimulus of new industry and transport routes was a prime factor in the demand for maps.

The second compilation (Figs. 2-4) is of all the cartographic evidence available for one small provincial town, Aberystwyth, with the exception of a plan dated 1811 (Carter, 1958; Taylor, 1963). There is nothing at all until the mid-18th century, for only the county town of Cardigan appeared on the Speed county map. There are two sketches, one dated to 1748 by Lewis Morris and the other dated to 1801 but purporting to show the town in 1750. These are valuable as the only occasions where the town walls are depicted but are of little use for detailed work. The first map as such is undated, but from internal evidence appears to be of the later 1790s, and John Wood's plan of 1834 is accurate and detailed. Given this evidence, and using topographical views as well, some general statements can be made of the medieval outline, but the first formal cartographic evidence is virtually 19th century, so that reconstruction has to be tentative rather than firm and based on the compilation of evidence from documentary sources on to a compara-
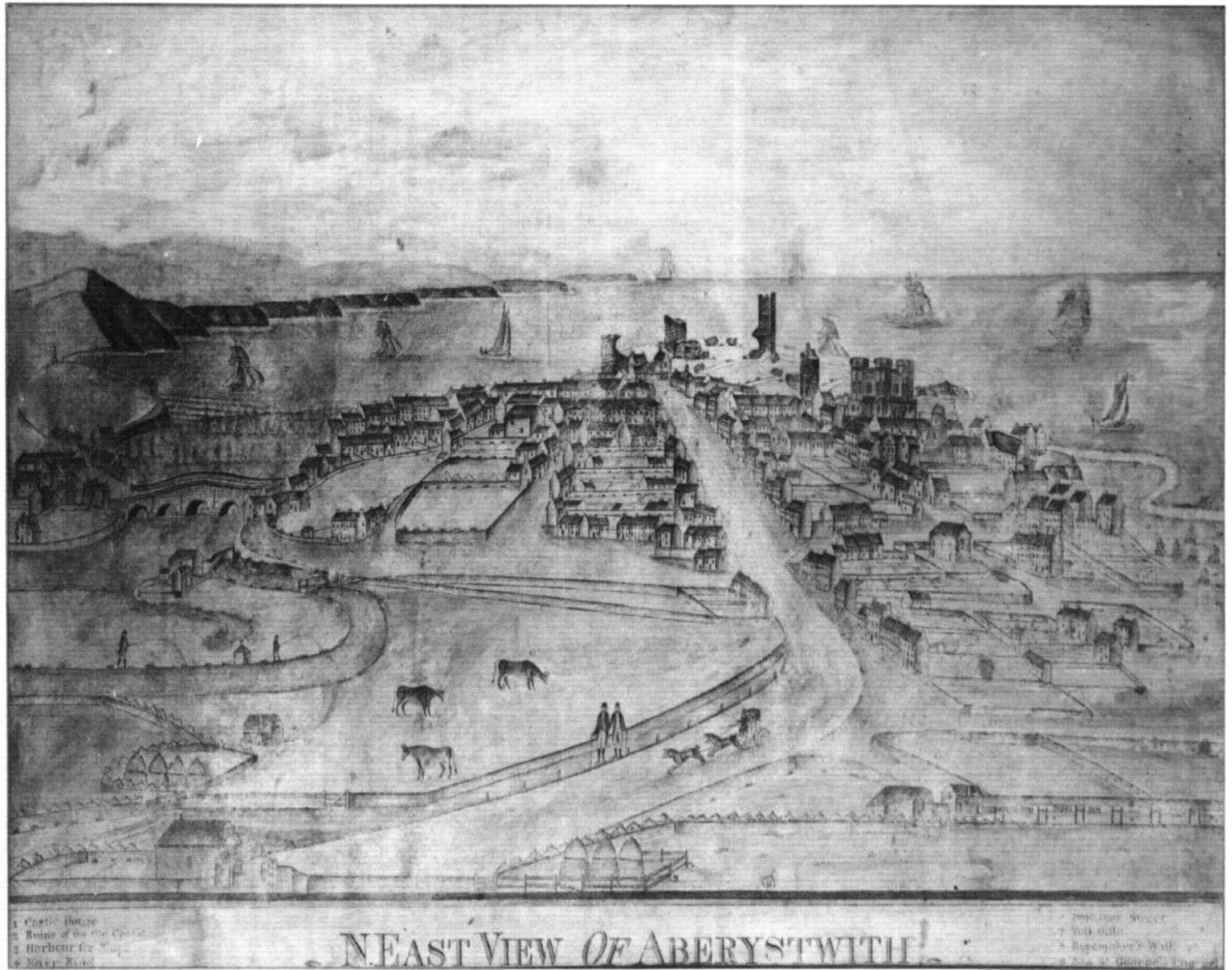
LEWIS MORRIS'S MAP OF ABERYSTWYTH, *circa* 1748

A BERYSTWYTH *circa* 1750.   *Drawn by William Morris in* 1801

2 Maps of Aberystwyth, c. 1748 and c. 1750

3   *View of Aberystwyth from the north-east*

4   Map of Aberystwyth, undated (c. 1795-1800) and John Wood's plan of 1834

tively late map. It is perhaps worthy of note that the author of the study of Banbury in *Historic Towns* (Harvey in Lobel, 1969) refers to the first map available as being of the period 1800-1810, which compares with the 1797 date for Aberystwyth.

It is apparent that no reconstruction of early town layout would depend solely on cartographic evidence and, indeed, the accuracy of early cartographic evidence has itself to be checked against other sources. The map provides, however, the essential basis on which material derived from manuscript sources can be plotted (Beresford, 1967, Part 1). The general pattern adopted in *Historic Towns* (Lobel, 1969) is perhaps the best indication of the methods and procedures it is possible to use.

The purpose for which these plans can be used obviously varies very widely. A standard example, although it is not British, is Ganshof's study of the development of towns between the Loire and the Rhine in the Middle Ages (Ganshof, 1943), for it is one of the few studies which relies explicitly on the evidence provided by growth plans. Ganshof stresses this role of the town plan although he is at pains to deny that his method is geographical: "La série de plans, anciens ou modernes, que nous publions en y reportant des donnés historiques, doit être considérée, à l'égal du texte même, comme une partie de notre étude. Sans ce plans notre exposé serait incompréhensible. Nous nous sommes efforcés, pour chaque ville traitée ici, de représenter clairement sur un seul plan, les phases successives au développement territorial au cours du moyen âge". This is certainly true, for the nature and relationship of pre-urban nucleus to later merchant or commercial quarter is largely derived from map evidence. In traditional geographical works, however, early maps are most frequently used to identify present features derived from the past, rather than to reconstruct past situations and to argue processes of general urban evolution. a characteristic paper was that by Wood, which sought to identify typical relict features in the towns of the Welsh borderland (Wood, 1962). Again, in the present author's study of *The Towns of Wales* the early layout was seen not as a thing in itself but as a contributor to the present townscaper (Carter, 1965). Townscape is made up of three elements: the buildings, the use to which they are put, and the layout of streets. Use is the least stable element and easily changed, whilst buildings, unless of distinctive architectural value, are also relatively short-lived. Plan, however, is a semi-permanent feature which only comprehensive development schemes can change, so that in seeking explanation even the geographer with the least historical interests is necessarily drawn into the past.

A basic problem derives from these procedures. Cartographic evidence is essentially indirect. Geographers have become increasingly aware of the problem of the derivation of processes from spatial patterns which can arise in a variety of ways. To some extent this can be looked upon as a negation of the whole geographical approach, which accepts that distribution or layout on the earth's surface is acceptable evidence in the interpretation of how things came about. In contemporary terms these difficulties are offset by the direct study of process, but this way out is not available for the past and is arguably, in the context of the past, the historian's rather than the geographer's approach. Certainly the problem can be exaggerated, for it would be unreal to suggest that the layout of Versailles or

of a first-generation British new town reveals nothing of the society which created them. On the other hand, there is an essential constraint on the rather simplistic argument which moves directly from physical layout to complex processes of economic and social change.

The relationship of plan and topography

It was noted in the previous section that Ganshof explicitly denied that his methods were geographical. In this he was probably referring to the oldest interpretive tradition in human geography as applied to towns, that which is generally called 'site and situation', where these were taken to be the controls on urban form and growth in which the geographer was interested. In this paper where plan is under discussion, it is site rather than situation which has to be considered. When human geography emerged as a separate and distinct systematic study in the 19th century it did so under the dominant influence of Friedrich Ratzel (Semple, 1911). He, himself, had been largely influenced by Darwin and the view that man, like any other animal, had to adapt to the dictates of the environment in order to survive. Those who adapted most successfully prospered and were called the fittest. It followed that towns needed to adapt to their environments: they had to adjust to the physical features of the sites on which they were built. Town form, therefore, was the product of the settlement's adaptation to site conditions and it was the geographer's task to interpret this adaptive process. Fig. 5 illustrates three Welsh towns as represented by John Speed and it is not difficult to demonstrate that form depends on site. The ideal location of a medieval bastide combined a situation of regional accessibility, so that it effectively controlled a wide area, with a site of local inaccessibility giving maximum defensive advantages. These defensive needs meant that uneven and often difficult sites were used. This is well illustrated at Pembroke, where the castle is at the tip of a long narrow limestone promontory, a ridge flanked on either side by 'pills', the local name for the small streams. The urban form was in consequence in an exaggerated linear form, dominated by the one axis extending along the ridge. The same need for a defensive site was met at Denbigh by a ridge-top site. The first settlement at Denbigh is believed to have been a native 'llys', but in 1282 it was granted to Henry de Lacy, Earl of Lincoln, in order that he might build a castle and subjugate the area (Taylor, 1963). The first charter was granted by de Lacy between 1283 and 1290. The original town, enclosed by the existing town walls, covered a very small area consisting of the castle hill only. The steep scarp slope to the north, down to the bench overlooking the northern tributary, the river Ystrad, was rimmed by the defensive wall which swung along the eastern scarp slope and hence westward to include most of the comparatively less steep southern side of the hill. Even by the time of Speed's map of 1610, this walled enceinte, the medieval core, had been completely abandoned, the whole town having moved away from the very inconvenient hillside site. This move probably took place during the 15th century and can be linked to two factors, one general in its operation, the other particular. The general factor was the difficulty of movement to and from this ridge-top site, especially as the vital market function replaced the military function in emphasis. Leland wrote of Denbigh: "I have not yet
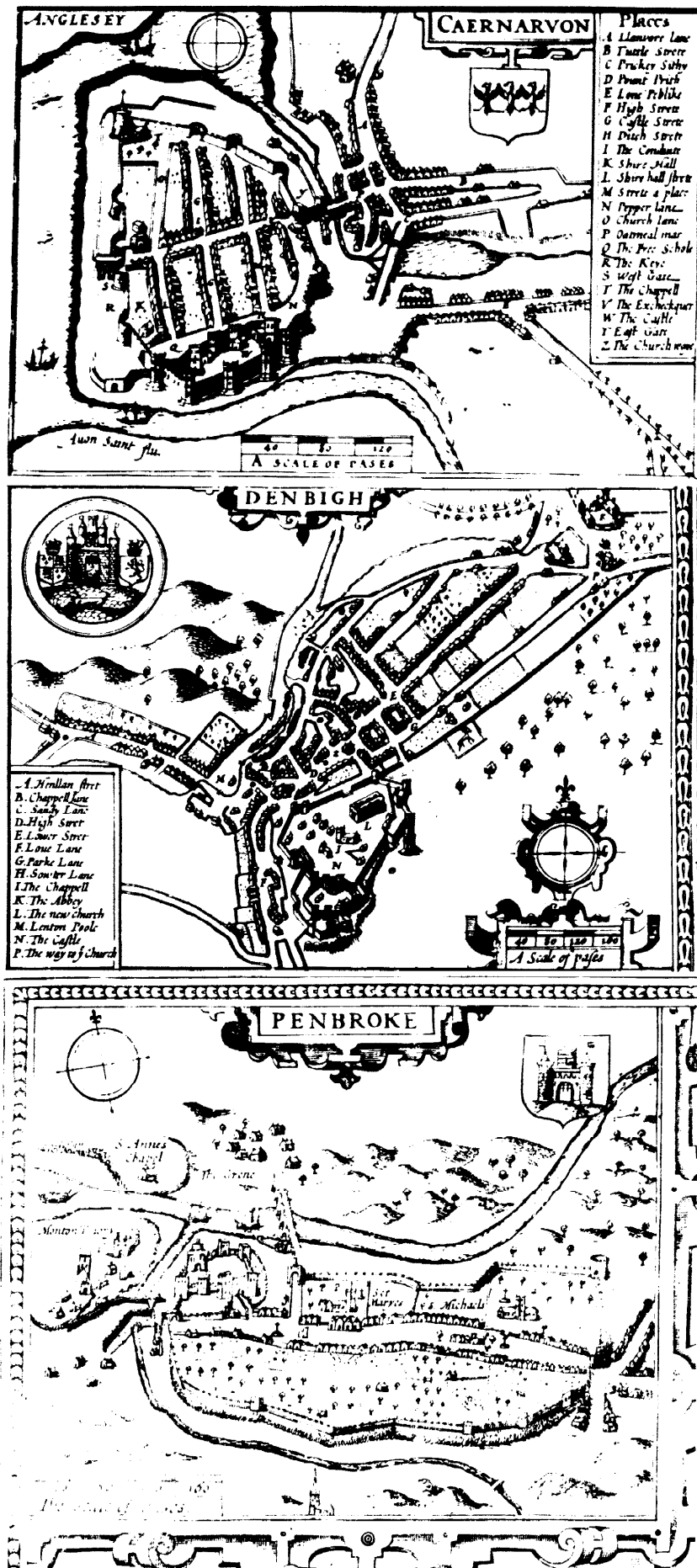
5   *Speed's map of Caernarvon, Denbigh, and Pembroke (1610-11)*

lernid the contente how this wallid toune decayed withyn wither it were by fire or for lack of water . . . or for lack of good caryage in to the toune standing sumwhat high on rokky ground, I cannot surely tell. But the toune of Denbigh now occupied and joining neare to the old toune hath been totally made of later tyme" (Smith, L. T., 1906, 97). The position of Denbigh was of such importance that the settlement did not decline, but environmental adaptation took place in the abandonment of the old town and its inconvenient site and the growth of a new town immediately adjacent. This move was probably precipitated, and more immediately accomplished, by the great damage to the old town caused during the Wars of the Roses, when in 1468 Jasper Tudor, Earl of Pembroke, besieged Denbigh and its castle. From the castle hill, the town moved to sprawl over the valleyside bench below the hill.

The third example, Caernarvon, Indicates how much closer an approximation to the simple grid pattern was obtained where relatively flat land was available. The 'castell yn Arfon' was built on the peninsula of low land between the Cadnant and Seiont rivers but even so the domed character of the eastern blocks reflects the influence of site (Taylor, 1963; Carter, 1969).

The most effective consideration of the site problem in recent literature is, however, by an historian. not a geographer: Beresford in *Beau Lieu: or, The Choice of Site* presents the most convincing study of site influences on the bastides of England, Wales, and Gascony (Beresford, 1967).

On every scale from the general form of a town down to an unusual deviation of the line of a road, the influences of physical site need to be invoked and must rightly be regarded as having a formative influence. Although the geographer's role in this sense is hardly of major importance, it helps to link the complexity of the landform on which a town was built and the necessary adaptations made by the builders.

Plan analysis

Interpretations of the sort developed in the last section have often been regarded as either naive or self-evident and often as both. This is not to deny the validity of the influence of physical environment upon urban form but rather to say that many studies lack depth and subtlety in analysis. The other essentially geographic approach is concerned with the geometry of layout. This is the sort of work which characterized R. E. Dickinson's study of the West European City (Dickinson, 1951) and again is admirably illustrated by Beresford's chapter on *Beau Regard: or, The Content of a New Town* (Beresford, 1967). To some extent these studies, too, have gone little further than contrasting formal grid layouts with the more informal type dominated by the market place. The only real attempt in Britain to take this form of study further is that by M. R. G. Conzen in his development of 'plan analysis' (Conzen, 1969). It is difficult to do justice to Conzen's very complex work in a brief space, but its essence is to provide an adequate procedure and a proper terminology for the study of the form on the ground. He stresses that too often geographers have discussed merely the pattern of streets, whereas the whole form is dependent on streets and street systems, the plots and the way they aggregate into street blocks or plot patterns, and the outline of the buildings

themselves or block plans. The method uses this material to establish dominant themes based on the arrangement of these features and the identification of plan units. The nature of Conzen's analysis can best be conveyed by an extensive quotation from his study of the early manorial borough of Alnwick:

"The extent and nature of the medieval plan and its development form an interesting subject for cartographical analysis since the nucleus, though still recognizable in the present townscape as a major residual feature of the Middle Ages, has not remained unaffected by subsequent changes. Essential tools in such an investigation, apart from the Ordnance Survey Plans, are Wilkin's Map of 1774 and the manorial and borough surveys from Clarkson's Survey of 1567 to that of 1774. They establish a link with medieval times by allowing a correlation of the present property boundaries with the units of land tenure in the Tudor period. In a town like Alnwick, the majority of these may at least be regarded as preserving the medieval pattern in modified form, even if they do not go back to the Middle Ages in every detail. In all the surveys these units are known individually as burgage *(burgagium),* i.e. the urban plot held by a burgess. It contained his house, yard and 'garth', and was charged with a fixed rent as a contribution to the communal borough tax or *firma burgi* of the town, as the first borough entry in Clarkson's Survey expressly states . . . Save for recognizable instances of amalgamation and mediation, there is remarkable continuity in the identity of the overwhelming majority of burgages as ownership units revealed by this evidence stretching over more than 200 years. It makes the assumption that, in its general features, the burgage pattern of 1567 inside the walled town is essentially that of the Middle Ages more reasonable than it might otherwise appear" (Conzen, 1969, 25).

On the mapped evidence (Fig. 6) recurrent patterns and processes are identified. As an example of the former his identification of what he terms a 'high-street layout' can be cited. This is defined as "a medieval plan-unit showing traditional, long strip plots or deep burgages arranged in a series on either side of a major traffic street widened to provide a 'street market'." He argues that

"the individual burgages generally form rather long narrow strip-plots laid roughly at right-angles to the street-line and parallel to each other. They tend to be oblongs but are often locally deformed in adaptation to site conditions. A characteristically informal, lamellate layout results and when it is duplicated on either side of the same street, as in the eastern stretch of Bondgate, the whole presents a herringbone pattern. Although the name 'High Street' does not occur in the old part of Alnwick, what has just been described is so typical of the medieval main streets, or the widened 'street-market' variants found in most of our market towns, that this plan-unit may well be termed the high-street layout. In the case of Alnwick, however, a high degree of individuality is imparted by the peculiar arrangement of major traffic streets round the Central Triangle, the whole of the latter forming the early market-place. It amounts to a special type within the general class based perhaps on its suggested origin from a pre-urban settlement, i.e. a village. Possibly the informality of the burgage
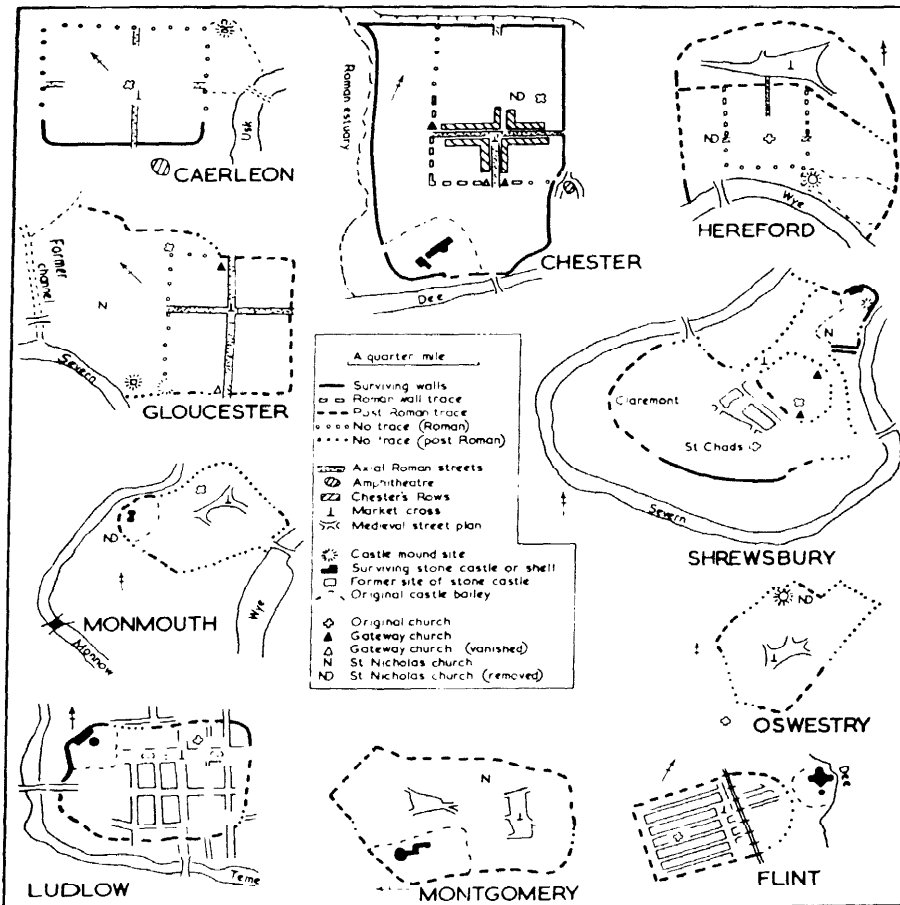
6   *Morphological relics in the frontier towns*

shapes also indicates a particular, presumably early type and is markedly different from the more disciplined layouts of later towns such as those founded by Edward I" (Conzen, 1969, 28).

As an example of a process the notion of fixation lines and fringe belts has been the most seminal. Towns do not grow steadily but rather unevenly with periods of rapid extension followed by periods of still-stand. In these periods of stability the margin of growth is demarcated by a distinctive line, sometimes a physical feature such as a town wall or a sharp break of slope, at other times a non-physical feature such as a property boundary. Conzen calls these 'fixation lines' since they fix effectively the characteristics of the layout.

'In Alnwick the streets consequent upon the wall mark a very different orientation. Nothwithstanding its relatively short period of use, the town-wall persisted for a sufficiently long time to mark the urban fringe of the Old Town, to leave important residual features in Alnwick's plan, and to exert some morphological influence beyond that. It divides the great central area of traditional burgage patterns from the surrounding areas which have plot patterns generally characteristic of subsequent accretions. Moreover, its site has become the fixation line fur a number of-peripheral streets that now form

a ring-like system round most of the old borough. The oldest of these consequent streets are the contiguous lines of Hotspur Street, Green Batt and Tower Lane. They are first recorded on Mayson's Map, where the eastern part of Green Batt is shown as an open space over 100 feet wide. In the Middle Ages it had been public ground used for the practice of archery. Its partial enclosure and the consequent narrowing of the street space to its present dimensions did not begin until the middle of the eighteenth century. After that it provided the space for a number of land-use units with public functions' (Conzen, 1969, 40-41).

Beyond the walls lay the area called the 'fringe belt' with a contrasted cadastral pattern which in turn was critical in the new forms which were to emerge.

There is no question that Conzen's work is the most distinctive geographical contribution that has been made in Britain. It is based on a meticulous examination of all sources and it is firmly geographical in being concerning with plan or pattern analysis. Its great value lies in the creation of a terminology and of concepts which can be used to analyse other towns. The concepts are not simply descriptive but demonstrate constant interactions in the growth process which produce the patterns on the earth's surface.

Statistical analysis of plan

A major criticism of plan analysis is that it is essentially subjective and completely reliant upon individual interpretation. Conzen defines a 'plan-division' as a 'geographical group of morphogenetic plan units' and a 'plan-unit' as 'any part of a town plan representing an individualized combination of streets, plots and buildings distinct from its neighbours, unique in its site circumstances and endowed with a measure of morphological unity . . .' But 'individualized', 'distinct', 'unique', and unity' are all terms which demand specification, and the gradual adoption of quantitative techniques is making it possible to provide that specification in a more objective fashion. As far as the present author is aware, no attempt has yet been made to apply these to medieval towns and, indeed, it must be doubtful if the data would be strong enough for such studies. Nevertheless there is a movement to use these measures in plan analysis and the future will probably see an extension of their use.

The three elements of the town plan can each be subject to more precise measurement. For this set the following definitions apply. The topological structure of a network involves the reduction of the channel pattern to its most basic and elemental form. Whether we conceive a network in terms of a standard dictionary definition of 'a meshed fabric of intersecting lines and interstices' or in geographer's terms as a set of geographic locations interconnected in a system by 'a number of routes' (Kansky, 1963), we are automatically concerned with a complex bundle of characteristics (Haggett and Chorley, 1969). Reduced to basic form, the routes are termed 'edges' and the nodes at which they join 'vertices'.

(a) Street Plan and Network Analysis. This proceeds on the simple assumption that a street layout is a network and, therefore, capable of being examined by the techniques used to analyse the structure of networks (Dicks, 1972). The only attempts to use these measures have been related to more modern street patterns and are unpublished. The following is a set of measures as set out by Millward (Millward, 1974).

i. Total route length (in metres): this may be converted to a measure of route density, given in metres per hectare.

ii. Total number of vertices: when divided by route length this gives a measure of vertex density with a lower limit of 0.0.

iii. Mean number of edges at vertices. This is taken as a measure of *route connectivity,* since in a well connected road layout, such as a grid, this number will be high (around 4.0).

iv. Coefficient of variation of the number of edges at vertices. This will be termed *vertex variation,* since it indicates the differing types of vertex. It may be computed from either the standard deviation or the mean deviation (the latter being easier).

v. Mean length of edges, or *edge length.* This will be computed only for edges wholly defined by vertices, and is an indicator of the scale of street layout.

vi. Coefficient of variation of the mean length of edges, termed *edge variation.*

vii. Mean deviation of angle of intersection from a norm of 90°, or *angle variation.* This is measured only for the more acute angle at any intersection.

viii. *Road curvature:* taking all hectare parcels in which a section of road is present, this is measured as the proportion of such parcels containing a curved section of road.

In Millward's study these measures were calculated for 500 metre quadrats, and he has been able to show that an acceptable level of consistency can be attained in their application. The whole relevance of this to plan analysis is that an objective means of establishing plan units can be developed so that the essentially subjective and descriptive terms such as 'grid plan' or 'radial concentric plan' can be replaced, and the comparison between towns could reveal points needing discussion and elucidation. These measures present problems; they do not solve them.

(b) *Plot Pattern and Shape Analysis.* The following measures of shape have been set out by Haggett and Chorley (Haggett and Chorley, 1969).

In these measures:

A	= Area. km^2	
P	= Perimeter, km	
L	= Major axis	
B	= Minor axis	
Ri	= Radial axes from gravity centre to perimeter, in km.	
aR =	Radial axes from gravity centre to small area 2 in km	

i. Form ratio	A/L^2	Horton (1932)
ii. Circulatory ratio	$A / \left\{ \dfrac{\pi}{-} \left(\dfrac{P}{2\pi} \right)^2 \right\}$	Miller (1953)
iii. Elongation ratio	$\left\{ 2 \sqrt{\dfrac{A}{\pi}} \right\} L$	Schumm (1956)
iv. Ellipticity ratio	$L/2 \left\{ A / \left[\dfrac{\pi}{-} \left(\dfrac{L}{2} \right) \right] \right\}$	Stoddart (1965)
v. Radial-line ratio	$\sum_{i-1}^{n} \left\{ \dfrac{100 \cdot \dfrac{Ri}{n} - \dfrac{100}{n}}{\sum_{i-1} Ri} \right\}$	Boyce and Clark (1964)
vi. Compactness index	$\dfrac{A}{\sqrt{\dfrac{2\pi}{-} \int_a R^2 dx\, dy}}$	Blair and Biss (1967)

All these can be applied to measure consistencies of plot patterns over the city and establish the plan-units based on recurrent themes, but an informed selection of the appropriate measure to be used is essential. Thus the form ratio takes no account of the alignment of the plot to the street line but merely relates the longest axis of the plot, whatever its orientation, to the plot area. But. for example, a high street layout should emerge if it is a distinctive element. Already some attempt has been made at the very difficult task of operationalizing shape analysis within urban morphology, and Openshaw in carrying this out makes the comment that "there can be little doubt that the study of urban morphology is about to undergo a far reaching methodological revolution" (Openshaw, 1974).

(c) *Building Styles and Multivariate Ananlyses.* A number of studies using principal components analysis or factor analysis (Rummell, 1970; Clark, Davies. and Johnston, 1974) have been carried out in relation to the present townscape. but it is unlikely that this can be done with any success in relation to the past. These techniques, however, do provide the means of bringing together all the measures of street system, plot pattern, and building characteristics so that, from as long a list of variables as can be constructed, the main components of variation can be abstracted and regional units, through a clustering routine with a contiguity constraint, built up.

Only the crudest outline of quantitative approaches to plan analysis has been presented in this section, and it has to be admitted that as yet there is no published application of such measurement to early British town plans. It is also true that the first applications are much more likely to be related to recent times when the patterns of streets are firmly and reliably established. Even so, what can be mapped can be measured. and the immediate future is likely to see an extension of quantitative analysis to urban plans.

Conclusion

This paper has ranged over the somewhat incoherent field called the geographical approach to town plans and topography; it has touched on sources, purposes, and techniques without concentrating on any one. The conclusion, however, is the prime geographical one that from the patterns established on the earth's surface we can draw inferences which add to knowledge and understanding of processes.

Discussion

The discussion of the geographical approach developed ground four main themes: the availability of sources not covered in the paper presented, the need to treat map evidence with critical scrutiny before its acceptance the attitude of British and American geographers to studies of urban morphology, and the value of quantitative techniques in analysing town plan.

A number of additional sources of urban maps was suggested including, for example, records of conveyances which often contained plans of small areas of towns and could be of great value in reconstruction of local detail. Manuscript medieval maps were coming to light and it was anticipated that there were still others to be discovered. A further particular source was a large collection of plans of military and naval towns including Chatham, Dover, and Portsmouth forming a consecutive series in relation to fortification (PRO W033 and 55). Reference was also made to drawings of towns in Southern England made by Schellink in 1661-63 and published in the *Walpole Society Transactions* 35 (1959).

The limitations of accuracy in early maps was emphasized, particularly in relation to the Speed plans. Careful checking against documentary sources is essential before accepting an early plan as necessarily accurate, and this applies especially to the representation of suburban extension.

The paper presented the strong impression that studies in the morphology of early towns played little part in contemporary geographical studies. This was challenged on the ground that it represented an insular, or at least an Anglo-American, attitude and was not true of much European investigation, where continued emphasis on morphogenetic approaches was apparent. Conzen's work, given some stress in the paper, was regarded as being of this tradition and deriving much of its impetus from earlier work such as that by Geisler (1924) and Louis (1936). More recent work by Leister (1967), Keyser (1958), and Scholler (1967) carried on this sort of approach. Investigations into the historic development of town plans are much better represented in Germany than in the United Kingdom, although the theme of the conference itself was related specifically to England and Wales and in that sense the limited range of work now being undertaken remains a fair assessment.

The largest part of the discussion was devoted to the use of quantitative methods and techniques of statistical, analysis of town plans. It was forcibly argued that such modes of analysis are only acceptable when there are large quantities of precise data and that, uncritically used, they can lead to false conclusions. As an example it was indicated that measurement of medieval town plan could take no account of the degree of use of any street and hence could result in an unreal assessment. The formative factors in town plan:, are derived from processes operative within the society and the economy, and the teasing out of these factors requires careful and informed understanding only to be derived from an intimate knowledge of the whole context in which the various parts of the town were built. This traditional form of enquiry was likely to be more profitable, and much less liable to error than experimental methods of measuring plans on maps and attempting to draw conclusions from such procedures. Few present were convinced that much of value would be derived from the use of quantitative analyses.

It is inevitable that the suggestion that new techniques can solve old problems is met with scepticism if not hostility. An example well known to historians will be the attempts to establish model building and the testing of hypotheses by statistical methods in archaeology (Clarke, 1968). It is also true that the use of statistical analysis only becomes relevant when a study has reached a stage where it is virtually imperative by the nature of the questions being asked and the data being generated. This is most certainty true of 19th century social history, in which large quantities of material now need to be handled. A recent issue of the *Historical methods Newsletter,* entitled 'History and the Computer' (ed. Andrae, 1974) makes this quite evident. What is more difficult to assess is the value of measurement in contexts where the data are less extensive and less reliable. There is certainly the problem of the desire to

be fashionable and a tendency to use quantitative techniques for the simple purpose of appearing to be in line with con temporary developments. But the critical point is that any analysis of the street plan of a town, or of its plot patterns and their shapes and densities, is going to generate problems rather than providing answers. This is already the case and quantitative measures are already used, even though they are not recognized as such since no complex manipulation of data is carried out. Any author who sets out the shape of several towns on a page and compares the regularity of their outlines or the area of the intra-mural extents is using quantitative methods in order to derive questions that demand answers. Why did shape and area vary? Did they vary with any degree of regularity or in random fashion? The questions begin to increase and with great rapidity once measurements are made. The sole case for the use of these statistical analyses is that if words are to be used which have measurement implications, then it is only sensible to use the most appropriate, the most sophisticated, and the most reliable forms of analysing those measurements which are available. Nearly every paper in this volume makes some statement which has measurement Implications; all that is required is that those implications are fully appreciated. Perhaps the most useful conclusion is that of Schofield writing on *English Historians and the Computer* (Schofield, 1974): "History embraces a wide variety of intellectual activities, to many of which the computer has no practical relevance whatsoever. Yet the growing popularity of research in recent social and economic history will probably lead to expanded computer use in historical research in the years to come. But although we may welcome this development in the long run, it is not without its short-run dangers. Although most historians who take to computing do so for respectable reasons, there are some who seem to entertain the implausible and dangerous hope that the computer will somehow solve the conceptual problems they face in deciding how to analyze their data. Given the appallingly low general level of statistical understanding among historians, we may soon find ourselves inundated by a tide of computerized studies drawing elaborate but spurious conclusions from immense quantities of historical data. Perhaps we should first strive to raise our colleagues' and our students' understanding of quantitative argument before we encourage them to prostrate themselves in the service of the great god Megabyte".

The Evolution of Towns: Planned Towns before 1066

Martin Biddle, MA, FSA

Summary

Knowledge of the Anglo-Saxon planned town is of recent growth and can be expected to increase when investigations are undertaken with clear objectives and on an appropriate scale. The concept of a 'planned town' is defined where the organization of space is seen as the critical factor. The role played by 'relict features' of Romano-British date may be critical in conditioning subsequent patterns, but detailed analysis does not suggest, except possibly in the case of London, that the survival of Romano-British features should be taken as evidence of continuous settlement. Such relict features were more in the nature of obstacles to be avoided or negotiated.   *Hamwih* (Southampton) may provide the earliest example of an Anglo-Saxon planned layout. but the role of Mercia in the development of such settlements may be crucial. as the evidence of Hereford suggests. Little is known of the Danish contribution to this development. but the planned   *burhs* of Wessex, which display consistent patterns on very different sites, could have derived from the West Saxon and Mercian experience of the 8th and 9th centuries. Elements of the Wessex plan occur in the areas conquered or reconquered in the early 10th century, notably in eastern England, but too little is yet known of these developments to demonstrate a continuous practice of town planning between the 10th century and the Norman foundations of the later 11th century and beyond. Nevertheless. the roots of the later medieval planned towns can now be seen to grow out of the Anglo-Saxon example.

"We are all Taitians now"—so Henry Loyn in stating for this generation of scholars the outcome of the controversy between Stephenson and Tait over the very existence of the town in pre-Conquest England (Loyn, 1971, 115-l6). The reality, complexity, and long development of the Anglo-Saxon town have been amply confirmed in recent years by archaeology and by numismatics. There has been slower progress, naturally enough, towards a preliminary understanding of the topography of individual pre-Conquest towns, and little advance in their comparative study and classification. 'Naturally enough', because most of the evidence must

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inevitably come from archaeology, and the archaeology of the Anglo-Saxon town is a post-war phenomenon that did not gather momentum until the 1960s. Archaeology is, moreover, a relatively slow process of inquiry, relatively expensive by comparison with historical research in general. Yet urban archaeology must be conducted on a scale commensurate with urban settlement, and with a breadth of approach consonant with the complexity of the changing patterns of urban development, if the results obtained are to be of more than antiquarian interest. It cannot therefore be surprising that few Anglo-Saxon towns have yet been examined archaeologically on the appropriate scale (Heighway ed., 1972, paras. 5.50-51).

The first attempt to provide a general account, however brief, of the physical character and origins of the artificially created towns of the pre-Conquest period was written just too soon to benefit from the recent advances in urban archaeology (Beresford, 1967, 319-27) It suffered inevitably from the extreme imprecision then current in archaeological discussion of the relationship between Roman and later settlements on the same site. The first direct archaeological evidence for the Anglo-Saxon date of a planned street-system had in fact been obtained from Winchester some years previously (Biddle, 1964, 215-17: 1965, 242-3). Between 1963 and 1967 excavations at Lydford produced evidence for the regular internal arrangement of another and very different example of a West Saxon *burh* (Addyman, 1964-8). In 1969 and 1971 important further evidence was obtained for the Winchester street-system (Biddle, 1970, 285-9); 1975. 101-4). At Oxford in 1970 the main east-west street was shown to have been surfaced on seven occasions before *c.* 1100. and the pre-Conquest date of one of the side-streets was established for the first time (Hassall, 1971, 3-9; 1972. 12-13). By the later 1960s Anglo-Saxon archaeology was at last approaching problems of Anglo-Saxon urban topography using the simple procedures for the sectioning and dating of linear features which had first been applied to the elucidation of Romano-British defences and street plans over 30 years earlier. The first summaries of the new evidence have now appeared. Redford has surveyed the information available up to 1970 for the defences of the later pre-Conquest boroughs (Radford, 1970) and the case for planned street-systems in some of the Wessex *burhs* has been argued in the light of the evidence from Winchester (Biddle and Hill, 1971).

At this stage the phrase 'planned town' must be defined. I take it to mean an urban place which has been laid out In a regular pattern at one moment in time with the purpose of dividing and apportioning the ground for permanent settlement.   A planned town may or may not be defended, or an initially undefended layout may later be provided with defences. Conversely, a defended enclosure need not be given any regular internal arrangement, or such an arrangement may be a later insertion into a previously unplanned enclosure. The deliberate organization of space is the critical factor in the definition of a planned town. Defences are to this extent irrelevant, although they may exercise an important influence on the form of the planned layout and on the function of its individual components.

It is clear that a planned system may be added to an existing settlement as an expansion of it, and conversely that unordered settlement may grow up as an extension of a planned core. It must also be stressed that a planned system can be imposed upon an existing settlement and not be any the less planned than an initial layout on a

virgin site. The earliest occupation of a town displaying a planned layout may thus be quite unconnected with the actual date of the imposition of the planned system. It should also be clear that a planned layout can be eroded by gradual changes and even entirely lost, and that it could in the course of time be replaced by a later planned system laid out on new principles. All these permutations may be relevant in considering the variety of Anglo-Saxon planned towns. They are listed here because it is evident that a failure to define these various possibilities has given rise to considerable confusion in previous discussions of the subject.

In cases where an Anglo-Saxon town emerged on a site occupied during the Roman period, it is essential to define the extent to which the Roman pattern may have influenced the topography of the later settlement. Such an influence might derive from continuity of land use. It could quite as well result from the way in which major structures condition subsequent patterns well after ceasing to serve their own original function, and even after long periods of total abandonment. The role of such relict features (or 'morphological frames': Conzen, 1969, 127) is admirably demonstrated by the amphitheatres whose outlines can still be read in the plans of French and Italian cities (Tours, Perigueux, Lucca, Assisi, Arezzo,s for example), although the actual fabric of the original structure may now be entirely invisible. In England in the early middle ages individual Roman buildings certainly survived to affect the pattern of later growth. Few Roman buildings stand above ground in this country today, and so we tend to discount the importance they may once have had as determining factors in the topography of Anglo-Saxon towns. The example of Jewry Wall, Leicester, should provide a-corrective to this view (Taylor and Taylor, 1965. i. 384-6), and recent excavations in Colchester and York have demonstrated the continuing use or re-use of Roman buildings late into the Anglo-Saxon period and even beyond (Crummy, 1974; Ramm, 1972, 244-6). Similar evidence is emerging in other towns, including both Exeter and Winchester, but the most striking example is provided by the baths basilica at Wroxeter, part of which stands as the fragment known as the 'Old Work', and where the ruined structures provided the framework for an extraordinary and as yet unexplained recrudesence of Roman-style timber building in the sub-Roman period (Barker, 1973). Although Romano-British buildings may never have exerted on subsequent patterns an influence comparable to that of the colonnaded streets of Roman Syria seen today, for example, in Damascus in the Street-called-Straight (Elisséeff, 1970, 170-3), it would be unwise to ignore the role they may once have played in conditioning the topography of Anglo-Saxon occupation.

Romano-British town and fortress defences exercised, by contrast, a pervasive and enduring control over later developments on the same site. One has only to consider places like London, Colchester, Lincoln, Canterbury, Winchester, Chichester, and Exeter, where the medieval walls followed precisely the course of their Roman predecessors, or York, Chester, Gloucester, and Rochester, where the Roman circuits were partially lost only when the medieval towns expanded beyond their former limits, to perceive the dominant role played by Romano-British defences in conditioning later patterns. This role was essentially passive. The Roman defences—ditch or ditches, wall and earthen rampart—presented even in decay a massive physical barrier. Even if the walls were not maintained, it was
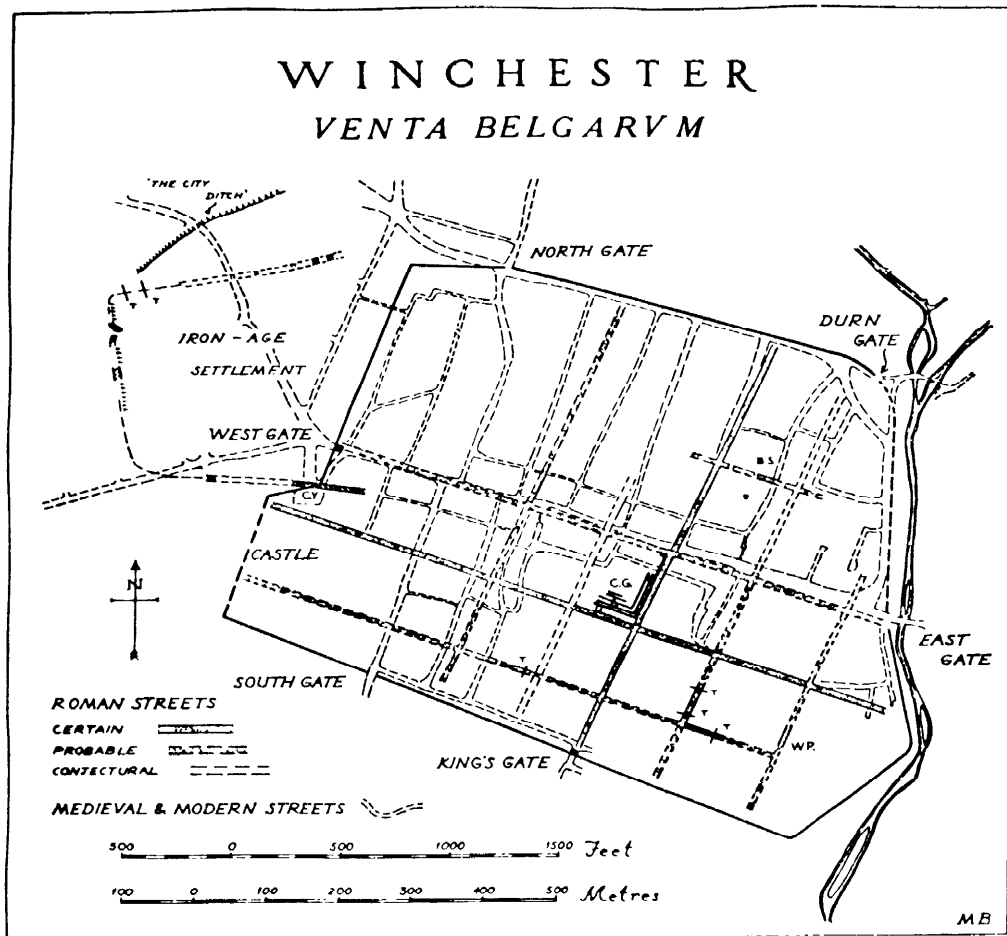
7   *The street plans of Roman Venta and Anglo-Saxon Winchester compared (Biddle, 1970. Fig.1)*

easier to go round them. or to enter by the sites of the original gates, than to level whole stretches or to pierce new entries. These considerations must account in part at least for the notable continuity of use demonstrable in the sites of the principal gates of medieval towns of Roman origin. This continuity was certainly encouraged in some cases by the continued use of the Roman long-distance roads leading to the gates, and also on occasion by the survival of the gate structures themselves. Roman gates still stand in whole or in part at Lincoln (Thompson and Whitwcll. 1973) and Canterbury (Frere. 1962). and others are known or suspected to have survived in to the post-medieval period, for example the South Gate at Exeter (Fox, 1968, 13) or the East Gate at Chichester (Searle, 1974). It cannot be doubted that many others were still in existence in the early middle ages and by their very presence encouraged continued use of these entries through the defences. Even when they were demolished or had collapsed. traffic would still make for the gap in the defences where the gates had stood, as excavation of the South Gate of Winchester has vividly shown, with street surfaces laid down in the post-Roman period over the fallen rubble of the former gate (Biddle, 1975, 116-9).

The obstacle provided by the defences and the resultant tendency to ensure the continued use of the gates or their sites must inevitably have had its effect on the internal pattern of the walled areas. The shortest route between two opposing gates continued in use and, given the regular planning of most Romano-British towns, a later route might inevitably follow more or less the line of a Roman street. As a result the streets of some medieval towns seem to show the survival of elements of the Roman street plan. York (within the area of the legionary fortress), Gloucester, Chester, and Lincoln are among those towns where this situation has been noted (Colvin. 1958. 53. figs. 13-16). It occurs also at Winchester (fig. 7). where the principal thoroughfare of High Street runs downhill from the site of the Roman gate at West Gate to leave the city at East Gate, some 16 metres north of the site of the Roman east gate. The medieval street lies over the line of the Roman street for the western third of its course, but then diverges to run the rest of the distance with its whole width just to the north of the Roman street. This alone would suggest that Roman property boundaries had been entirely lost; indeed, Roman buildings have often been recorded below the present High Street. Moreover, in the western third of High Street, where the ground slopes downhill

to the east, traffic has cut a wide hollow into the hillside. The limits of this hollow lie far behind the medieval frontages to north and south of the street, and demonstrate that the hollow was formed before these frontages became fixed in the 10th or 11th centuries. Similarly, the limits of the hollow far exceed the Roman frontages to either side of the Roman street, which here occupies approximately the same position as High Street. It must be concluded that traffic using this route in the post-Roman period was able to ignore the former limits of the Roman street and has over the centuries, by constant minor divergences in bad conditions, eroded the kind of hollow way which is characteristic of unsurfaced medieval routes in hilly country and which can be seen on all the medieval approach roads to the city (Biddle and Hill, 1971, 70; Biddle ed., 1975, 278, cf. 260-3). This example suggests that the apparent survival of a Roman street in a medieval pattern needs to be closely examined if its true significance is to be established. In Winchester this apparent survival demonstrates in reality the complete absence of any importance attached to the buildings and properties lining one of the most important streets of the Roman town. Nothing could emphasize more clearly the breakdown of the urban order of *Venta.* If there is any evidence for continuity here, it is for the continued importance of a through-route from the West Gate to the East Gate. The position of this route appears to be conditioned entirely by the obstacles and channels formed by the defences, the gates, and the crossing of the river.

This is not to say that there was no settlement within the walls of Winchester, or of the other places mentioned, which required the passage of these routes through the walled areas and ensured their continued importance. It is simply to emphasize that the apparent survival of Roman streets is a very uncertain guide to actual continuity of settlement, and no indication at all that Roman urban conditions, buildings, or property boundaries had survived in any recognizable form. Arguments for continuity of settlement, for which there is now increasing evidence, must normally be based on other indications, although the case of London discussed below might provide an exception. For our present purposes, the physical remains of Roman towns have a very real importance as relict features conditioning the pattern of what later emerged on these sites. But they do not suggest that the roots of the Anglo-Saxon planned town grew more than in this very general sense from the Romano-British experience.

The loss of even the major elements of the Roman street plan is emphasized in those towns where the Roman through-routes do not always pass through opposed gates, but are for some reason diverted within the town to pass out of the walled area by a gate or gates not directly opposite the point of entry. Canterbury provides a case in point, where the medieval and modern east-west streets now run diagonally across the grain of the Roman pattern (Frere, 1962; 1966, fig. 19; 1970, 83, fig. 1). London presents much greater difficulty. Almost the entire Roman street pattern has been lost, but there are some notable exceptions (Biddle and Hudson, 1973, paras. 4.31, 36). The survival of the internal plan of the Cripplegate fort suggests that its defences exercised some control over the development of this area in the early middle ages and thus that the fort itself survived as a distinct and possibly still defensible enclosure into the Saxon period (Grimes, 1968, 29, 39, 204n). Elsewhere, lengths of the two

most important streets of the Roman town have remained in use, while along intervening stretches of the same streets the medieval and modern courses have wandered away from the earlier lines. It is remarkable that the great street markets ofmedieval London, Westcheap (Cheapside) and Eastcheap, both occupy approximately the lines of Roman streets. There may be topographical controls here of which we are ignorant, but the possibility that some London streets did actually survive in continuous use together with the properties along them cannot be entirely ignored. They would provide the exception which emphasizes the general lack of demonstrable continuity of streets as built-up routes.

The earliest large-scale Anglo-Saxon settlements recognizable as towns seem to have been the coastal or riverine trading and industrial centres of the 7th century and later of which Saxon Southampton, *Hamwih,* provides the best-known example. It seems possible that there was at least one of these centres in each of the major kingdoms, Southampton *(Hamwih* 8th cent.) for Wessex; Fordwich *(Fordeuuicum* 675), and possibly Sandwich *(Sondwic* 851) and Dover for Kent; London *(Lundenwic* 673-85(?)) for Kent, Essex, and later Mercia; Ipswich *(Gipeswic* 993) for East Anglia; and York *(Eoforwicceaster* 644 (9th cent.)) for Northumbria. Little is known of the topography of any of these places in the 7th-9th centuries, except York and Southampton, and those with Roman antecedents on the same site (Dover, London and York) are too conditioned by this fact to be of direct relevance here. Of the remainder, only Southampton has been sufficiently investigated to reveal anything of its layout at this date (Fig. 8). Eight or nine gravelled streets were recorded during 19th century brickearth digging, two parallel streets were found in 1968 and 1971 respectively, and a street at right-angles to these in 1973. "This is enough to hint that *Hamwih* for much of its thirty hectares was set out along streets running back from the shore, with cross streets at intervals" (Addyman, 1973, 221). Three facts encourage the view that this was a deliberately planned system and not a random growth: its regularity, its consistency, and the observation that the roads excavated under modern conditions had been there from an early date, although not perhaps from the very start of the settlement. No overall plan is yet available to assess the full regularity of the system, but its consistency is supported by the alignment of excavated structures, even where these occur on sites where streets themselves have not been found. Addyman's model has proved to have a strong predictive value in this respect; a further pointer to the probability that we are dealing with a planned system to which subsequent development was related. If the streets were in reality an early (if not primary) feature, the dating evidence for the occupation might suggest that they were laid out in the reign of Ine (688-726) and it would seem likely that they were the result of a royal initiative.

The Southampton evidence is of considerable importance for the history of planned towns in Wessex, and thus in late Anglo-Saxon England as a whole, and it must be approached with caution. Should the reality of a planned layout of c. 700 be established, there would be no need to look much farther for the source from which the regularly planned street layouts of 8th-9th century Mercia or Alfredian Wessex were derived. Towns lying along a linear topographical feature such as a shore-line may, however, tend naturally to display a pattern of communication parallel with the shore and at right-angles
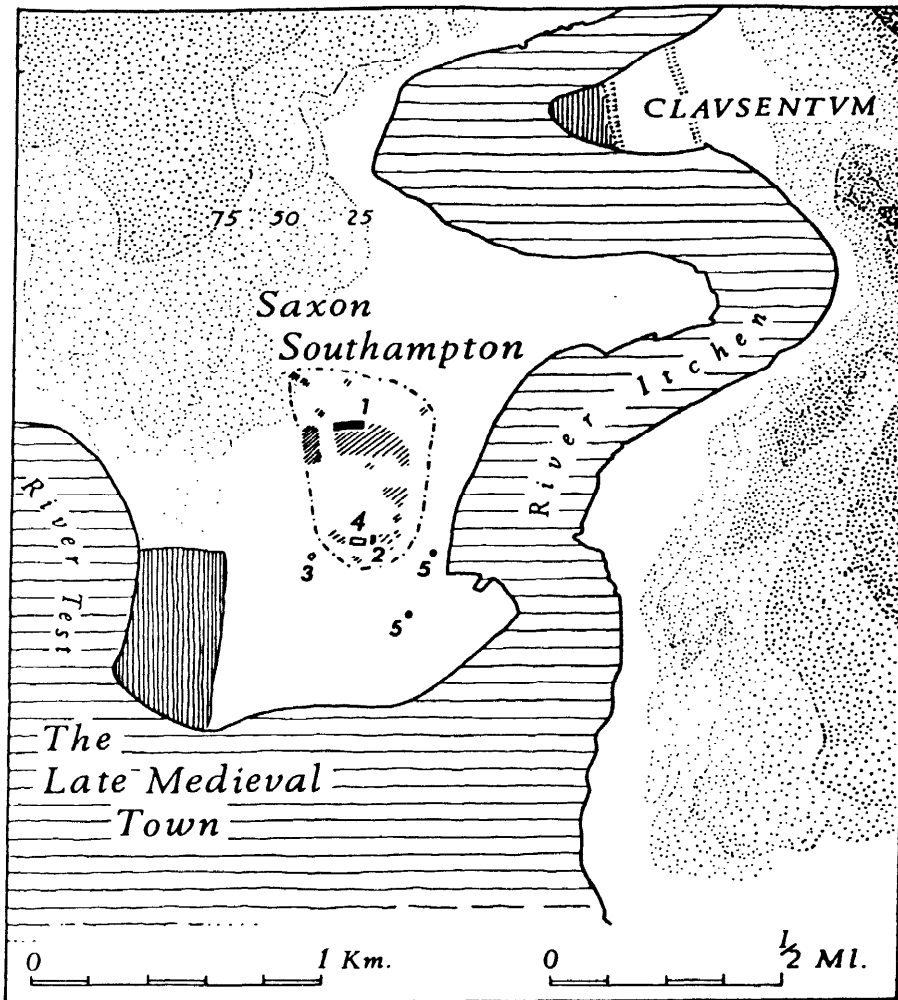
8   *The site of Anglo-Saxon Southampton (Addyman, 1973, Fig. 2)*

to it. There are sufficient examples where this does not seem to have occurred to make one cautious in claiming that it is inevitable. It is clear that much will turn at Southampton on the extent to which the streets can eventually be shown to have been both early and contemporary, and also on the degree to which even outlying portions of the settlement area conform to the same alignment. As for the influence of Southampton on the later towns of Wessex, one can have the argument both ways. The fact of a regular system at Hamwih does not seem to be in doubt, whatever its origin. Since this system seems to have remained in use throughout the lifetime of the settlement, it will still have been there to provide an example for the burhs founded in the late 9th century.

It is to Mercia that we must turn for what in the present state of knowledge seems to be the next stage in the development of the Anglo-Saxon planned town. In a recent study of the development of military obligations in 8th and 9th century England, Brooks has pointed out that "Mercian charters first refer to borough-work from the middle of the eighth century, whilst in Wessex it was not until the middle of the ninth century

that kings began to demand in their diplomas work on the building of fortifications" (Brooks, 1971, 83). While defences as such are not our main concern, it is certainly of importance to note with Brooks that the two Mercian boroughs where relevant recent excavations have taken place have both provided evidence of defence systems prior to those whose erection is attributed to the early tenth century. At Tamworth the earliest defences were of relatively slight construction and may have marked the boundary of the Mercian royal palace rather than of any specifically urban development (Gould, 1967-8, 18; 1968-9, 33-8). It is in any case not yet possible to show the Anglo-Saxon date of the internal street pattern, let alone to assign it to a pre-Æthel-flædan date, or to demonstrate that it formed a planned system comparable to that of the Wessex burhs.

The case of Hereford is rather different. The defences attributed to the 10th century (period 5) were there preceded by a boundary bank and ditch (period 3), which was itself replaced by a gravel and clay rampart (period 4) of some size (Noble and Shoesmith, 1967; Rahtz, 1968; Shoesmith, 1972). The course of the first two stages (periods 3 and 4) is so far known only on

SAXON
HEREFORD
(c.700-1066)

9   *Anglo-Saxon Hereford (Shoesmith, 1974, Map 1)*
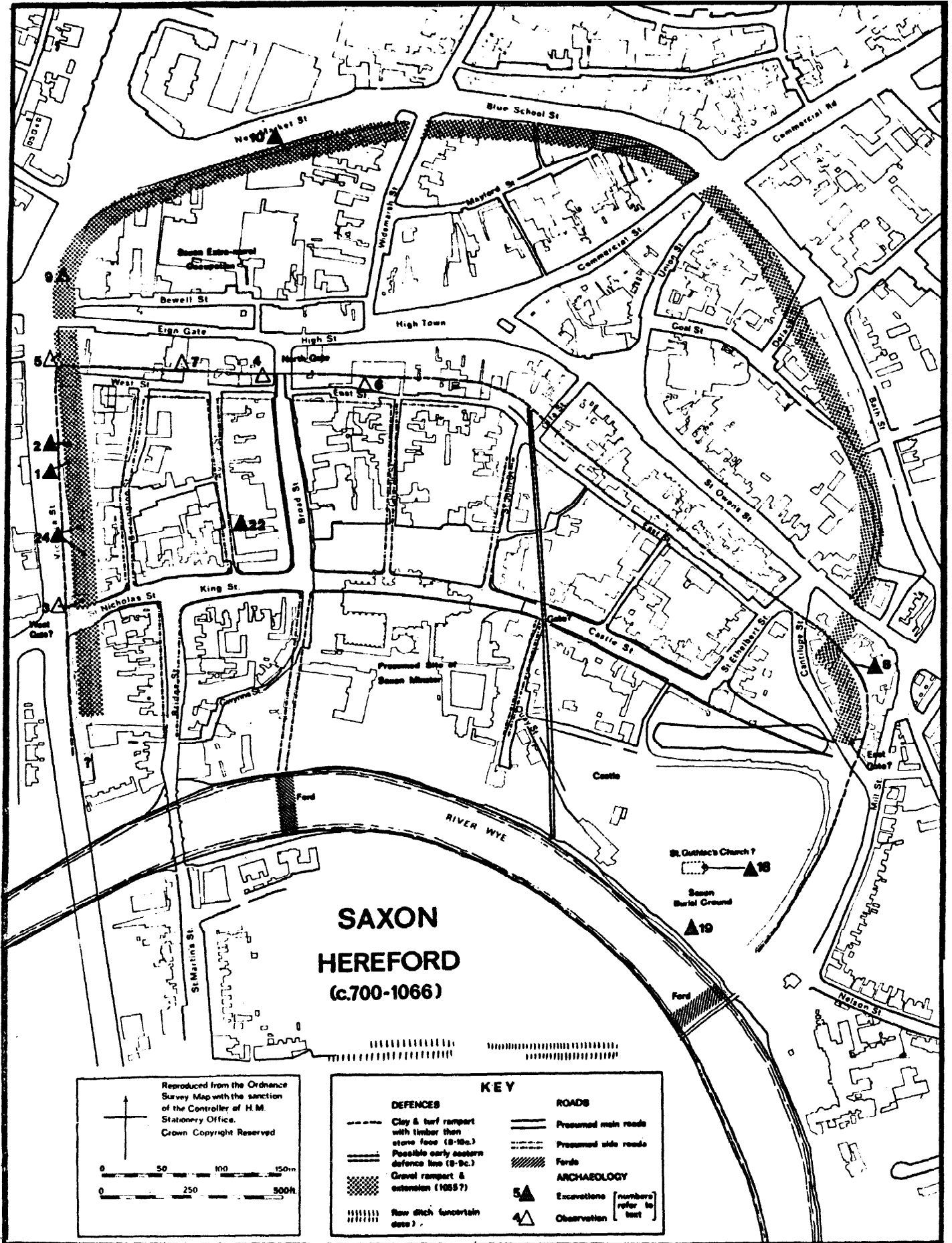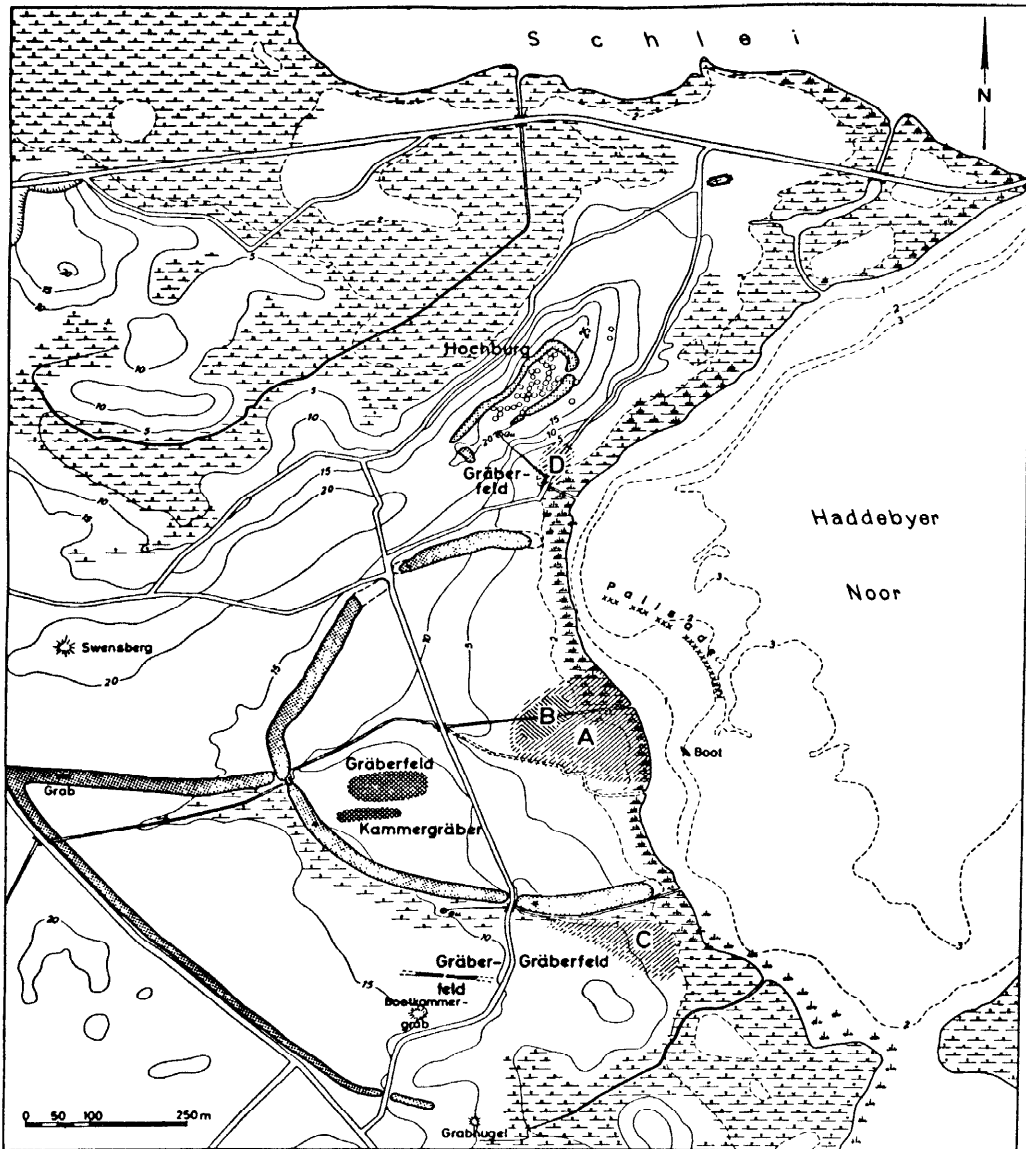
10 The site of Haithahu (Jankuhn. 1963, Abb. 20)

the west side of the city and their date has not yet been clarified within the general bracket of the 8th and 9th centuries. It seems clear, nevertheless, that they fit well enough with Brooks's observation concerning the reservation of fortress work in Mercia from the time of Æthelbald's general grant of privileges in 749. The situation at Hereford contrasts with that in Wessex, where pre-Alfredian defence-works have not yet been recognized.

For present purposes it is the internal layout which is relevant (Fig. 9). The most recent analysis of the early town plan in the light of excavations up to March 1974 suggests that the first defences (period 4: the gravel and clay rampart mentioned above) enclosed a rectangular area of about 13.6 ha. based on the river Wye and measuring some 400m. by 340m.

(Shoesmith, 1974, map 1). Within this enclosure main streets intersecting at right-angles joined the west gate to the supposed site of the east gate and the north gate to the river ford. There were side-streets at right-angles to the main east-west street and an intra-mural street along the northern defences. Archaeological evidence was recorded in 1967 and 1968 for a series of metalled surfaces which may represent an intra-mural street along the back of the western defences (Noble and Shoesmith, 1967, 53-6; Rahtz, 1968, 244: period 4). It must be emphasized that there is as yet no direct dating evidence for the internal layout just described, except that the possible western intra-mural street predates the reconstruction of the defences attributed to the time of Æthelflæd,   *c.* 913-15. Nevertheless, the location of this layout within what appears to be the earliest *enceinte* suggests that the streets may be contem-

■ Bachlauf   Zaunfluchten   ○ Herdplatten
■ Haupt- und Nebenwege   — Wandverbände und Hauseingänge   0 _____ 25 m
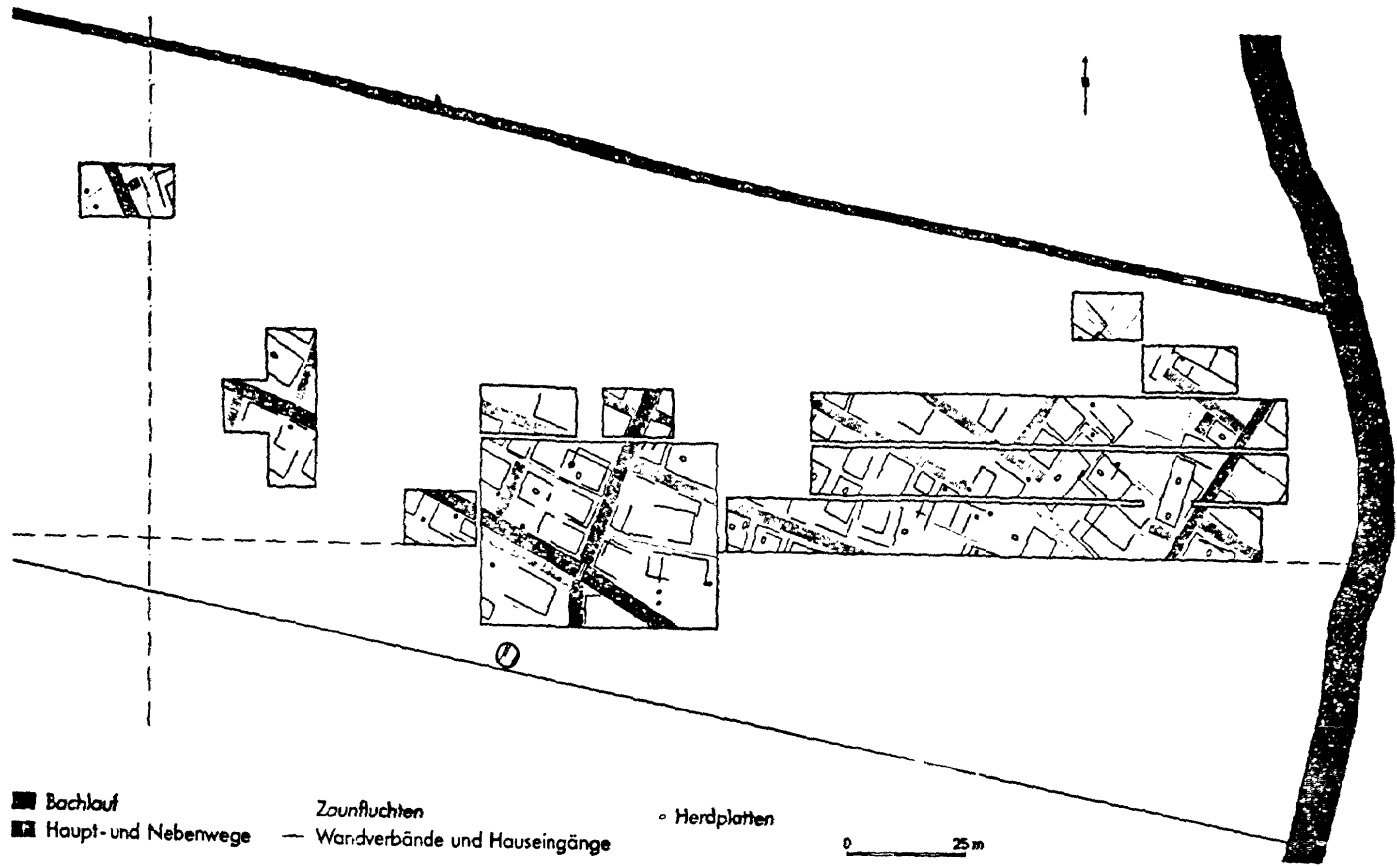
11   The topography of the oldest (9th century) settlement at Haithabu as shown by the area excavated in 1963-9 (Schietzel, 1974, Abb. 1)

porary with the first true defences and thus belong to the 9th or even to the 8th century.

The evidence for a possible planned layout in Hereford at this date emphasizes the importance of the role that Mercia may have played in the development of the Anglo-Saxon planned town. The Hereford layout seems to anticipate the main lines of the system adopted in planning the Wessex *burhs* and may thus take its place with early Southampton among the possible sources of the Wessex plans. Unfortunately, little is yet known of these developments in Mercia before Æthel-flæd's campaigns of the early 10th century.

This current lack of information extend to the Danish boroughs of the mid-9th century in the eastern part of the Midlands. Although important work has been done in recent years in each of the Five Boroughs (Derby, Nottingham, Leicester, Lincoln, and Stamford it is not possible in any of them to define the topographical components of the 9th century settlement with any certainty. Barley has suggested that the 'Anglian *Burh'* at Nottingham can be identified with the Danish army's headquarters (Barley, 1969, 1-2) whose fortifications were in existence by 868 and were repaired by Edward the Elder in 921. The identification of the defences of the Anglian *burh* provides a classic example of urban topographical study (cf. Stephenson, 1933, 196-7). Direct dating evidence is scanty (cf. *Medieval Archaeol.,* **15** 132; **16,** 159-60), however, and for our present purpose it makes a great difference whether the defences and internal layout, with a noteable example of an inter-mural street, are Danish work of c. 870 or a creation of Edward the Elder in 921, in the aftermath of the construction of the Wessex *burhs.* An exactly similar problem is presented by Stamford (Mahany, 1968; cf. *Medieval Archaeol.,* **15,** 127). It may be that in both these towns the Danish borough has been identified and that within the defences, proved as at Nottingham, or conjectured as at Stamford, the street layouts are contemporary with the fortifications and are to be dated *c.* 870. Even if this were so, we are far from being able to establish the degree to which these layouts were deliberately planned. At Nottingham, for example, the east-west axis may have followed the line of a pre-historic trackway (Barley, 1969, 2). Nevertheless, the inter-mural street at Nottingham and the right-angled intersection of the side-streets and the main street at Stamford suggest deliberate creation. The background for the possible formation of planned layouts in the Danish boroughs might be in the Mercian work already discussed. It could also derive from experience in Denmark, for one of the most striking results of the excavation pursued at Haithabu since 1930 (Fig. 10) is the demonstration that the area within the later *Halbkreiswell* laid out in regular parcels (Fig. 11) from the time of its first occupation in the 9th century (Schietzel, 1968; 1974).

The Wessex *burhs* of the late 9th century are now by comparison almost well chartered territory. The attention that has been devoted to them during the last decade and the statements already available (Radford, 1970; Biddle and Hill, 1971) mean that the present position need only be summarised here. In essence it is agreed that the 30 west saxon *burhs* listed in the Burghal Hidage (Brooks, 1964; Hill 1969) were founded by Alfred for the defence of Wessex following his victory at Edington in 878 and that the system was reasonably complete by 892 (Stenton, 1971, 265). The places listed are of very varied character. Some *(a)* are small sites best classified as forts, such as Halwell, Pilton

Eorpeburnan (Newenden (?), Kent: Davison, 1972), or Eashing (Aldsworth and Hill, 1971); some (b) are promontory fortifications, such as Malmesbury, Shaftesbury, Lydford, or Lyng (Hill, 1967a); some (c) are re-used Roman walled places such as Winchester, Chichester, Exeter, Bath, Portchester, and probably Southampton (Hill, 1967 *b*); and some (d) are large rectangular fortifications on sites not previously defended, such as Wareham, Wallingford, Cricklade, and Oxford. Those which concern us here are, first, the large rectangular or sub-rectangular places with rectilinear street systems. of groups c (excluding Portchester and Southampton) and d; and, secondly, the larger promontory places of group b. Winchester is the most fully documented of groups c and d, Lydford of group b.

The Winchester street system consists of the following components (Fig. 12):

i   a pre-existing east-west thoroughfare, High Street;

ii   a single back street parallel to High Street on either side;

iii a series of regularly spaced and parallel north-south streets at right-angles to High Street;

iv   an intra-mural or wall street running around inside the entire circuit of the walls, linking the ends of High Street and of the north-south streets.

When this system was first described in detail in 1971, insufficient emphasis was placed on the intra-mural or wall street (Biddle and Hill, 1971, 73, 76), which subsequent excavation has shown to be an integral and original element of the system (Biddle, 1970, 285-9; 1975, 101-4). Recent work has shown that these streets originally extended over the south-east quarter of the city where they were later obscured by the foundation of New Minster in 901-3, and by the extension of the monastic precincts in the 960s and of the royal palace *c.* 1070 (Biddle, ed. 1976. 278-81, 292-4, 303). A radiocarbon date of AD 880 ± 60 (HAR 295), recalibrated to AD 902 ± 60, for the occupation on the earliest of the eight successive street surfaces sealed by the construction of the castle in 1067 suggests that even at the periphery of the system the streets belonged to the original layout. This view is supported by the observation that the first surfaces of all the streets so far excavated were formed of small broken flints, quite distinct from the very varied materials used in later resurfacings. It looks as if flints were knapped and stockpiled for the initial surfacing, a task which involved 8.6 kilometres of streets and required something like 8000 tonnes of flint cobbles.

The realization that the wall street formed an original component of the whole layout shows that the defences and the street system cannot be seen in isolation, but must be regarded as part of a single operation designed to provide a large defended enclosure in which the internal area was logically subdivided for the apportionment of land and for ease of movement on interior lines. The wall or intra-mural street is a constantly recurring feature of the street plans of the large rectangular *burhs,* whether these are of Roman origin or occupy essentially new sites (Biddle and Hill, 1971, 76, figs. 2-4; the evidence for an intra-mural street at Cricklade is clear from the report of the excavations of 1948-63, but does not appear to have been given its full weight: Radford, 1973, 102-3 and cf. figs. 1-6 with fig. 12). It is a feature not found in Romano-British town plans, as distinct
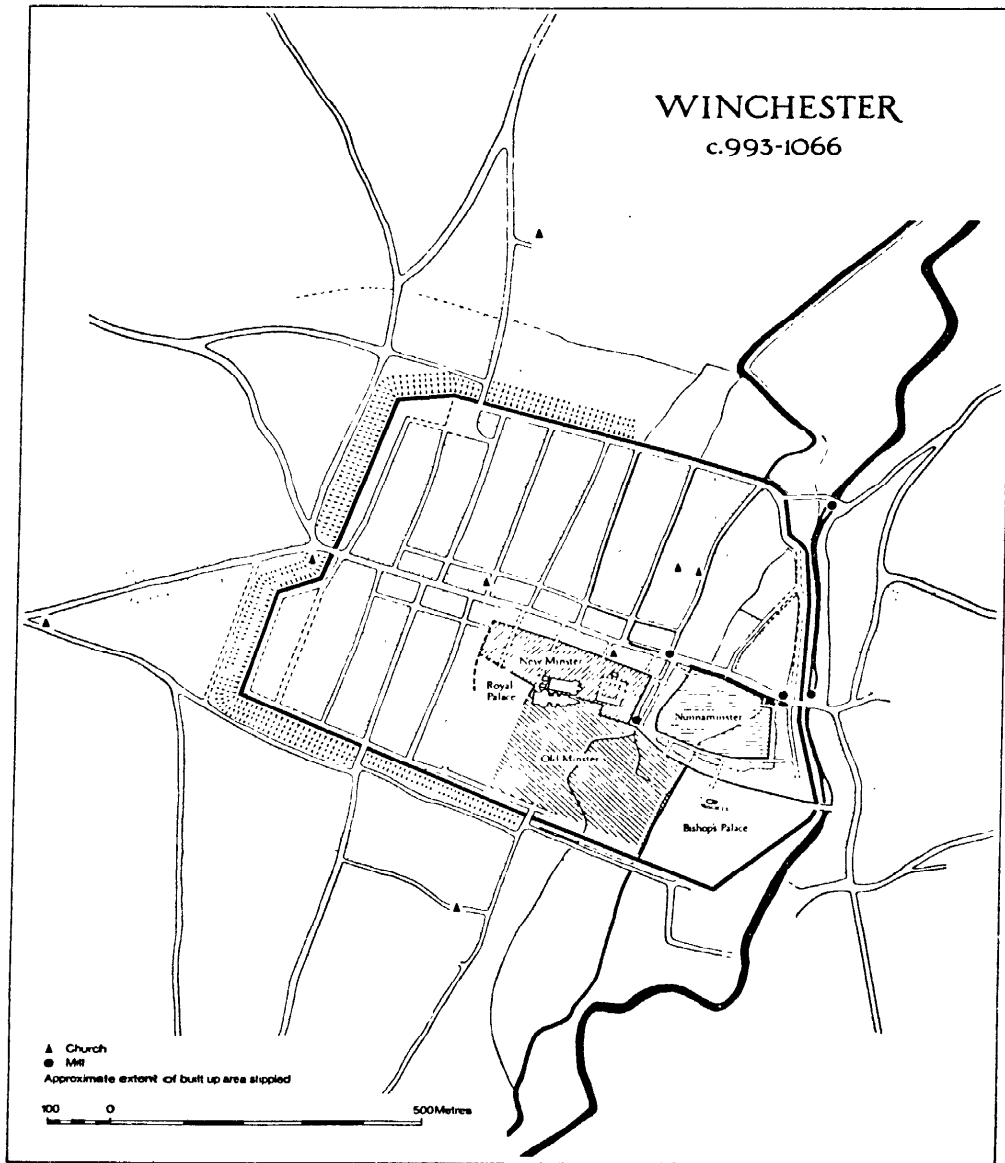
12   The street plan of late Saxon Winchester (Biddle, 1973, Fig 8)

from forts or fortresses. and emphasizes the initially military purpose of the Wessex   *burhs.*

The significance of the back streets also requires some comment. They have frequently been obscured by later development, but in Winchester where they are well preserved the back streets run parallel to the principal thoroughfare, High Street. It is possible that this may prove to have been a consistent feature elsewhere and thus serve to indicate the principal axis of the pre-Conquest town. It may be suggested that the function of the back streets was to provide rear access to important properties lining the main street, for this probably served in many cases as a market, as it did in Winchester.

The fact that street plans of the Winchester type occur not only in walled towns of Roman origin, but also in the new foundations such as Wareham, Wallingford, and Cricklade, and the observation that in the former Roman towns only the main thoroughfares reflect any aspect of' the Roman system (for reasons discussed above on pp. 21ff.), show that the street plans of these burhs are new creations of the Alfredian period. Their possible antecedents in Wessex and Mercia have already been indicated in the discussion of Southampton and Hereford.

It is evident that some of the promontory burhs listed in the Burghal Hidage possessed street plans similar in all essentials to the plans of the Winchester type just discussed. Archaeologically the best known of these is Lydford (Addyman, 1964-8; plan in Radford, 1970, fig. 35). Here (Fig. 13) a main thoroughfare follows the spine of the promontory; there are remnants of a
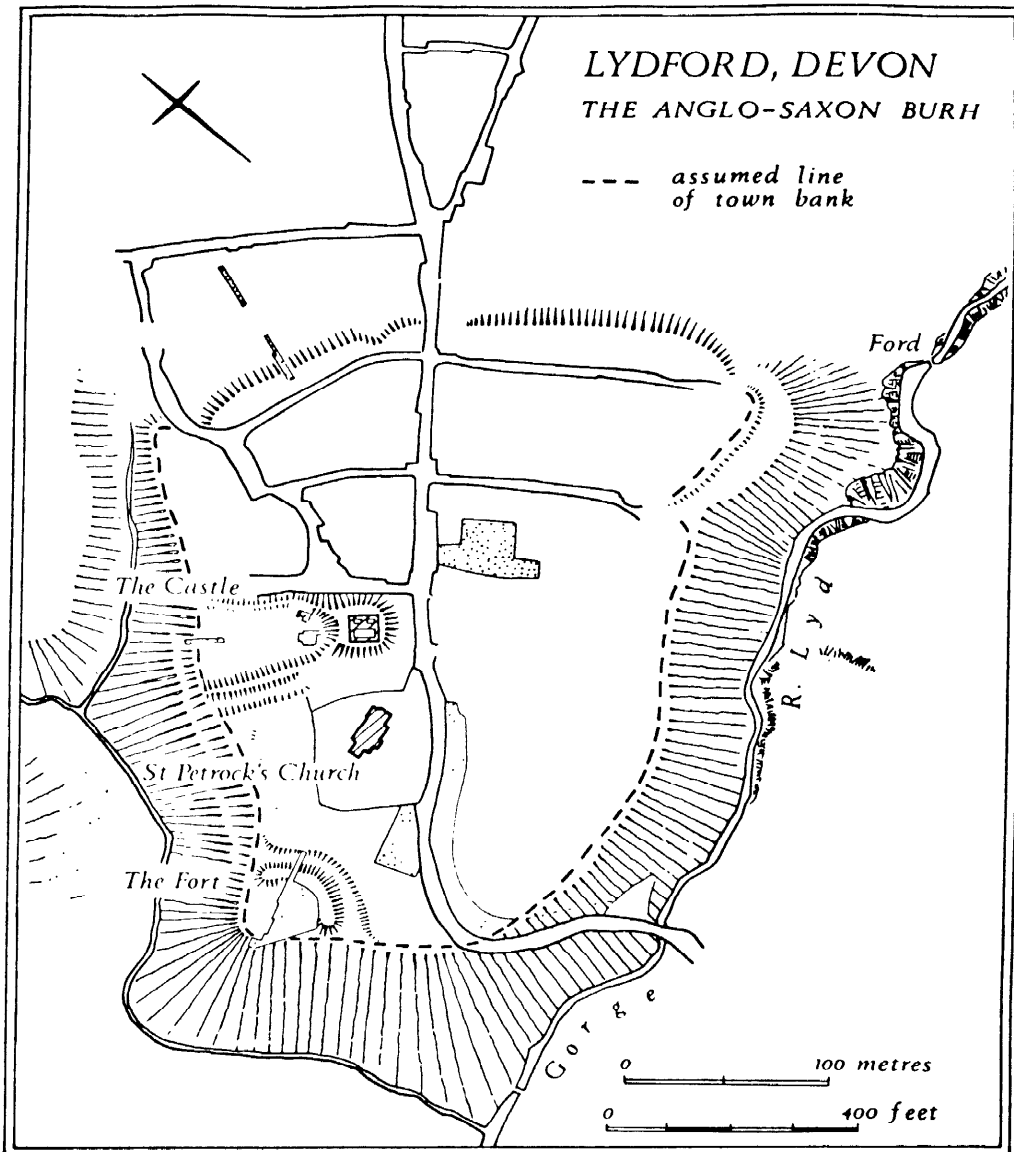
13   The streets of Lydford (Radford, 1970, Fig. 35, after Addyman)

parallel back street to the north of the main street; there are existing side-streets at right-angles to the main street and archaeological evidence for property divisions and paths on the same alignment; and there is a surviving wall street behind the eastern rampart which cuts off the neck of the promontory. This rampart was probably once continuous around the town, but there is no indication that the wall or intra-mural street continued beyond its present limits behind the most vulnerable defensive line. Hill's plan of Lyng (Fig. 14) shows the spine road, the side-streets at right-angles, and possible traces of an intra-mural street behind the cross-promontory rampart (Hill, 1967a). Here the back streets do not seem to have existed, and this may prove to be characteristic of the smaller places.

Those of the Wessex *burhs* of the late 9th century large enough to have been provided with a planned layout display a remarkably consistent pattern. Whatever the physical constraints of their site, whether within Roman walls, on a narrow promontory, or on an open unen-cumbered area, the same elements occur. It is not therefore surprising that the adjustments made perhaps in Athelstan's reign, when Barnstaple and Totnes seem to have replaced Pilton and Halwell, and Dorchester was refounded, appear to have followed much the same lines. It has also been suggested that the shift of Anglo-Saxon Southampton from *Hamwih* to a site on the western shore by the Test was marked by the setting out of a new plan sometime in the 10th century (Addyman, 1973, 227-8).

Bolt Moor Wall

A

A

B

D

Church Farm

A

C Church

C

B

B

LYNG

Note   Approximate Flood Plain Limits Stippled.
                              Feet
0   100   1000

D.R.S.
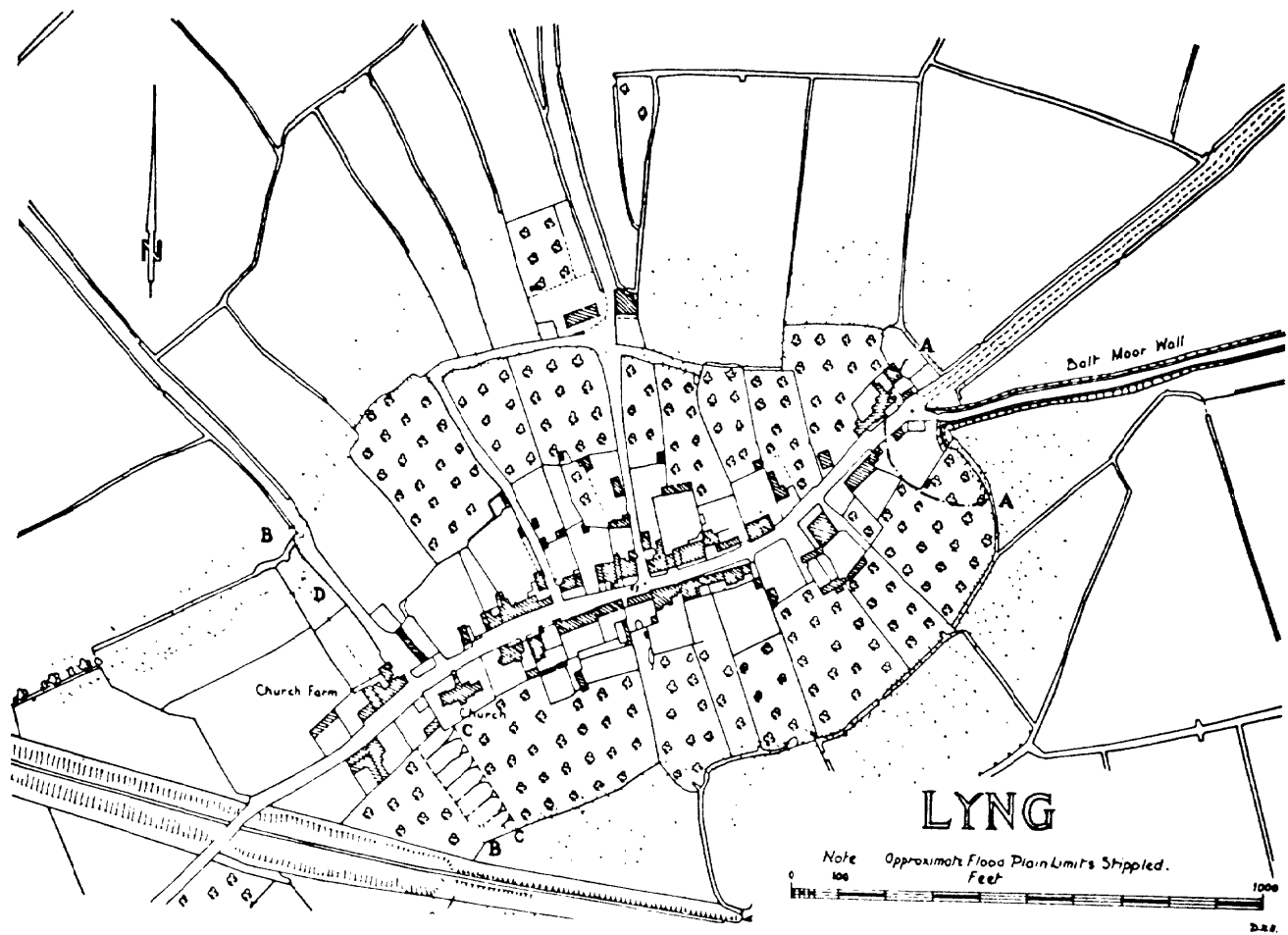
14   The streets of Lyng, Somerset (Hill, 1967A, Fig. 1)

The conquest of Mercia, the Danelaw, and finally Northumbria by Edward the Elder, Æthelflæd, Athelstan, and Edmund in the first four decades of the 10th century saw the construction of fortifications, both forts and fortified towns, throughout the rest of England. In some cases the rectilinear planning characteristic of the Wessex *burhs* appears in these later works. It has been suggested that this was the case at Colchester refounded in 917 (Biddle and Hill, 1971, 84, Fig. 3), but this has been questioned as a result of recent work (Crummy, 1974, 334) which suggests that the street system is not of one period but of several, and emphasizes the role played by relict features from the Roman period (Crummy, 1974, 26-9). Cambridge seems never to have been deliberately planned (Addyman and Biddle, 1965, 90-100). Stamford (Mahany, 1968), Bedford (Hill, 1970), and Nottingham (Barley, 1969; cf. discussion above) may all have received a degree of planned organization by Edward the Elder, but the evidence is still very imprecise. About the same time, and certainly by the reign of Athelstan, Norwich, it is now suggested, emerged as a defended town with streets and market place (Carter and Roberts, 1973; Carter, 1974, 5-6). What cannot yet be clear is whether this was the result of a natural evolution, or whether the construction of the postulated defences was accompanied by a deliberate re-organization of the enclosed area.

Westwards into Mercia the situation remains at present equally unclear. Recent work at Tamworth and Hereford has greatly increased our knowledge of the fortifications of the Æthelflædan period, but knowledge of internal planning has not kept pace. At Hereford, the 10th century extension of the defended area eastwards, and the nature of the street pattern within it, suggests that a planned layout accompanied the new fortifications (Shoesmith, 1974, map 1) (Fig. 9).

There are certainly more examples of Anglo-Saxon town planning of the later 10th and 11th centuries still awaiting identification and investigation, but the concentration of effort so far has been on Wessex and parts of Mercia and a great deal more work of considerable precision will be needed before some of the questions posed here can be answered. The smaller planned places, of which St Albans has been claimed as an example, have not been discussed, since there is no new evidence to add to the assumptions of earlier investigators (e.g. Page, 1920, 49-51). Nevertheless it may be fairly claimed that the work of the past decade has traced the development of the planned town in England back to the 9th and perhaps as far as the beginning of the 8th Century. The planned towns of the post-Conquest period can now be seen not as innovations but as the more perfect flowering of a long tradition.

Discussion

The discussion concentrated upon three main themes of the paper: the continuity question; the Danish boroughs; and the nature and background of the 9th-10th century planned *burhs* of Wessex.

Continuity. Several speakers emphasized the importance of the defended towns of the 4th century in providing a secure base for survival of occupation into the post-Roman period. There was need for a clear definition of 'settlement' in this context, and for an appreciation of the fact that continuity of settlement—of occupation, of inhabitation—need not imply continuity of urban conditions.

The Danish Boroughs: The paper's critique of the present state of knowledge of the Danish boroughs and their fortifications was accepted as a fair statement. The situation at Nottingham has been shown in recent excavations to be more complex than has previously been realized, and there seems to have been an enclosure earlier and smaller (?) than the so-called 'Anglian *burh*'. At Newark, where the rampart had previously been regarded as potentially pre-Conquest, a green-glazed sherd had recently been found under the bank. The nature of the Five Boroughs as Danish trading settlements was strongly convassed, and reference was made to the apparent burst of commercial activity in York in the 9th century. It seems probable that there may well have been different kinds of Danish fortified site, some purely military and others essentially commercial. Obviously, such varieties of function would require entirely different solutions on the ground and would vitally affect the kinds of site for which we should be looking.

The Wessex burhs: The first point emphasized was that the foundation of these *burhs* in the 880s was an important index of the hopes men had for their commercial and social not to mention military success: it was an index of contemporary 'urban expectations'.

There was a lengthy discussion on the town plans themselves: were they really so surprising? Reference was made to the regularity of plan now observable in rural settlements of the earlier Anglo-Saxons period. At Chalton, Hants, there were in the 7th century parallel rows of regularly laid-out buildings; at Sutton Courtenay early air-photographs indicated that the original layout of the village (now destroyed by gravel working,) had included regularly arranged timber buildings. Anglo-Saxon administrative arrangements also displayed the kind of orderly approach which seems reflected in regular and rectilinear town-planning. Such orderliness was reflected, for example, in the Midland shires, the hundreds of Norfolk, and perhaps the parishes of Bury St Edmunds. On a different level, fields and the organization of the strip system over immense acreages by the 7th or 8th centuries were a further indication not only of the ability to conceive orderly solutions, but also of the practical skills to bring them into being. In this context, the Anglo-Saxon planned town could be seen as a natural solution to the problems of urban foundation.

As a corrective to the view that rectangularity necessarily implied planning, it was pointed out that settlements that had never been planned (i.e. deliberately laid out at one moment) could also appear regular owing to the constraints imposed by natural or relict features acting as morphological frames: one might almost (but probably would prefer not to) coin the phrases 'rectilinear organic' and 'rectilinear planned'.

There was some discussion on the actual origins (as distinct from the general context) of planned towns. It was emphasized that early monasteries served some urban functions: Monkwearmouth and Jarrow in the 7th century provided the earliest cases of which sufficient was known to indicate, for example, the range of industrial activities and the size of the communities involved.

In discussion of the means by which urban populations were encouraged at the time of town foundations, it was suggested that too little attention had perhaps been

paid in the past to the rural artisan: the importance of the mill in the urban setting was, for example, only a change of degree, not of character. Urban communities and the grouping of religious houses simply encouraged in this instance a grouping of features that were normally found in isolation.

Lastly, on the question of the construction of a street system, it was pointed out that at Oxford, as at Winchester, there was evidence to show that the physical character of the surface of the earliest streets so far examined was similar from area to area of the town. This argued for a single operation carried out by a single authority within a short space of time.

The Evolution of Towns: Planted Towns after 1066

Lawrence Butler, MA, PhD, FSA

Summary

This paper examines the different types of plan evolving in England and Wales after 1066. It distinguishes between the large grid of more than twelve chequers and the small grid. Both types had a long currency, but grids greater than 20 chequers are rare. The single-street plan is often focused upon a castle or abbey: after 1120 more examples are centred upon a market place. Other varieties of plan both in shape and siting are examined. The existence of new towns in a cluster around a long-established town and the plantation of twin towns are briefly considered. Possible lines of study of the internal features are indicated.

Introduction

The study of town planning in medieval England generally uses three examples—Ludlow, New Sarum, and New Winchelsea—and from them draws the conclusion that any founder wishing to lay out a town on a new site used by preference a grid-iron or bastide pattern. By referring to the late 11th century Ludlow alongside the 13th century examples of Sarum and Winchelsea, this type of plan is thereby given the appearance of greater antiquity and greater universality. This impression is reinforced by referring to Edward I's town foundations in Wales, where the bastide plans of Flint, Conway, and Caernarvon can stand as type-sites together with their English counterparts.

However, the work of Beresford in England and Carter in Wales has shown how complex is the planning and functioning of the medieval town (Beresford, 1967, 142-178, 319-347; Carter, 1965, *passim*). The detailed examination by Conzen of both Ludlow and Conway has thrown doubt upon the opinions of earlier scholars, who saw these towns as the products of a single planning exercise (Conzen, 1968, 113-130). Beresford has discussed town planning in detail in his chapter *Beau Regard: or the Content of a New Town* (Beresford, 1967, 142-178) and this paper can be little more than a commentary upon some aspects of it.

The planted towns of the post-Conquest period have been listed chronologically by Beresford giving a total of 171 in England (Beresford, 1967, 637-641, omitting Falmouth) and of 83 in Wales *(ibid.,* 642-4, omitting Rhuddlan I). These totals are large enough to be a valid sample and small enough to be easily compre-hended. Taken in historical sequence the rate of foundation in England is steady until 1140 (average 6 per decade; total 47). After a decline in Stephen's reign the pace quickens slightly between 1151 and 1270

(average 8 per decade; total 98) with the greatest activity between 1191 and 1230 when the need of the Crown for money to finance the Crusade and the war in Normandy was heavy. After this, in contrast to the situation in Wales and Gascony, the rate of foundation slackens between 1271 and 1370 with 19 new towns (average 2 per decade). In Wales the rate of foundation is steady between 1070 and 1270 (average 2 per decade; total 45), though with two decades of greater activity 1231-1250 provoked by Welsh and English economic rivalry. The period of the Edwardian conquest is marked by intense activity, with 30 foundations in three decades, and then there is a sharp decline to one foundation per decade until 1350. It is necessary to consider whether these periods of heightened activity result in the adoption of an ideal plan or whether the physical features of a new town site are the determining factor.

Types of plan: The grid plan

England

The grid plan emerges as a common feature in England but it is by no means universal: "For every New Sarum, New Buckenham and New Malton there were six plantations whose plans had no affinity with the chess-board" (Beresford, 1967, 150). The total of grid-plans listed by Beresford is 26, and these range in date from New Romney (founded by 960) to New Winchelsea (1288). There is also a range in scale from the great, such as Winchelsea and Sarum, to the small, as at Church Brough and Bishop's Castle. However it is difficult to accept that Bishop's Castle (Fig. 18a), where a single
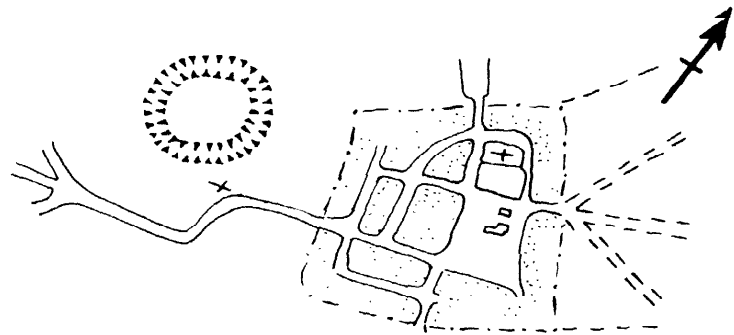
a. R y e
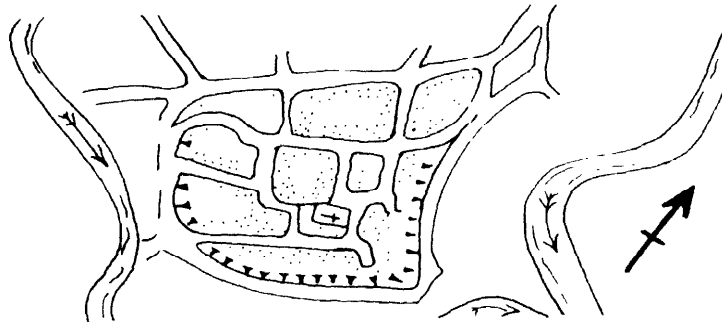
b. Shoreham
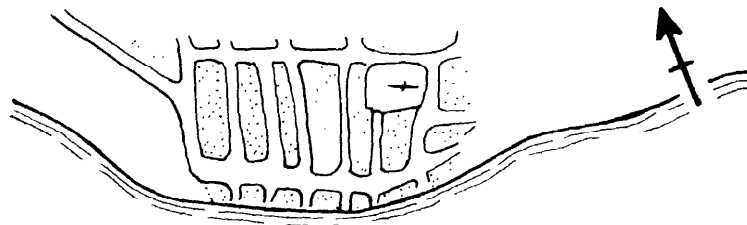
c. Hedon
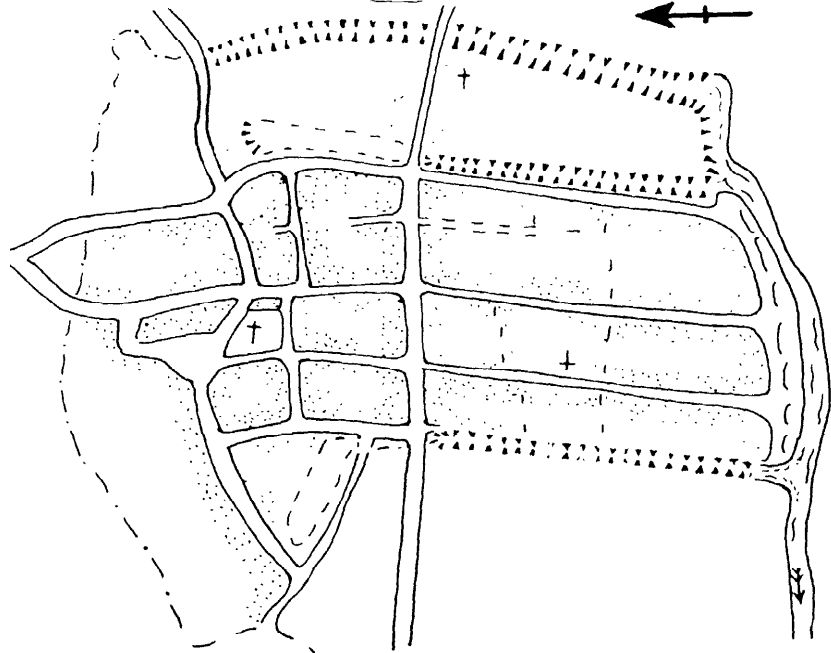
15   The large grid, 1060-1140

   *(Note: The plans in figs. 15-24 are based on Ordnance
   Survey maps and earlier map evidence and are reproduced
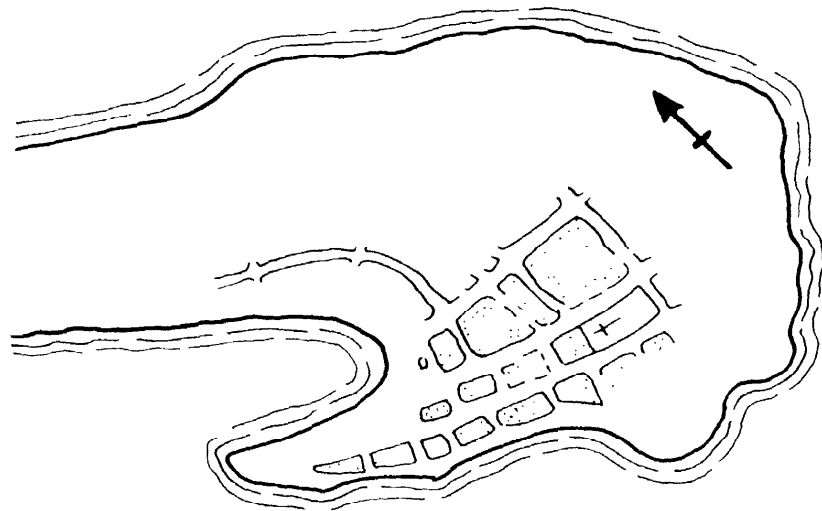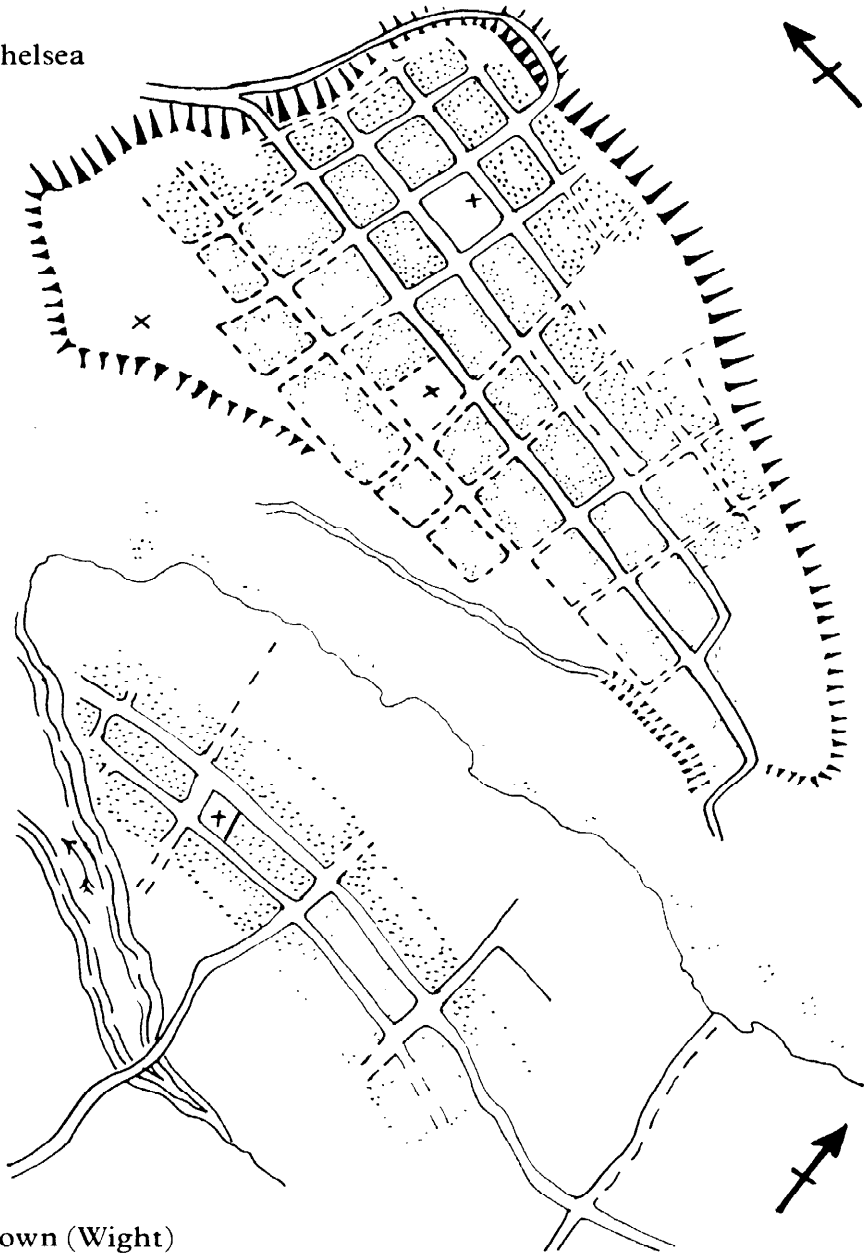   at a scale of 1:10,000)*

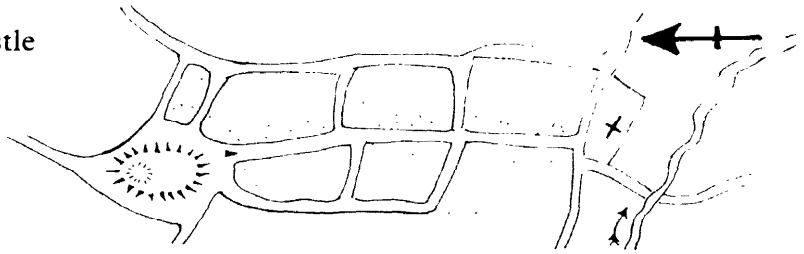a. Newport (Wight)
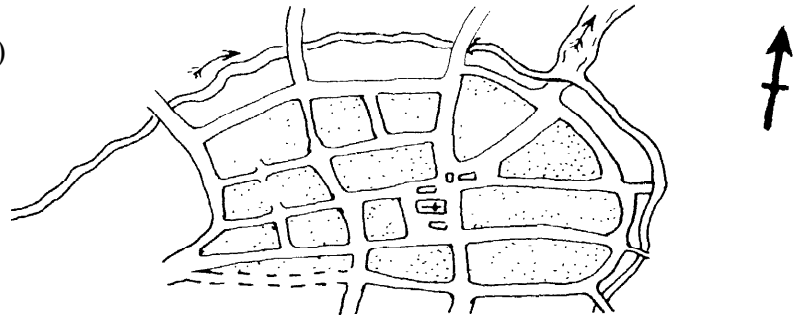
b. New Buckenham

c. Hartlepool

16   *The large grid, 1141-1270*
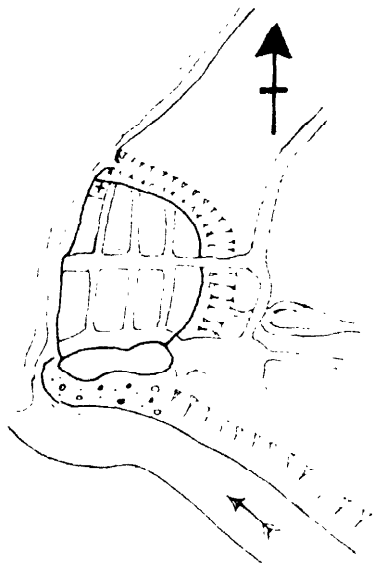
a.   Winchelsea

b.   Newtown (Wight)

17   The large grid, 1271-1350

a. Bishop's Castle

b. Montgomery

c. Ludlow

d. Caernarvon

18   The castle town, with grid plan

a.   Arundel

b.   St. Albans

19   Towns with focus on castle or abbey
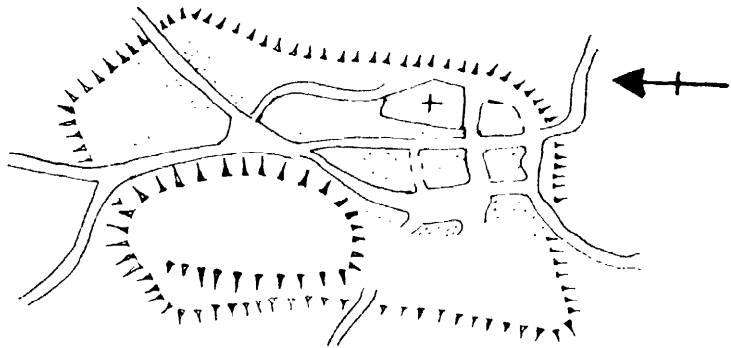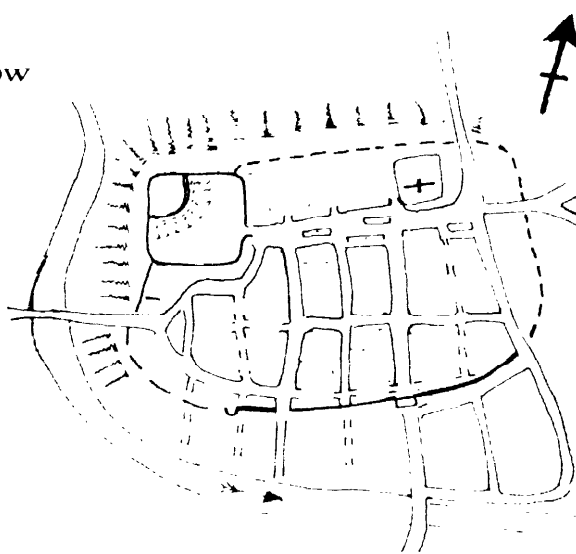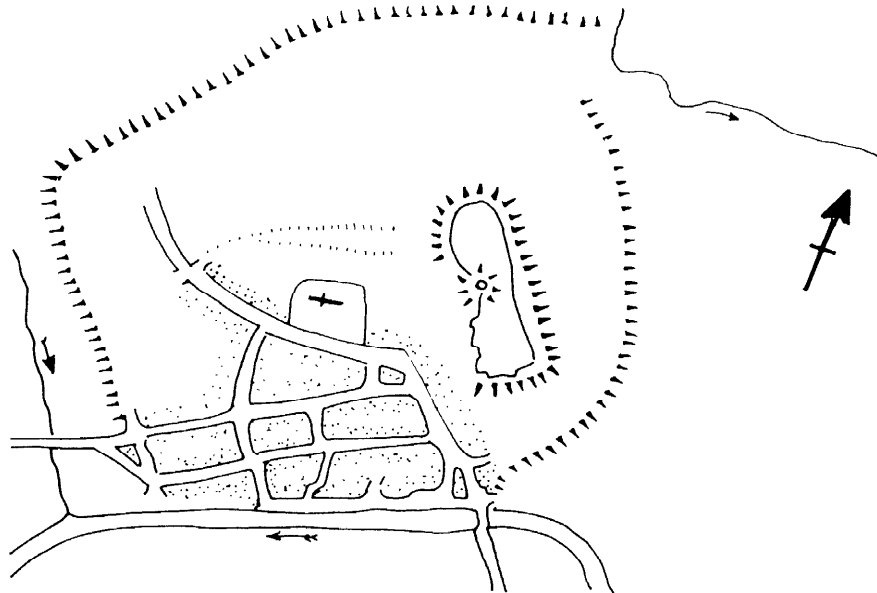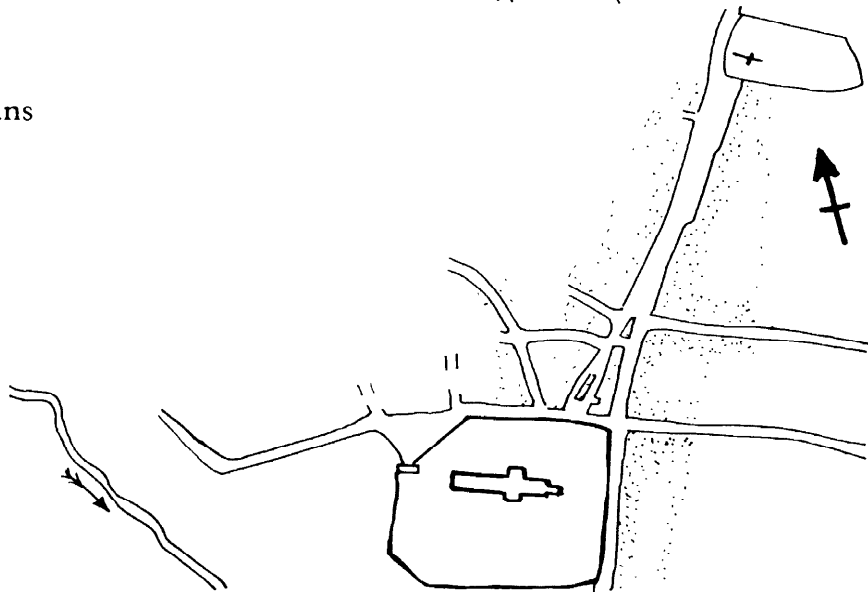
street runs downhill from the castle to the church, possesses a true grid plan. Two back lanes run parallel to the main street; there are no streets outside this envelope. The east-west cross streets are not convincingly medieval. Church Brough is an equally doubtful case and certainly does not bear the claims made for it by Simpson (1946, 229-232). Towns of this size, despite the regularity of their plan, should not be considered as establishing a complete grid.

The criteria for a grid plan must be that it possesses at least three streets of equal importance in each direction and at least nine chequers (quarters or   *insulae).* If this definition is accepted, planted towns can be seen to conform to two plan types: the small compact grid of mine or twelve chequers and the broadly conceived grid capable of expansion in its longest axis to 20 or 30 chequers. Two caveats must be made. The first is that the date of the foundation of the town may precede by some decades the date of the establishment of the grid pattern, which itself may be part of a gradual process of expansion. This may be the case at New Romney. The second is that the use of modern (i.e. post-1600) street plans to understand medieval planning is as fraught with difficulty and pitfalls as the practice of using Tithe Award and Inclosure Award plans for under-standing village origins. Only where a physical feature such as a precipice or an extent of marshland has limited growth can the medieval limits of the town be assumed with confidence; where a town has received defences there is clear evidence of the limits set to a town's expansion, but only at the period when the defences were built and only for as long as they were maintained out of necessity.

Period 1: 1060-1140
Five towns of pre-1140 foundation exhibit the large grid. New Romney of twelve quarters is placed on a level elongated east-west axis roughly bounded by marshes; Rye (Fig. 15a) of twelve quarters is an urban island on a compact hill top bounded by an abrupt minor cliff; Ludlow (Fig. 18c), of probably eighteen quarters, is set on a gentle ridge-slope in a river loop; Shoreham (Fig. 15b) of twelve quarters is on a shelving estuary site and Hedon (Fig. 15c) of fifteen quarters is placed on a gentle slope surrounded on three sides by artificial havens near a tidal inlet. Only at Ludlow is the market place prominent in the plan; Hedon has a small triangular market area on high ground north of the church. The other three used their quaysides as a market substitute or used their High Streets, barely distinguishable from the other streets by any greater width. The church is the dominant feature, occupying the highest ground, using the major part of a chequer. Only at Ludlow, the one   'castle-town' in this group, does the need for defence affect the town's siting and even there the church stands beside the main approach from the north and east (Conzen, 1968).

Period 2: 1141-1270
In towns of the middle period there is a greater degree of similarity, with compact grids often on on naturally constricted and thus defensible sites. Melcombe Regis (Fig. 23a), Hartlepool (Fig. 16c). Newport, IoW (Fig. 16a). Yarmouth, IoW, Portsmouth, and Liverpool are on constricted sites. By contrast New Buckenham (Fig. 16b) and Wokingham are set on heathland. In all these towns the grid is compact and there is a similarity in the surface area. The market is not promin-ent except in New Buckenham, where it occupies a

complete chequer, and in Newport, where it is a half-chequer; in the other towns it must be assumed that the High Street or the quay side was used for the market. The church, where it existed, occupies a half-chequer or less, but is not dominantly sited.

Two towns in this period are conceived far more generously: New Sarum and Newtown, IoW. The plan of Sarum is well known with its spacious market, the two churches within the town and a third just outside, the twenty chequers, and the cathedral in its close. Yet the plan departs from strict rectangularity, particularly in the east-west streets, and the chequers show con-siderable variation in size; the factors which influenced this, such as drainage and the prior existence of Milford village, cannot be precisely determined. Newtown, IoW (Fig. 17b) was probably conceived with fifteen chequers, but within the confines of the salt marshes of the western estuary could have expanded to 21. Apart from its potential size, this town is closer in character and siting to Shoreham and Romney with a single central chapel, no prominent market place. and streets of roughly equal width. It is uncertain whether the plan is that of 1255-6, the new town of Bishop Aymer of Winchester, or of 1284-5, the 'Free Town' of Edward I.

Period 3: 1271-1350
The only town of grid plan in the later period is New Winchelsea (Fig. 17a). It covers a surface area similar in size to Newtown, IoW, but was planned much more like Sarum, with 39 chequers of fairly regular size, adequate provision of churches, and little space for a market. The earlier existence of Iham does not greatly affect the plan. These features in the plan are in contrast to most bastide plans of southern France.

Two further towns for which a regular grid plan has been claimed are King's Lynn and Kingston-upon-Hull; in both of these an earlier street pattern reflecting the sinuous course of the river bank has been the point of departure for urban planning, and so these towns are discussed with those of similar plan (below, p. 46).

Wales

Period 1: 1060-1140
In Wales the greater prevalence of the grid plan is largely explained by the large number of late 13th century towns founded by Edward I and his barons (Beresford, 1967, 150-1), but the grid is even there more often based on two main streets rather than on a framework with a number of streets of equal impor-trance. Within the towns of the early period none of the seven with a rectangular plan exhibits a clear grid. Cardiff has a single main street running from the castle gate to the priory church of St Mary along a narrow promontory above the Taff. Cartmarthen is similar though more complex with two parallel main streets meeting at St Peter's and with a market place outside the castle gate. Tenby has a curving main street running along the cliff top to the castle peninsula, though there is a later planned element on the north enclosed by the late medieval town wall. Chepstow has a main street broadening to a market area as it climbs the steep hillside above the Wye.

Period 2: 1141-1270
The six examples in the middle period possess more convincing grid plans, but they are small in scale, often with only four to eight chequers. Caersws, New Radnor,

and the two Newports (Mon. and Pemb.) would fit a grid plan. Welshpool resembles Chepstow, with a single main street flanked by back lanes and divided by incipient cross streets. Montgomery (Fig. 18b) possesses as straight a grid of streets as the east-facing slope will allow.

Period 3: 1271-1350
The Edwardian towns are more of an entity in their planning. The castle is the dominant factor in most of them, and wherever possible the town provides an additional line of defence by protecting the weakest side. This may be accidental in that the weakest side had the flattest ground or the gentlest slope, but a case like Denbigh shows how awkwardly the town might be placed in order to provide the necessary shield. The unitary castle-towns with a clear grid plan are Aberystwyth, Flint, Rhuddlan, Conway, Caernarvon, and Beaumaris founded between 1277 and 1295; Holt and Overton are close to their castles, and Llanidloes, Newtown (Mont.), and Rhaiadr had castles which probably influenced both the choice of site and the planning of the town. At Castell-y-Bere there is no trace of the town, and the possibility that some towns may have been placed in the outer bailey of the castle (as at Bere, Cefnllys, and Dolforwyn) needs to be ascertained by excavation. Caerwys and Newborough are foundations without any military presence. All these towns are on a much smaller scale when compared with their English counterparts and have a simpler street plan. Their market functions are seldom cleared stated, often no more than a slightly broader main street (Overton, Flint) or a modest setting-back of houses at the main cross-roads (Aberystwyth, Llanidloes). Only Conway has a small market place at the dog-leg junction of east-west streets from the Upper Gate and the Lower (Sea) Gate. At Caernarvon (Fig. 18d) the market was apparently held outside the watts, presumably because space was at a premium.

Types of plan: 'The market-based plan

England

The second main type of plan is the non-gridded market-based plan. Contrasting it with the grid plan Beresford comments: "The non-gridded English towns, on the other hand, display a much lower level of ambition. When the plots alongside the market place were taken up, then founder's plan was completed and, if the town was walled, any further expansion was virtually ruled out" (Beresford. 1967, 154). With this type of plan it is difficult to see well defined stages of development without minute examination of individual towns. All the variations of plan and development are present from the Norman Conquest. but external political considerations narrow the balance of possibilities.

Period 1: 1060-1140
The earliest stage of development is of towns which possess a dominant seigneurial focus, either a castle or an abbey. The main street runs from its gates: the market may be a triangular area at the gates or it may be a cigar-shaped swelling midway along the street. Of the 47 English towns founded before 1140, 32 are non-gridded, but of varying type. Battle and Wymondham have a triangular market at the abbey gate; New

Windsor has one at the castle gate, and Newcastle-upon-Tyne has a broad market street curving uphill north-wards from the castle. St Albans (Fig. 19b) is similar to these, but the date of origin for this plan is uncertain though the monastic chronicle suggests circa 950. Arundel (Fig. 19a) has a market place at the river crossing dominated by the Norman castle. Pontefract has a straight broad street (Micklegate) running westwards from the castle gate; Clitheroe is similar. Tickhill is more complicated, probably as a result of gradual evolution and is considered more fully (below, p. 47). At Appleby and Barnard Castle the market-street is not so closely based on the castle and creates a separate street pattern. All these towns are market-based but not market-focused in that they rely on a military or ecclesiastical sponsor to influence their siting and to dictate their development.

After 1100 two trends are apparent: the first is the town attached in limpet fashion to a previously existing through-route, as at Dunstable (*c.* 1119) and Watford (1119-46); the second is the town speculatively founded to generate or to capture trade, and the towns of Newborough (Staffs.) and St Ives (Hunts.) are of this type. The plan of St Ives was a broad market-cum-quayside half a mite long with a row of houses north of it. This is hardly the lower level of ambition that Beresford suggests, but a keen awareness of the potentiality of the Fenland river network. The cigar-shaped market town appears for the first time at Newport (Salop). founded 1129-35. with its gently curving market place echoing the shape of the former mere beside which the town was placed.
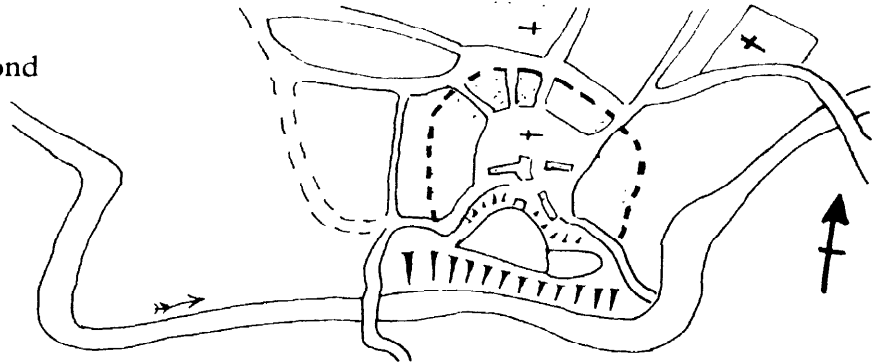
Period 2: 1141-1270
There is a large number of foundations in this period and it is easier to isolate the main trends in planning if the period is divided into an earlier half before 1200 (48 foundations) and a later half (54 foundations). In the earlier half, towns continued to be founded along-side castles. as at Newcastle-under-Lyme, New Brackley, Mountsorrel, Pleshey, Castleton (Derbys.), and Caus. After 1200 few entirely new castles were built and only Longtown (Herefords.) is a new town defended by its castle; even here the origins of town and castle may lie in the 12th century. Boscastle and Pevensey are more concerned with the development of a coastal inlet or a river mouth and less desirous of sheltering beneath earlier defences.
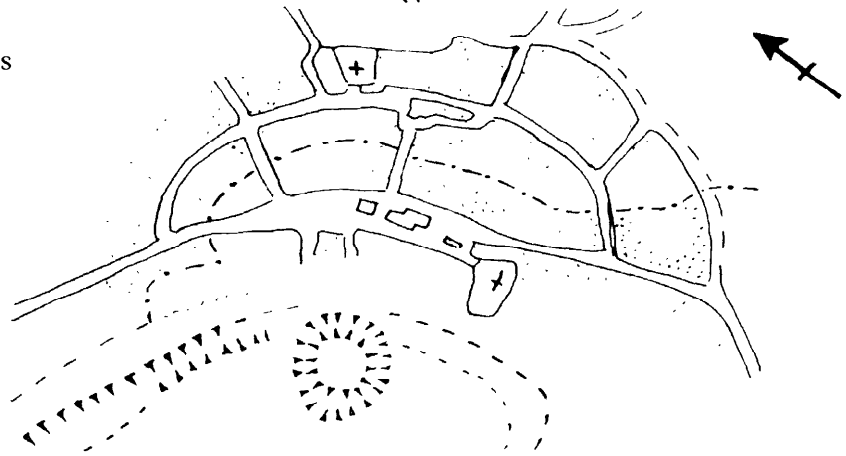
The late 12th century is a period of considerable economic expansion and new boroughs are founded to profit from trade flowing along existing routes, to develop new routes and to establish new ports. Royston, Baldock, and Market Brough are placed on existing routes of Roman origin. widening the road to create a market place; Boroughbridge, Bawtry, and New Alresford establish a new alignment for an ancient road to make the market place more attractive to merchants. At Stockbridge a new causeway or 'Street' is built across the Test valley to improve the market facilities. At Alnmouth (Fig. 21b) and Wyke-upon-Hull new ports are established. In all these towns the plan is dependent upon the dominant feature, whether it be main road, river crossing. or market place. There is little development beyond the parcel of burgage plots either side of the roads.

In the early 13th century all these trends continue. There are new single-street towns at Stony Stratford, Wulvesford, Moreton-in-the-Marsh, and Newmarket; roads are realigned to capture trade at Chipping Sodbury,
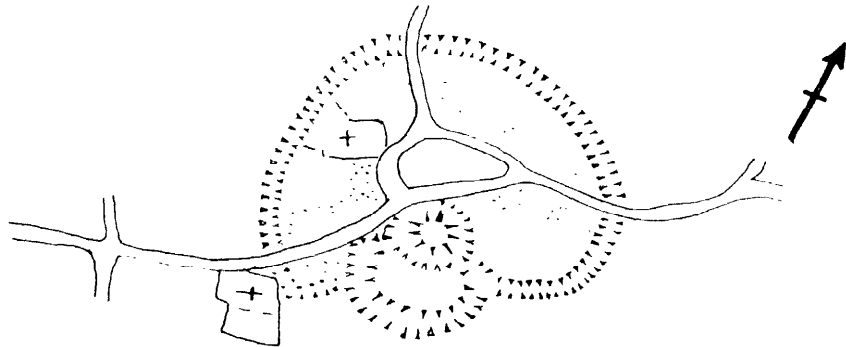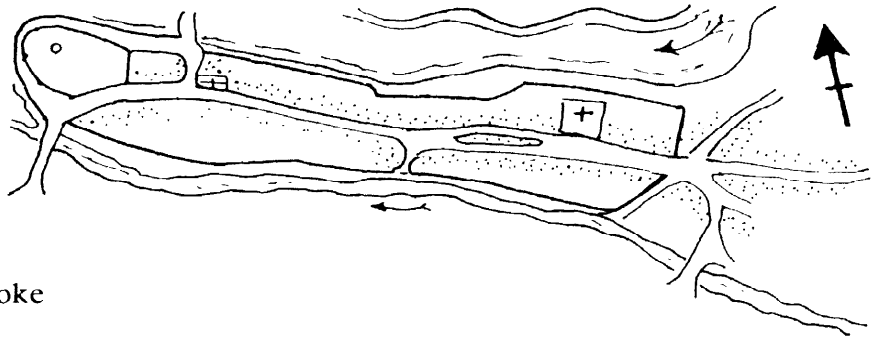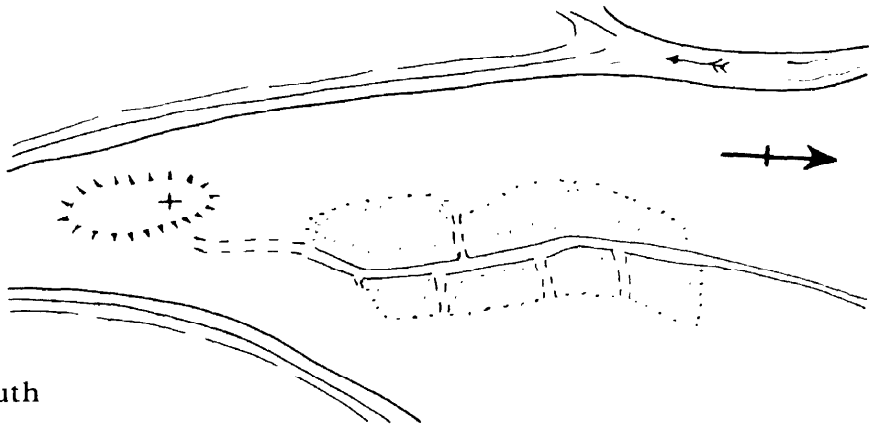
a. **Richmond**
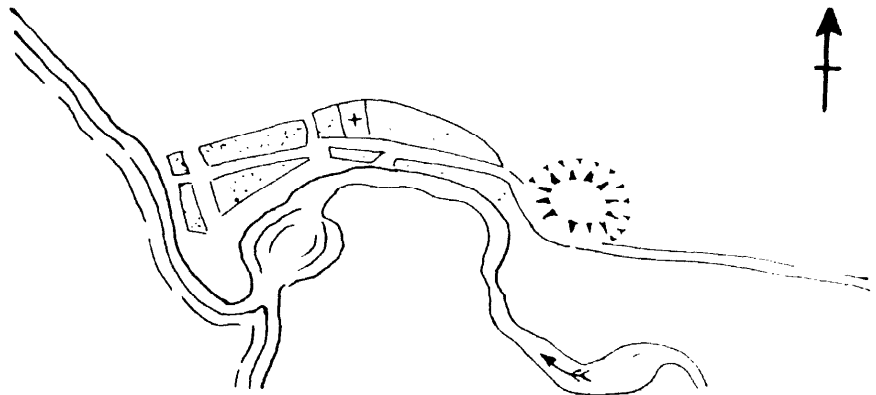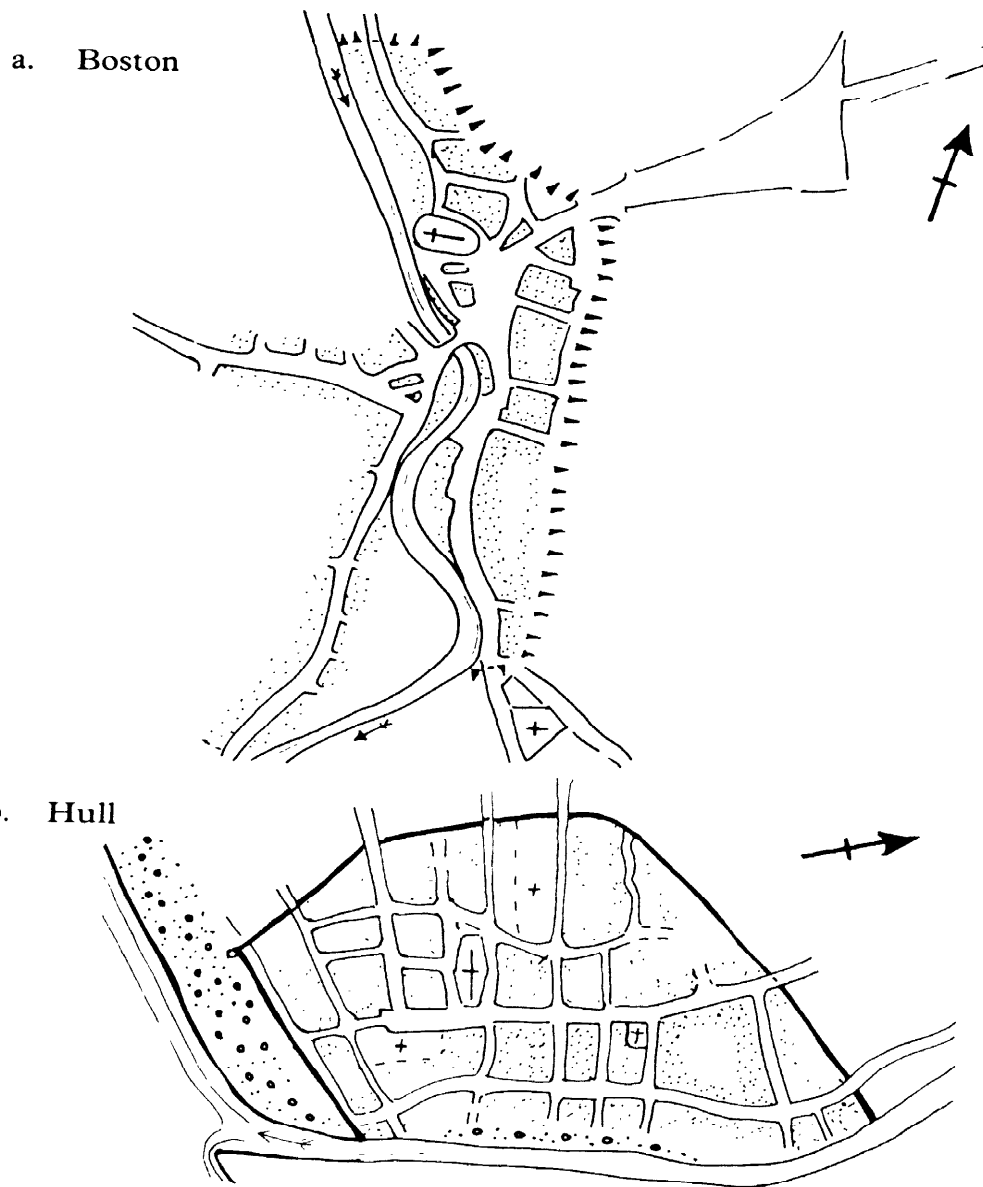
b. **Devizes**

c. **Pleshey**

20   Towns with semicircular plan

a. Pembroke

b. Alnmouth

c. Queenborough

21   Towns on peninsula site

a. **Boston**

b. **Hull**

22   Towns on sinuous river bank
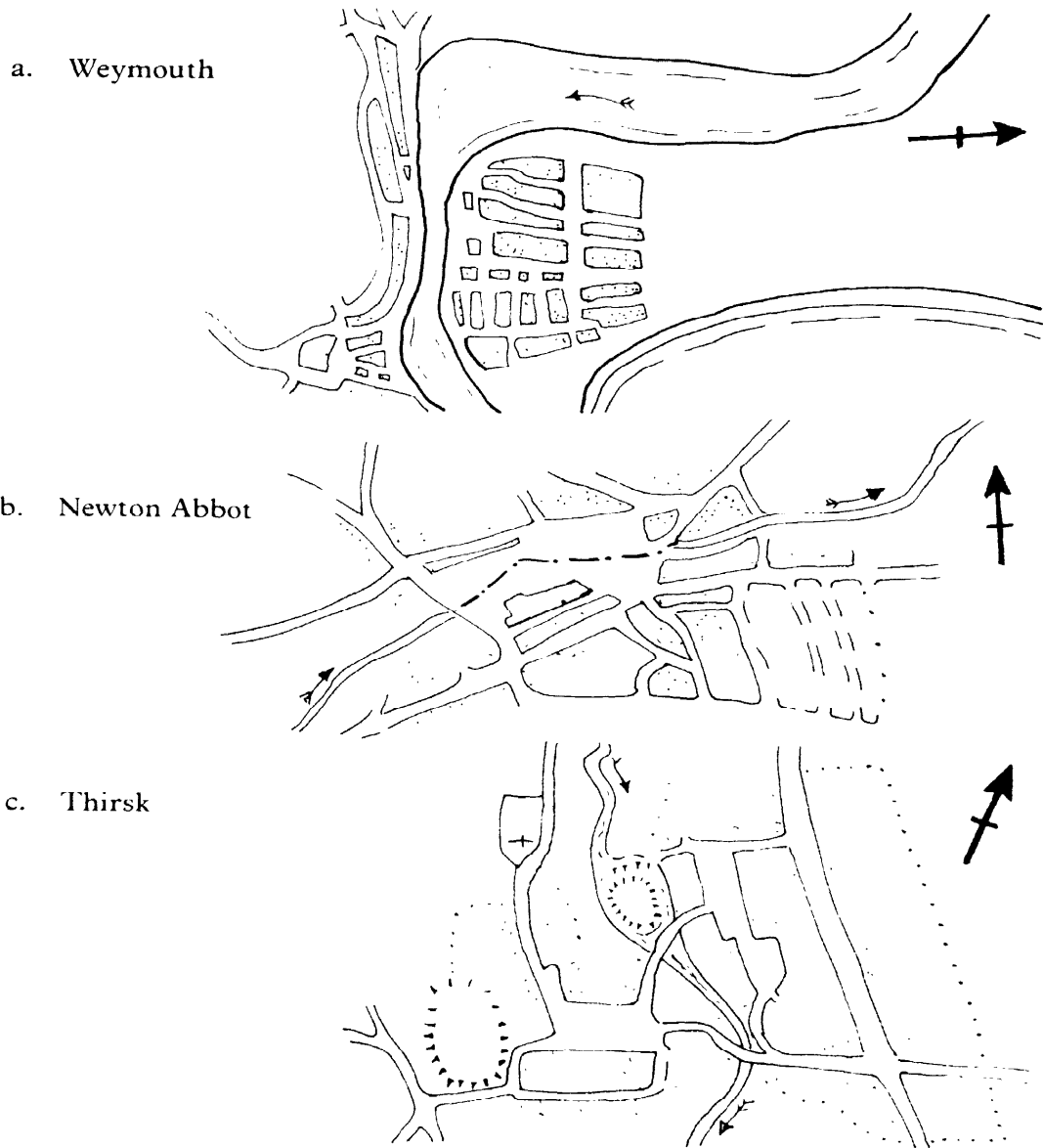
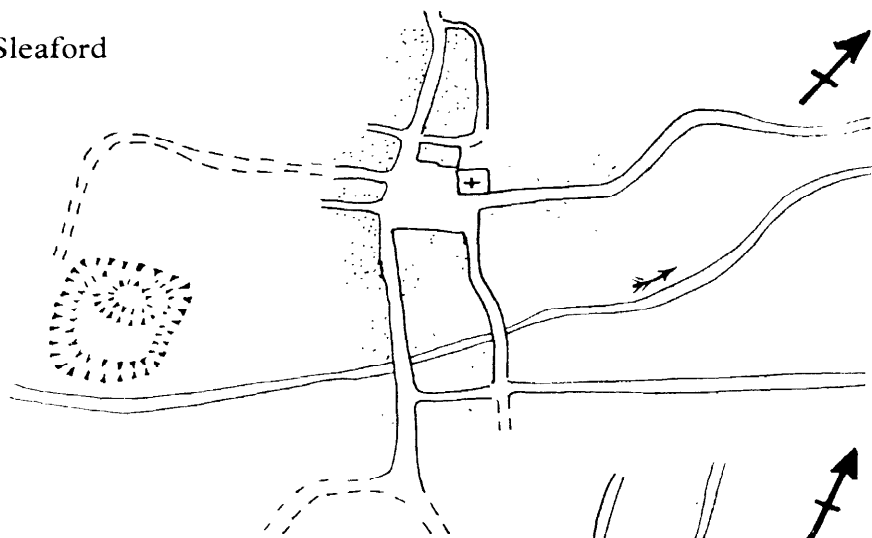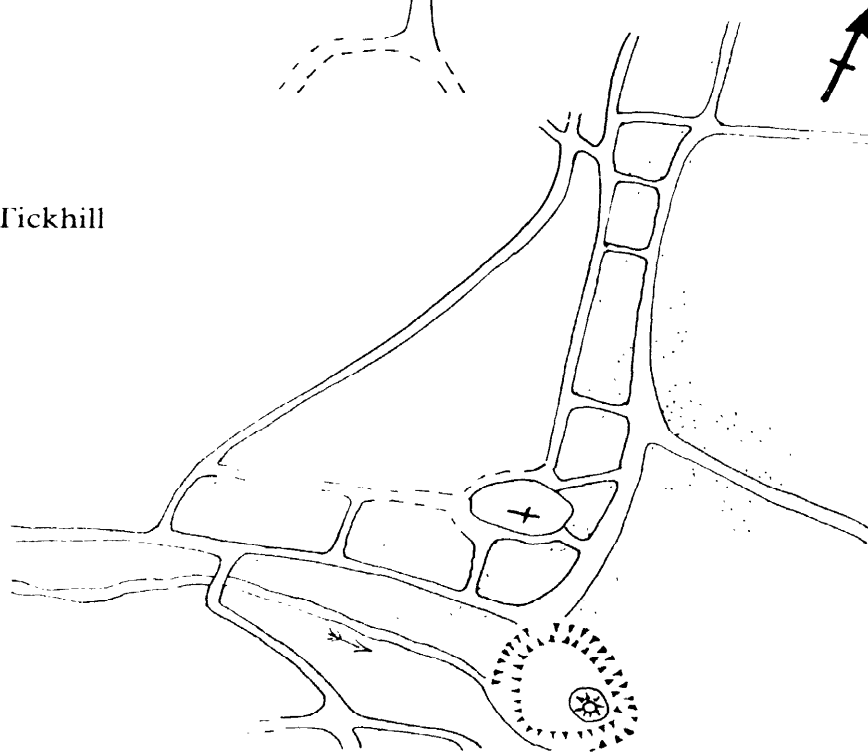*23 Twin towns: a. Weymouth (south bank) and Melcombe Regis; b. Newton Abbot (south bank) and Newton Bushel; c. Thirsk—Old (west bank) and New*

a.   Sleaford

b.   Tickhill

24   Linear development, with incomplete grid

Market Harborough, Chelmsford, and the ambitiously planned Stratford-upon-Avon (Carus-Wilson, 1965, 46-63). Fords and bridges continue to act as focal points as at Colyford, Camelford, and Kingsbridge in addition to Stratford-upon-Avon. New ports are established and grow successfully at Liverpool, Weymouth (Fig. 23a), and Harwich, or else sink into oblivion at Ravenserodd, Flookburgh, and Warenmouth.

Period 3: 1271-1368

After 1270 the pace slackens and only seven teen new foundations are made. The economic stagnation is more marked and the best sites for towns have already been selected (Buntingford and Penzance are the exceptions). New towns arise at bridge crossings, as at Grampound (or *Grandis Pons)* and Wadebridge, or on the coast as ports prompted by the need for further outlet points in a terrain ill-served by roads, as at Polruan and Skinburgh. The final medieval foundation, Queenborough in Sheppey (Fig. 21c), was established in 1368 to protect trade in the Medway estuary from French attacks; the castle stands on the landward side, but the site is so constricted by the estuary, the saltings, and the marsh-land that only a single-street plan can be adopted.

Wales

Period 1: 1060-1140

In the twenty towns founded in Wales before 1140, the importance of the castle is supreme. Some towns shelter closely beneath its walls, as at Old Radnor and Builth, others have their defences integrated with those of the castle, as at Old Kidwelly and Rhuddlan. A few towns lie near the castle but not influenced by its siting, as at Brecon and Haverfordwest. Only at Cowbridge and New Kidwelly is a new town based on a main street and set more than half a mile away from the adjacent castles of St Quentins and Kidwelly respectively.

Period 2: 1141-1270

The castle town remains the predominant form with simple plans based on a single main street or a junction. The growth of many towns was stunted because they continued to depend in the castle rather than choosing to abandon the fortified hill top for the trade passing along the valley floor, as at Newcastle replaced by Bridgend (Glamorgan) or much later at Denbigh. Another hazard is illustrated at Kenfig, where first the estuary and then the town was overwhelmed by sand dunes in the later middle ages.

Period 3: 1271-1350

In Wales the non-gridded towns total 23 out of 37 foundations. These show a variety of plan similar to that observed in England: the straight market street at the bridge crossing, as at Bala and Lampeter; the slightly curving street as at Newcastle Emlyn and Llandovery; the small ports as at Pwllheli, Nefyn, and New Mostyn; the hill-top towns with a clearly defined market place as at Ruthin and Llandeilo. The English counterpart of these two last-named towns is New Woodstock, where the market-place is also set apart from the through-route and not upon it.

Types of plan: The round plan

At three towns in England the shape of the castle defences was deliberately allowed to influence the shape of the town's market place and so to modify the street plan. In Richmond, Yorks. (Fig. 20a), founded *c.* 1109-14, the market is semi-circular with its two most important streets leading to the town gates under the surveillance of the castle and with two minor streets leading to the back lane, which ran just outside the town's defences. The intramural road is seldom found in English towns. A chapel was later established in the market place, but the parish church and other ecclesiastical foundations lay beyond the defences. In Devizes (Fig. 20b), founded 1135-9, the market is also semi-circular with two streets (Northgate Street and Long Street) leading from the extremities of the market place and a third street (The Brittox) leading out eastwards over the town defences. The church of St John lies south of the market, separate from it and from Long Street. The pattern was then repeated with the expansion of the town beyond the defences; this possessed its own much smaller market place with two streets (New Park Street and Sheep Street) leading from the extremities of the market and four streets radiating from the eastern side. The church of St Mary occupies a burgage plot on the outer side of Market Street. This sequence of growth seems to be more convincing than the suggestion that the outer semi-circle preceded the inner one. At Pleshey (Fig. 20c), founded   *c.* 1130, the defences of the town form a great semicircle on the north side of the castle, but there is insufficient evidence for a semi-circular market place and it may well be that the enlarged junction of the cast-west street with the north street served as the market space.

Other influences

The basic plan for the town in England and Wales is either the grid of streets or a single market-based street. Either form can be imposed upon the available terrain, though level ground or evenly sloping ground is the most desirable. The grid can show considerable gradation in size from the small grid of a main cross-roads and the associated back lanes to the large grid of fifteen or more chequers with room for further expansion. The market-based street is a much more primitive form and readily lends itself to ridge-top settlements, to the approach road to fords and bridges, and to quaysides along canalized or artificially straighten-ed rivers. In addition to the round plan already men-tioned, two sets of circumstances may modify the basic plan: the presence of a peninsula and siting on a sinuous river bank.

The choice of a naturally formed peninsula for a town site, or more frequently for a castle whose owners then founded a town at its gates, presents a special problem in town planning. Where the peninsula lies in the loop of a river, the castle may either be placed on the bank of the river to command a crossing place as at Barnard Castle, or at the neck of the loop to control access to the peninsula as at Durham, Appleby, and Warkworth. At Appleby and Warkworth the town lies on the low ground beneath the castle and the market street is entered by unobtrusive side streets from the bridging points. At Durham the cathedral monastery occupies the peninsula and the market is placed on the high ground outside the north of the castle. A   *forum* is mentioned

as early as 1040, but its precise location is unknown. The cramped position of the borough with only one easy approach route (Claypath) along the ridge led to the development of secondary boroughs at Elvet with a single market street and at St Giles.

The peninsula created by a water defence or estuary often hinders the development of a grid plan. Pembroke (Fig. 21a) with its castle at the extremity of a low-lying peninsula, Alnmouth (Fig. 21b) with the church of St Waleric on the highest point of a gradually rising promontory, and Queenborough (Fig. 21c) with the castle at the landward end of the peninsula all show a single street flanked by houses and display only slight opportunity for cross streets and back lanes. Where the peninsulas are broader and the economic pressures for a regular plan are stronger, there is a modest grid development, as at Melcombe Regis, Poole, Harwich, and Hartlepool; the last two stand within a walled defence.

Like the peninsula development, a sinuous river bank may dictate the line which a main street should take. Where the valley is narrow, as at East and West Looe, or the river runs in a deep gorge, as at North Shields, the area available for urban settlement is constructed. At other ports the influence of the river may be detected: King's Lynn, Boston, and Kingston-upon-Hull show the early line of a main street following the river bank. At Boston (Fig. 22a) urban growth took place alongside the east bank of the Witham and from the market in Bargate in a direction at right-angles to the river; later settlement spread to the west bank. In King's Lynn and Hull the early line was augmented by a grid plan, which encouraged the gradual expansion of the town with new market places. At Lynn the sequence of expansion on to the 'New Land' on the north around St Nicholas's Chapel and the Tuesday market place and into South Lynn around All Saints Church has long been known to historians. At Hull (Fig. 22b) the pattern of expansion and the relationship between Myton, Wyke, and Kingston is still problematical, though excavation is beginning to understand better the early history of High Street. A failed borough, Airmyn, at the junction of the Aire and the Ouse, shows the first stage in such a development with a main and only street following the curving river bank.

Twin towns

Two further categories of town plan need to be examined: the twin towns and the secondary quasi-independent boroughs adjoining an existing town. Do these towns deliberately imitate the earlier foundation or do the plans differ through the wishes of the founder or the nature of the terrain? Certainly the profits accruing to the lord who founded a town were sufficiently attractive to encourage numerous imitations of the successful towns. Sometimes these imitations took the form of a second settlement within a separate lordship in close proximity to an existing town. The best examples of this are the cluster around Totnes: Bridgetown Pomeroy, North Ford, and Little Totnes are single-street developments on the approach routes to Totnes. The twin towns of Kingsbridge and its partner Dodbrooke and of Newton Abbot with Newton Bushel have been discussed (Beresford, 1967, 244-6. 423-4). Kingsbridge and Dodbrooke took the form of long single-street settlements running down the hill slope to the bridge, the terrain dictating the similarity of their form. Far more interesting is Newton Abbot (Fig. 23b),

placed where the Exeter-Totnes road crosses a side valley of the Teign estuary. The two towns were separated by the river Lemon; they each possessed a market (now coalesced), a back street behind the market shops, and then side streets climbing from the valley floor. However, they both show sufficient similarity to suggest that the northern Newton Bushel of 1246 consciously imitated Newton Abbot founded half-a-century earlier. The same processes were taking place in the organic towns with bridge-end growth (Huntingdon and Godmanchester), with extra-mural clusters (Hereford), or with twin towns the French and English boroughs in Nottingham).

Other instances of town plantation in duplicate are either cases of suburban growth accorded separate borough status (Durham and Pontefract), or of transference due to natural disadvantages and increased economic pressures. The suburban growth at Durham caused the addition of Elvet and dignified the growth at Gilesgate as a borough for the benefit of Kepier Hospital. The early nucleus at Pontefract was augmented by a borough extension of entirely different plan: the earlier town market in Micklegate along the ridge-top west of the castle received additionally a great rectangular market place (West Cheap) just outside the Norman borough's defences (Beresford, 1967, 160). This market is then built around, the house plots have bath lanes such as The Headlands, and the market is infilled with a chapel of St Giles and permanent stalls, such as Salter Row. Other examples of this same process of expansion are the addition of the market street of Briggate in 1207 to the much earlier Leeds (Yorks.), of Penkneth in 1268 to Lostwithiel, of New Thirsk to Old Thirsk (Fig. 23c) separated only by the Cod Beck, of New Thame to Old, of Newport to Barnstaple and the minor trio of Eynsham Newland (Oxon.), Sherborne Newland (Dorset), and Warkworth Newton (Northumberland). Some adjacent towns might be intended as rivals for the same trade either overland as at Mitford and Morpeth, Nether Weare and Rackley, Adpar and Newcastle Emlyn, or seaborne as at Weymouth and Melcombe Regis (Fig. 23a). Replacements in a more favourable geographical position may be seen in the movement of Dynevor to Newton and then to Llandeilo, of Trematon to Saltash, and the new locations for Brough in Westmorland. The accidents of storm damage on the south coast caused resiting at Romney, Hythe, Hastings, and, most spectacularly, Winchelsea.

More than a dozen towns in England were split between two or more parishes and four were split between two counties, but apart from the occasional provision of two chapels there is no strong evidence of contrasting developments, except possibly in Stony Stratford and Newmarket (Suffolk). The division between parishes is often an indication of the way in which towns were founded astride roads which existed before the boundaries were drawn or were set upon heaths and common which were the waste land beyond arable cultivation, as at New Eagle. Occasionally the towns were placed upon the selions of the arable land, and there is some evidence of this at Bury St Edmunds, New Shoreham, Knutsford, and New Kington (Herefords.).

The density of settlement

The plans used to illustrate this paper indicate the differing surface areas of the towns and emphasize

some of the natural features that conditioned town growth. The largest and the most spaciously planned towns can be readily identified. Ludlow, New Sarum, and New Winchelsea are clearly the most spacious of the planted towns and for this reason should not be regarded as typical of medieval town planning. Beresford's view is that "it would not be very useful, except as a measure of ambition, to compare the areas contained within the walls or bounds of different towns" (Beresford, 1967, 254). He prefers instead to use the number of burgages given in rentals and the taxation assessments of 1334 as a measure of prosperity and the poll tax of 1377 as a rough indication of population. However, the surface areas can be used as a measure of the importance and density of the towns. Of the most prosperous twenty planted towns in 1334, Boston is notable as having a high assessment from a small defended area not laid out as a true grid; Dunstable, New Brackley, and Baldock are elongated single-street towns; all the others are variants of the large grid plan. Two towns are significantly different: New Sleaford and Tickhill have a loosely knit linear plan rather than a grid plan. New Sleaford (Fig. 24a), with 97 tofts and 116 burgesses in 1258, stood eighth in prosperity among the planted towns on the tax assessment figures of 1334. Instead of a grid plan developing in to a close web of cross streets, the 'single streets' meet at the church and the market place. Tickhill (Fig. 24b) was eleventh in rank among the planted towns on the 1334 tax assessment and eighth in rank on the 1377 poll tax figures. It displays a similar loosely knit grouping of streets: from the castle runs a Westgate and a Northgate, neither have well defined back lanes, but Northgate is widened for a market place set midway between the castle and the borough's northern boundary at the junction with an east street (Sunderland Street). In both towns the development of a linear plan might suggest that space was not at a premium or might indicate a skeleton framework for unfulfilled hopes of more intense development. There is certainly a high proportion of grid plans among the most prosperous planted towns assessed for the 1334 tax and among the more populous planted towns of the 1377 tax. This need not indicate that the grid plan was a formula for success; far too many other economic factors were involved. Yet the grid plan, whether an initial feature of a town's foundation or adopted at a period of town expansion, as at Lynn and Hull, had advantages that were clearly recognized.

Internal elements in the plan

Once the different types of plan have been identified and classified, it is possible to examine the internal elements (streets, market, church, housing, water supply) to determine whether any common factors link one particular type of plan with the disposition of its internal features. In this short paper only a few suggestions can be made. The hierarchy of streets can be identified from the names given to them, particularly within towns possessing a grid of five parallel streets; in the northern single-street towns there is often the contrast between Boroughgate (the intrinsic territory) and Bondgate *(forinsecus),* as at Appleby and Otley. The absence of any naming by trades is very marked, the only exceptions being in the infilled market areas, as at Newcastle-upon-Tyne, Pontefract, and Boston. The four main types of

market place are closely related to plan types: the full or half-chequer in the large grid, the off-centre market place in the simple grid plan, the enlarged cigar-shape in a single-street town, and the triangular market area in a town focused on castle or abbey. in all these types of market place, one must assume deliberate planning at the initial stage, as indeed happened in the organic towns as at Nottingham and Norwich. Church location generally fits into three main types (market centre, part-chequer, peripheral), but the full significance of these variations can only be seen when the foundation of the church structure is plotted against the date of the town's foundation to see which churches are primary within the foundation and which secondary or of subsidiary status. Church dedication often falls within the months of late summer and early autumn, where patronal feasts would ensure a convenient time for holding an annual fair, but more work is needed to determine whether there are regional differences to meet the differing harvest requirements and ripening of local produce. Concern for adequate housing is often shown in the initial charter with grants of timber and building stone, but archaeology has a far more important role to play in investigation. What it can seldom determine is the height and number of storeys within a building; the difference between a street of two-storeyed buildings and one of four-storeyed dwellings is considerable in deciding housing density and estimating population. Concern for water supply was largely satisfied by wells dug on an *ad hoc* basis; few towns were like Grantham and Wells in having a water supply piped to a central conduit. Instead, poor supply was a source of unrest at Battle; it was one reason for the retreat from the *mons maledictus* of Old Sarum to the fertile plain, and it was the cause of a great labour on the Goblin Tower salient at Denbigh.

The external features of the town have received far less attention from historians, only now being remedied in the studies in *Historic Towns* (Lobel). The growth of suburbs outside the planted towns is a feature parallel to that of suburbs at organic towns such as the Walmgate suburb at York or of the bridgeend suburb at Hereford. The most fascinating of all problems is the wide variation of practice in the provision of a town's fields. Was the growth of a town with less than 50 acres inhibited by the proximity of its boundaries? Was the growth of towns with more than 500 acres hampered by the existence of common arable fields at the margin of housing or at the brink of the defences? Is it possible to see an ideal balance between the size of a town and the acreage of its common fields? Until the relationship of the town to its neighbouring villages has been fully studied, answers cannot be given except in isolation. The pre-existing features which dictated the town's boundaries must also be considered.

It is clear that founders of towns paid careful attention to the physical equipment of their ventures: Newton, Dorset, was to be laid out "with sufficient streets and lanes, adequate sites for a market and church, plots for merchants and others in a new town with a harbour" (Bowen and Taylor, 1964, 224). Yet the rarity of such information suggests that it was the liberties and constitution of the new town that were the primary concern both of the founder and its new inhabitants. Occasionally the founders would name their towns with images of prosperity or of power (Baldock = Baghdad, *Castrum Leonis* now Holt); they might evoke the nostalgia of a Norman homeland, as at Egremont, Caus, and St Waleric (now Alnmouth), but the subsequent

development of the town was furnished with only the most general physical guidelines. It is the task of the archaeologist and the historian to clothe with flesh the bare skeleton of a town's plan and to breathe life into an empty name.

Discussion

It was suggested that, rather than the formalistic approach of the paper, an appreciation of the historical forces contributing to origins and growth and an examination of the function of towns and of particular elements within them would give a better understanding of growth.

There was no ideal siting for a town, and a southern aspect was not necessarily healthy. Although New Sarum grew slowly, the basic layout must have been present from the start; other examples could be found of gradual infillings of a plan. Lichfield can be added to the number of planned towns.

The elements of planning, including refuge and defence, can be found in pre-Conquest towns. There was discussion about the lack of evidence for the street plan in Cricklade and Wallingford. Some would accept a pre-Conquest date for the plan of St Albans.

There was discussion about new elements within an existing town, such as the French borough at Nottingham, and developments at Norwich such as Tombland and the intrusive wedge of castle and market at St Peter Mancroft. Irregular market places, such as East Dereham of the 12th century or earlier, contrasted with the rectangular shape, like the Tuesday Market at King's Lynn, set within a rectilinear street pattern. On the continent, the developing shape of street markets from the Elbe eastwards through Magdeburg and Brandenburg showed the existence of regional styles of town plan.

Such new elements as those in Norwich contrasted with the essential unity of the planted town. New developments could be traced by plotting all archaeological and historical data. as in Jope's use of early pottery in indicating the northern suburb of Oxford. Comparable work could be done in planted towns to trace the extent and chronology of expansion; archaeological data were available for such a study at, for instance, Boston, Devizes, Hull, and St Albans.

The Evolution of Towns: Natural Growth

# Colin Platt, PhD, FSA

Summary

Early towns may show the effect on their plans of a church or a defensive system, unrelated to later commercial growth. By the 12th century, the market-place had become dominant, to be the usual focus of towns both of 'radial concentric' and 'linear' plan. New concepts of public responsibility left their mark in wall building and in the prevention of encroachments on public open spaces. The church, as the town's most important public building, was sited and used accordingly. Hospitals and friaries may mark the limits of town growth, as might protected common pastures. All town plans in the final analysis reflect the contemporary view of what a town ought to be.

To speak of the town as a 'man-made' landscape is to emphasize an important truth. Few towns, it is obvious, entirely escape the influence on their planning of an individual natural dominant: a waterfront or a cliff, a flat space well suited to a market, or a deep ravine bounding a settlement or dividing it. Nevertheless, what chiefly shapes a town is not usually the natural dominant alone, for this can often be circumvented, but rather the social need of the men who have to live there. The changing pattern of this need determines the cultural dominants at ant time and to this the town plan commonly responds.

Yet this, needs qualification. A town may grow in response to a need or, more usually, to a succession of needs. But, once grown, its plan has a tendency to set. Interestingly, many of our older towns established their plans before they became commercial centres. As nuclei of government, whether ecclesiastical or civil, they took their shape not fom the market place, which would be the primary influence in most later towns, but from the church or the fortress they adjoined. The great Bendictine abbey at St Albans, for example, attracted lay settlement at its gates, and when, in the mid-10th century, Abbot Wulsin laid out his new town, he used the north precinct wall of the abbey as the base of his triangular market place (Hoskins, 1970, 292-3). At Ely, another Benedictine house of equal or even greater antiquity, the north gate of the abbey, again, determined the siting of the lay settlers' market-place, and the town subsequently grew around the abbey precinct (Fig. 25).

Great churches, evidently, could become 'cultural' dominants in their own right, as castles later might be. A still more striking example of the continuing effect of a man-made monument on the development of a town plan throughout its later history is the quite common re-use of surviving Roman fortifications in many Anglo-Saxon boroughs, evidencing a physical continuity in urban life which was not, so far as we can determine, reflected in its social institutions. There is nothing, that is to say, to establish a genuine continuity

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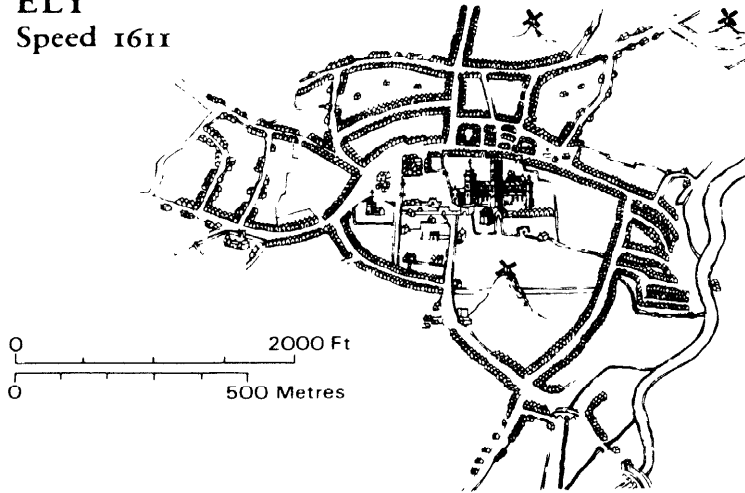
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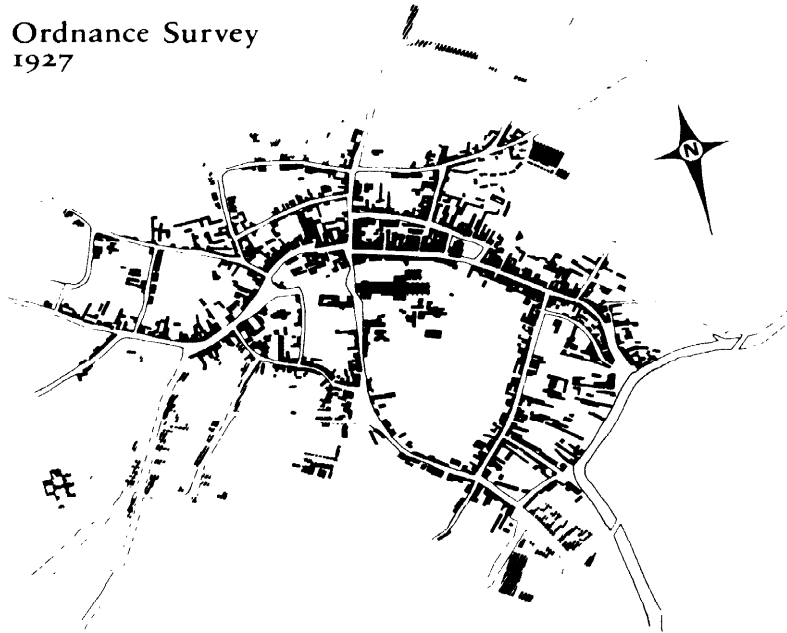
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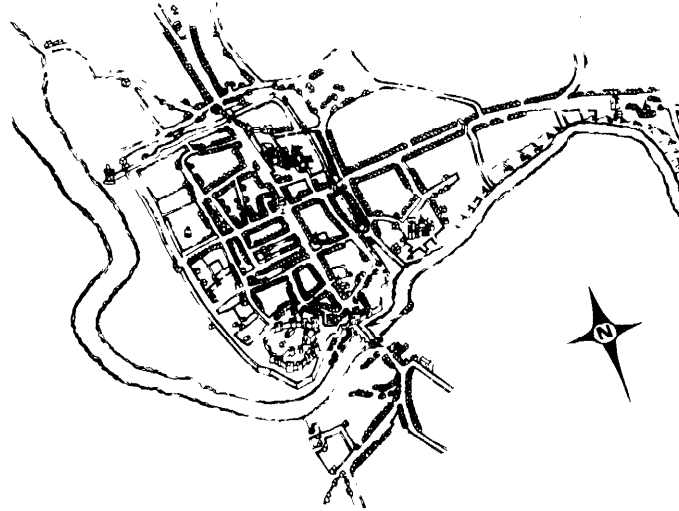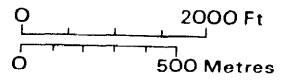
from the Romano-British town to its Anglo-Saxon successor in institutional terms. However, the approach roads and the fortifications which re-attracted Dark Age settlement to those sites also had the effect of determining a basic street pattern, not unlike the Roman, which has persisted recognizably to this day. With those small differences of alignment which yet point significantly to a prolonged lapse of settlement following the Roman withdrawal, there are gates and principal linking streets, undoubtedly of Roman origin, at Winchester, Gloucester, and Chester, as at many other former Roman towns (Biddle and Hill, 1971, 70-3; Hurst, 1972, 52, 67).

It was the gates, of course, breaching the defences, that brought about the unconscious repetition of an earlier and by then unrecognizable plan, and recent work both at Winchester and Gloucester has shown how little the early medieval plan, in other particulars, came to resemble the Roman. This is not to say that the virtues of a straightforward grid plan, after the Roman fashion, were not appreciated from the 10th century, or earlier. A case has been made for the practice of deliberate town-planning in early 10th century Wessex (Biddle and Hill, 1971). Late in the 11th century Abbot Baldwin of Bury St Edmunds was re-using the grid in his planned extension of the borough at his gates (Poole, 1958, 58-9). It was just the virtues of its Roman plan that the monk Lucian, a century later, would select for praise in his description of late 12th century Chester (Taylor. 1912, 45-7). He admired Chester's gates, centrally placed in the walls and facing the four points of the compass; he was struck by the straight lines of the two main streets, becoming four as they crossed centrally at the market; and he recorded the symbolism they so powerfully recalled to him of the Cross and of the four Evangelists (Fig. 26).

Lucian's comments bring together fittingly the Church and pre-existing Roman fortifications as the two most influential cultural dominants in later Anglo-Saxon town plans. The castle, coming to England relatively late in the day, had proportionately less effect. It is true that a town like Ludlow, for example, or Pembroke, might begin with a castle, strongly placed on a promontory site, from which the main street would extend along the ridge, to be supplied with its market and its church (Dyes, 1968, 122-7; Carter, 1965, 172). And still, in the decades immediately following the Conquest, castle and town might grow together as the latter retained the importance it had first acquired with the Wessex kings as a unit of royal administration. But the king's interest in new town plantations was to fall away markedly in the 12th century. Through that century, as seigneurial foundations multiplied, the association of town and castle became steadily less common, and there were few of these new urban units of the later generation that had any purpose other than trade (Beresford, 1967, 334-7). These were years of rapid urbanization, essentially market-based, to which one useful index, with all its imperfections, remains the royal acknowledgment of individual market rights. To judge by these, certainly, the England of 1086 and Domesday Book was still very largely pre-urban. Though we cannot be certain that the Domesday record is anywhere near complete, its 50 or so markets and two fairs contrast strikingly, nevertheless, with the 1200 settlements of all sizes and conditions in England and Wales that were to have their market rights acknowledged by the king before 1350 (Coates, 1965, 85, 96). Overall, and within only a few decades, the balance had shifted decisively in the towns. Where, in the past, a town might have grown up in the shadow of a

castle or a church on which it remained dependent, it would now have no such allegiance. From the 12th century, with very few exceptions, it was the regional market that gave purpose to a town and the market place that determined its shape.

The chief interest of the plan of medieval Hereford is that it shows these contrary forces at work. It is thought that Hereford began as the seat of a Saxon bishopric perhaps as early as the 7th century, and it is probable that Hereford's first settlers clustered in the vicinity of the original minster; in the southern part of the later city, next to the crossing of the Wye. But important though the city clearly became in the 9th and then the 10th centuries, it was not the minster, nor the strong Anglo-Saxon defences, nor yet the immediately pre-Conquest castle of Ralph, Earl of Hereford, that chiefly influenced the later medieval plan. When, that is, William Fitz Osbern was made Earl of Hereford in 1067, one of his first actions was to re-site the market at a more convenient point, where the roads into Hereford merged on flat land some little way north of the minster (Lobel, 1969, 1-4 (Hereford)). To this day, it is the great funnel-shaped market place of Hereford, largely built-over since the 16th century and before, that dominates the plan of the city (Fig. 27).

In effect, those same economic inducements that had promoted, in the earliest towns, a concentration of settlement at the abbey gates, subsequently drew burgesses to the market place. As the plan of Hereford clearly shows, competition at once developed for the more favoured commercial frontages, whether on the market place itself or along its immediate approaches. Much as Hereford had done, a borough like Alnwick, in Northumberland, would develop not at the castle gate but at an intersection of three important roads to the south of the castle, producing between them a triangular space especially well suited to a market (Conzen, 1960, 25-9). Alnwick, because of its situation at a road junction and its natural focus on the market place, grew up on a simple radial plan, settlement spreading out along its streets to make up that familiar 'radial-concentric' plan characteristic of many of our country towns. Where a road junction was less important, less conveniently sited, or quite simply not there at all, the demand for good commercial road frontages, far from concentrating settlement, might disperse it in a lengthy straggle along the line of the principal highway. Towns of such 'linear' plan, undefended and with no other purpose than trade, are perhaps our clearest reminder of what the new urbanism of the 12th and 13th centuries had come to be all about. They may be characterized by a broad central swelling of the market street, as at the Gloucestershire borough of Chipping Campden (Beresford and St Joseph, 1958, 167-8). or by the siting of the market place at any convenient merging of the ways, as at Kendal, the market-town of Westmorland (Fig. 28). They have at least this in common: that they were allowed to grow in answer to the strictly commercial needs of their burgesses, to which all other considerations were secondary. They were not themselves the centres of royal or seigneurial government; they did not exist, chiefly or at all, to supply the wants of a baron or a bishop; they were independent and thoroughly professional.

The new professionalism of the 12th or 13th century borough was to show itself in a number of interesting ways, not least in its effect on the plan. Already. from the beginning of the 12th century, we can trace the emergence of an autonomous burgess class and the

HEREFORD
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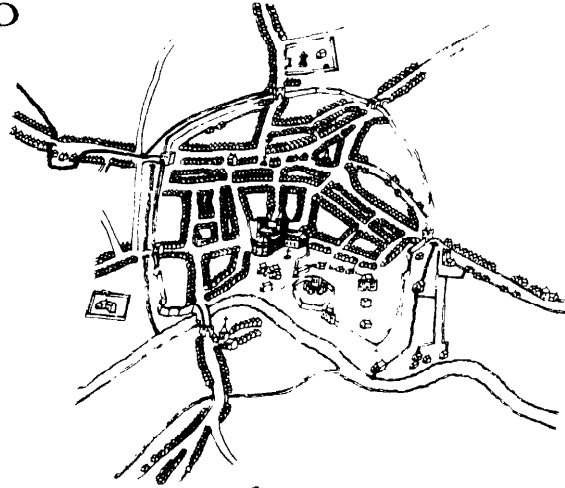
Ordnance Survey
1930

0   2000 Ft

0   500 Metres

27 Hereford

development, whether later in that century or early in the next, of a more complete urban life-style (Platt, 1973A, 14-16). And among the preconditions of the new urbanism, enshrined in the charters and other legal instruments of the period, was the recognition of public property, public obligation, and public right. On the Oxford seal of 1191, the earliest borough seal to survive to us, there is the significant conjunction of the proud legend 'the common seal of all the citizens of the city of Oxford' with the representation of the city completely walled about (Davis, 1968, 55). No doubt the representation is conventional, not to be taken as a genuine portrait of the city at that or any other time, but it makes the point that Oxford was one to itself, answerable as a single person before the law, privileged, self-governing, and above all exclusive.

It is no accident, certainly, that the construction of systematic defences at many English towns—even at those that could not be claimed to need them—coincided with the grant of their charters by John and his successors. Independence from the king and his officers brought to borough governments a new responsibility, at the same time conferring on town life ('town air', the Germans liked to call it) a quality they felt all the more reason to protect. It is a remarkable but nevertheless very significant fact that suburban areas in the 12th century and before could attract rich settlers in a way they would not succeed in doing again for another four centuries at least. There were fashionable suburbs in both Winchester and Canterbury in the 12th century that were neglected by the rich in the 13th century (Keene, 1972, 80; Urry, 1967, 185-9), and, as both cities had long had strong defensive systems of their own, we may suppose that the decline in popularity of the excluded areas had more to do with privilege than with security. Less is known about the earliest fortifications at Southampton, but it can be established that settlement retreated within the ramparts just as soon as the first of these were completed in the early 13th century. At the same point in time, on the archaeological evidence a regrouping of the rich occurred in the protected but hitherto unfashionable parish of Holy Rood, at the southern tip of the town (Platt, 1973A, 22).

Clearly, the construction of defences at Southampton was to transform the character of settlement in at least two urban parishes. It resulted in the abandonment for many centuries of back-plots In the parish of All Saints Without. At Holy Rood, it led to the clearance of existing buildings, the insertion of new roads, the laying-out of building plots, and the construction of substantial stone houses upon them. This illustrates the value of those privileges which a man might give up so much to obtain or to secure, and also the existence o   f communal decision-making and public action at Southampton for which, whether by chance or because it genuinely did not exist, we have so little evidence before this date. A wall is a piece of public property. It can be put up only with the public consent, for it may infringe long-established rights. Yet town walls were everywhere in the process of being built. Surely, indeed, it was precisely this general acceptance, however expressed, of communal responsibility in public defensive works, in public buildings, and in public spaces that was the signal, in 13th century England, of the coming-of-age of the boroughs.

The streets and markets of the borough, frequently one and the same, demanded the continuous vigilance of the community. As Keene has shown, the citizens of Winchester were concerned from a very early date to

limit encroachment on their principal trading thorough-fares, especially the High Street, with the result that there has been little movement of house frontages in the more favoured areas from the 11th century until today. In contrast, the side streets at Winchester, many of them blocked at the far end by the city wall, were subject to less rigorous control. Over the years, house frontages can be shown to have crept forward at the busier end of the street, next to the High Street, as progressive encroachments were either allowed or ignored; while at the other end of the street, by the wall, there might be few encroachments, or none, creating the conditions for the apparent funnelling-out of side streets towards the city wall which remains a striking characteristic of Winchester's present-day plan (Keene. 1972, 38, 40).

Indeed, at Winchester, as at many English towns, it was the essentially public quality of the street–through-way and means of access, but also market place as well–that kept the medieval town plan relatively open. Most obviously, this would occur at towns of linear plan, where the highway itself was the market place. But at any town where street trading was regularly practised and where markets were many and specialized, the same effect was certain to be repeated. A late 12th century bishop of Worcester, laying out his new borough at Stratford-upon-Avon, thought it appropriate to provide his burgesses with streets 50ft. wide or more, and with a main market street as much as 90ft. across (Carus-Wilson, 1965, 60-1). Three centuries later, when William Worcestre paced out the streets of Bristol, he found several of them as wide as 50ft. and many more at least 35ft. in width (Dallaway, 1834, passim).

Certainly that reluctance, felt by later generations, to make use of the whole width of a street for trading can rarely have occurred to the burgess of medieval England. Market stalls might make themselves permanent, and a degree of such 'market colonization' is evident at each of the four towns illustrated with this paper (Figs. 25-28). But few medieval towns were to confine street trading to the market place alone. Nor is this difficult to detect on their plans. At Southampton, the magnificent present-day High Street, little changed in outline since the 13th century, swells still where the markets were, at St Lawrence, New Corner, and Holy Rood. The open square at St Michael's church door was kept that way until the 17th century by continual use as a fish market. North of the Bargate, the unusual width of this former suburban street is owed at least in part to the holding there of the Above Bar fair (Platt, 1473B, 43-6).

While streets and market squares were the most important public open spaces typical medieval urban community, its major public building was usually the church. Before the construction of town halls, only irregularly anticipated in early gild-halls, the church had to be made to serve a variety of public functions, some of them wholly secular. Thus a church building might be used for the public assembly, for an inquest or an audit, for oath-taking, the exchange of contracts, debt collection, and the storage of valuables or exceptionally bulky goods. Not uncommonly, churchyards served their turn as market places or for open-air assemblies of the townspeople (Davies, 1968, 55-79). Towns might differ from one another not in the use to which they put their churches but in the number each possessed, and as this went back, quite commonly, to as remote semi-urban past, parish church provision in our older towns may be found to relate very little to what the town in due course became.

KENDAL
Speed 1611

Ordnance Survey
1920

O _____ 2000 Ft

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28 Kendal
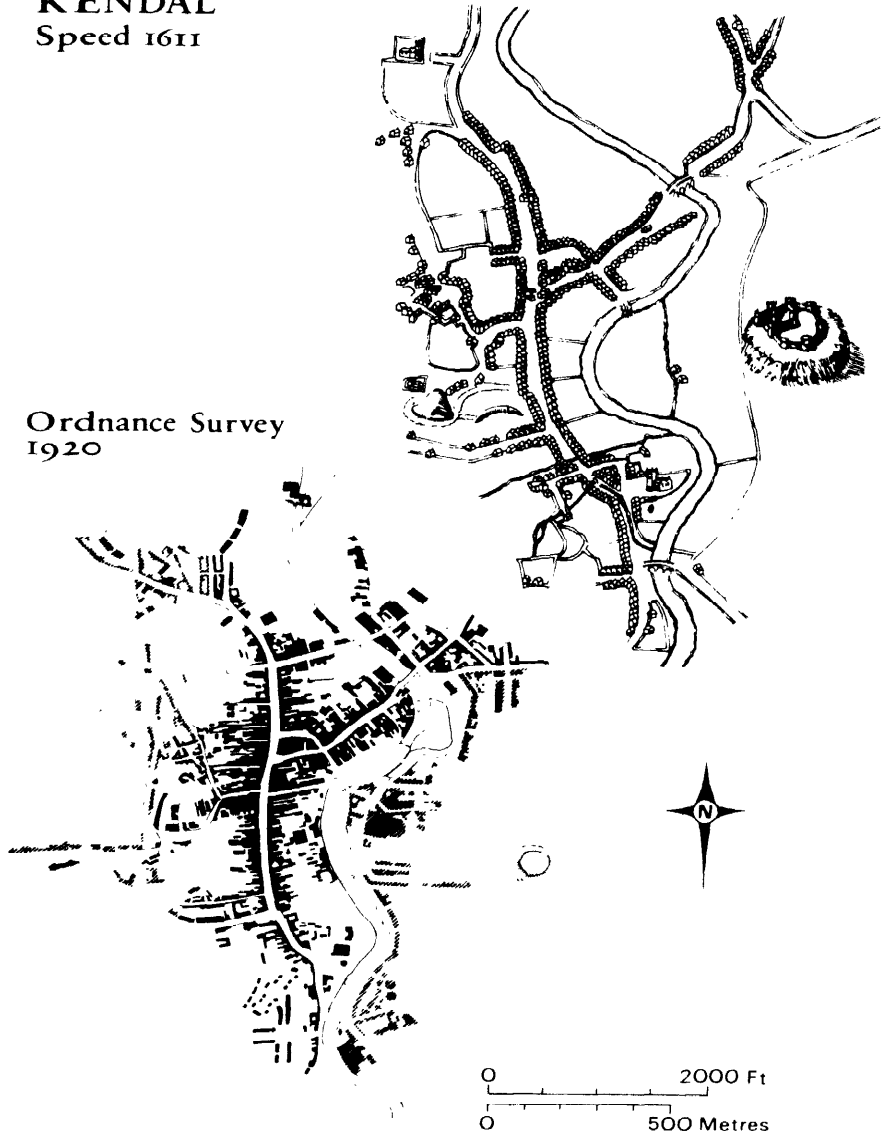
Church reform, it is worth remembering, took effect in the towns when many were no longer young. Before the Gregorian reforming movement of the late 11th century, the Church had been both territorial and proprietary, its individual units attaching to private estates and remaining the personal property of the laymen who had built them. Towns that were partitioned amongst many landowners had many churches, some of them very small; a town with a single, or a dominant, landowner might have one church alone, or very few. Almost invariably, 12th century towns of earlier foundation lost some of their smaller churches as laymen gave up their claims to ownership and as rationalization of parishes proceeded. The process was a slow one, frequently incomplete at the Reformation or later, and the over-provision of parish churches in many of our older towns and cities remains one of the marks of their age. In striking and significant contrast, towns that were to develop only relatively late—Boston, for example, or Grantham–might have just one parish church apiece.

Multiple church provision need not, then, be a satisfactory guide to the progress of urban expansion at its most crucial 12th century phase, although there are instances, as at Bristol with its exceptionally prosperous suburbs, where it might certainly be used in this way (Walker, 1971, 18-19). Yet it remains true that at every new town of this or a later generation there would have to be a church, or at any rate a chapel of some kind, and that all towns, whatever their antiquity, continued to be exposed to significant alterations in plan as the priorities of church provision changed. At Canterbury, for example, the steady expansion of religious institutions in the city would have much greater impact on the development of its plan than the demolitions, more often recalled, which made room for the Conqueror's castle (Urry, 1967, 190-1), just as it was the growth of the colleges at Oxford which dominated that city's plan development. Although the finding of adequate sites for the new hospitals and the friaries of the 12th and 13th centuries need have done little, perhaps, to alter existing town plans, the placing of these institutions can still be made to tell us a good deal about contemporary borough limits. Few major towns in 12th century England, when the incidence of leprosy was high, were without their lazar houses or Magdalenes to accommodate the victims of the disease, and invariably these were placed in isolation. London's many lazar houses, for example, ringed the medieval city on the lines of its major exit roads (Honeybourne. 1967, 5), and there were extra-mural hospitals, as remote as these from normal settlement, at Exeter, Cambridge, Leicester, Gloucester, Grimsby, Southampton, Stamford, and elsewhere. No such policy of deliberate isolation was adopted in the placing of the friaries, but these too were often to be found on the margins of existing settlement, where land was still available or where a neglected community showed particular need of their ministry. Should nothing else remain to us, both the hospital and the friary may be pointers in their fashion to the limits of contemporary development.

Inevitably, a prominent extra-mural establishment would draw out settlement towards it, perhaps to serve, as did the Benedictine dependent priory and the church of St Mary at Cardigan, as the focus for all subsequent suburban growth (Dyos, 1968, 239-40). Yet there were circumstances also which might contain expansion or determine its character, just as there were others which worked to foster it, and no town plan can be

fully understood without a knowledge of the community's social history. At Nottingham, jealously guarded common pastures encircled the borough, determining its maximum growth. It was these, more than any other factor, which led to the serious overcrowding of the central wards in the late 18th and the 19th centuries, as the free-commoners clung to their privileges (Hoskins, 1970, 280-6). Other towns, among them Southampton, were to suffer the same way, cramped within the common lands which survive, not infrequently, as such a feature of the present-day townscape. Just as noticeably, disputed jurisdictions have left their mark on many borough plans. Before its charter of incorporation of 1345, bringing union under the mayor, Coventry was shaped by the separate administrative development of the 'parts' of the prior and the earl. It was the earl's part, more fortunate in its privileges, which gained by the division (Stephens, 1969, 208-9). Nor could King's Lynn have taken the form with which we are familiar today had it not been divided, from very early years, into no less than three distinct administrative units. Lynn's original settlement, at the centre, had both its market and its church. Then, from the mid-12th century, Bishop Turbe's extension grew up independently to the north, to be equipped again with a market and a chapel. When, early in the 13th century, the two units merged, they excluded still a third administrative unit at South Lynn, which was to preserve its separate identity until as late as 1555. Without a market of its own to foster trade, South Lynn remained distinctly poorer than its neighbours, although it, too, would come to have its merchant gild and its circle of wealthy traders (Parker, 1971, 21-2).

The increasing sophistication of borough government in late-medieval England both suggested and encouraged new efforts in the control and the amelioration of the environment. Trades that constituted a fire risk or were assumed, for whatever reason, to be a health hazard (e.g. potting or tanning) were banished to the suburbs. Butchers and fishmongers, notorious polluters of the air, were allotted individual quarters, so that almost every late-medieval town had its 'Butchers' Row' and a specialized fish-market of its own. Commonly, a municipal water supply (by conduit or parish well) would be provided, the principal streets would be paved under the direction of the borough authorities, arrangements would be made for the night cartage and disposal of filth, and there might be a start, at least, on the lighting of the streets and the organization of an efficient night watch (Platt, 1976, *passim*).

Although much, clearly, was done in detail to improve the quality of life in the towns, its frame had usually long set. There may well be isolated instances of a substantial later development imposing its pattern even on the central wards of a borough, and the 15th century defences of Alnwick, as influential late-comers on the plan. can certainly be counted as one of them (Conzen, 1960, 39-41). There must also come a time, sooner or later, when the plan of a town assumes the shape that it does for no better reason than that other towns had commonly taken that path before it. In medieval England (and parallels are not hard to find today) there were towns which sought privileges principally because other towns had them already; there were towns which built walls, frequently at great cost, with no expectation of needing them. A town might acquire a covered market, a gild-hall, a prison, a church, and perhaps defences, not because all of these were the prerequisites of urban living but because they had come to be thought

of as its symbols. There was to be in 16th century Burford a significant architectural fashion. Elsewhere in England, the builders of town houses had made them tall and narrow, their design dictated by the slender plots which turned them gable-end on to the street. Yet at Burford, a small Oxfordshire town, there had been no lack of space for development, at least in the earlier period, and the houses more commonly presented their sides to the street, making full use of their very much wider plots. Further, although architectural practice and the lack of alternative building materials had united in bringing timber-framing to many English towns, this had never been the case at Burford, where good local stone was in plentiful supply. The tyranny of taste, though, was to prove irresistible. At Burford, too, timber-framed fronts were to be applied quite arbitrarily to 16th century stone buildings, to match the fashion, irrelevant at Burford, of the larger county towns. At Castle's Shop, on Burford High Street, the three projecting gables are undoubtedly decorative, but they serve little structural purpose. They were put there because by contemporary canons that was how a town house ought to have looked (Everitt, 1973, 66-7, 69).

Discussion

There was a general feeling among those who had specialized in earlier periods that the extent of pre-Conquest urbanization may have been understressed in the paper. The grant of market rights is indeed an uncertain guide to the spread of towns which may have received such formal grants relatively late in the day, and some would insist on the case for a reasonably comprehensive urbanization of Anglo-Saxon England. On the other hand, many market towns had become urban places only after the 11th century, and there is evidence for the emergence of an autonomous burgess class in the 12th century towns as aristocratic land-owners withdrew. Burgage tenure could certainly be established in the pre-Conquest town, though its origins remain obscure.

Opinions differed on the problem of concentration and direction of trades in the medieval town. Area specialization may have been over-stressed at Oxford, though there is good evidence (from Lincoln, Norwich, and Ipswich) of such specialization in many towns from an early date, some of it contrived on the initiative of the municipal authorities themselves.

On the subject of encroachments on streets and lanes, there is Oxford evidence for cellars partially underlying lanes and suggesting that house-fronts had actually been pushed back at some later date. At Winchester, certainly, lanes were indeed kept open by municipal fiat. However, although fines for encroachments were common enough in medieval borough records, there is little to establish either that the fines were paid or that the encroachments were removed. Evidence was cited of successful and extensive encroachments at Lincoln, Stamford, and York.

The evidence for when churchyards ceased to be used for markets might be found in surviving bishops' constitutions.

The question of why certain urban churches had churchyards and others not might be related to the distinction between cities with monastic and those with secular cathedrals. At the former, Winchester being one example, burial might tend to concentrate in the vicinity of the cathedral, as the monks held on to their rights. In contrast, the secular cathedral like York or Lincoln was more likely to permit a dispersal of churchyards though the city.

Picking up one of the final points in the paper, doubt was expressed about the general incidence of gable-end-on houses in the English towns; such a plan, far from being common in England, was probably rather rare. East Anglian examples seemed to support this thesis, and Stamford has well known sideways-on houses In Wales on the other hand, some of the burgage plots in the planted towns were so narrow that they could only have accommodated houses set gable-end on to the street. Examples of the 16th century custom of decorating the street-facing gable were quoted both for Winchester and for Norwich.

Individual reservations included the comment that only about half of the grid plan of Bury St Edmunds is likely to have been Abbot Baldwin's work, and the suggestion that the market sequence at Ely may not be as clear as the Speed map could lead us to suppose. Lincoln, originally cited as an example of early suburban settlement not subsequently maintained by the wealthy, is unlikely to have followed this pattern. There is both archaeological and documentary evidence of sizable buildings continuing in use in the Lincoln suburbs. A better example is the experience of medieval Winchester, although this, too, is a complex phenomenon explained at least in part by alterations to the city's role.

Town Defences
in England and Wales after 1066

M. W. Barley, MA, FSA

Summary

The 146 towns at present known to have had defences in the period after 1066 are listed, their defences classified in terms of materials (earth or stone) and period of origin (Roman, Anglo-Saxon, post-Conquest) and their distribution plotted. Diagrams of the defences of 42 towns are illustrated, showing their comparative size and marking urban castles and other precincts integrated with the defences. The character of the defences is briefly described, and attention drawn to outstanding problems.

Of the 600 or more towns in England known to have enjoyed borough status (Beresford and Finberg, 1973, 23), and the considerable number in Wales, 146 can be said, in the present state of knowledge, to have had defences of some kind. Only about 10% were of Roman origin and a smaller number of Saxon date. Apart from those which after 1066 acquired defences for the first time, that period saw much new work on old defences. Furthermore, it was naturally at the time of maximum urban growth that the existence of defences, whatever their original date, most influenced the topography of towns.

The distribution map—the first to be compiled—inevitably simplifies evidence, conceals variations in its quality, and incorporates judgments for which there is at present no proof (Fig. 29).

Defences of Roman origin

In four cases, a Roman *enceinte* proved insufficient for medieval needs: the legionary fortress at Chester, the combined fortress and *colonia* at York, and the two *coloniae* of Gloucester and Lincoln (see plans, Figs. 31, 32, 33, 36). At York the enlargement is regarded as Danish in date; the Roman wall and rampart were covered with a loftier earth bank and the enclosure extended at the south east side (RCHM *Defences* 8). Lincoln had two enclosed suburbs: to the south Wigford, flourishing before the Conquest and encompassed by Sincil Dyke, thought to be a Roman drainage work but possibly a Saxon or Norman defence; to the north Newport, presumably Norman and enclosed by an earth bank (J. W. F. Hill, 1948, 12-13, 35, 161-2). At Chester the fortress area was extended, possibly before the Conquest, and walled in stone, perhaps as early as the 12th century (Turner, 1970, 202-3). Gloucester provides the best example of the empirical attitude of medieval citizens contrasting with the formal provisions of Roman authorities. Settlement had extended north and west of the *colonia* in the Saxon period, before the *colonia* defences were broken through by the castle and the enlargement of the abbey precinct. The area eventually encompassed by defences, part stone wall and part earth bank, was about twice that of the *colonia* (Heighway, 1974, 10 (3.28), 12 (3.37)). Uninhibited access for the citizens to water, whether because of river traffic and wharves, or for industrial and domestic

purposes, may have seemed more important than a defensive barrier.

Another group—Bath, Canterbury, Colchester, Exeter, Rochester, and Winchester—maintained Roman defences on the original lines. Our knowledge of what happened to the walls is limited and varied in quality, but it is possible to discern successive phases of decay, of repairs (sometimes in timber), and of extensive rebuilding in stone (Turner, 1970, *passim;* Down and Rule, 1971, 149-51; Cunliffe, 1962, 51-81). Rebuilt walls are invariably thinner than the Roman (e.g. Williams, 1946, 69-70; Fox, 1952, 55-9). Detailed survey and excavation would probably show more rebuilding than is usually assumed.

Another group comprises towns whose Roman walls quietly decayed, or were robbed for new building. It includes Caistor, Lincs. (Rahtz, 1960A, 175-87), Cirencester (Brown and McWhirr, 1969, 227), Dorchester, Dorset (Farrar, 1955, 76, 89), and Ilchester. Caistor presents a picture of miniature *civitas–burg* development, with the church within the walled area and the market place outside the suggested site of the Roman east gate. In regions where stone was naturally available, medieval builders to save labour used the material of redundant structures before they resorted to quarrying, so that robbing was often extensive and thorough.

Only Rome and London, among capital cities, occupy sites which were of comparable importance while the Empire flourished. The relatively large size of Roman London (Fig. 34), together with differences between the medieval histories of England and France, help to explain why London's defended *enceinte* remained virtually unchanged in the middle ages while Paris, originally a tribal capital, shows a succession of enlargements (Lavedan, 1926, 239; Biddle *et al.* 1973, 13). London's bastions are certainly post-Roman additions to the wall, some of them possibly before 1066 (Grimes, 1968, 64-78; Biddle *et al.* 1973, 22).

Saxon *burhs* in the post-Conquest period

Of Saxon *burhs* built *de novo,* only a few are considered here, because massive defences survived through the middle ages. At Wallingford (Fig. 36) and Wareham, castles were built in the corner of the rectilinear *enceinte,*
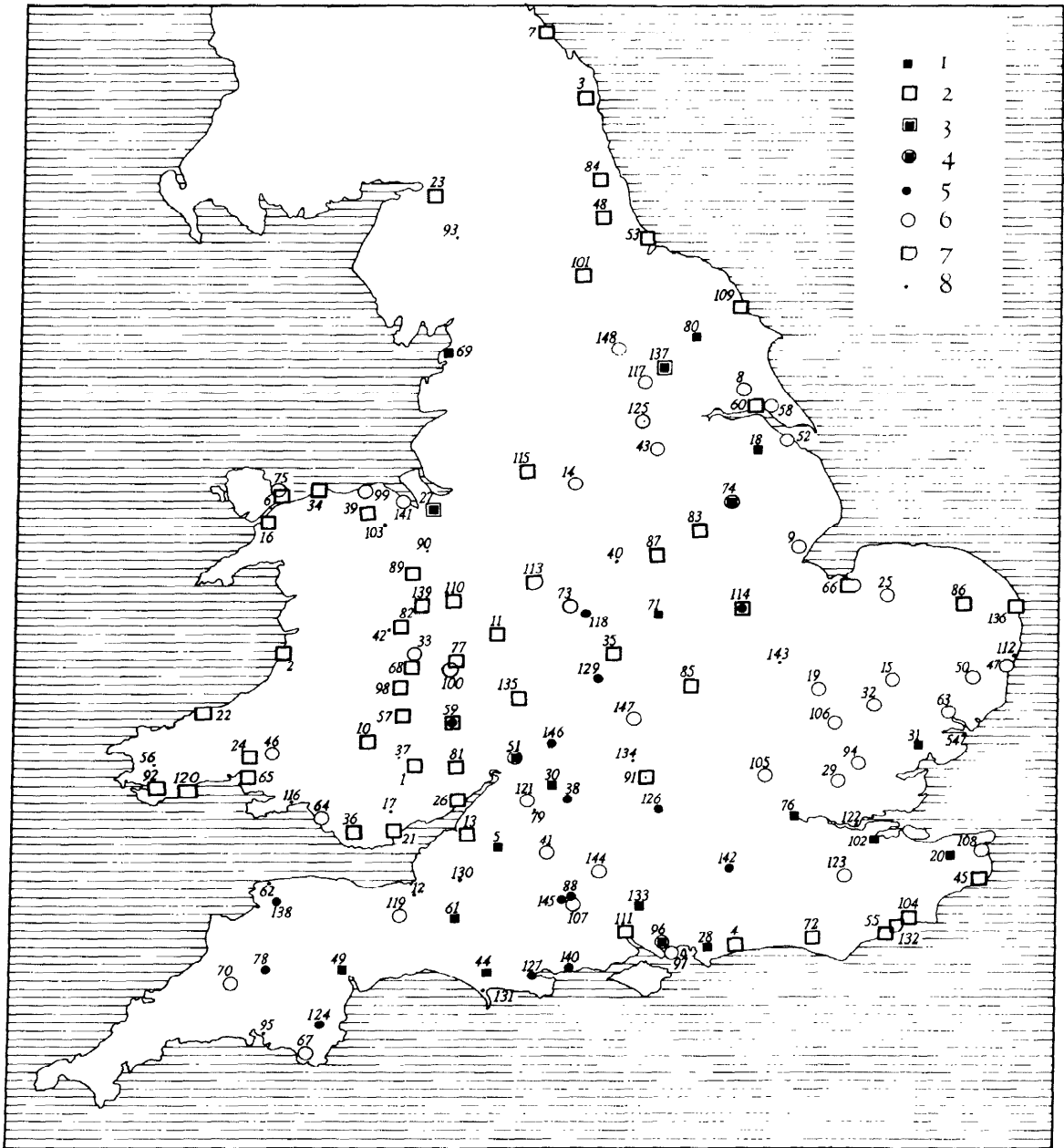
29   Map of towns in England and Wales, 1066 onwards, with defences.
Key to symbols: 1: stone walls of Roman origin. 2: stone walls of post-Conquest origin. 3: circuit of Roman origin later enlarged in stone. 4: circuit of Roman origin later enlarged with earthen defences. 5: earthen defences of Saxon origin. 6: earthen defences of post-Conquest date. 7: post-Conquest defences partly of stone, partly of earth. 8: documentary evidence for defences and no visible remains.

Key to numbers: see facing page

and at Wareham this may have been accompanied by a remodelling of the defences (Radford, 1970, 86). At Cricklade the bank must at some time have been levelled or ploughed, and at Malmesbury it has vanished. At Barnstaple, Christchurch, and Langport evidence for gates of post-Conquest date indicates some continuing role for Saxon defences, which can also be inferred at Guildford, Wilton, and Winchcombe.

At Oxford, pre-Conquest defences have been located where they underlie the later stone wall (*ex inf.* T. G. Hassall). It is tempting to assume the same continuity of defensive lines in other towns, such as Bury St Edmunds (Lobel, 1935, *passim*), Newark on Trent, Warwick (*Medieval Archaeol.* **13** (1973), 170), and Worcester (*ibid.* 171), but it would probably be wiser not to do so. There is clear evidence from Northampton and Nottingham of enlargement of a Saxon *burh* in the Norman period (Lobel, 1969; Lee, 1953, 164-74) (Figs. 32 and 33).

New defences in the post-Conquest period
The castle and the town

Of the towns on the map, about 100 have, or had, castles, most of them before 1200 (Renn, 1968, *passim).*

Most of the Conqueror's own castles, intended to consolidate his conquest, were located in towns (Colvin, 1958, 22). Other castles planted by private lords in existing towns must be regarded as contributing to their defence (Turner, 1970, 22). Towns without castles are principally ports of the east and south coasts, and towns under ecclesiastical lordship—the very towns least likely to acquire stone walls at a later time.

Seigneurial initiative in the 12th century went so far in a few cases as the construction of an earthen defensive system outside the bailey of the castle, for communities which may be reckoned urban, though none of them became larger than average villages: e.g. Castle Acre (Fig. 30), Clare, Framlingham, Tetbury, Tonbridge (Fig. 36). In most cases the defences are rectilinear, to facilitate division within into regular tenements. The distinction between such small seigneurial boroughs, mainly in eastern England, and villages with enclosure banks requires further research.

Royal initiative in military measures in at least one case seems to have extended to the walling of a town: at Carlisle the stone wall is regarded as of 12th century date (Turner, 1970, 100; Hogg, 1962, 326). Durham may have been walled by bishop Ranulph Flambard (1099-1128) (Turner, 1970, 102-3). Other towns in an exposed situation, such as Hereford and Southampton, benefited from royal assistance (Turner, 1970, 170).

1 Abergavenny	34 Conway	148 Knaresborough	103 Ruthin
2 Aberystwyth	35 Coventry	68 Knighton	104 Rye
3 Alnwich	36 Cowbridge	69 Lancaster	105 St Albans
4 Arundel	37 Crickhowell	70 Launceston	106 Saffron Walden
147 Banbury	38 Cricklade	71 Leicester	107 Salisbury
138 Barnstaple	39 Denbigh	72 Lewes	108 Sandwich
5 Bath	40 Derby	73 Lichfield	109 Scarborough
6 Beaumaris	41 Devizes	74 Lincoln	110 Shrewsbury
7 Berwick	42 Dolforwyn	75 Llan Faes	111 Southampton
8 Beverley	43 Doncaster	76 London	112 Southwold
9 Boston	44 Dorchester	144 Ludgarshall	113 Stafford
10 Brecon	45 Dover	77 Ludlow	114 Stamford
11 Bridgnorth	46 Dryslwyn	78 Lydford	115 Stockport
12 Bridgwater	47 Dunwich	79 Malmesbury	116 Swansea
13 Bristol	48 Durham	80 Malton	117 Tadcaster
14 Bury St Edmunds	49 Exeter	81 Monmouth	118 Tamworth
15 Castleton	141 Flint	82 Montgomery	119 Taunton
16 Caernarvon	50 Framlingham	83 Newark on Trent	120 Tenby
17 Caerphilly	51 Gloucester	84 Newcastle on Tyne	121 Tetbury
139 Caus	52 Grimsby	85 Northampton	122 Tilbury
18 Caistor	142 Guildford	86 Norwich	123 Tonbridge
19 Cambridge	53 Hartlepool	87 Nottingham	124 Totnes
20 Canterbury	54 Harwich	88 Old Sarum	125 Wakefield
21 Cardiff	55 Hastings	89 Oswestry	126 Wallingford
22 Cardigan	56 Haverfordwest	90 Overton	127 Wareham
23 Carlisle	57 Hay on Wye	91 Oxford	129 Warwick
24 Carmarthen	58 Hedon	92 Pembroke	130 Wells
25 Castle Acre	59 Hereford	93 Penrith	131 Weymouth
26 Chepstow	60 Hull	94 Pleshey	145 Wilton
27 Chester	143 Huntingdon	95 Plymouth	146 Winchcombe
28 Chichester	61 Ilchester	96 Portchester	132 Winchelsea
29 Chipping Ongar	62 Ilfracombe	97 Portsmouth	133 Winchester
140 Christchurch	63 Ipswich	98 Radnor	134 Woodstock
30 Cirencester	64 Kenfig	99 Rhuddlan	135 Worcester
31 Colchester	65 Kidwelly	100 Richard's Castle	136 Great Yarmouth
32 Clare	66 King's Lynn	101 Richmond	137 York
33 Clun	67 Kingsbridge	102 Rochester	

The collection of town plans (Figs. 30-36) is intended to show the relative size of enclosed areas and the relationship with castles, abbey precincts and cathedral closes. Urban castles are shown only where they were integrated with town defences in their ultimate form; hence the omission for example, of Norwich Castle, which is thought to have been related to town defences as they were in the 12th century. No attempt has been made to show postern gates.

The beginnings of urban initiative

The break with Anglo-Saxon traditions begins in the second half of the 12th century, though this break may appear more complete than it was because after *c.* 1155 new types of record evidence become available. Anglo-Saxon *burhs* had been planted by royal initiative; now England had urban communities wealthy and powerful enough to contemplate acquiring municipal liberties by bargaining with the king, and at the same time to obtain licences to erect defences. The transformation of the motte and bailey castle into a stone stronghold was, especially in the 13th century, followed by and reflected in the development of town walls; at the same time a few wealthy burgesses in Lincoln, Southampton, etc., were building stone houses.

Although urban defences contributed to the dignity of a town, and were convenient for local administration, political historians are convinced that the principal motive for their erection was fear. The effect of the troubles of Stephen's reign are apparent (cf. Lichfield and St Albans below), and of the uncertainties if not the dangers of the period 1190-1235. The Barons' Wars of the 1260s provided a stimulus, as did the invasion scares of the 14th century (Turner, 1970, 74-82).

We are ignorant of how the labour for the undertaking was organized. However it was done, work began with digging a ditch, making a bank from the material, and controlling entrances to the town with gates of timber or stone. Some towns failed, even if they hoped and intended, to erect defences more substantial than that. The Burdike at Grimsby (Gillett, 1970, 2, 13, 75), the Bardyke at Boston (*Medieval Archaeol.* **2** (1958) 200), and the Pales Dyke at Dunwich (West, 1970A, 27-33) remained the only defences. 'Wall' at Beverley for an earth bank and 'palisade' at Dunwich are important evidence of a rare kind. OE *weall* was naturally Latinized to *murus,* which therefore may imply earthen defences (Hunter and Jope, 1951, 30). The Malmesbury list of 1285 (Ballard, 1906, 99) is headed *Nomina eorum qui debent facere murum Domini Regis;* no wall or earth bank now survives. There is similar evidence from Oxford in the early 13th century of houses charged with responsibility for defences (VCH *Oxon.* I, 396-8). In the cases quoted, the defences existed by *c.* 1225. Some ecclesiastical lords were responsible for earthen defences in the 12th century: bishop Roger de Clinton is credited with planning Lichfield and enclosing both town and close before 1149 (Thorpe, 1950-1, 154, 182; Taylor, 1970, 43-52). St Albans has a planned layout, and the earth bank round it, Tonman's Dyke, may have existed by 1142 (VCH *Herts.* IV, 469; Matthew Paris, *Historia Anglorum* I, 271). Devizes with its earthen defences was created by Roger of Salisbury *c.* 1120-40 (Beresford, 1967, 504), and the abbot of Buckfast's borough of Kingsbridge is probably 12th century *(ex inf.* C. A. R. Radford). The bank at Hedon, a new town planned by the Earl of Aumale, has not yet been dated.

The practice of constructing new defences of earth alone continued well into the 13th century. At the new town of Salisbury (Fig. 35), developed from 1219 onwards, the bank and ditch may have served first as a boundary to demarcate burgage plots from land remaining in the tenure of the bishop's villeins. A ditch existed by 1228, but it may have been enlarged and strengthened in the early years of the 14th century. Similarly, the area of the close must have been defined in the early stages of the planning, but licence to build a wall was granted only in 1327 (Rogers in Lobel, 1969, Salisbury 4-5). Although there were eight entrances to the town, only two of them had stone gates (VCH *Wilts.* VI, 75). Other towns whose earthen defences require further investigation are Sandwich, Saffron Walden, Taunton, Tadcaster, and Tetbury. In Wales, a number of small towns developed during the 13th century, all dependent to one degree or another on a castle; their history and topography offer problems not yet explored in sufficient depth. Contemporary sources may fail to distinguish, as we would wish, between castle and town. There are documentary hints that the burgesses resided within the bailey at Dryslwyn, Kenfig, and Painscastle (Beresford, 1967, *passim)* and topography suggests that they must have done so at Cefnllys, Radnorshire (SO 089614). At Flint and Rhuddlan earthen defences are still visible, and at Rhuddlan the bank had timber revetment *(Current Archaeol.* 32(1972)). At Richard's Castle the town bank appears to be of 13th century date–later than the castle (Curnow and Thompson, 1969, 109, 117). A number of new towns planted by the English in Gascony in the 13th and 14th centuries had, at first, no more than earthen defences: e.g. Montségur and Hastingues (Gardelles, 1972, 49).

Two towns had earthen defences described in a way which suggests clay or cob walling rather than a mere pile of earth: King's Lynn, where a length of the south-eastern defences was known as "Clay Walls" (Smith, T.P. 1970, 73), and Portsmouth (Smith, L.T. 1906-10, I, 283), which according to Leland had a length of mud wall carrying ordnance, erected *(ex inf.* M. Biddle) in 1522.

Earthen defences replaced by stone wall

At Winchelsea, inaugurated in 1288, it is doubtful whether more than a short length of bank was ever strengthened by a stone wall, and that only 2ft. 2in. thick (Turner, 1970, 176). At Ipswich, the earth bank had at one point a trench dug for the insertion of a stone wall which was never constructed (Owles, 1972, 167). Both towns had stone gates. Stafford has today no visible indications of defences, but there was a grant of timber in 1216, followed by a long series of murage grants. A large-scale map in the William Salt Library, Stafford, undated but *c.* 1620, shows a complete circuit of defences; the conventions suggest that about half of it was stone wall, the remainder timber palisading. The veracity of the map has not been tested. At Norwich a bank and ditch of 1253 (the date of a licence to enclose the town) or before were followed by a stone wall on the same time, built mainly between 1297 and 1350 (Jope, 1952, 288-91; Hurst, 1955, 5-9). At Nottingham, the original bank and ditch of the enlarged Norman borough belong to the middle of the 12th century; murage grants span the period 1267-1334, but the building of a 7ft. thick wall in front of the bank may have begun earlier (Barley, 1965, 50-65, Ponsford and Carter, 1971, 5-41). Southampton offers at one point on its defences precisely the same sequence of bank, assumed to be *c.* 1202-3 from documentary evidence, faced in the late 13th century with a thin wall *(Medieval Archaeol.* **2** (1958), 198). The core of the surviving Bargate (i.e. north gate) is generally regarded as *c.* 1180-1200 (Platt, 1973A, 36); that is, the earthen defences were from their beginning accompanied by at least one stone gate.
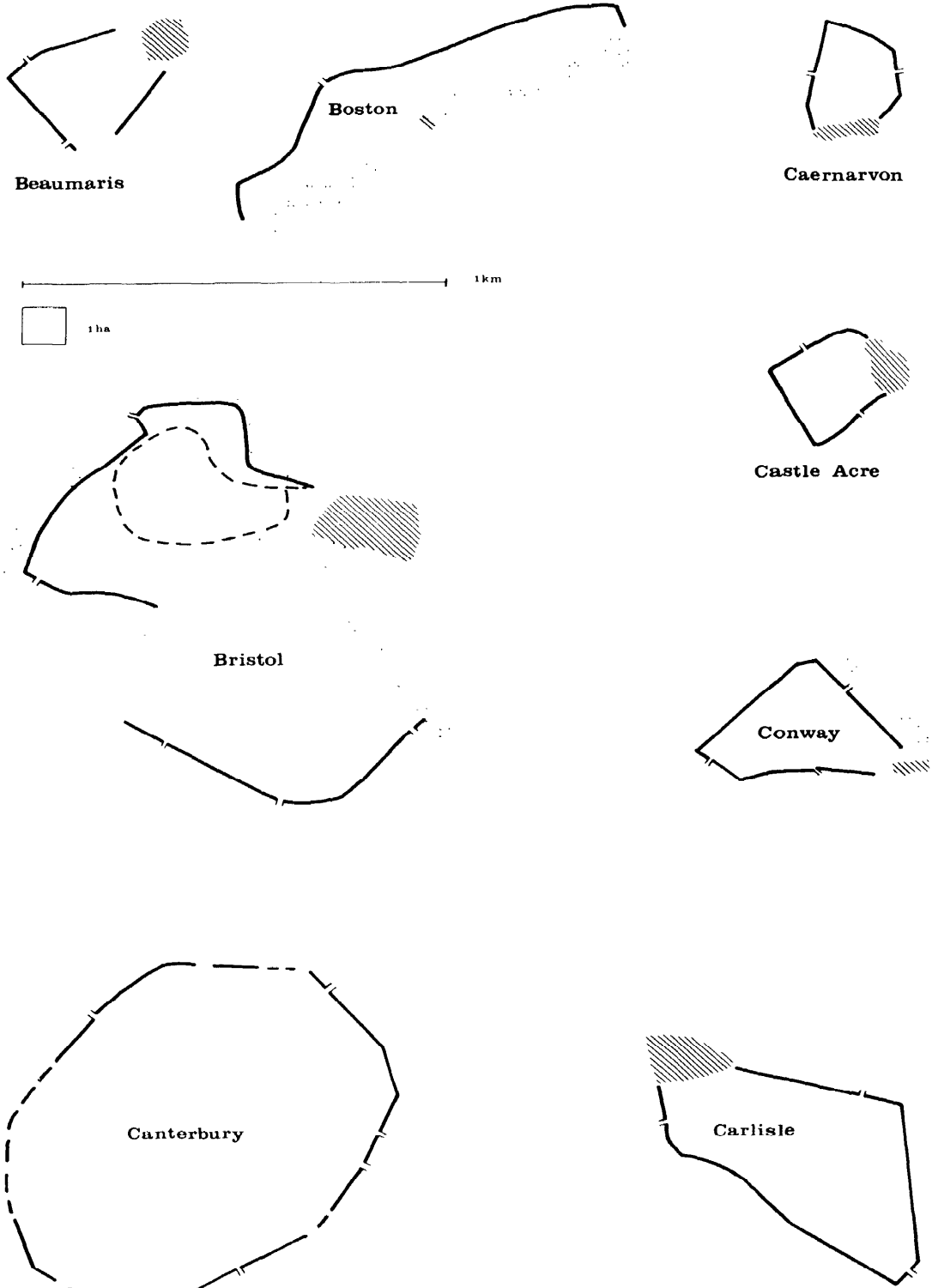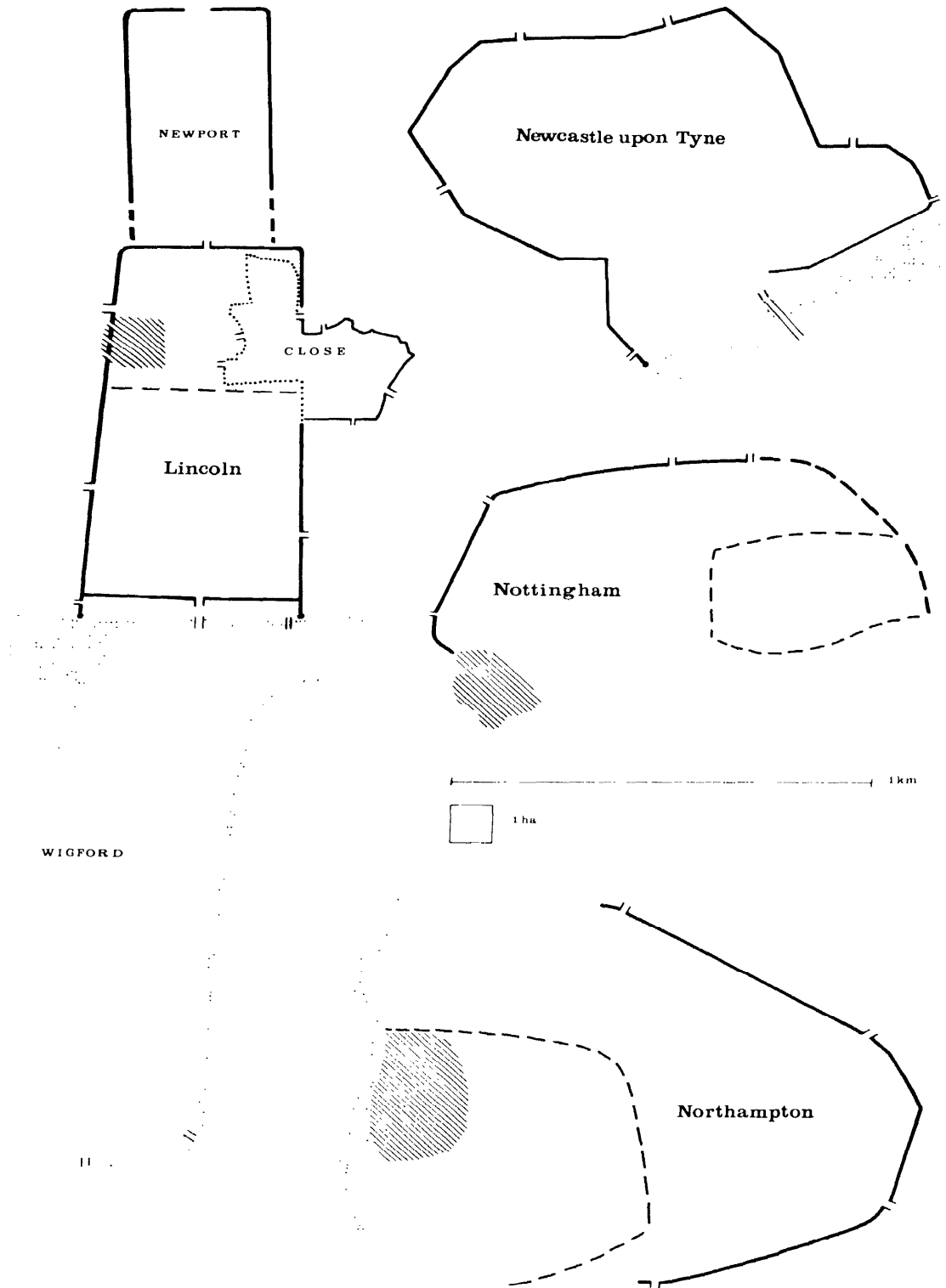
30   *Comparative plans (scale 1:20,000) showing defences, castles (hatched), earlier defensive circuits (broken lines): Beaumaris, Boston, Caernarvon, Bristol, Castle Acre, Conway, Canterbury, Carlisle*
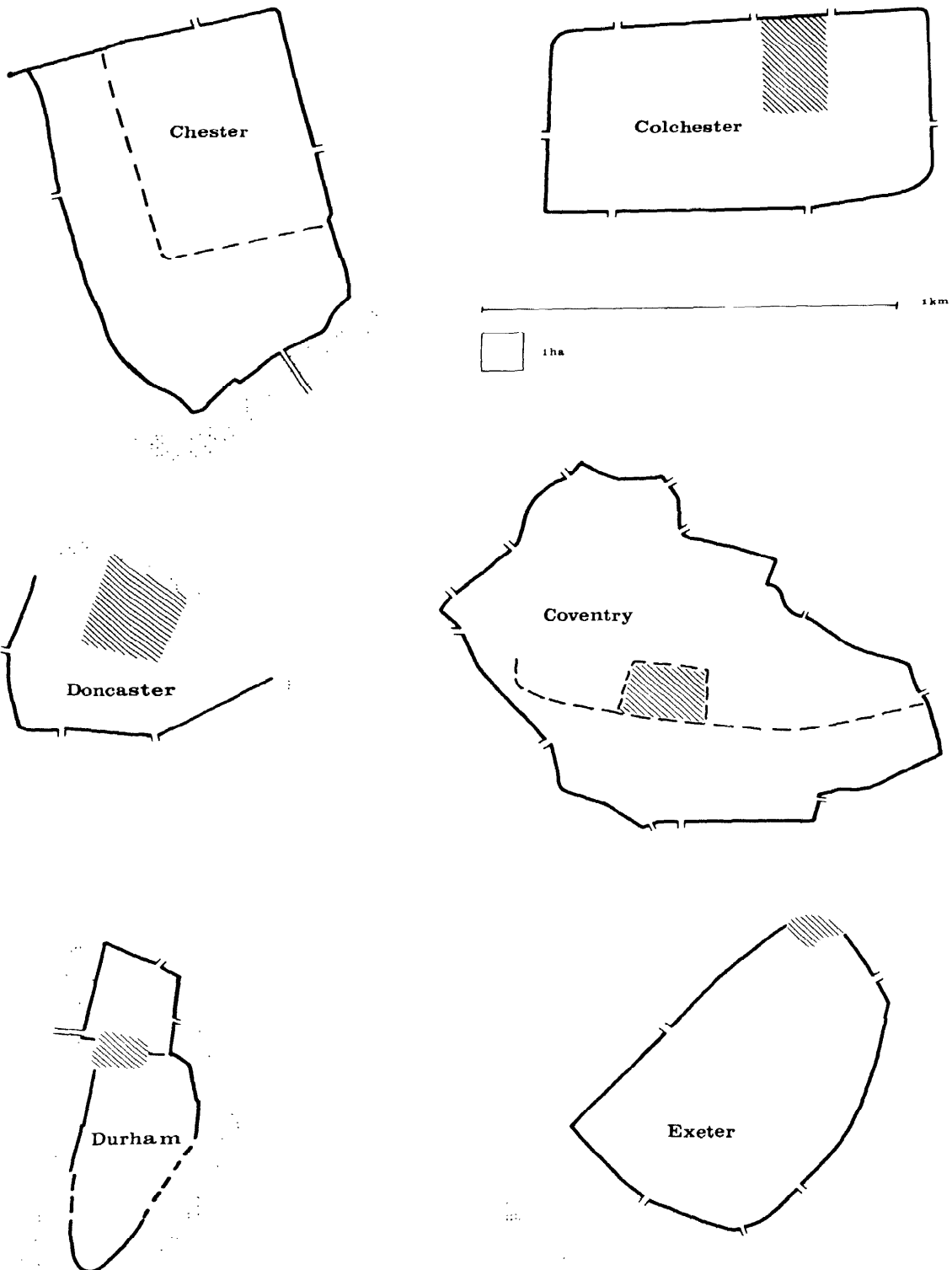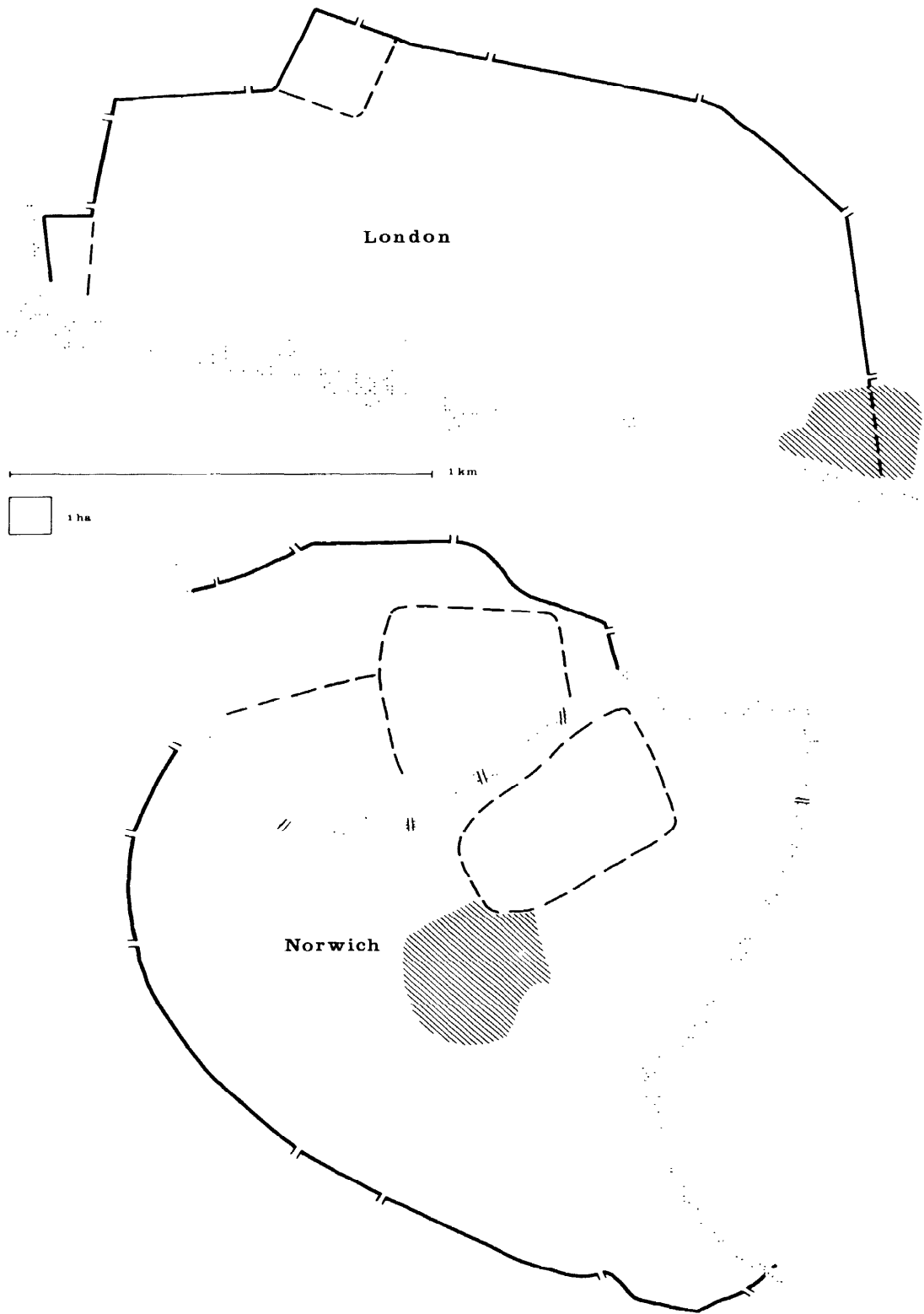
31   *Comparative plans: Chester, Colchester, Doncaster, Coventry, Durham, Exeter*
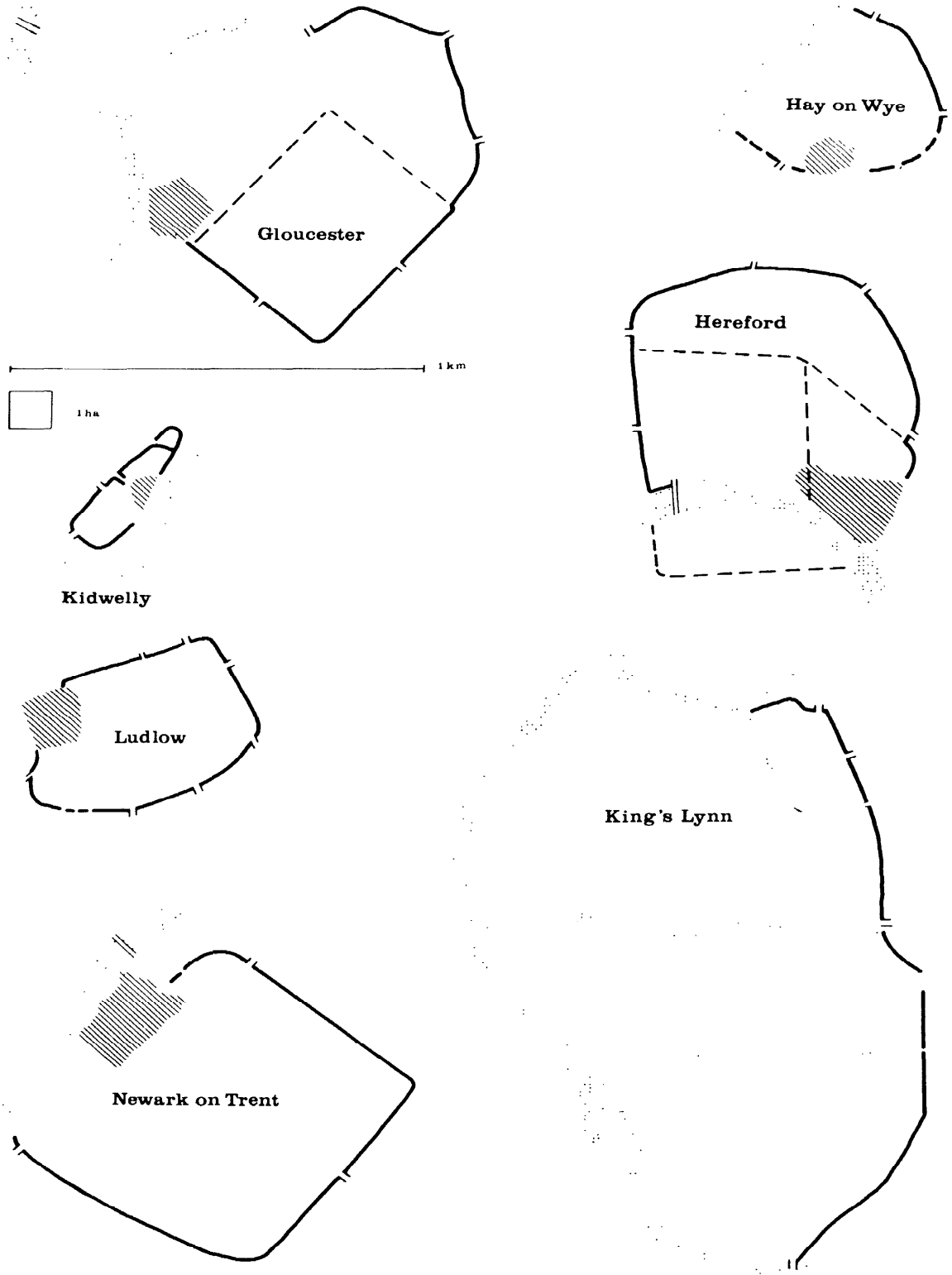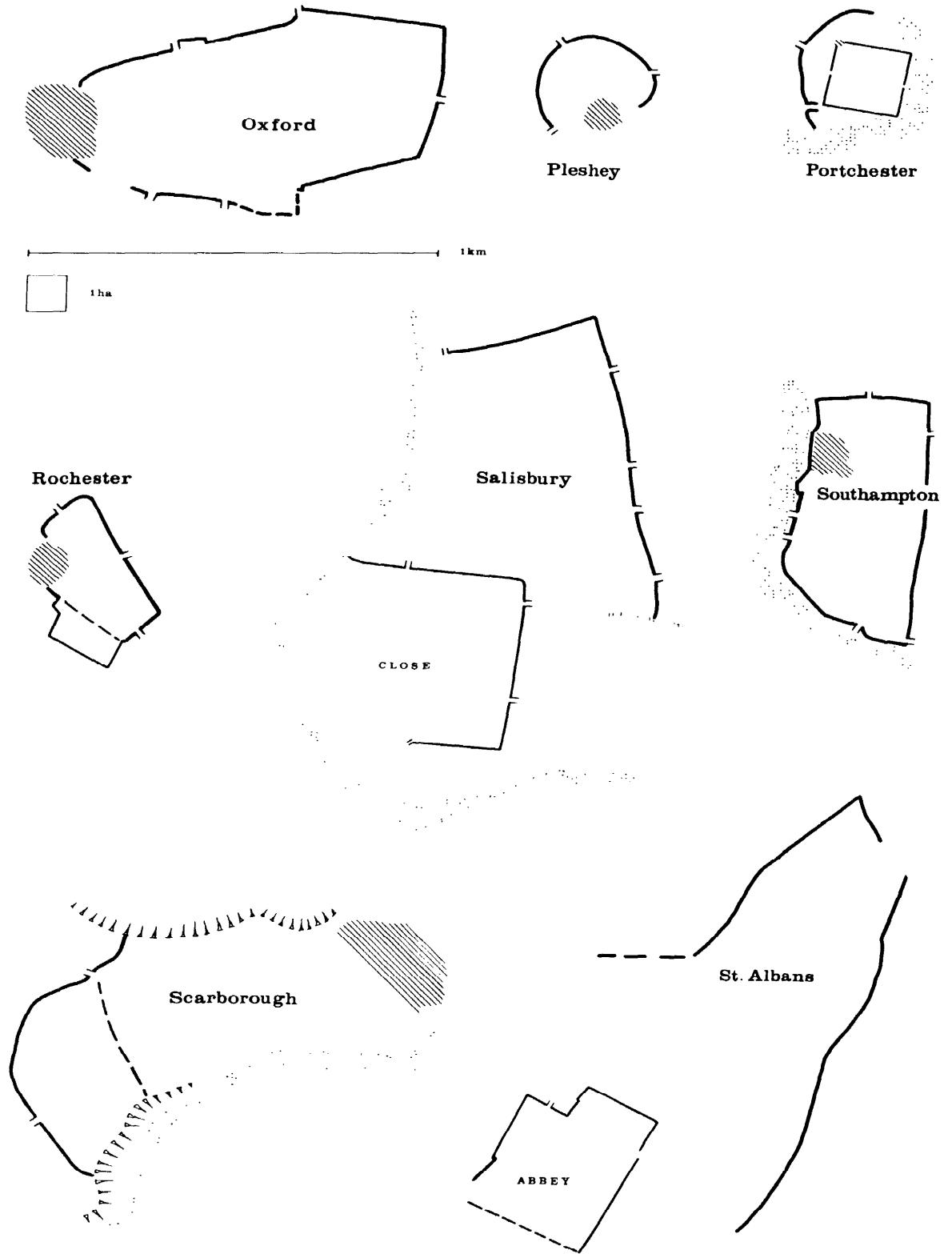
*32   Comparative plans: Gloucester, Hay-on-Wye, Hereford, Kidwelly, Ludlow, Newark-on-Trent, King's Lynn*

NEWPORT

Newcastle upon Tyne

CLOSE

Lincoln

Nottingham

WIGFORD

1 km

1 ha

Northampton

33   *Comparative plans: Lincoln (including the close and*
          enclosed suburbs), Newcastle upon Tyne, Nottingham,
          Northampton

London

1 km

1 ha

Norwich

34 Comparative plans: London, Norwich

35   *Comparative plans: Oxford, Pleshey, Portchester,*
     Rochester (showing abbey), Salisbury (showing close),
     Southampton, Scarborough, St Albans (showing abbey)

Stamford

1 km

1 ha

Tenby

Tonbridge

Wallingford

Winchester

ABBEY

CLOSE
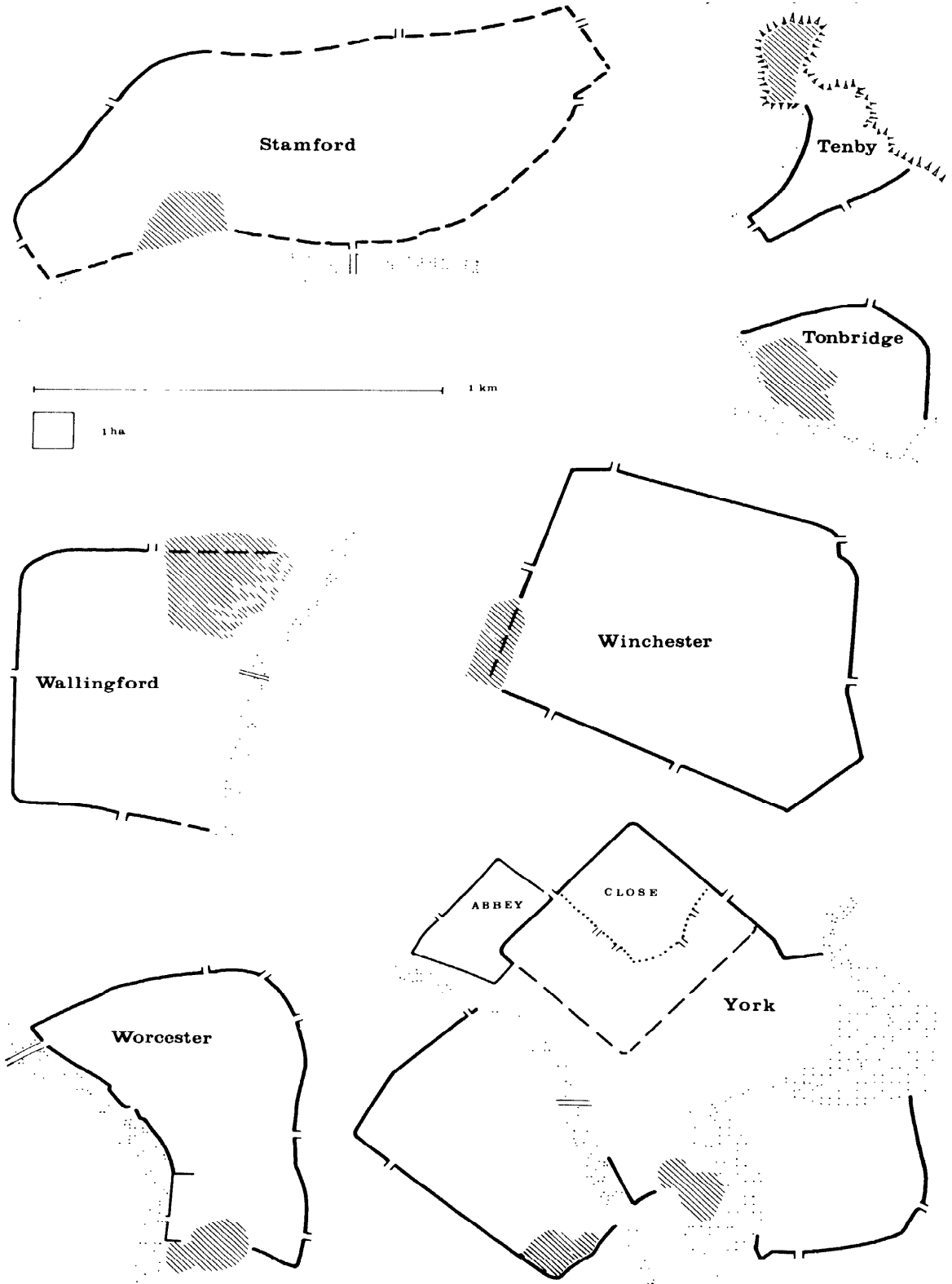
York

Worcester

36   *Comparative plans: Stamford, Tenby, Tonbridge,*
       Wallingford, Winchester, Worcester, York

Town walls and town growth

Where there was a lapse of time between the construction of earthen defences in the 12th or 13th centuries and their replacement by stone, there were naturally instances of stone walls taking in an enlarged area. There is one case only of stone walls enclosing a reduced area. At Berwick on Tweed, the earliest defences, an earthwork called Spades Mire (White, 1962-3, 355-60), lies north of and outside the line of defences thrown up quickly after Edward I's capture of the town from the Scots in 1296 (Colvin, 1958, 563-4) in the form of a wide ditch with a bank topped by a tall timber palisade, replaced within 20 years by a stone wall. Scarborough, where a borough grew up under the shadow of the castle, probably got its defences as part of the development of urban status. The first murage grant of 1225 is taken to refer to an area enlarged on the west, for a distinction between the old and the new borough is referred to in a charter of 1256. The nature of the wall on either the old or the new line is unknown (Edwards, 1966, 25-32, 40). At Bristol, three certain phases of defence have been demonstrated. An Anglo-Saxon phase has been inferred but remains unproved; an early Norman stone wall certainly existed which in the early 13th century was rebuilt, probably to enclose a larger area (Fig. 30). After a recutting in 1240-7 of the Frome Channel through what is now the Centre, the Marsh Wall, Port Wall, and a northern defensive wall were built (Rahtz, 1960B, 221-36). At Coventry, the stone wall was built later than in most English towns (1356-1534), and it is clear that the wall replaced earthen defences enclosing a much smaller area (Fig. 31). The long campaign of building inevitably encountered obstacles such as property rights, and involved temporary devices such as lengths of timber palisading; it is perhaps remarkable that the campaign was eventually completed (Gooder, 1971, 3-37; map in Lobel, 1975). At Norwich (Fig. 34), the enormous circuit of 2½ miles of wall, with nine main gates and numerous towers, certainly took in a larger area than that already defended by an earth bank and ditch, whatever its precise line and date (J. Campbell in Lobel, 1975). Compared with continental towns, where successive enlargements of the walled area often serve to indicate growth, the pattern in England is simpler because in the Norman period castles protected towns, and because most stone walls were built between 1250 and 1350, at the time of maximum urban expansion.

Stone walls, gates, and towers

Our knowledge of the nature and chronology of town defences varies very greatly from town to town, as is evident when the architectural character and construction of walls, gates, and towers are considered. Two recent publications, Dr Hilary Turner's *Town Defences in England and Wales* (1970), and the Royal Commission on Historical Monuments *City of York, vol. II: The Defences* (1972), with its valuable introduction, make it unnecessary to describe here at length the surviving remains. The most impressive of the Welsh towns, Caernarvon and Conway, have been described in inventories of the Royal Commission on Ancient and Historical Monuments, Wales: *Caernarvonshire,* vols. I (1956) and II (1960).

Towns with the most impressive remains are Newcastle on Tyne, York, Chester, Norwich, Yarmouth, and Southampton, and in Wales, Caernarvon, Conway, and Denbigh. The group epitomizes the story of medieval town walls: Roman in origin, but enlarged, altered, and rebuilt in different ways (Chester and York); built in one brief operation and designed by military engineers (Caernarvon, Conway, and Denbigh); built over a long period and without any master design or consistent policy (Newcastle, Yarmouth, and Southampton). The group naturally included towns which must have been among the most impressive to contemporary eyes. Apart from the Welsh castle towns, Newcastle with its 2 miles of wall, its nineteen towers, and seven main gates was described by Leland as surpassing in strength and magnificence all the walls of cities of England and most of the towns of Europe (Smith L. T., 1906-10, V, 60).

Like most other medieval buildings, town gates have suffered every degree of alteration or rebuilding. No surviving example, except for the core of Bargate, Southampton, and of Walmgate, Micklegate, and Bootham Bars, York (RCHM 1972A, 10) is earlier than the late 13th century. The medieval town gate was typically "a single passage with wooden gates and a portcullis below a stone tower of two or more storeys". None had the double carriageway found in some of the grander Roman towns of Britain. Rebuilding or improvement, especially in the 14th century, followed the design of castle gates in incorporating square, or more commonly round, flanking towers. Other features of castle gateways, such as barbicans and bartizan turrets, are uncommon in towns; for example see RCHM 1972A, 149, 141, etc.; RCAHM 1960, 154. Gates of the 15th century, such as the North Bar, Beverley (1409-10), the Stonebow, Lincoln (early 16th century), and the South Gate, King's Lynn (1480-1500), speak more of civic pride than concern for security. Other gates, such as most of those at Coventry, were no more than simple square towers over openings (drawings in Gooder, 1971). The Saxon tradition of locating churches just inside town gates, as at Oxford and Wareham, gave way to chapels over gates at Bristol, Langport, Warwick, and Winchester. Postern gates, for public or private convenience, may have been more common than is implied by documents or their survival. They gave access to quays or the sea at Exeter, Hartlepool, Sandwich, and Southampton (Turner, 1970, *passim).* Even the strongest wall circuits were not regarded as inviolable; friaries at Dunwich, Oxford, Shrewsbury, and Worcester, located adjacent to the walls, received sanction for private posterns (Turner, 1970, *passim)* and such examples could be multiplied.

At Beaumaris and Conway there were batteries of garderobes on the walls, for public use (RCAHM 1937, cxlviii; 1956, I, 56), and some gates and towers incorporate a single garderobe (Turner, 1970, 88; Smith, T P., 1970, 68).

Towers or bastions-the terms are used indifferently-are a normal feature of town walls, and were commonly added to walls of Roman origin. They show a transition from an earlier half round to a later square form, the principal distinction being that the former had an open back, the adjacent lengths of curtain wall being linked by a wooden bridge. The value of tower forms for dating is limited by the likelihood of rebuilding on existing foundations. Carlisle, Newcastle, and the close wall at Salisbury have small look-out turrets corbelled out from the wall face (Hogg, 1962, 326; Turner, 1970, 108 and pl. 11). Such turrets also occur at Alnwick Castle.

Arrow slits and gunports reflect the military intent and quality of urban defences, and have their chronological significance. Rating by form of arrow slit has evident pitfalls, including modern restoration. South -eastern towns such as Canterbury and Southam   pton have the earliest gunports, dated before 1400 (RCHM 1972A, 47-53; O'Neil, 1960, 6-21).

Medieval towns sometimes left open their river front-ages but did not neglect to control bridges and traffic along rivers. The easiest way to control a bridge was by a gate or postern, as at Stamford, Hereford, and York. Bridgnorth, Chester, London, Shrewsbury, Monrnouth, and Newcastle had fortified bridges; only the Monnow Bridge survives, with a tower on the bridge itself, but the very impressive Welsh Bridge at Shrewsbury, replaced in 1791-5, was drawn by more than one artist on his way to or from north-Wales. Several coastal ports and towns on navigable rivers, not-ably Norwich, Hull, and York, controlled the movement of boats by means of an iron chain slung between towers (RCHM 1972A, 45-7).

Walls, banks, and ditches

While much remains to be learned about the remains of stone defences surviving above ground, buried evidence offers even larger scope. The archaeologist should question whether a ditch was dug in all cases, or whether local topography made it more convenient to cut back a steep natural slope to a vertical face and, no doubt, to revet it with stone. This was done at Baldwin Street, Bristol, in the 13th and 14th century, without cutting a ditch. At Exeter from the west gate to the south-west angle of the town the wall is merely a retainer and the same is true in places at Totnes and Ludlow. Excavation at Knighton has shown that on the west a length of Offa's Dyke was used by having a stone wall built on the bank (ex   *inf.* D. Hill), but on the east there is only a steep, revetted slope above the Teme. It may be impossible to tell, without excavation, how far a fall in level from interior to exterior is due to the accumulation of occupation material within the town, as it is at York, and also presumably at the north corner of Newark and at Bury St Edmunds.

Town ditches are, in most places, inaccessible to the spade. In any flourishing town they will have been filled in and put to the appropriate use of one age or another-cattle market, ornamental walk, car park, or ring road. The few excavations of ditch sections for larger towns show that they varied greatly in dimensions, but in general were shallower than those of Roman towns, and likely to have a flat bottom or a shallow bowl-like profile. Ditches were commonly cleaned out or recut during the course of the medieval or early modern periods. The platform or berm between wall-face and ditch-lip, a standard feature of Roman defences and found to be particularly wide in Saxon *burhs,* is less likely to occur in the middle ages. Only for York has any series of profiles of defences been published (RCHN 1972A, 41).

Only rarely does an earth bank, whether or not it had a stone wall, remain an impressive feature today. York is most unusual in that the walls stand on the crest of a massive bank, and for that reason are very low, but at Caernarvon and Chepstow the walls stand on a bank. Such remains of banks as survive are of greater potential value for dating than ditches.

Medieval stone walls were not, as a matter of course, backed by a continuous rampart, as had been the Roman practice. There are towns such as King's Lynn and Southampton where a bank existed behind one length of wall and not another (Smith, T. P., 1970, 79, 84, 127; *Medieval Archaeol.* II 1958,198). There are cases (Nottingham, Southampton) where the bank was raised at the time when the wall was built, or even (Coventry) added after a length of wall had been built (Gooder, 1971, 17). The towns which most clearly had no bank are Tenby, where there are arrow slits low in the walls, and the East Anglian group with lengths of internal arcading: King's Lynn, Norwich, and Yarmouth (Walker, 1969, 9; Hurst, 1963, 134; Smith, T. P., 1970, 77, Fig. 6; Green, 1970, 110).

To this picture of diversity may be added one more variable: wall thickness. As may be expected with such protracted building activity, the walls of any one town are not certain to be of constant thickness, except in some of the Welsh castle-towns: Beaumaris (6ft.), Caernarvon (6ft.), and Conway (5ft. 9in.). They range from 15ft. (Rye) and 10ft. (Newcastle) to less than 3ft. (Winchelsea). They may thus be indistinguishable in an excavation, except on topographical grounds, from private property boundaries or remains of domestic buildings.

Urban walled precincts

Many medieval towns contained at least one other walled precinct. Apart from urban castles, religious houses within or adjacent to towns were totally enclosed; their gates were of monumental rather than defensive character, whatever their date, but the walls were sub-stantial, especially where the house lay in an open town such as Reading, or an exposed position as at Shrewsbury (VCH *Shropshire* II, 36) or York (RCHM 1972, 16O-72). The walls of religious precincts are another unexplored topic.

Most secular cathedrals had an enclosure of some kind. At St David's, there was a walled close in an open town, and one gate survives; the wall has not been closely dated, but no doubt belongs to the period 1285-1350 (Caroe, 1954, 1-17). At Lichfield the close (1129-49) still has a ditch largely intact, up to 139ft. wide and 18-20ft. deep, and a length of bank 5-6ft. high. A gatehouse and corner towers were built following a licence of 1299 (ex   *inf.* C. C. Taylor). At Salisbury, both gates and walls were built in the mid-14th century on the line of existing banks (VCH   *Wilts.* VI, *75).* The close at Lincoln offers the closest comparison with St Mary's Abbey, York: partly within and partly without the walled town, two of its six gates, two wall towers, and a considerable length of wall still stand (Hill, 1948, 120-3; Jones, S. R., 1974, 11, 25); they have not been surveyed. There must have been consultation between the archbishop of York and the bishops of Lincoln, Exeter, and Wells, for licences to crenellate their closes were given within twelve months in 1285-   6 *(Cal. Pat. Rolls* 1281-92, 164, 161, 215, 229). Nothing is known of Wells, nor indeed of Hereford and Chichester. At York (Drake, 1736,   570) and Exeter (Lega-Weekes,   1915 19-26) the closes lay entirely within the walled town, and are unlikely to have had their own walls; the one surviving gate at York, in College Street, is a timber-framed house with a carriageway beneath it, demon-strating the type of barrier sufficient to maintain the authority of the dean and chapter over a close. York and Lincoln, each with town wall, castle, and close, best

illustrate the complex of jurisdictions   and barriers to free movement in a medieval city.

Medieval defences: conclusions

The distribution map shows that defences are found least in the Midlands, except for prosperous cities there. Towns with ecclesiastical lords are unlikely to be fortified, or at most had earthen defences. A number of shire-towns (e.g. Bedford, Buckingham, Hertford) remained open, or did not maintain pre-Conquest defences. East and south coast ports, with a few exceptions, were not regarded as particularly vulnerable. The earliest towns to have stone walls were those exposed to the Scots; in the 13th century and later, towns in Wales and the Marches were the most likely to be defended. The strength and military effectiveness of defence varied enormously. The complex of motives which led to their erection ranged from royal encouragement and assistance to towns particularly at risk and fears on the part of local authorities themselves, to a simple desire of burgesses to control entry to a town, in order to levy tolls and dues and to maintain law and order. The movement for town enclosure, beginning late in the 12th century, is an aspect of the acquisition of municipal liberties. The comparative plans demonstrate the contrast between small towns near a frontier, or planted in conquered territory, and great medieval cities such as Norwich, King's Lynn, or Northampton.

Town defences in the post-medieval period

In the 16th century new dangers led to the refortification of Berwick, Harwich, Tilbury, Portsmouth, and Plymouth, a process which left little if any trace above ground of medieval defences (Turner. 1970,   *passim).* At Hull and Yarmouth the earth bank behind the wall was raised then or later, to improve resistance to bombardment by cannon   *(Hull Museums Bull.* 3-4 (1971), 20; Green. 1970. 116).

Even at Beaumaris, the walls were repaired in the 17th and 18th centuries (RCAHM 1937, cxlix). Coventry maintained its old-fashioned pride by rebuilding a length of wall in 1636 (Gooder, 1971, 40). It is likely that municipal records, if thoroughly examined, would produce more instances of robbing, and of private individuals making posterns for their own convenience. Exalted persons set an example: at York the North Street Postern was widened in 1573 so that the great horse of the President of the Council of the North could pass through (RCHM 1972, 21), and at Exeter in 1621 the bishop made a great fuss about having a postern from the palace because he could not stir abroad, either for health or recreation, without passing through the town and being gazed on by the people (Lega-Weekes, 1915, 101-5).

Every threat of war or civil strife, from the revolt of the north in 1569 to the Jacobite rebellion of 1745, was likely to react on towns. The walls of Newcastle were repaired for the last time, and, the towers manned, during the Napoleonic war (Brewis, 1934, 6). The most vigorous measures were those taken during the Civil War. Where a medieval circuit was still intact, it was repaired; in other cases an entirely new and larger circuit was constructed, of forts and bastions linked by a continuous

"line of earth and turf, palisaded and stockaded" (RCHM 1964, 31). At Oxford the Royalist defences cost over £30,000 (Varley, 1932) and at Exeter £4,000 (Hist. Mss. Comm., *Exeter Mss.* 206-9).

Discussion

It was pointed out that Roman towns whose defended area was enlarged in the middle ages were all   *coloniae* (i.e. of about 45 acres) and that many unchanged Roman circuits were larger. It was possible that the large suburb of Gloucester between the   *colonia* and the Severn was defended in Roman times. Differences of opinion about the relation between Roman and medieval defences at Carlisle remain to be resolved by excavation. The carcase of the West Gate of Winchester is probably Roman, and more Roman and Saxon gates may have survived through the middle ages than is assumed.

Concentration of attention on defences after the Norman Conquest incurs the risk of underestimating the extent to which the defences of   *burhs* continued to function after 1066. even if they have not survived into modern times. A number of probable instances (nos. 138, 140, 142, 145-6) have been added to the map. The practice of building chapels over gates may have begun before the Conquest.

An urban castle of the 12th century was intended to defend as well as to overawe a town. Apart from the need to accommodate those who owed castle-guard, and their provisions, sheriffs were often required to gather supplies in royal castles. Neither Derby nor Ipswich, whose shires were usually paired for administrative purposes (with Nottinghamshire and Norfolk), had a royal castle. A castle like Norwich, with an area of 16-18 acres, might well be regarded as a citadel, that is, a place of refuge for the townspeople. Norwich castle was in fact, like Coventry, linked to the earlier town defences, though not to later stone walls. At Newcastle upon Tyne, the re-entrant on the west may indicate an intended link with the castle, later abandoned. At Bristol the stone wall dates from 1140, the date at which the castle was being remodelled.

In smaller centres of population, the existence of a seigneurial castle must have been a factor both in defence and in growth. Further research on small East Anglian boroughs, especially those dependent on a castle, is required. There and elsewhere it was difficult to distinguish defensive from boundary earthworks.

There was considerable discussion on the basic reasons for town defences. Some would prefer to relate them primarily to dangers from civil war and more especially to invasion scares. Others would draw attention to the fact that at least two towns—Banbury (according to Leland) and Newport, IoW—had gates but no wall or earthwork. Very few post-Conquest enclosed areas were circular in plan, the most defensible form. At York, murage grants were used for the reclamation of riverside land from the Ouse and the building of river walls. Once built, walls might be used as a promenade, as they were at Bristol and Colchester. Winchester had chapels over all the gates but one. There was no reason to suppose that a street outside the walls served a military purpose, as did the street running inside the walls; nor did towns try to retain a clear space beyond the ditch.

The statement that towns under ecclesiastical lordship were likely to remain open applies particularly to

those dependent on a monastic house or a secular college; the bishops of Durham, Roger bishop of Salisbury, and Alexander bishop of Lincoln built urban

castles and were responsible for town defences. East- and south-coast ports without castles grew up after the primary impulse for castle-planting had disappeared.
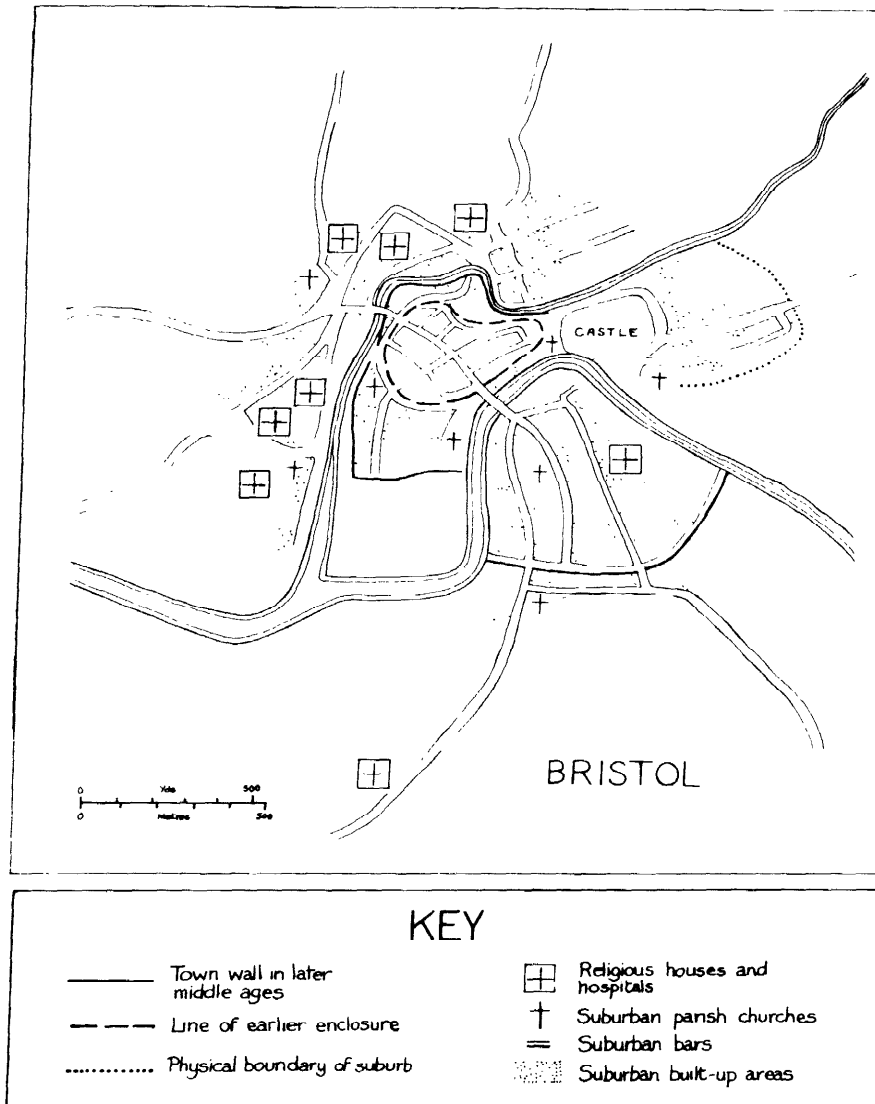
Suburban Growth

D. J. Keene, MA, DPhil

Summary

Suburbs arc an important measure of a town's development and may contain evidence of its prc-urban history. Their form was dictated by existing approach roads and by extra-mural markets. Suburban trades and place names reflected these conditions. Many English towns had considerable suburbs before 1100 which often had severely contracted by the 16th century. Most suburbs were relatively poor, but some were conspicuously wealthy. A few town centres shifted into what previously had been a suburb. Suburban religious houses and hospitals limited rather than encouraged further growth.

The growth of the mercantile suburb in relation to a pre-urban nucleus is one of the dominant themes in speculation on the emergence of towns in northern Europe (Ganshof, 1943). The concept may be applied to many of the smaller and to a few of the larger towns of medieval England. To contemporaries, however, *suburbium* denoted a settlement which was in some sense additional to an existing town; a suburb could only be defined as such when the original urban area was enclosed with a wall, a bank, or other limiting feature. As in classical usage, suburban meant extra-mural. The extended classical usage by which the term 'suburb' was applied to an extensive rural territory around a town, or to a separate town within the orbit of a great urban centre was also current in medieval England. Thus 10th century Winchester was surrounded by *a terra suburbana quae undique adiacet civitati* extending up to 8 km. (5 miles) from the walls (Biddle (ed.), 1976 , 256-9) and Torksey could be described as a suburb of Lincoln (Hill, 1965, 186). This paper will be confined to those built-up areas adjacent to the walled town. This is not to say that areas of similar character did not occur towards the limits of towns which were not enclosed or where settlement did not extend beyond the walls.

Suburbs were the growing edges of the town. In the period of the middle ages for which detailed documen- tary evidence survives, they were the areas of a town's most recent growth and may even have been continuing to expand. Suburbs may thus reveal something of the ways in which towns were formed and of their evolu- tion from rural settlements. Their expansion will usually provide a chronological guide to the growth of the town. Their final extent, related to that of the original enclosure, will be a key to understanding the regional status of a town in its early years, and the changes in this status which may have accompanied later expansion. Bristol and Northampton are cases where suburban growth strikingly reflects this latter aspect of their histories.

Approach roads and the gates through which they entered the walled area dictated the forms of suburban growth. The earliest suburban settlements perhaps clustered immediately outside town gates and may have spread along the lanes which ran round the outside of

the town defences. Records of houses which have encroached on to the town ditch, as at Canterbury by the later 11th century (Farley and Ellis, 1783-1816, 1, 2) and at Winchester by the early 12th (Biddle (ed.), 1976, 274), may provide early evidence for these developments. Churches standing just outside town gates, of which nearly every substantial medieval town has at least one example, were presumably established to serve these settlements. They would also have served travellers at both ends of their journeys, and so could count on a substantial revenue in addition to that drawn from their parishioners. At Winchester the earliest recorded foundation of a parish church was that of St Martin immediately outside West Gate, dedicated in 934- *c.* 939 (Biddle (ed.), 1976, 329-30). For Hereford we may use the evidence of the extra-mural churches to propose a chronology for the development of the northern suburb in the 11th century. The pattern of parish boundaries suggests that All Saints, just outside the entry through the primary enclosure, was the earlier of the two churches within the later north wall (Lobel, 1969, 'The Liberty of Hereford'). Since the other church, St Peter's, is recorded in 1085, All Saints is likely to have been a pre-Conquest foundation. Its existence thus reinforces the archaeological evidence for a suburban settlement outside the north gate of Hereford in the late Saxon period (Rahtz, 1968, 242-6).

A market place was often the focus of activity immedi- ately outside the gate. This might be formed on an irregular site at the junction of the roads approaching the gate, as at the church of All Saints outside the presumed entry to the Danish Borough of Stamford (Hoskins, 1959, 87; Rogers, 1972, 56-63). The market place in the corresponding position at Northampton has a more regular form, but could have developed in the same way with the minimum of disturbance to existing territorial interests on waste land beside the approach roads and the extra-mural lane. The long rectangular suburban market place appears to have been a later development, and is most strikingly exemplified by St Giles's, Oxford. Here, the laying out of a wide street in the ill-defined area where two roads merged may have been accompanied by the foundation of a second church to serve a suburb which had expanded well beyond its original nucleus near the church of St Mary Magdalen

those dependent on a monastic house or a secular college; the bishops of Durham, Roger bishop of Salisbury, and Alexander bishop of Lincoln built urban castles and were responsible for town defences. East- and south-coast ports without castles grew up after the primary impulse for castle-planting had disappeared.

Suburban Growth

D. J. Keene, MA, DPhil

Summary

Suburbs arc an important measure of a town's development and may contain evidence of its prc-urban history. Their form was dictated by existing approach roads and by extra-mural markets. Suburban trades and place names reflected these conditions. Many English towns had considerable suburbs before 1100 which often had severely contracted by the 16th century. Most suburbs were relatively poor, but some were conspicuously wealthy. A few town centres shifted into what previously had been a suburb. Suburban religious houses and hospitals limited rather than encouraged further growth.

The growth of the mercantile suburb in relation to a pre-urban nucleus is one of the dominant themes in speculation on the emergence of towns in northern Europe (Ganshof, 1943). The concept may be applied to many of the smaller and to a few of the larger towns of medieval England. To contemporaries, however, *suburbium* denoted a settlement which was in some sense additional to an existing town; a suburb could only be defined as such when the original urban area was enclosed with a wall, a bank, or other limiting feature. As in classical usage, suburban meant extra-mural. The extended classical usage by which the term 'suburb' was applied to an extensive rural territory around a town, or to a separate town within the orbit of a great urban centre was also current in medieval England. Thus 10th century Winchester was surrounded by *a terra suburbana quae undique adiacet civitati* extending up to 8 km. (5 miles) from the walls (Biddle (ed.), 1976, 256-9) and Torksey could be described as a suburb of Lincoln (Hill, 1965, 186). This paper will be confined to those built-up areas adjacent to the walled town. This is not to say that areas of similar character did not occur towards the limits of towns which were not enclosed or where settlement did not extend beyond the walls.

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KEY

————	Town wall in later middle ages	⊞	Religious houses and hospitals
— — —	Line of earlier enclosure	†	Suburban parish churches
············	Physical boundary of suburb	=	Suburban bars
		▓	Suburban built-up areas

37 Bristol: built-up areas in later middle ages based on Speed (1610), Cronne (1946), and Ross (1959)

A Note on the Figures

The plans which accompany this paper (Figs. 37-45) are intended to demonstrate the extent of suburban development in relation to the original enclosed area of ten English medieval towns. In each case there are shown the lines of town walls which may reasonably be supposed to have been in use at any period during the middle ages. Precinct walls are not shown, except where they supplanted the town walls entirely. Suburban parish churches are shown in order to provide some measure of the extent and chronology of suburban growth. Any attempt to represent parish churches within the original enclosure would have cluttered the plans unnecessarily and obscured the relationship between the street pattern within the walls and the pattern without. On the other hand, religious houses and hospitals both within and without the walls are shown, since the overall pattern of their distribution often indicates the conscious choice of a suburban site. These plans are not intended as representations of the ten towns but as graphical demonstrations of some of the processes of their suburban growth.

The plans are reproduced at a scale of 1:20,000.
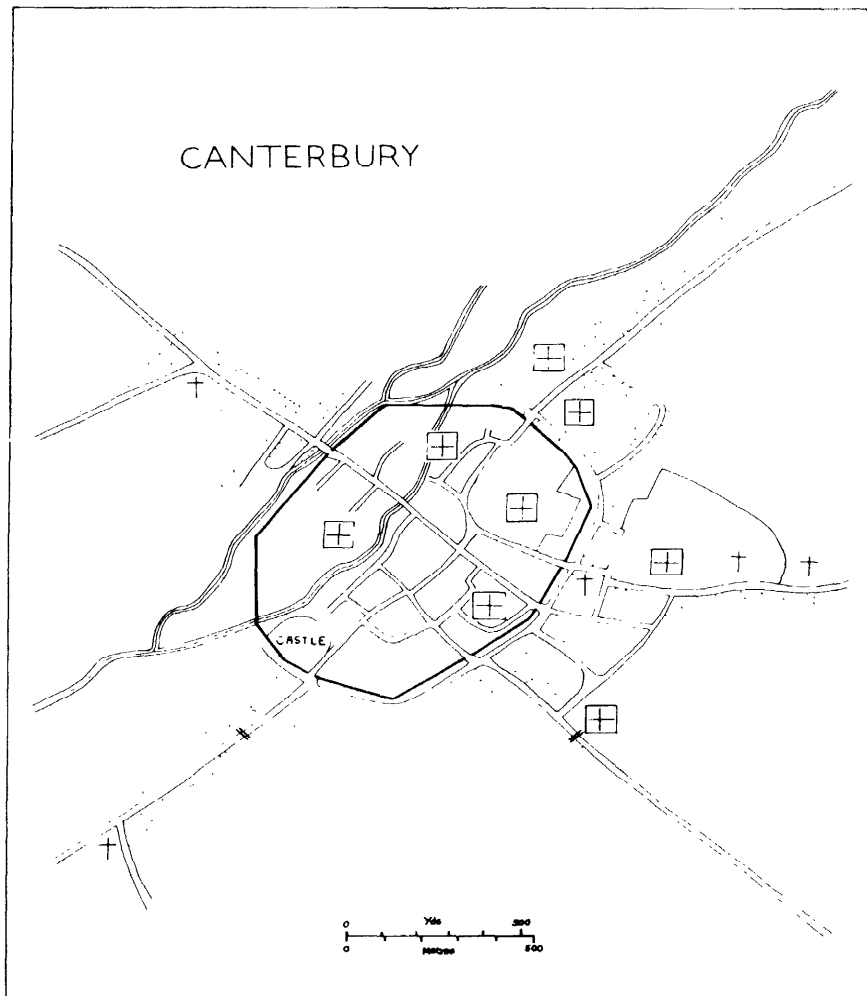
38 Canterbury: built-up areas in late 12th century based on Urry (1967) and Speed (1610)

by North Gate (Cam, 1963, 121). A similar development may be detected in the plan of Northampton, where the church of St Giles stands at the far end of a broad strip of land extending east between two converging roads from the church of All Saints in the market place. In the later middle ages this area was closely associated with Northampton fair and the community of burgesses (Cam, 1930, 7-8). The new borough casually referred to in 1086 (Farley and Ellis, 1786-1816, 219) may have been based on this linear growth, rather than the whole of the area enclosed by the later walls. At Hereford the dry level site provided by the gravel terrace and the direction imposed by the road from Worcester caused the linear market place which emerged in the late 11th century to be sited along the street out-side and parallel to the defences, rather than at right-angles to it. The similarly situated Broad Streets of Stamford and Oxford (Hoskins, 1959, 87) gained the width which enabled them to function as market places by encroachment on the town ditch.

A relatively large proportion of public space character-ized suburbs. Within the walls, as at Caernarvon in the 13th century, public space may have been at a premium (Lobel, 1969, 'Caernarvon', 4). Some business, such as the marketing of cattle and horses, was more suited to an open situation with space for pens and access to grazing than to the constricted streets within the walls. At Canterbury the street name *Rithercheape* takes the suburban cattle market there well back before the Norman Conquest (Urry, 1967, 203). Similarly horse fairs were a widespread suburban feature, as at Smithfield in 12th century London (Robertson, 1877, 6), at Bristol (Ross, 1959, 108), and at York (Raine, 1955, 270-2). A need for space also arose from the restriction on traffic flow imposed by town gates. Carts waiting to pay toll or simply queuing up to pass through a narrow gate required parking space outside the walls. Suburban approach roads, whether or not they also served as market places, were thus wider than the streets within the walls, and often opened out from the entry
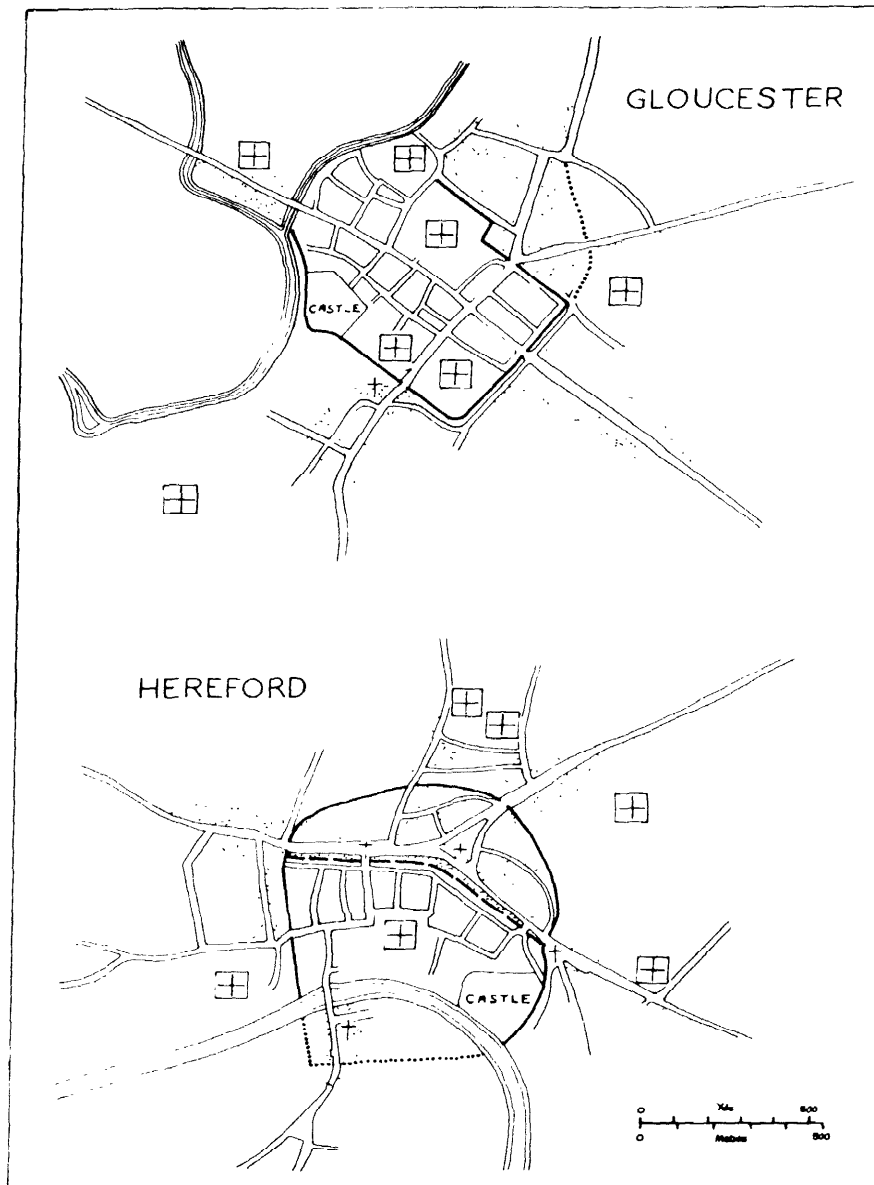
39   Gloucester and Hereford: medieval built-up areas based on Lobel (1969)

into the suburb towards the town gate. A collection of stationary carts no doubt encouraged trading on the spot in goods for which no toll had been paid. This form of commercial activity may be commemorated at Canterbury in the suburban street name *Wincheap* (Urry, 1967, 108). The York name Bootham indicates a further stage where stalls or pens had been set up (Raine, 1955, 261).

Marketing and transport were key factors in suburban growth, and combined to their fullest effect in those towns at which an annual fair was held. Troyes in Champagne is a notable case in which a permanent suburban development was associated with a fair. Here

by the end of the 12th century a regularly planned and enclosed suburb had been laid out on either side of a wide market street leading directly away from the palace of the counts of Champagne in the old city. The main business of the fair was transacted in this suburb (Chapin, 1937, 108-20). In the same period at Winchester a suburb of rectilinear plan, including permanent structures of timber and stone as well as temporary stalls, grew up on the eastern hill of the city, and was the site of the annual fair of St Giles (Biddle (ed.), 1976, 286-8). Northampton's fair was probably responsible for much of the town's suburban growth in the 12th century. Here the new development was a long-term
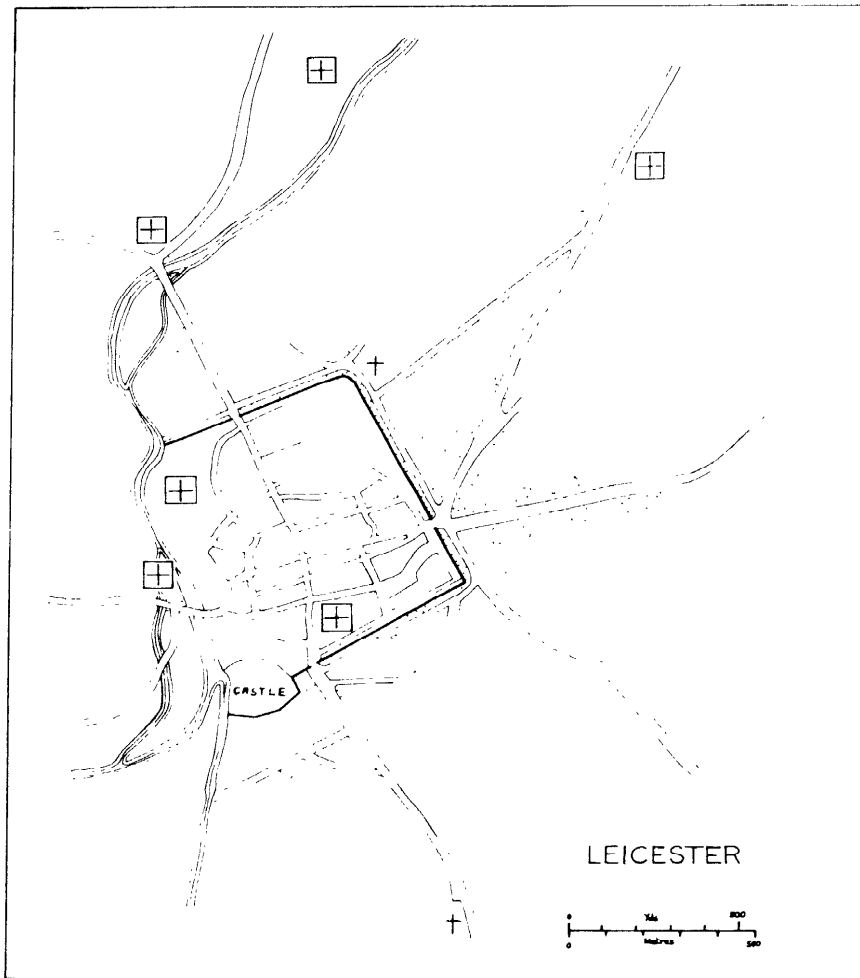
*40   Leicester: built-up areas based on Speed (1610) and on map of Leicester by Thomas
Roberts (1741)*

success: at Winchester the site of the fair was virtually
denuded of buildings by 1400 (Keene, forthcoming).

The suburbs themselves usually preserved an image of
those features which had moulded their development.
By identifying this image we can sometimes reconstruct
the situation before the suburbs grew. Suburban roads
may indicate the relative importance of different
approaches to the town at an early date. The road
pattern to the north and west of the walled area of
Winchester suggests that in the period before the late
9th century the Roman north gate was blocked, and
that traffic from the north entered the city through
West Gate along the dominant east-west axis (Biddle
(ed.). 1976, 261). This was an important precondition
for the early suburban growth of Winchester. Land
boundaries and patterns of tenure and jurisdiction
often provide a basis for a chronology of suburban
growth. Urry has been able to show how house plots
outside Canterbury were formed, presumably in
successive stages, out of individual fields butting on to
the suburban street (Urry, 1967, 188). A 10th century,
rural estate boundary can be used to show how the

urban area of Winchester expanded to the north of the
city between then and *c.* 1110. The 12th century pattern
of land tenure suggests that the southern and eastern
suburbs encroached on the ecclesiastical estates out-
side the city in the same way. By contrast, the settle-
ment outside West Gate was the only one of the suburbs
of Winchester where there were tenements in the royal
fee, and so appears to have been part of the urban area
from an early date (Biddle (ed.) 1976, 265). This pattern
of land tenure led to the emergence of two parallel
jurisdictions in Winchester, and such divisions of
authority were a typical feature of many suburbs.
At Bristol the suburbs of Redcliffe and Billeswick within
the manor of Bedminster and of Temple Fee were the
subject of a prolonged battle of jurisdictions, which was
only resolved by the redefinition of the urban area and
its elevation to county status in 1373 (Cronne, 1946,
3141). Cam has shown that the suburb of St Giles,
Oxford, was a similar though less clear-cut case. In 1419
the jury spoke truer than they knew when they stated
that the town of Oxford had no suburb except that
outside the south gate (Cam, 1963, 117), for it is in
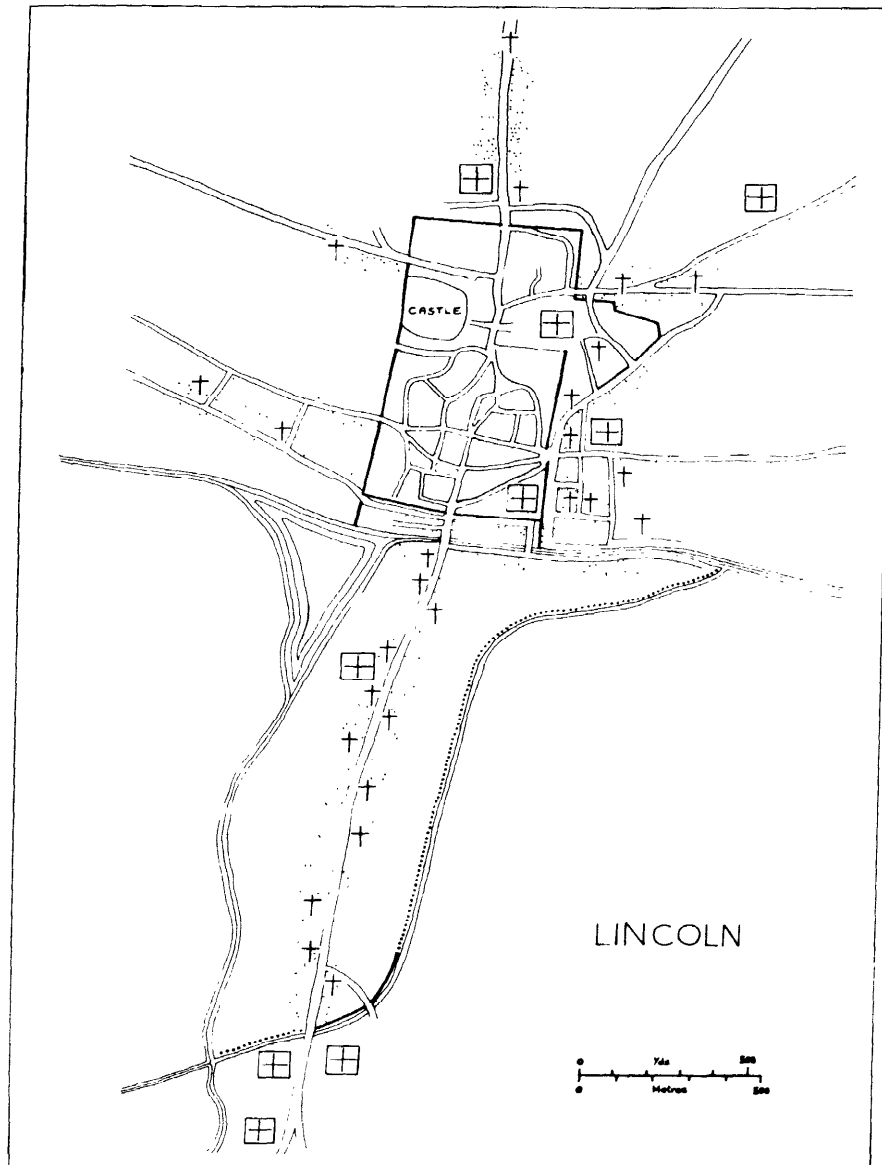
41 Lincoln: medieval built-up area based on Hill (1965) and Speed (1610)

the area to the south of the later walled borough that archaeological evidence for the earliest settlement in medieval Oxford has recently been discovered (Hassall, 1972, 143-5). Very early settlement patterns may be reflected in the extent of later liberties.

By the later 12th century the built-up area of many towns extended several hundred yards beyond their walls. There is a real possibility that such suburbs engulfed detached hamlets or encouraged a concentration of a scattered farming population along the main roads leading to the town. Within the suburbs themselves there may well be traces of these pre-urban settlements. A particular question concerns towns of Roman origin, and the possibility that certain suburban churches may

have originated in the service of hamlets of the sub-Roman period, as has recently been demonstrated for Mainz (Weidemann, 1968). There are sufficient examples of proximity between Roman or Dark Age cemeteries and suburban churches in England to suppose that eventually a similar connection may in some case be proved.

The built-up area of most suburbs consisted of either a single ribbon development or a more compact grouping of houses around several roads converging on a town gate or river crossing. The most striking English example of the former is the Lincoln suburb of Wigford, which by 1100 extended for nearly a mile to the south of the city along the north-south axis which dominates the
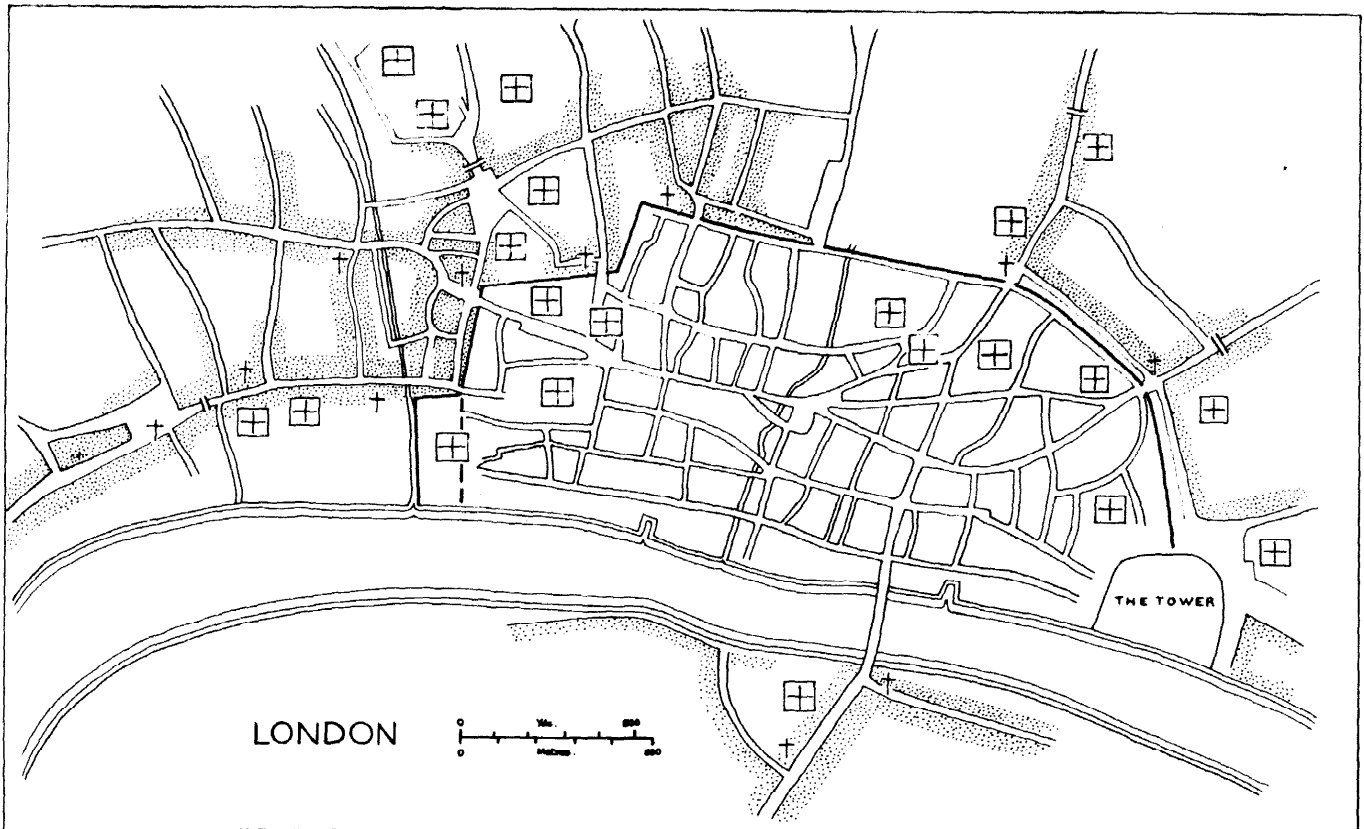
42   London: built-up area in later middle ages based on Braun and Hogenberg's map (1572)

movement of land traffic in the Lincoln area (Hill, 1965, 35-6 and fig. 5). As its name implies, Wigford conforms to the classic German concept of the *wik,* the street of traders (Planitz 1965, 65-70). Linear suburbs of nearly so great an extent were not uncommon. In the second half of the 12th century houses extended for half a mile beyond the walls outside North Gate and Worth Gate at Canterbury (Urry, 1967, 186-7), and some years earlier houses extended a similar distance to the north and south of Winchester (Biddle (ed.), 1976, 266-7). At the same period, a continuous and busy suburb extended 2 miles west of London (Robertson, 1877, 3). Here the attraction of the palace of Westminster encouraged ribbon development. Stourbridge fair perhaps acted as a similar magnet for the one populous suburb of 13th century Cambridge, which extended towards Barnwell (Maitland, 1964, 148-9). Where there was no such special attraction linear suburbs of this type appear to have been most characteristic of the major long-distance routes approaching a town. The more compact suburbs around converging streets perhaps more easily became fully part of the town. Northampton is the outstanding case. The western suburb of Winchester, apparently fully built-up by   *c.* 1110 and with its conspicuously heterogeneous tenure and high rents, was easily the most prosperous of the four suburbs of the city (Biddle (ed.), 1976, 265, 375-82). At Gloucester a suburb of similar form grew up around two roads leading out of the north gate, perhaps as early as the 11th century (Lobel, 1969, 'Gloucester', 3). The prosperous Bristol suburb of Redcliffe and Temple Fee appears to have been formed by a deliberate modification of the

two roads approaching Bristol bridge so as to allow for the creation of a third suburban street between them.

That progressive enlargement of a town's defences to include its growing suburbs, which is usually thought to be characteristic of continental cities, is not rare in England. Between the 11th and the 13th centuries such widely differing towns as York, Bristol, Northampton, Nottingham, Hereford, and Stamford underwent this process. These developments did not match the scale of expansion at Paris, Cologne, Ghent, or Bruges, but of all English towns only London belonged to that group of perhaps fewer than ten in north-west Europe which were of this order of size and prosperity. Nor was the need for fully developed suburban defences so marked in England. Many English suburbs were probably protected by a ditch and earth bank of which little trace now remains. Place-names sometimes provide a clue to the existence of such defences.   *Erdberi* in 12th century Winchester was an area within the bank and ditch of the western suburb (Biddle (ed.), 1976,237).   *Baggeberi,* outside the north gate of Canterbury, and perhaps Sidbury on the south side of Worcester, may have denoted less substantial enclosures (Urry, 1967; Mawer and Stenton, 1927, 22). A defensive line enclosing the north suburb of Gloucester may be indicated by a ditch of running water with an adjacent lane whose public characters were defined by their respective names, the 'king's water' and the 'king's way' (Lobel, 1969, 'Gloucester', 8). The Wigford suburb of Lincoln was defended in a similar fashion and the vulnerable point of entry at its south end was given additional
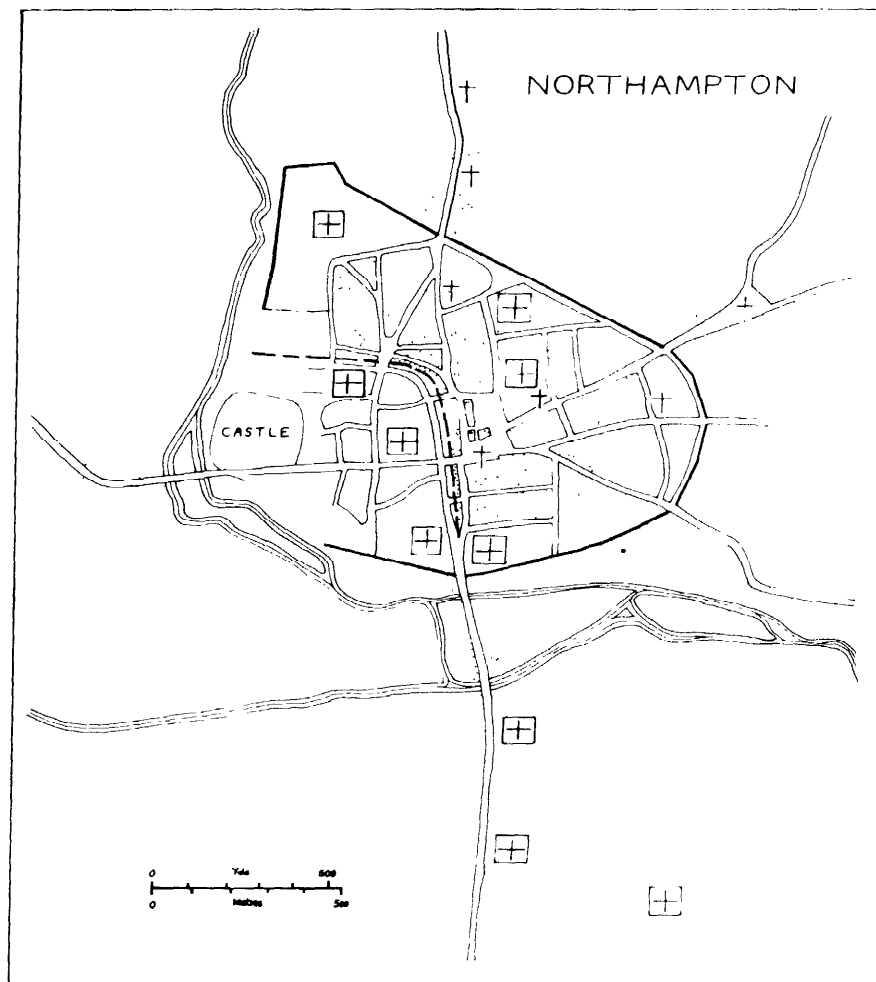
43   Northampton: built-up area in later middle ages based on Speed (1610)

strength by the construction of two stone bars and a length of stone wall (Hill, 1965, 162). At least three of the entries to the Winchester suburbs gained extra protection from the parish churches situated immediately inside the suburban boundaries (Biddle (ed.), 1976, 264-5). Bars almost universally marked the suburban limits. In their simplest form they may have been capable of keeping out little more than stray animals, but the example of Lincoln shows that they could develop into substantial structures.

The definition of a boundary was sometimes followed by secondary suburban growth. To the citizens of 14th century York the suburb on the south side of the Ouse was not the transpontine development of Bishophill, which had been included within the city's main line of defence by the early 12th century, but the straggling line of houses outside Micklegate (Harvey, 1963-6, 387, 391). The north suburb of Gloucester was still recognized as a suburb in the 13th century, but beyond the outer north gate there had emerged further rows of suburban houses known as the Newland (Lobel, 1969, 'Gloucester', 8). In some towns considerations of defence may have meant that the physical boundaries of the

suburbs were laid out short of the actual extent of houses in the same way as the more outlying parts of a built-up area were sometimes excluded from a walled enclosure when it was first created.

When one examines the evidence for the chronology of suburban growth, the most striking feature is the early date at which it appears to have achieved its maximum extent. If the 13th was the century of the new towns, the 11th and 12th centuries were the period of greatest growth in the old-established centres. The defended suburbs of York were at their largest by the middle of the 12th century, and the important suburb of Bishophill was a largely pre-Conquest development (RCHM, 1972, 7-9). Growth beyond these limits is not well documented but may already have been extensive by 1200. During the reign of Henry I houses probably extended further from the walls of Winchester than they were to again until after the coming of the railway. The same is probably true for Canterbury. Bristol's greatest suburban development took place in the 12th century and the limits of its medieval built-up area were probably achieved before 1300 (Ross, 1959, xxxv-vi). In few, if any, English towns do the suburbs appear to

WINCHESTER

CASTLE
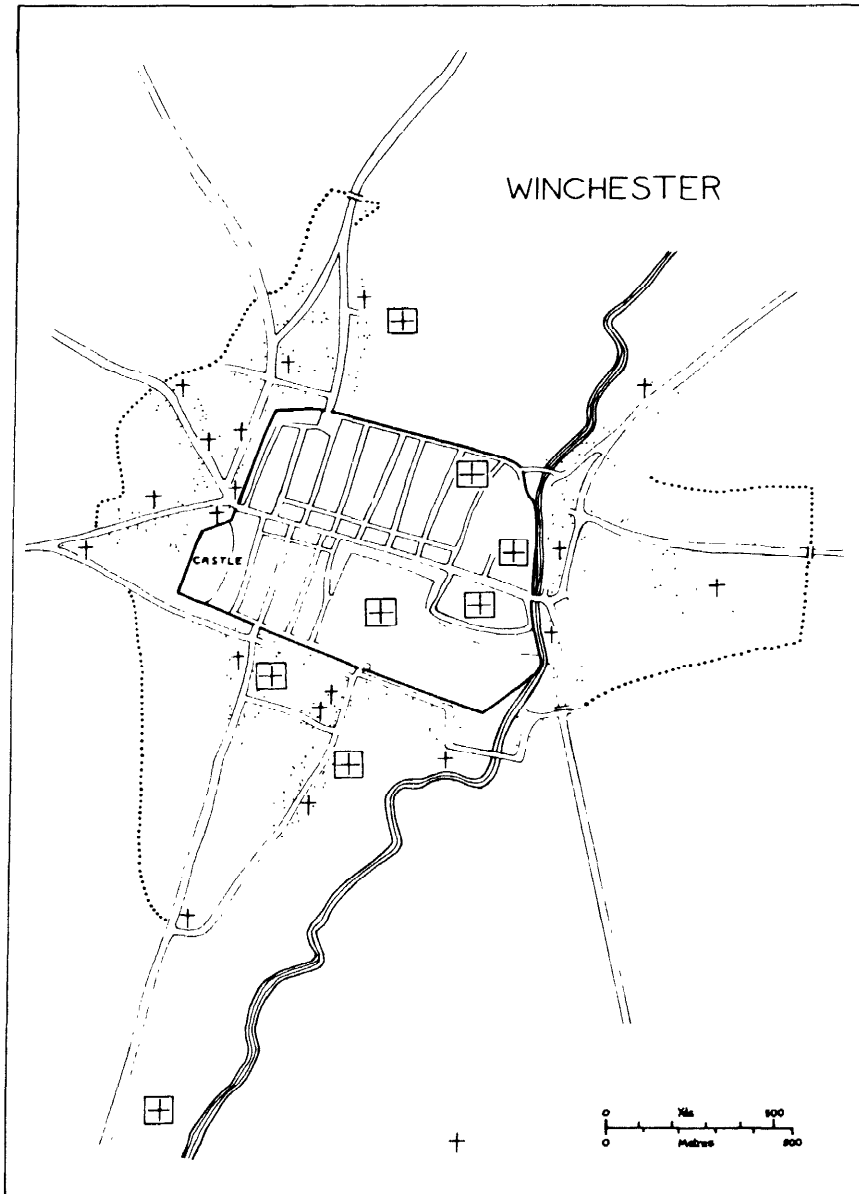
44   *Winchester: built-up area in mid-12th century based on Biddle (ed.) 1976, passim,
      except for the site of St Gile's fair, which is represented as in c. 1250 (Keene,
      forthcoming)*

have expanded after this date. In most they probably
contracted. By the time of our earliest town maps
substantial parts of the medieval suburbs had merged
into the countryside out of which they had been
formed.

Many of the inhabitants of a medieval English town
thus lived outside its walls. As late as the 1520s about a
quarter of the population of Exeter lived in its suburbs
(MacCaffrey, 1958, 13). The proportion was nearly
twice as much at Winchester in the same period. Shortly
before the Black Death at least a third of the population
of Winchester lived in two of its four suburbs. In 1148,

when the intra-mural population of the city had prob-
ably just passed its peak, 37% of the properties recorded
in the survey of that year lay outside the walls and the
suburban population was probably higher than at any
later period in the middle ages (Biddle (ed.), 1976, 377;
Keene, forthcoming). In the reign of John the assessors
of the aid for the Irish expedition reckoned that the
wealth of the men of Redcliffe and Temple Fee
exceeded by half that of the men of Bristol (Slade,
1951) 1434).

In these circumstances it is not surprising that the
commercial and social centre sometimes shifted away
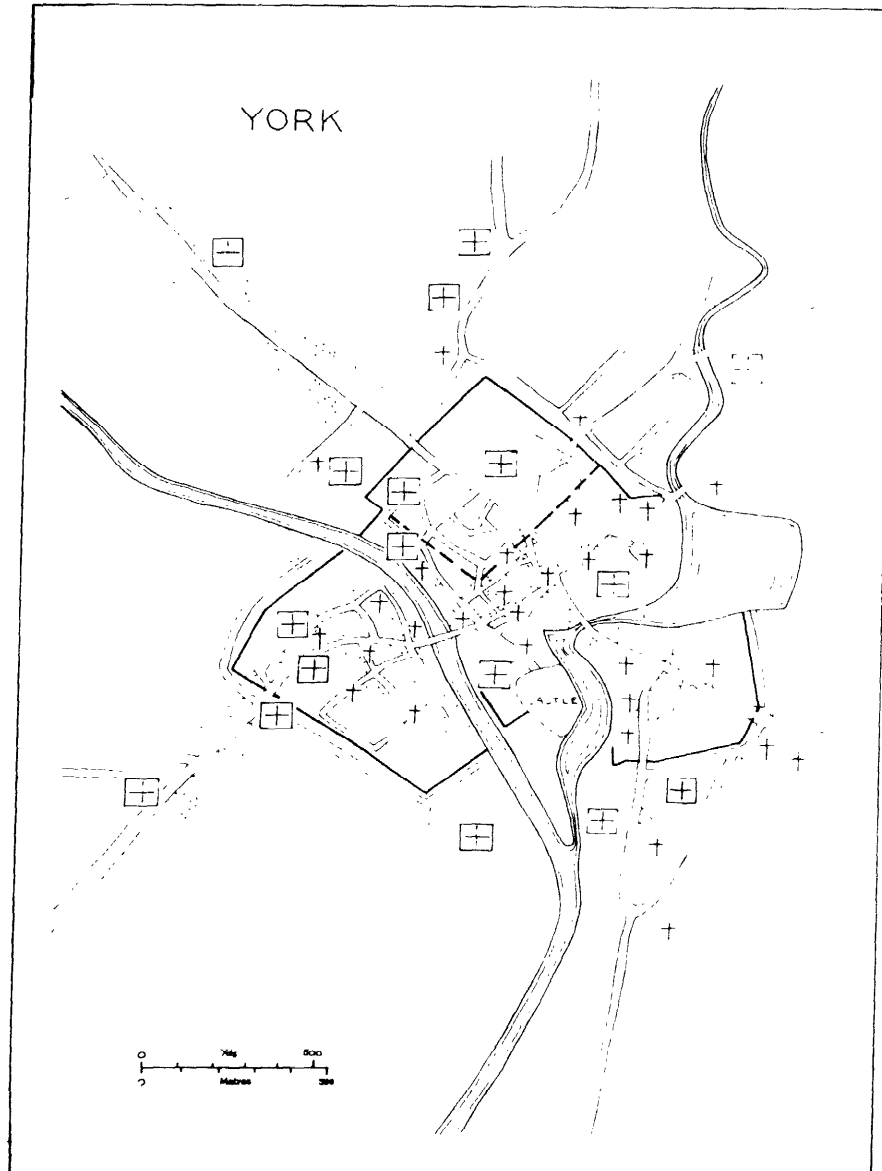
YORK

45   York: built-up area in later middle ages based on Raine (1955) and Speed (1610)

from the original settlement into the principal suburb. Lincoln, Hereford, Northampton, and Leicester may be taken as representative of different stages in this evolution. Its eleven churches and its great extent testify to the early prosperity of Wigford, but it was always subordinate in commerce, density of population, and municipal importance to the lower city of Lincoln on the north bank of the river Witham. If the two main roads which approach Lincoln from the south had converged on High Bridge rather than a point a mile to the south of the city, and a wider well-drained area had been available for settlement south of the river, the development of Lincoln may more closely have resembled that of Cambridge. At Hereford and

Northampton, the extra-mural market place quickly became the commercial centre of the town and was subsequently the seat of municipal authority. Both suburban developments were soon encompassed within an extended enclosure, and at Northampton the main London road appears to have been re-routed to lead directly to the new town town centre (Lee, 1953). The parallel development at Leicester was only completed in the 16th and 17th centuries and so was not enclosed with a wall. Here the commercial nucleus shifted from within the walls to the market area outside the east gate in the most populous of the medieval suburbs. The London road was attracted away from the south gate and henceforward followed an extra-mural route direct

to the new centre. The East Gate area became the focus of the modern expansion of Leicester (Billson, 1920, 20-l ; Dale, 1958, 52-3; Everitt, 1970, 39-45).

The distinctive character of those suburbs which remained suburban was reflected in their topography, their buildings, and their social and occupational structures. On average the inhabitants of the suburbs were poorer than those within the walls and there was less of that intermingling of rich and poor which was common in the central area of a medieval town (MacCaffrey, 1958, 248). A floating population of the destitute may also have been typical: medieval Winchester had two Beggar Streets and a *Paillardestwychene* outside its walls. Suburban housing reflected this poverty: in 1417 the northern suburb of Winchester had a higher proportion of cottages in its stock of dwellings than most areas within the walls (Keene, 1972, 85). Rows of simple two-storey dwellings dating from the 15th to the 17th centuries, and of uniformity startling by comparison with the diversity of structures within the walls, survived in the suburbs of a number of towns until the demolitions of the mid-20th century (Jones and Smith, 1960-1, 24-35; Dyos, 1968, 162 and plate 5). Speculative housing of this type is recorded in the suburbs of Winchester by the early 12th century.

Of all suburban trades, that of blacksmith was probably most characteristic. Smiths are recorded immediately outside the gates of Canterbury and Winchester in the 12th century and they occupied this position throughout the middle ages (Urry, 1967, 12, 131; Biddle (ed.), 1976, 434). This emphasizes the fundamental importance which the servicing of transport has always had in town life. Significantly, smiths are among the earliest of all tradesmen to be recorded in the urban context (Biddle *ibid.;* Tikhomirov, 1959, 73-4). Potting was a distinctively suburban trade, perhaps because of the availability of raw material as well as the greater risk of fire within the wall. One of the best documented suburban colonies of potters was that outside the west gate of Dublin (Brooks, 1936, viii and *passim)*. Tanners and fullers were probably attracted to the suburbs by the ready water supply and the open space available for the drying of cloth rather than any intrinsic advantages of extra-mural life, although attempts were sometimes made to banish noisome leather-making processes to the suburbs (Maitland, 1893, 47). Fullers, engaged in a trade which involved the coordination of several processes, would probably require the headquarters of their business to be situated near the commercial centre of the town. At Gloucester there was a Fullers' Street within the walls as well as a 'fullers' land' outside near the river Severn (Lobel, 1969, 'Gloucester'. 8; Stevenson, 1893, 87). Many suburbs had a marked agricultural aspect: the cornfields and pastures close to its walls were the pride of at least one 12th century Londoner. At this period corn was grown actually within the suburban defences of Winchester (Biddle (ed.), 1976, 265). Some of the suburban inhabitants were no doubt engaged full-time in farm work, while others diversified their domestic economies with part-time agricultural employment. Small plots of pasture, orchards, and in the 16th century hop gardens and saffron plots were common in between and behind the suburban houses. Earlier in the Middle Ages there were suburban vineyards in the south of England (Biddle (ed.), 1976, 135; Urry, 1967, 205-6).

The availability of spacious sites for town houses was perhaps the main reason why, at major royal and administrative centres such as London and Winchester,

magnates who visited the town from time to time acquired tenements or had lodgings in the suburbs. Throughout the middle ages the western suburbs of London were noted for their aristocratic and ecclesiastical residences set back behind the rows of smaller houses on the street frontages (Kingsford, 1922, 243-77; Kingsford, 1923, 51-54). At Winchester similar houses were probably falling into decay by 1200 (Biddle (ed.), 1976, 389-92). A few suburbs were conspicuous for the wealth of their ordinary inhabitants, and this engendered a special sense of identity in the suburban community. The great guild of St Mary was an independent social nucleus for the men of the Wigford suburb at Lincoln, and at Winchester the Easter Guild of the men outside West Gate performed the same function (Hill, 1965, 162-5; Biddle (ed.), 1976, 427).

Space was also the main consideration in the siting of extra-mural institutions. Religious houses founded in towns after 1100 nearly always had a suburban site at the edge of the built-up area. Rare exceptions to this rule, such as the priory of Holy Trinity by Aldgate in London, can usually be shown to have been sited in the least densely occupied part of the walled area. A suburban situation enabled a proper conventual enclosure to be established with the minimum of disturbance to existing property interests. There is little evidence that such foundations stimulated suburban growth, although the existence of a religious house a little way from the town as at Leicester might encourage a straggle of ribbon development, and the presence of a religious house outside a contracting town might halt the decay of the particular suburb where it lay. Religious houses appear rather to have provided an effective limit to suburban expansion. By their occupation of valuable frontage and the restriction on movement imposed by their precincts they may even have hindered commercial activity. St Mary's Abbey at York may have had this effect on the settlement outside Bootham Bar.

The Friars' mission, however, was to the urban population. The Black Friars and the Grey Friars at least seem to have tried to establish themselves as far into the built-up area as possible. Their convents were often within the walls, in contrast to those of the lesser mendicant orders, in particular those of the eremetical Carmelites. Hospitals were characteristically suburban institutions. General hospitals, such as Lanfranc's foundation at Canterbury, were usually close to the walls and were integrated with the community. Leper hospitals, of which most larger towns had at least one by the reign of Henry II, were set apart at a considerable distance from the walls and were rarely incorporated into the built-up area. Travellers approaching a town would have had another reminder of mortality some way from its walls, for the gallows were usually sited at the limits of the urban jurisdiction. Closer to the walls at nine provincial towns and the capital there were the cemeteries of the Jews (Honeybourne, 1959-61, 145-59).

For every town where suburbs may be identified we must ask the questions: when did this development begin; what was its maximum extent; and when was this achieved? The answers will illuminate not only the history of the individual town but also the changing structure of the hierarchy of English towns in the middle ages, for in suburban growth we have something very like a measure of the rate of a town's expansion or decline. The evidence for suburban topography is often even sparser and more intractable than that for the town within the walls. We must therefore be prepared to extract everything possible from place-names, field and

road patterns, liberty and parish boundaries, as well as from written historical records. But often only archaeological evidence will be able to tell us the extent and intensity of human habitation outside the walls and the nature and date of suburban boundaries. In the suburban context above all, concrete knowledge of our medieval towns can frequently be sought only with the spade.

Discussion

The discussion largely centred on five recurring themes: the nature and function of wide extra-mural streets such as St Giles's at Oxford; the question of separate jurisdictions and urban boundaries; problems arising from the definition of suburb adopted for the purposes of the paper; continuity of settlement or other activity in the suburban areas of Roman towns; and the significance and extent of pre-Conquest suburban settlement in England.

The term 'marshalling-ground' might best describe one of the main functions of a street such as St Giles's for uses where a market was not specifically recorded. In view of the jealousy with which trading rights were guarded, a lack of documentary evidence, at least in the post-Conquest period, was likely to be good reason for supposing that a formal market did not exist. A discussion of the evasion of toll revealed some of the ambiguities of the evidence. Bye-laws which specifically prohibited extra-mural trading, as at Norwich, could be taken as evidence that evasions of toll were commonplace. There was some discussion on what activities actually had taken place in St Giles's, Oxford. Wood had been sold there, and this raised the possibility that the sale of timber may often have been located in a suburb. Another possibility was the hay market, the location of which in Oxford was not known.

There was some difference of opinion as to whether built-up areas adjacent to a town but in a separate jurisdiction, and even, as in the case of Southwark, bearing a separate name, should be regarded as suburbs or as separate urban communities. Detailed expositions of the cases of Bristol and Stamford convinced the conference of the complexities of the matter and of the genuine administrative separation between the component parts of these two towns. Nevertheless it was agreed that, in terms of their everyday activities, communities under separate jurisdictions such as these should be regarded as single urban settlements. Boroughs such as Southwark were extreme examples of a phenomenon which occurred at virtually every town by a river crossing, and even Southwark would not have developed as it did had it not been adjacent to London. A multiplicity of jurisdictions within a single town might sometimes be the result of the division rather than the expansion of the urban area. A clue to its original (or at least earlier) unity might be provided by similarities between the urban customs observed in the different parts of the town.

Why were urban boundaries in general often defined so late in a town's history? After discussion this question was rephrased as: why were urban boundaries defined so frequently? The one sure point was that there was a great deal of variation from one town to another, and that this probably reflected differences in the local balance of power between separate authorities. The argument that

a town's jurisdiction was, or ought to be, confined to its walled area may in many cases have been a source of confusion and dispute.

The definition of 'suburban' as 'extra-mural' for the purposes of the paper raised the important question of whether an area of settlement demonstrably suburban in the later middle ages was necessarily suburban in origin. Coventry was cited as a case where the construction of defences had at a stroke created suburbs out of the outlying parts of the earlier settlement. In the case of a town which had emerged out of the expansion and coalescence of settlements around several nuclei (the term 'clotting' was used) the outlying and potentially suburban areas originally might not have differed in character from the centre. Discussion revealed how little is really known about the early topography of our towns. This is an area where archaeological evidence has much to contribute. The distribution of early finds in Bristol appear to be concentrated in the 'northern suburb' rather than in the 'original nucleus' as defined in Fig. 37. Without this sort of knowledge the student of urban topography may easily be lead astray when he tried to define a feature as suburban in character.

On the question of the continuity of Roman or sub-Roman features in suburbs, St Alban's Abbey represented one example of continuity of settlement on or near the site of a late Roman suburban shrine. Cologne was a case where comparable settlements had influenced the expansion of the medieval town. Metz was another useful comparison. Here there were considerable Roman suburbs, and in the Carolingian period there appears to have been even more extensive suburban settlement, probably dispersed in character and related to the sites of late Roman shrines.

On the whole the conference seemed to be agreeably surprised at the evidence for the size and extent of certain suburban developments in and before the 12th century. Recent archaeological discoveries in the Butwerk suburb of Lincoln supported the evidence of parish churches and topography for its early prosperity. Danish material had been recovered from the Butwerk excavations, and this emphasized both the trading character of many suburbs and the significant place which the Danes occupied in English urban history. Once more the conference realized how little was yet known of the archaeology of Danish urban settlement in England. The choice of a suburban site for trading implied that there can have been no suitable space remaining within the walls. It was possible that long straggling suburban developments of the type described in the paper may have been characteristic of the early period, but the contraction of such suburbs may have been associated with the overall decline of the town in the later middle ages rather than a regrouping of population within it. Good documentary and cartographic evidence is usually available only for this later period, and we should beware of interpreting these straggling suburbs as necessarily characteristic of a 'primitive' stage of a town's evolution rather than of the period of its greatest prosperity. Similarly, the lack of early evidence usually means that a study of suburban plot and tenement patterns will reveal little of the particular character of a suburb at the period of its maximum extent. Once more the unique value of archaeological evidence for suburban growth was apparent.

Further Research Projects

The following list of further topics for research emerged from the seminar.

A.   General Projects

1. The listing of criteria of urban status to be applied in considering the character of a given settlement. These criteria have already been formulated in *The Erosion of History* (ed. Heighway, 1972) and have been used by compilers of *Historic Towns* (ed. Lobel, 1969).
2. The compilation of an up-to-date and ongoing bibliography of urban archaeology. This is already covered to a very large extent by the CBA's *Archaeological Bibliography* and *Abstracts.*

B.   Specific Documentary Projects

1. The listing and analysis of terminology used in early sources, from Bede to Domesday Book. This could either be carried out at a fairly elementary level (e.g. the listing of places and terms used) or in greater depth (e.g. by a critical examination of the philological problems posed by a writer such as Bede).
2. The identification, classification, and listing of Anglo-Saxon urban and rural charters which bear on towns.
3. The listing of those War Office maps at the PRO which show towns where the military had an interest.
4. The listing of urban maps held by the Church Commissioners or deposited by them in local record offices.
5. The listing and photography of manuscript maps and topographical drawings.
6. Lists, town by town, of prints and drawings of town gates, towers and walls; urban precincts, etc.
7. A classified list of licences to crenellate, which include monastic precincts, cathedral closes, and private houses in towns, as well as rural castles and fortified manor houses.

8. Research in municipal records on the use and decline of defences in the post-medieval period.

C.   Specific Archaeological Projects

1. The systematic collection of chance finds from building sites (Biddle, 1968, 112). This might most usefully be carried out in a series of key towns for which there is virtually no archaeological record. Some other projects listed below relate directly to this proposal.
2. The dating of settlement in the smaller Anglo-Saxon towns.
3. Intensified research in to Anglo-Danish towns with particular reference to the definition of their fortification and the dating of their internal layout.
4. A national programme of street dating, combining archaeological with street-name evidence. This might be part of a more general study of the history of traffic in towns, using such evidence as street width.
5. The study of the relation of castles to towns.
6. Topographical research on the variety of urban precincts, including castles.
7. Surveys of existing defensive remains modelled on the volume on the *York Defences* by the RCHM (England)—see Bibliography.
8. Research on town defences of the Civil War period, modelled on the Royal Commission's *Newark on Trent: The Civil War Siegeworks* (see Bibliography).
9. The formulation of local programmes for the excavation of town defences, covering such aspects as dating, the nature of earth and timber defences, etc.
10. A study of riverside developments including wharves, mills, and bridges and the relations between them.
11. Detailed studies of suburbs combining archaeological evidence with the documentary evidence for customs, dating, etc.

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