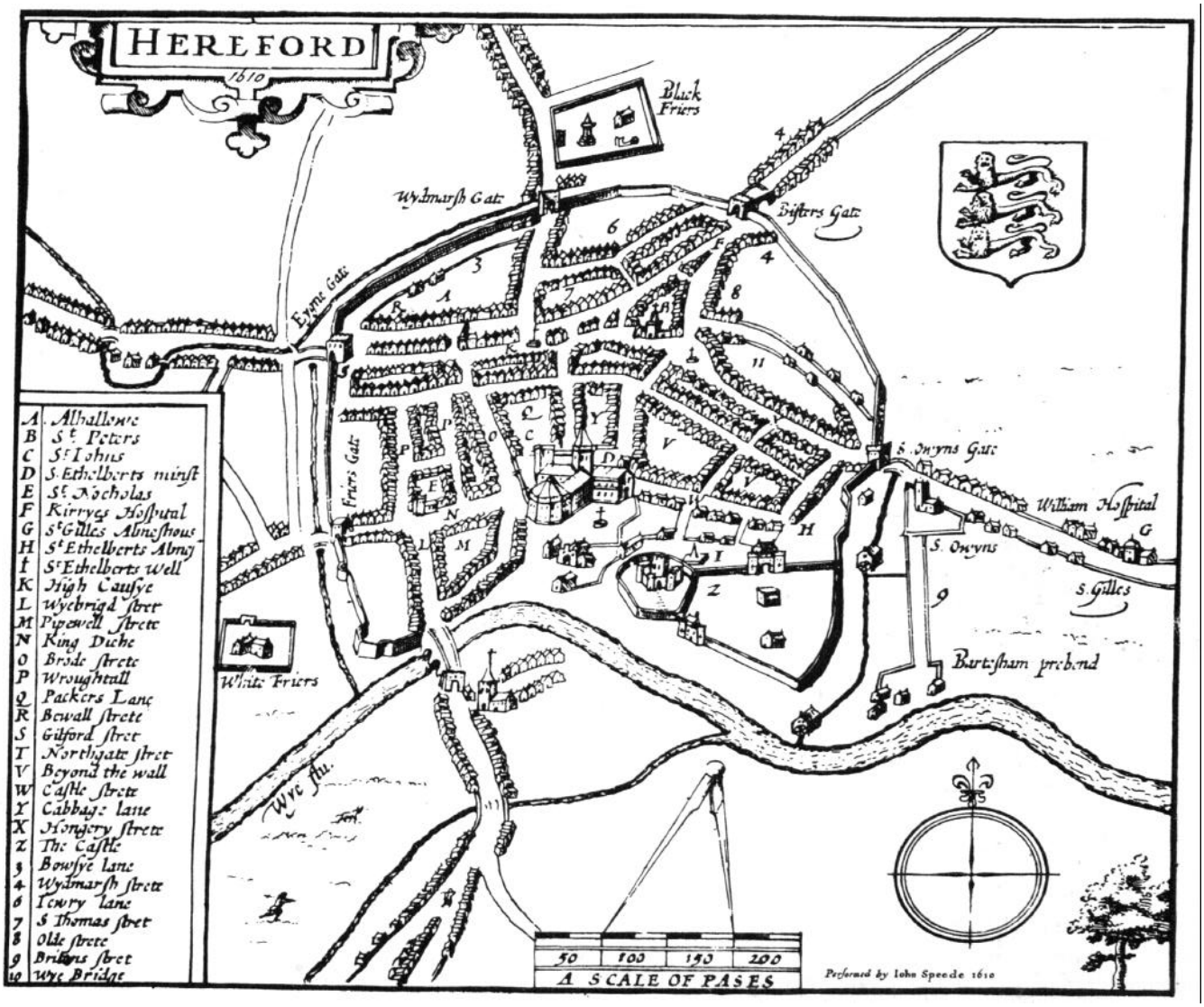
Hereford City Excavations

Volume 2

CBA Research Report 46

Excavations on and close to the defences

By R Shoesmith



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by R Shoesmith

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Contents

The full excavation reports are in microfiche form and are included in a wallet at the end of this volume. The contents list contains references to the microfiches where appropriate.

Illustrations

The line drawings and photographic illustrations are reproduced as a series of figures, some of which are in the published text with the remainder in microfiche only, The disposition of the figures is shown in the following list.

Introduction to Volume 2

The first volume in this series was concerned with the archaeology and early history of Castle Green (Vol 1). It described the development of the area during the Saxon and early medieval periods as one of the principal burial grounds of the city and as the site of the collegiate church of St Guthlac. The report discussed in detail the results of an emergency excavation in 1973, reassessed the evidence from a small excavation in 1960 and related both sites to the remainder of the city.

The first part of Volume 2 includes a section on the historical background to the defences and provides a postulated defensive sequence for the city. The detailed reports of excavations, which took place between 1965 and 1976, on and close to the defences, are in microfiche form in a wallet at the rear of the volume with summaries in the text. In part 2, the conclusions from ten years of archaeological research in Hereford are presented, the defensive sequence is established, and the origins and growth of the city are discussed. Sections on the domestic buildings, industrial and domestic occupations, and trading connections make use of the evidence provided in the present volume together with that from Volume 3, which will include reports on the small finds, the ceramics, and the environmental evidence.

Acknowledgements

A full list of acknowledgements is included in the General Introduction to Volume 1. The staff involved in the excavations are acknowledged in the appropriate microfiche sections and to them I am especially indebted, as this report would not have been possible without their painstaking work.

The use of microfiche

Volume 2 was almost complete when it was decided that, to reduce costs, the excavation section of the volume should be published in microfiche form, included in a wallet at the back of each copy. It was appreciated that the total exclusion of this section from the printed report would be detrimental to the volume as a whole and it was therefore decided that summaries of the excavation reports, illustrated by photographs and essential line drawings, should be included in the printed text. All the line drawings and photographs are presented in a continuous list of figures, as shown in the front of this volume, irrespective of whether they are in the printed text or the microfiche.

The microfiche section now includes the full excavation reports and all the associated plans and sections, including those which are part of the printed text. The section also contains material which would have only been available in archival form had this method of production not been used. Some of the illustrations now in the microfiche section would have had to be published as 'pull-outs', thus increasing considerably the cost of the volume; such illustrations use two frames in the microfiche, and although they cannot be viewed as a whole on standard viewers, a simple level movement allows them to be examined in sections.

Full cross-referencing for all the sections of each excavation report between printed text and microfiche was not considered necessary but the extent of the corresponding microfiche section is indicated at the beginning of each excavation summary in the printed text. At the beginning of the volume, the contents list indicates the relationship between the printed text and the microfiche and the list of figures gives the text page or microfiche frame for each line drawing or photograph. Photographs are only reproduced in the printed text.

The microfiches are numbered consecutively and the individual frames can be identified using the following table:

A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14
B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14
D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14
E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12	E13	E14
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14
G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13	G14

The frames at the beginning of microfiche M1 (AZ to A9) include contents and figures lists for the full microfiche report. References in the microfiches to the photographic illustrations and to the plans which are included in the printed text are all shown with underlined figure numbers.

PART ONE : THE EVIDENCE

The Physical environment

The city of Hereford is situated on the fertile red marls of the Old Red Sandstone, close to the junction of the Rivers Wye and Lugg in the undulating lowland known as the Herefordshire basin, between the Midland Plain and the Welsh Hills (Fig 1). To the south of this basin are the coal measures and Carboniferous limestone of the Forest of Dean and the lower Wye Valley. The Black Mountains to the south-west comprise the Dittonian Sandstones capped by the Brownstones and Senni Beds of the Brecon series, all within the Devonian Old Red Sandstone. The Silurian limestones of the Ludlow Beds form the upland country to the north-west and north of Herefordshire. To the north-east the resistant Dittonian sandstones survive, though not to the same height as in the Black Mountains. The eastern side of the county is bounded by the ridge of the Malvern Hills where the pre-Cambrian Gneiss has Silurian limestones covering its western face. Immediately to the east of Hereford, the Silurian limestones are exposed due to folding and erosion in the Woolhope Dome area.

Over most of the country the Silurian limestones are covered with a blanket, up to 1.2km thick, of the Old Red Sandstones of the Devonian period. The Downtonian red marl predominates comprising much of the lower ground in Herefordshire. It is a dry, crumbly mass of fine textured sediment, calcareous in composition, which weathers down to a red clay. Above this the Psammosteus limestone group, consisting of sandstones, marls and bands of limestone, comprise a group of rocks from 20m to 75m thick. The remainder of the Downtonian above these limestone beds varies from one locality to another. Sandstones predominate but marls and cornstone survive as a capping for the smaller hills such as Garnons and Credenhill (Fig 2) (Clarke 1954).

During the final glaciation the Wye Glacier covered the valleys of the Wye, Lugg and Arrow and approached the Malvern Hills. It can be traced by the drift deposits of boulder clay, gravel and sand which have been observed at 275m OD on Merbach Hill some 20km west of Hereford, and at over 200m on Credenhill, 7.2km north-west of the city (Fig 2) (Stanford 1971). A large terminal moraine, which stretches roughly north-south, approaches within 4km of the city at Stretton Sugwas, where gravel quarries have exposed a section at least 30m high. The River Wye cut a channel through this moraine, about 4km wide, at Old Weir, where further exposures of gravel and clay containing Silurian rocks and fossils can be seen (Grindley 1954). As the glacier retreated it left behind patches of clay and gravel on the floor of the Wye Valley which helped to form ponds, lakes and marshy areas.

Most of the Herefordshire soils fall into the major group of brown earths which comprise soils from which any calcium carbonate present and a proportion of the exchangeable bases have been removed by percolating water, and which either appear to be freely drained or have no more than slight signs of drainage impedance. To rhe west of Hereford leached brown soils of medium to fine texture, usually a loam or silt loam on top of a clay loam or clay, are suitable for corn crops and permanent pasture and fruit and hop growing on the deeper soils. The neighbouring area to Hereford includes brown warp soils, weakly developed on recent alluvium as a result of winter flooding and waterlogging. They produce fattening pasture land and good hay crops (Burnham 1964), and are suitable for mixed farming.

The immediate area of Hereford is complex and there are a great variety of deposits under the city and its environs. They include alluvium, lacustrine beds, peat, marls and gravel (Grindley 1954). Peat beds have been observed to the north of the town in Widemarsh (Fig 3) (Kendrick 1960, 373; Moore 1904, 332; Curley 1866, 253), but in the centre of the town the gravel begins quite near the surface. On the south side of the river there is a thick layer of loam on top of coarse gravel (personal observations).

The River Wye, which splits the county and the Herefordshire Basin in two, is a fast flowing river which is susceptible to flooding and rapid changes in height (Fig 3). In summer, when the river is usually low, there are many places where fords existed until relatively recently (Lamont 1922). Hereford is reputed to possess two fords, one in front of the Bishop's palace and one just below the castle (Watkins 1920, 254). The local tradition for both these fords is apparently of long standing but may only be based on a knowledge of the river and its shallows. The palace ford is considered to be a continuation of the alignment of Broad Street and the northern part of Gwynne Street, and the castle ford the continuation of Mill Street (earlier Britons' or Bruton Street) (Figs 4 and 9) just below the present Victoria suspension bridge. Watkins (1923) noted evidence for what he regarded as a track leading south from the position of the latter ford. There are no documentary records of these fords and the Wye has been bridged at Hereford since *c* AD 1100 and possibly earlier. The present bridge dates from AD 1490 (Jack 1917, 183).

Although the river has changed its course in several parts of the county during the historic period, it would seem unlikely that there has been any substantial change in the immediate area of Hereford since the foundation of the city. It is therefore probable that the shallow areas which exist now may well represent the fords of the pre-Conquest period. This is particularly the case with the castle ford, where the bed of the river comprises an outcrop of sandstone, and the water is no more than 0.6m in depth at low summer level.

To the north-east of Hereford the ground rises to about 85m on the top of Aylestone Hill and to the west it rises to some 73m on Broomy Hill (Fig 3). The Saxon and medieval town was built on a gravel terrace between 55 and 57m OD which is the eastern continuation of the Broomy Hill rise. The terrace is separated from the rise of Aylestone Hill to the north-east, and the lesser rises of Tupsley and Hampton Park to the east, by the Widemarsh Brook which becomes the Eign Brook as it approaches the river. This slow-flowing stream may originally have included the water from the Yazor brook, which also approaches the city from the north-west. However, the latter was used to provide water for the defensive ditch during the late Saxon or early medieval periods (p 87) (Watkins 1919a). Even now, to the north-west of the city, the two streams are less than 100m apart. The retreating Wye glacier and the two streams were responsible for the marshy areas to the north-west and north of the city. They have now largely disappeared but are reflected in the names

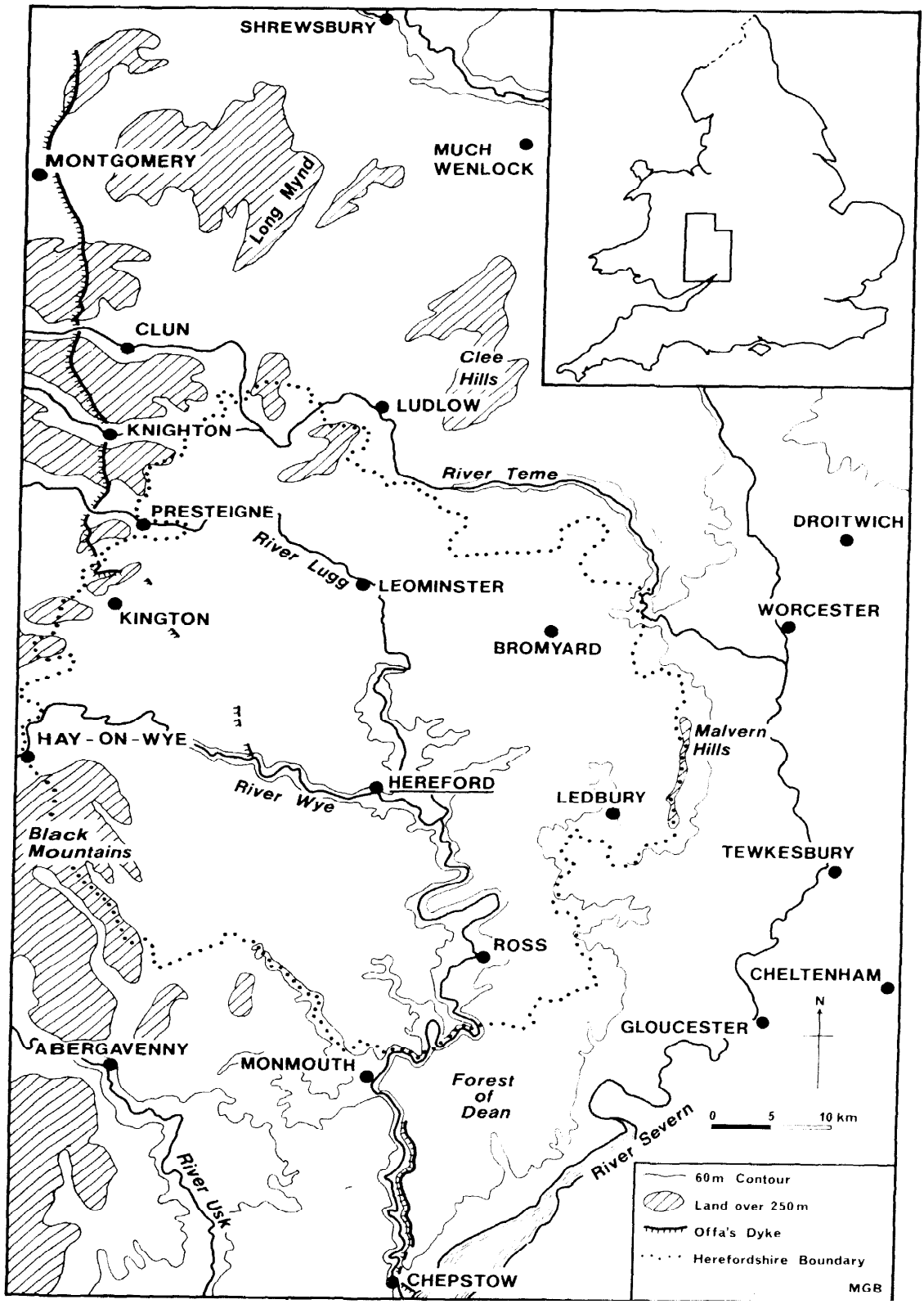

Fig 1 the position of Herefor in relation to the southern welsh border. Offa's Dyke and the old county boundary of Herefordshire

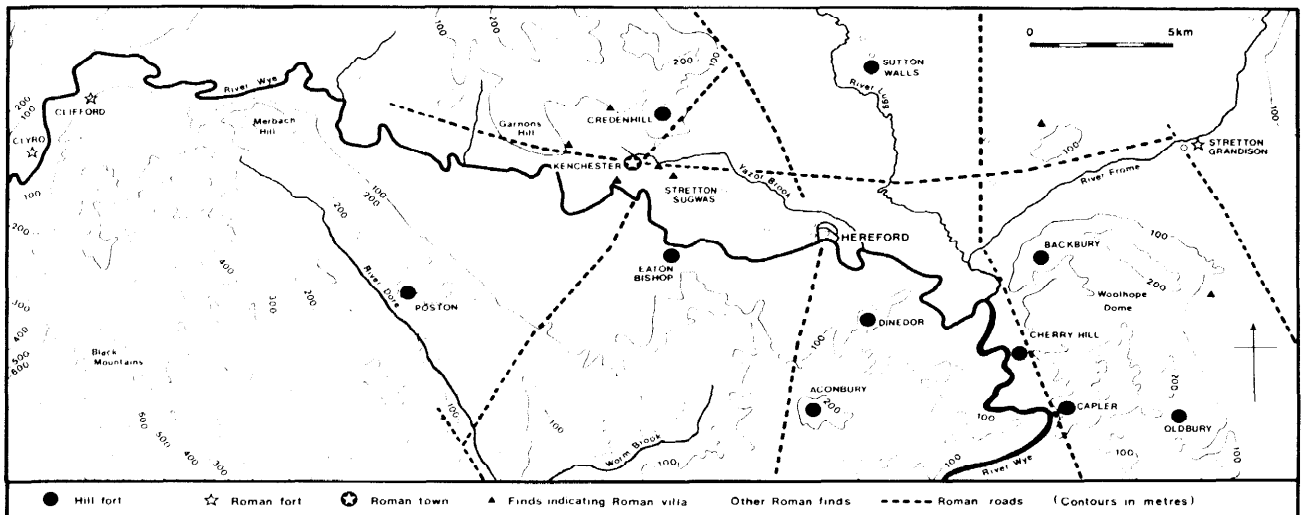

Fig 2 Contour plan of the ceniral Wye Valley showing the principal Iron Age hill forts and the main features of the Roman occupation

Faster's Moor, Canon Moor, Widemarsh and Monk Moor all of which are low-lying and susceptible to flooding (Fig 3).

The two streams running to the north and east of Hereford were easily dammed to provide pools for water mills and the sites of at least four on the Widemarsh/Eign brook are known in the medieval period (Watkins 1931, 121) (Fig 3).

The surrounding fertile area was heavily wooded according to the Domesday survey (Lobel 1969, Hereford, 1) (VCH 1908, 294-5) and, as the trees were cleared for fuel and buildings, the ground would have produced good grain crops and excellent pasture land. It is evident from the Domesday survey that the Herefordshire woodlands were important for pannage and as a source of game and were protected for these purposes (VCH 1908, 294-5). The fisheries on the Wye were also important and the Domesday survey makes specific references to the quantity of eels obtained from them *(op cit,* 294).

It is evident that the choice of the site of Hereford did not depend entirely on its defensive capability for it is overlooked by low hills to the west, north-east, and east. The marshy area to the north would have afforded some protection but it is probable that the principal attractions of the site from a physical point of view were the shallow fords across the Wye (evidenced by the place-name) and the large, relatively flat and well drained terrace which adjoined them.

The area in the prehistoric and Roman periods

There is little evidence at present for prehistoric settlement in the area of Hereford. An Acheulian hand axe from Tupsley (information W R Pye) and a scatter of Mesolithic flints (Gavin-Robinson 1954; Pye 1958) indicate the presence of early man. Although the known areas of Neolithic occupation are in the south-west of the county, there have been surface finds east of the Wye (Gavin-Robinson 1954) and in the Hereford area (Pye 1975; Brown 1961). The Bronze age occupation was apparently also concentrated in the south-west of the county although flint implements are common in other parts (Gavin-Robinson 1954) and two flint arrowheads were found during the excavations recorded in this volume (Vol 3; Fig 16.2 and 3).

The Iron Age provides the earliest evidence for settled occupation in the immediate vicinity of Hereford. Sutton Walls, some 6.5km north of Hereford and containing 11.3 hectares within the defences, was partly excavated between 1948 and 1951 (Kenyon 1954), and Credenhill, 7.2km north-west of the city and 20.3 hectares in extent, was examined in 1963 (Stanford 1971) (Fig 2). The latter can perhaps be considered as a forerunner to Hereford as Stanford has argued that it was permanently occupied from *c* 390 BC until *c* AD 75. He also suggested that the population could have been as much as 4000 and that the hillfort may have been the capital of a territory that was broadly co-extensive with the modern county. The Iron Age inhabitants may have been the Decangi of Tacitus, conquered by Ostorius Scapula in AD 48.

Until recently it was thought that the Iron Age occupation in Herefordshire was totally associated with hill-top camps. However, excavation of a Roman villa-farm complex on low ground east of Kenchester, and over l km south of Credenhill, established two Iron Age phases including a roundhouse and other possible pre-Roman enclosures (Wilmott 1978), and other non hillfort settlements may be expected in the area.

There have been no finds during the excavations in Hereford which can be attributed to the Iron Age although a lower quern stone, which was found in 1962 during building works associated with Woolworths in Eign Street (Norwood 1963; Hereford Museum accn no 8166), was considered to be of this period. Traces of earthworks on Aylestone Hill, 1.5km to the north-east of the centre of Hereford and now within the suburbs, have been suggested as an Iron Age hillfort but there have been no finds to confirm this theory (Watkins 1931).

It is probable that the central Wye Valley was used as a convenient route into Wales during the Roman

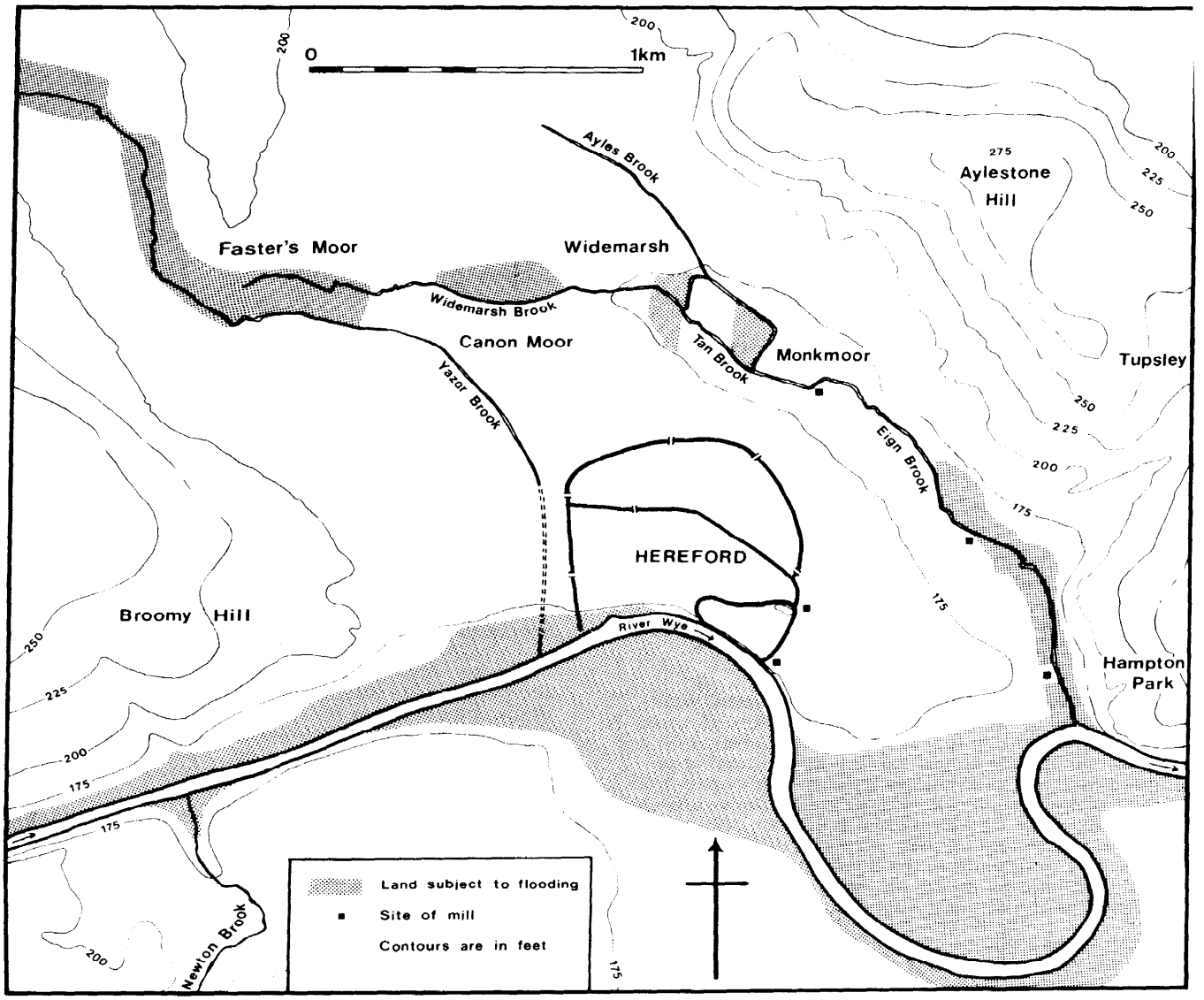

Fig 3 *The area surrounding the original settlement of Hereford. The contours, which are in feet, are approximate and the areas susceptible to flooding are chose indicated by the Welsh Water Authority in 1978. (Hereford City Repor 1978, plan 9)*

campaigns between AD 48-78. The forts at Clyro, Usk and Leintwardine could have been established as early as the campaign of Ostorius Scapula in AD 48 (Jarrett 1969, 7) when Credenhill may have been conquered (Stanford 1971).

The east-west road, which now forms the northern border of Hereford, is considered to be Roman and may have been an early military route into Wales from the Severn crossing at Worcester, with one of the Stretton Grandison forts acting as protection for the central part. It has been suggested that the Hereford area or the neck of land between the Wye and Lugg would have been a suitable area for a campaign fort (Dudley 1954, 123; St Joseph 1961, 125). Local temporary frontiers were probably established at various phases of the conquest and during one of the campaigns the area around Hereford would have become subject to Roman rule. The military occupation of the lower and middle Wye valley apparently did not last any great length of time, although the Usk valley to the south-west and the more hilly areas between the Wye and the Severn to the north of Hereford, continued to have occupied forts until AD 150–220 (Jarrett 1969, 19). However, there has been no archaeological work at the Roman forts at Stretton Grandison to the east of Hereford and Clifford to the west, and if these prove to have late occupation the picture could be radically changed.

The small Roman town at Kenchester *(Magnis)* appears to have developed gradually to become a centre of some pretentions with substantial town houses. Several

villas were also built in close proximity to the town (Rahtz and Wilmot forthcoming). The nature of the occupation sites and the chance finds, particularly the coin hoards, suggest a prosperous hinterland (Crickmore 1978, 49). The full settlement pattern of the area during the Roman period has yet to be established. It is rendered more difficult because traces of occupation in this area are difficult to locate even from the air.

Apart from Kenchester and its associated villas, there is a large nucleated site at Blackwardine, 16km north of Hereford and evidence for an extensive settlement in the vicinity of the crossroads at Stretton Grandison, 13km east of Hereford. Pottery and tile found at Marden (8km north), Nunnington (6km north-east), Westhide (8km north-east) and Lugwardine (4km east) may indicate other roadside settlements (Dudley 1954). The river valleys of the middle Wye, the Lugg and the Frome apparently form a centre of Roman activity which may have been centred on the walled town at Kenchester.

The earliest occupation at Kenchester is dated to the late 1st century by finds associated with the first metalling of the internal east-west road (Jack and Hayter 1926) and other stratified contexts (Heys and Thomas 1962) and defences were constructed in the mid to late 2nd century. The town may have continued in use into the 5th century and it is postulated that a narrowing of the west gate and subsequent recutting of the ditch could date to the last few years of urban occupation (*op cit,* 165, 167).

Parts of the Roman town were still visible above ground when Leland visited it in the 16th century and noted that:

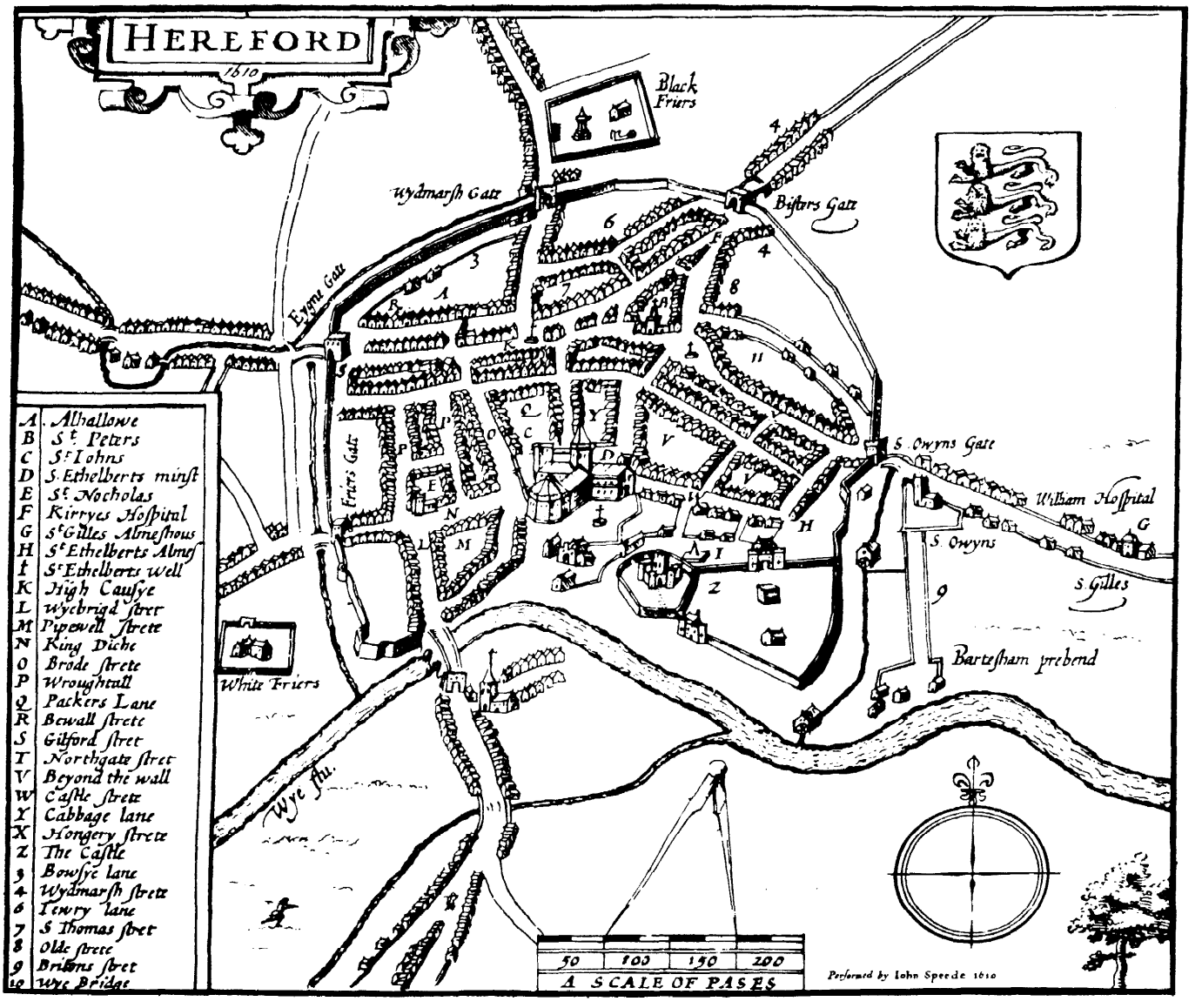

Fig 4 *Speede's mop of Hereford, 1610*

Peaces of the walles and turrets yet appere, *prope fundamenta,* and more should have appered if the people of Herford towne and other therabowt had not yn tymes paste pulled downe muche and pyked out of the best for their buildinges . . . The place wher the town was ys al overgrowen with brambles, hasylles and lyke shrubbes. Nevertheless here and there yet appere ruines of buyldinges, of the which the folisch people cawlle on the King of Feyres Chayre. (Smith 1908).

The 'King of Fairies Chair' was still visible when Stukeley visited in AD 1722 along with 'many large foundations' (VCH 1908. 177–8). The site of *Magnis* is now a meadow and only the slight rise in the ground level indicates the presence of the buried remains. Excavations during the last sixty years have given some impression of the design of the town (Jack and Hayter 1916; Heys and Thomas 1962) and the extent of the suburban development (Wilmott 1978; Shoesmith forthcoming).

The road which joined Chester in the north to Caerleon in South Wales must have been of primary importance during the Roman period. The alignment is apparent north-west of Hereford, and near Burghill Lodge, 7.5km from the city, a branch road goes to the south-west towards Kenchester (Margary 1967, 342). The straight alignment continues to Elton's Marsh where the modern road bears away to the south, but a slight *agger* together with hedge lines and a footpath apparently continue the line to Orchard Close at Holmer, where it intersects with the east-west Roman road joining Stretton Grandison to Kenchester. Traces of the continuation of the road were seen in 1931 in an orchard between 'Armadale' and the cider works which were then on Widemarsh Common (Hoyle 1933) but from this point its course is unknown. It is apparent from a glance at a map of Roman Britain that the whole alignment of the road southwards from Mortimer's Cross is towards Hereford rather than Kenchester (Dudley 1954) and it is therefore supposed that the road crossed the Wye by the ford at Hereford and then continued southwards towards Monmouth on a course similar to that of the present main road.

The rapid fluctuations in the level of the Wye, which are still a common feature of the river, would have meant that the ford at Hereford would regularly be unusable. This would have been an unsatisfactory situation for a major Roman arterial road, and the diversion towards Kenchester, with a bridge over the Wye to the south of the town (Baker 1966) may be seen as a necessary improvement.

An alternative route for the north-south road in the vicinity of Hereford is possible. It may be that having avoided the flood plains of the Lugg, the road bore slightly to the east in the Hereford area so as to head for a crossing of the Lugg at Mordiford from whence it could follow the possible road alignment to *Ariconium,* the Roman settlement at Weston-under-Penyard (Margary 1967, 331).

It is evident that the Roman road system in the neighbourhood of Kenchester and Hereford was complex and it is probable that at some time during the Roman occupation use was made of the ford across the Wye at Hereford. Under such circumstances it is likely that there was a small civil settlement in the immediate vicinity and the evidence for this is discussed in part 2 (p 88).

The Roman road system remained a significant feature of the landscape long after the end of Roman rule, and in places the alignments are still followed by modern roads. This is most evident with the east-west road mentioned above, which joined Stretton Grandison to Kenchester. For many years it has formed the northern boundary of the Liberty of Hereford (Fig 10) and is now the District Council boundary. The possible significance of the Roman road network in the choice of the site of Hereford as an early religious settlement is also considered in part 2 (p 89).

Commentaries, maps, and reports

In this section previous work concerned with the history and archaeology of Hereford is summarized and the basic information which was available when the excavations recorded in this volume were undertaken is presented. Several works which were published during the 18th and 19th centuries include background historical information and also provide descriptive views of Hereford during the last two centuries.

The earliest map of Hereford is that made by John Speede in AD 1610 (Fig 4). It shows the city dominated by the cathedral and 'the castle, with its medieval walls and its approaches still guarded by six gates. The map gives some indication of the extent of the suburban development, partly associated with St Martin's church south of the river and with St Owen's Church just outside the eastern gateway. Two mills are shown, complete with millwheels, on the city ditch to the east of the city, directly underneath the walls of the castle and the walled monastic settlements outside two of the gates are prominent, although St Guthlac's to the north-east of the city is curiously absent.

Isaac Taylor's map of AD 1757 (Fig 5) provides the first accurate details of individual buildings and properties. The changes in the century and a half between the publication of these two maps are of some interest and reflect both national and local events. There has been some increase in the number of buildings in the suburbs although there is little change in the total occupied area. The consequences of the dissolution of the monasteries are not particularly apparent on Speede's map but Taylor indicates that the buildings of the Greyfriars (shown confusingly as Blackfriars to the west of the city) and those of St Guthlac's, outside Bye Street gate had both been demolished, although parts of the Blackfriars settlement (shown as Whitefriars to the north of the city) were, and indeed still are, standing.

The effects of the Civil War are also apparent with the loss of both St Martin's and St Owen's churches and the total demolition of the remaining parts of the castle. In 1757 the city walls and gates were still complete although they were becoming obscured by buildings erected on the berm and some areas were apparently landscaped with trees and bushes.

The 19th century maps include those of Curley in AD 1858 which were made for the 'improvement works', and the first edition of the Ordnance Survey where the expansion of the Victorian city becomes apparent.

The earlier commentaries which have proved to be of most value include John Price's An *historical account of the city of Hereford* (Price 1796) and the section concerning the city in John Duncumb's monumental work *Collections towards the history and antiquities of the county of Hereford* (Duncumb 1804, i, 221–604). Although later writers tended to make use of these early works, some included extra information. Amongst such works consulted are *The ancient customs of the City of Hereford*

Fig K The central park of Taylor's map of Hereford 1757

by R Johnson (1868), *Outlines of old and new Hereford* by W Collins (1911) and *Historical landmarks of Hereford* also by W Collins (1915).

Hereford is discussed in several national and international works, the most important of which are *'The Victoria History of the Counties of England-Herefordshire'* (only volume 1 (1908) has been published), *'The Royal Commission on Historical Monuments-Herefordshire Vol 1-South- West* (193 1) (Hereford City: 90-l44) and *'Historic towns* Vol 1' (Lobe1 1969).

During the first half of the 20th century several papers concerning the early history, topography, and archaeology of the City of Hereford were published in the Transactions of the Woolhope Naturalists' Field Club. The papers are dominated by the observations and interpretations of Alfred Watkins, who should be considered as one of the foremost field archaeologists of his time. His meticulous recording and especially his excellent photography are an indispensable foundation for research both in the city and the county.

The first archaeological excavations in the city, which took place in 1958, had as their object the confirmation of theories put forward by Watkins some 40 years earlier.

The most important of the reports published in the Transactions of the Woolhope Naturalists' Field Club are summarized below:

Hereford city walls (Watkins 1919b)

The remains of the walls, as they stood in 1919, are described in detail, together with notes and photographs of those parts which had been demolished during the previous 30 years. This report is the first concise appreciation of the city walls.

The King's Ditch of the city of Hereford (Watkins 1920)

In this article Alfred Watkins gathered together the results of many years' observations of excavations and building works and from them established a three stage sequence of development for the defences. This postulated sequence was the framework for many of the excavations described in this volume and the article thus provides the foundation for modern archaeological research on the defensive features in Hereford.

The sequence is shown on Fig 6 and consists of:

1 A small ditched enclosure surrounding the immediate area of the cathedral. Watkins called this the King's Ditch (although the historical evidence for such a designation is doubtful) and considered it to be an ecclesiastical enclosure of uncertain but early date.

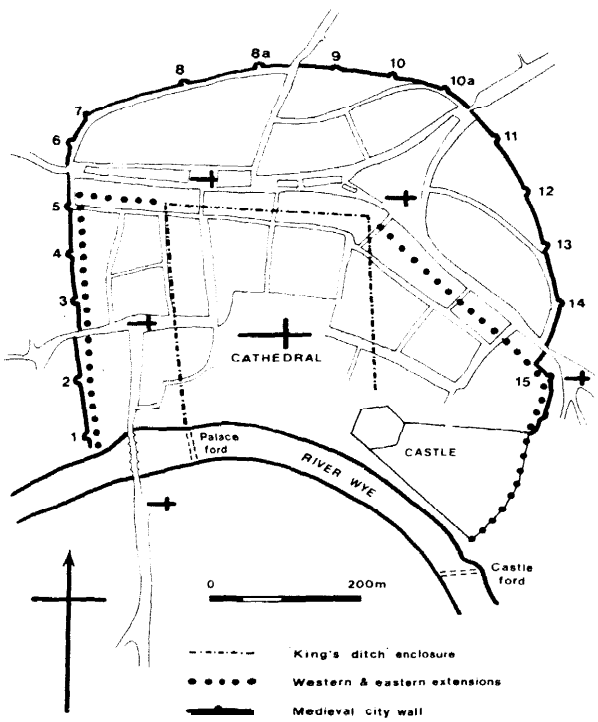

Fig 6 Hereford showing the defensive stages proposed by Watkins (1920) and the bastion tower identification numbers used in this and previous reports

The below ground evidence, cited in the article, consists mainly of the discovery of soft black mud seen in several trenches around the circuit.
Watkins compares the area enclosed by the King's Ditch with that of the non-detached part of St John's parish and surmises that it may represent the Bishop's Fee 'within which neither Bailiff nor Mayor had rule in early days . . .'
The western and northern limbs of this enclosure have been examined (below and p 10) but no conclusive evidence for its existence as an independent circuit has been obtained.

2 Eastern and western extensions to the King's Ditch enclosure consisting of rampart and ditch. Watkins thought that these extensions represented the work of Harold in AD 1055 but it has since been shown that they are of earlier date.

3 Construction of the city wall, 17 bastions, and 6 gates, all of which were completed by AD 1264.

The two postulated fords across the river, the palace ford just within the King's Ditch enclosure and the castle ford to the south-east of the city are also described in this article.

The defences of the city of Hereford (Marshall 1940)

In this article Marshall suggests that the King's Ditch enclosure, described by Watkins, was a Roman military fort with a central north-south road along Church Street (Fig 9), and a southern boundary along the terrace where the Bishop's palace now stands. This theory is examined in the second part of this report (p 88).

Medieval finds in Offa Street (Fig 7.A) (Norwood 1957)

This is a report of the examination of construction trenches at the corner of Offa Street and St Peter Street just outside Watkins' northern defensive line. There was no opportunity to examine any features or layers in detail but there was evidence of occupation on the site from the 13th century onward.

Excavations on the supposed line of King's Ditch (Fig 7.B and C) (Heys and Norwood 1958)

Two small excavations were organized to examine the western limb of Watkins' proposed ecclesiastical enclosure. The northern trench (B) was on the eastern side of Aubrey Street, in what was then a car park. Only part of the trench could be excavated to undisturbed natural gravel. A steep-sided, flat-bottomed ditch was found, cut some 1.5m into the gravel. It was about 3m wide at the top and 1.5m wide at the bottom. The base of a drystone wall, found on the western edge of the ditch, was built on a layer of clay which contained a sherd of late 10th or 11th century pottery (fabric G1). The wall was 1.4m wide and faced on its western side. To the west of the wall, next to Aubrey Street, was a second trench or ditch, cut into the natural gravel with possible 13th or 14th century levels above. The main ditch was apparently open until the 17th century.

There was no conclusive evidence to indicate when the ditch was dug, as, although the lowest levels within the fill contained 12th century pottery, the authors

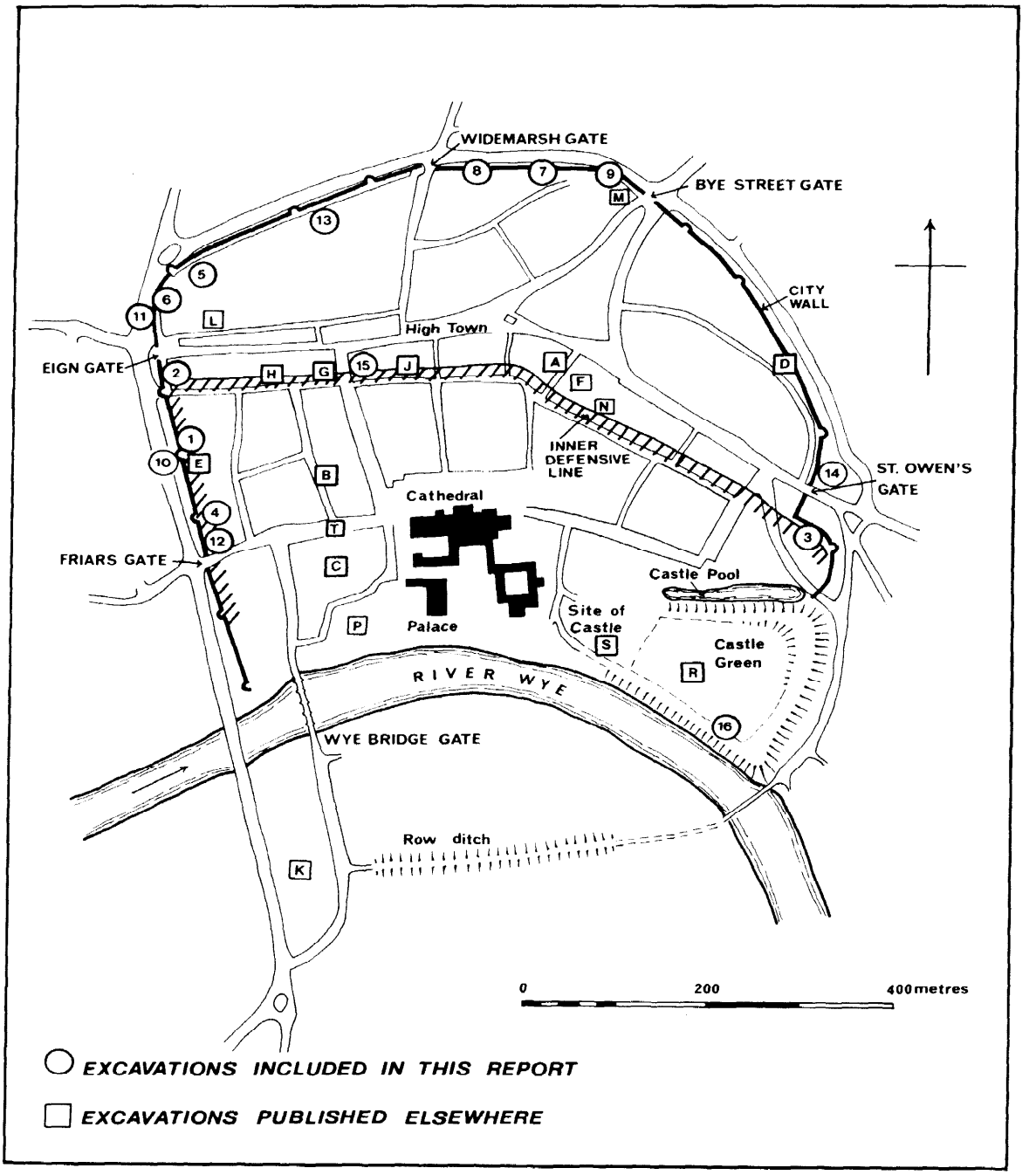

Fig 7 *Excavation sites in the city of Hereford (1979 street plan):* **A** *Offa Street (Norwood 1957);* **B and C** *King's Ditch (Heys and Norwood 1958);* **D** *Bath Street (Stanford 1966);* **E** *Western Rampart (Shoesmith 1967);* **F** *East Street (Noble et al 1967);* **G** *King's Head (Shoesmith 1968);* **H and J** *Inner northern defences (Shoesmith 1971);* **R** *St Guthlac's (Heys 1960);* **S** *Hereford Castle (Leach 1971). Excavations not published at the time of this report:* **K** *Drybridge House;* **L and M** *1976 Trial excavations;* **N** *Town Hall;* **P** *Bishop's Palace Gardens;* **T** *king Street. Excavations included in this volume:* **1** *Victoria Street;* **2** *Subway sections (appendix to 1);* **3** *Cantilupe Street;* **4** *Berrington Street;* **5** *Bewell House;* **6** *Brewery;* **7** *Bastion 10;* **8** *Bastion 9;* **9** *Bastron 10a and wall section;* **10** *Bastion 4;* **11** *Bastion 6;* **12** *Friar's Gate;* **13** *Liberal Club;* **14** *St* Owen's *Gate* **15** *City Arms. Excavations included in Volume 1 (Castle Green):* **R** *St Guthlac's;* **16** *Castle Green*

considered that it may have been cleaned out, deepened or widened at an earlier date. A pre-12th century date should therefore be considered hypothetical.

The ditch, which was quite small, would, if it ran the length of Aubrey Street, have precluded the establishment of buildings on the eastern side of the street until it was filled in the 17th century. Such buildings may, however, have been set back from the street line and approached by a series of small bridges across the ditch. The wall, which separated the ditch from the road, could have been erected solely for the protection of pedestrians and traffic in this narrow thoroughfare. Both Speede (Fig 4) and Taylor (Fig 5) show houses next to the street line with no indication of a ditch but the position of the parish boundary on the eastern side of Aubrey Street may be considered to be significant. An early 13th century reference to Middleditch *(Cath Mun* 875), which may have been in King Street (Tonkin 1966, 245), could also apply to this feature.

A second trench (Fig 7.C) was dug in the grounds of the Methodist Church on the eastern side of Bridge Street. It had to be abandoned at a depth of 4.6m due to the difficult conditions experienced. Below 2.4m, the levels were rich in organic materials including wood and leather. The earliest pottery found was of 13th century date. There was no evidence for a typical ditch profile and the excavators considered that the area may have been a marsh during much of the medieval period.

It is suggested elsewhere (p 88) that the 'King's Ditch' and the associated marshy areas may represent a disused stream course which eventually became an open sewer. The association with a parish boundary (Fig 8) indicates that the ditch apparently had an important influence on the early topography of the city.

Excavations at Black Friars, Hereford
(Butler 1960)

This excavation has no direct bearing on the central theme of this report but it is of some interest because the lowest soil level contained some late 13th century pottery. The monastic settlement did not move to this site until *c* 13 19-21 which suggests that this area, well outside the northern defences, was in use for at least half a century before the friary was established (Fig 8).

Excavations in Bath Street (Fig 7.D)
(Stanford 1966)

The foundations of the city wall, where it crosses the middle of a car park adjoining Bath Street on the eastern side of the city, were examined in two machine-cut trenches. Although the excavation was of limited size, the position of bastion 13 was established and it was demonstrated that the city wall was a secondary feature to a turf and gravel bank. Pottery found in the turf dump which underlay the gravel of the main rampart, suggested that the rampart was built towards the end of the 12th century, but there was no evidence to indicate the date of construction of the city wall.

The Western Rampart (Fig 7.E) (Shoesmith 1967)

Small exploratory trenches on the defensive line preceded the excavation of an 18m long trench, at right angles to the defences, close to bastion 4. Two periods of pre-defensive occupation were established, the latter of which included a metalled pathway running north-south across the trench. A rampart sequence was established identical to that found later in the Victoria Street excavation (p 28), although it was thought at the time that the two earliest stages of the defensive sequence were built together. Pits were cut into the rear of the various ramparts in the early 13th century. There was no archaeological evidence to date the construction of the city wall and bastion, and dating for the earliest features was completely dependent on the associated pottery.

A medieval cellar in East Street (Fig 7.F)
(Noble *et al* 1967)

An excavation in the floor of a cellar close to the line of Watkins' northern defences did not give any clear evidence of the line of the northern ditch. It is assumed that the ditch ran to the south of the excavated area closer to East Street. The cellar was built during, or before, the 14th century by which time this part of the defences must have been totally disused.

The King's Head site (Fig 7.G) (Shoesmith 1968)

This report records sections exposed during the excavation of a large cellar on the north-western corner of the junction of Broad Street and West Street. The site was on top of Watkins' earliest defensive line. The sections were not fully understood and little dating evidence was found, but a pre-defensive occupation, which included signs of burning, was indicated. The defences, which included a turf-like material similar to that seen at Victoria Street (p 28), had apparently become disused, with pits and other encroachments, by the 12th century.

Inner northern defence excavations
(Fig 7.H and J) (Shoesmith 1971)

This report is a record of watching briefs which were undertaken during the rebuilding of Liptons, between Eign Gate Street and West Street, and Marks and Spencers between High Town and East Street, together with other minor observations. Dating evidence from both sites was minimal. The building works at Liptons, (H), exposed parts of a section across the defensive ditch line. It its final form it was apparently 20m wide and some 2.5m deep. Samples from the bottom of the ditch suggested that water originally flowed freely along it, but it was eventually fenced off and became an open sewer. A subway, which was cut underneath East Street behind the new Marks and Spencer store (J), provided a section mainly behind the tail of the rampart defences. Some of the material above the tail of the rampart apparently came from ditch cleaning but the remainder consisted of layers of gravel which may have been the result of rebuilding or levelling after disuse. There was no opportunity to examine the composition of the rampart.

Chronological table

Historical date and evem		*Local evem*		*Archacological period*
7TH CENTURY				
		676	Bishopric founded.	
8TH CENTURY				
704- 9	Coenred, King of Mercia	706	Beginning of Welsh raids.	Castle Green *Period 1*
		722	Battle with Welsh at Pencoyd.	(Burial ground and possible church).
		730-60	Cuthbert, Bishop of Hereford.	
		743	Aethelbald fought against Welsh.	
757 96	Offa, King of Mercia	760	Attack on Hereford by Welsh.	Victoria Street *Period 1*
				(Grain drying ovens).
		784- 95	Offa's Dyke built.	
		792	Ethelbert, King of East Anglia, murdered at Sutton, probably by Offa.	
196-821	Cenwulf, King of Mercia			Victoria Street Periods 2 £ 3 Berrington Street *Period* 1 (Timber buildings).
9TH CENTURY				
		830	Egbert of Wessex led his men into Wales.	
		853	Alfred's expedition against the Welsh.	Victoria Street *Period 4* (Gravel rampart). (DEFENCES: STAGE 1)
871 901	Alfred, King of England	893	Battle at Buttington, Montgomeryshire.	Victoria Street *Period 5a* Cantilupe Street *Period 1*
		894-6	Danish raids on Welsh border.	Minor sites (Friars Gate) Berrington Street (Turf and clay rampart with timber face). (DEFENCES: STAGE 2)
10TH CENTURY				
901 925	Edward the Elder	914	Defeat of Danes in Archenfield.	
910 16	Aethelflaedan *Burh* building period	916	Invasion of Brycheiniog.	Castle Green *Period 2* (Burial ground and possible rebuilt church).
		930	Meeting with Welsh princes at Hereford. Hereford mint founded.	Victoria Street *Period 5b* Cantilupe Street *Period 2a* (Stone revetments added to defences).
925 40	At helstan		New cathedral built.	(DEFENCES: STAGE 3)
959 75	Edgar			Berrington Street *Period 2a* (Timber buildings). Victoria Street *Period 5c* Cantilupe Street *Period 3a* (Beginning of rampart decay).
978 1016	Ethelred the Unready			Berrington Street *Period 2b* (Timber buildings).
11TH CENTURY				
1017 1035	Canute	1030-40	Bishop Athelstan, New stone cathedral built.	
1042 66	Ed ward the Confessor	*c* 1052	Ralf; Earl of Hereford, built Hereford Castle.	Bewell House *Period 1* Brewery Site *Period 1* (Boundary ditches).
		1055	Gruftvdd ap I.lrwellyn attacked Hereford. the castle fell and the cathedral was destroyed. The town was burnt and many people killed.	Castle Green *Period 3* (Burials).
		1056	Refortification of Hereford's defences by Harold.	Victoria Street *Period 6* Cantilupe Street *Period 3b* (Refortification). (DEFENCES: STAGE 4)
1066	Norman Conquest			Berrington Street *Period 2c* (Timber buildings).
1066 87	William the Conqueror	1085	St Peter's church founded	
1086	Domesday survey			
1087 1100	William II	1088	Hereford occupied by Norman barons in revolt.	Brewery Site *Period 2a* (Timber buildings).
		c 1090	Consecration of Chapel of SS Katherine and Mary Magdalene south of present cathedral.	
12TH CENTURY				
1100 35	Henry I	c 1100	Bridge across Wye at Hereford built with stone pillars.	Castle Green *Period 4* (Burials).
1135 54	Stephen	1 138-40	Siege of Hereford; parts of town burnt and ditch dug through graveyard.	

Historical date and event		*Local event*		*Archaeological period*
1139-41	Civil War			Brewery Site *Period 2b* (Furnaces).
		1142-48	New cathedral completed and possibly new graveyard in use.	
		c 1140	St Guthlac's moved from castle area to Bye Street suburb.	Castle Green *Period 5* (Castle occupation).
1154-89	Henry II	1172	Iorwerth ap Gwain ravaged the king's territory as far as Hereford.	
1189-99	Richard I	1189	First Hereford Charter for enclosing the town.	Brewery Site *Period 2c* (Soil levels).
		1190	Four gates built and the extended gravel rampart constructed.	{ Bewell House *Period 2* Brewery Site *Period 3* (Rampart construction). (DEFENCES: STAGE 5) Minor sites (City Arms) (Re-use of Saxon ditch).
1199-1216	John			
13TH CENTURY				
		c 1200	All Saints Church built (or rebuilt).	{ Brewery Site *Period 4a*
1216-72	Henry III	1224	First murage grant.	Berrington Street *Period 3* (Pits)
		1230-50	Henry III rebuilt the castle.	Bewell House *Period 3* (Pit and posthole complex).
		1250	Grey Friars in Hereford outside Friars Gate.	{ Victoria Street *Period 7* Cantilupe Street *Period 4* (City wall construction).
		1265	City wall complete.	(DEFENCES: STAGE 6)
1272- 1307	Edward I			Bewell House *Period 4* (Industrial use).
		1290	Jews expelled from Hereford.	Berrington Street *Period 4* (Pits and buildings).
14TH CENTURY				
1307-27	Edward II	1319	Blackfriars established in Hereford outside Widemarsh *Gate.*	Brewery Site *Period 46* (Mould manufacturing).
1327-77	Edward III	1348-9	Black Death.	Bewell House *Period 5* (Pits)
1377-99	Richard II			Berrington Street *Period 5* (Pits and industry).
15TH CENTURY				
1399-1413	Henry IV	1403-7	Campaigns of Henry against the Welsh.	
1413-22	Henry V			
1422-61	Henry VI	1461	Battle of Mortimer's Cross.	
		1478	Last of yearly murage grants.	
1485	The House of Tudor	1490	Present Wye bridge built.	Brewery Site *Period 4c* (Pits).
16th CENTURY				
		early 16th	Leland's visit to Hereford.	
		1535	Murage tolls no longer collected.	
1536-9	Dissolution of monasteries	mid 16th	Market Hall built in High Town.	Bewell House *Period 6* (Property boundaries).
17TH CENTURY				
1603	The House of Stuart			Berrington Street *Period 6* (Stone buildings).
		1609- 10	Plague in Hereford.	
1642-5	Civil War	1642-5	Civil War Hereford besieged: one arch of bridge demolished; St Martin's and St Owen's churches burnt.	
1649-60	Commonwealth			
		1660	Great Tower of castle demolished.	Cantilupe Street *Period 5* (Re-build of city wall).
		1665	Great Plague (but not in city).	
18TH CENTURY				
1714	Hanoverian succession			Bewell House *Period 7a* (Gardens).
		1737	Chapel of SS Katherine and Mary Magdalene demolished.	Castle Green *Period 6* (Landscaping).
		1783-99	City gates demolished.	
		1786	West tower and west face of cathedral collapsed.	Bewell House *Period 7b* (Gardens).
		1790	'City Arms' hotel built.	
19TH CENTURY		1841	St Nicholas Church demolished and rebuilt outside line of wall.	Bewell House *Period 8* (Hereford Brewery).
		1854	City ditch culverted. Railway opened.	
		1862	Market Hall in High Town demolished.	

The historical background to the city defences

by D A Whitehead

The 8th century

One of the problems of Anglo-Saxon archaeology is the identification of those 8th century royal strongholds constructed and maintained by the *'weall-geworc'* and *'burh-bot'* of the *'trinoda (trimoda) necessitas'*, from which no-one could be excused and which had become obligatory in the Mercian kingdom by the late 8th century (Stevenson 1914, 689-96; Stenton 1947, 286, 289). The Mercian kings' concern for these fortifications is repeatedly demonstrated in the charters of the bishops of Worcester and the princes of the Hwicce which contain references to the building of 'necessary defences of fortresses against enemies' (AD 770) or 'the building of the royal village/residence' (AD 836) (Whitelock 1955, 463, 478). The significance of these statements was noted by Brooks who pointed out that 'Mercian charters first refer to borough work from the middle of the 8th century, whilst in Wessex it was not until the middle of the 9th century that kings began to demand in their diplomas work on the building of fortifications (Brooks 1971, 82). Hereford, situated on a border which was not stabilized until the Norman Conquest, would appear to be one of the most promising places to look for these elusive earthworks.

The *Life* of *St Guthlac,* written before AD 749, records that 'in the days of Coenred, King of the Mercians (AD 704 .9). . . the Britons, the implacable enemies of the Saxon race, were troubling the English with their attacks, their pillaging and their devastations of the people' (Colgrave 1956, 109). In AD 722 the *Annales Cumbriae* notice a Welsh victory at 'Pencon' which has been identified with Pencoyd in Archenfield, 14.5km south of' Hereford (Jones 1952, 2; Williams 1860, 9). Both these references suggest that the Welsh had taken the initiative, but this apparently changed by the middle of the 8th century. In AD 743 Aethelbald, the king of Mercia, and Cuthred of Wessex campaigned together against the Welsh (ASC 1953, 47) and this expedition or its sequel is described in the *Book of Llandaff:*

> He it known that great tribulations and plunderings happened in the time of Teithfallt (Aethelbald) and Ithael (Ithel), Kings of Britain, which were committed by the most treacherous Saxon nation, and principally on the borders of Wales and England towards Hereford, so that all the border country of Wales was nearly destroyed, and much beyond the borders in both England and Wales, on account of the frequent day and night encounters which took place between both countries (Evans 1893, 192).

The culmination of these hostilities may have been the battle at Hereford in AD 760 which is recorded in several Welsh sources (Williams 1860, 10; Jones 1952, 2).

Aethelbald had died in AD 757 and peace was made after this battle by his successor Offa. The Book of *Llandaff* continues: 'After a time peace being established the land was restored to its owners . . . and King Ithel (whose dates are unknown but he was succeeded as king of Gwent by his son who died in AD 775) restored the survivors their patrimony . . . and likewise restored to Bishop Berthwyn all his territories' which included the churches of Moccas, Madley, Much Dewchurch and Callow-the last being within 5km of Hereford (ibid). But Offa continued to pursue Aethelbald's policy and is recorded harrying the Welsh in AD 778, AD 784 and AD 795 (Williams 1860, l0–11). The last raid was against the Welsh of Dyfed and Stenton believes that during the 11 years peace between AD 784 and AD 795 Offa constructed his dyke (Stenton 1970, 359).

According to the 12th century *Life St Ethelbert,* which is supported by the *Anglo-Saxon Chronicle,* Offa was at Sutton, 6km to the north of Hereford, *in* AD 794 when he ordered Ethelbert, the King of the East Angles, to be beheaded. To expiate this crime the *Life* makes Offa a benefactor of Hereford Cathedral, and amongst other possessions the Liberty of Hereford is said to have been given to the cathedral (James 1917, 242; Webb 1855, xix). It therefore seems unlikely that Offa would leave the ecclesiastical establishment at Hereford without some rudimentary form of defence and Stenton suggests that Hereford's fortification 'may belong to this period' (Stenton 1970, 197).

It has been stressed that Offa's Dyke was probably an agreed frontier (Fox 1955, 286; Noble 1977, 23), and that the apparently intermittent character of the dyke in the Herefordshire lowlands between Kington and Bridge Sollers (Fig 1) may be indicative of peaceful conditions prevailing at the time of construction. Above all, the exposed position of Hereford to the south-west would seem to imply that Offa was on good terms with the Welsh sub-kingdom of Archenfield or Erging whose ecclesiasts were apparently still occupying churches within a few miles of the city.

The harmony which existed between the two races is expressed in a document known as the *'Ordinance concerning the Dunsaete'* which in its present form dates from the 10th century but which appears to define a relationship which was already of long-standing and 'may well be as ancient as the age of Offa' (Liebermann 1903– 16, i, 374-9; iii, 214– 19; Stenton 1970, 359). The document regulates communication between the Welsh and English Dunsaete who are a single people but divided by a river which is most likely to be the Wye. The hilly country on both sides of the river below Hereford suits the name of this people who may be associated with the Domesday hundred of *Dunre* which took its name from Dinedor Hill and in AD 1086 included at least the villages of Holme Lacy, Dinedor, Lower Bullingham, Allensmore, Webton and perhaps Clehonger (Anderson 1934, 168). Alternatively Dunsaete should perhaps be juxtaposed with Magesaete–the 'hill-dwellers' as distinct from the 'plain-dwellers' (Ekwall 1960, 318; Gelling 1978, 102–5). In this case the treaty may have regulated the whole of the border facing the territory of the Magesaete from the Severn valley west of Shrewsbury to the Wye below Monmouth.

A crucial piece of evidence occurs in the penultimate clause of the ordinance which states that 'formerly the Wentsaete (the people of Gwent) belonged to the Dunsaete but more correctly they belong to the West Saxons'. This suggests that the people of Gwent were also participants in this treaty which, from the wording quoted above, must have originated before the era of West Saxon ascendancy, that is before AD 825 when Egbert, King of the West Saxons, defeated Beornwulf at Ellendun *(ASC* 1953, 61; Stenton 1947, 229). If this is accepted then it follows that Hereford need not have been defended since the treaty with the principal Welsh kingdom on the southern March provided

sufficient security. Offa's raids were, therefore, not necessarily intended to conquer Wales but were aimed at producing an atmosphere for the regulation of the frontier by the Dyke and the treaty with the Dunsaete and the Wentsaete (Lloyd 1911, i, 198). With these allies Offa had created a 'march-land', a buffer between Mercia and the West Welsh whom he harried in AD 795.

The political settlement had been preceded by a religious settlement. The *Annales Cambriae* record in AD 768 that 'Easter was altered amongst the Britons'. Thus the schism that had existed since Whitby between the Roman and British church came to an end. This would have reduced the ill-feeling between the two races commented on by Bede and Aldhelm, and locally would have improved relations between the ecclesiasts at Hereford and their Welsh counterparts beyond the Wye. Indeed it is possible that Offa's claims for a metropolitan see at Lichfield were closely connected with this settlement. The integration of the English and Welsh churches is shown by the visit of the Legate, Theophylact, to Mercia and 'parts of Britain (Wales)' in AD 786 and the presence of Bishop Elbod of Bangor, the leader of the Roman party in Wales, at the Northern synod the following year (Whitelock 1955, 770; Haddan and Stubbs 1869–71, iii, 446; Lloyd 1911, i, 203–4). Similarly, the treaty with the Dunsaete and Wentsaete would help to justify Offa's claims that an archbishopric at Lichfield had become necessary because of the vast size of his lands and the extension of his kingdom (Whitelock 1955, 793). Thus, the restoration by King Ithel of several churches to Bishop Berthwyn, referred to above in the *Book of Llandaff,* perhaps reflects the stabilization of ecclesiastical boundaries across the Wye which were not altered until the bishop of Hereford absorbed the churches of Archenfield in the early 12th century (Conway Davies 1946, i, 147ff). The Deanery of Hereford, which in the Middle Ages consisted of about 25 parishes in and around the city, is a peculiar of the Dean and Chapter and has always been immune from episcopal visitations (Capes 1908, 4–5). This suggests that it came into existence at a very early date and probably corresponds with the area controlled by the *familia* of the earliest minster *(Valor Ecc* 1817, iii, 25–28). To the west of the Wye it included those parishes where English place-names are most common–Allensmore, Kingstone, Dinedor, Clehonger, Preston-on-Wye, Thruxton, Madley, Tyberton, Dewsall, Blakemere, Eaton Bishop-and, apart from Madley and Dewsall, ignores those churches now in the Deanery of Archenfield which in the 8th century belonged to Bishop Berthwyn. Consequently in political and ecclesiastical terms Hereford was very secure in the late 8th century. Offa's greatest achievement was that 'he grasped the idea of a negotiated frontier' which nowhere is made more explicit than at Hereford (Stenton 1947, 222).

The 9th and 10th centuries

Initially, at least, it seemed as if Offa's diplomatic achievements were to be short lived for the early 9th century was a period of constant warfare. As Stenton states 'Mercian expansion towards the west, suspended by Offa, was resumed by Cenwulf (AD 796–821). In AD 816 the Mercians penetrated the highlands around Snowdon and two years later are recorded raiding in Dyfed. Cenwulf died in Flintshire in AD 821 whilst preparing for a raid against Powys which was successfully concluded by his brother Ceolwulf. After the battle of Ellendun in AD 825 Mercian supremacy passed to the West Saxons and although the Anglo-Saxon Chronicle records that Wiglaf 'obtained again the Kingdom of Mercia' in AD 830, it also adds that 'Egbert led his levies into Wales and reduced them to humble submission' Thus Welsh affairs were now the responsibility of the West Saxons (Stenton 1947, 228 31; Lloyd 1911, i, 202, 325).

Not all this martial activity occurred in places remote from Hereford. The verse saga of Llywarch Hen, although purporting to describe events in the late 6th century, is considered by some Celtic scholars to have been inspired by the Mercian raids of the early 9th century (Williams 1944, 48). At one point the poem describes the death of Phyll where 'there were broken planks, And blood on tangled hair, And on the banks of the Ffraw a bloody flow' (Ford 1974, 93). Sir Ivor Williams believes that 'Ffraw' is the Herefordshire Frome which enters the Lugg at Hampton Bishop, 5km south-east of Hereford (Williams 1932, 31). If the identification is correct this brings the military activities of the early 9th century very close to Hereford. Other landmarks mentioned in the poem have been located in the neighbouring county of Brecknock. Moreover, soon after this date the *Book of Llandaff* indicates that the northern part of Archenfield, to the south-west of Hereford, 'was drawn into the English orbit' (Davies 1978, 26).

In AD 893 Aethelred of Mercia called out the King's thegns 'from every fortress *(?burh)* east of the Parret both west and east of Selwood, and also north of the Thames and west of the Severn together with a section of the Welsh' and decisively defeated the Danes at Buttington in Montgomeryshire *(ASC* 1953, 87). Hereford was at this time almost certainly the only Saxon *'burh'* west of the Severn and it would seem that by this date the place was an integral part of the West Saxon defensive system. The Welsh had been quiet since AD 853 when Alfred's father, Aethelwulf, had assisted Burgred, the King of Mercia, in reducing them to subjection *(ibid* 63). Alfred, however, set out to court his Celtic neighbours who were eager to solicit West Saxon support as a counterbalance to Mercia (Lloyd 1911, i, 327-8). The princes of Gwent, for instance, submitted to Alfred 'because of the violence and tyranny of Earl Aethelred and of the Mercians' (Giles 1848, 72). 'A section of the Welsh' presumably gave their support to Aethelred in AD 893 because of his alliance with Alfred, recently cemented by his marriage to Alfred's daughter Aethelflaed (Stenton 1947, 257).

A much more potent reason for the Welsh acquiescence to West Saxon influence lay in the renewal of Danish raids. Between AD 894 and AD 896 they ravaged the whole length of Wales, devastating Brycheiniog and Gwent–kingdoms uncomfortably close to Hereford (Lloyd 1911, i, 330; Jones 1955, 11). It was at this time that Aethelred and Aethelflaed settled the defence of Worcester by means of a charter with the bishop and townsmen of that city (Whitelock 1955, 498). Hereford was presumably similarly treated and the reference in the Anglo-Saxon Chronicle to a fortress *(?burh)* 'west of the Severn' makes it almost certain that Hereford had defences before AD 896. The appearance of' Hereford as a *'burh'* needs little explanation; as the only English cathedral city west of the Severn and an incipient county capital it was an obvious choice (Stenton 1970, 198).

During the early 10th century Hereford figured prominently in the activities of Alfred's successors. Throughout the West Midlands between AD 910 and

AD 916 *'burh'* building went ahead at an accelerated rate as Aethelflaed, Lady of the Mercians, followed her brother Edward the Elder's example and made more permanent the temporary arrangements of her father (Wainwright 1959, 57-S). The renewed interest by the Danes in South Wales and the Severn estuary in AD 910 added to the importance of the work. The men from Hereford are specifically mentioned in AD 914 when, with their counterparts from Gloucester, they inflicted a defeat upon the 'great pirate host' which had been marauding in Archenfield and had captured the bishop of that region. However, in spite of this support for her Celtic neighbours, Aethelflaed's attitude to the Welsh remained ambivalent. Thus, in AD 916, in retribution for the murder of a Mercian abbot, she invaded Brycheiniog, stormed a royal stronghold near Llangorse Lake and carried off the queen of the kingdom *(ASC* 1953, 97–100). Nevertheless, Alfred's policy of conciliation was continued by Aethelstan who met the Welsh princes at Hereford in *c* AD 930 and demanded tribute from them (Gesta *Regum,* i, 148). The choice of Hereford for this meeting demonstrates the growing importance of the town.

The Welsh confirmed their treaty obligations with Edgar at Chester in AD 973 (Stenton 1947, 364–5) and the harmonious relations between the two races is epitomized by the re-issue of the document which regulated the lives of the English and Welsh Dunsaete who lived below Hereford, but whose territory had been divided by the Wye since AD 930 (p 13) and also by the presence of a Welsh bishop at Hereford during a vacancy in the see in *c* AD 1050 (Stenton 1970, 198; Haddan and Stubbs 1869–71, i, 291–2). Moreover, the new era of Danish raids which began at the end of the 10th century once again drew the English and Welsh together; and the raids of Maredudd of Deheubarth into the plain of Radnor between AD 988 and 999, which brought Aelfhere, the Earl of Mercia, into the borderland, must be seen as an isolated disturbance in an era otherwise characterized by peace (Lloyd 1911, i, 346, 350).

The 11th century

The emergence of Gruffydd ap Llewelyn in the mid 1 1th century as the champion of Welsh nationalism was something which the Old English state could not have anticipated. Unfortunately, it occurred at a rime when the leadership in the Marches was divided between the house of Godwin and a Norman faction led by Ralf, the nephew of Edward the Confessor. Gruffydd, who at the culmination of his reign was master of most of Wales including Powys, Erging and Gwent, appears to have regarded Herefordshire as part of the ancient patrimony of the Welsh princes (Lloyd 1911, ii, 366-7; Walker 1960, 83-94). His attacks upon Leominster in AD 1052 and Hereford in AD 1055, far from being isolated raids, can, perhaps, be seen as a deliberate campaign of Celtic reconquest.

The arrival of Ralph as Earl of Hereford in *c* AD 1052 had important implications for the development of the city. It is recorded that he built a castle, probably close to St Guthlac's minster in part of the area which later became the medieval fortress (Vol 1, 57). However, when Gruffydd ap Llewelyn and Earl Aelfgar approached Hereford on 24th October 1055, Ralph led his combined English and Norman forces out at the city to join battle with the enemy 3km from Hereford. Gruffydd put Ralph's forces to flight and entered Hereford in triumph. According to the *Brut y Tywysogyon* the surviving Saxons fled to their castle *(gaer)* which Gruffydd entered and pillaged. Another version of the *Brut* says that the Welsh fell upon the Saxons while they were eating a meal. This is probably a literary flourish but it implies a surprise element in the attack. It is clear, however, that the castle fell.

The Welsh chronicles ignore the destruction of the Cathedral, simply adding that the town *(dref)* was burned and Gruffydd 'thereupon with vast spoil and booty returned to his land happily victorious'. Florence of Worcester and the Anglo-Saxon Chronicle naturally emphasize the destruction of 'the glorious minster' which Bishop Athelstan had just built and which the Welsh 'stripped and robbed of relics (Florence says St Ethelbert's) and vestments and everything'. The extent of the damage done to the Cathedral is debatable since Florence, who is generally well informed on local matters, records in AD 1056 that when Bishop Athelstan died 'his body was carried to Hereford and buried in the Church which he had built from the foundation'. This suggests that the structure was reasonably intact. Harold, meanwhile, had collected a force at Gloucester, pursued the enemy into Wales and leaving the greater part of his army on the border returned to Hereford 'which he forthwith fortified with gates and bars and with a broad deep ditch'.

The Anglo-Saxon Chronicle is less explicit and simply says 'Earl Harold had a ditch (earthwork) made about the town during that time' (Florence 1848-9, i, 213–15; *ASC* 1953, 184–7; Jones 1952, 14–15; Jones 1955, 25). Harold, it seems, ignored Ralph's innovation-the castle-and reverted to the traditional West Saxon policy of *'burh'* defences. He needed some form of secure base whilst he negotiated a temporary truce with Gruffydd at Bolstone, within 8km of Hereford *(ibid* 365), and refurbishing the old fortifications was the obvious solution. It is unlikely that he would have extended the circuit since this would have meant a considerable amount of work involving the destruction of many ancient property rights in the suburbs of the city. Moreover, if Hereford had been destroyed, the natural reaction would be to restrict the perimeter of the town, not to extend it.

By the time the Domesday Book was compiled the Welsh threat had receded beyond the Black Mountains and across the Monnow. The construction or refurbishing of castles at Clifford, Ewyas Harold, Monmouth and Chepstow gave Hereford greater security than it had enjoyed previously (Walker 1969, 407). After the initial offensive against the Welsh, the Conqueror pursued a policy of conciliation and restrained the border baronage from making further annexations (Barlow 1972, 163); and in AD 1086 several Welsh princes appeared as landowners in Herefordshire. The city defences may, once again, have been neglected, although the formal distinction between the burgesses who lived within the walls and those who lived without is noted in the Domesday survey. The different money rents paid by these burgesses may relate more to the economic potential of prime sites in the market places of the city than to the security offered by the defences. A similar situation prevailed at Worcester where houses situated in the market place rendered a higher rent (DB, i, 173, 179; Clarke and Dyer 1968, 32–3). The use of the word *'murus'* in the Domesday survey seems to imply an administrative distinction rather than a strategic one, which recurs throughout the subsequent history of the city (Johnson 1882, 14).

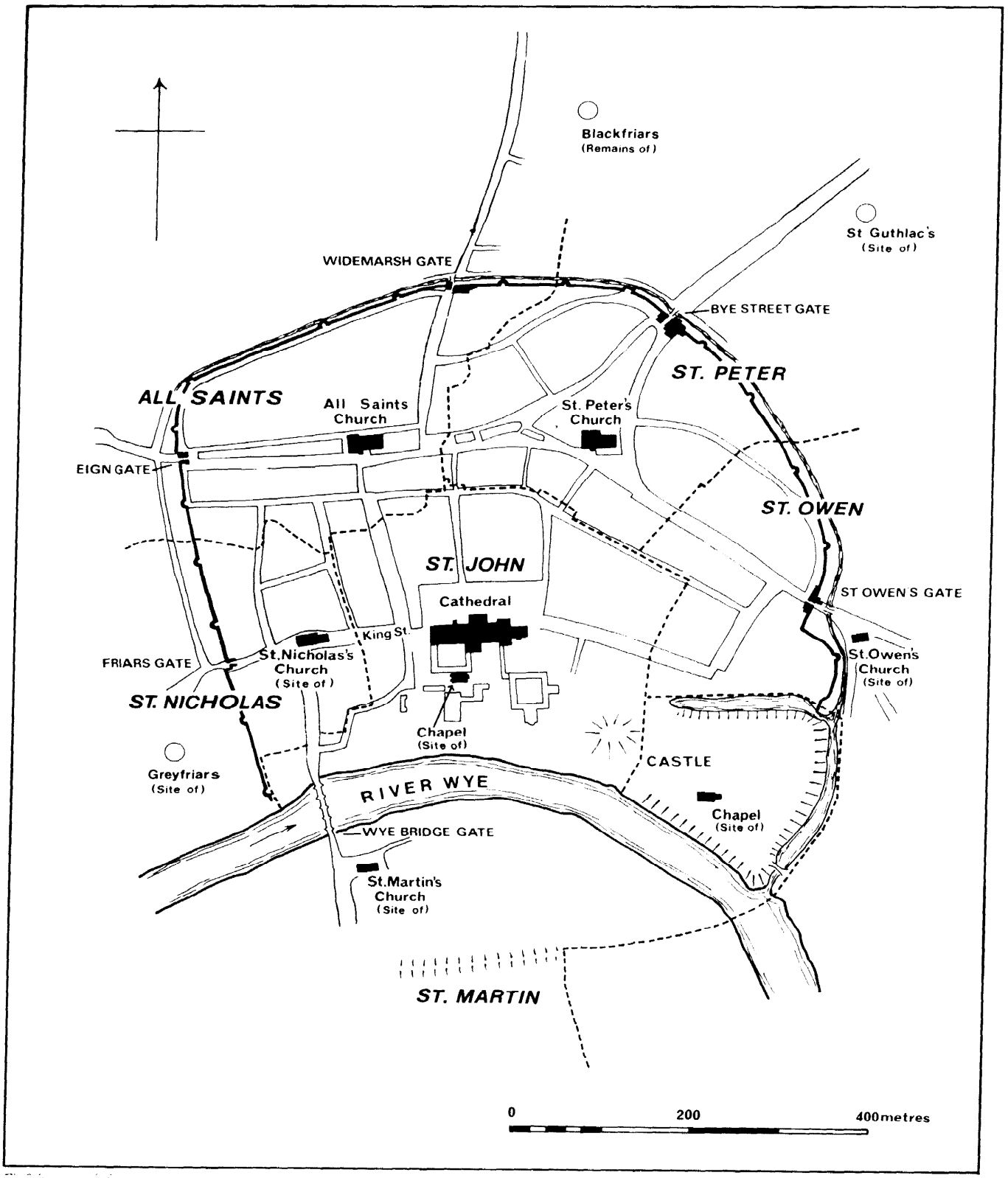

Fig 8 (see opposite)

The new king apparently wished to maintain the military duties of the citizens and probably rebuilt, the castle (Vol 1, 57), but it may be significant that there is no mention of garrisoning the town or manning the defences; instead the emphasis is upon service upon horseback, castle guard duty, beating when the king went hunting and escorting the sheriff on his journeys into Archenfield. It seems as if Harold's strategy for defensive works had been abandoned and William Fitz Osbern must be seen as the heir to Ralf rather than Harold. The castle was presumably refurbished soon after the Conquest since in AD 1067 Edric the Wild swept everything before him as far as the bridge over the Lugg and harassed the garrison of the castle *(ASC* 1953, 200; Florence 1848-9). It would appear that the castle, rather than the city wall, was the focus of the city's immediate post-conquest defences, and the policy inaugurated by the West Saxon kings, of a chain of *'burhs',* serviced by the communities in which they were situated, gave way to castles garrisoned by the new occupiers of the land (Brown 1973, *passim).* When the interest in town defences revived in the late 12th century the initiative came from the towns and not the crown.

The late 11th and 12th centuries

The revival of the commercial and ecclesiastical functions of the city were apparently the subject of a bargain between Earl William and Bishop Robert of Lorraine. William returned to Robert the manor of Eaton Bishop which Harold had confiscated from his predecessor Walter, and added to it three hides at Lydney in Gloucestershire. In return, Robert granted William the 'land in which is now the market' (DB, i, 18lb). This was presumably the market in High Town laid out beyond the Saxon defences. Thus, the first steps had been taken which transferred the commercial heart of the city from the Saxon *'burh'* to the Norman suburb.

At each end of the new market place a new church was founded (Fig 8). St Peter's at the east end was built by Walter de Lacy before AD 1085 whilst All Saints was probably founded by William Fitz Osbern for his French burgesses who settled nearby (Glouc Cart, i, 73, 84; DB, i, 182b). The advowson of All Saints later belonged to the Crown and Henry III gave the church to the monks of St Anthony of Vienne (Dalton 1957, 275). The crown's interest probably dated from AD 1075 after the revolt of Fitz Osbern's son Roger de Breteuil. It is significant that both foundations were placed under the authority of earlier churches: St Peter's, although separately endowed in Domesday, was served by the prebendaries of St Guthlac's; whilst All Saints, in the *Taxatio Ecclcsiastica* and elsewhere, is referred to as a chapel of St Martin's across the Wye (Martin 1953, 68-9; Swinfield 1909, 172; *Valor Ecc,* iii, 27).

With the creation of a new market area, Bishop Robert had enough space to rebuild the cathedral on a large scale. Surviving architectural evidence suggests that Robert got little further than the building of a chapel to St Katherine and Mary Magdalene and it was his successor, Bishop Reynelm (AD 1107-15), called *fundator ecclesie sancti Ethelberti.* who carried out the main work (Marshall 1959, 27-35; Bannister 1924, 27-31). The consecration took place between AD 1142-8, and coincided with the removal of St Guthlac's from Castle Green to a new site in the Bye Street suburb of the city, and the closure of the cemetery which adjoined it (Vol 1, 5). It may have been at this time that burials began to take place in the present cathedral close, especially as the first documentary reference to the cathedral graveyard is in c AD 1149 'during the time that Peter was archdeacon' (Capes 1908, 22; Havergal 1869, 43).

Opposite Fig 8 *The centre of Hereford showing the parish boundaries and streets as in 1757. The parish churches, chapels and monastic sites are also shown (Sc Owen's and St Martin's churches were demolished after the Civil War in 1645; the chapel of St Mary Magdalene and Katherine, south of the cathedral, was demolished in 1737; St Nicholas' church was demolished in 1841; and the chapel in the castle bailey was probably demolished in the first half of the 18th century)*

Gradually the people who lived outside the decaying Saxon defences obtained privileges from the Crown through corporate activity which challenged the independent jurisdiction of the bishop and led to the celebrated disputes which punctuate the history of medieval Hereford (Lobe1 1969, Hereford, 7--8). The first reference to the burgesses acting as a corporate body occurs in AD 1125 when a court of all the burgesses *(coram omnibus burgensibus)* met before St Peter's Church to register the sale of some land *(St Guthlac's Cart, 330).* This seems to indicate that the government of the city had by this date already been transferred to High Town where in AD 1393 the citizens were granted a licence to acquire a messuage called the *"Bothehalle'* opposite St Peter's Church where they could hold courts (Hist MSS Comm 13th Report, 286). Under these circumstances the northern line of the Saxon defences was encroached upon by the market development to the north, but it nevertheless provided a 'fixation line' which is reflected in the town plan and in the names of the suburban streets which developed along its course (Conzen 1968, 122) (Fig 9).

St Owen Street, High Town, High Street and Eign Gate Street mark the site of the extra-mural road which adjoined the early ditch. The original name for St Owen Street, first recorded in AD 1296, was *'Hungreye'* - from the OE *'hungor',* poor land adjacent to water or dry land in a fen *(Cath Mun,* 604; *ex inf* G Barnes; Smith 1970, i, 269). This name presumably refers to its proximity to the ditch, whilst Behind-the-Wall Street, which ran parallel to it to the south, was the original intra-mural road.

The grant of a tenement in AD 1364 in *'le Hungrye',* which extended as far as a lane called *'BehindethewalIes'* and was bounded by another lane called *'le Schytelone',* demonstrates the relationship, whilst the latter name gives an insight into the character of the deteriorating defences *(Cath Mun,* 1019). They may have been more pleasant on the western side of the city where they were apparently flushed by water. An early name for Eign Street was *Guldefordstrete* or Gilford Street *(Cath Mum,* 1046; Heref Docs, 24-7, f213). *'Thyenestrete',* until the late 17th century, was reserved strictly for that part of the street beyond the *'Gulde-forde'.* The first element in the name probably derives from *"Gylde'* OE, a golden flower, and perhaps refers to the yellow flags *(Iris psendacorus)* (still common in the streams around the city), which may have grown in the slow flowing ditch (Smith 1970, 211). This picture of the defences in the 13th century in various stages of decay is supported by William of Malmesbury's earlier description of Hereford in *c* AD 1125. He found it "'Not large, but such as appeared by the ruins of broken ditches to have been something great". *(Gesta Pontif 1870, 298).*

The late 12th century

The 'broken ditches' must have remained a significant feature of Hereford's townscape until the extension of the

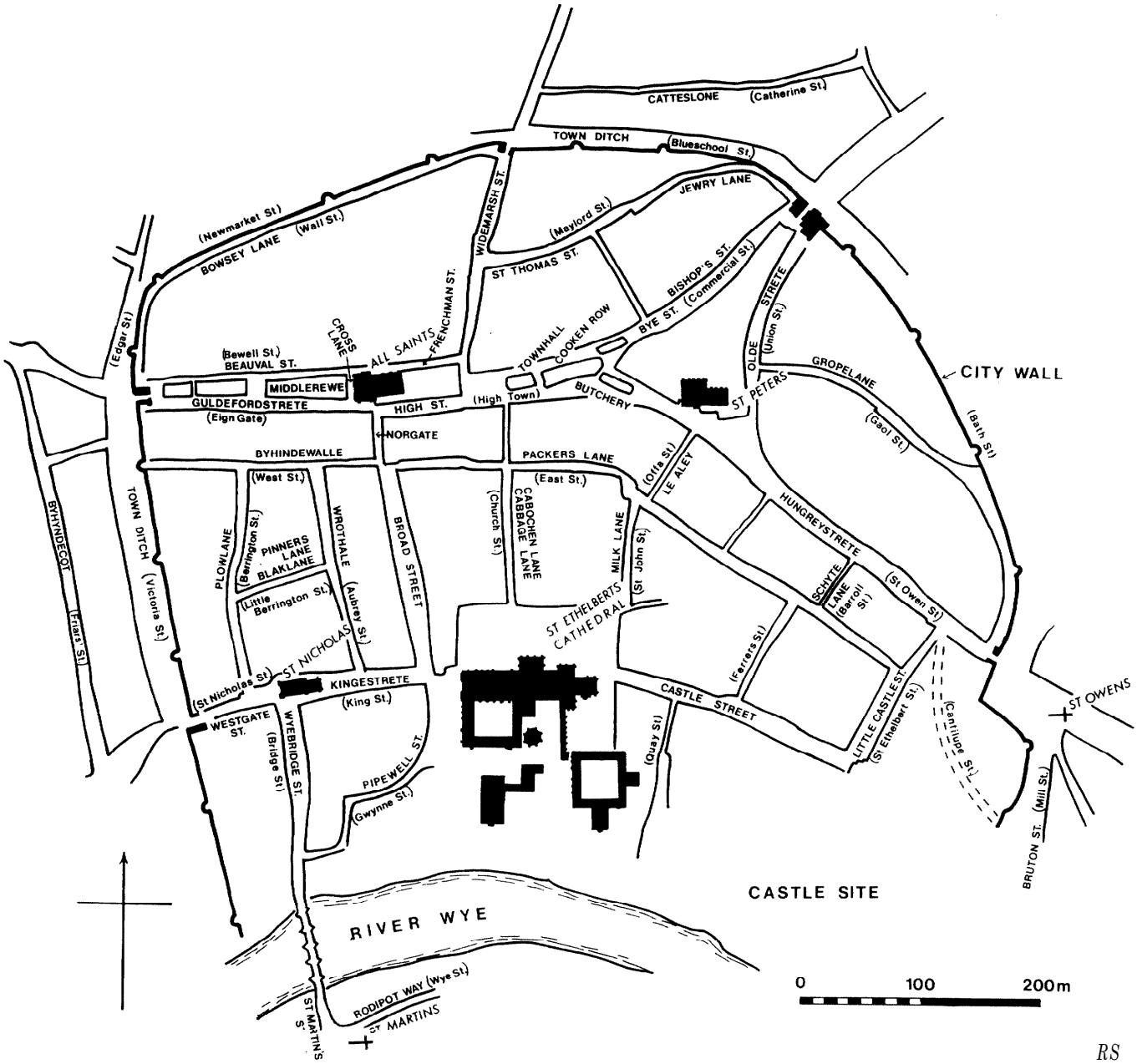

Fig 9 *Early street names in Hereford. The modern names are given in brackets where different (Tonkin 1966)*

northern circuit of defences which probably occurred late in the 12th century. None of the several contemporary accounts of the disturbances in Hereford in AD 1139 give any indication that the city had town walls (Florence 1848-9, Huntingdon 1909, 376-7; Potter 1976, 108-9). The Charter of AD 1189, which allowed the citizens to farm the rent of their town, provided they helped to enclose it, is the first documentary reference to a renewed interest in the city's defences (Hist MSS Comm, 13th Report, 284; Jancey 1973, 13). The Charter indicates the existence of a burgess community in Hereford, eager to free itself from the surveillance of the sheriff of the county, capable of carrying out sensitive negotiations with the king and sufficiently organized to undertake a major project such as the defining of a new defensive circuit. The initiative presumably came from the suburban colonists who in Domesday terms were still outside the walls.

In many respects the erection of a new city enclosure was both a defensive measure and a recognition of the corporate identity of the traders and craftsmen of Hereford - 'the physical expression of the legal separation of the town from the countryside' (Turner 1970, 90). The existence of such an enclosure also prevented people from entering the city at any other point except the gates and thus allowed tolls to be charged. This was a fundamental part of the income of the city. Hence, in AD 1190 there is a reference in the Pipe Rolls to the construction of four gates *(Pipe R* 1190, 49). Since the sheriff was only allowed £56 Os 8d for this purpose, these were probably wooden structures which stood between earthen banks. The four gates would presumably have been those of

Eign, Widemarsh, Bye and St Owen. St Nicholas Gate, as an original entrance into the earlier enceinte, may, not have required a new structure. Similarly, Wye Bridge, which had been rebuilt in stone in the reign of Henry I, would have acted as a control point for the traffic from the south of the river (Duncumb 1804, 374-5). An important indirect reference to the extension of the intramural area at this time occurs in the Pipe Rolls where the property of Master Thomas Brown, an exchequer official and almoner of the king, is regularly mentioned. Between AD 1161-88 his houses are described as *'extra villam* de *Hereford'* but in AD 1191, for no apparent reason, they are *'in Hereford'*. It would appear that Brown's houses, located, perhaps, because of their high value, in High Town, were suddenly absorbed within the town *(Pipe R* 1191, 46).

The new enclosure bank ran mainly across land which had hitherto formed part of the Portfields, and what had been suburban ribbon development in the late 12th century had, by the early 13th century, suddenly become intramural. Several early 13th century leases show that huge plots of ground existed just inside the walls. A grant of this period refers to a holding nearly 200ft (61m) long by 30ft (9m) broad lying just inside Widemarsh gate. Another plot nearby ran from High Street to Widemarsh Street and measured 130ft (39m) by 201ft (61m) *(Cad Mun,* 142, 292). These holdings were quite unlike the small plots which are common elsewhere in Hereford and seem to represent extra-mural holdings in the Portfields, recently absorbed within the walls, but not yet sub-divided into manageable urban units. Similarly, the Hereford Jewry, which had hitherto been situated in the Bye Street suburb, was now inside the walls *(Cal Chart* 1257- 1300, 162).

Although a military reason is not essential for explaining the new circuit, insecurity in the borderland undoubtedly increased in the late 12th century. After a century of confusion, the Welsh under Rhys ap Gruffydd were beginning to make their presence felt beyond the highlands. In AD 1195 Rhys attacked Painscastle which was not too remote from Hereford for the event to cause the citizens concern (Lloyd 1911, ii, 581). Moreover, as Richard of Devizes states, there was a general feeling of unease during the absence of Richard abroad and many 'towns were fortified and moats dug' during the 1190s (Appleby 1963, 30). The earthen banks which are a feature of many of the small castle boroughs such as Richard's Castle, Kilpeck, and Longtown, all close to the Welsh border, were presumably erected at this time, although once again the motive may have been partly commercial rather than totally strategic (Curnow and Thomson 1969, 117; Noble 1965, 67).

An interesting feature of Hereford's defences is the extension across the Wye to include the bridgehead suburb of St Martin's (Fig 7). This is called Row Ditch -an earthen bank which is still a prominent feature crossing the alluvial meadows opposite the cathedral. It was generally referred to as the King's Ditch or Wall Ditch and is first mentioned by the former name in AD 1422 *(Cath Mun,* 1178). The present name 'Row' is apparently due to its confusion with the bank of this name in the Bartonsham meadows and does not occur until the earliest ordnance survey maps. As late as AD 1840 it was still referred to as the King's Ditch (HRO; St Martin's Tithe award). The prefix 'King's' was given to several other physical features within the town, In the 13th century the town ditch was referred to as the King's Ditch *(Cath Mun,* 347), and in AD 1610 Speede shows King Street as King's Ditch, although this is probably better applied to the ditch or watercourse which ran close to Aubrey Street (p 88).

There is little to support the idea that the Row Ditch is Saxon and Sir Cyril Fox, who dismissed it as anything remotely connected with Offa, was probably correct in assuming it was post-Conquest (Fox 1955, 182). Since the suburb of St Martin was burnt down during the Anarchy it seems probable that it came into existence late in the 12th century rather than at some earlier date. Similar ditches enclosing settlements beyond the bridge existed at both Worcester and Monmouth (Darlington 1968, 353; Kissack 1974, 33). Elsewhere, at Bedford, Cambridge and Gloucester, the appellation 'King's' was given to suburban defences dating from the early Middle Ages (Lobe1 1969, 'Gloucester', 8; Lobel 1975, 'Cambridge', 5; Stenton 1947, 335).

As we have seen, the charter of AD 1189 gave the citizens of Hereford an opportunity to re-define the limits of the urban community. The integration of the suburb of St Martin's into the extended city would be logical at this time. Furthermore, there may well have been a more important reason, particularly during the reigns of Richard I and John, for defining the limits of the city at this point. During the early Middle Ages the royal forest of Heywood started at the south bridge *(Suthbrugge)* of Hereford (Swinfield 1909, 374-5). This landmark is referred to on a subsequent occasion as 'the bridge called Druyebrugge otherwise Old Southbrugge' and can be identified with Drybridge marked on Taylor's Map of AD 1757 (Fig 5) *(Cath Mun,* 1178). The bridge, which apparently crossed a small stream which drained surrounding meadows, acted as the focus for the roads from Abergavenny and Monmouth. Moreover, the bank enclosed an appendage of the castle referred to as 'the King's Orchard' or 'the garden of Hugh de Lacy beyond the Wye' *(Cal Pat 1258-66,* 431; Capes 1908, 22). In the 15th century it was said to be ten acres (4 hectares) in extent and would therefore have occupied virtually all the meadows enclosed by the ditch (Bannister 1918, 38). The 'orchard' is referred to regularly until the Dissolution, when it belonged to St Guthlac's priory. Its purpose can only be guessed at-it may have been an ancient appurtenance of the minster church of St Guthlac or simply a piece of enclosed pasture for the garrison of the castle, perhaps a place where the King's horses were kept for hunting expeditions into Haywood Forest.

Despite the name Wall Ditch, this suburban bank never appears to have been rebuilt in stone. The southern defence of the central part of the city was provided by the River Wye and the bridge gate, the latter also acting as a toll collection point. Nevertheless, the South Bridge was closed by a bar which gave its name to the Chain-causeway nearby. It was also the site of one of the suburban inquisitions. By the 13th century bars had been erected at all the main approaches to the city and appear to have marked the limits of the suburbs. The courts, held for the citizens who lived within the Liberty but outside the walls, were held here (Johnson 1882, 35) (Fig 10). The bar at Eign was opposite the Leper Hospital *(Cath Mun,* 501); in Widemarsh Street it was situated at the bridge over the Widemarsh Brook, known as Barr Bridge (Hist MSS Comm 13th Report, 317); in Bye Street it was below St Guthlac's Priory at the Stonebow; whilst in St Owen Street it was probably situated near St Giles' Hospital.

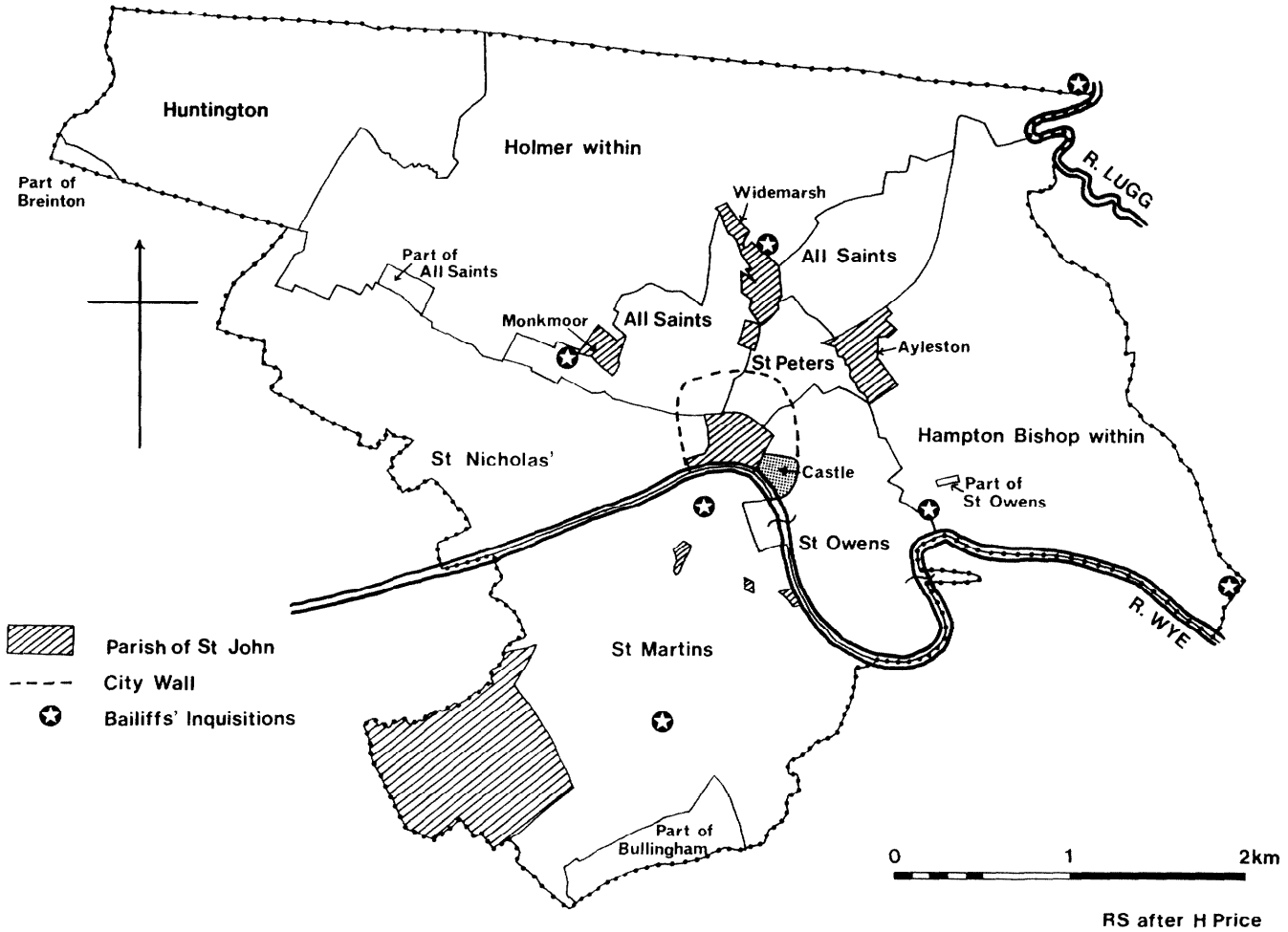

Fig 10 The Liberty of Hereford showing the fragmented nature (of the parish of St John and the sites of the Bailiffs inquisitions (Duncomb 1804)

The 13th century

Not until AD 1224, with the first murage grant, is there any suggestion that the earthen enclosure bank of the late 12th century was replaced by a stone wall (Cal *Pat* 1216-25, 473). In AD 1216, during the insecurity caused by the French invasion, the gates were still being constructed or repaired and timber for this purpose was granted from Haywood *(Rot Litt Claus,* i, 263). Thus, when Henry III came to Hereford in AD 1223, on hearing that Llewelyn was at Builth, the ramparts were hurriedly defended with brushwood and thorn palings *(ibid* 564a, 613a; Lloyd 1911, ii, 662).

It was perhaps the inadequacy of Hereford's defences that led to the first grant of murage in AD 1224. The circuit took at least 40 years to complete and coincided with a period of intensive rebuilding activity at the castle (Colvin 1963, 674-5). Henry III, who was frequently in Hereford in the 1230s and 124Os, presumably viewed the town wall as an essential element in the creation of a garrison town for the war which was being waged with increasing ferocity against the Welsh (VCH 1908, 363). A special mandate was issued in AD 1251 urging the mayor and bailiffs of the city to complete the work *(Cal Close* 1247-51, 534).

In November 1262 Llewelyn ravaged the Herefordshire lowlands as far as Weobley (VCH 1908, 364). This emergency prompted the citizens to complete the task as quickly as possible. The crown confirmed an agreement made between Bishop Peter and the citizens, whereby the bishop's tenants, who had presumably hitherto enjoyed immunity from wall work, agreed to assist with the job of enclosing the town (Cantilupe 1906, 93). Work continued in AD 1264-5 when 12 oaks were granted by the King to build a drawbridge *(Pontem turneicium)* at Friars' Gate and a new chain was made for one of the other gates (Cal Close 1264-8, 58; Hist MSS Comm 13th Report, 292). In AD 1265, when Roger Mortimer besieged the town, the walls may have been virtually complete, for with the demolition of encroachments upon the city ditch between St Nicholas and Widemarsh Gates, they were sufficient to keep the enemy at bay (Noble 1965, 11- 12):

> . . . when the citizens of Hereford were informed of the coming of Sir Roger de Mortuo Mari and the other great men who were with him, they burned certain houses in the suburbs which hindered the defences, to the damage of the inhabitants there, and threw some down from the gate of St Nicholas to that of Thithene, making purprestures on the curtilages there in order to widen the ditch, which was to the improvement of the city, but to the damage of one tenant of the bishop, and tenants of the king . . . for the same cause they pulled down the prior of St Guthlac's mill and two houses of the bishop's fee between the gate of Thithene and the gate of Wydemareis. *(cal Inq Misc* 1219-1307, 100).

However, a number of entries in the bailiffs rolls of the city suggest that the wall was not completely finished until the late 13th century. In AD 1292 seven weeks were spent working upon a *'circa panag'* which appears to be a rather cumbersome description for one of the seventeen semi-circular murage towers which were a feature of the wall. A further *'circa paina'* was constructed in AD 1319 at a cost of £27 0s 9d (HRO, Corp Archives, Bailiffs" Accounts; Hist MSS Comm, 13th Report, 295, 297). Although murage grants continue until the reign of Henry VIII there is little evidence that the wall was altered or rebuilt in any major way until the Civil War. The square gates, illustrated in earlier histories of the town, are also thought to have been built in the 13th century (Price 1796, 57; Duncumb 1804, 416; Johnson 1882, 111, 175; Collins 1911, 45; Turner 1970, 67).

An interesting feature of some of the earliest murage rolls is the absence of St Nicholas' or Friars' Gate. It was mentioned during the emergency of AD 1265 but does not seem to have had a porter to collect tolls in either AD 1264 or AD 1270, It appears in the next roll for AD 1299- 1300 where nil returns are registered week after week. No illustrations exist of this gate and, although it was one of the original 10th century entrances into the town, its importance diminished with the creation of Eign Gate. Its primary purpose may have been to serve as a postern for the Grey Friars who had settled just outside in c AD 1237 *(Cal Close* 1234-7, 504; *Cal Chart* 1226-57, 58).

The 14th and 15th centuries

After the conquest of Wales in the 1280s, Hereford's wall, like her castle, became superfluous; the latter decayed but the former survived as a symbol of civic pride. Royal grants of stone from the forest of Haywood occurred in the 14th century and the ditch was regularly scoured *(Cal Pat* 1324-27, 258; 1377-81, 563). This was usually a joint operation by the bishop and the citizens since Bishop Peter of Aigueblance had been granted the right to use the ditch as a fish pool in AD 1249 *(ibid 1247-58, 40).* As the events of AD 1265 showed, encroachment was very difficult to prevent, particularly when the running water in the ditch was so useful for industrial purposes. St Guthlac's owned a mill at Eign Gate and another adjacent to the castle whilst Richard of Hereford, a clerk, owned a mill between Bishop's Gate and St Owen's Gate *(ibid 1258-66,* 610; *Cal Inq Misc* 1219-1307, 100, 328). In AD 1349 the Grey Friars were allowed to enlarge their precinct by enclosing the city ditch beneath St Nicholas' Gate, with a provision for breaking it open 'with the advice of descreet men and friends of the Friars' if an emergency arose *(Cal Pat* 1348-50, 426). There were one or two occasions during the Middle Ages when the wall served the purpose for which it had been constructed. In AD 1344 a 'multitude of people', angry about the imprisonment of certain felons in the castle gaol, gathered in Haywood and surrounded the town, preventing the inhabitants of the countryside reaching the city markets with their goods and victuals *(ibid* 1343-9, 419-20). There was also some activity in the early 15th century following the Glendower revolt. The dean and chapter contributed 100 shillings towards the cleaning of the city ditch, and the murage grant of AD 1418-19 specifically refers to the need for better fortifications to defend the city against the king's enemies because of its proximity to Wales *(Cath Mun* 1149; *Cal Pat* 1416-22, 133, 235).

Murage grants for a specified number of years ceased in AD 1478 and in the first year of the reign of Henry VII a general grant was made during the king's pleasure *(Cal Pat* 1476-85, 74; 1485-94, 67). The money collected was to be expended under the supervision of the mayor and dean, and accounts were to be rendered annually before twelve citizens. In AD 1510 the grant was renewed by Henry VIII (LP, i, 367).

The 16th and 17th centuries

In AD 1535 the tolls were blamed for the 'great and continual ruin, decay and dishabiting of the said city', The will of Richard Philips claimed that to avoid paying tolls, merchants and traders 'withdrawith themselfs and resortith to other markets'. In order to relieve the 'manyfolde charges which they (the citizens) do dayly susteyne in Reparacion of the Walls gates Bridge and paviments' Phelips, a tailor and six times mayor, left property to the city to the yearly value of forty marks (James 1934, 102-3; *Cal Heref Mun,* 1). After this date murage tolls were no longer collected although the customary, charges of the markets and fairs continued.

Other attempts were made by the common council to place the burden of maintenance squarely upon the shoulders of the community. In AD 1495 the wall was divided into 'loops' and every citizen, excluding those who had a freehold on the King's fee, had to contribute to the upkeep of their loop (Johnson 1882, 112). The Reformation offered another opportunity of tapping the general wealth of the community. In AD 1548 the council agreed to abandon the traditional Corpus Christi pageants; instead the craft and trade companies, who were responsible for this function, were to contribute to a fund to be used to repair the 'decayed causeys, pavements, streets and walls' of the city (ibid, 119-20). Neither of these two rather novel forms of local taxation appear to have been very successful and the council eventually resorted to other measures. Richard Neville, who imperilled 'the King's walls' by enclosing ground adjacent to St Owen's Gate, was punished by being ordered to repair the wall adjacent to his ground 'from the fundement to the toppe' and to keep it in repair during his natural life (Mayors Book, f218v). Similarly, John Hampton, a painter, was imprisoned in AD 1554 for making a breach in the wall at Bowsey Lane (Great Black Book, f58). Occasionally, also, the fines for frays were directed specifically towards the reparation of the wall (eg AD 1514, Hist MSS Comm 13th Report, 289). By employing all these methods the wall was kept in a relatively good state of repair; thus, when Leland visited the city he found the wall and gates 'were right well maintained by the burgesses of the town' (Smith 1908, ii, 66).

The presentments recorded by the ward juries during the 16th and 17th centuries give a different impression. Here both the walls and gates appear to be in a state of imminent collapse. In AD 1623 the jury for St Martin's described the wall 'without Friars' Gate and leading towards the river' as out of repair (Heref Docs I5-19, f209). The gates of Wyebridge were 'almost in pieces' in AD 1638 *(ibid* f442). In the same decade the bridges at Eign Gate and Friars' Gate were said to be so decayed that 'the towne ditche water have no passage through . . . to Wye' *(ibid,* 16-19, ff219, 232, 458). Nevertheless, the authorities were still vigilant; they punished those who carried away stones from the gates, those who diverted the city ditch from its course by digging gravel, and they passed ordinances to prevent

the husbandmen of the Portfields damaging- the banks by ploughing and sowing *(ibid,* 8-14, f268, 1-7, f28-38; Great Black Book, f169). Increasingly, the maintenance of the wall fell upon the occupiers of adjoining property who, in return for licences to encroach, looked after a section of the wall or a gate. In AD 1582, Thomas Church, a dyer, who lived adjacent to Widemarsh Gate, asked permission to 'make one little doore throughe the Towne wall to thend your said orator may the better washe his coloured clothes . . . And for the same wilbe glad to keepe one lowpe of the said wall . . . in sufficient reparacons'. He promised to keep the door in 'suche sorte that it should not by any meanes be preiudiciall or hurfull to the citty' (Morgan 1936, 16). The door still survives with Thomas Church's initials carved on the lintel. In AD 1628, Church complained that the foundations of the gate were 'now in decay for want of poyntinge'. He was prepared to carry out the work at his own expense in return for a grant of a small piece of land between the wall and the ditch (Heref Docs 15-19, f133). Similarly, William Wellington rented a tower next to St Owen's Gate in AD 1596 at 6d per year on condition that he kept it in repair (Hist MSS Comm 13th Report, 337).

By a mixture of public and private care the city wall survived intact until the Civil War. The only occasion during the previous century when the defences came near to serving their original purpose occurred during Wyatt's rebellion in AD 1554 (HRO MSS, vi, f48). The Council of the Marches instructed the city authorities to keep the gates closed and maintain a nightly watch. Similar measures were taken in AD 1603 when plague was raging in the West Midlands. A close watch was kept on the gates and carriers were forced to unload their goods in the suburbs (Johnson 1882, 165-6).

The Civil War

In September 1642, on learning that the Earl of Essex was gathering a parliamentary force in the Midlands to prevent Charles I marching from Shrewsbury to London, Hereford began to put itself into a posture of defence. Joyce Jefferies, who lived in Widemarsh Street Without, contributed 20s towards an assessment designed 'to streinten the city against the parliament'. She also paid a bribe to a carpenter 'to pass over my standard powles in ye cole howse when the soldiers would had them to barricade Widmarsh gate' (Webb 1856, 206). These preparations were assessed by Nehemiah Wharton, who arrived with a parliamentary detachment commanded by the Earl of Stamford on 1 October 1642. Finding the gates closed against them they were made to wait two hours 'in dirt and water up to the mid-leg'. Hereford, in Wharton's opinion, 'was well situated . . . environed with a strong wall, better than any I have seen before, with five gates and a strong stone bridge of six arches, surpassing Worcester'. (SP Dom 1641-3, 399). However, on this occasion the strength of the defences was not tested and an alderman called Lane persuaded the mayor to open Bysters Gate.

Stamford left Hereford in December and the Royalists once again took possession (Webb 1879, i, 211). Neither of the subsequent governors-Fitz William Coningsby and Herbert Price-appear to have paid any attention to the city defences. Thus, when Sir William Waller approached the city in April 1643 he found it scant defended. The account given by Sir Richard Cave at his court martial highlights the weaknesses of the fortifications. Only Bysters Gate was blocked up whilst Eign Gate and Widemarsh Gate were simply protected by a chain. Moreover, despite Cave's insistence, no breast works, either before the gates or across the river opposite the castle ford, had been erected, nor had the walls been cleared of encroaching houses. In the event this proved to be a weakness exploited by Waller; his soldiers broke the tiles on Joyce Jeffries' closet as they scrambled towards Widemarsh Gate, which was blown open with little difficulty. Even the ditch needed scouring; for when Cave made his escape over the wall he was able to wade across the moat without it coming over his boots (Webb 1856, 210; Whelan 1926, 52, 59).

Waller left Hereford almost immediately and the new Royalist governor Co1 Nicholas Mynne began, in May AD 1644, to construct bulwarks around the city, and confiscated timber from the inhabitants for this purpose (Webb 1856, 2 13). Mynne was killed in August and replaced by Co1 Barnabus Scudamore. How far the works around Hereford progressed is difficult to ascertain, but in March 1645, the city was strong enough to withstand a siege by 15,000 armed neutrals-the Clubmen -who, reacting to the increased exactions made by both sides, rose in spontaneous rebellion and marched on the city. Despite an appeal to the citizens, the gates remained firmly closed; and with the arrival of Prince Rupert the insurgents dispersed (Webb 1879, ii 150-8). Meanwhile Scudamore began to clear the suburbs. In May and June the accounts of Joyce Jefferies record the demolition of her houses in Widemarsh Street (Webb 1856, 215-16).

On 30 July, 1645, the Scottish army, commanded by the Earl of Leven, arrived at Hereford and laid siege to the city for five weeks. Sir Henry Slingsby, who visited the city with the king both before and after the siege, describes the scene: 'We found all places about ye town made levell whereas before they stood upon ye same ground, fair houses and Goodly orchards'. He thought the walls were high even though they were 'not mounted upon a Rampeir as York walls are' (Slingsby 1836, 163). The Scottish Commissioners reported that the taking of Hereford 'woold be a work of time because the towne of Hereford was very stronge, the moate deep and the wals lined within'. Moreover, 'the graffs (defensive trenches) were larger and deeper than at first we supposed'. (Hist MSS Comm, Portland, i, 272). Barnabus Scudamore, writing to Lord Digby at Oxford, described how the Scots placed their ordnance against the corner of the wall by the Wye: 'but we repaired and lined our walls faster than they could batter them' (Duncumb 1804, 274-280). Sally ports were constructed in various parts of the town and the besiegers were constantly harassed by sorties from within the walls. On 1 September 'the ditch beigne miraculously-as they sayd-dryed up' the besieging army prepared for a final assault, only to hear that the King was approaching (Hist MSS Comm, Portland, i, 272-3). That night the siege was abandoned and in Scudamore's words 'the Scottish mist . . . dispersed'.

Hereford's moment of glory was short-lived; three months later, on the 18 December, Co1 John Birch captured the city by what the parliamentary pamphleteers dubbed 'a new tricke to take townes' (Webb 1879, ii, 401-3). Henceforward Hereford was a parliamentary garrison in occupied territory and although the 'new works' were demolished in March 1647, the walls and gates remained too useful to be destroyed (ibid ii, 293). Indeed, Wroth Rogers, who was governor during the 1650s, on one occasion, at least, carefully patched up a breach in the walls with materials from

a demolished cottage erected on the castle waste (Heref Docs, 24-7, f289). Ironically, late in 1645, just before the city fell to Birch, it was the King who appears to have had plans to 'slight' the defences and withdraw the garrison to Worcester (Hist MSS Comm, Portland, i, 335).

The late 17th, 18th, and 19th centuries

When the city records take up the story at the Restoration the walls and gates were substantially complete. In AD 1663 the mayor and common council were presented by the jury for Eign Ward for not repairing a breach in Bowsey Lane (Wall Street) 'where the saly port doore was' (Heref Docs, 24-7, 263). The roof of Widemarsh Gate was declared unsafe whilst both St Owen's Gate and Wyebridge Gate were said to be out of repair, the latter 'ready to fall down' *(ibid* f33, 200, 224). It appears to be particularly derelict on Dingley's sketch of *c* AD 1684 (Dingley 1867, i, 235). Not all the damage was caused by the Civil War; the jury for Eign Ward threatened to take proceedings against the executors of the late mayor in AD 1662 to recover the lead which had been mislaid from their gate *(ibid* f155). Co1 Birch was presented for causing the water course without Friars' Gate 'to be turned out of its perfect course being . . . a great annoyance to passengers' *(ibid* f224).

These statements, derived from the presentments, give an exaggerated account of the dilapidations of the defences, for in AD 1665, the year of the great plague, it was still possible to seal the city off from the contagious world outside *(ibid* ff307, 350, 252), and when Thomas Baskerville visited Hereford in AD 1673, he described it as 'a strong walled town' (Hist MSS Comm, Portland, ii, 292).

To relieve the community of the burden of maintenance, the council reverted to the policy of leasing the gates and stretches of property adjoining the wall to the inhabitants of the city. A rental of AD 1672 shows the land between the ditch and the wall let out as a series of gardens (Heref City Docs, i, ff26-9). In AD 1697 all the gates were leased to private individuals. The tenant of St Owen's Gate was allowed to add to the structure as long as he renewed the tiles on the roof and left a way fourteen feet wide (Minute Bk 1693- 1736, f49). The Church family continued to occupy the property adjoining Widemarsh Gate, which included a feature referred to in AD 1701 as the 'sentry house'. The tenant of Wyebridge Gate, Charles Carwardine, carried out repairs to his gate in AD 1701 but because of the expenses incurred he was subsequently reimbursed by the council (Minute Bk 1693- 1736, f100). Similarly, the bastions, which had hitherto been left untouched, were also leased to various craftsmen who converted them to workshops. In AD 1705, John Powle, a padmaker, rented a 'half-moon' between Eign Gate and Widemarsh Gate *(ibid* f168). Two others near Eign Gate were being employed as a stable and a 'pig-tote' *(ibid f565;* Heref Docs 24-7, f207). Just west of Bysters Gate, the Jew's Chimney, so named from its position next to the Jewish quarter of medieval Hereford, was rebuilt in AD 1743 by John Philips, a tanner (Minute Book 1693-1736, f598). A century before, in AD 1633, Joan Wilman 'great with child' on being examined by the mayor admitted that she was a single woman but claimed she had been 'attempted' by John Drew, a carpenter, in the Jew's Chimney– obviously at this date it was unoccupied! (Heref Docs, 16-19, f185).

By the beginning of the 18th century the city authorities had lost interest in the city wall as a means of defence and increasingly viewed it as a convenient source of building materials. In AD 1698 William Green, the tenant of the Boothall Inn, was allowed to take ten loads of stone from between Eign Gate and Widemarsh Gate to repair his property. Two years later the pound at Eign Gate was also rebuilt with stone from this source. Similarly, the chain causeway beyond St Martin's Street was resurfaced with wall stones retrieved from the garden of Mr Richard Pain in Wyebridge Street (Minute Book 1693-1736, ff54, 88, 579). At the same time as the city council found a new use for their redundant defences, the inhabitants of the town, eager to rebuild their timber framed houses in a more durable material, also discovered the value of the city wall. The city authorities regularly threatened those who were discovered carrying away the stone, and in AD 1698 a five shilling reward was offered to anyone who provided information about the removal of stone; this was increased to twenty shillings in AD 1736 *(ibid* ff56, 64, 629). Similar threats, with diminishing effectiveness, were reiterated throughout the 18th century (Minute Book 1755-78, f69). Nevertheless, 'idle and disorderly persons' continued to 'pilfer and steal away' the stones. Mr Pedley of Foxley was fined seven pounds in AD 1733 for taking down two feet of the wall at the bottom of his garden in Bridge Street *(ibid* 1693-1736, 579).

Occupiers of land adjacent to the wall continued to have responsibilities towards it. Mr Smith, who lived near St Owen's Gate, was allowed in AD 1735 to use loose stones to build a stable, take down a high section of the wall near his chaise house and use the stone to make up the wall to an equal height nearby (ibid ff 80, 612). Mr Symonds, a mercer, was given permission to collect loose stones to rebuild the wall adjacent to Friar's Gate.

Periodically, a sub-committee of the city council would meet to take a 'general view of the State of the Wall'. In AD 1706 they reported on the defects of Eign Gate and in the following year decided to remove a 'gettee formerly a house of office conduit' from beneath St Owen's Gate. At the same time they examined the state of the bastions between Friars' Gate and Eign Gate (Minute Book 1693-1736, ff147, 195, 211).

On Samuel Buck's *'North east prospect of the city of Hereford'* made in AD 1732 and on Taylor's plan of AD 1757 (Fig 5) the wall is depicted as continuous. Because of Hereford's commercial stagnation in the Georgian era the Portfields still swept uninterrupted up to the City Ditch. A discerning tourist like Viscount Torrington felt that the old gateways gave an air of 'grandeur and antiquity' to the city and, before going to bed on Tuesday 29 June 1784, he made a circuit of the town 'where the ancient wall and turrets continue, not very dilapidated'. This 'Sally Walk', as it was known, was deliberately planted and highly regarded by the inhabitants of the city. Three years later Torrington visited Hereford again and left by the 'eastern gate, which, with the other gates and old walls and bastions are tolerably perfect' (Bruyn-Andrews 1934, i, 127, 316). If he had passed around to the west side of the town he would have noticed that Friar's Gate had gone, pulled down by the Improvement Commissioners in AD 1782 'for the better accommodation of the public" (Paving, OB, f82).

This body had been established in AD 1774 by an Act of Parliament for 'paving, repairing, cleansing and lighting

the streets and lanes of the city of Hereford' (Act of 14 Geo III, Cap xxxviii). The Act gave the commissioners wide-ranging powers and they set out to make Hereford a more 'commodious' city by clearing and widening its thoroughfares. The gates were one of their first targets. Wyebridge Gate was taken down in AD 1783 'to make a convenient Footway up St Martin's Street' (Paving, OB, f80). St Gwen's disappeared in AD 1786, Eign (already half demolished in AD 1763) in AD 1787, Bysters in AD 1798, and finally Widemarsh Gate, to use the commissioners' euphemism, was 'altered' in AD 1799 (Collins 1911, 5-12; Duncumb 1804, 225; Paving, OB, f272). Not all contemporaries were enthusiastic about these measures. Duncumb grudgingly admitted that the gates had prevented 'the free circulation of air' but even so felt that their venerable appearance 'constituted an agreeable termination to the several streets' (Duncumb 1804, 225). Price was less cautious; for him 'the venerable aspect of the place (had been) injured without an adequate acquisition of elegance' (Price 1796, 57). With the gates gone there was little public feeling for the walls and they gradually disappeared behind warehouses and stables during the 19th century. In certain places the council insisted upon the wall being maintained to a minimum height of 4ft (1.2m), elsewhere it was deliberately demolished and the materials sold (Minute Book, 1801-22, and 1776-99). A further Improvement Act in AD 1854 led to the culverting of the City Ditch and made the area in front of the wall much more accessible. The bastions disappeared with little publicity. One, to the east of Widemarsh Street, remained until about AD 1870; the Jews' Chimney survived until the mid 19th century; and a bastion sealed the western end of West Street until the 1890s (Pilley MSS, f95v; Watkins 1919b, 161).

Alfred Watkins generated a new appreciation for the city defences and just before the Second World War, a proposal was made to utilise the course of the city ditch as a ring road. This was put into effect in 1966-70 and the stretches of the city wall which survived were preserved as a feature of the development.

The excavations

Introduction

The summaries of the excavation reports in the following pages are condensed from the full reports which are in microfiche form in a wallet at the back of this volume. References to the corresponding microfiche section are given at the beginning of each excavation summary. The summaries include all excavations which have taken place in Hereford between 1965 and 1975 with the exception of those which have already been published (p 6) and the excavations on Castle Green, which are the subject of Volume 1.

The excavations did not follow any consistent research plan but followed a general policy which developed as sites became available. The main theme throughout was the development of the city defences from the origin of the city until after the Civil War. Several directors were responsible for the work which was organized on behalf of various bodies.

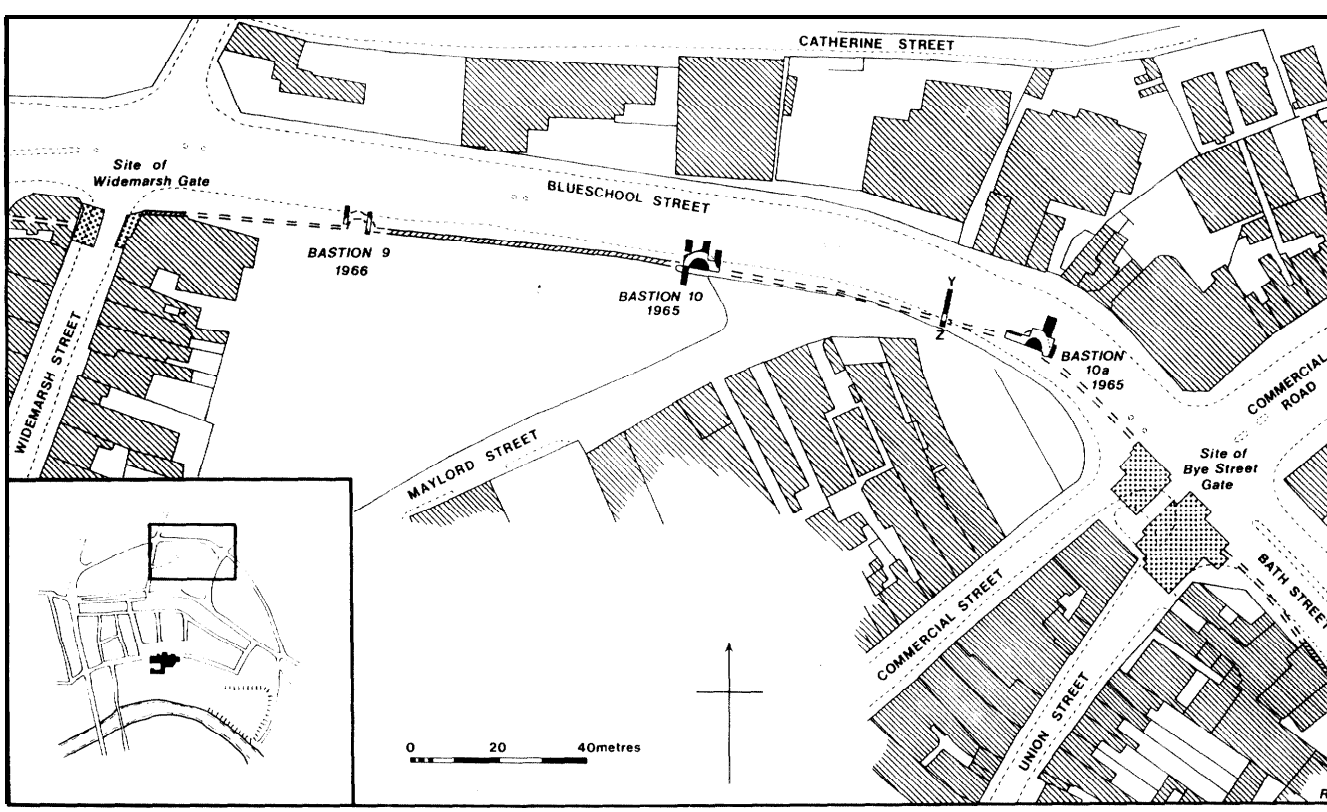

Fig 11 Excavation sites in the northern part of the city

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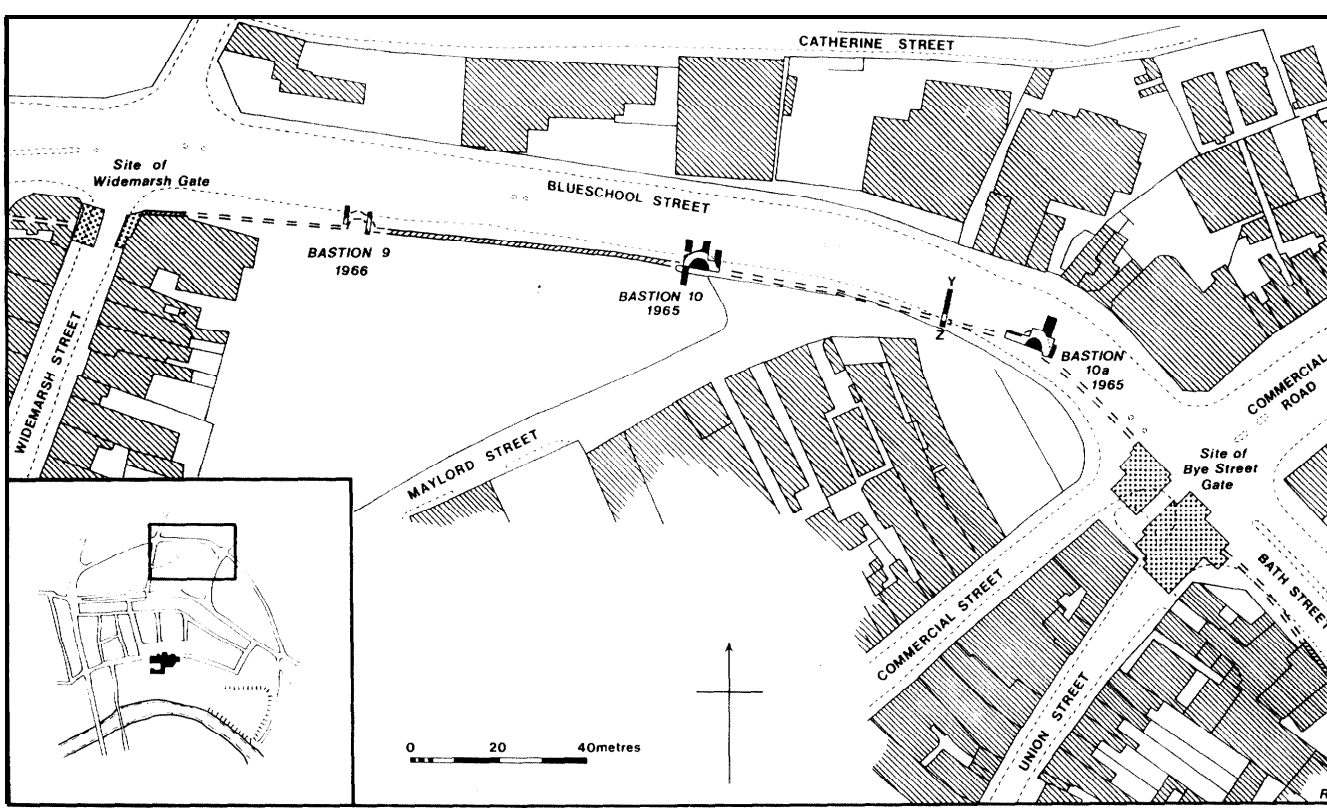

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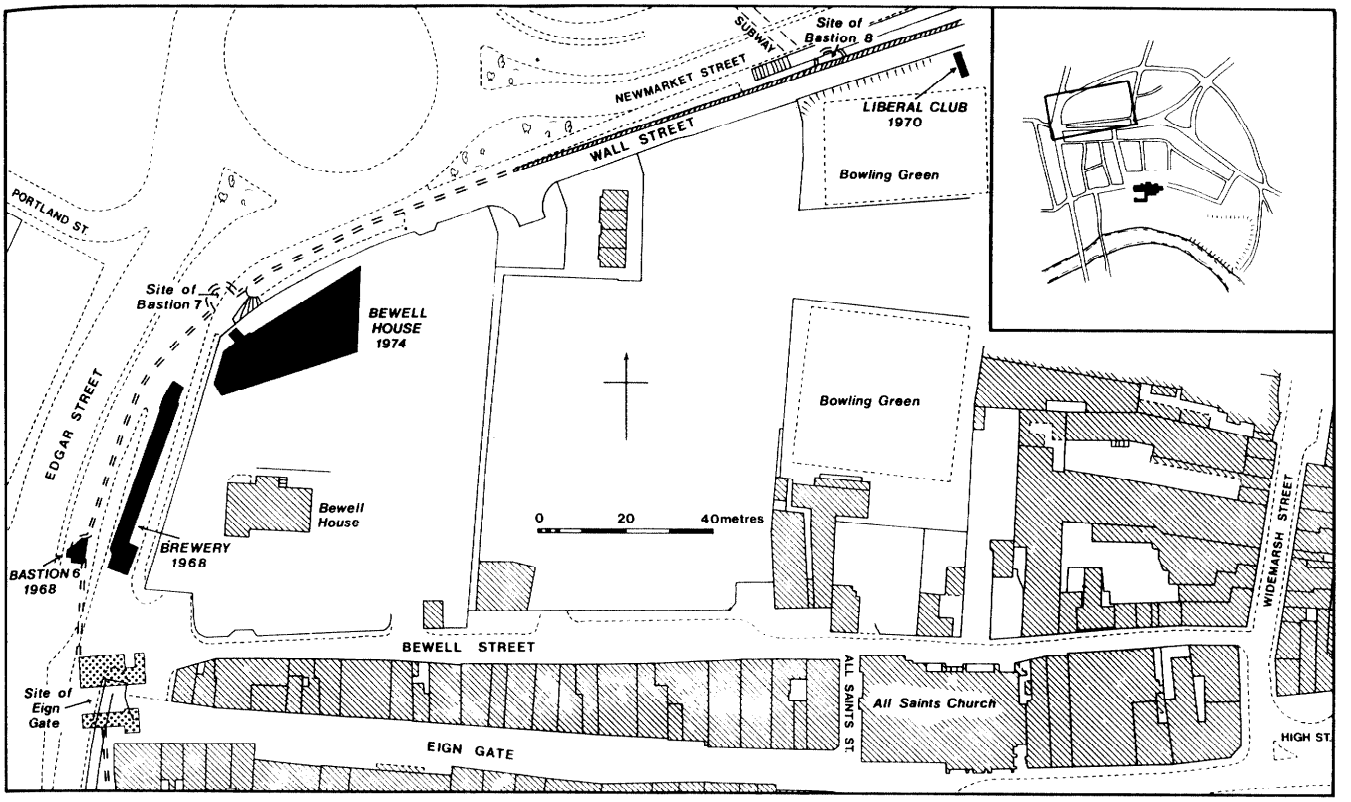


Fig 12 Excavation sites in the north-western part of the city

The Hereford Excavation Committee was founded in 1965 to co-ordinate work on the city defences during the construction of the inner relief road, and to obtain funds for excavation. The general direction of archaeological work was undertaken originally by S C Stanford, and after 1966 by F Noble. All the excavations in the city between 1965 and 1969 were under the auspices of this committee. Some have been published p 6) (Stanford 1966; Shoesmith 1967, 1968, 1971; Leach 1971), and the remainder are included in this report.

In 1965, demolition on the southern side of the Blueschool Street part of the ring road provided small sites for examination. The committee, together with the then Ministry of Public Building and Works, organized a series of excavations to examine the remains of the three bastions which were known to have existed along the stretch of medieval wall exposed by the demolition works. An abbreviated report of the excavation of these bastions, numbered 9, 10, and 10a (Fig 11), is included in the Minor sites section.

In 1967, the opportunity was taken to examine the defensive works on the western side of the city which were anticipated to be of several periods. A series of small trial excavations established their importance (Shoesmith 1967) but the dating of the various phases was conjectural (Noble 1967). In 1968, P A Rahtz, then lecturer in the School of History at Birmingham University, and now Professor of Archaeology at York University, directed an area excavation of part of this western defensive line (Fig 13). The results of the excavation, together with observations made during the cutting of a nearby subway, are described under the heading 'Victoria Street'. Later in 1968, again in advance of the work on the ring road, a long narrow strip of ground behind the medieval wall, and immediately to the north of Eign Gate, was examined (Fig 12). The excavation, which was directed by Mrs M Gray, is included as the 'Brewery site'. A small excavation of part of bastion 6, close to the Brewery site, also took place during 1968, and the report is included within the Minor sites section.

The Hereford Excavations Committee was disbanded in 1969 when the work of constructing the relief road was completed, and its remaining assets were transferred to the Woolhope Naturalists' Field Club. Some of this money was used in 1971 for a trial excavation in the grounds of the Liberal Club (Fig 12), and the report is in the Minor sites section. The remainder was held in trust for future excavations in Hereford.

Between 1970 and 1974 there was no local organization directly responsible for archaeological work within the city and excavations were all carried out under the auspices of the Department of the Environment. The City of Hereford Archaeology Committee was formed in 1974 as a result of a report detailing the archaeological implications of future development in the city (Shoesmith 1974). The committee immediately organized an archaeological unit to work in the city and continues to administer funds provided by the Department of the Environment, the Hereford City Council, and the Hereford and Worcester County Council. Through the unit the committee has organized several excavations in the city and has been responsible for the preparation of this report.

Several of the excavations which are included in this report took place during the six year period from 1970. They include the various excavations just within the line of the western defences close to Berrington Street (Fig 13), the investigation of the defensive sequence at

Cantilupe Street (Fig 14) and an area excavation, just within the extended northern defensive line, at Bewell House (Fig 12). Watching briefs during this period at Friars' Gate (Fig 13), the Lamb Inn (Fig 14), and the City Arms (Fig 7), are included in the Minor sites section.

It is important to appreciate the order in which the excavations took place because the sequence indicates the extent of the knowledge and information available to each director when work commenced. However, the summaries which follow are not presented in the order of excavation but are arranged to allow ease of reading and reference. The summaries should be considered in three sections. The first, which includes the excavations at Victoria Street and Cantilupe Street, is mainly concerned with the pre-Conquest defences although the former site includes details of the earliest occupation levels so far discovered in the city. The second section includes defensive features but is mainly concerned with the internal development of the city. It contains the four excavations in Berrington Street which are, in part, related to the Victoria Street site, and the excavations at Bewell House and the Brewery site, both of which were close to the north-western corner of the medieval walled town. The third section contains reports of the examination of small sites in the city. Most of the excavations were

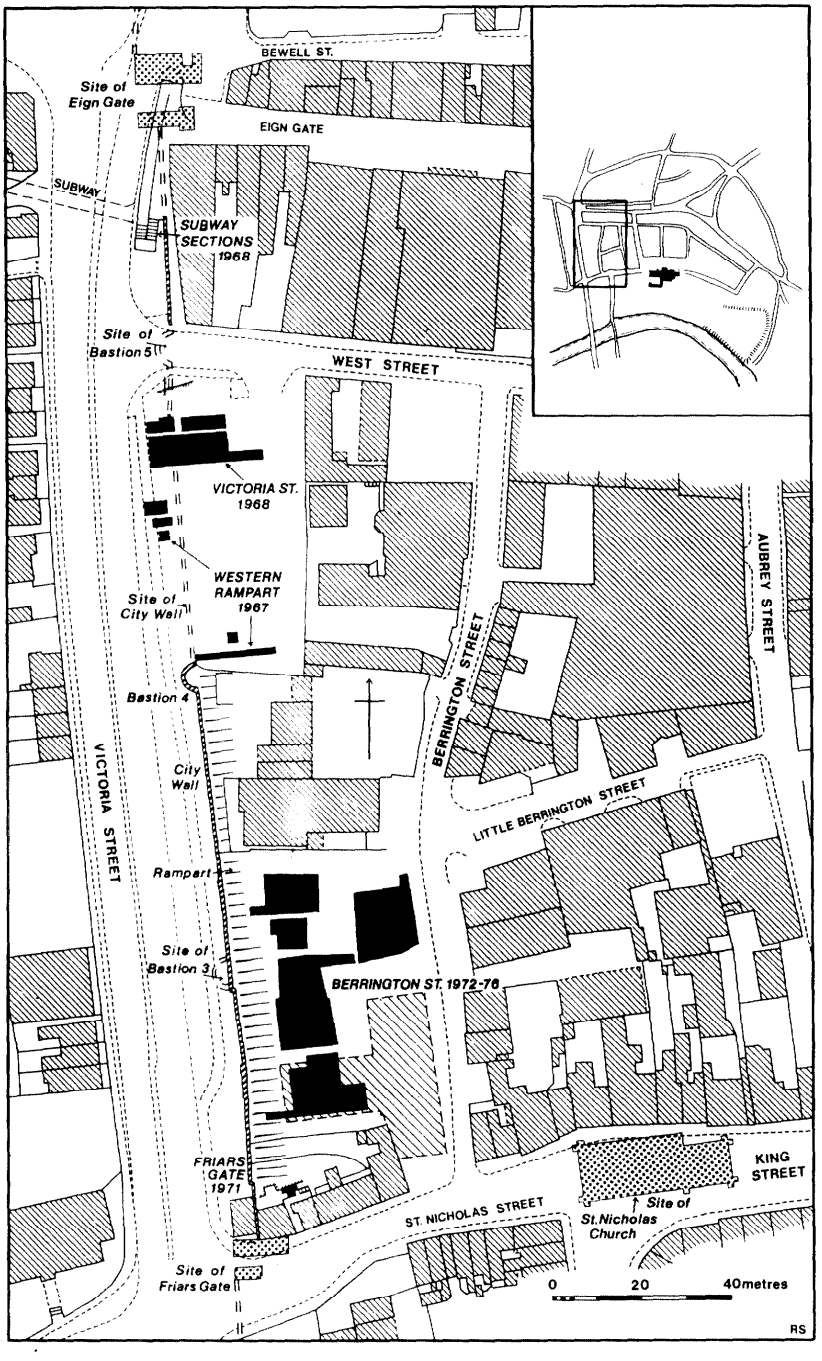


Fig 13 Excavation sites in the western part of the city.

concerned with the construction and development of the city wall, but the section also includes details of watching briefs on other sites throughout the city.

Each summary follows a standard format with an introduction followed by a brief description. The latter is split into the same period sections as are used in the main microfiche report, The occupation periods are peculiar to the one site only and thus, for example, the occupation periods relating to the Victoria Street site are not the same as those used on the neighbouring Berrington Street site.

The individual sites were found to be variable in terms of development and periods of occupation and it was therefore decided that the overall integration of periods into one master scheme would be complex and probably undesirable in the present state of knowledge because such an integration would have concealed the individual stratigraphic and dating problems which are present on several of the sites. This is particularly the case in the earlier periods where there is little or no pottery to provide dating criteria. The integration of these periods in the individual excavation reports would have been unwarranted by the facts and the relationships between the various periods on all sites has therefore been considered in a separate section (p 70).

Throughout the summary it is assumed that the reader is conversant with archaeological features and appreciates that interpretations have been made to allow particular contexts to be described as postholes, postpits, walls, etc. The interpretations are taken a stage further in some of the summaries where, for example, a regular collection of postholes may be described as the remains of a fence line or even of a building. Other collective terms include rampart, oven and furnace. Interpretations of this nature are described in some detail in the-microfiche and are justified wherever it is considered necessary.

The postulated defensive sequence

The defences comprise an important part of the excavation reports and although their development is considered in detail in Part 2 (p 74), it is helpful at this point to appreciate the proposed sequence. Six stages in the development of the defences are postulated and, to aid cross-referencing and to provide a descriptive framework, these stages are listed below and shown in Fig 15. The appropriate defensive stage is indicated in each of the individual excavation reports after the period designation.

Stage	*Description*
1	A gravel rampart, probably with an external ditch
2	A turf and clay rampart with timber face, which partly replaced the stage 1 defences and partly extended to the east the area encompassed
3	The addition of stonework and probably an intra-mural road to the stage 2 defences
4	The disuse of the stage 3 defences and later refortification works on the same alignment
5	A gravel rampart which extended the area encompassed by the defences of stages 2, 3, and 4 to include an additional area to the north of the city and possibly an area to the south of the river
6	The construction of the medieval wall, gates, and bastion towers and the later repair works.

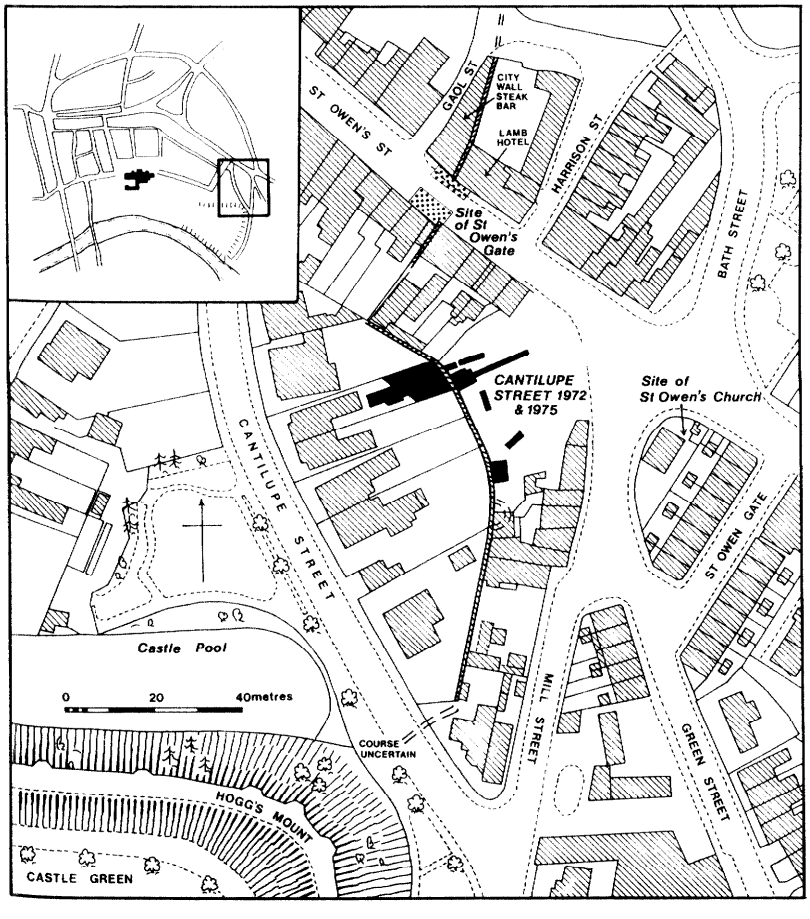


Fig 14 Excavation sites in the eastern part of the city

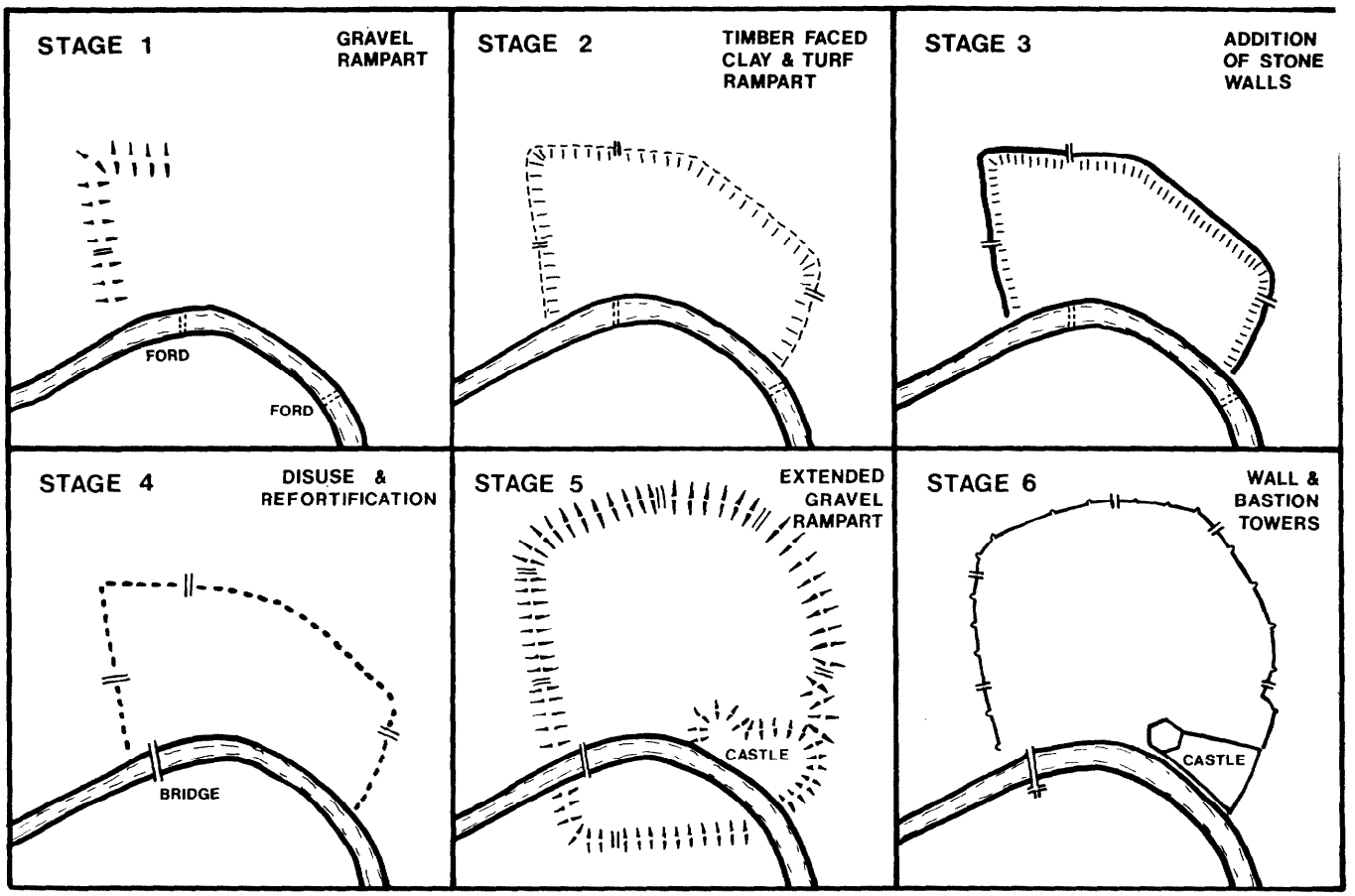


Fig 15 The postulated defensive sequence

Radiocarbon dating

Dates obtained by the use of radiocarbon methods are mentioned in the excavation summaries wherever appropriate and are followed by the appropriate reference to Birmingham (BIRM) and Harwell (HAR). The dates given are the conventional ones of BP-1950 using the old (W F Libby) value of 5570 years for the half life. They are recorded as dates 'ad' using lower case characters to emphasize that no corrections have been applied to adjust the result nearer to the true calendar date. The accuracy of the measurement is expressed as one standard deviation and is the error inherent to the measurement process. It does not allow for any contamination of the sample or any judgement based on archaeological information.

The uncorrected radiocarbon date used in the summaries may not agree with the postulated calendar date for the associated context and period. The validity and accuracy of each radiocarbon date is discussed briefly in the appropriate microfiche section and is considered at greater length in Part 2 (p 70), where an attempt has been made to establish a date nearer to the true calendar date for each sample by making use of the most recent value for the half-life and by considering the nature of the sample and the method of collection.

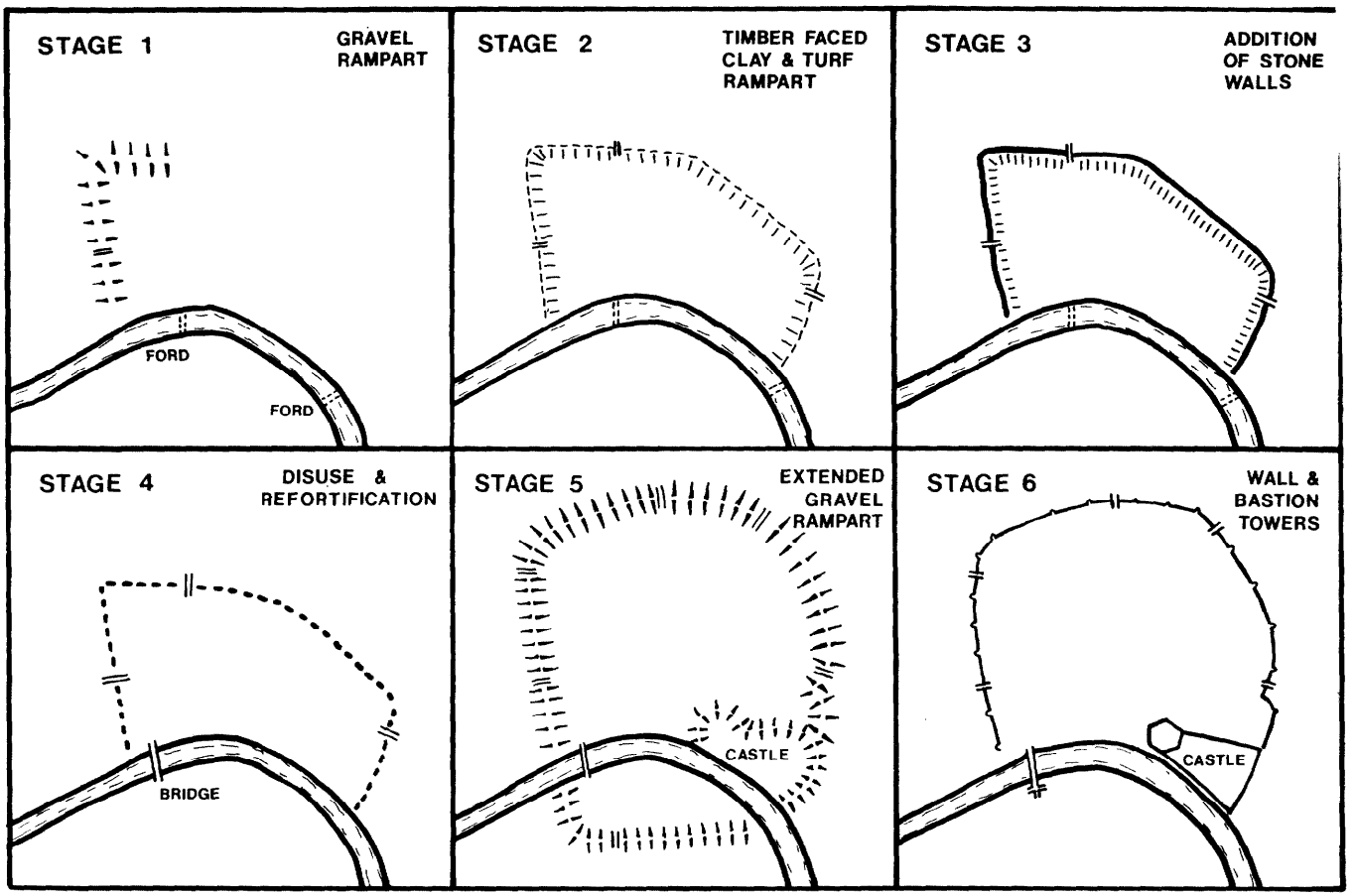
Victoria Street (M1.B6 to M1.D14)

Introduction

The excavation, which took place during 1968, preceded construction work on the ring road on the western side of the city. The site is now partly sealed by the road and footpath and partly underneath a grass bank which separates the road from a public car park (Fig 13).

The upstanding rampart was removed by machine from the southern part of the site before the excavation started and to the north of this area a lm wide baulk was kept throughout. The 4m wide area to the north of the baulk was excavated by hand to examine the development of the defences, as was the area to the west of the medieval wall line. An east-west baulk, surmounted by the period 5 wall 2, was also kept throughout the excavation.

North of the main area two additional rampart sections were examined and trenches cut for a pedestrian subway underneath Victoria Street were also drawn.



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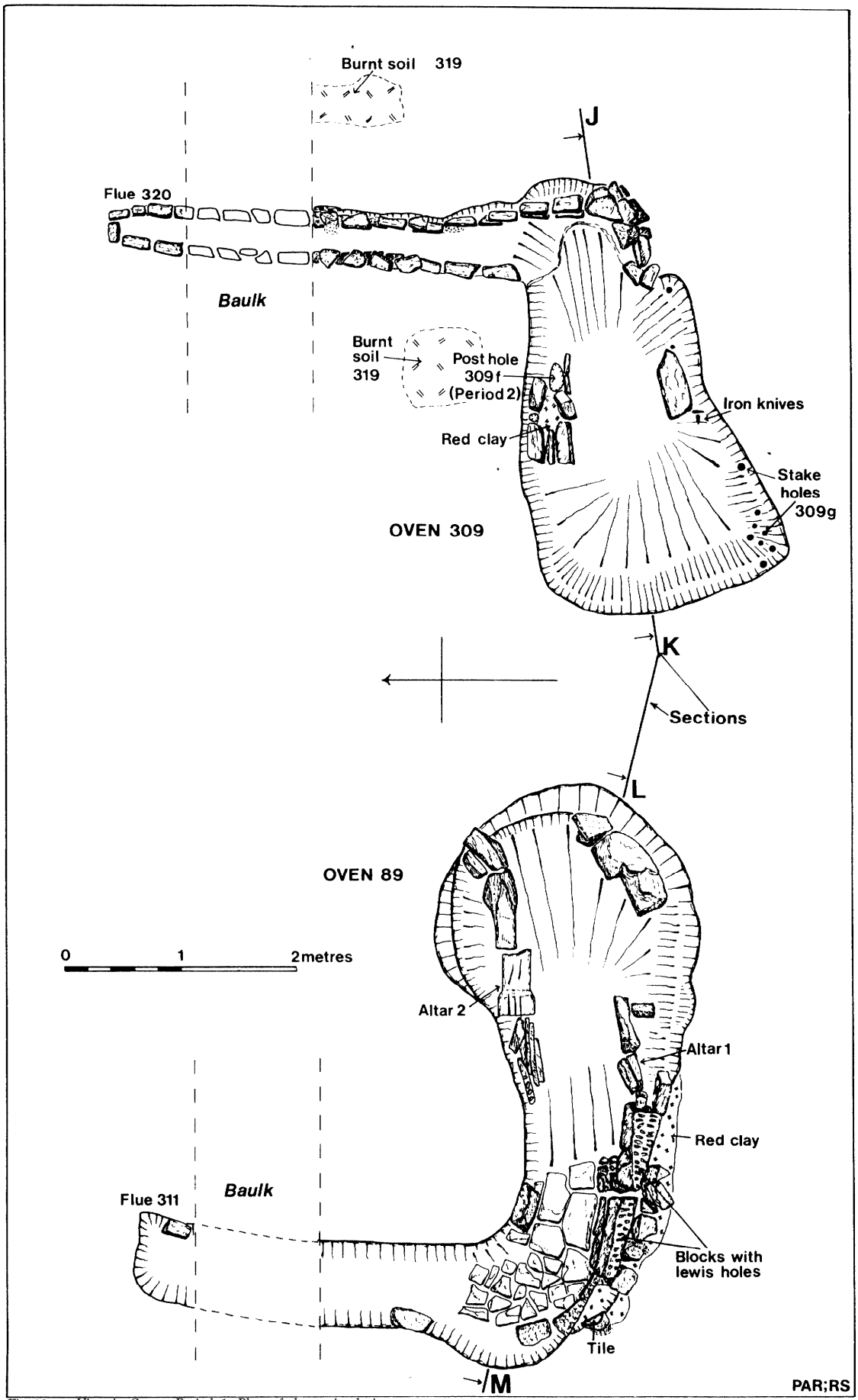

Fig 16 Victoria Street. Period 1. Plan of the grain drying ovens

Fig 18 Victoria Street. The site from the east. Oven 309 is in the foreground and the retained baulk can be seen on the right

Table 1
Victoria Street sequence

Site period	*Defensive stage*	*Desription*	*Probable date range*
0	–	Prehistoric finds and possible features	–
1	–	Grain drying ovens	Mid 7th to 8th century
2	–	Timber building	Late 8th to 9th century
3	–	Small ditch and bank	Late 8th to 9th century
4	1	Gravel rampart	Mid to late 9th century
5a	2	Turf and clay rampart	Late 9th to early 10th century
5b	3	Addition of stone wall and road	Early to mid 10th century
5c	4	Decay of periods 5a and 5b	Mid 10th to 11th century
6	4	Possible gravel rampart	Mid 11th century
7	6	Construction of medieval wall	Early to mid 13th century
8	–	Later disturbances	Post 13th century

Stage 5 of the defensive works was not represented at the Victoria Street site.

Brief description

Period 0

Several features, which were cut into the natural gravel of the site, were not seen until after the final clearance of layer 36. Most of these have since been assigned to period 2 but in many cases there was no stratigraphic or excavation evidence to indicate that they did not represent features of an earlier date than period 1.

Period 1

The grain drying ovens (Figs 16, 18, 19, and 23)

The substantial remains of two grain drying ovens, cutting through the original ground surface (layer 36), were found. Each oven consisted of a combined firing chamber and stoke pit with a long, lateral, stone-lined, horizontal flue. The ovens were built partly of reused Roman masonry including two altars.

The two ovens (89 and 309) were of similar shape and size but with the stoke holes facing opposite ways (Fig 16). They had maximum depths of 0.8m and fills of ash, burnt grain and many large pieces of fired daub. The daub, which had many impressions of wattle, was

Fig 19 Victoria Street. Period 1. Detail of oven 89 showing the reused Roman masonry. In the foreground is posthole 306 of the period 2 building

considered to represent the superstructure. Only slight traces of the occupation level of this period (layer 360) were found but the destruction phase was represented in the west of the site by layer 37 (Fig 22).

A radiocarbon determination from a burnt stake in the fill of 309 gave an uncalibrated date of ad 760±85.

It is suggested that the absence of layers 360 and 37 over parts of the site was due to the construction and use of the period 2 timber building and the period 5 roadway, 100.

In use, it is suggested that the major parts of the pits were covered with a platform of thick wattle and daub on which, after hardening, the grain could be laid to dry. There was no evidence to indicate whether the ovens were in use together or not but it is considered that they were probably planned as a coherent double unit. The ovens may have been used to dry grain which was collected with too much moisture content or to parch grain before milling to improve the flavour.

Period 2

The timber building (Figs 18 and 21)

The evidence for this structure was not recognized at the time of the excavation but a reassessment of the evidence at a later date suggested the presence of a timber building of posthole construction, erected on top of the destroyed remains of the period 1 grain drying ovens.

The building was 9m long and 2.5m wide with a large central posthole and was separated into two rooms by a north-south passage. It may have had extensions to the east and south and the whole building was reconstructed at least once. There was little indication of a floor level within the building, but a spread of metalling, 110, outside to the south, may represent a track leading to the building and a bank and ditch on the west (period 3) may have been contemporary.'

There was no direct dating evidence on the site for this period of occupation which perpetuated the site of the grain drying ovens and was eventually sealed by stage 1 of the rampart defences.

Period 3

Small bank and ditch (Figs 21 and 22)

An eroded bank, 31, with a partially silted up ditch, 64, on its western side, crossed the site in a north-south direction to the west of the period 2 building.

No dating material was found but the feature was stratigraphically later than the destruction of the period 1 grain dryers and earlier than the period 4 rampart. The bank and ditch, which were seen on other sites to the

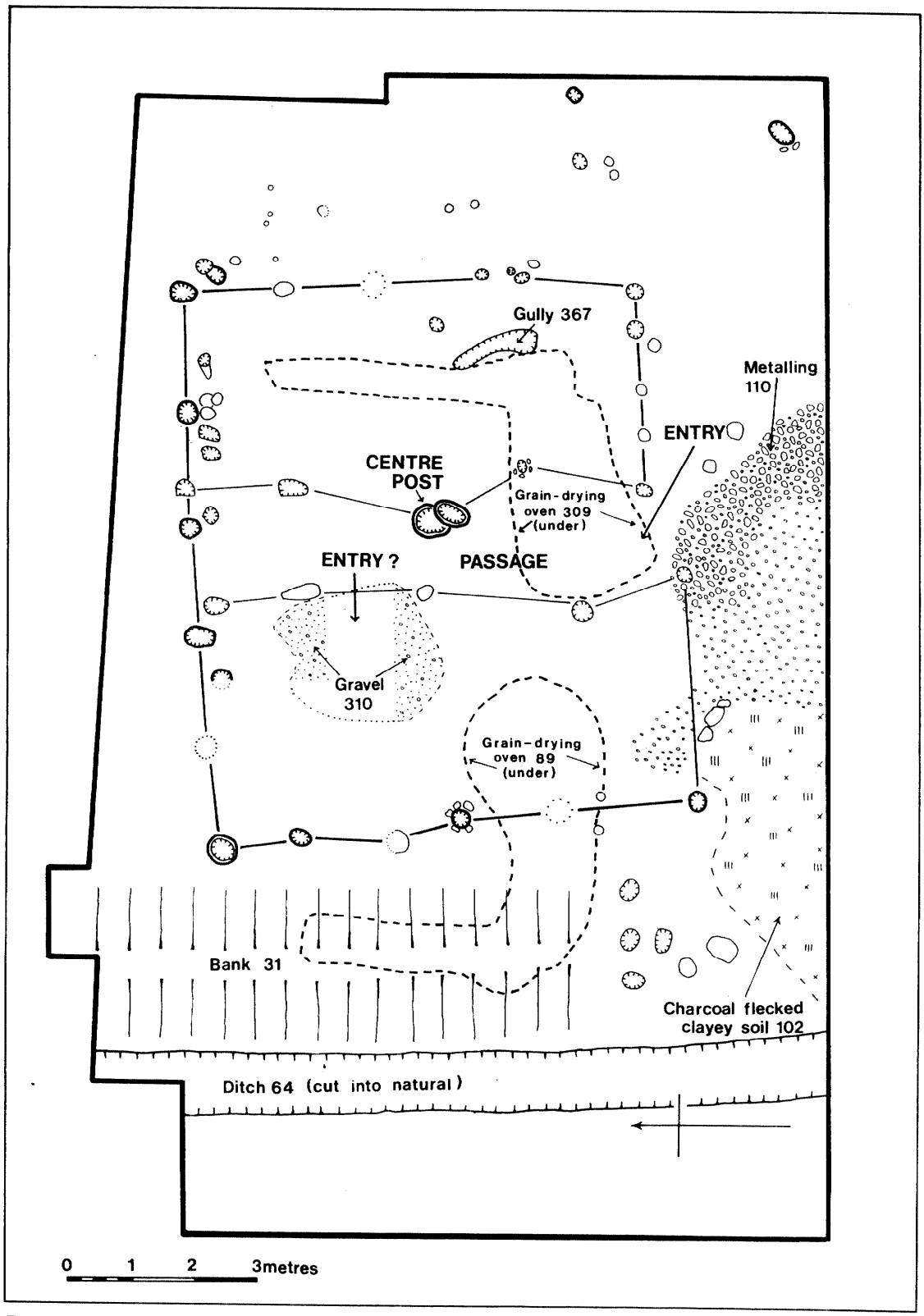

Fig 21 *Victoria Street. Period 2. The relationship of the postholes of period 2 and the bank and ditch of period 3 with the grain drying ovens of period 1*

Opposite
Fig 22 *Victoria Street. The main sections A-B, C-D and E-G-F across the defences (see microfiche fig 20:M1.C3 for positions of sections)*

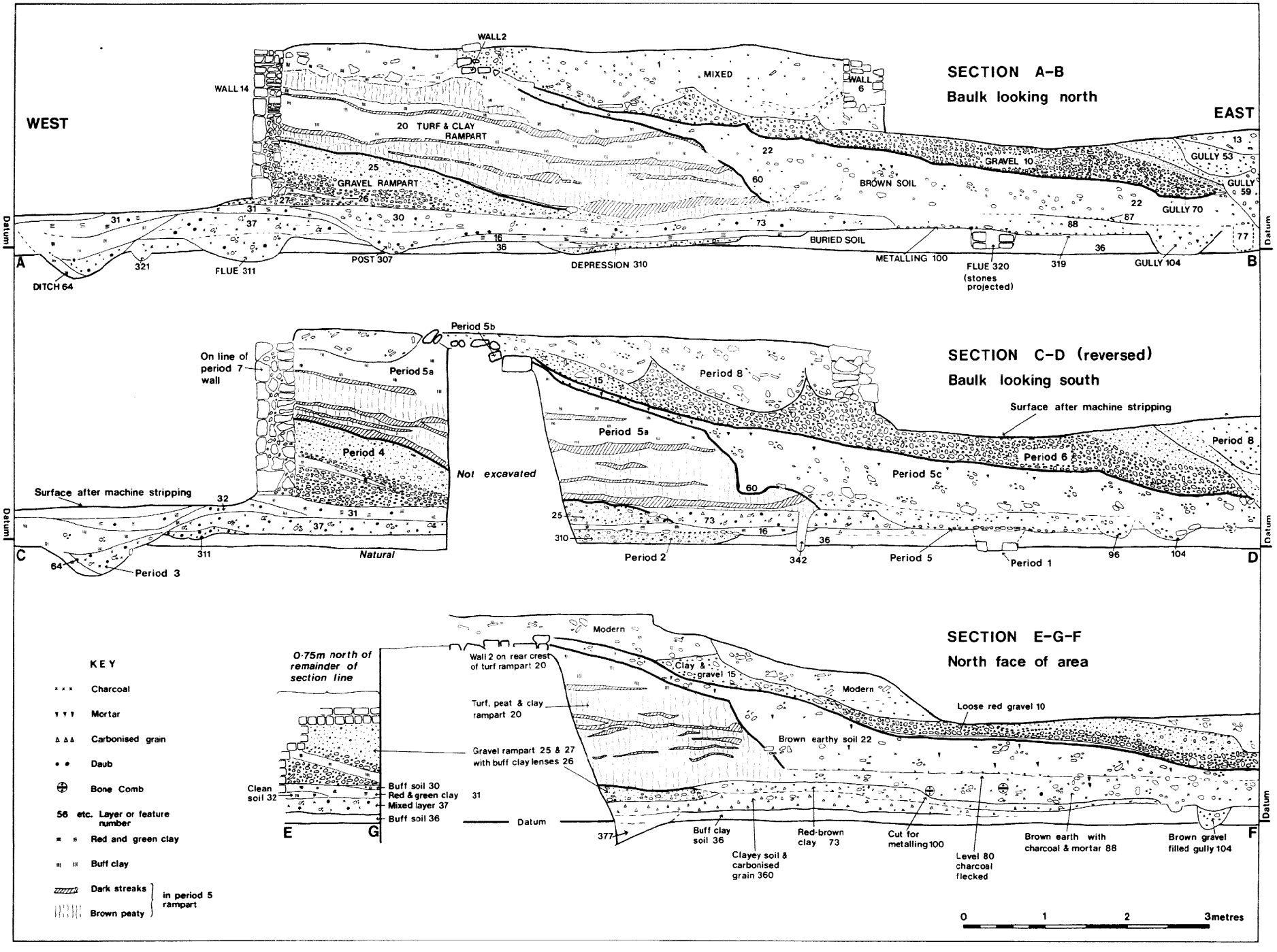
SECTION A-B
Baulk looking north
WEST
EAST
WALL 2
WALL 14
WALL 6
MIXED
20 TURF & CLAY RAMPART
GRAVEL RAMPART
GRAVEL 10
BROWN SOIL
GULLY 53
GULLY 59
GULLY 70
GULLY 104
BURIED SOIL
METALLING 100
FLUE 320 (stones projected)
DEPRESSION 310
POST 307
FLUE 311
DITCH 64
Datum
A
B
SECTION C-D (reversed)
Baulk looking south
Period 5b
On line of period 7 wall
Period 5a
Period 4
Not excavated
Surface after machine stripping
Period 8
Period 6
Period 5c
Period 2
Period 5
Period 1
Period 3
Natural
C
D
SECTION E-G-F
North face of area
0·75m north of remainder of section line
Modern
Wall 2 on rear crest of turf rampart 20
Clay & gravel 15
Turf, peat & clay rampart 20
Gravel rampart 25 & 27 with buff clay lenses 26
Loose red gravel 10
Brown earthy soil 22
Clean soil 32
Buff soil 30
Red & green clay 31
Mixed layer 37
Buff soil 36
Buff clay soil 36
Clayey soil & carbonised grain 360
Red-brown clay 73
Cut for metalling 100
Level 80 charcoal flecked
Brown earth with charcoal & mortar 88
Brown gravel filled gully 104
E
G
F
KEY
Charcoal
Mortar
Carbonised grain
Daub
Bone Comb
56 etc. Layer or feature number
Red and green clay
Buff clay
Dark streaks
Brown peaty
in period 5 rampart
0 1 2 3metres

Fig 23 *Victoria Street. The site from the south showing the retained baulk and section A-B. Wall 2 is above and to the left of the central ranging rod. The period 1 grain drying ovens are in the foreground*

north and south (Shoesmith 1967) of Victoria Street, may have been contemporary with the period 2 buildings. These features apparently subsequently determined the line of the western defences throughout the history of the city.

Period 4: Defences-stage 1

The gravel rampart (Figs 22 and 23)

The rear part of a defensive rampart, constructed of mixed bands of gravel and clay, sealed both the bank and ditch of period 3 and layer 30, the possible destruction level for the period 2 building. The same feature was seen to the north of the main site but in both cases the occupation level associated with the rampart was only slight and no evidence was obtained to indicate the date of construction. The full defensive feature probably included an external ditch from which the material which comprised the rampart was obtained and possibly a timber face (p 76).

Period 5a: Defences-stage 2

The turf and clay rampart (Figs 22, 23, and 25)

A rampart consisting of large clay sods, strengthened and consolidated at various levels with large branches, was built overlying the gravel rampart of period 4. Only the rear part of this defence was preserved at Victoria Street. The constructional material was probably brought onto the site from a nearby marshy area.

Postholes in the tail of the rampart indicate that there was a strong timber construction to prevent collapse at the rear, and this may have been tied with a timber platform to the timber face (seen at Cantilupe Street (p 36), thus entirely boxing in the rampart.

There was no evidence to date the construction of this rampart, the radiocarbon dates from the timbers being questionable (p 71).

Period 5b: Defences-stage 3

Addition of stone wall (Figs 22, 23, and 29)

A lightly mortared stone wall (wall 2), partly built of re-used Roman masonry including quern fragments, was situated on the rear part of the period 5a rampart crest. It may have supported or retained a flat timber platform covering the crest of the rampart and was associated with a massive front retaining wall, totally removed at Victoria Street but excavated at Cantilupe Street (p 38).

A metalled path, 100, some 3m wide, cut into the tail of the rampart, was probably constructed during period 5b, and gully 104, further to the east, probably acted as drainage or as a property boundary.

Period 5c: Defences-stage 4

Disuse and collapse (Figs 22 and 23)

A thick layer of brown soil sealed the tail of the periods 5a and 5b rampart and the metalled pathway 100. The lower part, layers 80 and 88, may have accumulated late

Fig 25 Victoria Street. Period 5. Detail of the stage 2 timber strengthening of the rampart to the west of wall 2 line

in the use of the rampart as a defensive feature but it is considered probable that the main accumulation, layer 22, was a result of the collapse of the box framing of the rampart and the rear stone wall.

Pottery found in the collapse layers indicated that the disuse of the rampart continued at least into the 11th century. The impression, during the excavation, was that a fairly long period of disuse occurred during which the rampart, timbers and walls gradually collapsed and achieved a stable situation as a smooth bank.

Period 6: Defences-stage 4

Possible gravel rampart (Figs 22 and 23)

The defensive features of periods 5a and 5b and the disuse layers of period 5c were sealed with a thick layer of loose reddish gravel, 10, which became more clayey towards the crest, 15. The full thickness and content was uncertain due to modern disturbances, which, further to the north removed all traces of period 6.

A quantity of late 11th century pottery was sealed by the period 6 gravels but none of the far more common 12th century wares. In the circumstances a mid to late 11th century date for the construction of the gravel rampart is suggested. It is unlikely to be as late as the late 12th century stage 5 defences which are not represented at Victoria Street.

Period 7: Defences-stage 6

The medieval wall

The front parts of the periods 5 and 6 defensive features were completely removed and replaced by the 13th century medieval wall. This had been completely demolished across the site and replaced, in part, on approximately the same line, by a 19th century wall, 14.

Period 8

Late disturbances

Most of the post-medieval disturbances, which were mainly in the rampart tail, were not examined in detail.

Appendix

The Subway sections (M1.E1 to M1.E7)

Large trenches were excavated for a subway to run underneath the ring road about 50m to the north of the Victoria Street excavation, on the northern side of the line of West Street (Fig 13).

Salvage recording was limited and of varying standard, and the results have been accumulated as a series of sections, there being no opportunity to obtain plan features.

The sections are considered to show that the stage 1 gravel rampart of period 4 and the stages 2 and 3 turf and clay rampart of period 5 both turn to the east after crossing the line of West Street. The sections also apparently indicate that the stage 4 gravel rampart of period 6 turned to the east to follow the line of the periods 4 and 5 defences. The external ditch, which followed the stages 1-4 defences, was also observed at the point where it was crossed by the 13th century medieval wall.

5 Cantilupe Street M1.E8 to M1.G14)

Introduction

Excavations in 1972 in this area, on the south-eastern side of the medieval walled town (Fig 14), followed demolition of properties which faced Mill Street and St Owen Street. The site, which contained the buried medieval ditch and was bounded by the city wall, adjoined the gardens of houses in Cantilupe Street which are some 2m above the external ground level. An exploratory trench in the garden of 5 Cantilupe Street, which exposed earlier defensive features, was eventually extended in 1975 to become the main site (Fig 35). The trenches excavated in the ditch and berm area in front of the medieval wall are described in an appendix. The Saxon defences and medieval wall are both now conserved and open to public view.

The main site was excavated in two stages but, as it was decided not to disturb the defensive walls, only limited areas could be cleared down to the undisturbed subsoil.

Fig 25 Victoria Street. Period 5. Detail of the stage 2 timber strengthening of the rampart to the west of wall 2 line

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Pottery found in the collapse layers indicated that the disuse of the rampart continued at least into the 11th century. The impression, during the excavation, was that a fairly long period of disuse occurred during which the rampart, timbers and walls gradually collapsed and achieved a stable situation as a smooth bank.

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Fig 29 Victoria Street. Period 5b. The stage 3 wall, 2, from the east showing the possible position for a joist for a timber platform

Table 2
5 Cantilupe Street sequence

Site period	*Defensive stage*	*Description*	*Probable date range*
1	2	Turf and clay rampart and timber face	Late 9th to early 10th century
2a	3	Addition of stone walls	Early to mid 10th century
2b	3	Partial rebuild	Mid to late 10th century
3a	4	Disuse	Late 10th to 11th century
3b	4/5	Refortification	Mid 11th to early 13th century
4	6	Medieval wall and new ditch	Early to mid 13th century
5	6	Medieval wall rebuild and other later features	17th century and later

Brief description

Period 0

The original surface, 589, a very clean, greenish-brown, clayey soil, was some 0.3m thick underneath the period 1 rampart. There were no signs of occupation within this layer.

Period 1: Defences-stage 2

The turf and clay rampart

A 2m wide trench (Fig 36) to the south of section C-D was excavated through the rampart material to the original surface. The rampart material, which consisted of clean, heavy, yellowish clay with some darker banding (Fig 37), had been strengthened with large branches in two general layers. The rampart material was cleaner than that seen in the main part of the Victoria Street site and was more like that in the northern section of that site.

The rampart was faced in timber and sufficient traces survived to postulate the design and method of construction (Fig 41). It is suggested that, before piling up the turves of the rampart, posts between 0.13 and 0.25m in diameter were set in line along the proposed face about 1m apart. Turves were then laid, and, as the platform thus created grew in height, logs of about 0.25m scantling, which had been split in half, were placed horizontally between the growing rampart and the vertical timbers, with the split side towards the rampart. Each split log was placed on top of the previous one and the eventual external aspect must have been very impressive, comprising a solid timber face without any use of nails or fastenings. It is presumed that the timber face was carried above

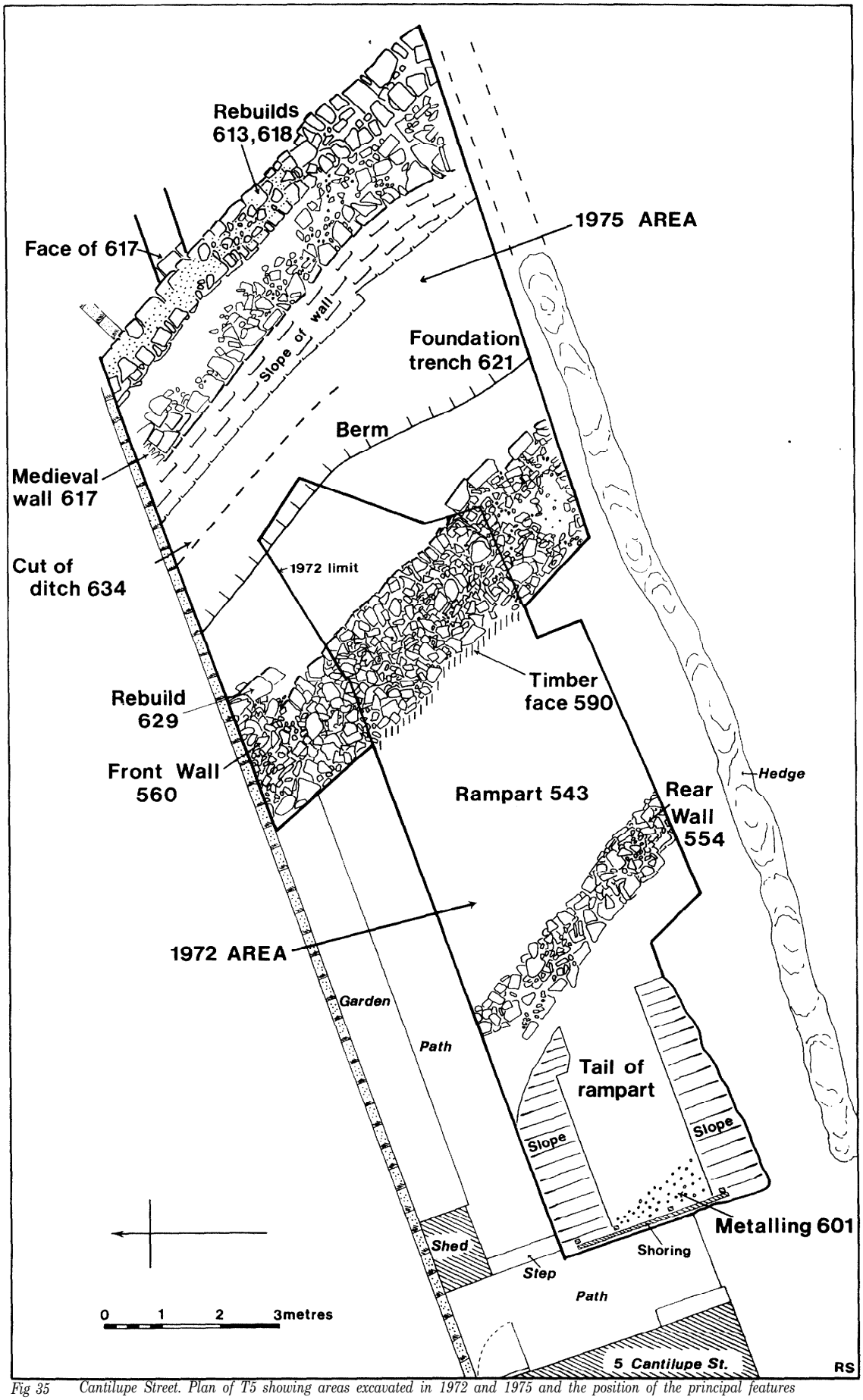

Fig 35 *Cantilupe Street. Plan of T5 showing areas excavated in 1972 and 1975 and the position of the principal features*

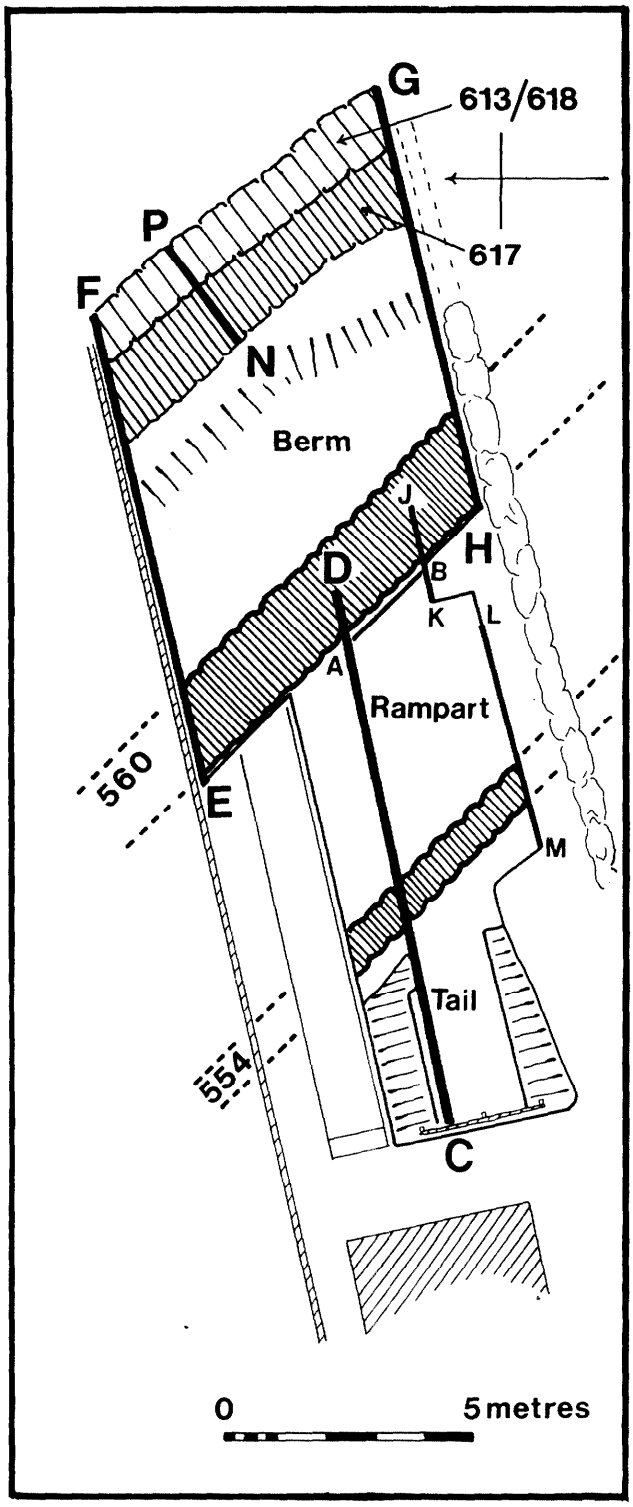

Fig 36 Cantilupe Street. Position of sections

the top of the rampart as a breast work and it is possible that the top of the rampart was covered with a timber platform.

It is estimated that the rampart may have been about 2.5m high with the timber face extending 1.5m above this. This would have presented an apparent height of 4.0m to an attacker, sufficient both to look impressive and to prevent easy scaling.

Settlement of the rampart apparently exerted a pressure on the timber face and the top ends of the vertical posts began to slope outwards. This was rectified, in the area excavated, by inserting a secondary post between the original ones. It was in a shallow posthole and the top sloped inwards towards the rampart.

There was no conclusive evidence to indicate that a ditch was part of these defensive works. However, one was certainly present during period 2a,

Period 2a: Defences-stage 3

Addition of stone walls and a metalled path

The timber face was eventually revetted with a stone wall, 560, some 2m thick, which survived to a height of 1.4m at the face and 2.0m at the rear (Fig 37). The wall was built directly on to the existing ground surface immediately in front of the period 1 timber face.

The wall shows only slight signs of coursing but there are indications that it was built in sections and within the area excavated two apparent constructional breaks can be seen in the face (Figs 42 and 43). The breaks, which could not be examined in detail because the wall was left *in situ,* may be due to a variety of causes. The most straightforward possibility is that the wall was built in sections by small gangs of workers who did not have sufficient experience to bond the sections fully together. Alternatively, as areas of the period 1 timber face decayed, the individual parts may have been buttressed in stone, to be joined together at a later date. A third possibility is that the space between the two breaks may have held a wooden tower which was eventually replaced by the buttressing walls. The postulated constructional breaks cannot be seen in the core of the wall where the stones were without any order. Some use of mortar was made although little survived in the wall itself. The poor constructional technique used in the wall construction would not have allowed it to stand to any great height and it is suggested that it was never higher than the suggested 2.5m of the period 1 rampart.

Two pits with packing stones, 636 and 637, found behind the wall (Fig 42) are considered to represent the foundations for a new timber breastwork with vertical posts about 0.2m in diameter and 1.5m apart.

A second wall was built on a step cut into the rear crest of the rampart about 4.7m behind the rear of the front wall. It was about 0.7m wide and a maximum of 0.5m high (Fig 45) and may have acted as a rear revetment for the flat platform or as a foundation for a plank floor. There was little attempt at coursing and only a few traces of mortar.

Part of a metalled surface, 601, consisting of small river washed pebbles, was found on the lower tail of the rampart (Fig 37). On the berm in front of wall 560,

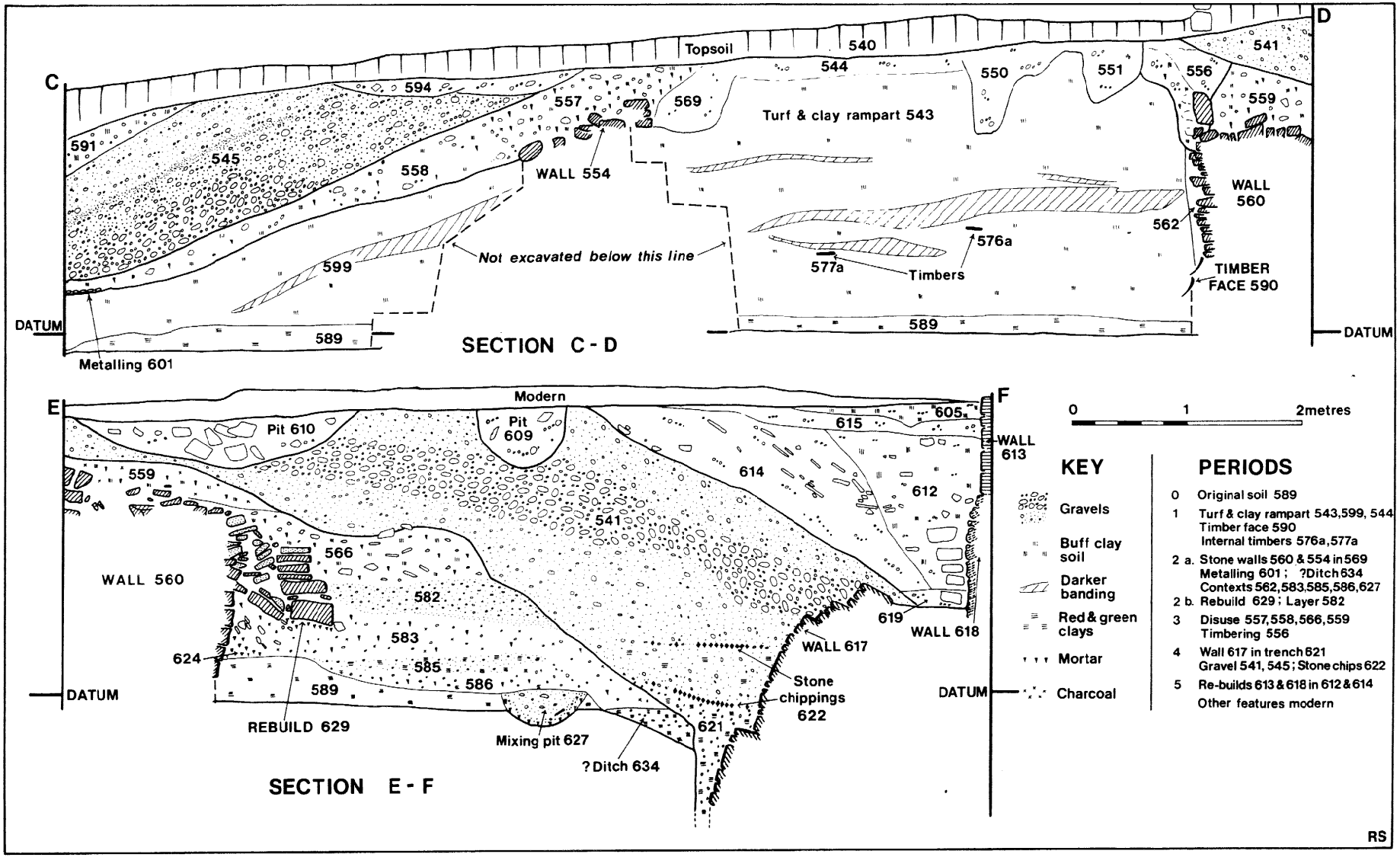

Fig 37 *Cantilupe Street. Sections C–D and E–F. See Fig 36 for positions*

Fig 41 Cantilupe Street. Period 1. The remains of the stage 2 timber face 590 after removal of part of the rampart

cut into the original ground surface 589, were three small mortar mixing pits (Fig 48) which varied between 0.8 and 0.9m in diameter and 0.3 and 0.4m in depth.

The edge of a possible ditch, 634, was found some 3m in front of the stone revetment wall 560 (Figs 35 and 37). The ditch was almost entirely cut away by the foundation trench for the period 4 wall, 617. There was a build up of soil and gravel on the berm during the construction and life of the period 2a defensive works which included one sherd of early medieval ware (Fabric G1) and sufficient animal bone to obtain an uncalibrated radiocarbon date of ad 1000±70.

Period 2b: Defences-stage 3

Partial rebuild or strengthening

A secondary face, 629, was built some 0.7m in front of wall 560 close to the north-western end of the excavated portion of the wall (Figs 37, 42, and 49). It was present for approximately 1.0m and contained a large proportion of conglomerate sandstone. The base of 629 was substantially higher than that of 560 and at this level two mortar mixing pits were found, smaller but proportionally deeper than those of period 2a. The work apparently represents a renewal of the defences after they had fallen into some disrepair.

Period 3a: Defences-stage 4

Disuse

There was insufficient stone in the debris layers associated with the decay of walls 560 and 554 to account fully for the loss of stone from these walls. This, taken together with indications of robbing of wall 554 (trench 557, Fig 37), and the attempted removal of stones from wall 560 (Fig 42), suggests either a deliberate destruction or the sporadic removal of stone as the defences fell into decay.

Eventually the defences became a relatively smooth bank which apparently had a substantial turf cover and only occasional stones, indicating the tops of the buried walls, showing through the surface. The smooth slope continued over the berm into the by then partly silted up ditch (Fig 37).

Period 3b: Defences-stages 4 or 5

Refortification

There was a slight indication (slot 556, Fig 37) that the smooth bank had been refortified, possibly with a palisade or a brushwood and thorn paling fence, in part on top but otherwise slightly to the rear of the line of wall 560. There was no dating evidence whatsoever for this work which could thus be associated with stage 4 or stage 5 of the defensive sequence.

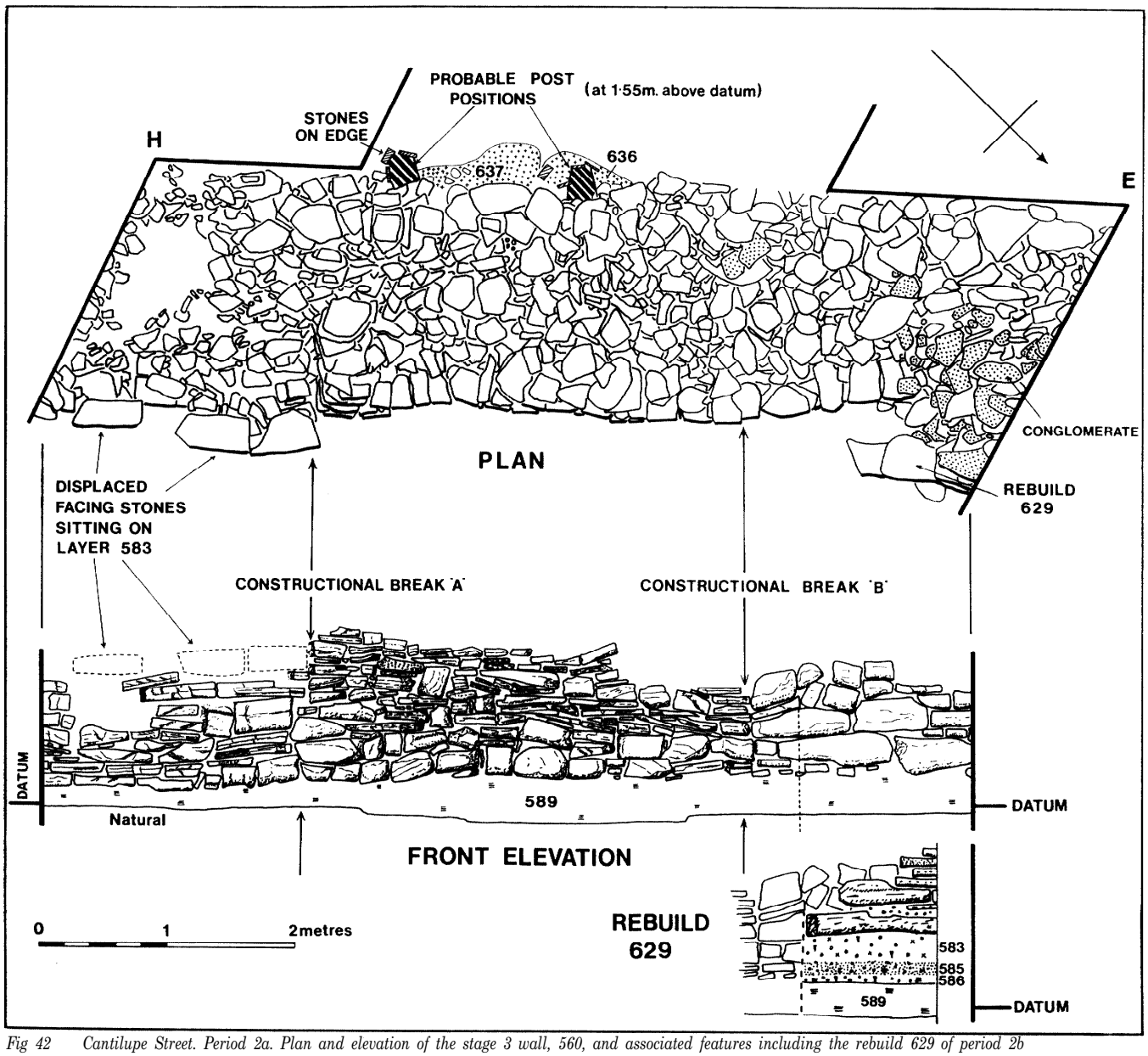

Fig 42 Cantilupe Street. Period 2a. Plan and elevation of the stage 3 wall, 560, and associated features including the rebuild 629 of period 2b

Fig 43 Cantilupe Street. Period 2a. The stage 3 wall, 560, with the houses in Cantilupe Street in the background

Period 4: Defences-stage 6

The medieval wall

The medieval wall 617 (Fig 37), some 2.6m thick at the base, was constructed in a foundation trench which was cut into the western side of the period 2 ditch some 2m deep below the original ground surface. The wall survived to an average height of 2.7m from the bottom of the foundation trench, reaching a maximum of 4m at the southern face section. It was roughly coursed, both internally and externally, but the construction was complex, with coursing and stepping being variable on the inside face (Fig 54). It is suggested that two different building teams met in the area excavated rather than that the wall was rebuilt.

Concurrently with the construction of the medieval wall, a large external ditch must have been excavated, the resultant gravel spoil being thrown over the wall on to the remains of the period 2 defences. Intervening layers of chippings, 622, within these gravel layers, 621 and 541, were presumably the result of shaping the individual blocks of stone on the site to fit them into the wall.

Fig 45 *Cantilupe Street. Period 2a. The stage 3 wall, 554, during excavation*

Fig 48 *Cantilupe Street. The stage 3 wall, 560, and the period 2a mortar mixing pits from above. The two construction breaks on wall 560 are apparent, as is the lip of the ditch which was mainly cut away as a foundation trench for the period 4 medieval wall*

Fig 49 Cantilupe Street. The stage 3 wall, 560, and the associated section from the south showing the period 2b rebuild 629 in section

Period 5: Defences-stage 6

Rebuilds to the medieval wall and other later features

The medieval wall collapsed at the northern end of the excavated area and was rebuilt twice (Figs 37 and 55), possibly at the time of the Civil War and after.

The second rebuild made use of curved stones taken from a large arch. Several small pits of 18th century and later date were dug into the top of the period 2 rampart and the period 6 gravel layers.

Appendix

The external trenches (Fig 34: M1.E10)

Although trenches M8, T1 and T4 were cut into the anticipated area of the Saxon ditch, the pottery finds indicate that it had been cleaned out, more or less entirely, when it was re-used as a foundation trench for the medieval wall. The excavations were not of sufficient size to establish the shape and maximum depth of the medieval ditch and there were no indications in any of the trenches of the surface of the berm associated with the medieval wall.

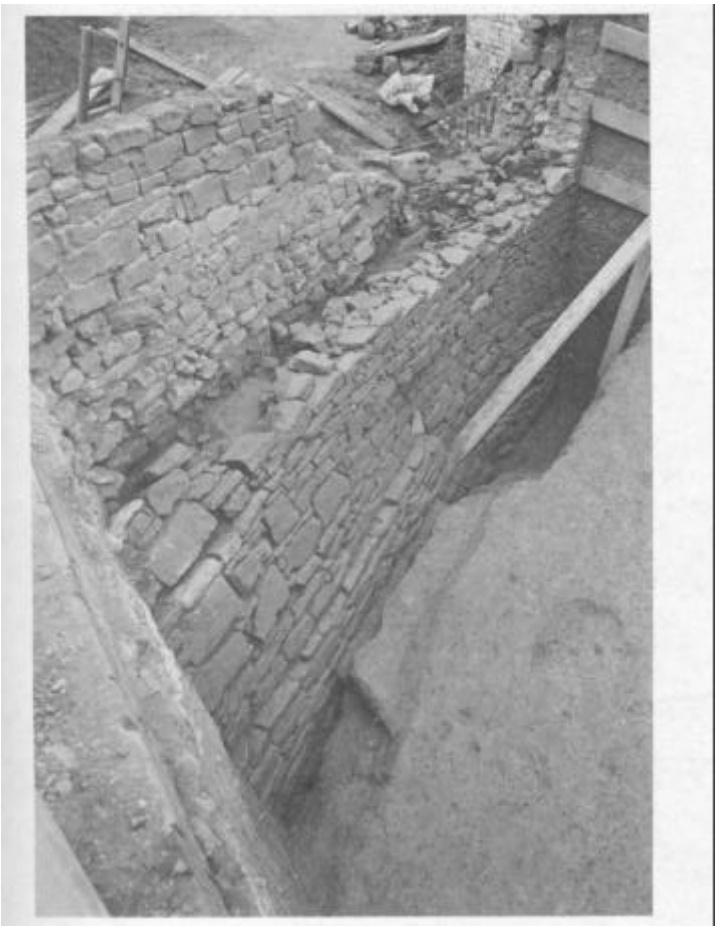

Fig 54 *Cantilupe Street. The internal faces of the stage 6 walls 613, 617 and 618 after the removal of the period 4 gravel infilling*

Fig 55 *Cantilupe Street. The collapse of the stage 6 wall, 617, and the gravel infill between the Saxon and medieval defences*

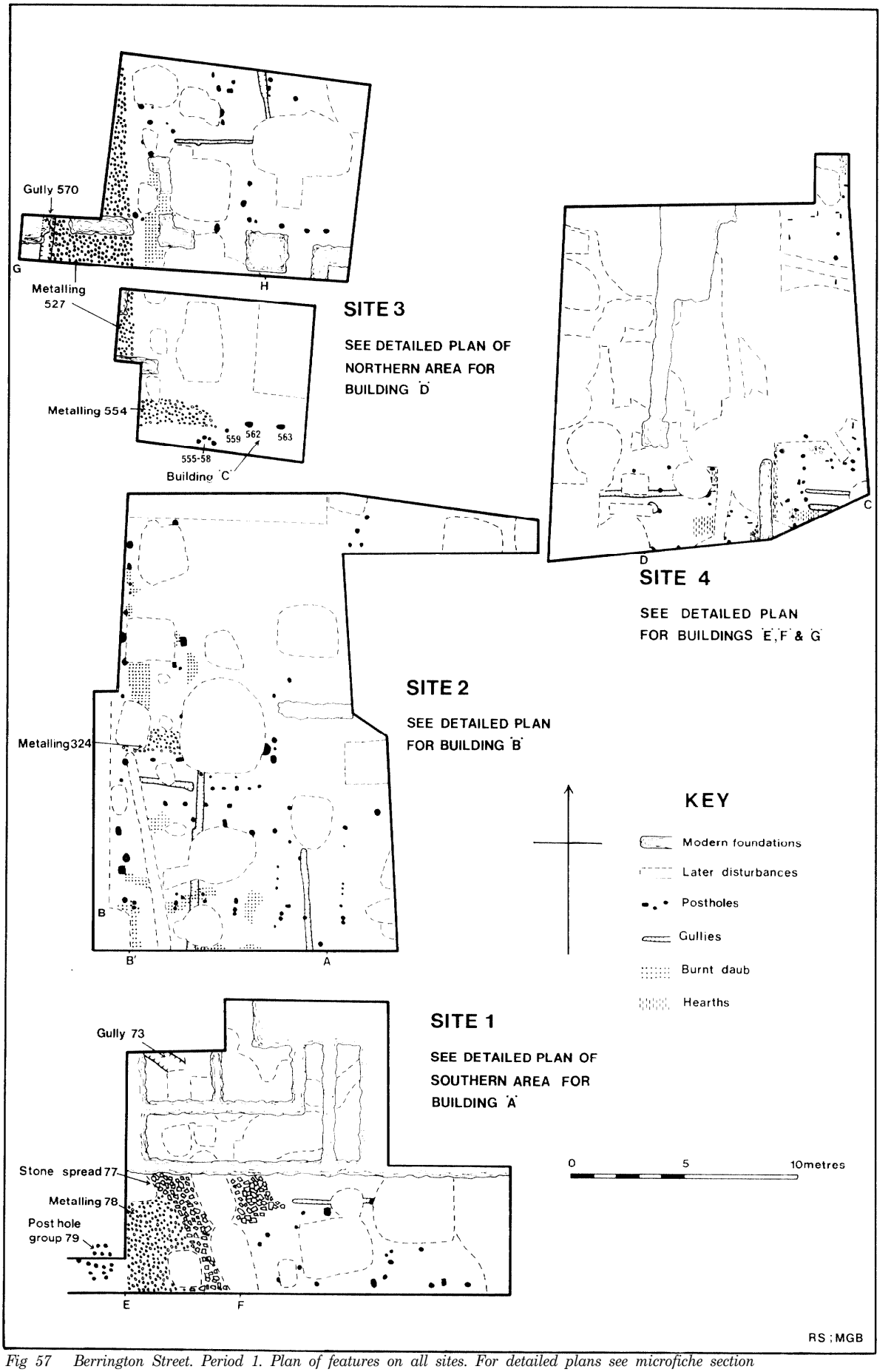

Fig 57 Berrington Street. Period 1. Plan of features on all sites. For detailed plans see microfiche section

Fig 60 Berrington Street. Period 1. Site 1 from the west showing the remains of building A

Berrington Street (M2.A1 to M2.F6)

Introduction

The four separate excavations included in this report (Berrington Street sites 1-4) took place between 1972 and 1976 in the area between Berrington Street and the western defensive line. The available site, which was about 45m in width between the street and the defensive line and some 80m in length, is now occupied by an office block called St Nicholas House and a car parking area. The site is some 100m south of the Victoria Street site (Fig 13).

All four sites were cleared by machine down to 17th century levels after which the excavation continued by hand. Traces of pre-Conquest timber buildings, which were found on all four sites, were damaged to varying extents by medieval and later pits, building foundations and drains.

An attempt was made to relate the occupation periods to the various stages of the defences by cutting trenches from sites 1 and 3 into the material which comprised the ramparts. No firm stratigraphical relationship could be established and as a result the defensive features are considered in a separate section, inserted in the text between periods 2 and 3.

Table 3

Berrington Street sequence

Site period	*Description*	*Probable date range*
0	Prehistoric and Roman finds	
1	Street plan and buildings	Late 8th to 9th century
2a, b and c	Buildings fronting Berrington Street	10th to early 12th centuries
3	Pits	Late 12th to early 13th centuries
4	Pits and buildings	Late 13th century
5	Pits and some industrial use	14th to 15th century
6	Pits and building	16th to 18th century
7	Modern disturbances	19th century and later

Fig 64 Berrington Street. Period 1. Site 2 from the south showing the remains of building B

Brief description

Period 0

Prehistoric and Roman finds

There was a slight scatter of prehistoric and Roman finds in the earlier occupation levels but there was no sign of any disturbances earlier than period 1 in the original soil cover, layer 61/113.

Period 1

Timber buildings

The first indication of settled occupation on the four Berrington Street sites consisted of postholes and gullies cut into the original soil surface of the site and other associated features laid on this surface. There are no definite stratigraphical links between the four sites and it is assumed that this earliest occupation is of the same date on all four sites. The regular arrangement of trackways and buildings tends to confirm this hypothesis.

It was impossible to obtain complete plans of the period 1 buildings because of disturbances during later periods and, as a result of this, interpretation presented some difficulty (Fig 57). However, as the excavation proceeded, the remains were seen to consist of several buildings, some of which were associated with a metalled trackway which ran up the western side of the area, and others were adjoining the line of Berrington Street (Fig 71).

Table 4
Period 1 buildings

Site	*Building*	*Length E-W*	*Width N-S*	*Individual features*
1	A	In excess of 9m	At least 4m	Slight traces of a cross passage
2	B	At least 12m	4.7m (main building)	Indications of a cross passage 2.8m wide. Extension or lean-to to the north Drainage gullies Evidence of a possible rebuilding Indications that the building was burnt
3	C	–	–	Part of one wall only
3	D	At least 9m	6m	Slight traces of a cross passage
4	E	–	At least 4.5m	Post positions (plank shaped) found as voids
4	F	–	–	Traces of a hearth and drainage gullies Evidence of a possible rebuilding
4	G	–	–	Traces of a hearth

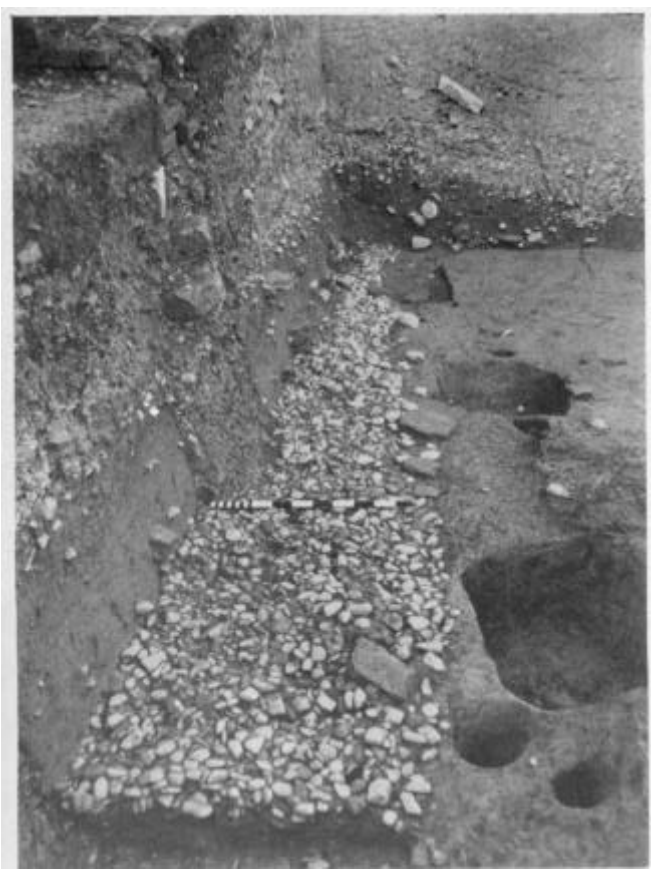

Fig 67 Berrington Street, Period 1. Western part of site 3 from the south showing metalling 527

The buildings were all of post construction and the individual features are described in the microfiche report. Table 4 contains only the basic information.

Buildings A-D were all in the western part of the area with their long axes east-west (Figs 60 and 64). They fronted on to a metalled trackway about 4m wide which ran north-south up the western extremity of the excavated area (Fig 67). To the west of the trackway, in an extension to site 1, a group of postholes, 79, were found under circumstances which left their stratified position in some doubt. It is suggested that this group of postholes, the eastern curve at the southern end of the north-south trackway, and the more easterly position of building A as compared with buildings B, C, and D to the north, are all related. If it is accepted that this relationship is due to a later realignment of the line of King Street and St Nicholas Street (M2.C4) then it can be postulated that this posthole group could represent a watch tower on the northern side of the western gate, associated with stage 1 of the defensive sequence.

The remains of the buildings in the east of the area on site 4 were in a very fragmentary state but included traces of floor levels and hearths (Fig 70). The buildings apparently fronted on to the line of Berrington Street and were also orientated with their long axes east-west.

Burnt patches, collectively L111, which sealed some of the postholes and filled hollows in the original ground surface on sites 1-3, consisted of varying quantities of plaster together with charcoal from large trees, twigs and branches, and some burnt grain. These remains are consistent with the buildings having been burnt and the remains left on the ground. As the remains of the burnt buildings disintegrated, the ground became cultivated and a substantial homogeneous soil level, layer 60/108, developed. The cultivation probably destroyed most of the period 1 occupation surfaces, leaving only the lower parts of the postholes and patches of daub and charcoal surviving in slight hollows in the ground. There were no signs of cultivation in the levels which sealed the site 4 buildings.

A radiocarbon date of ad 960±70 (HAR 1375) was obtained from a combination of samples from the burnt layer L111, and a coin of Alfred, probably lost by *c* AD 925, was found in the cultivated soil layer, L60. This evidence should be considered together with the dating evidence for the building of period 2 on the Victoria Street site, which is considered to be of the same constructional period as the buildings described above. A constructional date during the late 8th or 9th century is therefore suggested.

Period 2

Timber buildings

The evidence of occupation during period 2, which was mainly restricted to site 4, consists of three phases of constructional activity with a gradually increasing area covered by buildings. Sites 1, 2, and 3 were apparently cultivated during the whole of this period and contained few features apart from those associated with the defences (Fig 72). The cultivation layer, 58/107, merged into the period 1 layer 60/108 and was only distinguishable by the presence of pottery fragments.

The three phases of activity on site 4 are illustrated in the microfiche and only the basic information is shown in Table 5.

Fig 70 Berrington Street. Site 4 from the south. The small areas of the period 1 levels can be seen

Table 5
Period

Period	*Building*	*Length E-W*	*Width N-S*	*Individual features*
2a	H	–	–	Earth floor with traces of a hearth
2a	J	–	–	Clay floor, gullies and traces of a hearth. Apparently of at least 2 phases
2a	K	At least 4.5m	–	Clay floor surrounded by a gully with traces of vertical timber emplacements
2b	L	–	–	Clay floor and well constructed, stone-lined hearth
2b	M	–	–	Clay floor with traces of a hearth
2c	N	–	–	Clay floor
2c	O	At least 4m	At least 4m	Clay floor, burnt in places, possibly destroyed by fire. The building may have contained a central pillar on a stone base
2c	P	–	–	Clay floor
2c	R	–	–	Clay floor with a sleeper beam trench to the north

Period 2a on site 4 consisted of the remains of buildings H, J, and K which replaced buildings E, F, and G of period 1.

Buildings L and M replaced H and J during period 2b whilst building K was replaced by an area of metalling. The dimensions of the buildings could not be established. Both L and M may have been destroyed by fire.

There was an expansion of the area covered by buildings during period 2c. Buildings L and M were replaced by buildings N and O and two new buildings P and R were constructed in the centre of the site.

A reasonable quantity of both smithing and tap slags was associated with the latter part of period 2.

The pottery finds indicate that period 2 lasted from the 10th until the early 12th centuries. The following date ranges are suggested:

Period	*Constructional date*	*Demolition or destruction date*
2a	First half of 10th century	End of 10th century
2b	End of 10th century	Middle of 11th century
2c	End of 11th century	Early 12th century

Small fragments of clay floors above building O may represent occupation late in period 2 or early in period 3 but the remains were insufficient to be certain.

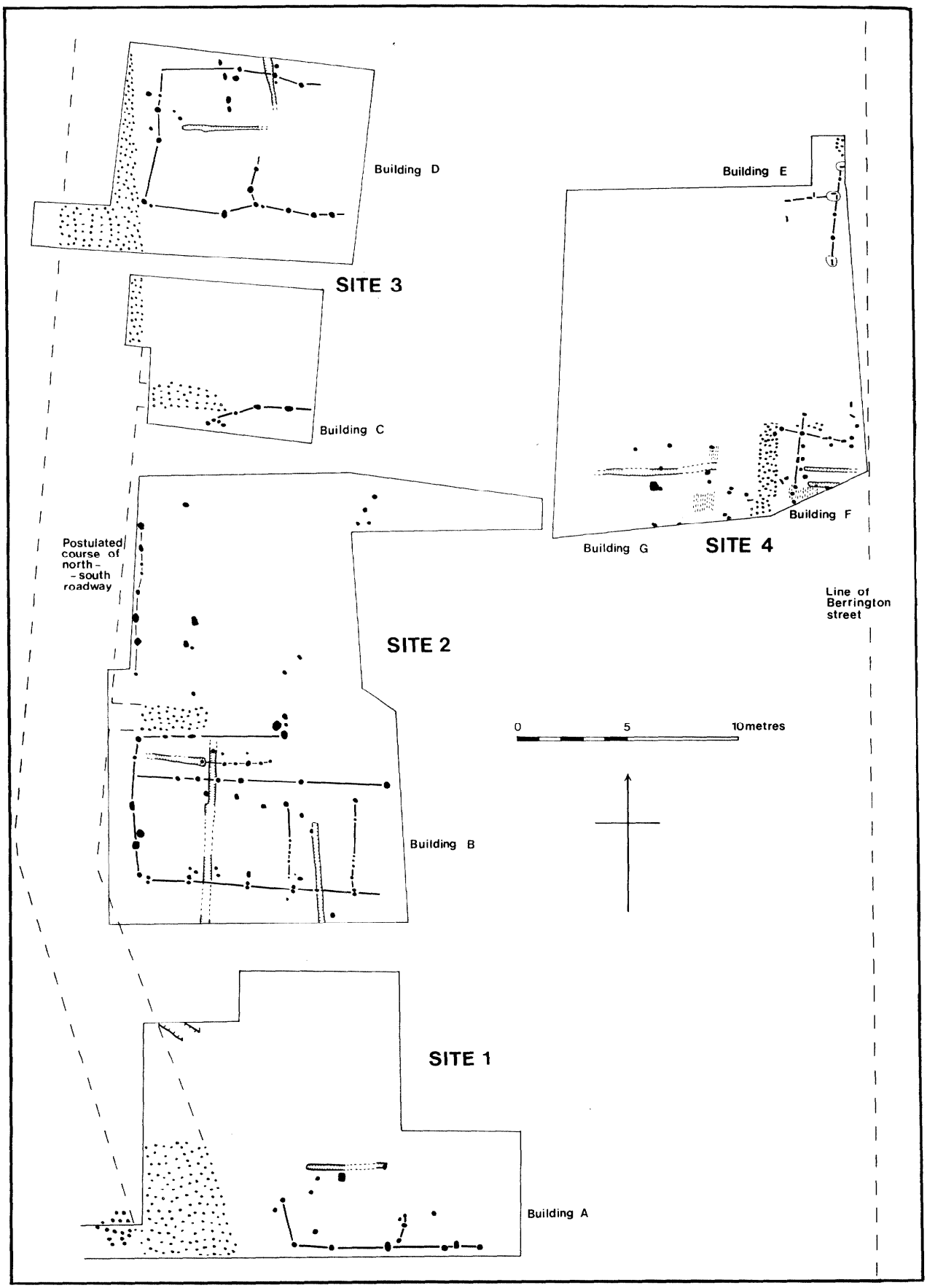

Fig 71 *Berrington Street. Period 1. Interpretation of features on all sites*

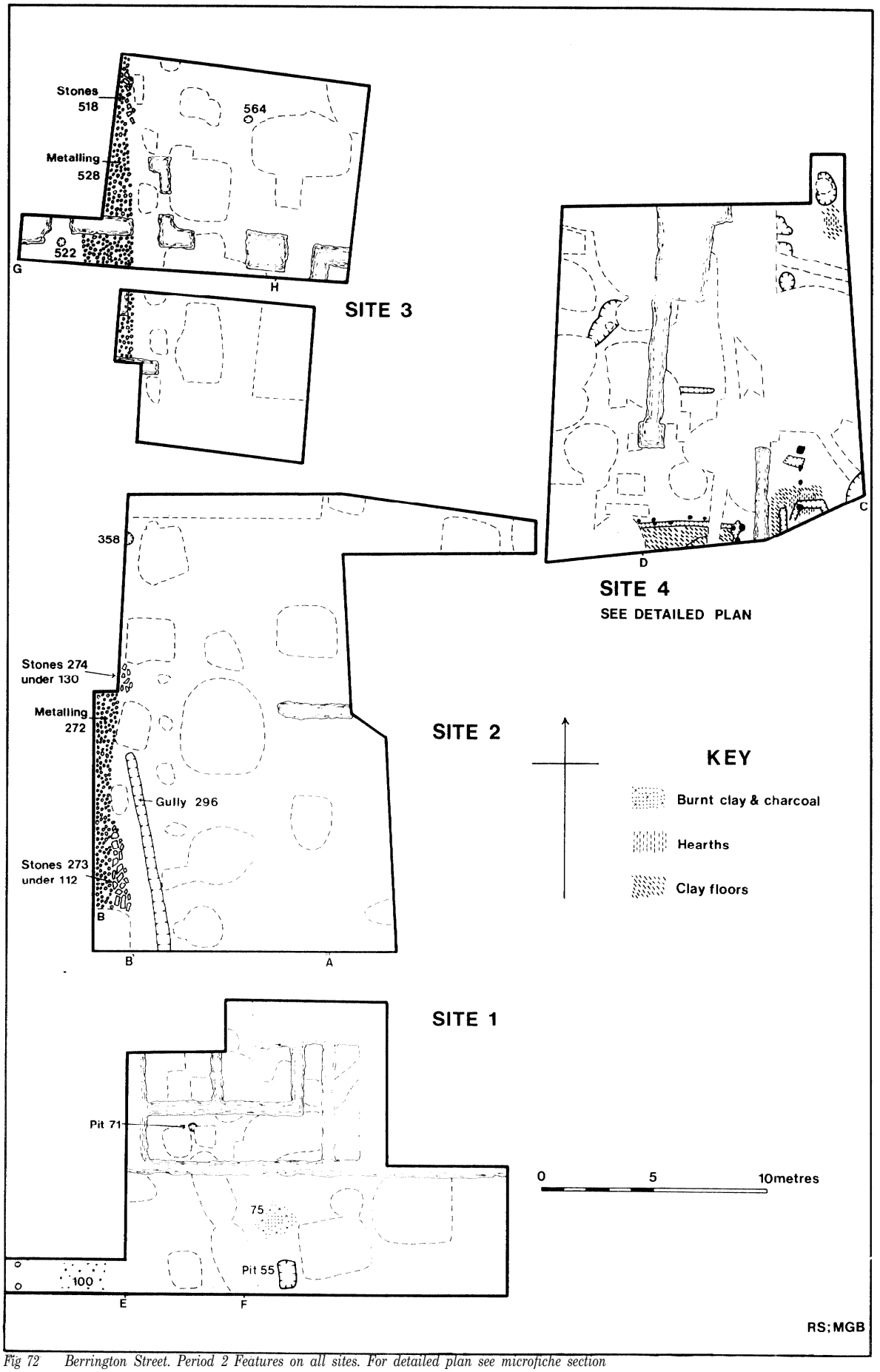

Fig 72 Berrington Street. Period 2 Features on all sites. For detailed plan see microfiche section

Relationship of periods 1 and 2 to the defensive features of stages 1-4

A major problem on the Berrington Street sites is the relationship of the buildings of periods 1 and 2 to the various stages of the defences established at Victoria Street to the north (p 28) and Friars' Gate to the south (p 68). The Berrington Street development was designed to preserve the defensive features and because of this only two narrow trenches could be excavated into the protected areas. The trenches were limited in depth so that only the tail of stage 2 of the defensive works was observed. Layers which may have been associated with the construction of the rampart were cut by the stage 3 metalled roadway, and subsequent cultivation made it impossible to establish any direct stratigraphical relationship between the construction of the period 1 buildings and the defensive features.

However, the stage 3 metalled roadway on the tail of the stage 2 rampart cut through some of the burnt patches, L111, associated with the destruction of the period 1 buildings and in places sealed the trackway which had been associated with these buildings. The turf and clay rampart of stage 2 also sealed part of this earlier trackway and if it is assumed that the metalling of this period 1 trackway was laid at the same time as the buildings were constructed then it is evident that the buildings were earlier than stage 2 of the defensive works. The stage 1 gravel rampart was not encountered during the Berrington Street excavation and no relationship could be established between it and the period 1 buildings.

The material from the collapse of the stage 3 defensive works during stage 4 merged into the cultivated layers 60/108 and 58/107 which sealed the period 1 occupation. The pottery finds indicate that this disuse phase should be associated with the upper layer 58/107. Further slip from the rampart was represented by layer 103/513 on sites 2 and 3. These layers contained rough lines of stones which were either rampart revetments or property markers.

The stage 4 upper gravel rampart sealed a small part of layer 58/107 but the junction was confused and all associated layers lost by repeated cultivation.

There was no stratigraphical relationship between the periods 1 and 2 buildings on site 4 and the defensive features. It can only be suggested that, following the demolition of the period 1 buildings on sites 1-3, the defensive features of stages 2, 3, and 4 gradually evolved and either the property boundaries were extended to the west towards the tail of the rampart or, initially, a buffer strip, with some cultivation, was kept between the properties and the defences.

The rampart features observed in the two narrow trenches were similar to those found in Victoria Street and included indications of substantial timberwork which may have been part of a box framework for the rampart.

Period 3

Pits

The remains of this period consist mainly of a series of truncated pits which were concentrated in site 1 and the western part of site 4, leaving sites 2 and 3 relatively undisturbed (Fig 77). The only exception was a row of large postpits, 400, which followed the bottom of the slope of the, by then, disused stage 4 defences.

Most of the pits contained fills which indicates that they were used as cesspits and only the occasional rubbish pit was found. One small pit, 103, to the west of fence line 400, may have been used for cooking.

The pits on site 4 were just behind the western edge of the properties which, it is presumed although no evidence survived, fronted Berrington Street during this period. The concentration on site 1 may also have been behind buildings situated to the east, or just possibly to the south.

Period 3 is defined, on the basis of the pottery and other material found associated with the features, as extending from the late 12th to the early 13th century.

Period 4

Pits and building S

This period, which is defined by the finds as extending through the latter part of the 13th century, is also mainly represented by cesspits. The main concentration was in sites 2 and 3 with few in site 4 and only two in site 1 (Fig 77). The fills were more variable than those of period 3 and contained several bands of gravel or smithing slag, presumably to lessen the smell. The pits extended to the west of the period 3 fence line and on average were larger than those of period 3. It is possible that the fence line was abandoned when the city wall was built and the property boundaries were then extended to include the sloping tail of the earlier defences.

Building S, in the middle of site 4, consisted of a clay floor with a shallow gully on two sides. It was associated with relatively large amounts of smithing slag.

Period 5

Pits and industrial activities

Apart from the remains of two stone flues or furnace bases, 116 and 504, the only features belonging to this period were pits. The distribution was very similar to that of period 3, but several of the pits had an industrial function. The period includes the 14th and 15th centuries.

The site 1 features were all cesspits but in site 4 a pit complex, 759, contained the waste products from cauldron manufacture (p 101) and a series of rectangular clay-lined pits, 711, 763, and 784 may have been used for dyeing although their final contents, which included broken pottery and roofing debris, indicates deliberate backfilling at the end of their useful life.

Period 6

Pits and stone building T

A large, mid 16th century pit, 730, adjacent to Berrington Street may have been used for internal house drainage and could have been associated with a small stone cellar or ice-house, 701. They were replaced, early in the 18th century, by building T which was probably of half-timber construction on a stone base. This building, which had a massive fireplace base on its western wall, fronted directly on to Berrington Street.

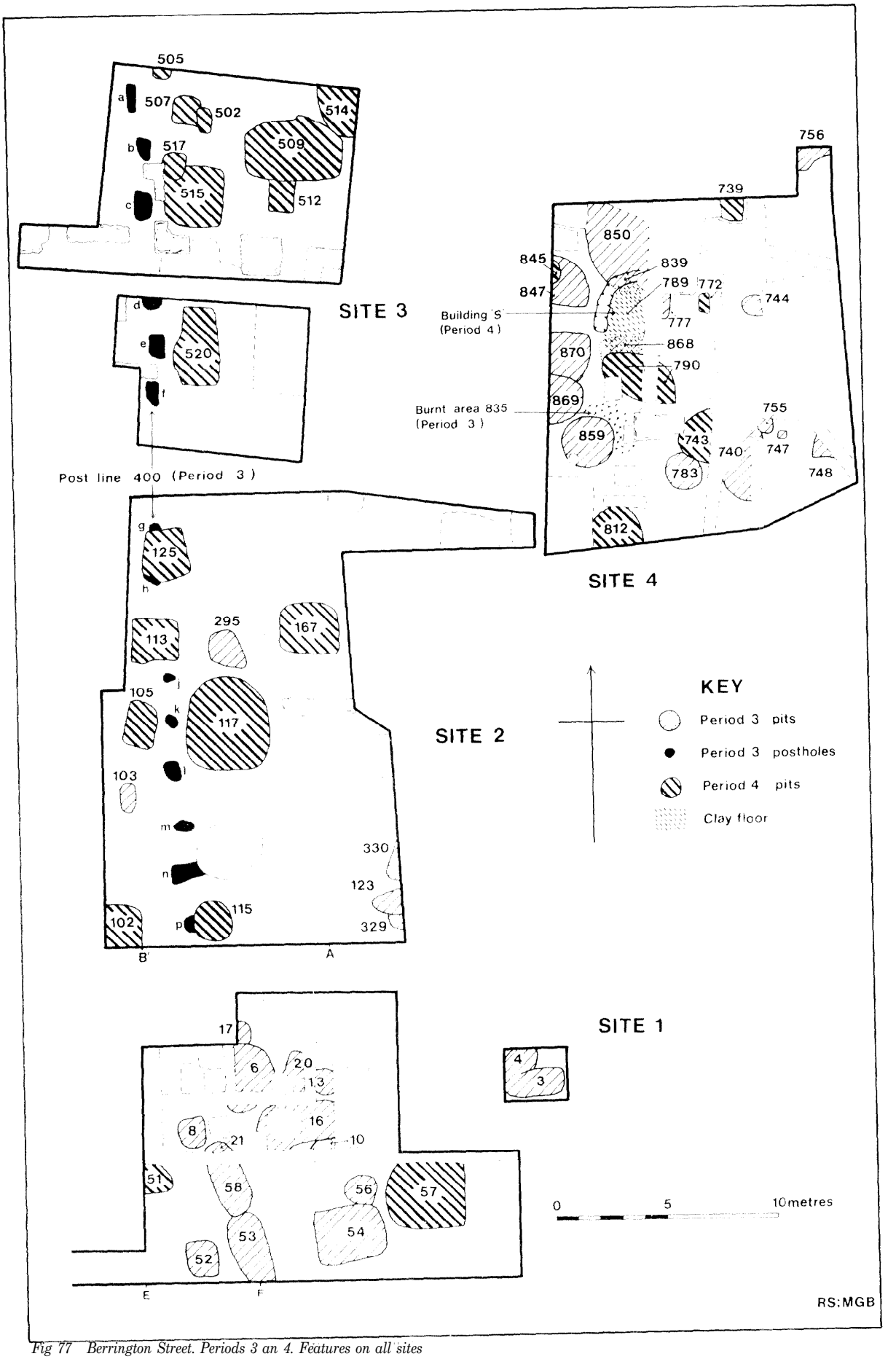

Fig 77 Berrington Street. Periods 3 an 4. Features on all sites

Two pits, 407 and 651, of early 18th century date, contained fragments of expensive ceramics and glassware and a collection of whole wine bottles. These and the environmental material found in the pit indicate a very high standard of living for the size of the building.

Period 7

Later disturbances

Drains, foundations, pits and other features dating from the end of the 18th century to the mid 20th century, which were present on all sites, damaged the earlier stratigraphy of the site and in many cases made interpretation difficult.

Bewell House (M2.F7 to M3.B4)

Introduction

The excavation, which took place during 1974 and 1975, was chosen to be representative of the development area in the north-western corner of the walled city. The area was bounded on the north by the remains of the stage 5 extended gravel rampart and was close to the Brewery site which had been excavated in 1968 (Fig 12) (p 61). During the 18th and 19th centuries the site had been part of the gardens of Bewell House and afterwards part of the Hereford Brewery before becoming a car park.

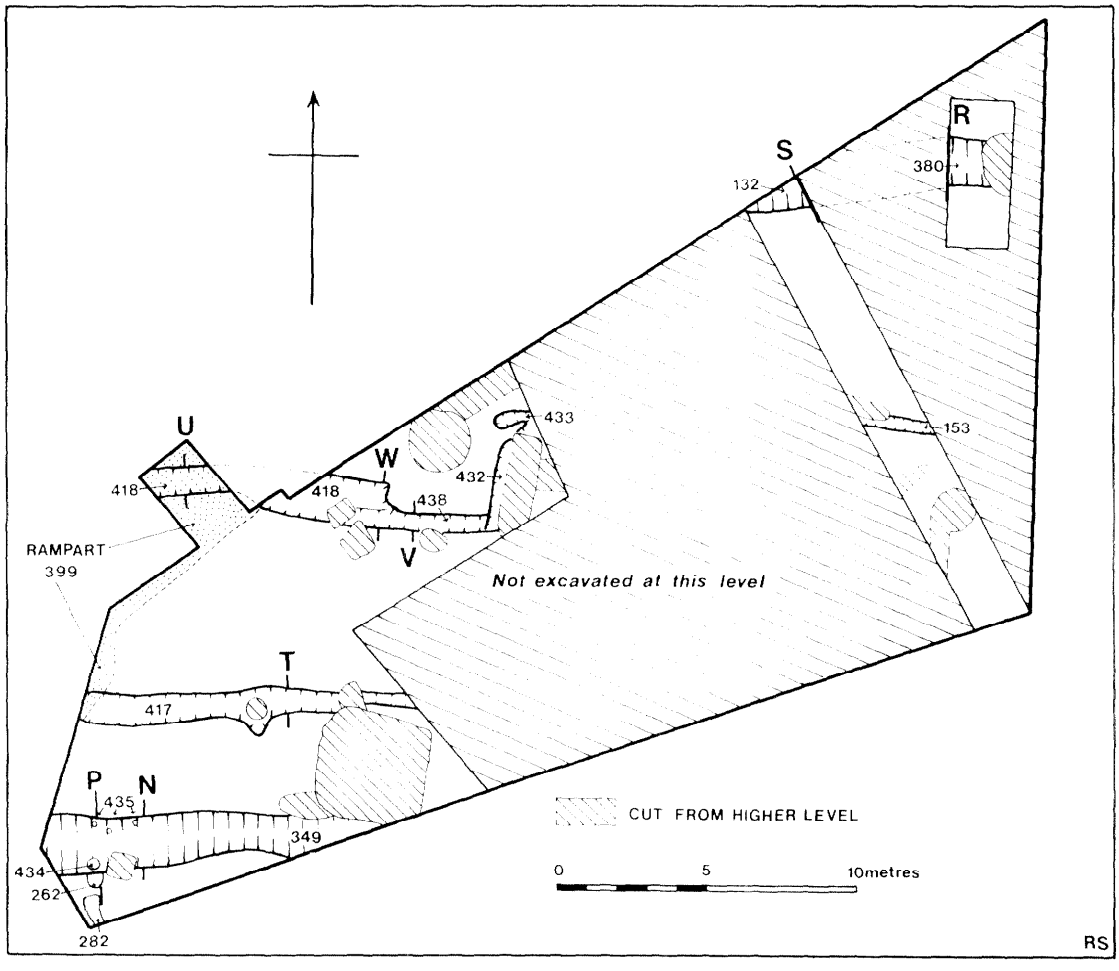

Fig 82 Bewell House. Periods 1 and 2. Plan of features

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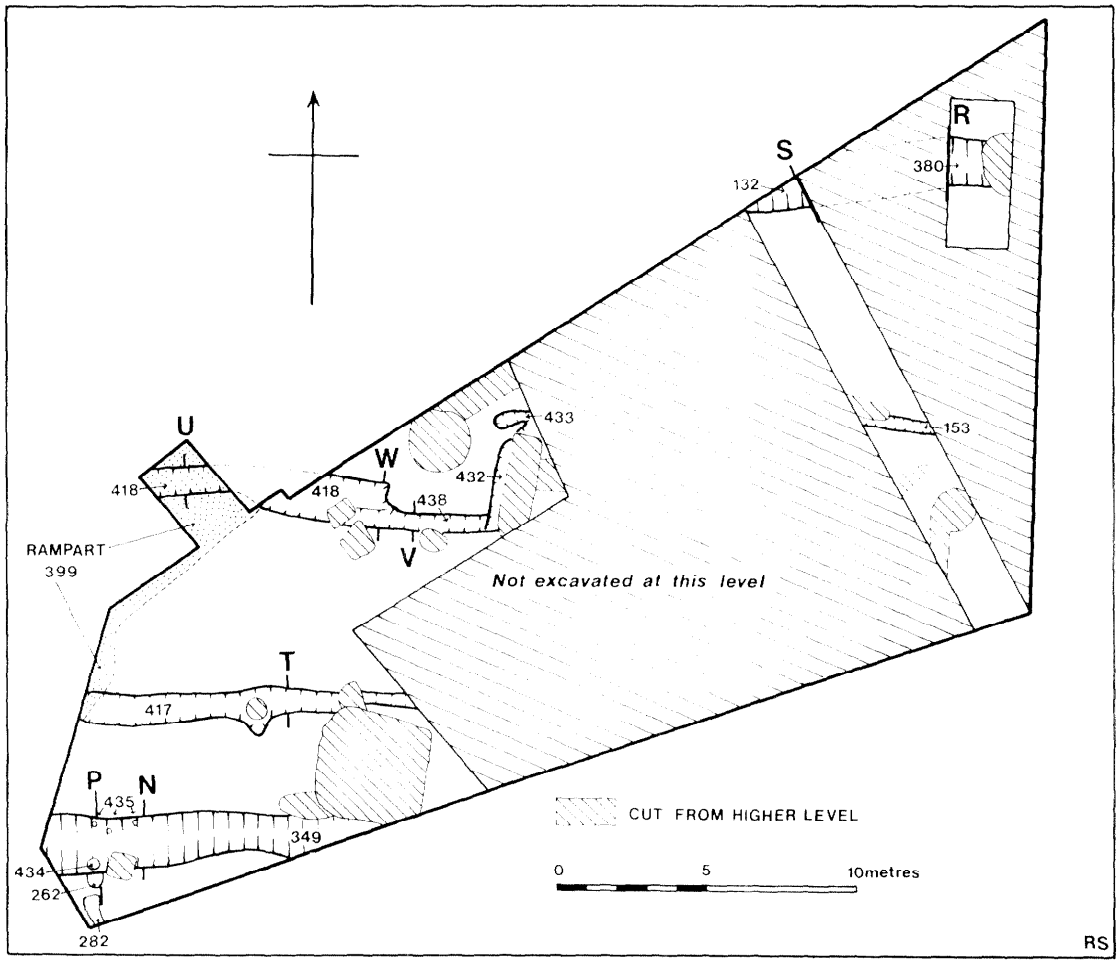

Fig 82 Bewell House. Periods 1 and 2. Plan of features

The car park surface and underlying hard core were both removed by machine, but the underlying post-medieval layers were examined by hand as our knowledge of such levels in Hereford was very limited. Only the western part of the site was completely cleared to the undisturbed subsoil. The other areas were sampled by small trenches but otherwise excavations were restricted to the 18th century levels.

Table 6
Bewell House sequence

Site period	*Description*	*Probable date range*
0	Prehistoric and Roman finds	–
1	Pre-defensive ditches and gullies	11th to late 12th centuries
2	Defences, stage 5: the gravel rampart	Late 12th century
3	Timber building and cesspits	Early 13th century
4	Grain drying oven and timber building	Mid 13th century
5	Pits	Late 13th to mid 14th centuries
6	Property boundaries and pits	Late 14th to late 17th centuries
7a,7b	Phases of Bewell House gardens	Early 18th to early 19th centuries
8	The Hereford Brewery	Mid 19th century onwards

Brief description

Period 0

There were no indications of settled occupation in the area before period 1, and although a few worked flints and Roman sherds were found, they were mainly in the occupation levels of periods 4 and 5.

Period 1

Gullies

Four parallel gullies, cut into the natural gravel, crossed the site in an east-west direction (Fig 82). The southern one, 349, and the one furthest to the north, 132/380, were deeper than the others. Gully 349, 2m wide and 0.7m deep into the natural gravel, was associated with a few small post and stake holes. The fill was in two parts: in the bottom a stony brown soil with some stones and gravel which may have been the result of silting from upcast left on the southern side of the gully; and in the remainder a thick layer of brown silt similar in appearance to the overlying period 3 soil layer. Gully 417,4m to the north of 349, was 1m wide and cut into the natural gravel for a depth of 0.15m. The fill was similar to 349. Gully 418/438, 8m to the north of 417, was partly sealed by the stage 5 rampart. The western part was 1m wide and 0.2m deep and the eastern part 0.75m wide and about 0.3m deep. The fill of light brown, stone-free silt was completely separate and different from the overlying rampart material. The fourth gully, 132/380, was about 2m wide and was deepest to the west where it cut some 0.9m into the natural gravel. A thick silt covered the sides and bottom but the remainder of the fill consisted of clean, loose pink gravel similar to the period 2 rampart material. Several slight features were also considered to be of period 1 date.

Over most of the site the soil level, 400, had been disturbed by cultivation during period 3. The soil levels under the period 2 rampart may also have been cultivated late in period 1 as there was no indication of gully 418 when the rampart was removed. It was only visible as a cut into the natural gravel.

The gullies are considered to be of two periods and to represent the boundaries of long, narrow plots which fronted onto the line of the present day Edgar Street (Fig 12). A similar gully was found on the Brewery site together with evidence of occupation (p 63). A sample of animal bone from gully 380 produced a radiocarbon date of ad 1080±80 (HAR 1260).

Period 2: Defences-stage 5

The gravel rampart

The stage 5 gravel rampart was known to follow the northern and western boundaries of the car park and the excavation site. On the west most of this rampart was removed when the ring road was constructed, and on the north it is mainly buried underneath Wall Street. The tail of the rampart was examined in a north-western extension to the main excavation area where it consisted of clean gravel with some small pebbles (Fig 85). It was partly cut away by period 4 and later features.

The realignment of property boundaries due to the construction of the stage 5 defence did not become apparent until periods 4 and 5. The date of construction of the rampart can be estimated from pottery sealed by the gravel and pottery from the period 4 features cut into the rampart tail. A date in the late 12th century seems to be most likely.

Period 3

Timber building and cesspits

Cultivation during period 4 and later removed all traces of the period 3 occupation surface leaving the lower parts of many postholes and postpits and two cesspits. The large postpits (Fig 85) varied from 0.7 to over 1.0m in diameter, with maximum depths of about 1.0m from the assumed level of the period 3 surface. Surrounding these deep postpits were several more shallow ones. Two cesspits, 236 to the west of the site and 384 to the north east, are considered to be of the same period. Pit 384 has the distinction of being the deepest cesspit found in Hereford, being 2m in diameter and over 4m deep from the assumed ground surface. It may have been timber lined.

The postpits apparently represent a large timber structure with some additional smaller buildings. The finds in the postpits suggest that the building was in use probably during the first half of the 13th century and it would seem likely that any large building in this strategic corner of the then newly extended city rampart would have had a defensive function. It is possible that the remains represent some form of watch tower acting as a link between Eign Gate and Widemarsh Gate and overlooking the road coming from the north on the line of the present Edgar Street. This suggestion is perhaps reinforced by the size of cesspit 384 which is larger than needed for normal household use. The tower would probably only have had a short life for it would have become redundant once the stage 6 city wall and bastions were built in the middle of the 13th century.

Period 4

Grain drying oven and timber building

By the mid 13th century the period 3 timber 'watch tower' had been demolished and the area was occupied

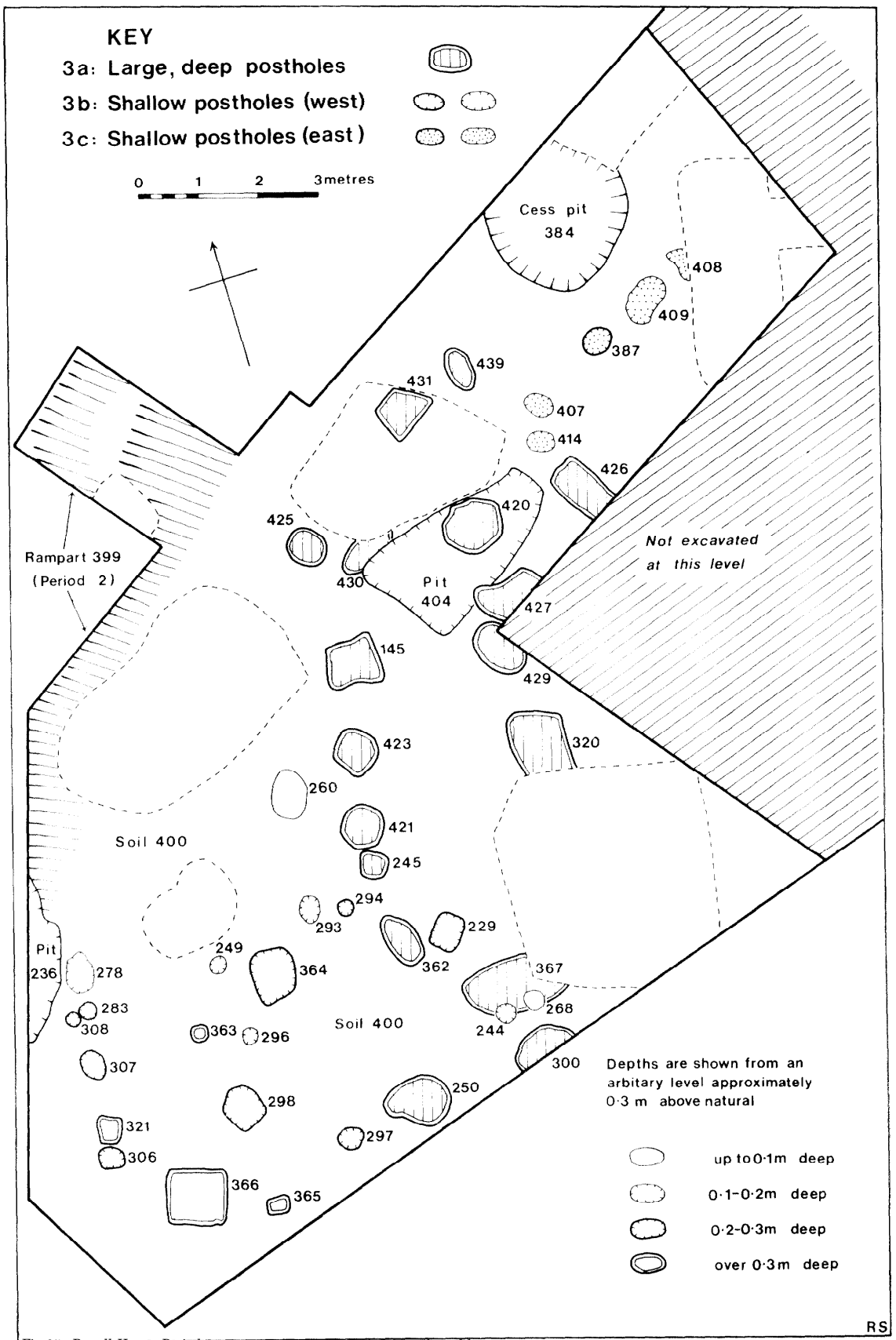

Fig 85 Bewell House. Period 2 — extent of rampart. Period 3 — plan of features

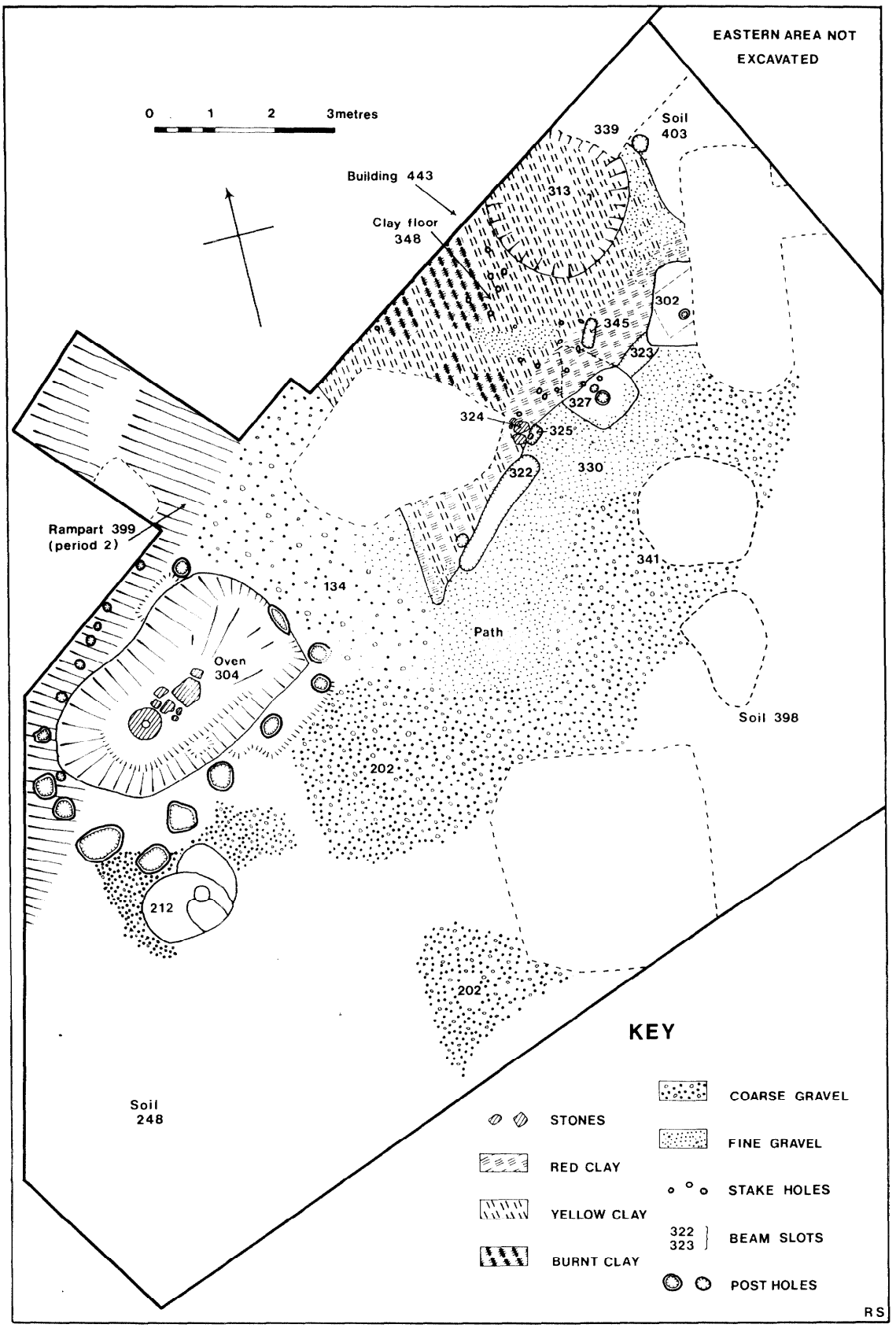

Fig 87 *Bewell House. Period 4. Plan of features including oven 304 and building 443*

Fig 88 Bewell House. Period 4 features from the west. Oven 304 is in the foreground with building 443 behind

by two buildings, one containing a small oven or furnace, probably used for grain drying and the second containing a working area (Figs 87 and 88). They were only in use for a short period.

In the west of the excavated area, pit 304, 4.5m long, 2.5m wide and about 1.4m deep was inside a building, 5m long and 3m wide, constructed on posts and cut into the tail of the period 2 rampart. The construction of the building was very irregular with only stakeholes on the side nearest the rampart. It may not have been more than a lean-to built against the rampart material. The pit was used as an oven or furnace with a stoke-hole in the eastern part, a central fire and a clay-lined vertical flue in the western part. There were two phases of use and in the earlier one the base of the western flue consisted of a re-used millstone, 0.5m in diameter and 0.08m thick. In the second phase a new bowl to the flue was laid over the millstone, apparently to make the slope more gradual, In both phases the fire was laid on top of a flat, burnt stone (Fig 94). There were slight indications of a clay support for a superstructure in the centre of the pit. Charred grain of oats, wheat and barley were found in the charcoal layer above the base of the furnace.

The fill of the pit included much red clay, which was interpreted as the collapsed material from the furnace superstructure, and above this were layers of gravel and soil containing a concentration of charcoal.

East of the furnace, and separated from it by some 3m of pebble metalling, were the remains of a second building, 443, which was not fully excavated as it extended to the north-east outside the area excavated. The building was at least 7m long and more than 3m wide and was apparently constructed on a complex series of posts and sleeper beams with a doorway, probably of two phases, on the south-eastern side. The building contained a thin clay floor, 348, laid on a make-up of clay and gravel. It was burnt to a bright orange colour in many

places. There were signs of a flimsy partition which separated the building into two rooms. Much of the n&h-eastern room was above the cesspit 384 of period 3. The upper part of the pit was apparently re-used during period 4 as a shallow clay-lined hole, 313, between 0.7 and 0.9m deep, considerably greater than would have occurred by any subsidence in the earlier pit. The base and the sides of the upper pit, within the postulated period 3 timber lining, were covered in clay similar to that of the floor of the building (Fig 97). The clay floor, the pit and the surrounding post and beam positions, were all covered in a thick layer of charcoal, and the remaining part of the pit was filled with a wet gravelly soil.

A large metalled area, consisting of material similar to that used in the period 2 rampart, surrounded both buildings, gradually fading into confused soil levels which had been disturbed by cultivation in period 5.

Fig 94 Bewell House. Period 4. Oven 304 from the east

It is suggested that the oven was used as a low-temperature grain drying kiln, with the grain spread on a wattle and clay platform above the pit at ground level. It may have been an annexe to a grain merchant's shop, fronting onto Bewell Street, where grain with a high moisture content could be dried. The second small building may have been used for storage, and the thick charcoal layer and patches of burning suggest that it could have been destroyed by fire.

Period 5

Pits

The whole area was covered in mixed soils which were apparently the result of regular cultivation over a substantial period of time. Most of the pits, which were dug in the area between the mid 13th and mid 14th centuries, were shallow and probably used for rubbish-apart from 309 which was in excess of 1.4m deep and was used as a cesspit.

Period 6

Property boundaries

Three north-south property boundaries were constructed across the site at some date between the late 14th and the early 18th centuries. Confused cultivation levels precluded any refinement of the date. The boundaries were 10 and 12m apart respectively and must have reflected buildings closer to Bewell Street. Several pits and a metalled path were also associated with this period. One of the property lines cut across the period 4 furnace, indicating that these boundaries could not have evolved before the late 13th century.

Period 7

Bewell House gardens

In the early 18th century several of the narrow properties were amalgamated to form the grounds for Bewell House. The original lay-out for the gardens, which included flower beds, lawns and paths, lasted until the mid 18th century when the house was altered and the grounds were re-designed.

Period 8

The Hereford Brewery

Bewell House became part of the Hereford Brewery early in the 19th century, being used as the manager's house. The formal gardens fell into decline and eventually became used for brewery purposes, with soakaways, drains and shallow pits cut into the gardened areas. Finally the area was covered with concrete and used as an open yard with sheds built against the northern wall.

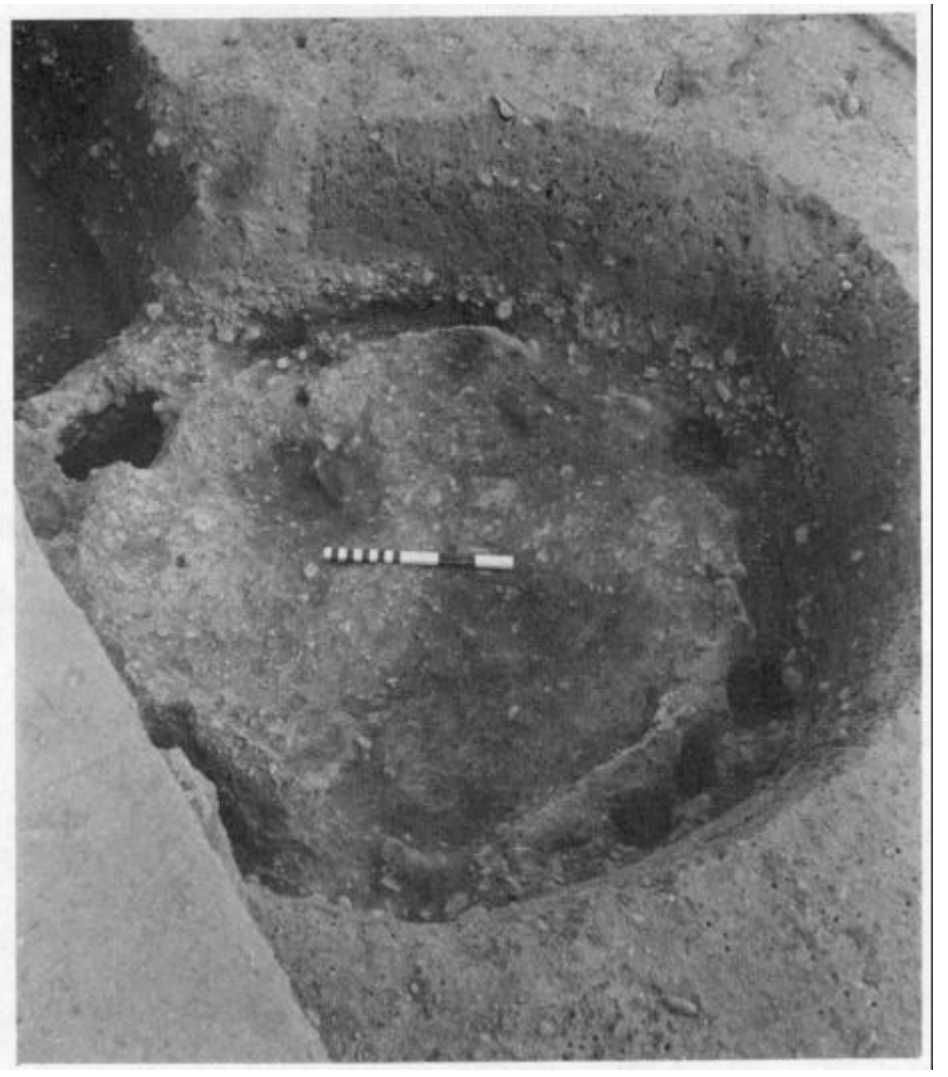

Fig 97 Bewell House. Periods 3 and 4. Detail of pit 313/384

Brewery site (M3.B5 to M3.E2)

Introduction

The excavation, which took place in 1968 in advance of the ring road construction, was on part of a triangular site, bounded on the west by Wall Street and on the east by the realigned boundary for the grounds of Bewell House (Fig 12). The site which is now sealed by the ring road, included over most of its length the tail of the stage 5 gravel rampart. The primary aim of the excavation was to examine the levels sealed underneath the rampart and because of this a machine was used to remove the relatively clean rampart gravel from the whole site. This machine removal made it difficult to establish which features cut through the rampart and which had been sealed underneath. The excavation took the form of two parallel trenches, which were excavated by hand, and eventually most of the central baulk was removed.

Table 7
Brewery site sequence

Site period	*Defensive stage*	*Description*	*Probable date range*
0	–	Irregular features cut into the subsoil	?
1	–	Gullies, pits, and metalling	Pre-mid 11th century
2	–	Pre-defensive features including buildings and furnaces	Late 11th to late 12th centuries
3	5	Gravel rampart	Late 12th or early 13th century
4	–	Post rampart features	Early 13th century onwards

Brief description

Period 0

The earliest features on the site were irregular shallow disturbances which may have been caused by tree rooting. There were no associated finds and no dating material present.

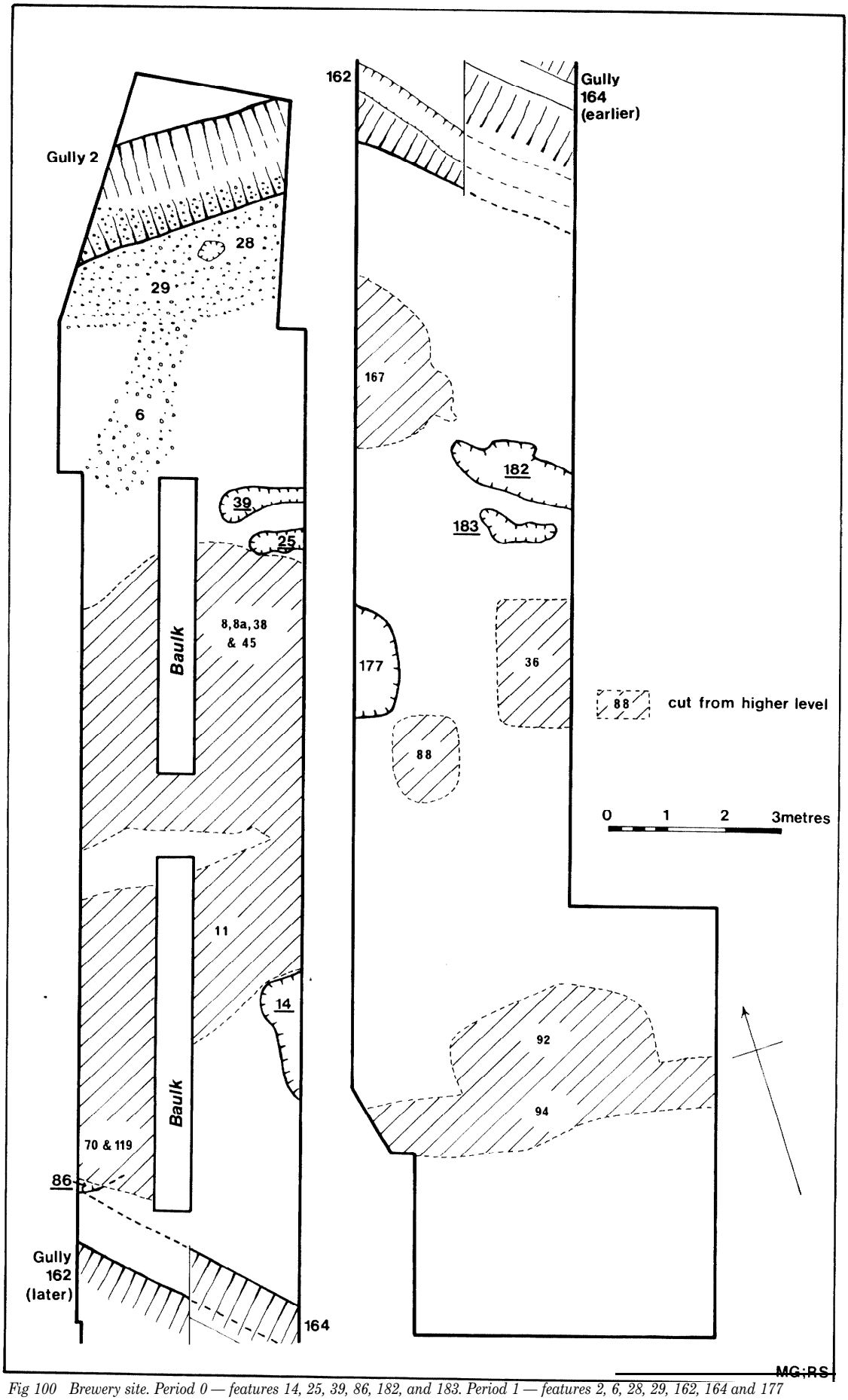

Fig 100 Brewery site. Period 0 — features 14, 25, 39, 86, 182, and 183. Period 1 — features 2, 6, 28, 29, 162, 164 and 177

Period 1

Gullies and other features (Fig 100)

The period 1 features comprised several large gullies, a pit and a metalled surface. Gully 2, at the north of the site, ran in an east-west direction and was 2m wide and 0.7m deep, being V-shaped in cross-section. The lower part contained brown silt and the upper part mixed soils. It was probably a property boundary and was similar to, and aligned with, gully 349 on the Bewell House site (period 1: p 56). Gully 164 in the centre of the site ran north-west, south-east and was re-cut as gully 162. In its original form it was 2.5m wide and 0.9m deep with a similar fill to gully 2. The re-cut, 162, which did not take place until 164 had been completely filled, was 3m wide and 0.7m deep and also had a similar fill to gully 2. It may also have been a property boundary.

Sealing part of gully 2 was a metalled surface 29 containing an isolated posthole 28. In the southern part of the area, pit 177 was apparently very large but extended outside the excavation. The main fill, which was of dirty, clayey soil with some charcoal and bone, may indicate that it was used as a cesspit.

The few pottery finds for the period 1 features suggest that they were not later than the mid 11th century.

Period 2

Timber buildings and furnaces

The occupation of period 2 was complex and not fully understood. It is considered in three sub-periods, 2a, 2b, and 2c, which are considered to provide a continuous occupation sequence through the 100 or so years that period 2 lasted.

Period 2a – The subsoil of the site was sealed by layer 21 to the south and layer 7 to the north, but layer 7 contained much later material than layer 21 and is considered to be part of period 2c. Period 2a refers only to the southern area of the site covered by layer 21, a light brown soil with little gravel. Many postholes, stakeholes and small pits were visible when layer 21 was cleaned, but neither building plans nor alignments could be established. It was apparent that more than one phase of-building was present and some of the later postholes contained posts burnt *in situ.* The postholes are described in detail in the microfiche report (Fig 103:M3.C3).

The southern part of the site contained fragments of a burnt building, 147 (Fig 104, including the remains of burnt timbers and possibly burnt thatching material. The remains were probably associated with the underlying postholes and both may thus represent the same building. There was no indication of a floor level in building 147 and it may be that the building contained timber floors laid on joists, or that the earth floors were continually covered with rushes or some other vegetable matter.

The pottery finds indicate that period 2a lasted from late in the 11th century to the mid 12th century.

Period 2b-A complex series of pits, which disturbed the northern half of the excavated area (Fig 104), mainly post-dated the buildings of period 2a, although one or two may have been of the same date. They were probably all used as cesspits although one of them, pit 45, contained large quantities of animal bone and fired clay. All the features of period 2b were sealed by the period 2c layer 7. This layer was considered to be equivalent to layer 15 which sealed layer 21 in the southern part of the area.

Underneath layer 15 were several pits and two furnaces, 67 and 169, both of which were constructed in the top of earlier deep pits. Furnace 67 was associated with postholes 66 and 68 and the small pit 69, and was surrounded with gravel spread 55 which sealed the top of the underlying pit 167. The furnace itself consisted of a shallow oval pit containing two parallel rows of sandstone with charcoal between them. The superstructure had been completely removed in antiquity.

Furnace 169 was of similar construction to 67 but was slightly larger and much better preserved (Fig 108). It was built within pit 90 which was itself cut into the period 1 gullies 162 and 164. The sandstone, which lined the central channel of the furnace, was held in place by fired clay, and above the stones and channel was a clay platform which had been laid on wattles before firing took place. Small square holes in the four corners of this platform suggest that it was meant to support a further structure. The fire was laid in the channel from the west with the eastern end acting as a flue. It is possible that the furnaces were within buildings and that some of the period 2a postholes should be associated with these period 2b structures. The surviving fragments are typical of the material and practice described around AD 1100 by Theophilus (Hawthorne and Smith 1963) and found in this country consistently associated with bell casting.

Two small bowl hearths, 145 and 213, were also of period 2b and were *c* 0.5m across and *c* 0.12m deep. The latter was lined with clay.

The period 2b features can only be assigned a broad date range in the 12th century on the basis of the associated finds, but on stratigraphical evidence are later than the features of period 2a.

Period 2c – The features of periods 2a and 2b were sealed by layer 7 to the north and layers 15 and 190 to the south. All three layers consisted of sandy soil with many potter fragments and an increased amount of charcoal to the south. The east west aligned ditch, 11, cut through these layers and was *c* 3m wide and *c* 2m deep. It contained silts, gravels and animal bone which were apparently the waste products from butchering. The ditch was cut by pit 70 which may have been a cesspit. Other features of period 2c were shallow and had no obvious purpose. The pottery finds indicate a date range in the late 12th or early 13th century for the period 2c features, although intrusive material was present in layers 15 and 190.

The features and layers which together make up period 2 are split into three sub-periods on rather flimsy stratigraphic evidence, and as a result the sub-periods should not be regarded as being mutually exclusive. There was no firm indication of the alignment of the buildings and properties but, taking the available evidence together with that provided from period 1 at Bewell House (p 56), it is assumed that the buildings fronted on to a north-south road on the approximate alignment of the present Edgar Street (Fig 12), and that they were.

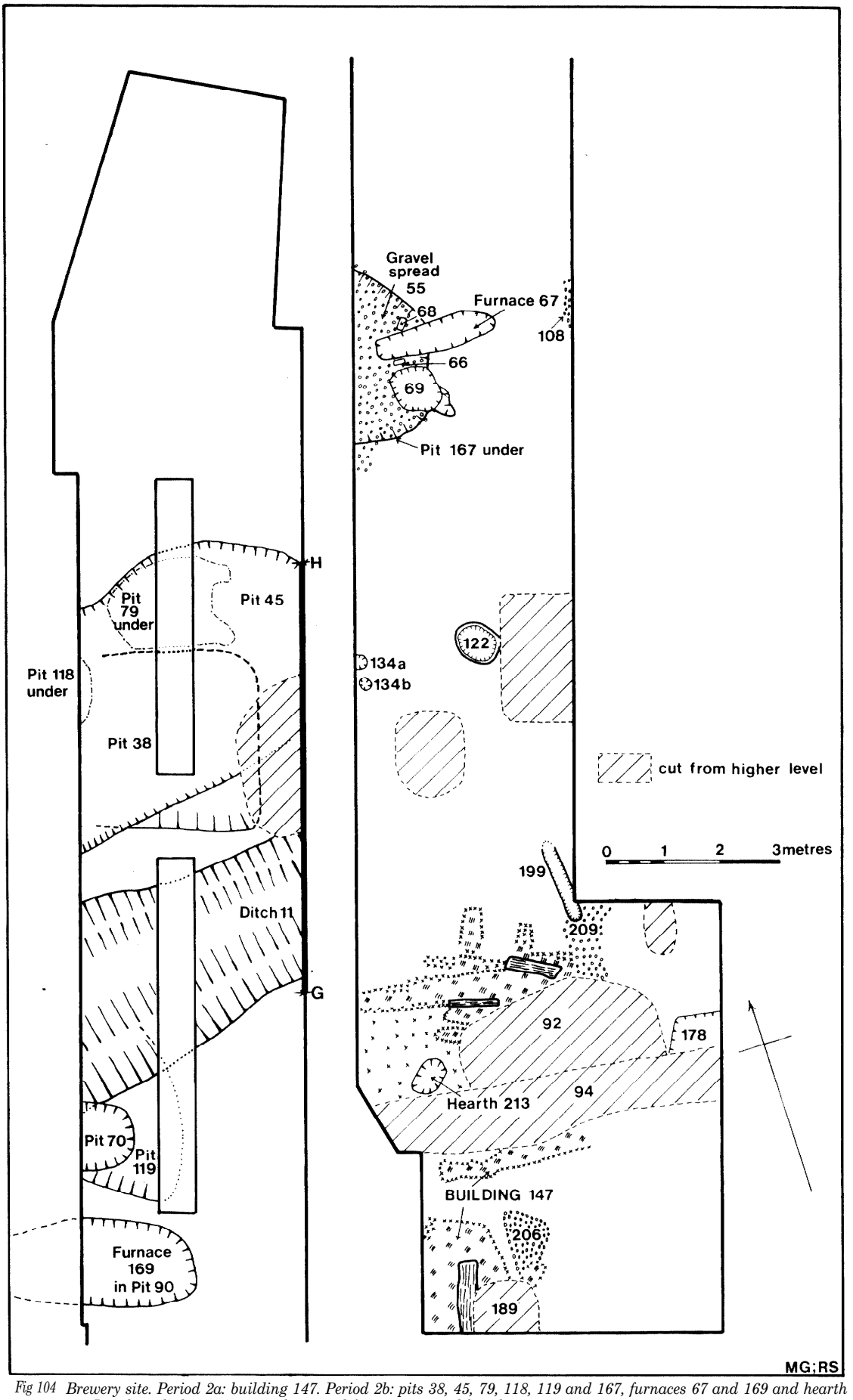

Fig 104 Brewery site. Period 2a: building 147. Period 2b: pits 38, 45, 79, 118, 119 and 167, furnaces 67 and 169 and hearth 213. Period 2c: ditch 11, pits 70 and 122, and features 134a and b and 199

associated with long, narrow east-west orientated properties. It is evident that the excavated area included parts of several properties and that diverse industries, including bell manufacture and possibly slaughtering, were practised in this undefended part of the city during the 12th century.

Period 3: Defences-stage 5

The extended gravel rampart

The rampart material was cleared and removed from the site before the excavation commenced, and only the section against Wall Street remained. Part of this section had to be shored and therefore could not be examined. The section included a series of layers, containing several grades of gravel and soil, which sloped at an oblique angle, apparently representing tip lines. These layers may have represented one single constructional phase but could equally have been formed by regular ditch re-cuts with the resultant spoil thrown on the back of the original rampart. The date of construction of the stage 5 rampart could not be established from the evidence available.

Period 4

Post-rampart features

Pits, dated from the 13th to the 16th centuries, are described in two groups, sub-periods 4a and 4c. A 14th century bell mould complex, feature 92, comprises sub-period 4b.

Period 4a– The period 4a pits, containing late 12th and early 13th century material, were all in the eastern part of the site and were presumably cut through the tail of the stage 5 rampart material. Some were only shallow features, but the fills of the others indicated that they were used as cesspits.

Period 4b– Feature 92 (Fig 113) consisted of a complex pit which must have been excavated through the tail of the rampart but also cut through the period 2a burnt building, 147 and the period 2c layer 190. Within the pit, at varying levels, were the remains of three, unfired clay rings *c* 1.0m in diameter. There were many pieces of unfired red clay and fragments of grass-tempered moulds in the fill of the pit. The clay rings were apparently the waste remainder from the construction of bell-moulds and they would have been associated with furnaces for firing the moulds and melting the metal.

This is typical of the small industrial use of an area backing onto the city defences and the pit was probably cut into the tail of the gravel rampart during the 14th century, after the city wall had been constructed.

Period 4c– Several post-medieval cesspits were cut into the tail of the rampart. They were probably associated with a property which occupied the triangular piece of land on the corner of Wall Street and Bewell Street.

Fig 108 Brewery site. Period 2b. Furnace 169 from above with east at the top (composite photograph)

Minor sites (M3.E3 to M3.G6)

Introduction

In this section unpublished material, mainly relating to excavation work on the defences, is gathered together from several sources. The results are of some importance because they confirm the continuity of the various features seen on the major sites.

The first section describes the archaeological work undertaken on the city wall in the mid-1960s during the construction of the ring road. The remaining sections are concerned with emergency recording during the construction of new buildings and a small excavation which examined the tail of the stage 5 gravel rampart.

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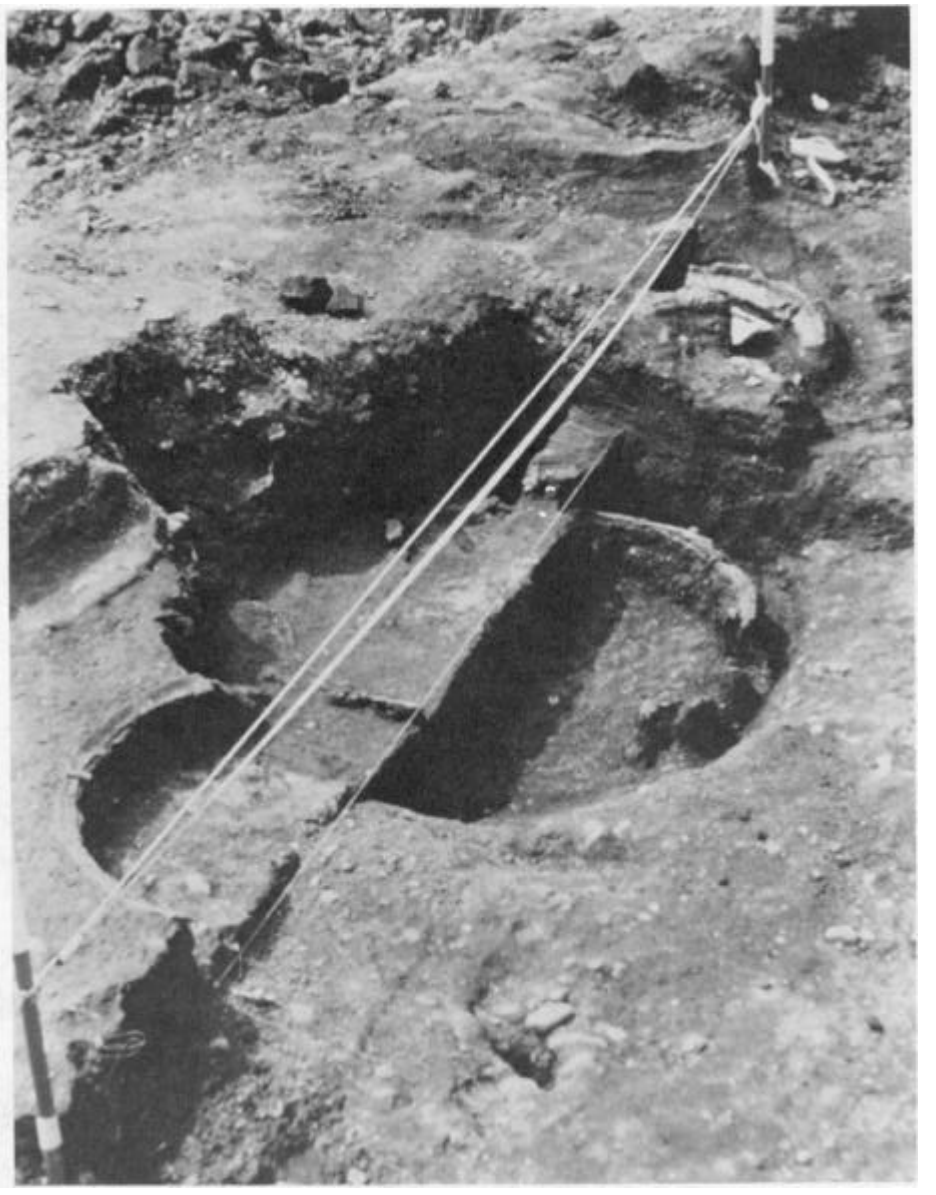

Fig 113 Brewery site. Feature 92 from the west

The city wall excavations: Defences-stage 6

The excavations on the line of the city wall (Fig 11) drew attention to the historic importance of the defences and led to a programme of restoration and conservation. The sites examined, mainly under the auspices of the Hereford Excavations Committee, were on the northern and western parts of the extended defences where features were threatened by the construction of the ring road. The new road cut across and obliterated all traces of the wall at two points; to the north of Eign Gate and to the west of Bye Street Gate. In addition it was expected that the construction of the road would damage the remains of several bastions on the northern part of the circuit.

Bastion 10

The bastion and wall were found to be secondary to earlier defensive features. The bastion, which was built into the side of a pre-existing ditch, was of a hollow semi-circular design, 7.4m in external diameter with walls 1.8m thick. There were traces of a cobbled floor inside. The available evidence suggested that the wall and bastion were bonded together and were of one period. The berm in front of the wall was only 1m wide and the bastion was built into the face of the ditch, possibly with a wooden footwalk around it at the level of the berm. A dirty red gravel, which lined the inside face of the ditch, was considered to pre-date the construction of the bastion. It may have been the result of erosion of the stage 5 rampart at this point but no traces of the rampart were seen during the excavation.

It is suggested that, at this point, the stage 6 city wall was built in front of the stage 5 defensive rampart, thus occupying a large part of the berm. The surviving parts of the stage 5 rampart, together with any material obtained from widening and deepening the ditch, could then be used as an intra-mural walk.

Bastion 9

The remains of the semi-circular bastion, which were buried under a 19th century forge, were examined by means of two machine cut trenches about 6m apart. Bastion 9 and its associated wall were built on a thick layer of gravel which comprised part of the fill of an earlier ditch. The lower parts of the masonry of the bastion were stepped into the side of this gravel fill and into the side of the ditch. There was apparently no berm whatsoever in front of the wall, and no indication of any walkway around the bastion.

Bastion 10a

The bastion was of at least two constructional phases with the first phase built into the slope of an earlier ditch. The original bastion was semi-circular and constructed in a foundation trench cut into the face of the earlier ditch. It was about 8m in external diameter with walls about 2m thick. There were slight indications of a chamfered course around the base of the bastion and traces of what may have been a timber walkway around the outside.

The semi-circular bastion was demolished to its foundations which were then re-used as the footings for a rectangular tower. Rectangular towers are generally considered to be of late 14th or 15th century date but may be later (Turner 1970, 60). The dating evidence for the rebuild of bastion 10a is only sufficient to suggest that it may have been at any time up to the Civil War. As far as is known this is the only bastion in Hereford which was completely rebuilt and the only one where the shape was changed from semi-circular to rectangular.

This bastion was known as the Jews Chimney in the 17th and 18th centuries (p 23).

The junctions of the bastion with the city wall could not be examined but the wall was excavated for a length of some 4m to the west of the bastion. The foundations were at least 2m thick with a face built of large, red sandstone blocks.

Wall section between bastions 10 and 10a

A machine cut trench, some 22m west of bastion 10a, exposed a section of the wall foundations and the upper parts of the ditch. A mixture of gravel and silt lined the inside face of the original ditch and the foundation trench for the wall was cut partly into this layer and partly into the natural gravel of the site. The wall was 1.8m wide and the foundation trench was probably less than 1m deep into the existing ground surface.

Bastion 4

The remains of this bastion can be seen by visitors to the city as they follow the Victoria Street section of the ring road (Fig 140). A machine cut trench was excavated in front of the bastion during preparatory work for the ring road. The bastion was apparently built on the original berm and parts of the earlier defensive ramparts were cut

Fig 123 Friars' Gate. The western part of the section

away to accommodate the city wall. The bastion is 7.9m in external diameter and is fully bonded with the wall on its southern side.

The presence of a berm some 4m wide in front of the wall on the western side of the city and the deliberate removal of part of the phase 1-3 defences to ensure a solid foundation for the wall and bastions, as compared with the construction around the northern part of the perimeter, may mean that there was a deliberate change in policy or that one part of the wall was constructed at a much later date than the other. However, there are several other possibilities which become apparent when the defensive line as a whole is considered (p 86). One important result of the constructional methods used on the western side of the city is that the bastions apparently contained a solid fill.

Bastion 6

The bastion, which was totally destroyed when the ring road was constructed, was some 30m north of the site of Eign Gate (Fig 12) and thus part of the extended northern circuit. Only a small area was available for excavation but it was apparent that the bastion was built into the side of an earlier ditch. There were slight indications that the bastion and city wall were of one build, The bastion was about 6.7m in external diameter with walls about 1.2m thick and had a chamfer around the outer edge. A cobbled surface of 15th century or later date was found outside the bastion on top of ditch fill material. There was no indication of any internal levels inside the bastion.

Friars' Gate: Defences-stages 1-4 and 6

(Fig 123)

A section of the defences of stages 1-4 was exposed immediately to the north of Friars' Gate as a result of demolition work. The section was very similar to that seen at Victoria Street, 120m to the north (Fig 23). There was little indication of any occupation before the stage 1 gravel rampart was built but the area examined was too small for this to be significant. A layer of mixed clay and charcoal continued to the east from the tail of the stage 1 rampart. This layer contained some postholes associated with patches of charcoal and burnt clay and was covered with a scatter of unworked stone. The stage 2 turf and clay rampart was of similar appearance to that further north with bands of darker material throughout. An abrupt break of slope in the tail may represent the position of timberwork. Traces of occupation surfaces, which were found on and within the eastern tail of this rampart, could not be examined. There were no traces of the stage 3 stone revetment to the earlier defence but a thick layer of brown soil was considered to represent the disuse of stage 4. As in the Victoria Street site, the clay rampart and its associated layers were sealed by a layer of clean gravel, which was bounded to the east by a slight stone revetment.

The lower courses of the city wall, which were built against a vertical face cut into the several ramparts, were poorly mortared with rough edges. Above this were two rebuilding phases, both constructed by digging a trench to a suitable depth through the gravel and turf and clay ramparts. There was no evidence from this site to date any phase in the defensive sequence.

Liberal Club: Defences-stage 5

The tail of the stage 5 gravel rampart was examined in a small trench to the north of the Liberal Club bowling green in advance of landscaping works (Fig 12) The excavation consisted of a trench 2m wide and 6m long.

There was little opportunity to examine the features sealed by the stage 5 rampart material but they included several postholes and postpits and a gully, all of which may have been property boundaries. The pottery from these levels was of late 12th century or earlier date. The rampart itself consisted of a consolidated grey silt in the lower levels which was sealed by a clean red gravel. Some of the post rampart levels may have been associated with the levelling of the bowling green.

St Owen's Gate area: Defences-stages 5 and 6

Three trenches were dug on the outside of' the city wall in the yard of the Lamb Hotel, to the north of the site of St Owen's Gate, to insert reinforcing buttresses. The natural gravel was some 0.7m below the surface of the yard and the berm in front of the wall was at least 2m wide.

Some time later, alterations on the inside of the city wall at the same point provided further information. The lower parts of the upstanding wall were unlaced, with a quantity of gravel still adhering to the surface. It was evident that the wall had originally been constructed as a facing to the stage 5 gravel bank and only became free-standing at a later date.

The areas examined were too small for the limited information to be conclusive but it would appear that the stage 5 rampart may have been cut back to insert the stage 6 wall at this point, thus leaving a substantial berm. The apparent lack of pre-rampart occupation is not considered to be significant.

City Arms: Defences-stages 1-4

The narrow part of Broad Street shown on Taylor's map of 1757 (Fig 5), which is considered to represent the north gate into the Saxon city, was widened when the City Arms Hotel was built at the end of the 18th century, The building was converted to become a branch of Barclays Bank in 1973 but the Georgian facade and a 15th century timber framed house were incorporated into the new building. A grant was made available for a watching brief.

The site, which overlay the remains of the stages 1-3 defensive works, had been heavily disturbed when the City Arms Hotel was built and only traces of the stage 2 turf and clay rampart were seen where they were preserved in sections close to East Street. There were traces of occupation levels underneath this rampart but they could not be examined, There were no traces of the stage 4 stonework, nor could the width of the berm be established. The defensive ditch, which ran along the northern part of the site, was in excess of 15m wide and had a flat bottom some 5.4m below the present ground level. Opportunities were made available to examine the fill.

The lowest level consisted of some 0.4m of undated black, heavy silt which was sealed by several bands of gravel, separated by black silts. Above the gravel fill, but still within the ditch, were traces of a structure built

of timber, stakes and wattling. A radiocarbon date of ad 1200±70 (HAR 1735) was obtained from one of the timbers. Above this was a layer of compressed organic material resembling straw or grass. The latest fill of the ditch contained fragments of leather and some 12th century pottery. It is suggested that the timberwork and wattling were the sides of an open drain which followed the line of the ditch, but the whole structure may well have been more complex than was appreciated during the excavation, with lateral drains joining the main channel.

The construction of the 15th century building at the east of the site indicates that this portion of the ditch had been completely filled and sufficiently compacted by this date.

Summaries of excavations not yet published

Several small excavations and watching briefs, which have taken place since 1975, have had some effect on the conclusions in the second part of this volume and summaries of the interim reports follow. It should be appreciated that details and dates may be altered in the final reports. The references are to the sources of the interim reports.

The Row Ditch: Drybridge House (Fig 7.K)

The defensive works south of the river known as Row Ditch (stage 5 ?) are still visible as an earthen bank running from east to west and apparently starting opposite the south-eastern corner of the castle. The bank disappears as it approaches the line of St Martin's Street to the west but it is assumed that the defensive works originally crossed the road into the grounds of Drybridge House and then turned north so as to line up with the western town defences on the northern bank of the river. Housing development in the grounds of Drybridge House was preceded by a small trial excavation in 1975 (Shoesmith 1975) and was accompanied by a watching brief in 1977 (Sawle 1977). The later work exposed a section of a ditch running east-west across the southern part of the site. It was approximately 4m deep and at least 8m wide, and its lower levels were waterlogged. A line of pointed stakes was found in the bottom of the ditch. The earliest pottery from the fill was of 13th century date.

The 1975 trial excavations consisted of-narrow machine cut trenches across the presumed line of the rampart. Although the site had suffered considerable disturbance, a clean yellowish clay layer, seen in all the trenches, was considered to be the remains of the rampart. The dating was somewhat uncertain due to the limitations of the excavation, but the clay level apparently sealed late 12th century pottery and was itself disturbed by 14th century pitting. There was a slight indication that the rampart turned to the north close to the western boundary of the site.

Trial excavations 1976

A programme of trial excavations was organized during 1976 in the northern part of the medieval city (Sawle 1977). These indicated that there was occupation on the north side of Bewell Street by the 11th century (Fig 7.1,) and on the north side of Commercial Street, near Bye Street Gate, by the late 11th or early 12th centuries' (Fig 7.M). Slight traces of occupation were seen underneath the tail of the stage 5 extended gravel rampart close to Wall Street and east of the Liberal Club site (p 68).

An attempt was made to establish a postulated continuation of the line of Broad Street to the north of All Saints' Church. In the trenches excavated, the deep cultivation of the soil had removed all the early levels but the general lack of features cut into the natural gravel suggested that the area was never used for other purposes. As a result it would seem unlikely that there was a pre-Conquest road continuing the line of Broad Street to the north.

Town Hall 1979 (Fig 7.N) (Shoesmith 1979)

An excavation for new foundations in the semi-basement of the Planning Annexe encountered material identical to the stage 2 turf and clay rampart.

The excavation was not deep enough to encounter pre-defensive occupation levels but established that post-defensive disturbance in this area was minimal.

Bishop's Palace gardens 1979 (Fig 7.P) (Shoesmith 1979)

Trial excavations, to establish the depth of strata in the area bounded by Gwynne Street and the river, demonstrated the existence of a large marshy area in this central part of the city. It is suggested that this was part of the 'King's Ditch' (p 88) which may originally have been a stream course. The marsh was filled in by the 16th century when the area became cultivated.

King Street 1980 (Fig 7.T) (Shoesmith 1980)

A trench, some 2.4m deep, was dug by contractors along King Street from its junction with Broad Street to that with Bridge Street. The excavation exposed a marshy area, at least 70m wide, in the lowest part of King Street opposite the junction with Aubrey Street. The lowest 0.7m of the fill consisted of a heavy, waterlogged black silt which continued below the bottom of the trench.

The black silt was covered by a series of large branches and small tree trunks laid at right angles to the line of King Street. The wood was in a good state of preservation and is considered to represent the earliest surface of this important east west road. Above the timber roadway were thin layers of silt and several layers of large stones and gravel which apparently represent further consolidation of the surface of the road. There was no dating evidence from any of the early periods examined.

These observations, taken together with those from the 1958 excavation (Fig 7.C) (p 8) and the 1979 trial work (Fig 7.P) mentioned above, point to the existence of a large marshy area immediately to the west of the cathedral and continuing in a broad band towards the Wye.

of timber, stakes and wattling. A radiocarbon date of ad 1200±70 (HAR 1735) was obtained from one of the timbers. Above this was a layer of compressed organic material resembling straw or grass. The latest fill of the ditch contained fragments of leather and some 12th century pottery. It is suggested that the timberwork and wattling were the sides of an open drain which followed the line of the ditch, but the whole structure may well have been more complex than was appreciated during the excavation, with lateral drains joining the main channel.

The construction of the 15th century building at the east of the site indicates that this portion of the ditch had been completely filled and sufficiently compacted by this date.

Summaries of excavations not yet published

Several small excavations and watching briefs, which have taken place since 1975, have had some effect on the conclusions in the second part of this volume and summaries of the interim reports follow. It should be appreciated that details and dates may be altered in the final reports. The references are to the sources of the interim reports.

The Row Ditch: Drybridge House (Fig 7.K)

The defensive works south of the river known as Row Ditch (stage 5 ?) are still visible as an earthen bank running from east to west and apparently starting opposite the south-eastern corner of the castle. The bank disappears as it approaches the line of St Martin's Street to the west but it is assumed that the defensive works originally crossed the road into the grounds of Drybridge House and then turned north so as to line up with the western town defences on the northern bank of the river. Housing development in the grounds of Drybridge House was preceded by a small trial excavation in 1975 (Shoesmith 1975) and was accompanied by a watching brief in 1977 (Sawle 1977). The later work exposed a section of a ditch running east-west across the southern part of the site. It was approximately 4m deep and at least 8m wide, and its lower levels were waterlogged. A line of pointed stakes was found in the bottom of the ditch. The earliest pottery from the fill was of 13th century date.

The 1975 trial excavations consisted of-narrow machine cut trenches across the presumed line of the rampart. Although the site had suffered considerable disturbance, a clean yellowish clay layer, seen in all the trenches, was considered to be the remains of the rampart. The dating was somewhat uncertain due to the limitations of the excavation, but the clay level apparently sealed late 12th century pottery and was itself disturbed by 14th century pitting. There was a slight indication that the rampart turned to the north close to the western boundary of the site.

Trial excavations 1976

A programme of trial excavations was organized during 1976 in the northern part of the medieval city (Sawle 1977). These indicated that there was occupation on the north side of Bewell Street by the 11th century (Fig 7.1,) and on the north side of Commercial Street, near Bye Street Gate, by the late 11th or early 12th centuries' (Fig 7.M). Slight traces of occupation were seen underneath the tail of the stage 5 extended gravel rampart close to Wall Street and east of the Liberal Club site (p 68).

An attempt was made to establish a postulated continuation of the line of Broad Street to the north of All Saints' Church. In the trenches excavated, the deep cultivation of the soil had removed all the early levels but the general lack of features cut into the natural gravel suggested that the area was never used for other purposes. As a result it would seem unlikely that there was a pre-Conquest road continuing the line of Broad Street to the north.

Town Hall 1979 (Fig 7.N) (Shoesmith 1979)

An excavation for new foundations in the semi-basement of the Planning Annexe encountered material identical to the stage 2 turf and clay rampart.

The excavation was not deep enough to encounter pre-defensive occupation levels but established that post-defensive disturbance in this area was minimal.

Bishop's Palace gardens 1979 (Fig 7.P) (Shoesmith 1979)

Trial excavations, to establish the depth of strata in the area bounded by Gwynne Street and the river, demonstrated the existence of a large marshy area in this central part of the city. It is suggested that this was part of the 'King's Ditch' (p 88) which may originally have been a stream course. The marsh was filled in by the 16th century when the area became cultivated.

King Street 1980 (Fig 7.T) (Shoesmith 1980)

A trench, some 2.4m deep, was dug by contractors along King Street from its junction with Broad Street to that with Bridge Street. The excavation exposed a marshy area, at least 70m wide, in the lowest part of King Street opposite the junction with Aubrey Street. The lowest 0.7m of the fill consisted of a heavy, waterlogged black silt which continued below the bottom of the trench.

The black silt was covered by a series of large branches and small tree trunks laid at right angles to the line of King Street. The wood was in a good state of preservation and is considered to represent the earliest surface of this important east west road. Above the timber roadway were thin layers of silt and several layers of large stones and gravel which apparently represent further consolidation of the surface of the road. There was no dating evidence from any of the early periods examined.

These observations, taken together with those from the 1958 excavation (Fig 7.C) (p 8) and the 1979 trial work (Fig 7.P) mentioned above, point to the existence of a large marshy area immediately to the west of the cathedral and continuing in a broad band towards the Wye.

PART TWO : THE CONCLUSIONS

Correlation of periods and dating evidence

The overall integration of periods into one master scheme was considered undesirable because of the dating problems inherent in the earlier periods on several sites (p 27). Thus, in each microfiche excavation report, the sections concerning the dating of individual periods use the internal site evidence, although there is also an indication of the most probable d&e range even when this is dependent on external evidence. The Cantilupe Street site provides the most obvious example of this, because here the internal evidence for the dating of the defensive features was minimal. Probable date ranges for these features were established on the Victoria Street site and are used to provide date ranges for the Cantilupe Street defences.

In this section the dating methods used for the pre-Conquest features found in Hereford are examined and the reliability of the various parts of the absolute chronological framework is established.

Radiocarbon dates

Table 8 summarises the radiocarbon dates obtained mainly from pre-Conquest features on the sites under consideration,

The 'Age BP' is the conventional radiocarbon age of the sample based on the old (W F Libby) value of 5570 years for the half life. Stable isotope corrections are taken into account in calculating the 'Age BP except in the case of the Birmingham results where the correction is assumed to be zero. No account has been taken of bristlecone pine corrections to adjust the "Age BP' closer to the true calendar age. Most of the calibration curves suggest that the correction during the Saxon and early medieval periods is quite small and of the order of ten to fifteen years (info R L Otlet).

Dates are given as 'BP-1950' because they are the standard date used by the publishers of "Radiocarbon'. They are recorded as dates 'ad' using lower case characters, to emphasize that no corrections have been applied to adjust the result nearer to the true calendar date. The accuracy of the measurement is expressed as one standard deviation and is the error inherent to the measuring process. This means that 68% of all identical samples are expected to give results within the limits quoted and that 95% are expected to give resuits within two standard deviations. It does not allow for any contamination of the sample or any judgement based on archaeological information.

Table 8
Radiocarbon dates

Site	*Period*	*Context*	*Material*	*Age BP*	*BP- 1950*	*Date adjusted for more recent half life value*	*Reference (HAR--Harwell) (BIRM-Birmingham)*	*Notes*
Victoria Street	1	309D	Carbonised stake	1190±85	ad 760±85	*AD* 725±85	BIRM 111	
Victoria Street	5a	24a	Timber within rampart	1335±67	ad 61567	*AD 575±67*	BIRM 110	SW note below
Victoria Street	5a	317	Timber within rampart	700±220	ad 1250±220	—	BIRM 159 (Sample)	See note below
Victoria Street	5 a	317	Timber within rampart	1330±200	ad 620±200	–	BIRM 159 (Humate)	see note below
Berrington Street	1	F523	Burnt layer	–	–	–	HAR 955	Held in store for processing with small quantities counter Replaced by HAR 1375 below
Berrington Street	1	F219/270	Burnt layer	990±70	ad 960±70	*AD* 930±70	HAR 1375	Part of burnt layer L111
Cantilupe Street	2a/2b	583	Animal bone	950±70	ad 1000±70	*AD* 970±70	HAR 1620	Replaced HAR 1624 which was too small
Bewell House	1	380	Animal bone	870±80	ad 1080±80	*AD* 1055±80	HAR 1260	Replaced HAR 1317 which was too small
City Arms (Minor sites)	—	Timber H	Tip of wooden post	750±70	ad 1200±70	*AD* 1177±70	HAR 1735	

The most recent value of the half life is 5730±40 years and a correction allowing for this is obtained by multiplying the 'Age BP' by 1.03. This produces a date nearer to the true calendar date and is shown in the table and used in the text. Such dates are identified by the prefix *AD* in italic capitals.

The radiocarbon dates outlined in the table are subject to several problems associated with both the archaeological environment in which they were found and their collection. The following comments detail these problems and assess the reliability of the dates obtained.

Victoria Street period 1: context 309D (BIRM 111)

The sample was presumably either charcoal used as fuel or the carbonized remains of a small stake used in the construction of the grain drying oven. It is not likely to belong to wood appreciably older than the date of use of the oven and the date should therefore be considered as reliable.

The probabilities can be expressed as follows:

Date range	*Probability*
pre *AD* 555	*2.5%*
pre *AD* 640	16%
AD 640-810	*68%*
post *AD* 810	16%
post *AD* 895	*2.5%*

Victoria Street period 5a: contexts 24a and 317 (BIRM 110 and 159)

Context 24a consisted of the residue of a branch or timber about 0.1m scantling found within the turf and clay rampart of period 5a (Fig 26). The date range obtained from the sample is earlier than expected and is, within a reasonable degree of probability, earlier than the date range obtained from the underlying period 1 grain drying oven (BIRM 111).

Dates obtained from reasonably large timbers can be unreliable and may be substantially earlier than the date of final deposition. In the case of timbers used for rampart strengthening, it is quite likely that such timbers would have had some previous use, possibly as part of a neighbouring building or fence, rather than being cut especially for this use. The radiocarbon date is obviously then related to the date when the timber was taken from the tree rather than the date when it was used in the rampart. The collection procedure may also have produced a sample which would have given an earlier radiocarbon date than the date of deposition in the rampart. This is a result of the sample, a reasonably large branch, being compressed within the rampart such that both inner and outer parts of the timber were collected together. The radiocarbon date is that of the individual part of the specimen sampled. In a large branch there could be many years difference between the inner and outer sections of the timber. The sample used contained all parts of the timber and thus the radiocarbon date is somewhere between the date at which the branch started to grow and the date at which it was cut down, rather than the date when it was used in the rampart.

For these reasons, the date obtained from BIRM 110 can only be used to indicate that there is an 84% probability that the rampart was constructed after the beginning of the 6th century. However, we already know that the period 1 grain drying oven underneath the rampart has a 97.5% probability of being later than the mid 6th century and the BIRM 110 date serves only as a rather poor reinforcement of this figure.

BIRM 159 replaced B1RM 110 and as a result was not used until a year after it was collected. Although the sample was taken from a large timber within the period 5a rampart, on examination it was found to consist of a mixture of carbonized wood and soil. Normally the humate date is younger than that of the sample and, as there is no reasonable explanation for this anomaly, Professor Shotton suggests that both results should be disregarded.

Berrington Street period 1: context F219/270 (HAR 1375)

The sample was a combination of two different areas of burnt charcoal and daub (collectively L111) which had been kept for timber identification. The charcoal was from twigs or small branches, possibly of ash, and there was some contamination by modern rootlets. The samples were bagged and stored for about two years before being sent to Harwell. During this period the modern rootlets would have dried out and been difficult to see and remove by laboratory staff. This contamination would tend to produce a date younger than that of the construction of the period 1 buildings, assuming that the branches were used for this purpose.

The radiocarbon date is thus liable to be too young and should only be used to provide a *terminus post quem.* There is thus at least an 84% probability that the branches were cut before the end of the 10th century. The date may be confirmed when HAR 955 can be processed.

Cantilupe Street period 2a/2b: context 583 (HAR 1620)

Although this sample, which comprised animal bones, could have been deposited over a relatively long period of time, it was thought that contamination from earlier periods was unlikely and it may therefore be argued that the date obtained can be used to show that there is a reasonable probability that the Saxon defensive stone wall was built after the beginning of the 9th century.

The most recent value for the half life gives an approximation to the true calendar date of *AD 970±70,* which, if it is assumed that the bones are contemporary with their context, refers to the period between the date of construction of the stage 3 wall and the date of its disuse, but before the final collapse.

Date range	*Probability*
pre *AD* 830	*2.5%*
pre *AD* 900	16%
AD 900- 1040	*68%*
post *AD* 1040	16%
post *AD* 1110	*2.5%*

Accepting that the animals, from which the bones came, died after the construction of wall 560, there is an

84% probability that the was built before the mid 11th century.

The wall could have been built at any time before the disposal of the bones but it is considered unlikely that a poorly constructed wall such as this, with the considerable pressure of the stage 2 rampart behind it, would have survived for more than 100 years without many evident signs of repair work. The build-up on the berm, which included the animal bones, would have had to take place during this period and, as there is an 84% probability that the bones were deposited after *AD* 900, then there is a reasonable probability that the wall was built after the beginning of the 9th century.

Bewell House period 1: context 380 (HAR 1260)

The animal bone used in this sample came from the silt which filled ditch 380. The ditch was eventually sealed by the period 2 (stage 5) gravel rampart. The radiocarbon date for bone samples such as this centres on an average of the various dates of death of the animals which make up the sample. In this case some of the bones may have come from the surrounding soils as part of the material making up the ditch silt, and may thus have been deposited at an earlier date than either the cutting or silting of the ditch.

Date range	*Probability*
pre *AD* 895	2.5%
pre *AD 975*	16%
AD 975-1135	68%
post *AD* 1135	16%
post *AD* 1215	2.5%

There is an 84% probability that the 'average' date of death of the animals which made up the sample was after *AD 975*. There is thus a greater probability that the stage 5 gravel rampart, which overlay ditch 380, was constructed after this date. Allowing for residual bone and time for complete silting of the ditch, this radiocarbon date indicates, with a reasonable degree of probability, that the stage 5 gravel rampart was constructed after the beginning of the 11th century.

Minor sites – City Arms: timber H (HAR 1735)

The sample was taken from the tip of a pointed wooden post which was square in cross-section with sides of about 0.15m. For the reasons mentioned earlier (p 71) the radiocarbon date is liable to be earlier than the date of use. Using one standard deviation there is thus a high level of probability that the timber structure was not in use before the beginning of the 10th century.

Datable finds

The only significant coin found in a pre-Conquest context was one of Alfred (Vol 3, coin 4) found on Berrington Street site 1. A reasonable time bracket for the loss of this coin would be c AD 887-925. It was found in layer 60 which overlay the traces of the period 1 timber buildings and was below layer 58 which contained the earliest pottery. The coin could have been lost during the post-occupation cultivation phase, during the period occupation, or just possibly at a date earlier than the period 1 occupation, although the latter is not considered likely. The coin cannot be used to provide a date either when building A was in use or when it was destroyed. The position in layer 60 is important however, because this is the latest context on the site where pottery was absent. If it is accepted that the coin was lost in layer 60 by the end of the first quarter of the 10th century, then it can be suggested that pottery was not in common use in Hereford before that date. However, the coin could have been deposited at any date after its manufacture and thus it only gives a date on or after which layer 60 was deposited. The coin cannot be used to provide a date for the commencement of the common use of pottery because of the several deposition possibilities.

Other objects which are significant in the dating of the pre-Conquest defensive and occupation periods in Hereford include the pottery and the few small finds. Most of the latter do not have a precise date range and in many cases are themselves dated by association with their contexts. However, taken as a whole, they tend to reinforce the dating sequence which is suggested.

There is a more or less total lack of pottery in the earliest occupation periods in Hereford, and it is only during the later Saxon periods that it is possible to use pottery to provide dating evidence and to relate one site to another. Apart from isolated sherds, which in some cases may have been associated with unseen later features. the earliest pottery, of fabrics G1 and D1, occurs at some time after the stage 3 addition of stone walls to the defences and during the period 2a occupation of site 4 on Berrington Street. A rapid influx of pottery into the region during the early to mid 10th century is suggested by the external evidence (Vol 3).

The chronological framework

The direct dating evidence outlined earlier in this section can be used to provide a chronological framework for the pre-Conquest features in Hereford, providing that reasonable estimates are made for the likely length of life of various structures.

The proposed constructional sequence is shown in Table 9.

The grain drying ovens

The earliest occupation level found during the excavations on the western side of the city comprises the grain drying ovens of Victoria Street period 1. There was no equivalent level on the Berrington Street sites 1-3 and no relationship could be established between the ovens and the fragmentary remains of houses which fronted Herrington Street (site 4: period 1) which appeared to be of at least two constructional phases. The date of construction of the grain dryers is indicated by the radiocarbon date from a burnt stake within the fill of oven 309, which is centred on *AD* 725. Assuming that the ovens were only in operation for a few seasons, there is a 68% probability that they were in use at some time between the mid 7th and the end of the 8th century.

Table 9
Constructional sequence,

Proposed constructional date range	*SITES*			*Defensive stage*
	Victoria Street	*Cantilupe Street*	*Berrington Street*	
Mid 7th to 8th century	*PERIOD 1* Grain drying ovens (C14-*AD* 725±85)			
Late 8th century	*PERIODS 2 & 3* Timber building		*PERIOD 1* Timber buildings (C14-*AD* 930±70)	
Mid to late 9th century	*PERIOD 4* Gravel rampart			*STAGE 1*
Late 9th to early 10th century	*PERIOD 5a* Turf & clay rampart	*PERIOD 1* Turf & clay rampart		*STAGE 2*
Early to mid 10th century	*PERIOD 5b* Stone walls added	*PERIOD 2a* Stone walls added	*PERIOD 2a* Timber buildings	*STAGE 3*
Mid to late 10th century		*PERIOD 2b* Repair to walls (C14- bone on berm: *AD 970±70)*		
Mid 10th century and later– gradual decay	*PERIOD 5c* Decay of defences	*PERIOD 3a* Decay of defences	*PERIOD 26* Timber buildings	*STAGE 4*

The early timber buildings

The earliest buildings found in Hereford are those of period 1 at Berrington Street and period 2 at Victoria Street (Figs 71 and 21). At both sites the buildings were constructed around a timber framework consisting of posts sunk into the ground. Two of the buildings (Victoria Street and Berrington Street building B) had indications of at least one rebuilding phase, and there may have been more complex reconstructions of the buildings which fronted Berrington Street (buildings E, F, and G).

Timber framed buildings using posts about 0.3m in diameter have been found in local Iron Age hill forts at Credenhill, Croft Ambrey and Midsummer Hill. On these sites it is estimated that such buildings lasted for between 75 and 90 years (Stanford 1974, 225). The Hereford buildings were built on slightly less massive posts and, if the Iron Age calculations are accepted and can be transferred to a Saxon context, a life span of some 50 to 60 years would appear to be most likely. The evidence for at least one rebuilding phase suggests that the length of the occupation period associated with the timber buildings should be of the order of 100 years or so.

The radiocarbon measurement (HAR 1375) was obtained from charcoal which is assumed to be from burnt wattling, and thus the date should be related to the time of construction (or reconstruction if there was more than one phase) of the building. It has been shown that it is probable that these branches were in use before the end of the 10th century.

The building remains were separated from the first layer where pottery has been found to be in common use (Victoria Street, period 5c) by the first three stages of rampart construction. The advent of pottery is considered to be not earlier than AD 950 and the three stages of rampart construction probably encompassed a period of about 100 years (p 74). The evidence suggests that the buildings were destroyed by the middle of the 9th century and therefore a construction date in the second half of the 8th century is likely. This assumes that the defensive sequence followed directly after the buildings had been demolished. If this was not the case then the buildings could have been constructed at a much earlier date, immediately after the grain drying ovens went out of use.

If the reasoning above is accepted then the coin of Alfred, found in Berrington Street layer 60, was lost after the buildings had been destroyed and during one of the stages of defensive construction when the ground immediately to the east of the defensive line was under cultivation.

The defensive sequence

The pottery found in the decay levels on the rear of the stage 3 defensive works indicates that the defences were in a state of disuse by the late 10th century (p 80). The decay levels containing this pottery were all apparently later than the construction of the stage 3 stone walls, and it can therefore be assumed that the stage 3 improvements to the stage 2 turf and clay rampart took place before the mid 10th century.

The method of construction of the front stone wall and the pressure of the rampart behind it would have made it liable to collapse, and even though repairs took place (Cantilupe Street, period 2b) the period of use of the stage 3 defences was unlikely to have been longer than 50 years. A construction date in the early part of the 10th century is the most likely. This is in agreement with the radiocarbon date obtained from bone accumulating on the berm at Cantilupe Street (HAR 1620) which gave a date centred in the latter half of the 10th century for the apparent disuse of the stage 3 defensive works.

The stage 2 turf rampart was fronted with timberwork which included vertical timbers of up to 0.25m scantling.

Such posts could have lasted perhaps 60 or 70 years, but the pressure of the rampart material behind them, even if one allows for some replacement of the timbers, makes a maximum lifespan of about half a century most likely. If this is accepted then the stage 2 works, which include the turf and clay rampart, would have been constructed in the late 9th or very early 10th century.

The stage 1 gravel rampart, which was replaced by the turf and clay rampart on the western side of the city, had suffered little weathering although there was a slight indication of a turf line on the tail. A total period of use of less than 50 years would seem most likely, which suggests a constructional date in the middle of the 9th century.

The lack of significant decay levels between stages 1 and 2 and stages 2 and 3 of the defensive sequence suggests a continuity of the defensive functions and reinforces the indicated dates for the periods of use given above. It is thus likely that the total length of time between the commencement of the construction of stage 1 and the beginning of the decay of stage 3 was of the order of 100 years. It could perhaps have been as long as 200 years or as short as 50 years but these should be considered as extreme limits.

The later timber buildings

The buildings of Berrington Street period 2a, which replaced those of period 1 on site 4, were of at least two phases, and during the life of these buildings pottery came into common use. The period 2a buildings are thus unlikely to have been constructed earlier than the first half of the 10th century. If continuity of occupation is accepted on this part of the site then the buildings described as period 1 on site 4 should have continued in use until the early part of the 10th century with a total life of perhaps a century and a half for the various phases.

The period 2 buildings were replaced several times and these phases are dated by the gradual evolution of the pottery. The whole period lasted from about the first half of the 10th century until the early 13th century, a length of time of some 200 years.

The defensive sequence

Introduction

The information on the defences and the defensive sequence, which has been detailed in the individual excavations recorded fully in the microfiche report, is collected together in this chapter. Previous observations and excavations are used wherever they provide additional information. The six main stages of development are shown in Table 10, with an indication of the area included and the probable date range for construction.

Table 10
Stages of development

Stage	*Description*	*Area included*	*Probable date range for construction*
1	Gravel rampart, probably with an external ditch, only seen on the western side of the city.	Not known (may be 13 hectares)	The middle part of the 9th century
2	Turf and clay rampart with timber face	21 hectares	Late 9th to early 10th centuries
3	Addition of stonework to stage 2	21 hectares	First half of 10th century
4	Disuse of stage 3 and traces of refortification works on the same alignment	21 hectares	Stage 4 includes all works between the mid 10th and the late 12th centuries
5	Gravel rampart which includes an additional area to the north of the town and probably an area to the south of the river	38 hectares (plus 7 hectares to the south of the river)	Late in the 12th century
6	The medieval wall, gates and bastions and later repair works	38 hectares	The middle part of the 13th century and later

Each stage of development is cross-referenced to all the individual excavations where that stage has been identified. The details of the construction and any alterations and additions to the work are described and the eventual disuse or demolition is considered. This is followed by a discussion of the original course and area enclosed and a description of the surviving remains of the feature. The section on each stage is concluded by an assessment of the date range, a consideration of the defensive work within the historical framework and a comment on similar defensive works in other parts of the country.

The sites which provided the most important information about the defensive sequence were Victoria Street and Cantilupe Street. In the former case, the imposition of the defences on a previously occupied area of the city is apparent (Fig 129); whilst in the latter the stage 2 defences were constructed on ground with no indication of earlier use (Fig. 130).

The stage 1 gravel rampart, which has only been examined on the western side of the town, is the earliest defensive feature found which includes within its boundaries a major part of the city. It is possible that there were earlier defences or large property enclosures, which have not yet been identified, particularly around the two religious settlements on the gravel terrace close to the river bank.

The stage 1 gravel bank on the western side of the city sealed a small bank and ditch (Victoria Street, period 3; p 31) which is considered to be a property boundary of the late 8th or 9th century. The ditch was about 1.2m wide and 0.5m deep, with the bank, which was on the east of the ditch, apparently comprising only the material dug from the ditch. The bank had become rounded and slight and the ditch full of silt before the stage 1 gravel rampart was built. There were no indications of timberwork associated with this Feature but even if light timbering did exist the defensive potential would have been minimal.

Such posts could have lasted perhaps 60 or 70 years, but the pressure of the rampart material behind them, even if one allows for some replacement of the timbers, makes a maximum lifespan of about half a century most likely. If this is accepted then the stage 2 works, which include the turf and clay rampart, would have been constructed in the late 9th or very early 10th century.

The stage 1 gravel rampart, which was replaced by the turf and clay rampart on the western side of the city, had suffered little weathering although there was a slight indication of a turf line on the tail. A total period of use of less than 50 years would seem most likely, which suggests a constructional date in the middle of the 9th century.

The lack of significant decay levels between stages 1 and 2 and stages 2 and 3 of the defensive sequence suggests a continuity of the defensive functions and reinforces the indicated dates for the periods of use given above. It is thus likely that the total length of time between the commencement of the construction of stage 1 and the beginning of the decay of stage 3 was of the order of 100 years. It could perhaps have been as long as 200 years or as short as 50 years but these should be considered as extreme limits.

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The buildings of Berrington Street period 2a, which replaced those of period 1 on site 4, were of at least two phases, and during the life of these buildings pottery came into common use. The period 2a buildings are thus unlikely to have been constructed earlier than the first half of the 10th century. If continuity of occupation is accepted on this part of the site then the buildings described as period 1 on site 4 should have continued in use until the early part of the 10th century with a total life of perhaps a century and a half for the various phases.

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6	The medieval wall, gates and bastions and later repair works	38 hectares	The middle part of the 13th century and later

Each stage of development is cross-referenced to all the individual excavations where that stage has been identified. The details of the construction and any alterations and additions to the work are described and the eventual disuse or demolition is considered. This is followed by a discussion of the original course and area enclosed and a description of the surviving remains of the feature. The section on each stage is concluded by an assessment of the date range, a consideration of the defensive work within the historical framework and a comment on similar defensive works in other parts of the country.

The sites which provided the most important information about the defensive sequence were Victoria Street and Cantilupe Street. In the former case, the imposition of the defences on a previously occupied area of the city is apparent (Fig 129); whilst in the latter the stage 2 defences were constructed on ground with no indication of earlier use (Fig. 130).

The stage 1 gravel rampart, which has only been examined on the western side of the town, is the earliest defensive feature found which includes within its boundaries a major part of the city. It is possible that there were earlier defences or large property enclosures, which have not yet been identified, particularly around the two religious settlements on the gravel terrace close to the river bank.

The stage 1 gravel bank on the western side of the city sealed a small bank and ditch (Victoria Street, period 3; p 31) which is considered to be a property boundary of the late 8th or 9th century. The ditch was about 1.2m wide and 0.5m deep, with the bank, which was on the east of the ditch, apparently comprising only the material dug from the ditch. The bank had become rounded and slight and the ditch full of silt before the stage 1 gravel rampart was built. There were no indications of timberwork associated with this Feature but even if light timbering did exist the defensive potential would have been minimal.

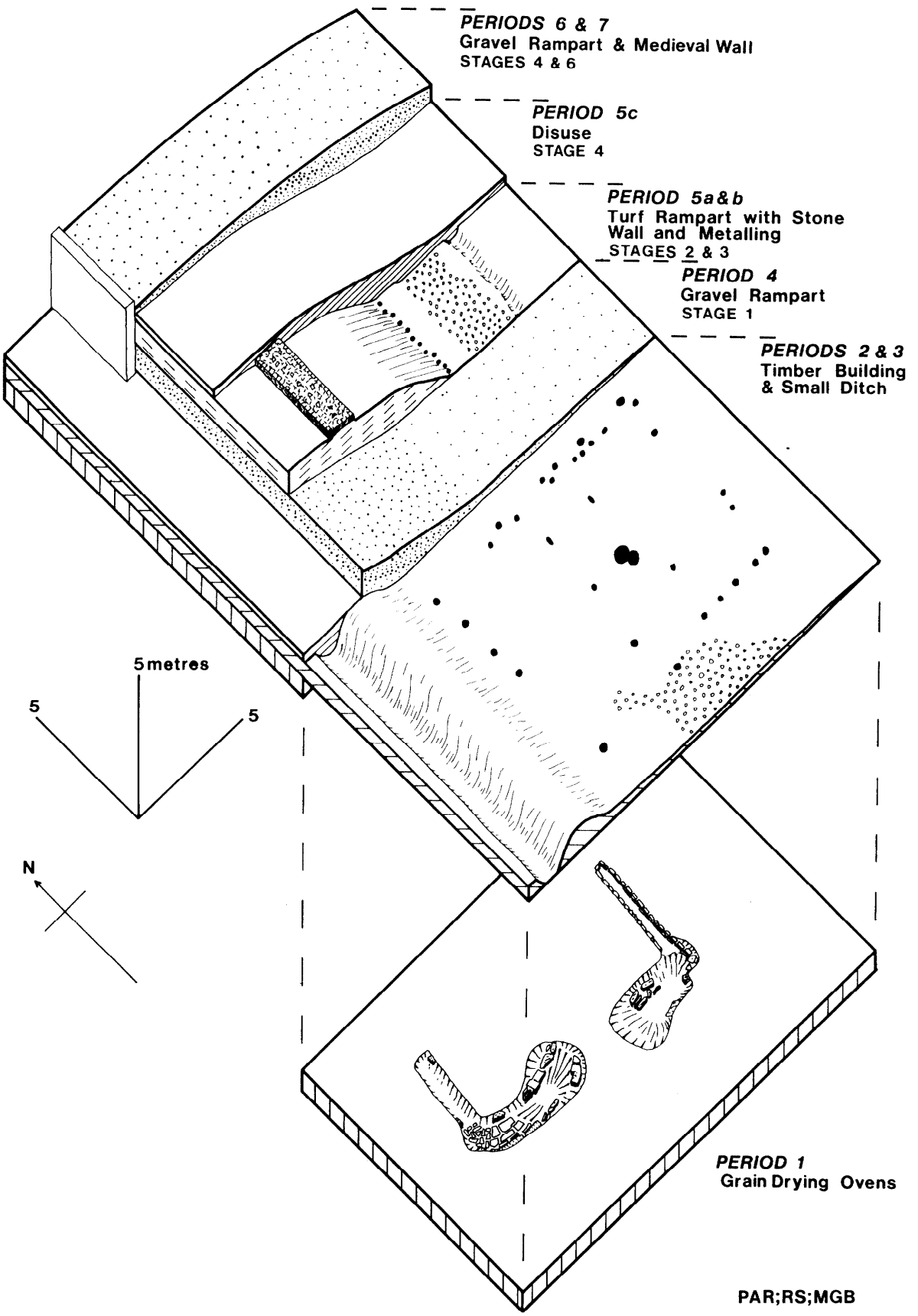

Fig 129 Victoria Street. Isometric projection of the occupation and defensive periods

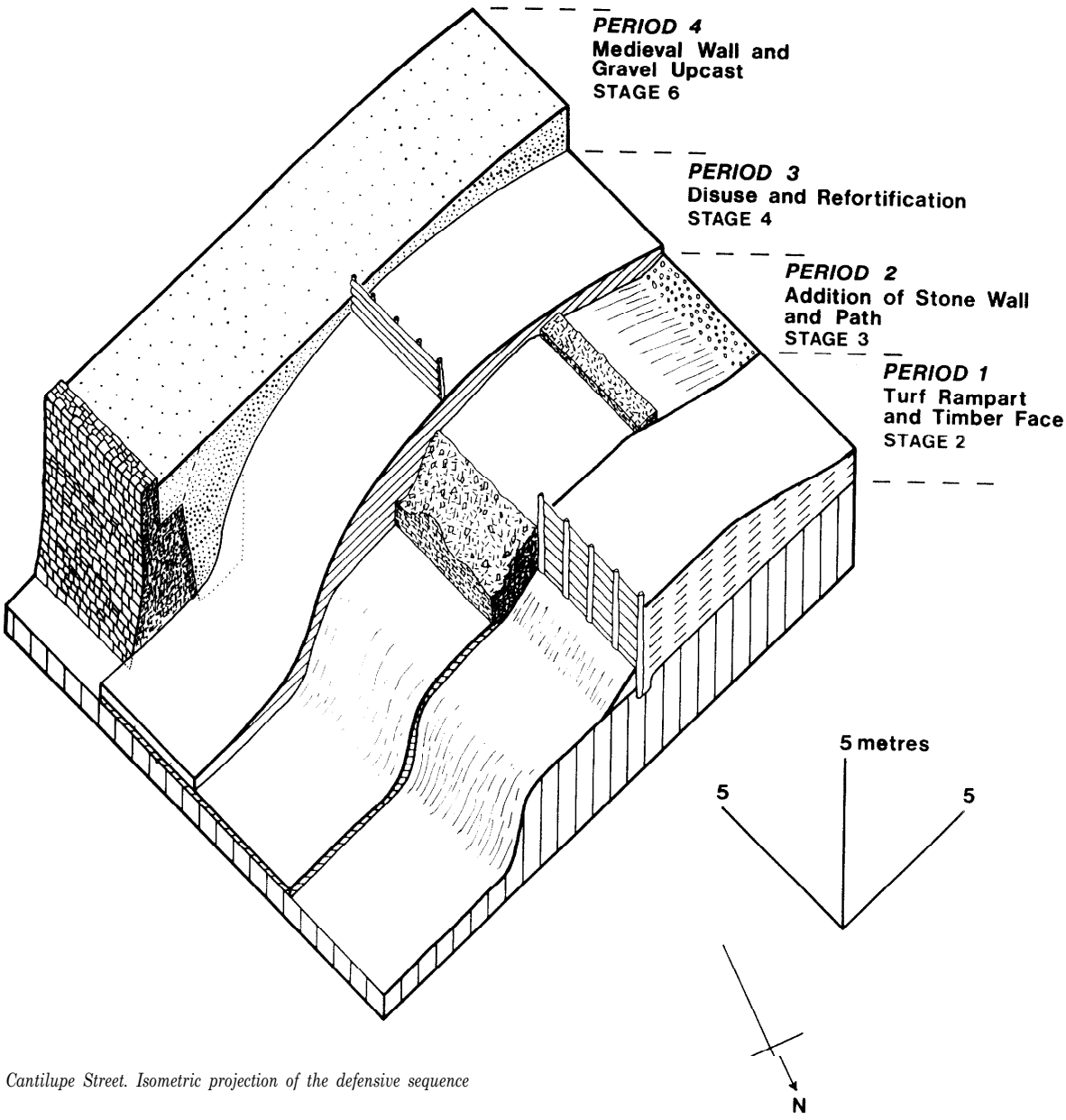

Fig 130 Cantilupe Street. Isometric projection of the defensive sequence

The bank and ditch, which was identified in separate excavations for a minimum length of about 66m, apparently determined the line of the western defences of the city.

Stage 1 — The gravel rampart

Victoria Street-period 4	P 34
Subway sections	P 35
Friars' Gate	p 68
The western rampart	p 10 (Shoesmith 1967)

The gravel rampart has only been seen on the western side of the city but at the subway sections it was established that the feature turned to the east just north of West Street.

The rampart was constructed of a loose pink gravel intermixed with clay layers. Only the tail of this defensive work survived along the western side of the city; the crest and front parts having been removed when the medieval wall was inserted. It is presumed that the material used to build the rampart came from an external ditch which may have been re-used during stage 2. This ditch, or the stage 2 re-cut, was present in several of the subway sections.

The original width and height of the bank can be estimated if it is assumed that the stage 2 defences sealed the gravel bank completely and that the original face was not cut away. It is perhaps unlikely that this face would have been cut back when the stage 2 defences were built, as there was no trace of the spoil which would have resulted from this work either within or under the material of the stage 2 defences. Transferring the known dimensions of the stage 2 defences from Cantilupe Street to Victoria Street, the stage 1 gravel rampart could be up to 8.5m wide. If it is assumed that there was a vertical timber or stone face to this rampart, then extending the line of the existing slope would give a maximum height at the front of *c* 2.0m. Alternatively, if the defence was just a dump rampart, presumably with a fence along the top, then the total height of the bank could not have been more than *c* 1.5m. The ditch, as seen in the subway sections, was in excess of 10m wide and about 1.5m deep. This would have produced a quantity of gravel of the

same order as that required for the suggested dimensions of the rampart. It may be that the roadway described as part of Berrington Street period 1 (p 48) continued in use as an intra-defensive road.

There was no indication of any timber work directly associated with the gravel rampart although a slot, sealed under stage 2 rampart material in the subway sections (feature 170, Fig 32:M1.E2), could have been an emplacement for timberwork and may belong to this stage of the defensive works.

There was no evidence for any alterations or reconstructions of the stage 1 defensive works. On the western side of the city, the tail of the rampart (and probably the front part and the crest) was sealed by the material which comprised the stage 2 defences. There was, however, some material which had slipped on to and behind the tail of the rampart, and in one section (Fig 27:M1.D2) the tail was covered with a dark brown soil layer.

The stage 1 defensive works have only been definitely identified on the western side of the city between Friars' Gate to the south and the subway sections to the north, where an eastern turn of the defences was established. Only the tail of the rampart was visible in these sections.

It is assumed that the alignment of this defensive work continued towards the river to the south of Friars' Gate, where it may still survive as part of the existing bank behind the stage 6 medieval city wall. Indeed, the whole width of the defence may survive along this stretch, because this section of the medieval wall was built some 6m to the west of the line of the wall to the north of Friars' Gate (Fig 13) and may thus have been constructed as a face to the earlier defences rather than being cut into them. Close to the river, below the edge of the gravel terrace, there are no traces of any embankment which could have reflected the line of the stage 1 defences (Fig 7). The original course may either have continued to the river and been totally removed at a later date, or it could have followed the line of the edge of the gravel terrace to the east.

East of the subway sections there have been several watching briefs but no controlled excavations (City Arms; p 68; Shoesmith 1968, 1971). The remains of the defensive ramparts were badly disturbed and no part could be positively identified as belonging to stage 1. There is, however, no reason to suppose that it was not originally present along this alignment or that traces of it may not eventually be found in less disturbed areas.

To the east of the city, at the Cantilupe Street site, the gravel rampart was not present on the same alignment as the stage 2 defences and it is assumed that the stage 1 defences turned towards the river at a point somewhere to the west of this site. It has been suggested that the change in alignment of the stage 2 defences, at the junction of East Street, Offa Street and St John Street, represents this point where the stage 1 defences turn to the south (Shoesmith 1974) but there are no visible traces to confirm this hypothesis.

The stage 1 defensive ditch was totally removed on the western side of the city by the medieval stage 6 ditch, and on the northern side it was re-used as part of the stage 2 defences. It is only on the east of the city that the ditch may eventually be found in its original form.

The stage 1 defences, as described above, would have encompassed an area of about 13 hectares (32 acres) (Fig 138). This would have included the cathedral precinct and the area which is thought to be the grid

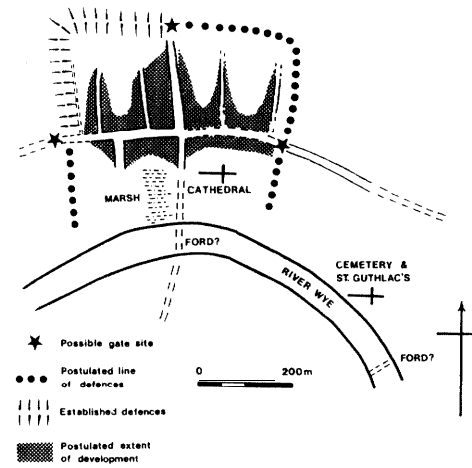

Fig 131 The defences, stage 1. The plan shows the postulated circuit and gates and the suggested extent of the built-up area in the mid 9th century

pattern of streets (p 92). It would have excluded St Guthlac's monastic site and the city cemetery which surrounded it (see Vol 1).

The positions of the gates through the stage 1 defences have not been identified. It is possible that one of them, at the junction of the western defensive line and a line continuing the eastern part of King Street to the west, was represented by a group of postholes found at Berrington Street site 1 (p 49) but this could not be confirmed. It is assumed that there was a gate at the northern end of Broad Street and there may have been an east gate at some point along the line of Castle Street (Fig 131).

There is no direct evidence to date the first stage of the defensive sequence in Hereford. However, date ranges for the construction and use have been calculated using all the available evidence (p 74), and there is a reasonable degree of probability that this defence was built during the middle part of the 9th century and that it lasted for perhaps 50 years. It is unlikely to have been built at a later date than this but could have been earlier.

There are no comparative examples of urban defence works of this date and nature so far identified in the Mercian sub-kingdom. The possible time span for the date of construction does not allow the attribution of this defensive work to a particular event or to the reign of an individual king. The likelihood is that it is of pre-Alfredian date and it could be as early as the reign of Offa.

Stage 2 — The turf and clay rampart with timber face

Victoria Street-period 5A	p 34
Subway sections	p 35
Cantilupe Street-period 1	p 36
Berrington Street	p 53
Friars' Gate	p 68
City Arms	p 68
Town Hall	p 69
The western rampart	p 10 (Shoesmith 1967)
The King's Head site	p 10 (Shoesmith 1968)
Hereford City excavations 1970 (Northern defence line)	p 10 (Shoesmith 1971)

Fig 132 Cantilupe Street. The reconstructed stage 2 defences which now act as a garden fence separating the remaining part of the garden of 5 Cantilupe Street from the area open to public view

The yellowish, silty, gravel-free material of this rampart is easy to recognise and it has now been identified on sufficient sites to establish, with a reasonable degree of certainty, the course of the stage 2 defences for most of the circuit around the city. The rampart was examined in detail at the Victoria Street and Cantilupe Street sites (Figs 129 and 130).

The rampart was built from a silty clay material which was apparently brought to the site from a more marshy area in the form of large turf-covered sods. The area of Widemarsh, just to the north of the city, may have provided a suitable source (Fig 3).

The rampart was faced with timber and the first stage in the construction consisted of a line of circular posts, up to 0.25m in diameter, which were set into holes about 0.6m deep, and 1.0m apart measured from the centres. (It may be that the slot, mentioned in stage 1 (p 77), and seen in the subway sections, was part of the stage 2 defence. If this is so, there was a different design of timber face at the north-western corner of the city and if the position of the ditch is correct, the berm at that point would have been much narrower than at Cantilupe Street).

The turves forming the base of the rampart were laid behind the timber face for a total width of about 10m. As successive layers of turves were laid on this base, split logs were placed horizontally between the rampart and the vertical posts with the split side towards the rampart. These timbers, which were apparently held in place by the pressure of the rampart, were of about 0.25m scantling (Fig 132).

Within the rampart the layers of turves were interleaved at various levels with horizontal timbers. They were laid across the rampart with the front end slightly higher than the rear and consisted of branches of about 0.15 to 0.2m scantling, apparently chosen for straightness, although the occasional stub of a side branch could be seen.

The rampart, when complete, is estimated to have been about 2.5m high at the front. It is assumed that the timber face was carried above this level to provide an efficient breast work for the defenders, and thus the apparent height of the whole defence to an attacker would have been about 4m. Behind the breast-work, the top of the rampart would have been flat with either a gradually sloping tail or one made of stepped turves (Fig 133).

Traces of vertical timbers were found within the tail of the rampart at Victoria Street and may have been present at Cantilupe Street. They could represent a low timber fence, which would have helped to prevent the erosion of the edge of the flat platform or alternatively may have provided the rear foundation for the joists of a timber floor covering the platform.

The turf and clay rampart was built on top of the stage 1 rampart on the west of the city but was built on previously undisturbed flat ground at the Cantilupe Street site to the east.

There was no conclusive evidence for the presence of an external ditch although it can be assumed that the ditch which was considered to be a feature of the stage 1 defences, on the western and probably the northern alignments, was still present when the stage 2 defences were constructed. A ditch was present at the Cantilupe Street site during stage 3 and may have been dug during stage 2. The width and depth are unknown, but the cut for the ditch was 5m in front of the timber face of the stage 2 defences.

There is some evidence to suggest that an intra-mural road may have been associated with this stage of the defence on the western side of the city, but such a road could equally have belonged to stage 3 and it is under that heading that it is described. However, it should be noted that the road replaced an earlier one on a similar alignment, which was associated with the Berrington

Street period 1 houses (p 48), and it would seem likely that one or the other of these roads was being used in association with the stage 2 defensive works.

At the Cantilupe Street site the evidence suggested that the timber face started to lean outwards due to the pressure of the rampart material and that extra vertical timbers were inserted between the existing ones to strengthen the face. The one posthole examined, which was considered to be part of this repair, was not set as deep into the ground as the original ones and the timber was inserted so as to slope inwards towards the top.

The turf and clay rampart has been identified to the west, north and east of the city and the full circuit can be postulated (Fig 134). To the west of the city and to the south of Friars' Gate it survives as part of the bank behind the medieval wall. It is possible that the whole width of the rampart, including the face, may exist along this stretch. Below the gravel terrace and close to the river there are no traces of defensive works whatsoever, and it may be that the defences of stages 1-3 all followed the upper edge of the terrace to the east. For most of the distance between Friars' Gate and West Street the rear half of the stage 2 defensive work survives as part of the bank behind the medieval wall. The turf and clay rampart was identified turning east at the subway sections.

The rampart has been identified during several watching briefs immediately to the north and underneath the line of West Street and East Street. Although damage by later features was severe on many sites, the rampart material exposed in an excavation underneath one of the buildings on the south-western side of the Town Hall yard (Shoesmith 1979) and also in a trench in the middle of St Ethelbert's Street, opposite the end of East Street (personal observation), showed little sign of later disturbance. The evidence suggests that West Street and East Street are aligned with the tail of the rampart and that the position of the crest is underneath the properties on the north of these streets. The ditch along this section is discussed as part of stage 4.

South-east of St Ethelbert's Street, the turf and clay rampart forms the back gardens of houses which face on to Cantilupe Street. This stretch is one of the best surviving examples of secular Saxon defensive work in the country. The foundations of the stage 6 medieval city wall were built, in part at least, within the ditch which may be associated with the stage 2 defences. This wall now comprises the property boundary at the rear of the Cantilupe Street gardens.

The turf and clay rampart is considered to turn south and eventually south-west under the properties at the south-eastern end of Cantilupe Street. It is then thought to cross Cantilupe Street and become part of the surviving embankment on the south-eastern side of Castle Green, the bailey of Hereford Castle. Traces of material of a similar nature to that of the rampart were seen during river bank revetment works in 1973 (personal observation). It may be that preservation to the same standard as that in the Cantilupe Street gardens also occurs underneath the bailey embankment.

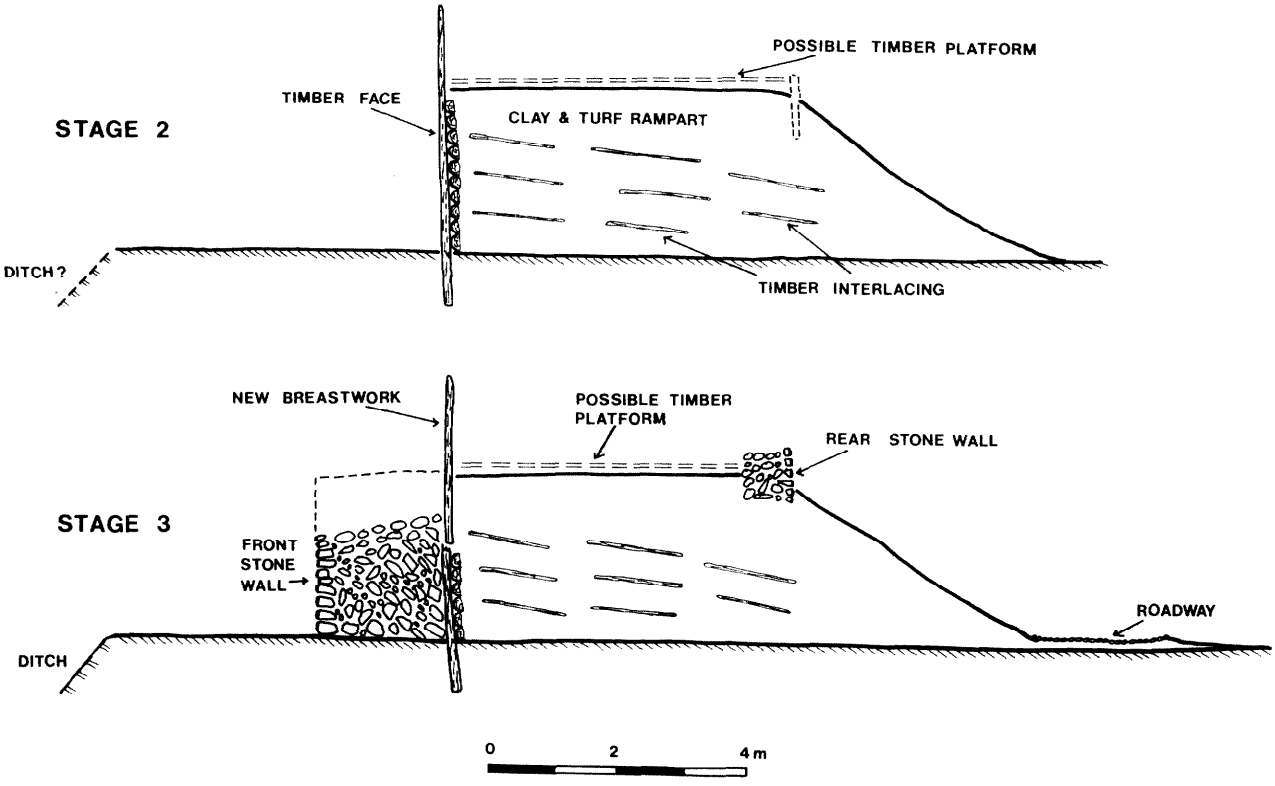

Fig 133 Idealized cross-sections of the defences of stages 2 and 3

It is unlikely that any part of the postulated defensive ditch survives in its original condition. To the west and east of the city it was cut away when the medieval ditch was dug and to the north it continued in use as an open sewer after its defensive function had lapsed (p 68).

The defended area of the city was extended to the east when the stage 2 circuit was built. The extension included St Guthlac's monastery and the city graveyard (see Vol 1), thus increasing the area within the defences to 21 hectares (52 acres), an increase of some 62% on the estimated area enclosed by stage 1 (Fig 138).

It is assumed that Norgate, which is shown as a construction at the northern end of Broad Street on maps as late as 1757 (Fig 5), is the position of the main north gate into the Saxon city. The road was eventually widened in 1787 (Watkins 1920, 253). In 1905, Pilley observed piers which he considered to be those of the original stone arches which took the road over the ditch at this point (Pilley MSS, 2272, 222). The west and east gates are thought to be at the junctions of the defensive lines with the assumed principal west-east road now represented in parts by King Street and Castle Street. Thus the west gate would have been underneath, or slightly to the north of, the site of the medieval Friars' Gate, and the east gate would have been close to the point where the south-eastern end of Cantilupe Street now crosses the defensive line (Fig 134). There is no evidence for any other gates although such have been suggested at the northern ends of both Church Street and St Ethelbert's Street.

There is no direct evidence to date the construction of the stage 2 defensive circuit, but it has been shown that there is a reasonable degree of probability that the defence was built late in the 9th or early in the 10th century and that it had a maximum life of 50 years before the stage 3 improvements were made.

The stage 2 defences are of similar general design to those of the Burghal Hidage towns such as Wallingford, Cricklade and Wareham (Radford 1970) which were probably all built before AD 892 (Stenton 1947, 265). In these cases there is some evidence for the use of turf sods as part of the rampart and there is a strong presumption that the original face was of timber. At Lydford in Devon, the rampart was constructed of alternate layers of turves and saplings or branches over a foundation of horizontal planks laid on the original ground surface. There were traces of substantial u right squared timbers within the bank and the original face was probably of timber (Addyman 1966, 168-9). It would seem reasonable to include the stage 2 defensive fortifications of Hereford in the same Alfredian context as these West Saxon burhs (Brooks 1964; Biddle 1975, 27). Additionally the Worcester charter, which is dated to AD 884-901, indicates that Worcester was fortified about this time presumably using the same methods as other Burghal Hidage towns. As 'the core of English Mercia in the 9th century was formed by the triangle of Gloucester, Worcester, and Hereford' it can be suggested that the refortification of Hereford was likely to take place at the same time as Worcester was fortified. If this is accepted then the stage 2 defensive works should be attributed to the last few years of the 9th century (Radford 1978).

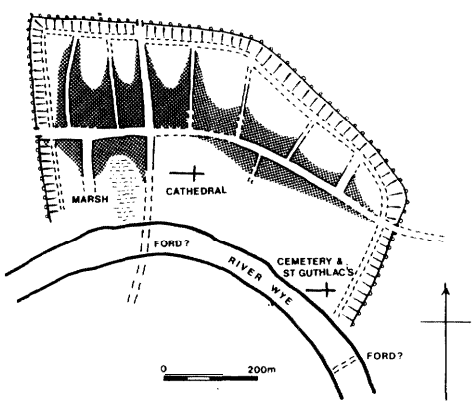

Fig 134 The defences, stage 2. The plan shows the postulated circuit and gates and the suggested extent of the built-up area at the end of the 9th century

Stage 3 —Addition of stone framework to the stage 2 defences

Victoria Street-period 5b	p 34
Cantilupe Street-period 2a	p 38
Berrington Street	p 53
The western rampart	p 10 (Shoesmith 1967)

The stage 2 defensive work would only have a limited life, even with some replacement of the timber face. Eventually the whole defence was improved with the addition of a stone revetment on the berm in front of the timber face and a small wall was added to the rear of the flat platform. Probably at the same time a metalled road was laid along the tail of the rampart. The front stone wall has only been identified at the Cantilupe Street site but the small wall on the rear of the rampart crest was present at Cantilupe Street and Victoria Street and the intra-mural road was identified at all the sites listed above.

The front wall in the Cantilupe Street site was apparently built in parts (Fig 42). The two constructional breaks found within the width excavated could indicate that the wall was built in sections and poorly bonded, or that it started as individual stretches of buttressing against the areas of timberwork most likely to collapse, or even that the space between the two breaks may have originally held a wooden tower. The wall was not dismantled during the excavation so the original cause of the constructional breaks remains uncertain.

The surviving wall is almost 2m wide with a maximum height of 1.6m at the front and 2m against the timber faced rampart. It was built of random stone, poorly coursed along the face, although there was some evidence of re-used squared blocks especially in the lower courses. Some mortar was used in the construction but this had mostly washed out and traces were found in the build-up layers on the berm. The level of the berm when the wall was constructed was indicated by the presence of small mortar mixing pits.

The wall could not have stood to any great height and was dependent on the turf and clay rampart for its defensive strength. Traces of postholes to the rear of the stone wall and above the remains of the stage 2 timberwork suggest that a new timber breastwork was built. If this was the case then the stone wall need not have been of any greater height than the postulated 2.5m of the stage 2 turf and clay rampart (Fig 133).

Even so, the indicated positioning of the breastwork, some 2m behind the defensive face, would have enabled attackers to hide with impunity close to the face of the wall.

Under these circumstances, towers constructed as an integral part of the wall or timber platforms projecting over the top of the wall would have been a logical and necessary part of the defensive work and may provide an explanation for the apparent breaks in the face of the wall.

The rear stone wall was observed at both the Victoria Street and Cantilupe Street sites and in the former case contained some reused Roman masonry. At Cantilupe Street it was built on a platform cut partly into the rear of the flat top of the stage 2 rampart and partly into the tail. The maximum height of this wall as excavated was 0.8m with a width of approximately 0.7m. It is considered to be either a lightly constructed rear revetment, which would delineate the edge of the platform and ensure that it survived along the length of the defence without erosion, or a foundation, into or on to which, timbers were laid to provide a flat platform. If the latter hypothesis is accepted then an apparently deliberate break in the rear wall at Victoria Street could be explained as one of the positions where a main timber for the platform was keyed into the wall (Fig 29). The width of the platform between the front and rear stone walls was 4.5m (Fig 133).

At the bottom of the rampart tail, and some 3.5m behind the back of the rear wall, was a metalled road. It was probably constructed at the same time as the stone walls and was just over 2m wide. It consisted of regularly laid pebbles, mostly set in a slight trench some 0.1m deep, and apparently suffered differential wear around the city.

The ditch at Cantilupe Street, which eventually became the foundation trench for the medieval wall, was about 3m in front of the stage 3 stone revetment wall. It may have been dug as part of the stage 3 refortification works or, as already suggested, may have been in use as part of the stage 2 defences.

The front stone wall at Cantilupe Street showed some signs of repair. A small part of the wall had been rebuilt with a face 0.5m in front of the original one, and further mortar mixing pits were found on the berm at a level associated with this rebuild.

The eventual disuse and abandonment of the stage 3 defences and the traces of refortification along the same alignment are considered as stage 4.

The stage 3 additions to the turf and clay rampart have been shown to be present, at least in part, both to the west and to the east of the city. The front wall was not seen during the watching briefs along the northern line although many stones were observed in section at a point near to the postulated north gate (Shoesmith 1968). In Victoria Street the front of the stage 2 rampart, together with any associated stage 3 walling, was totally removed when the medieval wall was built. The subway sections gave no indication whatsoever of stone walls. At this point the preservation was poor and it may be that both walls had been completely robbed out or that they were not present in the short sections examined. The relationship of the ditch to the rampart at this corner was such that it is likely that the position of the front wall would have had to be behind the slot described in stages 1 and 2.

The excavations have not been sufficient to show that all the works of stage 3 were continuous around the city. However, the wall on the rear of the crest of the rampart and the intra-mural road were present both at the eastern and western sides of the city, and so it would seem likely that the front stone wall, as the main part of the defences, was also present.

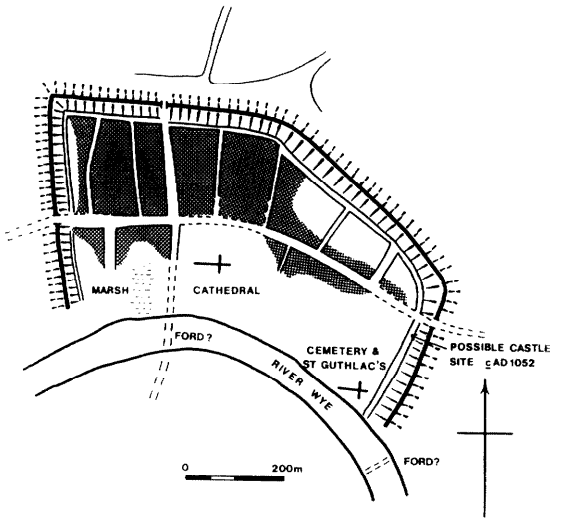

Fig 135 The defences, stage 3. The plan shows the postulated circuit and gates and the suggested extent of the built-up area in the first half of the 10th century. One possible site for the mid 11th century castle is also shown (see volume 1)

The stage 3 additions to the defences did not extend the defended area which remained at 21 hectares (Figs 135 and 138). It is assumed that the gates were in the same positions as described under stage 2. There is no evidence to indicate any details of their construction and they may have been of timber or stone.

The stage 3 defensive works are well preserved in the gardens of Cantilupe Street. The front stonework may also survive to the south of Friars' Gate on the west of the city and underneath the Castle bailey earthworks to the south-east. Traces of the rear wall are known to be present between Friars' Gate and West Street but it-is unlikely that any appreciable amount of stonework remains along the northern part of the defences. However, the intra-mural road may still be present round much of the circuit as, wherever found, it was deeply buried under the material of the stage 4 rampart collapse.

The dating of the construction of the stage 3 defences is discussed elsewhere (p 73). There is evidence to indicate that this stage of the defensive sequence was in disuse by the latter half of the 10th or early in the 11th century, and a date in the first half of the 10th century for the construction is probable. The repair work seen at Cantilupe Street is considered to date to the middle or later years of that century.

At Wareham, a stone wall built on a mortar raft on the crest of the heightened rampart and an internal path, are collectively described as the second phase of development. This strengthening is considered to belong to the period between the original construction by Alfred and the Norman Conquest. (RCHM 1959, 137). At Cricklade, the face of the original bank was

cut back to insert a mortared wall some 1.2m wide at some time during the 11th century (Radford 1970, 91) and at Wallingford a wall was added to the crest of the original rampart *(op cit,* 93-4). At Lydford, part of the rampart was eventually revetted with a granite wall and finished off with a mortar slick at ground level (Addyman 1966, 168-9). It is evident, therefore, that the renewal of urban defences during the 10th and early 11th centuries, using stone rather than timber, was not confined to the Welsh borderland.

Within the probable date range for the construction of the stone walls and intra-mural roadway at Hereford, it may be suggested that they could have been completed before Athelstan's meeting with the Welsh princes in *c* AD 930, when they would have provided an indication of strength.

It has recently been suggested that the addition of stone walls was a reaction to the great Danish raid of AD 914 and designed to forestall any recurrence of this event (Radford 1978).

Stage 4 -The disuse of the stage 3 defences and traces of refortification

Victoria Street-periods 5c and 6	P 34
Cantilupe Street-periods 3a and 3b	P 41
Friars' Gate	P 68
The City Arms	P 68
The western rampart	p 10 (Shoesmith 1967)
Hereford City excavations 1970 (northern defence line)	p 10 (Shoesmith 1971)

Stage 4 of the defensive sequence starts with the decay of the stage 3 defensive works towards the end of the 10th century and continues until the defences were extended to include the northern part of the city at the end of the 12th century.

The excavations have indicated that the stage 3 defences fell into disuse and gradually deteriorated to a smooth bank and overgrown ditch. The defensive line was still used from time to time; at the Cantilupe Street site there were traces of a refortification in timber; and at the Victoria Street site, gravel was used to increase the height of the bank.

The Cantilupe Street site presents the main evidence for disuse and decay but the layers associated with the tail of the rampart on the western side of the city indicate a similar disuse pattern.

At Cantilupe Street there were indications which suggested that there had been a deliberate attempt to remove stone from the face of the front wall and that part of the rear wall had been robbed out. There was also insufficient stone in the debris layers which were associated with the decay of the defences to account fully for the loss of stone from the walls. However, the evidence so far accrued indicates that the stone was removed sporadically rather than that the defences were deliberately destroyed. This gradual process resulted in the strong stage 3 defensive works becoming a smooth, turf-covered bank with only occasional stones protruding from the surface. The slip on the rear slope, which may have been accelerated by the decay of any timber superstructure, eventually sealed the intra-mural road on both the western and eastern sides of the city, whilst on the front the slope eventually became continuous from the top of the embankment, over the berm and into the silted ditch (Fig 130).

The archaeological evidence for the reuse of the stage 3 defensive line is different from one side of the city to the other. At the Cantilupe Street site the whole of the collapsed stage 3 defences were eventually covered with a thick layer of clean gravel which has been shown to be associated with the stage 6 construction of the city wall in the 13th century. The lack of any 12th or early 13th century material from underneath this thick gravel layer is perhaps due to a lack of development in this remote corner of the city. However, underneath the gravel, slight traces of a trench, 0.5m wide and 0.8m deep, followed the front crest of the bank above the by then ruined front stone wall (Fig 37). This trench apparently represents a refortification of this part of the defences during stage 4 or stage 5 of the defensive sequence, after the collapse of the stage 3 stone wall but before the medieval city wall was built.
It is possible that the trench represents several replacements of a flimsy defensive feature such as a brushwood and thorn paling fence.

On the western side of the city the disused stage 3 defences were also covered with a layer of clean pebble gravel (Fig 129). However, the disuse layers underneath contained a reasonable quantity of late 10th and 11th century pottery but none of 12th or early 13th century date although there was ample evidence for the presence of such material on the adjoining Berrington Street site. It should therefore be assumed that the gravel was deposited in the mid or late 11th century, possibly as a result of deepening the external ditch on this side of the city. The subway sections suggest that this gravel rampart turned to the east on the same line as the stage 2 and 3 defences, and this reinforces the hypothesis that these defensive works are earlier than the date of the stage 5 extended circuit.

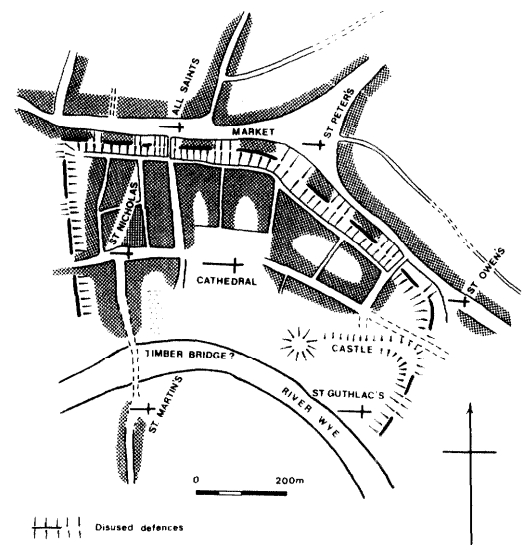

Fig 136 The defences, stage 4. The plan shows the disuse of the stage 3 defences, the expansion of the city to the north and the probable extent towards the end of the 11th century. The post-Conquest churches and castle are shown together with the new market place

The ditch, which was an integral part of the stage 3 defences, remained open along the northern part of the circuit for many years. It apparently contained water, fed by the Yazor brook (p 87), and was probably used as an open sewer. There is evidence that fences and other timber work were associated with the ditch (Shoesmith 1971 and p 10) but they had no apparent defensive function. Environmental material recovered from the fill indicates that, at least for part of its life, the ditch was not very polluted (Shoesmith 1971, 237). The ditch at Cantilupe Street was completely re-cut during stage 6 when it was used as the foundation trench for the medieval wall.

It would seem likely that, although the intra-mural road fell into disuse on the western and eastern sides of the city, the line continued to be in use on the north where it provided an essential link between the series of north-south streets and the northern gate. As the defences fell into disuse, pedestrian thoroughfares were doubtless formed across the bank and ditch at various points, thus joining the northern intra-mural road to the gradually increasing extra-mural development north of the defences (p 17; Fig 136).

The northern defensive line was eventually abandoned but on the west the defensive works were incorporated into stage 5. On the east of the city a small section of the stage 3 defensive works became part of the extended circuit but most of the length was absorbed into the defences of the castle (see Vol 1).

The long period of disuse of the stage 3 defences has been demonstrated at several places around the city. Refortification works on top of the disused bank were apparently of a slight nature and thus easily affected by erosion. The traces of such work could also vary from point to point and only careful excavation in places where the preservation is exceptionally good will lead to their identification. The most promising parts of the circuit for this purpose are south of Friars' Gate, in the Cantilupe Street gardens and underneath the south-eastern rampart of the castle bailey.

The postulated northern and western gates of the city probably continued to be used, and the latter eventually became a part of the defences of stage 5 and 6. The eastern gate may have been abandoned when the castle was increased in size after the Conquest (Vol 1). A new gate could possibly have been built, as a replacement for this east gate, at the northern end of St Ethelbert's Street.

It should be appreciated that there is no evidence of refortification work on the excavation sites to the west and east of the city which can definitely be shown to correspond in date to the stage 5 northern extension of the defences. On the west of the city any such work ought to have been later than the stage 4 gravel layers which sealed the stage 3 defences and may therefore have been totally removed when the medieval wall was inserted. However, at Cantilupe Street the traces of refortification which have been described above may have been associated with the stage 5 defence of the extended area, and can thus be of any date from the end of the 10th to the beginning of the 13th century.

At Wareham, the defences were remodelled, probably in the 12th century, with a recut ditch and long sloping outer face to the rampart (RCHM 1959, 129 - 30). This is perhaps similar to the repair work at Victoria Street described above.

There is no direct archaeological evidence for the documented refortification of Hereford by Harold in AD 1056. Apart from work at the gates it is recorded that he had a broad, deep ditch dug around the city (p 15). The gravel layers on top of the stage 3 defences on the western side of the city may have been thrown up at this time, and, if so, they represent the earliest phase of the defensive sequence which has a documentary reference. The defensive features still existing during the latter part of stage 4 would have been those seen in *c* AD 1125 by William of Malmesbury who described Hereford as having 'the ruins of broken ditches' (p 17).

Stage 5 —The gravel bank extension to the defences on the north and the inclusion of an area south of the river

Bewell House-period 2	p 56
Brewery site-period 3	p 65
City Wall excavations	p 66
Liberal Club	p 68
Lamb Hotel Yard	p 68
Bath Street	p 10 (Stanford 1966)
Drybridge House	p 69 (Shoesmith 1975)
Wall Street	p 69 (Sawle 1977)

The area included within the defences was eventually extended to the north by the stage 5 gravel rampart. The remains have been examined at several sites around the new perimeter, but there are no traces of similar defensive works which can be definitely attributed to this constructional period at the sites to the west and east of the city. The defensive works to the south of the river have only been examined in machine-cut trenches.

In the north-western corner of the city the extended gravel rampart sealed traces of buildings and property boundaries of 11th and 12th century date (p 56 and 65). Similar traces of occupation were found in the Liberal Club grounds and at the Wall Street site. The excavations in Bath Street and the Lamb Hotel yard were on too small a scale for pre-rampart occupation levels to be established.

The stage 5 gravel rampart has not been examined for its full width at any site but it is evident that along some parts of the new perimeter it is completely behind the medieval wall, and that in other parts the wall is inset into the bank. The excavation in Bath Street indicated that the rampart was constructed from the spoil of a defensive ditch. The material from the ditch digging was laid in the same sequence as it was dug, with a turf-like humic material at the base and clean gravel in the upper layers (Stanford 1966). The excavations at Bewell House, the Liberal Club and Wall Street have shown that the tail and upper part of the rampart were both composed of relatively clean gravel. The original height of the rampart could not be established at any of the sites and the total width is also uncertain, but it was probably about 15m from the inside edge of the ditch to the tail of the rampart.

If it is assumed that the defence was a dump rampart with a 3m berm this would allow a height of about 3m. There was no indication that this defence was timber-faced and it may only have had a fence, such as brushwood and thorn palings, along the crest (p 20). It is evident from the Bewell House site that there was no internal roadway within the stage 5 defences but there may have been a path along the crest.

Traces of what may have been an internal timber tower associated with the stage 5 defences were found at the Bewell House site (p 56).

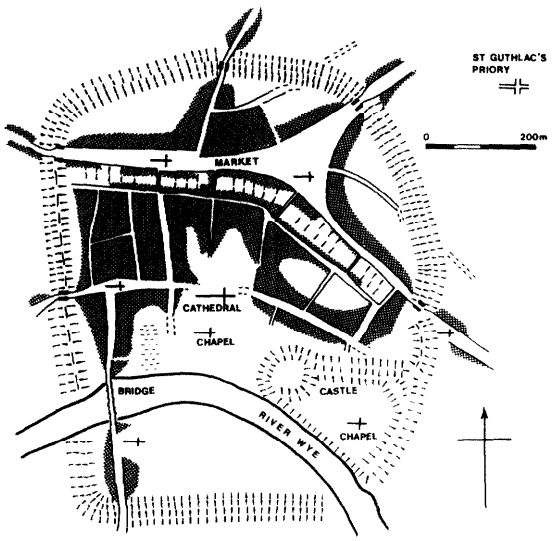

Fig 137 The defences, stage 5. The plan shows the gravel rampart extension to the north, the bank to the south of the river and the inferred extent of the city at the end of the 12th century. St Guthlac's moved from the castle bailey to the situation shown about AD 1144

Most of the new stage 5 ditch was completely re-cut when the medieval wall was built. However, in several places along the northern perimeter the wall, and particularly the bastions, were built into the side of the stage 5 ditch, thus preserving part of the original face.

There is no archaeological evidence for any repairs or alterations to the stage 5 defences although such works doubtless occurred and are illustrated by a grant of materials for this purpose in AD 1223 (p 20). The stage 5 defences were gradually replaced by the medieval city wall in the middle of the 13th century.

The northern extension joined the earlier defences at the western end of West Street where traces were seen in the subway sections (p 35). North of the site of Eign Gate the rampart gradually curved to the east towards the site of Widemarsh Gate and then continued, with a gentle curve, until it reached the site of Bye Street Gate. A similar smooth curve led to the site of St Owen's Gate where, after crossing St Owen's Street, it followed the shortest possible line to join the defences of stages 2-4 at a right angle some 30m south of the street. This extension added an extra 17 hectares to the area included within the defended circuit (Fig 137).

South of the river traces of a probable defensive feature were examined under difficult conditions in the grounds of Drybridge House. Traces of a bank, constructed of clean, alluvial clay, sealed a late 11th or early 12th century occupation layer. A wet ditch, containing a line of vertical stakes, was found to the south of the eroded remains of the bank. The alluvial clay used in the bank probably reflects the deep layers of this material in the low lying areas south of the Wye.

The southern rampart included an area of meadowland and part of St Martin's suburb. It apparently started close to the Wye, some 50m to the west of St Martin's Street, and continued the line of the stage 2 and 3 defences north of the river. The rampart turned to the east in the grounds of Drybridge House and continued across the meadows in an alignment which would have again approached the river at a point opposite the stage 2 and 3 defensive line which at that time was part of the castle bailey. The southern rampart contains an area of about 7 hectares (Fig 137).

The inclusion of the area to the north increased the defended part of the town by some 80% and that to the south by 33%. The total area included within the new defensive works was thus more than double the area within the defences of stages 2-4 (Fig 138).

The only gate position to survive from the stages 2-4 defences was the one to the west of the city at Friars' Gate. However, the alignment of the property boundaries to the north of the gate and the bend in St Nicholas Street both suggest that this gate position may have been moved slightly to the south (M2.C4). New entries to the city were constructed as part of the stage 5 defences at Eign Gate to the west of the city, Widemarsh Gate to the north, Bye Street Gate to the north-east and St Owen's Gate to the east. The southern gate was either on Wye Bridge or where the road cut through the new defensive works south of the river (Fig 137).

The stage 5 defences survive to the north of the city as a slight bank behind the medieval wall. It is most noticeable in the north-western part of the circuit to the west of Widemarsh Gate, and on the eastern side as it approaches the site of St Owen's Gate. It is probable that the upper levels of this rampart have been badly damaged or totally lost around the whole of the northern perimeter.

South of the river, the western part of the rampart cannot be seen as a bank and probably survives only as a thin layer. It still stands over 2m high as it crosses Bishop's Meadow but gradually decreases in size to the east. There is no visible trace of a ditch but this may have been filled and could have been present along most of the length.

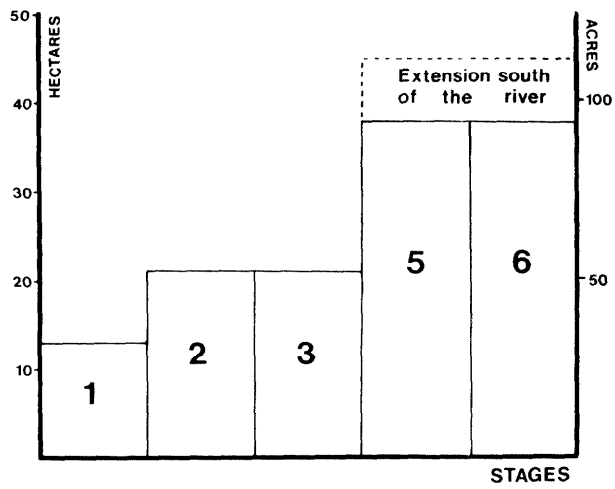

Fig 138 The areas included within the defences of stages 1-6

The extension of the defensive line to the north of the city is dated by pottery sealed underneath the tail and in features which were cut into the rampart material. This indicates a construction date late in the 12th century. The rampart south of the river has no firm dating evidence for its construction but the available evidence suggests that it was during the late 12th or 13th century.

In the late 12th and early 13th century the stimulus to build and reconstruct town defences was renewed and, during the absence of Richard I, 'castles were strengthened, towns were fortified and moats were dug' (Appleby 1963, 64-7). It would seem very likely that this stimulus, together with the charter of AD 1189, provided the drive for the citizens of Hereford to extend their defences. This date would seem to be confirmed by an allowance in AD 1190 'for the making of four city Gates' (P 18).

Stage G-The medieval wall, gates and bastions and later repair work (Fig 139)

Victoria Street-period 7	P 35
Cantilupe Street-periods 4 and 5	P 42
The city wall excavations	P 66
Friars' Gate	P 68
Lamb Hotel Yard	P 68
Bath Street	p 10 (Stanford 1966)

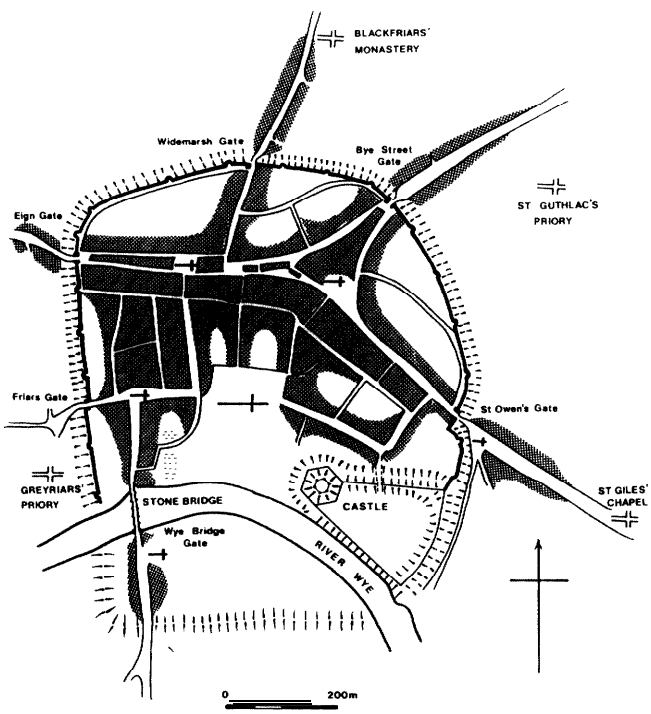

Fig 139 The defences, stage 6. The city, complete with its medieval walls and royal castle, in the late 13th and early 14th centuries. Some expansion into the suburbs is suggested

Short sections of the city wall and several bastions were examined during the construction of the ring road. Other parts have been recorded during work on the earlier stages of the defensive sequence. Several sections of wall and the remains of two bastions still survive above ground level.

A brief examination of the surviving parts of the city wall is sufficient to appreciate that there are many phases of rebuild and that the wall has had a complex history. The methods used in constructing the wall differ from point to point around the circuit, but these may reflect variations during the 40 or more years it took to complete the work.

On the western side of the city, to the north of Friars' Gate, the earlier defences were cut back and the wall was built as a face to the remainder (Fig 129). To the north it was built on the berm, and occasionally over the lip of the ditch, in front of the stage 5 rampart. To the north-east it was cut into the stage 5 rampart, but at Cantilupe Street it was built into the re-cut ditch of the stage 3 defences (Fig 130).

The thickness of the wall at its foundation level varies from 2.4m at Cantilupe Street to 0.7m in Bath Street. It appears that where the wall was built free-standing in front of earlier defences the foundations were of massive proportions, but where the rampart was cut back to a vertical face and the wall added to the front, it was of lesser width.

The archaeological evidence suggests that the wall and bastion towers were both built at the same time. The bastions were all of semi-circular shape with external diameters varying from 6.7m to 8m and wall thicknesses varying between 1.3 and 2m. It is said that the bastions were 10.7m high and the city walls between 4.9 and 5.5m high (Watkins 1919b, 160).

The excavations along the western defences, between Friars' Gate and Eign Gate, have shown that some 4.5m was cut away from the front of the stage 1-4 defences and that the city wall was built on the resulting platform as a revetment to the remaining part of the bank. The bastions, which extend 3 to 4m in front of the wall face, were then built on undisturbed, level ground. Along this length of the defences there was a berm in front of the city wall at least 5m in width.

Bastion 6, the only one investigated between Eign Gate and Widemarsh Gate, was apparently built into the side of the ditch of the stage 5 defences.

Between Widemarsh Gate and Bye Street Gate the foundations of part of the wall and several of the bastions have been examined. All the bastions were built into the side of the stage 5 defensive ditch and the wall was built on the edge of the ditch and in places slightly within the fill. Along this stretch the berm was of minimal width but access was probably possible, as there were traces of timber platforms which had been built into the side of the ditch to allow passage around the outside of the bastions. Between Bye Street Gate and St Owen's Gate the site of bastion 14 was examined in machine trenches and it was shown that the masonry was built against the cut-back stage 5 gravel rampart. The edge of the ditch was some 1.5m in front of the city wall.

South of St Owen's Street, the foundations of the existing city wall were examined at Cantilupe Street, The foundation courses of the wall were built into the re-cut stages 2-4 ditch. Gravel from a new ditch was thrown behind the wall filling the gap between it and the

earlier Saxon defences (Fig 130). Trails of stone chippings in the gravel demonstrated the contemporaneity of construction and indicated that the wall stones were shaped on site. There may have been a small berm between the wall and the newly-cut ditch.

Stanford (1966) considered that the various widths of the berm, observed in the several excavations, were due to a compromise effected by the builders. The stone wall with bastions would have required straight wall alignments to allow the wall foot to be enfiladed from the bastions and gates. The stage 5 rampart had been allowed to adopt a curved course around the northern perimeter, and to match the two, without having numerous bastions, involved setting some parts of the wall into the bank and constructing some bastions into the sides of the ditch.

This was doubtless a main factor in the design of the wall around the northern perimeter but it does not explain why the wall had to be set into the rampart on the western side of the town between Friars' Gate and Eign Gate where the earlier defences followed a straight course. It is suggested that the design of the gates also had an important bearing on the position of the wall in relation to the earlier defences. An integral part of the construction of the medieval wall was apparently that it should be offset as it approached a gate. Thus at Friars' Gate the wall approaching the site of the gate from the direction of the river is some 6m to the west of the wall which leaves the gate to the north (Fig 13). A similar feature occurs at all the other entries and was presumably part of the defensive design of the gates. The construction of these offsets would have resulted in the position of the wall being variable with respect to the earlier defences, even on the straight stretch in Victoria Street.

The wall and bastions were built of large ashlar blocks with some use of thin packing stones, the whole being regularly coursed. The blocks averaged 0.25m by 0.38m in size (Fig 140).

The existing wall shows many signs of repair and renewal, using varying sizes of stone and different types of coursing, and this has resulted in many obvious joins. These rebuilds are difficult to date but it is to be expected that some are of the Civil War period. Bastion 10a was reconstructed as a square tower on top of the original semi-circular foundations and this rebuild could have occurred at any time up to the Civil War. At Cantilupe Street the original massively constructed wall had insufficient strength to retain the weight of gravel behind it and collapsed outwards. A more slender wall, 0.9m thick, which was built on top of the collapsed foundations, may again have been occasioned by the Civil War. A later rebuild on the same stretch of wall contained many shaped stones which may have been reused from St Owen's Gate or from the arch which originally took the city wall over the castle ditch.

The city wall enclosed an area of 38 hectares (Fig 138) and was 1645m long. The circuit included at least 17 bastion towers and 6 gates. The existing remains of the wall, which include 2 bastion towers, have been gradually renovated during the last 12 years. The gates were demolished late in the 18th century and traces of their foundations have been seen from time to time, but there has been no opportunity for archaeological examination. There is no indication that any wall was built to replace the stage 5 rampart south of the river.

A stretch of the wall on the western side of the city, close to the river, together with the first bastion tower, was demolished in *c* AD 1806. A print of *c* AD 1800 shows that the wall originally ran from the direction of the bridge, parallel to the river, as far as the first bastion, where it turned north (Watkins 1919b, 160). However, Taylor's map (Fig 5) suggests that the

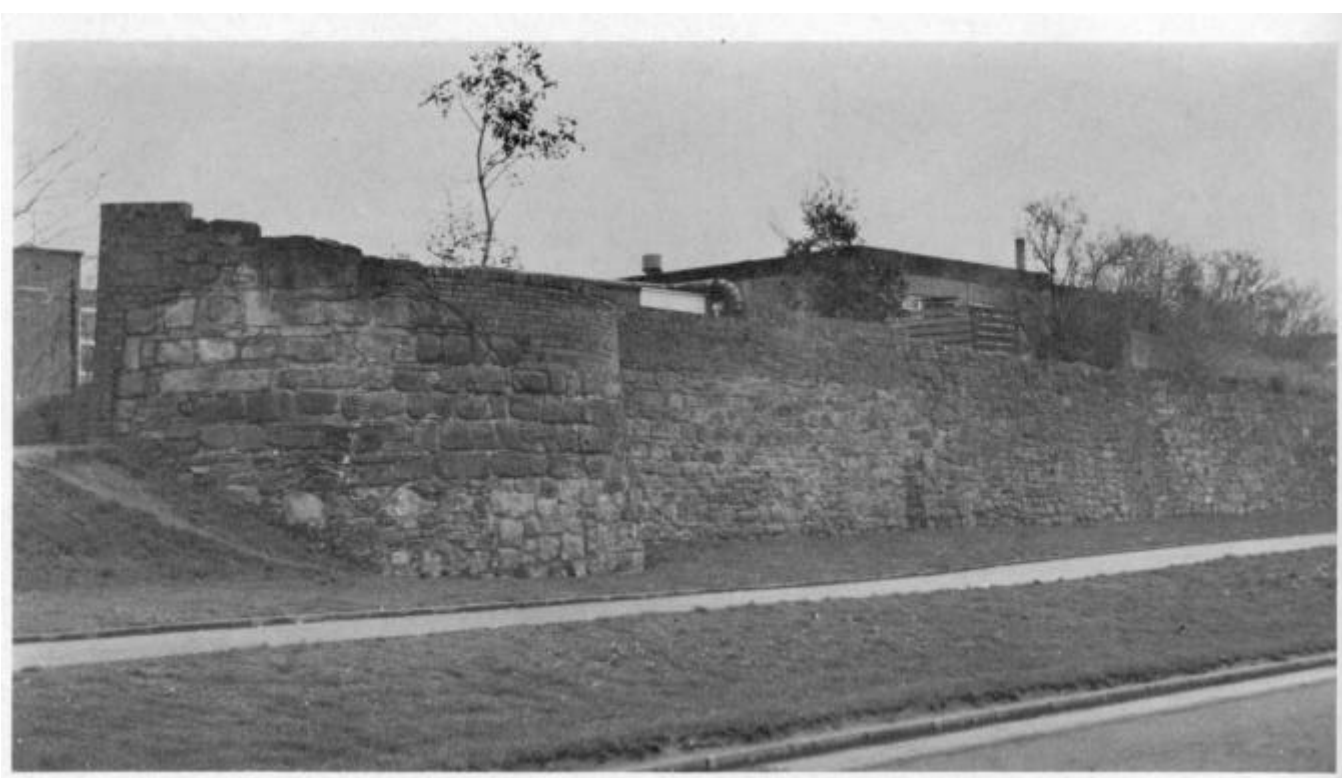

Fig 140 The stage 6 medieval wall and bastion 4 in Victoria Street

wall ran due north from the river to the bastion. Both courses are possible and only excavation may indicate which is correct. The surviving stretch of wall, which starts some 50m from the river bank, includes four slim rectangular buttresses on the outside face which were apparently inserted into the original fabric. Bastion 2 survives but the parapet and arrow slits may be the result of Victorian 'improvements'. The bastion is partly concealed between an empty cottage which backs on to the city wall and Greyfriars House (25 St Nicholas Street) but is visible from Greyfriars Bridge. The wall continues on the north side of Greyfriars House almost to St Nicholas Street and the site of Friars' Gate. Little is known of this gate which was demolished in AD 1782 and no mints of it survive. The detail on Taylor's map (Fig 5) suggests that the gate was a square structure of no great size. However, a street excavation many years ago exposed diagonal foundations which were thought to be those of the gate but no details are available (Watkins 1919b, 160 note).

The wall is continuous from St Nicholas Street to bastion 4 (Figs 13 and 140). It has suffered much alteration and one part was rebuilt when the ring road was constructed. The external ground level was substantially built up after the ring road was completed and at least l m of the original wall face is now buried along most of this length. In 1918 there was a wall walk some 3m wide behind the breast-high parapet of the wall (Watkins 1919b, 160-1).

There are no surviving traces of the wall from bastion 4 to the end of West Street. This stretch, which was demolished in AD 1894, included a sally port or small gate of 15th century date (Pilley MSS). Bastion 5, which was demolished about AD 1890, originally sealed the western end of West Street. Photographs of the adjacent sections, taken during the demolition, show the earlier ramparts behind the wall to the south and a free-standing wall to the north (Watkins 1919b, 161). A short section of rebuilt wall separates the ring road from the narrow Gunners Lane as far as the site of Eign Gate.

Eign Gate was demolished in AD 1787, and the once main western entry to High Town is now pedestrianized. It was at this point that the Yazor Brook, which fed the moat, was split into two parts, one following the northern circuit and the other going directly to the Wye where a sluice gate regulated the flow (p 88).

The line of the city wall to the north of the gate is now lost underneath the ring road, but it was aligned some 5m to the west of the Gunners Lane stretch on the south (Fig 12). From close to Eign Gate as far as Widemarsh Gate the original wall walk is still present as Wall Street, which stands about 1.5m above the level on the outside of the wall, reflecting the buried stage 5 gravel rampart. The short lengths of wall which survive show many signs of rebuilding. Bastion 6, close to Eign Gate, was excavated in 1968 (p 68). but the exact positions of bastions 7, 8, and 8a have not been established. At the eastern end of this section, the wall, together with a 15th century postern gate and grille, was demolished about AD 1900 when the Wellington Inn was rebuilt (Watkins 1919b, 162).

The Farmers Club, on the eastern side of Widemarsh Street, adjoined the original gate building and includes the city wall as part of its northern elevation. The wall contains a small doorway with the inscription 'TC 1626' above (p 22). The wall is fragmentary along the southern side of Blueschool Street but excavations have established the positions of bastions 9, 10 and 10a (Fig 11). Bastion 9 survived until after AD 1870 when it was examined by the British Archaeological Association. Towards Bye Street Gate, part of the wall, together with a short stretch of intra-mural road formed by the eastern end of Maylord Street, survived until recently, but is now lost underneath the ring road. The site of Bye Street Gate is in the middle of Commercial Square, in front of the present Kerry Arms Hotel.

The newly conserved stretch of wall which faces on to the ring road east of Bye Street Gate includes the site of bastion 11. South-east of this the line of the wall crosses a garage forecourt, goes underneath the Venn Building and then through the middle of a car park. Bastion 12 has not been accurately positioned but bastion 13 was examined (Stanford 1966). Along this stretch the wall is not visible above ground for a total length of some 300m but it re-appears in the yard of the Lamb Inn where it forms the junction between the yard and the City Walls Steak Bar (Fig 14) (p 68). Close to this point a mine, probably of Civil War date was discovered in AD 1858 (Watkins 1912, 28). St Owen's Gate was demolished in AD 1786 but the wall to the south is exposed in the western elevation of Townsends' stationery shop.

About 24m from St Owen's Street, the wall makes a sharp right-angled turn to the east and continues, bending gradually round to the south again, forming the rear boundary to the gardens of the houses which front Cantilupe Street. At this point the medieval wall joins the alignment of the stage 2-4 defences and it continued, apparently in line with them, as far as the castle bailey. The wall originally crossed the castle ditch by an arch but this was removed, and a stretch of the wall demolished, when Cantilupe Street was constructed in the late 19th century.

There is no archaeological evidence for the date of construction of the city wall beyond the fact that it is later than the gravel bank and thus not earlier than the beginning of the 13th century. The variations in the width of the berm, the size of the bastion towers and the thickness of the wall all indicate that this work was built to different standards over a fairly long period of time. The succession of murage grants suggest that construction started about AD 1224 and that the work was substantially completed by AD 1265. Further murage grants, which continued until AD 1467, were doubtless associated with general repairs and maintenance.

Similar half-round bastion towers to those of Hereford are present at Southampton and Exeter, where they are dated to *c* AD 1270. At a later date such towers were constructed as a D-shape and projected further from the wall (Turner 1970, 58-9). Many examples of walls of similar date to those of Hereford exist in various parts of the country, but there are few where it has been confirmed that the wall was a replacement for earthen defences which are in part of pre-Conquest origin (Barley 1975, 58-9).

The source of water for the defensive ditches

The extended defensive circuit of stages 5 and 6 included a water-filled ditch which was fed by a stream close to the site of Eign Gate. The ditch was still open, with water flowing through it in sufficient quantity to feed Castle Mill, when Taylor drew his map in AD 1757 (Fig 5) but had become disused in AD 1812 when the proprietors

of the Castle Mill were indicted for not cleaning 'the town ditch from Castle Ditch to Eign Gate'.

The water to feed this ditch was obtained by diverting part of the Yazor Brook which approaches the city from the north-west (Fig 3). The original course was probably to the north of the city through Widemarsh following a course similar to that of the present Widemarsh Brook which becomes Eign Brook close to the river on the east of the city. (The place name Eign is used as a stream and road name both to the west and to the east of the city) (Watkins 1919a). The diversion was apparently at Faster's Moor, some 1.6km to the west of the city, from where an artificial branch was cut going directly to Eign Gate. At this point a part of the stream was allowed to flow towards Friars' Gate below which must have been some form of sluice gate, and the other part encircled the town in the city ditch, fed the castle moat and mill and fell into the Wye at the east of the castle.

The earlier defensive circuit of stages 1-4 included a ditch for at least part of its period of use and there is some evidence to show that it was water filled. The examination of the ditch fill material from two sites on the northern part of the circuit (Shoesmith 1971, 237) (p 68) has shown that it was filled with water for some time and that it was not excessively polluted. At the north-western corner of the Saxon city, the subway sections show a portion of the ditch which must have been backfilled when the extended defence of stage 5 was built. This section contained a layer of silt some 0.4m thick, which was also probably water deposited. It is thus likely, though not absolutely certain, that the ditch was filled with water when it had a defensive use. The presence of relatively clean water in the ditch suggests that it was fed by one of the streams which ran to the north of the city.

There are two possibilities for the original source of this water. The first and most straightforward is that the diversion of the Yazor Brook to feed the ditch in the vicinity of Eign Gate, as described above, was associated with one of the early stages of the defensive development and was reused in stages 5 and 6 for the extended defence. The relative shallowness of the ditch at the subway sections compared with sites further to the east, which would allow the water to flow from west to east, may be seen as some corroboration of this hypothesis.

The second possibility is completely conjectural but does provide an explanation for several features which otherwise have no simple solution. There is some evidence to show that a deep, water-filled ditch ran in a north-south direction through the centre of the city, ending in a marshy area between King Street and the river. The marsh was seen at a point close to the river in the Bishop's Palace Gardens (p 69) further to the north, behind the Methodist Chapel in Bridge Street where it was in excess of 4.6m deep (Heys and Norwood 1958, 122), and again during excavations in King Street (p 69). North of the line of King Street, but on the same alignment, a ditch was found bordering the eastern edge of Aubrey Street (Heys and Nor-wood 1958, 119). The presence of this ditch had been postulated by Watkins who thought that it either represented the western limb of the earliest defences of the city, or that it delineated the area held by the cathedral (Watkins 1920). The course of this ditch, as described above, if continued to the north beyond the line of the Saxon defences reaches the vicinity of All Saints' Church. During the restoration in AD 1892 a ditch was found underneath the north aisle. 'This ditch, which was not cleaned out and contained black mud, passed under the tower, so that the north wall of the tower stood on the edge of the ditch' (Clarke 1920).

If these various observations can be linked together, they may indicate the presence of an early stream course leading from the Widemarsh area to the river (Marshall 1940, 71, footnote). This stream could have been diverter in the vicinity of Northgate, at the northern end of Broad Street, to feed the eastern and western limbs of the Saxon defences. The original stream course may have been retained as an open sewer. As the stage 3 defences fell into disuse and the market was extended into the area of High Town, the stream course could have been blocked in the Widemarsh area and its waters diverted into the Widemarsh and Eign Brooks. A slight element of confirmation may be inferred from the parish boundaries. The boundary between All Saints' and St. Nicholas' parishes on the west, and St. John's and St. Peter's parishes on the east, has the appearance of following a natural feature (Fig 8) and in part follows the line of the postulated stream.

The origins and growth of Hereford

Introduction

The previous section has concentrated on the developmen of the defensive features of Hereford but has largely ignored the changes in the internal plan caused by the gradual growth of the city and the constraints imposed both by the defences and by the two religious institutions. The excavations during the last twelve years have only been sufficient to establish an outline of the development of part of the city, but the apparent almost complete fossilization of the street plan since at least the 13th century and the restrictions caused by the defensive circuit allows several hypotheses to be presented.

The following chapter includes details of the Roman occupation in the immediate area of the city, a brief resume of the available evidence for an early Saxon foundation and a hypothetical picture of the growth of the city from the 8th to the 13th century. The chapter should be considered as a foundation upon which future archaeological work in the city can be based.

The whole of this chapter should be considered together with the concluding parts of Volume 1 which deal with the cemetery, the religious settlement, and the castle immediately to the east of the original nucleus of the city around the cathedral. The development of the city after the end of the 13th century is beyond the scope of this volume and is adequately documented elsewhere (Duncumb 1804).

The Roman period

The Roman road system in the neighbourhood of Hereford is described earlier in this volume (p 3) and shown in Fig 2. The crossing of the east-west road, which led from Worcester to Kenchester and then into Wales, with the north-south road, which came from Chester and led to Monmouth or Weston-under-Penyard, at a point some 2.5km to the north-west of what was to become the site of the cathedral, must have been of some importance in the Roman road network. The presence of this crossroad, the alignment of the road from the north towards the ford at Hereford, the regular grid pattern of streets, and the occasional finds of Roman material in the

of the Castle Mill were indicted for not cleaning 'the town ditch from Castle Ditch to Eign Gate'.

The water to feed this ditch was obtained by diverting part of the Yazor Brook which approaches the city from the north-west (Fig 3). The original course was probably to the north of the city through Widemarsh following a course similar to that of the present Widemarsh Brook which becomes Eign Brook close to the river on the east of the city. (The place name Eign is used as a stream and road name both to the west and to the east of the city) (Watkins 1919a). The diversion was apparently at Faster's Moor, some 1.6km to the west of the city, from where an artificial branch was cut going directly to Eign Gate. At this point a part of the stream was allowed to flow towards Friars' Gate below which must have been some form of sluice gate, and the other part encircled the town in the city ditch, fed the castle moat and mill and fell into the Wye at the east of the castle.

The earlier defensive circuit of stages 1-4 included a ditch for at least part of its period of use and there is some evidence to show that it was water filled. The examination of the ditch fill material from two sites on the northern part of the circuit (Shoesmith 1971, 237) (p 68) has shown that it was filled with water for some time and that it was not excessively polluted. At the north-western corner of the Saxon city, the subway sections show a portion of the ditch which must have been backfilled when the extended defence of stage 5 was built. This section contained a layer of silt some 0.4m thick, which was also probably water deposited. It is thus likely, though not absolutely certain, that the ditch was filled with water when it had a defensive use. The presence of relatively clean water in the ditch suggests that it was fed by one of the streams which ran to the north of the city.

There are two possibilities for the original source of this water. The first and most straightforward is that the diversion of the Yazor Brook to feed the ditch in the vicinity of Eign Gate, as described above, was associated with one of the early stages of the defensive development and was reused in stages 5 and 6 for the extended defence. The relative shallowness of the ditch at the subway sections compared with sites further to the east, which would allow the water to flow from west to east, may be seen as some corroboration of this hypothesis.

The second possibility is completely conjectural but does provide an explanation for several features which otherwise have no simple solution. There is some evidence to show that a deep, water-filled ditch ran in a north-south direction through the centre of the city, ending in a marshy area between King Street and the river. The marsh was seen at a point close to the river in the Bishop's Palace Gardens (p 69) further to the north, behind the Methodist Chapel in Bridge Street where it was in excess of 4.6m deep (Heys and Norwood 1958, 122), and again during excavations in King Street (p 69). North of the line of King Street, but on the same alignment, a ditch was found bordering the eastern edge of Aubrey Street (Heys and Nor-wood 1958, 119). The presence of this ditch had been postulated by Watkins who thought that it either represented the western limb of the earliest defences of the city, or that it delineated the area held by the cathedral (Watkins 1920). The course of this ditch, as described above, if continued to the north beyond the line of the Saxon defences reaches the vicinity of All Saints' Church. During the restoration in AD 1892 a ditch was found underneath the north aisle. 'This ditch, which was not cleaned out and contained black mud, passed under the tower, so that the north wall of the tower stood on the edge of the ditch' (Clarke 1920).

If these various observations can be linked together, they may indicate the presence of an early stream course leading from the Widemarsh area to the river (Marshall 1940, 71, footnote). This stream could have been diverter in the vicinity of Northgate, at the northern end of Broad Street, to feed the eastern and western limbs of the Saxon defences. The original stream course may have been retained as an open sewer. As the stage 3 defences fell into disuse and the market was extended into the area of High Town, the stream course could have been blocked in the Widemarsh area and its waters diverted into the Widemarsh and Eign Brooks. A slight element of confirmation may be inferred from the parish boundaries. The boundary between All Saints' and St. Nicholas' parishes on the west, and St. John's and St. Peter's parishes on the east, has the appearance of following a natural feature (Fig 8) and in part follows the line of the postulated stream.

The origins and growth of Hereford

Introduction

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The Roman road system in the neighbourhood of Hereford is described earlier in this volume (p 3) and shown in Fig 2. The crossing of the east-west road, which led from Worcester to Kenchester and then into Wales, with the north-south road, which came from Chester and led to Monmouth or Weston-under-Penyard, at a point some 2.5km to the north-west of what was to become the site of the cathedral, must have been of some importance in the Roman road network. The presence of this crossroad, the alignment of the road from the north towards the ford at Hereford, the regular grid pattern of streets, and the occasional finds of Roman material in the

city area have led several writers to postulate that the primary use of the gravel terrace next to the Wye was as the site of a Roman fort (Marshall 1940; Dudley 1954). This theory was resurrected as recently as 1975 in an article on the geographical approach to urban growth (Carter 1975).

The fort as postulated would have been *c* 4.4 hectares in extent with Church Street as the north-south axial road (Marshall 1940; Carter 1975). The northern Saxon defensive line along East Street and West Street and the ditch described as King's Ditch, close to Aubrey Street on the west (Heys and Norwood 1958) (p 8), would then represent the northern and western defences. Marshall suggested that the north-eastern corner should be represented by the rounded corner of East Street at the Offa Street junction, and that the eastern defence went from this point parallel to Church Street on the ditch line postulated by Watkins (Watkins 1920) (p 8 and Fig 6). The course of the proposed southern defensive line is indicated by the river terrace which runs across the Bishop's palace garden. This is a standard shape and size for a Roman fort and the evidence needs some consideration.

Sections have been cut across the northern ditch (minor sites-City Arms: p 68), (Shoesmith 1971) and the western (King's) ditch line (Heys and Norwood 1958), since Marshall wrote his article. In both cases the ditches had obviously been re-cut and possibly deepened as they became medieval sewers and the original shape and size could not be established. There was no evidence for any defensive works on the inside of the ditch line in the western excavation but later disturbances were such that any traces could have been totally lost. In the northern section (Shoesmith 1971), there was evidence for a dump rampart which was assumed to be Saxon. No Roman materials were found at any of these sites but this need not be conclusive as most of the work was done by machine and the features had suffered from many late disturbances

There have been no archaeological excavations whatsoever within the limits of Marshall's proposed Roman fort, half of which comprises the cathedral and its precinct. The remainder has had little development involving earth-moving during the last twelve years. Marshall's suggestion was based on topographical features and, although it has 'little to commend it' (Lobel 1969), it has not been conclusively disproved.

Roman material from excavations in the city includes coins, pottery, metalwork and stonework. The three Roman coins (Vol 3: Inventory nos 1 to 3) were in 12th century or later contexts on the Brewery and Bewell House sites. One was of first century date and the other two belonged to the late third century. The few sherds of pottery were found on sites in the western part of the city, but not in pre-Saxon contexts. At least one sherd is of early date (Vol 3: Fig 52.2). Part of a late 1st or early 2nd century copper brooch (Vol 3: Fig 17.1) was found in a mid 13th century context at Bewell House. The Victoria Street grain dryers (p 30) were built of reused Roman masonry, including large building stones and two altars (Vol 3: Fig 9.3), and quern stones of a Roman type (Vol 3: Fig 10.1 and 2) were found in the 10th century Saxon defensive wall on the same site.

There have also been sporadic finds of Roman material from within the city boundaries during the last 200 years which are now either lodged in the museum or, in some cases, lost. Many of the Roman coins found in the city were probably collectors' pieces, lost in recent times, but several were apparently lost in antiquity and are listed in the inventory (Vol 3). They are mainly of 4th century date and include one small hoard from south of the river dated to perhaps AD 400. A large Roman altar was found in AD 1821 near St John Street (Vol 3: Fig 9.1) and in AD 1829 a small bronze figurine of Hermes was found behind the Eignbrook Congregational Church in Eign Street (Bevan and Haverfield 1896; VCH 1908, 193) but has since been lost.

The distribution of the Roman finds has no particular concentrations apart, perhaps, from that consistent with the density of archaeological work on the western and north-western side of the city. No conclusive argument for a Roman origin for Hereford can be based on such a wide distribution, especially as the objects, when found on archaeological sites, have been invariably in post-Roman contexts. However, the presence of three altars and the statuette of Hermes deserves further consideration. The altars are reasonably large and heavy and it would be surprising if they had been brought as building materials all the way from Kenchester in preference to the large quantity of cut, smaller stone which would have been available on that site. The presence of this massive Roman material suggests a Roman site in the vicinity of Hereford, perhaps a temple or shrine.

Buildings of this nature are often close to a road junction or a natural spring. A road junction has been identified and several springs originally came out of the gravel terrace close to the Wye including Pipewell, close to Gwynne Street and St Ethelbert's Well, near the castle.

There is a lack of any firm evidence to support the premise of an early fort partly underneath the present cathedral. However, archaeological work in the city has been insufficient to disprove the theory completely. The available evidence suggests that it is more likely that there was a third or fourth century temple, shrine or small wayside settlement in the immediate vicinity of Hereford, perhaps associated with one of the fords across the Wye.

The early and mid Saxon periods

The Roman road system probably continued to be an important feature of the landscape for many centuries after the end of Roman rule. In the immediate Hereford area, the east-west road eventually became the northern boundary of the liberty of the city (Fig 10) and is still in use as a road. The alignment of the north-south road was preserved to the north of the city but is not apparent within the city boundary. This may not be due to a complete disuse of the road but rather because of later diversions crossing the Yazor and Widemarsh brooks and their associated marshlands (Fig 3) just to the north of the Hereford gravel terrace.

It has been suggested that during much of the Roman period, the main north-south thoroughfare along the Welsh border crossed the Wye by a bridge south of *Magnis* (p 6) (Fig 2). After the collapse of the Roman Empire, this bridge would have fallen into decay and was probably destroyed by one of the floods for which the Wye is notorious. Consequently the routeway down the Welsh border would have had to be diverted to the nearest convenient ford which was at Hereford. Thus, perhaps as early as the 5th century, the site of Hereford would have been of some considerable importance as a recognized crossing of the Wye.

Leland, writing in the mid 16th century, suggested that 'of the decaye of Kenchestre, Herford rose and florished'. He was then referring to the 'people of

Hereford town' who 'yn tymes paste pulled down muche and pyked out the best for there buildinges' rather than to the origins of the city, for later he noted that he could not 'perceyve that Hereford had any great begynning afore King Offas tyme' (Smith 1908, vi, 102).

The archaeological evidence tends to agree with Leland for there are few features which have been found during the excavations which can with any certainty be attributed to a date earlier than the 8th century. However, the evidence must be viewed with caution for two main reasons; the lack of dateable material from the earlier levels on most of the excavated sites and the distance of these sites from the area around the cathedral, which is assumed to be the nucleus of the earliest urban occupation.

The origins of urban settlement in Hereford may be related either to the foundation of the diocese, which is generally assumed to be AD 676, or to the tradition that the site was an earlier centre of British religious activity. The excavations have produced no indication for this postulated early religious settlement but the historical evidence, although obscure, is worthy of consideration.

The tradition that Hereford was a centre for a British diocese is apparently dependent on the list of bishops who disputed with St Augustine in AD 601. However, the list, which includes the Bishop of Caerfawydd, otherwise Hereford, and six other bishops (Williams 1848, 143), may have been invented at a later date to identify the seven British Bishops mentioned by Bede (*Hist Eccles* 1946, i, 99; Wood 1907).

Earlier, in AD 548, it is recorded that Ceawlin reached the Severn and fought the British at a place called *Fethanlea(g)* (ASC 1953, 20-1). Attempts have been made to establish the site of this battle close to Hereford, and the author of the Chronicle of Jeauvaulx and the unknown writer of the 12th century *Life of St Ethelbert* both agree in saying that *Fernlega* was an early name for Hereford and that it was the place of final burial of the saint. This could be a misunderstanding by later monastic writers of the sequence of events following the murder of St Ethelbert in AD 792. It may well be that *Fernlega* should be equated with Ferne which was held by William Fitz Norman as part of the King's Manor of Marden at the time of Domesday. This would accord with the tradition that Ethelbert was first buried at Marden (Wood 1917). Alternatively, it has been suggested that the name was used for the wooded lands which extended southwards from Hereford on both banks of the Wye (Phillimore 1906, 258), possibly as far as the Severn (Lloyd 1911, i, 282). The evidence is certainly insufficient to identify the 6th century battle site of *Fethanlea(g)* with the Hereford area.

It is suggested in Volume 1 that the origins of Hereford as a religious centre may pre-date the foundation of the diocese and that it may have been the site of one of the Welsh *'clas'* churches which later became St Guthlac's collegiate establishment. However, the archaeological evidence is only sufficient to indicate that the religious settlement on Castle Green was founded at some date probably before the beginning of the 8th century.

The foundation of the diocese is considered to date from AD 676 when Sexwulf, the Mercian bishop at Lichfield, granted a church and land to Putta, who had been bishop of Rochester until it was destroyed by the Mercian king Aethelred (Colgrave and Mynors 1969). Putta heads the list of bishops of the western Hecani in early manuscripts (eg Vespasion B VI: Hillaby 1976) and was succeeded in turn by Tyrhthel, Torhthere, Walhstod, and eventually Cuthbert.

Cuthbert, who was bishop from AD 736-40, and then became archbishop of Canterbury, is accredited with the completion of a fine cross at Hereford. This apparently commemorated the construction of a new burial place for the three prelates who had gone before him, together with Milfrith, a prince of the Western Hecani, his wife Cyneburh, and 'Oshelm, son of Osfrith' who is otherwise unknown (Hillaby 1976, 28). There is, perhaps significantly, no mention of the body of Putta being buried in this new *porticus* and indeed, there is no independent confirmation that the Putta who was bishop of Rochester was the first bishop of Hereford. It may have been that Tyrhthel was the first regular bishop and that Putta had a much less onerous position (Hillaby 1976, 33).

Even accepting this, there is no evidence to show that during the early years of the diocese the bishop's seat was situated at Hereford. Leominster, which was founded by Merewalh, the father of Milfrith, in *c* AD 660 (Finberg 1961), may have been a more logical situation until the cathedral at Hereford was built. This latter event may have been during the life of Walhstod who is recorded as the initiator of Cuthbert's cross. The cross could record the transfer of the bodies of the rulers and bishops of the Western Hecani from Leominster to Hereford or, as Whitehead suggests (Volume 1,3), from the original burial ground at Castle Green to the new minster church.

Merewalh, who is referred to as *Westan Hecanorum rex* by Florence of Worcester (Hart 1971, 139-41; Florence 1848-9, 635) was, according to Goscelin's *Life of St Mildburg,* the third son of Penda of Mercia. Milfrith, Merewalh's son, was described as king *(regulus)* on Cuthbert's cross (Lobel 1969). It is not possible to determine the area which the Western Hecani occupied but it apparently coincided approximately with the diocese of Hereford, comprising Herefordshire and southern Shropshire, with a fluctuating western boundary (VCH 1908, i, 348).

Merewalh *(ob c* AD 685) is said to have resided at Kingsland near Leominster *(op cit)* and was probably buried at Repton (Finberg 1961). It may be, as Lobel suggests, that Milfrith chose the site of Hereford as his capital city and the centre of the diocese (Lobel 1969) at some time before his death in *c* AD 690.

The death of Milfrith and his brother Merchelm towards the end of the 7th century may well indicate the demise of the sub-kingdom of the Western Hecani as a political unit (Hillaby 1976, 41). By the second half of the 8th century the people were described simply as the *Westerna* (Birch 1885-93, 297) and early in the 9th century they had apparently become the *Magonsaete* (Finberg 1961, 234).

Bede informs us that- in AD 731 Walhstod was 'bishop of the folk who live in the west beyond the River Severn' (Colgrave and Mynors 1969, v, 23), but it is not until *c* AD 800 that there is firm evidence for a bishop's see at Hereford when Wulfheard describes himself as *Herefordensis Ecclesiae Episcopus.*

The earliest settlement evidence from the excavated sites is of a restricted nature but can be used to give some indication of the extent of the original foundation. On the western side of the city, the earliest occupation features were the two grain drying ovens, found at the Victoria Street site (p 30). They were probably built during the latter half of the 7th century or during the 8th century. There is no evidence from the neighbouring sites to suggest that the ovens were associated with any buildings in the immediate area or with any road or other feature which would indicate that these features were part

of an urban development rather than being isolated structures in an otherwise rural scene.

Part of the early religious phase of occupation in Hereford is represented by the excavations on Castle Green (Vol 1). Here, a religious establishment, probably founded before the beginning of the 8th century, was surrounded by a cemetery containing burials of mixed sexes and ages, which was almost certainly in use during the latter part of the 7th century. It would seem likely that this cemetery was used by the inhabitants of Hereford from the time of the foundation of the city, as it fulfils the rubric of the early Church which forbade burials within the *parochia* of a Christian community.

The evidence indicates, with a reasonable degree of probability, that the dates of foundation of the religious settlement and of the cemetery on Castle Green are either earlier than the accepted date of the foundation of the diocese in AD 676 or within the half-century after this date. The evidence from the excavations also suggests that any other settlement at Hereford during the 7th and first half of the 8th centuries was of a restricted nature and did not extend as far west as the Herrington Street and Victoria Street sites.

If it is accepted that the cathedral was built at Hereford late in the 7th or early in the 8th century, we can therefore postulate that by the mid 8th century Hereford contained two religious establishments on the gravel terrace close to the Wye, one of which was surrounded by a cemetery; a north-south road which crossed the Wye close to the cathedral; possibly an east-west road immediately to the north of the cathedral and Castle Green, and probably a few houses close to the crossroads (Fig 141). The surrounding area was mainly agricultural with oats, wheat and barley being grown and artificially dried. The western side of the embryo town may have had some protection from a watercourse on the line of the King's Ditch (now Aubrey Street) and the associated marshy area (p 88), but nothing is known about any other defensive features to the north and east.

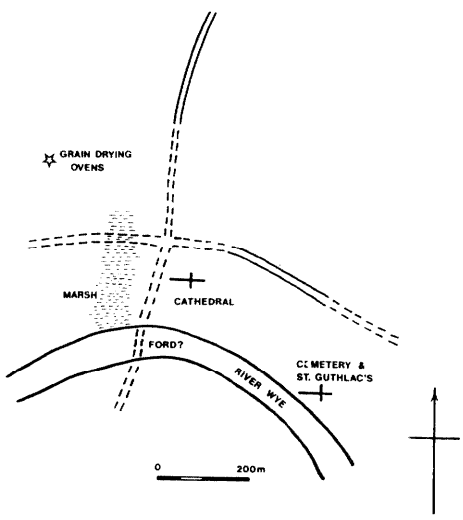

Fig 141 *The postulated form of Hereford in the early 8th century. The two religious settlements of St Mary's cathedral and St Guthlac's are seen as adjacent to a crossroads situated on the gravel terrace close to the-ford across the Wye*

The late Saxon period

The late 8th and early 9th centuries were apparently a period of growth for the city of Hereford. Either Offa, during his long reign as King of Mercia (AD 757-96), or possibly one of the minor kings who followed him, may have been responsible for this expansion of Hereford from a religious centre with perhaps a few houses, to a planned, royal town.

The beginning of Offa's reign was troubled, but in AD 760 the English defeated the Welsh at the battle of Hereford (Williams 1920, 10), and, possibly between AD 784-96, the line of the Welsh border was stabilized by the construction of the dyke which bears Offa's name (Fox 1955, 282). This event must have been of fundamental importance to Hereford for the dyke approaches the Wye from the north at Bridge Sollers, only 10km to the west of the town. The dyke's absence between this point and its second junction with the Wye near Monmouth has led to suggestions that the river itself was the border between Wales and Mercia (Fox 1955, 211) although the position of Hereford on the Wye makes this seem highly improbable. An alternative possibility: that the gap in the dyke accommodated the friendly but autonomous state of Ergning or Archenfield, between the Wye and the Black Mountains (Lloyd 1911, i, 280), would help to explain the mixture of both English and Welsh influence in this area, and, perhaps, the increasing importance of Hereford during the 8th and 9th centuries.

It is thought that Offa had a palace at Sutton, some 6km north of Hereford, and apparently it was here, in AD 794, that Offa murdered Ethelbert, king of the East Angles (James 1917). Miracles were performed at Ethelbert's first burial place at Marden and his remains were eventually moved to Hereford where he became the patron saint of the cathedral. Because of the murder, early tradition made Offa a lavish benefactor of Hereford Cathedral and possibly of the city (Lobel 1969).

The history of Hereford and indeed of the country as a whole is obscure during the century following Offa's death in AD 796, but it is suggested that Mercian power dwindled, and, although battles were still fought on the Welsh border, there is no indication that Hereford was of strategic importance.

It is within this framework that an expansion of the city occurred which shows some signs of being deliberately planned. The date for this expansion cannot, as yet, be accurately established, but in this report it is suggested that the growth of the city to the west of the cathedral and west of the postulated stream and marshy area on the line of Aubrey Street took place at some date between the middle of the 8th century and the middle of the 9th century.

The archaeological evidence for the proposed planned expansion comes from the Berrington Street and Victoria Street excavations (p 48 and 31). A street, partly sealed under the earliest known western defences, a second street on the line of Berrington Street, and a series of buildings oriented with these two streets (Fig 71) may be considered as evidence for an element of town planning in this previously sparsely settled area. Parallel streets to the east, including Aubrey Street, Broad Street, Church Street and St John Street (Fig 9), may belong to this pattern and together they form the grid pattern for which Hereford has long been known (Fig 142). A seventh street may be postulated between Broad Street and Church Street, where the property boundaries shown on the 18th century Taylor's Map (Fig 5) continue the line of Widemarsh

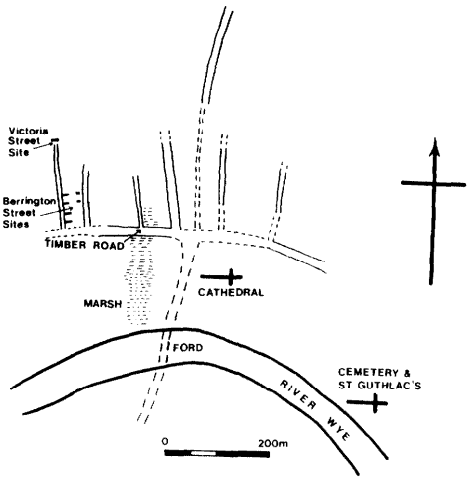

Fig 142 *The postulated form of Hereford in the latter half of the 8th century. It is suggested that a grid pattern of streets and buildings was superimposed on the original cross road settlement*

Street, which approaches the town from the north, towards the ford across the river (Fig 141).

The north-south road on the west of the Berrington Street site apparently stops at the Victoria Street site and this may indicate the extent of the original grid pattern to the north, with the possible exception of the street which led into the city from the north.

To the south, this grid pattern of streets was probably bounded by the main east-west road and the cathedral precinct. South of this road, the north-south alignment of streets may have been continued with Bridge Street and the conjectural road leading to the ford. These two streets were presumably separated by the marshy area which comprised the southern end of the King's Ditch (p 88). Further to the west of the city, the alignments of Victoria Street and Friar Street (Fig 9) both correspond with the excavated grid pattern and could have been part of this development, but the eventual insertion of the defences on the western side of Victoria Street perhaps makes this unlikely.

St John Street is the easternmost street in the grid pattern described above. Beyond this the streets which run north-eastwards from the main east-west street, including Ferrers Lane and St Ethelbert's Street (Fig 9), are on a different alignment to the primary grid. There is no archaeological or other evidence to indicate when the initial construction of this secondary grid took place, but it may have been a later addition to the original plan or a logical infilling at some time after the defences had included this part of the city in the early 10th century (Fig 134).

A comparison of the plans of the excavated buildings on the Victoria Street and Berrington Street sites and a discussion of their alignment and spacing are included in a separate section (p 96). It is sufficient at this point to observe that the shape of the individual plots in the area of the postulated primary grid pattern of streets, as shown by 18th and 19th century maps, is quite distinct from that in the area which developed outside the late 9th and 10th century defences (Fig 143). The latter are typical long, narrow burgage plots whilst the former are broader and much shorter. These may represent the Saxon *masurae,* the term which was used for a plot of land in the Herefordshire part of the Domesday survey and which continued in use until the 13th century. By this date it had apparently become interchangeable with the more common terms *burgagium* and *tenementium* but the distinction in shape and size between plots in the two separate development areas apparently persisted.

The evidence for a distinct planning policy for the area between Victoria Street and St John Street is only slight and is entirely dependent on the regularity of the buildings, plots and streets exposed in the Victoria Street and Berrington Street excavations. The lay-out is clearly earlier than the earliest known defences but is later than the grain drying ovens and a constructional date in the second half of the 8th century is postulated (p 73).

If the evidence outlined above is accepted, then we appear to have an exception to the general rule in southern England that the creation of burghs in the late 9th and early 10th centuries coincided with the reorganization of town plans on a rectilinear pattern (Biddle and Hill 1971, 70-85). 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 . . . among the possible sources of the Wessex plans' (Biddle 1975, 27).

The simplified pictures of the earliest phases in the development of Hereford presented above and in Figs 141 and 142 lack any defensive works apart from those provided by natural features. They do not indicate a road approaching the city from the north-east although the road leading from Worcester is an important feature of the later town plans and should perhaps be anticipated in the earliest phases. It may have joined the north-south road at a point to the north of the primary grid of streets, or a diagonal approach directed to the ford or main cross-roads may have been diverted when the stage 1 or 2 defences were built. The original course of the north-south road is also uncertain. The present line of Widemarsh Street ends in High Town where it approaches the line of the stage 1-3 defences and the present continuation, Broad Street, is some 70m to the west (Fig 9). Property boundaries suggested that a continuation of Broad Street to the north of All Saints Church was possible (Shoesmith 1974) but this was not found in trial excavations on that alignment (Sawle 1977) (p 69). Figs 141 and 142 show Widemarsh Street continuing south from High Town towards the ford and roughly following the boundaries separating the properties on the east side of Broad Street from those on the west side of Church Street (Fig 5).

At some time in the middle of the 9th century the city was enclosed within the ditch and gravel bank of the first stage of the defensive sequence. This defensive work, which probably enclosed some thirteen hectares, included the primary grid pattern of streets and the cathedral within its limits, but apparently excluded St Guthlac's and the city cemetery (Fig 131). The evidence from the Victoria Street and Berrington Street sites indicates that there was probably a reduction in the occupied area at some date before the defences were built.

The regularity of the 9th century defended town is apparent from a glance at the plan. The wide east-west road and the aptly named Broad Street running

north-south would have provided market areas, whilst Berrington Street and Aubrey Street to the west of Broad Street, and Church Street and St John Street to the east would have provided access to the residential areas. South of the east-west road the cathedral precinct probably filled most of the south-eastern quadrant west of the road leading to the ford and, separated from it by a marshy area may have been the beginnings of Bridge Street. The date of construction of the earliest bridge is unknown, but one was certainly present by *c* AD 1100. Earlier dates have been suggested (Tonkin and Tonkin 1975, 141 gives *c* AD 800) but are not based on reliable data, so the plans in this volume use the *c* AD 1100 date (Fig 136). The presence of an earlier bridge need not have made much impact on the developing plan of the city apart from the southerly extension to Bridge Street, the construction of a new road south of the river and the earlier disuse of the roads leading to the ford on each bank.

By the second half of the 9th century Hereford had several features which suggest an urban rather than a solely religious status. The elements of the planned town and the construction of a defensive rampart and gates all infer a communal activity. However, it was very late in the 9th century or early in the 10th when Hereford apparently expanded to full urban status.

The principal archaeological evidence is the construction of impressive defensive works (stage 2) which probably

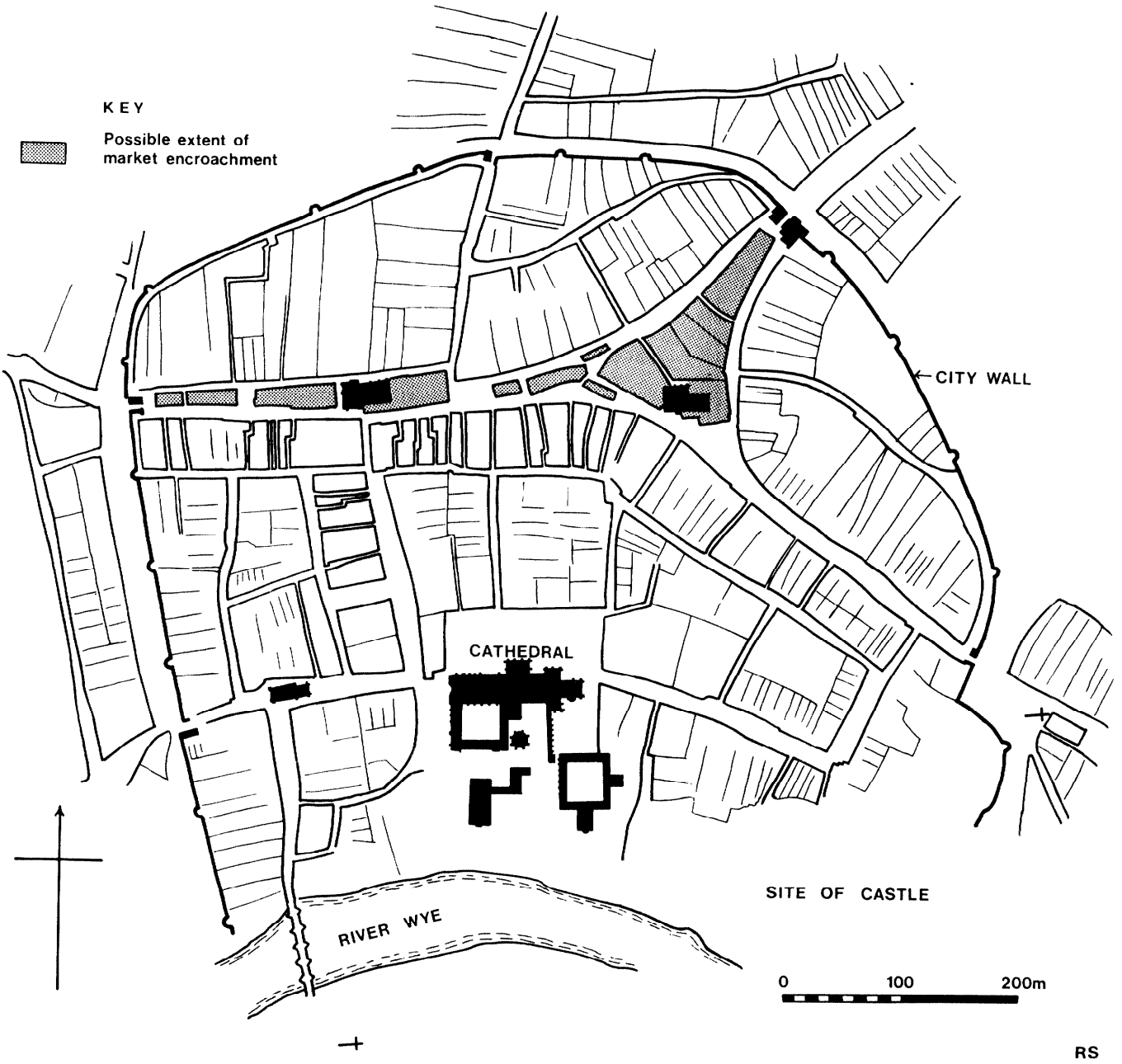

Fig 143 Indications of burgage plots and market encroachment areas suggested by Taylor's plan of 1757

included some 21 hectares within their perimeter (Fig 134). The extension brought the monastery of St Guthlac's and the cemetery into the defended area and allowed for the expansion of the residential area to the east. The use of the cemetery increased (Vol 1), presumably indicating a substantial expansion in the permanent population. After a few years, and in common with many of the Wessex burhs, the timber defences of stage 2 were replaced in stone (stage 3: Fig 135) and, with the foundation of the Hereford mint and the rebuilding of the cathedral, the city had sufficient status to host a meeting of the king with the Welsh princes in AD 930. By this time the secondary grid pattern of streets in the east of the city would probably have been in use and the external road pattern must have begun to focus on the principal gate at the northern end of Broad Street.

The buildings, which correspond with this increase in both the size and complexity of the defences of the city, are only poorly represented by the fragments found at Berrington Street site 4 period 2a. The new buildings were of sleeper beam construction, probably with central hearths and laid clay floors (p 50).

By the early 10th century Hereford must have been very similar to other West Saxon 'burhs' with an assessment of 1200 hides and a perimeter of some 1545m (1690yds).

The increase in the defended area of the city probably took place late in the reign of Alfred or during that of Edward the Elder, and was possibly associated with the Aethelflaedan burh building period of AD 910-16. Thus, at the commencement of Aethelstan's reign in AD 924, there would have been every reason to agree with the assertion of Camden that Hereford 'sprang to glory under Edward the Eider' and had by then become a commercial, administrative and ecclesiastical centre.

During the next century the area remained relatively peaceful and the defences of the city were allowed to decay. The built-up area continued to increase however, particularly to the north of the stage 3 defences. The cathedral was rebuilt by Bishop Aethelstan between AD 1030 and AD 1040, and in *c* AD 1052 Earl Ralph of Hereford built a castle in the city. This was probably quite small and may have occupied the site of the later keep or, as suggested in volume 1, may have been close to the east gate of the city (Fig 135).

In AD 1055 Gruffydd ap Llewelyn and Algar, the Earl of Chester, together with their army, attacked Hereford and, according to the Welsh Chronicles 'returned home with manie worthie prisoners, great triumph, and rich spoiles, leaving nothing in the town but blood and ashes, and the walls rased to the ground' (Duncumb 1804, 225). The cathedral was destroyed and the bishop and seven canons slain, according to Florence of Worcester (Florence 1848-9), although the extent of the damage to the cathedral may be debatable as in AD 1056 he also records that Bishop Aethelstan was buried 'in the church which he built from the foundation'. At the time of Gruffydd's attack, the stage 3 defences must have been over a century old and, although repair work had probably taken place from time to time (p 81), it is unlikely that they would have provided a serious obstacle. In the small area excavated in Cantilupe Street it was impossible to establish whether the stone wall of stage 3 had been deliberately slighted or had just suffered from disuse and gradual stone-robbing. The two buildings, L and M of period 2b, on Berrington Street site 4 were probably destroyed by fire at some time in the middle of the 11th century possibly during the raid of AD 1055.

The post-Conquest city

The Anglo-Saxon Chronicle records that Harold refortified Hereford in AD 1056 (p 15) but there are no records which indicate the extent of the rebuilding needed within the city. It is perhaps worth noting however, that on the Berrington Street site, the buildings of period 2c, which replaced the burnt buildings of period 2b mentioned above, were extended to cover a greater area of the site. By the time of the Domesday survey in AD 1086, burgesses were living within and without the wall and it is apparent that the city had extended beyond the line of the stage 3 defences (Fig 136). The construction of a large new market place, and the resulting development to the north, created a new focus for industry and commerce which was probably aided by the foundation of the three churches of All Saints', St Peter's and St Owen's, outside the original defence line.

The archaeological evidence for this expansion is limited but consistent. At the western end of Bewell Street, in a small area south of Bewell House and fronting on to the street, signs of late 11th century occupation were observed in a small trial excavation (Sawle 1977). A similar small trench on the north-west side of Commercial Street, just within the line of the later city wall, also produced evidence of late 11th century occupation with possibly some cultivation at an earlier date (Sawle 1977).

At Bewell House (p 56) and the Brewery site (p 63) the earliest occupation period consists of property boundaries running in an east-west direction which are probably dated to the mid or late 11th century. It would seem that these boundaries reflect properties fronting on to the east side of Edgar Street, which ran from the north-western comer of the Saxon town (Fig 136).

The extensions to the city presumably also included the southern part of Widemarsh Street and the northern side of St Owen's Street. Back lanes may well have been a feature of this extra-mural development with Maylord Street running parallel and north of High Town and Commercial Street, and Gaol Street serving a similar purpose to the rear of St Owen's Street. Small alleys, running north from Bewell Street, between Edgar Street and Widemarsh Street, may have also had a similar function (Fig 5).

It is suggested that the castle was rebuilt on a larger scale shortly after the Conquest (Vol 1), and that by AD 1100 the river had been bridged.

As the market area became more important, a series of footways were undoubtedly made across the disused stage 2 defences to allow easy egress from the old town. Some of these still survive (Fig 9) and others, now lost, are indicated on Taylor's plan (Figs 5 and 143). As the defences decayed, the prime positions on the south of the market area would have been used for building with the old defensive ditch to the rear of them becoming an open sewer.

With the small settlement of St Martin's to the south of the river, the modest increase in development during the late 11th and early 12th centuries produced a town which, according to William of Malmesbury, was 'not large, but such as appeared by the ruins of broken ditches, to have been something great' *(Gesta Puntif* 1870, 298) (Fig 136).

The city suffered in AD 1138 when Talbot held the castle against the King. Whilst the King was besieging the castle, 'the insurgents set fire to the city and all below the bridge over the Wye was burned down' and at a later date 'Talbot returned . . . and burned down all the

other side of the Wye' (Johnson 1882: quoting Henry of Huntingdon). The archaeological evidence provides little indication of these events, although building O on Berrington Street site 4 may have been burnt at this time. One result of the Civil War was that St Guthlac's moved from the castle to a new site to the north-east of the city, and the cemetery, which was associated with it, became disused (Vol 1). Between AD 1142 and 1148 the cathedral was rebuilt on a larger scale, apparently extending to the north across the line of the original east-west road, and it is about this time that there is a first mention of a cemetery associated with the cathedral.

It was probably late in the 12th century, after a charter was granted which encouraged the citizens to enclose their town (p 18), that the city plan finally became similar to that known today (Fig 137). The defence, consisting of a gravel bank, probably surmounted with a fence of brushwood and thorn palings, contained four new gates (p 18), which ensured that Eign Gate Street, Widemarsh Street, Commercial Street and St Owen's Street continued as important market thoroughfares. The two smaller streets, Maylord Street and Gaol Street, which were only back lanes, were apparently cut off by the new defences and the remaining internal portions were extended within the defended city to approach the new gates, whilst the external parts became disused although still apparent as property boundaries (Fig 5).

The excavations at the Brewery site (p 65), Bewell House (p 56), and the Liberal Club (p 68) have indicated that these new defences cut across existing properties, at least in the north-western part of the city, and have also confirmed the probable date of construction. It is assumed (p 84) that these defences were continued to the south of the river to include the suburb of St Martin's and the meadows on the opposite side of the river from the city. The addition of this area to the south of the river within the defences may have been because of the damage caused by Talbot during the Civil War some 60 years earlier.

The new gravel rampart and the reused parts of the Saxon defences were gradually faced with stone walls and bastions during the 13th century. The broad market areas probably became colonized by permanent stalls about the same time and, by the early 14th century, extensions in the suburbs included several monastic establishments. The castle was rebuilt in stone and the town probably achieved its peak of medieval development (Fig 139).

Apart from the intra-mural road in the north-western part of the city, apparently only one new street was created inside the walled city during this period-Gwynne Street. This street, which bends from the southern end of Broad Street to the northern approach to the bridge, may have originally led to the ford in front of the Bishop's palace, but the most likely reason for its irregular course would seem to be caused by the problem of crossing the marshy area (p 69) which probably survived in parts until the 16th century.

There was to be little change in the plan of the city after the end of the 13th century until the industrial revolution, and the model of the city as it was at the beginning of the 17th century (Fig 144) probably equally represents the city in the late medieval period.

Fig 144 A model of the city of Hereford as it was in the late medieval period. St Owen's Gate is in the foreground to the left and Bye Street Gate to the right

The domestic buildings

In this section the information from the various excavations which adds to our knowledge of the nature of the domestic buildings and their environment in Hereford is brought together. The structural evidence includes details of buildings, pits and other features which are considered to have a non-industrial function. The small finds, pottery and environmental evidence are included where they have a bearing on the domestic setting.

The excavations described in this volume have concentrated on the areas associated with defensive features of the city. The primary motives have been the establishment of relationships between the defences and the city and the dating of the defensive sequence, but there has been no attempt to excavate complete building plots. As a result the information concerning the domestic nature of the occupation in Hereford is more fragmentary than would have been the case had the work been concentrated on this type of site. In addition, within the areas excavated in detail, the average total depth of the stratified occupation layers, excluding the defences, has been about 1.5m, which means that in some cases even the earliest occupation features have been badly disturbed by later disturbances whilst the later levels have sometimes been completely lost by modern double-spit garden digging.

Occupation levels tend to have been better preserved where they were sealed by substantial later features such as buildings or ramparts. In areas which have been cultivated it is common to find that the only features which survive are those cut into the natural subsoil and gravel of the site.

Traces of buildings were observed on Victoria Street, Berrington Street, Bewell House and the Brewery sites. The buildings at Bewell House are considered to have had an industrial function and are therefore discussed on p 100, whilst those at the Brewery site were represented by many postholes which have not been successfully analysed into individual structures.

The remaining buildings were all on the Berrington Street site with the exception of one, in a pre-defensive context, at Victoria Street. The details of these buildings, are summarized in two groups in Tables 11 and 12.

Table 11
Group 1 buildings

Site	*Building*	*Fig*	*Length E-W*	*Width N-S*	*Evidence of central passage*	*Other internal features*	*Type of construction*	*Notes*
Berrington Street site 1	A	59 (M2.A9)	At least 9m	At least 4m	Post hole traces	Nil	Shallow sub rectangular postholes	A gully along the possible northern edge of the building could have been a timber emplacement
Berrington Street site 2	B	63 (M2.B4)	At least 12m	4.7m (main building)	Two lines of post-holes 2.8m apart	Gullies and isolated postholes	Most post-holes were irregular but the south wall had double posts	The building had an extension to the north and both parts included gullies which were apparently for drainage. There was one possible rebuilding phase and indications that the final building was burnt
Berrington Street site 3	C	57	—	—	—	Nil	Irregular postholes	Only part of one wall of the building was found
Berrington Street site 3	D	66 (M2.B8)	At least 9m	6m	Posthole traces	Gullies	Irregular postholes	The two gullies could have been slots for timbers or been used for drainage. There were indications that the building was burnt
Berrington Street site 4	E	68 (M2.B11)	—	At least 4.5m	—	Nil	Rectangular plank-shaped posts 0.2× 0.05m	The postholes were found as voids. Only a small part of the building was found
Berrington Street site 4	F	68 (M2.B11)	—	—	—	Traces of a hearth and two gullies	Some irregular postholes and others containing plank-shaped posts 0.2 × 0.05m	Only a small part of the building was found but it was considered to have been of more than one phase
Berrington Street site 4	G	68 (M2.B11)	—	—	—	Isolated postholes, traces of a hearth	Shallow postholes and possible timber slot	A gully on the northern side of the building may have been a timber slot. There is probably more than one phase of construction
Victoria Street	—	21	9m	7.5m	Two lines of post-holes *c* 1.8m apart	Gully and gravel filled area	One large central post and others of irregular shape	The central post and probably the north wall were replaced

Table 12
Group 2 buildings (all Berrington Street site 4)

Period	*Building*	*Fig*	*Length E-W*	*Width N-S*	*Internal features*	*Type of construction*	*Notes*
2a	H	73 (M2.C8)	—	—	Traces of hearth, earth floor, and spread of ash	Not known - presumably sleeper beam	Several small pits later than building. Sealed by building L
2a	J	73 (M2.C8)	—	—	Traces of hearth, clay floor, and gullies	Not known - presumably sleeper beam	Apparently of at least two phases. Sealed by building M
2a	K	73 (M2.C8)	At least 4.5m	—	Clay floor	Gully with traces of vertical timber emplacements	Sealed by a metalled yard in 2b and 2c
2b	L	74 (M2.C11)	—	—	Clay floor and well constructed hearth	Not known- presumably sleeper beam	Above building H. Possibly destroyed by fire. Sealed by building N
2b	M	74 (M2.C11)	—	—	Traces of hearth and clay floor.	Now known- presumably sleeper beam	Above building J. Possibly destroyed by fire. Sealed by building O
2c	N	75 (M2.C14)	—	—	Clay floor	Not known- presumably sleeper beam	Above building L.
2c	O	75 (M2.C14)	At least 4m	At least 4m	Clay floor burnt in places; stone base	Not known	Above building M. Possible central pillar. The building may have been destroyed by fire. Traces of later floors above
2c	P	75 (M2.C14)	—	—	Clay floor	Not known	New development west of building O
2c	R	75 (M2.C14)	—	—	Clay floor	Probably sleeper beam	New development in centre of site 4

The group 1 buildings, comprising those which are considered to pre-date the stage 1 defensive features, were from Berrington Street period 1 and Victoria Street period 2. The group 2 buildings, which comprised period 2 at the Berrington Street site, were all from site 4 and close to the line of Berrington Street itself.

The dating of the buildings of group 1 is considered together with the dating of the earlier defensive stages in a separate section (p 73). It is considered that these buildings were most probably constructed either in the latter half of the 8th or very early in the 9th century and although most of them were demolished before the first stage of the defensive sequence was built, around the middle of the 9th century, the ones close to Berrington Street may have been in use throughout the 9th century.

The various phases of the group 2 buildings are dated, by the associated pottery, to the 10th, 11th, and early 12th centuries. A more concise breakdown into the periods is given in the full excavation report (M2.C5-M2.D4).

The two groups had fundamental differences in constructional technique and in the disposition of the buildings both with respect to one another and in relation to the site as a whole. In the first group the buildings were all of posthole construction and were well separated from their neighbours although they were all close to two parallel north-south roads (Fig 145). There was only slight evidence of laid floors and hearths. In the second group, the buildings were apparently of sleeper-beam construction although vertical posts set into trenches were occasionally used. The buildings contained clay or packed earth floors and most of them had an evident hearth position. As the buildings developed during the 11th century there was a tendency for them to become grouped around a courtyard.

The group 1 buildings were all, as far as can be established, orientated with their long axes east-west. Buildings A-D were close to the north-south road, which eventually became buried under the stage 2 and 3 defences, and the Victoria Street building was apparently at the northern end of this road and was partly sealed by the stage 1 gravel bank. Buildings E and F were close to the north-south line of Berrington Street and building G, the only one not directly associated with a road, was to the west of, and separated by a metalled. path from, building F. The separation between the western buildings was:

A-B *c* 13m
B-C *c* 13m (distance measured from main part of building B)
C-D *c* 9.5m

and the maximum separation between buildings E and F was *c* 7m.

The total distance between the westernmost road and the line of Berrington Street was *c* 36m. If it is assumed that the buildings all had their long axes east-west and that they were up to 12m long then the spacing between the two north/south building lines was of the order of 10-12m.

Accepting that each building had an individual plot of ground and that these plots were all of approximately equal size then the approximate dimensions can be

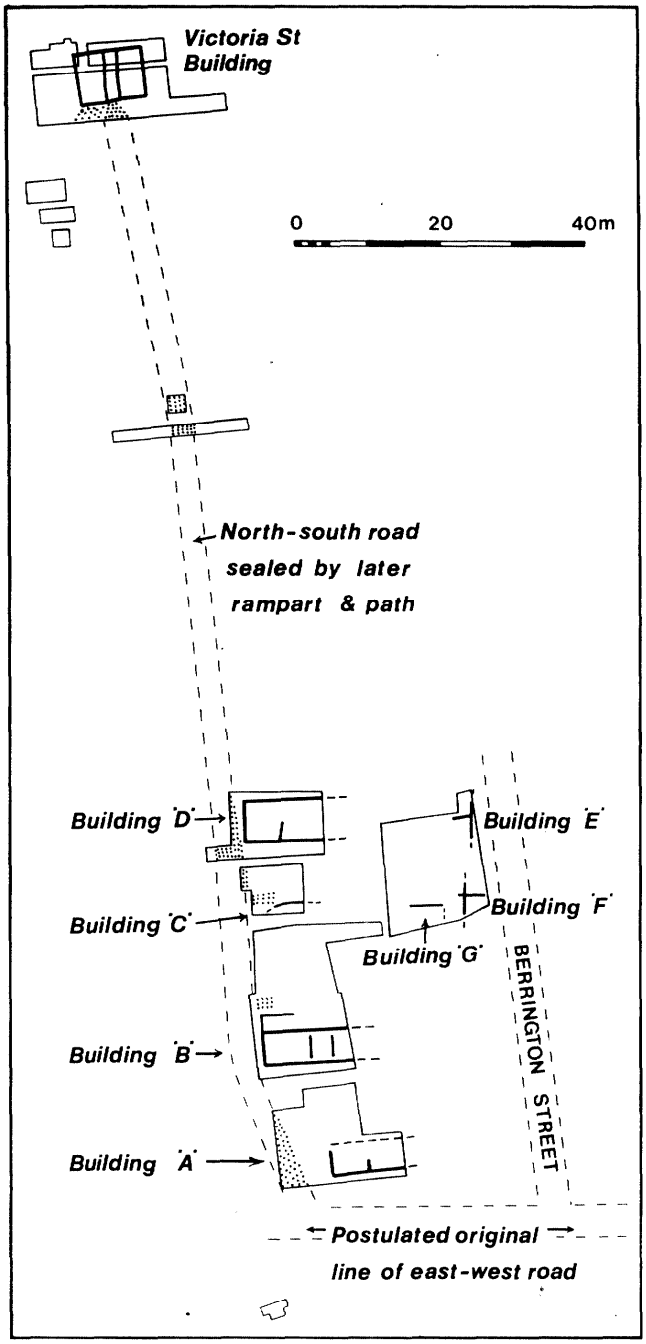

Fig 145 Relationship of houses and roads in the 9th century in the Berrington Street, Victoria Street area

suggested. Using all the available information, the average plot sizes were some 17m from north to south and 18m from east to west, thus being roughly square with an area of about 200 sq m (240 sq yds), which corresponds to a density of 50 properties to the hectare (20 properties to the acre).

The square shape of the individual plots is a significant feature of this early development as compared with the post-Conquest burgage plots which were long and narrow. The density would have allowed some ground for cultivation in each plot, especially as the buildings were relatively small by modern day housing standards.

Where the dimensions could be established, the buildings were between 9 and 12m long and between 4.5 and 7.5m wide. They contained a central passage which split the building into two rooms. All the buildings were of posthole construction but only one of the eight excavated had a definite central posthole. Not surprisingly, this was also the widest of the buildings examined. The shape and size of the postholes varied from building to building, and even from wall to wall, suggesting that different constructional methods were in use and that the buildings may have been of more than one phase of construction. The south wall of building B consisted of pairs of posts some 2m apart which could have supported some form of interwoven latticing. In buildings E and F some of the postholes, which were found as voids, had contained rectangular planks 0.2m by 0.05m, a feature which could have occurred with other buildings and not been recognized. The plank-like posts were often associated with small stakeholes and occasionally occurred in pairs at right angles. The nature 'of the building erected on these shaped posts and the significance of this method of construction are not known. The plank-like posts were not sufficiently substantial to support a heavy roof and the buildings must therefore have been rather flimsy.

Building B and the Victoria Street building both had some indication of additions to the main structure which were possibly of a lean-to type.

The buildings on Berrington Street site 4 evidently had earth floors and the remains of hearths, laid on these floors, were found in two of these buildings. The Victoria Street period 2 building may also have had an earth floor -traces of patching and of a possible hearth were found. It is suggested that the floor levels and any associated occupation levels belonging to buildings A-D at Berrington Street, were destroyed by cultivation after the buildings were burnt down. There is no evidence to indicate that any of the buildings had floors either covered in clay or made of timber and it is more likely that they consisted of well-trodden earth, possibly covered in rushes or some other vegetable material.

There was evidence for partial or possibly total reconstruction of several of the buildings. This was most obvious with building B and with the building on the Victoria Street site which had had its central post replaced.

The remains of the group 1 buildings were insufficient to attempt any meaningful reconstructions. The size and depths of the postholes were such that the buildings were unlikely to have been of more than one storey. The burnt material found in the overlying layers suggests that the walls of the buildings were covered in daub. There was no evidence to indicate the type of roofing material but this was probably some form of thatch. At least two of the buildings may have been destroyed by fire.

There were few finds which could be directly associated with the group 1 buildings but some of those in the overlying cultivated soil layers should be considered to belong to the building occupation phase. The quantity of animal bone was small and there was no pottery.

There was little ground disturbance apart from the postholes, a few gullies, and the slight trench cut for the north-south roadway. There were no rubbish or cesspits whatsoever and the method of disposal of waste material during this early occupation period is unknown.

The remains of the group 2 buildings, although fragmentary, illustrate the gradual development of the Berrington Street area during a period of some 200 years. During this time the various buildings adjacent to the frontage were replaced at least three times, and the area

immediately behind them to the west gradually acquired other buildings and metalled courtyards. The individual buildings are discussed in detail as part of the microfiche report (Berrington Street periods 2a, 2b, and 2c). In this section the site layout is considered and the buildings are compared with one another and with those of group 1.

The buildings of group 2 are all apparently of sleeper-beam or possibly post-trench construction. This type of building, which probably involved some form of prefabricated, box-frame construction, with panels filled with wattle and daub, shows a significant advance in technique as compared with the group one buildings. With few changes, the most significant of which were the use of stone footings and eventually stone fireplaces and chimneys, this method of construction was to continue in Herefordshire until late in the 18th century.

There was insufficient evidence to indicate the shape and dimensions of the various buildings but the orientation continued to be approximately east-west. All the group 2 buildings had laid clay or packed earth floors and several, particularly those in the earlier phases, contained hearths. Some of the buildings could have been of two storeys and they all probably had thatched roofs. At least three of the buildings on the site may have been destroyed by fire.

Metalled areas, which were probably small courtyards, made a gradual appearance as the group 2 buildings developed. They were mainly composed of small pebbles but in the latest phase the metalled surfaces and the makeup levels for the floors of building O and R contained significant quantities of smithing slag (see Vol 3).

Ground disturbance continued to be minimal and only a few small pits were dug during the whole of the 200 year period.

There was a greater quantity and variety of finds associated with the group 2 buildings as compared with finds from group 1. Spindle whorls and loom weights indicate that weaving was practised in the earliest phase of the buildings. Objects of iron, copper, glass and bone show an increasing variety of shape and decoration. Charred grain, associated with the destruction of building 'O', consisted mainly of wheat which was probably stored in the building (see Vol 3). The earliest features and layers which contained pottery were those associated with the first phase of the group 2 buildings. The subsequent development of the pottery industry is considered separately (see Vol 3).

Structural evidence for the domestic occupation in the city after the beginning of the 12th century is poorly represented on the excavation sites. The mid 13th century buildings found on the Bewell House site have an industrial use and are considered separately (p 102), and all traces of the buildings, which were doubtless present along the Berrington Street frontage (site 4), were removed when the stone foundations, cellar and floor levels of the 16th to 18th century buildings were inserted.

Finds, particularly from the Berrington Street and Bewell House sites, which give some indication of the nature and scale of the domestic occupation, are recorded in the inventories in the microfiche section. Evidence for the density and continuity of occupation on these sites is mainly dependent on material from the many pits which cut through the earlier occupation levels. The distribution and use of these pits are discussed in the excavation sections.

Three of the later buildings on Berrington Street site 4 were of a domestic nature and deserve mention in this section. They are fully described in the excavation reports. Building S of period 4, dated to the second half of the 13th century, consisted of a fragmentary clay floor surrounded on two sides by a gully. It was probably an outbuilding associated with a more substantial building which fronted onto Berrington Street and was presumably of sleeper beam construction.

A small cellar or ice house and a pit probably used for drainage were all that remained of the 16th and 17th century house on site 4, but the stone footings, fireplace and floor levels of the early 18th century building T which replaced it were exposed and are recorded in the microfiche report (M2.E13).

Industry and domestic occupations

The archaeological evidence for industry in Hereford is partly of a structural nature and partly derived from the excavated material. To ensure that this section does not give a 'false picture, because of the limited areas excavated and the differential preservation of the various types of industrial refuse, historical records are included wherever they give an indication of the nature and extent of a particular trade. The account is mainly limited to the late Saxon and medieval periods and does not, for example, consider the 18th century evidence for wine bottling (see Vol 3) and the 19th century material from Bewell House associated with the Hereford Brewery. The industrial and domestic occupations are considered in three sections according to the principal raw material used. The first section comprises industries dependent on siliceous and related materials and includes pottery, tile, stone and glass. Section two, which contains industries dependent on metallic ores, is in two parts consisting of the ferrous and non-ferrous industries. 'The third section includes all the industries which make use of organic materials and is sub-divided into two parts dependent on whether the main raw material is animal or vegetable.

Siliceous and related industries

None of the excavations have produced any direct evidence which demonstrates that ceramics were manufactured in Hereford. However, an examination of the fabrics has shown that several varieties of pottery were made from clays derived from the Devonian Old Red Sandstone marl and the glacial tills derived from it (Vol 3). Although pottery made from this clay is found from the 11th to the 18th centuries, it is not common until the 13th century. There is an apparent gap in production during the late 15th and 16th centuries when glazed wares originating in the Malvern Chase area were the most frequent (Vol 3, Fig 28). Pottery originating from the Old Red Sandstone marls could have been manufactured in a large area which is approximately centred on Hereford but includes south Shropshire, the southern Marches and parts of Gloucestershire west of the Severn, as well as the whole of Herefordshire (Vol 3, Fig 36).

The main local type of 13th century pottery, comprising up to 20% of assemblages, has a fabric which compares well with a sample of gravel from the Bewell House site and was probably made close to the city. In the late 13th, 14th and early 15th centuries a fine-textured ware, found mainly as jugs, comprises up to 70% of assemblages. It probably had several local sources; one of

immediately behind them to the west gradually acquired other buildings and metalled courtyards. The individual buildings are discussed in detail as part of the microfiche report (Berrington Street periods 2a, 2b, and 2c). In this section the site layout is considered and the buildings are compared with one another and with those of group 1.

The buildings of group 2 are all apparently of sleeper-beam or possibly post-trench construction. This type of building, which probably involved some form of prefabricated, box-frame construction, with panels filled with wattle and daub, shows a significant advance in technique as compared with the group one buildings. With few changes, the most significant of which were the use of stone footings and eventually stone fireplaces and chimneys, this method of construction was to continue in Herefordshire until late in the 18th century.

There was insufficient evidence to indicate the shape and dimensions of the various buildings but the orientation continued to be approximately east-west. All the group 2 buildings had laid clay or packed earth floors and several, particularly those in the earlier phases, contained hearths. Some of the buildings could have been of two storeys and they all probably had thatched roofs. At least three of the buildings on the site may have been destroyed by fire.

Metalled areas, which were probably small courtyards, made a gradual appearance as the group 2 buildings developed. They were mainly composed of small pebbles but in the latest phase the metalled surfaces and the makeup levels for the floors of building O and R contained significant quantities of smithing slag (see Vol 3).

Ground disturbance continued to be minimal and only a few small pits were dug during the whole of the 200 year period.

There was a greater quantity and variety of finds associated with the group 2 buildings as compared with finds from group 1. Spindle whorls and loom weights indicate that weaving was practised in the earliest phase of the buildings. Objects of iron, copper, glass and bone show an increasing variety of shape and decoration. Charred grain, associated with the destruction of building 'O', consisted mainly of wheat which was probably stored in the building (see Vol 3). The earliest features and layers which contained pottery were those associated with the first phase of the group 2 buildings. The subsequent development of the pottery industry is considered separately (see Vol 3).

Structural evidence for the domestic occupation in the city after the beginning of the 12th century is poorly represented on the excavation sites. The mid 13th century buildings found on the Bewell House site have an industrial use and are considered separately (p 102), and all traces of the buildings, which were doubtless present along the Berrington Street frontage (site 4), were removed when the stone foundations, cellar and floor levels of the 16th to 18th century buildings were inserted.

Finds, particularly from the Berrington Street and Bewell House sites, which give some indication of the nature and scale of the domestic occupation, are recorded in the inventories in the microfiche section. Evidence for the density and continuity of occupation on these sites is mainly dependent on material from the many pits which cut through the earlier occupation levels. The distribution and use of these pits are discussed in the excavation sections.

Three of the later buildings on Berrington Street site 4 were of a domestic nature and deserve mention in this section. They are fully described in the excavation reports. Building S of period 4, dated to the second half of the 13th century, consisted of a fragmentary clay floor surrounded on two sides by a gully. It was probably an outbuilding associated with a more substantial building which fronted onto Berrington Street and was presumably of sleeper beam construction.

A small cellar or ice house and a pit probably used for drainage were all that remained of the 16th and 17th century house on site 4, but the stone footings, fireplace and floor levels of the early 18th century building T which replaced it were exposed and are recorded in the microfiche report (M2.E13).

Industry and domestic occupations

The archaeological evidence for industry in Hereford is partly of a structural nature and partly derived from the excavated material. To ensure that this section does not give a 'false picture, because of the limited areas excavated and the differential preservation of the various types of industrial refuse, historical records are included wherever they give an indication of the nature and extent of a particular trade. The account is mainly limited to the late Saxon and medieval periods and does not, for example, consider the 18th century evidence for wine bottling (see Vol 3) and the 19th century material from Bewell House associated with the Hereford Brewery. The industrial and domestic occupations are considered in three sections according to the principal raw material used. The first section comprises industries dependent on siliceous and related materials and includes pottery, tile, stone and glass. Section two, which contains industries dependent on metallic ores, is in two parts consisting of the ferrous and non-ferrous industries. 'The third section includes all the industries which make use of organic materials and is sub-divided into two parts dependent on whether the main raw material is animal or vegetable.

Siliceous and related industries

None of the excavations have produced any direct evidence which demonstrates that ceramics were manufactured in Hereford. However, an examination of the fabrics has shown that several varieties of pottery were made from clays derived from the Devonian Old Red Sandstone marl and the glacial tills derived from it (Vol 3). Although pottery made from this clay is found from the 11th to the 18th centuries, it is not common until the 13th century. There is an apparent gap in production during the late 15th and 16th centuries when glazed wares originating in the Malvern Chase area were the most frequent (Vol 3, Fig 28). Pottery originating from the Old Red Sandstone marls could have been manufactured in a large area which is approximately centred on Hereford but includes south Shropshire, the southern Marches and parts of Gloucestershire west of the Severn, as well as the whole of Herefordshire (Vol 3, Fig 36).

The main local type of 13th century pottery, comprising up to 20% of assemblages, has a fabric which compares well with a sample of gravel from the Bewell House site and was probably made close to the city. In the late 13th, 14th and early 15th centuries a fine-textured ware, found mainly as jugs, comprises up to 70% of assemblages. It probably had several local sources; one of

which may have been within the environs of the city for a kiln spacer with the impression of a green-glazed jug rim of this fabric was found close to the Victoria Bridge (Hereford Museum Accession No 7439).

The post-medieval Herefordshire wares were produced in several areas of the county but there is no evidence to show that they were made in the immediate area of the city.

In 1964, a quantity of large sherds of pottery mainly of late 14th and 15th century date was found buried in the ground at Chave and Jackson's shop (15-17 Broad Street). It may represent damaged stock from a shop selling pottery (see Vol 3).

Ceramic building materials were uncommon in Hereford until the 14th century when locally produced varieties predominated. During the late 15th and 16th centuries roofing material was mainly imported from the Malvern Chase area, but the advent of flat tiles and bricks in the mid 16th century, which became very common in the 17th and 18th centuries, corresponded to the regeneration of the local industry.

A few fragments of heraldic floor tiles, which were made from local clays, have been found in the city.

Clay objects, which are probably baking trays, were found in late 8th or 9th century levels at Victoria Street but could possibly have been from earlier contexts. They were made from local clay using a limestone sand tempering. Loom weights in late 8th to 11th century levels were also made of local clays (see Vol 3).

Clay pipes were made in several parts of Herefordshire but there was no indication that production occurred in the immediate neighbourhood of any of the sites excavated. Thomas Purton was manufacturing pipes in St Nicholas Ward, having apparently moved from London, sometime between AD 1663 and AD 1669. This family of pipemakers may have continued production in Hereford for half a century or more, for in AD 1714 William Purton the son of John Purton, tobacco pipemaker of Hereford, was apprenticed to a Bristol pipemaker (Walker 1972).

Objects made from stone are rare in Hereford and reflect the scarcity of this material as a decorative or building medium. Apart from public and religious structures, stone was seldom used as a building material until the 15th or 16th century when it became common as the footings for timber-framed buildings. The excavations, while producing several examples which illustrate the gradual development of techniques of the stone mason's trade, have not examined a working site apart from that used for the shaping of the stones in the original build of the medieval wall at the Cantilupe Street site (p 42). The small chips of stone which were found in the gravel layers behind the wall suggest that the stone was delivered to the site in blocks of approximately the correct size and was worked into the exact shape as the wall was built (M1 .G6). The 10th century Saxon wall on the same site was built of a mixture of reused and unshaped stone but small circular depressions, cut into the berm between the wall and the ditch, demonstrate the method used for mixing mortar (M1.F11). This would have been used either for binding the stones together or for providing a smooth face to the wall. Quernstones, whetstones and spindle whorls (Vol 3) are mostly made of local sandstone but the precise sources have not been determined.

Glass is rare in early contexts in Hereford and was probably not produced locally until about the 16th century. The remains of an Elizabethan glassmaking site have been excavated at Glasshouse Farm near St Weonards, some 16km south of Hereford (Bridgewater 1963) but there is no evidence for any similar establishment in the city.

The metalworking industry

The Domesday survey records that, in the time of Edward the Confessor, there were 6 smiths in Hereford, each one rendering both a penny for his forge and 120 shoes made of the king's iron (DB). By the early 13th century Hereford was acting as the arsenal for the Marches such that in AD 1224, 4,000 quarrels were sent to Skenfrith and in AD 1225, 7,000 quarrels were sent to Chester (Tonkin and Tonkin 1975, 51).

Fear of fire generally ensured that industries which required furnaces and kilns were located in the suburbs (eg HRO Heref Dots 8-14, f309), or just within the defences, well away from domestic buildings. In the early 13th century Adam the Smith is mentioned as occupying a house in Widemarsh Street and Roger Vrset had a nearby tenement which extended from All Saints' Church towards his 'furnum' next to the street called 'retro murum' (*Cath Mun,* 80, 298), which is presumably the present Wall Street. In AD 1368 a tenement to the east of Widemarsh Street was referred to as 'le Forges' (*Cath Mun,* 122-3, 1029).

There is no evidence from the excavation sites for actual ferrous working areas, although there is a strong indication that iron smithing was practised close to the Berrington Street sites in periods 2b, 2c, and 3. The large quantities of smithing slag found En the make-up layers of the late 11th century buildings on site 4 (p 50) were probably not brought from any great distance just to be used as hard-core. Small quantities of smelting slag, which were found scattered over all the sites, probably came from the Forest of Dean. It has been shown that the total amount of slag found on site 4 at Berrington Street indicates the manufacture of some 13,000kg of iron artefacts (Vol 3).

Items from the excavated sites such as knives, horse-furniture, and arrowheads, indicate the variety of ferrous articles which were present in Hereford and were probably made in the local area. The nails and strapping, associated with coffin burials of 9th or early 10th century date, which were found underneath Castle Green, demonstrate that the products of ironworking were available well before the Conquest.

Several features were found, together with mould fragments, copper bearing slags and metal residues, which can be associated with non-ferrous metalworking and in particular with bell and cauldron manufacture.

At the Brewery site, two furnaces of 12th century date were part of period 2b. They were well outside the area of the defended Saxon town and may have been at the rear of a property which fronted onto the line of Edgar Street. The remains of the two furnaces, 67 and 169, are described in the excavation report (M3.C10) and are typical of the practice described around AD 1100 by Theophilus (Hawthorne and Smith 1963) associated with the casting of bells.

Although the late 12th century rampart and 13th century city wall were both built across the site the tradition of bell manufacture may have continued in this area, for during the 14th century the southern part of the site was used for the manufacture of bell moulds. The furnaces

for firing the moulds and melting the metals were not found but were presumably to the east of the excavated area. The bell moulds were represented by unfired clay rings which were set into a complex pit cut into the tail of the, by then, disused stage 5 gravel rampart just within the line of the intra-mural road, Wall Street (M3.D12). Metal fragments associated with this working area have been confirmed as bell metal (see Vol 3). The fragments of mould all have a fabric which is similar to local clays (Vol 3, Fig 64).

The earliest bell foundry known in Hereford is one operated by Thomas Clarke in AD 1559 at a tenement which may have been owned by St Guthlac's Priory previous to the Reformation (Sharpe 1966-75, 672; Bannister 19 18, 4 1).

In the north-western corner of Berrington Street site 4, two pits in a sunken area were part of period 5, dated to the 14th or 15th centuries, and contained many fragments of mould. The bottoms of the pits sloped downwards to the west and it is evident that the main part of this industrial complex was just outside the area excavated. The residues found close by included metallic dross and bronze melting slags. These, together with the mould fragments, suggest that the area contained bronze melting hearths linked to a foundry casting cauldrons (M2.E7). All the mould fragments were made of a fabric similar to that of the local clays and examples are illustrated in Vol 3, Fig 64. This industrial area was midway between Berrington Street and the medieval city wall and was sufficiently far to the west to be well separated from the domestic buildings which are assumed to have fronted onto Berrington Street.

Two half moulds, made of limestone, found in a late 15th century pit at the Brewery site, may indicate continuity of metalworking on this site. One mould was used for making studs or buttons and the other for making small jugs (Vol 3, Figs 13-15).

There have been no archaeological traces of any other industries which would have needed metal as a basic raw material. However, Hereford had a mint from early in the 10th century and at the time of the Domesday survey there were seven moneyers. From the 13th century onwards there are records of specialist metal workers such as goldsmiths, silversmiths, cutlers and eventually pewterers (*Cath Mun,* 163, 972; Hist MSS Comm, 319, 326), and as other industries developed the need for objects made of metal doubtless increased.

Industries dependent on organic materials

Animal products and by-products

The use of a site for butchering can be established by the nature of the waste products which are buried or otherwise disposed of in the immediate vicinity. Such evidence is found at both the Brewery and Bewell House sites in the medieval period but is absent in the layers and features of the same period at Berrington Street. At the Brewery site, the large quantities of relatively unbroken bones from the various pits and from ditch 11 of period 2c may represent waste from butchering, and in the medieval period on the neighbouring Bewell House site the large quantity of foot bones suggest butchering waste and the high proportion of hock bones may indicate boning out on the site (see Vol 3). However, the presence of the Butchery in the middle of High Town from *c* AD 1310 onwards (Tonkin 1966, 240) may indicate that butchers operated in several parts of the city rather than being grouped together.

There is little archaeological evidence to show that fish was an important part of the Saxon and medieval diet, but fishmongers were mentioned together with butchers in the 13th century (Lobel 1969, Hereford 6).

The use of bone for artefacts is rare in Hereford after the 13th century and was not common at any time, The most notable objects are fragments of several bone combs of 10th and 11th century date (Vol 3, Figs 24-26). There was no indication of bone working on any of the sites recorded in this volume, but many sawn and cut pieces of bone were found in an early 15th century pit close to the eastern end of West Street (Shoesmith 1971, 228). They were mainly the cores of long bones from which thin slices had been removed, presumably for use as knife handles.

Leather must have been in common use in Hereford but the preservation was poor on most of the sites excavated and only a few examples have survived. Offcuts of leather, which were found in the fill of the inner, northern defensive ditch at the City Arms site, may indicate leather-working in the vicinity, but it is perhaps more likely that they represent domestic repairs as such off-cuts are common on waterlogged sites (Clarke and Carter 1977, 443). Leather fragments, including parts of shoes, which were found in the marshy ground in King Street (p 69), have still to be processed. The sole of a shoe of 12th or early 13th century date was found in the inner northern defensive ditch and a second, probably 15th century, shoe was found in a saw-pit close by (Shoesmith 1971, 234).

The quantity of sheep phalanges found in the early 18th century pit 99 at the Bewell House site may indicate tannery waste, as hides for tanning were normally removed complete with hooves and the latter were discarded at the tannery. It was noticeable that the proportions of metapodials and phalanges found at Berrington Street was high as compared with other sites in the country and this may indicate a lack of industry to take up these raw materials. Tanning was normally practised outside the built-up areas due to the unsavoury nature of the trade, and three of the Hereford tanyards were outside the city gates in the 16th century (Stanford 1960). A late 16th century list indicates that there were at least 21 people in the city dealing in leather at that date (W C Note 1952).

Spinning and weaving were important in Hereford and by the end of the 12th century the city seems to have become a considerable centre of the cloth industry (Miller 1965, 66). Archaeological evidence is limited to the presence of spindle whorls and loom weights, mainly on the Berrington Street sites during periods 1, 2a, and 4. Associated trades such as fulling and dyeing needed a supply of water. The clay-lined pits of 14th or 15th century date on Berrington Street site 4 (M2.E9) could have been used for dyeing but it is perhaps more likely that these industries were outside the defended part of the city and made use of water from the river or from the city ditch.

Vegetable products and by-products

The parching of grain, either to remove surplus moisture or to improve the flavour, may have been common in the Saxon and medieval periods and the remains of three ovens used for this purpose have been excavated.

At Victoria Street, the earliest levels comprised two grain drying ovens which were in use at some time between the mid 7th and the late 8th century. They were both 'L' shaped with long horizontal flues and combined firing chambers and stoke pits which were probably partly covered with a fired clay platform (M1.B9). The clay, which had been laid on a wattle framework, was of local origin (Vol 3). Charred grain, including wheat, barley, and oats, which was found associated with the ovens, was more likely to have been the residue from drying separate grain crops than a mixed cereal harvest (Vol 3).

At Bewell House, in a mid 13th century context close to the stage 5 defences, a grain drying oven was built into a deep pit and enclosed in a small hut or lean-to. Barley, wheat, and oats were again present and it is suggested that the remains represented an annexe to a corn merchants shop (M2.G9).

The Bewell House grain drying oven made use of a quern stone as the base to the flue, and fragments of other similar stones have been found on several sites, including two which were reused in the stage 3 rear defensive wall at Victoria Street. Millers would probably have worked outside the defences wherever there was a source of water to operate the mill. In the 13th century there were mills outside Eign Gate and St Owen's Gate (Tonkin and Tonkin 1975, 51), and probably one below the castle in addition to those on the Eign Brook (Fig 3).

A large amount of charred grain, consisting mainly of wheat, was found in the burnt levels associated with building 'O' of Berrington Street period 2c and was doubtless stored within that building (M2.C13). Evidence for cooking was slight, apart from that from the ceramic cooking material, but two small pits of late 12th or 13th century date, cut into the rampart material behind the medieval wall at Berrington Street (M2.E2 and M2.E4), may have been used for slow heating of food by making use of the exothermic properties of lime.

Timber was the principal building medium in Hereford until brick became common in the late 17th and 18th centuries. It must have been used for furnishing and other household objects, and many people would have been occupied in the trade. However, the only archaeological evidence for a carpentry workshop was on the northern side of West Street above the remains of the Saxon defences. Here a stone-lined pit, probably of 15th century date, was found filled with decomposed sawdust, small, cut pieces of wood, and a wooden bowl. The pit, which was about 2m square, was considered to be a saw pit (Shoesmith 1971, 226).

The archaeological evidence for domestic occupations and trades in Hereford is variable in both quality and quantity. The main areas excavated, being close to the defences, provided some evidence of trades which would have been kept as far as possible from houses because of the danger of fire. Trades which would be more likely to be centrally placed with the city have not been identified.

Trading connections with Hereford

This section examines the evidence for external trading contacts with Hereford which has been obtained as a result of the archaeological work in the city. Historical evidence for such trade, particularly during the Saxon and early medieval periods, is apparently limited but sources are quoted where they add to the information from the excavations. The information is presented in the same order as that used in the chapter on industries and domestic occupations.

The importance of Hereford as a trading centre in the late Saxon and early medieval periods is reflected by it being recorded as a *port* (or market) twice in the Anglo-Saxon Chronicle (ASC 1953, i, 186) and also in the description of the bishop's holdings in the Domesday survey (DB, i, 179). The events of AD 1055 must have had a disastrous effect on trade, but this was apparently reversed by William Fitz Osbern after the Conquest. He was probably responsible for the market being moved from within the Saxon defended town to a new large site to the north and also introduced French settlers and refortified the castle (Lobel 1969, Hereford 4). A three day bishop's fair was introduced in AD 1121 and extended to seven days in AD 1161. This, together with the presence of a wealthy Jewish community and the pacification of the Welsh border, must have led to a large increase in trade. The 12th and 13th centuries must have been amongst the most prosperous periods in the history of the city. However, it decreased in importance during the early 14th century when the castle ceased to have a strategic value and when plague devastated the city in AD 1348-9 and AD 1361. Hereford eventually became a remote, but moderately prosperous county town, which apparently suffered little change until well after the Industrial Revolution.

Trade of any kind is dependent on good communications and in its earliest periods Hereford probably made use of the Roman roads which had originally focused on Kenchester (Fig 2). Although these roads provided access to Wales and a route up the Welsh border, they were never of premier importance after the end of the Roman Empire. Many attempts were made to improve the navigation of the Wye from the 14th century onwards, but there was little success until late in the 17th century when trade with Monmouth, Chepstow and Bristol increased. However, it is evident that once Hereford lost its strategic importance, its prosperity gradually declined and even in the 18th century this was blamed on a 'lack of transportation' (Beale 1724, 32, 36; Lobel 1969).

Siliceous wares

The most important evidence for the gradual changes in trading patterns has been established almost entirely as a result of the petrological examination of the pottery found in Hereford. The evidence and conclusions, which are detailed in Volume 3, are summarized in Fig 146. Throughout most of its life, Hereford was dependent on imported pottery from sources between 25 and 40km distant from the city. This was not because of a lack of raw material in the county or even close to the city, for local wares dominated the market for some time in the late medieval period and were also produced in the late 17th and early 18th centuries. It is apparent that the growth of distant production centres was reflected in the wares which were sold and used in the city.

Most of the imported wares came from the east, from the Malvern, Gloucester, and Worcester areas, and surprisingly little from north and south Herefordshire where excavations have shown distinct local fabrics which are seldom found in the city. Pottery from sources more distant than 40km is rare, accounting for less than 5% of the total until the 18th century when Staffordshire wares dominated the market. There are isolated examples of Winchester, Stamford, St Neots, and Ham Green wares

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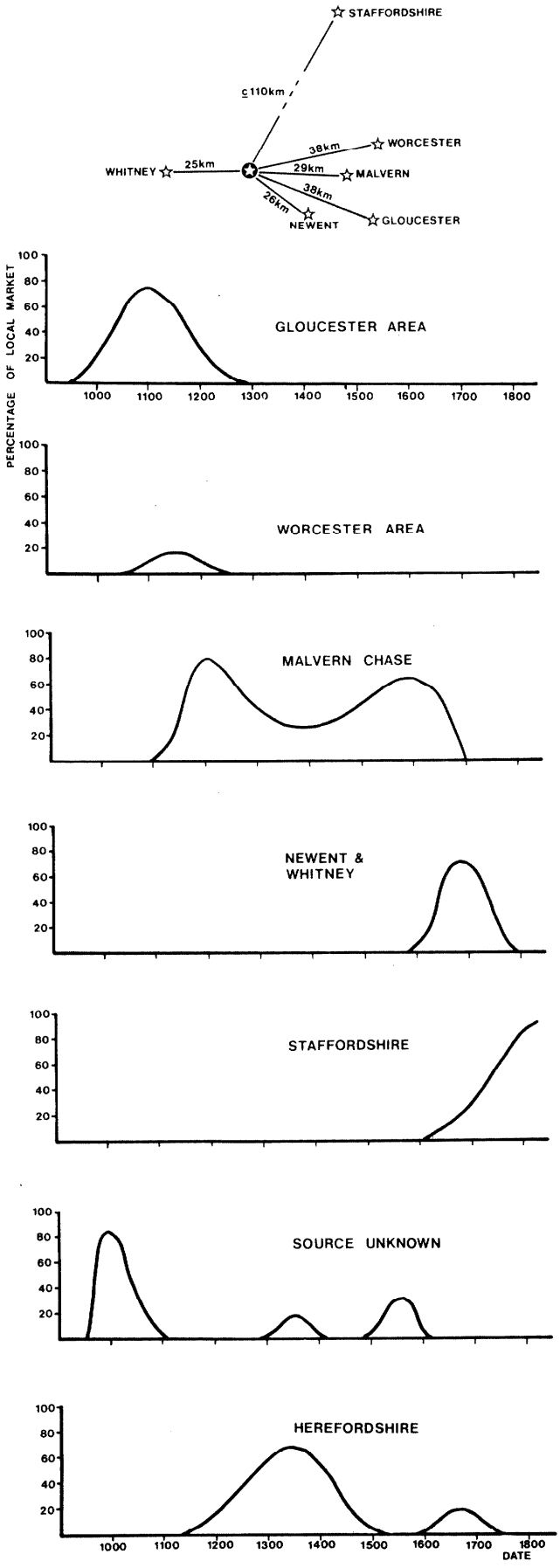

Fig 146 Sources of pottery used in Hereford

in the medieval period and Oxford, Hampshire, Somerset, and North Devon wares at a later date. Sherds of Tudor Green are rare and foreign imports are almost totally absent until the 17th century when occasional sherds of Martincamp flasks and German stonewares are found. Isolated sherds of Saintonage ware and, at a later date, Spanish imports and Oriental porcelain complete the groups of pottery imported into Hereford.

Ceramic roof furniture was not in common use in Hereford until after the late 13th century. It was made in the Hereford area except during the 15th and 16th centuries when the products of the Malvern Chase kilns predominated. Floor tiles were also imported from the Malvern area in the 14th century but few examples were found during the excavations. Although brick-making was an important industry in the Malvern Chase in the 16th century, no examples of such bricks have been found on archaeological sites in Hereford.

It is apparent that Herefordshire supported a flourishing clay tobacco pipe industry in the 17th century. Most of the kilns in the county were some distance to the north of the city at Pipe Aston, Lingen, Birtley, and Leominster. However, by the early 18th century imports from Bristol and Broseley had become more common and the latter gradually took a large share of the market.

Stone is absent in the immediate area of the city and must have been brought in when it was required as a building material. It is apparent from the early levels at Victoria Street that local Roman sites were used as quarries during the middle and late Saxon periods. The stone used for the medieval city wall and gates may have come from the White Cross area some 4km west of the city (Watkins 1919*b*, 161) or from Haywood Forest 3km south of the river (Duncumb 1804, i, 238). Most stone objects found during the excavations were made of local sandstone except for three late medieval spindle whorls (Vol 3: Fig 11.14, 16, and 17) made from White Lias, which outcrops in Somerset and Avon, and two moulds which are also made from a fine limestone (Vol 3: Fig 12.1 and 2).

Glass was probably not made in the Hereford area until the 16th century and must have been imported previous to this date.

Metallic wares

There are no metallic ores in the vicinity of Hereford so the metalworkers must have imported either the ores or the smelted metals. Small quantities of iron smelting slag were found at Berrington Street, including some 5.4kg from an 11th century dump in period 2b (M2.C12). Such material probably came from the Forest of Dean (Kelloway and Welch 1948, 85) together with the coal for which that area has been known from before AD 1282 (*op cit* 25).

Two medieval brooches, one of bronze and one of silver, found during excavations in the city (Vol 3: Fig 17.2, and 3), were both probably imported. The silver brooch may have originated in the north of England or southern Scotland.

Organic wares

Animal products and by-products

The excavations have produced little evidence for the trade in animals and animal by-products which was presumably of considerable importance from the earliest period in the history of the city. Hereford was a centre

for the wool trade and cloth industry for many years with local merchants trading as far afield as London and Bristol (Lobel 1969, Hereford 5, 8). Such trade leaves no archaeological traces but would have added substantially to the wealth of the city and thus to the quantity and variety of goods which could be imported.

The excavations have shown that ling was imported into the city in the medieval period. It was caught in northern or western waters and was probably dried or salted before dispatch. In the early 18th century cod, presumably fresh, was also available in Hereford (see Vol 3). Fishmongers had stalls in the market by the 13th century (Lobel 1969, Hereford 6) but there is little evidence from the archaeological work to indicate that fresh-water fish was of any great importance.

Vegetable products and by-products

There is no archaeological evidence for the export from Hereford of the agricultural produce of the county, but documentary sources indicate that this was a common event.

Seeds, found in various locations in the city, indicate that figs and possibly grapes were imported in the 13th century (Shoesmith 1971, 236) although the latter could be of local origin (Jenkins 1937, 73). Similar fruits were imported in the 18th century (see Vol 3).

The foregoing sections have indicated that, in the main, trading links with Hereford were restricted to the adjoining counties except for occasional luxury items from further afield. This trading pattern reflects the remote situation of Hereford with poor road communications and a considerable distance from any of the major trading ports.

The city in the future

Archaeological work in Hereford during the fifteen year period since 1965 has been mainly limited to the investigation of the defensive features and their relationship to the rest of the city. This has been caused partly by the construction of the ring road and partly by development of areas just within the defensive lines, particularly on the west of the city. These excavations, and the sporadic watching briefs on development sites and contractors' trenches in the centre of the city, have given some indication of the degree of preservation of the earlier levels of occupation and have provided some indication of the areas which will be of archaeological importance in the future.

Various parts of the defensive circuit are currently under threat, especially the stage 5 and 6 defences to the north of the city. Several new access roads are planned which will lead from the ring road into the medieval city totally destroying the visual continuity of these northern defences. Only the tail of the stage 5 defences has been examined and no complete cross-section has been obtained. The constructional relationship of the city wall to the stage 5 defences varies from point to point around the circuit and further excavation will be necessary to establish the cause of these variations. The remains of the stage 5 gravel rampart provide a dated sealing level to any earlier occupation levels, thus increasing their archaeological importance. Immediately within the defensive line, minor industrial sites can be expected and these levels are also threatened by large scale development in the northern sectors of the city. The remains of residential buildings associated with these industries and traces of occupation of 11th century or earlier date are known to exist on the northern side of Bewell Street and may occur on Maylord Street. Both areas are scheduled for development and the latter street may totally disappear during the development of the north-eastern sector.

Within the Saxon city the large marshy area to the west of the cathedral will have provided excellent preservation for environmental material and timber remains, and the remaining parts of the defences of stages 1 and 2 will probably cover earlier occupation levels. The eastern limb of the earliest known defence has still to be found. The cathedral precinct has not been examined and this area, together with the part of the city surrounding Church Street and Broad Street, should contain some of the earliest traces of occupation which may include a Roman fort or settlement.

However, the most important priority must now be the need to investigate the relationship between the city and its wider context. In this, sites of all types and of ail periods are important. The Herefordshire region is eminently suitable for such a project both because of its remote situation during most of the historical period, which has made it less susceptible to external influences, and because of the knowledge of the major urban centre which has already been established.

for the wool trade and cloth industry for many years with local merchants trading as far afield as London and Bristol (Lobel 1969, Hereford 5, 8). Such trade leaves no archaeological traces but would have added substantially to the wealth of the city and thus to the quantity and variety of goods which could be imported.

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